OHAS — Off-Hook Alarm Security

Off-Hook Alarm Security is a resident program. OHAS does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

These messages indicate the occurrence of an Off-Hook Alarm.

OHAS messages

OHAS000 dn l s c u hh:mm:ss

Off-Hook Alarm has occurred due to dial tone or interdigit timeout.

ACTION: Contact your technical support group.

OHAS001 dn l s c u hh:mm:ss

Off-Hook Alarm has occurred due to forced out-of-service call treatment.

ACTION: Contact your technical support group.

OSM — Operating System Messaging

Operating System Messaging is a resident program. OSM does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

OSM messages

Back-filling messages with zeros

The numerical portion of the following messages is depicted by three or four digits. For example, the same message can be represented by either xxx0008 or xxx008.

OSM000 Example message for <string>.
ACTION: Information only, no action is required.

OSM001 Cannot create pipe, errno x.
ACTION: Contact your technical-support group.

OSM002 Cannot open pipe for read/write, errno x.
ACTION: Contact your technical-support group.

OSM003 Cannot create OSM File semaphore, errno x.
ACTION: Contact your technical-support group.

OSM004 Cannot open OSM file for appending, errno x.
ACTION: Contact your technical-support group.

OSM005 Cannot open save file for writing, errno x.
ACTION: Contact your technical-support group.

OSM006 Cannot get OSM Save file semaphore errno x.
ACTION: Contact your technical-support group.

OSM007 Cannot save OSM file (copy failed), errno x.
ACTION: Contact your technical-support group.

OSM008 Cannot get OSM write file semaphore, errno x.
ACTION: Contact your technical-support group.

OSM009 Cannot fprintf to osm File, errno x.
ACTION: Contact your technical-support group.

OSM010 Cannot read from pipe, errno x.
ACTION: Contact your technical-support group.

OSM011 OsmTask has died.
ACTION: Contact your technical-support group.

OSM012 Cannot spawn osm Task, errno x.
ACTION: Contact your technical-support group.

OSM013 Cannot spawn period task, errno x.
ACTION: Contact your technical-support group.

OSM014 Daily log file save failed. Check CMDU power on/off switch.
ACTION: Be sure the IOP enable/disable switch is enabled (up).

OSM015 Disk getting full. Only x bytes remain.
ACTION: Contact your technical-support group.

OSM016 x byte log file size limit exceeded. Disk getting full, only y bytes remain.
ACTION: Contact your technical-support group.

OSM017 Cannot flush to log file errno <x>.
ACTION: Contact your technical-support group.

OVD — LD 77 Locating Overloads

In this chapter

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Before changing circuit cards, be aware of the procedures outlined in *Do this when replacing circuit cards*, found in *Hardware maintenance tools* chapter.

What you should know before you use LD 77

LD 77 Manual Print program is used to print the contents of the CPU high and low priority input buffers.

How a set or analog trunk uses input buffers

When a set or analog trunk signals a change of state, for example Off-Hook, On-Hook or Dialing, its PE card generates a flag bit and a message or messin which is sent serially to its network loop. The Peripheral Signaller scans each loop and locks on to the loops flag, then gathers the messin and a Terminal Number or TN from the loop. It takes 29 successive time slots for the peripheral signaller to gather the TN/messin and pass it to the CPU. The CPU places this TN/messin into an input buffer. The TN/messin consists of four words, a loop identification, shelf-card-unit identification, messin and time stamp. You would recognize the first two words as a TN. The messin tells the CPU the set/trunk is Off-Hook, On-Hook or dialing. The CPU then returns dial tone to the set, or whatever action is required.

How the OVD works

The overload monitor detects and disables peripheral equipment which is generating excessive input messages, causing the system input buffers to overflow.

The following is a brief description of how a telephone signals to the CPU that it wants service and what happens if this process becomes faulty and the signaling does not stop.

Normal operation of telephone sending message to CPU

When a telephone goes Off-Hook or On-Hook or a key is pressed or released, an input message is generated and sent to the system input buffers notifying the CPU this set wants service or dial tone returned. This process takes 29 successive time slot 0 (zeros)to notify the CPU.

Fault causes message stream not to stop

The hardware on the peripheral signaling card keeps track of how long the Peripheral Signaler scans a loop for input messages. If a stream of input messages has no break for approximately 128 consecutive time slot 0, causing an input buffer overflow, then a **PS STUCK** interrupt is sent to the CPU. The CPU will order the **PS FREE**. If the Peripheral Signaler becomes stuck again the CPU will free it and keep track of how long this stuck/ free takes place.

CPU executes the overload monitor program

If the stuck/ free condition lasts longer than 1.5 to 2 minutes, the CPU executes the overload monitor program, which detects three types of overload as follows:

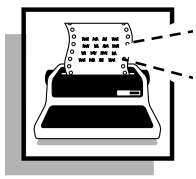
Card overload — Monitors excessive messages from PE cards. If a card is faulty and one unit is the cause, then the unit is disabled, otherwise the card is disabled. If the disabled card is a trunk card it will be re-enabled after 10 minutes. If it overloads again it will be disabled until the midnight or daily maintenance routines are run.

System overload — If excessive messages come from a nonspecific PE card, this indicates a faulty Peripheral Signaler, network loop or extender card. If one loop is causing the problem, it is disabled. If more than one loop on a shelf overloads, then the peripheral signaler will be disabled. Disabling is done by an initialization **INI006** or **INI007**.

Unequipped card overload — Results in an **ERR020** printout, due to a Peripheral Equipment card that is:

- responding to more than one address
- responding to an illegal address
- software unequipped and is overloading

LD 77 message output format



All numerical output is in hexadecimal format. An example of someone pressing the prime DN key on a set of TN 10 0 1 4, is as follows:

- **0A 0 1 4 91C0 5AC0**
- **0A** = loop ten
- **0** = shelf zero
- **1** = card one
- **4** = unit four
- **91C0** = telephone set key 0 activated
- **5AC0** = time in milliseconds that CPU received message

LD 77 input format

All input is in decimal form. Space and carriage return are automatically done by the overlay when the expected number of digits are input. Early releases require two digits for loop, and later releases require three digits. An easy way to tell, is when the required number of digits are entered, the cursor will automatically space for you. If the input is incorrect the system responds with **?SYNTAX**.

For example:

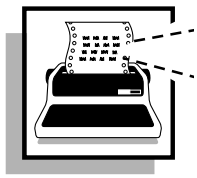
- for TN 1 0 2 0, enter: 001 0 02 00
- for TN 156 1 15 30, enter: 156 1 15 30

Note: Some software releases required a hexadecimal input for the loop.

This program has capabilities which are used by the software designers during development activities. The user is protected from accidental access to these commands, and resulting potential service

degradation, as a password is required. This password is not available to technicians. Users enter a “return” when the system asks for a password then enter the “P” commands.

When LD 77 is loaded into the overlay area the system responds with:



```
MAN000

.

PASS

.
```

When to use LD 77

When an overload condition occurs, usually the OVD message has a TN included. With a TN it is a simple matter of changing out the offending card. In the example on the previous page it would be card 1 of PE shelf 0 of loop 10. In some cases there is no TN indicated. When this happens LD 77 can be very helpful as it will allow you to print out the TN causing the overload, from the input buffer.

Some overloads on PE cards can reflect back into the network loop causing the CPU to disable the loop or even the complete network shelf. These overloads usually do not have TNs indicated. This condition calls for the use of LD 77.

How to use Manual Print LD 77

STEP	ACTION
	A typical scenario.
1	**System outputs 0VDØ22 1Ø**
	Note the system output.
2	**Look up 0VDØ22 1Ø in the OVD message section of this chapter.**
	A large number of invalid input messages were received from more than one PE shelf on loop 10. Loop 10 is disabled. Probable fault on: ***a)*** Network card for loop 10 ***b)*** Peripheral Buffer or Controller for loop 10 ***c)*** PE cabling to loop 10 ***d)*** any PE card associated with loop 10
3	**Isolate loop 10 from the PE.**
	Remove PE cable connector from network card loop 10.
4	**Enable loop 10.**
	Use LD 32, `ENLL 10`. Then `STAT 10`, to make sure it is enabled.
5	**Check loop 10 for overload.**
	If — **Do** loop disables — Replace card. loop remains enabled — step 6
6	**Isolate loop 10 cable from the PE**
	Remove PE cable connector from peripheral buffer or controller card associated with loop 10.
7	**Connect network card and cable.**
	Reconnect PE cable to network card of loop 10.
8	**Check loop 10 for overload**
	If — **Do** loop disables — Replace cable. loop remains enabled — step 9

— continued —

STEP	ACTION
9	**Isolate loop 10, cable and buffer/controller from the PE.**
	Unseat all PE cards from the first PE shelf or module backplane. If there is another PE shelf or module connected to loop 10, remove the cable that connects the first PE shelf or module to the next PE shelf or module.
10	**Connect loop 10, cable and first PE shelf.**
	Reconnect PE cable to first PE buffer or controller
11	**Check loop 10 for overload.**
	If / **Do** loop disables — Replace buffer or controller. loop remains enabled — step 12
12	**Load overlay 77** (see *A tip for using LD 77*, following this table).
	System responds with **`MAN000. PASS.`** Press `return` Type `P 010` and press `return` (System will automatically enter a space for you after you type P.) *Note:* Steps 13, 14 and 15 can be done without LD 77; however, you would have to wait five minutes to be sure each PE card is good. If checking four PE shelves this could take at least 200 minutes to complete.
13	**Replace PE card.**
	Reseat one PE card into the PE shelf backplane.
14	**Check each PE card for overload.**
	If / **Do** System responds with a rapid succession of **PS STUCK** and **PS FREE** messages. — Replace PE card and repeat this step for all remaining PE cards. A few messages appear but not a rapid succession. — Repeat this step for all remaining PE cards. last card — step 15

— continued —

STEP	ACTION	
15	**Check other PE shelves for overload**	
	If	**Do**
	more PE shelves on loop 10	step 9
	one PE shelf on loop 10	end

END

A tip for using LD 77

When a Meridian 1is handling a lot of telephone calls, there will be a large number of valid messages generated from the peripheral equipment. Thus, the program will be most effective for troubleshooting when there is little system traffic and when the message address range is restricted to only at one loop, shelf or card.

LD 77 input commands		
Command	**Description**	**Release**
Print all messages		
P	Print all messages. There may be a large number of valid messages generated by using the P command. The program will be more effective for troubleshooting when the message address range is restricted to only at one loop, shelf or card.	basic 1
Print all messages from specified loop		
P lll	Print all messages from specified loop. Enter the exact number of loop digits. For example: for loop 4, enter 004.	basic-1
Print all messages from specified shelf		
P lll s	Print all messages from specified shelf. Enter the exact number of loop digits. For example: for loop 4, enter 004.	basic-1
Print all messages from specified card		
P lll s cc	Print all messages from specified card. Enter the exact number of loop and card digits. For example: for loop 4, enter 004; card 6 enter 06.	basic-1
Stop printing		
N	Stop print.	basic-1

OVD — Overload monitor

This resident program detects and disables peripheral equipment that is generating excessive input messages, causing the system input buffers to overflow and output an OVD message.

How the overload monitor works

The following is a brief description of how a telephone signals to the CPU that it wants service and what happens if this process becomes faulty and the signaling does not stop.

Normal operation of telephone sending message to CPU

When a telephone goes Off-Hook or On-Hook or a key is pressed or released, an input message is generated and sent to the system input buffers notifying the CPU this set wants service or dial tone returned. This process takes 29 successive time slot 0 (zeros)to notify the CPU.

Message stream faulty, does not stop

The hardware on the Peripheral Signaling card keeps track of how long the peripheral signaler scans a loop for input messages. If a stream of input messages has no break for approximately 128 consecutive time slot 0, causing an input buffer overflow, then a "PS STUCK" interrupt is sent to the CPU. The CPU will order the "PS FREE". If the peripheral signaler becomes stuck again the CPU will free it and keep track of how long this takes place.

CPU executes the overload monitor program

If the condition as described in the above paragraph lasts longer than 1.5 to 2 minutes, the CPU executes the overload monitor program, which detects three types of overload as follows:

Card overload — Monitors excessive messages from PE cards. If a card is faulty and one unit is the cause, then the unit is disabled, otherwise the card is disabled. If the disabled card is a trunk card it will be re-enabled after 10 minutes. If it overloads again it will be disabled until the midnight or daily maintenance routines are run.

System overload — If excessive messages come from a nonspecific PE card, this indicates a faulty PS, network loop or extender card. If one loop is causing the problem, it is disabled. If more than one loop on a shelf overloads, then the peripheral signaler will be disabled. Disabling is done by an initialization INI006 or INI007.

Unequipped card overload — Results in an ERR020 printout, due to a peripheral equipment card that is:

- responding to more than one address
- responding to an illegal address
- software unequipped and is overloading

Procedure for OVD message without a TN

The CPU may be unable to identify a unit, card, or PE shelf. If this happens there may be no TN or an incomplete TN. For this condition see the Manual print LD 77 section of this book.

Using the OVD Message table to clear faults

To clear most overload faults, the OVD action column suggests you use LD 32 overlays found in the *NPR* chapter. A few OVD actions require you to use overlay loads located in another guide.

OVD messages

OVD001 l s c (u)

A 500/2500 card or unit has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card.
Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the line card by following the steps in the *Hardware replacement* guide. Verify the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

OVD002 l s c (u)

A BSC line card or unit has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card.
Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the line card by following the steps in the *Hardware replacement* guide. Verify the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

OVD003 l s c (u)

A trunk card or unit has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card.
Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the trunk card by following the steps in the *Hardware replacement* guide. Verify that the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

OVD004 l s c (u)

1. A Digital set line card or unit has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card. Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the line card by following the steps in the *Hardware replacement* guide. Verify that the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

2. Unterminated or unequipped units on QPC578 or NT8D02AA line cards may produce erroneous OVD004 messages.

ACTION: To avoid erroneous OVD004 messages, go to the *administration input/output guide*, use LD 11to program these units.

Use DISU l s c u in LD 32 to disable the units you just programed. If you need help with the LD 32 commands or system responses go to the *NPR* chapter in this guide.

OVD005 l s c (u)

A Digitone Receiver card or unit has been disabled.

ACTION: Use ENLR l s c (u) in LD 34 to enable the card or unit. If the card or unit does not enable, replace the DTR card by following the steps in the *Hardware replacement* guide. Verify that the fault is cleared. If you need help with the commands or system responses go to the *TDS* chapter in this guide.

OVD008 loop

Overload detected from Local Carrier Buffer (LCB) card on specified loop. The carrier status monitoring function on the LCB has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card.
Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the LCB card by following the steps in the *Hardware replacement* guide. Verify that the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

OVD009l s c (u)

An AIOD trunk card or unit has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card. Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the AIOD card by following the steps in the *Hardware replacement* guide. Verify that the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

OVD010 l s c (u)

A RAN trunk card or unit has been disabled.

ACTION: Use ENLC l s c in LD 32 to enable the card. Use ENLU l s c u in LD 32 to enable the unit. If the card or unit does not enable, replace the RAN card by following the steps in the *Hardware replacement* guide. Verify the fault is cleared. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

OVD021 loop

Excessive input has been detected from specified loop. The loop was disabled. A minor alarm indication is given to all customers served by the loop.

This message indicates a probable fault in:

1. Network card for the loop.
2. Peripheral Buffer or Controller for the loop.
3. Interconnecting cables.
4. Any PE card.

ACTION: See *How to use manual print LD 77* in this chapter.

OVD022 loop

A large number of invalid input messages were received from more than one PE shelf on the loop. The loop has been disabled.

A fault may exist on the following:

1. Network card for loop.
2. Peripheral Buffer or Controller for the loop.
3. PE cabling.
4. Any PE card.

ACTION: See *How to use manual print LD 77* in this chapter.

OVD023 l s

A large number of invalid input messages was received from shelf **s**. Attempts to disable the offending PE card(s) failed; the loop has been disabled.

A fault may exist on the following:

1. Peripheral Buffer or Controller on the shelf.
2. Any PE card on indicated shelf.
3. Network card for the loop.
4. PE cabling.

ACTION: See *How to use manual print LD 77* in this chapter.

OVD024 l s

Shelf **s** has been disabled due to overload.

A fault may exist on the following:

1. Peripheral Buffer or Controller on the shelf.
2. Any PE card on that shelf.

ACTION: See *How to use manual print LD 77* in this chapter.

OVD031 ps

Excessive or invalid input has been detected from Peripheral Signaling card. The card was disabled.

This message indicates a probable fault in:

1. Peripheral Signaling card.

2. One of the network card associated with the PS.

3. Conference card or its network cable. (Found only on SL-1 L, VL, LE and XL systems.)

ACTION: See *How to use manual print LD 77* in this chapter.

OVD032 loop

Too many messages from loop DTI2 loop. Loop is disabled.

ACTION: Refer to the *ISDN Primary Rate Interface guide*.

OVD033 loop ch

Channel **ch** of a DTI loop is disabled due to overload. A fault may exist in the DTI card, carrier or cables.

ACTION: Refer to the *ISDN Primary Rate Interface guide*.

OVL — Overlay Loader

How the OVL works

After the Log In sequence and password, the Overlay Loader (OVL) becomes active and accepts commands keyed from the SDI terminals. The Overlay Loader will respond to the commands as follows:

- LD xx — loads non-resident administration and maintenance programs from tape or disk into the overlay area, and then the loaded program assumes control. The xx represents the number of the desired non-resident program.
- ENLT — enables the tape interface or the MSI or FDU or MDU card.
- DIST — disables the tape interface or the MSI or FDU or MDU card.
- STAT — prints the status of the tape interface or the MSI or FDU or MDU card.
- END — ends the control of the current non-resident program without aborting the overlay area, allowing the person who is logged in to maintain control.
- **** — aborts the current overlay program, allowing another program to be loaded into the overlay area. For example, if the Meridian 1 is in the midnight or daily routine phase, it will immediately put a diagnostic program into the overlay area, logging out the previous user.
- LD xx D — for systems running on Release 19 and later software, this command forces the overlay to load from the disk rather than from cache memory.

OVL messages

OVL000

Program identifier. It indicates that you are logged into the system.

ACTION: The overlay loader is ready for you to enter any of the six commands listed in the previous section.

OVL001

Loading already in progress.

ACTION: Wait for completion of loading or enter **** to halt loading.

OVL003 xx

Requested program **xx** is not in the tape directory.

ACTION: Contact your technical support group to see if the desired program should be in the directory. For example, if you request LD 29 Memory Management to loaded into the overlay area on a Meridian SL-1NT, XT, Options 51, 51C, 61, 61C, 71 or 81, this message appears, because Memory Management is not applicable to these systems.

OVL004

1. Checksum failure. Re-enter load request.

ACTION: Use the LD 22 D command to force the overlay to load from the disk rather than the cache buffers, or turn off switch 4 on the MSI card and load overlay LD 22 from the floppy drive. If you choose the later option, remember to turn switch 4 on again when you are finished.

Enter PRT CFN (or CEQU, if applicable) to verify how many cache buffers are allocated.

Refer to the *administration input/output guide*. Use LD 17 CACH to reduce the number of cache buffers. Try only 20 cache buffers in the system as each buffer uses 19,000 words of memory. Consider the Multi-User feature as it requires a minimum of four cache buffers.

A possible restore to the hard disk may be required to have the hard disk load overlays properly. In this case use the RES command in LD 43 to copy the entire contents of the floppy to the hard disk. If you need help with the commands or system responses go to the *EDD* chapter in this guide.

Expand the memory if the option is available on your system and if the use of all 32 allowable cache buffers is required.

2. Receiving this message when loading overlays or when other users attempt to log on to the system.

ACTION: Load an overlay using the LD xx D command.

Load an overlay from the floppy drive instead of the hard disk (turn switch 4 off on the MSI). Use LD 22 and verify how many cache buffers are allocated and reduce or eliminate them.

A possible restore to the hard disk may be required to have the hard disk load the overlays properly.

The system hard drive may be faulty.

Check for insufficient memory to run the Multi-User feature and for too many overlays loaded for access.

Use only 20 cache buffers in the system. Each buffer uses 20K of memory.

Expand the memory if the option is available, and if the use of all 32 allowable cache buffers is required.

OVL005

Tape unit not ready for use.

ACTION: Confirm that the tape cartridge is properly seated.

OVL008

1. Unexpected or erroneous data found on tape.

ACTION: Interchange the active and backup tapes and re-enter the load command.

2. Receiving this message when loading overlays or when other users attempt to log onto the system.

ACTION: Load an overlay using the LD xx D command.

Load an overlay from the floppy drive instead of the hard disk (turn switch 4 off on the MSI). Use LD 22 and verify how many cache buffers are allocated and reduce or eliminate them.

A possible restore to the hard disk may be required to have the hard disk load the overlays properly.

The system hard drive may be faulty.

Check for insufficient memory to run the Multi-User feature and for too many overlays loaded for access.

Use only 20 cache buffers in the system. Each buffer uses 20K of memory.

Expand the memory if the option is available, and if the use of all 32 allowable cache buffers is required.

OVL009

1. Tape contains software generic different from that resident in system memory. The programs are not compatible and overlay program requested was not loaded.

ACTION: Load the overlay from the target software instead of from the source software. If you need help refer to the *Software Conversion Procedures NTP*.
Refer to the *Circuit Pack Installation & Testing NTP* and following the steps verify that the switch settings on the MSI/FDI are set to access the proper source. If your system uses tape, replace the tape in the drive with the one that was used when the system was loaded.

2. Receiving this message when attempting to load LD 43 after upgrading to an Option 21E, Release 19.

ACTION: Load the overlay from the target software instead of the source software. Verify that the switch settings on the MSI/FDI are set to access the proper source.

OVL010

Overlay program exceeds allowed maximum size. A tape programming error has been made.

ACTION: Contact your technical support group.

OVL011xx MID

System is automatically executing maintenance Overlay xx. 32 PBXT—This output means that Overlay 32 is being run, and Message Waiting lamp tests are scheduled.

ACTION: DO NOT log in until these tasks are completed; they may be essential to maintain system integrity. After a few minutes, press the carriage return or enter key to recheck the system status.

OVL012

Incorrect command format.

ACTION: Check to make sure your data is correct and re-enter the command.

OVL013

Invalid input command.

ACTION: Check to make sure your data is correct and re-enter the command.

OVL014

Incorrect parameters.

ACTION: Check to make sure your data is correct and re-enter the command.

OVL015

Password is incorrect.

ACTION: Check to make sure your data is correct and re-enter the correct password.

OVL016

Allowed limits of password exceeded.

ACTION: Wait and reattempt log in again.

OVL017

Overlay cannot be loaded from a TTY.

ACTION: Use the correct password and try again.

OVL018

Password does not have access to this customer.

ACTION: Contact your technical support group.

OVL020

System has aborted the current overlay program because:

1. A TTY has successfully logged in.

ACTION: Contact your technical support group to determine who will have priority access to the overlay area.

2. The overlay area is required because of a system alarm, a system audit, or daily routine.

ACTION: Wait until this condition is completed.

OVL021 aaa

System requires the overlay area one of the following tasks. The codes for **aaa** are as follows:

MID = daily midnight routines are scheduled

ALRM = system alarm has been triggered

AUD = system requires software audit

CDR = system requires test of CDR facility

SMFR = soft memory failure recovery

PBXT = PBXT Message Waiting Lamp tests are scheduled

ACTION: Complete your present work as soon as possible and enter **** followed by LOGO.

OVL022

Manual loading of this program is prohibited.

ACTION: Ensure that this is the command you wanted to use.

OVL023

Loading overlay program from this TTY is not allowed.

ACTION: Check to make sure you are using the correct DTE and re-enter the command from the correct DTE.

OVL058

Permanent interrupt condition detected in primary tape. The tape unit has been disabled.

ACTION: Replace the drive unit by following the steps in the *Hardware Replacement guide*.

OVL059

Tape Interface card is not responding. Primary tape cannot be enabled until fault is cleared.

ACTION: Replace the tape interface card by following steps in the *Hardware Replacement guide*.

OVL060

History File package not equipped.

ACTION: Contact your technical support group.

OVL061

A user is active in the overlay.

ACTION: Do not log in. Contact your technical support group and determine if the present user should finish before you log in.

OVL066

X11 Release 1 to Release 2 conversion CR1R2 X09rl7 to X11R2 conversion C97R2.

ACTION: Information only, no action required.

OVL068

Add new NARS/BARS, CDP data to existing customer—BLD1.

ACTION: Information only, no action required.

OVL069

Build the DN. Translation base of the new data loaded via BLD1-BLD2.

ACTION: Information only, no action required.

OVL070

ATTN admin PBX set service change.

ACTION: Information only, no action required.

OVL071

ATTN admin SL-1 set service change.

ACTION: Information only, no action required.

OVL073

DTI service change.

ACTION: Information only, no action required.

OVL086

S1ESN ESN Overlay 1.

ACTION: Information only, no action required.

OVL087

S2ESN ESN Overlay 2.

ACTION: Information only, no action required.

OVL088

SCAUT—Authcode overlay (removed from 24).

ACTION: Information only, no action required.

OVL090

S3ESN ESN Overlay 3.

ACTION: Information only, no action required.

OVL093

SCTEN service change tenant data blocks.

ACTION: Information only, no action required.

OVL099

Software tool to replace one or more existing global procedure in core with load global.

ACTION: Information only, no action required.

OVL111

The overlay area is being used. The data output with the OVL111 is defined below.

1. If **OVL111** = **00 IDLE**, System is idle. A login will result in a > prompt.

ACTION: Information only. Log in if you want to.

2. If **OVL111** = **xx BKGD**, Overlay area is currently executing background task (Overlay nn). A login will result in a > prompt indicating that background task has been aborted and the overlay loader is ready for further commands.

ACTION: Information only. Log in if you want to.

3. If **OVL111** = **00 TTY x**, then TTY x has control of the overlay area. No Overlay program is loaded.

ACTION: Before you log in, contact your technical support group to determine who has access to the overlay area.

4. If **OVL111** = **nn TTY x**, then TTY x or maintenance set has control of the overlay area. Overlay program nn is loaded.

ACTION: Contact your technical support group to determine who will have priority access to the overlay area before you log in.

5. If **OVL111** = **00 SL1**, maintenance set has control of the overlay area. No Overlay program is loaded.

6. If **OVL111** = **nn yyy**, The system is automatically executing a maintenance task. DO NOT log in unless absolutely necessary, until these tasks are completed. They may be essential to maintain system integrity. Recheck system status by pressing the carriage return key again after a few minutes.

The value **yyy** may be:

MID = daily midnight routines are scheduled

ALRM = system alarm has been triggered

AUD = system requires software audit

CDR = system requires test of CDR facility

PBXT = PBXT message waiting tests

SMFR = soft memory failure recovery

If the input device is an SL-1 telephone, OVL111 is represented by a busy tone or overflow tone. The telephone can be returned to the call processing mode by going Off-Hook, then On-Hook. This procedure is useful if you do not wish to abort the current overlay activity.

ACTION: Information only, no action required.

OVL202

The Route member does not exist.

ACTION: Refer to the *administration input/output guide*. To check the route members, use LD 21 RDB and re-enter command.

OVL305

A bad message has been received from the System Monitor (NT8D22).

ACTION: Use the "STAT XSM" command in LD 37 to check the System Monitor status. Check the cabling between the System Monitor and the SDI port.

OVL306

This overlay cannot be active during Peripheral Software Download (PSDL).

ACTION: Wait until the PSDL is complete and use the SUSP command to suspend the PSDL. Load the required program (LD xx SUSP), but use the SUSP command with caution.

OVL307

You do not have access to the Resident Debugger (LD 8).

ACTION: Contact your technical support group.

OVL308

Incorrect password entered for the Resident Debugger (LD 8).

ACTION: Obtain the correct password and try again

OVL309

You do not have access to that overlay.

ACTION: The Limited Access Password (LAPW) is in effect.

OVL310

With LAPW enabled, maintenance sets are not allowed to load this overlay.

ACTION: Information only, no action required.

OVL352

List requested is not system speed call list (Network Speed Call).

ACTION: Check your database and re-enter the command.

OVL353

The security cartridge cannot be read, or the cartridge ID does not match the ID in the directory file. LD 135 and LD 137 can still be accessed.

ACTION: Contact your technical support group.

OVL354

The tape ID does not match the system ID. An incorrect tape or disk is being used, or there is a system ID cartridge malfunction on MSI. LD 135 and LD 137 can still be accessed.

ACTION: Contact your technical support group.

OVL355

The directory file cannot be read to obtain the ID for comparison to security and system IDs. LD 135 and LD 137 can still be accessed.

ACTION: Contact your technical support group.

OVL400

Failed logon attempts by incorrect password (PWD1 or PWD2).

Output data may be either of the following:

x = TTY x is locked out. Too many invalid passwords

x y = x failed logins on TTY y

TTYx y = TTYx was locked out y times.

ACTION: You must wait till the LAPW timer expires which could be up to 60 minutes, then attempt to log in again with the proper password.

OVL401

The Audit Trail buffer is full, and will now start to wrap.

ACTION: Information only, no action required.

OVL402

There is not enough memory for the Audit Trail, and it will now start to wrap.

ACTION: Check the available memory, and add more if necessary.

OVL403 x

You have logged on in HOST mode on TTY port x. Other ports will not receive any messages (CDR, BUG, ERR, MTC, SCH or TRF) output to this port.

ACTION: Information only, no action required.

OVL404x aaa bbb

The TTY port x is in HOST mode and this TTY will not receive message types: aaa bbb. MTC represents all maintenance messages when the message types can be CDR, BUG, ERR, MTC, SCH or TRF.

ACTION: Program the USER prompt in LD 17 to add Messages.

OVL405 xx

Attempt to load an Overlay program xx on A2 disk.

ACTION: Use LD 43 RES to copy contents of backup floppy diskettes to hard drive, or insert floppy diskette A2 to access LD xx.

OVL406

Low speed link is used by the other terminal.

ACTION: Information only, no action required.

OVL407xx yy

Requested number of cache buffers cannot be allocated. Protected data-store is below safety limit. Increase the memory before more cache buffers can be allocated. Where:

xx = the number of buffers requested

yy = the number of buffers allocated

ACTION: Unload the cache buffers and re-enter the overlays.

OVL408 xx

There are too many priority overlays. xx = number of priority overlays which have been removed automatically.

ACTION: Do not assign more priority overlays than allowed. For further information, refer to the *administration input/output guide*, LD 17 prompt CACH for limit.

OVL409 xx

Initialization of an OVL pipe failed.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

OVL410

No pipe is available for use.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

OVL411

LD 135, and LD 137 are the only LDs available for task overlays.

ACTION: Information only, no action required.

OVL412

Cannot spawn the requested overlay task.

ACTION: Contact your technical support group.

OVL413

Cannot kill the overlay task.

ACTION: Re-enter the command, and if the problem still occurs contact your technical support group.

OVL414

Send character to overlay task through pipe failed.

ACTION: Contact your technical support group.

OVL415

Displayed after a successful login if the Last Login Identification feature is enabled. It contains the time and date of the last login and the number of failed login attempts.The format is **TTYxx nn PWD yyy mm/dd hh:mm**

xx = the TTY port number

nn = number of failed log in attempts count since the last login at this port

yyy = password identification

yyy = 1 for PWD1

yyy = 2 for PWD2

00-99 = indicates LAPW password number between 00 and 99

mm/dd = last login date

hh:mm = last login time

ACTION: Information only, no action required.

OVL416

You cannot monitor this port.

ACTION: Information only, no action required.

OVL417

Password level is incorrect. Login with PWD2 password, or a LAPW password that allows the command.

ACTION: Contact your technical support group.

OVL418

The monitor feature is already in use.

ACTION: Use MON OFF to turn off the monitoring feature before using it on another port.

OVL419

Send Print (SPRT) is already in use.

ACTION: Use SPRT OFF to turn the feature off, then use SPRT xx to turn it on, on another port.

OVL420

That port is busy, or already logged in.

ACTION: Information only, no action required.

OVL421

That port does not physically exist.

ACTION: Refer to the *administration input/output guide.* Use LD 22 PRT to check the port programming.

OVL422

That TTY port type is not SCH or MTC.

ACTION: Refer to the *administration input/output guide.* Use LD 22 PRT to check the port programming.

OVL423

This is not a logged in port.

ACTION: Information only, no action required.

OVL424

The maximum number of users are already logged in.

ACTION: Information only, no action required.

OVL425

You cannot force logout yourself.

ACTION: Check the port number when using the FORC command.

OVL426

1. There is not enough overlay memory available for the overlay data area.

ACTION: Use the LD 22 D command to force the overlay to load from the disk rather than the cache buffers, or turn off switch 4 on the MSI card and load overlay LD 22 from the floppy drive. If you choose the later option, remember to turn on switch 4 when you are finished.

Enter PRT CFN (or CEQU, if applicable) to verify how many cache buffers are allocated.

Refer to the *administration input/output guide*. Use LD 17 CACH to reduce the number of cache buffers. Try only 20 cache buffers in the system as each buffer uses 19,000 words of memory. Consider the multi-user feature also, as it requires a minimum of four cache buffers.

A restore to the hard disk may be required for the hard disk to load overlays properly. In this case use RES in LD 43 to copy the entire contents of the floppy to the hard disk. If you need help with the commands or system responses go to the *EDD* chapter in this guide.

Expand memory if the option is available on your system and if the use of all 32 allowable cache buffers is required.

2. Receiving this message when loading overlays or when other users attempt to log onto the system.

ACTION: Load an overlay using the LD xx D command.

Load an overlay from the floppy drive instead of the hard disk (turn switch 4 off on the MSI). Load OVL#22 and verify how many cache buffers are allocated and reduce or eliminate them.

A restore to the hard disk may be required for the hard disk to load the overlays properly.

The system hard drive may be faulty.

Check for insufficient memory to run the Multi-User feature and for too many overlays loaded for access.

Use only 20 cache buffers in the system. Each buffer uses 20K of memory.

Expand the memory if the option is available and if the use of all 32 allowable cache buffers is required.

OVL427

The disk unit is busy.

ACTION: Try again later.

OVL428

Login name and password combination is invalid.

ACTION: Check to make sure your data is correct and re-enter he command. If you still cannot log in, contact your technical support group.

OVL429

1. Overlay memory space is in use.

ACTION: Try again or load a different overlay.

2. Receiving this message when attempting to load an overlay.

ACTION: If Multi-User is available, type WHO on the TTY to show you who is logged into the system and FORCxx to force the terminal to show you who is using the overlay area to log off. If you do not know the second level password, contact your technical support group.

OVL434

Unable to initialize system message lookup.

ACTION: Contact your technical support group.

OVL435 n

Invalid lookup type received by help task: **n**.

ACTION: Contact your technical support group.

OVL436 n m

B-tree read failed for language **n**, **m** = rrn.

ACTION: Contact your technical support group.

OVL437 n

Unable to open message file for language **n**.

ACTION: Contact your technical support group.

OVL438 n

Could not open B-tree index file for language **n**.

ACTION: Contact your technical support group.

OVL439 n

Unable to read B-tree root page for language **n**.

ACTION: Contact your technical support group.

OVL440 n

B-tree initialization failed for language **n**.

ACTION: Contact your technical support group.

OVL441

Help text could not be found for the specified error code.

ACTION: Information only, no action required.

OVL442

The error code specified is not a valid error code.

ACTION: Information only, no action required.

OVL443

Unable to send request.

ACTION: Re-enter the command.

OVL444

Unable to create help task queue.

ACTION: Verify commands in the *input/output guide*.

OVL446

The LON and LOF commands are not applicable to MSDL TTY.

ACTION: Check the database and re-enter the commands.

OVL447

Use LD 135 for Option 81 Core Common Equipment Diagnostic. LD 35 does not apply.

ACTION: Information only, no action required.

OVL448

System message lookup is temporarily unavailable.

ACTION: Wait 30 seconds and repeat the request.

OVL700

Resident debug package is not equipped.

ACTION: Information only, no action required.

OVL777

Resident debug package is already loaded.

ACTION: Information only, no action required

OVL778

LSL with flow type of MAIL is not accessible from a pseudo TTY.

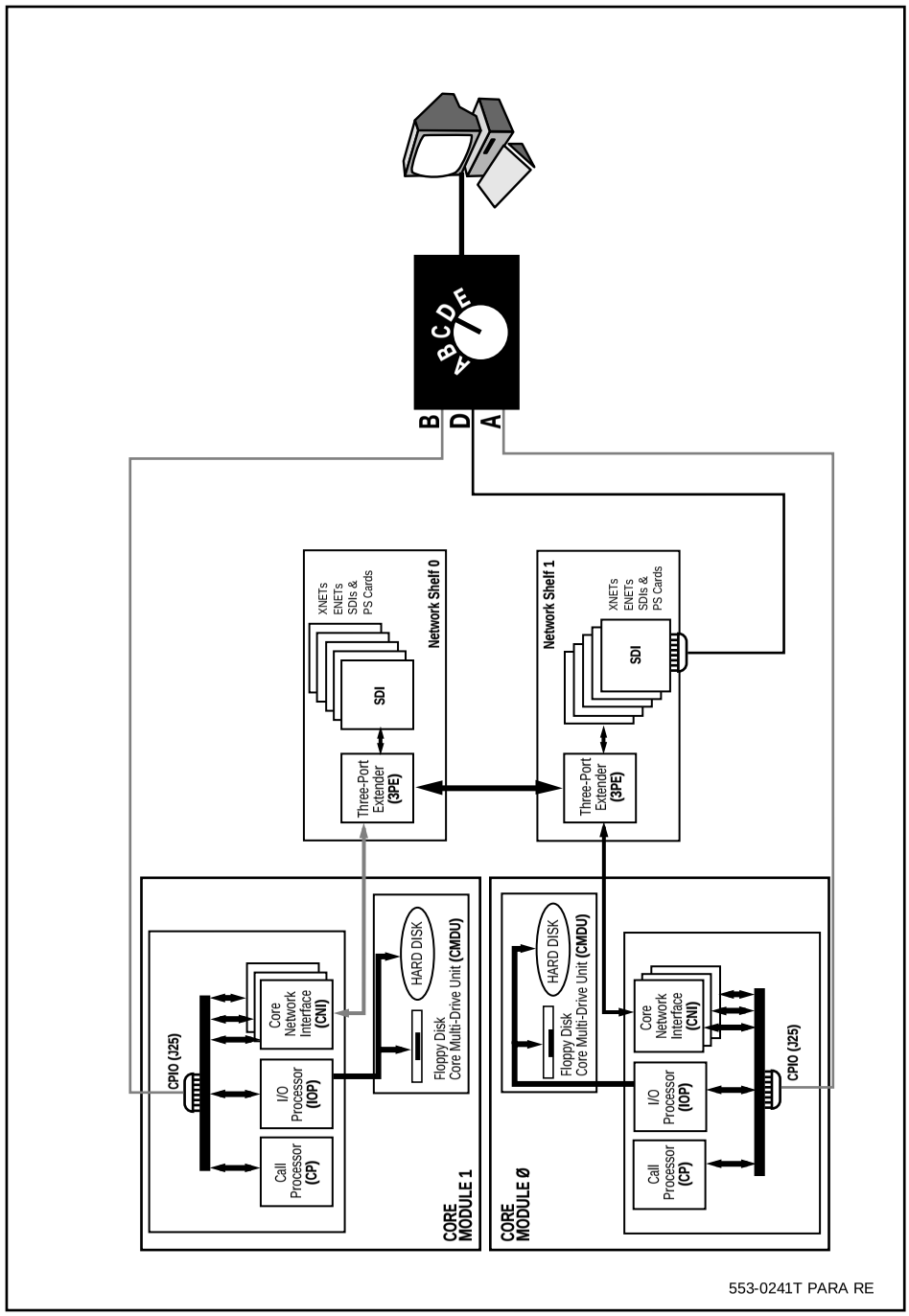
ACTION: Make sure that this is the command you wanted to use

Understanding parallel reload

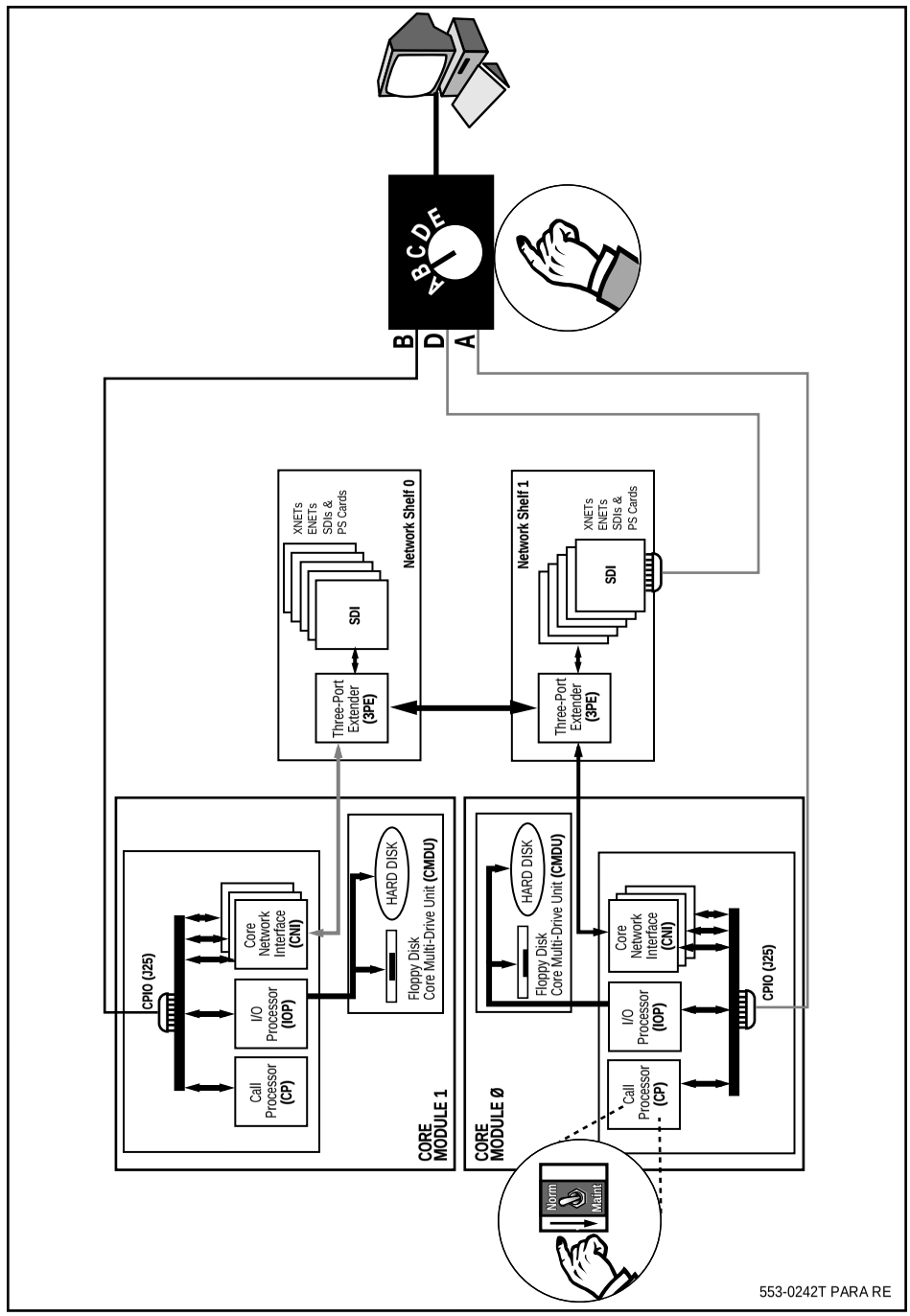
CAUTION
Do not use this chapter to perform a parallel reload

This chapter is intended to assist you to understand the parallel reload process. It is not intended to instruct you on how to perform a parallel reload.

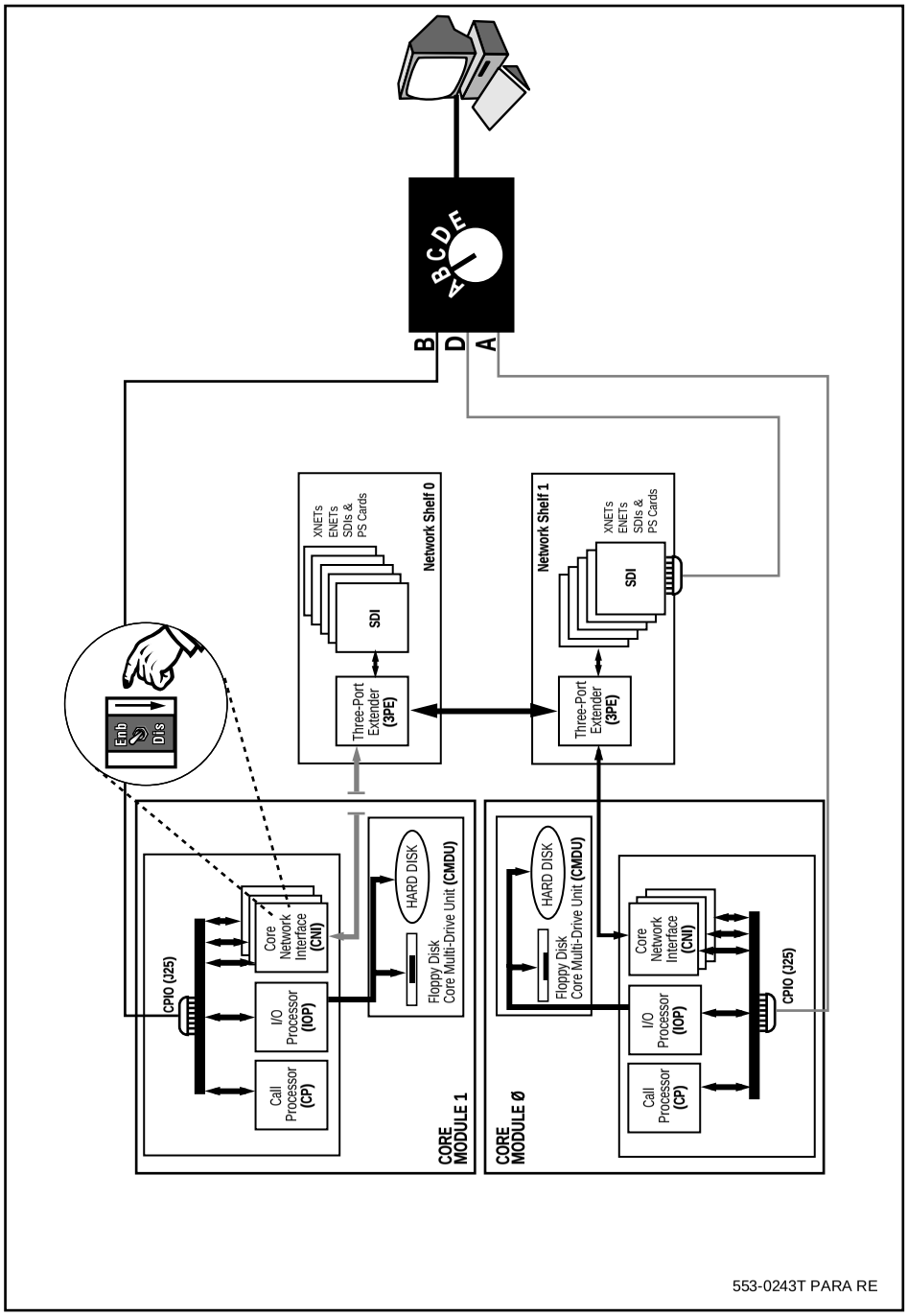
If you wish to perform a parallel reload, use the *Software conversion procedures* NTP.



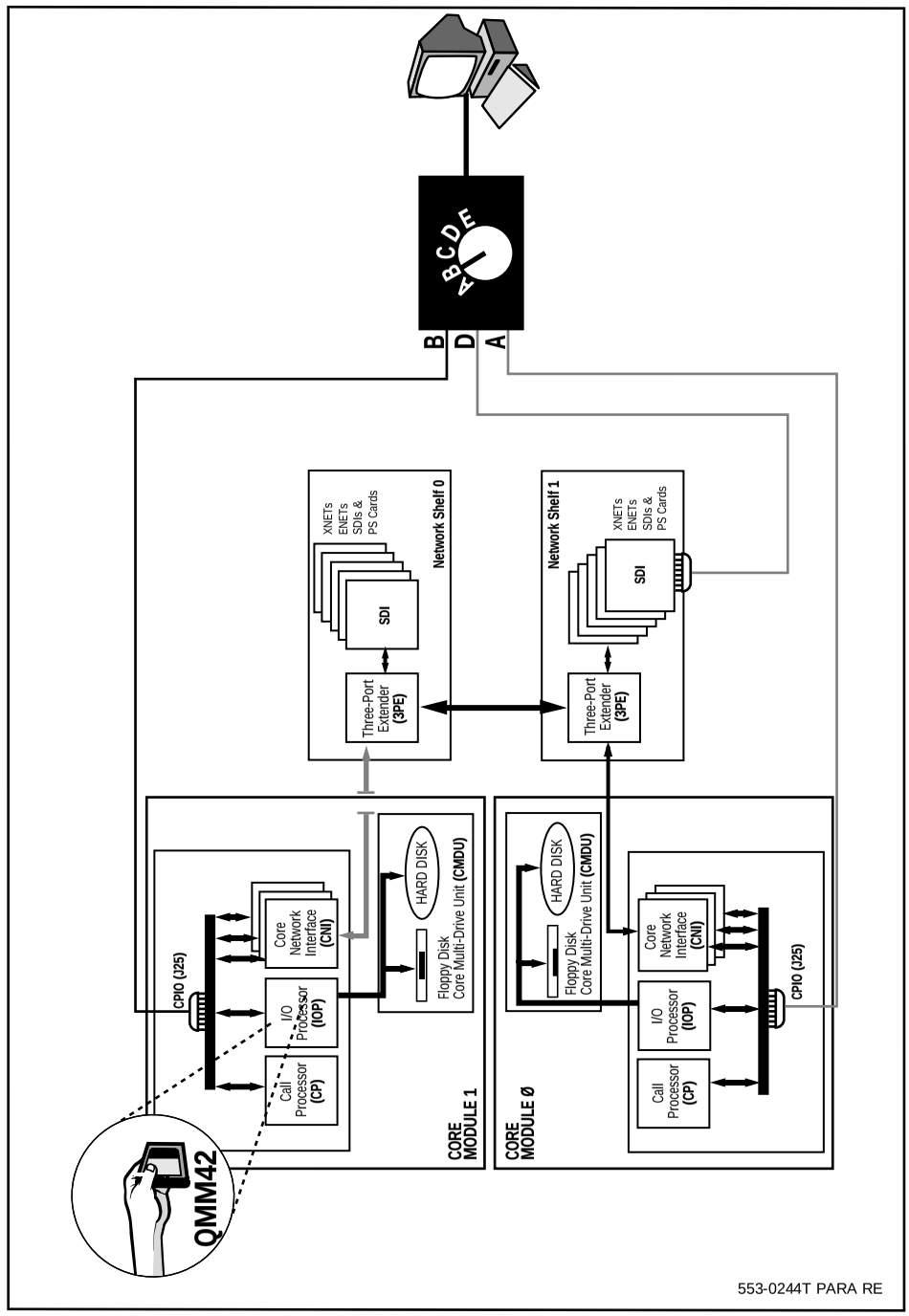
1. The TTY switch box dial is in position D. That allows the status of the CP, CNI, MEM and SYNC to be checked.



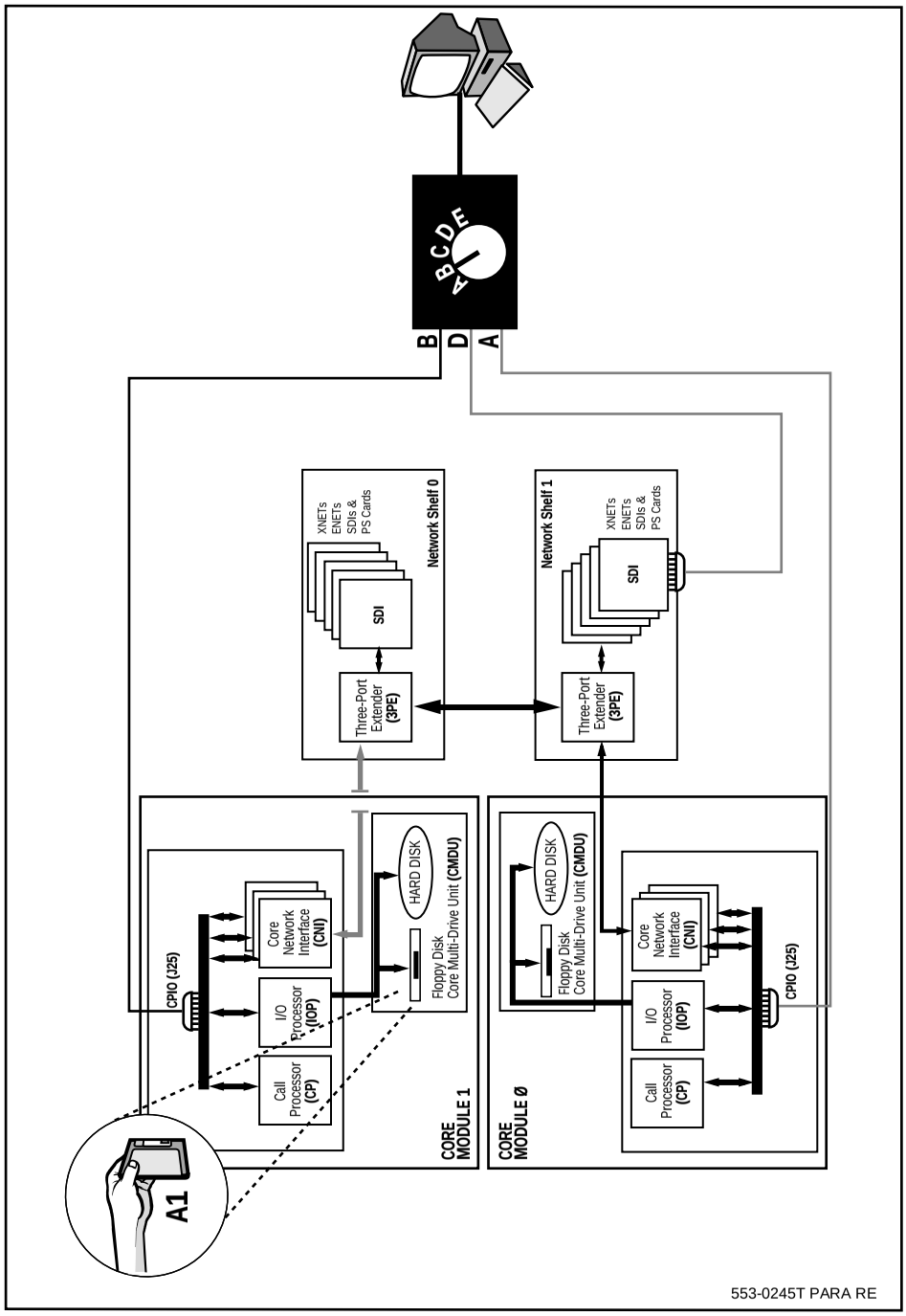
2. The CPØ is switched to MAINT forcing CPØ to remain in the call processing mode. The TTY switch box is switched to B allowing you to monitor CORE1.



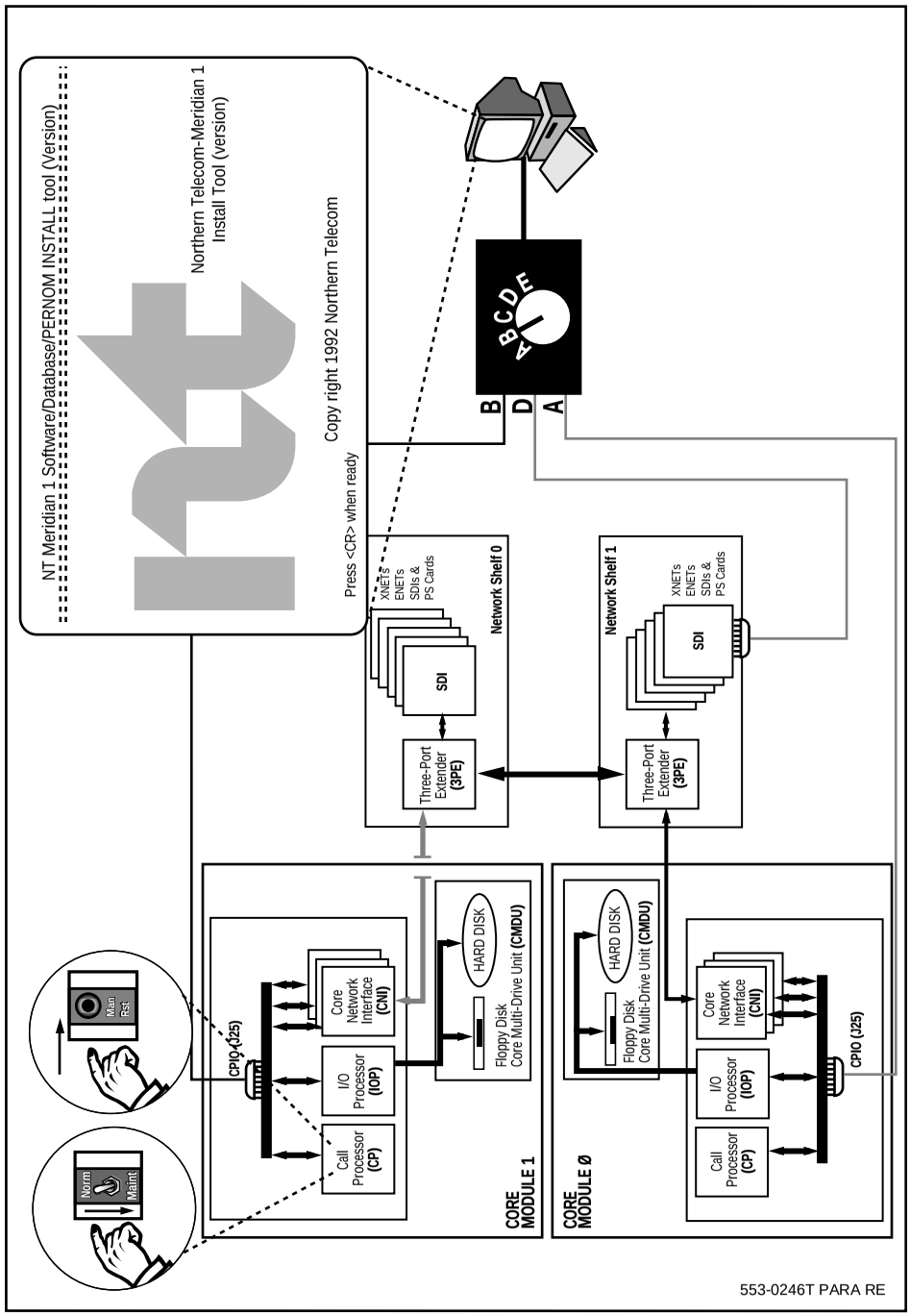
3.The CNI cards are switched to DIS, isolating CORE 1 from the network.



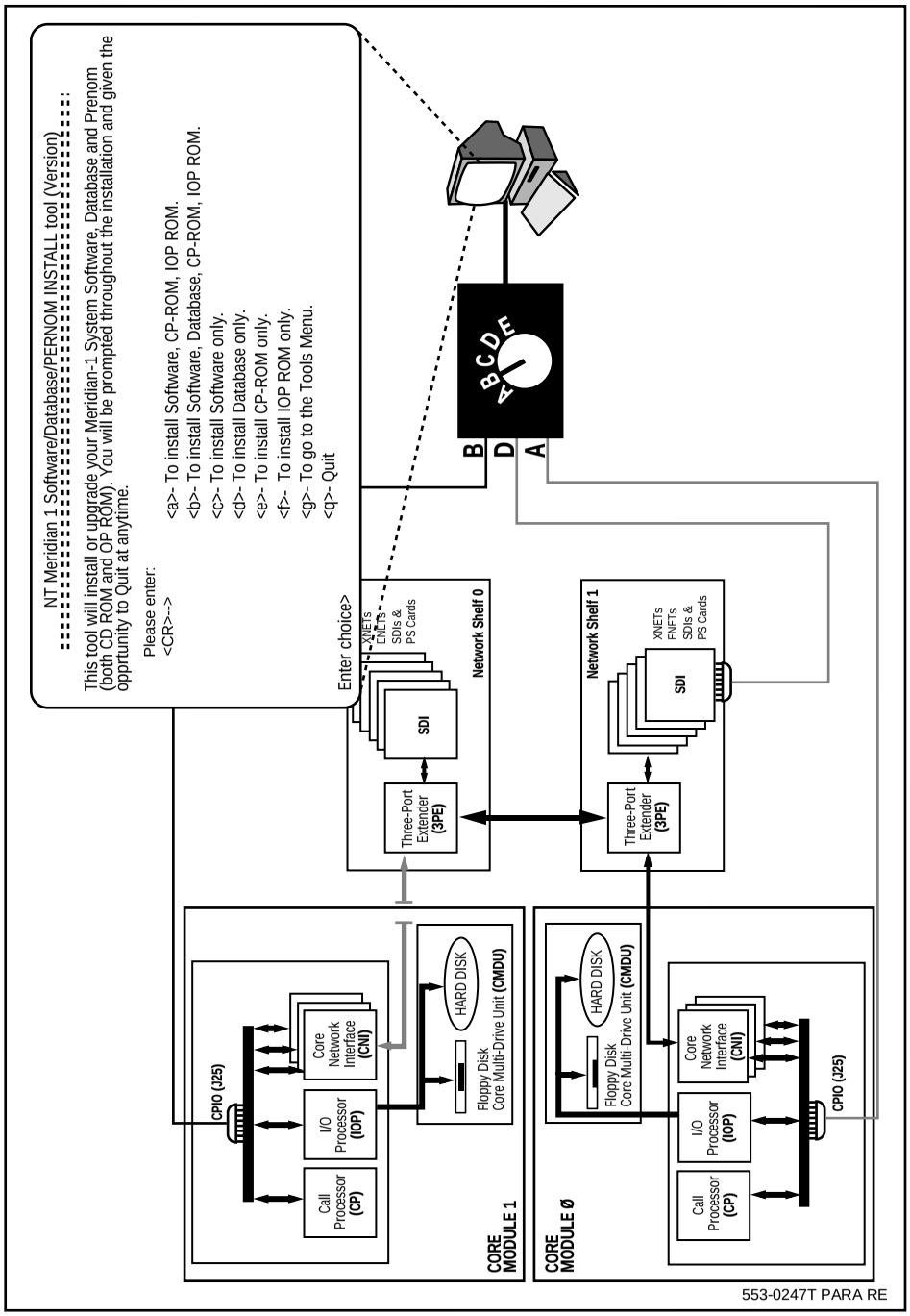
4. The target cartridge allows the new software to be loaded into CORE 1.



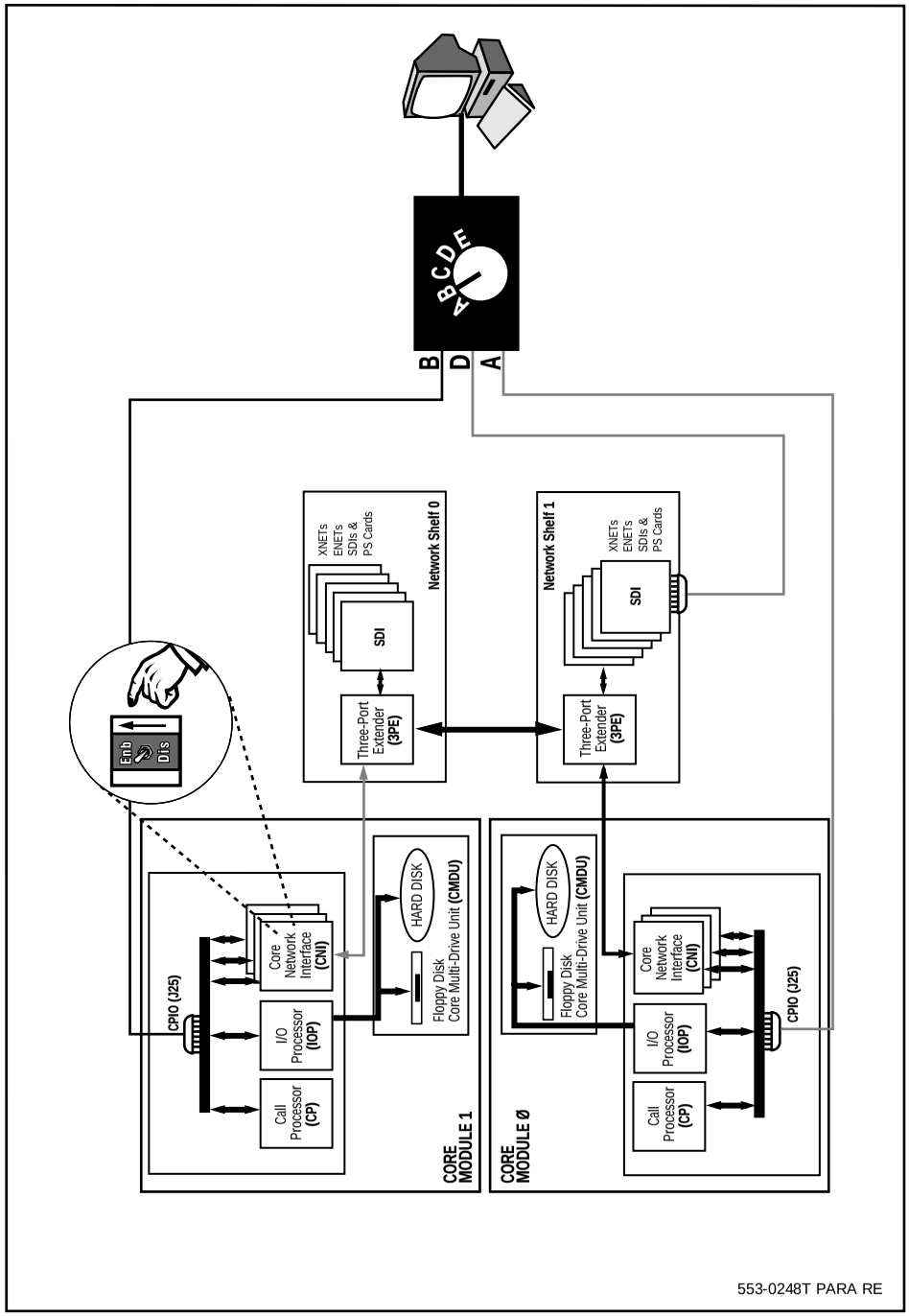
5. Diskette A1 contains the Software Installation Tool.



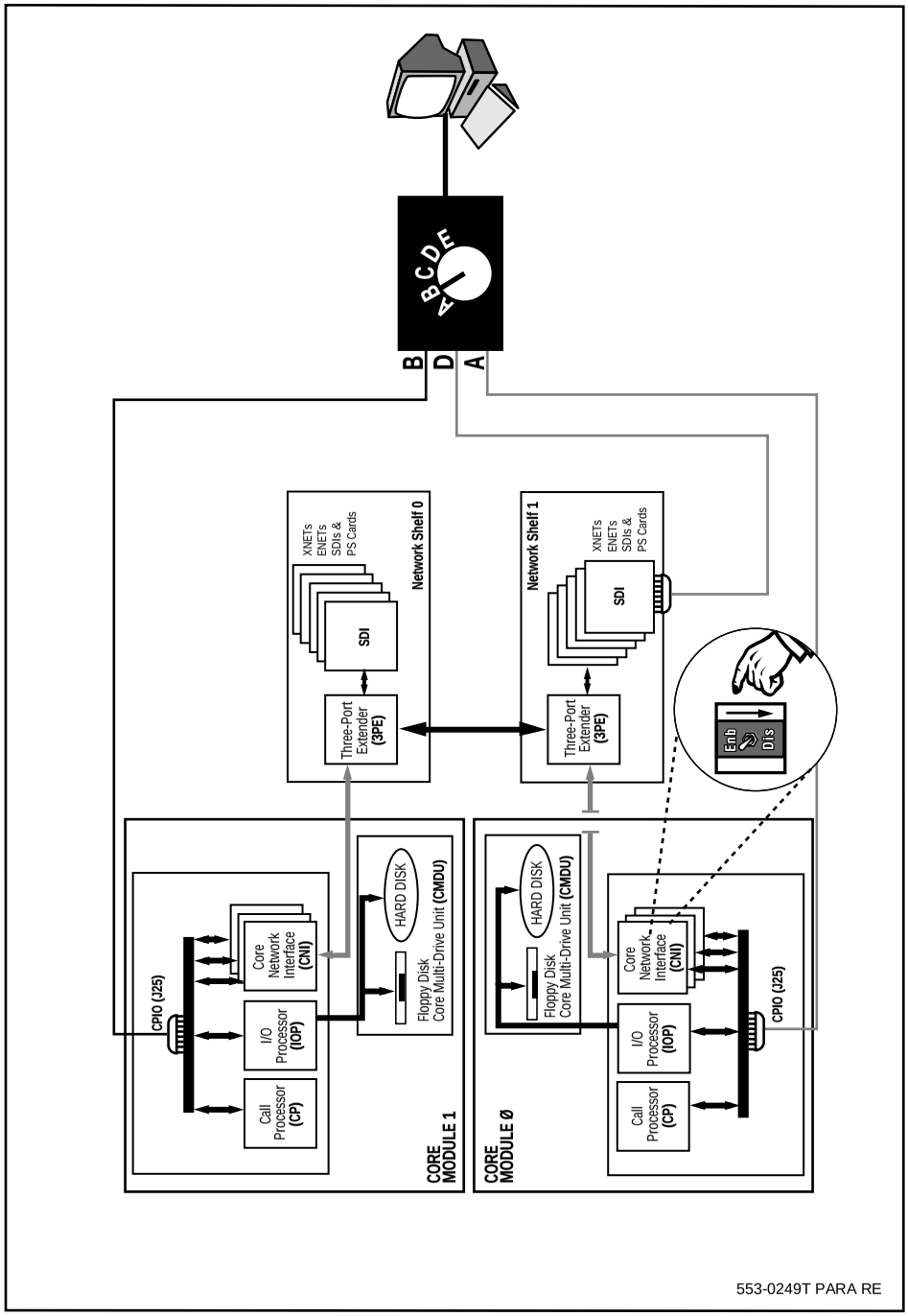
6. Switch to MAINT keeps CP1 active. Pressing the MAN RST button causes a system reload, enabling the Software Installation Tool on the TTY.



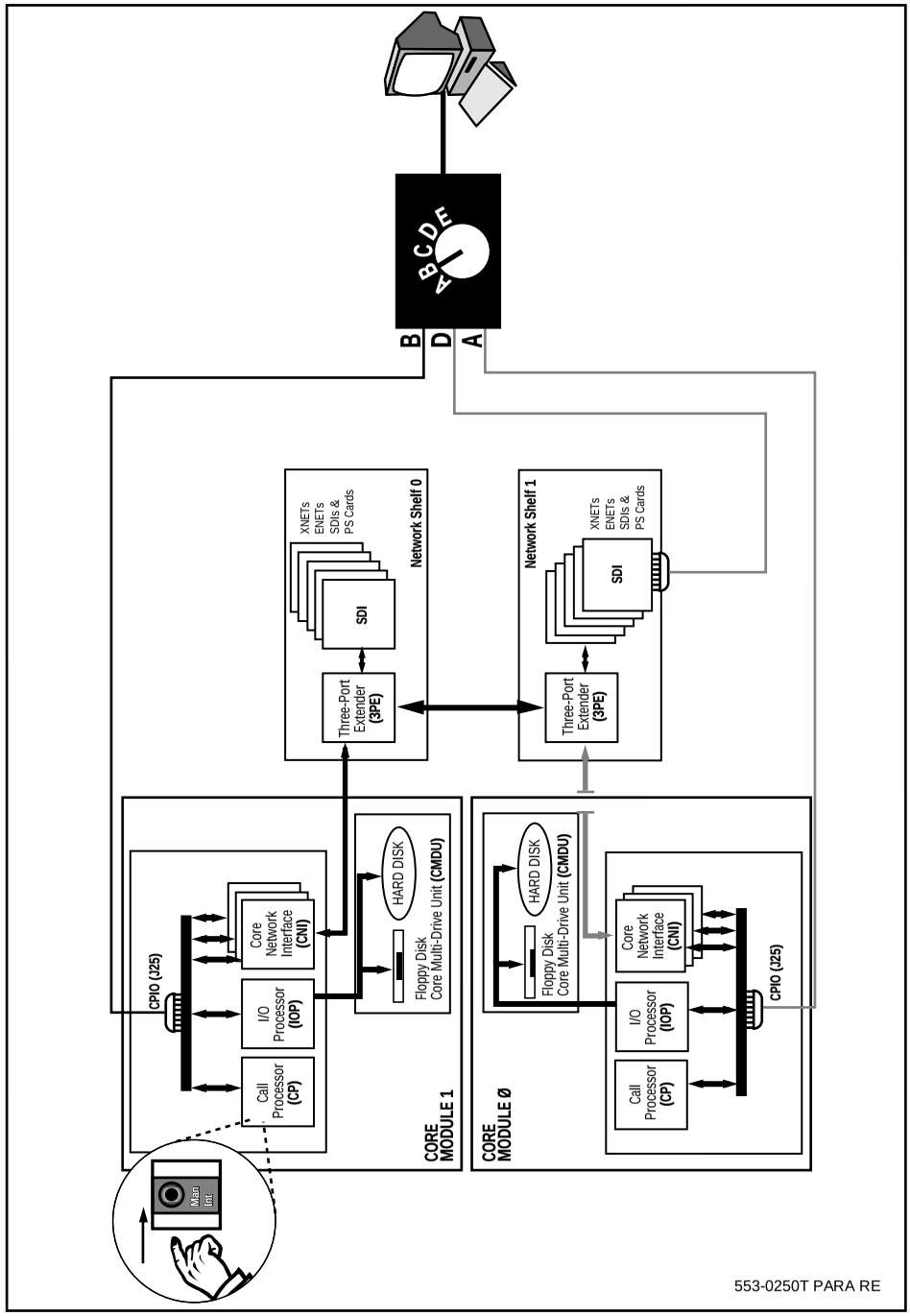
7. Using the Installation Tool allows the installation of the system software using diskettes 2 to 9; customer database using diskette 10; updating ROMs and re-booting CORE 1 with the target software.



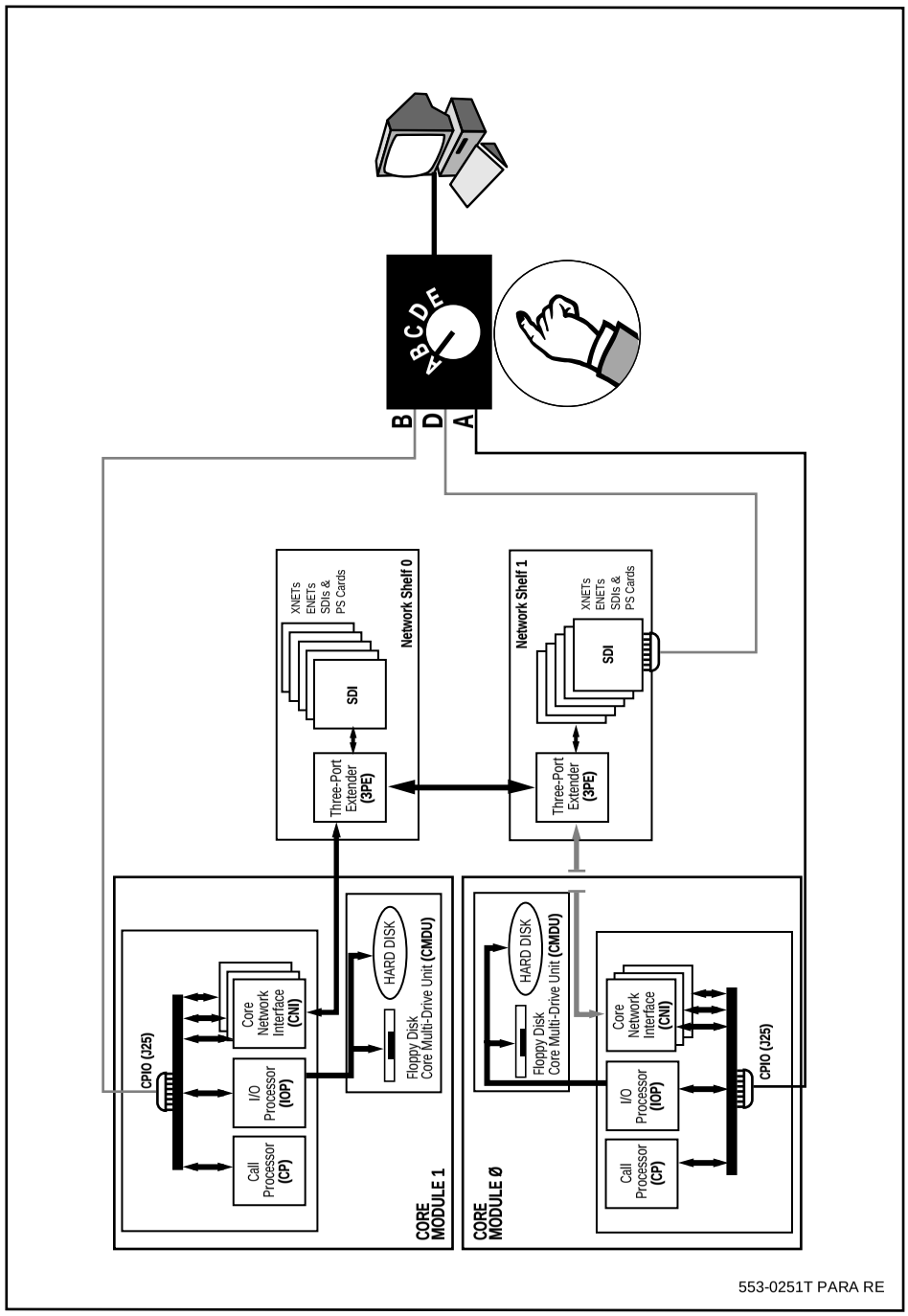
8. The CNI cards are switched to ENB, connecting CORE 1 to the networks.



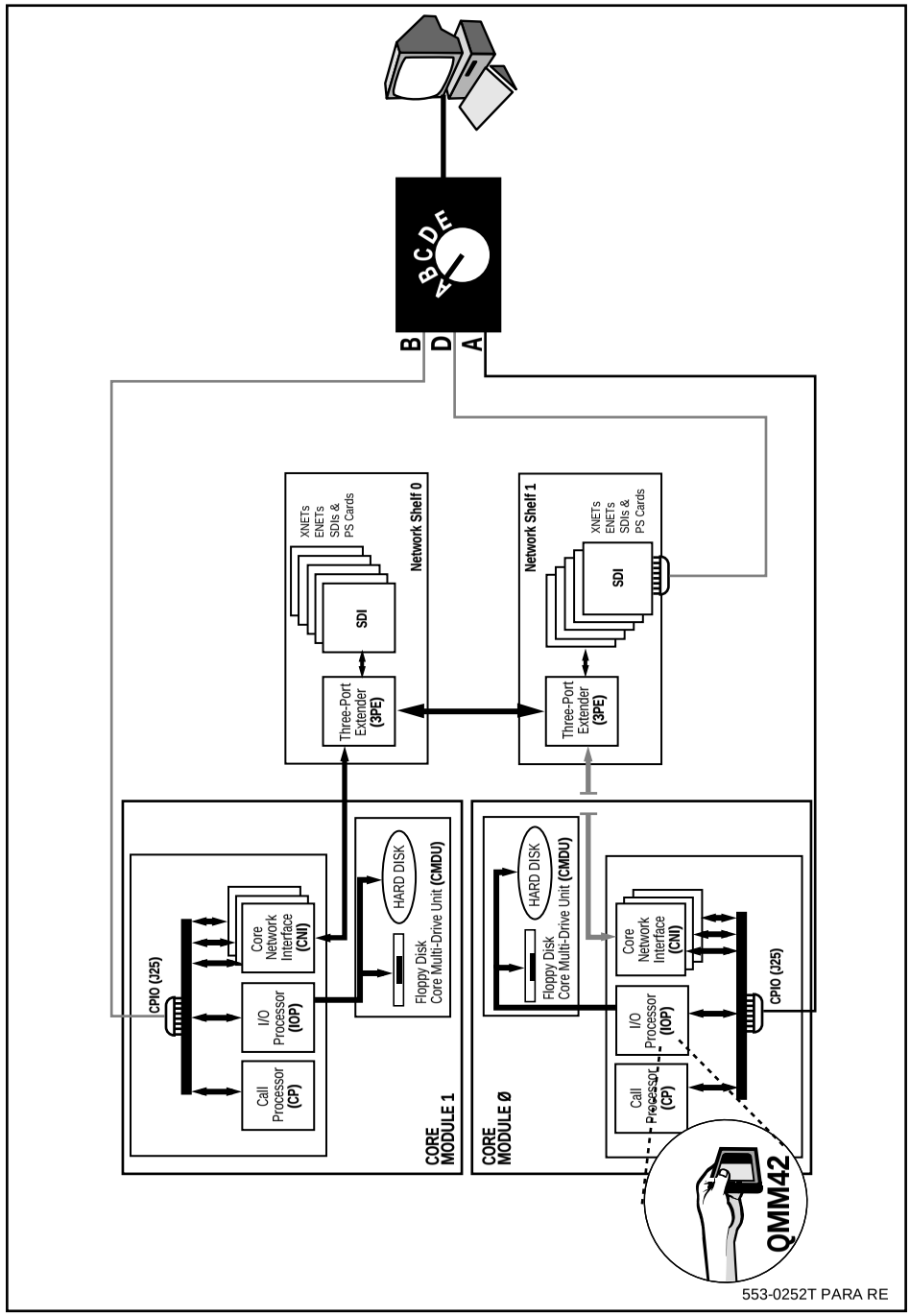
9. The CNI cards are switched to DIS, isolating CORE Ø from the networks.



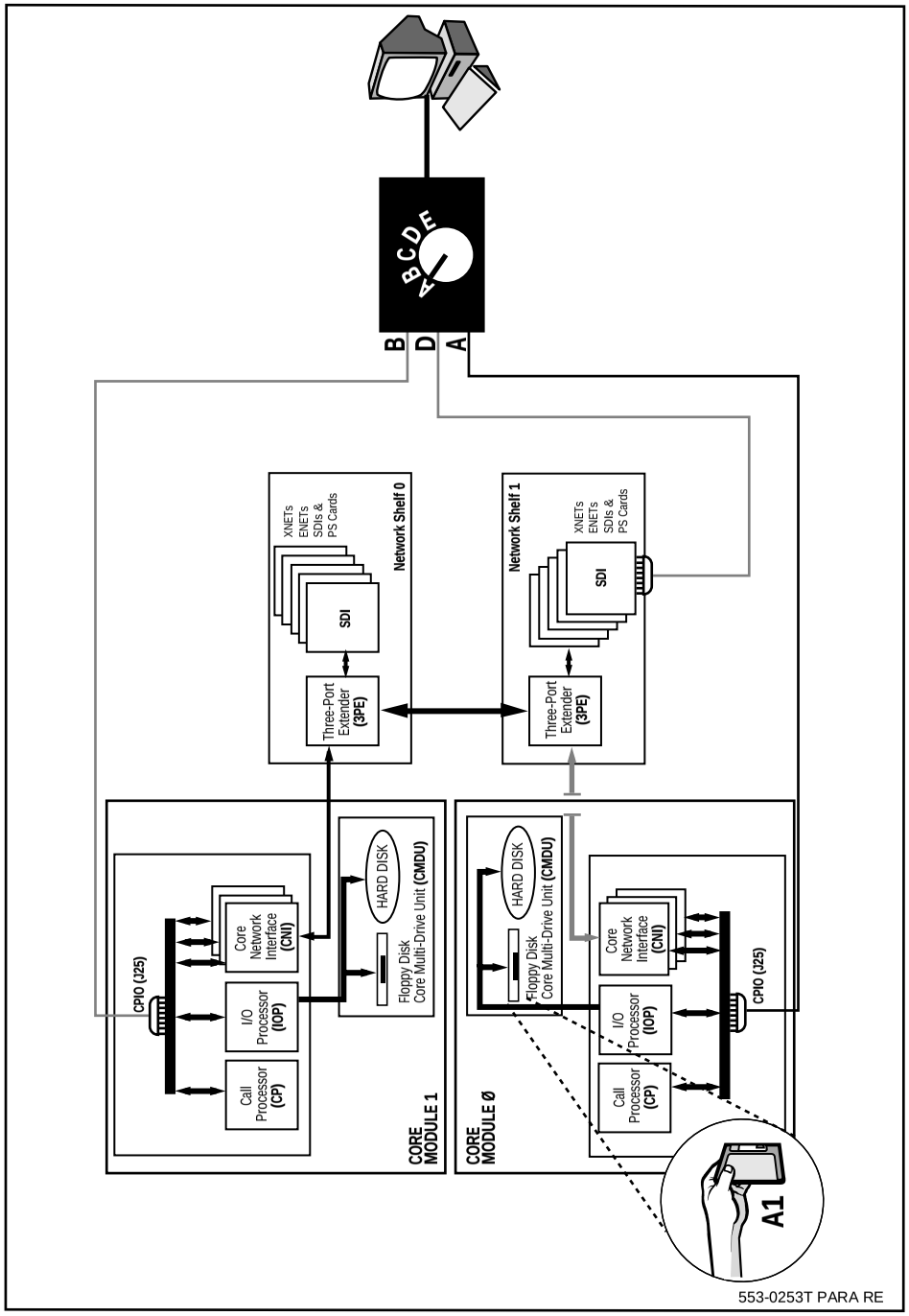
10. The MAN INT button is pressed, updating CORE 1 memory with call processing data (Udata) contained in the network card memories.



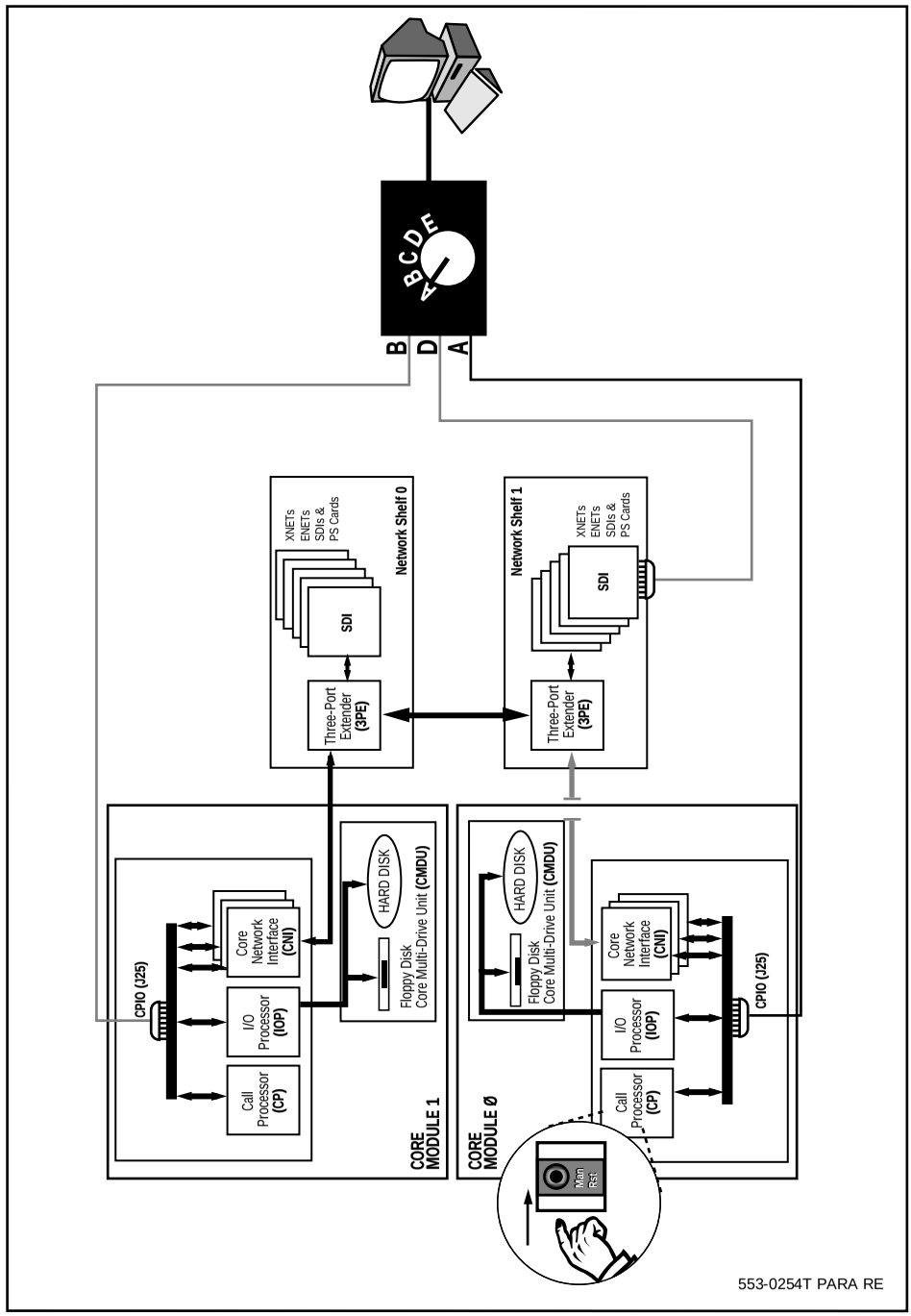
11. The TTY switch box dial is switched to A, allowing you to monitor CORE Ø.



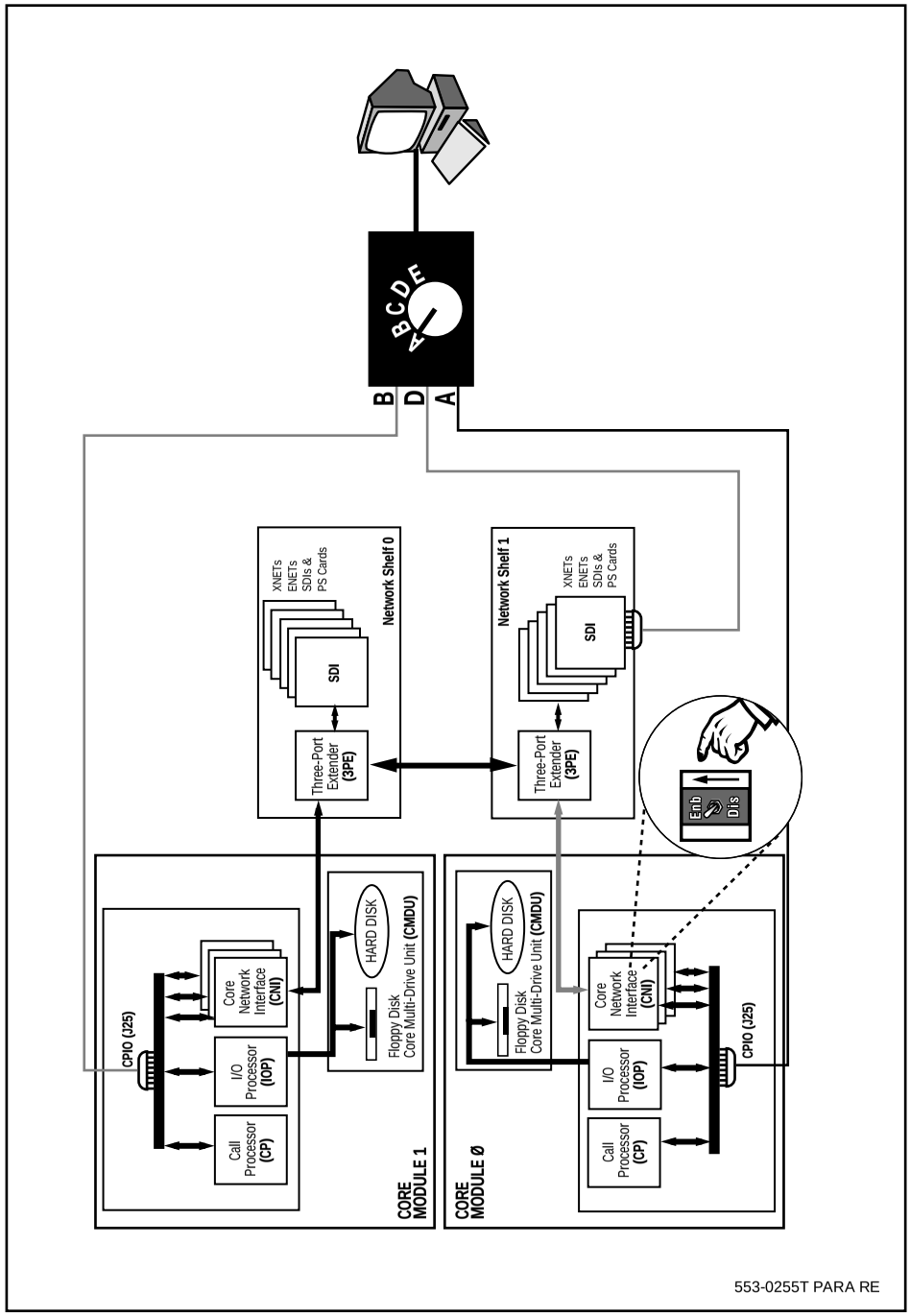
12. The target cartridge allows the new software to be loaded into CORE Ø.



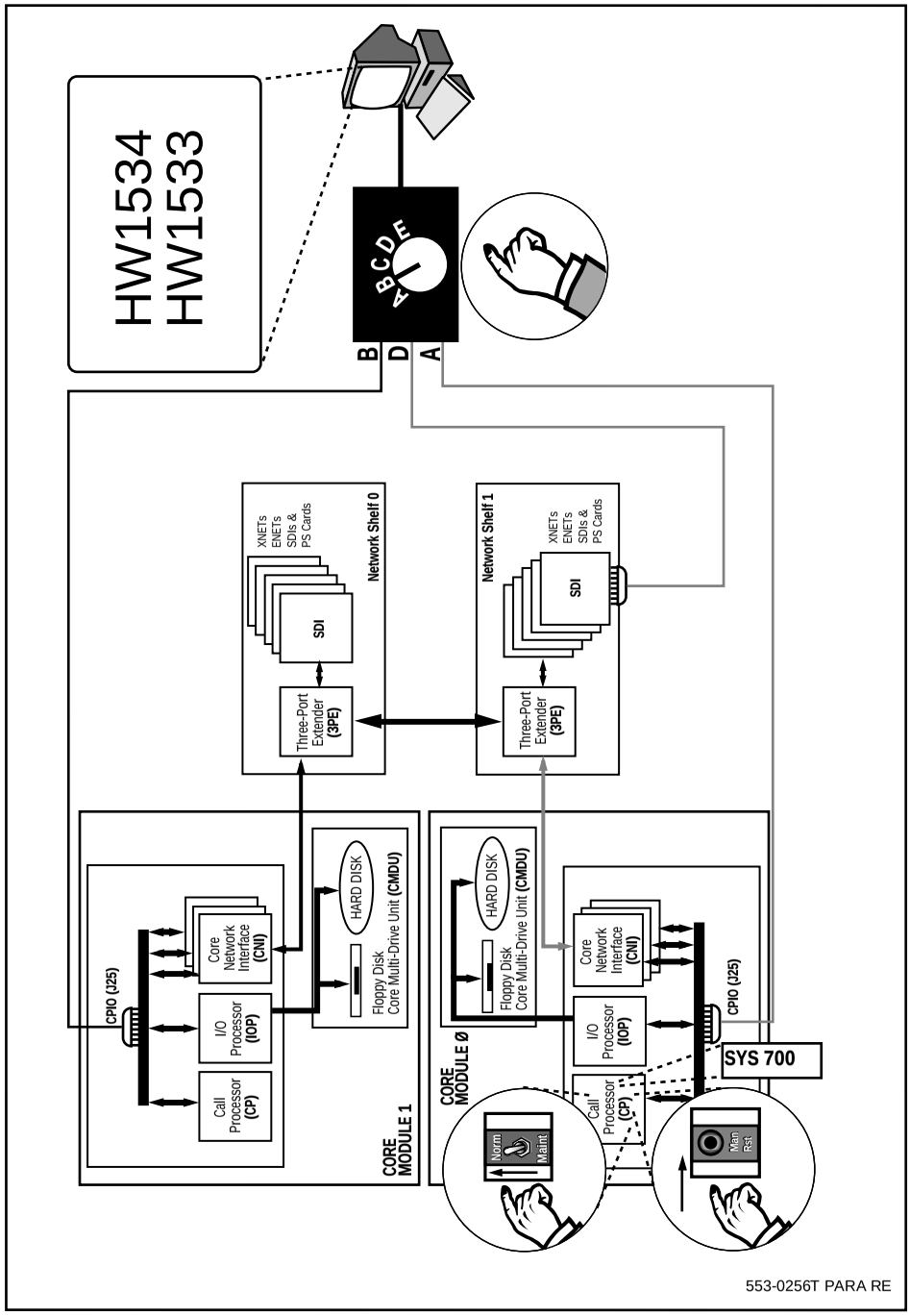
13. Diskette A1 contains the Software Installation Tool.



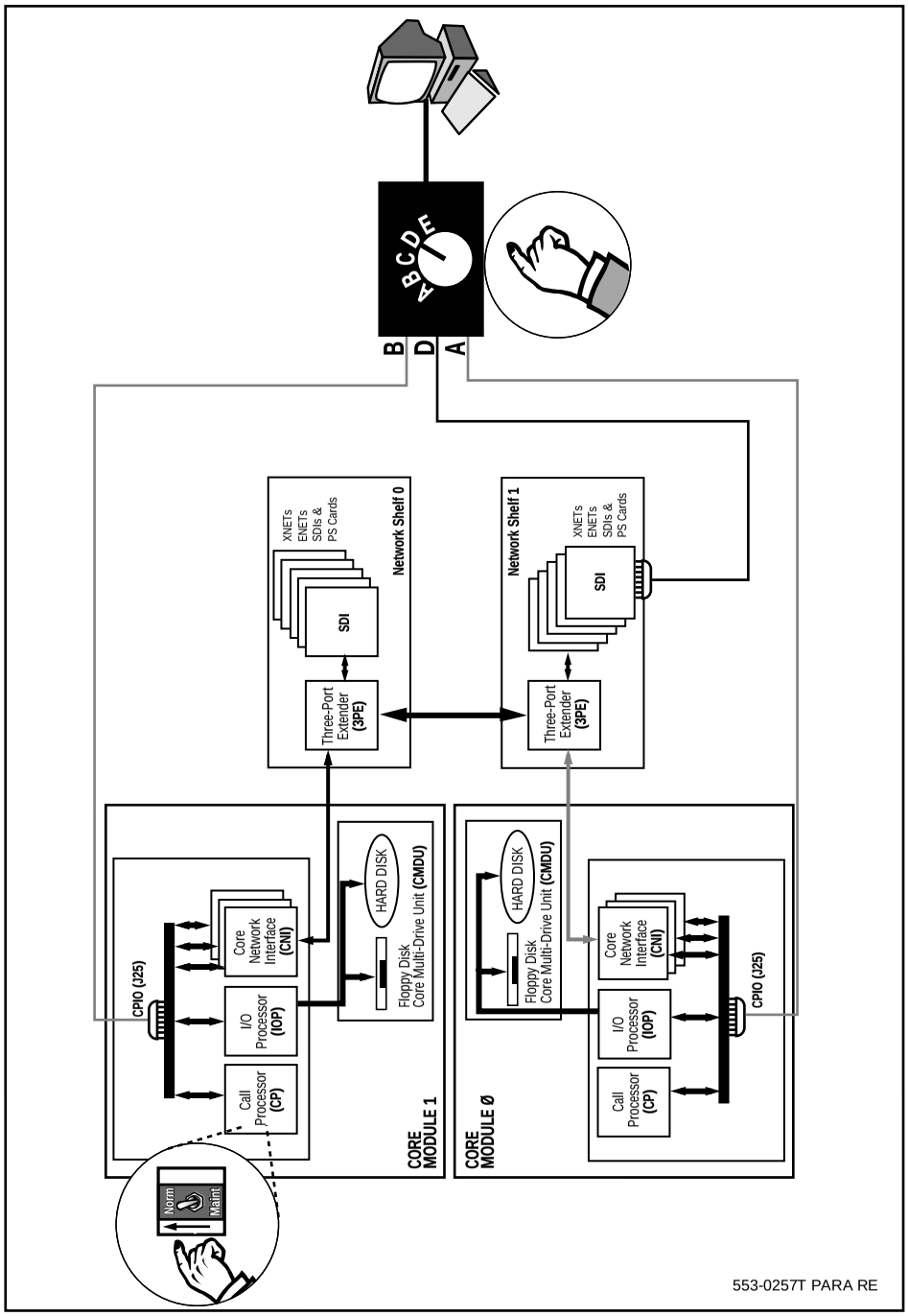
14. The MAN RST button is pressed causing a system reload, enabling the Software Installation Tool on the TTY. The installation tool installs the system software, customer database, updates ROMs and re-boots CORE Ø.



15. The CNI cards are switched to ENB, connecting CORE Ø to the networks.



16. The MAN RST button is pressed causing a system reload on CORE Ø. When SYS700 appears, switch to NORM for normal operation. The HW messages indicate that the memories are synchronized.



17. The TTY switch box dial is switched to D, allowing you to monitor the system. CP1 is switched to NORM, for normal operation. Parallel reload is completed. Check status of CP, CNI, MEM and SYNC.

PCH — System Patch Reports

System Patch Reports is a resident program. PCH does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

PCH messages

Back-filling messages with zeros

The numerical portion of the following messages is depicted by three or four digits. For example, the same message can be represented by xxx0008 or xxx008.

PCH0100 Cannot create semaphore.
ACTION: Contact your technical support group.

PCH0101 An invalid semaphore ID or task timed out.
ACTION: Contact your technical support group.

PCH0102 Warning: failed to add symbol n to symbol table.
ACTION: Contact your technical support group.

PCH0103 Warning: failed to remove symbol n from symbol table.
ACTION: Contact your technical support group.

PCH0107 Cannot write back activate memory list. Patch data inconsistency might have occurred.
ACTION: Contact your technical support group.

PCH0108 Program corruption. Restore-memory list is null.
ACTION: Contact your technical support group.

PCH0109 Program corruption. Activate-memory list is null.
ACTION: Contact your technical support group.

PCH0110 PATCH x ACTIVATED. Name = a, Ref# = b, PRS# = c, File = d.
ACTION: Contact your technical support group.

PCH0111 PATCH x DEACTIVATED. Name = a, Ref# = b, PRS# = c, File = d.
ACTION: Contact your technical support group.

PCH0113 Cannot restore back memory. Patch data inconsistency might have occurred.
ACTION: Contact your technical support group.

PCH0115 Error activating patch x. buildMemLists call failed.
ACTION: Contact your technical support group.

PCH0116 Error writing memory. Cannot activate patch x.
ACTION: Contact your technical support group.

PCH0117 Error writing memory. Cannot deactivate patch x.
ACTION: Contact your technical support group.

PCH0119 Cannot load patch. System contains maximum number of patches already.
ACTION: A Patch must be removed before a new one can be added.

PCH0120 Error writing to retention file. Retention info might be out of synch.
ACTION: Contact your technical support group.

PCH0123 Error loading patch from n.
ACTION: Contact your technical support group.

PCH0124 Internal error, cannot get summary patch status at this time.
ACTION: Check the report log file for further information.

PCH0125 Internal error, cannot deactivate patch at this time.
ACTION: Check the report log file for further information.

PCH0126 Internal error, cannot activate patch at this time.
ACTION: Check the report log file for further information.

PCH0127 Internal error, cannot load patch at this time.
ACTION: Check the report log file for further information.

PCH0129 Internal error, cannot get detailed patch status at this time.
ACTION: Check the report log file for further information.

PCH0130 Internal error, cannot remove patch at this time.
ACTION: Check the report log file for further information.

PCH0131 Error deleting patch status record. Record not found.
ACTION: Contact your technical support group.

PCH0132 Patch status tail pointer is null.
ACTION: Contact your technical support group.

PCH0133 Invalid patch level received in patchload.
ACTION: Contact your technical support group.

PCH0134 Full patch path length exceeded.
ACTION: Contact your technical support group.

PCH0136 Patch filename empty in patchload.
ACTION: Contact your technical support group.

PCH0137 Patch filename is not a full path in patchload.
ACTION: Contact your technical support group.

PCH0138 Patch handle out-of-range in patchload
ACTION: Contact your technical support group.

PCH0139 Cannot allocate memory for patchload.
ACTION: Contact your technical support group.

PCH0141 Error reading patch file during patchload.
ACTION: Contact your technical support group.

PCH0142 Patch Release x does not match the system Release y.
ACTION: Recreate the patch for the system release.

PCH0143 Cannot determine default patch directory from DLO.
ACTION: Contact your technical support group.

PCH0144 Patch retention array not initialized.
ACTION: Contact your technical support group.

PCH0200 Cannot initialize patch semaphore.
ACTION: Contact your technical support group.

PCH0201 Warning: cannot initialize patch retention. Patch retention will not be possible.
ACTION: Contact your technical support group.

PCH0202 Warning: patch retention at diskos level failed. Some or all diskos patches may not have been retained.
ACTION: Contact your technical support group.

PCH0203 Unable to open patch file n.
ACTION: Contact your technical support group.

PCH0204 Cannot allocate protected memory for patch
ACTION: Contact your technical support group.

PCH0205 Error in reading patch file n.
ACTION: Contact your technical support group.

PCH0206 Memory patch from n to m is out-of-range.
ACTION: Remake and retry the patch.

PCH0207 Memory patch mismatch between expected and actual. Either the patch was created incorrectly or it is the wrong patch for this software release.
ACTION: Contact your technical support group.

PCH0208 Error accessing patch file n.
ACTION: Contact your technical support group.

PCH0210 Error registering Patch Midnight routine with tod24Add.
ACTION: Contact your technical support group.

PCH0211 Address to patch (x) is out of range. Patch corrupt or incorrupt for s/w load.
ACTION: Remake the patch and try again.

PCH0212 Address of patch code (x) is out-of-range.
ACTION: Take the patch out, then try to load and activate it again.

PCH0213 Failed to find start of WORKSHED loop near x.
ACTION: Contact your technical support group.

PCH0214 System error. Patcher cannot be initialized.
ACTION: Contact your technical support group.

PCH0215 Invalid patch file format.
ACTION: Remake and retry the patch.

PCH0216 Unexpected code at start of SL-1 global procedure n. The patch might not match the release that is loaded.
ACTION: Contact your technical support group.

PCH0217 Unexpected code in SL-1 patch global procedure n.
ACTION: Remake and retry the patch.

PCH0219 Unexpected code in SL-1 global procedure n.
ACTION: Remake and retry the patch.

PCH0220 NULL filename passed to readInPatch.
ACTION: Contact your technical support group.

PCH0221 Unexpected code at start of C function n at x. The patch might not match the release that is loaded.
ACTION: Contact your technical support group.

PCH0222 Checksum of patch read into memory x. Does not match expected checksum x.
ACTION: Contact your technical support group.

PCH0223 Error reading patch file to compute checksum.
ACTION: Contact your technical support group.

PCH0224 Error writing checksum to patch file.
ACTION: Contact your technical support group.

PCH0300 Handle n out-of-range in writeRetenRec.
ACTION: Contact your technical support group.

PCH0301 Retention structure not initialized. Patcher is most likely unusable.
ACTION: Contact your technical support group.

PCH0302 Cannot open patch retention file n.
ACTION: Contact your technical support group.

PCH0303 Error accessing patch retention file n.
ACTION: Contact your technical support group.

PCH0304 Error writing to patch retention file n.
ACTION: Contact your technical support group.

PCH0305 Error closing patch retention file n.
ACTION: Contact your technical support group.

PCH0306 Internal error, patch retention not initialized.
ACTION: Contact your technical support group.

PCH0307 Cannot get patch retention directory from DLO.
ACTION: Contact your technical support group.

PCH0308 Error remaining patch retention file from n to m. Patch retention may not be performed properly.
ACTION: Contact your technical support group.

PCH0309 Error creating patch retention file n.
ACTION: Contact your technical support group.

PCH0310 Patch retention array reinitialized.
ACTION: Contact your technical support group.

PCH0311 Patch retention file recreated.
ACTION: Contact your technical support group.

PCH0312 Cannot allocate protected memory for patch retention.
ACTION: Contact your technical support group.

PCH0313 Error initializing patch retention file. Make sure the disk is OK. Retention info may be out-of-date.
ACTION: Contact your technical support group.

PCH0314 Internal error, unknown patch retention level.
ACTION: Contact your technical support group.

PCH0315 Cannot allocate Diskos memory for patch retention.
ACTION: Contact your technical support group.

PCH0316 Error reading temporary patch retention file n. Retention may not be performed properly.
ACTION: Contact your technical support group.

PCH0317 Bad patch retention record, handle = x. Patch retention data and file will be reinitialized. Retention info may be lost.
ACTION: Contact your technical support group.

PCH0318 Cannot get semaphore for patch retention.
ACTION: Contact your technical support group.

PCH0319 Error retaining patch from x.
ACTION: Contact your technical support group.

PCH0320 Cannot retain patch from n. It is already loaded.
ACTION: Contact your technical support group.

PCH0321 Retention data inconsistency, patch handle = x.
ACTION: Contact your technical support group.

PCH0322 Cannot activate retained patch, handle = x.
ACTION: Contact your technical support group.

PCH0323 Error initializing patch retention data. Patcher inoperable.
ACTION: Contact your technical support group.

PCH0400 Internal error, invalid parameter memSpec.
ACTION: Contact your technical support group.

PCH0401 Internal error, invalid empty memSpec.
ACTION: Contact your technical support group.

PCH0402 Internal error, invalid memlist elements.
ACTION: Contact your technical support group.

PCH0403 Internal error, invalid argument to patch fix hits.
ACTION: Contact your technical support group.

PCH0404 Cannot get task n priority, errno x.
ACTION: Contact your technical support group.

PCH0405 Cannot restore task n priority back to y, errno z.
ACTION: Contact your technical support group.

PCH0406 Internal error, null memSpec.
ACTION: Contact your technical support group.

PCH0407 Warning: patchMemWrite task list full! (size=x)
ACTION: Contact your technical support group.

PCH0408 Cannot suspend task x, errno y.
ACTION: Contact your technical support group.

PCH0409 Could not write memory because it is being accessed by a task.
ACTION: Contact your technical support group.

PCH0410 Warning: cannot resume task n, errno y.
ACTION: Contact your technical support group.

PCH0411 Internal error, null memList.
ACTION: Contact your technical support group.

PCH0412 PatchMemWrite request is out-of-range.
ACTION: Contact your technical support group.

PCH0500 Cannot get semaphore for patch sanity check.
ACTION: Contact your technical support group.

PCH0501 Cannot deactivate patch suspected to be bad.
ACTION: Contact your technical support group.

PCH0502 Deactivating patch suspected to be causing sysload.
ACTION: Contact your technical support group.

PCH0503 Cannot update patch days-in-service at midnight.
ACTION: Contact your technical support group.

PCH0504 Deactivating patch suspected to be causing initializations.
ACTION: Contact your technical support group.

PMS — Property Management System

For messages and descriptions refer to the *maintenance input/output guide*.

Refer to the Property Management System Interface description.

PRI — LD 60 Primary Rate Interface

For messages and descriptions refer to the *maintenance input/output guide*.

Refer to ISDN Basic Rate Interface Northern Telecom Publications for details.

PWR — Power and System Monitor

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Meridian SL-1NT/XT power apparatus

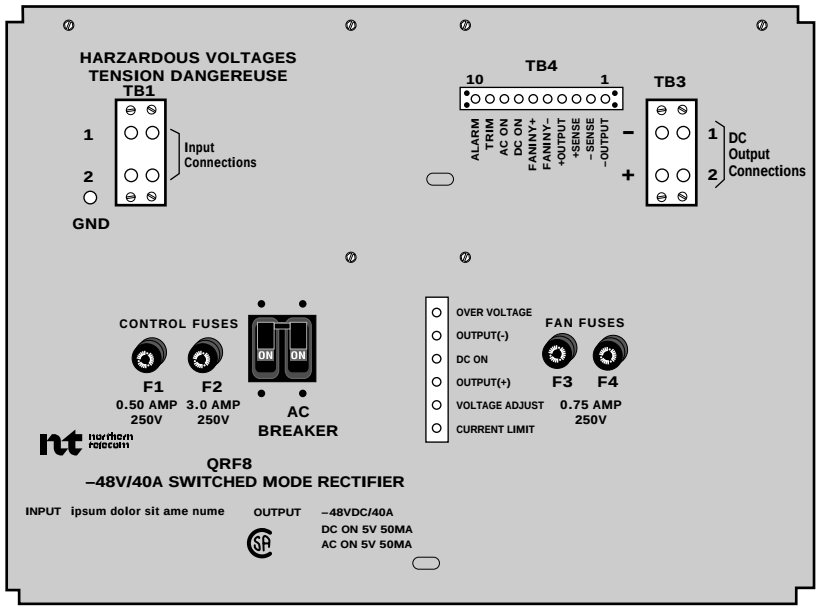
The Meridian SL-1NT/XT power apparatus consists of the following:

- QRF8 rectifier
- -48 volt regulator
- Ringing generator
- 30 volt converter
- 10 volt converter
- 5/12 volt converter
- Power monitor
- Power control shelf
- J2412 Power distribution plant

QRF8 — Rectifier

Purpose

The QRF8 Rectifier provides the -48volt supply for the Meridian SL-1LE, MS, N, NT and the QCA96 SL-1N.



553-0200T QRF8(PWR)

Function

The QRF8 - 48V rectifier is used as a battery eliminator to supply 40 amps to the second stage of power conversion in the system and as a battery charger for a reserve battery supply.

The battery equipment usually consists of a string of 24 individual lead-acid cells, producing approximately 2V dc power cell, connected in a series to provide -48V dc at the output terminals.

Battery equipment is required when system operation is to be maintained during a commercial power failure. The reserve battery is float-charged from the system rectifiers.

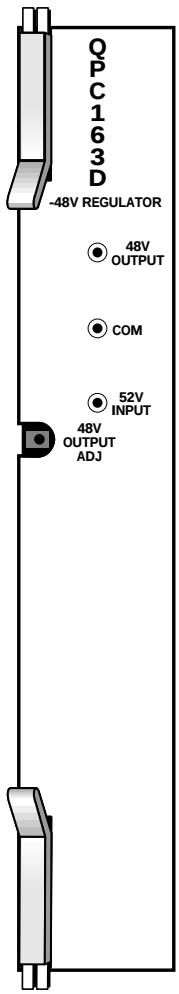
The rectifier maintains delivery of power at -42V dc during momentary fluctuations in commercial input supply voltage of less than 100 ms

Features

The QRF8 - 48V rectifier has the following features:

- 48V dc rectifier
- strap options for 115, 208 and 230V ac operation

- 48V Regulator — Forty eight volt regulator



553-0201T -48V(PWR)

Purpose

The QPC163 - 48V regulator provides 120 Hz filtering of the -48V dc talk battery for trunks and 500 or 2500 type sets.

Function

One QPC163 - 48V regulator is required for each 15 amps of current drain from PE shelves. The maximum draw from the PE shelf is 3 amps.

Features

The faceplate includes the following features:

- a -48 volt output meter test connection
- a common (ground, earth) meter test connection
- a -52 volt input meter test connection
- a factory sealed -48 volt output adjustment potentiometer

RNG GEN — Ringing Generator

553-0202T QPC187(PV

Purpose

The QPC187 Ringing generator converts -48V dc to 86V/105V ac, and provides 20 Hz ringing supply for 500/2500-type telephone sets.

Function

The ringing generator supplies sufficient power to ring 24 NE-C4 type ringers simultaneously. From vintage “E” onward, the power is doubled to supply 50 NE-C4 ringers.

One ringing generator is required for each PE cabinet serving 500 or 2500 type line circuits.

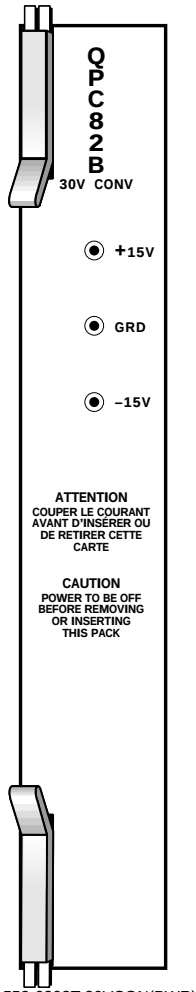
Features

The faceplate includes the following features:

- a 20Hz output meter test connection*
- a ground (earth) meter test connection

*A test voltage is present at this test connection rather than 86V/105V ac

30V CONV — Thirty volt converter



553-0203T 30VCON(PWR)

Purpose

The QPC82 30V converter converts -48V dc to ±15V dc supplies for Meridian 1 proprietary telephones.

Function

Use a QPC82C or later vintage.

One QPC82 converter is required for every 20 BCS line circuit cards in a cabinet, or 192 Meridian 1 proprietary telephones.

The QPC82 card is adjusted at the factory to provide adequate voltage. Field testing is not required unless a complete failure is suspected. If the measured voltage is zero, the card needs to be replaced. Any voltage greater than zero indicates the card is fully operational, and within the approved operating specifications.

Features

The faceplate includes the following features:

- a +15 volt output meter test connection
- a ground (earth) meter test connection
- a -15 volt output meter test connection

10V CONV — Ten volt converter

553-0204T 10V(PWR)

Purpose

The QPC80 10V converter, transforms -48V dc to ±10V dc supply for PE shelf cards.

Function

Use a QPC80E or later vintage.

One QPC80 is required for every five PE shelves in a cabinet equipped with QPC464 Buffers.

One QPC80 is required for every 14 PE shelves in a cabinet equipped with QPC659 Dual Loop Buffers.

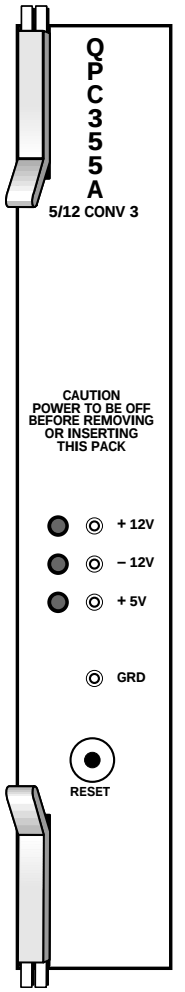
The QPC80 card is adjusted at the factory to provide adequate voltage. Field testing is not required unless a complete failure is suspected. If the measured voltage is zero, the card needs to be replaced. Any voltage greater than zero indicates the card is fully operational, and within the approved operating specifications.

Features

The faceplate includes the following features:

- a +10 volt output meter test connection
- a ground (earth) meter test connection
- a -10 volt output meter test connection

5/12V CONV — Five/twelve volt converter



553-0205T 5/12V(PWR)

Purpose

The QPC355 and QPC190 converts -48V dc to ±5/12V dc, used for power CE and network cards.

Function

The QPC355 QPC190 converter provides over voltage shutdown and over current protection.

One power card is required for each CPU, memory, and network shelf.

The QPC355 QPC190 converter provides over voltage and over current protection, through using the reset button on the faceplate.

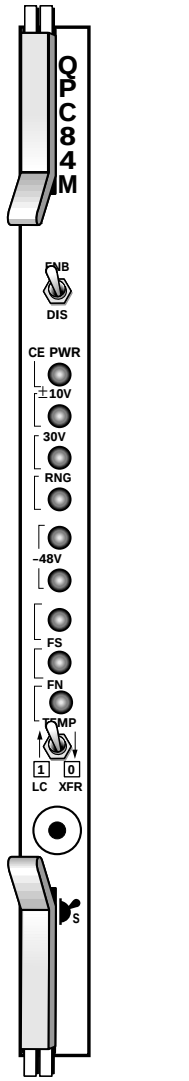
Features

The faceplate includes the following features:

- a +12 volt output meter test connection
- a -12 volt output meter test connection
- a +5 volt output meter test connection
- a -5 volt output meter test connection*
- a ground (earth) meter test connection
- an over voltage reset button

* QPC355 does not provide -5V.

QPC84 — Power Monitor



553-0206T QPC84(PWR)

Purpose

The QPC84 monitors the following system voltages:

- CE power
- ±10V dc
- 30V dc
- ringing generator 86V ac - 20 Hz
- -48V dc in rectifier/PE cabinet
- fuse status
- air flow status (FN)

Function

Use the QPC84P or later version. One QPC84 power monitor is required per cabinet.

The power monitor controls the following:

- major and minor alarm circuits; major via hardware, minor via CPU and software
- emergency transfer
- system reset for Meridian SL-1S, M, MS
- system shutdown due to high temperature

Features

The faceplate includes the following features:

- LED for tolerance indication of voltage levels
- line transfer and system reset
- option switches on the component side of the card allow or defeat certain alarm or transfer conditions

PWR CONT SHELF — Power Control Shelf

Circuit breakers

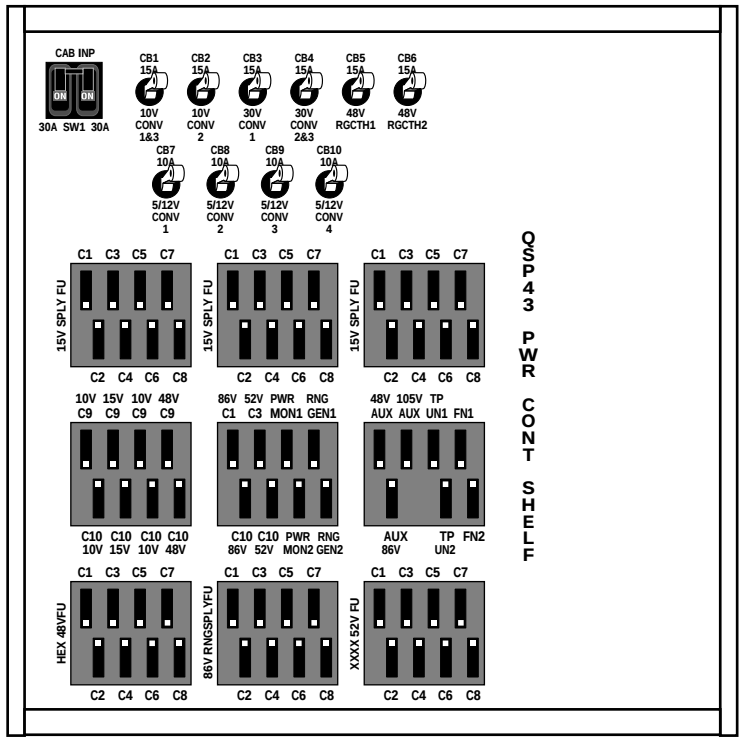
Circuit breakers, located on the rear of the power control shelf, protect the input to the shelf and the cards. The breakers also act as a switch allowing the power to be shut off when changing the power cards.

Fuses

Fuses, arranged in blocks of eight, protect the output of the power cards. The fuses are identified by a “C” and correspond to the power plug label of each peripheral equipment shelf power plug.

Power input

Terminal TB2 is the -48V dc and ground input to the power control shelf. Terminals 1 (blue wire) and 2 (red wire) are for the -48V dc, terminals 3 and 4 (black) are for ground.



553-0207T PCS(PWR)

J10

Jack 10 extends emergency transfer signals, ground and -48V dc, originating from the power monitor card, to the cross-connect field.

J9

Jack 9 provides the power monitor card with access to the processor through the CE shelf connector C12.

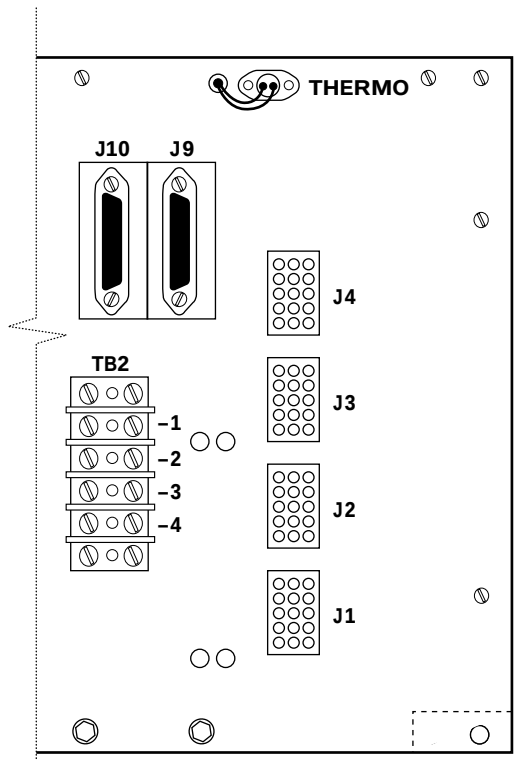
Thermo

The thermo is a sensing device which opens and trips the cabinet input circuit breaker when the temperature rises above 68°C.

J1 J2 J3 J4

These are Jacks which extend the various converter card outputs to the Peripheral Equipment shelves through the “C” power plugs.

.



553-0208T JACKS(PWR)

J2412 (QCA 13) — Power Distribution Plant

The J2412 Power Distribution Plant, commonly known as a QCA13 power cabinet, is actually housed in a QCA13 power cabinet.

Purpose

The J2412 Power Distribution Plant is used to power larger systems, such as Meridian SL-1 XN, XT and Option 71.

Function

A plant may consist of up to three power cabinets. Each power cabinet can contain up to four rectifiers and a control panel. A system can have a total of up to 10 rectifiers connected in parallel.

Features

The J2412A Control Panel houses:

- a control printed circuit card fuse — CONT
- rectifier sense leads fuses — RC1 to RC10
- a volt meter fuse — VM
- a switch for control card removal and/or replacement — ENB, DIS
- a control card disable alarm LED — DIS
- a fuse alarm LED — FA
- an equalize timer switch for auto charging: 1&2 on for 1.25 hr, 1&3 on and 2 off for 2.5 hr, 1&4 on and 3 off for 5 hr
- an equalize alarm showing function — EQL
- an ac failure alarm LED — REC AC
- a rectifier output failure alarm LED — REC FAIL
- voltage test jacks — GRD and -48V
- float adjustment — ADJ LF and HF
- float and voltage alarms LEDs — LF HF LV HV
- voltage adjustment — ADJ LV and HV

-48V Distribution Fuses

The -48 V dc cabinet power distribution fuses, rated at 30 amps, have 1-1/3A QFF fuses as blown 30 amp fuse indicators.

J2357 Rectifier

Purpose

The J2357 Rectifier supplies the -48 V dc power to the QCA13 cabinet.

Function

The input transformer can be arranged to accommodate 240 V ac phase to neutral, 240 V ac line-to-line, 208 V phase-to-phase, 120 V ac line-to-neutral, 120 V ac phase-to-neutral, at 50 or 60 Hz.

The line alternating current is applied through a double-poll-single-throw circuit breaker.

Output is -48 V dc, with a range from -44 V to -60 V, at 55 amps. Output rectifier circuit breakers, CB1 to CB4, are rated at 70 amps.

Features

The J2412A Control Panel houses:

- a double-poll-single-throw circuit breaker
- output rectifier circuit breakers, CB1 to CB4
- a 1-1/3 amp to protect the control circuitry
- test jacks to measure output voltage
- a meter showing discharge current
- a LED indicating rectifier failure

Meridian SL-1ST power apparatus

The Meridian SL-1ST operates on -48V dc, which comes from commercial power through a rectifier and draws the following in various configurations:

- base model — 10 amps at 110 V ac
- 2-tier model — 9 amps at 220 V ac
- 3-tier model — 12 amps at 220 V ac

The rectifier and power unit are located in the cabinet base. The power unit supplies the voltages required by the circuit cards located on the CE shelf and the lower PE shelf. The power unit also provides ringing voltage for 500 and 2500 sets in all 3 tiers of the cabinet.

In the second and third tiers, each PE shelf has its own power converter which supplies those PE shelves with all the voltages required by the circuit packs.

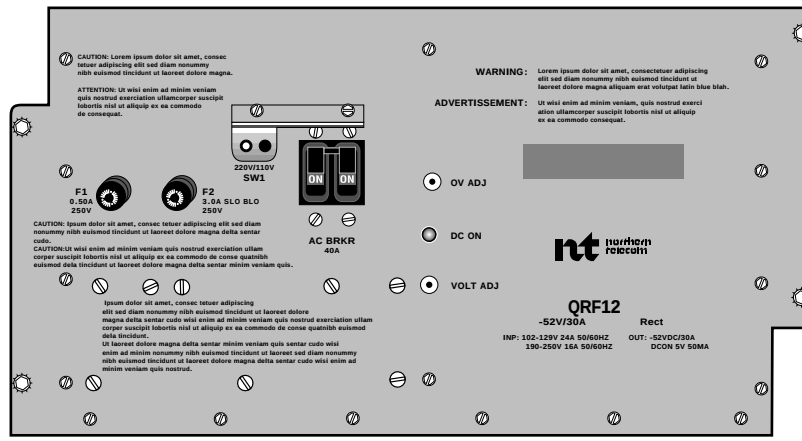
The Meridian SL-1ST/STE power apparatus consists of the following:

- QRF12 rectifier
- QUX19 power distribution unit
- QUX20 power distribution unit
- QUAA3 power unit
- QPC703 power supply
- QPC704 power monitor
- 30/150 volt converter
- QPC706 power converter
- MFA 150 power system
- MPP600 Modular power plant

QRF12 — Rectifier

Purpose

The QRF 12 Rectifier is provides power for the Meridian SL-1 ST, STE, Option 21, 51, 51C, 61, and 61C.



553-0209T QRF12(PWR)

Function

The QRF12 rectifies 50 or 60 Hz alternating current of 117 V, 208 V or 220 V to unregulated -48V dc. The rectifier has the ability to trickle-charge system batteries, if so equipped.

Features

The QRF12 Rectifier has the following features:

- a clamped 220volt/110volt switch
- a ganged 40 amp input circuit breaker
- fuse F1 and F2
- a 0 voltage adjust potentiometer
- a float voltage adjust potentiometer
- a DC on LED

QUX19 — Power Distribution Unit

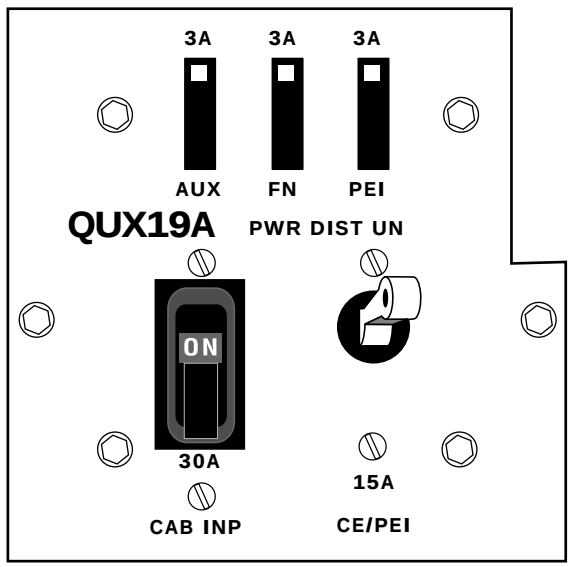
Purpose

The Power Distribution unit distributes the -48V dc supplied by the rectifier to the CE shelf and the first PE shelf.

Features

The faceplate includes the following features:

- main circuit breaker
- CE/PE circuit breakers
- fuses for auxiliary equipment
- fan for third tier only
- PE shelf fuse



553-0210T QUX19A(PWR)

QUX20 — Power Distribution Unit

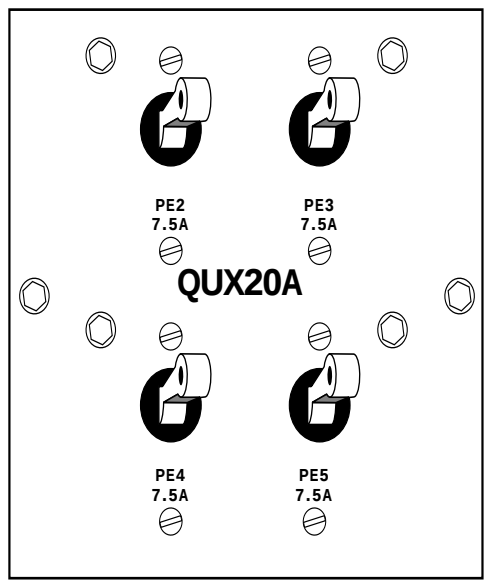
Purpose

The QUX20 distributes the -48V dc supplied by the rectifier to the PE shelves located in the second and third tiers.

Features

The faceplate includes the following features:

One circuit breaker for each PE shelf.



553-0211T QUX20A(PWR)

QUAA3A PWR UN — Power Unit

Purpose

The QUAA3A power unit supplies -48V dc and ringing voltage for the system.

Features

The QUAA3A supplies -48V dc via the QUX20 to the power converters in the second and third tier PE shelves.

The QUAA3A power unit regulates the -48V dc used by the CE and first-tier PE.

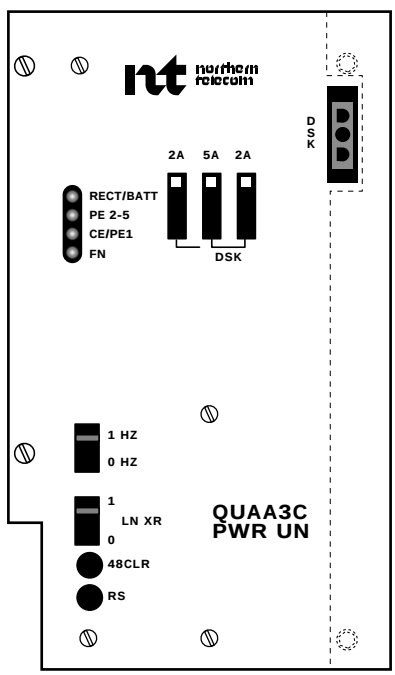
The power unit provides ringing voltage for the system.

The QUAA3A Power Unit, located to the left of the power shelf in the base unit, contains two printed circuit packs:

- QPC 703 Power Supply which provides voltages used by the CE and first-tier PE
- QPC 704 Power Monitor

Features

- ring generator fuse
- disk drive fuses
- power connector for disk drive



553-0212T QUAA3A(PWR)

QPC703 — Power Supply

Purpose

QPC 703 Power Supply which provides voltages used by the CE and first-tier PE

Function

The QPC703 is a dc to dc converter. It converts -48 volts dc to +5 volts, ± 10 volts and ±12 volts, for r the CE, PE and floppy disk drives.

The QPC703 is located within the QUAA3 Power Unit as a printed circuit card.

Features

The QPC703 does not show features as it is part of the QUAA3.

QPC704 — Power Monitor

Purpose

The QPC704 Power Monitor, is located in the QUAA3 Power Unit and monitors the following:

- system voltages
- fusing
- power faults
- temperature
- fan

Function

The power monitor provides the following:

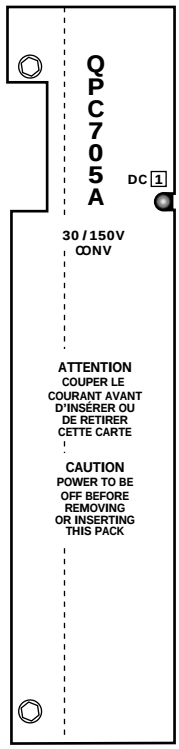
- PE1 line transfer when any fault which will impede normal call processing is detected
- line transfer upon request of the processor
- generate a reset for the common equipment, on power-up
- regulate -48 V dc used by Peripheral Equipment first-tier (PE1)

Features

The faceplate includes the following features:

- rectifier on LED
- PE shelf 2 to 5 power on LED
- CE/PE shelf 1 power on LED
- fan on LED
- 25/20 ringing voltage selection switch
- line transfer switch
- -48 V dc reset button for PE shelf 1
- reset button

30/150V CONV — Converter



553-0213T 30/150V
(PWR)

The QPC705 30/150V is used only in conjunction with telephones terminated on PE shelf one of the first tier.

Purpose

Converts -48 V dc to:

- ±15 V dc supply for Meridian 1 proprietary telephones
- -150 V dc supply for message waiting feature of the 2500 type telephones

Features

The faceplate includes the following features:

A LED when lit, indicates that the converter is functioning.

QPC706 — PE Power Converter

Purpose

The QPC706 provides power for the PE cards on the second and third-tier.

Function

The QPC706 Power converter is supplied -48 V through the QUX20 power distribution and converts that voltage to the following:

- +6 V dc
- ±10 V dc
- ±15 V dc
- -150 V dc
- -48 V dc regulated

The QPC706 provides a line transfer signal to the power monitor if the +6 V, ±10 V, or the -48 V fails, and provides a fault indication to the power monitor if a power fault is present on the PE shelf.

Features

The faceplate includes the following features:

A LED when lit, indicates that the converter is functioning.

Option 51/61/71/81 power apparatus

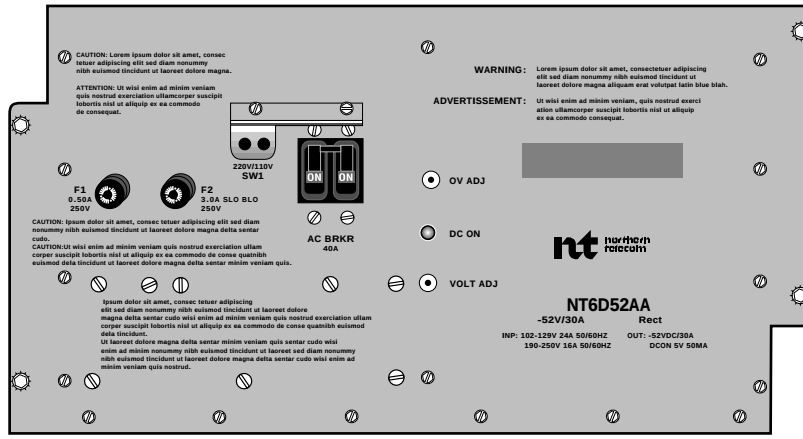
The Option 51/51C/61/61C/71/81/81C power apparatus consists of the following:

- NT6D52 switched mode rectifier
- NT5C03 switched mode rectifier
- CPE power supply, AC or DC version
- CE power supply, AC or DC version
- PE power supply, AC or DC version
- Ringing generator, AC or DC version
- NT8D22 system monitor
- MFA 150 power system
- MPP 600 modular power plant
- System 600/48 DC power system

NT6D52AA — Switched Mode Rectifier

Purpose

The NT6D52AA switched mode rectifier -48V/30A is used with the direct current version of Options 21 and 61.



553-0214T NT6D52AA(PWR)

Function

The NT6D52AA rectifies 50 or 60 Hz alternating current of 117 V, 208 V or 220 V to unregulated -48V dc. The rectifier has the ability to trickle-charge system batteries, if so equipped.

Features

The NT6D52AA Rectifier has the following features:

- a clamped 220volt/110volt switch
- a ganged 40 amp input circuit breaker
- fuse F1 and F2
- a 0 voltage adjust potentiometer
- a float voltage adjust potentiometer
- a DC on LED

NT5C03BJ — Switched Mode Rectifier

The NT5C03BJ Switched mode rectifier -48V/50A is used with Option 71 and 81 D.C. version.

Purpose

The NT5C03BJ Switched mode rectifier supplies the -48 V dc power to the QCA13 cabinet for Option 71 and 81.

Function

The input transformer can be arranged to accommodate 240 V ac phase to neutral, 240 V ac line-to-line, 208 V phase-to-phase, 120 V ac line-to-neutral, 120 V ac phase-to-neutral, at 50 or 60 Hz.

The line alternating current is applied through a double-poll-single-throw circuit breaker.

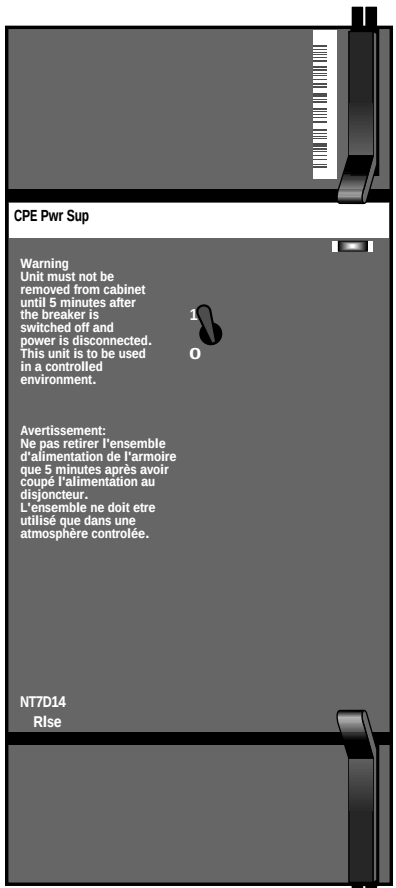
Output is -48 V dc, with a range from -44 V to -60 V, at 55 amps. Output rectifier circuit breakers, CB1 to CB4, are rated at 70 amps.

Features

The NT5C03BJ Control Panel houses:

- a double-poll-single-throw circuit breaker
- output rectifier circuit breakers, CB1 to CB4
- a 1-1/3 amp to protect the control circuitry
- test jacks to measure output voltage
- a meter showing discharge current
- a LED indicating rectifier failure

CPE Pwr Sup AC — Power Supply



553-0215T NTD14AA(PWR)

Purpose

The NT7D14AA CE/PE Power supply AC is used with Option 21.

Function

The Common, and Peripheral Equipment Power Supply ac rectifies 208 or
240 V ac to +5 V, +8.5 V, +15 V, +12 V, -48 V, and -150 V dc voltages used to power peripheral and common equipment, supply talk battery, and light Message Waiting Lamps on 500 or 2500 telephones. It provides 10 sources of selectable ac ringing voltage outputs superimposed on -48 V dc. The frequency and voltage options are 20 or 25 or 50 Hz and 70 or 75 or 80 or 86 V ac. It is located to the left of the module, in the slot labeled “CE/PE Pwr Sup”.

One (CE/PE) Power Supply ac is used in each of the following ac modules:

- Common Peripheral Equipment Module — NT8D11AC
- Remote Peripheral Equipment Module — NT8D47AA

Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- a circuit breaker

CPE Pwr Sup DC — Power Supply

Purpose

The NT6D43AA CE/PE Power supply DC is used with Option 21.

Function

The (CE/PE) Power Supply dc converts -48 V dc to +5 V, +8.5 V, +15 V, +12 V, -48 V, and -150 V dc voltages used to power peripheral and common equipment, supply talk battery, and light Message Waiting Lamps on 500 or 2500 telephones. It provides 10 sources of selectable ac ringing voltage outputs superimposed on -48 V dc. The frequency and voltage options are 20 or 25 or 50 Hz and 70 or 75 or 80 or 86 V ac. It is located to the left of the module, in the slot labeled "CE/PE Pwr Sup".

One (CE/PE) Power Supply dc is used in each of the following dc modules:

- Common, Peripheral Equipment Module — NT8D11DC
- Remote Peripheral Equipment Module — NT8D47DC

Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- an on/off toggle switch

Common Equipment Power Supply (DC)

553-0216T NT6D41AA
(PWR)

Purpose

The NT6D41AA Common Equipment power supply DC is used with System Options 61 and 71.

Function

The Common Equipment Power Supply dc is used in the common equipment modules in dc systems. It is located in the first slot on the left in the module labeled “CE Pwr Sup”. It converts -48 V dc to + 5 V dc and + 12 V dc to provide all the required voltages for CE and network circuit cards.

One Common Equipment Power Supply dc is used in each of the following dc modules:

- CPU Module — NT8D34DC
- Network Module — NT8D35DC
- CPU/Network Module — NT6D39DC

Two Common Equipment Power Supply dc cards are used in the NT6D44DC Meridian Mail Module.

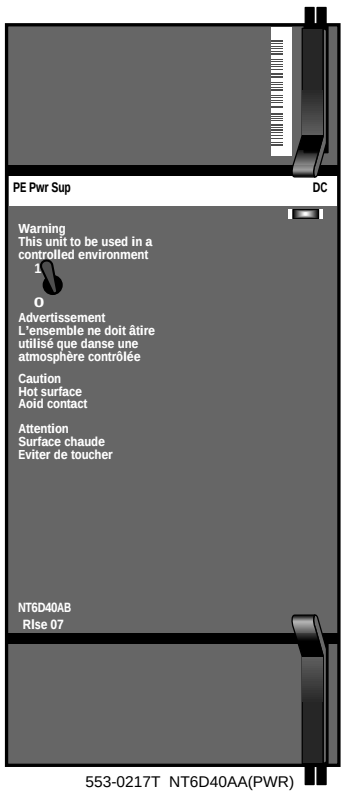
Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- an on/off toggle switch*

* use the vintage AD and later as vintage AB toggle switch did not always restore power unless the switch was turned off and on several times.

Peripheral Equipment Power Supply (DC)



553-0217T NT6D40AA(PWR)

Purpose

The NT6D40AA Peripheral Equipment power supply DC is used with all systems.

Function

The Peripheral Equipment Power Supply dc is used to provide power to all peripheral equipment modules in dc systems. It converts -48 V dc to + 5 V dc, + 8.5 V dc, + 10 V dc, + 15 V dc and -48V dc voltages used to power peripheral equipment logic cards and to supply talk battery to lines and trunks. This power supply is located in the far left hand card slot labeled “PE Pwr Sup”.

One Peripheral Equipment Power Supply dc is used in each of the following dc modules:

- Intelligent Peripheral Equipment Module — NT8D37DC
- Peripheral Equipment Module — NT8D13DC

Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- an on/off toggle switch*

* use the vintage AD and later as vintage AB toggle switch did not always restore power unless the switch was turned off and on several times

Peripheral Equipment Power Supply (AC)

Purpose

The NT8D06AA Peripheral Equipment power supply AC is used with all systems.

Function

The Peripheral Equipment Power Supply ac is used to provide power to all peripheral equipment modules in ac systems. It converts 208 and 240 V ac to + 5 V dc, + 8.5 V dc, + 10 V dc, + 15 V dc and -48V dc voltages used to power peripheral equipment logic cards and to supply talk battery to lines and trunks. This power supply is located in the far left-hard card slot labeled “PE Pwr Sup”.

One Peripheral Equipment Power Supply ac is used in each of the following ac modules:

- Intelligent Peripheral Equipment Module —NT8D37AA
- Peripheral Equipment Module —NT8D13AA

Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- a circuit breaker

Rng Gen DC — Ringing Generator

553-0218T NT6D42C (PWR)

Purpose

The NT6D42C Ringing Generator DC is used with all systems.

Function

The Ringing Generator dc operates from a nominal -48 V dc input and provides 16 sources* of selectable ac ringing voltage outputs superimposed on -48 V dc. The frequency and voltage options are 20 or 25 or 50 Hz and 70 or 75 or 80 or 86 V ac. It also supplies -120 or 150 V dc Message Waiting lamp 500 and 2500 telephone applications. The Ringing Generator dc mounts in the PE modules to the right of the Peripheral Equipment Power Supply dc.

One Ringing Generator dc is used in each of the following, when these dc modules support 500 and 2500-type analog sets:

- Intelligent Peripheral Equipment Module — NT8D37DC
- Peripheral Equipment Module — NT8D13DC

Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- an on/off toggle switch

Rng Gen AC — Ringing Generator

Purpose

The NT8D21AA Ringing Generator AC is used with all systems.

Function

The Ringing Generator ac, operates from a nominal 208 or 240 V ac input and provides 16 sources* of selectable ac ringing voltage outputs, which are superimposed on -48 V dc. The frequency and voltage options are 20 or 25 or 50 Hz and 70 or 80 or 86 V ac. It supplies -150 V dc to Message Waiting Lamp 500 and 2500 telephone applications. The Ringing Generator AC is located in the PE modules to the right of the Peripheral Equipment Power Supply.

One Ringing Generator AC is used in each of the following, when these AC Modules support 500 or 2500 type analog telephones:

- Intelligent Peripheral Equipment Module — NT8D37AA
- Peripheral Equipment Module — NT8D13AA

Note: * Release 15 software provides eight sources.

Features

The faceplate includes the following features:

- a LED when lit, indicates that the converter is functioning
- a circuit breaker

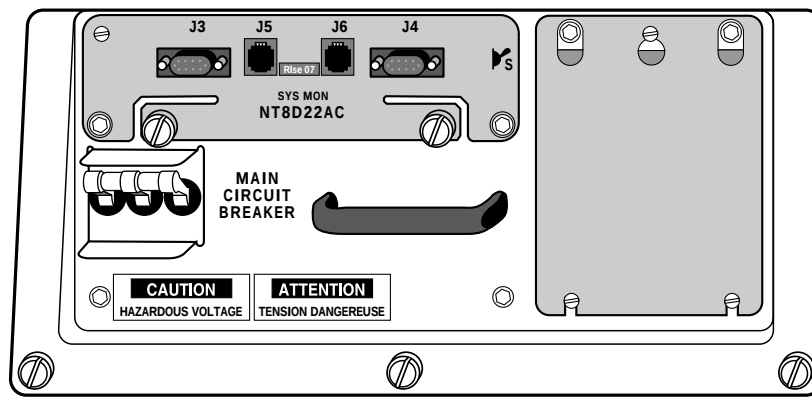
NT8D22 SYS MON — System Monitor

The NT8D22AB System Monitor is used on all systems.

One System Monitor (SM) is mounted in the Power Distribution Unit, which is located at the rear of the pedestal of each UEM column.

The SM reports the status of power related hardware for its column on all active input/output data terminals or TTYs.

One master and up to 63 slave System Monitors are allowed per system.



553-0219T NT8D22AB(PWR)

NT8D22AB System Monitor (continued)

The SM located in the column containing the CPU is the master SM, and the SMs located in the other columns are slaves.

Purpose

The master SM will poll the slave SMs and will report the status of power related hardware to the CPU on the following:

- column thermal status
- power supplies
- fan operation
- power fail transfer
- Uninterrupted Power Supply (UPS) for AC Option 21 only
- circuit breakers and LEDs

A ribbon cable coming from the master SM backplane connector is plugged into a RS232C port on a Serial Data Interface (SDI) card. The SDI card passes the SM status report on to the CPU which results in the CPU sending a Power and System Monitor (PWR) message to the maintenance terminals.

Features

The SM contains DIP switches allowing a SM to be programmed for:

- master SM or slave SM
- use in hybrid systems (UEM and SL-1 cabinets) or non-hybrid systems (all UEM)
- the number of slave units installed
- master SM identity (0) and slave identity (1-63)

Faceplate

The Faceplate contains the following jacks:

- J3, which extends an alarm cable to the MDF, providing emergency transfer signals to the cross-connect field
- J5, which extends the daisy chain connection from J6 of the previous SM (not connected on the Master SM)
- J6, which extends the daisy chain connection to J5 of the next SM
- J4, which extends to the UPS or DC distribution box

MFA 150 power system

Purpose

The NT5C90 Modular Front Access (MFA 150) power system is a 4 ft. x 23 in. rack mounted -48VDC power plant, with a capacity of up to 150 Amps.

Function

The MFA 150 system uses up to six switched mode Modular Power Rectifiers (MPR 25), each providing up to a 25 Amp output. MPRs can be added without a power system shutdown.

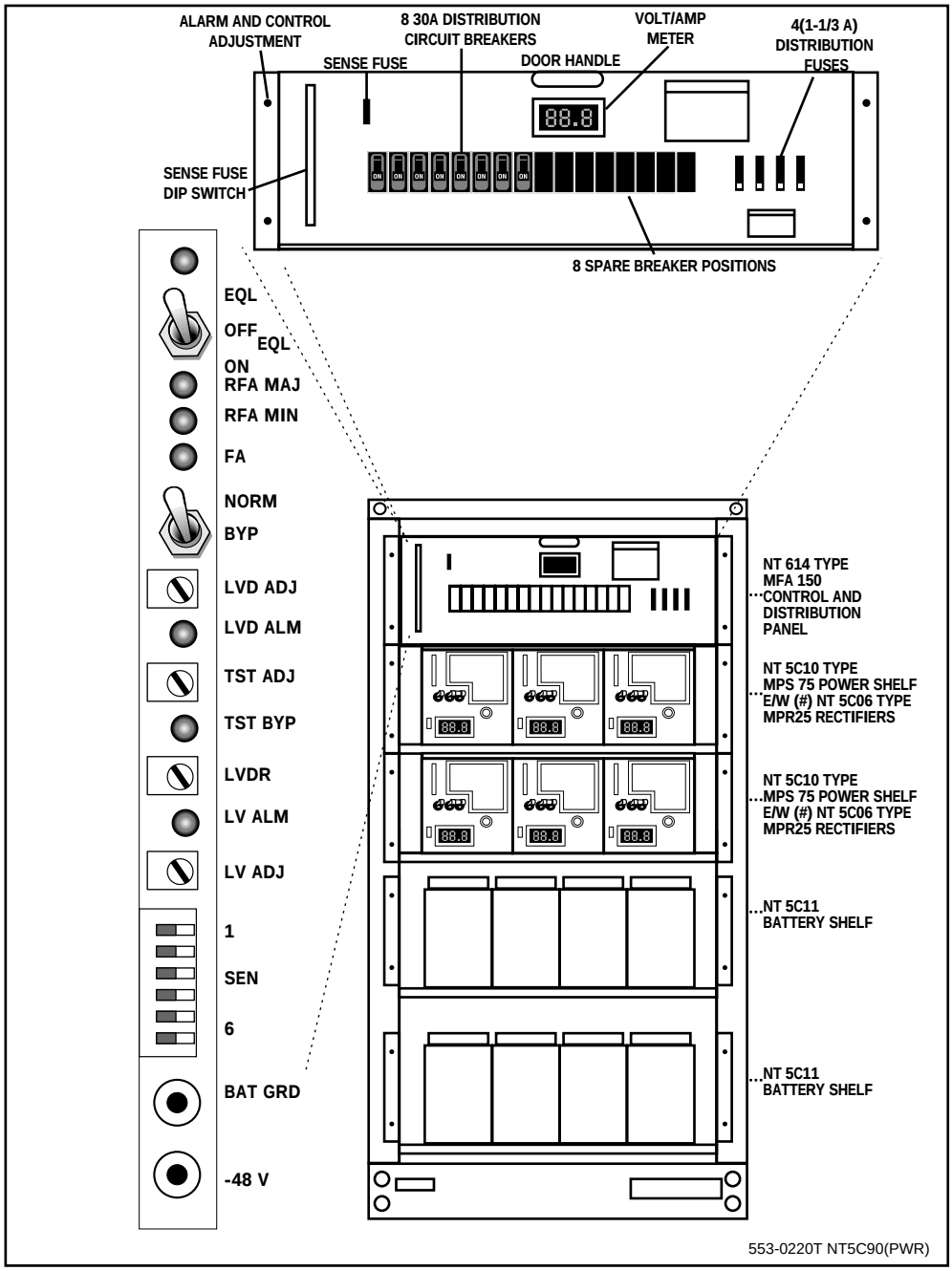
Input voltages range from 176 to 264 VAC, at 47 to 63 Hz.

The power system can operate with or without batteries. It can use external batteries or can be equipped with two optional rack- mounted battery trays.

The MFA 150 system will interface to the master system monitor to provide, at the maintenance terminal, low voltage, fuse, breaker, and rectifier failure alarms.

A Low Voltage Disconnect relay contactor removes the DC from the load circuit breakers before the batteries become exhausted.

Refer to graphic on next page.


ALARM AND CONTROL ADJUSTMENT
8 30A DISTRIBUTION CIRCUIT BREAKERS
VOLT/AMP METER
4(1-1/3 A) DISTRIBUTION FUSES
SENSE FUSE
DOOR HANDLE
SENSE FUSE DIP SWITCH
8 SPARE BREAKER POSITIONS
EQL
OFF
EQL
ON
RFA MAJ
RFA MIN
FA
NORM
BYP
LVD ADJ
LVD ALM
TST ADJ
TST BYP
LVDR
LV ALM
LV ADJ
1
SEN
6
BAT GRD
-48 V
NT 614 TYPE MFA 150 CONTROL AND DISTRIBUTION PANEL
NT 5C10 TYPE MPS 75 POWER SHELF E/W (#) NT 5C06 TYPE MPR25 RECTIFIERS
NT 5C10 TYPE MPS 75 POWER SHELF E/W (#) NT 5C06 TYPE MPR25 RECTIFIERS
NT 5C11 BATTERY SHELF
NT 5C11 BATTERY SHELF
553-0220T NT5C90(PWR)

Features

The NT6C14 Control and Distribution Panel has the following features:

- positive, negative, and battery bus bars, which are accessible from the top
  - up to sixteen 30 Amp load circuit breakers
  - sense fuse
  - volt/amp meter
  - four -48V auxiliary output fuses — QFF fuses from.25 A to 5 A
  - alarm indicators and adjustment strip, top to bottom, as follows:
  - equalize LED, indicating that the equalize switch is on
- equalize switch, which raises the voltage by 7 VDC* to equalize the charge on all battery cells
- rectifier failure alarm major where a LED indicates two or more MPR failures**
- rectifier failure alarm minor where a LED indicates a single MPR failure**
- fuse alarm LED which indicates a tripped circuit breaker or a blown fuse**
- normal/bypass switch, which bypasses the low voltage disconnect contactor allowing adjustment of low voltage limits
- low voltage disconnect adjustment potentiometer, which sets the contactor disconnect voltage at -43.5 VDC*
- low voltage disconnect alarm LED, which indicates when DC is removed from the load circuit breakers**
- test adjustment potentiometer, which allows the DC voltage to be raised and lowered to test the threshold settings
- test bypass alarm LED, which lights when the test switch is in the test mode

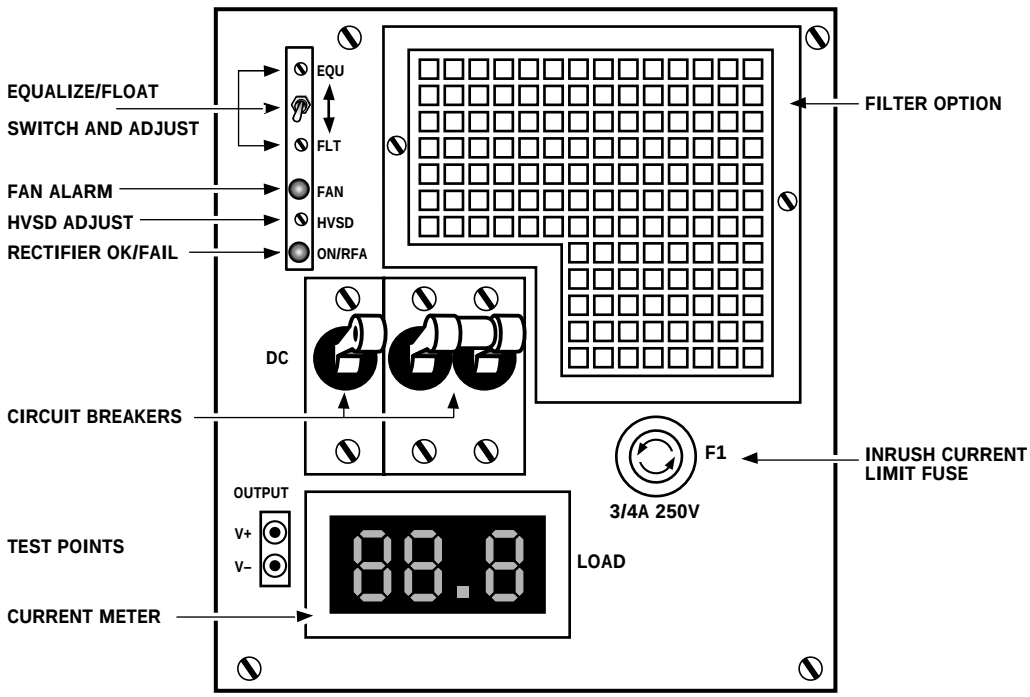
- low voltage disconnect reset adjustment potentiometer, which sets contactor reset, returning DC voltage to the circuit breakers at -50 to -50.5 VDC*
- low voltage alarm LED, which lights when the voltage is below limit
- low voltage adjustment potentiometer, which sets the low voltage limit to -43 VDC*
- sense DIP switches which allow the load to be disconnected individually from the six MPR rectifiers to facilitate their adjustment
- voltage test points

* Factory settings
** Transmits a failure alarm to maintenance TTY

MPR25 Modular Power Rectifier

The NT5C06 contains the following:

- alarm indicators and adjustment strip, top to bottom, as follows:
  - equalize adjustment potentiometer, which sets voltage.7 VDC* higher than the float voltage
  - equalize switch, which allows adjustment of the float voltage
  - float adjustment potentiometer, which sets the float voltage at -54 VDC*
  - fan alarm LED, which lights when air flow through the MPR25 stops**
  - high voltage shut down adjustment potentiometer, which sets the high voltage shut down level at -56.5 VDC*, due to an MPR25 internal fault**



553-0221T NT5C06(PWR)

- on/rectifier failure alarm LED. When the LED is green the MPR25 is operating normally. When the LED is red the MPR25 has failed.**
  - DC circuit breaker that controls DC output from MPR25**
  - AC circuit breaker that controls input AC to MPR25**
  - voltage test points, with protection from short circuit at test points
  - three digit output current meter, that shows the load on the MPR25
  - in rush current limit fuse, that protects the input circuitry against an MPR25 internal short circuit**

* Factory settings
** Transmits a failure alarm to maintenance TTY

MPP 600 Power Plant

Purpose

The MPP 600 Power Plant is a -48V dc power plant, with a capacity of up to 600 amps.

Function

The MMP 600 is a modular power distribution and control system. The system uses up to 12 NT5C07 MPR50 plug-in rectifiers to provide 600 amps in 50 amp increments.

One system can consist of one or two cabinets, with each cabinet providing up to 300 amps.

The system contains a NT6C14PF Control Board and a NT6C14PG Meter Control Board.

MPR50 Modular Power Rectifier

Each MPR50 switched mode plug-in rectifier requires one 20 amp feed of single-phase 50/60 Hz., from 208V to 240V ac input.

System 600/48 DC power

Purpose

The System 600/48 DC is a front access power plant that provides -48V dc power plant, with a capacity of up to 600 amps. The System 600/48 would be typically power large systems such as the Option 61C or 81C.

Function

The power system consists of up to two cabinets, a Main cabinet and a Supplemental cabinet, with each cabinet supplying up to 300 amps.

The System 600/48 allows the replacement of MPR50 rectifiers, Control Board and the addition of the Supplemental cabinet while under power.

The System 600/48 can provide a Major Alarm trigger to the XSM for the following events:

- High voltage shut down (HVSD)
- High voltage (HV)
- Battery on discharge (BOD)
- Low voltage (LV)
- Low voltage disconnect (LVD)
- Alarm bus supply (ABSF)
- Internal fuse alarm (INT FA)
- Multiple rectifier fail alarm (RFA)

How the PWR works

The system monitor has built in diagnostics that can output PWR messages indicating power and temperature status or failures.

PWR Message format

The output format for all PWR messages is:

PWRxxxx hw sm uem u

where,
hw = hardware type, possible values are:

CRBK = Circuit Breaker
DCSP = DC power supply
FANU = Fan Unit
PFTC = Power Fail Transfer Card
PWSP = Power Supply including the ringing generator
THSW = Thermal Switch
UPSA = Uninterruptible Power Supply Alarm
XSMC = System Monitor Card

Note: Only DCSP failures can cause an entire IPE module not to function or the ringing generator on an indicated module not to function.

sm = System Monitor (0-63), 0 = the master System Monitor

uem = Universal Equipment Module, possible values are:

0 = bottom UEM or not applicable
1 = second UEM
2 = third UEM
3 = top UEM

u = power unit number, possible values are:

0 = not applicable
1 = power unit 1
2 = power unit 2

PWR Message example

PWR0018 DCSP 4 1 2

PWR messages

PWR0000 hw sm uem u

System monitor or power supply is OK.

ACTION: Information only, no action required.

PWR0001 hw sm uem u

There is a partial failure on the power supply.

ACTION: Replace the indicated power supply, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0002 hw sm uem u

There is a complete failure on the power supply.

ACTION: Replace the indicated power supply, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0003 hw sm uem u

The power supply is not installed or has been removed.

ACTION: Install the power supply if applicable or replace the indicated power supply, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0004 hw sm uem u

A circuit breaker has tripped and the system has overheated.

ACTION: Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0005 hw sm uem u

One or more fans has failed in the blower unit.

> ***Note:*** This message occurs when the NT7D17AC or NT7D17DC fan shelf in the Option 21 systems is turned on. This is not an error condition if PWR0005 is followed by PWR0046 (sensor alarm cleared) and PWR0045 (fan functioning).

ACTION: Replace the blower unit, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0006

Blower air probe temperature sensor alarm. This indicates one of the following:

1. Blower air probe temperature sensor has reached 55 degrees C (131 degrees F).

ACTION: Check for a clogged air filter. If a dirty air filter is not damaged, you can clean it with warm water and mild detergent. Do not use compressed air as it may damage the filter. When the filter is completely dry, you can reinsert it in the pedestal. Investigate whether you need to clean the filters more often than the recommended frequency of once a month.

Check the ambient air temperature and if the room is uncomfortably hot, then ventilate or air condition the room. If the ventilation or the air conditioner is faulty, repair or replace them.

2. Blower unit has lost power.

ACTION: Replace the blower unit by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

3. Blower unit air probe temperature sensor is faulty or disconnected.

ACTION: Replace or reconnect the temperature sensor by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0007

Column temperature has reached 70 degrees C (158 degrees F). If the blower has reached 55 degrees C (PWR0006 message), then the circuit breaker will trip in 30 seconds.

ACTION: Pay closer attention to the actions of PWR0006, but hurry.

PWR0010 hw

For PWR010 UPSA: Uninterruptible Power Supply (UPS) alarm condition.

The meaning depends on the UPS manufacturer.

1. Alpha UPS, Best Inc. UPS and Lorain UPS — inverter is ON.

ACTION: Information only, no action required.

2. Exide UPS — AC power failed.

ACTION: Information only and no action required, unless you want to ask your commercial power supplier when they will restore the AC power.

3. For PWR010 DCSP: DC trip alarm is ON; circuit breaker has tripped.

ACTION: Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0012 hw

For PWR012 UPSA: Uninterruptible Power Supply (UPS) Summary alarm (condition 2).

1. The meaning depends on the UPS manufacturer.

Best Inc. UPS — Summary alarm is ON.

ACTION: Follow Best Inc. fault clearing manual's instructions.

Loraine UPS— bypass is ON.

ACTION: Follow Loraine fault clearing manual's instructions.

Exide UPS — bypass is ON.

ACTION: Follow Exide fault clearing manual's instructions.

Alpha UPS — low battery.

ACTION: Follow Alpha fault clearing manual's instructions.

2. For PWR012 DCSP: DC alarm is ON.

ACTION: Check the DC power supply indicated. Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0013 hw sm uem u

Slave System Monitor is not responding.

ACTION: Check the serial link cable or replace the System Monitor, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0014 hw sm uem u

System Monitor failed self-test.

ACTION: Replace the System Monitor, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0015

SL-1 NT, RT, ST or XT cabinet has a power problem.

ACTION: For the RT and ST, check the rectifier and power unit at the bottom of the cabinet for any green LEDs not lit, fuses blown, or circuit breakers tripped and investigate the cause. Replace the component that caused the power problem, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

ACTION: For the NT, check the power monitor card for a red LED lit, fuses blown, or circuit breakers tripped and investigate the cause. Replace the component that caused the power problem, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

ACTION: For the XT, check the Control Panel in the QCA 13 cabinet for a red LED lit, fuses blown, or circuit breakers tripped and investigate the cause. Replace the component that caused the power problem, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0016 hw

Power fail transfer has been activated.

ACTION: Information only and no action required, however you should look for a message indicating what caused this message.

PWR0017 hw sm uem u

DCON 0 alarm is ON.

ACTION: Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0018 hw sm uem u

DCON 1 alarm is ON.

ACTION: Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0019 hw sm uem u

DCON 2 alarm is ON.

ACTION: Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0020 hw sm uem u

DCON 3 alarm is ON.

ACTION: Investigate the cause of tripped circuit breaker. Replace the component that caused the circuit breaker to trip, by following the steps in the *Hardware replacement* guide and verify that the fault is cleared.

PWR0044 hw sm uem u

Circuit breaker had been reset.

ACTION: Information only, no action required.

PWR0045

Fan unit repaired.

ACTION: Information only, no action required.

PWR0046

Blower unit air probe temperature sensor is now less than 55 degrees C (131 degrees F).

ACTION: Information only, no action required. If you were not involved with lowering the temperature, you should investigate why the temperature is falling.

PWR0047

Column temperature now less than 70 degrees C (158 degrees F). Circuit breaker trip signal is released.

ACTION: Information only, no action required. If you were not involved with lowering the temperature, you should investigate why the temperature is falling.

PWR0050 hw

For PWR050 UPSA: Uninterruptible Power Supply (UPS) alarm condition 1 has been cleared. For PWR050 DCSP: DC trip alarm is OFF (circuit breaker has been reset).

ACTION: Information only, no action required.

PWR0052 hw

For PWR052 UPSA: Uninterruptible Power Supply (UPS) alarm condition 2 has been cleared.

ACTION: Information only, no action required.

PWR0053 hw sm uem u

Slave System Monitor is now responding.

ACTION: Information only, no action required.

PWR0054

System Monitor passed self test.

ACTION: Information only, no action required.

PWR0055

SL-1 NT, RT, ST or XT cabinet alarm condition has been cleared.

ACTION: Information only, no action required.

PWR0056 hw sm uem u

Power fail transfer deactivated.

ACTION: Information only, no action required.

PWR0057 hw sm uem u

DCON 0 alarm has been cleared.

ACTION: Information only, no action required.

PWR0058 hw sm uem u

DCON 1 alarm has been cleared.

ACTION: Information only, no action required.

PWR0059 hw sm uem u

DCON 2 alarm has been cleared.

ACTION: Information only, no action required.

PWR0060 hw sm uem u

DCON 3 alarm has been cleared.

ACTION: Information only, no action required.

RCV — Recovery Messages

Recovery Messages is a resident program. RCV does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

How RCV works

An auto-recovery mechanism will prevent an initialize caused by a broken queue software error.

If the software error can be resolved, an RCV message is printed on the maintenance TTY.

If the software error cannot be resolved, an INI fault code 000C is printed on the maintenance TTY.

If multiple RCV messages are received, an INI fault code 000C is printed identifying the software errors. However, the initialize is delayed until after the midnight routines to prevent call processing interruptions.

Before X11 Release 19.30, the INI fault code 000C also identified errors different from those identified in RCV messages. With Release 19.30 and later, the INI fault code 001D identifies errors that the auto-recovery mechanism cannot prevent.

RCV messages

RCV0000

An invalid queue block type was found. The auto-recovery mechanism has taken appropriate action to avert INI000 000C.

ACTION: Contact your technical support group if you receive multiple RCV messages within a 24-hour period.

RCV0001

Invalid queue information was found. The auto-recovery mechanism has taken appropriate action to avert INI000 000C.

ACTION: Contact your technical support group if you receive multiple RCV messages within a 24-hour period.

RCV0002

A broken queue problem was detected. The auto-recovery mechanism has taken appropriate action to avert INI000 000C.

ACTION: Contact your technical support group if you receive multiple RCV messages within a 24-hour period.

RCV0003

Invalid information was found in the queue header block. The auto-recovery mechanism has taken appropriate action to avert INI000 000C.

ACTION: Contact your technical support group if you receive multiple RCV messages within a 24-hour period.

RPD — LD 33 1.5Mb/s RPE Diagnostic

This is a North American feature only.

For messages and destriptions refer to the administration input/output guide.

Refer to Remote Peripheral Equipment, Northern Telecom Publications for details.

RPE — LD 53 2.0 Mb/s Remote

This feature is not applicable to North America.

For messages and descriptions refer to the *maintenance input/output guide*.

Refer to Remote Peripheral Equipment Northern Telecom Publications for details.

RPL — LD 62 1.5 Remote Peripheral

This is a North American feature only.

For messages and descriptions refer to the *maintenance input/output guide*.

Refer to Remote Peripheral Equipment, Northern Telecom Publications for details.

RPM — LD 53 2.0 Mb/s Remote

This feature is not applicable to North America.

For messages and descriptions refer to the *maintenance input/output guide*.

Refer to Remote Peripheral Equipment Northern Telecom Publications for details.

RPT — System Reporting

System Reporting is a resident program. RPT does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

RPT messages

Back-filling messages with zeros

The numerical portion of the following messages is depicted by three or four digits. For example, the same message can be represented by xxx0008 or xxx008.

RPT001 Begin suppression of <filename>.
ACTION: Information only. No action required.

RPT002 End suppression of <file name>.
ACTION: Information only. No action required.

RPT003 Unknown report (not in database). category x, report y.
See categories listed below:
3 = TTY

4 = COID

5 = SCSI

6 = DBMT

7 = DLO

8 = OSM

9 = SRPT

10 = BUG

11 = BERR

12 = CNI

13 = HWI

14 = BIC

15 = CCED

16 = CMON

17 = PCH

18 = IOD

19 = OVL

ACTION: Check the database and re-enter the command.

RPT004 x reports missing in log just before x.

ACTION: Check the command. If the problem persists, contact your technical support group.

SCSI — Small Computer System

How the SCSI works

Small Computer System Interface is a resident program. SCSI does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

Small Computer System Interface (SCSI) messages appear when problems are encountered relating to the SCSI low level software.

SCSI messages

SCSI001 Unable to initialize Interrupts for SCSI.
ACTION: Contact your technical support group.

SCSI002 Unable to initialize floppy drive x.
ACTION: Contact your technical support group.

SCSI003 Unable to initialize SCSI controller on IOP.
ACTION: Be sure IOP is in place and enabled.

SCSI004 File system initialization failed for floppy x.
ACTION: Contact your technical support group.

SCSI006 Floppy Disk INIT: Block device INIT failed for CMDU x.
ACTION: Contact your technical support group.

SCSI008 Floppy Disk: Unknown floppy controller in CMDU x not supported.
ACTION: Contact your technical support group.

SCSI009 Hard disk in CMDU x is not responding.

ACTION: Check the CMDU power, and the hard disk cables.

SCSI010 Hard Disk Test: Partition x in CMDU y is not initialized.

ACTION: Reinstall the software from the installation disks.

SCSI011 Read Test: Read failed near sector w, errNo x, sense y, addSense z.

The following lists explain the errNo, sense and addSense messages:

ErrNo

0x370001 = Device Not Ready
0x370002 = Write Protected
0x370003 = Medium Error
0x370004 = Hardware Error
0x370005 = Illegal Request
0x370006 = Blank Check
0x370007 = Aborted Command
0x370008 = Volume Overflow
0x370009 = Unit Attention
0x37000a = Select Timeout
0x37000b = Logical Unit Number (LUN) Not Present
0x37000c = Illegal Bus ID
0x37000d = No Controller
0x37000e = REQ Sense Error
0x37000f = Device Unsupported
0x370010 = Illegal Parameter
0x370011 = Semaphore Timeout

Sense

0x00 = No error. Nothing specific to report
0x01 = The command was completed successfully with some recovery performed by the drive.
0x02 = Not ready.
0x03 = Nonrecoverable error fault from the medium or an error in the recorded data.
0x04 = Nonrecoverable hardware failure.
0x05 = There was an illegal parameter in the command.
0x06 = Some drive parameters have been changed, the drive has been reset, or a power_on_reset occurred.
0x07 = A write operation was attempted on a write protected device.

0x09 = Vendor unique.
0x0B = The drive aborted the command.
0x0E = Source data did not match data read from the medium.

addSense
0x00 = No additional information
0x01 = No index signal
0x02 = Seek timeout
0x03 = Write fault
0x04 = Drive not ready
0x05 = Drive not selected
0x06 = Recalibrate failure
0x07 = Multiple drives selected
0x09 = Tracking error
0x10 = ID CRC or ECC error occurred
0x11 = Read error.Dat ECC
0x12 = No address mark found in ID field
0x13 = No address mark found in Data field
0x14 = No record found
0x15 = Seek error
0x16 = Data synchronization mark error
0x17 = Data read with retries
0x18 = Data read with ECC correction
0x19 = Bad defect list
0x1A = Parameter overrun
0x1C = No primary defect list found
0x20 = Invalid command
0x21 = Invalid logical block address
0x22 = Illegal function for device type
0x24 = Illegal field in command
0x25 = Invalid Logical Unit Number (LUN)
0x26 = Illegal field in parameter list
0x27 = Write protected
0x29 = Power-on reset, or SCSI bus reset occurred
0x2A = Drive parameters were changed
0x31 = Format failed
0x32 = No more spare sectors available for reallocating defective sectors
0x40 = Buffer RAM failure, or parity error
0x41 = ECC failure
0x42 = Power-on diagnostic

0x43 = Message rejected
0x44 = Internal controller or firmware error
0x45 = Select/Reselect timeout
0x47 = Parity error on the SCSI bus
0x48 = Initiator detected error
0x49 = Illegal message
0x9D = Motor never gets up to speed
0x9E = Motor drops out of legal speed range
0xA2 = External RAM failure
0xA3 = Reassign Blocks Read failure
0xA5 = Defect list is out-of-order
0xAE = Bad parameters in mode page
0xAF = Buffer corrupted
0xB0 = Drive recalibrating
0xB1 = Drive not up to speed

ACTION: Contact your technical support group.

SCSI012 Floppy drive in CMDU x is not responding.

ACTION: Check the CMDU power, and the IOP to IOP cables.

SCSI013 Floppy Disk Test: Floppy disk is not initialized.

ACTION: Contact your technical support group.

SCSI014 CMDU x is not active, using CMDU y.

ACTION: Check the CMDU power, and the IOP to IOP cables.

SCSI015 Hard Disk Init: Both hard disks are disabled.

ACTION: Check the CMDU power, and the IOP to IOP cables.

SCSI016 File system initialization failed for x.

ACTION: Reinstall the software from the installation disks.

SCSI017 Error writing to floppy disk, sector w, errNo x, sense y, addSense z.

The following lists explain the errNo, sense and addSense messages:

ErrNo

0x370001 = Device Not Ready
0x370002 = Write Protected
0x370003 = Medium Error
0x370004 = Hardware Error
0x370005 = Illegal Request
0x370006 = Blank Check
0x370007 = Aborted Command
0x370008 = Volume Overflow
0x370009 = Unit Attention
0x37000a = Select Timeout
0x37000b = Logical Unit Number (LUN) Not Present
0x37000c = Illegal Bus ID
0x37000d = No Controller
0x37000e = REQ Sense Error
0x37000f = Device Unsupported
0x370010 = Illegal Parameter
0x370011 = Semaphore Timeout

Sense

0x00 = No error. Nothing specific to report
0x01 = The command was completed successfully with some recovery performed by the drive.
0x02 = Not ready.
0x03 = Nonrecoverable error fault from the medium or an error in the recorded data.
0x04 = Nonrecoverable hardware failure.
0x05 = There was an illegal parameter in the command.
0x06 = Some drive parameters have been changed, the drive has been reset, or a power_on_reset occurred.
0x07 = A write operation was attempted on a write protected device.
0x09 = Vendor unique.
0x0B = The drive aborted the command.
0x0E = Source data did not match data read from the medium.

addSense

0x00 = No additional information
0x01 = No index signal
0x02 = Seek timeout
0x03 = Write fault
0x04 = Drive not ready
0x05 = Drive not selected

0x06 = Recalibrate failure
0x07 = Multiple drives selected
0x09 = Tracking error
0x10 = ID CRC or ECC error occurred
0x11 = Read error.Dat ECC
0x12 = No address mark found in ID field
0x13 = No address mark found in Data field
0x14 = No record found
0x15 = Seek error
0x16 = Data synchronization mark error
0x17 = Data read with retries
0x18 = Data read with ECC correction
0x19 = Bad defect list
0x1A = Parameter overrun
0x1C = No primary defect list found
0x20 = Invalid command
0x21 = Invalid logical block address
0x22 = Illegal function for device type
0x24 = Illegal field in command
0x25 = Invalid Logical Unit Number (LUN)
0x26 = Illegal field in parameter list

0x27 = Write protected
0x29 = Power-on reset, or SCSI bus reset occurred
0x2A = Drive parameters were changed
0x31 = Format failed
0x32 = No more spare sectors available for reallocating defective sectors
0x40 = Buffer RAM failure, or parity error
0x41 = ECC failure
0x42 = Power-on diagnostic
0x43 = Message rejected
0x44 = Internal controller or firmware error
0x45 = Select/Reselect timeout
0x47 = Parity error on the SCSI bus
0x48 = Initiator detected error
0x49 = Illegal message
0x9D = Motor never gets up to speed
0x9E = Motor drops out of legal speed range
0xA2 = External RAM failure
0xA3 = Reassign Blocks Read failure

0xA5 = Defect list is out of order
0xAE = Bad parameters in mode page
0xAF = Buffer corrupted
0xB0 = Drive recalibrating
0xB1 = Drive not up to speed

ACTION: Contact your technical support group.

SCSI018 Error reading from floppy disk, sector w,errNo x, sense y, addSense z.

The following lists explain the errNo, sense and addSense messages:

ErrNo

0x370001 = Device Not Ready
0x370002 = Write Protected
0x370003 = Medium Error
0x370004 = Hardware Error
0x370005 = Illegal Request
0x370006 = Blank Check
0x370007 = Aborted Command
0x370008 = Volume Overflow
0x370009 = Unit Attention
0x37000a = Select Timeout
0x37000b = Logical Unit Number (LUN) Not Present
0x37000c = Illegal Bus ID
0x37000d = No Controller
0x37000e = REQ Sense Error
0x37000f = Device Unsupported
0x370010 = Illegal Parameter
0x370011 = Semaphore Timeout

Sense

0x00 = No error. Nothing specific to report
0x01 = The command was completed successfully with some recovery performed by the drive.
0x02 = Not ready.
0x03 = Nonrecoverable error fault from the medium or an error in the recorded data.
0x04 = Nonrecoverable hardware failure.
0x05 = There was an illegal parameter in the command.
0x06 = Some drive parameters have been changed, the drive has been reset, or a power_on_reset occurred.
0x07 = A write operation was attempted on a write protected device.

0x09 = Vendor unique.
0x0B = The drive aborted the command.
0x0E = Source data did not match data read from the medium.

addSense

0x00 = No additional information
0x01 = No index signal
0x02 = Seek timeout
0x03 = Write fault
0x04 = Drive not ready
0x05 = Drive not selected
0x06 = Recalibrate failure
0x07 = Multiple drives selected
0x09 = Tracking error
0x10 = ID CRC or ECC error occurred
0x11 = Read error.Dat ECC
0x12 = No address mark found in ID field
0x13 = No address mark found in Data field
0x14 = No record found
0x15 = Seek error
0x16 = Data synchronization mark error
0x17 = Data read with retries
0x18 = Data read with ECC correction
0x19 = Bad defect list
0x1A = Parameter overrun
0x1C = No primary defect list found
0x20 = Invalid command
0x21 = Invalid logical block address
0x22 = Illegal function for device type
0x24 = Illegal field in command
0x25 = Invalid Logical Unit Number (LUN)
0x26 = Illegal field in parameter list
0x27 = Write protected
0x29 = Power-on reset, or SCSI bus reset occurred
0x2A = Drive parameters were changed
0x31 = Format failed

ACTION: Contact your technical support group.

SCSI020 No response from hard disk in both CMDUs, or hard disks were incorrectly initialized.

ACTION: Be sure the CMDU power is on, and the cables are in place. Reinstall the software from the installation disks if necessary.

SCSI021 Active shelf x has no active CMDU.

ACTION: Be sure that there is a CMDU card on the active core shelf.

SCSI022 Controller self test failed.

ACTION: Contact your technical support group.

SCSI023 No active CMDU present.

ACTION: Be sure that the CMDU is enabled, the power is on, and the cables are in place.

SCSI024 Error reading from active hard disk.

ACTION: Contact your technical support group.

SCSI025 Error reading from standby hard disk.

ACTION: Contact your technical support group.

SCSI026 Error writing to active hard disk, sector w, errNo x, sense y, addSense z.

The following lists explain the errNo, sense and addSense messages.

ErrNo

0x370001 = Device Not Ready
0x370002 = Write Protected
0x370003 = Medium Error
0x370004 = Hardware Error
0x370005 = Illegal Request
0x370006 = Blank Check
0x370007 = Aborted Command
0x370008 = Volume Overflow
0x370009 = Unit Attention
0x37000a = Select Timeout
0x37000b = Logical Unit Number (LUN) Not Present
0x37000c = Illegal Bus ID
0x37000d = No Controller
0x37000e = REQ Sense Error
0x37000f = Device Unsupported
0x370010 = Illegal Parameter
0x370011 = Semaphore Timeout

Sense

0x00 = No error. Nothing specific to report
0x01 = The command was completed successfully with some recovery performed by the drive.
0x02 = Not ready.
0x03 = Nonrecoverable error fault from the medium or an error in the recorded data.
0x04 = Nonrecoverable hardware failure.
0x05 = There was an illegal parameter in the command.
0x06 = Some drive parameters have been changed, the drive has been reset, or a power_on_reset occurred.
0x07 = A write operation was attempted on a write protected device.
0x09 = Vendor unique.
0x0B = The drive aborted the command.
0x0E = Source data did not match data read from the medium.

addSense

0x00 = No additional information
0x01 = No index signal
0x02 = Seek timeout
0x03 = Write fault
0x04 = Drive not ready
0x05 = Drive not selected
0x06 = Recalibrate failure
0x07 = Multiple drives selected
0x09 = Tracking error
0x10 = ID CRC or ECC error occurred
0x11 = Read error.Dat ECC
0x12 = No address mark found in ID field
0x13 = No address mark found in Data field
0x14 = No record found
0x15 = Seek error
0x16 = Data synchronization mark error
0x17 = Data read with retries
0x18 = Data read with ECC correction
0x19 = Bad defect list
0x1A = Parameter overrun
0x1C = No primary defect list found
0x20 = Invalid command
0x21 = Invalid logical block address
0x22 = Illegal function for device type

0x24 = Illegal field in command
0x25 = Invalid Logical Unit Number (LUN)
0x26 = Illegal field in parameter list
0x27 = Write protected
0x29 = Power-on reset, or SCSI bus reset occurred
0x2A = Drive parameters were changed
0x31 = Format failed

0x32 = No more spare sectors available for reallocating defective sectors
0x40 = Buffer RAM failure, or parity error
0x41 = ECC failure
0x42 = Power-on diagnostic
0x43 = Message rejected
0x44 = Internal controller or firmware error
0x45 = Select/Reselect timeout
0x47 = Parity error on the SCSI bus
0x48 = Initiator detected error
0x49 = Illegal message
0x9D = Motor never gets up to speed
0x9E = Motor drops out of legal speed range
0xA2 = External RAM failure
0xA3 = Reassign Blocks Read failure
0xA5 = Defect list is out of order
0xAE = Bad parameters in mode page
0xAF = Buffer corrupted
0xB0 = Drive recalibrating
0xB1 = Drive not up to speed

ACTION: Contact your technical support group.

SCSI027 Error writing to standby hard disk, sector w, errNo x, sense y, addSense z.

The following lists explain the errNo, sense and addSense messages:

ErrNo
0x370001 = Device Not Ready
0x370002 = Write Protected
0x370003 = Medium Error
0x370004 = Hardware Error
0x370005 = Illegal Request
0x370006 = Blank Check
0x370007 = Aborted Command
0x370008 = Volume Overflow
0x370009 = Unit Attention
0x37000a = Select Timeout
0x37000b = Logical Unit Number (LUN) Not Present
0x37000c = Illegal Bus ID
0x37000d = No Controller
0x37000e = REQ Sense Error
0x37000f = Device Unsupported
0x370010 = Illegal Parameter
0x370011 = Semaphore Timeout

Sense
0x00 = No error. Nothing specific to report
0x01 = The command was completed successfully with some recovery performed by the drive.
0x02 = Not ready.
0x03 = Nonrecoverable error fault from the medium or an error in the recorded data.
0x04 = Nonrecoverable hardware failure.
0x05 = There was an illegal parameter in the command.

0x06 = Some drive parameters have been changed, the drive has been reset, or a power_on_reset occurred.
0x07 = A write operation was attempted on a write protected device.
0x09 = Vendor unique.
0x0B = The drive aborted the command.
0x0E = Source data did not match data read from the medium.

addSense
0x00 = No additional information
0x01 = No index signal
0x02 = Seek timeout
0x03 = Write fault

0x04 = Drive not ready
0x05 = Drive not selected
0x06 = Recalibrate failure
0x07 = Multiple drives selected
0x09 = Tracking error
0x10 = ID CRC or ECC error occurred
0x11 = Read error.Dat ECC
0x12 = No address mark found in ID field
0x13 = No address mark found in Data field
0x14 = No record found
0x15 = Seek error
0x16 = Data synchronization mark error
0x17 = Data read with retries
0x18 = Data read with ECC correction
0x19 = Bad defect list
0x1A = Parameter overrun
0x1C = No primary defect list found
0x20 = Invalid command
0x21 = Invalid logical block address
0x22 = Illegal function for device type
0x24 = Illegal field in command
0x25 = Invalid Logical Unit Number (LUN)

0x26 = Illegal field in parameter list
0x27 = Write protected
0x29 = Power-on reset, or SCSI bus reset occurred
0x2A = Drive parameters were changed
0x31 = Format failed
0x32 = No more spare sectors available for reallocating defective sectors
0x40 = Buffer RAM failure, or parity error
0x41 = ECC failure
0x42 = Power-on diagnostic
0x43 = Message rejected
0x44 = Internal controller or firmware error
0x45 = Select/Reselect timeout
0x47 = Parity error on the SCSI bus
0x48 = Initiator detected error
0x49 = Illegal message
0x9D = Motor never gets up to speed
0x9E = Motor drops out of legal speed range

0xA2 = External RAM failure
0xA3 = Reassign Blocks Read failure
0xA5 = Defect list is out of order
0xAE = Bad parameters in mode page
0xAF = Buffer corrupted
0xB0 = Drive recalibrating
0xB1 = Drive not up to speed

ACTION: Contact your technical support group.

SCSI028 Error reading from active hard disk, sector w, errNo x, sense y, addSense z.

The following lists explain the errNo, sense and addSense messages:

ErrNo

0x370001 = Device Not Ready
0x370002 = Write Protected
0x370003 = Medium Error
0x370004 = Hardware Error
0x370005 = Illegal Request
0x370006 = Blank Check
0x370007 = Aborted Command
0x370008 = Volume Overflow
0x370009 = Unit Attention
0x37000a = Select Timeout
0x37000b = Logical Unit Number (LUN) Not Present
0x37000c = Illegal Bus ID
0x37000d = No Controller
0x37000e = REQ Sense Error

0x37000f = Device Unsupported
0x370010 = Illegal Parameter
0x370011 = Semaphore Timeout

Sense

0x00 = No error. Nothing specific to report
0x01 = The command was completed successfully with some recovery performed by the drive.
0x02 = Not ready.
0x03 = Nonrecoverable error fault from the medium or an error in the recorded data.
0x04 = Nonrecoverable hardware failure.
0x05 = There was an illegal parameter in the command.

0x06 = Some drive parameters have been changed, the drive has been reset, or a power_on_reset occurred.
0x07 = A write operation was attempted on a write protected device.
0x09 = Vendor unique.
0x0B = The drive aborted the command.
0x0E = Source data did not match data read from the medium.

addSense
0x00 = No additional information
0x01 = No index signal
0x02 = Seek timeout
0x03 = Write fault
0x04 = Drive not ready
0x05 = Drive not selected
0x06 = Recalibrate failure
0x07 = Multiple drives selected
0x09 = Tracking error
0x10 = ID CRC or ECC error occurred
0x11 = Read error.Dat ECC
0x12 = No address mark found in ID field
0x13 = No address mark found in Data field
0x14 = No record found
0x15 = Seek error
0x16 = Data synchronization mark error
0x17 = Data read with retries
0x18 = Data read with ECC correction
0x19 = Bad defect list
0x1A = Parameter overrun
0x1C = No primary defect list found
0x20 = Invalid command
0x21 = Invalid logical block address
0x22 = Illegal function for device type
0x24 = Illegal field in command
0x25 = Invalid Logical Unit Number (LUN)
0x26 = Illegal field in parameter list

0x27 = Write protected
0x29 = Power-on reset, or SCSI bus reset occurred
0x2A = Drive parameters were changed
0x31 = Format failed

0x32 = No more spare sectors available for reallocating defective sectors
0x40 = Buffer RAM failure, or parity error
0x41 = ECC failure
0x42 = Power-on diagnostic
0x43 = Message rejected
0x44 = Internal controller or firmware error
0x45 = Select/Reselect timeout
0x47 = Parity error on the SCSI bus
0x48 = Initiator detected error
0x49 = Illegal message
0x9D = Motor never gets up to speed
0x9E = Motor drops out of legal speed range
0xA2 = External RAM failure
0xA3 = Reassign Blocks Read failure
0xA5 = Defect list is out of order
0xAE = Bad parameters in mode page
0xAF = Buffer corrupted
0xB0 = Drive recalibrating
0xB1 = Drive not up to speed

ACTION: Contact your technical support group.

SCSI029 Error reading from standby hard disk, sector x.

ACTION: Contact your technical support group.

SCSI030 Hard disk synchronization error. CMDU x is not the active disk.

ACTION: Contact your technical support group.

SCSI031 Synchronization failed because one or both hard disks are disabled.

ACTION: Check the standby CMDU power and cables.

SCSI032 Synchronization failed because one or both hard disks are not initialized.

ACTION: Contact your technical support group.

SCSI033 Raw file system INIT failed for floppy drive x.

ACTION: Contact your technical support group.

SCSI034 Active drive partition bigger than standby.

ACTION: Contact your technical support group.

SCSI036 Comparison failed between Active and Standby hard disks for x.
ACTION: Contact your technical support group.

SCSI037 Synchronization called with invalid CMDU number x.
ACTION: Contact your technical support group.

SCSI038 Synchronization failed for x.
ACTION: Contact your technical support group.

SCSI039 No standby CMDU present. Be sure standby CMDU power is on, and cables are in place.
ACTION: Contact your technical support group.

SCSI040 Timeout before writing active hard disk sector x.
ACTION: Contact your technical support group.

SCSI041 Timeout before writing standby hard disk sector x.
ACTION: Contact your technical support group.

SCSI042 Timeout before reading active hard disk sector x.
ACTION: Contact your technical support group.

SCSI043 Timeout before reading standby hard disk sector x.
ACTION: Contact your technical support group.

SCSI044 Watchdog timeout while accessing disk
ACTION: Contact your technical support group.

SCSI100 CMDU Y, Error Reading from Hard Disk, sector X, errNo Z, sense W, addSense V.
ACTION: Contact your technical support group.

SCSI101 CMDU Y, Error Writing to Hard Disk, sector X, errNo Z, sense W, addSense V.
ACTION: Contact your technical support group.

SCSI102 CMDU X, Timeout before Reading from Hard Disk sector Y.
ACTION: Contact your technical support group.

SCSI103 CMDU X, Timeout before Writing to Hard Disk sector Y.
ACTION: Contact your technical support group.

SCSI104 CMDU X, Filename F Date D Time T Size S.
ACTION: Contact your technical support group.

SCSI105 Files that are different in Dir: X.
ACTION: Contact your technical support group.

SCSI106 Files that are different in Partition: P.
ACTION: Contact your technical support group.

SCSI107 This message is printed when list items exceed the allowable parameters.
ACTION: Contact your technical support group.

SCSI108 Partition X: Sector number%d does not match.
ACTION: Contact your technical support group.

SCSI109 CMDU x in Active Side is not latest, using CMDU y.
ACTION: Contact your technical support group.

SCSI110 Partition parameters of the Active and Standby drives are different.
ACTION: Contact your technical support group.

SCSI111 Cannot decide latest CMDU, going with CMDU X.
ACTION: Contact your technical support group.

SCSI112 Partition X: reporting Y sectors to sync. This is greater than partition size Z, o will Sync complete partition.
ACTION: Reinstall the software from the installation diskettes if required.

SDL — Peripheral Software Download

Peripheral Software Download is a resident program. SDL does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

The Peripheral Software Download (PSDL) feature stores Peripheral Software (PSW) on disk for:

- Network Cards (NT8D04) card
- Network/DTR (NT8D16)
- Controllers cards (NT8D01)

The PSW is downloaded to the peripheral cards when:

- system initialization occurs
- the card is enabled via ENLL and ENXP commands in LD 30 and LD 32
- the card undergoes power up reset

Control of the initialization downloaded is defined in LD 97.

SDL messages

SDL000 text

Peripheral Software Download has occurred. The output format is

SDL000 device, **VERSION** x, mode

device:

XNET loop = NT8D08 Network card loop number
XNPD loop = NT8D16 Network/DTR card loop number
XPEC xpec# (loop shelf) = NT8D01 Controller card

VERSION x = Peripheral Software version (0-99)

mode:

= **FAST MODE** (from initialization)
= **MAINT MODE** (by ENLL command in LD 30/LD 32)
= **BKGD MODE** (second attempt after initialization)

ACTION: Information only, no action is required.

SDL100 status

Current status of the Peripheral Software Download process.
status:

= **BUSY** (download in process)
= **IDLE**
= **SUSP** (user loading a program with SUSP option)
ABRT (aborting)

ACTION: Information only, no action is required.

SDL1301

Failure in starting the PSW download process.

ACTION: Do a manual initialization and try the download again. If still unsuccessful, do a manual SYSLOAD.

CAUTION: Initialization and SYSLOAD will interrupt call processing.

SDL1302

Failure in continuing the PSW download process.

ACTION: Do a manual initialization and try the download again. If still unsuccessful, do a manual SYSLOAD.

CAUTION**:** Initialization and SYSLOAD will interrupt call processing.

SDL2100

Cannot allocate memory for PSDL output buffers.

ACTION: Contact your technical-support group.

SDL2110 e hw a v m

Failed to download software to device.

Where **e** is the cause of the error, as follows:

1 = Acknowledgment time-out error
2 = Peripheral Software (PSW) version or checksum error
3 = PSW record checksum error
4 = PSW record format error
5 = Card firmware state error

Where **hw** is the card name, as follows: **XNET** (Network Card), **XPEC** (Peripheral Controller), etc.

Where **a** is the card address, as follows

= Loop for Network Card, Network/DTR Card
= **XPEC** # (loop shelf) for Peripheral Controller

Where **v** is the PSW version
Where **m** is the mode. as follows:

= **FAST MODE** (from initialization)
= **MAINT MODE** (by ENLL command in LD 30)
= **BKGD MODE** (second attempt after initialization from background program

ACTION: Try to download to the card by using the appropriate enable command.

SDL2401

Failed to allocate a Call Register for Peripheral Software Download (PSDL).

ACTION: Do a manual initialization and try the download again.

CAUTION**:** Initialization will interrupt call processing.

SDL4200

All target devices in the current Peripheral Software Download (PSDL) list failed download.

ACTION: Do a manual SYSLOAD and try download again.

CAUTION: this will interrupt call processing.

If this message reappears after the download, use a different set of system disks and try download again.

If this message reappears after the download, replace all the cards involved, one at a time, by following the steps in the *Hardware replacement* giude. After each card is replaced try a download.

SDL5201

Invalid SL-1 software version.

ACTION: Refer to the *Administration Guide*. Use LD 22 PRT, PSWV to check the software version on disk. Contact your technical-support group.

SDL5202

Peripheral Software (PSW) is not configured on the disk.

ACTION: Contact your technical-support group.

SDL5301

Insufficient memory for the Peripheral Software (PSW) subdirectory.

ACTION: Try manual initialization and retry the command.

CAUTION**:** Initialization will interrupt call processing.

SDL5302 v

The Peripheral Software (PSW) version **v** can not be found on the disk.

ACTION: Contact your technical-support group.

SDL5303 t

The Peripheral Software (PSW) Type cannot be found on the disk.

Where **t** is the requested device type, as follows:

XNET = Network card
XPND = Network/DTR card
XPEC = Controller card

ACTION: Contact your technical-support group.

SDL7111 loop

Failure in writing Peripheral Software (PSW) data to a loop.

ACTION: Replace the network card by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared,

SDL7112 loop

The Peripheral Controller, Network or Network/DTR card has requested an SDL download. The PSDL is waiting to recover the bad cards; but, they can also be recovered by the midnight SDL Audit.

ACTION: If the program was loaded manually, enter `****` or `END` as soon as possible.

SDL7113

Trying to put the Peripheral Controller, Network or Network/DTR card into the PSDL tree has failed five times. These cards will not be recovered by SDL.

ACTION: Press the Man. Int. button to initialize the system.

SDL7114

The SDL recovery request for this Peripheral Controller has been ignored, because of more than 10 requests so far today.

ACTION: Contact your technical-support group.

SDL7115 loop

The SDL recovery request for this Network or Network/DTR card has been ignored, because of more than 10 requests so far today.

ACTION: Contact your technical-support group.

SDL7116

The request for SDL auto-recovery has not been queued nor processed. The system can't get a three-word data block.

ACTION: Contact your technical-support group.

SDL7117 x y z

An error occurred when downloading PSW records to the MSDL/MISP card.

Where **x** is the card type being downloaded, as follows:

H.4 = MISP base code
H.5 = BRIL application
H.6 = BRIT application
H.7 = MSDL base code
H.8 = SDI application
H.9 = DCH application
H.10 = AML application

Where **y** is the card address to which download was done (INDEX number of MSDL / MISP)

Where **z** is the status of card (CSTAT value) for card type. MSDL base code and MISP base code. Status of card (STAT value) for applications on MSDL/MISP card.

ACTION: Check the state of the MSDL card. Try to disable and enable MSDL/MISP card from the software. If the problem persists, contact your technical support group.

SDL7118 x y z

An error occurred when downloading PSW records to the MSDL/MISP card.

Meridian 1 was not able to send messages to MSDL/MISP card.

Where **x** is the card type being downloaded, as follows:

H.4 = MISP base code
H.5 = BRIL application
H.6 = BRIT application
H.7 = MSDL base code
H.8 = SDI application
H.9 = DCH application
H.10 = AML application

Where **y** is the card address to which download was done (INDEX number of MSDL / MISP)

Where **z** is the return value from MSDLMISP_HDLR, as follows:

H.0 = Request to send message failed
H.2 = MSDL/MISP card is not operational
H.5 = No buffer available to send message to MSDL/MISP card

ACTION: Check the state of the MSDL card. Try to disable and enable MSDL/MISP card from the software. If the problem persists, contact your technical support.

SECA — Security Administration Alarm

Security Administration Alarm is a resident program. SECA does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

SECA0001

Authcode violation has been detected.

ACTION: Refer to the Operator Data for information regarding the origin of the Authcode violation. To get the Operator Data the Alarm Filter Format must be turned on.

SRPT — System Reports

How the SRPT works

System Reports is a resident program. SRPT does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

The SRPT messages appearing during the normal system operation. Some are warning messages, and indicate that an action must be taken. Others are information messages, and indicate the system's activity and progress.

SRPT messages

Back-filling messages with zeros

The numerical portion of the following messages is depicted by three or four digits. For example, the same message can be represented by xxx0008 or xxx008.

SRPT0720 ROM OS x: Cold Start. Running on CP y.

ACTION: Information only, no action required.

SRPT0721 ROM OS x: Cold Start. Running OS version y created z.

ACTION: Information only, no action required.

SRPT0722 ROM OS x: Loading "diskos" from /f0/p/os/diskos.

ACTION: Information only, no action required.

SRPT0723 ROM OS x: Loading "diskos" from /f0/diskos.

ACTION: Information only, no action required.

SRPT0724 ROM OS x: Loading “diskos” from /f1/p/os/diskos.

ACTION: Information only, no action required.

SRPT0725 ROM OS x: Loading “diskos” from /f1/diskos.

ACTION: Information only, no action required.

SRPT0726 ROM OS x: Loading “diskos” from /p/os/diskos.

ACTION: Information only, no action required.

SRPT0727 ROM OS x: Loading “diskos” from /p/diskos.

ACTION: Information only, no action required.

SRPT0730 OS x: Cold Start. Release: a Created: b.

ACTION: Information only, no action required.

SRPT0731 OS x: Warm Start. Release: a. Created: b. Last Cold Start: c (from d). Last Warm Start: e (total: f)

ACTION: Information only, no action required.

SRPT0750 INI x: INI on side y due to System Cold Start.

ACTION: Information only, no action required.

SRPT0751 INI x: starting INI on side y due to z. Previous INI: side a at b. INIs since switchover (c): d, e. INIs since cold start (f): g, h.

ACTION: Information only, no action required.

SRPT0752 INI x: INI completed in y seconds.

ACTION: Information only, no action required.

SRPT0754 INI due to “x”. Previous INI: “y”. \ INIs since cold start: z

ACTION: Information only, no action required.

SRPT0770 TOD x: Midnight job server starts on side y. Number of jobs to do: z.

ACTION: Information only, no action required.

SRPT0771 TOD x: Midnight job server restarts on side y. Reason: error in job #a. Skipping first b jobs.

ACTION: Information only, no action required.

SRPT0772 TOD x: Skipping midnight job y.

ACTION: Information only, no action required.

SRPT0773 TOD x: Starting midnight job y.

ACTION: Information only, no action required.

SRPT0774 TOD x: Midnight jobs completed on side y.

ACTION: Information only, no action required.

SRPT0775 TOD x: Midnight jobs partially completed. Job List corrupted.

ACTION: Consider performing a Warm Start.

SRPT0780 RST x: MANUAL INIT IN PROGRESS.

ACTION: Information only, no action required.

SRPT0781 RST x: COLD START IN PROGRESS - Reason y.

ACTION: Information only, no action required.

SRPT0782 RST x: WARM START IN PROGRESS - Reason y.

ACTION: Information only, no action required.

SRPT0783 RST x: Restart threshold exceeded for Task ID = y.

ACTION: Information only, no action required.

SRPT0784 RST x: Warning: unregistered task being restarted - TID = y.

ACTION: Contact your technical support group.

SRPT0785 RST x: Task being deleted, TID = y.

ACTION: Information only, no action required.

SRPT0786 RST x: Task being restarted, TID = y.

ACTION: Information only, no action required.

SRPT0787 RST x: System Recovery failure: Task "y".

ACTION: Reinitialize the system with the MANUAL INIT button (top).

SRPT0788 RST x: "RESTART" subsystem failure (no automatic restart).

Note: A database could be lost "If" a reload (cold start) occurs, because the system has probably not performed any data dumps at midnight.

ACTION: Reinitialize the system with the MANUAL INIT button (top).

SRPT0789 RST x: Exception-caused task restart: TID = %p, vec = %p, pc = %p.

ACTION: Contact your technical support group.

SRPT4500 skipping slot x: cannot calc addr to check for GP w/ cable.

ACTION: Contact your technical support group.

SRPT4501 x skipping slot x: cannot get cardID.

ACTION: Contact your technical support group.

SRPT4502 CP SINGLE MODE: Timeout waiting for response from remote CP.

ACTION: Contact your technical support group.

SRPT4503 CP SINGLE MODE: remote Processor pack not CP.

ACTION: Reseat or replace remote processor with a CP.

SRPT4504 CP SINGLE MODE: no CP-CP cable.

ACTION: Check that the CP cables are properly connected.

SRPT4505 CP SINGLE MODE: no remote power.

ACTION: Check the CE power supply on the remote CORE shelf. Check that the CMB cable is properly connected.

SRPT4506 CP SINGLE MODE: both shelves have same IDs.

ACTION: Change the DS4 Jumper setting to correspond to each side.

SRPT4507 CP SINGLE MODE: both switches = MAINT.

ACTION: Check to ensure that one or both the CP Norm/Maint switches are in the Norm mode (Up).

SRPT4508 CP SINGLE MODE: could not synch Common Storage Area (CSA) space

ACTION: Contact your technical support group.

SRPT4509 Could not set CP semaphore bit (side x).

ACTION: Contact your technical support group.

SRPT4510 CP single mode: memory shadow test failed.

ACTION: Reseat or replace the Standby CP.

SRPT4511 Cannot open BIC window (slot x); cannot chk for GP cable.

ACTION: Contact your technical support group.

SRPT4512 Cannot close BIC window (slot x).

ACTION: Contact your technical support group.

SRPT4513 Could not get CP semaphore bit (slot x).

ACTION: Contact your technical support group.

SRPT4514 Skipping slot x cannot calc addr to see if CP bit set.

ACTION: Contact your technical support group.

SRPT4515 Unable to find the active CMDU.

ACTION: Contact your technical support group.

SRPT4516 Unable to find the diskos.sym file.

ACTION: Contact your technical support group.

SRPT4517 CP: Switching from CPU %d to preferred side.

ACTION: Information only, no action required.

SRPT4538 LDR: Inconsistencies in boundaries of previous sl1 load.

ACTION: Contact your technical support group.

SRPT4539 LDR: Inconsistencies in boundaries of previous ovl load.

ACTION: Contact your technical support group.

SRPT4540 LDR: Error loading SL1 file into memory.

ACTION: Contact your technical support group.

SRPT4541 LDR: Error loading overlay file into memory.

ACTION: Contact your technical support group.

SRPT4542 LDR: Error in loading, last address = x.

ACTION: Contact your technical support group.

SRPT4543 LDR: Error returned from "segInit2(x)".

ACTION: Contact your technical support group.

SRPT4544 LDR: Error getting dloPathFileName for sl1res.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4545 LDR: Unable to open "x".

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4546 LDR: Error: sl1_start_addr = x, last sl1_prot_addr = y.

ACTION: Contact your technical support group.

SRPT4547 LDR: Error initializing sl1 pool and data area.

ACTION: Contact your technical support group.

SRPT4548 LDR: Error getting dloPathFileName for ovlres.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4549 LDR: Unable to open "x".

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4550 LDR: Error in loading, last sl1 address = x.

ACTION: Contact your technical support group.

SRPT4551 LDR: Ovl start addr (x) overlaps end of sl1 area (y).

ACTION: Contact your technical support group.

SRPT4552 LDR: Error ovl_start_addr = x, last_ovl_prot_addr = y.

ACTION: Contact your technical support group.

SRPT4553 LDR: Error initializing overlay data area.

ACTION: Contact your technical support group.

SRPT4554 LDR: Error calling ovlres entry.

ACTION: Contact your technical support group.

SRPT4555 LDR: Invalid parameter to ldrNextPage, address = x.

ACTION: Contact your technical support group.

SRPT4556 LDR: seek error while loading (OVL or INSTALL) code file.

ACTION: Contact your technical support group.

SRPT4557 LDR: Error reading a_out header from file (OVL or INSTALL).

ACTION: Reload the system with the MANUAL RELOAD button. Reinstall the software from the installation diskettes.

SRPT4558 LDR: Invalid a_out header in file.

ACTION: Contact your technical support group.

SRPT4559 LDR: Error reading link header.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4560 LDR: Invalid link header in file.

ACTION: Contact your technical support group.

SRPT4561 LDR: Module not linked to page boundary.

ACTION: Contact your technical support group.

SRPT4562 LDR: seek error while loading (OVL or INSTALL) code file.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4563 LDR: Error reading a_out hdr into memory (OVL or INSTALL).

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4564 LDR: Error reading text seg from disk into memory (OVL or INSTALL).

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4565 LDR: Error reading data seg from disk into memory (OVL or INSTALL).

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4566 LDR: seek error while loading sl1 code.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4567 LDR: Error reading a_out file from sl1 file.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4568 LDR: Invalid a_out header in sl1 file.

ACTION: Contact your technical support group.

SRPT4569 LDR: Error reading link header from sl1 file.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4570 LDR: Invalid link header in sl1 file.

ACTION: Contact your technical support group.

SRPT4571 LDR: Module not linked to page boundary.

ACTION: Contact your technical support group.

SRPT4572 LDR: seek error while loading sl1 code.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4573 LDR: Error reading a_out hdr from disk into memory.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4574 LDR: Error reading text seg from disk into memory.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4575 LDR: Invalid data segment in sl1 module.

ACTION: Contact your technical support group.

SRPT4576 LDR: Error accessing sl1 code file.

ACTION: Reload the system with the MANUAL RELOAD button (bottom). Reinstall the software from the installation diskettes.

SRPT4577 LDR: Error reading data seg from disk into memory (SL-1).

ACTION: Reload the system with the MANUAL RELOAD button (bottom).

SRPT4578 LDR: Invalid a_out header in memory (OVL or INSTALL).

ACTION: Contact your technical support group.

SRPT4579 LDR: Invalid link header in memory (OVL or INSTALL).

ACTION: Contact your technical support group.

SRPT4580 LDR: End of protected data = x (OVL or INSTALL).

ACTION: Contact your technical support group.

SRPT4581 LDR: Unprot data start x overlaps prot data end at y (OVL or INSTALL).

ACTION: Contact your technical support group.

SRPT4582 LDR: Error copying data from PROT to UNPROT for Static Modules.

ACTION: Reinitialize the system with the MANUAL INIT button (top). Reload the system with the MANUAL RELOAD button (bottom).

SRPT4583 LDR: Invalid a_out header in memory (SL-1).

ACTION: Contact your technical support group.

SRPT4584 LDR: Invalid link header in memory (SL-1).

ACTION: Contact your technical support group.

SRPT4585 LDR: End of protected data = x (SL-1).

ACTION: Contact your technical support group.

SRPT4586 LDR: Unprot data start x overlaps prot data end at y (SL-1).

ACTION: Contact your technical support group.

SRPT4587 LDR: Error copying data from PROT to UNPROT for SL-1 Modules.

ACTION: Reinitialize the system with the MANUAL INIT button (top).

SRPT4591

PDT password reset failed.

ACTION: Contact your technical support group.

SRPT4592

PDT password reset successful.

ACTION: Information only, no action required.

SRPT4593

PDT password file restored from backup.

Information only, no action required..

SYS — System Loader

In this chapter

How the SYS works. 1116
Causes of system reload 1116
Example of SYS messages 1117
SYS messages 1118

How the SYS works

This program will output SYS messages due to problems with the following:

- faulty essential hardware: CPU, RAM and primary storage device
- incompatible software packages
- corrupted, missing or invalid programmable data

Causes of system reload

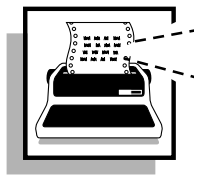
A system reload occurs when:

- the system is powered-on
- the system RESET button is pressed
- the RELOAD buttons on the Changeover and Memory Arbitrator cards are pressed simultaneously
- a CE fault or power failure has caused some of the system memory contents to be destroyed

For more information refer to the *You should know this* chapter, *Software tools, System reaction when things don't go right,* in this document. An occurrence of a system reload is indicated by SYS messages. The system reload process takes about five to 25 minutes to complete on all systems except the Option 51C, 61C, 81 and 81C. During this time, call processing ceases throughout the entire system.

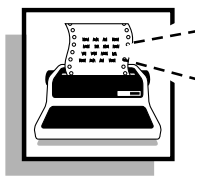
Example of SYS messages

The following is an example of a system loader message for Option 81.



SYS700 02 - ROM created on Wed Sep 28 01:13:13 PDT 1994
SYS702 24 - DRAM size (in megs) **- Banks 123456 populated**
SYS700 04 - Booting ROM OS
(other information)
SYS000 000400 000000 000000 000000 CPU 1
SYSDB RLS/ISS: 1932 DATE/TIME: NOT AVAIL. RECS 50
SYSLOAD RLS: 19
ISSUE: 32
DONE

The following is an example of a system loader message for Option 61:



SYS000 000400 00000F FFFFFF 00 CPU 1
SYS100 CPU 0
SYSLOAD RLS: 19
ISSUE 32
DONE

The following is an explanation of fields that appear in system reload messages:

- **SYS000** = Output code. The output code SYS000 always appears as shown in the preceding example.
- **000400** = Source field. Cause of the system reload as shown below.

0400 = Power switched on or Reset button(s) pressed
0803 = Segmented Bus Extender fault
0805 = Switched CPUs due to hardware or software fault
1000 = Parity error
2000 = Watchdog timeout
4000 = Write-protect violation

8000 = Response timeout

- **00000F** = Address field. Fault address.*
- **FFFFFF** = Display field. Last maintenance code display.*
- **00** = Display code for a previous fault as shown below.

001X = Extender-generated bus fault
002X = Page 0 memory test fault
003X = Memory page decoding fault
004X = Switch CPU fault

- **CPU 1** = CPU used for the system load

* The number of digits in these fields vary between systems.

SYS messages

SYS0000

SYSLOAD has taken place.

ACTION: Examine subsequent SYS messages for fault indicators. Examine the source field and the display code of this message for fault indicators.

SYS0000 0500

System switched on with no action from the disk.

ACTION: Reseat the disk. If the system does not start to reload, replace the Multi-Disk Unit or Floppy Disk Unit by following the steps in the *Hardware replacement* guide. If system does not start to reload, replace the Mass Storage Interface or Floppy Disk Interface card by following the steps in the *Hardware replacement* guide. If the system does not reload contact your technical support group immediately.

SYS0001 FATAL

System real-time clock (RTC) does not respond. The Peripheral Signaling card or the Clock Controller card may be faulty.

ACTION: Replace the PS or CC card by following the steps in the *Hardware replacement* guide. After replacing the card verify the fault is cleared and the system starts to reload. If the system does not reload contact your technical support group immediately.

SYS0002 FATAL

Configuration record not found. The system is not able to load with this storage medium.

ACTION: Replace active storage medium with backup disk(s). Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. After pressing the button(s), verify that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0003 FATAL

Unable to allocate sufficient memory to load firmware. A memory fault must be cleared or more memory must be equipped.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared and that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0004 FATAL

Unable to allocate the overlay area. A memory fault must be cleared or more memory must be equipped.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared and that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0005 FATAL

DN translator program not on storage medium. A vital program is missing from the storage medium.

ACTION: Replace active storage medium with backup disk(s). Press RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. After pressing button the (s), verify that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0006 FATAL

Primary storage medium has permanent interrupt. The fault must be cleared and the storage device renabled.

ACTION: If the system does not start to reload, replace the Multi-Disk Unit or Floppy Disk Unit by following the steps in the *Hardware replacement* guide. If the system does not start to reload, replace the

Mass Storage Interface or Floppy Disk Interface card by following the steps in the *Hardware replacement* guide. If the system does not reload contact your technical support group immediately.

SYS0008 FATAL

Active CPU faulty. Force a switch to idle CPU.

ACTION: Place the MAINT/NORM switch in the MAINT position on the idle IF card. The faceplate LED on the idle IF card should be lit. If the system does not reload contact your technical support group immediately.

SYS0009 FATAL

Not enough memory for operation. A memory fault must be cleared or more memory must be equipped.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared and that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0010 FORCED

Memory 0 failure. Memory 0 is associated with CPU 0. If more than one memory module on any shelf fails, then suspect bus extenders.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared.

SYS0011 FORCED

Memory 1 failure. Memory 1is associated with CPU 1. If more than one memory module on any shelf fails, then suspect bus extenders.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared.

SYS0016

DMWI package removed since neither MW, IDA or DPNSS package is equipped.

ACTION: Equip with the appropriate package.

SYS0020 FATAL

There is a memory failure on protected data store, memory card 0.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared and that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0021 FATAL

There is a memory failure on protected data store, memory card 1.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared and that the system is reloading. If the system does not reload contact your technical support group immediately.

SYS0023

All QSIG Supplementary services RCAP are removed since the GF package is not equipped.

ACTION: Equip package 305. Sysload and reconfigure the QSIG RCAP for supplementary services.

SYS0024

Invalid message type detected when transferring a loss plan (losp) file. Transmission can be adversely affected.

ACTION: Call the manufacturer.

SYS0025

A loss plan structure was found in illegal state.

ACTION: Call the manufacturer.

SYS0026

No cards were specified in transfer of the data from card.db file. Transmission will be adversely affected.

ACTION: Call the manufacturer.

SYS0027

Invalid message type detected when transferring an attribute (attr) file data. Transmission will be adversely affected.

ACTION: Call the manufacturer.

SYS0028

Too many GTDs were specified in the attr.db file loaded.

ACTION: Call the manufacturer

SYS0029

The starting GTD specified in the attr.db file was beyond the limit in the system.

ACTION: Contact your technical support group.

SYS0030

No GTD definitions were supplied. Transmission will be adversely affected.

ACTION: Call the manufacturer.

SYS0031

The ending GTD specified in the attr.db file was beyond the limit in the system.

ACTION: Call the manufacturer

SYS0032

Memory could not be allocated for storing TNs for GDLS default port type allocation.

ACTION: Call the manufacturer.

SYS0033

No list of TNs for default port type allocation was found.

ACTION: Call the manufacturer.

SYS0034

A problem occurred during the reading of the GDLS loss plan files.

ACTION: Call the manufacturer.

SYS0035

Trying to load Numeris Master Mode data with MMCS or Master Mode packages not equipped. The data will be lost.

ACTION: Equip Packages 309 and 317 and re-load.

SYS0036

CNAME package has been automatically turned off because the system is not equipped with the CPND package.

ACTION: Contact your technical support group.

SYS0037

CMOD unit data is discarded because the system is CNUMB AND CNAME package restricted.

ACTION: Contact your technical support group.

SYS0039

ICS MFS package equipped and CIST package not equipped.

ACTION: Enable the CIST package and reload the system.

SYS0040

I/O device number 0 is an incorrect type. An error has been made in the data on the storage medium.

ACTION: To correct the I/O device number 0 type, refer to the *administration input/output guide* and use LD 17. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0041

I/O device number 1 is an incorrect type. An error has been made in the data on the storage medium.

ACTION: To correct the I/O device number 1 type, refer to the *administration input/output guide* and use LD 17. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0050

The CPU has no spare memory module. Not for system Options NT, XT, RT, 51, 61, 71, 61C and 81.

ACTION: Add more memory by following the steps in the *Hardware replacement* guide.

SYS0051

DMI entry has been discarded due to a missing FNP (160) package

ACTION: Contact your technical support group.

SYS0060

The CPU has no spare memory module.There are too many logical units, TDS or MFSD loops for the I/O table. Not for system Options NT, XT, RT, 51, 61, 71, 61C and 81.

ACTION: Add more memory by following the steps in the *Hardware replacement* guide.

SYS0070 FATAL

There is a primary storage medium fault. The storage medium is not ready or a head fault has been detected. On an Option 51 or 61, this message can also be caused by an SDI paddle board.

ACTION: Replace the storage medium with backup disk(s). Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. After pressing the button(s), verify that the system is reloading. If the system does not reload contact your technical support group immediately. For an Option 51 or 61, replace the SDI paddle board by following the steps in the *Hardware replacement* guide.

SYS0071

A record could not be read from the storage medium. A storage medium fault is indicated. The system may still load, even though data or programs are missing.

ACTION: Replace the storage medium with the backup disk(s). Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. To check for correct programmable data after the system reloads, refer to the *administration input/output guide* and use LD 22, 21 and 20. Check for proper system operation.

SYS0072

A storage device function timed out. A fault in the storage device interface (TI or MSI) or storage device (TU or MSU) is indicated. The system may still load even though data or programs are missing.

ACTION: Replace the Multi-Disk Unit or Floppy Disk Unit by following the steps in the *Hardware replacement* guide. Replace the storage medium with backup disk(s). Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. To check for correct programmable data after the system reloads, refer to the *administration input/output guide* and use LD 22, 21 and 20. Check for proper system operation. If the system does not operate properly,

replace the Mass Storage Interface or Floppy Disk Interface card by following the steps in the *Hardware replacement* guide. Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. To check for correct programmable data after the system reloads, refer to the *administration input/output guide* and use LD 22, 21 and 20. Check for proper system operation.

SYS0073

Data could not be accessed from one tape track or disk address. A fault in the storage device interface (TI or MSI) or storage device (TU or MSU) is indicated. System may still load even though data or programs are missing.

ACTION: Replace the Multi-Disk Unit or Floppy Disk Unit by following the steps in the *Hardware replacement* guide. Replace the storage medium with the backup disk(s). Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. To check for correct office data after the system reloads, refer to the *administration input/output guide* and use LD 22, 21 and 20. Check for proper system operation. If the system does not operate properly, replace the Mass Storage Interface or Floppy Disk Interface card by following the steps in the *Hardware replacement* guide. Press the RESET button or both RELOAD buttons simultaneously to restart the SYSLOAD. To check for correct office data after the system reloads, refer to the *administration input/output guide* and use LD 22, 21 and 20. Check for proper system operation.

SYS0079

Both CPUs are faulty.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the fault. (Look for something common to both.)

SYS0080

The active CPU is faulty. Initiating CPU switch.

ACTION: This message is for information only. Check for INI and CED messages following this SYS message and follow the instructions provided to clear the fault on the active CPU.

SYS0081

The physical available memory does not match the configuration memory, but fulfills minimum requirement to allow a sysload.

ACTION: To correct the configuration memory use LD 17 and refer to the *administration input/output guide*.

SYS0082

A Segmented Bus Extender is configured but not equipped.

ACTION: Install a SBE card, referring to the installation guide.

SYS0083

A Segmented Bus Extender is equipped but not configured.

ACTION: Refer to the *administration input/output guide*, use LD 17 to configure the SBE.

SYS0084

The secondary memories are disabled, and all primary memories are used. (Procedure DO_OVLY_AREA.)

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the fault.

SYS0085

SMART ROM MTYP 0 assumed (procedure CHECK_ROM_TAG).

ACTION: Contact your technical support group.

SYS0086

Corrective ROM MTYP 192 assumed (procedure CHECK_ROM_TAG).

ACTION: Contact your technical support group.

SYS0087

There is a memory configuration error (procedure BUILD_MOD_MAP).

ACTION: To correct the configuration record, refer to the *administration input/output guide* and use LD 17. Use LD 43 EDD to correct the programmable data on the primary storage medium. You may have to use a backup disk if the primary storage medium is corrupted.

SYS0088 QPCxxxy

ROM issue not compatible with software issue (procedure CHECK_ROM_TAG), where **xxx** is the QPC code and **y** is the vintage code of the ROM.

Systems with vintage B and later ROM cards can disregard this message. All normal operations on an upgraded system are unaffected.

ACTION: Contact your technical support group.

SYS0089CPU p b

Memory block **b** on page **p** is not configured. (Procedure ISSUE_ERRORS.) Not for system Options NT, XT, RT, 51, 61, 71, 61C and 81.

ACTION: Contact your technical support group.

SYS0090 xx

Memory **xx** failure. This message may indicate an incorrect ROM card.

For system Options XN, NT, XT, RT, 51, 61 and 71 the value of xx can be:

00 = memory card 0 of CPU 0

01 = memory card 1 of CPU 0

02 = memory card 2 of CPU 0

10 = memory card 0 of CPU 1

11 = memory card 1 of CPU 1

12 = memory card 2 of CPU 1

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared.

SYS0091 x

Page decoding fault on memory **x** (0 or 1). Page decoding faults cause all the memory cards being tested at the time of the failure to be marked failed. Not for system Options NT, XT, RT, 51, 61, 71, 61C and 81.

ACTION: Contact your technical support group.

SYS0092 x

There is a CMA fault, CMA card located with memory **x** (0 or 1)

ACTION: Replace the CMA card by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

SYS0093 INHIBITS xxxx

If multiple reload attempts occur, past history failures may cause serious assumed fault conditions indicated by **xxxx** as follows.

1. If **xxxx** = **0001**, Primary page 0 assumed faulty. No attempt is made to test this memory card.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the memory fault.

2. If **xxxx** = **0002**, Secondary page 0 assumed faulty. No attempt is made to test this memory card.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the memory fault.

3. If **xxxx** = **0004**, Primary page decode assumed faulty. No attempt is made to test the memory.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the memory fault.

4. If **xxxx** = **0008**, Secondary page decode assumed faulty. No attempts are made to test the memory cards on this memory shelf.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the memory fault.

5. If **xxxx** = **0010**, Enabling Segmented Bus Extenders has caused a bus fault. The extenders are not enabled.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the extender faults.

6. If **xxxx** = **0020**, Switching to the standby CPU is not attempted.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the CPU fault.

7. If **xxxx** = **0040**, Execution from active CPU is not attempted.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the CPU fault.

8. If **xxxx** = **0080**, Trap sequence determined primary page 0 faulty. Card will be re-tested.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the memory fault.

9. If **xxxx** = **0100**, Trap sequence found that the secondary page 0 is faulty. The card will be re-tested.

ACTION: Check for INI and CED messages following this SYS message and follow the instructions provided to clear the memory fault.

SYS0094 x

Memory page **x** passes the test but the memory page is not in the configuration. Memory cards that are installed and not identified in the configuration record are tested, but not used for loading programs or data. Such cards are indicated by x which can be the same as for SYS0090.

ACTION: Replace the Memory card(s) by following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared.

SYS0095 x

Indicated split memory option for the memory card differs from the majority. (The data store memory split option is verified on a "majority opinion" basis of each memory card and the configuration record. For SL-1 LE and VLE only).

ACTION: Information only, no action required.

SYS0096

The configuration changed from split to nonsplit. The configuration record differs from both memory cards concerning the “split data store” option. In this event, the configuration record is changed to agree with the majority. For SL-1 LE and VLE only.

ACTION: Information only, no action required

SYS0097

The configuration changed from nonsplit to split. The configuration record differs from both memory cards concerning the “split data store” option. In this event, the configuration record is changed to agree with the majority. For SL-1 LE and VLE only.

ACTION: Information only, no action required

SYS0098 xx

Memory **x** changed from unequipped to equipped. Configuration-equipped memory cards are forced to be consistent with the split option and with minimum system requirements. Memory cards which are incorrectly equipped are indicated by **x** as follows: For SL-1 LE and VLE only.

00 = page 0 memory 0

00 = page 1 memory 0

00 = page 2 memory 0

10 = page 0 memory 1

10 = page 1 memory 1

10 = page 2 memory 1

ACTION: Verify switch settings for circuit cards by following the steps in the installation guide.

SYS0099 x

Memory **x** changed from equipped to not-equipped. x is interpreted as for SYS0098. For SL-1 LE and VLE only.

ACTION: Verify switch settings for circuit cards by following the steps in the installation guide.

SYS0100

The CPU switchover has been initiated by SYSLOAD. This is a normal code during a system reload.

ACTION: Information only, no action required.

SYS0101 code xxx

Where CODE can be:

PROG—Program **xxx** has length error.

INTR—Intrinsic length error.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0102 code xxx

Where the code can be:

PROG = Vector number out of range, program **xxx.**

INTR = Intrinsic number out of range.

ACTION: Reload the system using the backup software as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0103 code xxx

Where the code can be:

PROG = Program **xxx** already loaded.

INTR = Intrinsic already loaded.

ACTION: Reload the system using the backup software as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0104 INTR 0

No intrinsic on storage medium. This is a warning only.

ACTION: Information only. If this message reappears contact your technical support group.

SYS0105 PROG xxx

Meridian 1 assembler routines are not supported. Programs containing such code will not be loaded.

ACTION: Information only. If this message reappears contact your technical support group.

SYS0106

The program number is in old compiler format.

ACTION: Information only. If this message reappears contact your technical support group.

SYS0190

A valid TN is in the DN block and the TN is rejected.

ACTION: Contact your technical support group.

SYS0191

An invalid TN is in the DN block; and the TN is rejected from DN block.

ACTION: Contact your technical support group.

SYS0201

There is a data block length error. Output data depends on the software as follows:

X11: xxxx yyyy (data structure identifier & index number)

X08: TN l s c u — terminal number.

ACTION: Contact your technical support group for help identifying xxxx yyyy. To correct the problem refer to the *administration*

input/output guide and use LD xx. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0202 TN l s c u

Station type does not match the card type.

ACTION: Contact your technical support group.

SYS0203 TN l s c u

Secondary attendant block forces out TN already loaded.

ACTION: To correct the secondary attendant block refer to the *administration input/output guide* and use LD 12. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0204 TN l s c u

Unit number of Digitone receiver not zero.

ACTION: To correct the Digitone receiver unit number refer to the *administration input/output guide* and use LD 13. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0205 TN l s c u

Unit number of trunk not zero or one.

ACTION: To correct the trunk unit number refer to the *administration input/output guide* and use LD 14. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy

of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0206

Loop number out-of-range.

ACTION: To correct the loop number range refer to the *administration input/output guide* and use LD 17. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0207

Shelf not in configuration record (local or remote).

ACTION: To configure the local or remote shelf refer to the *administration input/output guide* and use LD 17. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0208 TN l s c u

Invalid pointer to station data.

ACTION: To correct the telephone data refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0209

Identical data block encountered twice.

ACTION: To out one of the identical data blocks refer to the *administration input/output guide* and use the appropriate LD xx. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0210

ARS data block does not exist.

ACTION: Contact your technical support group.

SYS0211

ARS user codes exceed table size.

ACTION: Contact your technical support group.

SYS0212

SCL DND template number exceeds length of list allocated. EDD error.

ACTION: To correct the template number length refer to the *administration input/output guide* and use LD 18 and LD 10, 11, 12 for SCL, and LD 15, 26, and LD 10, 11, and 12 for DND. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0213

Attempt to use nonexistent ARS schedule block.

ACTION: Contact your technical support group.

SYS0214

Conversion error.

ACTION: Try the conversion again. If this message reappears contact your technical support group.

SYS0215

Storage medium directory error.

ACTION: Try a backup copy of the software. If the problem continues, replace the storage medium by following the steps in the *Hardware replacement* guide.

SYS0216

Patch block error.

ACTION: Contact your technical support group.

SYS0218

Limit on number of storage medium, teletype and History File units exceeded (limit is 16 units).

ACTION: After the system recovers, use LD 22 CFN to ensure the correct number of TTY devices are programmed.

SYS0219

Incompatible feature packages are enabled. Attendant Overflow Position feature package is changed to restricted because Centralized Attendant Service Main or Remote feature package is not restricted.

ACTION: Have your technical support group contact Northern Telecom Technical Assistance Service to set or reset the proper package restriction flag. You can use LD 22 PRT, PKGxxx to check the restricted status of the package.

SYS0227

Unable to allocate enough Program Data Store for converted Meridian SL-1 station.

ACTION: To check the memory map refer to the *administration input/output guide* and use LD 29. Add memory if needed.

SYS0229

Same as SYS0227.

ACTION: See SYS0227 action.

SYS0230

Customer Data Block (CDB) does not exist when loading Automatic Call Distribution (ACD) blocks.

ACTION: To resolve conflict between CDB and ACD blocks, refer to the *administration input/output guide* and use LD 15 or LD 23. Replace the primary storage disk with a second copy. Use LD 43

EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0231

Number of ACD blocks exceeds list size, or the ACD DN does not exist in DN tree.

ACTION: To correct the list size or add the ACD DN, refer to the *administration input/output guide* and use LD 23. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0232 key cust dn

Illegal ACD-DN.

ACTION: To remove ACD-DN refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0233

Data assigned to SL-1 ACD key is invalid, or the data assigned cannot be used with 500/2500 sets as ACD stations.

ACTION: To correct the invalid ACD key or the assigned data, refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded,

check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0234

Number of stations assigned to ACD group exceeds maximum.

ACTION: To correct the number of stations refer to the *administration input/output guide* and use LD 23. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0236

Authorization code data block does not exist.

ACTION: To program an authorization code data block, refer to the *administration input/output guide* and use LD 88. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0237

Too many authorization codes in authcode table.

ACTION: To remove authorization codes, refer to the *administration input/output guide* and use LD 88. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the "programmable data". If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the "programmable data" using LD 20, 21 or 22 to ensure that it is valid.

SYS0240

CDB does not exist for Direct Inward System Access (DISA) data block.

ACTION: To program the customer number, refer to the *administration input/output guide* and use LD 24. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0241

Too many DISA data blocks in DISA list.

ACTION: To correct DISA data blocks, refer to the *administration input/output guide* and use LD 24. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0242

Number of dial intercom groups exceeds maximum allowed in customer data block.

ACTION: Refer to the *administration input/output guide*, use LD 15 to correct the number of dial intercom groups. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the "programmable data". If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the "programmable data" using LD 20, 21 or 22 to ensure that it is valid.

SYS0245

Too many different BCS telephone configurations or PBX telephone configurations have been created. Make more sets with identical feature configurations and key layouts.

ACTION: To correct feature configurations and key layouts, refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go

Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0250

Tree data blocks corrupted. Tree will be released.

ACTION: Contact your technical support group.

SYS0251

Unable to locate New Flexible Code Restriction (NFCR) pointers table.

ACTION: Contact your technical support group.

SYS0252

Unable to locate tree block pointers table.

ACTION: Contact your technical support group.

SYS0253

SPCA Class of Service only allowed for IPE, TIE, E&M, trunks with MIA class of service. Class of service changed to SPCD.

ACTION: DO NOT DATADUMP.

SYS0254

the number fo digital Tn's exceeds the Digital TN Limit and no further Tn's can be sysloaded.

ACTION: Contact your technical support group.

SYS0255

The number of analog TN's exceeds the Analog TN limit and no furher analog TN's can be sysloaded.

ACTION: Contact your technical support group.

SYS0256

Unable to allocate memory for PLUGIN data block.

ACTION: Contact your technical support group.

SYS0257

PLUGIN pkg not equipped, PLUGIN data cleared.

ACTION: Contact your technical support group.

SYS0300 TN l s c u

Customer data block does not exist.

ACTION: To program a customer data block refer to the *administration input/output guide* and use LD 15. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the “programmable data ”. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the “programmable data” using LD 20, 21 or 22 to ensure that it is valid.

SYS0301

ACD supervisor key assigned to an agent station.

ACTION: To correct the key assignment refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0302

ACD display queue key has invalid ACD DN.

ACTION: To correct the display queue key refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0303

More than 9 supervisors are assigned to a simple ACD DN.

ACTION: To correct the assigned supervisors refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0304

Agent key assigned but agent does not exist.

ACTION: To program the agent refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0305

Agent key identifies agent who already has another supervisor.

ACTION: To correct the agent key refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0306

Agent key assigned identifies a supervisor station.

ACTION: To correct the agent key refer to the *administration input/output guide*, and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0307

Attempt to assign an ACD agent function to a noonday set.

ACTION: To correct the problem refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0308

Attempt to assign a 'call supervisor' key to the supervisor.

ACTION: To correct the assignment refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0310 key cust dn

Illegal digits in DN.

ACTION: To correct the secondary attendant block refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0310 TN l s c u

Illegal DN or illegal key.

ACTION: To correct the DN or key refer to the *administration input/output guide* and use LD 10 or 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the

second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0311

Not-ready-key is assigned to a non-ACD station.

ACTION: To correct the key assignment refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0312

CAS key assigned to a telephone but CAS data blocks do not exist.

ACTION: To correct the CAS data block refer to the *administration input/output guide* and use LD 15. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0315

A function requiring a LED is assigned to a non-LED key.

ACTION: To correct the LED assignment refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0316

CAS key assigned to a telephone but CAS data blocks do not exist.

ACTION: To correct the CAS data block refer to the *administration input/output guide* and use LD 15. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data

to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0317

More than 10 CAS keys have been assigned to telephones.

ACTION: To correct the CAS keys refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0320 TN l s c u

DN assigned dials operator.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to check the telephone database.

SYS0330 TN l s c u

Shorter DN already exists. For **SYS0330xxxx, xxxx** is the DN concerned.

ACTION: To correct the DN refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0340 TN l s c u

Longer or equal length DN already exists.

ACTION: To correct the DN refer to the *administration input/output guide* and use LD 11. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0350 TN l s c u

Loop number in Directory Number block does not match TN.

ACTION: Contact your technical support group.

SYS0360 TN l s c u

Trunk member number out of range.

ACTION: To correct the member number refer to the *administration input/output guide* and use LD 14. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0370 TN l s c u

Route data block does not exist.

ACTION: To correct the route number refer to the *administration input/output guide* and use LD 14. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0380 TN l s c u

Attendant member number out of range or in use.

ACTION: To correct the attendant number refer to the *administration input/output guide* and use LD 12. Replace the

primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0385

TN of the terminal is not the prime DN of attendant.

ACTION: To correct the prime DN refer to the *administration input/output guide* and use LD 12. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0390 TN l s c u

Attendant Directory Number block of wrong type.

ACTION: To correct the attendant block refer to the *administration input/output guide* and use LD 12. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0391

Invalid TN for attendant.

ACTION: To correct the TN for the attendant refer to the *administration input/output guide* and use LD 12. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0400 TN l s c u

Assigned DN has more than 16 stations. Release 12 and earlier software can only have 16 Multiple Appearance DNs. Release 30 allows up to 30.

ACTION: To check Multiple Appearance DNs refer to the *administration input/output guide* and use LD 20 DN. Use LD 10 or LD 11 to correct.

SYS0410 TN l s c u

DN call type in conflict, i.e., single vs. multiple.

ACTION: To correct the secondary attendant block refer to the *administration input/output guide* and use LD 12. Replace the primary storage disk with a second copy. Use LD 43 EDD to dump the corrected data to the second copy disk. This gives you a clean copy of the programmable data. If you get an EDD016 No Go Bad Data message, use the EDD CLR command and perform a system reload from the second copy. After the system is reloaded, check the programmable data using LD 20, 21 or 22 to ensure that it is valid.

SYS0420

Network loop in configuration record conflicts with existing loop.

ACTION: Contact your technical support group.

SYS0421

Tone loop in configuration record conflicts with existing loop.

ACTION: Contact your technical support group.

SYS0422

Conference loop in configuration record conflicts with existing loop.

ACTION: Contact your technical support group.

SYS0423

MF Sender in configuration record conflicts with existing loop

ACTION: Contact your technical support group.

SYS0430

Private DN in trunk data block conflicts with existing DN.

ACTION: Contact your technical support group.

SYS0500

CPU test failed on nonactive CPU.

ACTION: Replace the card(s).

1. MISC or Interface (IF) card

ACTION: Replace the MISC or IF card(s) by following the steps in the *Hardware replacement* guide. If this message reappears try the next card on the list.

2. CPU card or Function (FN) card

ACTION: Replace the CPU or IF card by following the steps in the *Hardware replacement* guide. If this message reappears contact your technical support group.

SYS0510

Changeover and Memory Arbitrator (CMA) card failed to respond. Faulty CMA pack.

ACTION: Replace the CMA card by following the steps in the *Hardware replacement* guide. After replacing the card verify the fault is cleared.

SYS0511

CMA card indicated that nonactive CPU failed CPU test. Probable fault on nonactive CPU or CMA pack.

ACTION: Replace the CMA card by following the steps in the *Hardware replacement* guide. After replacing the card verify the fault is cleared.

SYS0520

Unable to find data for other CPU after switchover.

ACTION: Force the CPU to become active by placing the Norm/Maint switch to the Maint position. This procedure will cause an INI. Place the switch back to the Norm position when done.

SYS0600

Emergency conference group out-of-range (0 to 9).

ACTION: Check to ensure the data is correct.

SYS0601

Emergency conference member out-of-range (1 to 10).

ACTION: Check to ensure the data is correct.

SYS0602

Software problem. If message persists, call manufacturer.

ACTION: Check to ensure the data is correct.

SYS0603

Two TNs assigned as the same member of the same group.

ACTION: Check to ensure the data is correct.

SYS0606 id index

Customer data block number read from the storage medium record header greater than the size of the customer data block pointer array. The output data is defined as follows:

id = Destructor Identifier.

index = Index number definition.

The meaning of the possible **id index** are:

ESN = Customer number where an error occurred while loading ESN data block (ESN_DATA_BLK).

ESNS = Data block index where an error occurred while loading supplementary digit block (ESN_SDR_BLK).

ESNL = Customer number where an error occurred while loading location route block (ESN_LOC_RTE_BLK).

ESNR = Data block index where an error occurred while loading route list (ESN_RTE_LIST_BLK).

ESND = Data block index where an error occurred while loading digit manipulation block (ESN_DM_BLK).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0607 id index

Electronic Switched Network (ESN) data structure was loaded from storage medium but a corresponding customer data block to reference this structure does not exist. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0608 id index

More than one ESN data block was loaded from storage medium for the same customer. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0609 id index

One of the ESN data structures which are referenced from the ESN data block was loaded but the ESN data block does not currently exist for the corresponding customer. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0610 id index

Insufficient protected data store for supplementary digit pointer block. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0611 id index

The supplementary digit restriction index read from the storage medium record header is greater than the maximum value, which is stored in the ESN data block. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0612 id index

More than one supplementary digit restriction block was found on storage medium for the same customer and index. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0613 id index

Insufficient protected data store memory space to set up the route list pointer block. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0614 id index

Route list index read from the storage medium record header greater than the maximum value, which is stored in the ESN data block. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0615 id index

More than one route list block was found on storage medium for the same customer and index. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0616 id index

Insufficient protected data store memory space to set up the digit manipulation pointer block. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0617 id index

Digit manipulation index read from the storage medium record header is greater than the maximum value, which is stored in the ESN data block. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0618 id index

More than one digit manipulation block was found on storage medium for the same customer and index. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0619 id index

More than one location route block was found on storage medium for the same customer and index. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0620 id index

Insufficient protected data store memory space to set up a block in the network translation tree. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0621 id index

One of the translation table digits read from the storage medium is out of range. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0622 id index

The same sequence of digits has been read from storage medium for the specified network translation table. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0623 id index

Cannot enter any more ARS digit manipulation records into ESN digit manipulation block, because ESN DM block is full. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0624 id index

Cannot convert ARS codes other than three digits in length. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0625 id index

Cannot convert digit manipulation entry as length is greater than 20 digits. See SYS606 for output data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0626

NARS is not available.

ACTION: To ensure that the NARS packages are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. If the NARS packages are not on the disk, contact your technical support group.

SYS0627

Translation data is corrupted.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0628

Route list pointer.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0629

Trunk route data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0630

Location route data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0631

Route list entry data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0632

Insufficient protected data store memory space to set up the Free Calling Area Screening (FCAS) pointer block.

ACTION: Add more memory, if possible, by following the steps in the *Hardware replacement* guide.

SYS0633

More than one FCAS NXX block was found on storage medium for the same customer, index and NPA.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0634

The FCAS index read from the storage medium record header is greater than the maximum value, which is stored in the ESN data block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0638

NARS—Invalid NXX.

ACTION: Use LD 90 to check for NXX code.

SYS0639

NARS—FCAS data cannot be accessed.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0640

Cannot perform data conversion for this generic/release/version of storage medium.

ACTION: Contact your technical support group.

SYS0641

The value of the variable 'BLOCKTYPE' was out of range. This variable is set to the storage medium header word 'TAPEBLOCKTYPE'.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0642

The customer data block number read from the storage medium record header is greater than the customer data block pointer size.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0643

No customer data block exists to which authcode can be attached.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0644

The block number read from the storage medium record header does not match the expected block number.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0645

More than one block was read from storage medium with the same block identification.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0646

The authcode header table (AUTH_TABLE_BLK) does not exist to which the remaining authcode data blocks may be attached.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0647

Authcode conversion can occur only in conjunction with the BAUT package and not the NAUT package.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS0648

During conversion, more different class codes were read from storage medium than there is room in the new class code table.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0649

Attempt to allocate protected data store memory space failed.

ACTION: Contact your technical support group.

SYS0650

During conversion, two authcodes which contained identical digits were loaded.

ACTION: To print the AUB block and check the AUTH codes refer to the *administration input/output guide* and use LD 88.

SYS0653

Cannot allocate space for NCTL block which should be split from the ESN data block.

ACTION: To print out the NCTL information refer to the *administration input/output guide* and use LD 87.

SYS0654

More than one Coordinated Dialing Plan (CDP) list was found on storage medium for the same customer.

ACTION: To print out the CDP information refer to the *administration input/output guide* and use LD 87.

SYS0655

The index for the TDET block was 0 or greater than the maximum size.

ACTION: To print out the RDB and check the TDET prompt refer to the *administration input/output guide* and use LD 21. Reprogram in LD 16 and use LD 43 to datadump. Perform another Sysload.

SYS0666

Cannot allocate memory for DCH table of PTRs.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0667 c

PRA option for customer **c** was turned off because ISA is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS0668 x

Cannot load data block for DCH **x** when the ISA and/or DTI packages are restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS0669 loop

Cannot load data block for PRI **loop** when the ISA and/or DTI packages are restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS0670 r c

Cannot load route **r** for customer **c** when the ISA package is restricted and the route configured to have B channels.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS0671 r c

SDN option for route **r** in customer **c** is turned off because ISA is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS0672

The provisioned ROM (QPC717) does not support Expanded Memory.

ACTION: Make sure that the QPC717 is a D vintage.

SYS0673

The MISC/PS board (QPC709) has been fitted with an improved ROM (QPC717D).

ACTION: Information only, no action required.

SYS0674

The Meridian ST ROM (QPC717D) with MISC/PC (QPC709C) and the expanded memory boards (QPC814)—MTYP 768 is assumed. Only issued when the configuration record indicates something other than 768.

ACTION: Information only, no action required.

SYS0700 xx

This message indicates self-test results, and call processing status. **xx** refers to appended numbers that follow the SYS700 message itself. Each set of numbers is associated with a specific call processing or self-test activity. They appear as the activity takes place.

00 = Begin CP board reset

01 = Begin SRAM self- test

02 = ROM created on <date>

03 = Beginning DRAM self-test
DRAM being configured

04 = Booting ROM Operating System

ACTION: Information only, no action required.

SYS0701 xx

This message indicates self-test results, and call processing status. **xx** refers to appended numbers that follow the SYS701 message itself. Each set of numbers is associated with a specific call processing or self-test activity. They appear as the activity takes place.

01 = ASIC ICC failure

02 = SRAM test failure

03 = CP test failure

04 = HPM test failure

05 = PEROM checksum failure

06 = SRA ASIC failure

07 = CMB ASIC failure

08 = BIC ASIC failure

09 = Duarte test failure

10 = Time of day clock failure

11 = No DRAM available

12 = LCD display test failure

ACTION: Replace the CP card by following the instructions in the *Fault Maintenance* and *Fault Clearing Guides*.

SYS0702 x x x x x x

DRAM size (in megabytes). Each **x** indicates a bank populated, with a maximum of 6 banks available.

ACTION: Information only, no action required.

SYS0703 xxxx

Self-tests completed. **xxxx** refers to the test flags. 0FFF indicates that all the tests passed.

ACTION: Information only, no action required.

SYS0704

Soft reset completed.

ACTION: Information only, no action required.

SYS0705 xx

This message indicates self-test results, and call processing status. **xx** refers to appended numbers that follow the SYS705 message itself. Each set of numbers is associated with a specific call processing or self-test activity. They appear as the activity takes place.

00 = CPU speed unknown

01 = CPU speed less than 25 Mhz

02 = CPU speed at 25 Mhz

03 = CPU speed between 25 Mhz and 33 Mhz

04 = CPU speed at 33 Mhz

05 = CPU speed between 33 Mhz and 40 Mhz

06 = CPU speed at 40 Mhz

07 = CPU speed greater than 40 Mhz

ACTION: Information only, no action required.

SYS0706 xx

Software full reset, or software warm reset. **xx** refers to the following explanations.

00 = Low level debugger command to warm start, or unexpected exception or interrupt occurred during early reset sequence

01 = Hardware sanity timeout (once)

02 = SWO: failure on switchover

03 = SWO: too many switchovers
04 = WARM: disk OS warm start failure
05 = WARM: too many disk OS warm starts
06 = WARM: disk OS not loaded
07 = RESET: forced SWO in progress
08 = RESET: soft reset in progress
09 = TASK: unable to create message queue
10 = Protected memory checksum failure
11 = INFO: disk OS warm start begins
12 = INFO: DRAM is initialized
13 = RESET: cannot delete verified task
14 = RESET: task threshold exceeded
15 = WARM: Exc vector threshold exceeded
16 = WARM: Exc total threshold exceeded
17 = WARM: Exc handling already busy
18 = WARM: Exc restart task failed
19 = RESET: manual INIT requested
20 = SEG: checksum failure detected
21 = SEG: disk OS text segment corrupted
22 = SEG: disk OS partitions corrupted
23 = DISKOS: unable to load Meridian 1
24 = DISKOS: unable to start Meridian 1
27 = Bad active IOP is detected
28 = Parity error on both sides
29 = Parity error on split sides
30 = Parity error - remote SIMM is missing
31 = Parity error - remote SIMM is disabled
41 = OS manual (PDT) request
42 = OS request to reboot (sysToMon)
43 = OS RST - initialization failed
44 = OS SKD - initialization failed
45 = OS SWD - initialization failed
46 = OS PMEM - initialization failed
47 = OS security check failed
48 = OS normal recovery from BER

49 = OS unable to recover from BER

50 = OS unable to “diskos”

51 = OS unable to load "diskos"

52 = OS VOL - initialization failed

53 = OS SCSI - initialization failed

54 = OS DOS - initialization failed

ACTION: Contact your technical support group.

SYS0720 x

Running VxWorks Boot OS. X11 Release **x**.

ACTION: Information only, no action required.

SYS0721

Cannot access <filename>.

ACTION: Contact your technical support group.

SYS0722 x

Cannot load <filename> to **x.**

ACTION: Contact your technical support group.

SYS0723 x

Boot OS restart reason **x**.

ACTION: Information only, no action required.

SYS0724

Boot OS exception.

ACTION: Information only, no action required.

SYS0800

Unable to allocate Peripheral Signaling (PS) polling table.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS0802 i t n

Unable to allocate protected TN block or translator for CMF incoming or outgoing table.
Output: **i** = incoming/oμutgoing, **t** = table number, **n** = level number.

ACTION: Contact your technical support group.

SYS0803

Unable to allocate protected directory block.

ACTION: Contact your technical support group.

SYS0804

Unable to allocate protected loop block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0805

Unable to allocate dial intercom group block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0806

Unable to allocate protected Flexible Feature Table.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0807

Unable to allocate protected Radio Paging data for a radio paging system or a translation table entry.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0808

Unable to allocate memory for Group data link.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0809

Unable to allocate ARS UAC table or schedule block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0810

Unable to allocate 'do not disturb' block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0811

Ext DIG5 block without Basic block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0812

Ext MR block without Basic block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0813

Aux Customer block without Basic block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0814 ftc c r t n

FTC class access code table is missing. Where,

ftc=Flexible toll and code

c= Customer number

r= Route number

r= AC (FTC access code table)

= QUL (FTC qualify code table)

n= 13 (class 1)

=14 (class 2)

= 15 (class 3)

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0815 ftc c r q n

Code restriction master head table or FTC head table is missing.

ftc=Flexible toll and code

c= Customer number

r= Route number

q= FTC qualify code table

n= 16 (class 1)

= 17 (class 2)

= 18 (class 3)

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0821

SYS2 Procedure SETBLOCK: memory block has not been allocated.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0822

SYS2 Procedure SETUPTNTERMLOOP. Protected group block does not exist. (PGROUPPTR=NIL).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0823

SYS2 Procedure SETUPTNTERMLOOP. Protected loop block does not exist. (PLOOPPTR=NIL).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0824

SYS2 Procedure SETUPTN TERM LOOP. Protected loop block exists and the loop is remote.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0825

SYS2 Procedure SETUPTNCARD. Protected card block does not exist. (PCARDPTR=NIL).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0826

Unable to allocate protected DTI block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0827

Unable to allocate protected group block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0900

Unable to allocate memory for the overlay area.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS0901 code xxx

Where code is defined as:

INTR = Unable to allocate enough memory for the intrinsic xxx.
PROG = Unable to allocate enough memory for program xxx.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0905

Unable to transfer program to memory other than page 2.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0910

Memory map for active memories invalid. Program error.

ACTION: Check the full, active memory map in LD 29, use CHG to correct the problem. For further assistance, contact your technical support group.

SYS0920

Memory map for active memories invalid. Program error.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS0999 FATAL

Major alarm (power fail transfer) tripped by software because of insufficient protected memory.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS1000

Card density greater than loop density.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to check the card density. Use LD 22 CFN to check the loop density. Determine which needs correcting. Use LD 10 or 11 to correct card density and LD 17 to correct loop density.

SYS1001

Card density less than higher equipped units.

ACTION: To check the card and unit density refer to the *administration input/output guide* and use LD 20 TNB. Use LD 10 or LD 11 to correct the card or unit density.

SYS1002

Card block not found on storage medium for unit block found on storage medium.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1003

No card block for secondary attendant.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1004

Customer station group header tables does not exist.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1005

Not enough protected data store can be allocated for pretranslation.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS1006

Station group entry number is greater than MAX_SGRP

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1007

Pretranslation table number is greater than MAX_PRXL.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1008

MFC conversion is not supported for this conversion.

ACTION: Information only, no action required.

SYS1009

No NLC data exists to load the NLC ARS block. (NLC_ARS_LOAD).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1010

The corresponding NLC block does not exist for the NLC ARS block (NLC_ARS_LOAD).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1011

No NLC data exists to load the NLC DNL lists. (NLC_ARS_LOAD).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1012

The corresponding NLC block does not exist for the NLC DNL block. (NLC_DNL_LOAD).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1013 SSTB I/O

Unable to allocate protected supplementary service tables. Where, **I/O** = 0 for incoming, 1 for outgoing.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1014 CMF g t n

MFC conversion for levels greater than 2 are not supported. Where,

g=0 for incoming, 1 for outgoing,

t=table number,

n=level number.

ACTION: Information only, no action required.

SYS1015

AUTH data block does not exist.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1016

SARG number is greater than SARG_MAX.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1017

Not enough protected data store can be allocated for SARG block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS1018

Not enough protected data store can be allocated for AUTH_PTR table.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS1019

Not enough protected data store can be allocated for AUTHCODE block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS1020

Not enough room exists in AUTH_PTR_TABLE.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1026

CMF_TIE_PACKAGE not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output* guide and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS1027

CMF_DID_PACKAGE not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output* guide and use LD 22 PRT, PKG.Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS1028

NWK_PACKAGE not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS1028

Room ID table occurs on tape with non-configured customer number.

ACTION: Information only, no action required.

SYS1056

Unit number of DTD, MFC, MFE out of range.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1057

MFE package not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS1058

MFE data corruption.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group. For further assistance, contact your technical support group.

SYS1059

Caller's Name Display: Cannot set up special name table.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check the special name table. For further assistance, contact your technical support group.

SYS1060

Caller's Name Display: The average size of the name is not configured.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check MXLN. For further assistance, contact your technical support group.

SYS1061

Caller's Name Display: The maximum number of names is not configured.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check MXLN. For further assistance, contact your technical support group.

SYS1062

Caller's Name Display: Not enough memory for names.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check the U data and P data. For further assistance, contact your technical support group.

SYS1063

Caller's Name Display: No memory reserved for names.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check the U data and P data. For further assistance, contact your technical support group.

SYS1064

Caller's Name Display: Cannot find TN for dumped name.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check for the missing TN. For further assistance, contact your technical support group.

SYS1065

Caller's Name Display: Name is loaded for TN that has no CND data.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check CND data. For further assistance, contact your technical support group.

SYS1066

Caller's Name Display: Corruption during stealing from name pool.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1067

Caller's Name Display: Trying to dump CND data for nonexistent attendant.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check the CND data. For further assistance, contact your technical support group.

SYS1068

Caller's Name Display: Cannot find secondary attendant block.

ACTION: Refer to the *administration input/output guide*, use LD 95 to print and then check for missing secondary attendant block. For further assistance, contact your technical support group.

SYS1069

Caller's Name Display: Trying to dump a monitored area title for a customer that does not exist.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1070

Caller's Name Display: Cannot set up display group table.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS1082 adon

Tape contains VNET package but is missing CR_ADDON package. Any networking call attempts will fail.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS1083

Digit buffering is not supported and outpulsing rate is reset to 100ms.

ACTION: Information only, no action required.

SYS3000 c

Customer **c** is missing from Call Park data block. The system cannot load the data block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3001 c

Cannot build DN because DN information is missing from Call Park block for customer **c**.

ACTION: Refer to the *administration input/output guide*, use LD 50 to correct missing DN information.

SYS3002 c dn

Cannot build the remainder of the Call Park DNs for Customer **c**. **dn** is failed DN.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3003

Speed Call list is partially missing.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3004

Cannot build DN for ESN test maintenance lines.

ACTION: Contact your technical support group.

SYS3005 FATAL

Conversion was not done properly. Wrong generic/release.

ACTION: Check for proper source and target software. If the problem is not corrected contact your technical support group.

SYS3006

Conversion flag not set.

ACTION: Check for proper source and target software. Re-attempt conversion

SYS3007

SCC data table is required.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3008

Card density on storage medium is greater than configured loop density.

ACTION: Refer to the *administration input/output guide*, use LD 22 CFN to print and check for correct loop density. Use LD 10, LD 11 or LD 14 to correct.

SYS3009

Card density in protected card block does not equal the card density on storage medium.

ACTION: Use LD 32 IDC to check the affected card. Use LD 10, LD 11 or LD 14 to correct.

SYS3010

Encountered card block with wrong card type.

ACTION: Refer to the *administration input/output guide* and use LD 97 FDLC to perform a forced download.

SYS3011

The expected number of card records not received from storage medium.

ACTION: Try a backup set of software. If the fault does not clear, contact your technical support group.

SYS3012

A higher density loop has a lower density card record for upper units.

ACTION: Use LD 32 STAT to check card density. Use LD 10, LD 11 or LD 14 to correct the fault.

SYS3013

ADM trunk type not supported. Route or trunk data block discarded.

ACTION: Information only, no action required.

SYS3015

Unable to allocate Protected Data Store (PDS) for set relocation.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3016

Unable to allocate PDS for history, traffic, or TTY log file buffer.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3017

Unable to allocate PDS for tone detector block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3018

File LAST missing from tape list.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3019

Multiple Programmable Code/DID ranges block found with no location code.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3020

There is a Multiple Programmable Code and DID ranges block for a location code that does not have a MNXX block defined. MNXXX was allocated anyway.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3021

The pointer to MNXXX block was not nil (possibly two MNXXX blocks for this location code).

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3022

There is a Multiple Programmable Code and DID ranges block for a location code but the length is zero.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3024

Data block can only be loaded when DTI package is selected. On code but the length is zero.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3025

Data block can only be loaded when AMP package is selected.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3026

Attempt to allocate pds for Tenant Data Block failed.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3027

Block header customer number too large.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3028

Block header route number too large.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3029

Block header tenant number too large.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3030

Tenant data blocks out of order, presumed missing.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3031

Essential tenant data blocks are missing, Sysload disabled tenant service.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3032

Tenant service package restricted but tenant data block detected.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3034

Tenant service should not be packaged with mini-CDR.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3035

Digital set data block cannot be loaded when digital set package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3036

M3000 data block cannot be loaded when M3000 package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3037

The first part of an atm schedule block was lost.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3038

MSI Hardware register fault.

ACTION: Replace the MSI card by following the steps in the *Hardware replacement* guide. After replacing the card verify the fault is cleared.

SYS3039

BG TIME/CATEGORY block without AUX CUST BLK.

ACTION: Contact your technical support group.

SYS3040

AWU time on the TN has been erased.

ACTION: Information only, no action required.

SYS3041

SLST package not allowed on SL-1 N machine. Trap is called.

ACTION: Have your technical support group contact Northern Telecom Technical Assistance Service to set the SLST package restriction flag.

SYS3042

Two supervisors have a NSVC key assigned for this ACD-Dn.

ACTION: Refer to the *administration input/output guide* and use LD 11 to correct the key assignment.

SYS3043

The ACD NSVC key is assigned to an invalid ACD-DN.

ACTION: Refer to the *administration input/output guide* and use LD 11 to correct the key assignment.

SYS3044

The ACD NSVC key is assigned to an agent's station.

ACTION: Refer to the *administration input/output guide* and use LD 11 to correct the key assignment.

SYS3045

The NSVC key is assigned to an illegal DN lamp key.

ACTION: Refer to the *administration input/output guide* and use LD 11 to correct the key assignment.

SYS3046

Cannot allocate memory space for Speed Call List header table.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3047

Automatic conversion is not available for a given database. Database on tape is not updated to minimum release.

ACTION: Use the correct conversion procedure by following the steps in the *System and Software Upgrade Guide.*

SYS3048

Expecting an extension block on tape which is not there.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3049

An illegal extension block is read by the tape. Block that has been read is not is not an extension of the previous block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3050

The primary block is missing from the tape. The extension block read from the tape needs a primary block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3051

Cannot load FTC data block if FTC is not packaged.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3052

Cannot get Protected Data Block for Auxiliary Customer Block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3053

Cannot get Protected Data Block for creating Table 0.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3054

Mini CDR module is entered when either DNXP or CDRE is present. Mini CDR is not supported when either DNXP or CDRE (or both) are present.

ACTION: Information only, no action required.

SYS3055

Digital Set Package not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3056

Customer ID for given Prexl_block is out of range.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3057

Customer data block does not exist for given prexl_block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3058

System out of memory. Cannot create storage for prexl_block because no more PDS available.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS3060 c zz ss

DN's hundreds group conflict with a shorter hundreds group.

c = customer number

zz = conflicting hundreds group

ss = is the shorter existing group

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3061 c xx yyyy

This DN’s hundreds group conflicts with a different hundreds group within this database.

c = customer number

xx = conflicting hundreds group

yyyy = is the longer existing group

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3062

Private DN has already been defined as non-private DN line setup fail.

ACTION: Information only, no action required.

SYS3063

FGD package is restricted; FGD block could not be loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS3064

FGD block number exceeds length of list allocated.

ACTION: Refer to the *ISDN Primary Rate Interface NTP*.

SYS3065

Unit number of MFVE receiver not zero or one.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3066

Unit number of MFR receiver is not zero.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3067

Can not allocate P_NKDM_TABLE for given customer.

Remove unnecessary configuration.

ACTION: Contact your technical support group.

SYS3068

Fatal error; no space for the conversion program.

ACTION: Make sure you are using the correct target software, ROM and memory cards.

SYS3069

Fatal error; the conversion program is not on the storage medium.

ACTION: Make sure you are using the correct target software, ROM and memory cards.

SYS3070

Fatal error, Conversion error: wrong version or wrong storage medium issue

ACTION: Make sure you are using the correct target software.

SYS3071 CPND NAME dn

A CPND name associated with the given DN was not loaded into memory because it was too long, invalid or there was not enough protected data store available.

ACTION: Re-enter the name in LD 95. If there are many of these messages then evaluate the available protected data store.

Change all sets with ‘AST’ to “NO’ on the original software, then convert again. Verify the proper ISM parameters are met.

SYS3072

Block index is out of range for given ovflw_index_block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3073

Block index does not correspond with given ovflw_index_block. Block index is within range but it does not match with given ovflw_index_block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3074

Ran out of memory. Cannot allocate PDS for AUTH_TABLE_block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS3076

No more PDS. Cannot allocate PDS for ATM_Sch_Blk.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS3077

No more PDS. Cannot allocate PDS for Cust_ATM_MHT block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS3078

Cust ID out of range. ATM_Sch_Blk customer ID is out-of-range of cDataPtr.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3079

Customer Data is missing. No customer data exist for given cust ID for ATM_Sch_Blk.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3080

Hour given is out of range. ATM_Sch_Blk number of hours out of range of 24 hours.

ACTION: Refer to the *administration input/output guide* and use LD 21 to check the schedule Use LD 16 to correct out of range of hours.

SYS3081

The value of printer is NIL. No ATM_Sch_Root_Ptr exist for given Cust_ID.

ACTION: Refer to the *administration input/output guide* and use LD 21 to check the schedule. Use LD 16 to correct the schedule.

SYS3082

No more protected data store. Cannot allocate PDS for ATM_Sch_Rovt_Ent block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS3084

Unable to allocate head/subhead table block for FGD ANI data.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS3085

No NPA data block exists to which NXX data block can be attached.

ACTION: Use LD 90 to check the Bars/Nars programing.

SYS3086

No NXX data block exists to which SUB data block can be attached.

ACTION: Use LD 90 to check the Bars/Nars programing.

SYS3087

The block number read is greater than the block number expected.

ACTION: Contact your technical support group.

SYS4007

LLC data block found but feature is not packaged. Data block not loaded into the system.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4009

Cannot allocate memory for PNI Table.

ACTION: To check the U data and P data, refer to the *ISDN Primary Rate Interface NTP*. For further assistance, contact your technical support group.

SYS4010

Cannot allocate memory for PNI customer table.

ACTION: To check the U data and P data, refer to the *ISDN Primary Rate Interface NTP*. For further assistance, contact your technical support group.

SYS4011

Cannot allocate memory for PNI count table.

ACTION: To check the U data and P data, refer to the *ISDN Primary Rate Interface NTP*. For further assistance, contact your technical support group.

SYS4012

MAX_DGT_MAN_TBLS equal MAX_DM_TBLS. The system cannot automatically create a new Home Location Code (HLOC) Digit Manipulation Index. (DMI).

ACTION: Use LD 86 and 90 to check the DMI for HLOC and correct if necessary.

SYS4013

Patch block error.

ACTION: Contact your technical support group.

SYS4014

Aries set data block cannot be loaded when Aries set package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4015

SYS cust number is out-of-range. The cust ID of ICI Table Block is bigger than the size of cDataPtr.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4016

No customer data block exists for given cust ID, of ICI Table block.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4017

No protected data store exists to allocate a new ICI table block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4020 Cust c RDB r CMFI t

INC CMF TBL in non VNET route has been zeroed, where **c** = customer number, **r** = a route number, and **r** = an incoming CMF signalling table associated with the route.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4021 c RDB r ISST t

ISST TBL in non VNET route has been zeroed, where **c** = customer number, **r** = route number, and **t** = an incoming supplementary service table associated with the route.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4023

Unable to free unused PS for later PDS use.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4024 x

x 256W chunks of memory are available.

ACTION: Information only, no action required.

SYS4025

Only top 256 elements of MS were saved when moving STK or adjusting its size.

ACTION: Information only, no action required.

SYS4026

Only top 256 elements of RAS were saved when moving STK or adjusting its size structures.

ACTION: Information only, no action required.

SYS4033

Loop block not allocated due to cap limit.

ACTION: Information only, no action required.

SYS4034

Duplicate clock source option.

ACTION: Information only, no action required.

SYS4035

Card block not allocated due to cap limit.

ACTION: Information only, no action required.

SYS4036

Page 5 option set, bug logical Page 509 not on page 5. No memory enhancement performed (XN and L only).

ACTION: Check the full, active memory map in LD 29, and use CHG to correct the problem. For further assistance, contact your technical support group.

SYS4038

MSM package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4040

5 or 6 Hunt and Night DNs, and all Display DNs have been removed because the ENP pkg is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4041

Display DNs are being removed because the customer does not have EDN option selected.

ACTION: Refer to the *administration input/output guide* and use LD 21 CDB to check the EDN option.

SYS4100

The ICDR data exists on the system tape but the ICDR package is disabled for the software active on the switch. All telephone sets and attendant consoles ICDR options are removed.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4101

The MCT data exists on the system tape but the MCT packages is disabled for the software active on the switch. MCT options have been reset.

ACTION: Check the full, active memory map in LD 29 and use CHG to correct the problem. For further assistance, contact your technical support group.

SYS4102

Tape contains Enhanced Hot Line data but EHOT package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4103

Hot Line Package must exist for EHOT package to be enabled.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4105

This DN and all following DNs have been removed by Capacity X11 Administration Input/output.

ACTION: Information only, no action required.

SYS4106

This PSTRN trunk and all following PSTN trunks have been removed by Capacity Administration.

ACTION: Information only, no action required.

SYS4107

This attendant and all following attendants have been removed by Capacity Administration.

ACTION: Information only, no action required.

SYS4108

Total number of DNs removed by Capacity Administration.

ACTION: Information only, no action required.

SYS4109

Total number of PSTN trunks removed by Capacity Administration.

ACTION: Information only, no action required.

SYS4110

Total number of attendants removed by Capacity Administration.

ACTION: Information only, no action required.

SYS4111

Pilot DN block exits but tape is not equipped with GPHT package. PDBs are not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4112 nn

More than 16 logical units cannot be configured. Therefore TTY **nn** is no longer configured.

ACTION: Information only, no action required.

SYS4200

Network Attendant Service (NAS) schedule block found on disk, but the NAS package is restricted. NAS data was not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4201

One of NARS, NCOS or BRTE package required by Network Attendant Service (NAS) is restricted. NAS data was not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4202

Warning: the disk is equipped with Network Attendant Service (NAS) and at least one of Attendant Overflow Position (AOP), Centralized Attendant Service Main (CASM) or CAS Remote (CASR). These packages are mutually exclusive. If the customer is using NAS, the AOP, CASM and CASR packages must be restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4203

P_AUX_CDB is missing for the Network Attendant Service (NAS) schedule block to be loaded. NAS data was not loaded.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4204

The SDI_RECORD cannot be loaded or allocated during SYSLOAD.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4205

Data can only be loaded when PRI2 package is selected.

ACTION: Information only, no action required.

SYS4206

Data can only be loaded when PRI2, DTI2, BRIT, or BRIL package is selected.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4207 c

No memory block (PDS) for Console Presentation Group (P_cpg_data_blk) during conversion. Attendant parameters for customer **c** are lost.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4209

BKGD Port ID of "IS" changed to its ASCII equivalent "01". This was done because the previously defined BKGD port of "IS" conflicts with a new message type in the Hospitality Voice Services (HVS) feature.

ACTION: Continue to use the new port ID or "01", or change it to another valid ID. This error does not inhibit a subsequent data dump.

SYS4210 xxx

Where **xxxx** can be one of the following codes: 216 DDSL number exceeds length of list allocated: 563 Bad DPNSS channel block (data is lost).

These codes correspond to SYS216 and SYS563 on SLX systems.

ACTION: Contact your technical support group.

SYS4211

CPG number is outofrange (1-63).

ACTION: To check for the correct CPG number refer to the *administration input/output guide* and use LD 50.

SYS4212

Customer number for CPG data block is out-of-range (0-99).

ACTION: To check for the correct customer number refer to the *administration input/output guide* and use LD 50.

SYS4213

CPG (1-63) data block found but the CPG basic package (CPG_BAS_PACKAGE) is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4214

No Protected Data Store (PDS) to allocate the CPG data block.

ACTION: Install more memory if applicable. Use the LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4215

No Protected Data Store (PDS) to for CPG0 data block at SYS2 wrap up time.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test memory. If memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4216

The protected CPG pointer block is nil (DNXL module) for a configured customer.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4217

Customer configured, no CPG0 data block SYS2 will recover with the default values.

ACTION: To check the CPG0 data block refer to the *administration input/output guide* and use LD 50.

SYS4218

ATL package not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4219

Cannot find the ACD Block for this Target Table.

ACTION: Use LD 23 to check the NACD programming.

SYS4220

Invalid DN for this NACD Target Table.

ACTION: Use LD 23 to check the NACD programming.

SYS4221

Cannot find the ACD Block for this Source Table.

ACTION: Use LD 23 to check the NACD programming.

SYS4222

Invalid DN for this NACD Source Table

ACTION: Use LD 23 to check the NACD programming.

SYS4223

Not enough Protected Data Store to set up FSNS pointer block.

ACTION: Install more memory if applicable. Use the LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4224

More than one FSNS XXX block was found for the same customer, index and NPA.

ACTION: Check Bars/Nars programming

SYS4225

The FSNS index record header was found to greater than the maximum value which is stored in the ESN data block.

ACTION: Check Bars/Nars programming

SYS4226

Missing MCAD_TABLE entries on FTC conversion. Cadence data will be set to the defaults.

ACTION: Contact your technical support group.

SYS4227

Cannot get Protected Data to create a new MCAD ENTRY table. Cadence data will be set to the defaults.

ACTION: Contact your technical support group.

SYS4257

On a cold start, this message reports the RLS/ISSUE/DATE/TIME, size in records and sequence number of the DATABASE last used for data dump.

ACTION: Information only, no action required.

SYS4301

Aries data block cannot be loaded unless the Aries Package is equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4304

The system has found some corrupted LAPW data

ACTION: To print the LAPW data refer to the *administration input/output guide* and use LD 22. If you do not know the secondary password, contact your technical support group.

SYS4305

The root pointer is not set. The LAPW data will not be loaded.

ACTION: To print the LAPW data refer to the *administration input/output guide* and use LD 22. If you do not know the secondary password, contact your technical support group.

SYS4306

The LAPW package is not equipped. The LAPW data will not be loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4307

PLDN package is not equipped; data has been cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4308

Bad data encountered while loading DN_GHBLK.

ACTION: Contact your technical support group.

SYS4309

Unable to allocate PDS GPHT data block.

ACTION: Install more memory if applicable. Use the LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4310

Bad data encountered while loading SCL_P_GHBLK.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4311 l s c u

The key template for the BCS set at this TN is missing. The data block cannot be loaded.

ACTION: The set must be redefined.

SYS4312

Attendant Alternative Answering (AAA) and Attendant Forward No Answer (AFNA) are mutually exclusive.

ACTION: Information only, no action required.

SYS4313

When a disk with IMS data and packages has been dumped to disk, and an IMS package is missing, then two SYS4313 messages are output on SYSLOAD instead of SYS0802.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4314 PR2 loop

Conversion of PRI2 data block is not provided.

ACTION: After conversion check PRI database and re-enter if needed.

SYS4315

The Automatic Number Identification package (ANI) package 12 is not equipped. The data has been lost.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4317

The database on tape is developmental, before the final issue.

ACTION: Except for testing, use a standard database.

SYS4318

1.5 and 2.0 RPE cannot coexist, 2.0 is removed.

ACTION: Information only, no action is required if you use 1.5 RPE. If you use 2.0 RPE, contact your technical support group.

SYS4319

No RPE2 package. RPE2 not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4320

CASM package (26) is not allowed on this machine type.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4321

CASR package (27) is not allowed on this machine type.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4322

Dedicated trunks cannot be assigned to an ISA service route.

ACTION: Check your database in LD 16 and LD 14.

SYS4323

The step flag is turned off. Stepping to an ISA route is not allowed.

ACTION: To check the STEP refer to the *administration input/output guide* and use LD 21. Use LD 16 to correct.

SYS4324

The step flag is turned off. Stepping to an ISA service route is not allowed.

ACTION: To check the STEP refer to the *administration input/output guide* and use LD 21.Use LD 16 to correct.

SYS4325

The step flag is turned off. Stepping to a nonexisting route is not allowed.

ACTION: To check the STEP refer to the *administration input/output guide* and use LD 21. Use LD 16 to correct.

SYS4326 l s c

A card number has been found during SYSLOAD which is out-of-range. Valid card numbers are:

ENET: 1 - 10

Network/DTR card (NT8D18): 0-9 and 15

Network (NT8D04) card: 0-15

ACTION: To determine the correct range use LD 32 IDC l or IDC **l s c** and LD 97 to correct the problem.

SYS4327

DO NOT USE LD 43 TO DATADUMP. SYSTEM INFORMATION WILL BE LOST.
This TN is greater than the limit and cannot SYSLOAD.

ACTION: Have your technical support group contact Northern Telecom Customer Service for replacement software with expanded limits.

SYS4328

DO NOT USE LD 43 TO DATADUMP. SYSTEM INFORMATION WILL BE LOST.
This ACD Agent/Supervisor is greater than the limit and cannot SYSLOAD.

ACTION: Have your technical support group contact Northern Telecom Customer Service for replacement software with expanded limits.

SYS4329

DO NOT USE LD 43 TO DATADUMP. SYSTEM INFORMATION WILL BE LOST.
This ACD DN is greater than the limit and cannot SYSLOAD.

ACTION: Have your technical support group contact Northern Telecom Customer Service for replacement software with expanded limits.

SYS4330

DO NOT USE LD 43 TO DATADUMP. SYSTEM INFORMATION WILL BE LOST.
This AST set is greater than the limit and cannot sysload. If you datadump, system information will be lost.

ACTION: Have your technical support group contact Northern Telecom Customer Service for replacement software with expanded limits.

Change all sets with 'AST' to "NO' on the original software, then convert again. Verify the proper ISM parameters are met.

SYS4332

The IFC type of the ISA service route and the ISA route do not match.

ACTION: Refer to *ISDN Primary Rate Interface* NTP.

SYS4333

The ISDN package is restricted in this event. You cannot load the DCH number.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4334

The PRA package is restricted. You cannot load the DCH number.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4335

The DCH mode is dedicated in the ESL mode, and the ESL package is restricted. You cannot load the DCH number.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4336

This telephone set is declared incorrectly as an ACD Agent station.

ACTION: Correct your database in LD 11.

SYS4337

The ACD_POS_LST_PTR for the ACD-DN is not set correctly.

ACTION: Contact your technical support group.

SYS4338 xxxx yyyyyy

ACD Package A is not equipped. The FFC package cannot be loaded.

xxxx = FFC type (LILO or NRDY)

yyyyyyy = FFC that will not be loaded

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4339

The Virtual Network Service (VNS) data block cannot be loaded.

ACTION: Contact your technical support group.

SYS4340

Those DNs cannot be built because the DN information is missing from the Virtual Network Services (VNS) data block.

ACTION: Contact your technical support group.

SYS4341

The rest of those DNs cannot be built because there is no valid Customer Block existing.

ACTION: Contact your technical support group.

SYS4342

RPA package is not equipped. RPA data lost.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4343

Nil cust_no/ffc/rpa_dn pointer. RPA data lost.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4344

Corruption in ffc rpa system parameter block; data lost.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4345

This customer lost the SDAC data because the neither the SUPP nor PRTRANS packages are equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4346

The ISDN International package is restricted from that operation. The TSYNC data is not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4347 c

The DN information for customer **c** is missing. The system cannot build a DN in the database.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4348

The Time Synchronization (TSYNCH) package has been found, but the International ISDN supplemental features are restricted from its use. The TSYNCH data is not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4349 c

You cannot build a TSYNCH DN, because the DN information for that customer **c** is missing.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4350

Hospitality IDC tree block not loaded since Hospitality package is unequipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4351

Hospitality IDC tree block is not loaded.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4352

Hospitality package is removed since some of the packages it requires are missing.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4353

Hospitality Authcode block not loaded.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4356

Mini-CDR is not allowed on the Option 11. The package has been disabled.

ACTION: To ensure that all the packages you have ordered are on the cartridge refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the cartridge. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4357

The Remote Peripheral Equipment (RPE) package is not allowed the Option 11. The package has been disabled.

ACTION: To ensure that all the packages you have ordered are on the cartridge refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the cartridge. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4358

The RPE2 package is not allowed on the Option 11. The package has been disabled.

ACTION: To ensure that all the packages you have ordered are on the cartridge refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the cartridge. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4359

Program type in the program header is invalid.

ACTION: Contact your technical support group.

SYS4360

Conflicting information found in program header.

ACTION: Contact your technical support group.

SYS4361

Overlay number in program header is out of range.

ACTION: Check to be sure the proper ROM is installed.

SYS4362

No program ROM was found.

ACTION: Check to be sure the proper ROM is installed.

SYS4363

Checksum on program ROM failed.

ACTION: Replace the ROM card by following the steps in the *Hardware replacement* guide. After replacing the card verify the fault is cleared.

SYS4365

Fatal error: DNXL program not found on the storage medium.

ACTION: To ensure that all the packages you have ordered are on the disk.refer to the *administration input/output guide*, use LD 22 PRT, PKG Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4366

Fatal error: SYS4 program not found on the storage medium. (Please note that SYS4366 is only on the X81 stream at this time.)

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4367

Fatal error:

ACTION: If packages IDA, DPNSS, and DASS are equipped, the QPC948B ROM must be used. This message will always be given in conjunction with a SYS0088 message.

SYS4368

Fatal Error: The DNXL program cannot be found on the storage medium.

ACTION: Contact your technical support group.

SYS4369

Fatal Error: The SYS4 program cannot be found on the storage medium.

ACTION: Contact your technical support group.

SYS4370

Fatal Error: You must use QPC948B ROM if any of the following packages are equipped: IDA, DPNSS and DASS.

ACTION: Make sure you have installed the correct ROM by following the instructions in the *System and Software Upgrade Guide*.

SYS4371

RPA data lost; in proc rpax_parm_blk; dnxlptr is nil.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4372

rpa data lost; in proc rpax_parm_blk; rpa_ffc_parm_ptr already exists.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4373

RPA data lost; in proc rpax_parm_blk; not enough memory for rpax parameter blk.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4374

RPA data lost; in proc rpasys_head_blk; rpa_system_ptr: p_aux_cust_hdr not nil, data already exists.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4375

RPA data lost; in proc rpasys_head_blk, not enough memory for rpa_system_blk or system parameter block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4376

RPA data lost; in proc rpasys_parm_blk, rpa_system_ptr: p_aux_cust_hdr is nil.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4377

RPA data lost; in proc rpasys_parm_blk, rpa_system_parm_ptr[ ]: sys_head_ptr not nil. Data already exists.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4378

RPA data lost; in proc rpasys_parm_blk, not enough memory for rpa traffic block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4379

RPA data lost; in proc rpa_dnpsa_tree, not enough memory for rpa dn block or dn-psa block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4380

RPA data lost; in proc rpa_dnpsa_tree, digit should not be 0.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4381

RPA data lost; in proc rpa_dnpsa_tree, result from rpa_trans is not.rpa_invalid_dn

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4382

RPA data lost; in proc rpa_trans, dnxlptr is nil or digit_count > maximum size of digit corruption in dn psa tree.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4383

RPA data lost; in proc valid_ffc, wrong data type.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4384

PGIP and PGSP FFCs will not be rebuilt when loading phase 6.65 and up.

ACTION: Information only, no action required.

SYS4385

Data block is unusable. It was dumped on an issue prior to 6.67; data lost.

ACTION: Try to Sysload on a backup set of software. If the fault continues contact your technical support group.

SYS4387

Cannot get pds for the idc name block.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4391

1.5 Mb/s DTI/PRI pad category table data can only be loaded when GPRI package (167) is equipped.

ACTION: Enable package #167 to load 1.5 Mbps DTI/PRI pad category tables. To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4392

The site IDs in the Flash directories (SCORE and cartridge) do not match.

ACTION: This is only a warning and does not affect the system load.

SYS4393 x

Flash ROM on device **x** has failed checksum. **x** = 4 indicates cartridge Flash ROM and **x** = 8 indicates SCORE Flash ROM.

ACTION: Order and replace the Flash ROM.

SYS4394 x

Can not find a directory record on device **x**. **x** = 4 indicates cartridge Flash ROM and **x** = 8 indicates SCORE Flash ROM. If **x** is not shown then system should not load.

ACTION: Contact your technical support group.

SYS4395

Unable to read a control record.

ACTION: Contact your technical support group.

SYS4397

Both Flash ROMs failed checksum.

ACTION: Contact your technical support group.

SYS4398

Flash handler status is not idle.

ACTION: Contact your technical support group.

SYS4399

The cartridge has failed security check.

ACTION: Make sure you have the proper key codes and try again.

SYS4400

Could not post-process Digital DPNSS Signaling Link (DDSL).

ACTION: Contact your technical support group.

SYS4401

Analogue Private Network Switching System (APNSS) TN lost.

ACTION: Contact your technical support group.

SYS4402

FAXS package is removed because EES package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4405

AMP package (78) is not allowed on this machine type.

ACTION: Information only, no action required.

SYS4406

MFC package (128) is not allowed on this machine type.

ACTION: Information only, no action required.

SYS4407

MFE package (135) is not allowed on this machine type.

ACTION: Information only, no action required.

SYS4408

L1 package (188) is not allowed on this machine type.

ACTION: Information only, no action required.

SYS4409

RPA package (187) is not allowed on this machine type.

ACTION: Information only, no action required.

SYS4410

X25 package (153) is not allowed on this machine type.

ACTION: Information only, no action required.

SYS4411

Prerequisite package is missing during a sysload with EMCT package. EMCT package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4412 x

The I/O address of port **x** is the same as a previously built port. Port **x** will be taken out of the configuration record (LD 17).

ACTION: Information only, no action required.

SYS4413

The number of Logical Terminal IDs has reached the limit. No further LTIDs can be loaded.

ACTION: Information only, no action required.

SYS4414

Cannot allocate protected storage.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by

following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4415

Cannot find Digital Subscriber Loop (DSL) data.

ACTION: Contact your technical support group.

SYS4416

Basic Rate Interface (BRI) package restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4417

MISP cannot be associated with line card because protected loop data block for the card does not exist.

ACTION: Contact your technical support group.

SYS4418

MISP cannot be associated with line card because protected card data block for the card does not exist.

ACTION: Contact your technical support group.

SYS4419

Cannot find USID map.

ACTION: Information only, no action required.

SYS4420 dn

WARNING: Multiple TNs associated with BRI **dn**.

ACTION: Information only, no action required.

SYS4421

The number of DSLs has reached the limit. No further DSLs can be loaded.

ACTION: Information only, no action required.

SYS4422

The JDMI package is not support on this machine type.

ACTION: Information only, no action required.

SYS4423 CUST x DN xxxx TN l s c u

During DN translation in sysload, no MARP or more than one MARP was found in the database for **DN nnnn** in customer **x**. Only one MARP should be defined for a DN. The MARP database information for **TN l s c u** has been corrected and a default MARP TN selected for the DN. This corrected database can be saved or altered further by service change before saving with a data dump.

ACTION: Use LD 10 or 11 to alter MARP and use LD 43 to save changes to the primary data store.

SYS4424

Invalid ROM version. Install ROM for X11 Release 18.

ACTION: Install the proper ROM by following the instructions in the *System and Software Upgrade Procedure Guide*.

SYS4425

WARNING: Memory autoconfiguration has occurred. Verify that the installed memory agrees with the tested memory. Adjust MTPY prompt in LD17 if multiple cards are in use. Output:

MEMORY AUTOCONVERSION

MTYP xxxx xxxx xxxx

MEMORY MAX ADDRESS IS yyyyy

where,

xxxx = memory type configured (768, 1MEG, etc.)

yyyy = highest configured address (i.e. 1FFFFF for 2Meg)

ACTION: Information only during an upgrade.

SYS4426

MSDL/MISP master table does not exist or cannot be allocated. Output: MSDL/MISP <msdlmisp index in decimal>.

ACTION: Contact your technical support group.

SYS4427

MSDL/MISP index is invalid. Output: SYS4427 MSDL/MISP <msdlmisp index in decimal>.

ACTION: Contact your technical support group.

SYS4428

MSDL/MISP MSDL_MISP_BLOCK does not exist. Output: SYS4428 SID BLK <msdlmisp index in decimal>.

ACTION: Contact your technical support group.

SYS4429

Conv: No memory is available. Can not allocate the phy_dump_array structure.

ACTION: Make sure you have the proper ROM and memory card installed before you attempt the upgrade.

SYS4430

Conv: No memory is available. Can not allocate the p_async_block structure.

ACTION: Make sure you have the proper ROM and memory card installed before you attempt the upgrade.

SYS4431

SYS4431 = Conv: The conversion of ESDI asynchronous data block failed, because the corresponding P_ASYNC_BLOCK cannot be found, due to a database corruption.

ACTION: Contact your technical support group.

SYS4432

Conversion of CSL failed: The ESDI parameter download data block is missing from the database.

ACTION: Reload the source software and ensure there are no problems, then dump to the target software.

SYS4433

Conversion of CSL failed: The ESDI parameter download data block is not set up for the synchronous mode.

ACTION: Correct ESDI for Synchronous mode.

SYS4434

Conv: The required entry in DUMP_CARD_TYPE structure is not free and is in use by another IO unit. Output:

INDX: <occupied physical address in decimal>

CARD: <card type in decimal. This is the card type occupying

the entry, which we assumed to be free.>

ACTION: Contact your technical support group.

SYS4435

Conv: The XSM is lost because the SDI data block was not previously created, due to an earlier error.

ACTION: Refer to the *administration input/output guide* and use LD 17 to program the XSM.

SYS4436

The block PHY_ARRAY is missing. It must exist and should have been loaded from tape. Therefore this is a database corruption.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4437 SDI x

The P_SDI_BLK_PTR pointer is nil for the given logical SDI number in decimal. This indicates one of the following:

1. Corruption in the configuration record.
2. Corruption in the P_SDI_BLK_PTR

To be consistent, CONFIGTTYOP is zeroed out for the specific device.

ACTION: Contact your technical support group.

SYS4438

Corrupt database. Bad card type. Only SDI, SDI2, XSDI, SDI4, DCHI and MSDL cards are allowed for asynchronous I/O. Output:

CARD: <card type in decimal>

SDI: <sdi number in decimal>

ACTION: Contact your technical support group.

SYS4439 SDI x

The P_SDI_BLK_PTR pointer is nil for the given SDI number in decimal.

This indicates one of the following:

1. Corruption in the configuration record.
2. Corruption in the P_SDI_BLK_PTR

To be consistent, CONFIGTTYOP is zeroed out for the specific device.

ACTION: Contact your technical support group.

SYS4440

Procedure GET_PHY_BLK failed: dev_no is not valid. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4441

Procedure GET_PHY_BLK failed: port_no is not valid. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4442

Procedure GET_PHY_BLK failed: Too many TTY, printer, DCH, AML or MSDL units. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4443

Procedure GET_PHY_BLK failed: Undefined logical application type. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4444

Procedure GET_PHY_BLK failed: Cannot allocate PDS for the physical IO block. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4445

Procedure GET_PHY_BLK failed: Too many loop devices and serial card devices. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4446

Procedure GET_PHY_BLK failed: Cannot find the physical IO block previously allocated. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4447

Procedure GET_PHY_BLK failed: The port is already in use by another application. Output:

LU TYPE: <logical application type in decimal>

LOG NUM: <logical application number in decimal>

DEV NUM: <physical device number in decimal>

PRIO NUM: <IO polling table priority number in decimal>

OPTION: <optional parameter in decimal>

ACTION: Contact your technical support group.

SYS4448

The MSDL/MISP socket ID data structures do not exist.

ACTION: Contact your technical support group.

SYS4449

Database corruption. The P_ESDI_TBL_HDR is nil. Output: CSL <esdi number in decimal>.

ACTION: Contact your technical support group.

SYS4450

Database corruption. The content of pointer P_ESDI_BLK_PTR[ESDI_PORT_NO]: P_ESDI_TBL_HDR is nil. Output: CSL <esdi number in decimal>.

ACTION: Contact your technical support group.

SYS4451

The given AML number is removed from the VAS list belonging to the given VAS number, since the protected AML data block belonging to the given AML number, does not exist. Output: VAS <vas number in decimal>.

ACTION: Contact your technical support group.

SYS4452

Corruption: The ESDI block number 49 is removed from X11 Release 18. It is not allowed to exist in X11 Release 18 and later, databases. Output: ESDI <esdi number in decimal>.

ACTION: Information only, no action required.

SYS4453

Corruption: The CSL block number 50 is removed from X11 Release 18. It is not allowed to exist in X11 Release 18 and later, databases. Output: AML <aml number in decimal>.

ACTION: Information only, no action required.

SYS4454

Corruption. The PHY_BLK_PNTR is nil. The pointer should point to PHY_ARRAY and must have been loaded from tape previously. As a result the given AML block is disregarded. Output: AML <aml number in decimal>.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4455 x

Warning: AML **x** is not loaded because the address is occupied by a previously loaded device. X11 Release 17 and earlier can configure an unused ESDI AML on top of an existing port. X11 Release 18 and later removes the unused ESDI.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4456

The logical IO table header for csl_log_appli type for the given logical AML number cannot be set up. As a result the given AML block is disregarded. Output: AML <aml number in decimal>.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4457

The X25 block type (i.e., block 75) is no longer supported. Output: X25 <X25 number (i.e., esdi number) in decimal>.

ACTION: Information only, no action required.

SYS4458

The logical master head IO tables cannot be allocated due to lack of memory. As a result the given DCH block is disregarded. Output: DCH <dch number in decimal>.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test t he memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4459

The AML number is out of range. Output: AML <aml number in decimal>.

ACTION: Use LD 22 to check the configuration record.

SYS4460

The SDI number is out of range. Output: SDI <sdi number id decimal>.

ACTION: Use LD 22 to check the configuration record.

SYS4461

WARNING: Since the physical dump array block is not loaded from tape then it is created blindly. The reasons that the block is missing from tape are:

1. Conversion from Release 17 to 18 failed.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

2. The tape has only the minimum database, that is, only the configuration record and no other datablocks. This last case is not a database conversion or loading corruption and is normal.

ACTION: Information only, no action required.

SYS4462

Failed to allocate memory for logical master head I/O table, or failed to allocate memory for the physical DUMP_CARD_TYPE structures.

ACTION: Check for the proper ROM or install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4463

Failed to allocate memory for P_ASYNC_BLOCK structure. Output: INDX: <sdi number in decimal>.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4464

The asynchronous application type is not allowed on the ESDI card type starting from RLS 18. Output: INDX: <sdi number in decimal>.

ACTION: Information only, no action required.

SYS4465

Warning: Since the card type for the given SDI application type was bad, the memory previously allocated for the given SDI application type, is released. Output: INDX: <sdi number in decimal>.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4466

Warning: Since user types are defined but their logical SDI data structures do not exist, due to a corruption, the user types are cleared from the configuration record data structure. Output: INDX: <sdi number in decimal>.

ACTION: Contact your technical support group.

SYS4467 XSDI

Block type number 93 is no longer supported starting from X11 Release 18.

ACTION: Information only, no action required.

SYS4468 XSDI

Out of PDS to allocate SDI_MHT_BLK block type.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test memory. If memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4469

The History File cannot be allocated, because of package restriction, or because there is no more space in the IO polling table.

ACTION: Contact your technical support group.

SYS4470

ISM limit for the D-channel is reached. The total D-channels configured on the existing database, is more than the number the customer is allowed to have. Output: DCH <dch number in decimal>.

ACTION: Information only. Check ISM parameters in LD 22 REQ SLT.

SYS4471

ISM limit for the AML is reached. The total AML links configured on the existing database, is more than the number the customer is allowed to have. Output: AML <aml number in decimal>.

ACTION: Information only. Check ISM parameters in LD 22 REQ SLT.

SYS4472

Both MSDL and BRI packages are restricted, so the data associated with the MSDL or MISP cards is not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4473

The block type_sid_blk (#104) cannot be loaded because MSDL package 222 is restricted. Output: SID BLK <msdlmisp index in decimal>.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4474

Corrupt database. Bad card type. Only DCHI and MSDL cards are allowed for DCH links. Output:

CARD: <card type in decimal>

DCHI <dch number in decimal>

ACTION: Contact your technical support group.

SYS4475

Corrupt database. Bad card type. Only ESDI and MSDL cards are allowed for AML links. Output:

CARD: <card type in decimal>

AML <aml number in decimal>

ACTION: Contact your technical support group.

SYS4476

FNP package not equipped, cannot load DTAD data.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4477

FC68 package 223, and Japan Trunk package 97, are mutually exclusive. FC68 package is turned off automatically.

ACTION: Information only, no action required.

SYS4478

TN is thrown out because the size of the protected TN block has exceeded 255 words.

ACTION: Information only, no action required.

SYS4479

Fatal error: The SYSPP program cannot be found on the storage medium.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4480

Cannot allocate memory for a group I/O table.

ACTION: Contact your technical support group.

SYS4481

The Network Call Pickup package has been restricted because some or all of its prerequisite packages are not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4488

WARNING: the ARDL package (#304) and the OPAO package (#104) are mutually exclusive. ARDL package is turned off automatically.

ACTION: Contact your technical support group.

SYS4500 x

Skipping slot **x**. Cannot calculate address to check for CP with cable.

ACTION: Contact your technical support group.

SYS4501 x

Skipping slot **x**. Cannot get card ID.

ACTION: Contact your technical support group.

SYS4502

Timeout waiting for response from remote CP. Check that both CPs have the same number of SIMMs.

ACTION: Information only, no action required.

SYS4503

Remote processor is not CP. Be sure remote processor is CP.

ACTION: Contact your technical support group.

SYS4504

CP redundancy impossible. No CP to CP cable.

ACTION: Check to ensure cables are attached. If cables are attached remove them and check for bent pins.

SYS4505

CP redundancy impossible. There is no remote power.

ACTION: Check the CE power supply on the remote Core module. Make sure the CP to CP cable is properly connected.

SYS4506

CP redundancy impossible. Both shelves have the same ID.

ACTION: Set the JB4 jumper on the backplane so both sides do not match.

SYS4507

CP redundancy impossible. Both switches are in MAINT.

ACTION: Check that at least one of the CP Norm/Maint switches is in Norm mode (up).

SYS4508

CP single mode: could not synchronize CSA space.

ACTION: Contact your technical support group.

SYS4509

Could not set CP semaphore bit (side x).

ACTION: Contact your technical support group.

SYS4510

CP single mode: memory shadow test failed.

ACTION: Reseat the standby CP and use SHDW in LD 135 to restore redundancy. If redundancy cannot be restored, replace the CP card by following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

SYS4511 x

Cannot open BIC window (slot **x**). Cannot check for CP cable.

ACTION: Contact your technical support group.

SYS4512 x

Cannot close BIC window (slot **x**).

ACTION: Contact your technical support group.

SYS4513 x

Could not get CP semaphore bit (side **x**).

ACTION: Contact your technical support group.

SYS4514 x

Skipping slot **x**, cannot calculate address to see if CP bit is set.

ACTION: Contact your technical support group.

SYS4515

Unable to find the active CMDU.

ACTION: Unseat and reseat the IOP and CMDU cards and then reload.

SYS4516

Unable to find the diskos.sym file.

ACTION: Contact your technical support group.

SYS4517 x

Switching from CPU **x** to preferred side.

ACTION: Information only, no action required.

SYS4520

Cannot get available memory for SL-1 Memory Control from Memory management. Sysload fails due to lack of memory.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4521

Cannot turn on memory protection. Input address is invalid.

ACTION: Contact your technical support group.

SYS4522

Cannot turn off memory protection. Input address is invalid.

ACTION: Contact your technical support group.

SYS4523 yyyy mm dd hh mm ss

HD0 Database datadumped **yyyy/mm/dd hh:mm:ss**.

ACTION: Information only, no action required.

SYS4525 yyyy mm dd hh mm ss

HD0 Database datadumped **yyyy/mm/dd hh:mm:ss**.

ACTION: Information only, no action required.

SYS4527 iiii dd/mm/yyyy hh:mm:ss rr

This message refers to the X11 Release and issue **iiii,** date and time **dd/mm/yyyy hh:mm:ss** and size **rr** of the database to be sysloaded. The date and time indicate when the file was last written.

ACTION: Information only, no action required.

SYS4528 yyyy mm dd hh mm ss

HD Database datadumped **yyyy/mm/dd hh:mm:ss**.

ACTION: Information only, no action required.

SYS4529 yyyy mm dd hh mm ss

FD0 Database datadumped **yyyy/mm/dd hh:mm:ss**.

ACTION: Information only, no action required.

SYS4530 yyyy mm dd hh mm ss

FD1 Database datadumped **yyyy/mm/dd hh:mm:ss**.

ACTION: Information only, no action required.

SYS4531

During conversion, XTD and/or RDB DFQ has been changed to XTDT.

ACTION: Use LD 97, LD 20 and LD 21 to ensure that configuration is as desired for XTD operation.

SYS4532

The CPSI entry cannot be allocated; the limit for SIO devices has been reached.

ACTION: Information only, no action required.

SYS4533

Cannot allocate protected data store for XTD Table.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test memory. If memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4534

Warning: IEN package or SACP package not equipped. Configured IEN ICI keys are removed. Procedure REMOVE_IEN_ICI (module SYSPP).

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4535

Warning**:** IEN Block Timer is reset to its default value because SACP or NAS package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG.Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4538

Inconsistencies in boundaries of previous sl1 load.

ACTION: Contact your technical support group.

SYS4539

Inconsistencies in boundaries of previous ovl load.

ACTION: Contact your technical support group.

SYS4540

Error loading SL-1 file into memory.

ACTION: Contact your technical support group.

SYS4541

Error loading Overlay file into memory.

ACTION: Contact your technical support group.

SYS4542

Error in loading, last address <n>.

ACTION: Contact your technical support group.

SYS4543

Error returned from segInit2<n>.

ACTION: Contact your technical support group.

SYS4544

Error getting dloPathFileName for ovlres.

ACTION: Reinstall software from installation disks and reload the system.

SYS4545

Unable to open <file name>.

ACTION: Reinstall software from installation disks and reload the system.

SYS4546

Error sl1_start_addr <n>, last sl1_prot_address <x>.

ACTION: Contact your technical support group.

SYS4547

Error initializing SL-1 pool and data area.

ACTION: Contact your technical support group.

SYS4548

Error getting dloPathFileName for ovlres.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4549

Unable to open <file name>.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4550

Error in loading, last SL-1 address <n>.

ACTION: Contact your technical support group.

SYS4551

Overlay start address <n> overlaps end of SL-1 area <x>.

ACTION: Contact your technical support group.

SYS4552

Error ovl_start_addr <n>, last_ovl_prot_addr <x>.

ACTION: Contact your technical support group.

SYS4553

Error initializing Overlay data area.

ACTION: Contact your technical support group.

SYS4554

Error calling ovlres entry.

ACTION: Contact your technical support group.

SYS4555

Invalid parameter to ldrNextPage, address <n>.

ACTION: Contact your technical support group.

SYS4556

Seek error while loading (OVL or INSTALL) code file.

ACTION: Reload the system using backup software. If the fault still exists contact your technical support group.

SYS4557

Error reading a_out header from file (OVL or INSTALL).

ACTION: Reinstall software from installation disks and reload the system.

SYS4558

Invalid a_out header in file.

ACTION: Contact your technical support group.

SYS4559

Error reading link header.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4560

Invalid link header in file.

ACTION: Contact your technical support group.

SYS4561

Module not linked to page boundary.

ACTION: Contact your technical support group.

SYS4562

Seek error while loading (OVL or INSTALL) code file.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4563

Error reading a_out header into memory (OVL or INSTALL).

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4564

Error reading text segment from disk into memory (OVL or INSTALL)

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4565

Error reading data segment from disk into memory (OVL or INSTALL).

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4566

Seek error while loading SL-1 code.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4567

Error reading a_out file from SL-1 file.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4568

Invalid a_out header in SL-1 file.

ACTION: Contact your technical support group.

SYS4569

Error reading link header from file.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4570

Invalid link header in file.

ACTION: Contact your technical support group.

SYS4571

Module not linked to page boundary.

ACTION: Contact your technical support group.

SYS4572

Seek error while loading code.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4573

Error reading a_out header from disk into memory.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4574

Error reading text segment from disk into memory.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4575

Invalid data segment in SL-1 module.

ACTION: Contact your technical support group.

SYS4576

Error access in code file.

ACTION: Reinstall the software from the installation disks and reload the system.

SYS4577

Error reading data segment from disk into memory.

ACTION: Reload the system by pressing the Manual Reload button.

SYS4578

Invalid a_out header in memory (OVL or INSTALL).

ACTION: Contact your technical support group.

SYS4579

Invalid link header in memory (OVL or INSTALL).

ACTION: Contact your technical support group.

SYS4580

End of Protected data = x (OVL or INSTALL).

ACTION: Contact your technical support group.

SYS4581

Unprotected data start x overlaps Unprotected data end at y (OVL or INSTALL).

ACTION: Contact your technical support group.

SYS4582

Error copying data from Protected memory to Unprotected memory for static modules.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4583

Invalid a_out header in memory.

ACTION: Contact your technical support group.

SYS4584

Invalid link header in memory.

ACTION: Contact your technical support group.

SYS4585 x

End of Protected data = **x**.

ACTION: Contact your technical support group.

SYS4586 x y

Unprotected data start **x** overlaps Protected data end at **y**.

ACTION: Contact your technical support group.

SYS4587

Error copying data from Protected memory to Unprotected memory for SL-1 modules.

ACTION: Reload the system using the backup software, as the primary software may be corrupted. If the fault persists, contact your technical support group.

SYS4588

Feature Group D not allowed on Option 11 machine. Package 158 has been disabled.

ACTION: Information only, no action required.

SYS4589

Customer n has DITI = YES in LD 15 but the DID to TIE package (176) is equipped, DID to TIE calls will be restricted by the DID to TIE package.

ACTION: Have your technical support group contact Northern Telecom Technical Assistance Service to set the DID to TIE package restriction flag. You can use LD 22 PRT, PKGxxx to check the restricted status of the package.

SYS4590

BRIT package restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4592

BRIL package restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4593

Either the BRIL or the BRIT package needs to be equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22

PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4594

BRIL application will not be configured on any MISP because the BRIL package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4595

BRIT application will not be configured on any MISP because the BRIT package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4596 xx yy

PEMD data in the route datablock was erased due to PEMD package restriction.

xx = customer number

yy = route number

ACTION: Contact your technical support group.

SYS4600

The DTI package is restricted and either the BRIT package is restricted or the DTI2 package is equipped or the PRI2 package is equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4601

M911 package is restricted, therefore NPID block cannot be loaded in memory.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4602

NPID block exceeds length of block allocated.

ACTION: Refer to ISDN Primary Rate Interface NTP.

SYS4605 xx

SICA Table **xx** is erased due to PEMD package restriction.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4606 x

That CDR Link port has been removed.

x = port number

ACTION: Information only, no action required.

SYS4607 x

That Low Speed Link port has been removed.

x = port number.

ACTION: Information only, no action required.

SYS4608

The port allocated for STA is being used by another application.

ACTION: To check the Single Terminal Access port refer to the *administration input/output guide* and use LD 22. Use LD 17 to correct.

SYS4609

STA logical number is out-of-range.

ACTION: To check the Single Terminal Access port refer to the *administration input/output guide* use LD 22. Use LD 17 to correct.

SYS4610

STA logical number is out-of-range.

ACTION: Contact your technical support group.

SYS4613

Protected loop block does not exist.

ACTION: Contact your technical support group.

SYS4614

Cannot update card pointers to BRSC data block because card data blocks exist.

ACTION: Contact your technical support group.

SYS4615

Cannot associate BRSC with line card because protected card data block does not exist.

ACTION: Contact your technical support group.

SYS4616 xxxx yyyy

Unable to allocate protected data storage for DCH call reference table.

xxxx = mnemonic of feature affected

yyyy = name of data structure affected

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4617

Unable to allocate protected data storage for limited access to overlays (LAPW). The LAPW package has been restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4620

Attendant Blocking of DN cannot be enabled because Semi-Automatic Camp-On is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4621 s

s Kwords of expanded memory have been auto-configured. MTYP prompt in LD 17 has been updated. This message will only occur on a new system installation.

ACTION: No action required. This is the standard message for the auto-installation of expanded memory.

SYS4623

IPRA package is restricted, but there is an international interface. The interface cannot be enabled with the current software packaging.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4624

The number of Meridian 1 Packet Handler Digital Subscriber Loops (DSLs) reached the limit. No further MPH DSLs can be sysloaded.

ACTION: Information only, no action required.

SYS4625

B-channel TN not in MPH loop data block.

ACTION: Contact your technical support group.

SYS4626

LAPB data block does not exist.

ACTION: Contact your technical support group.

SYS4627

X25P data block does not exist.

ACTION: Contact your technical support group.

SYS4628

Resident code is compressed, but the decoding table does not exist.

ACTION: Contact your technical support group.

SYS4629

Meridian 1 Packet Handler (MPH) package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4630

The MPH application cannot be configured on an MISP because the MPH package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4631

KD3 Package unequipped - Data is discarded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4632

MFK5/MFK6 data corruption.

ACTION: Contact your technical support group.

SYS4633 n

Cannot load data block for PRI loop **n** when INBD package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4634 n

Backup D-channel **n** is not loaded for this interface.

ACTION: Information only, no action required.

SYS4635

Cannot allocate Protected Data Store for AOC parsing tables.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4636

The Voice Mailbox Administration data block exists without the feature configured.

ACTION: Contact your technical support group.

SYS4637

The Voice Mailbox Administration data block contains invalid TNs.

ACTION: Contact your technical support group.

SYS4638

There is no memory available to build the Voice Mailbox data block.

ACTION: Contact your technical support group.

SYS4639

Voice Mailbox data exists without the feature package configured. The mailbox data has been discarded.

ACTION: Contact your technical support group.

SYS4640

Voice Mailbox Administration application data exists with the feature package restricted. The application data is discarded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4641

Superloops 32, 36, 40, 48 have been added to the configuration. This only occurs when upgrading to the Option 11E CPU and these loops do not already exist.

ACTION: No action required. Standard message for the auto-configuration of superloop data.

SYS4642

Superloops 32, 36, 40, 48 have NOT been added to the configuration. This message only occurs when upgrading to the Option 11E CPU and one of these loops is already configured.

ACTION: Check that the configuration is as desired. If a third box is being added to the system then Superloops 32, 36, 40, and 48 must exist.

SYS4643

M2317 data block cannot be loaded when package is not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4645

Only one of the language packages may be equipped. The MLMS feature has been disabled (Option 61C/81 only).

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4646

Mismatch between language pkg read at cold start and during SYSLOAD (Option 61C/81 only).

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4647

The MLMS language packages is allowed on Option 61C/81 systems only. The packages were disabled.

ACTION: Information only, no action required.

SYS4648 lll

Phantom loop **lll** is found, but the PHTN package is restricted. Phantom loop **lll** is not loaded. All phantom TNs configured on this loop will not be loaded and existing SYS messages will be given.

OUTPUT: lll = phantom loop

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4649

MCT data exists without the MCT package. The data is cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4650

SCDR data exists without the SCDR package. The data is cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4651

CDR link and the MCT packages are mutually exclusive. The CDR link package is turned off.

ACTION: Information only, no action required.

SYS4653

A BCS Phantom loop is found, but either the phantom or csl package is not equipped.

ACTION: Remove the loop and all associated data. Refer to the *administration input/output guide* and use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4654

Procedure SAMM_PBX_SRVR Standalone Meridian Mail server not loaded - out of PDATA

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4655

Procedure SAMM_PBX_SRVR. Too many Standalone Meridian Mail servers loaded, not included in the table, TN not loaded.

ACTION: Contact your technical support group.

SYS4656

Cannot allocate protected data store for xpec.This error message will be called from new proc SETUP_INIT_XPEC in MODULE SYS4XXX.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS4657

Warning. Existing CIST data are removed because CIST package 221 is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22

PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4658

Existing ACRL data is removed because the ACRL package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4663

TN 0 0 0 0 is not valid. TN is rejected.

ACTION: This is not a problem. Call your technical support group to have the TN removed.

SYS4664

LAPW password nn is removed because it is a Set Based Administration password and the ADMINSET package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4665

Set Based Administration logon limits are set to zero because the ADMINSET package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4666

The ADMINSET package is equipped, but one of its dependant packages (FFC package, LAPW package, Multi-User package) is restricted. Set Based Administration login limits are set to zero.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4667

On sysload, CCB data exists, but the CCB package is restricted. CCB data is cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4668

Call Pickup Network Wide cannot be loaded as ISDN package 145 is restricted.

ACTION: Load with the ISDN package equipped.

SYS4669

The DPNSS_ES package is equipped, but the DPNSS package is not.

Since DPNSS is a pre-requisite for DPNSS_ES, DPNSS_ES is forced unequipped.

ACTION: Refer to the *administration input/output guide*, use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4679

CAC defined for BCS, PBX or route exceeds the CIS maximum range for CAC (9). CAC is set to CIS default value for CAC (3).

ACTION: Contact your technical support group.

SYS4690

China Attendant Monitor Package (CHINA) package 285 is not equipped but the Attendant Monitor option is allowed, then the options are reset to disable the China Attendant Monitor feature.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22

PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4691

BTD package is not equipped, the BTD tables have been removed.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4692

Unable to allocate protected memory for BTD Table 0.

ACTION: Contact your technical support group.

SYS4693

IDC package is removed since NFRC package is missing.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4694 cc rr

Due to unequipped IDC package, IDC data has been lost in customer **cc** or IDC data has been lost in Route **rr** of Customer **cc**.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4695

The mnemonic, filter and exception tables have been removed. NOTE: Their functionality has been replaced by the new Event Default and Preference Tables for Option 81 switches.

ACTION: Information only, no action required.

SYS4698

If package 46 is not equipped and the feature is, it indicates that package 46 is not equipped and that the TMAR bit for customer y is cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4699

WARNING: Existing ARDL data is reset to its default values, because ARDL package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4700

A Secondary Call Park Block has been discarded due to CPRKNET package missing.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4701

Customer Call Park option changed from CPN to CPA due to CPRKNET package missing.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4702

A Secondary Call Park Block has been discarded since the customer does not have a Primary Call Park Block.

ACTION: Contact your technical support group.

SYS4707 x

Removing TAT entry in RCAP since TAT package is not equipped, where **x** = D-channel number.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4708 x

Removing TAT database from D-channel that does not reside on the MSDL card, where **x** = D-channel number.

ACTION:

SYS4712

PTU or MFC package not equipped; PTU data cleared in customer data block. Equip PTU and MFC packages and reload if PTU is required.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4713

PTU or MFC package not equipped; PTU data cleared in route data block. Equip PTU and MFC packages and reload if PTU is required.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4714 cust table-number

PTU and MFC packages are not quipped. PTU data cleared in incoming R2MF table.

ACTION: Equip PTU and MFC packages and reload if PTU is required.

SYS4716

The VDN block cannot be loaded during SYSLOAD. The VNS database cannot be restored.

ACTION: Redefine the VDN data block.

SYS4717

The ARDL package (#304) and the OPOA package (#104) are mutually exclusive. ARDL package is automatically turned off.

ACTION: Contact your technical support group.

SYS4718

Cannot load EuroISDN Network Mode data when Master Mode package is restricted.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software

SYS4719 table-number

PTU and MFS packages are not equipped. PTU data cleared in outgoing R2MF table.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software

SYS4720

Either the Speed Call or System Speed Call package is restricted and the data exists.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4722

Customer Call Park data is lost due to Call Park database memory allocation problems.

ACTION: Contact your technical support group.

SYS4723

Customer option is changed to CPD due to Call Park database memory allocation problem.

ACTION: Contact your technical support group.

SYS4729 xx

xx = %DNIS MMCS informations were found and MMCSS package is restricted, the fields are set to default value INDGT, PRDL, INDI, DTIM, DIG#, DIIE.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS4751

The keys in this phone set are removed at the end since they exceed capacity (see SYS4750 for more. User may need to reconfigure the keys on this set. The phone set will not be taken out of service.
ACTION: Since some keys are lost at the end, use the overlay and reconfigure the keys if necessary.

SYS5714

Cannot allocate protected data store for XTD Table.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory.
If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide

SYS6692 x1

x1 = %Invalid input when the MMCS package is not equipped

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS6693 x2

x2 = %DTM should be defined to have PRDL=DNIS.

SYS8980

Data block can only be loaded when STIE package is equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8981

ICP Package not equipped.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8982

Attempt to write a protected bit field for a specific bit offset and bit width which do not fit in a 16 bit word.

ACTION: Contact your technical support group.

SYS8983

CLED package not equipped, data cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8984

Digital console package not equipped, data cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8985

FFC code corruption.

ACTION: Contact your technical support group.

SYS8986

Flexible Feature Code is out of Protected Data (PDATA) storage.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS8987

FFC customer pointer is missing. The FFCs are not ready.

ACTION: Contact your technical support group.

SYS8988

FFC package (139) is not equipped. FFCs have been removed.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8989

Package not equipped, FFC will not be loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8990

OPCB package not equipped, data cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8991

Supp package not equipped, special service list data cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22

PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8992

MPO package is restricted but MPO data is found. MPO data is cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8993

DTI2 - DTI2 package not equipped, data cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8994

DTI2 - JDMI package not equipped, data cleared.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS8995

ART head table not found, data lost.

ACTION: Contact your technical support group.

SYS8996

Unable to allocate protected data store for TBAR.

ACTION: Install more memory if applicable. Use LD 35 STAT MEM to get the memory status and use MEM xx to test the memory. If the memory test fails, replace the memory card by following the steps in the *Hardware replacement* guide. For further assistance with the commands or system responses refer to the *CED* chapter in this guide.

SYS8997

Duplicate Art number found, date lost.

ACTION: Contact your technical support group.

SYS8998

ART number out of range, data lost.

ACTION: Contact your technical support group.

SYS8999

TBAR package not equipped, data not loaded.

ACTION: To ensure that all the packages you have ordered are on the disk refer to the *administration input/output guide* and use LD 22 PRT, PKG. Check to ensure that there are no extra packages on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software.

SYS9026

DPNSS1 MWI: an NSI table cannot be restored.

ACTION: Redefine the MWI NSI table.

SYS9028

System is not ESA packaged. ESA data has been discarded.

ACTION: Contact your technical support group.

SYS9029

ESA data is for an undefined customer. ESA data has been discarded.

ACTION: Contact your technical support group.

SYS9030

System is not ESA_CLMP packaged. ESA_APDN has been reset to YES.

ACTION: Contact your distributor if the system packaging is incorrect.

SYS9031

Invalid DFCL configuration is encountered in the ESA block. DFCL has been reset to null.

ACTION: Contact your distributor if the system packaging is incorrect.

SYS9032

NI-2 CBC package not equipped. NI-2 CBC data lost.

ACTION: Install NI-2 CBC package.

SYS9033

Diversion remote capability is removed since the QSIG-SS package is restricted.

ACTION: Enable the QSIG-SS package and Sysload the system again.

SYS9034

The RCAP MQC is removed because the MEET package is restricted.

ACTION: Contact your technical support group.

SYS9037

Customer has configured a RAN route with data requesting the RAN broadcast package but RAN broadcast package restricted. Broadcast capability removed from route, ringback tone provided while waiting and new RAN machine types changed.

ACTION: Enable RAN Broadcast package. DO NOT DATADUMP, system information will be lost.

SYS9038

Number of broadcasting routes exceeds ISM limit. Broadcast capability removed from route.

ACTION: Customer must contact distributor to increase ISM limit. DO NOT DATADUMP, system information will be lost.

SYS9039

Number of broadcast RAN connections exceeds ISM limit.

ACTION: Customer must contact distributor to increase ISM limit. DO NOT DATADUMP, system information will be lost.

SYS9040

Customer has broadcasting music route configured but music Broadcast package restricted.

ACTION: Enable music Broadcast package. DO NOT DATADUMP, system information will be lost.

SYS9071

ERDN datas (’Redundancy for etherenet on Core feature) have been discarded due to MMCS package restriction.

ACTION: For ERDN feature, MMCS package #317 is required. Contact your technical support group.

SYS9072

CTMO data (CDN time-out) has been cleared due to MMCS package restrictions.

ACTION: For CTMO, MMCS package #317 is required. Contact your technical support group.

SYS9115

Unable to allocate protected memory for ANI block or ANI Table. Some ANI Entries could be lost.

ACTION: Action: User Overlay 21 to print the ANI Entries. Try to configure the entries that are needed, or contact your technical support.

SYS9117

Taiwan R1 data in RDB but package is off. Data is lost.

ACTION: Action: Equip TWR1 package and reload. Contact your technical support group.

SYS9118

Taiwan R1 data in the trunk data block but the package is off. Data is lost.

ACTION: Action: Equip TWR1 package and reload. Contact your technical support group.

SYS9120

The QSIG call transfer remote capability is removed during the sysload since the QSIG-SS package is restricted.

ACTION: Action: Equip the package #316 and sysload a second time. Reconfigure RCAP to ETI or CTO.

SYS9123

Unable to allocate memory for the access prefix block or access prefix table.

ACTION: Action: A memory fault must be cleared or more memory must be equipped.

SYS9124

Access prefix data cannot be loaded as ISDN package #145 is restricted.

ACTION: Action: Feature DAPC is part of the ISDN package #145.

SYS9125

The ACLI package is not equipped.

ACTION: Action: Equip the ACLI package.

SYS9126

System is PRA package restricted. ICS data is discarded while sysloading.

ACTION: Contact your technical support group.

SYS9127

System is DTI package restricted. ICS data is discarded while sysloading.

ACTION: Contact your technical support group.

SYS9128

Package #350 unrestricted with package #240 restricted.

ACTION: Contact your technical support group.

SYS9129

Package #350 restricted with MWUN set to 32.

ACTION: Contact your technical support group.

SYS9130

Incompatible units have been configured on the same line card.

ACTION: Contact your technical support group.

SYS9135

Access prefix data cannot be loaded as the ISDN package #145 is restricted.

ACTION: Action: The feature DAPC is part of the ISDN package #145.

SYS9137

The prompts related to the BSFE feature are set to default values as the BFS package is not equipped.

ACTION: Contact your technical support group.

SYS9150

Phantom TN superloops are moved to current loop +32 and Phantom TN cards are moved to current card +20 (for Option 11C only).

ACTION: Contact your technical support group.

SYS — System Loader

TDS — LD 34 Checking TDS, DTR and

In this chapter

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Before changing circuit cards, be aware of the procedures outlined in *Do this when replacing circuit cards,* found in the *Hardware maintenance tools* chapter of this guide.

How the TDS works

The digitone receiver portion of the Tone and Digit Switch (TDS) diagnostic, checks for a response to all digitone frequencies. The TDS diagnostic also tests tone detectors and dial tone detectors.

Digitone Receiver

The digitone receiver (DTR) has two basic functions as follows:

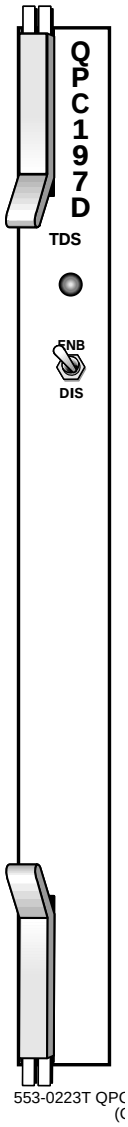
- Routes dial tone from the Tone and Digit Switch to DTMF or MF4 telephone sets and DTMF trunks.
- Converts digitone from DTMF telephone sets and trunks to MESSINs.

One DTR services one telephone or trunk at a time.

DTRs are chosen by the system in cyclic order from the highest TN t o the lowest TN.

DTR commands		
Command	**Description**	**Release**
List disabled DTR or XTD		
SDTR	List the TNs of all disabled DTR or XTD units	xtd-8
List disabled DTR or XTD Unit		
SDTR l s c (u)	Get status of specified DTR or XTD card or unit.	basic-1
List all disabled Digitone Receivers		
STAT	List TNs of all disabled digitone receivers **NONE** is output if there are no disabled digitone receivers	basic-1
Disabled DTR or XTD Unit		
DISR l s c (u)	Disable specified Digitone receiver or XTD card or unit.	xtd-8
Test a Digitone Receiver		
DTR l s c (u)	Test specified unit on digitone receiver card or unit. This test may be performed while the card is enabled or disabled. If a disabled card passes the test, it is enabled automatically. This command also applies to the XTD.	xtd-8
Enable a DTR		
ENLR l s c (u)	Enable specific Digitone receiver.	basic-1
Stop a test		
END	Stop execution of current command. May also abort LD 34.	basic-1

TDS — Tone and Digit Switch



553-0223T QPC

The Tone and Digit Switch is a network type circuit that only transmits on the network bus. Most systems have a TDS card on each network shelf.

Purpose

The Tone and Digit Switch is used to do the following:

- generate tones required by the system
- activate the digit out-pulsing relays on the trunk cards

Function

The CPU selects the required tones or dial pulse digits by writing commands into the control memory of the TDS which gates them onto the TDS network link during the proper timeslots. The TDS performs two functions:

Tones - Generates the following tones from ROM in the form of eight bit PCM:

- **ringing for the 1000 series telephones*** consists of 553 and 660 Hz both with 3rd and 5th harmonics modulated at 10 or 20 Hz
- **miscellaneous tone** consists of 440 Hz
- **dial tone** consists of 350 and 440 Hz
- **ringback tone** consists of 440 and 480 Hz, on for 2 seconds and off for 4 seconds
- **high tone** consists of 480 Hz
- **low tone** consists of 480 and 620 Hz, Busy tone at 60 ipm, Overflow at 120 imp
- **digitone** consists of digits 0 to 9, *, #

Dial pulse - Generates dial pulse by sending zeros to close and ones to open the trunk pulsing relays on a trunk card.

Features

The faceplate includes the following features:

- an LED, when lit indicating a disabled card
- an ENB/DIS switch to hardware enable or disable the card

The component side of the card contains straps which allow selection of the following:

- 10 or 20 Hz ringing option for SL-1 and 1000 series telephones *
- high or low tone

* Digital 2000 and 3000 series telephones ringing is generated from within the telephone.

TDS commands		
Command	**Description**	**Release**
List all disabled Tone Detector		
STAD	List all disabled Tone Detectors **NONE** is output if there are no disabled tone detectors.	basic-1
Check status of a Tone Detector		
STAD l s c (u)	Get status of Tone Detector card or unit. The status is either idle, busy, maintenance busy or not equipped.	basic-1
Test a Tone Detector		
TDET l s c (u)	Perform self-test and tone detection on specified card or unit. Performs the self-test and basic tone detection functions of the Meridian 1/Meridian SL-1 Tone Detector card or unit. This test may be performed while the card is enabled or disabled. If a disabled card passes the test, it is enabled automatically.	basic-1
Stop a test		
END	Stop execution of current command. May also abort LD 34.	basic-1
Disable a Tone Detector card		
DISD l s c	Disable the specified Meridian 1/Meridian SL-1 Tone Detector card. Disables both units and lights the LED.	basic-1
Disable a Dial Tone Detector		
DISD l s c (u)	Disable specific dial tone detector. If both units on the card are disabled and the card LED lights.	basic-1
Enable a Tone Detector		
ENLD l s c (u)	Enable tone detector on specified card or unit.	basic-1

Conf/Tds — Conference Tone and Digit Switch

553-0181T C

The Conference Tone and Digit Switch (CT) card combines the functionality of the existing conference and tone and digit switch. It occupies one network slot and uses two network loops.

Purpose

The conference portion of the CT card remains the same, except that both A or Mu law are now provided. The Tone and Digit Switch (T& DS) portion of the card now provides 256 tones, Music Trunk Interface (MTI) and Multi- Frequency Sender (MFS) tones.

Function

Conference - The selection of A law or Mu law is set in software according to a country code. The code information is downloaded from the CPU to an onboard CT microprocessor unit, which sets the card in the proper companding mode.

Tone and Digit Switch - The 256 tones are generated from 1mega-bit EPROM.

A Master Cadence Table (MCT) will store up to 256 ringing cadences. The MCT table is created by the user for their particular country and is downloaded from the CPU during CT card enabling or initialization. The default is the North American MCT. The CT microprocessor firmware is used to generate the cadences freeing the CPU for other tasks.

Music Trunk Interface, for certain international markets, uses external cards providing eight channels of music announcements, record tones and cadences. These announcements can come from an analog Music Trunk or Kapsch Digital announcer.

Multi Frequency Sender tones are provided for the signaling of ANI digits over CAMA trunks to toll switching CAMA, TOPS or TSPS offices.

Features

The faceplate includes the following features:

- an LED for Conf and an LED for TDS, when lit indicating a disabled function
- an ENB/DIS switch to hardware enable or disable the card
- a connector (J1) to attach a Music Trunk Interface

The component side of the card contains a switch to set the attenuation levels and warning tone on or off, and a strap to set the warning tone level.

Conf/T&DS commands		
Command	**Description**	**Release**
List all TDS Loops		
STAT loop	Get status TDS loop. The response may include **OPS DSBL**, indicating that the outpulsing function of the TDS card has been disabled. **FAULTY HW: NO RESPONSE** = loop identified as faulty by the LRIP function. Refer to the FHW chapter.	basic-1
Disable a TDS		
DISL loop	Disable tone and digit loop. For Conference/TDS/MFS cards see note with ENLL command.	basic-1
Disable Conf/TDS/MFS		
DISX l	Disable Conf/TDS/MFS card on loop l and l + 1. Disables the entire combined Conference, Tone and Digit Switch, and MF Sender (NT8D17) card. Both the even numbered TDS/MFS loop and adjacent conference loop are disabled. loop = 0, 2, 4,. . . 158 The DISL and ENLL commands can be used on the even number loop for the TDS/MFS functions. However, this only prevents the loop from being used by software and does not affect the hardware status of the card. The DISX and ENLX commands are recommended. The ENLX command must be used if the DISX command was used to disable the card. This command can be used in LD 34, LD 38 and LD 46.	xct-15
Enable TDS		
ENLL l	Enable tone and digit switch loop l. For Conference/TDS/MFS cards the DISX and ENLX commands must be used whenever the faceplate switch of the card has been toggled. ENLL will software enable the card but the card will not be properly reset.	basic-1

Conf/T&DS commands (continued)		
Command	**Description**	**Release**
Enable Conf/TDS/MFS		
ENLX l	Enable Conf/TDS/MFS card on loop l and l + 1. This command can be used in LD 34, LD 38 and LD 46. Enables the entire combined Conference, Tone and Digit Switch, and MF Sender (NT8D17) card. Both the even numbered TDS/MFS loop and adjacent conference loop are enabled. (loop = 0, 2, 4,. . . 158) The Conf/TDS card is not enabled automatically when it is inserted. Both loops must have been previously disabled. This command initiates card tests and the download of software. The DISL and ENLL commands can be used on the even number loop for the TDS/MFS functions. However, this only prevents the loop from being used by software and does not affect the hardware status of the card. The DISX and ENLX commands are recommended. The ENLX command must be used if the DISX command was used to disable the card. Enabling more than 16 conference loops may cause the system to lockup.	xct-15

Maintenance telephone commands

The following commands are used from a maintenance telephone to test the various tones. Both the command and the dial pad equivalents are shown.

Maintenance telephone commands

Command	Description	Release
Select table number		
8225#xx##	TABL#xx##	basic-4
	Select table number xx. If this command is not issued before any tone request command, then table 0 is assumed (Generic X11 with supplementary features).	
Remove any active tone		
2##	C##	basic-1
	Remove any active tone.	
Busy tone		
279#loop##	BSY#loop##	basic-1
	Provide busy tone from tone and digit loop.	
Call Waiting tone		
294#loop##	CWG#loop##	basic-1
	Give call waiting tone from loop.	
Camp-On tone		
267#loop##	CMP#loop##	basic-1
	Provide Camp-On tone from loop.	
Dial tone		
342#loop##	DIA#loop##	basic-1
	Provide dial tone from tone and digit loop.	
Distinctive Ringing		
3764#loop##	DRNG#loop##	basic-1
	Provide distinctive ringing from loop.	

Maintenance telephone commands (continued)		
Command	**Description**	**Release**
Distinctive Ringing		
5374#loop##	JDRG#loop## Provide distinctive ringing from loop.	basic-8
Interrupted dial tone		
5438#loop##	JIDT#loop## Provide interrupted dial tone from loop.	basic-8
Intrusion tone		
486#loop##	ITN#loop## Provide intrusion tone from loop.	basic-1
Outpulsing		
2878#xx##	CUST#xx## Test outpulsing for customer XX.	basic-1
Overflow tone		
683#loop##	OVF#loop## Provide overflow tone from loop.	basic-1
Override tone		
673#loop##	ORD#loop## Provide override tone from loop.	basic-1
Paid Call Restriction tone		
7278#loop##	PCRT#loop## Test the Paid Call Restriction (PCR) tone after the TABL command.	pcr-7
Ringback tone		
725#loop##	RBK#loop## Provide Ringback tone from loop.	basic-1
Ring tone		
764#loop##	RNG#loop## Provide ring tone from loop.	basic-1

Maintenance telephone commands (continued)		
Command	**Description**	**Release**
Signals through Kapsch digital announcer or music interface		
266x#loop##	ANNx#loop## Provides signals coming through source number x of KAPSCH Digital Announcer or Music Interface.	basic-6
Special dial tone		
735#loop##	SDL#loop## Give special dial tone from loop.	basic-1
Test outpulsing		
677#loop#x##	OPS#loop#x## Test outpulsing from Meridian 1/Meridian SL-1 to idle trunk. Outpulses from tone and digit loop using the 10 or 20 pps outpulser to any idle trunk. This command connects the Meridian 1/Meridian SL-1 telephone to the trunk and a test call on the trunk may be made using the outpulses selected. Where: xx = 10 or 20 representing the trunk class of service (LD 14 CLS = P10 or P20). When the test call is completed, the program must be re-entered by keying SPRE 91 before entering another command, where SPRE denotes the Special Service Prefix code, unique for each customer.	basic-1
Test tone		
878#loop##	TST#loop## Provide test tone from loop.	basic-1
Test tone and cadence number		
9288#loop#t#c##	XCTT#loop#t#c## Test tone and cadence number on Conference/TDS/MFS card. Where: loop = loop number of Conference/TDS/MFS (NT8D17) t = tone number c = cadence number Refer to Flexible Tone and Cadences (553-2711-180) for the Conference/TDS tone and cadence numbers.	xct-15

Maintenance telephone commands (continued)		
Command	**Description**	**Release**
Tone to last party		
857#loop##	TLP#loop##	basic-1
	Provide tone to last party from the tone and digit loop.	

TDS messages

TDS000

Program identifier indicating that the program has been loaded.

ACTION: The TDS program is loaded and ready for you to enter commands.

TDS001 loop

TDS **loop** has incorrect Digitone cycle. Outpulsing from that TDS may be faulty, or 100 ms Digitone burst is being used in a system defined for a 50 ms operation or vice versa.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS002 loop

TDS **loop** is transmitting erroneous Digitone frequencies. Digitone outpulsing from that TDS will be faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS003 loop

20 pps outpulser on TDS **loop** has bad timing or is not producing the correct number of pulses per request. 20 pps outpulsing is faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS004 loop

10 pps outpulser on TDS **loop** has bad timing or is not producing the correct number of pulses per request. 10 pps outpulsing is faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS005 loop

An outpulser on TDS **loop** did not complete a digit. 10 or 20 pps outpulsing is faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS006 loop

All outpulsers on TDS **loop** have been disabled due to a system I/O interface fault.

ACTION: Use DISX l to disable and ENLX l to enable the TDS loop.

TDS008 loop

The Digitone pulse on TDS **loop** did not complete cycle. Digitone outpulsing is faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS010 loop

Channel errors. Bad channels are disabled. Capacity of TDS is reduced. Outpulsing and/or tone faults may occur.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS011 loop x

The Tone Detector is unable to detect tone **x** generated by TDS **loop**, where:

x = 1 for Dial Tone

x = 2 for Busy Tone

x = 3 for Overflow Tone

x = 4 for Ringback Tone

x = 5 for Test Tone

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS012

Loop is not an active TDS. It is disabled. This code will only occur with a test that is invoked manually.

ACTION: Use ENLL l to enable the card prior to testing. Re-enter the command.

TDS013 loop

TDS not allowed in that **loop**.

ACTION: Ensure that this is the command you wanted to use.

TDS014 loop

Tone path could not be established to tone and digit **loop**.

ACTION: Use STAT l to check for disabled TDS loops. If none are disabled, try later when traffic is reduced.

TDS015 loop

TDS **loop** is not responding.Start at the first or most likely cause and go down the list until the fault is cleared. If the fault does not clear, call your technical support group.

1. TDS **loop** is not responding.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

If the fault persists, suspect:

2. any other TDS card

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

3. the Peripheral Signaler (PS) card

ACTION: Replace the PS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS016

TDS is already enabled.

ACTION: Ensure that this is the command you wanted to use.

TDS017

No TDS available for Digitone receiver testing.

ACTION: Try later when traffic is reduced.

TDS018 xx yy

The digit sent **xx** from CCITT TDS did not match the digit received **yy** from the DTR.

ACTION: Use DISX l to disable and ENLX l to enable the TDS. If the problem persist replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS019

1. Faulty TDS. Start at the first or most likely cause and go down the list until the fault is cleared. If the fault does not clear, call your technical support group.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. Incompatible (µ -law or A-law) TDS.

ACTION: Make sure the proper hardware is being used.

3. Faulty DTR card.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS020

Card disabled. To test card, it must first be enabled.

ACTION: Use ENLL l to enable the card.

TDS021

Invalid unit used with DTR, ENLR or DISR command. Each Digitone Receiver uses TN pair.

ACTION: Re-enter the command using an even number unit.

TDS032 loop

Card not responding.

ACTION: Check to make sure your data is correct and re-enter the command. If the card is not physically present in the shelf and should be, install a TDS card and program theTDS loop. If the card is physically present in the shelf , replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS100 l s c

The specified Digitone receiver has been disabled due to lack of response or faulty operation. The DTR card indicated in the message is disabled only if 50 percent of system Digitone Receivers (DTRs) have not already been disabled. This failure rate will always leave 50 percent of Digitone Receivers enabled, regardless of performance.

1. Suspect a faulty DTR card.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. Suspect a faulty TDS card if the fault persists or if more than one Digitone receiver is shown as faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS101 l s c

Specified Digitone receiver has been disabled due to loss of speech transmission capability. As for TDS100.

1. Suspect a faulty DTR card.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. Suspect a faulty TDS card if the fault persists or if more than one Digitone receiver is shown as faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS102

Digitone receiver requested is busy.

ACTION: Try again later.

TDS103

TN specified is not equipped to be a Digitone receiver.

ACTION: Ensure that this is the command you wanted to use.

TDS104

No Digitone Receiver found.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command. Use PRT or LTN in LD 20 to print list of DTRs.

TDS105 l s c

The specified Digitone Receiver has been disabled due to a failure to detect A, B, C, D digits. Card is disabled only if 50 percent of system Digitone Receivers have not already been disabled. This failure rate always leaves 50 percent of Digitone Receivers enabled.

1. Suspect a faulty DTR card.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. Suspect a faulty TDS if fault persists or if more than one Digitone receiver is shown faulty.

ACTION: Replace the TDS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS120

The ANN command cannot be used.ANN command is used for Kapsch Digital announcer or Music interface.

ACTION: Ensure that this is the command you wanted to use.

TDS121

The source number is out-of-range (1-8).

ACTION: Check to make sure your data is correct and re-enter the command.

TDS201

The last request is not finished executing. Only END is allowed. The END will terminate the execution.

ACTION: Use the END command to end the test or wait until the test has finished.

TDS202

Invalid parameter. Wrong number of parameters for this command.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS203

Invalid command.

ACTION: Ensure that this is the command you wanted to use.

TDS204

Loop is out-of-range. Loops 0 to 159 only are allowed.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS205

Shelf is out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS206

Card is out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS207

Unit is out-of-range (0 to 1).

ACTION: Check to make sure your data is correct and re-enter the command.

TDS208

Command requested is allowed only from a maintenance telephone. Tones or outpulsing cannot interact with a TTY. You cannot hear a tone through a DTE.

ACTION: Use a maintenance telephone to enter the command.

TDS209

Customer does not exist.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS210

Card does not exist in data base.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS212

Requested trunk type that uses the desired outpulser is not available. Be sure the system contains the desired trunks. If they exist, all trunks in that category may be busy or unequipped.

ACTION: Information only, no action required.

TDS301 l s c (u) x y

The specified tone detector has been disabled due to faulty operation or lack of response, where x and y indicate the mode and test it has failed. The rest of the testing is canceled.

xy	Mode
00040001	—Mode I Precise Tone
00040003	—Mode I Tone Duration > 50 ms
00040005	—Mode I Tone Duration > 300 ms
00040005	—Mode I Tone Duration > 300 ms, Tone is turned off at 256 ms
00050001	—Mode I Precise Busy Tone
00050003	—Mode I Non-Precise Busy Tone
00060001	—Mode I Precise Overflow Tone
00060003	—Mode I Non-Precise Overflow Tone
00060005	—Mode I Tone Duration < 300 ms
00070001	—Mode I Ringback Tone
00070003	—Mode I Any Tone
00080001	—Mode I Special Common Carrier Dial Tone
00090001	—Mode I Unidentified Tone
00090003	—Mode II Unidentified Tone
00090005	—Mode IV Test Tone

00090007—Mode III Test Tone

00090009—Mode III Test Tone (Tone is turned off at 5.5 s)

000A0001—Mode V Single Frequency Tone

000A0003—Mode V Dual Frequency Tone

ACTION: Use the STAD command to list any disabled tone detectors. Use the TDET command to test the tone detectors and, if necessary, replace faulty detector cards, following the steps in the *Hardware replacement* guide.

TDS302 l s c (u)

The specified tone detector has been disabled; unable to perform self-test.

ACTION: Use the STAD command to list any disabled tone detectors. Use the TDET command to test the tone detectors and, if necessary, replace faulty detector cards, following the steps in the *Hardware replacement* guide.

TDS303 l s c (u)

Terminal number specified is not designated as a tone detector.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS304

No TDS is available for tone detector testing.

ACTION: Wait for the TDS card to become idle and attempt the test again.

TDS310

Tone Detector (TDET) package is restricted.

ACTION: Information only, no action required.

TDS311

Specified TN is not an MFR.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS312

No MFR units are configured.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS313

Some units of MFR card are busy, test not done.

ACTION: Be patient. Try again later.

TDS314

No MFS available for MFR test.

ACTION: Be patient. Try again later.

TDS315 l s c u

MFR unit is busy. Test not performed.

ACTION: Be patient. Try again later.

TDS316

MFR is disabled due to faulty operation.

ACTION: Replace the MFR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS317

Digitone Receiver's (NT8D16) Peripheral Controller (NT8D01) is disabled, nothing is performed.

ACTION: Use ENXP x or ENXP XPC x in LD 32 to enable the peripheral controller and re-enter the command.

TDS318

Superloop number must be a multiple of 4.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS319

Digitone Receiver (NT8D16) failed self test.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS320

Digitone Receiver (NT8D16) does not respond. Check Digitone Receiver and the Network Card/Peripheral Controller (NT8D04/NT8D01) communication path to the card for a fault.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS400

FTC table 0 used for tone tests.

ACTION: Information only, no action required.

TDS411

Dial Tone Detector package is not equipped.

ACTION: Information only, no action required.

TDS412

Dial Tone Detector and Tone Detector packages are not equipped.

ACTION: Information only, no action required.

TDS500

ANN command cannot be used because the Message Intercept (MIN) package is not equipped.

ACTION: Information only, no action required.

TDS501

Source number out-of-range. Only 8 external sources (1 to 8) can be defined for testing.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS502

ENLX (Enable) or DISX (Disable) commands are only used on Conference/TDS/MFS cards.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS503

The Conference/TDS/MFS card is already enabled/disabled.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TDS504

Received an unexpected message from the Conference/TDS/MFS card.

ACTION: Use the DISX command to disable the card and retry the ENLX command to enable the card.

TDS505

The Enable command (ENLX) did not receive the down-load complete message within 6 seconds.

ACTION: Check to make sure the faceplate switch is in the Enb position and re-enter the command.

TDS506

Tone or cadence number is out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TDS507

The TLP Supplementary package is not equipped.

ACTION: Information only, no action required.

TDS508

The SSD scanning message received no response from the DTR/XDTR.The faulty DTR is disabled.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS511 l s c u x

DTR/XDTR fails to respond to SSD scanning message for **x** times prior to the DTMF tone detection test.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS512 l s c u x d

DTR/XDTR fails to detect the **d** digit for **x** times prior to the DTMF tone detection test is testing.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS513 l s c u x

DTR/XDTR fails to detect all the digits for **x** times when the DTMF tone detection test with the fast TDS is testing.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS514 l s c u x

DTR/XDTR fails to pass the digit through for **x** times when continuity test is testing.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS520

DTR and TDS commands are not supported for slot 0.

ACTION: To test these devices do a DISX 0 and then ENLX 0.

TDS827

Multiple SSD messages of the same DTMF digit are received from the same NT8D16 Digitone Receiver during a DTR or TDS test in LD 34. If this problem occurs every time, replace the card.

ACTION: Replace the DTR card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TDS828 loop

Attempting to enable Conference/TDS card during midnight routines.

The Tone and Digit Switch and Digitone Receiver diagnostic program (LD 34) tests cards used in generating and detecting tones in the Meridian SL-1 system. Response to commands for the Dial Tone Detector card are output as DTD messages. Response to commands for the Tone and Digit Switch card are output as TDS messages.

ACTION: Information only, no action required.

DTD Messages

DTD001 l s c u

"Failure to detect" has exceeded the allowable limit for Dial Tone Detector (DTD) card **l s c u**.

ACTION: Replace the DTD card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

DTD002 l s c u

The DTD specified by **l s c u** has failed to pass the response test.

ACTION: Replace the DTD card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

DTD003

Fifty percent of all DTD cards in the system are disabled.

ACTION: Use DISD l s c to disable and ENLD l s c to enable the DTD card.

DTD004

Test is not specified in configuration.

ACTION: To check for proper configuration use LD 22 in the *administration input/output guide*. Use LD 17 to specify test in the configuration.

DTD005

Too many messages from DTD specified by TN.

ACTION: Replace the DTD card following the steps the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

DTD006

DTD configured but not used.

ACTION: Information only, no action required.

LD 1 — Template Audit

Templates are used to store data which is common to many telephones. This includes items such as key functions and class of service. The Template Audit program saves protected memory by eliminating unused or duplicate telephone templates.

CAUTION:
Beware of the following issues as they could cause you problems.

- Due to the Real Time impact of this program and the large amount of data being scanned, the Template Audit should be run during low traffic hours.
- The Template Audit should not be aborted unless it is critically necessary. An interrupted audit can corrupt templates. Telephones using corrupted templates will have degraded service and will have to be reprogrammed to restore the templates.
- If a system initialization occurs during the Template Audit, the program is automatically aborted. It should be restarted as soon as possible after this occurs.
- The audit printout only appears on the TTY that requested the Template Audit program to run.
- The Template Audit program cannot be run as a background task.
- To confirm that extraneous templates have been removed and that all counts have been corrected to their proper value, rerun the audit program.
- A datadump (LD 43) should be run after a template audit is executed.

LD 1 also performs the following consistency checks:

User Count Scan

All telephones in the system are scanned to find the total number of users for a template.

If a template is found to have no users, the entire template is removed with the warning message **NO USERS FOUND.** If a template is found to have an incorrect user count, the correct user count is written to the template, and the warning message **USER COUNT LOW** or **USER COUNT HIGH** is output. If the user count is accurate, the message **USER COUNT OK** is output.

Duplicate template scan

Each template is checked against every other template for possible duplication. A template is considered a duplicate of another if all of the following conditions are met:

- the checksums are the same
- the template lengths and the hunt offsets are the same
- all template entries are the same

If a match is found, the warning message **DUPLICATE OF xxxx** is output. A scan is then initiated to locate all users of the current template and move them to the matched template.

For each user found, the template number in the telephone data block and the user count is updated. After all of the users of the current template are moved to the matched template, the current template is removed.

Template checksum audit

A checksum is a binary sum of the template length, hunt offset, and template entries. The checksum is calculated for each template and compared with the existing template checksum. If the existing checksum is correct, the message **CHECKSUM OK** is output. Otherwise, the checksum is corrected with the warning message **CHECKSUM WRONG**.

Key/Lamp Strip Audit

Two checks are made to correct Key/Lamp Strip (KLS) corruption. First, the template length is compared to the number of KLS indicated in the protected line block. The second check verifies that the last word of the template reflects a **NULL** key.

If these checks detect any discrepancies, they are corrected with the warning message **CORRUPTED KLS.**

These corrections alter the checksum of the template. This is identified and corrected by the checksum audit.

Sample operation

The audit begins when the program (LD 1) is loaded. All templates are scanned in the following sequence, beginning with template one:

1 PBX telephones

2 BCS telephones

Following is an example of the system information which is generated during a Template Audit:

```
TEMPLATE AUDIT

STARTING PBX TEMPLATE SCAN

TEMPLATE 0001 USER COUNT LOW    CHECKSUM OK

TEMPLATE 0002 USER COUNT HIGH   CHECKSUM OK

TEMPLATE 0003 NO USERS FOUND
```

•

•

•

```
STARTING Sell TEMPLATE SCAN ?TEMPLATE 0001
USER COUNT OK      CHECKSUM OK

            .

            .

            .

TEMPLATE 0067 USER COUNT OK    CHECKSUM
WRONG

TEMPLATE 0068 USER COUNT OK  CHECKSUM OK
DUPLICATE OF 0014

            .

TEMPLATE 0082 USER COUNT OK  CHECKSUM OK

            .

TEMPLATE 0120 USER COUNT OK

TEMPLATE AUDIT COMPLETE
```

Note: The report does not indicate that template inconsistencies have been corrected.

TEMU — Tape Emulation

Tape Emulation is a resident program. TEMU does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

TEMU messages

TEMU001 Failure during initialization of tape emulation.
ACTION: Contact your technical-support group.

TEMU002 x failure giving command semaphore.
ACTION: Contact your technical-support group.

TEMU003 x invalid command sent to tape emulation.
ACTION: Contact your technical-support group.

TEMU004 x semaphore creation failed.
ACTION: Contact your technical-support group.

TEMU005 x tape task init failed.
ACTION: Contact your technical-support group.

TEMU006 x tape task activation failed.
ACTION: Contact your technical-support group.

TEMU007 Failure creating tape emulation task.
ACTION: Contact your technical-support group.

TEMU008 x failure taking command semaphore.
ACTION: Contact your technical-support group.

TEMU009 x unknown command sent to tape task.
ACTION: Contact your technical-support group.

TEMU010 Error occurred writing HI database.
ACTION: Contact your technical-support group.

TEMU011 Error occurred backing up database.
ACTION: Be sure Floppy Diskette is properly inserted.

TEMU012 Error occurred restoring database.
ACTION: Check that Floppy Diskette is properly inserted.

TEMU013 Error occurred swapping primary/secondary databases.
ACTION: Contact your technical-support group.

TEMU014 Temu task timeout, where: cmd = x, data = y, stat = z.
ACTION: Contact your technical-support group.

TEMU020 x failure opening file y.
ACTION: Contact your technical-support group.

TEMU021 x failure obtaining size of file y.
ACTION: Contact your technical-support group.

TEMU022 x failure renaming file y to z.
ACTION: Contact your technical-support group.

TEMU023 WARNING - x failure opening file y.
ACTION: Contact your technical-support group.

TEMU028 Failure opening database files for reading.
ACTION: Contact your technical-support group.

TEMU029 Failure closing database files after reading.
ACTION: Contact your technical-support group.

TEMU030 x failure opening file y for writing.
ACTION: Contact your technical-support group.

TEMU032 Failure opening database files for writing.
ACTION: Contact your technical-support group.

TEMU037 Failure closing database files after writing.
ACTION: Contact your technical-support group.

TEMU038 Error skipping x records.
ACTION: Contact your technical-support group.

TEMU040 Invalid read in write sequence.
ACTION: Contact your technical-support group.

TEMU041 Failure reading record from x file.
ACTION: Contact your technical-support group.

TEMU042 x failure reading from y file during Query.
ACTION: Contact your technical-support group.

TEMU043 x failure reading from fd y.
ACTION: Contact your technical-support group.

TEMU044 x failure writing to fd y.
ACTION: Contact your technical-support group.

TEMU045 x failure seeking to y for z in file.
ACTION: Contact your technical-support group.

TEMU046 x failure at y in file.
ACTION: Contact your technical-support group.

TEMU047 Attempt to write x record.
ACTION: Contact your technical-support group.

TEMU048 Database disk volume is full.
ACTION: Contact your technical-support group.

TEMU049 WARNING: record no mismatch, curr = x, rec = y.
ACTION: Contact your technical-support group.

TEMU050 Begin write not at 1st data rec, curr = x, rec = y.
ACTION: Contact your technical-support group.

TEMU051 Failure writing record to x file.
ACTION: Contact your technical-support group.

TEMU053 Attempt to write unknown record type x.
ACTION: Contact your technical-support group.

TEMU056 DB x request illegal during write sequence.
ACTION: Contact your technical-support group.

TEMU059 x WARNING - failure closing y file.
ACTION: Contact your technical-support group.

TEMU061 Failure copying dir x contents to y.
ACTION: Contact your technical-support group.

TEMU062 Database x removable media failed.
ACTION: Contact your technical-support group.

TEMU071 Failure during database query.
ACTION: Contact your technical-support group.

TEMU072 x failure moving dir y contents to z.
ACTION: Contact your technical-support group.

TEMU073 Failure swapping primary database with secondary.
ACTION: Contact your technical-support group.

TEMU074 x failure copying y file to z file.
ACTION: Contact your technical-support group.

TEMU075 x failure y dir z for copy.
ACTION: Contact your technical-support group.

TEMU076 Copy source dir x is empty.
ACTION: Contact your technical-support group.

TEMU077 Failure copying dir file x to y.
ACTION: Contact your technical-support group.

TEMU079 x failure to y diskette vol during formatting.
ACTION: Contact your technical-support group.

TEMU080 x no diskette in active CMDU drive y.
ACTION: Contact your technical-support group.

TEMU081 x failure formatting diskette in active CMDU drive y.
ACTION: Contact your technical-support group.

TEMU082 x open failure for hi dir y on active CMDU diskette.
ACTION: Contact your technical-support group.

TEMU083 Diskette on active CMDU drive x is write protected.
ACTION: Contact your technical-support group.

TEMU085 x failure y dir z for rename.
ACTION: Contact your technical-support group.

TEMU086 Rename source dir x is empty.
ACTION: Contact your technical-support group.

TEMU087 x failure renaming dir file y to z.
ACTION: Contact your technical-support group.

TEMU088 WARNING: x file was not preallocated on disk.
ACTION: Contact your technical-support group.

TEMU100 Failure obtaining file/dir name x from DLO.
ACTION: Contact your technical-support group.

TEMU0101 Database version is grater than current issue: S/W issue x y - DB issue x y
ACTION: Reconfigure the data and do a data dump.

TEMU0102 Bad issue number in data file
ACTION: Reconfigure the data and do a data dump.

TEMU0103 Name too long : x / y
ACTION: Contact your technical-support group.

TEMU0104 Data dump failed for multi-language
Refer to previous messages to determine what caused the situation.
ACTION: Restart the data dump after clearing the originating problems.

TFC — LD 2 Set Time and Date

In this chapter

How to use LD 2 traffic commands 1302
Print time and date 1302
Set time and date 1302
Adjust system clock 1303
Set and print Daylight Savings Time 1304
Print alarm and exception filter summary 1306
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For more information refer to the *Traffic measurement* and the *maintenance input/output guide* for a complete listing of the LD 2 commands.

How to use LD 2 traffic commands

LD 2 is used to set traffic options, the system ID, the date, and the time. The conventions used to describe the traffic commands are as follows:

- a period (.) prompt indicates that the system is ready to receive a new command
- a double dash (--) indicates that the system is ready to receive data
- a space <sp> prompt indicates that the space bar should be pressed
- a carriage return <cr> prompt indicates that the return key should be pressed

Note: The message TFC000 output on the switch indicates that the traffic program is running.

Print time and date

To print the current time and date

Enter TTAD

An example of a time and date printout

TTAD **WED 24 11 1995 15 41 49**

The TTAD format is: day-of-the-week, day, month, year, hour, minute, second

Set time and date

To set the time and date

Enter STAD (day) (month) (year) (hour) (minute) (second) <cr>

An example of an input

STAD 24 11 1995 15 41 49<cr>

Note: Except for the year, the other entries in the time of day output are 2-digit numbers. The year may be any year from 1901 to 2099 inclusive. It may be input as a full 4-digit field or as a 2-digit short form. The 2-digit short form is assumed to be in the range 1976 to 2075 and the appropriate addition is made when calculating the day-of-the-week and leap years.

Adjust system clock

The small differences in the electronic components that comprise the Meridian 1 system clock, might cause it to run a few milliseconds fast or slow each day. Set the system time, using an accurate time source. Wait for a few days, or even one week. Print the time and the date at an exact time with reference to the source used when setting the system clock. Compare the source time to the print out time and determine if the system clock is fast or slow.

For example, if the system clock is 12 seconds fast over a one week period, this equates to a gain of 1.7 seconds per day. Use the Set Adjustment command to subtract 1.7 seconds per day. The adjustment is automatically performed during the midnight routine.

To print the current adjustment

Enter TDTA

An example of an adjustment printout

TDTA **1 113** (x yyy)

The TDTA format is:

x = 0 for negative increment (slow down the clock)

x = 1 for positive increment (speed up the clock)

yyy = 0-60 second adjustment in increments of 100 ms

To set the adjustment

Type SDTA **1 113 --** x yyy<cr>

An example of setting the adjustment

SDTA **1 113 --** 0<sp>017<cr>

The SDTA format is:

x = 0 for negative increment (slow down the clock)

x = 1 for positive increment (speed up the clock)

yyy = 0-60 second adjustment in increments of 100 ms

Set and print Daylight Savings Time

With X11 release 19 and later, you can program daylight saving time changes to occur automatically.

- You can set the date to change to daylight savings, and to return to standard time.
- You can print the daylight saving time change settings.
- The system clock must be running on daylight savings time to be updated automatically.
- The daylight saving time change settings are not erased during a system reload.

To print the current change setting

Enter TDST

Example — change setting printout -

```
SDST OFF
FWTM APR  1 SUN 2 (AT 02:00 2/4/1995)
BWTM OCT  L SUN 2 (AT 02:00 29/10/1995)
```

To enable the automatic change

Enter SDST ON

To disable the automatic change

Enter SDST OFF

To set the clock to move forward

Enter FWTM (month) (week) (day) (hour)

The FWTM format is:

month = 1-(4)-12 [1 is January-default (4) is April-12 is December]

week = (1)-5-L [1 is the first week-5 is the fifth week, L is the last week of the month]

day = (1)-7 [default (1) is Sunday-7 is Saturday]

hour = 1-(2)-22 [1 is midnight-default(2) is 1:00 am-22 is 11:00 pm]

To set the clock to move backward

Enter BWTM (month) (week) (day) (hour)

The BWTM format is:

month = 1-(10)-12 [1 is January-default (4) is October-12 is December]

week = (1)-5-L [1 is the first week-5 is the fifth week, L is the last week of the month]

day = (1)-7 [default (1) is Sunday-7 is Saturday]

hour = 1-(2)-22 [1 is midnight-default(2) is 1:00 am-22 is 11:00 pm]

Print alarm and exception filter summary

With X11 release 19 and later, you can print the alarm status.

For further information, refer to *X11 system management applications* in the *Fault Clearing Guide Book 3 of 3*.

To print the alarm status

Enter ASUM

How traffic works

Traffic measurements are essential for monitoring the performance of the Meridian 1. All Meridian 1 systems are equipped with traffic data accumulation capabilities which function as part of the normal call processing. Traffic data must be selected, activated, and have a traffic TTY defined before it is printed out.

Traffic data collection

There are five aspects to traffic data collection, as follows:

Accumulation

Any traffic action is automatically updated in the Accumulation Registers. Data in the Accumulation Registers cannot be accessed directly.

Holding

Data from the Accumulation Registers is transferred to the Holding Registers in accordance with user-defined schedules. Data in the Holding Registers can be examined at any time and will not change until the next scheduled transfer update. When data is transferred from Accumulation to Holding Registers, the Accumulation Registers are reset to zero.

Printing

When data is transferred to the Holding Registers, only the scheduled traffic options selected will be printed. However, any data for any of the options can be manually printed at any time.

Control

The Schedules, Printing Options, Threshold Levels and other traffic parameters are controlled by LD 2 commands.

Outputting

The cycle of transferring data from Accumulation to Holding Registers and the Outputting of data, is repeated in accordance with the schedules defined in LD 2. Only the terminal(s) defined in the configuration record receive the traffic data output for automatic printing. Any TTY however, can be used to invoke data at any time.

System reports

Of the 12 System Reports available, TFS004 Processor Load is the most useful to technicians.

TFS004 Processor load - Input and Output Buffer Overflow Peg Counts and Call Register Overflow Peg Counts are more in line with a technicians job than the other ten outputs. A peg count is any number other than 0 which appears in a TFS004 peg count field.

The configuration record, LD 17, is used to establish the number of the following:

- Low Priority Input Buffers (LPIB)
- High Priority Input Buffers (HPIB)
- 500 Output Buffers (500B)
- SL1 Output Buffers (SL1B)
- Number of Call Registers (NCR)

If there are insufficient buffers or call registers assigned, then calls or features are lost.

TFS004 printouts are used to monitor buffer and call register overflow peg counts, as follows:

- Each output buffer peg count indicates a lost or incomplete feature.
- Each input buffer peg count indicates a call that could not be initiated.
- Each call register peg count indicates a call that has been lost.

Example of a TFS004 printout

200	**TFS004**	
147423	**321786**	**00141**
00000	**00000**	
00000	**00000**	
00000		
00000	**00000**	**00000**
00000	**00000**	
00000	**00000**	**00000**

TFS004 Format

System ID	TFS004	
Idle cycle count	CPU attempts	Load peak peg count
HPIB overflow peg count	LPIB overflow peg count	
500B overflow peg count	SL1B overflow peg count	
CR overflow peg count		
Rated Call Capacity (Note)	Max Real Time Used (RTU) (Note)	Percent of RTU (Note)
Number of eliminated observations (Note)	Hour of Max RTU (Note)	
LLC1 blocked calls	LLC2 blocked calls	LLC3 blocked calls

Note: Asterisks appear in these fields when the information is insufficient to generate a report.

Peg count action

If you observe peg counts in the HPIB, LPIB, 500OB, SL-1OB or CR fields, increase the indicated buffer or call register by 10 percent. Refer to the *administration input/output guide*. Use LD 17 PARM to change buffers and call registers.

To print a current system report schedule

Enter TSHS

Example of a current system report schedule printout

TSHS **01 01 31 12** (sd sm ed em)
00 23 1 (sh eh so)
1 2 3 4 5 6 7 (d d d d d d d)<cr>

sd = start day (1-31)sm = start month (1-12)
ed = end day (1-31)em = end month (1-12)
sh = start hour (0-23)eh = end hour (0-23)
so = schedule options:
0 = no traffic scheduled1 = hourly on the hour
2 = hourly on the half hour3 = every half hour
d = day of the week:1= Sunday to 7 = Saturday

To set or change a current system report schedule

Type SSHS **01 01 31 12--** sd sm ed em<cr>

00 23 1 -- sh eh so<cr>

1 2 3 4 5 6 7 -- d d d d<cr>

sd = start day (1-31)sm = start month (1-12)
ed = end day (1-31)em = end month (1-12)
sh = start hour (0-23)eh = end hour (0-23)
so = schedule options:
0 = no traffic scheduled1 = hourly on the hour
2 = hourly on the half hour3 = every half hour
d = day of the week:1= Sunday to 7 = Saturday

To print a TFS004 non-scheduled report at any time

Type INVS 4

TFC messages

Back-filling messages with zeros

TFC messages provide responses to commands entered in LD 2. The remaining TFC messages are actual traffic outputs are detailed in the *Traffic Measurements* NTP.

TFC200

Syntax error. Illegal character has been input.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC201

The parameter specified is out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC202

The loop specified is not equipped.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC203

The card specified is not equipped.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC204

The unit specified is not equipped.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC205

Program bug — should never happen.

ACTION: Contact your technical-support group.

TFC206

Customer specified is not equipped.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC207

Traffic Print program is busy with scheduled output.

ACTION: Be patient. You are entering commands faster than the system can handle them.

TFC208

Traffic Control program cannot be invoked from a maintenance set.

ACTION: Re-enter the command from the TTY.

TFC209

The Network Traffic (NTRF) feature is not equipped.

ACTION: Ensure that this is the command you wanted to use.

TFC210

There is no ESN customer data block.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TFC211

There is no ESN Data for the requested item.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TFC212

The NCOS data block does not exist in the system.

ACTION: Ensure that this is the command you wanted to use.

TFC213

IMS or Command and Status Link (CSL) package not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC214

Channel specified is not equipped.

X08: Password does not have access to system commands.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TFC215

Invalid input for Digital Trunk Interface (DTI) loop.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC216

Command and Status Link (CSL) package not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC220

System cannot allocate space for Line Load Control (LLC) data block.

ACTION: Contact your technical-support group.

TFC221

Invalid command: Line Load Control (LLC) is not enabled.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TFC223

The ISA package is not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC400

The user does not have access to system commands.

ACTION: Contact your technical-support group.

TFC401

The user does not have access to this customer.

ACTION: Contact your technical-support group.

TFC402

The user does not have access to Line Load Control commands.

ACTION: Contact your technical-support group.

TFC403

NAS package is not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC404

ISDN INTL SUP package (30B+D) is not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC405

Invalid DN entered.

ACTION: Check to make sure your data is correct and re-enter the command.

TFC406

The time synchronization DN has to be set for the new customer.

ACTION:

TFC407

RPA package is not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC408

No BRI package equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC409

Failed to request information from the MISP.

ACTION: Contact your technical-support group.

TFC410

Calculation for the next Daylight Savings Time and Standard Time change cannot be done, because the system clock is not set.

ACTION: Set the system clock or use SDST ON command to enable the automatic change function.

TFC411 FWTM AT <time> <date>

The system clock has been changed forward one hour for Daylight Savings Time change.

ACTION: Information only, no action is required.

TFC412 BWTM AT <time> <date>

The system clock has been changed backward one hour for Standard Time change.

ACTION: Information only, no action is required.

TFC414

The Meridian 1 Packet Handler package is not configured. You cannot schedule TFS015 if this package is not equipped.

ACTION: If this command is the one you want to use, refer to the *administration guide*. Use LD 22 PRT, PKG to ensure that all the packages you have ordered are on the disk.

TFC415

Failed to request BRSC traffic information from MISP. MISP loop number and BRSC TN are printed.

ACTION: Check MISP and BRSC states.

TFC416

Currently, it is not the same customer you have just entered in the INVC command. If no previous SCFT, default is customer 0.

ACTION: Use TCFT/SCFT commands to find out or change the customer you are collecting features for.

TFC419

A conference loop was overflowing. There may not be enough available slots on the loop.
ACTION: Contact your technical-support group

TFC0420

ISDN Semi Permanent Connection (ISPC)package is not equipped. In Overlay 2, a request to set/clear Customer Traffic Report for ISPC links establishment (type=10) has been done using SOPC or COPC command but the ISPC is not enabled.
ACTION: Select a different report type or Unrestrict the ISPC package and reload PBX if necessary.

TFC0421

ISDN Semi Permanent package is not equipped. In Overlay 2, a request set/clear the Customer Traffic Report for ISPC links established (type = 10) was attempted using the SOPC or COPC command.
ACTION: Select a different report type, or Unrestrict the ISPC package and reload the PBX if necessary.

TFN — Customer Network Traffic

For messages and descriptions refer to the *maintenance input/output guide*. TFN messages relate to the Network Traffic (NTRF) feature.

The remaining TFN messages are actual traffic outputs detailed in *Traffic Measurements* Northern Telecom Publications.

TFS — Traffic Measurement

For messages and descriptions refer to the *maintenance input/output guide*.

TFN messages relate to the Network Traffic (NTRF) feature. The remaining TFN messages are actual traffic outputs detailed in *Traffic Measurements* Northern Telecom Publications.

TMF — Test Multi-frequencies

Test Multi-frequencies is a resident program. TMF does not have an overlay load (LD) associated with it. For more information refer to *Software maintenance tools* in the *You should know this* chapter.

TMF messages

TMF000

Program identifier.

ACTION: The TMF program is loaded and ready for you to enter commands.

TMF001

Invalid input: there are more than four characters in one field.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TMF002

Invalid input: garbage datatype.

ACTION: Check to make sure your data is correct and re-enter the command.

TMF003

Invalid input: command field unknown.

ACTION: Ensure that this is the command you wanted to use.

TMF004

Invalid input: too many parameters.

ACTION: Check to make sure your data is correct and re-enter the command.

TMF005

Last command is still in progress.

ACTION: Be patient. You are entering commands faster than the system can handle them.

TMF006

Invalid TN.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TMF007

Invalid DOD trunk.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TMF008

Trunk is busy or disabled.

ACTION: Use STAT l s c u in LD 32 to determine if trunk is busy or disabled. If the trunk is busy, try later when idle. If the trunk is disabled, use ENLC l s c u in LD 32 to enable the trunk. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

TMF009

Invalid TN. Shelf out-of-range (0 to 3).

ACTION: Check to make sure your data is correct and re-enter the command.

TMF010

Invalid TN. Card out-of-range (1 to 10).

ACTION: Check to make sure your data is correct and re-enter the command.

TMF011

Invalid set TN.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TMF012

Defined telephone is busy or disabled.

ACTION: Use STAT l s c u in LD 32 to determine if the telephone is busy or disabled. If the telephone is busy, try later when idle. If the telephone is disabled, use ENLC l s c u in LD 32 to enable the telephone. If you need help with the commands or system responses go to the *NPR* chapter in this guide.

TMF013

Package restricted, overlay not allowed to load.

ACTION: No action required.

TMF014

Signalling type not defined.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TMF015

Signalling type already defined.

ACTION: Ensure that this is the command you wanted to use.

TMF016

Command not valid for MFE signalling.

ACTION: Ensure that this is the command you wanted to use.

TMF017

Trunk Busy - DSI Timing.

ACTION: Be patient.

TMF018

Use loop and channel for digital loop TN.

ACTION: Check to make sure your data is correct and re-enter the command.

TMF019

Invalid Digital Loop TN.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TRA — LD 80 Tracing Calls

In this chapter

How the TRA works 1326
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TRA messages from LD 80 input errors 1344

Before changing circuit cards, be aware of the procedures outlined in *Do this when replacing circuit cards*, found in the *Hardware maintenance tools* chapter.

How the TRA works

This program provides a means of tracing the progression of calls by printing a report on the call register contents.

Call Trace

The Call Trace program examines the call registers for only an instant in time and does not update information as the call progresses.

The trace commands operate only when the diagnostic is active. Using the **** command will stop the trace function.

Enhanced Call Trace

With Call Trace Enhancement, the program provides a report each time the call register contents are updated with information.

TNs can be traced for a period of one second to 24 hours.

Up to three TNs or digital trunks can be tracked.

A time stamp with date and time in hours, minutes, and seconds is printed on the first line of each trace report.

The Multi-user Login package 242, is required, and must be enabled in LD 17.

It is recommended that the baud speed be set to 4800 or higher when using enhanced call trace. If you use a lower baud speed, this may overflow the print buffer, as the I/O ports have the lowest workschedule priority and will cause an initialization.

The enhanced trace enable commands will operate according to a defined time period even when the diagnostic is not active. Using the **** command will not stop the enhanced trace function.

Network Call Trace

For Network Call Trace see NCT chapter.

When to use TRA

Incomplete internal calls

When a call does not progress to the proper termination of established, a trace of that call to reveal the contents of main and auxiliary progress markers will indicate where the call stopped.

Tracing incomplete trunk calls

This is used for tracing trunk calls where there is another switch involved that has an influence on the connection, supervision, and tear down of the call. The main and auxiliary progress markers are especially helpful with trunk call tracing.

Alphabetical list of Call Trace outputs

This section provides definitions of the data output by the various Call Trace commands.

ACTIVE = the call is active

AUX_NARS = Network Automatic Route Selection (NARS) data to follow

AUX_PM = auxiliary progress mark may be any of the following depending on the MAIN_PM:

- ABSORBING = performing digit manipulation on the call
- AWAIT ANI = waiting for Automatic Number Identification information
- AWAITREPLY = CPU is waiting for a response during a dial sequence
- BSYG = busy tone to originator
- CDR-CALLRECORD = CPU is outputting a CDR record
- CDR-TIMING = CPU is computing a CDR record
- COMPLETE = dialing is complete
- DNTRANS = DN translation to TN in progress
- FAREND-OFF = far-end off-hook

- NARS = call is a network call
- NOOUTPULS = outpulsing complete, originator receiving ringback
- OUTPULSING = outpulsing digits related to the call
- OVLF = resources not available, returning overflow to originator
- PAUSING = timed pause in a trunk call dialing sequence
- SPEEDCALL = performing speed call
- TEMPPATH = software timing, occurs when outpulsing digits on trunks
- TOLLCHECK = checking access restrictions for the call

AUX_RGAT_PM = Ring Again over trunk information

BEARER CAP = bearer capability, such as voice, 64K clear, 64K restricted and 56K

BUSY = unit or DN is busy

CALL REF #PRI = Call Reference number assigned by the system

CALL STATE = specifies the PRI call as active or inactive

CALLED NO = PRI dialed number

CALLING NO = PRI home location code and DN of originating party

CONF = Conference call

COS_ORIG COS_TERM = Class of Service restrictions for originating and terminating party. Possible values are:

- UNR = Unrestricted
- TLD = Toll Denied
- SRE = Semi-Restricted
- FRE = Fully Restricted
- FR1 = Fully Restricted class 1
- FR2 = Fully Restricted class 2
- CUN = Conditionally Unrestricted
- CTD = Conditionally Toll Denied

DARK_CONSOLE = the call is being temporarily released by a console. Three types of recall are also output.

- RLSED = console released the call is getting recall
- FLASH = Flash recall
- CAMP = Camp-On recall

DIAL DN = the dialed number

DIAL xxx yy TTR zz = TDS on loop xxx and timeslot yy connected to Digitone Receiver timeslot zz

DG_MAN xxx FCA_INDEX xxx TOD x = Digit Manipulation Index, Free Area Screening, and Time of Day value

DIRECT MW_CALL = Message Waiting indication is being given

DSBL = the unit has been disabled

DST = console destination information to follow

EMR100 = ACD emergency conference

EXP_ROUTE = identifies an expensive route is being used for an ESN call

IDLE = TN or key is idle

HLD = number of calls On-Hold at the console

HOLD = call is On-Hold

LOCKOUT = the unit is in lockout state

LOOP = attendant console LPK key

MAIN_PM = this is the main progress mark which identifies the state of the call, possible values are listed below. See also AUX_PM.

- BUSY = originator is receiving busy tone
- CDR = CPU is processing Call Detail Recording records
- DELAY DIAL = CPU is in a timing sequence while establishing a delay dial start trunk call
- DIAL = one or more digits have been dialed, system requires more digits
- ESTD = call is established between the originating and terminating party allowing them to communicate
- HALFDISC = Trunk with answer supervision has not received a disconnect signal from the far end during trunk idling
- READY = CPU is ready to process a function for the originating TN
- REOR = originator is receiving intercept treatment
- RING = originator is receiving ringback tone
- WAIT = Dial Tone Waiting queue
- WINKON = CPU is in a timing sequence while establishing a wink start trunk call
- MARP = indicates the TN is Multiple Appearance Redirection Prime

MBSY = unit is in maintenance busy state

NARS_PM = NARS call progress mark

NEW_RLIST_INDEX NWQ_RLIST_ENTRY = network queue route list index and route list entry

NCOS_ORIG, NCOS_TERM = Network Class of Service for originating and terminating party

OHQ/CBQ = call is in the Off-Hook queue or Call Back queue

ORIG = originating party information, identifies the TN or DN where the call originates, output depends on type of telephone or console (Refer to *Originating and terminating formats*, that follow, for a description of the output.)

PRIORITY NWQ_EXT_ROUTE = the priority in the queue and extended route queuing

PTY SLOT = TDS priority timeslot; reserved by the CPU while a user is receiving tones (this timeslot may be required by the CPU to further process the call). Normally PTY SLOT is the same timeslot as SLOT.

QUEU = a call may be in one of the following CPU timing queues:

128 = 128 ms timing queue

2S = 2 second timing queue

CAD = cadence

CDR = Call Detail Recording processing queue

DIAL = dialing queue

IDLE = idle queue

NONE = call is not in a timing queue

RING = ringing queue

RCVR xx SET yy = timeslot to the Digitone Receiver (xx) and the telephone (yy)

RGAT_PM = Ring Again progress mark

RL_IND xx RL_ENT xx = NARS/BARS route list index and entry number

SRC = console source information to follow

SBSY = unit is software busy

SLOT = the timeslot used by the originator and terminator

TALKSLOT = identifies the timeslot and junctor (if applicable) used by the originator and terminator

TDTN = Tone Digit Switch loop and timeslot

TERM = terminating party information, identifies the TN or DN where the call terminates, output depends on type of telephone or console (Refer to *Originating and terminating formats*, that follow, for the description of the output.)

TGAR_ORIG, TGAR_TERM = Trunk Group Access Restriction for originating and terminating party

TTR = Digitone Receiver TN

Originating and terminating formats

The Call Trace originating and terminating party information depends on the types of telephone, console or trunk as shown below.

- Single line telephones:
  - **ORIG l s c u cust dn 500**
  - **TERM l s c u cust dn 500**
- Multi-line telephones:
  - **ORIG l s c u key# keytype cust dn settype**
  - **TERM l s c u key# keytype cust dn settype**
- Attendant Consoles:
  - **ORIG l s c u cust att# lpk# ATTN consoletype**
  - **TERM l s c u cust att# lpk# ATTN consoletype**
- Trunks:
  - **ORIG l s c u rtyp RMBR rrr mmm**
  - **TERM l s c u rtyp RMBR rrr mmm**

Explanation of the above originating and terminating party format is as follows:

- **l s c u** = TN
- **consoletype** = console type (ATT, 1250, 2250)
- **cust** = customer number
- **dn** = directory number
- **key#** = multi-line telephone key number
- **keytype** = multi-line telephone key type (SCR, MCR, HOT, etc.)
- **lpk#** = console loop key number
- **rrr mm** = trunk route and member number
- **rtyp** = trunk route type (TIE, CO, FX, etc.)
- **settype** = multi-line telephone type (SL1, 2008, 2317, etc.)

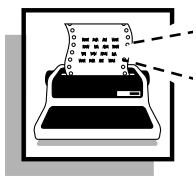
Example trace of a call placed to a 500-type set

The scenario is as follows. An active call from key 0 on an M2008, to a 500-type telephone and customer number is 06.

The trace command is used to elicit an output:

- TRAC **4 0 5 0** (4 0 5 0 is the TN of the telephone), or
- TRAC 6 5100 (6 is the customer number and 5100 is the DN of the telephone)

LD 80 output to the maintenance terminal is as follows:



```
ACTIVE TN 004 0 05 00
ORIG 04 0 0 05 00 6 SCR 0 5100 2008
TERM 008 0 03 06 6 2121 500
DIAL DN 2121
MAIN PM ESTD
TALKSLOT ORIG 22 TERM 29
QUEUE NONE
```

From the above output the Call Trace information is as follows:

- ACTIVE = the status of the call at the instant Call Trace was applied
- ORIG = the unit originating the call or calling set:
  - 004 0 05 00 = terminal number; loop 4, shelf 0, card 5, unit 0
  - 6 = customer
  - SCR 0 5100 = single call ringing, key 0, DN of 5100
  - 2008 = telephone type

- TERM = the unit terminating the call or the called set:
  - 008 0 03 06 = terminal number; loop 8, shelf 0, card 3, unit 6
  - 6 = customer
  - 2121 = DN of the terminating set
  - 500 = telephone type
- DIAL DN 2121 = indicates the DN or digits dialed by the originating set
- MAIN PM ESTD = indicates the call has progressed to the established state and the sets are in the voice and data mode
- TALKSLOT ORIG 22 TERM 29 = tells the originating telephone is assigned time slot 22 and the terminating telephone is assigned time slot 29
- QUEUE NONE = neither set is in any queue

Enhanced trace example

The enhanced call trace output includes a time stamp that appears on the first line of the output.

The TN or digital trunk prints out only when there has been a change to the call register. The TN or trunk is printed only once.

Sample output:

```
.14:00:02 12/25/1992

KEY 0 MCR MARP ACTIVE TN 001 0 02 01

ORIG 001 02 01 0 SCR MARP 1 5011 SL1

TERM 001 0 02 00 0 MCR MARP 1 5006 SL1

DIAL DN 5006

MAIN_PM ESTD

TALKSLOT ORIG 19 TERM 21

QUEU NONE

KEY 1 TRN IDLE

KEY 2 AO3 IDLE

.
.
.

KEY 8 RND

KEY 9 RLS

.14:00:04 12/25/1992

IDLE TN 015 04
```

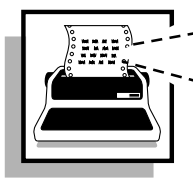
Example trace of an outgoing ISDN Call

The scenario is: outgoing call from key 0 on an M2317, to 500-type telephone customer number is 05

The trace command is used to elicit an output:

- **TRAC 5 6050** (5 is the customer number and 6050 is the telephone DN), or
- **TRAC 16 0 2 0** (16 0 2 0 is the telephone TN)

LD 80 output to the maintenance terminal is as follows:



```
ACTIVE TN 016 0 02 00

ORIG 016 0 02 00 5 SCR 0 6050 2317

TERM 018 16 TIE RMBR 24 12

DIAL DN 7873107

MAIN PM ESTD

TALKSLOT ORIG 13 TERM 13

QUEUE NONE

---- ISDN PRA CALL (TERM) ----

   CAL REF # = 16

   BEARER CAP = VOICE

   CALL STATE = 10 ACTIVE

   CALLING NO = 4376050

   CALLED NO = 7873107
```

From the above output the Call Trace information as follows:

- ACT
  IVE = the status of the call at the instant Call Trace was applied
- ORIG = the originator of the calls telephone set:
  - M2317 = telephone type
  - TN = 016 0 02 00
  - DN = 6050 on SCR key 0
- TERM = the PRI TIE trunk terminating the call:
  - Outgoing PRI TIE trunk: loop 018 channel 16; route 24 member 12
- DIAL DN = the digits dialed by the originating set, 7873107
- MAIN PM = the call has progressed to the established state and the sets are in the voice and data mode
- TALKSLOT = the originating telephone is assigned time slot 13 and the terminating PRI TIE is assigned time slot 13
- QUEUE = neither set nor trunk is in any queue

There are three basic commands:

- **TRAC** for tracing sets and trunks
- **TRAT** for tracing attendant consoles
- **TRAD** for tracing calls through Computer PBX Interface (CPI), Digital Trunk Interface (DTI), Primary Rate Interface, or Digital Link Interface (DLI) loops.

The TRAC command can be used to print the tone detector TN if a tone detector is used at the time of the call trace.

TRA basic commands

Command	Description	Release
Trace calls associated with telephone set keys		
TRAC l s c u k	Trace call associated with key **k** on specified unit.	basic-1
Trace calls by DN or local steering codes		
TRAC c dn	Trace calls for customer **c** Directory Number or Local Steering Code **dn**.	basic-1
Trace unit calls on telephone sets and trunks		
TRAC l s c u	Trace calls associated with this unit. If a trace is performed on a DTR, an error message is output.	basic-1
Trace Attendant Console calls		
TRAT c a	Trace calls for customer **c**, attendant **a**.	basic-1
TRAT c a k	Trace calls associated with key **k** of attendant console a for customer **c**.	basic-1
TRAT l s c u	Trace attendant calls, this unit.	basic-1
TRAT l s c u k	Trace attendant calls on key k.	basic-1
Trace Basic Rate Interface calls		
TRAC l s c DSLx	Trace calls on Digital Subscriber Loop x (0-7). BRI DNs can be traced with the TRAC C DN command. For TRAC L S C U, enter U = DSL0 to DSL7 for Digital Subscriber Loops.	bri-18
Trace route calls, list type and status		
TRAC c acid	List route number, type and status of each trunk for customer **c**.	basic-1
TRAC c r m	Trace calls, customer **c**, route **r**, member **m**.	basic-1

TRA basic commands (continued)

Command	Description	Release
Print auxiliary data related to NARS, Bars, CDP or RGA		
TRAC xx...xx DEV	Print auxiliary data	basic-1
TRAT xx...xx DEV	print auxiliary data.	basic-1

Print the auxiliary data related to the call for Network Alternate Route Selection (NARS), Basic Alternate Route Selection (BARS), Coordinated Dialing Plan (CDP) or Ring Again (RGA). This additional data can be retrieved by appending DEV to any of the TRAC commands. Example: TRAC l s c u DEV

When TYPE is output, E = extended route (not expensive).

Enhanced trace commands		
Command	**Description**	**Release**
Trace information		
FITR	Get information about the enhanced trace function. This command queries the TNs or Digital trunks being traced with the ENTC and ENTD commands. The output is shown as follows: ENTRY TN or TRUNK TIME STATUS **1 001 0 01 01 0030 OFF** **2 015 04 1200 OFF**	basic-19
Enable the enhanced trace command for a TN		
ENTC l s c u t	Enable the enhanced trace command for a TN. This command enables the trace capability for the TN specified. Note that this command does not start the trace immediately. Use the GOTR command to begin the trace operation. Where: **l** = loop, **s** = shelf, **c** = card, **u** = unit and **t** = the length of time the trace command operates. The format for the trace command duration (**t**) is HHMM, where **HH** = hours (0-23)and **MM** = minutes (0-59). For example, for a duration of 5 minutes, t = 0005; for 1 hour, t = 0100 The time duration must be at least 1 minute, and no more than 23 hours.	basic-19
Enable the enhanced trace command for a digital trunk.		
ENTD l ch t	Enable the enhanced trace command for a digital trunk. This command enables the trace capability for the TN specified. Note that this command does not start the trace immediately. Use the GOTR command to begin the trace operation. Where: **l** = loop, **s** = shelf, **c** = card, **u** = unit and **t** = the length of time the trace command operates. The format for the trace command duration (**t)** is HHMM, where **HH** = hours (0-23)and **MM** = minutes (0-59). For example, for a duration of 5 minutes, t = 0005; for 1 hour, t = 0100. The time duration must be at least 1 minute, and no more than 23 hours.	basic-19

Enhanced trace commands (continued)

Command	Description	Release
Begin enhanced trace commands		
GOTR	Begin enhanced trace commands. This command starts the trace operation specified with the ENTC and ENTD commands.	basic-19
Disable all enhanced trace commands		
DALL	Disable all enhanced trace commands. This command disables all trace commands enabled with ENTC or ENTD command. You must stop the trace with the STPT command before disabling all the commands with DALL.	basic-19
Disable the enhanced trace operation.		
DIST n	Disable the enhanced trace operation. This command disables the trace command enabled with ENTC or ENTD command. This command is used once a trace command is started then stopped. Where: **n** = the entry number (as seen with the FITR command)	basic-19
Stop the enhanced trace command		
STPT	Stop the enhanced trace command. This command stops the enhanced trace operation specified with the ENTC and ENTD commands. This can be used at any time during the trace operation. This does not disable the commands; they can be restarted with the GOTR command. When they are restarted, the duration timer is reset. For example: the timer is set at 30 minutes, but the trace is stopped after 2 minutes. When the trace is restarted (GOTR) the timer is set to 30 minutes.	basic-19

Enhanced trace commands (continued)

Command	Description	Release
Disable enhanced trace commands by a maintenance telephone		
nn+9913+x=y	The enhanced trace commands can be disabled through a maintenance telephone by dialing the following: **nn** = customer SPRE access code 9913 = feature code to display for message display control **x** = action code (0 to deactivate) **yy** = message monitor code (02 for enhanced trace messages) A second dial tone indicate that the command was successful. Overflow tone is heard if the command is entered incorrectly. Once this command has been entered, a user entering FITR from the TTY will receive the period (.) prompt.	basic-19

TRA messages from LD 80 input errors

The TRAce messages are the systems response to keyboard input commands that cannot be acted upon by the LD 80 call trace diagnostic.

TRA100

Illegal command.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA101

Illegal input parameters.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA105

Input DN is special prefix.

ACTION: Check to make sure your data is correct and re-enter the command. To check for a special prefix, use LD 21 PRT CDB, and look for SPRE.

TRA106

Illegal input parameters.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA108

Illegal digits stored in Call Register.

ACTION: Contact your technical support group.

TRA110

Fails TNTRANS (or loop disabled).

ACTION: Use STAT l in LD 32 to check to see if the loop is disabled. If the loop is disabled, use the ENLL l to enable the card.

TRA111

Fails TNTRANS.

ACTION: Contact your technical support group.

TRA112

Fails TNTRANS.

ACTION: Contact your technical support group.

TRA113

Fails TNTRANS.

ACTION: Contact your technical support group.

TRA120

Fails DNTRANS.

ACTION: Contact your technical support group.

TRA121

Call trace fails.

ACTION: Re-enter the command.

TRA122

Call trace fails.

ACTION: Re-enter the command.

TRA130

Call trace fails.

ACTION: Re-enter the command.

TRA142

Attendant number exceeds the maximum number defined.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA150

Digitone Receiver (TTR/DTR) cannot be traced.

ACTION: Input * (uppercase 8) and carriage return to stop the printout.

TRA160

Specified key does not exist.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA180

Loop is not a Digital Trunk loop.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA181

Channel to TN conversion failed.

ACTION: Re-enter the command.

TRA182

Loop is a DTI loop.

ACTION: Use the TRAD command.

TRA190

TN cannot be traced.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA191

DN cannot be traced.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA201

Route member out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA202

Route member does not exist.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA253

MFR cannot be traced.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA300

A Local Steering Code (LSC) without an associated DN cannot be traced.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA301

Your TNTRANS:TDET_TN has failed. Your PRINT_TDET may be corrupted by the procedure RGAT_INSERT_TIME.

ACTION: Contact your technical support group.

TRA304

Invalid digit stored in BRI message Call Register.

ACTION: Contact your technical support group.

TRA305

The Multi-User Login feature is not active.

ACTION: Refere to the *administration input/output guide*, use LD 22 PRT, PKG to ensure that package 242, MULTI_USER is on the disk. Use LD 22 PRT, CFN to check if prompt MULTI_USER = YES, if not use LD 17 to change the response.

TRA306

The time duration is out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command. The correct time format is: hh = 00-23, mm = 00-59.

TRA307

Illegal digit(s) in stored M911 Auxiliary Call Register.

ACTION: Contact your technical support group.

TRA308

Illegal digit(s) stored in DN field.

ACTION: Contact your technical support group.

TRA309

More than 3 ENTC/ENTD commands have been entered. You cannot enter the commands again.

ACTION: Check to make sure your data is correct.

TRA310

The Trace has been stopped because the traced TN or Digital trunk has been relocated or removed.

ACTION: Information only, no action required.

TRA311

More than one GOTR has been entered. You cannot enter the command again.

ACTION: Check to make sure your data is correct.

TRA312

The same TN or Digital trunk has been entered more than once. The same TN or Digital trunk cannot be traced simultaneously by the enhanced trace commands.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA313

You must enter ENTC/ENTD before entering GOTR.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA314

You must enter the STPT command before entering DALL ENTC or DALL ENTD.

ACTION: Check to make sure your data is correct and re-enter the command.

TRA317

Cannot use Enhanced trace on a phantom TN/DN.

ACTION: Use the regular trace commands.

TRA0319

An illegal digit is stored in the TWR1 CLID field.

ACTION: Contact your technical support group.

TRK — LD 36, 41 Trunk Diagnostic

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TRK messages 1361

Before changing circuit cards, be aware of the procedures outlined in *Do this when replacing circuit cards*, found in the *Hardware maintenance tools* chapter *in this guide.*

Identifying resident and non resident messages

How to tell resident trunk messages from non-resident

Resident

The following TRK ranges identify resident trunk messages:

TRK100 to **TRK136**

TRK150 to **TRK153**

TRK155 to **TRK156**

TRK160 to **TRK186**

TRK210 to **TRK236**

TRK240 to **TRK256**

Non-resident

TRK messages not listed above are non-resident trunk messages, including TRK222 without a TN, TRK236 without a TN and TRK243. These non-resident TRK messages are output when LD 36 and LD 41 are manually invoked or run automatically as a daily routine.

How the TRK works

The following three paragraphs describe trunk messages generated by the system.

Detects trunk connection failures with a threshold setting

The resident trunk diagnostic detects analog trunk seizure and supervision failures. Each failure activates a counter. The counter increments for a failure and decrements when proper seizure and supervision occurs. The counter starts at zero but never goes below zero. When the counter value exceeds a fixed threshold of 30, a TRK message outputs to a maintenance terminal identifying a failed trunk.

Resets the threshold

The threshold can only be exceeded once for a specific fault type per trunk route. Therefore only one TRK message will appear on the maintenance terminal even if the trunk continues the same failure. The following actions reset the threshold counter to zero:

- a technician using the RSET command in LD 36 or LD 41
- a daily or background routine running LD 36 or LD 4
- a system initialization

Sets threshold counting values

LD 16 sets the increment count or "*ic*" and decrement count or "*dc*" values. These values define a percentage of total attempts needed to exceed the threshold or return the count to zero. Therefore a high *ic* value increases the counter more rapidly, causing the counter to exceed the threshold with fewer detected failures than a low *ic* value.

Using trunk messages

When a resident trunk message and an accompanying TN appear on a maintenance DTE, perform a LD 36 or LD 41 manual test on the trunk.

In addition to resident trunk messages on the maintenance DTE, a record is kept in the system memory for each threshold violation error message. Trunks which have been identified by such a message can be listed by entering the LD 36 or LD 41 command LOVF for any trunk route.

Potentially, a trunk may fail by not detecting incoming calls. The resident trunk threshold mechanism cannot be used to detect such failures, so the Meridian 1 maintains a count of the number of days since an incoming call was received on each trunk. The LD 36 or LD 41 LMAX command can check for trunks that have been idle or not used for days. Depending on trunk traffic, this could indicate a faulty trunk card.

It is possible to determine the number of days since an incoming call was processed for each trunk using the LD 36/41 LDIC command. Subsequently trunk tests should be performed on those trunks showing the highest counts.

Resident trunk message format

Messages output by the resident trunk diagnostic have the following format:

TRKwxy L S C U

wx is a two digit number indicating the type of analog trunk as follows:

10=WATS

11=FEX

12=CCSA

13=DID

15=CO

16=Tie

17=Paging

18=Dictation

19=Recorded Announcement

20=AIOD

21=CCSA - ANI

22=CAMA

23=RLT - main; CAS systems

24=ATVN; AUTOVON systems

25=RLT - Remote

26=Modem

y is the last number in the TRK message indicating the problem. For example: 0 = SHORT HOLD (with the LD 16 RDB prompt shown in brackets). Various problems are listed as follows:

TRKwx0 = SHORT HOLD (HOLD)—An unacceptably large percentage of calls on the trunk were held for a short period. This applies to trunks which are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

TRKwx1 = SEIZURE FAILURE (SEIZ)—Seizure supervision from the far-end can take several forms: some CO/Exchange line trunks are seized by the far-end placing ringing on the Ring lead (B lead in the UK) or grounding the Tip lead (A lead in the UK). Some loop start trunks are seized by a low resistance termination on the trunk leads. Some trunks are seized by battery and ground placed on the trunk leads, and some E & M trunks are seized by a ground placed on the E lead.

TRKwx2 = RINGING ON SEIZED TRUNK (ILLR)—Ringing is present on the answered trunk call.

TRKwx3 = RING OR GROUND DETECTOR FAILURES (RGFL)—Specifies the percentage threshold for trunks which fail to produce the expected ringing and ground changes.

TRKwx4 = SUPERVISION FAILURE (SVFL)— Answer supervision to the far-end can take several forms. Some loop start trunks provide answer supervision by reversing battery and ground on the trunk leads. Some E & M trunks provide answer supervision by placing battery on the M lead. Some CO trunks provide answer supervision by placing low resistance on the loop.

TRKwx5 = REPETITIVE MESSAGES —The trunk is sending incorrect data to the processor. Threshold is a fixed value and is not overlay programmable.

TRKwx6 = RELEASE FAILURE—No disconnect supervision is being received from the trunk.

Why two loads?

Insufficient space in the overlay area requires the trunk diagnostic to be split into two programs. Program 41 is an extension of program 36.

Using LD 36 and LD 41 for testing

LD 36 and LD 41 allow trunks to be tested from either the Meridian 1 site or a remote test center.

When testing from a site

The maintenance DTE is connected directly to the Meridian 1and individual trunks can be seized and a test call can be performed on the trunk in the normal manner.

When testing from a remote test center

The maintenance DTE is located some distance from the Meridian 1 and they are connected through modems. In this case a speech path must be set up to monitor the testing. This is accomplished by directing the Meridian 1 system call to a telephone directory number (DN) at the test center. Tests are performed on the Meridian 1 trunks by entering commands at the DTE and the technician can listen for dial tone, outpulsing and test tones with the test center telephone.

Tone indicates good trunks

When a trunk is seized, the system prompts "**DN?**" for a DN. When the DN is entered, the system calls that number automatically. When the call is answered a pure tone indicates the validity of the speech path. New trunks can be tested in the same manner with the maintenance telephone.

Note 1: When the Trunk Failure Monitor (TFM) package 182 is activated, a failed trunk is displayed as BUSY. The failed trunk remains in the BUSY state and is not enabled or disabled by the enable/disable command.

Note 2: When LD 36 is defined as a midnight or daily routine, this program searches for trunks not used during the day and updates the total number of days that the trunks have been idle.

List of commands

Commands in this section, listed in the following order, will do the following:

LD 36 or LD 41:

- clear minor alarms and the maintenance display
- check card status
- list threshold overflows
- reset thresholds
- end test

LD 36:

- remotely test a trunk
- disable or enable a unit
- list the days when a trunk was last used
- list when no supervision was received
- test mucic and recorded announcement trunks
- test Periodic Pulse Metering (PPM) trunks
- query trunks for which no disconnect supervision was received
- test Automatic Number Identification (ANI) trunks

LD 41:

- test Automatically Identified Outward Dialing (AIOD) trunks

LD 36 and LD 41 common commands		
Command	**Description**	**Release**
Clear minor alarms or CPU display		
CDSP	Clear the maintenance display on active CPU to 00 or blank.	basic-1
CMIN ALL	Clear minor alarm indication on all attendant consoles.	basic-1
CMIN c	Clear minor alarm indication on attendant consoles for customer c.	basic-1
Check trunk card status		
STAT l s c	Check software status of card.	basic-1
Disable trunk card for replacement		
DISC l s c	Disable specified card for replacement. Disabled DID trunks are placed in the answer state. If Recorded Telephone Dictation (RTDT) cards are to be software enabled or disabled, the Out-of-Service (OS) lead should be connected to ground. On completion of the task, ground can be removed. When the Trunk Failure Monitor (TFM) package 182 is activated, a failed trunk is displayed as BUSY. The enable/disable command does not enable or disable the failed trunk unit, it stays in the BUSY state.	basic-1
Enable trunk card		
ENLC l s c	Enable specified card. If unit resides on a disabled shelf or card, then status is output and enable is not performed. When the Trunk Failure Monitor (TFM) package 182 is activated, a failed trunk is displayed as BUSY. The enable/disable command does not enable or disable the failed trunk unit, it stays in the BUSY state.	basic-1
List threshold overflows		
LOVF c r	List threshold overflows for specified customer and route. The overflows are kept in memory when the resident trunk monitor outputs a TRK message. This command allows you to list each threshold violation error message for any trunk route.	basic-1

LD 36 and LD 41 common commands (continued)		
Command	**Description**	**Release**
Reset thresholds		
RSET l s c u	Reset threshold counters to zero for specified trunk.	basic-1
Terminate test in progress		
END	Terminate test in progress	basic-1

LD 36 commands

LD 36 commands		
Command	**Description**	**Release**
Set up monitor link with test center		
CALL	Set up monitor link with test center. Same as the CALL l s c command except any PTRS trunk in the system can be selected. The CALL command must be terminated using the * command.	basic-1
Set up monitor link with test center		
CALL l s c u	Set monitor link with test center on this trunk. Set monitor link with test center on this trunk. Sets up a monitor link (call) between the Meridian 1/Meridian SL-1 and the test center on the trunk specified. The system prompts “DN?” for the directory number. When the PTRS directory number is entered, the system calls up that number automatically. When the call is answered, a pure tone indicates the validity of the link. This sequence can take up to 14 seconds on a trunk without answer supervision. The END command disconnects the call. The CALL l s c u command is not allowed when the diagnostic program is being run from a maintenance telephone. During the CALL command, On-Hook and Off-Hook signals from the maintenance telephone may initiate BUG105. Note: When the monitor is enabled, a failed trunk is displayed as BUSY. The enable/disable command does not enable or disable the failed trunk unit (it stays in the BUSY state).	basic-1

LD 36 commands (continued)

Command	Description	Release
Disable trunk unit		
DISU l s c u	Disable specified unit. Disabled DID trunks are placed in the answer state. When the French (FRTA) package 197 is activated, the units on CO trunks are not busied when they are disabled. When the Trunk Failure Monitor (TFM) package 182 is activated, a failed trunk is displayed as BUSY. The enable/disable command does not enable or disable the failed trunk unit, it stays in the BUSY state.	basic-1
Enable trunk unit		
ENLU l s c u	Enable specified unit. If unit resides on a disabled shelf or card, then status is output and enable is not performed. When the Trunk Failure Monitor (TFM) package 182 is activated, a failed trunk is displayed as BUSY. The enable/disable command does not enable or disable the failed trunk unit, it stays in the BUSY state.	basic-1
List number of days last used and no disconnect supervision		
LDIC c r	List number of days since last incoming call for specified customer and route.	basic-1
LDIC l s c u	List number of days since last incoming call on specified trunk.	basic-1
LMAX c r	List trunk with maximum idle days for specified customer and route.	basic-1
LNDS c r	List trunks with no disconnect supervision for specified customer and route.	basic-1
Test music and recorded announcement trunks		
MUS c r	Test music device for specified customer and route.	basic-1
RAN c r	Test recorded announcement device for specified customer and route.	basic-1

LD 36 commands (continued)

Command	Description	Release
Seize trunk for testing from a maintenance telephone		
TRK l s c u	Seize trunk for testing. Seizes the specified trunk for outpulsing and testing. If the command is issued from a maintenance telephone, dial tone is heard followed by outpulsing when the directory number is entered. If a trunk is to be seized for outpulsing and testing from a remote test center (not a maintenance telephone), a monitor link, so you can hear the tones, must first be set up using the CALL l s c u command. This must not be over the trunk to be tested. With the monitor link set up, the TRK l s c u command is input to select the trunk to be tested. The system then prompts with “DN?” and the directory number is input via the TTY. Normal speech path connections are made between the monitor link and the trunk being tested. Disconnect by entering END, by going On-Hook if an SL-1 telephone is used or by entering *. END also disconnects the monitor link. ***Note:*** This command cannot be used to seize an ISL trunk.	basic-1
Test Periodic Pulse Metering (PPM) trunk		
TPPM l s c u	Test the specified PPM trunk. This command is not applicable when the Meridian 1/Meridian SL-1 is connected to 1 TR 6 international ISDN PRA).	basic-1

LD 41 commands

LD 41 commands		
Command	**Description**	**Release**
Test Automatically Identified Outward Dialing (AIOD) trunk		
AIOD l s c	Test AIOD card	basic-1
AIOD MSG l s c	Output codes transmitted to Public Telephone Rated Service (PTRS). Output on TTY all 8-digit codes bring transmitted to PTRS by AIOD card. Response is OK if monitor is set. Not available in X11 Release 9 and later.	basic-1

TRK messages

TRK000

LD 36 program identifier.

ACTION: The TRK program is loaded and ready for you to enter commands.

TRK001

Invalid command.

ACTION: Ensure that this is the command you wanted to use.

TRK002

Invalid argument(s).

ACTION: Check to make sure your data is correct and re-enter the command.

TRK003

Invalid or out-of-range TN.

ACTION: Check to make sure your data is correct and re-enter the command.

TRK004

Too many digits in the DN.

ACTION: Check to make sure your data is correct and re-enter the command.

TRK005

Unit requested is not a trunk.

ACTION: Ensure that this is the command you wanted to use.

TRK006

Unit requested or all trunks busy.

ACTION: Wait until the unit or trunks are idle and re-enter the command.

TRK007

Command not valid unless a monitor link exists. For example, a trunk link between the SL-1 system and the test center.

ACTION: Refer to *Set up monitor link with test center* in the LD 36 commands table in this chapter. Use CALL command if you are at a test center or abort and reload from a Meridian 1 location.

TRK008

No CO trunk defined in the system. Cannot use command.

ACTION: Ensure that this is the command you wanted to use.

TRK009

No maintenance telephone available for the call. Maintenance telephone may be busy.

ACTION: Wait until the maintenance telephone is idle.

TRK010

Trunk must be a CO trunk.

ACTION: Ensure that this is the command you wanted to use.

TRK011

Call command not allowed from a maintenance telephone.

ACTION: Use the trunk command from a DTE directly.

TRK012

Customer or route does not exist or is out range.

ACTION: Refer to the *administration input/output guide*, use LD 16 to program a route or use LD 20 or LD 21 RDB or CDB to check range of input. The range format for the customer is 0 to 9 and the route is 0 to 127.

TRK013

The unit requested is not an incoming trunk. Command is allowed only for incoming trunks.

ACTION: Ensure that this is the command you wanted to use.

TRK014

Unexpected call status change. For example, disconnect from far-end.

ACTION: Enter the request again. If the response is the same, try another test number.

TRK015

Another party attempted to use system maintenance set.

ACTION: Reissue the CALL or TRK command.

TRK016

Trunk command not valid for AIOD and RLT-main trunks. Command is allowed only for AIOD and RLT-main.

ACTION: Ensure that this is the command you wanted to use.

TRK017

Seize failure or failure to acknowledge seizing. Also occurs when LD 36 is used with a remote maintenance phone to dial an ISL TIE line. BUG3068 occurs at the far-end.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK018

STAT, DISC and ENLC commands can only be used with trunk cards.

ACTION: Ensure that this is the command you wanted to use.

TRK019

Response to AIOD command. The card requested is busy or the system has AIOD traffic queued for the AIOD facility. This condition has not changed over the last 15 seconds.

ACTION: If it is required to force the test to continue, disable the card using the DISC command and re-enter the AIOD command.

TRK020

The card requested is not an AIOD card.

ACTION: Verify that the data is correct by using the STAT command. Re-enter the command.

TRK021

The AIOD card is not responding to signaling messages sent from the processor.

ACTION: Ensure that the card is in place. If it is and replacing the card has no effect, contact your technical support group.

TRK022

The AIOD card cannot be readied for use. Before using the AIOD trunk facility, the system sends a reset signal to the AIOD card to ready it for data transmission. Failure to acknowledge the reset signal within 1 s is considered a failure.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK023

Error detection circuits on the AIOD facility are not functioning properly. These circuits are essential to signal the processor when incorrect data is being transmitted.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK024

Cannot transmit data because no supervision from the CO/Exchange line has been detected. Before actual transmission of data can occur a bid or request to begin transmission is sent to the CO/Exchange line. Failure to acknowledge such a request within 4 seconds is considered a failure.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card if the same message appears, contact your technical support group for help in informing the far-end personnel about supervision output.

TRK025

The signaling path has been interrupted during the transmission of AIOD data to the CO.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. If the same message appears after replacing the card, check the modem for faults.

TRK026

Cannot release CO link. When the AIOD card has completed transmission of data, the CO signals a disconnect. If this signal is not received by the system within 1 second after the end of transmission then the sequence is considered to have failed.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card if the same message appears, contact your technical support group for help in informing the far-end personnel about supervision output.

TRK027

The AIOD card is not completing its cycle. The AIOD card is expected to provide a signal that it has completed transmitting all data. Failure to provide this signal within 2 s after the start of data transmission is considered a failure.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK028

In order to test the AIOD card, there must be one or more CO trunks in the system designated to use the AIOD facility and they must be idle.

1. CO trunks could be busy.

ACTION: Use STAT in LD 36 to determine if AIOD is busy. If all the CO trunks are busy, wait until they are idle and then re-enter the command. If you need help with the commands or system responses refer to the *NPR* chapter in this guide.

2. CO trunks are not designated to use the AIOD facility.

ACTION: Refer to the *administration input/output guide*, use LD 20 AID to ensure that appropriate CO trunks in the system have been designated to use the AIOD facility. Use LD 14 to correct the fault.

TRK029

The error detection circuit on the AIOD card is detecting transmission errors. This indicates that faulty data is being presented to the CO or a fault exists in the error detection circuit.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card if the same message appears, check with the CO to ensure that the data is not faulty.

TRK030

1. ANI trunks seizure failure.

ACTION: Check at the cross-connect field for the seizure condition.

2. Wink start signal (REQ-N1) not received or not properly received from far-end.

ACTION: Check the cross-connect field and with far-end for wink start signal.

3. Also wrong number of digits dialed or ANI access code (0/1) is missing.

ACTION: Check with the user for dialing the proper access code.

TRK031

ANI trunks calling number identification request (REQ-N2) not received or not properly received from far-end.

ACTION: Check at cross-connect field and with far-end.

TRK032

1. If you were using LD 36, Invalid command for modem-type trunks.

ACTION: Use LD 32 to test the Add-on Module (ADM) or Modem trunks.

2. If you were using LD 41, PPM buffer test failed.

ACTION: Replace the AIOD card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK033

TN is not a PPM trunk.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TRK034

Pulses on E&M trunk are either bad or not received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK035

1. Route has no member.

ACTION: Refer to the *administration input/output guide*, use LD 14 to program a trunk member alternately. Check to make sure your data is correct and re-enter the command.

2. Pules E&M card test failed.

ACTION: If the test fails again, the card may be faulty. Replace the E&M card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK036

PPM read request is pending on this card.

ACTION: Be patient.

TRK040 c r

No recorded announcement (RAN), music (MUS) or automatic wake-up (AWK) device exists for the customer and route specified.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TRK041 c r

The RAN, MUS or AWK device specified for customer **c** and route **r** is not operable.

ACTION: Check the connections or change the RAN, MUS or AWK equipment.

TRK042 c r

The RAN, MUS or AWR device specified for customer **c** and route **r** is operating abnormally, i.e., not according to manufacturer's specifications.

ACTION: Check the connections or change the RAN, MUS or AWK equipment.

TRK043 c r tn1 tn2

The RAN, MUS or AWR device specified has RAN trunks associated with it that are not in the trunk list specified for that route. **tn**s specified are connected physically to a RAN, MUS or AWR device but trunk data does not reflect this.

ACTION: Refer to the *administration input/output guide*. Use LD 15 to change customer data or check wiring.

TRK044 c r tn1 tn2

The RAN, MUS or AWR device specified has RAN trunks listed in its trunk list but the **tn**s are not physically connected to RAN, MUS or AWR device. (This is the inverse of TRK043).

ACTION: Refer to the *administration input/output guide*. Use LD 14 to change trunk data or check wiring.

TRK045 c r

Too many trunks connected to RAN, MUS or AWR device for this customer and route. Limit is 100 trunks.

ACTION: Refer to the *administration input/output guide*. Use LD 14 OUT to remove some trunks.

TRK100 tn

WATS trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 seconds in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the WATS trunks and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the prompt HOLD needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the WATS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK101 tn

ACTION: WATS trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.Seizure supervision from the far-end can take several forms: certain trunks are seized by the far-end placing ringing on the Ring lead (B lead in the UK) or grounding the Tip lead (A lead in the UK), some loop start trunks are seized by a low resistance termination on the trunk leads, other trunks are seized by battery and ground placed on the trunk leads.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: To determine the route for the WATS trunk and the present SEIZ setting, use LD 20 TNB and LD 21 RDB respectively. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected. Refer to the *administration input/output guide* for assistance.

3. If messages come from one **tn**.

ACTION: Replace the WATS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK102 tn

WATS trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the WATS trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct ILLR setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the WATS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK103 tn

WATS trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the WATS trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the WATS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK104 tn

WATS trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls. Answer supervision to the far-end can take several forms: WATS trunks provide answer supervision by placing low resistance on the loop.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, replace the WATS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: To determine the route for the WATS trunk and the present RGLF setting use LD 20 TNB and LD 21 RDB respectively.

Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the WATS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK105 tn

WATS trunk Repetitive messages. The trunk was sending incorrect data to the processor.

1. The loop start or ground start switches may not be set correctly.

ACTION: Refer to the *Circuit Pack Installation & Testing NTP* to check that the loop start and ground start switches on the trunk card are set correctly.

2. If the switches are set correctly, the message could indicate a trunk card fault.

ACTION: Replace the WATS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

3. A high volume of transitions on the trunk facility. Threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK106 tn

WATS trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going on-hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check at the cross-connection field for disconnect supervision conditions.

1. If no supervision was received

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received

ACTION: Replace the WATS card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK110 tn

FEX trunk or TWR1 trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of
two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the FEX trunks and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK111 tn

ACTION: FEX trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized. Seizure supervision from the far-end can take several forms: certain trunks are seized by the far-end placing ringing on the Ring lead (B lead in the UK) or grounding the Tip lead (A lead in the UK), some loop start trunks are seized by a low

resistance termination on the trunk leads, and other trunks are seized by battery and ground placed on the trunk leads.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the FEX trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK112 tn

ACTION: FEX trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the FEX trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK113 tn

ACTION: FEX trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large

percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the FEX trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK114 tn

ACTION: FEX trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls. Answer supervision to the far-end can take several forms: FEX trunks provide answer supervision by placing low resistance on the loop.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several TNs.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the FEX trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one TN.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK115 tn

ACTION: FEX trunk Repetitive messages. The trunk was sending incorrect data to the processor.

1. The loop start or ground start switches may not be set correctly.

ACTION: Refer to the *Circuit Pack Installation & Testing NTP* to check that the loop start and ground start switches on the trunk card are set correctly.

2. If switches are correct, the message could indicate either a trunk card fault or

ACTION: Replace the FEX card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

3. A high volume of transitions on the trunk facility. Threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK116 tn

FEX trunk Release failure. No disconnect supervision was received from the trunk within 60 s of a local set going on-hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check at the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK120 tn

CCSA trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the CCSA trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK121 tn

CCSA trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.Seizure supervision from the far-end can take several forms: certain trunks are seized by the far-end placing ringing on the Ring lead (B lead in the UK) or grounding the Tip lead (A lead in the UK), some loop start trunks are seized by a low resistance termination on the trunk leads, other trunks are seized by battery and ground placed on the trunk leads.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK122 tn

CCSA trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the CCSA prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the FEX trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK123 tn

CCSA trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA trunks and LD 21 RDB to

determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK124 tn

CCSA trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the CCSA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK125 tn

CCSA trunk Repetitive messages.

1. The trunk was sending incorrect data to the processor. The message could indicate either a trunk card fault or

ACTION: Replace the CCSA card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. A high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK126 tn

CCSA trunk Release failure.No disconnect supervision was received from the trunk within 60 s of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the CCSA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK130 tn

DID trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the DID trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK131 tn

DID trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

Seizure supervision from the far-end can take several forms: some loop signaling trunks are seized by a low resistance termination on the trunk leads, other trunks are seized by battery and ground placed on the trunk leads.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the DID trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK132 tn

DID trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the DID trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK133 tn

DID trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the DID trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK134 tn

DID trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls. Answer supervision to the far-end can take several forms: some loop signaling trunks provide answer supervision by reversing battery and ground on the trunk leads.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the DID trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK135 tn

DID trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message can indicate either of the following:

1. A trunk card fault.

ACTION: Replace the DID card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. A high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK136 tn

DID trunk Release failure. No disconnect supervision was received from the trunk within 60 s of a local set going on-hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the DID trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK137 tn

Partial dial time-out on DID trunk.

ACTION: If this message appears repeatedly, replace the DID card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK139 tn

No response from Universal Trunk or E&M/Dictation Trunk.

ACTION: Try the command again. If the problem persists, check the Network Card or Controller (NT8D04/NT8D01) and the cable path to the Universal Trunk or E&M/Dictation Trunk card.

TRK150 tn

CO trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time.The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CO trunks and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK151 tn

CO trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or the response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized. Seizure supervision from the far-end can take several forms: certain CO/Exchange line trunks are seized by the far-end placing ringing on the Ring lead (B lead in the UK) or grounding the Tip lead (A lead in the UK), some trunks are seized by a low resistance termination on the trunk leads, other trunks are seized by battery and ground placed on the trunk leads.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CO trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK152 tn

CO trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CO trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK153 tn

CO trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CO trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK154 tn

CO trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls. Answer supervision to the far-end can take several forms: CO trunks provide answer supervision by placing low resistance on the loop.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CO trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK155 tn

CO trunk Repetitive messages. The trunk was sending incorrect data to the processor.

1. The loop start or ground start switches may not be set correctly.

ACTION: Refer to the *Circuit Pack Installation & Testing NTP* to check that the loop start and ground start switches on the trunk card are set correctly.

2. If switches are correct, the message could indicate a trunk card fault or

ACTION: Replace the CO card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

3. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK156 tn

CO trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the CO trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK157 tn

PPM read failure. An attempt to read the contents of the trunk register failed.

ACTION: Contact your technical support group.

TRK160 tn

TIE trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the TIE trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK161 tn

TIE trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.Seizure supervision from the far-end can take several forms: a ground placed on the E lead for E & M trunks. Reversal of battery and ground on tip and ring for loop signaling tie trunks.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the TIE trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK162 tn

TIE trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the TIE trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK163 tn

TIE trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the TIE trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK164 tn

TIE trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls. Answer supervision to the far-end can take several forms: some E and M trunks provide answer supervision by placing battery on the M lead.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the TIE trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK165 tn

ACTION: TIE trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the TIE card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK166 tn

TIE trunk Release failure. No disconnect supervision was received from the trunk within 60 s of a local set going on-hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK170 tn

Paging trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the Paging trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Paging trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK171 tn

Paging trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the TIE trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the TIE trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK172 tn

Paging trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Paging trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the Paging trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK173 tn

Paging trunk Ring or Ground Detection. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Paging trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Paging trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK174 tn

Paging trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, replace the Paging trunk card following the steps in the *Hardware replacement guide*. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Paging trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Paging trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK175 tn

Paging trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the Paging card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK176 tn

Paging Trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the Paging trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK0177

MFR holding time has timed out on incoming TWR1 call.

ACTION: Contact your technical support group.

TRK180 tn

Dictation trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the Dictation trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK181 tn

Dictation trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Dictation trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK182 tn

Dictation trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Dictation trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt ILLR needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK183 tn

Dictation trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Dictation trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK184 tn

Dictation trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Dictation trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering

section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK185 tn

Dictation trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the Dictation card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. A high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK186 tn

Dictation trunk Release failure. In situations where the external dictation equipment busies out the trunk at the end of each call, TRK186 messages do not indicate a fault.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the Dictation trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK191 tn

No control signal (CNTL) returned. A control signal indicating the status of Code-a-phone or Audichron has not been received by the processor in the last 5 minutes for Code-a-phone or 32 seconds for Audichron. The control signal can be either open or ground. When the control signal is open the machine is in announcing state. When the control signal is ground, the machine is in idle or start state.

ACTION: Check the cross connect field for proper conditions. If the proper conditions are not present replace the Code-a-Phone or Audichron. If the proper conditions are present replace the trunk card.

TRK192 tn

Start failure (STRT). To start Code-a-phone machine, a start pulse is sent from any one of the trunks connected to the machine. The control signal should change from “ground” to “open” within 2 seconds after the start pulse is sent. If this trunk fails to start the machine, the state of the control signal remains “ground” for all the trunks connected to the machine.

ACTION: Check the cross connect field for proper conditions. If the proper conditions are not present replace the Code-a-Phone. If the proper conditions are present replace the trunk card.

TRK193 tn

Illegal messages from trunk (ILLM). Any messages received from RAN trunk are considered illegal if they are out of sequence of duration or control signal that remains open is less than two seconds.

ACTION: Use the RAN test in LD 36, and check the wiring.

TRK200 tn

Reset acknowledge not received. Before using the AIOD trunk facility, the system sends a reset signal to the AIOD card to ready it for data transmission.

ACTION: If the card fails to acknowledge this command, Use LD 36 DISC and ENLC to replace the trunk card.

TRK201 tn

Transmission failure (TRFL). Error detection circuits on the AIOD card signaled either incorrect data being transmitted to the CO or that the established path between the CO and SL-1 installation has been interrupted.

ACTION: Check for the proper conditions at the cross connect field. If the conditions are good, use LD 36 DISC and ENLC to replace the

trunk card. If the conditions are not good, contact your technical support group for help in informing the far-end personnel.

TRK202 tn

Failure to acknowledge transmit bit (TRAC). Before actual transmission of data can occur, a bid or request to begin transmission is sent to the CO. Failure to acknowledge such a request within four seconds is considered a failure.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK203 tn

End of transmission or disconnect not acknowledged (ETAC). The AIOD card signals the system that it has completed transmission of data. Soon afterwards, the received by the system, the AIOD sequence is considered to have failed.

ACTION: Contact your technical support group and contact your technical support group for help in informing the far-end personnel.

TRK204 tn

Illegal messages from trunk (ILM). Any messages to the processor from the AIOD card are considered illegal if they are random and can not be decoded, or are out of sequence.

ACTION: Check for a faulty card. Use LD 36 DISC and ENLC to replace the trunk card.

TRK210 tn

CCSA-ANI trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. Short hold measurement can be set from 0 to 128 s in increments of two seconds.The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the CCSA-ANI trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to
be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK211 tn

CCSA-ANI trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA-ANI trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK212 tn

CCSA-ANI trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA-ANI trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK213 tn

CCSA-ANI trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA-ANI trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK214 tn

CCSA-ANI trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA-ANI trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK215 tn

CCSA-ANI trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the CCSA-ANI card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK216 tn

CCSA-ANI trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going on-hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK220 tn

CAMA trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. Short hold measurement can be set from 0 to 128 s in increments of two seconds.The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the CAMA trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CAMA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK221 tn

CAMA trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CAMA trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CAMA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK222 tn

With a TN identifier, this message is used for CAMA trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CCSA-ANI trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the CCSA-ANI trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK222

Without a TN identifier, this message is used as an indication that LD 42 is loaded into the overlay area and is ready to accept an input command from the keyboard of a maintenance terminal.

ACTION: The TRK program is loaded and ready for you to enter commands.

TRK223 tn

CAMA trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CAMA trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CAMA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK224 tn

CAMA trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the CAMA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the CAMA trunks and LD 21 RDB to

determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the CAMA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK225 tn

CAMA trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the CAMA card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. A high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK226 tn

CAMA Trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the CAMA trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK230 tn

RLT-main, CAS system trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the RLT/CAS trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.If messages come from one TN.

3. If messages come from one **tn**.

ACTION: Replace the RLT/CAS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK231 tn

RLT-main, CAS systems trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide,* use LD 20 TNB to determine the route for the RLT-main trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering

section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the RLT-main trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK232 tn

RLT-main, CAS systems trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-main trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the RLT-main trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK233 tn

RLT-main, CAS systems trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-main trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering

section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the RLT-main trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK234 tn

RLT-main, CAS systems trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the RLT-main trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-main trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the RLT-main trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK235 tn

RLT-main, CAS systems trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the RLT-main card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking high volume of transitions on the trunk facility.

TRK236 tn

TRK236 tn — with a **tn** identifier is used for RLT-main, CAS systems trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received. TRK236 (without a **tn** identifier) is used as an indication that LD 41 is loaded into the overlay area and is ready to accept an input command from the keyboard of a maintenance terminal.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check at the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the RLT-main, CAS trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK237 tn

Failure of far-end response to near-end seizure. The near-end did not recognize the wink signal from the far-end because:

- the wink signal was not received within five seconds because of transmission delays or hardware failure, or
- the wink signal was not within specification.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK238 tn

Far-end dialing failure. The near end did not receive sufficient digits to be able to complete the call. This can be caused by either of the following:

- the far-end remained Off-Hook without sending any digits as faulty hardware caused a false seizure
- a sender was stuck, causing the inter-digital interval to exceed a threshold

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK240 tn

RLT-remote trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT trunks and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the RLT trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK241 tn

RLT-remote trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-remote trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the RLT-remote trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK242 tn

RLT-remote trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-remote trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the RLT-remote trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK243 tn

RLT-remote trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-remote trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the RLT-remote trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

4. Inputs received from an idle trunk. RLT-remote trunk is an outgoing trunk and there is no input from the RLT-main when the trunk is in idle state. Any input received during the idle state increments the threshold and there is no decrement on the threshold.

ACTION: The problem could be caused by a faulty trunk card that sent out input messages, a problem on the line, or a faulty receiver on the trunk card. Use the LD 36 DISC and ENLC to replace the trunk card.

TRK244 tn

ACTION: RLT-remote trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the RLT-remote trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the RLT-remote trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the RLT-remote trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK245 tn

RLT-remote trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the RLT-remote card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking the high volume of transitions on the trunk facility.

TRK246 tn

RLT-remote trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check the cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the RLT-remote trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK250 tn

Modem trunk Short Hold. An unacceptably large percentage of calls on the trunk were held for a short period. The failure to hold applies to trunks that are properly seized but disconnected sooner than the minimum hold time. The time a trunk is held, allowing the user to dial a directory number, can be set from 0 to 128 s in increments of two seconds.

1. This message can be caused by a telephone user dialing the trunk access code, releasing and repeating this action several times in succession.

ACTION: Check for trunk users dialing the access code and quickly releasing the call before dialing digits.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide* and use LD 20 TNB to determine the route for the Modem trunks, and LD 21 RDB to determine the present HOLD setting. Contact your engineering section for the correct HOLD setting. Use LD 16 if the setting of the HOLD prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK251 tn

Modem trunk Seizure failure. More than a specified percentage of calls did not receive seizure supervision, either there was no response from the far-end or response was too late. On each occurrence, this trunk was released and another trunk within this trunk group or route was seized.

1. If there is no seizure supervision from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Modem trunks and LD 21 RDB to determine the present SEIZ setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the SEIZ prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK252 tn

Modem trunk Ringing on Seized Trunk. Ringing was not removed when the trunk call was answered. Indicates a trunk circuit card fault.

1. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Modem trunks and LD 21 RDB to determine the present ILLR setting. Contact your engineering section for the correct SEIZ setting. Use LD 16 if the setting of the ILLR prompt needs to be corrected.

2. If messages come from one **tn**.

ACTION: Replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK253 tn

Modem trunk Ring or Ground Detection failure. Ring or ground detector changes were not received from the trunk on a large percentage of calls. On those incoming calls which should have had both ringing and ground applied, one or the other was not detected.

1. If both ringing and ground are not applied from the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, notify the far-end.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Modem trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering

section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK254 tn

Modem trunk Supervision failure. The trunk did not return answer supervision on a large percentage of calls.

1. If answer supervision was not sent to the far-end.

ACTION: Monitor for the proper conditions at the cross-connect frame. If the conditions are not right, replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. If messages come from several **tn**s.

ACTION: Refer to the *administration input/output guide*, use LD 20 TNB to determine the route for the Modem trunks and LD 21 RDB to determine the present RGLF setting. Contact your engineering section for the correct RGLF setting. Use LD 16 if the setting of the RGLF prompt needs to be corrected.

3. If messages come from one **tn**.

ACTION: Replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK255 tn

Modem trunk Repetitive messages. The trunk was sending incorrect data to the processor. The message could indicate either of the following:

1. A trunk card fault.

ACTION: Replace the Modem card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

2. There is a high volume of transitions on the trunk facility. The threshold is fixed by the system.

ACTION: Contact your technical support group for help in checking high volume of transitions on the trunk facility.

TRK256 tn

Modem Trunk Release failure. No disconnect supervision was received from the trunk within 60 seconds of a local set going On-Hook. This trunk will remain busy until disconnect supervision is received.

ACTION: Use the LD 36 LNDS command to determine whether the trunk has remained in this state. Check at cross-connection field for disconnect supervision conditions.

1. If no supervision was received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

2. If supervision was received.

ACTION: Replace the Modem trunk card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK300 tn

Link/DCHI state is not yet defined.

ACTION: Refer to the *ISDN Basic Rate Interface NTP*.

TRK301 loop

The **loop** requested is the Digital Trunk Interface (DTI) or Primary Rate Interface (PRI);

ACTION: Refer to the *ISDN Basic Rate Interface NTP* and use LD 60 DTI Diagnostic.

TRK302

Trunk card failed selftest.

ACTION: Use LD 36 DISC and ENLC to replace the trunk card.

TRK303

Superloop number must be a multiple of 4.

ACTION: Check to make sure your data is correct and re-enter the command.

TRK304

Shelf number is undefined.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TRK305

Card number is undefined.

ACTION: Check to make sure your data is correct and if applicable, re-enter the command.

TRK306

Unit number is out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TRK431 tn

Seizure acknowledgment expected on DID-DOD or NWK trunk but not received.

ACTION: Contact your technical support group for help in informing the far-end personnel. Check the cross connection/test jack frame for proper conditions. Use LD 36 DISC and ENLC to replace the trunk card.

TRK432 tn

Seizure acknowledgment not expected on DID-DOD or NWK trunk but received.

ACTION: Contact your technical support group for help in informing the far-end personnel. Check the cross connection/test jack frame for proper conditions. Use LD 36 DISC and ENLC to replace the trunk card.

TRK433 tn

Time-out when waiting for ready to outpulse.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK434 tn

Time-out when waiting for stop to outpulse.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK481 tn

A seizure acknowledgment was expected on dictation trunk but was not received.

ACTION: Check the cross connection/test jack frame for proper conditions. If the proper conditions are not present, replace the dictation equipment. If the conditions are good, use LD 36 DISC and ENLC to replace the trunk card.

TRK482 tn

A seizure acknowledgment was not expected on dictation trunk but was received.

ACTION: Check the cross connection/test jack frame for proper conditions. If the proper conditions are not present, replace the dictation equipment. If the conditions are good, use LD 36 DISC and ENLC to replace trunk card.

TRK483 tn

An off-hook from a private circuit/TIE trunk was received instead of a Number_Received signal.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK501 tn

If the trunk is IPE, then Barring is applied to trunk **tn**; otherwise, the trunk has been made busy due to Line Break Alarm Signal. Feature is XDID Barring or DID Trunk Failure Monitor.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK502 tn

Barring is no longer applied.

ACTION: Information only, no action required.

TRK503 tn

TIE trunk has been made busy by a Line Break Alarm Signal.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK504 tn

Tie trunk has been idled after a Line Break Alarm Signal correction.

ACTION: Information only, no action required.

TRK505 tn

If the trunk is IPE, then Barring is no longer applied to trunk <tn>; otherwise, the trunk has been idled after Line Break Alarm Signal problem correction. Feature is XDID Barring or DID Trunk Failure Monitor.

ACTION: Information only, no action required.

TRK506

Expected signal not received from Radio Paging equipment. Call abandoned.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK509

Answer expected from XCOT trunk but not received.

ACTION: Contact your technical support group for help in informing the far-end personnel.

TRK510

DN + Local Exchange Code together comprise more than 7 digits when trying to transmit ANI information on an X3W trunk.

ACTION: Refer to the *administration input/output guide*, use LD 16 to check the LEC prompt.

TRK511

An invalid trunk signal was received on an X3W trunk. The signal was ignored.

ACTION: Information only, no action required.

TRK512

Shelf number out of range.

ACTION: Check to make sure your data is correct and re-enter the command.

TRK513

Card number out-of-range.

ACTION: Check to make sure your data is correct and re-enter the command.

TRK514 tn

XFCOT Barring is applied to the trunk <unit>. (Barring is applied to the trunk unit identified by **tn**.)

ACTION: Information only, no action required.

TRK515 tn

XFCOT Barring is no longer applied to the trunk <unit>. (Barring is no longer applied to trunk unit identified by **tn**.)

ACTION: Information only, no action required.

TRK516 l s c tn

Partial failure of metering on card **l s c**. This is a hardware failure that may have affected metering activities on one or more calls on the card. If PPM is configured, then PPM has been affected, with the result that the CDR records for calls in progress may be incorrect. If Busy Tone Supervision is configured, then busy tone may not have been detected on calls in progress.

ACTION: Replace the affected card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

TRK517 l s c

Fatal failure of metering on card **l s c**. This is a hardware failure that affects metering activities on the card. If PPM is configured, then PPM has been affected, with the result that further PPM reporting is disabled until either the card is disabled and re-enabled or pulled out and reinserted. The CDR records for calls in progress are incorrect.

ACTION: Use LD 36 DISC and ENLC to try disabling and re-enabling the card. If message appears again, it is most likely a hardware fault. Use LD 36 DISC and ENLC to replace the trunk card.

TRK518 tn

The enable command attempted on an XDID/EAM or XDID/CIS or XFCOT unit is canceled because the unit is in a barred state.

ACTION: Use LD 36 DISU and ENLU to disable and re-enable the card (this will cause a TRK519 message) and re-enter the command.

TRK519 tn

Warning: The XDID/EAM unit in a barred state is changed to the disabled state after a disable command.

ACTION: Use ENLU l s c u in LD 32 to enable the unit. If you need help with the commands or system responses refer to the *NPR* chapter in this guide.

TRK520 tn

No far-end release message is received from the XDID/EAM unit after a call blocking sequence. The disable command on this unit is stopped. The unit is in a lockout state.

ACTION: Pull the jumper from the telephone company side and re-enter the command.

TRK521 tn

The disable command has been aborted while waiting for a far-end release message on a XDID/EAM unit. As soon as the far-end release message is received, the XDID/EAM unit will still be disabled.

ACTION: Information only, no action required.

TRK522

A barring message is received in an invalid state from a XDID/XFCOT unit.

ACTION: Use DISU l s c u in LD 32 to disable and ENLU l s c u to enable the unit. If you need help with the commands or system responses refer to the *NPR* chapter in this guide.

TRK524

ISA service route is not allowed for the command.

ACTION: Check the database and if applicable, re-enter the command.

TRK526

DP digit collection problem was revealed and reported by CDTI2/ CSDTI2 FW (incoming trunk).Trunk is locked out.

ACTION: Contact your technical support group

TRK527

Outgoing CIS E3W card requested CIS ANI download by means of TDS or XCT service loop, but TERNTN fails TNTRANS or FTDS package not equipped. Outgoing CIS E3W call will be released; trunk will be idled.

ACTION: Refer to the *administration input/output guide*, use LD 22 PRT, PKG to ensure that the FTDS package is on the disk. Have your technical support group contact Northern Telecom Customer Service for replacement software if the FTDS package is not present.

TRK528

Outgoing CIS E3W card requested CIS ANI download by means of TDS or XCT service loop, but TDS/XCT path request failed. Outgoing CIS E3W call will be released; trunk will be idled.

ACTION: Check TDS/ XCT and traffic of these service loops.

TRK529

Outgoing CIS E3W card fails to request CIS ANI download. Outgoing CIS E3W call will be released; trunk will be idled.

ACTION:

TRK530

Outgoing CIS E3W card fails to acknowledge CIS ANI already downloaded by means of TDS or XCT. Outgoing CIS E3W will be released; trunk will be idled.

ACTION: Use LD 36 DISC and ENLC to replace the CIS E3W card.

TRK531 tn

An error has been detected on ISL E&M Tie, Unit will be put to MBSY.

ACTION: Contact your technical support group

TRK532 tn

Error condition on ISL E&M Tie removed, Unit in IDLE state.

ACTION: Information only, no action required.

TRK533 tn

The enable command is cancelled on this unit because an error exists on the ISL E&M TIE trunk.

ACTION: Contact your technical support group

TRK843 tn

Off hook from TIE trunk instead of number received signal.

ACTION: Contact your technical support group for help in informing the local telephone company personnel.

TRK3031

Trunk member in a route's trunk list does not exist.

ACTION: Information only, no action required.

TRK3108

A trunk does not have wink start arrangement.

ACTION: Refer to the *administration input/output guide*, use LD 20 to check the start arrangement and use LD 14 STRI to correct if necessary. If not, contact your technical support group for help in informing the local telephone company personnel.

TRK3115

Trunk does not have answer supervision.

ACTION: Contact your technical support group for help in informing the local telephone company personnel.

TRK3117

MF input timeout on incoming TWR1 call. Output data: trktn mfrtn tw_inc_pm clid/address information.

ACTION: Contact your technical support group.

TRK3118

Invalid input received on incoming TWR1 call. Output data: trktn MFR tn tw_inc_pm clid/address information.

ACTION: Contact your technical support group.

TSM — Time Slot Monitor

TSM messages

TSM000

The program has been loaded.

ACTION: The TSM program is loaded and ready for you to enter the commands.

TSM002

An invalid command

ACTION: Check to make sure your data is correct and re-enter the command.

TSM003

An invalid parameter.

ACTION: Check to make sure your data is correct and re-enter the command.

TSM004 x ts ig

There is a failure on Cont Test: Link, Timeslot, **ig**.

ACTION: Run an AUDIT Rx in LD 44, reattempt command.

TSM005

The test is aborted as there are too many errors.

ACTION: Re-attempt command later.

TSM006

The test init failed clearing CM on ENW card.

ACTION: Re-attempt command.

TSM007 LK

CMD is running, type 'END' to abort.

ACTION: Information only, no action required.

TTY — Teletype Error Reports

For messages and descriptions refer to the *maintenance input/output guide*.

Refer to ACD Northern Telecom Publications for details.

VAS — Value Added Server

For messages and descriptions, refer to the *maintenance input/output guide*.

Refer to Meridian Mail Northern Telecom Publications for details.

XCT — Conference/TDS/MFS Card

How the XCT works

The XCT card provides conference, Tone and Digit Switch and Multifrequency Sender (MFS) circuits. XCT messages indicate hardware status and problems.

XCT messages

XCT001 loop x

The Conference/TDS/MFS Card failed the self test. **x** = self test result message.

ACTION: If the test fails a second time, replace the XCT card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

XCT002 loop x

The Conference/TDS/MFS Card failed the Input/Output test. **x** = I/O result message.

ACTION: If the test fails a second time, replace the XCT card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

XCT003 loop

Failed download process to the Conference/TDS/MFS card. This may indicate communication trouble or checksum problems or the card is busy.

ACTION: Try the command again.

XCT004 loop x y

The CPU received a message invalid to the current state of the Conference/TDS/MFS Card. **x** = message type received; **y** = the state of the card.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

XCT005 loop x

The CPU received an unrecognized message from the Conference/TDS/MFS Card. **x** = message received.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

XCT006 loop x

The Conference/TDS/MFS Card received an illegal message from the CPU.

x = message received.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

XCT007 loop x

Timeout waiting for response from the Conference/TDS/MFS Card. **x** = the state of the XCT.

ACTION: Re-enter the command.

XCT008 loop n

Failed download process to the Conference/TDS/MFS Card because the CPU could not write to the card. This may indicate a removed card or hardware fault. **n** = the FCAD table entry number which failed to download. If **n** = 0, the failure occurred downloading system parameters.

ACTION: Replace the XCT card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

XCT009 loop tn

The Conference/TDS/MFS Card sent a message to the CPU with an invalid Terminal Number.

ACTION: Contact your technical support group.

XCT010 g

The CPU was unable to obtain a Call Register to perform a timing task.
g = Group loop number.

ACTION: Contact your technical support group.

XCT011 L r

The Conference/TDS/MFS Card has been reset.
r = hardware reset message.

ACTION: Information only, no action required.

XCT100 loop x

The Conference/TDS/MFS Card failed to respond to a read or write.
x = outgoing message.

ACTION: Replace the XCT card following the steps in the *Hardware replacement* guide.

XCT101 loop x

The Conference/TDS/MFS Card is disabled and needs download. This occurs when the two loops on the card are enabled separately.
x = the following text string: "XCT DNLD NEEDED USED ENLX CMD"

ACTION: Use the ENLX command in LD 34, LD 38 or LD 46 to enable the card.

XCT102 loop x

The conference loop on Conference/TDS/MFS Card is in use. The Time Slot Memory (TSM) was not tested. **x** = the following text string: "XCT IN USE NO TSM TEST"

ACTION: Wait until the loop is idle.

XCT103

The parameter down load failed for XTD. This error message will be called from new proc XTD_DOWNLOAD.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

XCT104

The parameter down load failed for XTDS. This error message will be called from proc XTDS_DOWNLOAD.

ACTION: If this message appears repeatedly or is associated with a system problem, contact your technical support group.

XMI — Network to Controller Message

How the XMI works

The superloop network and controller cards have built in diagnostics that output XMI messages indicating problems with the communication between the NT8D04 Network Card and the NT8D01 Controller card.

Using the XMI Message table to clear faults

To clear most network to controller faults, the XMI action column suggests that you use LD 32 overlays found in the *NPR* chapter.

XMI messages

XMI000 aaaa

Message **aaaa** received from a Network Card (NT8D04).
The possible messages are:

1. PLL UNLOCK EVENT. The Network card lost synch with the system clock.

a) If the message occurs when clocks are switched.

ACTION: Ignore the message.

b) If messages occurring in a broken sequence or periodically.

ACTION: Switch the clocks.

c) If messages occur often.

ACTION: Replace the Network card following the steps in the *Hardware replacement* guide. After replacing the card, verify that the fault is cleared. If the fault does not clear replace the clocks following the steps in the *Hardware replacement* guide.

2. Random XMI000 messages may be generated if excessive Electrostatic Discharges (ESD) are allowed to enter the system. These messages may be safely ignored.

ACTION: Wear your ESD wrist strap when touching the Meridian 1 PBX and any of the related hardware.

3. MSG FROM SHELF x: XPEC ERROR 0001. This error is usually self-correcting. If may indicate a double timeslot problem or invalid call teardown

a) If messages occur rarely.

ACTION: Ignore the message.

b) If messages occur often.

ACTION: Replace the Network card following the steps in the *Hardware replacement* guide. After replacing the card, verify that the fault is cleared. If the fault does not clear replace the Peripheral Controller card following the steps in the *Hardware replacement* guide.

4. TN READ UNBLOCKED: CNT=x. A number of SSD messages were sent to the PS card but not acknowledged. In order to prevent the locking of the message path, the Network card assumed the message was received.

a) If messages occur rarely.

ACTION: Ignore the message.

b) If messages occur often.

ACTION: Replace the Network card following the steps in the *Hardware replacement* guide. After replacing the card, verify that the fault is cleared. If the fault does not clear replace the Peripheral Signaler card following the steps in the *Hardware replacement* guide.

ACTION: XNET POLLING FAILURE ON PORT x. RSIG LINK LOST ON PORT #x - REINITIALIZED. R71 DISASTER; CANNOT ALIGN TRANSCEIVERS. These messages indicate that the Controller is not responding to the Network card polling messages.

a) Faulty cabling between the Network and Controller cards.

ACTION: Replace the cabling between the Network and Controller cards following the steps in the *Hardware replacement* guide. After replacing the cabling verify that the fault is cleared.

b) Faulty Controller card.

ACTION: Replace the Controller card following the steps in the *Hardware replacement* guide. After replacing the card verify that the fault is cleared.

c) Faulty Network card.

ACTION: Replace the Network card following the steps in the *Hardware replacement Guide*. After replacing the card verify that the fault is cleared.

> ***Note:*** In X11 Release 15 and 16 “FRw APx SQy TPz” is output before the text, where “w” is the loop number. This data is not output in X11 Release 17 and later. Messages without text indicate that the Network or Controller cards have requested software download.

XMI001 l s c

A card polling failure. The specified card did not respond to the polling message.

ACTION: Use DISL l in LD 32 to disable and ENLL l to enable the loop. If the problem continues either replace the Network card or the Controller card following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared.

XMI001 s

Card **s** in the expansion cabinet has lost connection to the main cabinet.

ACTION: Check for loose cables, and contact your local technical group.

XMI002 l s c

Card polling had been reestablished.

ACTION: Information only, no action required.

XMI002 XFIL 1

The main fiber interface (MFI) local is operational.

ACTION: Information only, no action required.

XMI002 XFIR 2

The expansion fiber interface (EFI) remote is operational in the first expansion cabinet.

ACTION: Information only, no action required.

XMI002 XFIR 3

The expansion fiber interface (EFI) remote is operational in the second expansion cabinet.

ACTION: Information only, no action required.

XMI003 l s ts

Continuity has failed on timeslot **ts**.

ACTION: Contact your technical support group.

XMI004 loop

Loop generated too many XMI messages. Output of XMI000 has been stopped.

ACTION: Use DISL l in LD 32 to disable and ENLL l to enable the loop. If the problem continues either replace the Network card or the Controller card following the steps in the *Hardware replacement* guide. After replacing the card(s) verify that the fault is cleared.

XMI005 L A S T t

No message registers available in the idle queue. The printing of this message is disabled for one hour.

L=Loop or superloop number

A=Application number for this message

S=Sequence field for this message

T=Type of message

t= time of this message: hh:mm:ss dd/mm/yy format

ACTION: Information only, no action required.

XMI006 loop

Five or more write attempts to Network card **l** failed.

ACTION: Use STAT l in LD 32 to check the Network card status. If you need help with the commands or system responses refer to the *NPR* chapter in this guide.

XMI007

Card type does not match the data base.

ACTION: Check to make sure your data is correct and re-enter the command.

XMI008

Card is not defined in the data base.

ACTION: Check to make sure your data is correct and re-enter the command.

XMI100

The loop specified in the query request is invalid. That is, it is not a superloop, nor is it XI_LOOP_NONE.

ACTION: Refer to the *administration input/output guide*. Use LD 22 CFN to check for the specified loop.

XMI101

Trying to read/write to a disabled XNET/non-XNET loop.

ACTION: Use ENLL l in LD 32 to enable the Network card and try the test again. If you need help with the commands or system responses refer to the *NPR* chapter in this guide.

XMI102 card

Card slot printed is not allowed for the type of card inserted. This is mainly for the system Option 11 DTI/PRI card which can only be used in slots 1 to 9 in the basic cabinet.

ACTION: Insert the card in the correct slot (1-9).

XMI103[8]

The number of TNs created has exceeded the number of TNs allowed.

ACTION: Have your technical support group contact Nortel Technical Assistance Service for additional TNs.

XMI104

The card is equipped in an expansion slot but there is no expansion cartridge on the CPU.

ACTION: Install the expansion cartridge on the CPU card.

Terms and abbreviations

2 second timing

The timing interval used by the processor to control all two second timing activities. Examples of where 2 second timing is used, are ringing cadence and warning tones.

128 ms timing

The basic timing interval of call processing. The processor checks all timed activities eight times per second, or every 128 ms.

µ-law companding

In North America, companding is accomplished using a logarithmic law called, “255 Law Companded Pulse Code Modulation Digital Coding Standard” or µ-law. See companding.

?SYNTAX

An LD 77 message informing you of an input format non-conformity.

A-law companding

Except for North America, companding is accomplished using a logarithmic law called, A-law. See companding.

ACD (Automatic Call Distribution)

Application software that puts incoming calls in a queue to one or more telephones referred to as agent telephones. The longest-waiting call is sent to the agent telephone that has been idle for the longest time. Incoming calls can be given a priority and answered at a prioritized telephone as an option. There are enhancements which can be added to basic ACD functionality to help with management and reporting tasks and also to customize and enhance the treatment incoming calls are given. ACD software packages A, B, C, D, and Custom Controlled Routing offer enhancements to management tools and reports, in order to add to the functionality of basic ACD.

analog (500/2500 type) telephone

A name that replaces PBX set. The name describes a standard telephone set that works on many telephone systems. Examples of these systems are the Meridian 1, DMS or other vendors systems. Analog (500/2500 type) telephone describes the North American 500 set, United Kingdom analogue rotary dial, North American 2500 set, United Kingdom MF 4 and Unity telephones.

application processor

A special purpose computer that can be attached to the Meridian 1 system to decrease the load on the system processor. The application processor provides value-added and special services. Application processors are used with voice mail, interactive voice response, and automatic call distribution.

Aries set

A name for Meridian Modular Digital telephones, found in some fault messages. Meridian Modular Digital telephone is the marketing name for the following telephones: M2006, M2008, M2616, M2016S, M2216ACD.

auxpm (Auxiliary Progress Mark)

An auxiliary progress mark is used by the Meridian 1 system to follow widely spaced events. For example the auxpm will keep track of the waiting time for each digit during a dial sequence.

BRI (Basic Rate Interface)

An international standard for connecting terminals to a system. One BRI connection has two B-channels rated at 64 kbit/s each, and one D-channel rated at 16 kbit/s.

BCS (Business Communication Set)

A mnemonic found in some fault messages indicating a Meridian 1 proprietary telephone. See Meridian 1 proprietary telephone.

binary semaphore

A machine level software message sent when a file is opened. It prevents other users from opening the same file. The binary semaphore keeps the data in the file from being corrupted.

bootstrap

A program that allows the Meridian 1 system to reload and bring itself into an operating state automatically without human intervention. From the expression “pulling oneself up by your bootstraps”.

CDR (Call Detail Recording)

CDR records are printed when calls are dialed. CDR records show information about the number dialed, the telephones involved, and the duration of the call. Additional information can be printed when CDR enhancements are installed on a system.

call processing

The action of the processor executing the workschedule routine to complete tasks controlled by telephone users. Call processing involves connecting telephone users to other telephones or facilities.

call register

Call registers are located in a part of transient data memory. Call registers store temporary information about trunks and telephone sets in the process of establishing calls. Each telephone or trunk in use has a separate call register containing approximately 40 words of information. An example of the 40 words are Class of Service, features, and time slots in use. This information is known as transient data as it is held in a call register only for the duration of the call. Part of the call register information is transferred to the network or superloop cards. Once the information is transferred, the network or superloop cards set up and control the call. When the call is finished, the transient data is erased from the call register.

cardlan (Card Local Area Network)

Cardlan is a serial interface (RS422) link providing superloop (XNET), Peripheral Controller (PEC), and Intelligent Peripheral Equipment (IPE) card communication. The PEC is the master controller and all other cards are slaves. This link is used for:

- initializing the DS-30Y loop communications link between SNET and PEC
- initializing the IPE cards, that is, setting up the DS-30X bus protocol to IPE cards
- exchanging proprietary maintenance messages

- determining which IPE cards are installed, or not installed and if the card is reset
- identifying the card type for auto-configuration
- identifying the card ID and firmware version

carriage return

An instruction directing you to press the key on the keyboard marked ENTER, or RETURN. You press the key to tells the system you have finished a line of input. Carriage return is a carry over from the days when teletypewriters had a mechanical type basket. The type basket did actually return to the left side of the type platen, ready to type the next line of text.

CCSA (Common Control Switching Arrangement)

A service offered by AT&T for private networks that allows any telephone in the network to call another using a seven-digit number.

CE (Common Equipment)

A term for the part of the system that controls the operation of other system components. Common equipment is composed of CPU, memory, input/output ports, disk storage and sometimes includes the network equipment.

channel

A transmission path capable of carrying voice or data.

CO (Central Office)

In North America a central office is the facility containing the switching equipment that provides telephone service to subscribers in the immediate geographical area.

cold start

A name describing a Meridian 1 system loading the operating program into RAM. Equivalent to a system reload.

companding

Companding is derived from the words “compressing” and “expanding”. Companding is the process of compressing the amplitude range of a signal for transmission and then expanding the signal back to its original form at the receiving end.

The transmitted signal (speech) is normally a digital signal. An analog to digital conversion of speech is done in three steps. Sampling the analog signal, Quantizing the sample, and Encoding the quantized sample.

Sampling consists of taking a sample value, at a chosen instant in time, to represent the amplitude of the analog signal. Sampling is usually done at equal time intervals so that the original shape can be reconstructed later with reasonable fidelity from the samples. In 1933 Harry Nyquist determined that the sample rate had to occur at least twice the maximum frequency for reasonable fidelity. The sampling process is also known as Pulse Amplitude Modulation (PAM).

Quantizing is a process where each sample is assigned a value within a range of 0 to 127, for a total of 128 intervals or levels.

Encoding consists of converting the quantizing value into a digital signal. The digital signal consists of eight binary bits. The first seven bits are required to express the value 128 and the eighth bit to indicate polarity; 1 for positive; 0 for negative.

The process of sampling, quantizing, and encoding is known as Pulse Code Modulation (PCM). Eight bit PCM is an industry standard.

The PCM code for level +127 is all 1's and is known as quiet code. If the quantizing steps are equal, this will result in an undesirable random signal called quantizing noise. Quantizing noise is caused when the sample height falls between the steps on the quantum level. While the noise is small for strong signals it is very large for weak signals. The remedy is to provide many small steps in the weak signal range and few large steps in the strong signal range. The process of altering these steps is called companding. The analog signals are compressed before they are sampled, and subsequently transmitted as PCM. At the receiving end the PCM is decoded, quantized and reconstructed as analog, and then expanded.

configuration record

A programmable data block that describes the location and function of the CE hardware in the system. The configuration record is programmed in overlay load 17.

continuity test

A test that determines the continuation of the speech path between a Meridian 1 proprietary telephone and its network card. Also tests the continuation of the speech path between an analog line card unit and its network card.

Core

The processing and data storage portion of the Option 51C, 61C, 81and 81C systems. The Core equates to the Common Equipment in Meridian 1 systems.

Core number

The Option 61C, 81 and 81C systems has two redundant Core systems. The two Core systems are identified by the Core numbers 0 and 1.

COT (Central Office trunk)

A central office trunk is a circuit between a public exchange network switch and a Meridian 1 system.

cross-connect panel

Sometimes called the jumper panel or main distribution frame (MDF). The panel where wires from telephones and trunks are interconnected with corresponding wires from the system's line and trunks cards.

CSA trunk

Common Control Switching Arrangement trunk. See CCSA.

DCE (Data Circuit Terminating Equipment)

The formal name for a modem. Modem is an acronym for modulator-demodulator. The interfacing equipment that is sometimes required to convert digital signals from data terminal equipment (DTE) into quasi-analog signals. This conversion is needed for transmission over analog telephone communication circuits and vice versa.

DCON

An output message from a System Monitor indicating it sensed that DC is on.

delay dial

A trunk signal used to control the transfer of dialed digits. Upon seizure, the originating switch will not outpulse digits until the terminating switch does the following steps:

1. sends an off-hook to the originating switch
2. finds and attaches its digit collection equipment
3. sends an on-hook to the originating switch

The on-hook indicates the terminating switch can now accept digits. The time between on-hook and off-hook varies with equipment types.

DID (Direct Inward Dialing) trunk

A trunking feature that allows telephone callers connected to the public exchange network to dial directly to a telephone connected to the Meridian 1 system. DID happens without the intervention of an attendant or interactive voice system.

digital subscriber loop

Any one of eight physical Basic Rate Interface (BRI) ports on a BRI line card. Each port has two B-channels and one D-channel.

digital telephone

A telephone which uses digital signaling. An analog voice is converted into a digital signal within the telephone. A Macintosh, IBM-PC or other data terminal can be connected to the telephone. The data to and from that terminal is multiplexed on the same set of wires used by the telephone for voice calls.

Digitone

Tones used for signaling the digits 0 through 9, # and *. The tones are a combination of two voice frequencies, a high tone and a low tone. Two frequencies are used because if a single tone were used the human voice might inadvertently reproduce the tone in normal speech during a telephone call. Two frequencies prevent this.

download

To receive data from another device.

DTE (Data Terminal Equipment)

Equipment consisting of digital end devices that convert user information into data signals for transmission, and reconvert the received data signals into user information.

DTMF

Dual Tone Multi Frequency. See Digitone.

exchange network

The global network made up of telephone switches operated for the public by telephone utility companies and governments.

extender or extender pair

A term used to describe a 3 Port Extender (3PE) card, Segmented Bus Extender (SBE) card, and the cable that connects them. These components extend the processor's control to the network shelves. The SBE is located on the common equipment shelf, with the processor. The 3PE is located on the network shelf.

extra arguments

An indication that the system has received too many entries and cannot reach a conclusion.

far end

The remote PBX at the distant end where your Tie trunk or Private circuit terminates.

FATAL

A term describing a condition on a Meridian 1 that will not allow the system to reload its software until the condition is corrected.

father routine — son routine

A father routine is a main software routine with the son routine as a subset of the main routine.

fault address

The fault address is the ninth field of an INI message. In certain instances, the Fault Address field, can be decoded to indicate a faulty card. To decode a Fault Address, the Fault Page field of the INI message must indicate a hardware fault. See fault page.

fault page

An area of the address range for memory is set aside for hardware addressing. The area set aside for hardware addressing is called the I/O segment of memory or Page 3 of memory. If the system detects faulty hardware, Page 3 is indicated in the eighth field of the INI message.

FEX (Foreign Exchange) trunk

A trunk that provides telephone service to and from a public exchange switch that is outside the subscriber's exchange area. A user in one city can dial the access code for his FEX trunk and receive dial tone from the foreign public exchange switch. The user can also receive calls dialed from the foreign exchange switch.

FHWR (Localized Faulty Hardware Recovery)

The FHWR function is part of the Initialization Prevention and Recovery feature. The FHWR function disables faulty hardware detected by the LRIP, SRIP or LOIP functions. When the FHWR is active it causes FHW004, FHW005 or FHW006 messages to appear on all maintenance TTYs.

firmware

Software, data, and programming instructions stored permanently in Read Only Memory hardware. (It is neither soft nor hard, therefore it must be firm.) Firmware provides the basic function needed by the Meridian 1 system during start-up, software loading, and other periods when software may not be available in memory. Firmware does not require regular update.

flag bit

A software name describing the output of an electronic multivibrator or flip-flop. When a flag bit is set, the flip-flop outputs a voltage that allows electronic circuitry connected to it to react. For example, when a telephone goes off-hook, a flag bit is set in the telephones line card. The line card flag bit in turn causes the network loop card connected to the line card to also set a flag bit. The peripheral signaler will lock on to the network flag bit when polling the loops for off-hooks.

FORCED

A name that describes a condition on a Meridian 1 where the system has reloaded its software, but will not function to full capacity until the condition is corrected.

FW (Firmware) is sane

A term that indicates a ROM resident program is not corrupted or changed. See firmware.

graceful switchover

An unforced processor switchover. For example, the standby processor becomes the active processor during the running of the midnight or daily routine.

group

A pair of interconnected network modules or shelves. A single network module or shelf is known as a half-group.

hard memory failure

A term that indicates the memory hardware is malfunctioning.

hardware sanity time-out

A term that describes the result of a hardware device failing to respond to a test within a specified period of time.

high level semaphore

When a file is opened, a high level software message or semaphore is sent to prevent others from using the same file at that time. Its purpose is to preserve the integrity of the data.

high-speed link

A communications channel that uses EIA RS422 or RS423 to connect the Meridian 1 to an applications processor. For example a high speed link connects the Meridian 1 to the Meridian MAX.

illegal input parameters

A message that indicates an entered response to a prompt that could not be accepted by the Meridian 1 system. Any entered response must match the system software list before the system will accept the response.

immediate start

A signal used on trunks to control the transfer of dialed digits. After a trunk seizure, the originating switch may start outpulsing digits to the terminating switch after a minimum delay of 70 ms.

input buffer

A storage area in transient data memory. The buffer stores input messages sent to the processor from a telephone or a trunk, indicating an off-hook, on-hook or dialed digits. The input buffer is used as temporary storage until the processor can complete a task and then handle the input message by placing the message information into a call register. There are two types of input buffers, high priority and low priority.

insufficient arguments

Indicates the Meridian 1 system has not received enough entries to reach a conclusion.

invalid command

A command was entered that is not listed in the Meridian 1 system software and cannot be executed.

invalid operand

A faulty address for an instruction or data.

ISDLC (Integrated Services Digital Line Card)

Peripheral Equipment line cards that are used to support digital telephones. They can accommodate up to eight digital telephones and eight associated data terminals.

ISDN (Integrated Services Digital Network)

A digital telephony network that allows the transmission of voice and data using internationally approved protocols.

junctor

A passive device providing the interconnection for calls between network groups on multi-group Meridian 1 systems.

large twist

A party hosted by the rock and roll singer, Chubby Checker.

link

Another name for a communications channel or circuit.

LD (Load)

An abbreviation for the term load; otherwise known as overlay program.

LFBEN (Line Forced Bypass Enable)

A ground signal from the system monitor used to start an emergency transfer in an NT8D39(DEES) unit or a QUA6 unit.

LFBENR (Line Forced Bypass Enable Return)

Line Forced Bypass Enable Return. A ground lead connecting the system monitor to an NT8D39 (DEES) unit or a QUA6 unit.

lockout mode

When a telephone or trunk remains off-hook longer than the preset time given for dialing a DN, a lockout timer expires. The timer causes the telephone or trunk to enter a busy state, return to an idle state, or to some other suitable condition.

LOIP (Network Loop Overload INI Prevention)

The LOIP function is part of the Initialization Prevention and Recovery feature. The LOIP function prevents a system initialization (INI000 0006) when a terminal loop overload is detected. When the LOIP is active it causes a FHW003 message to appear on all maintenance TTYs. See the LRIP definition for a list of network loops.

low level semaphore

When a file is opened, a machine level software message or semaphore is sent to prevent others from using the same file at that time. Its purpose is to preserve the integrity of the data.

low-speed link

A communications channel, using EIA RS232 to connect the Meridian 1 to a terminal.

lower write protect boundary

The lower address portion of the write protect memory segment.

LRIP (Network Loop Response Time-out INI Prevention)

The LRIP function is part of the Initialization Prevention and Recovery feature. The LRIP function prevents a system initialization (INI000 8000/A000/C000) when a network loop fails to respond to a processing request. When the LRIP is active it causes a FHW000 message to appear on all maintenance TTYs. The network loops include those listed in LD 22, as follows:

- CONF - Conference loops QPC236 QPC444
- DLOP - Digital loop QPC414
- DTI2 - Digital loop
- PRI- Digital loop
- DDCS - Digital Signaling loop QPC414
- MFSD - Multifrequency Sender loop QPC189
- MSIP - Multipurpose ISDN Signal Processor loop NT6D37
- REMO - Remote loop QPC414
- REMD - Remote loop QPC414
- REMQ - Remote loop QPC414
- SUPL - Superloops NT8D04 NT1P61
- TERM - Terminal loop QPC414
- TERD - Terminal loop QPC414
- TERQ - Terminal loop QPC414
- TDS - Tone & Digit Sender loops QPC197 QPC 251 QPC609 QPC610B
- XCT - Conference Tone & Digit Sender loop NT8D17

maintenance busy mode

A condition where a maintenance diagnostic disables a telephone or trunk.

masked

A software routine is prevented from being executed in a certain circumstance.

Meridian 1 telephone

A term replacing BCS set, describing a telephone set designed to operate exclusively with the Meridian 1 PBX. For example, the SL-1, M1009, M1109, M1309, M2009, M2018, M2112, M2006, M2008, M2317, M2616ACD, M2016S, M2216, and M3000 telephones.

messin

A 16 bit digital word. A messin sends off-hook or on-hook or dialed digit information to the processor. Messins originate in PE card units.

messout

See output buffer.

mnemonic

A code used as a memory aid. Mnemonic codes are used for programming and issuing commands.

module

1. Another name for a memory card.
2. A stylish aluminum box that holds a card cage. It is also called a Universal Equipment Module or UEM.

motherboard — daughterboard

A motherboard is a main circuit board or card with connectors or sockets that allows a subordinate circuit board (daughterboard) to be plugged into it.

Mu-law companding

Companding is the process of compressing the amplitude range of a signal for transmission. At the receiving end the compressed signal is expanded back to its original form. Companding is a contraction of compressing and expanding. In North America, companding is accomplished using a logarithmic law called, “255 Law Companded Pulse Code Modulation Digital Coding Standard” or µ-law. See companding.

MPU (Multi Processing Unit)

Multi Processing Unit. A processor that performs some of the tasks that would otherwise be performed by the CPU. For example, the IPE analog line card contains an MPU that interprets a series of on-hook,

off-hook rotary dial pulses as a DN. The MPU then passes the DN on to the CPU, saves CPU resources. Without the MPU, the CPU would have to set and control timers to ensure the incoming pulses are not hook-switch flashes, hits on the line, or that the caller has abandoned the call. See time stamp 2.

near end

The local Meridian 1 system where your Tie trunk or Private circuit terminates.

network memory word

An instruction in the network card memory. The network card memory is used to control the flow of PCM from one telephone to another.

not defined

A term that means not programmed.

not supported

A term indicating the software was not intended to do that.

office data

A term used to describe the data programmed on a Meridian 1 using the Administration overlay loads. The administration loads are as follows:

- LD 10 to LD 29
- LD 49 to LD 52
- LD 56 to LD 58
- LD 73 to LD74
- LD79
- LD 81 to LD 88
- LD 90
- LD 93 to LD 95
- LD 97

one-shot test

A test that only runs once.

out-of-range

An input on a DTE that is beyond the limit of entries listed in the software.

output buffer

A storage area in transient data memory used to keep output information to be sent to a telephone or trunk from the processor. The information, called a messout, will control relays on trunk cards, LEDs or LCDs on telephones, and so on. There are two types of output buffers, SL-1 and 500.

operator data

Information added to the end of a particular message when the Alarm Filter Format is on. Operator data is used to help in problem resolution.

OPR DAT (Operator Data)

See operator data.

P data (Protected)

The protected data store memory segment for Meridian SL-1NT, XT, Option 61, and 71 (or page 1, for previous systems), holds data blocks that have been entered on a DTE. P data describes the make up and provisioning or programmable data of the system. Some of the data blocks are as follows:

- configuration records (LD 17)
- customer data blocks (LD 15)
- route and trunk data blocks (LD 16, LD 14)
- telephone set data blocks (LD 10, LD 11)

packed TN

A packed TN is an SL-1 formatted TN. A 16 bit word is used by the software to address a loop-shelf-card-unit or as it is commonly referred to, a TN. Software writers convert the 16 bit words to hexadecimal format for ease of use. In most occurrences, the system inputs and outputs are decimal TNs. Sometimes the system outputs a hexadecimal format. If the system is dealing with single density PE cards, the hexadecimal output can be converted directly to a decimal TN.

With single density, bits 0 and 1 are used to identify the number of units (four) on the card and bits 6 and 7 identify the number of shelves (four) on the loop.

With double density PE cards, bits 0, 1 and 6 are used to identify the number of units (eight). With quad density PE cards, bits 0, 1, 6 and 7 are used to identify the number of units (sixteen). If the system is dealing with double or quad density PE cards, the hexadecimal output, called a packed TN, cannot be directly converted to a decimal TN. There are maintenance diagnostics that will convert packed TNs to unpacked TNs. An example of an unpacked TN is 4 0 12 14. The same TN packed is 04F2.

parameters

A range or limits set for entries in the software.

parity error

An error that occurred during transmission of data within the Meridian 1 circuitry. Parity errors are detected by the receiving end counting the number of 1 bits in the transmitted data. In the case of the Meridian 1 which uses even parity, the number of 1 bits should be an even number. If it is an odd number, a parity error is generated. A parity error will result in an initialization or a system reload.

PBX (Private Branch Exchange) set

A term replaced by Analog (500/2500 type) telephone. A PBX set is a standard telephone set that works on many telephone systems. Examples of these systems are the Meridian 1, DMS or other vendors systems. Analog (500/2500 type) telephone describes the North American 500 set, United Kingdom analogue rotary dial, North American 2500 set, United Kingdom MF 4 and Unity telephones.

PCM (Pulse Code Modulation)

See companding.

PE (Peripheral Equipment)

The part of the system composed of interface cards that connect to terminals such as telephones and trunks, and the shelves on which these cards reside.

PFTU (Power Fail Transfer Unit))

A term used for QUA4, QUA5, QUA6 and NT8D39 (DEES) transfer units. The term implies that an emergency transfer will only result from a loss of power. All transfer units can be connected to perform the emergency transfer function when the CPU cannot process calls, due to a system reload or CPU failure.

pointer or ptr

An address of a memory location.

port

The physical or electrical interface through which the Meridian 1 system is accessed.

primary memory

In a redundant Meridian 1 system either CPU can access both memories. CPU 0s primary memory is Memory 0 and its secondary memory is Memory 1. CPU 1s primary memory is Memory 1 and its secondary memory is Memory 0.

program counter

A register used by the processor to indicate the next instruction to be executed. The register's contents are generally memory addresses that point to the next instruction and are then automatically incremented.

program page

A memory layout used in the legacy (older) systems, when memory was costly. The pages are:

- Page 0 contains unprotected data store
- Page 1 contains protected data store
- Page 2 contains a ROM addressing range, an overlay area used for programming and diagnostic loads (LD xx) and generic data used to operate the system
- Page 3 consists of a range of addresses set aside for addressing cards and devices

The memory of the Meridian 1 NT, XT, Option 61 and 71 uses contiguous memory and is divided into soft segments. The soft segments are:

- Unprotected Data Store
- Protected Data Store
- Program Store

The soft segments relate to paged memory.

The data in the Unprotected and the Protected Data Store segments of is programmable data. This data is programmed into the Meridian 1 system using LD 10, LD 11, LD 12, LD 13, LD 14, LD 15, LD 16, LD 17, and so on. These data blocks in the NTPs may be referred to as Equipment Data or Office Data.

prompt

A mnemonic presented by the system when you are programming or issuing commands to the system.

protected data store

The protected data store memory segment for Meridian SL-1NT, XT, Option 61, and 71 (or page 1, for previous systems), holds data blocks that have been entered on a DTE. P data describes the make up and provisioning or programmable data of the system. Some of the data blocks are as follows:

- configuration records (LD 17)
- customer data blocks (LD 15)
- route and trunk data blocks (LD 16, LD 14)
- telephone set data blocks (LD 10, LD 11)

redundant

A Meridian 1 with two processors is a redundant system. One processor controls the system while the other is in a standby mode. A redundant system is necessary to allow a software upgrade without interrupting service.

REMALA/REMALB (Remote Alarm A/Remote Alarm B)

A pair of contacts in an emergency transfer unit that close when the unit is activated. These contacts can be used to trigger hard alarms such as lights, bells or pocket pagers.

response time-out

A memory or I/O device does not respond to a read or write signal from the processor within 8 ms. A response time-out causes an initialize or a system reload.

response

A mnemonic you type in answer to a prompt when you are programming.

Rls xx (Release)

For example Rls 20. A release is a version of software that contains certain feature packages and enhancements.

secondary memory

In a redundant system either CPU can access both memories. CPU 0s primary memory is Memory 0 and its secondary memory is Memory 1. CPU 1s primary memory is Memory 1 and its secondary memory is Memory 0.

service change

See programmable data.

service loop

Another name for Tone & Digit Switch and Conference loops. Service loops provide services such as dial tone and multi-party calls.

set

Another term for telephone.

slot number

A numbered designator indicating where cards are located within the card cage of the modules.

soft memory failure

A term used to describe that software data in memory is corrupted.

software network map

A list used by the processor to keep track of timeslots in use for a particular network loop.

software package

A component of software that, if equipped, provides certain features and capabilities. Software packages are listed by a mnemonic or a number or both.

software-idled

A device is software-idled by a software command. The software command can be issued manually or issued automatically by the Meridian 1 system. Hardware-idled is done by placing the faceplate switch to the Dis position.

software-unequipped

A term that indicates something is not programmed. See program data.

split mode

When redundant processors work separately they are in the split mode. The split mode is used when performing a parallel reload of software. One processor controls call processing and the other processor is used to load the new software programs into memory.

SRIP (SDI Device Response Time-out INI Prevention)

The SRIP function is part of the Initialization Prevention and Recovery feature. The SRIP function prevents a system initialization (INI000 8000) when an SDI/Expanded SDI device fails to respond to a processing request. When the SRIP is active it causes FHW001or FHW002 messages to appear on all maintenance TTYs. The SDI devices include those listed in LD 22, as follows:

- AML - Application Module Links QPC513 NT6D80
- BDCH- Backup D - channels QPC757E NT6D11
- DCH - D - channels QPC757E NT6D11
- DDSL/DTSL - Digital Signaling Links NT5K35AA NT5K75AA

- PTR - Printer ports QPC45 QPC139 QPC757E QPC841C NT6D80 NT8D41AA
- STA - Single Terminal Access port NT6D80
- TTY - Terminal ports QPC45 QPC139 QPC757E QPC841C NT6D63 NT6D80 NT8D41AA

standby

See redundant.

starting arrangement

The protocol used between Meridian 1 PBX and a Central Office to control digit collection. See immediate start, delay dial and wink start.

storage medium

A term used to refer to streaming tape, a floppy diskette or a hard disk.

strobe test

An electrical pulse used to transfer a pattern of 1s and 0s into and out of memory. The memory passes the test if the output pattern matches what was input.

switchover

A switchover occurs when the standby processor becomes the active processor.

system monitor

A component found in the lower rear of Meridian 1 equipment columns. The system monitor reports the status of power related hardware for its column to the processor. The processor subsequently sends the system monitor’s message to the SDI
data terminals.

tag number

A number identifying a test sequence.

TIE trunk

A dedicated circuit connecting (tying) two Meridian 1 systems or a Meridian 1 system and a PBX.

time slot

On the Meridian 1, a time slot provides a channel to pass a digital bit of voice or data between telephones. Each telephone or trunk in use requires a time slot. The basic number of time slots used per network loop is 32. Time slots are labeled from 0 to 31, with time slot 0 used for signaling and time slots 2 to 31 used to pass voice or data. Superloops use four groups of time slots or 128 time slots per Superloop card.

time stamp

There are two types of time stamp as follows:

1. A time stamp is output within five minutes of the processor detecting an problem to warn service personnel. For example, TIM061 09:00 9/3/1994 CPU0. The time stamp is normally accompanied by a message.
2. When a call register is established for a telephone or trunk, the processor marks the start time and each interval action time with a time stamp in milliseconds. The time stamps are used to start, stop and control timers. For example, a rotary dial telephone sends dialed digits as a series of precisely timed on/off-hooks. If the on-hook to off-hook time interval is short, the processor interprets this as a switch hook flash rather than a dialed digit. If an off-hook to on-hook transition lasts too long, the processor interprets this as a call which is finished or abandoned and tears down the connection.

TN (Terminal Number)

A physical or hardware location address, made up of a network loop number, PE shelf number, PE card number and unit number.

TNTRANS (TN Translator)

A table used by the processor to convert a TN to a DN. When a telephone goes off-hook, it sends its TN to the processor. The processor must match the TN to a DN in order to get the particulars about the telephone to service the call.

transient data

The same as U data. See unprotected data store.

tree

A software data structure.

TTY (Teletypewriter)

A data terminal used to transmit and receive commands and responses when you are programming. Generically a TTY refers to any dumb terminal or DTE used to pass ASCII data. A DTE used for communicating alphanumeric information with the Meridian 1 system. Literally, an electro-mechanical device developed in the early 1920s by the Teletype Corp. to pass data. The teletype looked similar to a typewriter.

U data (unprotected data)

See unprotected data store.

UEM (Universal Equipment Module)

A stylish aluminum box holding a card cage.

ungraceful switchover

A term that describes a forced processor switchover. Examples of ungraceful switchovers are: The diagnostic command SCPU to switch processors. The Normal/Maintenance switch on the standby processor placed in the Normal mode.

unpacked TN

An unpacked TN is a decimal TN. See TN and packed TN.

unprotected data

See unprotected data store.

unprotected data store

The same as U data. The unprotected data store memory segment holds data blocks used by the processor to update information about the progression of calls. When the calls are finished the processor tears down the calls or erases the information in the unprotected data store segment. The data blocks can be varied in number to accommodate the variety of lines or trunks installed, amount of traffic, and so on. They contain:

- high and low priority input buffers for MESSIN
- SL-1 and 500 output buffers for MESSOUT

- call registers - one call register of some 40 plus words is needed for each call and holds information such as;
  - calling TN
  - called TN
  - time slots in use
  - dialed digits
  - timed status
  - call progress markers
  - network paths in use

upper write protect boundary

The upper address portion of the write protect memory segment.

warm start

A term that describes the operating system restart and the SL-1 software task list restart. A restart of the SL-1 software task list only, is an initialization.

watchdog time-out

A timer used to check the processors ability to complete a task. On the completion of every processor task the processor must reset the watchdog timer within 1.024 seconds. A watchdog time-out causes an initialization or a system reload.

WATS (Wide Area Telephone Service) trunk

In North America, a circuit between a public exchange network switch and a Meridian 1 system. WATS telephone calls are billed at a reduced rate.

wink start

A signal used on trunks to control the transfer of dialed digits. The terminating switch finds and attaches its digit collection equipment, then sends a 140 ms off-hook, on-hook pulse to the originating switch that requests the digits to be sent.

workschedule

A list of tasks the processor performs that controls all activities of the Meridian 1 system.

write protect violation

An indication of an attempt to write into a protected area of memory. A write protect violation causes in a system reload.

X08

An early edition of the software package for International Business applications. X08 was replaced by X11 with Supplementary Features. With the release 20 software, X11 denotes global applications software.

X11

A software package for North American Business applications. With the release 20 software, X11 denotes global applications software.

XNET

A mnemonic for a superloop network card.

XPE0

The first module (PE shelf) cabled to a superloop.

XPE1

The second module (PE shelf) cabled to a superloop.

XPEC

A mnemonic for System Monitor.

XSM

A mnemonic for System Monitor. A component found in the lower rear of Meridian 1 equipment columns. The system monitor reports the status of power related hardware for its column to the processor. The processor subsequently sends the system monitor's message to the SDI data terminals.

Meridian 1 Options 21 through 81C

Fault Clearing Guide

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