Chapter 6

Exception Errors

EXCEPTION ERRORS

DESCRIPTION

Exception errors are errors identified by a processor. They can occur during IML or during execution of a control unit mode. They are non-recoverable errors and require that you IML the control unit to resume operation.

Exception error messages look like this on the Operator Panel:

XCP JSS:BB:EEE*

where: XCP indicates an Exception error.
JSS shows the slot number of the board where the error occurred.
BB is the board ID (in hexadecimal format). See Figure 6-1 for a table of board IDs.
EEE is the Exception error.
* indicates up to 5 additional panels are available to further describe the error.
Press the Adv key to view these additional panels.

Note that the following items may be reported as slot numbers while not existing as physical slots:

J10 - Mother board on the 1174-60R

J13 - Mother board on the 1174-60R

J16 - Mother board on the 1174-60R

J33 - Operator Panel Logic board

J34 - Floppy disk drive A

J35 - Floppy disk drive B

WHAT TO DO

When an Exception error occurs, IML the control unit and attempt to resume normal operation. If the error occurs again, do this:

- Record all the exception error messages. Use the Adv key to access additional message panels.

- Use the board ID to look up the name of the failing board. Figure 6-1 contains a list of Board IDs.

- Use the board ID to look up the name of the failing board. Figure 6-1 contains a list of Board IDs.
- Call your Customer Service Representative and give him or her the information you've recorded.

BOARD IDENTIFICATION CODES

ID	Description
00	No board installed
10	SC/GPP board (mother board on 1174-60R)
18	GPP board
30	SCC board
40	MCC board (mother board on 1174-60R)
48	CDA board (ID on 1174-10R only)
50	AIC (ASCII) board
70	TRC (Token-Ring) board (1174-10R only)
A0	2/4 Mbyte RBT (RAM terminated)
A8	2/4 Mbyte RBU (RAM unterminated)
B0	ERM board (1174-60R only)
F0	TRM board (1174-10R only)
F8	Main board RAM (1174-60R)

Figure 6-1. Board IDs

Chapter 7

Hardware Failures

HARDWARE FAILURES

DESCRIPTION

Hardware failures can occur during IML or during execution of a testing mode. They notify you that a control unit hardware problem exists, and they require repair or replacement of the failing hardware. Once the hardware problem is corrected, you must IML the control unit to resume operation.

Hardware failure messages look like this on the Operator Panel:

FAIL JSS:BB:TNN*

where: FAIL indicates a Hardware failure.
JSS shows the slot number of the board where the hardware failure occurred.
BB is the board ID (in hexadecimal format). Figure 7-1 contains a table of board IDs.
TNN is the Hardware failure message.
* indicates up to 4 additional panels are available to further describe the failure.
Press the Adv key to view these additional panels.

Note that the following items may be reported as slot numbers while not existing as physical slots:

J10 - Mother board on the 1174-60R

J13 - Mother board on the 1174-60R

J16 - Mother board on the 1174-60R

J33 - Operator Panel Logic board

J34 - Floppy disk drive A

J35 - Floppy disk drive B

WHAT TO DO

When a hardware failure message appears, IML the control unit and attempt to resume normal operation. If the error recurs, do this:

- Record all the hardware failure messages. Use the Adv key to access all message panels.

- Call your Customer Service Representative and give him or her the information you've recorded.

BOARD IDENTIFICATION CODES

ID	Description
00	No board installed
10	SC/GPP board (mother board on 1174-60R)
18	GPP board
30	SCC board
40	MCC board (mother board on 1174-60R)
48	CDA board (ID on 1174-10R only)
50	AIC (ASCII) board
70	TRC (Token-Ring) board (1174-10R only)
A0	2/4 Mbyte RBT (RAM terminated)
A8	2/4 Mbyte RBU (RAM unterminated)
B0	ERM board (1174-60R only)
F0	TRM board (1174-10R only)
F8	Main board RAM (1174-60R)

Figure 7-1. Board IDs

Chapter 8

Online Errors

ONLINE ERRORS

Online errors may occur during the 1174's online operation with the host or during IML.

Online errors are:

- Displayed on the status line of attached terminals preceded by **X**
- Logged in the Error Log (accessible with Test mode)

The control unit's Operator Panel display shows some 300- and 500-type error codes. These error codes are preceded by the letter designation of the affected host and are followed by the time at which the error occurred. For example, an Operator Panel display of "B: 501-01 11:34" would indicate that a 501-01 error (Data Set Ready not present) occurred on a connection with host B at 11:34. Any subsequent displayable errors will overwrite the current displayed error information.

Use the charts on these pages to determine what to do if you have an online error.

Logged Error Code	Error Log Description	Recovery
000-01	No format groups loaded.	
000-02	Format name not found.	
000-04	Group name error, no format groups loaded.	
201-01	Coax Time-out	Switch the terminal from Normal mode to Test mode and back to Normal mode. Turn the terminal's power off, wait 5 seconds, and turn power back on. Check the terminal's cable connections.
201-02	No RTR on coax	Same as above.
201-03	Coax Parity error	Same as above.
202-01	Coax overrun	Switch the terminal from Normal mode to Test mode and back to Normal mode. Turn the terminal's power off, wait 5 seconds, and turn power back on.

Logged Error Code	Error Log Description	Recovery
203-31	Terminal feature error	Press the terminal's Reset key and retry operation. Turn the terminal's power off, wait 5 seconds, and turn the power on.
207-01	Missing "device complete"	Switch the terminal from Normal mode to Test mode and back to Normal mode. Turn the terminal's power off, wait 5 seconds, and turn the power on. Check the cable connections.
207-02	Too many DFT expedited status resets	Switch the terminal from Normal mode to Test mode and back to Normal mode. Turn the terminal's power off, wait 5 seconds, and turn the power on.
210-01	Invalid keyboard ID	Confirm keyboard configuration for keyboard type.
210-02	Invalid 102 keyboard ID	Same as above.
211-01	Illegal device status Extended data: B1-B2 = invalid status word received from device	Switch the terminal from Normal mode to Test mode and back to Normal mode.
211-02	Illegal coax status (DFT)	Switch the terminal from Normal mode to Test mode and back to Normal mode. Check cable connections.
212-31	Illegal key scan code received	Press the terminal's Reset key and retry operation.
222-31	Selector pen status error	Press the terminal's Reset key and retry operation.
231-01	Printer equipment check	Unrecoverable printer error. Consult your printer's operator's manual. If you cannot fix the problem, call your Customer Service Representative.
231-02	Printer op complete time-out	
231-03	Printer status transition time-out	
231-04	Printer Disable poll time-out	

Logged Error Code	Error Log Description	Recovery
233-01	Unexpected coax response Extended data: B1 = coax status	Unrecoverable printer error. Call your Customer Service Representative.
239-01	Invalid device type	Turn the terminal's power off, wait 5 seconds, and turn the power on. Use Test mode Test 4 (Chapter 9) to check configuration.
240-01	DFT interface error	Turn the terminal's power off, wait 5 seconds, and turn the power on.
241-01	DFT interface error	Turn the terminal's power off, wait 5 seconds, and turn the power on.
242-01	DFT permanent error	Turn the terminal's power off, wait 5 seconds, and turn the power on.
243-01	DFT status transition time-out	Turn the terminal's power off, wait 5 seconds, and turn the power on.
247-01	3180 explicit partition protocol unavailable	Turn the terminal's power off, wait 5 seconds, and turn the power on.
285-01	Some sessions unavailable	Memory is not available for all sessions of the port. Press Reset to continue operation on available sessions. Additional memory is needed for the current configuration.
285-02	No memory available for calculator	Press Reset to continue without calculator. Additional memory is needed for the current configuration.
286-01	No memory available for windowing	Press Reset to continue without windowing. Additional memory is needed for the current configuration.

Logged Error Code	Error Log Description	Recovery
294-01	DFT POR on port where session A is ASCII host	
2EE-21	Mod 1 not supported	Disconnect Mod 1 display and attach appropriate display terminal.
2EE-31	Keyboard not configured	Confirm keyboard configuration for keyboard type and language.
2EE-37	Keyboard not supported	Confirm supported features and keyboard type.
300 through 330	Microcode failure. The 1174 will do a minidump.	If any of these errors occur, you must notify your Customer Service Representative. Do this: Press the Advance key *after* the minidump is complete. Record the error code. Replace the system diskette with the backup system diskette. Re-IML the control unit. Call your Customer Service Representative.
385-01	Drive not ready while trying to record an error in the event log	Ensure that the system diskette is properly installed and that the diskette drive lever is closed.
388-01	Diskette media failure while trying to record an error in the event log	Replace System disk. IML control unit by pressing the IML key on the Operator Panel.
390-01	Incorrect diskette installed while attempting to record an error in the event log	Ensure that the system diskette is properly installed. If problem continues, install the backup system diskette.
391-01	Write protect condition detected while trying to record an error in the event log	Remove write protect tab from the system diskette.

Logged Error Code	Error Log Description	Recovery
392-01	Diskette full or End of File (EOF) condition occurred while trying to record an error in the event log Extended Data: B1 = 01 diskette full B1 = 02 diskette directory full B1 = 03 diskette EOF error B2 = 00	Replace the system diskette.
393-01	Diskette was changed while attempting to record an error in the event log	Reinsert correct diskette.
401-01	Valid 1174 command received that is invalid for the terminal to which it was sent. May also indicate that an invalid select command chain sequence was received.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
401-03	Invalid command received in the data stream. Extended data: B1-B4 = one of the following: • If the error is in a write structured field (WSF): B1-B2 = The displacement in hex (zero origin) from the beginning of the WSF transmission to the structured field (SF) containing the error. B3-B4 = The displacement in hex (zero origin) from the beginning of the SF in error to the byte in error. If there is not enough data to process an SBA, SFE, RA, EUA, MF, or SA order, then B3-B4 equals 0001. • If the error is not in a write structured field: B1-B2 = 0000 B3-B4 = The displacement in hex (zero origin) from the beginning of the transmission to the byte in error. If there is not enough data to process an SBA, SFE, RA, EUA, MF, or SA order, then B3-B4 equals 0001. B5-B6 = The data in error. B7-B8 = Structured field type, or 0000 if the transmission has no WSF.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
401-04	Invalid command while in data chain state.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
401-05	WCC reset bit not set while in data chain state.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
402-01	A Modify Field Attribute order was sent when the current buffer address did not contain a field attribute. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
402-02	The address following a Set Buffer Address (SBA), Repeat to Address (RA), or Erase Unprotected to Address (EUA) order is invalid. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
402-03	The parameters following a Set Attribute (SA), Start Field Extended (SFE), Modify Field (MF), or Graphic Escape (GE) order are invalid. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
402-04	An invalid alias was detected in byte 4 of the structured field during the processing of a load program symbols set. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
402-05	Invalid data following a Read, Read Modified, or Erase All Unprotected command. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
402-06	Data stream ended before all of the required data bytes were received on a Set Buffer Address (SBA), Repeat to Address (RA), Start Field (SF), Start Field Extended (SFE), Modified Field (MF), Erase Unprotected to Address (EUA), or Set Attribute (SA) order. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
402-07	Unsupported order or invalid control code received in the data stream between hex 01 and hex 3F. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
403-02	Invalid parameter detected during structured field processing. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
404-01	Error during the processing of a structured field. The device receiving the data stream does not have the hardware to support the structured field in the data stream. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
404-02	Invalid data chain structured field sequence. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
404-03	Received a data chain SF that was not the first SF to follow a WAF command.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
406-02	Bisync transmission block exceeds 3500 or 7000 bytes and exceeds the buffer size of the receiving terminal.	No action necessary. If the problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
407-01	Invalid structured field length for a copy command. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-02	Data received after the structured field containing the Copy command. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-03	Address for the terminal to be copied from is not a valid host address. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-04	Bisync copy attempted from a distributed function terminal (DFT). Bisync copies are not allowed to or from DFTs. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
407-05	Bisync copy attempted with one or both of the terminals being in an explicit partition state. This is not allowed. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-06	The "from" terminal was busy during a copy operation. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-07	The "from" terminal is allocated for local copy only. Bisync copy is not allowed. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-08	The "from" terminal had a recoverable parity error during a Bisync copy operation. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
407-09	The "to" terminal buffer contents are protected and cannot be copied. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-10	Terminal buffer sizes are incompatible for a Copy operation. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
407-11	Extended function copy not allowed. Extended function copy is only allowed *from* a display *to* a printer. Extended data: B1-B8 = see extended data information for error code 401-03	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
408-01	Bisync data stream error detected. Possible cause: • Escape character (ESC) missing from start of command sequence • no data • Read Modified All command received • Write Structured Field command received followed by a chained command Extended data: B1-B2 = first two bytes of the transmission (after STX) B3-B4 = number of bytes in the line buffer	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
410-02	RU loading into the attached printer's buffer is larger than the maximum specified in the bind command. SNA sense = 1002	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
410-06	The host function is not supported. SNA sense = 1003	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
410-07	An unsupported data flow control, session control, network control, or FM data request was received by a terminal. SNA sense = 1007	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
410-08	The host function is not supported. The unsupported request was sent to the physical unit (PU) or to an invalid logical unit (LU). SNA sense = 1007	If problem continues, contact the system programmer.
412-01	Invalid OAF-DAF combination. A request was addressed to a physical unit, but the OAF was not the SSCP. SNA sense = 800F	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
412-02	Control unit received a message from a host for an unbound logical unit. SNA sense = 8005	No action necessary. If the problem continues, contact the system programmer.
412-03	Bad DAF. The control unit received a message from a host for a terminal address that is not configured. SNA sense = 8004	No action necessary. If the problem continues, contact the system programmer.
412-04	Control unit received a message from a host before receiving an Activate Physical Unit (ACTPU). SNA sense = 8008	No action necessary. If the problem continues, contact the system programmer.
412-05	Control unit received a message from a host for a terminal that is not active. An Activate Logical Unit (ACTLU) is required. SNA sense = 8009	No action necessary. If the problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
415-01	Request was received with an exception response, but no exception response request was specified in the Bind. SNA sense = 4006	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
415-02	Request was received with a definite response, but no definite response request was specified in the Bind. SNA sense = 4007	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
415-03	Request with the format indicator (FI) bit set in the Request Header was received; however, the session was not bound with FM header support. SNA sense = 400F	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
415-04	Incomplete Request Header (RH) received. Session was terminated by the control unit. SNA sense = 4005 Possible cause: • communication line error • application program error No action is required.	
416-01	Request with an invalid sequence number was received. This is an application program error. SNA sense = 2001	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
416-02	Chaining error. This is an application program error. SNA sense = 2002	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
416-03	Bracket error. This is an application program error. SNA sense = 2003	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
416-04	Request received that can be processed only if Data Traffic is active. Data Traffic is in a reset state. This is an application program error. SNA sense = 2005	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
416-05	Half-duplex error. The logical unit (LU) was not in the correct Send/Receive state to process the request. SNA sense = 2004	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
417-01	Session limit exceeded. Bind command received with an OAF that is different from the primary logical unit (PLU) to which the session is already bound. SNA sense = 0805	If the problem continues, contact the system programmer.
418-01	Printer not available SNA sense = 0801 Possible cause: • unconfigured printer • printer busy with local copy function • FM data received that exceeded the pacing counts specified in the bind	No action necessary. If the problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
418-02	Bracket bid reject (No RTR). BID has been received, but the operator has already initiated a Bracket, or the operator has ownership of the keyboard. SNA sense = 0813	If the problem continues, contact the system programmer.
418-03	Bracket Bid reject. A Begin Bracket or BID has been received for a printer that is busy with a local copy function. Ready to Receive (RTR) will be sent when the printer becomes available. SNA sense = 0814	If the problem continues, contact the system programmer.
418-04	Receiver in transmit mode. SNA sense = 081B	If the problem continues, contact the system programmer.
418-06	Change Direction required. Read type command was received without a Change Direction or with an End Bracket. SNA sense = 0829	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
418-07	LU2 or LU3 terminal received a WCC with the start print bit on, but it was not sent in Definite Response mode, or Exception Response mode and Change Direction. SNA sense = 0843	No action necessary. If the problem continues, contact the system programmer.
418-08	Terminal owned by an alternate session. SNA sense = 082D	If the problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
420-01	Bind Reject error. Profile error. SNA sense = 0835 Extended data: B1-B2 = location of the failing byte in the Bind command	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
420-02	Bind reject. Primary protocol error. Extended data: B1-B2 = location of the failing byte in the Bind command	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
420-03	Bind reject. Secondary protocol error. Extended data: B1-B2 = location of the failing byte in the Bind command	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
420-04	Bind reject. Common protocol error. Extended data: B1-B2 = location of the failing byte in the Bind command	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
420-05	Bind reject. Invalid screen size. Extended data: B1-B2 = location of the failing byte in the Bind command	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
420-06	Bind reject. Logical Unit (LU) profile error. Extended data: B1-B2 = location of the failing byte in the Bind command	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
422-02	Invalid or unsupported Network Services header was received. SNA sense = 1007	If problem continues, contact the system programmer.
422-03	Maximum number of REQMS/RTM requests has been queued in the control unit. SNA sense = 0812	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
422-04	Invalid REQMS type was received. An application program error. SNA sense = 080C	No action necessary. If the problem continues, contact the system programmer.
422-05	NMVT request received with invalid parameters. SNA sense = 0835 Extended data: B1-B2 = Byte in error location in the NMVT.	No action necessary. If the problem continues, contact the system programmer.
423-51	Response Time Monitor (RTM) counter overflow.	No action necessary. The host system should send an RTM request to reset the counter. If the problem continues, contact the system programmer.
460-01	Printer matrix definition error.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
468-01	Printer detected error in the LU1 data stream. There are invalid parameters in the data stream. Extended data: B1-B2 = SNA sense set by the printer	Retry operation. If problem continues, contact the system programmer.

Logged Error Code	Error Log Description	Recovery
468-02	Printer detected error in a Load Structured Field order.	Retry operation. If problem continues, contact the system programmer.
468-10	Bad FM header in LU1 data stream.	Retry operation. If problem continues, contact the system programmer.
468-11	Bad structured field detected by printer in LU1 mode.	Retry operation. If problem continues, contact the system programmer.
497-01	Segmenting error. The host system has sent an invalid segment and the current LU will be unbound.	Restart the session.
497-02	Segmenting error without host notification. Host system has sent an invalid segment.	No action is required.
498-01	A negative response has been received. An invalid request was sent to the host.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
499-01	Exception request. An upstream node has detected an error.	Press Reset at the attached terminal and retry operation. If problem continues, contact the system programmer.
500-01	A previous communication error has cleared. Communication is now available.	No action is required.
501-01	Data Set Ready (DSR) is not present. Possible cause: • communication cable • modem	Verify that the communication cable is connected and that the modem is powered on.

Logged Error Code	Error Log Description	Recovery
501-02	Clear to Send (CTS) is not present. Possible cause: • communication cable • modem	Verify that the communication cable is connected and that the modem is powered on.
501-04	Transmit time-out. There is a problem with the transmit clock signal. Possible cause: • communication cable • modem	Verify that the communication cable is connected and that the modem is powered on.
504-02	Disconnect received (SDLC, X.25). The 1174 is waiting for the host to reopen the line.	No action is required.
504-03	Normal initialization sequence (X.21, X.25).	Initiate a call or wait for an incoming call.
505-01	Normal message after IML (SDLC, X.25). The host system must send a Set Normal Response (SNRM) for SDLC or Set Asynchronous Balanced mode for X.25.	No action is required.
505-10	Host activation (SDLC, X.25). Activate physical unit (ACTPU) is required.	No action is required.
506-01	Waiting for Data Communication Equipment (DCE) (X.25).	No action is required. This is normal at start-up. If the 506-01 is displayed for an extended period of time, verify that the communication cable is connected and that the modem is powered on.

Logged Error Code	Error Log Description	Recovery
513-01	X.25 channel is not available. Possible cause: • modem • communication link	If an outgoing call was attempted, retry. If no outgoing call was attempted, wait for the network to retry.
531-01	Command Reject (SDLC). Possible cause: • NR sequence error • data with a command that does not require data • invalid command	No action is required. Host-recoverable.
531-51	A Negative Acknowledgment (NAK) has been transmitted. Possible cause: • modem • communication link	Verify that the modem and communication cables are functioning properly.
531-52	A Negative Acknowledgment (NAK) has been received. Possible cause: • modem • communication link	Verify that the modem and communication cables are functioning properly.
531-53	An Inquiry (ENQ) or Temporary Text Delay (TTD) has been received. Possible cause: • temporary busy condition at the host • modem • communication link	Verify that the modem and communication cables are functioning properly.

Logged Error Code	Error Log Description	Recovery
531-56	Write retry (SDLC). The 1174 has to retransmit a previously transmitted message.	No action is required. The host forces retransmission.
531-57	Overrun (SDLC, X.21, X.25).	No action is required.
531-58	Underrun (SDLC, X.21, X.25).	No action is required.
531-59	Frame check sequence (FCS) error (SDLC, X.21, X.25).	No action is required.
531-60	Primary abort (SDLC, X.21, X.25).	No action is required.
532-01	Count exceeded. Wrong length message (SDLC).	Host recovery.
532-02	Nonproductive (NPRO) time-out (SDLC). The host system is not sending any data to the control unit. This condition is reset upon receipt of a valid frame or a frame containing a poll. Possible cause: • host • communication link • communication adapter	Verify that the modem and communication cables are functioning properly.
532-03	Idle time-out (SDLC). The host system is not sending any data to the control unit. This condition is reset upon receipt of a valid frame or a frame containing a poll. Possible cause: • host • communication link • communication adapter	Verify that the modem and communication cables are functioning properly.

Logged Error Code	Error Log Description	Recovery
532-04	Connection problem (SDLC). Possible cause: • communication link • communication adapter	Verify that the modem and communication cables are functioning properly.
532-10	The BSC line is idle. Possible cause: • host • modem • communication link	Verify that the host, modem, and communication cables are functioning properly.
532-11	BSC retry count exceeded. Possible cause: • modem • communication link	Verify that the host, modem, and communication cables are functioning properly.
532-12	15 Negative Acknowledgments (NAKS) have been received. Possible cause: • host • modem • communication link	Verify that the host, modem, and communication cables are functioning properly.
532-13	15 incorrect acknowledgments have been received. Possible cause: • modem • communication link	Verify that the host, modem, and communication cables are functioning properly.

Logged Error Code	Error Log Description	Recovery
532-23	Frame reject response (FRMR) received. Extended data: B1-B3 = Frame reject response (FRMR). Refer to the X.25 protocol manual for details about this data. Possible cause: • host • communication link	Wait. If the failure continues, verify that the X.25 network is operating properly.
532-26	The 1174 has transmitted a Frame reject response (FRMR) after receiving a frame with an invalid I-frame, but with a good FCS. Extended data: B1-B3 = Frame reject response (FRMR). Refer to the X.25 protocol manual for details about this data. Possible cause: • host • communication link	Wait. If the failure continues, verify that the X.25 network is operating properly.

Logged Error Code	Error Log Description	Recovery
533-01	Clear packet sent. Packet or Logical Link Control (LLC) level error, or an incoming call was rejected. Extended data: B1 = 00 B2 = diagnostic code (see DTE Diagnostic codes at the end of this chapter) B3,B4 = one of the following: • 0000 • LLC header when the diagnostic code equals 5X or 6X • diagnostic modifier (see diagnostic modifier codes at the end of this chapter) Display data: LCCDD where: L = clear packet sent CC = 00 DD = diagnostic code (see DTE Diagnostic Codes at the end of this chapter)	If outgoing calls are allowed, initiate a call. If not, wait for an incoming call to reopen the circuit.

Logged Error Code	Error Log Description	Recovery
533-02	Reset packet sent. Packet or Logical Link Control (LLC) level error. Extended data: B1 = 00 B2 = diagnostic code (see DTE Diagnostic codes at the end of this chapter) B3,B4 = one of the following: • 0000 • LLC header when the diagnostic code equals 5X or 6X Display data: MCCDD where: M = reset packet sent CC = 00 DD = diagnostic code (see DTE Diagnostic Codes at the end of this chapter)	Wait. If the failure continues, verify that the X.25 network is operating properly.

Logged Error Code	Error Log Description	Recovery
533-03	Restart packet sent. Packet or Logical Link Control (LLC) level error, or an incoming call was rejected. Extended data: B1 = 00 B2 = diagnostic code (see DTE Diagnostic codes at the end of this chapter) Display data: NCCDD where: N = restart packet sent CC = 00 DD = diagnostic code (see DTE Diagnostic Codes at the end of this chapter)	Wait. The 1174 is trying to recover.
533-04	Clear packet received. Extended data: B1 = cause code (see Clear Packet Cause Codes at the end of this chapter) B2 = diagnostic code (see DCE Diagnostic Codes at the end of this chapter) Display data: PCCDD where: P = clear packet received CC = cause code (see Clear Packet Cause Codes at the end of this chapter) DD = diagnostic code (see DCE Diagnostic codes at the end of this chapter)	If outgoing calls are allowed, initiate a call. If not, wait for an incoming call to reopen the circuit.

Logged Error Code	Error Log Description	Recovery
533-05	Reset packet received. Extended data: B1 = cause code (see Reset Packet Cause Codes at the end of this chapter) B2 = diagnostic code (see DCE Diagnostic Codes at the end of this chapter) Display data: QCCDD where: Q = reset packet received CC = cause code (see Reset Packet Cause Codes at the end of this chapter) DD = diagnostic code (see DCE Diagnostic codes at the end of this chapter)	Wait. The 1174 is trying to recover.
533-06	Restart packet received. Extended data: B1 = cause code (see Restart Packet Cause Codes at the end of this chapter) B2 = diagnostic code (see DCE Diagnostic Codes at the end of this chapter) Display data: RCCDD where: R = reset packet received CC = cause code (see Restart Packet Cause Codes at the end of this chapter) DD = diagnostic code (see DCE Diagnostic codes at the end of this chapter)	Wait. The 1174 is trying to recover.

Logged Error Code	Error Log Description	Recovery
551-03	Exchange ID (XID) received (SDLC).	No action is required.
551-04	Xtest received (SDLC).	No action is required.
551-05	Xtest sent (SDLC).	No action is required.
553-01	A call is being established (X.21, X.25).	No action is required.
553-11	The dial screen has been activated (X.21, X.25).	No action is required.
553-20	X.25 disconnect in progress.	No action is required.
562-01	Call progress signal received.	No action required.

Logged Error Code	Error Log Description	Recovery
580-01	A failure occurred while attempting to open the adapter during the ring insertion process. Extended data: B1 = XY where X, the open command phase, is defined as: 1 = lobe media test 2 = physical insertion 3 = address verification 4 = participation in ring poll 5 = request initialization Y, the open error code, is defined as: 1 = function failure 2 = signal loss 3 = wire fault 4 = frequency error 5 = time-out 6 = ring failure 7 = ring beaconing 8 = duplicate node address 9 = request parameters A = remove received Possible cause: • Token-Ring cables • media access unit • Token-Ring adapter	Re-IML the control unit. If the failure continues, contact your service representative.

Logged Error Code	Error Log Description	Recovery
580-02	An attempt to open the adapter during the ring insertion process failed due to ring protocol errors. Extended data: B1 = XY where X, the open command phase, is defined as: 1 = lobe media test 2 = physical insertion 3 = address verification 4 = participation in ring poll 5 = request initialization Y, the open error code, is defined as: 1 = function failure 2 = signal loss 3 = wire fault 4 = frequency error 5 = time-out 6 = ring failure 7 = ring beaconing 8 = duplicate node address 9 = request parameters A = remove received Possible cause: • Token-Ring cables • media access unit • Token-Ring adapter	Re-IML the control unit. If the failure continues, contact your service representative.

Logged Error Code	Error Log Description	Recovery
580-03	An attempt to open the adapter during the ring insertion process failed due to ring beaconing. Extended data: B1 = XY where X, the open command phase, is defined as: 1 = lobe media test 2 = physical insertion 3 = address verification 4 = participation in ring poll 5 = request initialization Y, the open error code, is defined as: 1 = function failure 2 = signal loss 3 = wire fault 4 = frequency error 5 = time-out 6 = ring failure 7 = ring beaconing 8 = duplicate node address 9 = request parameters A = remove received Possible cause: • Token-Ring cables • media access unit • Token-Ring adapter	Re-IML the control unit. If the failure continues, contact your service representative.

Logged Error Code	Error Log Description	Recovery
580-04	An attempt to open the adapter during the ring insertion process failed. The adapter received a Remove Station frame. Extended data: B1 = XY where X, the open command phase, is defined as: 1 = lobe media test 2 = physical insertion 3 = address verification 4 = participation in ring poll 5 = request initialization Y, the open error code, is defined as: 1 = function failure 2 = signal loss 3 = wire fault 4 = frequency error 5 = time-out 6 = ring failure 7 = ring beaconing 8 = duplicate node address 9 = request parameters A = remove received Possible cause: • The network manager issued the remove command	Contact the network manager.

Logged Error Code	Error Log Description	Recovery
580-05	A wire fault has been detected. Possible cause: • Token-Ring cables • media access unit • Token-Ring adapter	Verify that all cables and connections are secure. If the failure continues, contact your service representative.
580-06	The Token-Ring adapter has detected an internal error and removed itself from the ring. Possible cause: • Token-Ring adapter	Contact your service representative.
580-07	A Remove Station frame has been received. Possible cause: • The network manager issued the remove command	Contact the network manager.
580-08	Token-Ring failure.	Contact your service representative.
580-10	Token-Ring failure.	Contact your service representative.
580-58	A beaconing condition has occurred on the Token Ring.	No action required.
581-01	Duplicate Address Test (DAT) failure. A duplicate address has been detected on the Token Ring. Extended data: B1-B6 = Token-Ring address	Each node on the Token Ring must be assigned a unique address. Reconfiguration may be required.

Logged Error Code	Error Log Description	Recovery
583-02	A Frame Reject (FRMR) frame was transmitted. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP B10-B16 = Frame Reject data	No action is required.
583-03	A DM or DISC frame was received. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP	No action is required.
583-04	A Frame Reject (FRMR) frame was received. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP B10-B16 = Frame Reject data	No action is required.

Logged Error Code	Error Log Description	Recovery
583-05	A Set Asynchronous Balanced Mode (SABME) frame was received be a connected station. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP	No action is required.
583-07	Response timer (T1) expired. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP	No action is required.
583-08	Inactivity timer (T1) expired. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP	No action is required.
583-09	Unsuccessful link recovery. Extended data: B1-B2 = link number B3-B8 = remote station Token-Ring address B9 = remote station SAP	No action is required.

Logged Error Code	Error Log Description	Recovery
584-01	I-frame counter overflow. Extended data: B1-B2 = link number B3 = counter that overflowed where: 01 = T1 timer expiration counter 04 = I-frame transmit counter 05 = I-frame receive error counter 09 = I-frame transmit error counter 0A = I-frame receive counter B4-B5 = number of I-frames transmitted B6-B7 = number of I-frames received B8 = number of I-frames transmitted with errors B9 = number of I-frames received with errors B10-B11 = number of T1 timer expirations	No action is required.

Logged Error Code	Error Log Description	Recovery
584-02	Receive congestion counter overflow. Extended data: B1-B2 = link number B3 = line errors counter B4 = internal errors counter B5 = burst errors counter B6 = ARI/FCI errors counter B7 = abort delimiter counter B8 = reserved B9 = lost frame counter B10 = receive congestion counter B11 = frame copied errors counter B12 = frequency errors counter B13 = token errors counter	No action is required.

Logged Error Code	Error Log Description	Recovery
584-03	Error counter other than the receive congestion counter overflowed. Extended data: B1-B2 = link number B3 = line errors counter B4 = internal errors counter B5 = burst errors counter B6 = ARI/FCI errors counter B7 = abort delimiter counter B8 = reserved B9 = lost frame counter B10 = receive congestion counter B11 = frame copied errors counter B12 = frequency errors counter B13 = token errors counter	No action is required.
599-01	Local mode.	No action is required.

X.25 CAUSE AND DIAGNOSTIC CODES

CLEAR PACKET CAUSE CODES

Code	Description
00	From DTE (not from network)
01	Number busy
03	Invalid facility requested
05	Network congestion
09	Out of order
0B	Access barred
0D	Not obtainable (wrong HNAD)
11	Remote procedure error
13	Local procedure error
15	RPDA out of order
19	Reverse-charging facility not subscribed
21	Incompatible destination
29	Fast-select facility not subscribed

RESET PACKET CAUSE CODES

Code	Description
00	From DTE (not from network)
01	Out of order
03	Remote procedure error
05	Local procedure error
07	Network congestion
09	Remote DTE operational
0F	Network operational
11	Incompatible destination

RESTART PACKET CAUSE CODES

Code	Description
01	Local procedure error
03	Network congestion
07	Network operational

DCE DIAGNOSTIC CODES (FROM DCE)

Code	Description
00	No additional information
01	Invalid P (send)
02	Invalid P (receive)
10	Invalid packet type – general
11	Invalid packet type for state R1 (layer 3 ready)
12	Invalid packet type for state R2 (DTE awaiting RESTART confirmation)
13	Invalid packet type for state R3 (DCE awaiting RESTART confirmation)
14	Invalid packet type for state P1 (ready – no call in existence)
15	Invalid packet type for state P2 (DTE awaiting CALL acknowledgment)
16	Invalid packet type for state P3 (DCE awaiting CALL acknowledgment)
17	Invalid packet type for state P4 (data transfer)
18	Invalid packet type for state P5 (CALL collision)
19	Invalid packet type for state P6 (DTE awaiting CLEAR confirmation)
1A	Invalid packet type for state P7 (DCE awaiting CLEAR confirmation)
1B	Invalid packet type for state D1 (flow control ready)
1C	Invalid packet type for state D2 (DTE awaiting RESET confirmation)
1D	Invalid packet type for state D3 (DCE awaiting RESET confirmation)
20	Packet not allowed – general
21	Packet not allowed – unidentifiable
22	Packet not allowed – call on one-way circuit
23	Packet not allowed – invalid packet type on PVC
24	Packet not allowed – packet on unassigned LCN
25	Packet not allowed – reject not subscribed
26	Packet not allowed – packet too short
27	Packet not allowed – packet too long
28	Packet not allowed – invalid GFI
29	Packet not allowed – restart with nonzero GFI
2A	Packet not allowed – packet type incompatible with facility
2B	Packet not allowed – unauthorized INTERRUPT confirmation
2C	Packet not allowed – unauthorized INTERRUPT
30	Timer expired – general
31	Timer expired – incoming call
32	Timer expired – CLEAR indication
33	Timer expired – RESET indication
34	Timer expired – RESTART indication

Code	Description
40	CALL setup problem – general
41	CALL setup problem – facility code not allowed
42	CALL setup problem – facility parameter not allowed
43	CALL setup problem – invalid called DTE address
44	CALL setup problem – invalid calling DTE address
50	CALL clearing problem – general
51	CALL clearing problem – nonzero address lengths field
52	CALL clearing problem – nonzero facility lengths field

DTE DIAGNOSTIC CODES (FROM DTE)

Code	Description
00	Normal operation
0C	Invalid LLC type (PSH:C2 QLLC:C3)
10	Invalid packet type – general
11	Invalid packet type for state R1 (layer 3 ready)
12	Invalid packet type for state R2 (DTE awaiting RESTART confirmation)
13	Invalid packet type for state R3 (DCE awaiting RESTART confirmation)
14	Invalid packet type for state P1 (ready – no call in existence)
15	Invalid packet type for state P2 (DTE awaiting CALL acknowledgment)
16	Invalid packet type for state P3 (DCE awaiting CALL acknowledgment)
17	Invalid packet type for state P4 (data transfer)
18	Invalid packet type for state P5 (CALL collision)
19	Invalid packet type for state P6 (DTE awaiting CLEAR confirmation)
1A	Invalid packet type for state P7 (DCE awaiting CLEAR confirmation)
1B	Invalid packet type for state D1 (flow control ready)
1C	Invalid packet type for state D2 (DTE awaiting RESET confirmation)
1D	Invalid packet type for state D3 (DCE awaiting RESET confirmation)
20	DCE timer expired – general
21	DCE timer expired – incoming call
22	DCE timer expired – CLEAR indication
23	DCE timer expired – RESET indication
24	DCE timer expired – RESTART indication

Code	Description
30	DTE timer expired – general
31	DTE timer expired – incoming call
32	DTE timer expired – CLEAR indication
33	DTE timer expired – RESET indication
34	DTE timer expired – RESTART indication
50	QLLC error – general
51	QLLC error – undefined C field
52	QLLC error – unexpected C field
53	QLLC error – missing I field
54	QLLC error – undefined I field
55	QLLC error – I field too long
56	QLLC error – QFRMR received
57	QLLC error – invalid QLLC header
58	QLLC error – data received, not in info transfer state
59	QLLC error – time-out condition
60	PSH error – general
61	PSH error – sequence error
62	PSH error – PS header too short
63	PSH error – PSH format invalid
64	PSH error – command undefined
65	PSH error – invalid PSH protocol
66	PSH error – data received, not in info transfer state
67	PSH error – time-out condition
A0	Packet not allowed – general
A1	Packet not allowed – invalid M bit packet sequence
A2	Packet not allowed – invalid packet type received
A3	Packet not allowed – invalid packet on PVC
A4	Packet not allowed – packet on unassigned LCN
A5	Packet not allowed – diagnostic packet received
A6	Packet not allowed – packet too short
A7	Packet not allowed – packet too long
A8	Packet not allowed – invalid GFI
A9	Packet not allowed – not identifiable
AA	Packet not allowed – not supported
AB	Packet not allowed – invalid P (send)
AC	Packet not allowed – invalid P (receive)
AD	Packet not allowed – invalid D bit received
AE	Packet not allowed – invalid Q bit received
C1	Termination pending
C2	Channel inoperative
C3	Unauthorized INTERRUPT confirmation
C4	Unauthorized INTERRUPT request
C5	PVC resource not available
D0	Resource not available – general
D1	Resource not available – buffers depleted
D2	Resource not available – PIU too long
E0	Local procedure error – general
E1	Local procedure error – packet received with nonzero LCN

Code	Description
E2	Local procedure error – RESTART or DIAGNOSTIC with nonzero LCN
E3	Local procedure error – incoming CALL on wrong LCN
E4	Local procedure error – facility not subscribed
E5	Local procedure error – invalid packet for LCN 0
E6	Local procedure error – facility parameters not supported
E7	Local procedure error – facility not supported
E8	Local procedure error – unexpected calling DTE address
E9	Local procedure error – invalid D bit received
EA	Local procedure error – RESET indication on CALL
EB	Local procedure error – invalid protocol identifier
EC	Local procedure error – connection identifier mismatch
F0	Remote procedure error – general

DIAGNOSTIC CODE MODIFIERS

Code	Description
0000	No additional information
0001	Calling DTE address is missing
0002	Calling DTE address mismatch
0003	Unexpected facility (other than RPOA)
0004	Reserved
0005	Facility included but not configured
0006	Incoming CUG mismatch
0007	Reverse charging requested but not configured
0008	Reverse charging not requested but configured
0009	Window size negotiated but not configured
0010	CID mismatch because CID not included
0011	CID mismatch
0012	Protocol ID not included (PSH:C2 or QLLC:C3)
0013	Protocol ID mismatch
0014	CUG not included
0015	Throughput Class facility expected, but not included
0016	Reserved
0017	Reverse-charge facility expected, but not included