
Perle 594M Diagnostic Guide

Copyright and trademarks

Copyright 1999. All rights reserved, Perle Systems Limited.

IBM and AS/400 are registered trademarks of International Business Machines Corporation. All other trademarks appearing in this manual are trademarks of their respective companies.

FCC/DOC Compliance Statements:

NOTE: This equipment has been tested and found to comply with the limits for a Class A Digital Device, pursuant to Part 15 of the FCC rules and to DOC Radio Interference Regulations, C.R.C., c1374. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC/DOC compliance requires that all I/O cables used with Perle products be constructed using shielded cable, metal-shelled connectors and conductive backshells.

This equipment is approved in accordance with DIN IEC 380/VDE 0806/08.81. If this unit is installed as an office machine, the installation must comply with the above standard.

Equipment must be used with an appropriately approved power supply cordset.

CAUTION: Changes or modifications to a Perle product which are not expressly approved by Perle Systems Limited may void the users authority to operate the equipment.

Table of Contents

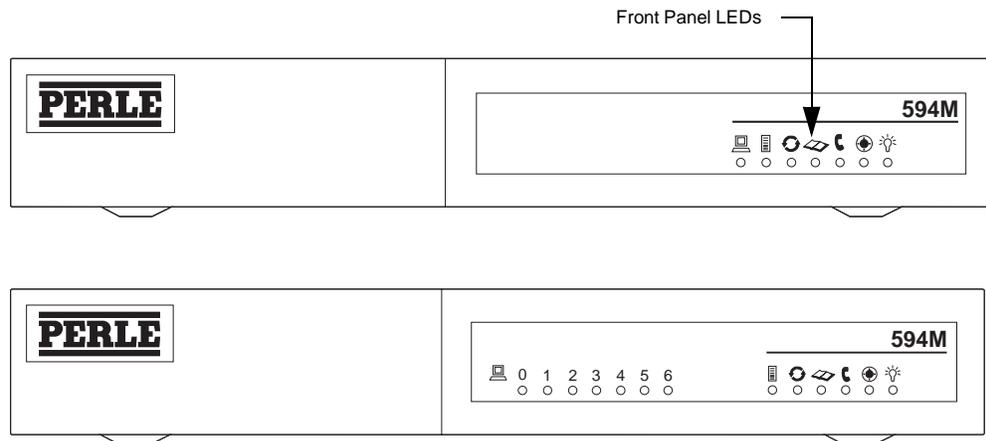
| | |
|--|-----------|
| Chapter 1. Introduction | 1 |
| Perle 594M Front View | 1 |
| Perle 594M Rear View | 1 |
| Perle 594M Component Description | 2 |
| Serial Number Label | 2 |
| Front Panel LEDs | 2 |
| Power Switch | 3 |
| Synchronous Communication Port (SYNC) | 4 |
| Ethernet Port (10/100BT) | 4 |
| Twinaxial Turret Port (TWX) | 4 |
| Twinaxial TTP Ports (TWX n) | 4 |
| Utility Serial Port (UTIL) | 4 |
| Normal Power-On Sequence | 4 |
| Problem Determination | 5 |
| Chapter 2. Concurrent Diagnostics | 7 |
| Displaying Concurrent Diagnostics information using the 594M Utility | 7 |
| Starting a 594M Utility Concurrent Diagnostics Information Request | 8 |
| Displaying Concurrent Diagnostics Information on an NWS | 9 |
| Starting an NWS Concurrent Diagnostics Information Request | 9 |
| Exit Concurrent Diagnostics | 9 |
| CL Screen: 594M System Time-Stamped Error Log | 10 |
| Memory Dump | 11 |
| Select Configuration File | 11 |
| Chapter 3. Extended Diagnostics | 13 |
| Running Extended Diagnostics | 13 |
| Synchronous Interface Loop-Back Diagnostic Test | 14 |
| Ethernet Loop-Back Diagnostic Test | 15 |
| Chapter 4. System Reference Codes | 17 |
| 594 System Hardware and Configuration SRCs (100-199) | 17 |
| NWS Operational SRCs (0000-0099) | 19 |
| Twinax Display SRCs (0100—0191) | 23 |
| Twinax Printer and Unknown Twinax Device SRCs (0200—03xx) | 25 |
| X.25 Communication SRC's (100000-1BFFF0) | 26 |
| X.21 Switched Communication SRCs (200000-250300) | 35 |
| Vi25 bis SRC's (300000-323400) | 39 |
| SNA Communication SRC's (400000-470200) | 40 |
| 594 System Operations SRC's (500000-520003) | 45 |
| LAN SRC's (540000-540425) | 46 |
| Frame Relay Communication SRCs (560000-560410) | 48 |
| Frame Relay Token-Ring Bridge SRCs (570000-57FFFF) | 49 |
| TCP/IP Error SRCs (5A000-5AFFFF) | 51 |
| Frame Relay IP Routing SRCs (5B000-5BFFFF) | 52 |
| Hardware Error SRCs (E00xxx) | 54 |

| | |
|------------------------------------|------------|
| Software Error SRCs (Fxxxxx) | 54 |
| Index | .55 |

Chapter 1. Introduction

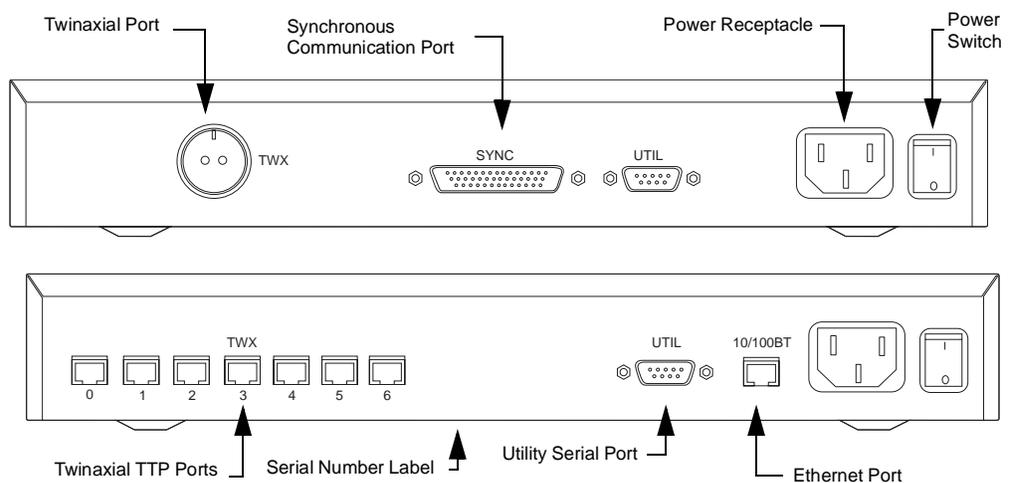
The following diagrams show the location of the major hardware components of the Perle 594M.

Perle 594M Front View



The Front View diagram shows the two versions of the 594M front panel. The top model is equipped with a single twinaxial turret interface with the single Twinaxial LED on the front panel. The second model is equipped with 7 twinaxial TTP interfaces and 7 Twinaxial LEDs on the front panel

Perle 594M Rear View



Perle 594M Component Description

Serial Number Label

This label contains such information as the name and model of the unit, the serial number for the unit, power requirement information as well as the various types of approvals registered for the unit. The serial number label can be found on the bottom of the unit.

Front Panel LEDs

There are 7 operator panel Light Emitting Diodes (LEDs):

| | | |
|---|----------------------|--|
|  | (Power) | This green LED indicates that power is being supplied to the 594M and the power switch is on. If this LED is not on, then check the power cord and electrical supply. |
|  | (Ready) | When lit, this green LED indicates the Perle 594M is ready for operation. |
|  | (Call Perle Service) | When lit, this red LED indicates detection of an error condition that requires you to contact your 594M service representative. |
|  | (SRC) | When lit, this green LED indicates the Perle 594M has detected a problem that requires diagnosis. Refer to <i>Chapter 4. System Reference Codes on page 17</i> for problem resolution instructions. |
|  | (Test Mode) | This green LED is lit when the Perle 594M is in power up diagnostics or extended diagnostics. |
|  | (Host) | This green LED indicates activity between the controller and the host computer. It will turn ON when a connection to the host has been made and will blink with traffic activity. |
|  | (Twinax) | This LED or LEDs indicate activity between a twinax terminal and the 594M controller. The LED(s) will be turned on when a twinax terminal is connected and will blink when the terminal is being used. Twinax Turret Model - One green LED Twinax TTP Model - 7 numbered green LEDs. |

LED Interpretation Table

Some of the LEDs can be turned on in combination to indicate certain conditions. The following table and notes explain these conditions. To use this table, locate the bullet(s) (●) corresponding to the front panel LEDs that are lit. Look at the indication row for the note you should refer to for the appropriate explanation.

| LEDs | ● means that the LED is lit. | | | | | | | |
|--------------------|------------------------------|---|---|---|-----|---|---|---|
| Ready | | | ● | ● | ●/* | ● | ● | |
| Call Perle Service | ●/* | | | | | ● | | ● |
| SRC | | | | | | | ● | |
| Test Mode | | ● | | ● | ● | | | ● |
| See Note: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

Note:

1. The Call Perle Service LED will flash for less than 1 second each time the 594M is powered on. If the LED does not stop flashing, then the 594M Boot Prom is not working. Contact your 594M service representative.
2. The Power-On Self-Test (POST) is running.
3. The Perle 594M has completed the POST and is in normal operation mode.
4. The Perle 594M is operating with default configuration or is in extended diagnostic mode.
5. A flashing Ready LED indicates that the 594M is in factory default mode. To operate the 594M, the 594M Utility program must be used to download software and a configuration file.
6. An error exists on the Perle 594M that requires service. Some functions may be available. Contact your 594M service representative.
7. An error exists that requires further customer problem determination. Some function may be available. View the Time-Stamped Error log to view any available SRC messages. Look up the SRC in the tables in *Chapter 4. System Reference Codes on page 17* for the appropriate action.
8. An error has been detected by the POST or extended diagnostics. Service on the Perle 594M is required. Contact your 594M service representative.

Power Switch

This switch is used to turn off all power to the unit. When the power is cycled, the unit will restart its power up sequence. The 594M can maintain its program and log information event when no power is applied to the unit.

Synchronous Communication Port (SYNC)

The Synchronous Communication port supports SDLC, X.25, X.21, and Frame Relay host connections.

Ethernet Port (10/100BT)

The Ethernet Port provides a 10/100 Mbps Ethernet interface for host communication. It supports 10Base-T and 100Base-TX (RJ-45) connections.

Twinaxial Turret Port (TWX)

The Twinaxial Turret port supports conventional twinaxial cable connections to workstations.

Twinaxial TTP Ports (TWX n)

The Twinaxial TTP ports each support the connection of a Twinaxial device using Telephone Twisted Pair (TTP) cabling.

Utility Serial Port (UTIL)

The Utility Serial port is an RS-232 DCE communication port. It is used to connect a PC running the Perle 594M Utility program to the 594M controller using a standard RS-232 cable. The 594M Utility program is used to configure and manage the 594M.

Normal Power-On Sequence

1. Turn on the power switch at the rear of the 594M. All LEDs should come on momentarily. The Power LED should remain on at all times. If the Power LED does not come on, check the power cord and the electrical outlet.
2. The 594M will turn off most LEDs, flash the Call Perle Service LED for about 1 second and then turn on the Test LED on. The system will then perform power-on diagnostic tests and system initialization. This should take about 10 seconds.
3. At the end of system initialization, the 594M will set the front panel LEDs to indicate the mode of the controller.

Factory Default Mode

The Test LED will remain on and the Ready LED will flash on and off. This indicates that the 594M does not have any operating code or configuration. Use the 594M Utility to download these to the 594M.

No Configuration

The Test LED will remain on and the Ready LED will be turned on steady. This indicates that the 594M has operating software but has not been configured.

Normal Mode

The Test LED is turned off and the Ready LED is turned on.

4. If the LEDs do not indicate one of the modes listed in step 3, then a problem exists. See *Problem Determination* on page 5 to resolve the problem.

Problem Determination

To diagnose and resolve problems, do the following:

1. Is a system reference code (SRC) displayed on any workstation?
Yes Look up the SRC in the *Perle 594 Reference Guide*.
No Proceed to step 2.
2. Is the Ready LED flashing?
Yes The 594M is in Factory Default mode. Refer to *Chapter 5: Using the 594M Utility Program* in the *594M User's Guide* for details on how to download the controller software to the 594M.
No Proceed to step 3.
3. Is the Test LED and Ready LED on?
Yes The controller could be in Extended Diagnostics or the controller has not been configured.
 - Power off the 594M and then power back on.
 - Proceed to step 4.**No** Proceed to step 5.
4. Is the Test LED and Ready LED still on?
Yes The controller has not been configured. Refer to *Chapter 5: Using the 594M Utility Program* in the *594M User's Guide* for details on how to configure the 594M.
No The controller was in Extended Diagnostics.
5. Is the SRC LED on?
Yes Use Concurrent Diagnostics to view the time-stamped error log to view the SRC. Look up the SRC in the *Chapter 4. System Reference Codes on page 17*.
No Proceed to step 6.
6. Is the Power LED on?
Yes Go to step 10.
No Proceed to step 7.
7. Is electrical power reaching the Perle 594M?
Yes Call your 594M service representative.
No Go to step 8.

8. Is the Perle 594M properly connected to the electrical outlet?
No Turn off the power on the Perle 594M and connect the power cord. The problem is resolved.
Yes Go to step 9.
9. Test the outlet with another electrical device.
Is electrical power available?
No The problem has been located. Take the necessary steps to restore electrical power to the outlet.
Yes Call your 594M service representative.
10. Are any twinaxial workstations not communicating?
Yes Proceed to step 11.
No Call your 594M service representative. Use Concurrent Diagnostics if available to view the time-stamped error log and be prepared to provide this information to the service representative.
11. Locate the Twinaxial Feature Port to which the non functioning workstation(s) are attached. Are any workstations communicating with this Twinaxial Feature Port?
No Go to step 15.
Yes Proceed to step 12.
12. Are all non communicating twinaxial workstations attached to the same port?
No Go to step 16
Yes Proceed to step 13.
13. Do the following:
 - a) Turn off the power on the Perle 594M.
 - b) Remove the cable from the failing port. Replace it with the cable from a functioning port.
 - c) Turn on power on the Perle 594M.
14. Do the workstations communicate with the port?
Yes The problem is with the twinaxial cable or the workstations attached to it. Take the necessary steps to correct the problem.
No Call your 594M service representative.
15. Do the following:
 - a) Ensure that the twinaxial cables are properly connected to the 594M.
 - b) Ensure that the twinaxial cables are properly connected to the workstations.
16. Do these steps correct the problem?
Yes The problem is resolved.
No Call your 594M service representative.

Chapter 2. Concurrent Diagnostics

When determining or troubleshooting network problems, you can get detailed link configuration and status data while the 594M is on-line by using the 594M Utility's Concurrent Diagnostic feature.

You can also view the time stamped error log by using one of the following method.

- 594M Utility's Extended Diagnostic feature. See *Chapter 3. Extended Diagnostics* on page 13 for details.
- NWS Concurrent Diagnostic feature.

Displaying Concurrent Diagnostics information using the 594M Utility

You can use the Utility Program from a PC that is attached locally to the 594M using the serial connection or from a PC that is attached remotely to the 594M through an APPN network. The Utility Program performs the same functions, including concurrent diagnostics, on a remotely attached PC as it does on a locally attached PC.

Note: *For more information about starting the installing and using the 594M Utility program, refer to the Perle 594M User's Guide.*

The Concurrent Diagnostic information that can be accessed through the 594M Utility program are as follows:

- Network Information
- Error Log
- AS/400 Link Connection Information
- AS/400 Concurrent Host Attachment Information
- Twinaxial Status
- System Time-Stamped Log
- LAN Link Station Status (Upstream)
- TCP/IP Status
- Default and Concurrent Host Tables per Port
- Frame Relay DLCI Table
- Memory Dump (used by Perle service representatives).

Starting a 594M Utility Concurrent Diagnostics Information Request

To request Concurrent Diagnostics information from a PWS, do the following:

1. Using the 594M Utility, choose **Concurrent Diagnostics** from the **Configuration and Management** main menu.
 - If you are accessing the 594M through an APPC connection, then the system will prompt you to enter the 594M system password. Key in the password and press **Enter**. The **Concurrent Diagnostic** menu will be displayed.
 - If you are accessing the 594M using the serial connection, then the **Concurrent Diagnostic** menu will be displayed.
2. Choose the kind of information you need from the menu.

A full description of each of the menu options and the explanation of the diagnostic data is contained in the 594M Utility help function. On any specific screen, the help function can be accessed by pressing the F1 key.

Note: *When link connection status data changes after the request was made, 594M Utility screens do not automatically display the new information. To update the display, return to the Concurrent Diagnostics menu and reselect the option.*
3. If you used your password to access to Concurrent Diagnostics information, disable access by returning to the 594M Utility **Configuration and Management** main menu.

Displaying Concurrent Diagnostics Information on an NWS

The NWS Concurrent Diagnostics Information Request feature can be used for the following functions:

| Screen | Function |
|--------|--|
| CL | 594M System Time-stamped Error Log |
| CM | System Memory Dump |
| CR | Reboot with selected configuration file. |

This feature can be accessed from *either* an NWS *or* a PWS running 5250 emulation.

While you are displaying Concurrent Diagnostics data at the workstation, customer applications continue to operate normally at all other workstations.

Starting an NWS Concurrent Diagnostics Information Request

1. Vary off any current AS/400 communications session on the display you wish to use.
2. Enter the Test Request key sequence that is appropriate to the keyboard you are using:

| Keyboard | Test Request key sequence |
|-------------|---------------------------|
| 83-key | CMD Backspace |
| 102/103-key | ALT Test |
| 122-key | ALT Test |

3. Type **C**.
Diagnostic display screen **PW** appears.
4. Key in the 594M System Password specified during configuration and press **Enter**.
Diagnostic display screen **CL** appears. The cursor appears at the letter **L**.
5. To display the contents of screen **CL**, press **Enter**.
6. To select a different screen, use the **Up** or **Down** arrow keys to select the screen, and then press **Enter** to display its contents.

Exit Concurrent Diagnostics.

To return the NWS to normal operation without resetting the 594M controller:

1. Press the **Reset** or **Error Reset** key two times.
2. Power off the workstation.
3. Wait 30 seconds, and then power on the workstation. If the 594M is on-line, an AS/400 signon screen appears within a few seconds.

Note: *It may also be necessary to vary on the workstation device at the AS/400 system*

CL Screen: 594M System Time-Stamped Error Log

The **CL** screen displays the 594M system time-stamped error log. Each entry appears in a two-row display. Whenever the **CL** screen is first displayed, or the display is updated, the newest entry appears at the top of the display. To update the display, press **Enter**.

To display the previous group of entries, place the cursor on the `-' next to the screen identifier and press the **Down** arrow key.

To display the next group of entries, place the cursor on the `-' next to the screen identifier and press the **Up** arrow key.

```

QQ/RR TT:UU:SS EEEEE 40 VV
 00 00 00 00 00 00 00 00 00

QQ/RR TT:UU:SS EEEEE 40 VV
 00 00

QQ/RR TT:UU:SS EEEEE 40 VV
 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

QQ/RR TT:UU:SS EEEEE 40 VV

CL _

```

Row 1 displays the following data fields:

- QQ = Month the error was logged
- RR = Day the error was logged
- TT = Hour the error was logged
- UU = Minute the error was logged
- SS = Second the error was logged
- EEEEEE = SRC
- 40 = (Reserved)
- VV = Number of consecutive times that the error has occurred

Row 2 displays any sense data in the error log entry; it may be blank.

Note: For device errors, the first byte of sense data contains the LSID (Logical Station ID).

Memory Dump

The memory dump feature is used for diagnosing system failures and is only used by your 594M service representative. The system RAM will be copied to Flash memory for later viewing.

To perform a memory dump, place the cursor on the `0' next to the **CM** screen identifier and press the **UP** arrow key. The character should turn to a '1'. Press the **Enter** key. When the memory dump is finished the '1' will change back to a '0'.

Select Configuration File

The 594M can store a normal and a back-up configuration file in its non-volatile memory. This enhancement is useful for occasions when your network becomes unavailable and you need to switch to a backup connection. Use an NWS to select the Backup Configuration file and then restart the 594M. When the original network is restored, select the normal configuration file from the an NWS and restart the 594M. The normal configuration file will now be used

Select Backup Configuration File

1. Use the **Up** or **Down** arrow keys until **CR** is displayed. The Configuration File selection screen is displayed.
2. Use the **Right** arrow key to move the cursor to the **BB** field.
3. Use the **Up** or **Down** arrow keys to change field **BB** to 1.
4. Press the **Enter** key. This will reset the 594M and the controller will now use the Backup Configuration file to communicate with your Host.

Select Normal Configuration File

To return to the Normal Configuration File:

1. Move the cursor to the **BB** field of the **CR** screen.
2. Use the **Up** or **Down** arrow keys to change field **BB** to 0.
3. Press the **Enter** key. This will reset the 594M and the controller will now use the Normal Configuration file.

Chapter 3. Extended Diagnostics

Extended diagnostics are used for Perle 594 hardware diagnostics and hardware setup. Unlike concurrent diagnostics, extended diagnostics can be used only when the 594 is off-line. Extended Diagnostics are performed with the 594M Utility program running on a PC that is communicating with the 594M using a serial connection. The APPC connection can not be used.

Note: For more information about installing and using the 594M Utility program, refer to the *Perle 594M User's Guide*.

The Extended Diagnostics functions available through the 594M Utility program are as follows:

- View 594M features
- Test all 594M hardware
- Test selected 594M hardware
- Set Ethernet speed
- Set date and time
- View 594M Time-Stamped Error Log
- System Reset of the 594M system
- Software Download
- Reset to Factory Default

Running Extended Diagnostics

1. Connect the PC running the 594M Utility program to the 594M controller using a serial connection.
2. Power on the 594M controller.
3. Select **Extended Diagnostic** from the main menu.
 - If the controller is in Normal mode, then the Utility will ask for confirmation to reboot the controller and take it off-line. Select **Yes** and press **Enter**
4. The Utility will display the **Extended Diagnostic Download** menu. Press **Enter**
5. The Utility will begin downloading the Extended Diagnostic image to the Controller. The progress will be displayed on screen. When completed, the **Extended Diagnostic** menu will be displayed.
6. Choose the type of test or function required from the menu.

A full description of each of the menu options and the explanation of the function is contained in the 594M Utility help function. On any specific screen, the help function can be accessed by pressing the F1 key.
7. To resume Normal operation, choose the **System Reset** option of the Extended Diagnostic menu.

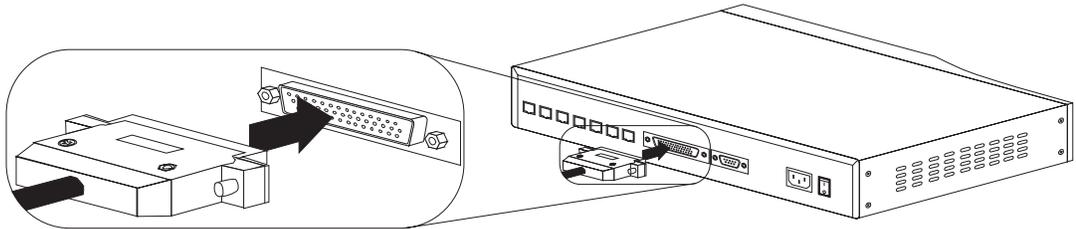
Synchronous Interface Loop-Back Diagnostic Test

The External loop-back diagnostic test is used to isolate synchronous communications problems. If the test passes successfully, then the Synchronous interface is functioning properly.

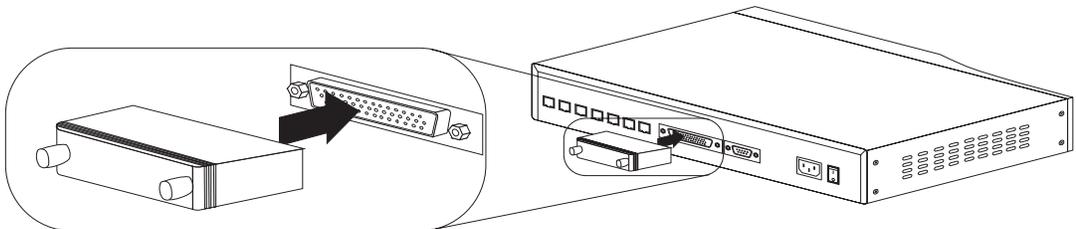
Note: *The External loop-back header is an optional feature of the 594M and can be ordered from your Perle representative.*

To perform the test, do the following:

1. Disconnect the communication cable from the Synchronous Communication Interface.



2. Connect the loop-back header to the Synchronous Communication Interface.



3. In the **Synchronous Interface Test**, select **Yes** to indicate that the External Loop-back header is installed.
4. Press **Enter** to run the test. The test results will be displayed.

Ethernet Loop-Back Diagnostic Test

The Ethernet loop-back diagnostic test is used to isolate problems in the Ethernet interface. If the test passes successfully, then the Ethernet interface is functioning properly.

Note: *Loop-back headers for the Ethernet interface are available from third-party dealers.*

To perform the test, do the following:

1. Disconnect the communication cable from the Ethernet interface and replace it with the loop-back header.
2. In the **Ethernet Interface** Test, select **Yes** to indicate that the Ethernet Loop-back header is installed.
3. Press **Enter** to run the test. The test results will be displayed

Chapter 4. System Reference Codes

This chapter lists System Reference Codes (SRCs) in numerical order along with their descriptions. SRCs may appear on workstation screens and in the time-stamped error log. See *Chapter 2. Concurrent Diagnostics* on page 7 for details on how to view the time-stamped error log.

Note: *The following tables contain all the SRCs that are generated by the 594 family of Controllers. Many of these SRCs do not apply to the 594M.*

594 System Hardware and Configuration SRCs (100-199)

The following SRCs indicate hardware problems with the Perle 594:

| SRC | Description |
|--------------------------|--|
| 100 | A hardware problem has been detected on the motherboard. Replace chassis. |
| 101 | A hardware problem has been detected on the motherboard <i>memory</i> . Replace the motherboard SIMM(s). If the problem persists, replace the chassis. |
| 102(d) | A hardware problem has been detected on the diskette or disk drive. d=1 (594 Controller Setup Diskette). d=2 (594 Controller Software Diskette). d=3 (594 Hard Drive) If diskette then try a backup copy of the diskette. If hard drive then retry the test. If the problem persists, the diskette drive or hard drive may be defective. |
| 103 | Check the diskette to make sure the write protection tab is set as prompted. If it is and the problem persists, the diskette drive may be defective. |
| 104 | A hardware problem has been detected on the front panel. Replace chassis. |
| 105(s) | A hardware problem has been detected on the Twinax card in slot <i>s</i> . Replace the Twinax card in slot <i>s</i> with the same type Twinax card (card ID 41, 44, or 48). |
| 106(s) | A hardware problem has been detected on the Token-Ring card in slot <i>s</i> . Replace the Token-Ring card in slot <i>s</i> . |
| 107(s) | A hardware problem has been detected on the Ethernet card in slot <i>s</i> . Replace the Ethernet card in slot <i>s</i> . |
| 108(s) or 108(s,p) | A hardware problem has been detected on the ASCII card in slot <i>s</i> . When the problem is detected on a particular port, it will be shown as port number <i>p</i> . Replace the ASCII card in slot <i>s</i> . |
| 109(s) | A hardware problem has been detected on the Sync card in slot <i>s</i> . Replace the Sync card. |
| 110 | A hardware problem has been detected in CMOS memory for the time stamped error log. Replace the Sync card. |
| 111(s) | There is a conflict with the setup configuration. Check the switches and straps on the card in slot <i>s</i> and check the config data entered. If the problem persists, replace the card in slot <i>s</i> . |
| 124 | Perle 594 system diskette problem detected. Restart the Perle 594 and use the appropriate backup diskette. If the problem continues, contact your 594 service representative. |
| 126 | No configuration data found for this card. Press the right arrow key on the keypad to display the slot number of the card generating the error. |

| | |
|-----|---|
| 127 | A Perle 594 card failed the self test procedure. Press the right arrow key on the keypad to display the slot number of the card generating the error, and the self test error code. Power the Perle 594 off and on. If the problem continues, contact your 594 service representative. |
| 128 | Motherboard memory error detected during power on diagnostics. Power the Perle 594 off and on. If the problem continues, contact your 594 service representative. |
| 129 | This card has failed the loop-back diagnostics test. Power the Perle 594 off and on. If the problem continues contact your 594 service representative. |
| 130 | The card ID assigned during configuration does not match the card installed in the slot. Press the right arrow key on the keypad to display the slot number of the card generating the error. |
| 131 | The card ID assigned during hardware setup does not match the card installed in the slot. Press the right arrow key on the keypad to display the slot number of the card generating the error. |
| 132 | None of the card IDs have been assigned for Feature Card slots 2 through 7. The card IDs are assigned using the keypad during the hardware setup procedure. Refer to "Appendix D: Installing Perle 594 Feature Cards" in the <i>User and Reference Guide</i> . |
| 133 | None of the card IDs have been assigned for the Feature Cards used to communicate with the workstations. The card IDs are assigned using the keypad during the hardware setup procedure. Refer to "Appendix D: Installing Perle 594 Feature Cards" in the <i>User and Reference Guide</i> . |
| 134 | All of the configured Feature Cards used to communicate with the workstations have failed the POST procedure. Power the Perle 594 off and on. If the problem continues contact your 594 service representative. |
| 135 | None of the card IDs have been assigned for the Feature Cards used to communicate with the Host systems. The card IDs are assigned using the keypad during the hardware setup procedure. Refer to "Appendix D: Installing Perle 594 Feature Cards" in the <i>User and Reference Guide</i> . |
| 136 | All of the configured Feature Cards used to communicate with the Host systems have failed the POST procedure. Power the Perle 594 off and on. If the problem continues contact your 594 service representative. |
| 137 | No Twinax card has been installed. Therefore, the 594e cannot operate in compatible mode. Use the PC Utility program to configure the 594e in enhanced mode, which can operate with only a LAN gateway. |
| 138 | The wrong diskette is in the diskette drive. Use the Base Controller Software Diskette or Network Controller Software Diskette to start up in normal operating mode. |
| 139 | There is no configuration file in CMOS or on the Controller Software Diskette. Use Req 300 to restore the configuration file from your backup diskette to CMOS. For information about backing up and restoring the configuration file, refer to the "Configuring from the 594 Utility Program" chapter in the <i>User and Reference Guide</i> . |
| 140 | The Perle 594 Controller Setup Diskette was not in the diskette drive when initiation of configuration mode was attempted. Insert the correct diskette in the drive and try again. |
| 141 | The Perle 594 Controller Setup Diskette was not in the disk drive when initiation of extended diagnostics mode was attempted. Insert the correct diskette in the drive and try again. |
| 142 | The Time-stamped Error Log is invalid. Contact your Perle Systems representative. |
| 143 | Insufficient memory for the number of controllers you have assigned. Contact your 594 service representative. |
| 145 | An enhanced hardware setup is being used with a configuration file that is configured for compatible mode. |

| | |
|--------|---|
| 146 | More than 2 LAN cards are installed in the Perle 594. Enter Extended Diagnostics to configure the additional cards. |
| 147 | A Perle feature card has been configured with the same slot number as an existing LAN card. |
| 148 | The primary Token-Ring card has not been installed in slot 3. |
| 149 | The Perle 594 contains a secondary LAN card, but no primary. |
| 150 | The synchronous communication card has failed the self test procedure. Power the Perle 594 off and on. If the problem continues, contact your 594 service representative. |
| 151 | An invalid twinax card was detected in slot 2 of the 594T. |
| 152 | Two (2) unconfigured Token-Ring cards have been installed in the 594e at the same time. See the section <i>Setting the Token-Ring Feature Card Position</i> in Appendix D of the <i>User and Reference Guide</i> for instructions. |
| 153 | More than 2 Ethernet LAN cards are installed in the Perle 594. |
| 168(n) | Configuration data does not match Perle 594 hardware; (n) indicates the slot number of the card generating this error. |
| 169(n) | The Feature Card is not been placed in the correct slot; (n) indicates the slot number of the card generating this error. |
| 170 | Insufficient memory for current configuration. |
| 171 | No 594 Hard Drive was found. The 594 was started with a Network Controller Software disk but no hard drive was found in the unit. |
| 172 | No 594 Networking Controller Software was found on the 594e Hard Drive. Use REQ 340 to load system software onto your 594e hard drive. For more information on installing 594 Networking Controller Software on to the 594e, refer to "Installation of Networking Controller Software" section of the <i>594e User and Reference Guide</i> . |
| 173 | The 594 controller software in the disk drive is not compatible with the 594 hardware. |
| 199 | The test code corresponding to the testing error is not found in the test code table. |

NWS Operational SRCs (0000-0099)

The following SRCs indicate NWS keyboard errors. To recover from the error, press the **Reset** or **Error Reset** key, correct any problems, and continue.

| SRC | Description |
|------------|--|
| 0000 | Help key is not valid. |
| 0001 | Keyboard overrun. |
| 0002 | Invalid scan code. |
| 0003 | Invalid key followed CMD or ALT key. |
| 0004 | Only data from a magnetic stripe reader or a light pen is allowed. |
| 0005 | Cursor in protected area of display. |
| 0006 | Invalid key followed System Request key. |
| 0007 | Mandatory entry field not filled in. |
| 0008 | Only alphabetical data is allowed. |

| | |
|------|--|
| 0009 | Only numeric data allowed. |
| 000G | Secondary session not available at this time; session power down in progress. Retry this request when the power down is completed. |
| 000H | Hot key to secondary session failed; either the session has not been configured or the session could not be allocated during power up. |
| 0010 | Only characters 0 through 9 allowed. |
| 0011 | Key not allowed in last position of signed numeric field. |
| 0012 | No room to insert data in the field. |
| 0013 | Terminal still in insert mode; only data keys allowed. |
| 0014 | Mandatory fill field; must be filled or empty. |
| 0015 | Self-check field error. |
| 0016 | Field- not valid for this field. |
| 0017 | Mandatory field must be filled or empty. |
| 0018 | You pressed a data key to exit a non-data field. To exit this field, use Field Exit. |
| 0019 | Dup or Field Mark key not permitted. |
| 0020 | You pressed a function key that is not valid in a right-adjust field. To exit this field press Field -, Field +, or Field Exit. |
| 0021 | Data must be entered in mandatory enter field. |
| 0022 | System error. |
| 0023 | Hexadecimal mode error. |
| 0024 | Invalid key; only 0 through 9 and Dup key allowed. |
| 0026 | Field- entry not allowed; last position must be 0 through 9. |
| 0027 | Key not valid on this display station. |
| 0028 | Key not valid on this display station. |
| 0029 | Diacritic character not valid. |
| 0031 | Data buffer overflow. |
| 0032 | Magnetic stripe reader, invalid data. |
| 0033 | Magnetic stripe reader, data not authorized. |
| 0034 | Magnetic stripe reader, data exceeds field length. |
| 0035 | Magnetic stripe reader, card cannot be read. |
| 0036 | Cursor select not allowed in field exit mode. |
| 0037 | Cursor select not allowed in a non-selectable field. |
| 0038 | Magnetic stripe reader or light pen not allowed for this field. |
| 0040 | Modem or DCE Not Ready. Data Set Ready (DSR) Line Inactive for V.24 or V.35, or DCE Not Ready for X.21. This error indicates that the modem or DCE was not ready during required intervals of normal operation. The operating state of the modem or DCE is checked at different times, depending on the specific link-level protocol in use. |
| 0041 | The receive line was idle for at least 15 bit times. Verify all cable and line connections. If the problem persists, contact the network administrator. |

| | |
|------|---|
| 0042 | The receive clock signal from the modem or DCE is not being received. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0043 | The data set ready (DSR) signal was not deactivated by the modem or DCE even though the 594 tried to disconnect from the line. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0044 | 30-Second Timeout. For a synchronous connection this error indicates that no valid data has been received for 30 seconds. For a LAN connection this error indicates the Ti timer has expired before a valid frame was received by the Perle 594. |
| 0045 | During link setup, either a disconnect mode (DM) or disconnect (DISC) command signal was received; the DCE will not become activated. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0046 | Frame reject received. The Perle 594 received a FRMR from the network. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0047 | The Perle 594 received an unexpected disconnect mode or disconnect command. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0048 | An unexpected Unnumbered Acknowledgment (UA) frame was received. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0049 | The Perle 594 received an unexpected SABME. Restart communication, if the problem persists, contact the network administrator. |
| 0050 | An error was detected in the Ready For Sending (RFS) or Clear To Send (CTS) signal. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0051 | The transmit clock failed during a transmit operation. If the problem persists, contact the network administrator. |
| 0052 | No transmit clock, modem, or DCE signal was detected even though the link adapter did not complete a transmit operation within the allotted time period. Verify all cable and line connections. If the problem persists, contact the network administrator. |
| 0053 | Expiration of Retry Counter (X.25 only). No acknowledgment of a transmission was received within the allowed timeout. (Timeout retry counter (N2) and retry interval (T1) are specified in Field 7 of the NWS configurator.) |
| 0054 | Frame reject sent. The Perle 594 has sent a FRMR response to the AS/400 system after receiving an invalid DLC or LAPB command. |
| 0055 | The Perle 594 has determined that the communication cable is not attached to the 594. Attach a cable to the 594 or replace the one currently attached. |
| 0056 | Link was broken between the Perle 594 and the host. Ensure that delays and timer values are sufficiently long. If the problem persists, contact the network administrator. |
| 0060 | Alphanumeric character entered into double-byte data characters or a key that is invalid within an embedded segment was pressed. |
| 0061 | Double-byte character entered into an alpha numeric field or a key that is invalid outside an embedded segment was pressed. |
| 0062 | Change data type not allowed; the cursor must be in an open field or in the first position ideographic field. |
| 0063 | Invalid ideographic character entered while in alternate entry mode. |
| 0064 | Invalid key pressed for the current keyboard mode. |
| 0065 | Invalid cursor position; column reserved for shift-out or shift-in characters. |
| 0066 | Repeat key not valid at current position. |

| | |
|------|--|
| 0067 | Workstation extension character RAM is full. Therefore, additional extension characters will be displayed as default characters. |
| 0068 | Perle 594 output data stream is not valid for extension characters. Therefore, any additional extension characters will be displayed as default characters. |
| 0069 | Perle 594 output data stream contains invalid or undefined extension characters. Additional extension characters will be displayed as default characters. |
| 006G | Invalid terminal type. A double byte character terminal is attached to a Twinaxial Feature Card with Card ID 41. A card with Card ID 44 must be used. |
| 0070 | Word spill or carrier return error. |
| 0071 | Invalid start copy, move, or delete text operation while a previous operation is still in progress. |
| 0072 | Invalid key pressed for the current cursor position. |
| 0073 | Invalid instruction attempted while the general prompt function was not active. |
| 0074 | Invalid key pressed while the general prompt function is active. |
| 0075 | Keyed characters not found. |
| 0076 | Insert function failed; the AS/400 has not processed the text on the screen. |
| 0077 | Invalid function key pressed or a 3270 keyboard function was entered while in word processing mode. |
| 0078 | Application error; the required scale line is not defined for your workstation. |
| 0081 | Configuration error; there are too many devices attached. |
| 0082 | Invalid keyboard function. |
| 0083 | Invalid selection. |
| 0084 | Selection field unavailable. |
| 0087 | Flow control error. Be sure X.25 communication settings on the Perle 594 match X.25 communication worksheet. |
| 0089 | One or more required fields not complete. |
| 008A | One or more fields contain an invalid embedded blank. |
| 008B | Too many keyboard country codes defined; four is the maximum. |
| 008C | Duplicate values configured error. One of the following duplicate values have been configured: <ul style="list-style-type: none"> • Two or more hosts have been given the same fully qualified name (Hx:1 joined together with Hx:2). If concurrent host is enabled, each host must have a unique, fully qualified name. • A FR-TR Bridge DLCI is the same as another FR-TR bridge DLCI or the same as a Host DLCI. • The frame relay ring number and LAN ring number are the same on a FR-TR bridge configuration. • The frame relay MAC address and the 594A token-ring LAN address are the same on a FR-TR bridge configuration |
| 008D | The printer port and/or station address values are invalid. |
| 008E | One or more fields contain an insufficient number of characters. |
| 008F | One or more fields contain a value outside the valid range. |

| | |
|------|---|
| 008G | NWS configuration can be accessed either on either slot 2 or slot 4. |
| 008H | Perle 594 hardware setup for enhanced mode only. You must use the PWS configuration to modify your configuration data. |
| 008J | Perle 594 configuration file valid for enhanced mode only. You must use the PWS configuration to modify your configuration data. |
| 0091 | The Reverse and Close keys are not valid for this field. |
| 0092 | The Reverse key is not valid on this display because it is configured for shared addressing. |
| 0097 | Test request not supported by the host system. |
| 0098 | Hardware error. |
| 0099 | In operating mode, the requested function is not supported or there is no session with AS/400 system established. In configuration mode, only one device can be in configuration mode at any time. Another device is currently active in the configuration program. |
| 009A | Three invalid passwords have been entered on this PWS. |
| 009G | The default word processing message table is currently active for this session. All word processing functions are available. |
| 009H | The 594 requires additional system memory to operate with the current configuration. Only the primary session(s) will be active; multisession(s) will not be available. |

Twinax Display SRCs (0100—0191)

These SRCs relate to twinaxial workstations. When these SRCs appear on the time-stamped error log, they are prefixed with 2 leading zeros (00).

| SRC | Description |
|------------|--|
| 0100 | There is a problem with an attached workstation. This SRC is reported if the workstation does not respond to a POLL within 200 μ sec. |
| 0101 | The 594 has detected one or more bit errors in data transmitted (transmit activity check) to an attached workstation. |
| 0103 | There is a problem with an attached workstation. The wrong parity was received in response to a POLL or ACTIVATE RECEIVE command. |
| 0104 | A workstation has detected a parity error in data transmitted by the 594. |
| 0105 | The addressed workstation is unable to respond because another workstation on the same twinaxial line is continuously transmitting. |
| 0106 | The 594 received, from an attached workstation, the wrong number of bytes as a result of a POLL or ACTIVATE RECEIVE command. |
| 0107 | An incorrect station address was returned in response to a POLL or other command from the 594. |
| 0108 | The workstation's power-on transition status bits are set, indicating the workstation is currently going through power-up even though power-up has already been completed. |
| 0109 | The 594 checked the device status of an attached workstation and found that the busy bit was not ON after an ACTIVATE WRITE command. |
| 0111 | The 8-bit code sent by an attached workstation in the keyboard response frame could not be translated to a character or a function by the 594. |
| 0120 | A POLL or other command sent to a workstation was not valid; or the device ID was incorrect. |

| | |
|------|--|
| 0121 | The address counter value was not within the user accessible limits. |
| 0122 | Storage or input queue overrun. More than 16 commands and associated data frames were sent to the workstation by the 594; or an attempt was made to store data in storage that is not accessible to the user. |
| 0123 | Attribute was not found; or the address counter pointed to an attribute. |
| 0124 | An ACTIVATE command sent to the workstation was invalid. |
| 0125 | In response to a POLL, a workstation has returned to an undefined exception status. |
| 0126 | An incorrect or unexpected pass-through command was detected. |
| 0149 | The 594 received an invalid POLL response. |
| 0170 | A workstation did not detect the end of a printer definition table (PDT). Sense data is 00. |
| 0172 | A workstation detected invalid data in the printer definition table (PDT) sent to it from the AS/400 system. Sense data is 00ccxyyyyyyy, where cc is the command code of the definition containing invalid data, xx is the offset in bytes from the command to the invalid data, and yyyyyyy is additional error data. |
| 0173 | A workstation received from the AS/400 system a printer definition table (PDT) that was larger than the maximum allowable size. Sense data is 00xxxxyyyy, where xxxx is the workstation's maximum PDT size, and yyyy is the size of the PDT sent to the workstation. |
| 0176 | A workstation received an erroneous microcode correction file from the AS/400 system. The sense data defines the error as follows: 001 The workstation failed to detect the end of the file. 0002yyyyyyyy The workstation detected data not valid in the file. yyyyyyyy = Additional error data 0003xxxxyyyy The size of the file is too large for the workstation. xxxx = Workstation's maximum file size yyyy = Size of the file sent to the workstation |
| 0177 | A workstation received an erroneous font file from the AS/400 system. Sense data defines the error as follows: 001 The workstation failed to detect the end of the file. 0002yyyyyyyy The workstation detected data not valid in the file. yyyyyyyy = Additional error data 0003xxxxyyyy The size of the file is too large for the workstation. xxxx = Workstation's maximum file size yyyy = Size of the file sent to the workstation |
| 0181 | One of the following errors has occurred: an MSR-detected error, a longitudinal redundancy check (LRC) error, or a 594-detected parity error. |
| 0182 | A workstation responded to a READ DEVICE ID command without setting a valid device-type code. |
| 0183 | The display screen image size does not match the image size in the ID word sent by the workstation. |
| 0184 | The keyboard ID received by the 594 was invalid. |
| 0189 | An outstanding status bit was set in the POLL response, but no outstanding status information was available. |
| 0190 | The workstation status did not change within 7 seconds after a not-busy response was returned to a positive acknowledge poll. |
| 0191 | The 594 detected that the busy bit had been on for more than 1.6 minutes. |

Twinax Printer and Unknown Twinax Device SRCs (0200—03xx)

These SRCs relate to twinaxial printers. When these SRCs appear on the time-stamped error log, they are prefixed with 2 leading zeros (00).

| SRC | Description |
|------------|--|
| 0200 | An attached printer failed to respond to a poll within 200 μ sec. |
| 0201 | The 594 has detected one or more bit errors in a transmission (transmit activity check) to an attached printer. |
| 0203 | The 594 has detected a parity error in response to a POLL or ACTIVATE RECEIVE command. |
| 0204 | A printer has detected a parity error in data transmitted by the 594. |
| 0205 | The addressed printer is unable to respond because another workstation on the same twinaxial line is continuously transmitting. |
| 0206 | The 594 has received the wrong number of bytes from a printer as a result of a POLL or ACTIVATE RECEIVE command. |
| 0207 | The 594 has received a response to a POLL or other command with an incorrect station address. |
| 0208 | The printer's power-on transition status bits are set, indicating the printer is currently going through power-up even though power-up has already been completed. |
| 0209 | The 594 checked the device status and found that the busy bit was not on after an ACTIVATE WRITE command. |
| 021X | The printer did not process an incoming data stream correctly. This error is device-dependent. |
| 0220 | An attached printer received a command having an incorrect command code or device ID. |
| 0221 | An attached printer returned an exception status of 110, which is invalid for this AS/400 system. |
| 0222 | A printer received more than 16 frames of commands and associated data (more than 256 frames total) from the 594, resulting in a storage or input queue overrun. |
| 0223 | The addressed printer did not respond to a valid ACTIVATE command and the associated data stream. |
| 0224 | The addressed printer has detected that the 594 transmitted the wrong ACTIVATE command. |
| 0225 | An attached printer returned an exception status of 011, which is invalid for this AS/400 system. |
| 0226 | The addressed printer detected a character code in the data stream that it does not support and, therefore, could not print the character. |
| 0228 | The addressed printer detected an invalid SNA character string (SCS) command in the data stream sent by the AS/400 system. |
| 0229 | The addressed printer detected an invalid SCS parameter in the data stream sent by the AS/400 system. |
| 023X-024X | The addressed printer has an internal failure. These errors are device-specific. |
| 0249 | The 594 received an invalid POLL or READ response from the addressed printer. |

| | |
|------|--|
| 025X | These errors are reported periodically to the 594 0250 End of form 0251 Unit not available or not ready 0258 End of ribbon |
| 0260 | An Intelligent Printer Data Stream (IPDS) printer has multiple status. The AS/400 system must return a READ MULTIPLE STATUS command to initiate readout. |
| 026X | The addressed printer detected errors in the data stream from the AS/400 system. These error codes are device-specific. |
| 028X | The addressed printer has a hardware condition that halted printout. These error codes are device-specific. |
| 03xx | Unknown device error. These error codes occur when a twinaxial device is not yet recognized to be either a printer or a display. |

X.25 Communication SRC's (100000-1BFF00)

If you are using X.25 communication and an error occurs during the keyboard entry of a command, option or parameter, a 6-digit SRC between 100000 and 10FFFF is displayed.

If the controller accepts the keyboard-entered options but the network operation with the AS/400 system fails, an SRC between 110000-1BFF00 is displayed on all display stations attached to that controller. These SRCs indicate a communication network problem at the packet level.

| SRC | Description |
|------------|---|
| 100000 | Previous X.25 command still be executed. |
| 100100 | A virtual circuit has already been established. The Perle 594 can only communicate over one virtual circuit per controller at a time. |
| 100200 | An answer command was entered for a PVC circuit. A PVC circuit requires an open command. |
| 100300 | A call command was entered for a PVC circuit. A PVC circuit requires an open command. |
| 100400 | The logical channel ID is not valid because it is not three characters long. |
| 100500 | The logical channel ID option is not valid because it is not a hexadecimal value between 001 and FFF. |
| 100600 | The password option is not valid because it is longer than eight characters or contains non-alphanumeric characters. |
| 100700 | The host network address is not valid because it is longer than 15 decimal digits or contains non-numeric characters. |
| 100A00 | The operator attempted to enter option fields not supported by that connection type. |
| 100B00 | The X.25 facility entered contains invalid characters. |
| 100C00 | The X.25 packet window size entered is invalid because it is less than 02. |
| 100D00 | The X.25 packet window size entered is invalid because modulo 8 is specified and the packet size is greater than 07. |
| 100E00 | The X.25 packet window size entered is invalid because modulo 128 is specified and the packet size is greater than 15. |
| 100F00 | The X.25 packet size is not equal to 64, 128, 256, or 512. |

| | |
|--------|--|
| 101000 | The X.25 closed user group option does not contain 2 decimal digits. |
| 101100 | An invalid control character was entered. |
| 101300 | For X.25: Either a) the first control character entered was not one of A, O, C, or D or b) the first control character has already been entered. |
| 101500 | The password option was entered for a PVC. |
| 101600 | The X.25 password is invalid because it contains characters that are not alphanumeric. |
| 101800 | The X.25 closed user group option was entered for a command that was not a CALL command issued on an SVC. |
| 101900 | The option Q (QLLC) or E (ELLC) is not valid with an answer command. Use these options with an SVC call or PVC open command. |
| 101A00 | The X.25 F or R option was entered for a command that was not initiating a CALL command on an SVC. |
| 101B00 | The recovery value for the E (ELLC) option must be from 100 to 199. |
| 101C00 | A CALL command was entered for an answer-only SVC. The 594 configuration may be incorrect. |
| 101D00 | An open command was entered for a manual connect SVC controller. |

SRCs 110000—1100FF

The controller issued a clear request packet after detecting an error.

| SRC | Description |
|------------|---|
| 110000 | No additional information. Report the problem to your AS/400 system operator. |
| 110014 | The Perle 594 received an X.25 packet type that is invalid for state p1 and issued a Clear Request. |
| 110015 | The Perle 594 detected an X.25 packet type that is invalid for state p2 and issued a Clear Request. |
| 110017 | The Perle 594 detected an X.25 packet type that is invalid for state p4 and issued a Clear Request. |
| 110018 | The Perle 594 detected an X.25 packet type that is invalid for state p5 and issued a Clear Request. |
| 110031 | The Perle 594 issued an X.25 Clear Request because a Call Connected was not received within 200 seconds. Contact the X.25 network service provider. |
| 110032 | The Perle 594 issued an X.25 Clear Request because a Clear Confirmation was not received within 200 seconds. Contact the X.25 network service provider. |
| 110046 | Call from unexpected DTE. Verify the network address and retry. If the problem continues, report the problem to your AS/400 system operator. |
| 110050 | A general ELLC/QLLC error has occurred. Report the problem to the AS/400 system operator. |
| 110051 | An undefined ELLC C-field was detected. Report the problem to the AS/400 system operator. |
| 110054 | An undefined ELLC I-field was detected. Report the problem to the AS/400 system operator. |

| | |
|--------|---|
| 110055 | An I-field that was longer than the allowed 521 bytes was detected. Report the problem to the AS/400 system operator. |
| 110056 | An error occurred and an ELLC frame reject was received. Report the problem to the AS/400 system operator. |
| 110057 | An invalid ELLC header was detected. Report the problem to the AS/400 system operator. |
| 110059 | An ELLC timeout condition was detected. Report the problem to the AS/400 system operator. |
| 11005A | An invalid ELLC receive sequence count was detected. Report the problem to the AS/400 system operator. |
| 11005B | An ELLC recovery was rejected or terminated. |
| 1100A1 | The Perle 594 detected an invalid X.25 M-bit packet sequence and, therefore, issued a Clear Request. Be sure the packet size entered matches the packet size specified in the network subscription. |
| 1100A6 | The Perle 594 detected an X.25 packet that was too short and, therefore, issued a Clear Request. Be sure the packet size entered matches the packet size specified in the network subscription. |
| 1100A7 | The Perle 594 detected an X.25 packet that was too long and, therefore, issued a Clear Request. Be sure the packet size entered matches the packet size specified in the network subscription. |
| 1100AA | The Perle 594 detected an unsupported, X.25 interrupt packet and, therefore, issued a Clear Request. Contact the X.25 network service provider. |
| 1100AB | The Perle 594 detected an invalid X.25 packet send sequence number (Ps) and, therefore, issued a Clear Request. Contact the X.25 network service provider. |
| 1100AC | The Perle 594 detected an invalid X.25 packet receive sequence number (Pr) and, therefore, issued a Clear Request. Contact the X.25 network service provider. |
| 1100AD | The Perle 594 received an invalid X.25 D-bit and, therefore, issued a Clear Request. Report the problem to the AS/400 system operator. |
| 1100D0 | The Perle 594 received an X.25 general resources error and, therefore, issued a Clear Request. Report the problem to the AS/400 system operator. |
| 1100D2 | The Perle 594 received an X.25 path information (PIU) that was too long and, therefore, issued a Clear Request. Report the problem to the AS/400 system operator. |
| 1100E0 | An invalid facility length was detected. Report the problem to the AS/400 system operator. |
| 1100E6 | Unsupported facility parameters were detected. Report the problem to the AS/400 system operator. |
| 1100E7 | An unsupported facility was detected. Report the problem to the AS/400 system operator. |
| 1100E8 | A call from an unexpected DTE was detected. Retry the operation. |
| 1100E9 | The Perle 594 detected an invalid X.25 D-bit and, therefore, issued a Clear Request. Report the problem to the AS/400 system operator. |
| 1100EA | An error was detected, and there was a reset indication on an SVC. |
| 1100EB | An invalid protocol identifier was detected. Retry the operation. |
| 1100EC | A password mismatch was detected. Retry the password. |
| 1100F4 | Connection rejection; reason unspecified (transient condition). Retry the operation. You should report the problem to your AS/400 system operator. |
| 1100F5 | Connection rejection; reason unspecified (permanent condition). Retry the operation. You should report the problem to your AS/400 system operator. |

| | |
|--------|---|
| 1100F6 | Connection rejection; requested quality of service not available (transient condition). Verify your configuration. If the problem continues, report the problem to your network representative. |
| 1100F8 | Connection rejection; incompatible information in user data. Verify your configuration. If the problem continues, report the problem to your network representative. |

SRCs 120000—1200FF

The controller issued a reset request packet after detecting an error.

| SRC | Description |
|------------|--|
| 120000 | No additional information. Report the problem to your AS/400 system operator. |
| 120001 | Invalid packet sent sequence number (Ps). Report the error to your network representative. |
| 120002 | Invalid packet received sequence number (Pr). Report the error to your network representative. |
| 12001B | Invalid packet type for state d1. Retry the operation. You may be allowed temporary operation. However, you should report the error to your network representative. |
| 120020 | Packet not allowed. Report the problem to your AS/400 system operator. |
| 120026 | Packet too short. Make sure that the packet size entered in the configuration or entered manually matches your network subscription. |
| 120027 | Packet too long. Make sure that the packet size entered in the configuration or entered manually matches your network subscription. |
| 120033 | Reset confirmation not received within 200 seconds. Report the problem to the AS/400 system operator. |
| 120050 | A general ELLC/QLLC error has occurred. Report the problem to the AS/400 system operator. |
| 120051 | An undefined ELLC C-field was detected. Report the problem to the AS/400 system operator. |
| 120054 | An undefined ELLC I-field was detected. Report the problem to the AS/400 system operator. |
| 120055 | An I-field that was longer than the allowed 521 bytes was detected. Report the problem to the AS/400 system operator. |
| 120056 | An error occurred and an ELLC frame reject was received. Report the problem to the AS/400 system operator. |
| 120057 | An invalid ELLC header was detected. Report the problem to the AS/400 system operator. |
| 120059 | An ELLC timeout condition was detected. Report the problem to the AS/400 system operator. |
| 12005A | An invalid ELLC receive sequence count was detected. Report the problem to the AS/400 system operator. |
| 12005B | An ELLC recovery was rejected or terminated. |

| | |
|--------|--|
| 1200A1 | The Perle 594 detected an invalid X.25 M-bit packet and, therefore, issued a Reset Request. Ensure packet size entered matches packet size in network subscription. |
| 1200A6 | The Perle 594 detected an X.25 packet that was too short and, therefore, issued a Reset Request. Ensure packet size entered matches packet size in network subscription. |
| 1200A7 | The Perle 594 detected an X.25 packet that was too long and, therefore, issued a Reset Request. Ensure packet size entered matches packet size in network subscription. |
| 1200AA | The Perle 594 detected an X.25 unsupported interrupt packet and, therefore, issued a Reset Request. Contact the network service provider. |
| 1200AB | The Perle 594 detected an invalid X.25 packet send sequence number (Ps) and, therefore, issued a Reset Request. Contact the network service provider. |
| 1200AC | The Perle 594 detected an invalid X.25 packet receive sequence number (Pr) and, therefore, issued a Reset Request. Contact the network service provider. |
| 1200AD | The Perle 594 detected an invalid X.25 D-bit and, therefore, issued a Reset Request. Report the problem to the AS/400 system operator. |
| 1200D0 | The Perle 594 detected an X.25 general resources error and, therefore, issued a Reset Request. Report the problem to the AS/400 system operator. |
| 1200D2 | The Perle 594 detected an X.25 path information unit (PIU) that was too long and, therefore, issued a Reset Request. Report the problem to the AS/400 system operator. |
| 1200F4 | General resources. Retry the operation. Other applications may operate normally. However, you should report the error to your AS/400 system operator. |
| 1200F5 | PIU too long. Retry the operation. Other applications may operate normally. However, you should report the error to your AS/400 system operator. |

SRCs 1800zz—18FFzz

The DCE issued a clear indication packet after detecting an error.

Note: Most diagnostic codes (zz) are issued by the network and may vary from network to network. The diagnostic codes (zz) are defined later in this section.

| SRC | Description |
|--------|---|
| 1800zz | Call clearing originated at AS/400 system. Report the problem to the AS/400 system operator. |
| 1801zz | AS/400 system busy. Wait, then retry the operation. |
| 1803zz | Invalid facility request. Verify the request. Report the problem to your network representative. |
| 1805zz | Network congestion. Retry the operation. If the problem continues, report the problem to your network representative. |
| 1809zz | Out of order—AS/400 system not ready. Wait, then retry the operation. If the problem continues, report the problem to your network representative. |
| 180Bzz | Access to the AS/400 system not allowed. Verify the request. Report the problem to your AS/400 system operator. |

| | |
|--------|---|
| 180Dzz | Unrecognized AS/400 system network address. Verify the request. Report the problem to your AS/400 system operator. |
| 1811zz | Error at the AS/400 system. Report the problem to your AS/400 system operator. |
| 1813zz | Error at the Perle 594 controller. Verify the request. Report the problem to your network representative. |
| 1815zz | Recognized Private Operating Agency (RPOA) out of order. Verify the request. Report the problem to your network representative. |
| 1819zz | Reverse charging not subscribed. Verify the request. Report the problem to your network representative. |
| 1821zz | Incompatible destination. Verify the request. Report the problem to your network representative. |
| 1829zz | Fast select not supported. Verify the request. |
| 1841zz | Gateway-detected procedure error. Repeat the operation. Report the problem to the network representative. |
| 1843zz | Gateway congestion error. Repeat the operation. Report the problem to the network representative. |
| 1880zz | Call clearing originated at target X.25 DTE. Report the problem to the system operator. |
| 1881zz | Target X.25 DTE is busy. Verify the call. Report the problem to the system operator. |
| 1883zz | Invalid facility request. Verify the facility. Report the problem to the network representative. |
| 1885zz | Network is congested. Repeat the operation. Report the problem to the network representative. |
| 1889zz | Target X.25 DTE is not ready. Verify the call. Report the problem to the system operator. |
| 188Bzz | Access to selected target X.25 DTE denied. Verify the link and configuration. Report the problem to the system operator. |
| 188Dzz | Target X.25 DTE network address is not recognized. Verify the address. Report the problem to the system operator. |
| 1891zz | Error at target X.25 DTE. Report the problem to the system operator. |
| 1893zz | Error at the Perle 594. |
| 1895zz | Recognized private operating agency (RPOA) is out of order. Verify the RPOA. Report the problem to the network representative. |
| 1899zz | Reverse charging not subscribed to. Report problem to the network representative. |
| 18A1zz | Incompatible destination. Verify the link and address. Report the problem to the network representative. |
| 18A9zz | Fast select not subscribed to. Verify the link. |
| 18C1zz | Gateway-detected procedure error. Wait and retry the operation. Report the problem to the network representative and the system operator. |
| 18C3zz | Gateway congestion error. Wait and retry the operation. Report the problem to the network representative and the system operator. |

SRCs 1900zz—19FFzz

The DCE issued a reset indication packet after detecting an error.

Note: *Most diagnostic codes (zz) are issued by the network and may vary from network to network. The diagnostic codes (zz) are defined later in this section.*

| SRC | Description |
|--------|---|
| 1900zz | Reset originated at AS/400 system. |
| 1901zz | Out of order—disconnected AS/400 system. |
| 1903zz | Error at the AS/400 system. |
| 1905zz | Error at the controller. |
| 1907zz | Network congestion. |
| 1909zz | Remote DTE operational. This is not an error; it is a normal condition at startup. |
| 190Fzz | Network operational. This is not an error; it is a normal condition at startup. |
| 1911zz | Incompatible destination. |
| 191Dzz | Network out of order. |
| 1980zz | Call clearing from the target X.25 DTE. |
| 1981zz | Disconnected target X.25 caused an out of order. |
| 1983zz | Error at the target X.25. |
| 1985zz | Error at the Perle 594. |
| 1987zz | Network congestion. |
| 1989zz | Remote DTE is operational. This is not an error; it is a normal condition at startup. |
| 198Fzz | The network is operational. This is not an error; it is a normal startup condition. |
| 1991zz | Incompatible destination. |
| 199Dzz | Network is out of order. |

SRCs 1A00zz—1AFFzz

The DCE issued a restart.

Note: *Most diagnostic codes (zz) are issued by the network and may vary from network to network. The diagnostic codes (zz) are defined later in this section.*

| SRC | Description |
|--------|--|
| 1A00zz | No additional information. |
| 1A01zz | Local procedure error. |
| 1A03zz | Network congestion. |
| 1A07zz | Network is operational. This is not an error; this is a normal condition at startup. |
| 1A7Fzz | Registration or cancellation confirmed. This is not an error. |

18yyzz - 1Ayyzz (zz) Diagnostic Codes

The following are the diagnostic codes (zz) for 18yyzz, 19yyzz, and 1Ayyzz:

| Diagnostic Code (zz) | Description |
|-----------------------------|---|
| 00 | No additional information. |
| 01 | Send sequence — P (s) not valid. |
| 02 | Received sequence — P (r) not valid. |
| 10 | Packet type not valid. |
| 11 | State r1. |
| 12 | State r2. |
| 13 | State r3. |
| 14 | State p1. |
| 15 | State p2. |
| 16 | State p3. |
| 17 | State p4. |
| 18 | State p5. |
| 19 | State p6. |
| 1A | State p7. |
| 1B | State d1. |
| 1C | State d2. |
| 1D | State d3. |
| 20 | Packet not allowed. |
| 21 | Unidentifiable packet. |
| 22 | Call on one-way logical channel. |
| 23 | Invalid packet type on a permanent virtual circuit. |
| 24 | Packet on unassigned logical circuit. |
| 25 | Reject not subscribed to. |
| 26 | Packet too short. |
| 27 | Packet too long. |
| 28 | Invalid general format identifier. |
| 29 | Restart with LCID not equal to hexadecimal 000. |
| 2A | Packet type not compatible with facility. |
| 2B | Unauthorized interrupt confirmation. |
| 2C | Unauthorized interrupt. |
| 2D | Unauthorized reject. |
| 30 | Timer expired, general. |
| 31 | Timer expired for incoming call. |
| 32 | Timer expired for clear indication packet. |

| | |
|---------|--|
| 33 | Timer expired for reset indication packet. |
| 34 | Timer expired for restart indication packet. |
| 40 | Call setup or call clearing problem. |
| 41 | Facility code not allowed. |
| 42 | Facility parameter not allowed. |
| 43 | Invalid called address. |
| 44 | Invalid calling address. |
| 45 | Invalid facility/registration length. |
| 46 | Incoming call barred. |
| 47 | No logical channel available. |
| 48 | Call collision. |
| 49 | Duplicate facility requested. |
| 4A | Non-zero facility address. |
| 4B | Non-zero facility length. |
| 4C | Facility not provided when expected. |
| 4D | Invalid CCITT-specified DTE facility. |
| 50 | Miscellaneous problems. |
| 51 | Improper cause code from DTE. |
| 52 | Octet not aligned. |
| 53 | Inconsistent Q bit setting. |
| 70 | International problem. |
| 71 | Remote network problem. |
| 72 | International protocol problem. |
| 73 | International link out of order. |
| 74 | International link busy. |
| 75 | Transit network facility problem. |
| 76 | Remote network facility problem. |
| 77 | International routing problem. |
| 78 | Temporary routing problem. |
| 79 | Unknown called DNIC. |
| 7A | Maintenance action. |
| 80 - FF | Network-specific diagnostic information. |

SRCs 1B0000—1BFF00

The controller issued a restart request packet after detecting an error.

Note: *Most diagnostic codes (zz) are issued by the network and may vary from network to network. The diagnostic codes (zz) are defined later in this section.*

| SRC | Description |
|------------|---|
| 1B1100 | Unsolicited restart confirmation received. |
| 1B2400 | LCID=0 non-restart/diagnostic packet. |
| 1B2800 | Invalid GFI (restart indication/confirmation only). |
| 1B2900 | LCID is not equal to 0 on restart indication/confirmation. |
| 1B3400 | Restart confirmation packet not received within 200 seconds. |
| 1BA5yy | Diagnostic packet was received. |
| 1BA600 | Packet is too short. |
| 1BA700 | Packet is too long. |
| 1BA800 | General format identifier (GFI), restart indication, or confirmation not valid. |
| 1BE200 | Restart indication/confirmation packet logical channel identifier (LCID) is not equal to 0. |
| 1BE500 | Non restart/diagnostic packet logical channel identifier (LCID) is equal to 0. |

X.21 Switched Communication SRCs (200000-250300)

If the controller accepts the keyboard entered options but the network operation with the AS/400 system fails, an SRC indicating the type of communication problem code is displayed on all the display stations attached to that controller.

The 200000 to 25FFFF SRCs occur when a call progress signal is received from the network.

Contact your network supplier to determine the time period you must wait between recovery attempts and the maximum number of retries allowed by your network.

| SRC | Description |
|------------|---|
| 200000 | A call command is already in progress. Wait until call is completed or a different SRC is displayed. |
| 200100 | Detach command accepted; call clearing in progress. |
| 200200 | Detach command attempted while a call command in progress or no circuit established. |
| 210100 | The incoming call was received by the AS/400 system. Communication should be established shortly. Wait 1 minute or until a different SRC is displayed. This status is temporary. |
| 210200 | The call is being redirected to a number other than the one entered. Wait 1 minute or until a different SRC is displayed. This status is temporary. |
| 210300 | The call was queued, and communication will be established when the AS/400 system is not busy. Wait 1 minute or until a different SRC is displayed. This status is temporary. |
| 210400 | A private network was reached. Wait 1 minute or until a different SRC is displayed. This status is temporary. |

| | |
|--------|---|
| 210500 | A public network was reached. Wait 1 minute or until a different SRC is displayed. This status is temporary. |
| 212000 | There is no connection. Make sure that the number called is correct, and try the operation again. This is a DCE or a network error. |
| 212100 | The number is busy. Make sure that the number called is correct, and try the operation again. If the number is busy for longer than normal, call the AS/400 system operator to see if the system port for the number dialed is actually busy. If the number is correct and the port is not busy, this is a network problem. |
| 212200 | There is a procedure error in the selection signals sent to the network. Make sure that the operating procedures are correct, and try the operation again. If the same failure occurs, the problem is caused by the DCE or the network. |
| 212300 | The network detected a transmission error in the selection signals. Make sure that the number called is correct, and try the operation again. This is a DCE or a network error. |
| 214100 | Access is barred. Make sure that the number called is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the number, the procedures, and configuration are correct and compatible, the failure is a network problem. |
| 214200 | The number you are calling has changed. Make sure that the number called is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the number, the procedures, and configuration are correct and compatible, the failure is a network problem. |
| 214300 | The called DTE address is not valid or not assigned to any DTE, or the user class of service is not compatible. Make sure that the number called is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the number, the procedures, and configuration are correct and compatible, the failure is a network problem. |
| 214400 | The number you called is out of order. Make sure that the number called is correct, that the AS/400 system you called as well as the DCE are on and ready, and that the controller is brought online by the AS/400 system operator. If the AS/400 system and DCE are on and ready and the controller is online, the failure is a network problem. |
| 214500 | The called DTE is signaling controlled-not-ready. Make sure that the number called is correct, that the AS/400 system you called as well as the DCE are on and ready, and that the controller is brought online by the AS/400 system operator. If the AS/400 system and DCE are on and ready and the controller is online, the failure is a network problem. |
| 214600 | The called DTE is signaling uncontrolled-not-ready. Make sure that the number called is correct, that the AS/400 system you called as well as the DCE are on and ready, and that the controller is brought online by the AS/400 system operator. If the AS/400 system and DCE are on and ready and the controller is online, the failure is a network problem. |
| 214700 | The called DCE is powered off. Make sure that the number called is correct, that the AS/400 system you called as well as the DCE are on and ready, and that the controller is brought online by the AS/400 system operator. If the AS/400 system and DCE are on and ready and the controller is online, the failure is a network problem. |

| | |
|--------|--|
| 214800 | The facility request code is not valid. Make sure that the facility request code is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the code, the procedures, and configuration are correct and compatible, the failure is a network problem. |
| 214900 | There is a network problem in the local loop at the DCE you called. Make sure that the number called is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the number, the procedures, and configuration are correct and compatible, the failure is a network problem. |
| 215100 | The number called cannot be obtained. Make sure that the number called is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the number, the procedures, and configuration are correct and compatible, the failure is a network problem. Call your network supplier to find out why the number is unobtainable. |
| 215200 | The user class of service is not compatible. Make sure that the number called is correct and that the operating procedures and configuration are compatible with the network subscription for the controller and the AS/400 system location. If the number, the procedures, and configuration are correct and compatible, the failure is a network problem. |
| 216100 | The network is congested. Make sure that the number is called is correct, and try the operation again. This is a network error. |
| 217100 | There is long-term network congestion. Make sure that the number is called is correct, and try the operation again. This is a network error. |
| 217200 | The Recognized Private Operating Agency (RPOA) is out of order. The failure is caused by an RPOA problem or a network problem. |
| 218100 | The registration or cancellation is confirmed. This is a confirmation, not an error. |
| 218200 | Redirection of the call facility is activated. This is a response to a status inquiry, not an error. |
| 218300 | Redirection of the call facility is deactivated. This is a response to a status inquiry, not an error. |
| 219x00 | Codes reserved for national purposes. Your network supplier can provide you with the meaning of the call progress signal 9x. |
| 220000 | An invalid XID was received (invalid short hold indicators). Make sure that the number called was correct. There may be an AS/400 system programming error or a configuration problem. |
| 220100 | An invalid XID was received (more than 27 digits were received or the number of digits received does not equal the number of digits specified for short hold mode). Make sure that the number called was correct. There may be an AS/400 system programming error or a configuration problem. |
| 220200 | The wrong XID was received. Make sure that the number called was correct. There may be an AS/400 system programming error or a configuration problem. |
| 220300 | An XID was required and was not received first. Make sure that the number called was correct. There may be an AS/400 system programming error or a configuration problem. |
| 220400 | A DCE clear was received during call selection. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |

| | |
|--------|---|
| 220500 | Invalid transition to data transfer state while message was received. Report problem to network representative. |
| 220600 | Message was too long for buffer. Report problem to network representative. |
| 220700 | Attempt was made to send an X.21 message to the network in SDLC state. Contact your Perle 594 representative. |
| 220800 | Attempt was made to send an SDLC frame to the network in X.21 state. Contact your Perle 594 representative. |
| 220900 | Message was received in the not-ready queue. Contact your Perle 594 representative. |
| 221101 | A time-out (T1) for call-request response occurred. The failure is caused by a network or DCE problem. This error can occur if the AS/400 system configuration does not match the Perle 594 configuration. Make sure that the controller is in operating mode. Report the problem to a network service representative. |
| 221102 | A time-out (T2) for selection-signal response occurred. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |
| 221103 | A time-out (T3A or T3B) for call-progress-signal response occurred. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |
| 221104 | A time-out (T4B) for call-accepted response occurred. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |
| 221105 | A time-out (T5) for DTE-clear-request occurred. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |
| 221106 | A time-out (T6) for DTE-clear-confirmation occurred. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |
| 221300 | A call-collision error occurred. Try the operation again. If the error occurs again, report the problem to a network service representative. |
| 221400 | A DCE clear was received during X.21 data-transfer state. Connection to the AS/400 system was lost. Make sure that the number called is correct. If the number called is correct, there is an AS/400 system or network problem. |
| 221500 | Received Exchange Station Identifier (XID) indicated the AS/400 system was busy. |
| 23xx00 | A call progress signal (xx) was received from the network, but a call was not placed. The failure was caused by a network or DCE problem. Report the problem to a network service representative. |
| 240000 | The DTE received an invalid call progress signal. The failure is caused by a network or DCE problem. Report the problem to a network service representative. |
| 250100 | Invalid XID3 command received; no network name control vector. Contact the AS/400 system operator; there is an AS/400 configuration error. |
| 250200 | Invalid XID3 command received; no short hold mode control vector. Contact the AS/400 system operator; there is an AS/400 configuration error. |
| 250300 | Invalid XID3 command received; no short hold connection ID. Contact the AS/400 system operator; there is an AS/400 configuration error. |

Vi25 bis SRC's (300000-323400)

| SRC | Description |
|------------|---|
| 300000 | Call request not allowed. Wait 30 seconds and retry the call or wait until a different SRC is displayed. |
| 300100 | Disconnect command accepted. |
| 300200 | Call clearing not allowed. Do not try to clear the call. |
| 3101ET | Number is busy. Verify the call then try the call again. Contact the system operator. |
| 3102xx | Delayed Call Indication received. Wait the length of time in minutes indicated by xx. Then recall. |
| 310300 | Invalid Call Indication was received. Try call again. If needed, contact the network representative. |
| 320100 | Error occurred in message transmission. Try call again. If needed, contact Perle 594 service. |
| 320600 | Message was too long to fit in buffer. Contact Perle 594 service. |
| 320900 | Message was received in the not-ready queue. Contact Perle 594 service. |
| 321000 | Ready for Sending (RFS) timeout occurred while the link was being established. Verify the link is correct. If needed, contact the network representative. |
| 321100 | Call-connected timeout occurred for an outgoing call. Verify the link is correct. If needed, contact the network representative. |
| 321200 | Call-connected timeout occurred for an incoming call. Verify the link is correct. If needed, contact the network representative. |
| 322000 | Call-collision error occurred. Try call again. If needed, contact the network service representative. |
| 322100 | Incoming call was rejected because state of the call was invalid. Try call again. If needed, contact the network service representative. |
| 323100 | Message containing fewer than 3 characters was received. Contact service representative for the modem or the network. |
| 323300 | Invalid call-failure-indication parameter was received. Contact service representative for the modem or the network. |
| 323400 | No time was indicated for the delayed call failure indication that was received. Contact service representative for the modem or the network. |

SNA Communication SRC's (400000-470200)

| | |
|--------|---|
| 400000 | Connection attempt is already in progress. |
| 400100 | Connect request was rejected. Retry call in one minute. If needed, contact service representative for the modem, DCE, or network. |
| 400200 | Data entered in the wrong format; correct the request and retry. |
| 400300 | Disconnect attempt from an unconnected AS/400; correct the request and retry. |
| 400400 | Request rejected; LU name is not configured for the selected AS/400 system. Correct the request and retry. |
| 400500 | Request rejected; command not allowed for this communication configuration. Correct the request and retry. |
| 400600 | Invalid request format; correct the request and retry. |
| 400700 | Request rejected; connection number is not configured for the selected AS/400 system. Correct the request and retry. |
| 400800 | Request rejected; the link to the AS/400 already exists. |
| 400900 | Request rejected; the Perle 594 is already establishing a link to the AS/400. |
| 400A00 | Request was rejected because: a) the 594 controller is not configured for concurrent hosts. b) an attempt was made to perform a host switch from an NWS to which multisessions were assigned. Concurrent host switches are only allowed from NWSs to which no multisessions have been assigned. |
| 400B00 | Request was rejected because link to the host is already active. Wait for a different SRC to be displayed or for a sign-on screen. |
| 400C00 | Disconnect command was rejected. Wait two minutes for a sign-on screen. Then try the operation again. |
| 400D00 | Request was rejected because no printer is powered on at the address you specified or is not being recognized by the 594. |
| 410000 | Exchange protocol error occurred for an Exchange Station Identifier (XID). Verify the configuration. If needed, contact the system operator or the network service representative. |
| 410100 | XID command length error; contact the AS/400 system operator. |
| 410200 | XID contains an unsupported I-field format; contact the AS/400 system operator. |
| 410300 | XID command exchange state indicators are set to "not supported"; contact AS/400 system operator. |
| 410400 | XID3 command did not specify SDLC; contact the AS/400 system operator. |
| 410500 | XID3 command specified ABM support; contact the AS/400 system operator. |
| 410600 | XID3 command specified ALS as secondary; contact the AS/400 system operator. |
| 410700 | XID3 command specified a maximum BTU length less than 256 bytes; contact the AS/400 system operator. |
| 410800 | XID3 command specified an SDLC profile that is not valid; contact the AS/400 system operator. |
| 410900 | XID3 command specified a maximum I-frame outstanding value that is not valid; contact the AS/400 system operator. |

| | |
|--------|---|
| 411200 | The AS/400 reported an error in the XID response. This may be an invalid configuration on either the AS/400 or the Perle 594. Sense data contains the 3-byte error offset received in the control vector. Verify the AS/400 and the Perle 594 configuration (note CP names). |
| 420000 | There was a timeout on completion of a change number of sessions (CNOS). Try communicating with the AS/400 system again. If needed, contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 420100 | A CNOS reply contains unacceptable values, contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 420200 | A CNOS reply contains a format error, contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 4203xx | Abnormal CNOS reply, if xx=02 the Perle 594 mode name is not defined on the AS/400. Contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 420400 | There was a timeout on completion of a change number of sessions (CNOS). Contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 421000 | There was a negative response to the change number of sessions (CNOS) BIND. Try communicating with the AS/400 system again. If needed, contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 4211xx | The Perle 594 received an unbind (type xx), try to re-establish communication, if unsuccessful contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 421200 | Error detected in the LU6.2 CNOS session. The Perle 594 received a function management header indicating session termination. Verify configuration, if problem persists contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 421300 | An error occurred while the change number of sessions (CNOS) between the 594 and the AS/400 system was being established or was in progress. Verify the configuration. Then try to reconnect. If needed, contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 4221xx | The Perle 594 sent an xx type unbind to the AS/400. Verify configuration, if problem persists contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |

| | |
|--------|---|
| 430000 | An error occurred while the LU 6.2 session between the 594 and the AS/400 system was being established or was in progress. Try to reconnect. If needed, contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 430001 | An error occurred while the LU 6.2 session between the 594 and the AS/400 system was being established or was in progress. Contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 431000 | The Perle 594 received a negative response to a bind command. Verify configuration, if problem persists contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 4311xx | Error detected in the LU6.2 session. The Perle 594 received an UNBIND type xx. Verify configuration, if problem persists contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 431200 | Error detected in the LU6.2 session. The Perle 594 received a function management header indicating session termination. Verify configuration, if problem persists contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 431300 | An error occurred while the LU 6.2 session between the 594 and the AS/400 system was being established or was in progress. Verify the configuration, if the AS/400 is operating. If not, wait for the connection to be established again or for a different SRC to be displayed. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 4321xx | Error detected in the LU6.2 session. The Perle 594 sent an UNBIND type xx. Verify configuration, if problem persists contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 438904 | The AS/400 did not accept the Perle 594 connection request, no controller description was found. Verify the AS/400 and the Perle 594 configuration (note CP names). By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 438905 | The AS/400 did not accept the 594 connection request because this 594 description was already active. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 438908 | The AS/400 did not accept the 594 connection request because this 594 description has been varied offline. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |

| | |
|--------|---|
| 438909 | The AS/400 did not accept the 594 connection request because the 594 recovery is pending. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 438910 | The AS/400 did not accept the 594 connection request because the recovery of this 594 has been canceled. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 438911 | The AS/400 did not accept the 594 connection request because this 594 description is in a fail state. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 438912 | The AS/400 did not accept the 594 connection request because the AS/400 has an internal error. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 439900 | Invalid data was received from the AS/400 while the 594 was waiting for a response to its connection request. Contact the AS/400 system operator. By examining the content of the first sense byte, you can tell which AS/400 host the 594 controller was trying to contact when the error occurred: 00 = H1; 40 = H2; 80 = H3; C0 = H4. |
| 4411xx | LU6.2 session error for an NWS. The Perle 594 received an unbind type xx, contact the AS/400 system operator. By examining the content of the first sense byte, you can find the LSID of the NWS in the low 6 bits. The identity of the AS/400 host the 594 controller was trying to contact when the error occurred is in the high 2 bits. B'00' = H1; B'01' = H2; B'10' = H3; B'11' = H4. |
| 441200 | LU6.2 session error for an NWS. The Perle 594 received an FMH7 indicating abnormal termination, contact the AS/400 system operator. By examining the content of the first sense byte, you can find the LSID of the NWS in the low 6 bits. The identity of the AS/400 host the 594 controller was trying to contact when the error occurred is in the high 2 bits. B'00' = H1; B'01' = H2; B'10' = H3; B'11' = H4. |
| 4421xx | LU6.2 session error for an NWS. The Perle 594 sent an unbind type xx, contact the AS/400 system operator. By examining the content of the first sense byte, you can find the LSID of the NWS in the low 6 bits. The identity of the AS/400 host the 594 controller was trying to contact when the error occurred is in the high 2 bits. B'00' = H1; B'01' = H2; B'10' = H3; B'11' = H4. |
| 4500xx | PWS error detected during link initialization; verify PWS configuration. xx=01 indicates bad initiate link reply (incorrect length). xx=02 indicates bad initiate link reply (non-zero return code). |
| 4501xx | PWS error detected during communication; an invalid frame was received from a PWS; verify PWS configuration; xx is the first byte of the control field. |

| | |
|--------|---|
| 4510xx | PWS error detected during XID exchange; verify PWS configuration. xx=80 frame length too long. xx=40 not a format 3 XID. xx=20 length inconsistency between XID and I/O block length. xx=10 XID exchange state not 01 or 00. xx=08 link station role was not 00. xx=04 maximum BTU acceptable to PWS was less than 109. xx=02 PWS responded to XID with neither an XID nor a disconnect. xx=01 XID frame length is too short. |
| 4511xx | PWS error detected during communication; an invalid twinaxial data link control frame was received from a PWS; verify PWS configuration; xx is the first byte of the control field. |
| 4520xx | PWS error detected during communication; the link was ended because of a severe session state conflict; verify PWS configuration. |
| 4521xx | LAN link with a PWS error detected during communication; the link was ended because of a severe session state conflict; verify PWS configuration. |
| 4522xx | PWS error detected during communication; an invalid twinaxial data link control frame was received from a PWS; verify PWS configuration; xx is the twinaxial workstation ID. |
| 4523xx | LAN link with a PWS error detected during communication; an invalid frame was received from a PWS; verify PWS configuration; xx is the LAN workstation ID. |
| 4524xx | Twinaxial data link control (TDLC) link with the PWS terminated. Turn power to the PWS off and on. Verify the PWS communication is installed and configured correctly. |
| 4525xx | LAN link with the PWS terminated. Turn power to the PWS off and on. Verify the PWS communication is installed and configured correctly. |
| 460000 | A frame was received with an invalid session address. If problem persists, contact the AS/400 system operator. |
| 460100 | A frame was received with an invalid format identification (FID) type. If problem persists contact the AS/400 system operator. |
| 460200 | A frame was received that did not contain a full transmission header (TH). If problem persists, contact the AS/400 system operator. |
| 460300 | A frame was received that did not contain a full transmission header (TH) and request header (RH). If problem persists contact the AS/400 system operator. |
| 460400 | A frame was received that did not contain a session control request code. If problem persists, contact the AS/400 system operator. |
| 460500 | The Perle 594 received an unsupported segmented frame. If problem persists contact the AS/400 system operator. |
| 470100 | An invalid BIND request was received (incorrect ODAI); contact the AS/400 system operator. |
| 470200 | An invalid BIND request was received (incorrect SIDH/SIDL); contact the AS/400 system operator. |

594 System Operations SRC's (500000-520003)

| | |
|--------|--|
| 500001 | Error trying to read information from the 594e floppy diskette or 594e hard drive. |
| 500002 | Hardware cannot support parameters specified by the current configuration. Verify configuration and communication cable are correct. |
| 500003 | Perle 594 hardware is not compatible with system diskette. Replace diskette. |
| 500004 | Diskette is not a Perle 594 Controller Software diskette. |
| 500005 | Perle 594 system diskette is write-protected. |
| 500006 | Error trying to write information to the 594e floppy diskette or 594e hard drive. |
| 500007 | Perle 594 system diskette has been superseded by a later release. |
| 500009 | Invalid value was detected in the Perle 594 configuration file. Reconfigure the 594. |
| 50000A | The attempt to download a configuration file has failed. The previous configuration file has been restored. |
| 50000B | The backup configuration file could not be found. Either store a backup configuration file on the 594M or switch to the Normal configuration file. See <i>Select Normal Configuration File</i> on page 11 for instructions. |
| 50000G | The configuration file contains features not supported by the current version of Controller Software. Upgrade to the newest version of Controller Software or use the appropriate version of 594 Utility Program. |
| 500011 | Perle 594 is not operating in configuration mode and could not find a valid configuration file. |
| 500013 | This error indicated one of the following problems: - no AS/400 connection cable attached - faulty AS/400 connection cable attached - the communication mode configuration does not match the cable attached. |
| 500014 | The Token-Ring or Ethernet adapter is not recognized even though the 594e is configured for a LAN Gateway or a LAN AS/400 connection. |
| 500015 | Diskette error, the KTT or PDT files on the diskette are not valid. These files will be downloaded from the AS/400. |
| 500016 | A microcode error occurred. Report the SRC that appears on the front panel to your 594 service representative. |
| 500018 | Indicates the date and time the Perle 594 was restarted. This is not an error. |
| 500019 | You can only use either the Token-Ring adapter or the Ethernet adapter, depending on the configuration. If no configuration exists, the 594e will use the adapter in the lowest slot number. |
| 50001A | Indicates the configuration file was changed and the 594 will use the changed configuration file for the next installation. This is not an error. |
| 50001C | 594 has been started with a 594 Base Controller Software Diskette. The configuration file is for a configuration not supported by the Base Controller Software Diskette. |
| 50001D | 594e has been started with a 594e Networking Controller Software Diskette with a subsequent software release level than is presently loaded on the 594e hard drive. This SRC is informational only. |
| 50001E | A SNA twinax device (NWS or PWS) has been connected to a twinax controller which has been configured as an IP Router Port with the SNA controller disabled. The SNA twinax device will not be able to communicate with the AS/400. |

| | |
|--------|---|
| 570040 | The 594e has detected a low buffer pool condition while running a TCP/IP, FR-TR Bridge or IP Routing configuration. This SRC is informational only. |
| 570041 | The 594e has recovered from a low buffer pool shortage. This SRC is informational only. |
| 520000 | No printer found for local copy to print function; verify printer is powered on and on-line. |
| 520001 | Device specified for local copy to print function is not a printer; verify configuration. |
| 520002 | Printer is busy, powered off, or in error state; correct printer condition. |
| 520003 | The Perle 594 has lost communication with the printer; correct printer condition. |

LAN SRC's (540000-540425)

| | |
|--------|---|
| 540010 | The LAN Feature Card did not initialize correctly. Power the Perle 594 OFF and ON; if problem continues contact service. |
| 540011 | Token-Ring restart in progress. |
| 540021 | The network is recovering from a beaconing condition. |
| 540105 | Command to the Ethernet or Token-Ring adapter has failed. Press the right arrow key on the Perle 594 keypad to obtain sense data. Run extended diagnostics to test all hardware. |
| 540106 | Token-Ring Gateway adapter open error. Verify the Perle 594 Token-Ring speed setting matches the LAN speed. If the problem persists, contact the Token-Ring administrator. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 1100 lobe media function failure. 2400 physical insertion ring failure, wrong speed 2600 physical insertion ring failure. 2700 physical insertion ring failure; ring beaconing. 2A00 physical insertion error; timeout. 2D00 no monitor detected. 3200 address verification; signal loss. 3300 unable to transmit. 3500 address verification; timeout. 3600 address verification; ring failure. 3700 address verification; ring beaconing. 3800 address verification; duplicate node address. 3A00 address verification; remove received. 4200 ring poll; signal loss. 4500 ring poll; timeout. 4600 ring poll; ring failure. 4700 ring poll; ring beaconing. 4A00 ring poll; remove received. 5500 request parameter; timeout. 5600 request parameter; ring failure. 5700 request parameter; ring beaconing. 5900 request parameter; request. 5A00 request parameter; remove received. |
| 540107 | LAN Gateway frame error. Verify configuration; if problem persists, contact the LAN administrator. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC. The first byte of sense data is a cause code; the final six bytes are the AS/400 LAN address. Token-Ring cause codes: 22 error in frame transmission. 23 error in frame transmitted read-back checking. 24 unauthorized MAC frame. Ethernet cause code: 22 too many collisions. |

| | |
|--------|--|
| 540108 | Command to the Ethernet or Token-Ring adapter has failed. Press the right arrow key on the Perle 594 keypad to obtain sense data. Run extended diagnostics to test all hardware. |
| 540109 | LAN Gateway XID error. Verify PWS configuration; if problem persists contact the AS/400 system operator. |
| 540122 | Token-Ring Gateway wire fault. The Perle 594 has detected a Token-Ring wire fault between the Perle 594 and the multistation access unit (MSAU). Contact the Token-Ring administrator and report that a wire fault has been detected. |
| 540123 | Token-Ring Gateway. The Perle 594 has removed itself from the network. Contact the Token-Ring administrator and report that an auto-removal command was received. |
| 540124 | Token-Ring Gateway. The Perle 594 received a remove command from the Token-Ring network. Contact the Token-Ring administrator and report that a remove command was received. |
| 540125 | Token-Ring network error; the network is beaconing due to a permanent error on the Token-Ring. Contact the Token-Ring administrator and report the condition. |
| 5402wd | There was an error during device driver initialization. The value for w indicates the error type. The value for d indicates the device driver. Press the right arrow key on the Perle 594 keypad to obtain sense data. Run extended diagnostics to test all hardware. |
| 540404 | The AS/400 did not respond to a TEST command sent from the Perle 594; contact the AS/400 system operator. |
| 540405 | The AS/400 did not respond to the XID3 command sent from the Perle 594; contact the AS/400 system operator. |
| 540406 | Token-Ring code open error. Verify the Perle 594 Token-Ring speed setting matches the LAN speed. If the problem persists, contact the Token-Ring administrator. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 1100 lobe media function failure. 2400 physical insertion ring failure, wrong speed 2600 physical insertion ring failure. 2700 physical insertion ring failure; ring beaconing. 2A00 physical insertion error; timeout. 2D00 no monitor detected. 3200 address verification; signal loss. 3500 address verification; timeout. 3600 address verification; ring failure. 3700 address verification; ring beaconing. 3800 address verification; duplicate node address. 3A00 address verification; remove received. 4200 ring poll; signal loss. 4500 ring poll; timeout. 4600 ring poll; ring failure. 4700 ring poll; ring beaconing. 4A00 ring poll; remove received. 5500 request parameter; timeout. 5600 request parameter; ring failure. 5700 request parameter; ring beaconing. 5900 request parameter; request. 5A00 request parameter; remove receive. |
| 540407 | LAN frame error. Verify configuration; if problem persists contact the LAN administrator. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC. The first byte of sense data is a cause code; the final six bytes are the LAN address. Token-Ring cause codes: 22 error in frame transmission. 23 error in frame transmitted read-back checking. 24 unauthorized MAC frame. Ethernet cause code: 22 too many collisions. |

| | |
|--------|--|
| 540422 | The Perle 594 has detected a Token-Ring wire fault between the Perle 594 and the multistation access unit (MSAU). Contact the Token-Ring administrator and report that a wire fault has been detected. |
| 540423 | The Perle 594 has removed itself from the network. Contact the Token-Ring administrator and report that an auto-removal command was received. |
| 540424 | The Perle 594 received a remove command from the Token-Ring network. Contact the Token-Ring administrator and report that a remove command was received. |
| 540425 | Token-Ring network error; the network is beaconing due to a permanent error on the Token-Ring. Contact the Token-Ring administrator and report the condition. |

Frame Relay Communication SRCs (560000-560410)

| SRC | Description |
|------------|--|
| 560011 | There is a response problem with the network's LMI. Make sure the 594e's LMI matches the host/network's LMI. |
| 560404 | The ALS is not responding to the 594's TEST command. Ask the host operator to ensure the ALS is operating and is configured for the 594, and to ensure the line is varied on at the host. |
| 560405 | The ALS is not responding to the 594's XIDS command. Ask the host operator to ensure the ALS is operating, and to ensure the host system's APPC controller description and RWS controller description for your 594 are varied on. |
| 560406 | An error occurred when the Perle 594 tried to attach to the frame relay network. Run extended diagnostics to test all hardware. |
| 560407 | An error occurred when the Perle 594 tried to transmit a frame. Press the right arrow key on the Perle 594 keypad to obtain sense data. The sense data cause code is one of: 22 (frame transmission error); 23 (frame transmitted read-back checking error); 24 (medium access control frame is unauthorized). The last three digits of the sense data frame relay address are the data link connection identifier. Run extended diagnostics to test all hardware. |
| 560408 | There was a problem with a command to the Perle 594 host-twinaxial adapter. Press the right arrow key on the Perle 594 keypad to obtain sense data. Run extended diagnostics to test all hardware. |
| 560409 | The network is not reporting a configured DLCI. If the DLCI indicated in the sense data is for the correct host, make sure the configuration contains the correct DLCI for your 594. Also, this may be due to a temporary problem in the network. |
| 560410 | The network is reporting a configured DLCI as not active. If the DLCI indicated in the sense data is for the correct host, report the problem to the network service provider. Note: This can be a temporary condition caused when the network is first started up. |

Frame Relay Token-Ring Bridge SRCs (570000-57FFFF)

| SRC | Description |
|------------|--|
| 570000 | The filter file has been verified by the CHKFILT program and contains no errors. |
| 570001 | The filter file contains one or more errors. The 594 bridge will not activate with an invalid filter file. |
| 570013 | The filter file has a keyword that could not be found. |
| 570015 | The filter file contains a keyword with an invalid parameter value. |
| 570018 | The filter file contains a parameter that expected a numeric value. |
| 570019 | The filter file contains a parameter that expected a string value. |
| 570021 | The filter file contains a keyword with an invalid option. |
| 570023 | The filter file contains a keyword with an invalid parameter. |
| 570025 | The filter file contains a keyword without enough parameters. |
| 570029 | The filter file contains a criterion or criteria list with extra or duplicate keywords. |
| 570030 | The 594 FR-TR bridge initialized with no filter file or a null filter file. No bridge filtering will be performed. |
| 570041 | The filter file contains an illegal character. |
| 570042 | The filter file contains a line with numeric characters but no keyword. |
| 570043 | The filter file contains a line with commas that should not be present. |
| 570044 | The filter file contains a line with a name for a criterion or criteria list but no keywords follow it. |
| 570049 | The 594 FR-TR bridge partner's ring number and the frame relay ring number configured on the 594 does not match. The 594 will discard frames from this bridge partner. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: bytes 1 and 2 = DLCI of bridge partner bytes 3 and 4 = ring number of bridge partner |
| 570063 | The 594 FR-TR bridge port for the token-ring or frame relay has failed. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 00 indicates the token-ring port 01 indicates the frame relay port |
| 570066 | The 594 encountered a problem when changing operational states. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: byte 1 = current state byte 2 = return code |
| 570071 | The filter file has greater than 8 levels of criteria lists |
| 570092 | The 594 FR-TR bridge could not start operations. |
| 570097 | The filter file contains a circular reference in its criteria lists. |
| 570112 | The FR-TR bridge detected a SAP failure on the adapter and has closed the SAP. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 00 indicates the token-ring port 01 indicates the frame relay port |
| 570114 | The 594 FR-TR bridge operation has failed on a specific port. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 00 indicates the token-ring port 01 indicates the frame relay port |

| | |
|--------|---|
| 570119 | The 594 FR-TR bridge was unable to initialize. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC. |
| 570125 | The filter file contains a keyword with too many parameters. |
| 570126 | The filter file has a missing or misspelled keyword. |
| 570128 | The filter file contains a keyword which is unrecognized or incorrectly spelled. |
| 570129 | The filter file contains a keyword with an invalid parameter. |
| 570140 | The filter file contains a keyword with a name for a criterion or criteria list that was not found, is empty, or contains errors. |
| 570143 | The 594 FR-TR bridge was unable to initialize. |
| 570146 | The filter file contains an entry with mutually dependent keywords and some of them are missing. |
| 570147 | The filter file contains too many criterion and criteria list definitions. The maximum number of definitions allowed is 255. |
| 570149 | The FR-TR bridge has detected the presence of another bridge between the 594e token-ring gateway LAN and the frame relay virtual LAN with the same bridge number. |
| 570151 | The FR-TR bridge has experienced an adapter failure. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 00 indicates the token-ring port 01 indicates the frame relay port |
| 570152 | The FR-TR bridge did not successfully open the adapter on a specified port. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: Sense byte 1 indicates the port: 00 indicates the token-ring port 01 indicates the frame relay port Sense bytes 2-3 indicate the sense data. Values for the token ring port are: 1100 lobe media function failure 2400 physical insertion ring failure, wrong speed. 2600 physical insertion ring failure. 2700 physical insertion ring failure, ring beaconing. 2A00 physical insertion error, timeout. 2D00 no monitor detected. 3200 address verification, signal loss. 3500 address verification, timeout. 3600 address verification, ring failure. 3700 address verification, ring beaconing. 3800 address verification, duplicate node address. 3A00 address verification, remove received. 4200 ring poll, signal loss. 4500 ring poll, timeout. 4600 ring poll, ring failure. 4700 ring poll, ring beaconing. 4A00 ring poll, remove received. 5500 request parameter, timeout. 5600 request parameter, ring failure. 5700 request parameter, ring beaconing. 5900 request parameter, request. 5A00 request parameter, remove receive. Values for the frame relay port are: 3300 Unable to transmit |

| | |
|--------|---|
| 570153 | The FR-TR bridge has sent out an 802.5 TEST frame from one port to the other and has not received a response. |
| 570155 | The FR-TR bridge experienced a SAP failure on a specified port. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 00 indicates the token-ring port 01 indicates the frame relay port |
| 570156 | The FR-TR bridge has experienced congestion where the required resources were not available. The 594 will retry the operation. |
| 570157 | The filter file does not contain the name "[FILTER]" or the required filter keywords. |
| 570161 | The FR-TR bridge did not receive a BPDU before the message age timer expired. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC: 00 indicates the token-ring port 01 indicates the frame relay port |
| 570176 | The 594 was unable to initialize the FR-TR bridge. |
| 570184 | The filter file is greater than 10,000 bytes. |
| 570186 | The 594 detected a FR-TR bridge configuration problem. Verify the 594 configuration matches your network. |
| 570193 | The filter file contains a keyword that not supported by the 594. |
| 570410 | The network is reporting a configured FR-TR bridge DLCI as not active. <i>Note: This can be a temporary condition caused when the network is first started up.</i> |

TCP/IP Error SRCs (5A000-5AFFFF)

| SRC | Description |
|--------|--|
| 5A00xx | The ALS TCP/IP connection attempt to establish an SNA session has failed because an invalid parameter was detected in the TCP/IP connection request at the offset indicated by xx. |
| 5A01xx | The 594e TCP/IP connection attempt to establish an SNA session with the ALS has failed because an invalid parameter was detected in the connection response or because a connection reject/negative response was sent from the ALS. If an invalid parameter was detected, xx indicates the offset of the invalid parameter. If a reject/negative response was sent, xx is 0. |
| 5A0200 | The ALS TCP/IP connection attempt to establish an SNA session has failed because an invalid parameter was detected in the SNA BIND data in the TCP/IP connection request. |
| 5A03xx | A TCP/IP record was either rejected or discarded because an invalid command was detected in the MPTN header. xx is the value of the invalid command. |
| 5A04xx | The ALS rejected an TCP/IP record sent by the 594e. If xx = 00, the TCP/IP response was discarded. If xx = 01, the connection was abnormally reset. |
| 5A05xx | The 594e received an unrecognized TCP/IP record that was discarded. xx indicates an unsupported TCP/IP command or compensation detected in the record. |
| 5A0600 | There are no accessible TCP ports for establishing a connection to the ALS because all ports have been stranded by the ALS. To remove the strand status from a port so that it will become available, speak to your ALS operator. |
| 5A0601 | The 594e is waiting for the ALS to terminate previously established TCP/IP sessions. This process may take up to 10 minutes. This process resulted if the 594e was powered off and on, or if the 594e was disconnected from the host for more than the 594e configured AnyNet Keep Alive duration. |

| | |
|--------|---|
| 5A0602 | The 594e attempted to start a new TCP/IP session with the AS/400 but the AS/400 rejected the connection request or did not respond. |
| 5A07xx | A TCP/IP out-of-band record was either rejected or discarded because an invalid parameter was detected in the record at the offset indicated by xx. |
| 5A1000 | An TCP/IP protocol error was detected in the TCP/IP record sent from the ALS. The record length did not match the overall length minus the headers and administration data. |
| 5A1001 | An TCP/IP protocol error was detected in the TCP/IP record sent from the ALS. The TCP/IP record was out of sequence. |

Frame Relay IP Routing SRCs (5B000-5BFFFF)

| SRC | Description |
|------------|--|
| 5B0010 | <p>A 594e IP Routing port has failed. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC:</p> <p>01 indicates the Frame Relay Port 02-07 indicates the LAN port number (which equals the configured LAN slot number), of the router port that has failed.</p> |
| 5B0020 | <p>An Inverse-ARP reply has been received that reported an IP address that has already been pre-configured on a different DLCI. The new DLCI information will be ignored and the configured DLCI will be used for this IP address. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC:</p> <p>sense byte 1-2: xxxx indicates the DLCI number that the Inverse-ARP reply was received on</p> <p>sense byte 3-6: aabbccdd indicates the IP address, in hex (aa.bb.cc.dd) that was reported in the Inverse-ARP reply.</p> <p>Sense byte 7-8: yy indicates the DLCI number that was already configured with the reported IP address.</p> |
| 5B0021 | <p>An Inverse-ARP reply has been received that reported an IP address that has already been reported by an Inverse-ARP on a different DLCI. The new DLCI information will be used and the previously reported DLCI information will be ignored. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC:</p> <p>sense byte 1-2: xxxx indicates the DLCI number that the Inverse-ARP reply was received on</p> <p>sense byte 3-6: aabbccdd indicates the IP address, in hex (aa.bb.cc.dd) that was reported in the Inverse-ARP reply.</p> <p>Sense byte 7-8: yyyy indicates the DLCI number that had previously reported the IP address.</p> |

| SRC | Description |
|---------|---|
| 5B0022 | <p>An Inverse-ARP reply has been received that reported an IP address that is not on the same IP network that was configured for the Frame Relay port. The new DLCI information will be ignored. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC:</p> <p>sense byte 1-2: xxxx indicates the DLCI number that the Inverse-ARP reply was received on</p> <p>sense byte 3-6: aabbccdd indicates the IP address, in hex (aa.bb.cc.dd) that was reported in the Inverse-ARP reply.</p> |
| 5B0030 | <p>The network is reporting a IP Routing DLCI as not active, that was previously active. Note: This can be a temporary condition caused when the network is first started up</p> <p>xxxx indicates the DLCI number</p> |
| 5B0040 | <p>A newly discovered DLCI has been reported by the LMI, but the maximum number of DLCIs (40 Maximum), is already active. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC:</p> <p>xxxx indicates the DLCI number</p> |
| 5B00120 | <p>The Perle's 594T pre-defined IP address assigned to a twinax IP device conflicts with an IP address already assigned (via BOOTP or DHCP), to another twinax IP device. This may be a temporary condition, until the new twinax IP device is assigned an IP address from a BOOTP or DHCP server. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC.</p> <p>Sense byte 1: xx indicates the LSID of the newly connected twinax IP device</p> <p>Sense byte 2-5: aabbccdd indicates the IP address, in hex (aa.bb.cc.dd) that was attempted to be assigned to the new twinax IP device.</p> <p>Sense byte 6: xx indicates the LSID of the twinax device that is already assigned this IP address via BOOTP or DHCP.</p> |
| 5B00121 | <p>An IP address was assigned to a twinax IP device via BOOTP or DHCP that conflicts with an IP address that was pre-defined by the Perle 594 to another twinax IP device. This may be a temporary condition, until the other twinax IP device is assigned an IP address from a BOOTP or DHCP server. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC.</p> <p>Sense byte 1: xx indicates the LSID of the twinax IP device assigned a new IP address by a BOOTP or DHCP server</p> <p>Sense byte 2-5: aabbccdd indicates the IP address, in hex (aa.bb.cc.dd) that was assigned to the new twinax IP device via BOOTP or DHCP.</p> <p>Sense byte 6: xx indicates the LSID of the other twinax device that is already assigned this IP address by the Perle 594.</p> |

| SRC | Description |
|---------|--|
| 5B00122 | <p>An IP address was assigned to a twinax IP device via BOOTP or DHCP that is not on the same IP network that was configured for the 594 twinax port. The new IP address information will be ignored. Press the right arrow key on the Perle 594 keypad to display the sense data for this SRC.</p> <p>Sense byte 1: xx indicates the LSID of the twinax IP device that the new IP address was received for via a BOOTP or DHCP server</p> <p>Sense byte 2-5: aabbccdd indicates the IP address, in hex (aa.bb.cc.dd) that was attempted to be assigned to a twinax IP device.</p> |
| 5B0150 | Invalid BOOTP request received from a twinax IP device. The BOOTP request had no hardware address associated with the twinax IP device. |

Hardware Error SRCs (E00xxx)

| SRC | Description |
|--------|---|
| E00xxx | Indicates the hardware failure. xxx is the 3-digit SRC. Report the SRC to the 594 service representative. |

Software Error SRCs (Fxxxxx)

| SRC | Description |
|--------|---|
| Fxxxxx | Perle 594 code error detected; contact your 594 service representative. |

Index

Numerics

- 594 time-stamped error log
 - displaying on an NWS10
- 594 Utility
 - displaying Concurrent Diagnostics data7
- 594M
 - components2

B

- back-up configuration file11

C

- cabling problems5
- codes
 - system reference codes17
- Concurrent Diagnostics
 - displaying information on an NWS9
- Concurrent Diagnostics, 594M Utility
 - requesting data8
- Concurrent Diagnostics, NWS
 - 594 time-stamped error log10
 - CL screen10
 - CM screen11
 - requesting data9
- configuration file, selecting11

D

- diagnostics
 - diagnostic procedures5
 - Sync loop-back test14

E

- errors (SRCs)17
- Ethernet loop-back test15
- Extended Diagnostics13
 - Ethernet loop-back test15
 - running13

F

- frame relay token-ring bridging
 - SRC's49

H

- hardware components1

M

- Memory Dump11

P

- PC Utility
 - 594M Utility7

- power problems5
- power-on
 - normal4
- problem determination5

S

- Serial Number label2
- SRC LED2
- SRCs17
 - 0000-009H19
 - 0100-019123
 - 100000-1BFF0026
 - 100000FFFFFF25
 - 100-19917
 - 110000 and 1100ff27
 - 1200ff and 1280ff29
 - 18yyzz30
 - 18yyzz-1Ayyzz33
 - 19yyzz-1Ayyzz32
 - 1Bcc0035
 - 300000-60000039
 - FR-TR bridging49
 - TCP/IP51, 52
 - X.21 switched35
- switches
 - power switch3
- Sync loop-back diagnostic test14
- system reference codes
 - SRCs17

T

- TCP/IP
 - SRCs52

X

- X.21
 - switched SRCs35
- X.21 switched SRCs35