

**HP 3000 Computer Systems
Operator Handbook**

**Series 922 Family
(922, 922LX, 922RX, 932, 948, 958)**



**HEWLETT
PACKARD**

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Printing History

New editions are complete revisions of the manual. Update packages, which are issued between editions, contain additional and replacement pages to be merged into the manual by the customer. The dates on the title page change only when a new edition or a new update is published. No information is incorporated into a reprinting unless it appears as a prior update; the edition does not change when an update is incorporated.

Many product updates and fixes do not require manual changes and, conversely, manual corrections may be done without accompanying product changes. Therefore, do not expect a one-to-one correspondence between product updates and manual updates.

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All	December 1990
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Safety and Regulatory Information

For your protection this product has been tested to various national and international regulations and standards. The scope of this regulatory testing includes electrical/mechanical safety, radio frequency interference, ergonomics, acoustics, and hazardous materials. Where required, approvals obtained from third-party test agencies are shown on the product label. In addition, various regulatory bodies require some information under the following headings.

USA Radio Frequency Interference

The United States Federal Communications Commission (in Subpart J, of Part 15, Docket 20780) has specified that the following notice be brought to the attention of the users of this product:

Warning	This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested for compliance with the limits of Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference.
	Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Japanese Radio Frequency Interference

The following notice is for users of this product in Japan:

この装置は、第一種情報装置(商工業地域において使用されるべき情報装置)で商工業地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会(VCCI)基準に適合しております。

従って、住宅地域またはその隣接した地域で使用すると、ラジオ、テレビジョン受信機等に受信障害を与えることがあります。

取扱説明書に従って正しい取り扱いをして下さい。

Japanese Radio Frequency Notice

West German Radio Frequency Notice

This is to certify that this product meets the Radio Frequency Interference Requirements of Directive 1046/84. The German Bundespost has been notified that this equipment has been put into circulation and has been granted the right to check the product type for compliance with these requirements.

Funkentstörung Deutschland (German EMI Compliance) Herstellerbescheinigung

Hiermit wird bescheinigt, daß dieses System in Übereinstimmung mit den Bestimmungen von Postverfügung 1046/84 funkentstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Systems angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

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United Kingdom Telecom Statement (For the United Kingdom Only)

Warning

Interconnection of ports marked “UNITED KINGDOM TELECOM WARNING. Connect only apparatus complying with BS 6301 to these ports”, with ports not so marked may produce hazardous conditions on the network and advice should be obtained from a competent engineer before such a connection is made.

Connect only apparatus complying with BS 6301 to the ports marked with the above warning.

Safety Considerations

This product and related documentation must be reviewed for familiarization with safety markings and instructions before operation. The following figure shows some of the safety symbols used on the product to indicate various safety considerations.



Instruction manual symbol: the product will be marked with this symbol when it is necessary for the user to refer to the instruction manual in order to protect the product against damage.



Indicates hazardous voltages.



Indicates earth (ground) terminal (sometimes used in manual to indicate circuit common connected to grounded chassis).

Warning	The WARNING sign denotes a hazard. It calls attention to a procedure, practice, of the like, which if not done correctly or adhered to, could result in injury. Do not proceed beyond a WARNING sign until the indicated conditions are fully understood and met.
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Caution	The CAUTION sign denotes a hazard. It calls attention to an operating procedure, practice, of the like, which if not done correctly or adhered to, could damage or destroy part or all of the product. Do not proceed beyond a CAUTION sign until the indicated conditions are fully understood and met.
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Introduction

The *Operator Handbook* contains information for an operator to operate and troubleshoot HP 3000 Series 922 Family Computer Systems. At the time of publication, this family of computers included the following models:

- Series 922
- Series 932
- Series 948
- Series 958

This manual is for the designated system administrator and other personnel who have been minimally trained in the use of HP 3000 computers. The minimally trained person may be a first-time user or one who has had previous training or experience in these systems.

This manual contains the following:

- | | |
|------------|---|
| Chapter 1 | Describes the contents of the handbook and the audience for which it is intended. |
| Chapter 2 | Describes the system front panel controls and indicators. |
| Chapter 3 | Gives instructions for system turn-on and startup. |
| Chapter 4 | Contains Digital Data Storage (DDS) format tape drive maintenance information. |
| Chapter 5 | Provides customer procedures for troubleshooting failures that may occur during system self-test or normal operation. |
| Appendix A | Provides a list of worldwide customer assistance telephone numbers. |
| Appendix B | Contains information for configuring terminal I/O, LAN, and point-to-point physical addresses. |
| Appendix C | Contains default configuration information. |



System Front Panel Description

Introduction

This chapter describes the controls and indicators on the front panel (Figure 2-1).

Front Panel Control and Indicators

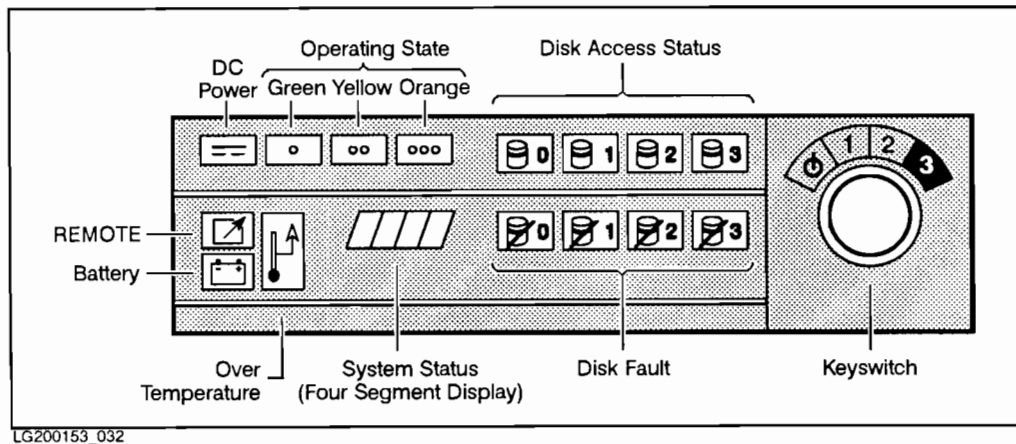
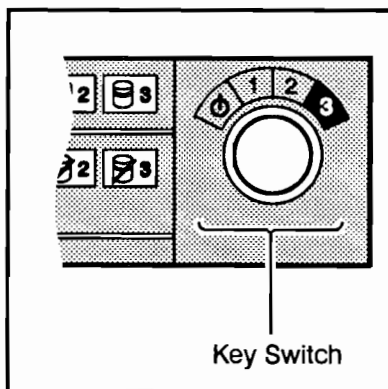


Figure 2-1. System Front Panel

The Front Panel contains two types of status indicators, the normal operating indicators and the warning and fault indicators. The warning and fault indicators are visible only during testing, when the keyswitch is in position 1, or when a failure or warning occurs. The types of indicators are listed below.

Normal Operating Indicators	Warning and Fault Indicators
DC Power	Battery
Remote Console	Overtemp
Operating State (Green and Yellow)	Four-Digit Status Display
Disk Access Status	Disk Fault
	Operating State (Orange)

Keyswitch



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The keyswitch is a four-position switch that controls the operating state of the system. A key must be used to change switch positions. It may be removed in any of the first three positions, thereby providing security. Switch position 3 is spring-loaded. Table 2-1 describes the positions.

2-2 System Front Panel Description

Table 2-1. Keyswitch Positions

Keyswitch Position	Name	AC Power	DC Power	Operating State LEDs	System Status Display	Remote Console
0	Standby	On	Off	Off	Off	—
1	Maintenance	On	On	On	On ¹	Available
2	Normal	On	On	On	Off ²	Not available
3	Transfer of Control	On	On	On	—	—

Note

¹In keyswitch position 1, the system status display is always lit.

²In keyswitch position 2, the system status display is lit only during selftest, while starting up MPE XL, bringing the system down, and after a system failure. It is not lit during normal operation.

Caution

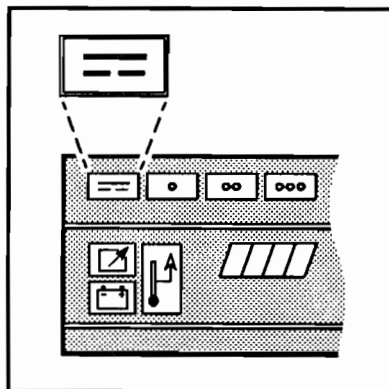
Setting the keyswitch to position 3 will cause the system to perform a Transfer of Control (TOC) and abort all processes immediately. Use this keyswitch position only when a system halt or hang has occurred.

If a TOC is performed before the operating system is running, the console path in stable storage becomes invalid. You will have to take corrective action.

See Chapter 5, System Troubleshooting, for details on system halts, hangs, and stable storage errors.



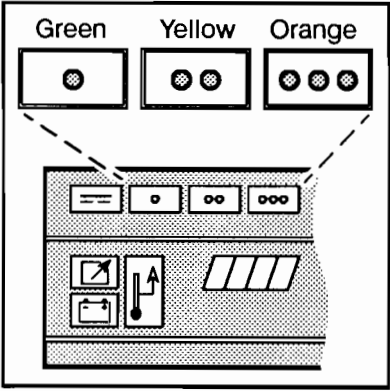
DC Power Indicator



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The green DC power indicator lights when the system is turned on and the operating voltages are at their normal levels.

Operating State Indicators



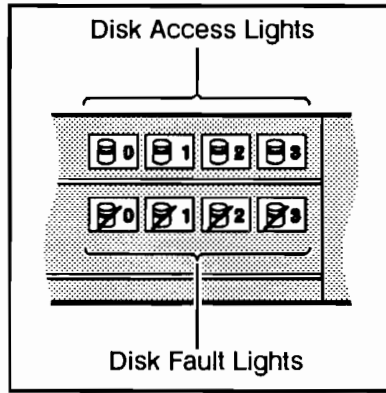
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Green, yellow, and orange indicators display eight operating states of the system. Table 2-2 describes these states.

Table 2-2. Operating State Indicators

Green	Yellow	Orange	System State
Off	Off	Off	The system is shut down and power is off.
On	On	On	All three indicators momentarily light to verify operation when the system is turned on.
Off	Off	On	The system is in a fault state and halted (See Chapter 5 for corrective action).
Off	On	On	The system is going through selftest.
Off	On	Off	The system is initializing.
On	Off	On	The operating system is being shut down.
On	On	Off	This is a warning state (See Chapter 5).
On	Off	Off	Normal system operation.

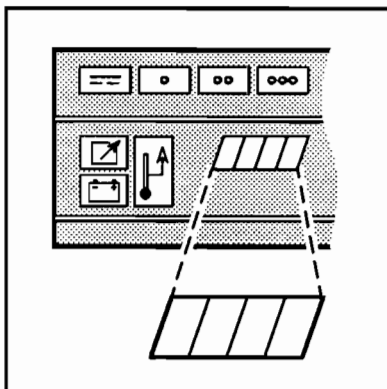
Disk Access Status and Fault Indicators



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The Disk Access indicators light for each embedded disk drive installed in the system. During system selftest each Disk Access Light blinks while the disk drive is undergoing selftest (for some disk drives, the Fault Lights blink momentarily during selftest). If a fault occurs, the Disk Access Light goes out and the corresponding Fault Light goes on.

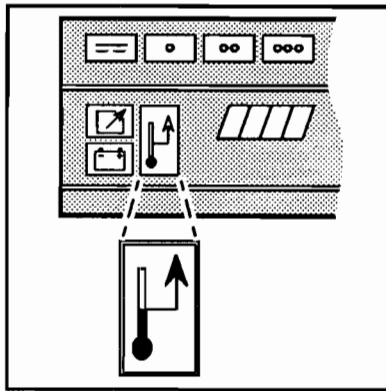
System Status Display



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The system status display is a four-digit indicator that displays selftest status during selftest execution or error codes when a fault condition occurs. During normal operating state (operating system running), the second digit from the left indicates CPU utilization if the keyswitch is in position 1. This is given as a single digit that must be multiplied by 10 to give the true percentage utilization.

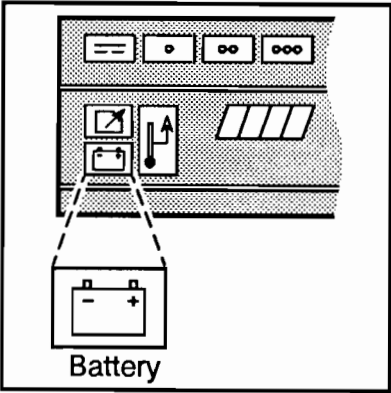
Temperature Indicator



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When this indicator lights, the system is operating in an overtemperature state, and immediate action is required. Refer to Chapter 5 for corrective action.

Battery Indicator



LG200164_003

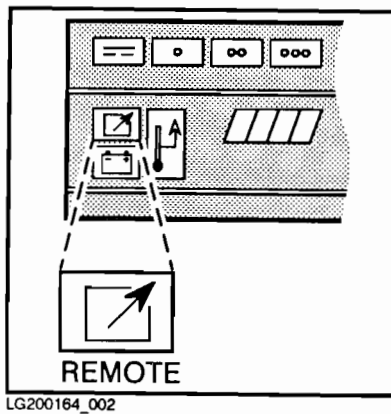


Table 2-3 indicates the possible battery status conditions.

Table 2-3. Battery Status Conditions

Battery Indicator	Orange Operating State Indicator	DC Power Indicator	Battery Status
ON	ON	OFF	Battery backup mode (no AC power)
ON	OFF	ON	Battery being charged
OFF	OFF	ON	Battery is fully charged

Remote Indicator



The Remote Indicator lights when the system keyswitch is in position 1, and the CNTRL-B and ENABLE REMOTE (ER) commands have been issued from the system console.

Starting The Computer System

Introduction

This chapter provides information for starting an HP 3000 Series 922 Family Computer System. For a comprehensive description of the full startup process, including configuration details, please refer to the *System Startup and Shutdown Manual, part number 32650-90034*.

1. Ensure that AC power is applied to the system cabinet and all external peripherals. Plug the system power cord into a mating AC power outlet.

Caution

There is no power on/off switch. To disconnect AC power from the system cabinet, set the keyswitch to position 0, and then disconnect the power cord from the AC source.

2. On the system, turn the front keyswitch to position 1.
3. The system begins selftest. Upon completion, verify that the Disk Access Light for each embedded disk is on, and that all disk fault indicators are off.

4. Ensure that one of the two following messages appears on the system console. Boot paths will vary depending on the system.

Message 1

Processor Dependent Code (PDC) Revision x.x

Console Path = dec 4.2.0.0.0.0.0

= hex 4.2.0.0.0.0.0

Primary Boot Path = dec 4.1.0.0.0.0

= hex 4.1.0.0.0.0

Alternate Boot Path = dec 4.5.3.0.0.0.0

= hex 4.5.3.0.0.0.0

Enter Boot Path, Command, or ?>

Message 2

Processor Dependent Code (PDC) Revision x.x

Console Path = dec 4.2.0.0.0.0.0

= hex 4.2.0.0.0.0.0

Primary Boot Path = dec 4.1.0.0.0.0.0

= hex 4.1.0.0.0.0.0

Alternate Boot Path = dec 4.5.3.0.0.0.0

= hex 4.5.3.0.0.0.0

Autoboot from primary path enabled.

To override, press any key within 10 seconds.

5. If message 2 appears on the screen, the system will automatically boot to the operating system prompt.

Note

If you need to boot from an alternative path (i.e., tape), press any key within 10 seconds of receiving message 2 on the system console. Enter the proper boot path.

6. If message 1 appears on the screen, type in the boot path to be used. This will normally be the Primary Boot Path (disk) number.

The following message should appear:

Interact with IPL (yes or no)? >

Answer yes to the question. The ISL prompt will appear.

7. If neither message appears on the screen, contact your customer assistance team.
8. After the system has booted to the ISL> prompt, type **START** to boot the operating system.
9. When the operating system boot process begins, the following message should be displayed on the system console. If not, contact your customer assistance team.

```
MPE XL Launch Facility
Initialize_Genesis  Version <<8702041552>>
Fri, Dec 29, 1989,  9:49:12 AM (Y/N)?
```

```
.
.
.
.
```

Startup Processing is complete

10. The **MPE XL:** prompt will appear on the system console if the startup is successful.

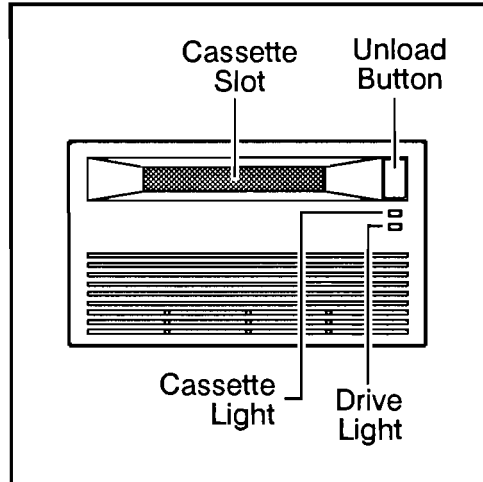


Tape Drive Operation and Maintenance

This chapter describes the indicators and controls, and how to operate and maintain the tape drive.

Tape Drive Front Panel

The tape drive front panel contains status lights, a cassette unload button, and the cassette slot.



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Tape Drive Front Panel

Tape Drive Status Lights

The two front panel lights indicate the status of the tape drive. Both lights can display yellow or green colors in the combinations listed in the following three tables.

Normal Operation

Cassette Light (Upper)	Drive Light (Lower)	Condition
Off	Off	No cassette loaded or power is off.
Off	Pulsing Green	No cassette loaded, drive is active.
Pulsing Green	Pulsing Green	Cassette is loading or unloading.
On Green	Off	Cassette is loaded, drive is offline.
On Green	Pulsing Green	Cassette is loaded, drive is active.
On Green	On Green	Cassette is loaded, drive is online.

Normal Operation With Write Protected Tape

Cassette Light (Upper)	Drive Light (Lower)	Condition
Pulsing Yellow	Pulsing Green	Tape drive is loading or unloading, cassette is write-protected.
On Yellow	Off	Tape drive is offline, cassette is loaded and write-protected.
On Yellow	Pulsing Green	Tape drive is active, cassette is write protected.
On Yellow	On Green	Tape Drive is online, cassette is loaded and write-protected.

Caution States

Cassette Light (Upper)	Drive Light (Lower)	Condition
On Green 4.5 sec, Off 0.5 sec	Off	Caution Signal. See the <i>Caution Signal</i> paragraph.
On Yellow	On Yellow	High humidity in environment. See the <i>High Humidity</i> paragraph.

Unload Button

The unload button aborts any tape operation, rewinds the tape, and unloads the cassette from the tape drive.

Warning Signals

Write-Protected Tapes

If the cassette is write-protected, the cassette light is yellow during normal operations.

Caution Signal

Under normal conditions, the cassette status light is a steady green. The caution signal causes the green cassette status light to alternate on for 4.5 seconds and off for 0.5 seconds. This occurs if the tape drive is correcting an excessive number of errors when using the cassette. This can mean the tape heads need cleaning, or that the tape is nearing the end of its useful life.

Note	To assure maximum data integrity, this tape drive only supports HP certified cassette tapes (P/N 92283A).
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When you see a caution signal, first clean the tape heads. If the signal occurs again, you should copy the data from the tape onto a new tape as follows:

1. Copy the data from the tape onto disk.
2. Copy the data from the disk onto a new tape.
3. Discard the old tape.

High Humidity

If the humidity becomes too high, both front panel indicators show a steady yellow light. The tape drive will not perform any operations requiring movements of the tape until the humidity has dropped to within specification again.

Caution

To prevent damage, do **NOT** insert a cassette into the tape drive for two hours after moving the tape drive/system from a cold to a warm environment. This applies if the temperature change is greater than 10° C (18° F).

Moving the tape drive/system from a cold to warm environment causes condensation to develop within the tape drive. This causes the tape to stick to the drive head, which can create permanent damage to both the tape and the tape drive.

Fault Warning

If a fault is diagnosed during the self-test performed when the system is switched on, the result is indicated by the cassette light pulsing in groups of one, two, or three pulses, while the drive light shows steady yellow. If this happens, make a note of the pattern and call your Hewlett-Packard Customer Assistance Team.

Tape Drive Operation and Maintenance

Operating and maintaining the tape drive consists of the following tasks:

- Loading and unloading a cassette.
- Cleaning the tape head periodically.
- Handling and storing tapes.
- Write-protecting a tape.



Loading a Cassette

Use only Hewlett-Packard tape cassettes (Product Number 92283A) to ensure high data integrity. When you insert a cassette, the drive automatically loads it into the drive mechanism, threads the tape, and performs the load sequence. The load sequence takes about 25 seconds.

During the load sequence, both front panel lights pulse green, unless the cassette is write-protected. The cassette (upper) light then pulses yellow.

When the load sequence is done, the cassette light remains lit a steady green, or yellow if the cassette is write-protected. The lower (drive) indicator goes out after testing the tape.

Unloading a Cassette

To unload a cassette, press the unload button. This action rewinds the tape, unthreads the tape, and ejects the cassette. The unload sequence takes about 10 seconds.

During the unload sequence, both lights pulse green. If the cassette is write-protected, the cassette (upper) light pulses yellow.

Store the cassette in its plastic case after use. Refer to the "Tape Handling and Storage" section for further recommendations about tape care.

Tape Head Cleaning

When to Clean the Tape Heads

Clean the tape heads:

- Every 25 hours of use.
- When the CAUTION signal is active.

Cleaning Procedure

Note	Use only cleaning cassette, product number HP 92283K.
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1. Insert cleaning cassette into the drive. The tape drive will automatically load the tape and clean the heads, and then unload and eject the tape.
2. After cleaning, note that the cassette has been used.
3. After 25 uses, discard the cleaning cassette.

Tape Handling and Storage

To care for the tapes, follow the recommendations below:

- Always keep the cassettes in a clean environment.
- Store cassettes in their plastic cases when not in use.
- Do not touch the tape, or attempt to clean the tape path or tape guides, inside the cassette.
- Do not leave the cassettes in excessively dry or humid conditions.
- Do not leave the cassettes in direct sunlight or in places where magnetic fields are present (for example, under telephones or near transformers or motors).
- Do not drop cassettes or handle them roughly.
- Do not place more than one label on cassettes; extra labels could cause the cassettes to jam in the tape drive.

- Do not use cassettes beyond their useful life. This may be indicated by the cassette indicator pulsing green for 4.5 seconds and off for 0.5 second.

Cassettes should be used only at temperatures between 5°C (41°F) and 45°C (113°F). You can, however, store them at temperatures as low as -40°C (-40°F).

Note

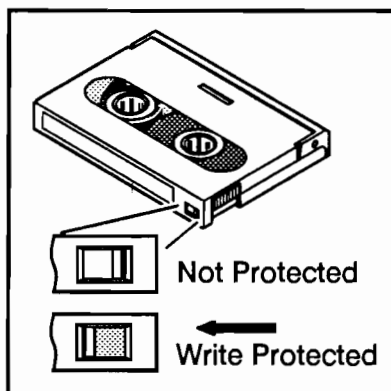
If you expose cassettes to temperatures outside the operating limits, allow the cassettes to adjust to room temperature before using them. To stabilize the cassette, allow it to remain in the operating temperature for the same amount of time that it was outside the operating limits, up to eight hours. For example, if a cassette has been left in a car standing in freezing conditions for an hour, allow it to remain in the operating environment for one hour.

To avoid temperature problems:

- Avoid leaving cassettes in severe temperature conditions.
- Avoid transferring data to or from cassettes when the temperature is changing by more than 10°C (18°F) per hour.

Write-Protecting a Tape

If you want to protect data on a cassette from being altered or overwritten, you can write-protect the cassette.



LG200184_006

To write-protect a cassette, slide the tab on the rear of the cassette from right to left.

If a cassette is write protected, the cassette (upper) indicator is yellow instead of green while the cassette is in the drive.

Caution	Write-protection does NOT prevent a cassette from being erased by bulk-erasing or degaussing.
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System Troubleshooting

Introduction

This chapter provides troubleshooting information for the following failures that may occur during system selftest or during normal operation.

- System Halts.
- System Hangs.
- System Dump Procedures.
- Abort Messages (System and Process).
- DDS Embedded Tape Drive Problems.
- System Overtemperature.

Caution	There are no operator accessible parts behind the front panel or bulkheads. Refer troubleshooting in these areas to qualified persons.
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Note	Customer assistance teams are listed in Appendix A.
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System Halts

System halts can occur during any one of the following events:

- SPU Selftest.
- System Boot Failures.
- Operating System Boot/Run-Time.

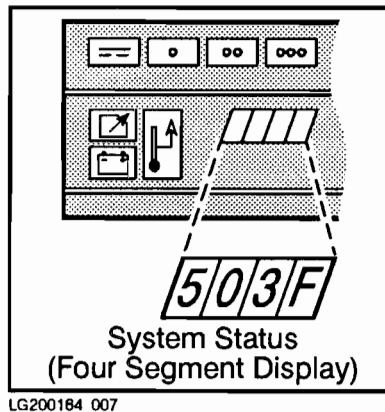
SPU Selftest Halts

How to identify:

- A failure is indicated when only the **orange** Operating State indicator is lit.
- The system is in selftest mode from power-on until the following message is displayed on the system console:

Processor Dependent Code (PDC) Revision x.x

- If the system halts during selftest, the four-digit status display, located on the front display panel (see Figure 5-1), will contain alphanumeric digits.



LG200164_007

Figure 5-1. Example Status Display

What to do:

1. Document the four numbers in the system support log.

Note

More than one pattern of numbers may appear in the display. Document each pattern as directed above.

2. Attempt to restart the system by turning the system keyswitch to position 0 (standby) and back to position 1.
3. Report any incident immediately to your customer assistance team.

System Boot Failures

How to Identify:

System boot halts can occur between the time that system selftest has successfully completed and the ISL> prompt appears on the system console.

System boot halts display a message on the system console and a four-digit alphanumeric number on the system status display located on the front display panel (see Figure 5-1).

What to Do:

1. If you have manually entered a boot path at the **Enter Boot Path, Command**, or **?>** prompt, verify that your input was correct and try to boot again.
2. If the problem persists, document the messages in the system log book, and contact your local customer assistance team immediately.

Operating System Boot/Run-Time Halts

How to Identify:

Operating System (OS) boot and run-time halts can occur anytime after an OS boot is started from the ISL> prompt.

If a halt occurs, a message will be displayed on the system console and a four-digit alphanumeric number will be displayed on the system status display located on the front panel (see Figure 5-1).

A failure is indicated when only the **orange** Operating State indicator is lit.

What to Do:

1. Document the results of all messages in the system support log.
2. Perform a Transfer of Control by momentarily turning the keyswitch to position 3.
3. Perform a system memory dump as directed in the “System Dump Procedures” section later in this chapter.
4. Contact your local customer assistance team.

System Hangs

How to Identify:

A system hang condition may exist if the following conditions are true:

- The system does not respond to a `:showme` command entered at the system console.
- No other users can communicate with the system.

What to Do:

1. Do a Transfer of Control by turning the system key momentarily to keyswitch position 3.
2. Do a memory dump as instructed in the “System Dump Procedures” (below).
3. Reboot the system.
4. Contact your local customer assistance team.

System Dump Procedures

The normal procedure for performing a memory dump on this MPE-XL system includes the following steps:

1. Mount or insert a tape in the tape drive.
2. At the ISL> prompt, type **DUMP** and press **Enter**.

The following messages will be displayed on the system console:

MPE/XL launch facility

MPE/XL Dump Version A.00.00 - initialization.

A full dump, including secondary storage, was requested.

Enter user identification string for this dump (80 chars or less)

3. Input a name for the memory dump here; for example, Memdump 12/2/90 SF312 (System Failure 312).
4. Be sure to immediately document the name of the dump in the system log book.

Initialize_genesis . Version : <<870204.1552>>
WED, DEC 2, 1990, 2:30:04 PM (y/n)

5. If the date and time are correct, press **Enter**. If not, enter the correct date and time. The dump process will continue until the following message appears:

Dump Completed - autoboot in progress

6. After this message, the SPU will attempt to autoboot to the ISL> prompt. Enter the desired start command; for example, ISL> START (and any options).
7. After booting the MPE-XL message will appear.

Aborts (System and Process)

Many system and process abort messages can cause a system halt. Check the system front display panel. If the orange indicator of the Operating State indicators is lit, the system is halted.

What to do:

- If the system is halted, follow the instructions for the Boot/Run-Time Halts.
- If the system is not halted, determine if a subsystem was involved (described in the system console message). Reference the error message section of that subsystem manual for corrective action.
- If the subsystem cannot be determined or corrective action is not successful, call your local customer assistance team for help.

DDS-Format Tape Drive Problems

Tape Cassette Operation

The following is a list of possible problems that may be experienced during tape operation and the recommended corrective action.

Problem

After powering-up the system, lights on the tape drive remain lit.

What to do

1. Press the unload button on the tape drive front panel. A cassette tape may already be inserted.
2. If a cassette tape does not eject, *DO NOT* insert another cassette tape. Call for customer assistance.

Problem

A cassette tape inserted into the tape drive immediately ejects again.

What to do

1. Use the cleaning cassette (See Chapter 4), and then re-insert the cassette tape.
2. If the cassette tape ejects, load a new cassette tape and try again.
3. If the cassette tape continues to eject, call your local customer assistance team.

Problem

Unload button does not eject the cassette tape.

What to do

1. Observe the lights on the tape drive front panel.
2. If both lights are yellow, an over-humidity condition exists and the cassette tape will not eject until the condition is corrected.
3. For all other conditions, document the light pattern in the system support log and call your local customer assistance team.

Problem

Tape store and restore operations are taking longer and longer to complete.

What to do

1. Use the cleaning cassette and retry the tape operation.
2. Use a new cassette tape.
3. Call for a customer assistance.

System Overtemperature

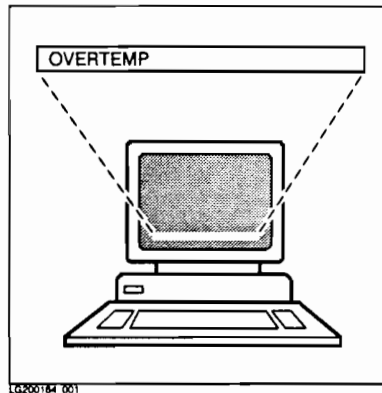
There are three states of overtemperature conditions for which the operator can take remedial action.

- Low overtemperature.
- Medium overtemperature.
- High overtemperature.

Low Overtemperature

The low overtemperature condition starts occurring when the room temperature is in the range 34°C to 39°C (93.2 °F to 102.2 °F).

Indication: **OVERTEMP** message is displayed on system console.



LG200184_001

System cooling fans speed up and increase in audible noise.

Action: Ensure all openings are free of obstructions.

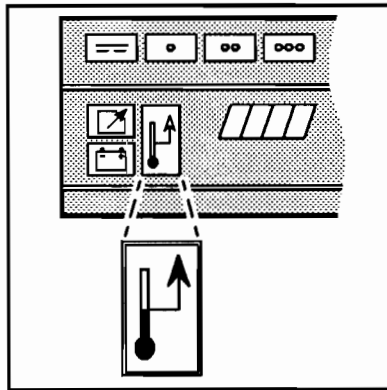
Check room air conditioning.

Begin orderly system shutdown procedures. This may not be necessary if the condition is immediately correctable.

Medium Overtemperature

The medium overtemperature condition starts occurring when the room temperature is in the range 40°C - 46°C (104 °F - 114.8°F).

Indication: Overtemperature indicator on system panel lights.



LG200164_017



Operating State indicators will have green and yellow lights on.

OVERTEMPERATURE WARNING message is displayed on system console.

Operating system is suspended. All processes will stop.

Action:

Correct overtemperature condition immediately. If overtemperature condition is corrected, normal operation will resume without customer intervention after the system cools down.

High Overtemperature

This condition occurs when the room temperature is in the range 44°C - 50°C (119.2°F - 122.0°F) for 70 seconds.

Indication: System power shuts down.

Action: Correct overtemperature condition.

Turn keyswitch to standby and back to position 2 to reset power.

Reboot system (see Chapter 3, Starting the System).

Customer Assistance Contacts

If you need assistance with your computer system, contact the local service representative listed in your system support log. If your service representative is unavailable, you may contact a customer assistance team listed in this appendix for your country.

Note	A Hewlett-Packard Company support contract may be required in order for you to use a customer assistance team in your country. Contact your local Hewlett-Packard Sales Representative for details.
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Argentina	Hewlett-Packard Argentina S.A. Ph: (54-1) 781-4601 (main)
Asia Pacific (Australia/Far East/Japan)	Hewlett-Packard Singapore (Sales) PTE Ltd. Ph: (65) 2737388
Austria	Hewlett-Packard GmbH Ph: (43) 222-2500-0 (main)
Australia	Australasian Response Centre Hewlett-Packard Ph: (61) 03 895-2510 (response centre)
Belgium	Hewlett-Packard Belgium SA/NV Ph: (32) 2/761 3800

Brazil	Hewlett-Packard Edisa Informatica S.A. Central de Suporte a Clientes Ph: (55) 11 257-7788 (main)
Canada	North American Response Center Ph: 1-800-633-3600
Denmark	Hewlett-Packard A/S Ph: (45) 42/816640
Europe	Hewlett-Packard S.A. Ph: (41) 22 780 41 11
Far East Region Office (Includes Taiwan, Malaysia, Singapore, Korea, and Hong Kong)	Far East Region Response Center Hewlett-Packard Singapore (Sales) PTE, Ltd Ph: (65) 2737388
Finland	Hewlett-Packard OY Country Response Center Ph: (358) 0-887 21
France	Hewlett-Packard France Country Response Center Ph: (33) 1/69 82 60 60 (main)
Germany	Hewlett-Packard GmbH Support Zentrum Ph: (49) 2102/441-133
Greece	Hewlett-Hellas Ph: (30) 1/6828811 (main)
Hong Kong	Hewlett-Packard Hong Kong Ltd. Ph: (852) 5-8487000

Malaysia	Hewlett-Packard Malaysia (Sales) Snd Bhd Ph: 03-2986555
Middle East and Africa	MEA Response Center Hewlett-Packard S.A. Ph: (41) 22 780 72 90
Mexico	Hewlett-Packard De Mexico S.A. De C.V. Ph: (905) 676-64-30 (direct)
Netherlands	Hewlett-Packard Netherlands B.V. Customer Response Center Ph: (31) 20/547-9999 (main)
Norway	Hewlett-Packard Norge A/S Country Response Center Ph: (47) 2/24 60 90
Singapore	Hewlett-Packard Singapore (Sales) PTE Ltd Singapore Response Center Ph: (65) 2788488 (direct)
Spain	Hewlett-Packard Espanola S.A. Ph: (34) 1/637 71 11
Sweden	Hewlett-Packard Sverige AB Support Center Ph: (46) 8/7502300
Switzerland	Hewlett-Packard (Schweiz) AG Country Response Center Ph: (41) 31/34 34 41
Taiwan	Hewlett-Packard Taiwan Ltd. Ph: (886) 2-712-4079 (direct)

United Kingdom

Hewlett-Packard Ltd.
Customer Support Bristol
Ph: (44) 272/656 371

United States of America

North America Response Center
1-800-633-3600

Venezuela

Hewlett-Packard De VZLA
Response Center
Ph: (58) 2/238-4133

Physical Path of Network Interface Cards

LANIC Physical Path

The following table provides physical path data for a node's local area network interface controller (LANIC) card. The path consists of a channel number (ccc) and a subchannel number (sss) in the form of ccc.sss.

Physical Paths of LANICS

SPU	DTS LANIC	NS LANIC
All 922, 932	4.3 (see note below)	4.3 (see note below)
All 948, 958	4.1 (see note below)	4.1 (see note below)

Note	In all models, a single LANIC card provides interfaces to both the DTC and the LAN.
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PSI Physical Path

The physical path is four times the slot number of the PSI. The following table provides the slot number and physical path number for each of the HP 3000 Series 922 Family computer systems.

**Physical Paths for PSI Cards in HP 3000 Series 920 Family
Computer Systems**

HP 3000 Model	PB Slot No.	Path
922, 922LX, 922RX	11	44
932	8	32
	10	40
948, 958	14	56

Default Configurations

The following sections show portions of the default Input/Output (I/O) configurations carried by:

- CONFIG922 (Series 922, Series 922RX, or Series 922LX using HP-IB cards).
- CONFIG932 (Series 932 using HP-IB cards).
- CONFIG948 (Series 948 using HP-IB cards).
- CONFIG958 (Series 958 using HP-IB cards).
- ALINK932 (Series 932 using both HP-FL and HP-IB cards).
- ALINK948 (Series 948 using both HP-FL and HP-IB cards).
- ALINK958 (Series 958 using both HP-FL and HP-IB cards).

Note

For specific information on how to start the system with the default configuration files, as well as possible additional default configuration files, refer to *HP 3000 MPE XL Installation and Update Manual* (36123-90001) and *HP 3000 MPE XL System Startup, Configuration, and Shutdown Reference Manual* (32650-90042). If you are working on a Series 922, Series 922RX, Series 922LX, or Series 932 system, you must modify the configuration group using SYSGEN so that device entries match the system configuration.

Series 922/922RX/922LX Default Configuration (HP-IB Only)

The default configuration for the Series 922, Series 922RX, or Series 922LX (using HP-IB cards only) carries six devices including two disk drives, one printer, two tape drives, and one terminal (console). Table C-1 lists the configured devices.

Table C-1.
Series 922/922RX/922LX Default Configuration (HP-IB Only)

LDEV	I/O Path	Type	ID	Class
1	4.1.0	DISC	HPC2203A	DISC, SPOOL (System Disk)
2	4.1.1	DISC	HPC2203A	DISC, SPOOL
3	4.1.2	DISC	HPC2203A	DISC, SPOOL
6	4.1.4	LP	HP2567B	LP (System Printer)
7	4.1.3	TAPE	HPC1501A	TAPE, DDUMP (Primary)
10	4.1.7	TAPE	HPC1501A	JOBTAPE (Streams)
20	4.2.0	TERM	HP700/92A	CONSOLE

Series 932 Default Configuration (HP-IB Only)

The default configuration for the Series 932 (using HP-IB cards only) carries ten devices including four disk drives, three printers, two tape drives, and one terminal (console).

Table C-2 lists the configured devices.

Table C-2. Series 932 Default Configuration (HP-IB Only)

LDEV	I/O Path	Type	ID	Class
1	4.1.0	DISC	HPC2203A	DISC, SPOOL (System Disk)
2	4.1.1	DISC	HPC2203A	DISC, SPOOL
3	4.1.2	DISC	HPC2203A	DISC, SPOOL
4	4.1.3	DISC	HPC2203A	DISC, SPOOL
6	4.1.4	LP	HP2567B	LP (System Printer)
7	4.5.3	TAPE	HPC1501A	TAPE, DDUMP (Primary)
10	4.5.0	TAPE	HPC1501A	JOBTAPE (Streams)
19	36.5.5	PP	HP2680A	EPOC
20	4.2.0	TERM	HP700/92	CONSOLE
29	4.5.6	PP	HP2688A	BONSAI

Series 932 Default Configuration (HP-IB and HP-FL)

The default configuration for the Series 932 (using HP-IB and HP-FL cards) carries twelve devices including five disk drives, four printers, two tape drives, and one terminal (console). Table C-3 lists the configured devices.

Table C-3. Series 932 Default Configuration (HP-IB and HP-FL)

LDEV	I/O Path	Type	ID	Class
1	4.1.0	DISC	HPC2203A	DISC, SPOOL (System Disk)
2	4.1.1	DISC	HPC2203A	DISC, SPOOL
6	4.4.4	LP	HP2567A	LP (System Printer)
7	4.4.3	TAPE	HPC1501A	TAPE, DDUMP (Primary)
10	4.4.0	TAPE	HPC1501A	JOBTAPE (Streams)
19	4.4.5	PP	HP2680A	EPOC
20	4.2.0	TERM	HP700/92	CONSOLE
21	4.5.0	DISC	HP7937FL	DISC, SPOOL
22	4.5.1	DISC	HP7937FL	DISC, SPOOL
23	4.5.2	DISC	HP7937FL	DISC, SPOOL
28	4.4.6	PP	HP2688A	BONSAI
29	4.4.7	PP	HP2688A	BONSAI

Series 948/958 Default Configuration (HP-IB Only)

The default configuration for Series 948/958 systems, using HP-IB cards only, carries 13 devices including six disk drives, four printers, two tape drives, and one terminal (console).

Table C-4 lists the configured devices.

Table C-4.
Series 948/958 Default Configuration (HP-IB and HP-FL)

LDEV	I/O Path	Type	ID	Class
1	32.0.0	DISC	HPC2203A	DISC
2	32.0.1	DISC	HPC2203A	DISC
3	32.0.2	DISC	HPC2203A	DISC
4	32.0.3	DISC	HPC2203A	DISC
6	4.6.4	LP	HP2667B	LP
7	4.6.3	TAPE	HPC1501A	TAPE, DDUMP
10	4.6.0	TAPE	HPC1501A	JOBTAPE
19	4.6.5	PP	HP2680A	EPOC
20	4.2.0	TERM	HPC1001G	CONSOLE
21	4.5.0	DISC	HPC2203A	DISC
22	4.5.1	DISC	HPC2203A	DISC
28	4.6.6	PP	HP2688A	BONSAI
29	4.6.7	PP	HP2688A	BONSAI

Series 948/958 Default Configuration (HP-IB and HP-FL)

The default configuration for Series 948/958 systems, using HP-IB and HP-FL cards, carries 14 devices including seven disk drives, four printers, two tape drives, and one terminal (console).

Table C-5 lists the configured devices.

Table C-5.
Series 948/958 Default Configuration (HP-IB and HP-FL)

LDEV	I/O Path	Type	ID	Class
1	32.0.0	DISC	HPC2203A	DISC
2	32.0.1	DISC	HPC2203A	DISC
3	32.0.2	DISC	HPC2203A	DISC
4	32.0.3	DISC	HPC2203A	DISC
6	4.4.4	LP	HP2667B	LP
7	4.4.3	TAPE	HPC1501A	TAPE, DDUMP
10	4.4.0	TAPE	HPC1501A	JOBTAPE
19	4.4.5	PP	HP2680A	EPOC
20	4.2.0	TERM	HPC1001G	CONSOLE
21	4.5.0	DISC	HP7937FL	DISC
22	4.5.1	DISC	HP7937FL	DISC
23	4.5.2	DISC	HP7937FL	DISC
28	4.4.6	PP	HP2688A	BONSAI
29	4.4.7	PP	HP2688A	BONSAI