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Description - This section describes procedures for running Silicon Graphics, Inc., (SGI) Host Computer Hardware Diagnostics.

1- QUICK REFERENCE PROCEDURES

This section contains a brief summary for running Hardware Diagnostics. If you are familiar with this, including all cautions and warnings, then use this section. If you do not have much experience with running Diagnostics, refer to the detailed procedures that follow.

1-1 Running Hardware Diagnostics

The three levels of diagnostic tests are:

1. Power-on Diagnostics
2. Interactive Diagnostic Environment (IDE) tests (indicated by "Run Diagnostics" Icon).
3. Confidence Tests

1-2 Power On Diagnostics

1. When system is booted, Power On Diagnostics Run automatically.
2. If an error message appears, respond as indicated in Table 1.

TABLE 1
TROUBLESHOOTING

Symptom	Cause	Procedure
Unlit LED, no ERROR message	Power supply failure; possible CPU failure	<ol style="list-style-type: none"> 1. Check that internal power connectors are properly attached. 2. Ensure that all cables are securely connected and power cable is plugged into an outlet that works. 3. Adjust brightness control knob on the monitor to test for adequate light on the screen. 4. Ensure that power switch is turned on properly. If all cables are connected and the symptoms remain, a power supply may be faulty. <p>See procedure for OW Repl. to replace power supplies.</p>
Blinking Amber LED with no Error message	Faulty SIMMs	<ol style="list-style-type: none"> 1. Check that all SIMMs are properly seated. 2. Reboot the system. 3. If LED still blinks with no error message, remove faulty SIMMs and replace with new SIMMs. See procedure for OW Repl. to replace faulty SIMMs.

Symptom	Cause	Procedure
Solid Amber LED with an Error Message	Faulty Hardware	<ol style="list-style-type: none"> 1. If the following error message appears: No usable memory found. Make sure you have a full bank (4 SIMMs) <ul style="list-style-type: none"> • Check that all SIMMs are properly seated. • Reboot the system. If the same message appears, the SIMMs are faulty. • Remove the faulty SIMMs, and replace with new SIMMs. See procedure for OW Repl. to replace faulty SIMMs. 2. If the following message appears: Check or replace: SIMM# (# represents the SIMM number that failed the test. For example: SIMM 1, SIMM2.) <ul style="list-style-type: none"> • Check that the indicated SIMM is properly seated. • Reboot the system. If the same message appears, the SIMM is faulty. • Remove the faulty SIMM, and replace with a new SIMM. See procedure for OW Repl. to replace faulty SIMMs. 3. If the following message appears: <ul style="list-style-type: none"> • Memory is not usable. Check or replace all SIMMs. • Check that all SIMMs are properly seated. • Reboot the system. If the error message still appears, then all SIMMs are faulty. • Remove the faulty SIMMs, and replace with new SIMMs. See procedure for OW Repl to replace faulty SIMMs.
Green LED but Keyboard does work	Keyboard failure	<ol style="list-style-type: none"> 1. Shut the system down and ensure that the Keyboard cable not is firmly connected to the Keyboard (not the Mouse) connector. 2. Reboot the system. If the Keyboard still doesn't work, the Keyboard is faulty.

Symptom	Cause	Procedure
		3. Remove the Keyboard, and replace it with a new board. See procedure for OW Repl. to replace the keyboard.
Green LED but mouse work	Faulty Mouse	<ol style="list-style-type: none"> 1. Shut the system down and ensure that the cable is firmly connected to the Mouse (not the Keyboard) connector. 2. Reboot the system. 3. If the Mouse still doesn't work, the Mouse is faulty. 4. Replace the mouse. See procedure for OW Repl.

1-3 IDE

1-3-1 Activating IDE when system is booting:

1. When the System is booting, click on **[Stop For Maintenance]** in the "Starting up the System" Notifier.
2. The System Maintenance Menu appears: click on **[Run Diagnostics]**.
3. Follow indicated procedures.
4. "Run Diagnostics" can run for three hours. If no error messages appear after 15 minutes, press **[Esc]** to stop the tests.

1-3-2 Activating Run Diagnostics from running system:

1. From the SGI Tools Menu, click on **[System]**.
2. The System Manager Menu appears: click on **[System Shutdown]**.
3. When "Power Off" Notifier appears, click on **[Restart]** or press any key.
4. When "Starting up the System" Notifier appears, click on **[Stop for Maintenance]** as in (1) above.
5. Follow (2), (3) and (4) in Section 1-3-1 above.

1-4 Confidence Tests

1. With the system running, click on **[System]** in the SGI Tools Menu.
2. The System Manager Menu appears. Click on **[Run Confidence Tests]**.
3. Follow indicated Procedures.

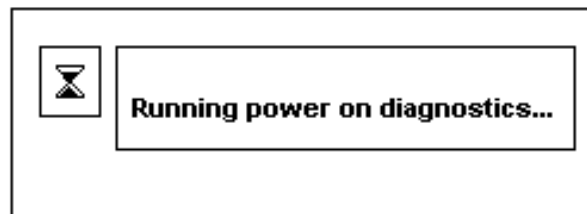
2- SGI DIAGNOSTICS: INTRODUCTION

- There are three Diagnostic Testing Levels:
 1. Power On Diagnostics: tests the major hardware parts of the system while booting, indicating a faulty part with the LED and error messages.
 2. Interactive Diagnostic Environment (IDE) Tests: provides more comprehensive tests of the System Hardware than Power On Diagnostics.
 3. Confidence Tests: tests keyboard, mouse, monitor, and peripherals.

3- POWER ON DIAGNOSTICS

- When the power switch is turned on, the system should go through these steps:
 1. The LED on the front of the machine blinks green, then turns amber, and then the system initiates Power On Diagnostics.

The system runs Power On diagnostics for about five seconds, as indicated by "Running Power On Diagnostics" Notifier Illustration L28.



POWER ON DIAGNOSTICS
ILLUSTRATION L28

3. The disks then spin up. This takes about 15 seconds for each hard disk.
4. When the system passes all Power On tests, the LED turns green.
5. The system boots IRIX or brings up a menu, if configured to do so.
 - If the above does not occur properly, there may be a problem. The following "Troubleshooting" Section describes seven common problems and causes, along with procedures for correcting the problems.

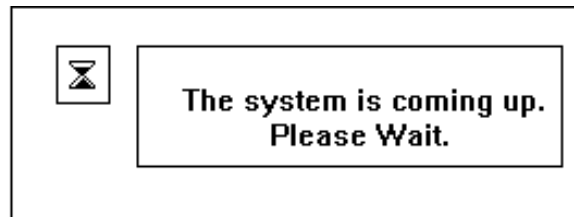
4- TROUBLESHOOTING POWER ON DIAGNOSTICS.

See Table 1 in Section 1-2.

5- IDE

5-1 Activating IDE when the system is booting.

- When the System is booting, the "System is Coming Up" Notifier appears: Illustration L1.



START UP NOTIFIER
ILLUSTRATION L1

- Shortly after this, the "Starting up the System" Notifier Illustration L2 appears.



STOP FOR MAINTENANCE
ILLUSTRATION L2



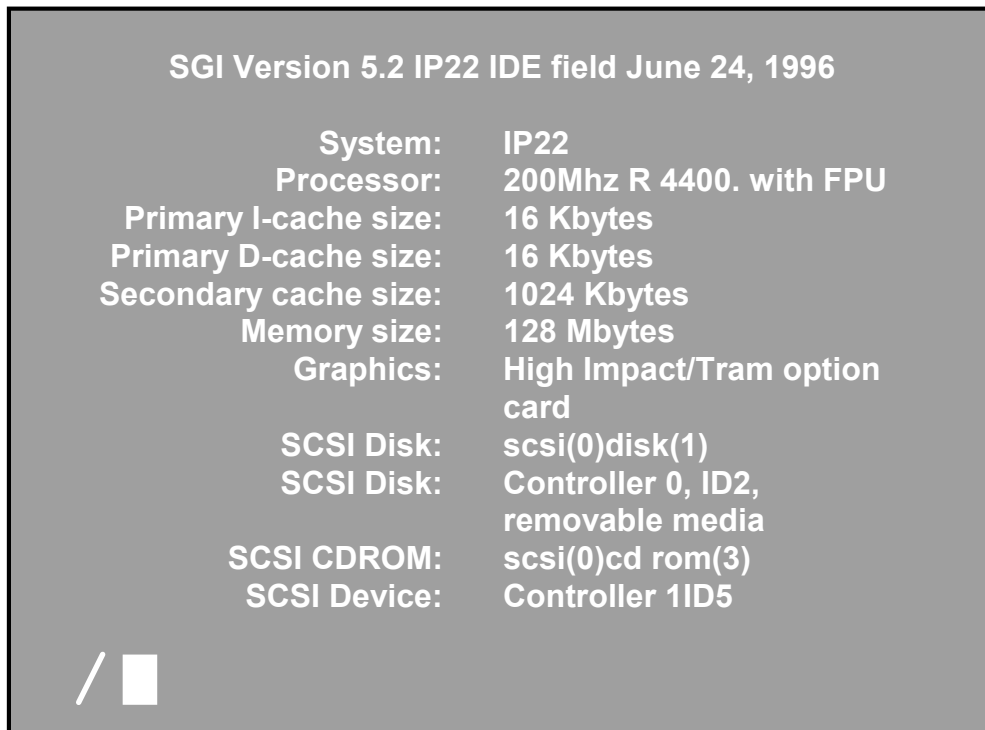
The Notifier in Illustration L2 appears for only a few seconds. Step 1. below must be done AT ONCE! If you miss the Notifier, go to Section 5-2 Activating Run Diagnostics from a running system.

1. Click on [Stop for Maintenance].
2. The System Maintenance Menu Illustration L3 appears.



SYSTEM MAINTENANCE
ILLUSTRATION L3

3. Click on **[Run Diagnostics]** Icon.
4. A message appears with a rotating slash in the lower left corner Illustration L4.



RUN DIAGNOSTICS SCREEN
ILLUSTRATION L4



If you do not see this message, you cannot run the diagnostics. You may have a faulty disk.

- The slash at the bottom left of the screen spins while the tests are running. Also, the LED on the front of the main unit blinks slowly throughout the testing process.
 - Included in the diagnostics is a series of graphics tests, during which the screen goes blank and displays various images.
5. Watch for messages.
If the system's hardware is completely healthy, after 10 to 30 minutes (or more if there is more than one hard disk), the following message appears:
- Diagnostic tests completed with no failures detected.
Press [Enter] to continue.
6. Press **<Enter>** to return to the System Maintenance menu, where you can restart the system by selecting **[Start System]**.

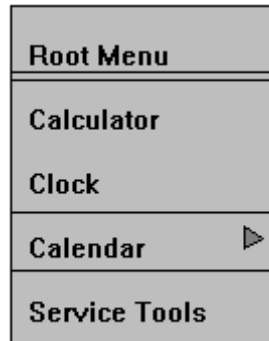


"Run Diagnostics" may run for three hours. If there are no error messages after 15 minutes, however, press [Esc] to stop the tests.

7. If problems persist, or if the system still does not start, there may be a software problem. See Section 7- Recovering from a System Crash.
8. If the diagnostic tests find a problem, a message similar to the following appears:
- ERROR: Failure detected on the CPU module
or a message indicating a failure with the CPU baseboard, audio board, or graphics board.
- This means the part indicated has failed. Record this information.
 - Other messages may also report faulty peripherals or subsystems.
 - If an error message is displayed, see procedure for Operator Workspace Replacement to remove the faulty part and install the new part.

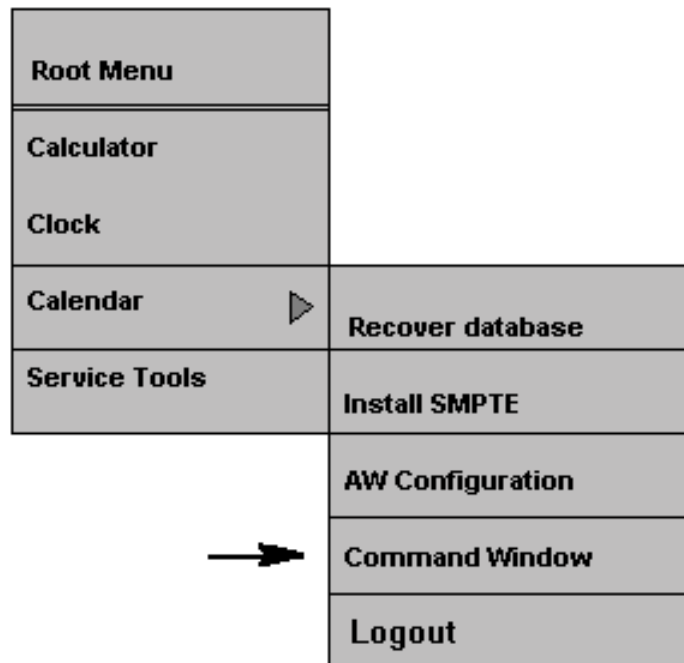
5-2 Activating Run Diagnostics from a running system

1. To activate Run Diagnostics from a running system, the system must be shut down.
2. On the Main Screen (IRIX Desktop), click the right mouse button. The Root Menu appears Illustration L29.



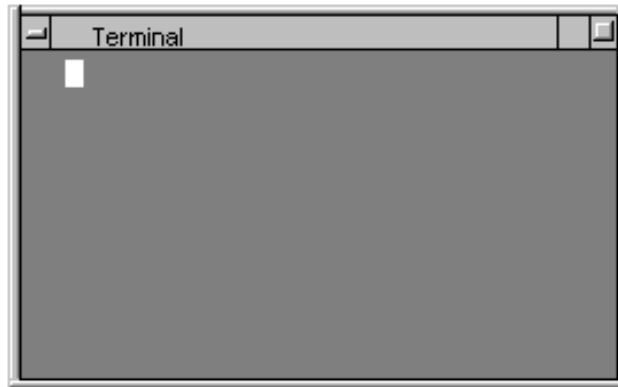
ROOT MENU
ILLUSTRATION L29

3. Click on **[Service Tools]**. The Service Tools Menu appears. See Illustration L30. Click on **[Command window]**.



SERVICE TOOLS MENU
ILLUSTRATION L30

- This brings up a Command Window, Illustration L36.



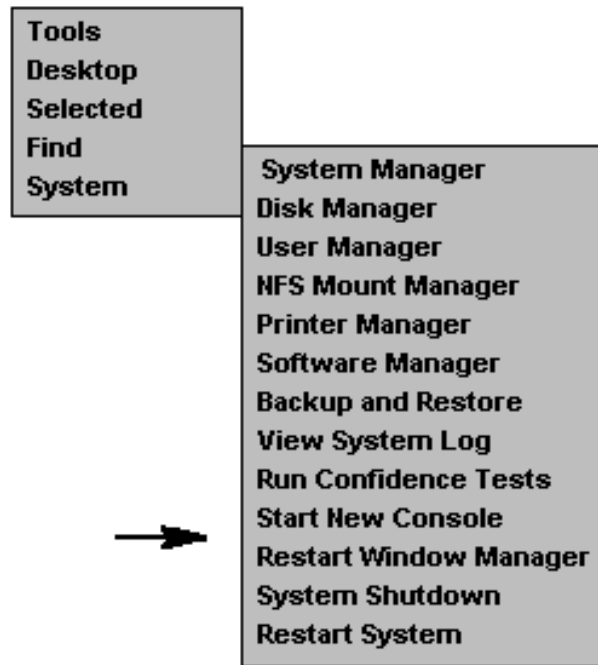
COMMAND WINDOW
ILLUSTRATION L36

4. With the cursor in the Command Window, type **toolchest** <Enter>. The SGI Tools Menu appears.
5. Click on the word **[System]** in the SGI Tools Menu Illustration L5.



TOOLS MENU
ILLUSTRATION 5

- The System Manager Menu appears Illustration L6.



SYSTEM MENU MANAGER
ILLUSTRATION L6

6. Click on [System Shutdown].

- The window called "chaltsys" appears Illustration L27.

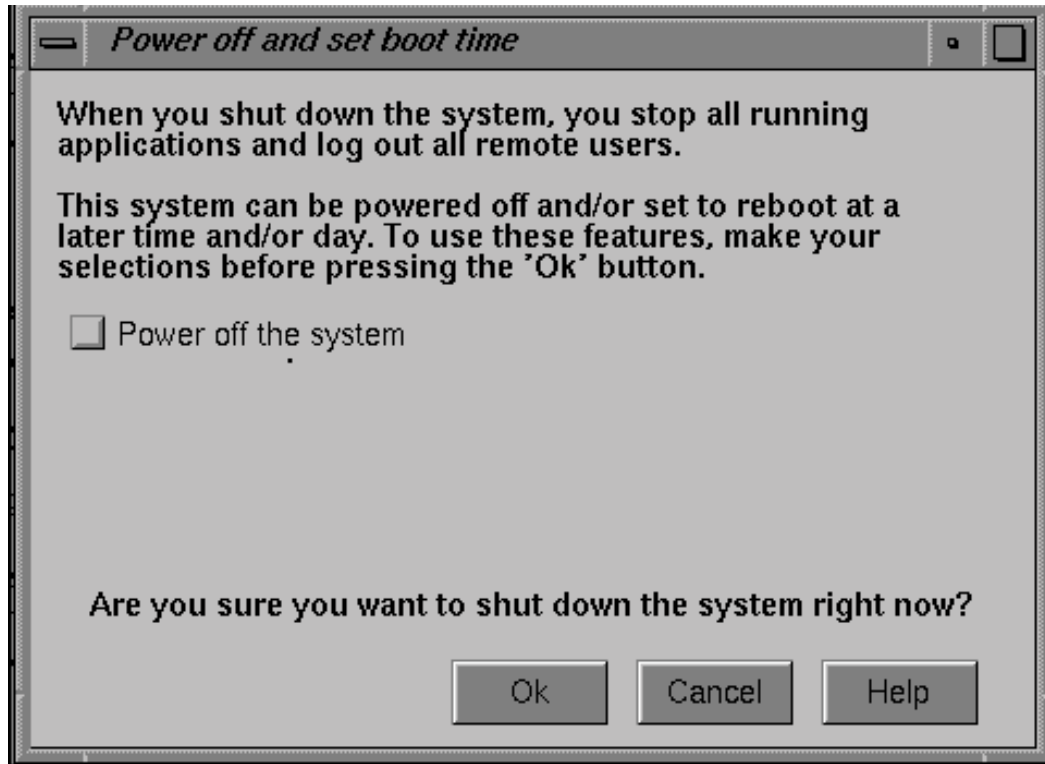


CHALTSYS WINDOW
ILLUSTRATION L27

7. With the cursor in the "chaltsys" window, Type Password: **Operator**

8. Click on **[OK]** (or press **<Enter>**).

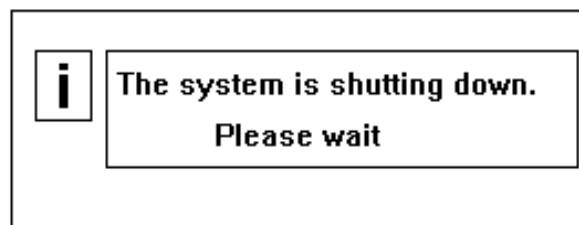
- The window called "Power Off and Set Boot Time" appears Illustration L26.



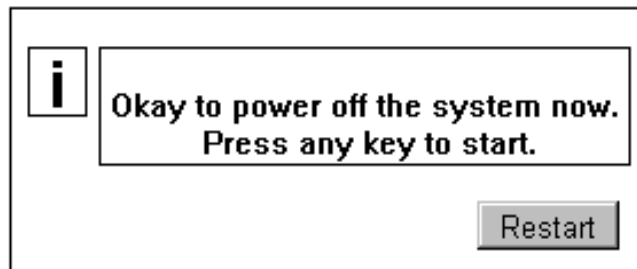
POWER OFF AND SET BOOT TIME
ILLUSTRATION L26

9. Click on **[OK]**.

- The "System is Shutting Down" Notifier Illustration L7 and the "Okay to Power Off" Notifier Illustration L8 appear.

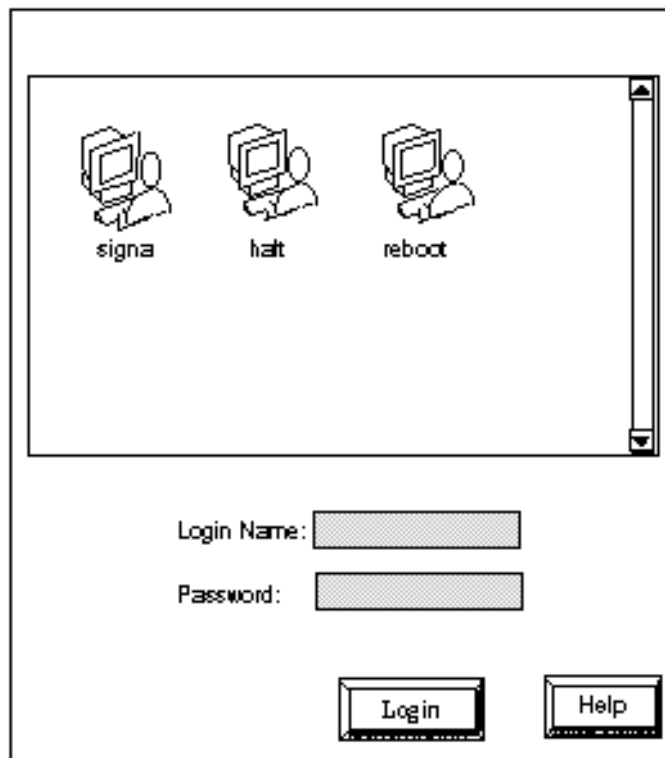


SYSTEM SHUT DOWN
ILLUSTRATION L7



POWER OFF NOTIFIER
ILLUSTRATION L8

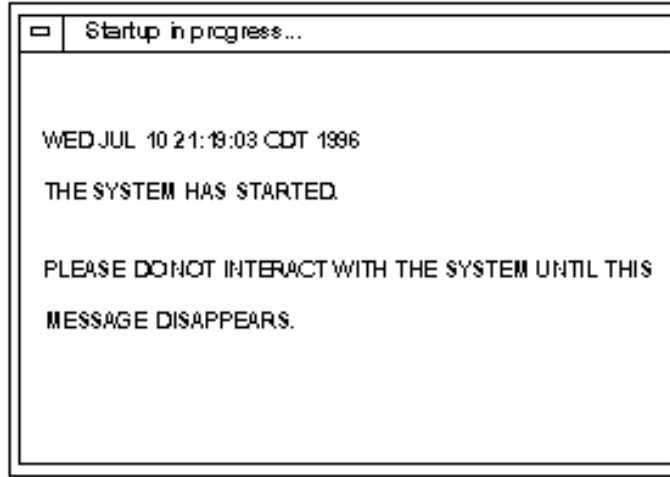
10. Click on **[Restart]** in the "Okay to Power Off" Notifier or press any key.
 - The "Starting up the System" Notifier Illustration L2 appears, see Section 5-1.
11. Click on **[Stop for Maintenance]** in the "Starting up the System" Notifier, and proceed as above Section 5-1.
12. When finished, click **[Start System]** from the "System Maintenance" Menu, See Illustration L3 in Section 5-1.
 - The "Starting up the System" notifier appears, see Illustration L2 in Section 5-1, followed by "The system is coming up" Notifier, See Illustration L1 in Section 5-1.
 - A login window then appears Illustration L15.



SIGNA LOGIN WINDOW
ILLUSTRATION L15

13. Type login name: **signa** <Enter> or click on **[signa]** <Enter>.
14. Type password: **adw2.0**<Enter>.

- The window called "Startup in Progress" appears Illustration L18.

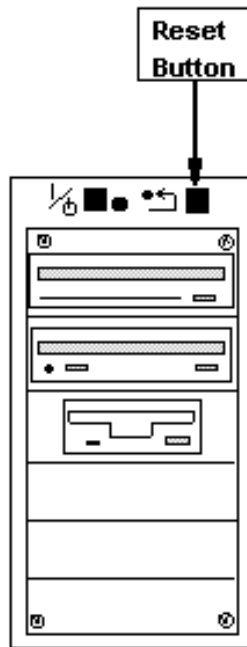


STARTUP IN PROGRESS WINDOW
ILLUSTRATION L18

- This remains on for about two minutes, after which time the system is up and running.

5-2-1 Using Reset

- If the system is malfunctioning and you cannot communicate with it over the network, or by using the mouse or keyboard, then press the Reset button located on the front of the computer Illustration L31.



RESET BUTTON
ILLUSTRATION L31

- The system will run through Power On Diagnostics. When the "Starting up the System" Notifier appears, Illustration L2, proceed as above Section 5-1.

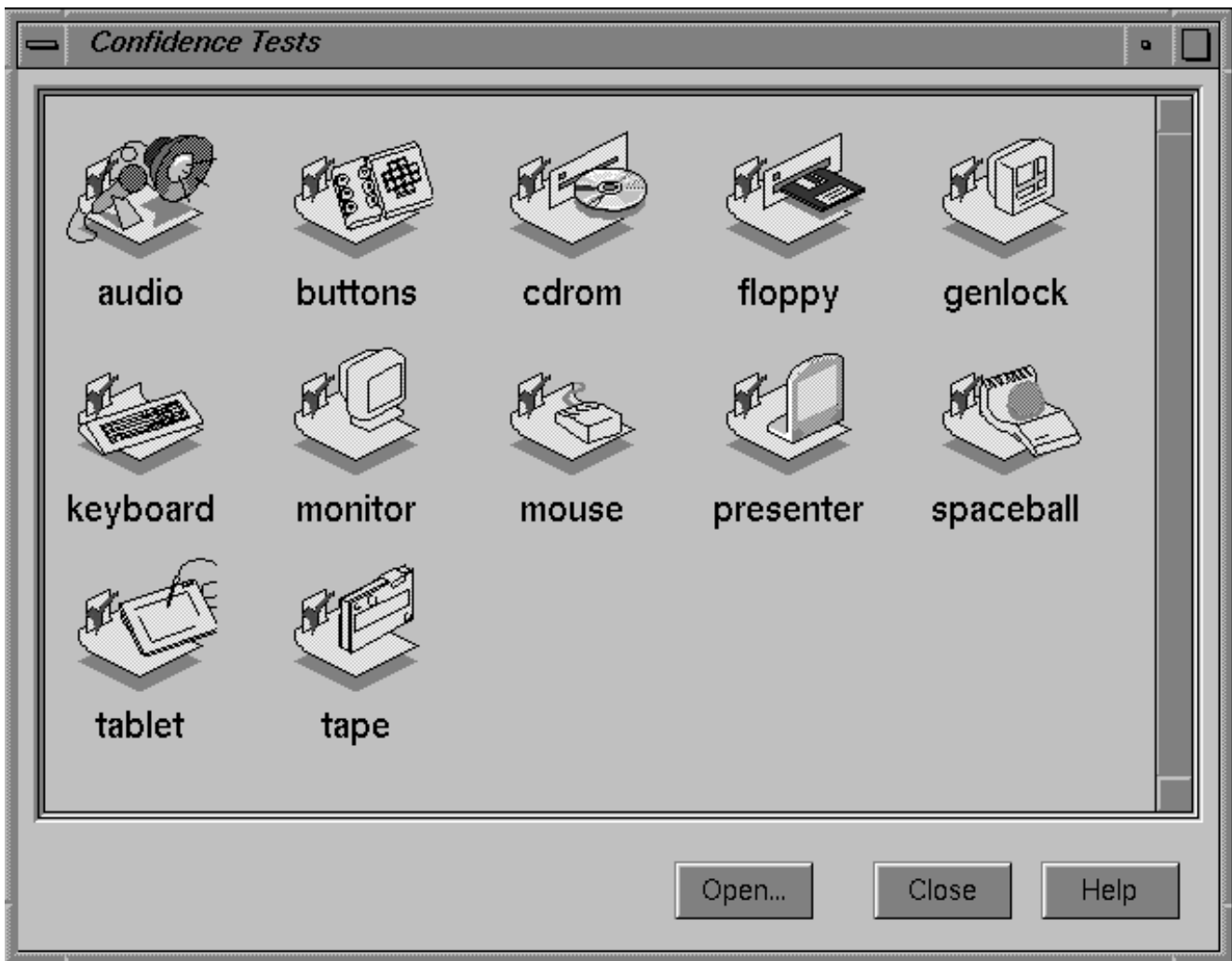
6- RUNNING CONFIDENCE TESTS

- Use the Confidence Tests to verify that the Audio, CD-ROM Drive, Floppy Drive, Genlock, Keyboard, Mouse, Monitor, and/or any of the SCSI peripherals (excluding hard disks) is working properly.
1. Click on the word **[System]** in the SGI Tools Menu Illustration L5 in section 5-2.
 - The System Manager pull down menu appears Illustration L6 in Illustration 5-2..



See Section 5-2 Activating Run Diagnostics from a Running System to bring up the SGI Tools Menu.

2. Click on **[Run Confidence Tests]**.
3. The window called "Confidence Tests" appears Illustration L32.



CONFIDENCE TESTS
ILLUSTRATION L32

4. If running the Confidence Tests determines one of the devices is faulty, see procedure for Operator Workspace Replacement to replace the device.

6-1 Audio

- If an audio application is running and there is no audio output, first ensure that all cables are connected properly. Then use the Confidence Test to check that the audio is functioning properly.
 - To test audio, follow these steps:
1. From the "Confidence Tests" Window, see Illustration L32 in Section 6, click on **[Audio]**, **[Open]**, or double-click on the **[Audio]** Icon. The window called "Audio Test" is displayed, Illustration L38.

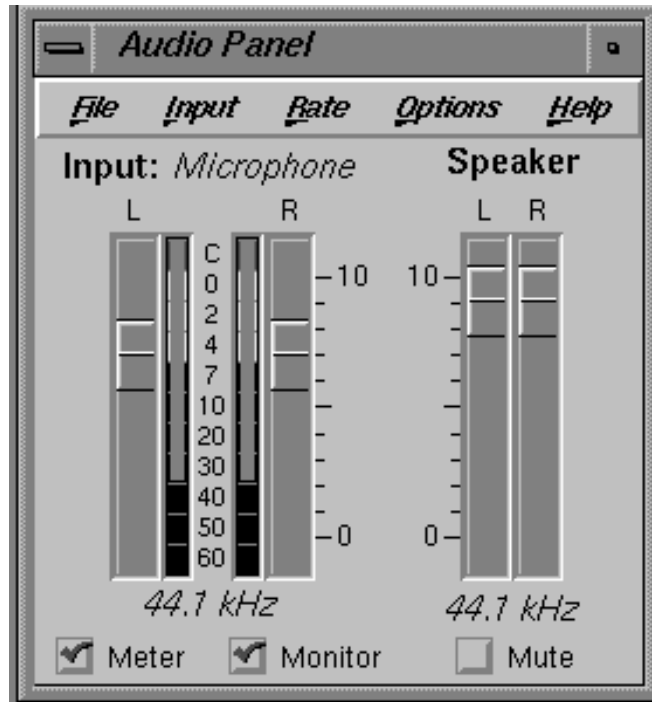


AUDIO TEST
ILLUSTRATION L38



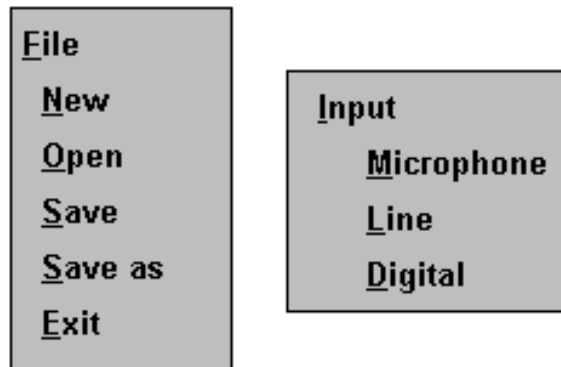
Clicking on **[Help]** from the "Audio Test" window, supplies useful information about this process.

- Click on **[Start Test]**. The window called "Audio Panel" appears Illustration L22.



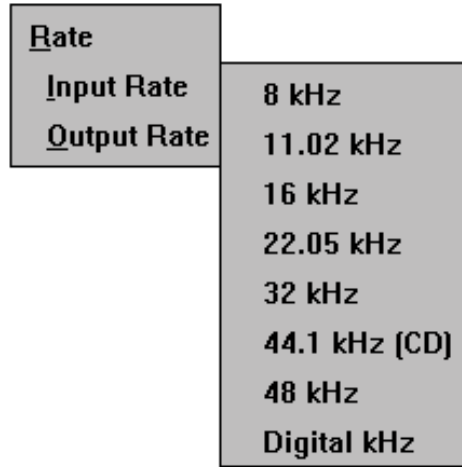
AUDIO PANEL
ILLUSTRATION L22

- The following Pull Down Menus on the "Audio Panel" allow for various forms of testing:
 - File and Input Menus Illustration L9 .



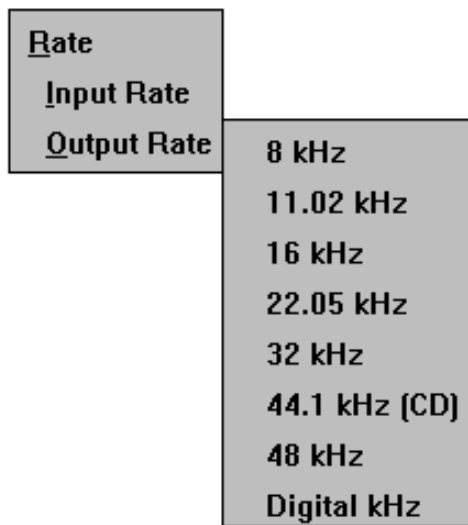
FILE AND INPUT MENUS
ILLUSTRATION L9

- Rate/Input Rate Menu Illustration L10.



RATE/INPUT MENU
ILLUSTRATION L10

- Rate/Output Rate Menu Illustration L11.



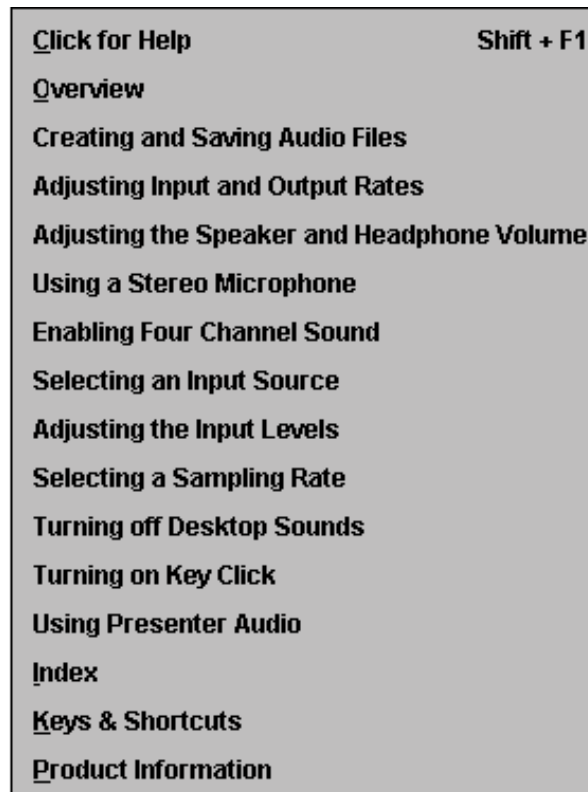
RATE/OUTPUT MENU
ILLUSTRATION L11

- Options Menu Illustration L12.



AUDIO OPTIONS MENU
ILLUSTRATION L12

- Help Menu Illustration L13.



AUDIO HELP MENU
ILLUSTRATION L13

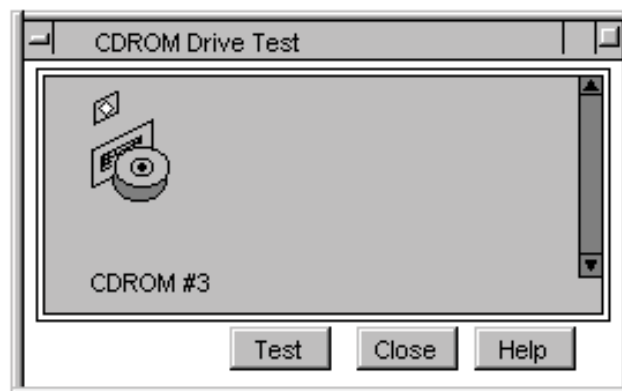
2. Follow the instructions in the various menus.
3. Click on **[Quit]** in the "Audio Panel" Window to exit.
4. If your audio is still not responding, you may have a bad audio system. If this is the case, you must replace the CPU board. See procedure for Operator Workspace Replacement.

6-2 Dial and Button, Tablet, Spaceball, and Presenter

- Confidence tests can be run on these items. Instructions on how to run each are in the installation booklet that comes with each option.
- At the present time, however, the product is not equipped with "Dial and Button," "Tablet," "Spaceball," or "Presenter."

6-3 CD-ROM Drive

- Before running a Confidence Test on a CD-ROM drive, ensure that the drive is correctly installed. See procedure for Operator Workspace Replacement, Section 3-6-3 CD-ROM Drive Replacement to replace the CD-ROM Drive.
- If a problem with the drive is suspected, remove it and then reinstall it. If the problem persists, run the CD-ROM drive Confidence Test using the following steps:
 1. Load a CD into the drive.
 2. From the window called "Confidence Tests" Illustration L32 in Section 6, select the CD-ROM Icon and click on **[Open]** or double-click on the icon.
 - The window called "CD-ROM Drive Test " appears Illustration L23.



CDROM DRIVE TEST
ILLUSTRATION L23



Clicking on [Help] from the "CD-ROM Drive Test" window, supplies useful information about this process.

3. Click on **[Test]** and the CD-ROM test begins.
4. Follow the indicated procedures.
 - When the test is complete, the CD-ROM drive test completion notifier appears.
5. Click on **[Continue]** to dismiss the Notifier.
6. If the drive doesn't pass the test, see procedure for Operator Workspace Replacement, Section 3-6-3 CD-ROM Drive Replacement to replace the CD-ROM Drive.

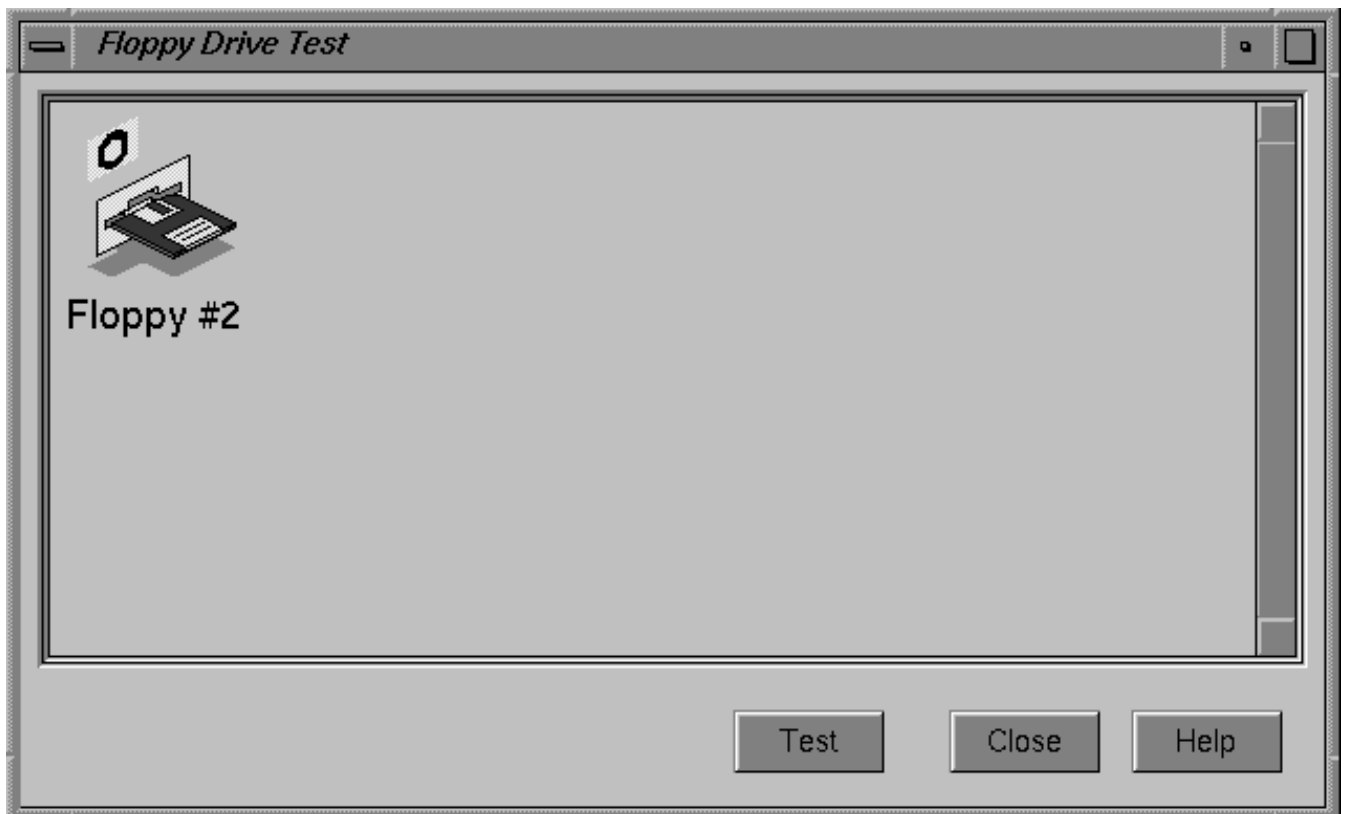
6-4 Floppy Drive

- Before you run a Confidence Test on a floppy drive, ensure that it is correctly installed in your system.
- If a problem is suspected, first remove the floppy drive and then reinstall it. If the problem persists, run the floppy drive Confidence Test.



When testing a floppy drive, use a floppy that is blank or doesn't have information that is needed. The test destroys any information on the floppy.

1. Insert a floppy disk into the floppy disk drive.
 2. From the window called "Confidence Tests," Illustration L32 in Section 6, select the Floppy icon and click on **[Open]** or double-click on the icon.
- The window called "Floppy Drive Test" appears Illustration L33.



FLOPPY DRIVE TEST
ILLUSTRATION L33



Clicking on [Help] from the "Floppy Drive Test" window, supplies useful information about this process.

3. Select the icon that represents your floppy drive and click on **[Open]** or double-click on the icon.
4. The window called "Select a Device" appears Illustration L34. Click on **[OK]**.

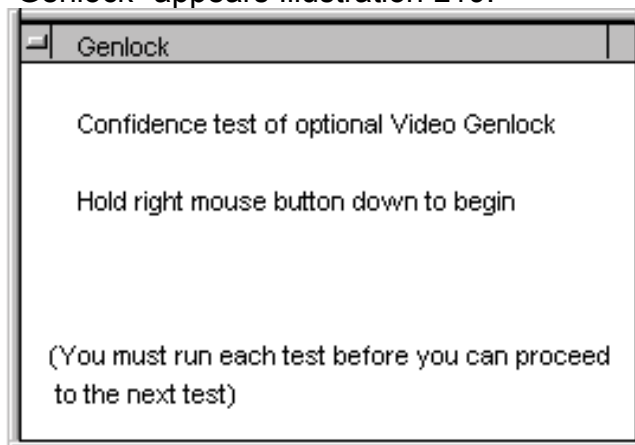


SELECTING A DEVICE
ILLUSTRATION L34

5. Follow the indicated procedures.
 - When the test is complete, the "Floppy Drive Test Completion" Notifier appears.
6. Click on **[Continue]** to dismiss the notifier.
7. If the drive doesn't pass the test, see procedure for Operator Workspace Replacement, Section 3-6-5 Floptical Drive Replacement to replace the Floppy Drive.

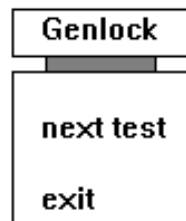
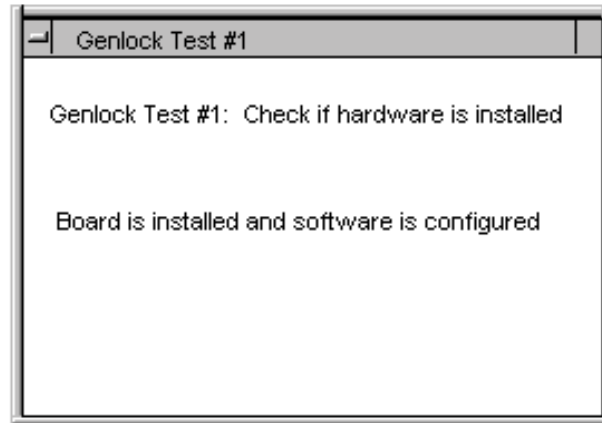
6-5 Genlock

1. From the window called "Confidence Tests," Illustration L32 in Section 6, select the Genlock Icon and click on **[Open]**, or double click on the Genlock Icon.
 - The window called "Genlock" appears Illustration L19.



GENLOCK
ILLUSTRATION L19

2. Hold the right mouse button down and the "Genlock Menu" appears Illustration L19 (above).
3. Click on **[run test]** and the first Genlock test starts Illustration L20.

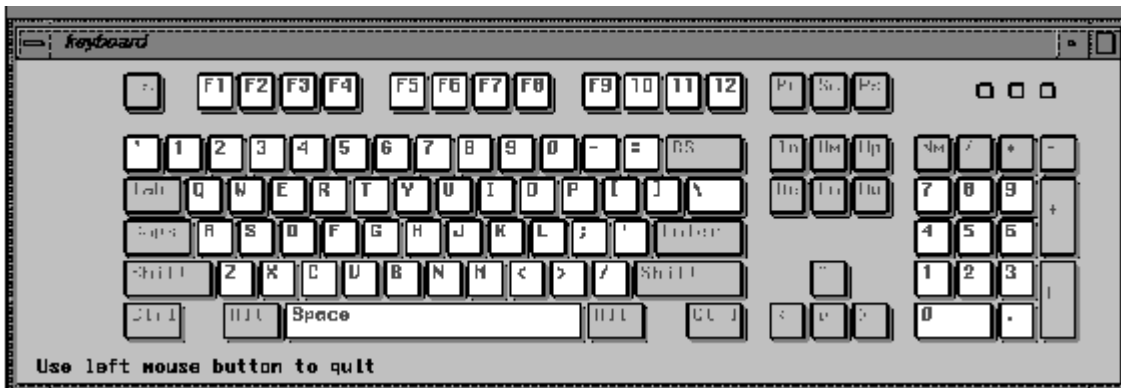


GENLOCK TEST #1
ILLUSTRATION L20

4. Click on the various menus to complete the Genlock tests.
5. Click on **[exit]** in one of the Genlock Menus to terminate the Genlock tests.

6-6 Keyboard

- The Keyboard Confidence Test is useful if the Keyboard is not responding to input. Before running the Confidence Test, ensure that the cable that connects the Keyboard to the system is firmly connected. Then use the Confidence Test to ensure that the Keyboard is working correctly.
1. From the window called "Confidence Tests," Illustration L32 in Section 6, select the Keyboard Icon and click on **[Open]** or double-click on the icon. The Keyboard appears Illustration L24.



KEYBOARD
ILLUSTRATION L24

2. To test, press the different keys on the Keyboard. Each key will be highlighted on the screen as it is pressed.
3. If a pressed key is not highlighted on the screen, there may be a problem with the Keyboard or with the cable that connects the Keyboard to the system.

Note

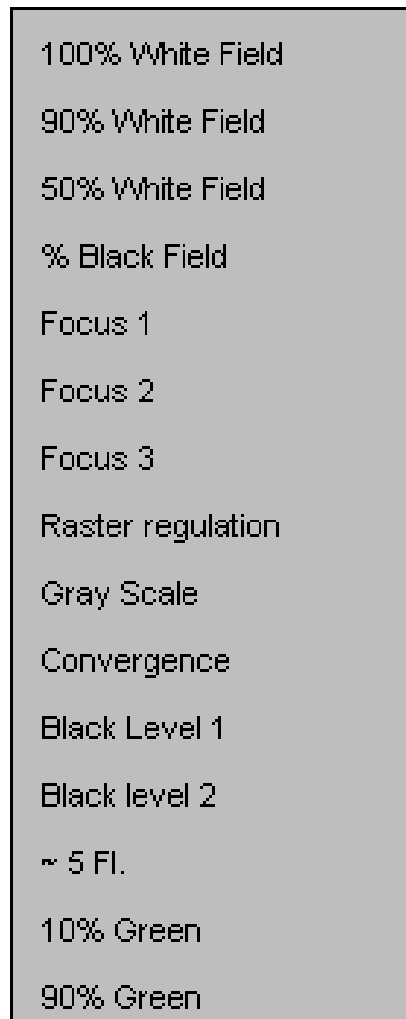
Keyboard - If the keyboard is other than the one supplied by Silicon Graphics, the key layout may be different.

4. Close the Keyboard test by clicking the button in the upper left-hand corner of the Keyboard graphic and selecting **[Quit]**, or press **[Esc]**.
5. If the Keyboard does not work, see to replace the Keyboard.

6-7 Monitor

- If the monitor isn't working properly or the display is distorted, first check the cable that connects the monitor to the system.
 - Also check to ensure that the brightness knob provides sufficient light to the screen; that the monitor video cable is firmly connected to both the monitor and the chassis; and that the thumbscrews are screwed in all the way.
 - If a problem persists, use the Confidence Test to check that the monitor is working properly by following these steps:
1. From the window called "Confidence Tests," Illustration L32 in Section 6, select the Monitor Icon and click on **[Open]** or double-click on the Monitor Icon.

- The Monitor Test Menu appears Illustration L14.

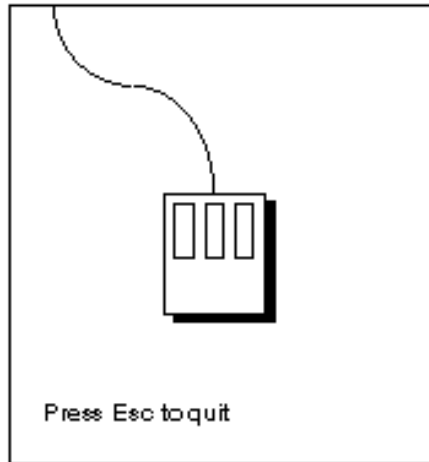


MONITOR TEST MENU
ILLUSTRATION L14

- To run one of the tests from the menu, click on the menu choice and observe the response.
- Click on **[Quit]** to end the test.
- If the monitor tests indicate a failure, see procedure for Operator Workspace Replacement, Section 2-1 Monitor Replacement to replace the Monitor.

6-8 Mouse

- If the Mouse buttons do not work, ensure that the Mouse cable is firmly connected to the back of the system. If the buttons still do not work, run the Confidence Test using the following steps:
1. From the window called "Confidence Tests," Illustration L32 in Section 6, select the Mouse Icon and click on **[Open]** or double click on the icon.
 - The Mouse display screen appears Illustration L25.



MOUSE DIAGNOSTIC
ILLUSTRATION L25

2. Test the Mouse by moving it around and pressing each button. These movements are reflected on the screen.
3. If the screen doesn't respond, the Mouse may be faulty. Call Mickey/Minnie or see procedure for Operator Workspace Replacement, Section 2-8 Keyboard/Mouse Replacement to replace the Mouse.
4. Press **[Esc]** to end the test.

6-9 Quarter Inch Tape and Digital Audio Tape Drives

- Before running this test, ensure that the tape drive is properly installed. If a problem is suspected, first remove it and then reinstall it. If the problem persists, run the appropriate tape drive confidence test.



USE A TAPE THAT IS BLANK OR DOESN'T HAVE NEEDED INFORMATION ON IT. THE TAPE DRIVE DESTROYS ANY INFORMATION ON THE TAPE IN THE PROCESS OF TESTING THE HARDWARE.

1. Insert a Tape into the Tape Drive.
2. From the window called "Confidence Tests," Illustration L32 in Section 6, select the **[Tape Drive]** Icon and click on **[Open]** or double-click on the icon.
3. Double-click on the **[Tape Drive]** Icon to start the test.
4. Follow the indicated procedures.
5. When the test is complete, the "Tape Drive Test" completion Notifier appears.
6. Click on **[Continue]** to dismiss the notifier.
7. If the drive doesn't pass the test, see procedure for Operator Workplace Replacement, Section 2-3 DAT Drive or Section 2-4 Pioneer MOD Drive to replace the Tape Drive.

7- RECOVERING FROM A SYSTEM CRASH

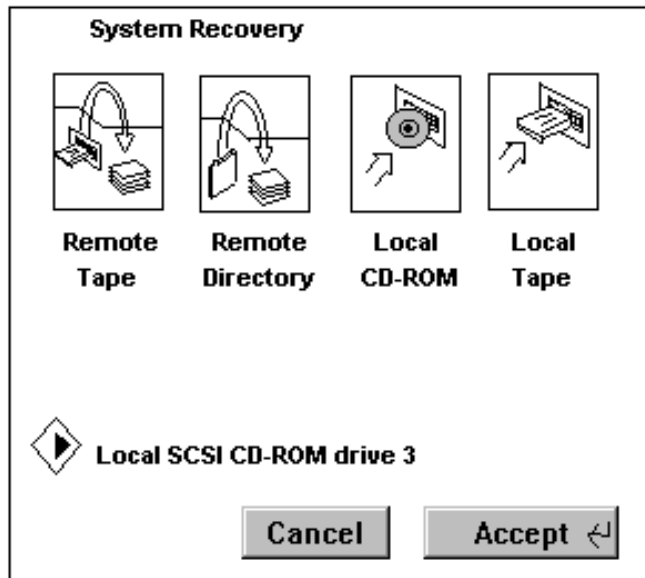
- If the system crashes because of a software malfunction, the IRIX CD that came with the system must be used.
 - Data can then be recovered from the most recent full backup tape.
 - The backup tape must be one that has been made using the System Manager backup tool, or with the `/usr/sbin/Backup` script.
 - To recover from a system crash, follow these steps:
1. If the system is malfunctioning and it cannot be communicated with using the mouse or keyboard, or over the network, press the Reset button on the front of the computer, Illustration L31 in Section 5-3-1.
 2. The "System Startup" Notifier appears Illustration L2 in Section 5-1.
 3. Click on **[Stop for Maintenance]** or press **[Esc]** to bring up the System Maintenance Menu Illustration L3 in Section 5-1.

- Click on the **[Recover System]** Icon in the System Maintenance Menu

Note

Using ASCII Terminal - If you are using an ASCII terminal, type 4 at the System Maintenance Menu.

- The System Recovery Menu appears Illustration L35.



SYSTEM RECOVERY MENU
ILLUSTRATION L35

- Click the appropriate drive icon from which the software is to be recovered.
 - For example: if a CD-ROM drive is connected to the system, click the **[Local CD-ROM]** Icon. Then click **[Accept]** to start.
 - The "Media Request" Notifier then appears Illustration L37, prompting insertion of the media into the drive.



MEDIA REQUEST NOTIFIER
ILLUSTRATION L37

- If there is no CD-ROM drive, a drive that is connected to another system on the network can be used.
- At the System Recovery Menu, click the **[Remote Directory]** icon. When a Notifier appears asking for the remote hostname, type the system's name, a colon (:), and the full path name of the CD-ROM drive, followed by /dist.

- For example, to access a CD-ROM drive on the system mars, type:
mars:/CDROM/dist

7. Insert the IRIX CD that came with the system, then click on **[Continue]**.

- The CD-ROM drive begins reading information from the CD. The system takes approximately 5 minutes to copy the information from the CD that it needs.

8. After everything is copied from the CD to the system disk, data can be restored from a recent full backup tape.

- The backup must be one that has been made using the System Manager backup tool, or with the [/usr/sbin/Backup] script.
- If an action is needed to be performed on the system, a shell prompt can be brought up by typing **[sh]** at most question prompts.
- The following message appears:

```
*****  
SYSTEM RECOVERY  
* * * * *  
* * * * *
```

9. If there is a local tape device, the following message appears:

```
Restore will be from <tapename> OK? ([Y]es, [N]o): [Y]
```

(where <tapename> is the name of the local tape device).

10. If there is a remote (network) tape device, when no tape device is found, or when answering No to the question in the previous prompt, the following message appears:

```
Remote or local restore ([r]emote, [l]ocal):
```

11. If **[remote]** is selected, the restore will be from the network and the following information will be requested:

- The hostname of the remote system;
- The name of the tape device on the remote system;
- The IP address of the remote system;
- The IP address of your system.

Note

IP Addresses - The IP addresses must consist of two to four numbers, separated by periods, such as 192.0.2.1.

12. If **[local]** is selected, a tape device that is connected to the system is chosen, and the name of the tape device is requested.

13. When the following message appears, remove the CD-ROM, insert the most recent full backup tape, and press **[Enter]**.

Insert the first backup tape in the drive, then press <Enter>, [q]uit
(from recovery), [r]start:

14. There is a pause, and then the following message appears:

Erase /x filesystem and make new one (y,n)? [n]

(where "x" is the file system).

- Prompts are given for every file system that was known at the time of the backup.

15. Answer by typing either **[y]** or **[n]**.



If no [n] is selected, the system tries to salvage as many files as possible. It then uses the backup tape to replace the files it could not salvage. No [n] should usually be selected, especially if the backup tape is not very recent. If the file systems were badly damaged, or the backup was from a different level operating system, yes [y] may need to be selected.

If yes **[y]** is selected, the system erases the file system and copies everything from the backup tape to the disk. The system loses any information on the file system that was created between now and when the backup tape was made.

- The following message appears:

Starting recovery from tape.

- After two or three minutes, the names of the files that the system is copying to the disk start scrolling. When the recovery is complete, the following message appears:

Recovery complete, restarting system.

- The system restarts. When the login screen appears, the system is ready to go.



If the backup tapes are old, or you were changing the operating system level, the operating system should be reinstalled from the IRIX CD that comes with the system after system recovery is complete.

- When the "Starting up the System" notifier appears, press **[Esc]** or click on **[Stop for Maintenance]**. Then click on the **[Install System Software]** Icon in the System Maintenance Menu, Illustration L3 in Section 5-1.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
0	July 10, 1998	J. Saperstein	Initial conversion from Toolbook to Word.