

INFORMATION ONLY – DOES NOT COMMUNICATE
A MODIFICATION OR SAFETY CONDITION

E4991A-01

S E R V I C E N O T E

Supersedes:
NONE

E4991A RF Impedance/Material Analyzer

Serial Numbers: JP1KHxxxxx, JP2KHxxxxx, MY432xxxxx

HDD repair procedure is changed

Parts Required:

P/N	Description	Qty.
04287-65000	Mass Storage Disk (HDD) for service	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR: kW PRODUCT LINE: WN

ADDITIONAL INFORMATION:

This procedure must be performed by Agilent Technologies service offices

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January 13, 2005

Situation:

The new HDD (04287-65000) for repair does not include any operating system. When the HDD (04287-65000) is used, the operating system for E4991A should be installed.

Solution/Action:

The new HDD repair procedure for the E4991A is as follows.

Required Equipment

OS Image: CD disk (Operating system for E4991A, F/w rev.1.01, Agilent service office use only)

HDD: p/n 04287-65000 (It is available for 4287A(win98), E4991A(win98), E5070/71A)

Software : Symantec Ghost™ 8.0 (English version, Enterprise product)

System(PC) : Windows 2000 Professional (or Windows XP Professional) with DVD drive
(or available to support external DVD drives)

LAN Cable: Cross (It enables the peer-to-peer communication between the 4287A and the PC.)
(or 2 straight cables and a hub.)

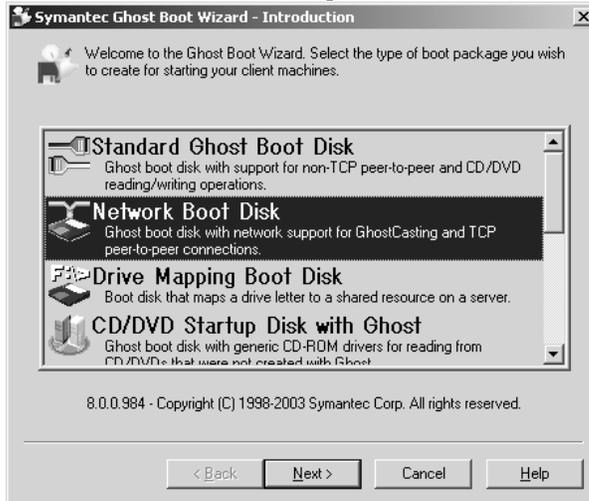
PC installed E4991A adjustment/performance test program(VEE, Agilent service office use only) and a GPIB cable

Outline of the procedure

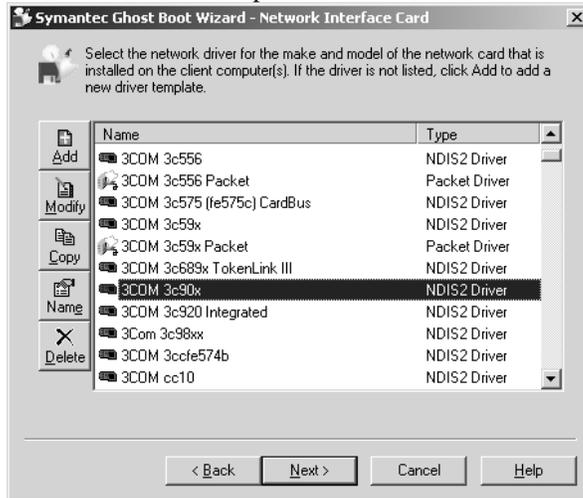
1. **Make Boot disks using Symantec Ghost (only needs to be done one time) (5 min.)**
2. **Replace the defective HDD with the new HDD(p/n 04287-65000) (10 min.)**
3. **Connect the E4991A to your PC installed Symantec Ghost directly**
4. **Set up IP address and subnet mask of your PC (5 min.)**
5. **Set up GhostCast server (10 min.)**
6. **Copy the image file onto the E4991A's HDD (10 min.)**
7. **Perform initial setting for the E4991A (10 min.)**
8. **Perform the E4991A Adjustment / Performance test (110 min.)**

1. Make Boot disks using Symantec Ghost (Required for the first time)

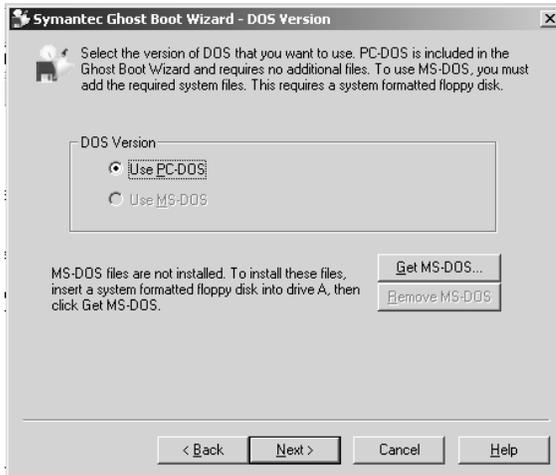
- 1) Click **Start – Programs – Symantec Ghost – Ghost Boot Wizard**.
- 2) Select **Network Boot Disk** and press the **Next** button.



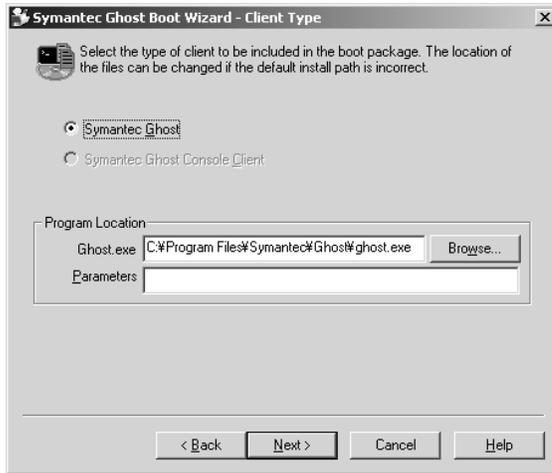
- 3) Select **3COM 3c90x** and press the **Next** button.



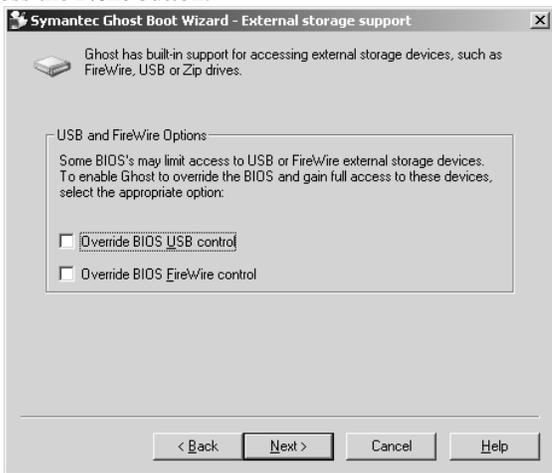
- 4) Press the **Next** button



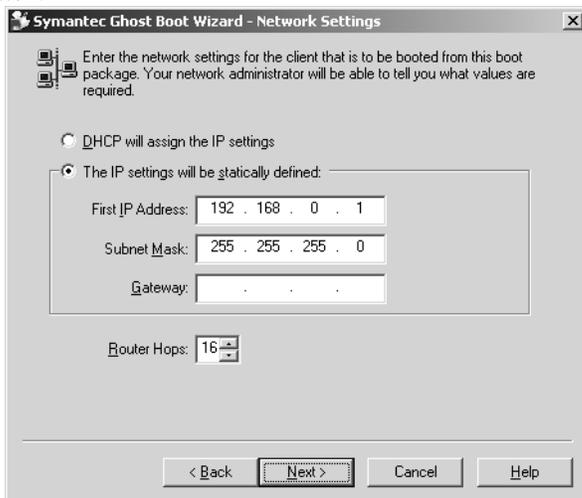
5) Press the **Next** button.



6) Press the **Next** button.



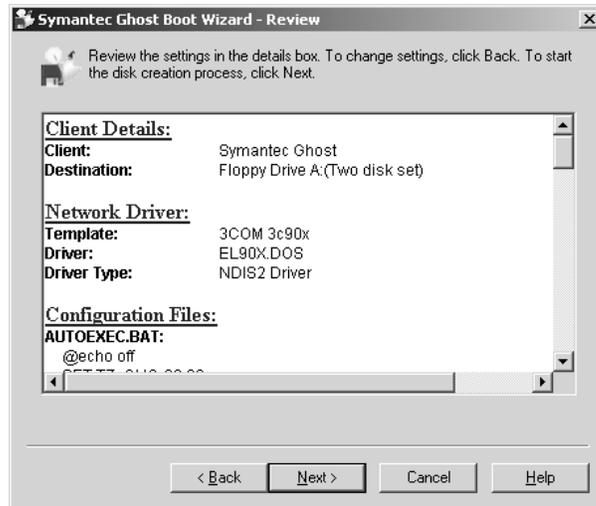
7) Select The IP setting, and enter IP address 192.168.0.1 and subnet mask 255.255.255.0. Press the **Next** button.



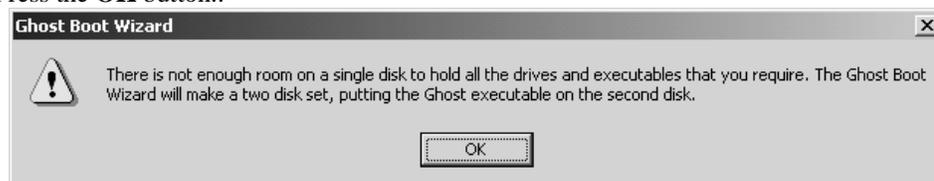
8) Insert a floppy disk into your PC's FDD, and the **Next** button.



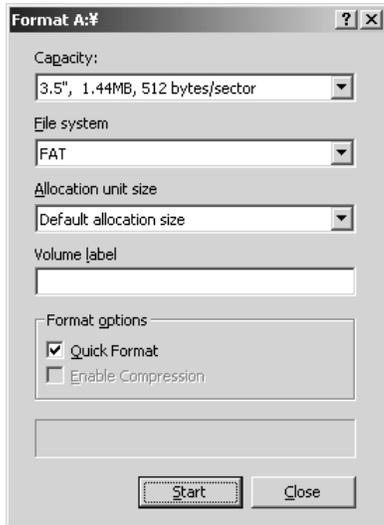
9) Press the **Next** button.



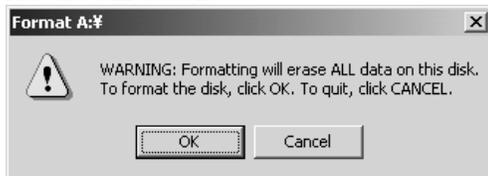
10) Press the **OK** button..



11) Press the **Start** button.



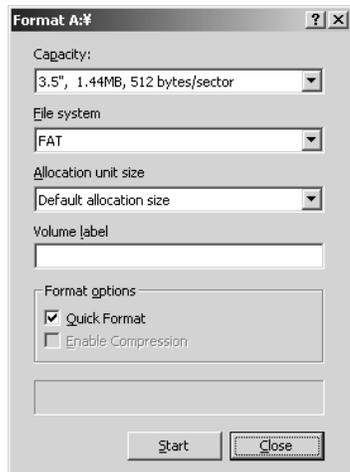
12) Press the **OK** button.



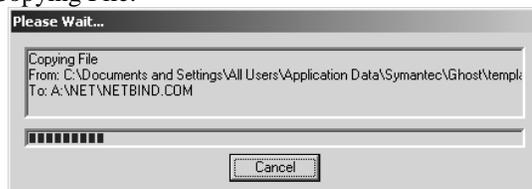
13) Press the **OK** button.



14) Press the **Close** button.



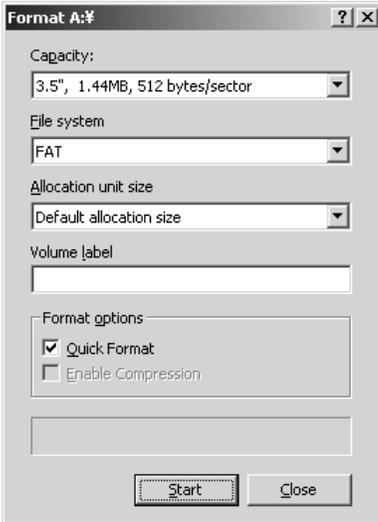
15) Copying File.



16) Insert the second disk into your PC's FDD, and press **OK** button..



17) Press the **Start** button.



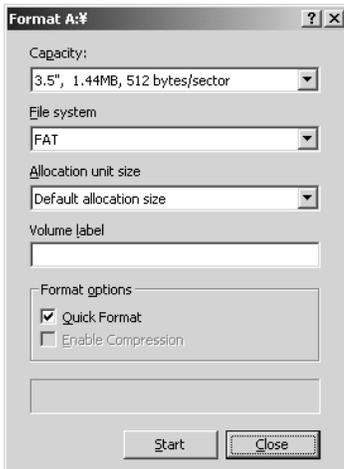
18) Press the **OK** button.



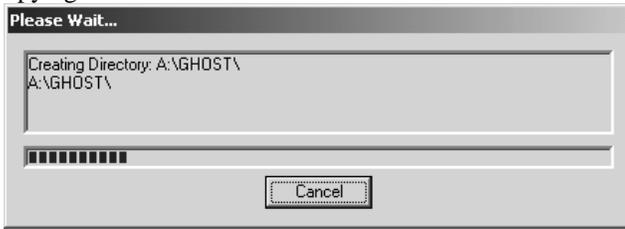
19) Press the **OK** button.



20) Press the **Close** button.



21) Copying File.

22) Press the **Finish** button.**2. Replace the defective HDD with the new HDD(p/n 04287-65000)**

- 1) When the defective HDD is readable, save the following syscal files onto floppy disks. You need to exit from the Measurement View. Refer to “How to exit from the E4991A Measurement View” of the E4991A service manual.

C:\E4991A\syscal\
A1paren.txt
A2syscal.txt
A3paren.txt
A3syscal.txt
A4syscal.txt
Calfreq.csv
DefCal.dat
Fqsyscal.txt

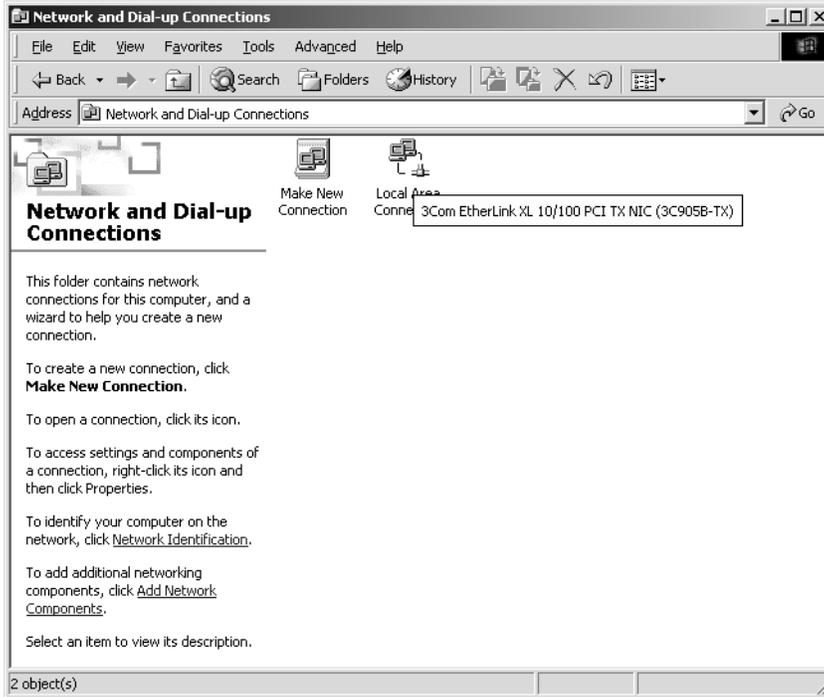
- 2) Replace the defective HDD with the new HDD (p/n 04287-65000).
Refer to “A27 Mass Storage Disk Drive Assembly Removal” of the E4991A service manual.

3. Connect the E4991A to your PC installed Symantec Ghost directly

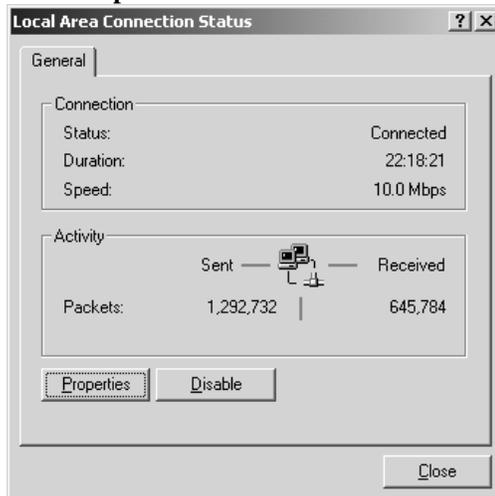
- 1) Connect the E4991A to your PC installed Symantec Ghost directly using a crossed LAN cable (or two straight LAN cables and a Hab for LAN).

4. Set up your PC's IP address and subnet mask

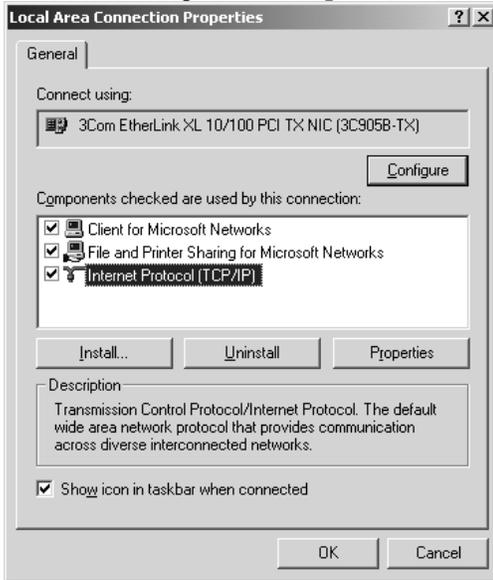
- 1) Double-click "My Computer" icon on Windows desktop of your PC. And double-click Control Panel. The Control Panel window will appear.
- 2) In the Control Panel window, double-click **Network and...**, and click **Local Area Connection**.



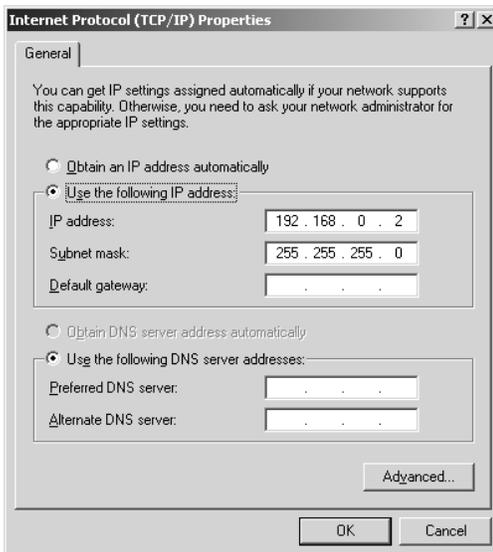
- 3) Press the **Properties** button.



- 4) Select **TCP/IP** and press the **Properties** button.



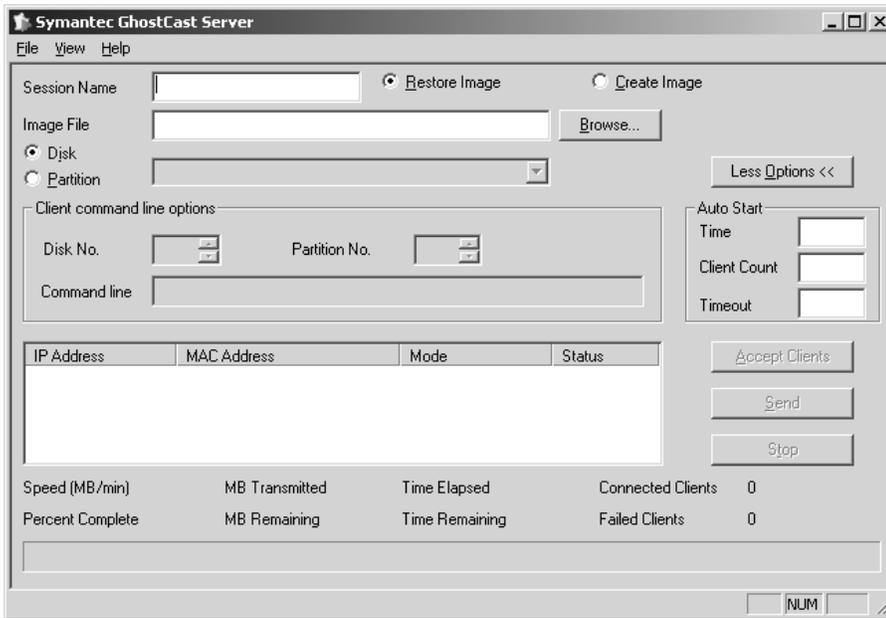
- 5) Select **Use the following IP address**, and then enter the IP address 192.168.0.2 and subnet mask 255.255.255.0. Press the **OK** button.



- 6) Restart your PC.

5. Set up GhostCastServer

- 1) Insert the CD disk (Operating System for E4991A) into your PC's CD drive (or an external CD drive). Then, copy the image file of the CD disk onto your PC's HDD (C drive) as a temporary image file.
- 2) Click **Start – Programs – Symantec Ghost – GhostCastServer**.
- 3) Click the **Browse** button.



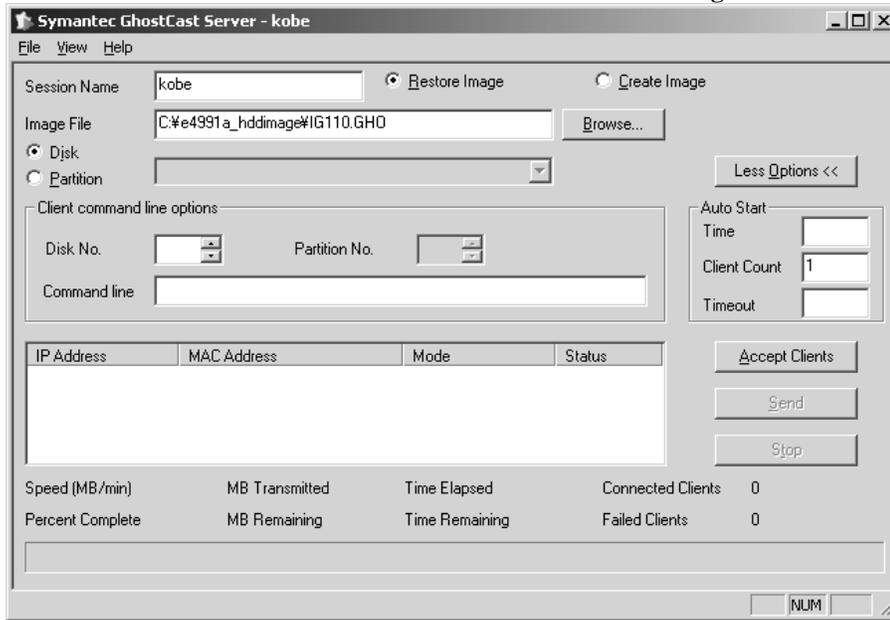
- 4) If Insert disk dialog box is displayed, click the **Cancel** button.



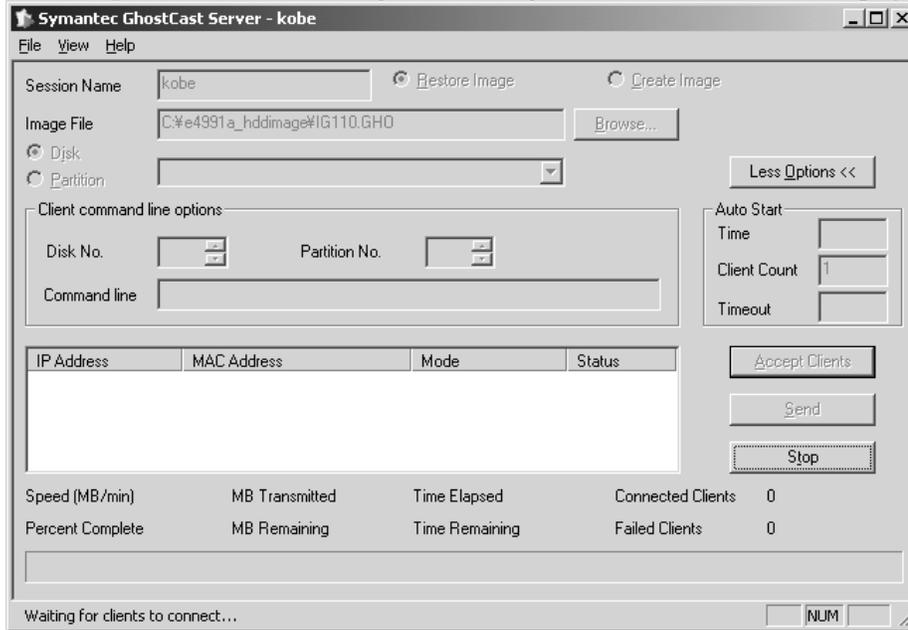
- 5) Select the temporary image file you copied, and press the **Open** button.



6) Enter session name **kobe** and client count **1**. Then select **Restore Image and Disk**

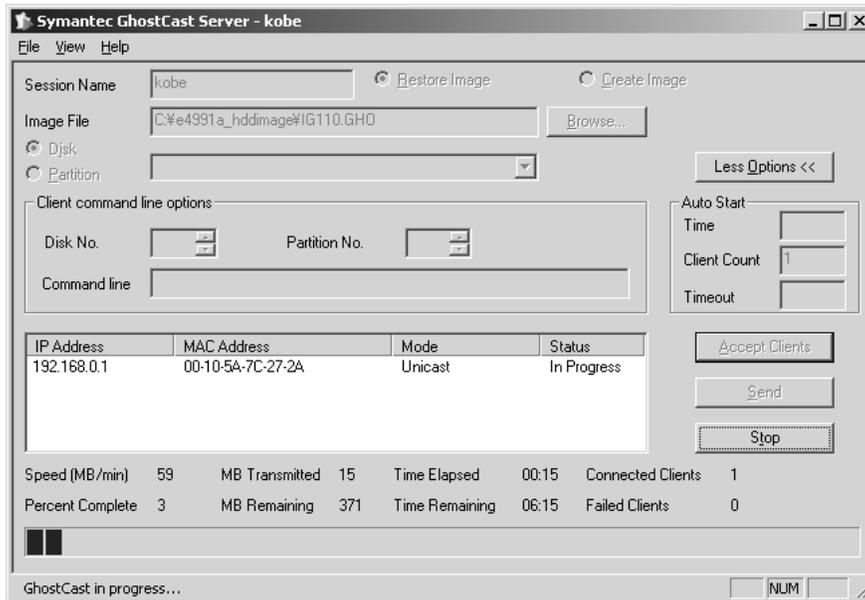


7) Click the **Accept Client**. Then, a message of “Waiting for client to connect...” is displayed.



6. Copy the image file onto the E4991A's HDD

- 1) Connect the external keyboard and mouse to the connectors on the E4991A rear panel.
- 2) Insert the ghost boot disk (1st disk) into the FDD of the E4991A.
- 3) Turn the instrument on.
- 4) **PC DOS 7.1 Startup Menu** is displayed. Then, select **1** and press **Enter** key.
- 5) Confirm that there are no error messages on the display.
- 6) A message of **"Insert Ghost boot disk 2 (containing Ghost.exe). Press any key to continue.."** is displayed. Then, insert the disk 2 into the FDD, and press **Enter** key.
- 7) **About Symantec Ghost** dialog box is displayed. Then, click the **OK** button.
- 8) Click **Ghost Cast – Unicast**.
- 9) **GhostCast Session Name to Join** dialog box is displayed. Enter the session name **kobe**, select Server IP Address and enter the IP address **192.168.0.2**. Then, click the **OK** button.
- 10) **Select local destination drive by clicking on the driver number** dialog box is displayed. Then, click the **OK** button.
- 11) **Destination Drive Details** dialog box is displayed. Then, click the **OK** button.
- 12) **Question: (LB22)** dialog box is displayed. Then, click the **Yes** button.
- 13) **Progress Indicator** dialog box appears.
- 14) In your PC, a message of **"GhostCast in progress.."** is displayed.



- 15) In E4991A display, **Clone Complete** dialog box is displayed. Then, click the **Continue** button and **Quit**.
- 16) **Quit Symantec Ghost** dialog box is displayed. Then, click the **Yes** button.
- 17) **A:\GHOST>** prompt is displayed. Then, turn the E4991A off.
- 18) In your PC, **Transfer Complete** is displayed. Then, click the **OK** button.



- 19) Remove the boot disk from the E4991A's FDD.

7. Perform initial setting for E4991A

- 1) Disconnect the LAN cable from the E4991A.
- 2) Turn the E4991A on.
- 3) **System Setting Change** Dialog Box is displayed. Then, click the **No** button.
- 4) Double-click the **NetConf** icon.
- 5) Network adapter window is displayed. Then, click the **OK** button.
- 6) Success window is displayed. Then, click the **OK** button.
- 7) Double-click the **NetCheck** icon.
- 8) Network adapter window is displayed. Then, click the **OK** button.
- 9) Success window is displayed. Then, click the **OK** button.
- 10) Double-click the **CreateShortcut** icon.
- 11) VBScript window is displayed. Then, click the **OK** button.
- 12) Click **Start – Shut down**. Then, select **Shut down** and click the **OK** button.
- 13) Turn the E4991A on. Then, confirm that the Measurement View is displayed.
- 14) Turn the E4991A off.
- 17) Turn the E4991A on.
- 18) Press B on the keyboard immediately when a message of “Push ‘B’ key to enter back up mode [B, N]?” is displayed.
- 19) Follow the instructions for back up mode.
- 20) The E4991A is restarted. Confirm that a message of “Push ‘R’ key to enter recovery mode [R, N]?” is displayed.
- 21) Confirm that the Measurement View is displayed. Then, turn the E4991A off.

8. Perform the E4991A Adjustment program and performance test program

- 1) When you save the syscal files previously, restore the files onto the following folder.
C:\E4991A\syscal\
If the current syscal files exist on factory or service center’s PC, you can copy the files onto the new HDD without performing the E4991A adjustment program.
- 2) If the current syscal files do not exist any more, perform All adjustment of the E4991A adjustment program.
- 3) Perform System Backup with the system backup disk. For details, see chapter 3 "Adjustment" on the E4991A Service Manual
- 4) When the All adjustment is performed, perform All tests of the E4991A performance test program.