

INFORMATION ONLY – DOES NOT COMMUNICATE
A MODIFICATION OR SAFETY CONDITION

E5071A-06B

S E R V I C E N O T E

Supersedes:
E5071A-06A

E5071A ENA Series Network Analyzer, 300 kHz to 8.5 GHz

Serial Numbers: [0000A00000 / 9999Z99999]

HDD repair and Operating system update procedures are changed

Parts Required:

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

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR: KH PRODUCT LINE: WN

ADDITIONAL INFORMATION:

This procedure must be performed by Agilent Technologies service offices

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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 E5071A should be installed. The power-on test limit file and the internal test file rev A.05.00 or later also should be installed in order to avoid unnecessary test failures.

Solution/Action:

The new HDD repair procedure for the E5071A is as follows. The procedure also can be used to update the operating system image without replacing the HDD.

Required Equipment

OS Image: DVD disk (Operating system for E5070A/71A, F/w rev.3.62, Agilent service office use only)

Power-on test limit file and internal test file rev A.05.00 or later: Available at the E5070A firmware A.03.62 download web site.

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 E5071A and the PC.)
(or 2 straight cables and a hub.)

PC installed E5070/71A adjustment program(VEE, Agilent service office use only) and a GPIB cable

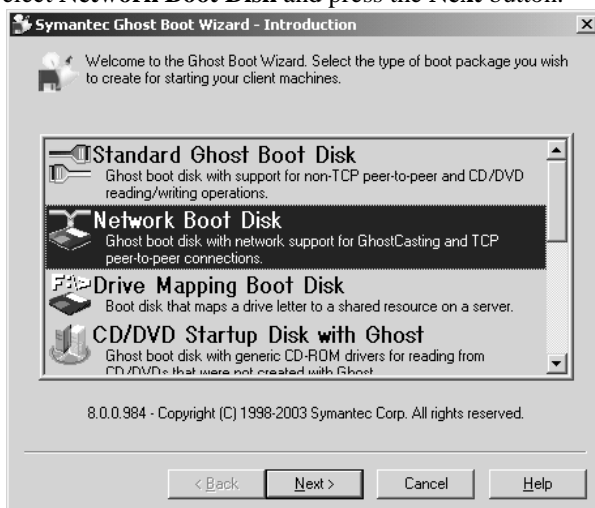
Outline of the procedure

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 E5071A 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 (20 min.)
6. Set BIOS options for the E5071A, and copy the image file onto the E5071A's HDD (30 min.)
7. Perform initial setting for the E5071A (20 min.)

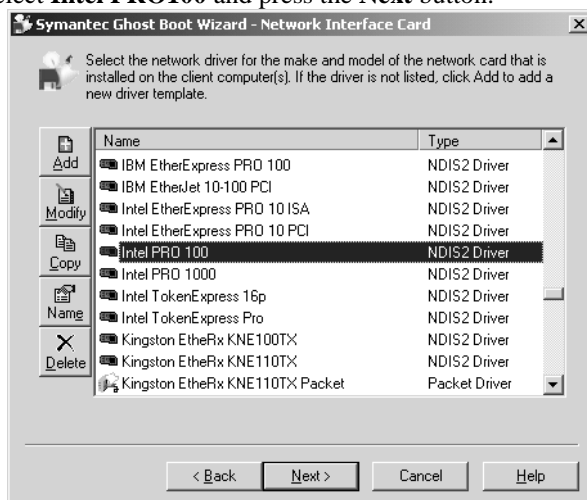
NOTE Skip the procedure 2 when only updating the operating system image. The other procedures are common to the HDD replacement and the image update.

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

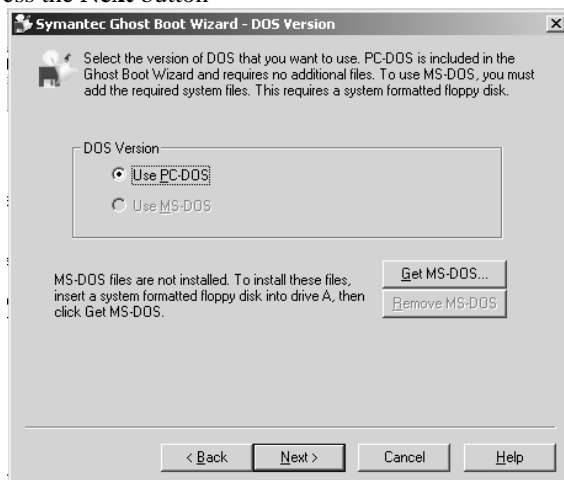
- 1) Click **Start – Programs – Symantec Ghost – Ghost Boot Wizard**.
- 2) Select **Network Boot Disk** and press the **Next** button.



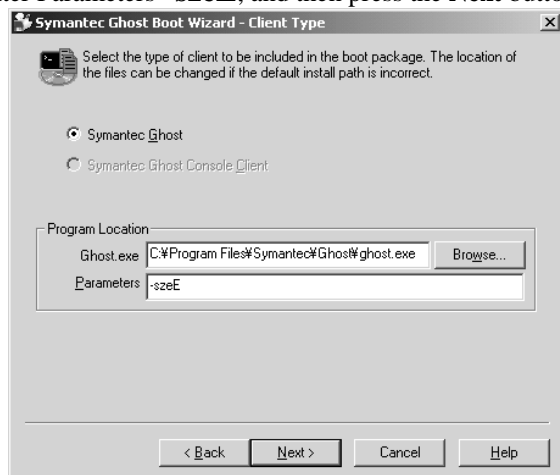
- 3) Select **Intel PRO100** and press the **Next** button.



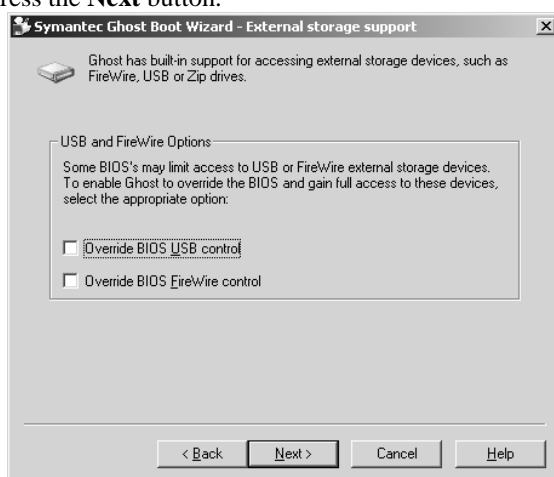
- 4) Press the **Next** button



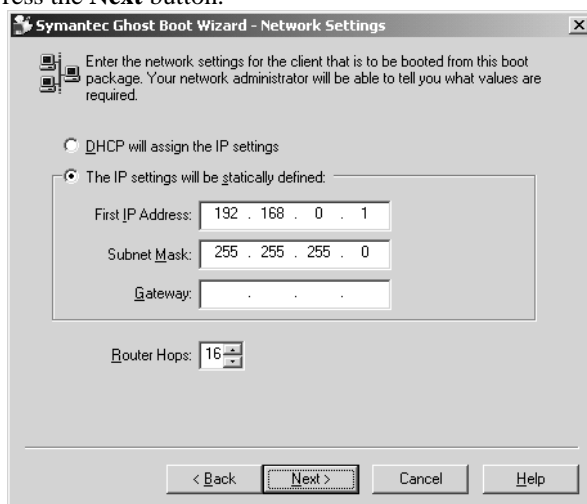
- 5) Enter Parameters **-sizeE**, and then press the **Next** button.



- 6) Press the **Next** button.



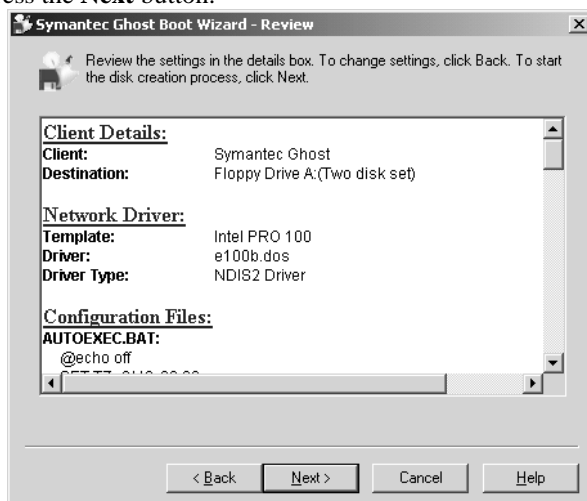
- 7) Select The IP setting, and enter IP address 192.168.0.1 and subnet mask 255.255.255.0. Press the **Next** button.



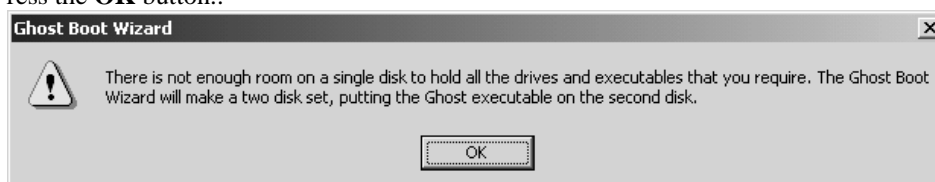
- 8) Insert a floppy disk into your PC's FDD, and the **Next** button.



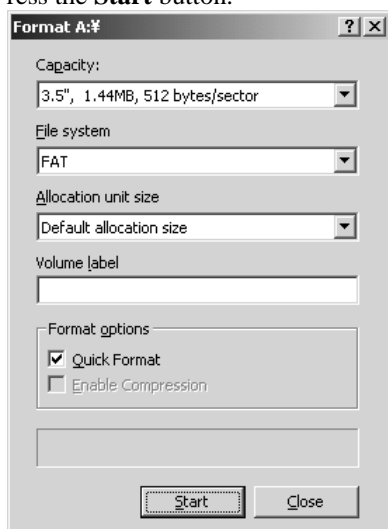
- 9) Press the **Next** button.



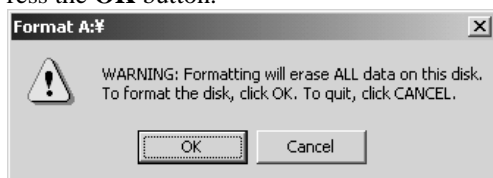
- 10) Press the **OK** button..



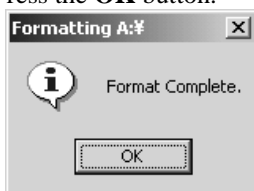
11) Press the **Start** button.



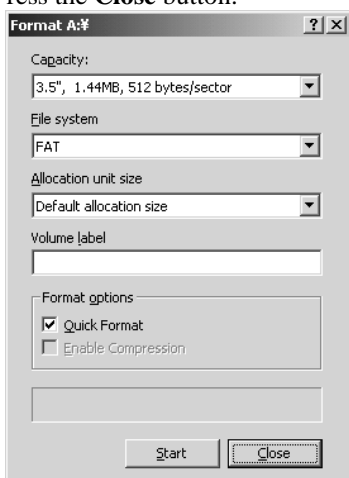
12) Press the **OK** button.



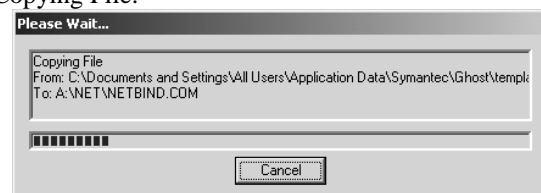
13) Press the **OK** button.



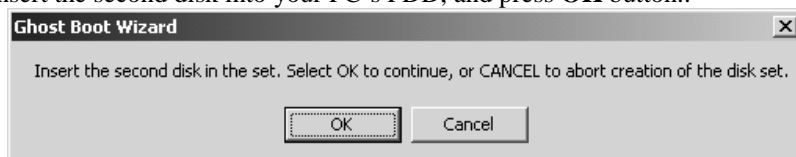
14) Press the **Close** button.



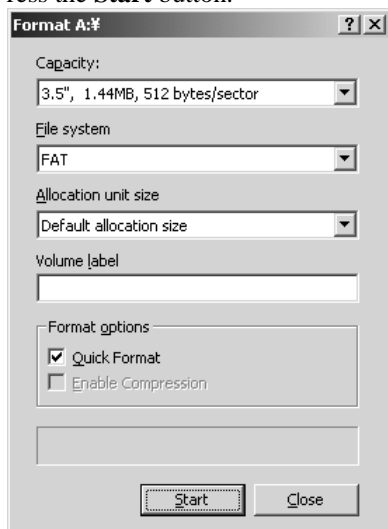
15) Copying File.



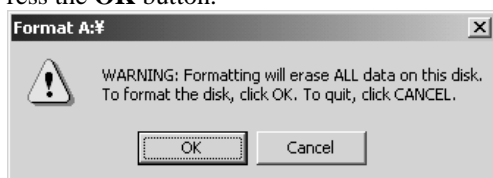
- 16) Insert the second disk into your PC's FDD, and press **OK** button..



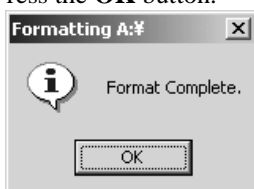
- 17) Press the **Start** button.



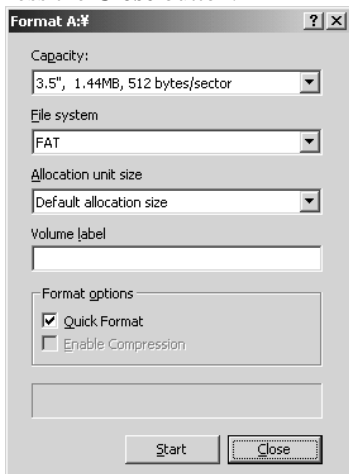
- 18) Press the **OK** button.



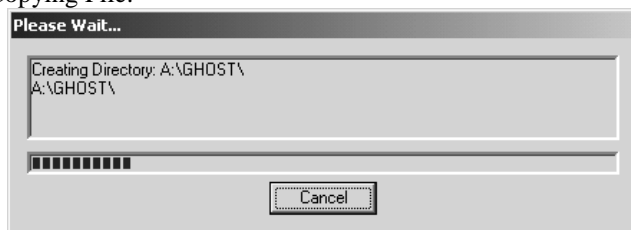
- 19) Press the **OK** button.



- 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)**

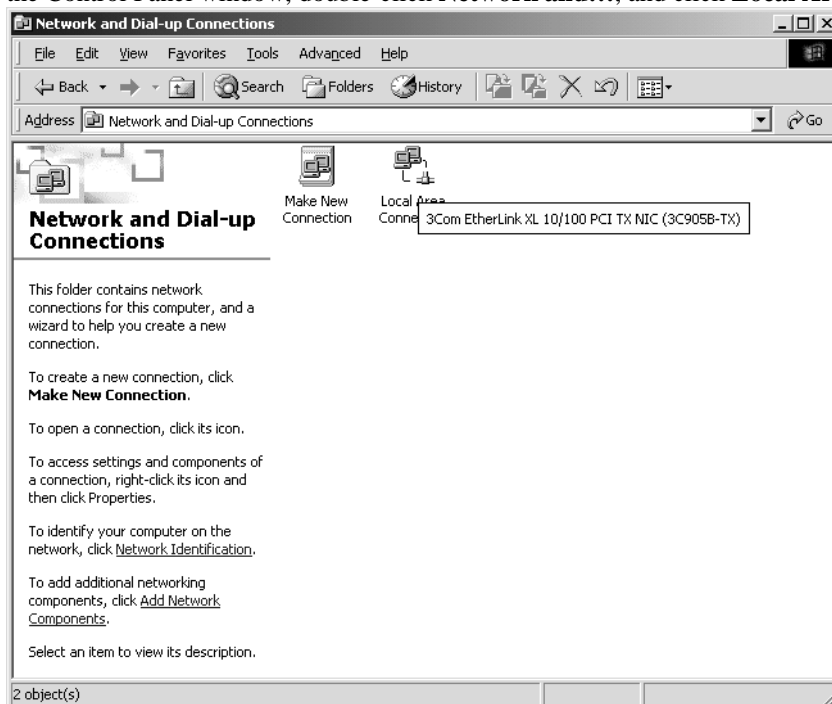
- 1) Replace the defective HDD with the new HDD (p/n 04287-65000).
Refer to "A27 Mass Storage Disk Drive Replacement" of the E5070A/71A service guide.

3. Connect the E5071A to your PC installed Symantec Ghost directly

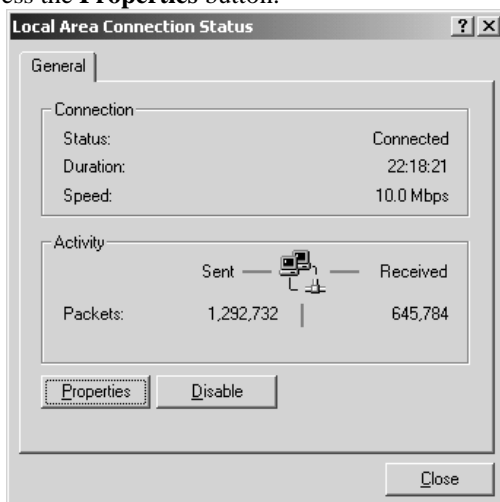
- 1) Connect the E5071A to your PC installed Symantec Ghost directly using a crossed LAN cable (or two straight LAN cables and a Hub for LAN).

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

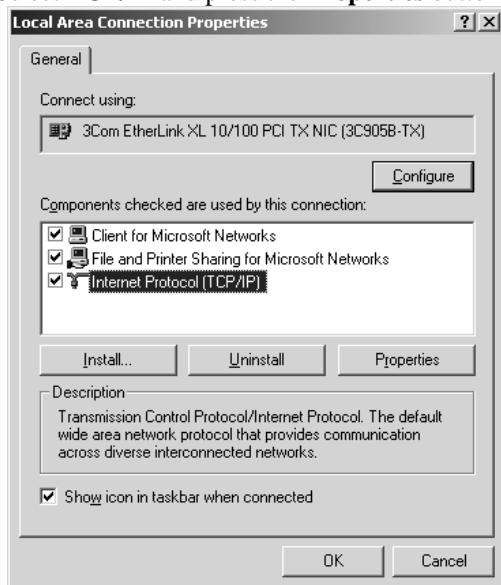
- 1) Double-click "My Computer" icon on Windows desktop of your PC. And double-click Control Panel. The Control Panel window will appear.
- 2) In the Control Panel window, double-click **Network and...**, and click **Local Area Connection**.



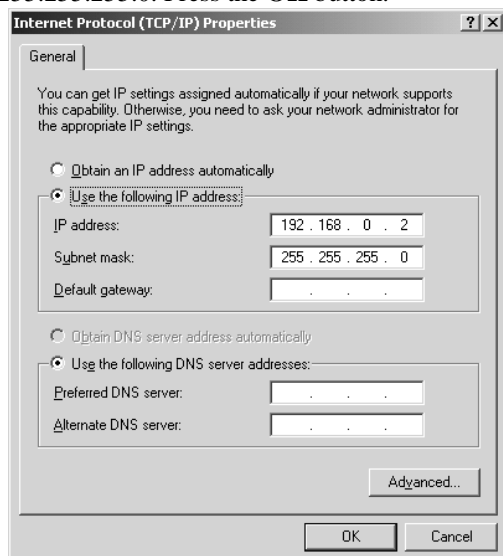
- 3) Press the **Properties** button.



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



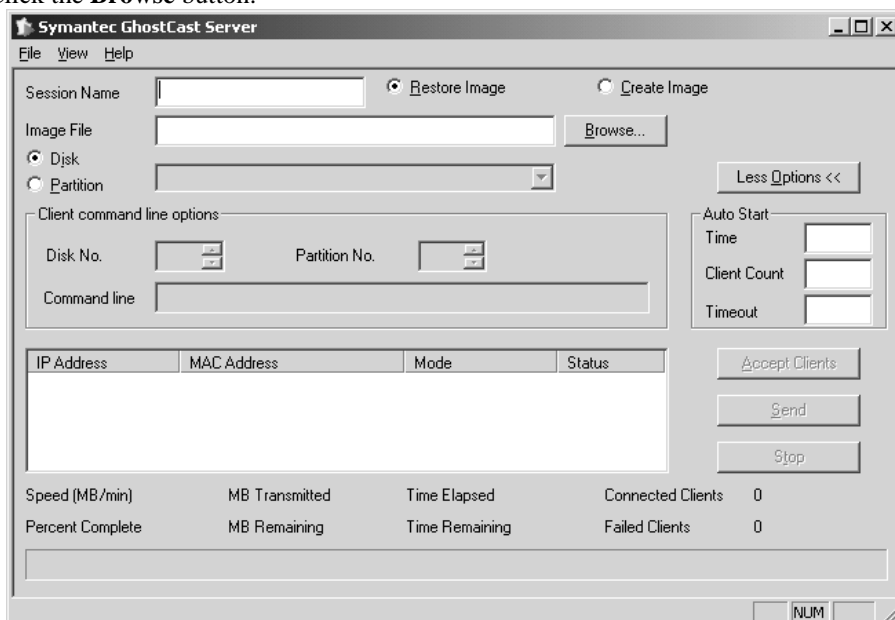
- 5) Select **Use the following IP address**, and then enter the IP address 192.168.0.2 and subnet mask 255.255.255.0. Press the **OK** button.



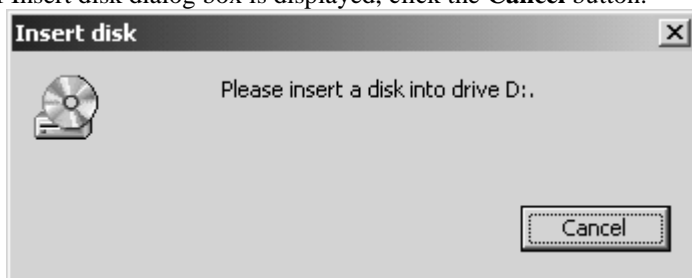
- 6) Restart your PC.

5. Set up GhostCastServer

- 1) Insert the DVD disk (Operating System for E5070A/71A) into your PC's DVD drive (or an external DVD drive). Then copy the image file of the DVD 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**

The screenshot shows the Symantec GhostCast Server window for session 'kobe'. The 'Restore Image' radio button is selected. The 'Image File' field contains 'C:\e5071a_hddimage\CA362SVC.GHO'. The 'Disk' radio button is selected. The 'Client command line options' section has 'Disk No.' and 'Partition No.' fields. The 'Auto Start' section has 'Time', 'Client Count' (set to 1), and 'Timeout' fields. The 'Accept Clients' button is visible. The status bar at the bottom shows 'Waiting for clients to connect...'.

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

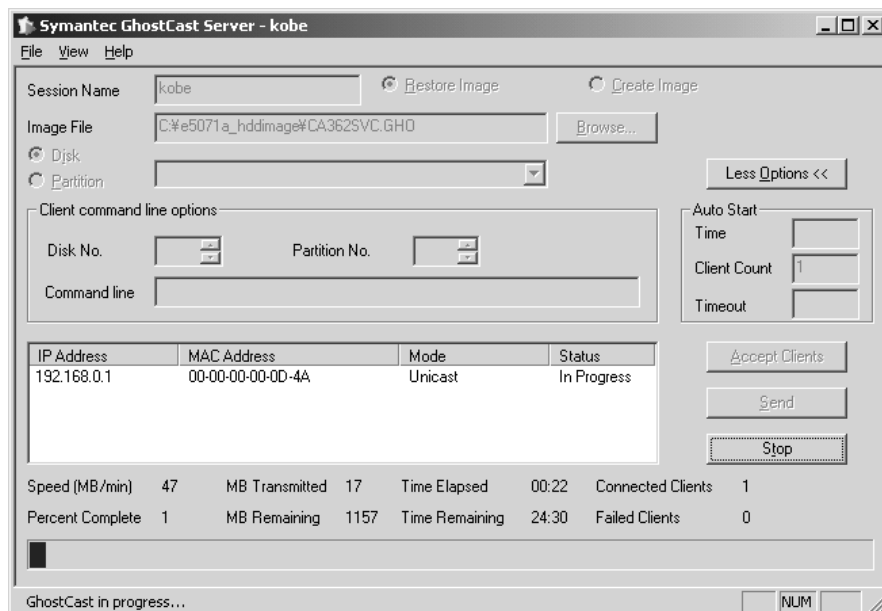
The screenshot shows the Symantec GhostCast Server window for session 'kobe' after clicking 'Accept Client'. The 'Waiting for clients to connect...' message is now displayed in the status bar at the bottom. The 'Accept Clients' button is now disabled, and the 'Send' and 'Stop' buttons are visible. The status bar at the bottom shows 'Waiting for clients to connect...'.

6. Copy the image file onto the E5070A's HDD, by using the ghost boot disks. ENA BIOS options need to be changed to use the boot disks. Then, after the copy, the BIOS options need to be returned.

- 1) Connect the external keyboard and mouse to the connectors on the E5071A rear panel.
- 2) Turn the instrument on.
Press **Delete** key as soon as the message of "**Hit DEL if you want to run SETUP**" is displayed. Wait a few seconds until a message of "**Enter CURRENT Password:**" appears.
- 3) Press **Num Lock** key, and then enter password "**e507xa**" and press **Enter** key. Then BIOS setup utility main menu is displayed.
- 4) Select **Advanced CMOS Setup**, and press **Enter** key. Then Advanced CMOS setup window is displayed.
- 5) Change the **1st Boot Devices** status from **1st IDE-HDD** to **Floppy**, and press **ESC** key.
- 6) Select **Save settings and Exit**, and press **Enter** key. Then a message of "Save current setting and exit (Y/N)?" is displayed. Press **Y** and **Enter** key.
- 7) The E5071A is restarted. Then, a message of "**Drive Not Ready. Insert BOOT diskette in A:. Press any key when ready.**" is displayed.
- 8) Insert the ghost boot disk (1st disk) into the FDD of the E5071A, and press **Enter** key.
- 9) **PC DOS 7.1 Startup Menu** is displayed. Then, select **1** and press **Enter** key.
- 10) Confirm that there are no error messages on the display.
- 11) 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.
- 12) **About Symantec Ghost** dialog box is displayed. Then, click the **OK** button.
- 13) Click **Ghost Cast – Unicast**.
- 14) **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.
- 15) **Select local destination drive by clicking on the driver number** dialog box is displayed. Then, click the **OK** button.
- 16) **Destination Drive Details** dialog box is displayed. Confirm that New Size and Old Size of each Label is as follows. Then, click the **OK** button.

Label	New Size	Old Size
HOST FOR C	1404	1404
USER	3004	3004
RECOVERY	705	705
SWAP	4471	4471

- 17) **Question: (LB22)** dialog box is displayed. Then, click the **Yes** button.
- 18) **Progress Indicator** dialog box appears.
- 19) In your PC, a message of "**GhostCast in progress..**" is displayed.



- 20) In E5071A display, **Clone Complete** dialog box is displayed. Then, click the **Continue** button and **Quit**.

- 21) **Quit Symantec Ghost** dialog box is displayed. Then, click the **Yes** button.
- 22) **A:\GHOST>** prompt is displayed. Then, turn the E5071A off.
- 23) In your PC, **Transfer Complete** is displayed. Then, click the **OK** button.



- 24) Remove the boot disk from the E5071A's FDD.
- 25) Turn the E5071A on.
Press **Delete** key as soon as the message of "**Hit DEL if you want to run SETUP**" is displayed. Wait a few seconds until a message of "**Enter CURRENT Password:**" appears.
- 26) Press **Num Lock** key, and then enter password "**e507xa**" and press **Enter** key. Then BIOS setup utility main menu is displayed.
- 27) Select **Advanced CMOS Setup**, and press **Enter** key. Then Advanced CMOS setup window is displayed.
- 28) Change the **1st Boot Devices** status from **Floppy** to **1st IDE-HDD**, and press **ESC** key.
- 29) Select **Save settings and Exit**, and press **Enter** key. Then a message of "Save current setting and exit (Y/N)?" is displayed. Press **Y** and **Enter** key.
- 30) The E5071A is restarted.
- 31) Confirm that the firmware revision Rev. A.03.62 is displayed.
- 32) The measurement view is displayed, and a message of "Calibration data lost (band information)" is displayed. Then, turn the E5071A off.

7. Perform initial setting for E5071A

- 1) Disconnect the LAN cable from the E5071A.
- 2) Turn the E5071A on.
- 3) Perform the system recovery for the E5071A. Refer to the appendix B of the service guide.
The OS image is for the factory test state. The system recovery change the test state to the shipment state.
- 4) Install the power-on test limit file and the internal test file rev A.05.00 or later.
 - a) Down load the following files from the E5070A firmware rev 3.62 download web site and save them in a floppy disk.
Power-on test limit file: PowerOnTest.csv
Internal test file: InternalTest.VBA
 - b) Copy the files from the floppy disk to the directory D:\Agilent\Service of the E5071A. (Windows Explorer can be opened, by pressing [Save/Recall] hardkey then "Explorer" softkey.)
- 5) Turn the E5071A off.
- 6) Connect the E5071A to your PC installed the E5070/71A adjustment program with a GPIB cable.
- 7) Turn the E5071A and the PC on.
- 8) Perform "HDD" in Spot Adjustment of the E5071A adjustment program.
- 9) Calibrate the touch screen (for option 016 only).