E5071B-10B

SERVICE NOTE

Supersedes: E5071B-10A

E5071B ENA Series Network Analyzer, 300 kHz to 8.5 GHz

Serial Numbers: [0000A00000 / 9999Z99999]

Update procedure of disk image(operating system) for E5071B

Parts Required: see solution

The change from E5071B-10A to E5071B-10B is as follows. - to change the CONFIG.SYS and to add PANEL.EXE file on the first boot disk in order to support no A26 LCD Interface/Video Card type E5071B. (S/N MY4242455 and above)

E5071B Serial-Number	MY4242454 and below	MY4242455 and above
A2L LCD Interface Card/Video Card	54810-66525	N/A
A22 Front Panel Keyboard	E5070-66522	E5070-66529

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR: jm PRODUCT LINE: WN

ADDITIONAL INFORMATION:

This procedure must be performed by Agilent Technologies service offices

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Situation:

When using the A1 source board (E5071-66571/69571) in repairs, Rev A.05.00 or later firmware is required. If customer unit's firmware version is less than Rev.A.05.00, it should be updated by changing the operating system. With Rev A.03.60 or below version firmware, an error message "Power on test failed (A1 not found)" is shown at lower left part on a display at power on. With Rev A.03.62 or A.04.00 version firmware, any of messages "Power on test failed (A1 DC-bus, 0x00000010)", "Power on test failed (A1 DC-bus, 0x00000020)", or "Power on test failed (A1 DC-bus, 0x00000030)" is shown at power on.

To avoid troubling on customers, especially after a system recovery timing, it's necessary to update the E5071B operating system if customer unit's firmware is Rev.A.4.00 or below.

Solution/Action:

The installation procedure for the E5071B operating system is as follows.

Required Equipment

OS Image: DVD disk (Operating system for E5070B/71B, F/w rev.5.00, Agilent service office use only) Software : Symantec Ghost ™ 8.0 and later (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 E5071B and the PC.) (or 2 straight cables and a hub.)

PC installed E5070/71B 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. Connect the E5071B to your PC installed Symantec Ghost directly
- 3. Set up IP address and subnet mask of your PC (5 min.)
- 4. Set up GhostCast server (20 min.)
- 5. Copy the image file onto the E5071B's HDD (30 min.)
- 6. Perform initial setting for the E5071B (20 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.

1	
💕 Symantec Ghost Boot Wizard - Introduction	x
Welcome to the Ghost Boot Wizard. Select the type of boot package you v to create for starting your client machines.	vish
Ghost boot disk with support for non-TCP peer-to-peer and CD/DVD reading/writing operations.	-
Shost boot disk with network support for GhostCasting and TCP peer-to-peer connections.	
Boot disk that maps a drive letter to a shared resource on a server.	
Ghost boot disk with generic CD-RIOM drivers for reading from CD/DVDs that were not created with Ghost	-
8.0.0.984 - Copyright (C) 1998-2003 Symantec Corp. All rights reserved.	
< <u>B</u> ack <u>N</u> ext> Cancel <u>H</u> el	P

3) Select Intel PRO100 and press the Next button.

Ð	Name	Туре	4
Add	📾 IBM EtherExpress PRO 100	NDIS2 Driver	
È	IBM EtherJet 10-100 PCI	NDIS2 Driver	
<u>M</u> odify	📾 Intel EtherExpress PRO 10 ISA	NDIS2 Driver	
Ē	Intel EtherExpress PRO 10 PCI	NDIS2 Driver	
Сору	Intel PRO 100	NDIS2 Driver	
	📾 Intel PRO 1000	NDIS2 Driver	
, 🗳	📾 Intel TokenExpress 16p	NDIS2 Driver	
Nam <u>e</u>	📾 Intel TokenExpress Pro	NDIS2 Driver	
\mathbf{X}	Kingston EtheRx KNE100TX	NDIS2 Driver	
<u>D</u> elete	Kingston EtheRx KNE110TX	NDIS2 Driver	
	🙀 Kingston EtheRx KNE110TX Packet	Packet Driver	-

4) Press the Next button

💕 Syma	ntec Ghost I	Boot Wizard ·	DOS Version			×
Ň	Ghost Boot \	Wizard and requ	nat you want to use. F vires no additional file: s. This requires a syste	s. To use MS-E	OS, you must	
:	S	<u>PC-DOS</u> MS-DOS				
inse		matted floppy d	o install these files, lisk into drive A, then	<u>G</u> et MS-I <u>R</u> emove N		
		< <u>B</u> ack	<u>N</u> ext >	Cancel	Help	

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

bymancee anose	boot wizaru - cilenci rype	
Select the t the files car	ype of client to be included in the boot package. The location of the changed if the default install path is incorrect.	
Symantec	<u>G</u> host	
C Symantec	Ghost Console <u>Client</u>	
Program Location Ghost.exe <u>P</u> arameters	C.¥Program Files¥Symantec¥Ghost¥ghost.exe Browse	
- arametere	-526E	
	< <u>B</u> ack Next Cancel Help	

6) Press the **Next** button.

券 Symantec Ghost Boot Wizard - External storage support	×
Ghost has built-in support for accessing external storage devices, such as FireWire, USB or Zip drives.	
USB and FireWire Options	
Some BIOS's may limit access to USB or FireWire external storage devices. To enable Ghost to override the BIOS and gain full access to these devices, select the appropriate option:	
Override BIOS USB control	
C Override BIOS EireWire control	
	_
< <u>B</u> ack <u>N</u> ext > Cancel <u>H</u> elp	

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

3 5 5 9	Enter the network : Deckage. Your net	Wizard - Network Settings settings for the client that is to be booted from this boot twork administrator will be able to tell you what values are	x
	required. C <u>D</u> HCP will assign the provide the provided of the prov	-	
	First <u>I</u> P Address:	192 . 168 . 0 . 1	
		255 . 255 . 255 . 0	
	<u>G</u> ateway:	· · ·	
	<u>R</u> outer Hops:	16	
	<	< <u>B</u> ack <u>Next></u> Cancel <u>H</u> elp	

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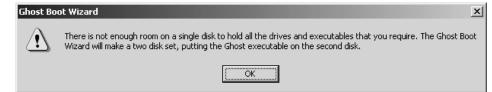
8) Insert a floppy disk into your PC's FDD, and the Next button.

🗲 Symantec Ghost Boot Wizard - Destination Drive	×
Select the floppy drive that contains the disks that will be created and the number of disks to be created with the current options.	
You should leave the Format Disk(s) First option checked. This places system files on the boot disk that are required to make it bootable.	
Floppy Disk Drive: 🗛 💌	
Number of disk sets to create:	
Eormat Disk(s) First (recommended)	
🔽 Quick Format	
< <u>B</u> ack <u>N</u> ext > Cancel <u>H</u> elp	

9) Press the Next button.

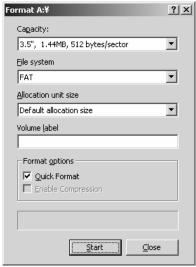
<u>Client Details:</u> Client:	Symantec Ghost	-
Destination:	Floppy Drive A:(Two disk set)	_
Network Drive	r:	
Template:	Intel PRO 100	
Driver:	e100b.dos	
Driver Type:	NDIS2 Driver	
~ ~		
Configuration I	files:	
AUTOEXEC.BAT: @echo off		
•		•

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

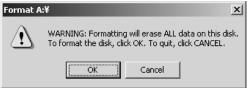


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11) Press the **Start** button.



12) Press the OK button.



13) Press the **OK** button.



14) Press the Close button.

ormat A:¥	? ×
Cagacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>F</u> ile system	
FAT	•
Allocation unit size	
Default allocation size	•
Volume label	
Format options	
Quick Format	
Enable Compression	

15) Copying File. Please Wait...



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

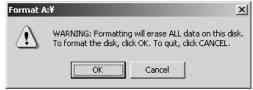
Ghost E	Boot Wizard
---------	-------------

Ghost Boot Wizard	×
Insert the second disk in the set. Select OK to contin	ue, or CANCEL to abort creation of the disk set.
OK]	Cancel

17) Press the **Start** button.

Format A:¥	? ×
Cagacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>Fi</u> le system	
FAT	•
Allocation unit size	
Default allocation size	•
Volume label	
Format options	
Quick Format	
Enable Compression	
	_
[]	

18) Press the **OK** button.



19) Press the **OK** button.

ormatting A:¥ 🛛 🗙
Format Complete.
ОК

20) Press the **Close** button.

le

ormat A:¥	? X
Cagacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>F</u> ile system	
FAT	-
Allocation unit size	
Default allocation size	•
Volume label	
Format options	
Quick Format	
Enable Compression	
<u>S</u> tart <u>Close</u>	

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21) Copying File.

Please Wait	
Creating Directory: A:\GHOST\ A:\GHOST\	
	[Cancel]

22) Press the **Finish** button.

💃 Symantec Ghost Bo	ot Wizard - Finished	X
	t Disk has been created. Please remove the disk from the he Start Again button to restart the wizard from the beginning,	
	Symantec Ghost ** Boot Wizard	
	<u>S</u> tart Again	
	Finish Cancel Help	

====== For E5071B S/N MY4242455 and above, follow the next three steps. 23), 24), 25) and 26). ========

23) Insert the first disk into your PC's FDD, and open CONFIG.SYS with Notepad. 24) In the CONFIG.SYS, insert "DEVICE=A:\PANEL.EXE" as follows.

DEVICE=A:\PANEL.EXE

[menu] menuitem=FROMFLPY, This computer was started from a Ghost boot disk menuitem=FROMCD, This computer was started from a Ghost bootable CD

[FROMFLPY]

[FROMCD]

[COMMON] DEVICE=\net\protman.dos /I:\net DEVICE=\net\dis_pkt.dos DEVICE=\net\e100b.dos LASTDRIVE = Z

- 25) Download "PANEL.EXE" file from System Update using Symantec Ghost section on the CTD-Kobe web. http://kobemktg.jpn.agilent.com/field_eng/service/service_programs/svcprog_e507071b.htm
- 26) Then the PANEL.EXE file onto the first disk.

2. Connect the E5071B to your PC installed Symantec Ghost directly

1) Connect the E5071B to your PC installed Symantec Ghost directly using a crossed LAN cable (or two straight LAN cables and a Hub for LAN).

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3. 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.

🔁 Network and Dial-up Connection	5				_ 🗆 🗙
Eile Edit View Favorites Too	ls Adva <u>n</u> ced	Help			1
📙 😓 Back 🔹 🔿 👻 🔂 Sear	ch 🛗 Folders	s 🎯 History 🛛 🎦	$\mathbb{E} \times \mathbb{N}$	8-8- 8-8- 8-8-	
Address 📴 Network and Dial-up Conn	ections				• 🖓 😡
Network and Dial-up Connections This folder contains network connections for this computer, and a wizard to help you create a new connection. To create a new connection, click Make New Connection. To open a connection, click its icon. To access settings and components of a connection, right-click its icon and then click Properties. To identify your computer on the network, click <u>Network Identification</u> . To add additional networking components, click <u>Add Network</u> Select an item to view its description.	Make New Connection	Local Area Conne 3Com EtherLink	XL 10/100 PCI TX I	NIC (3C905B-TX)	
2 object(s)					

3) Press the **Properties** button.

Local Area Connect	ion Status	? ×
General		
Connection Status: Duration:		Connected 22:18:21
Speed: Activity	Sent — 🕮 1	10.0 Mbps Received
Packets:	Sent — L_⊥ 1,292,732	645,784
Properties	Disable	
		Close

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

Local Area Connection Properties	X				
General					
Connect using:					
3Com EtherLink XL 10/100 PCI TX NIC (3C905B-TX)					
Configure]				
Components checked are used by this connection:					
Client for Microsoft Networks P. Ele and Printer Sharing for Microsoft Networks Thernet Protocol (TCP/IP)					
Install Uninstall Properties					
Description					
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.					
OK Cance					

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.

Internet Protocol (TCP/IP) Properti	es ?X
General	
You can get IP settings assigned auto this capability. Otherwise, you need to the appropriate IP settings.	
O Obtain an IP address automatica	illy
 Use the following IP address: 	
<u>I</u> P address:	192.168.0.2
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
Default gateway:	
C Obtain DNS server address auto	matically
☐ Use the following DNS server ad	ldresses:
Preferred DNS server:	
Alternate DNS server:	
	Ad <u>v</u> anced
	OK Cancel

6) Restart your PC.

Page 11 of 14 4. Set up GhostCastServer

1) Insert the DVD disk (Operating System for E5070B/71B) 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.

🏂 Symantec Ghost	Cast Server			_ 🗆 ×
<u>F</u> ile <u>V</u> iew <u>H</u> elp				
Session Name		<u>R</u> estore Image	○ <u>C</u> reate Image	
Image File			Browse	
🔍 Djsk				
C Partition			<u> </u>	Less Options <<
Client command line	e options		Aut	o Start
Disk No.	Partition No.		Tim	e
	Partition No.		Clie	ent Count
Command line				
· · ·			lim	eout
IP Address	MAC Address	Mode	Status	Accept Clients
				<u>S</u> end
				Stop
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Clients	0
Percent Complete	MB Remaining	Time Remaining	Failed Clients	0
				NUM //

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

Insert disk	×
	Please insert a disk into drive D:.
	Cancel

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

Op	en						<u> </u>
	Look in:	e5071b_hddir	nage	•	¢ Ē Č	·	
	<u>i</u>	EP500.gho					
I	History						
I	ſ						
I	Desktop						
I							
U.	My Documents						
I							
	רבשעב זיק געם זיק						
		File <u>n</u> ame:	CP500.gho		•]	<u>O</u> pen
	vly Network P	Files of type:	Ghost Images (*.gho)		•		Cancel

- 1

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

🕻 Symantec Gho	stCast Server - kobe			_ [] >
<u>∃</u> ile <u>V</u> iew <u>H</u> elp				
Session Name	kobe	• <u>R</u> estore Image	⊂ <u>C</u> reate Image	
Image File	C:¥e5071b_hddimage¥CP500.gho	I	<u>B</u> rowse	
 Djsk 				[
O Partition			T	Less <u>O</u> ptions <<
Client command li	ne options		A	uto Start
5.1 M			1	ime
Disk No.	Partition No.		0	Client Count 1
Command line				
	,			imeout
IP Address	MAC Address	Mode	Status	Accept Clients
				Send
				Stop
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Clien	its O
		Time Remaining	Failed Clients	0

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

<u>∃ile ⊻iew H</u> elp				
Session Name	kobe	<u> Bestore Image</u>	C <u>C</u> reate Image	
Image File	C:¥e5071b_hddimage¥CP500.g	jho	Browse	
🖸 Djsk				 1
C Partition			7	Less <u>O</u> ptions <<
- Client command lin	e options		r/	Auto Start
Disk No.	Partition N	0.		lime
Disk Hu.				Client Count 1
Command line				rimeout
				inneodat j
IP Address	MAC Address	Mode	Status	Accept Clients
				<u>S</u> end
				Stop
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Clier	nts O
Percent Complete	MB Remaining	Time Remaining	Failed Clients	0
Waiting for clients to	connect			NUM

5. Copy the image file onto the E5071B's HDD

- 1) Connect the external keyboard and mouse to the connectors on the E5071B rear panel.
- 2) Insert the ghost boot disk (1^{st} disk) into the FDD of the E5071B.
- 2) Turn the instrument on.

Press F12 key as soon as the message of "Press TAB to show POST screen, DEL to enter SETUP, F12 to select BOOT DEVICE" is displayed in the splash screen. Wait a few seconds until the Boot Menu screen appears.

- 3) Select Floppy, and then press Enter key.
- 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. Confirm that New Size and Old Size of each Label is as follows. Then, click the **OK** button.

Label	New Size	Old Size
CARPENTER	1411	1411
USER	3012	3012
RECOVERY	3012	3012
SWAP	2149	2149

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.

🇊 Symantec Gho	ostCast Server - kobe			_ 🗆 🗙
<u>F</u> ile ⊻iew <u>H</u> elp				
Session Name	kobe	<u> <u> </u></u>	C <u>C</u> reate Ima	ge
Image File	C:¥e5071b_hddimage¥CP5	500.gho	Browse	
 Djsk <u>Partition</u> 			Y	Less <u>O</u> ptions <<
Client command	line options			Auto Start
Disk No.	Partitio	on No.		Time
Command line				Timeout
IP Address 192,168,0,1	MAC Address 00-30-64-01-63-C5	Mode Unicast	Status In Progress	Accept Clients
132.100.0.1	00-30-04-01-03-03	Unicast	InFlogless	Send
				2010
				Stop
Speed (MB/min)	220 MB Transmitted	67 Time Elapsed	00:18 Connected C	lients 1
Percent Complete	4 MB Remaining	1601 Time Remaining	07:14 Failed Clients	0
GhostCast in progr	ess			

15) In E5071B 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 E5071B off.
- 18) In your PC, **Transfer Complete** is displayed. Then, click the **OK** button.

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Symante	c GhostCast Server	x
$\underline{\mathbb{A}}$	Transfer Complete	
	OK	

- 19) Remove the boot disk from the E5071B's FDD.
- 20) Turn the E5071B on.
- 21) The Windows 2000 Professional Setup wizard appears. Perform the initial registration of the Windows 2000 operating system of the E5071B. Refer to the appendix B of the E5070/71B service guide.
- 22) Confirm that the firmware revision Rev. A.05.00 is displayed.
- 23) The measurement view is displayed, and a message of "Calibration data lost (band information)" is displayed. Then, turn the E5071B off.

6. Perform initial setting for E5071B

- 1) Disconnect the LAN cable from the E5071B.
- 5) Connect the E5071B to your PC installed the E5070/71B adjustment program with a GPIB cable.
- 6) Turn the E5071B and the PC on.
- 7) Perform "HDD" in Spot Adjustment of the E5070/71B adjustment program.
- 8) Calibrate the touch screen (for option 016).