

Keysight X-Series Signal Analyzers CPU Assembly Replacement Procedure

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Installation Note

Part Number N9020-90143
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Notice.

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CPU Assembly Replacement Kit

Products Affected:	EXA N9010A MXA N9020A PXA N9030A
Serial Numbers:	All
To Be Performed By:	<input checked="" type="checkbox"/> Agilent Service Center <input checked="" type="checkbox"/> Personnel Qualified by Agilent <input checked="" type="checkbox"/> Customer
Estimated Installation Time:	0.5 Hours
Estimated Adjustment and Verification Time:	1 Hour

CPU Assembly Replacement Procedure

This installation note is part of a retrofit kit that provides all of the parts and instructions needed to replace the CPU assembly while re-using the existing Disk Drive.

Contents

Quantity	Description
1	Installation Note
1	CPU Assembly (without disk drive)

Tools Required

- o Torx Driver T-10

Installation Procedure

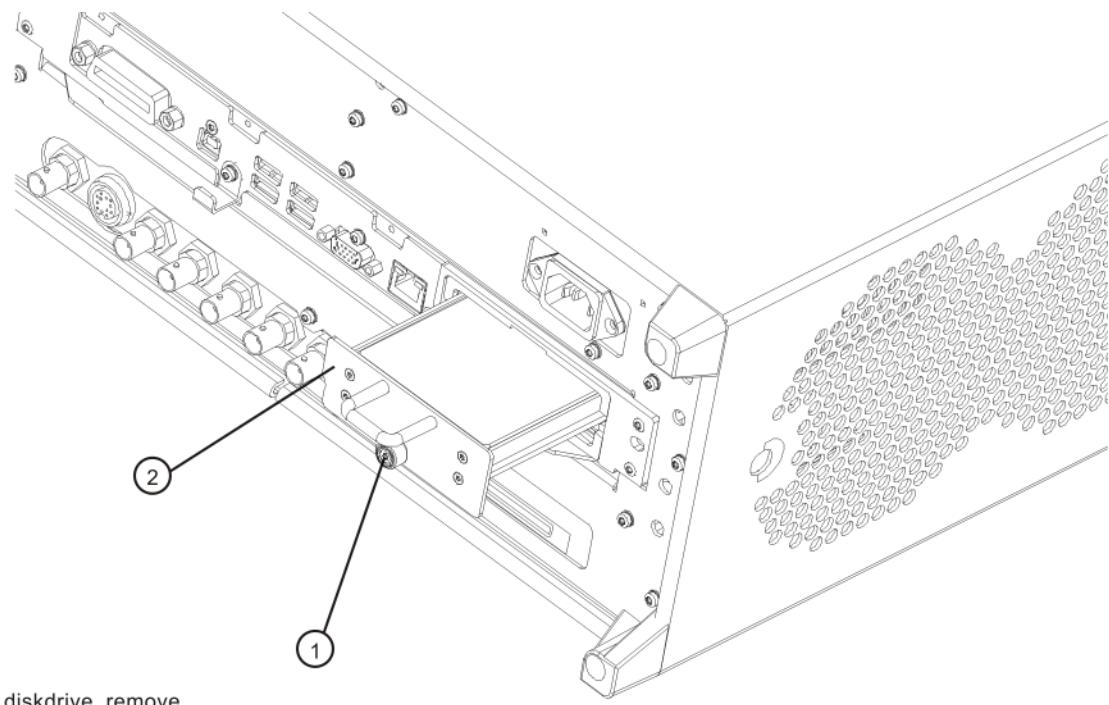
CAUTION

Electrostatic discharge (ESD) can damage or destroy electronic components. All work on electronic assemblies should be performed at a static-safe workstation. Refer to the documentation that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories.

1. Refer to [Figure 1](#). Locate and remove the disk drive tray assembly **(2)** from the instrument by loosening the drive tray retaining screw **(1)** and pulling the assembly out by the handle on the drive tray rear panel.

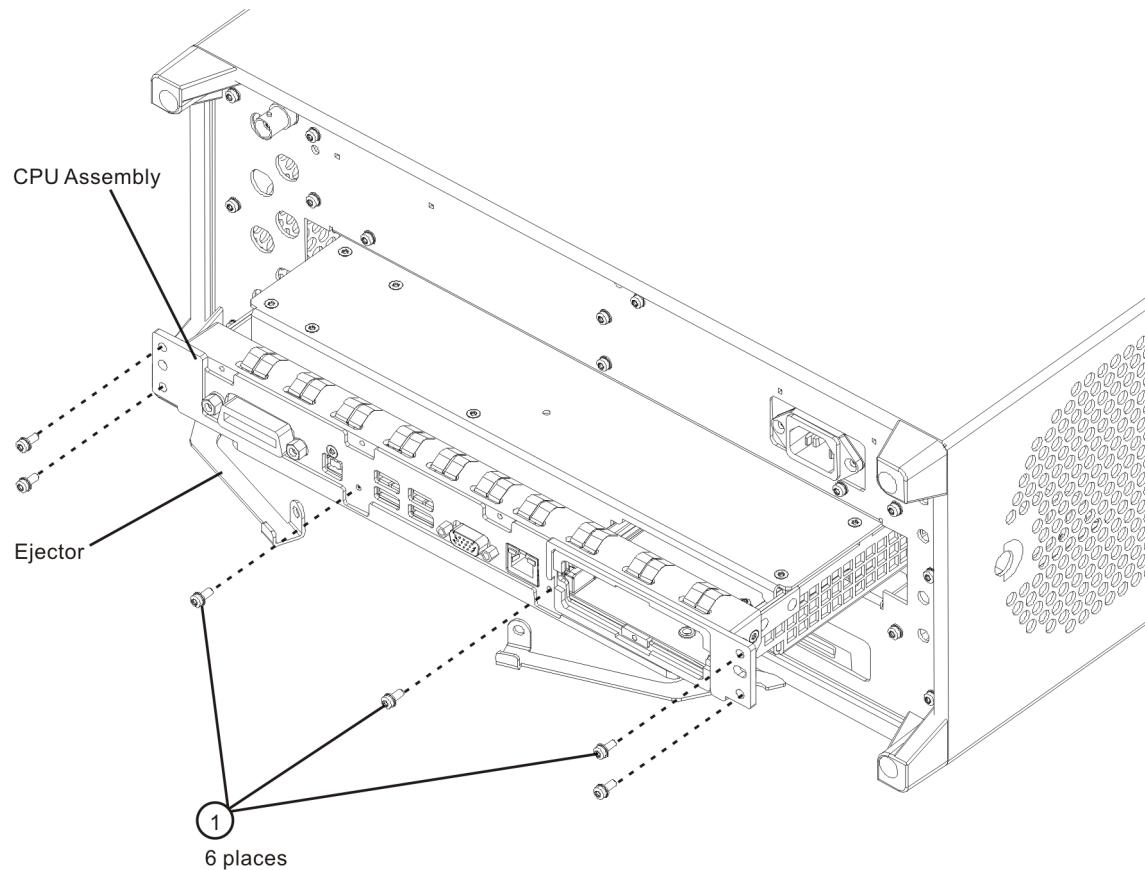
Set the drive aside in a safe location for replacement later in this procedure.

Figure 1 **Removing the Disk Drive Tray Assembly**



2. Refer to Figure 2. Locate and remove the existing CPU assembly from the instrument by removing the 6 rear panel screws **(1)**. The CPU assembly can be removed from the chassis by pulling straight out the back. Use the two extractors to pull the CPU assembly out from the chassis.

Figure 2 **Removing the CPU Assembly**



3. See Figure 2. Install the replacement CPU assembly in the instrument with 6 screws **(1)**. Torque to 9 in-lbs.
4. See Figure 1. Reinstall the disk drive tray assembly **(2)** and torque the attaching screw **(1)** to 9 in-lbs.

BIOS Setup Changes

There is one setting in the CPU BIOS that must be verified and may require changing when the A4 CPU assembly or A4BT1 CPU battery is replaced. This setting needs to be correct in order for the analyzer to always boot up correctly.

- “IDE HDD” must be set to #1 in the “Boot priority order”

Changing and saving these BIOS settings requires a USB external keyboard. Changes to the BIOS are fairly straightforward and should take ~30 seconds.

Verifying Boot Priority

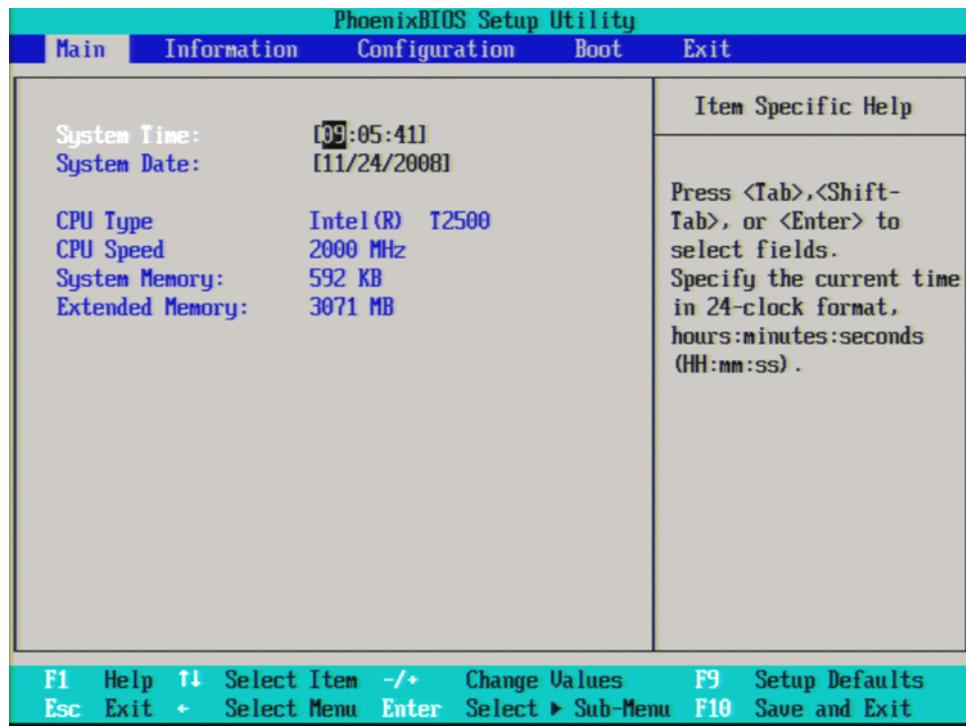
1. Connect an external USB keyboard to one of the front panel USB ports.
2. Turn on instrument power.
3. Confirm Agilent Technologies splash screen comes up within a few seconds as shown in [Figure 3](#).

Figure 3 Agilent Technologies Splash Screen



4. Press “F2” on the external keyboard when at the Agilent Technologies splash screen to enter the CPU BIOS Setup Utility as shown in [Figure 4](#).

Figure 4 CPU BIOS Setup Utility

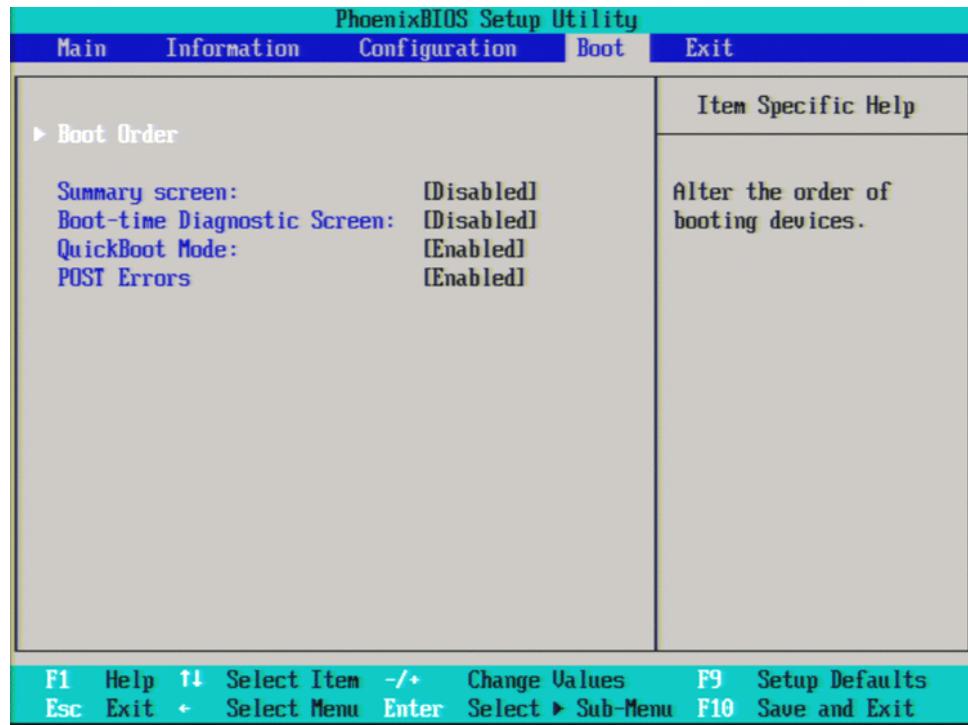


NOTE

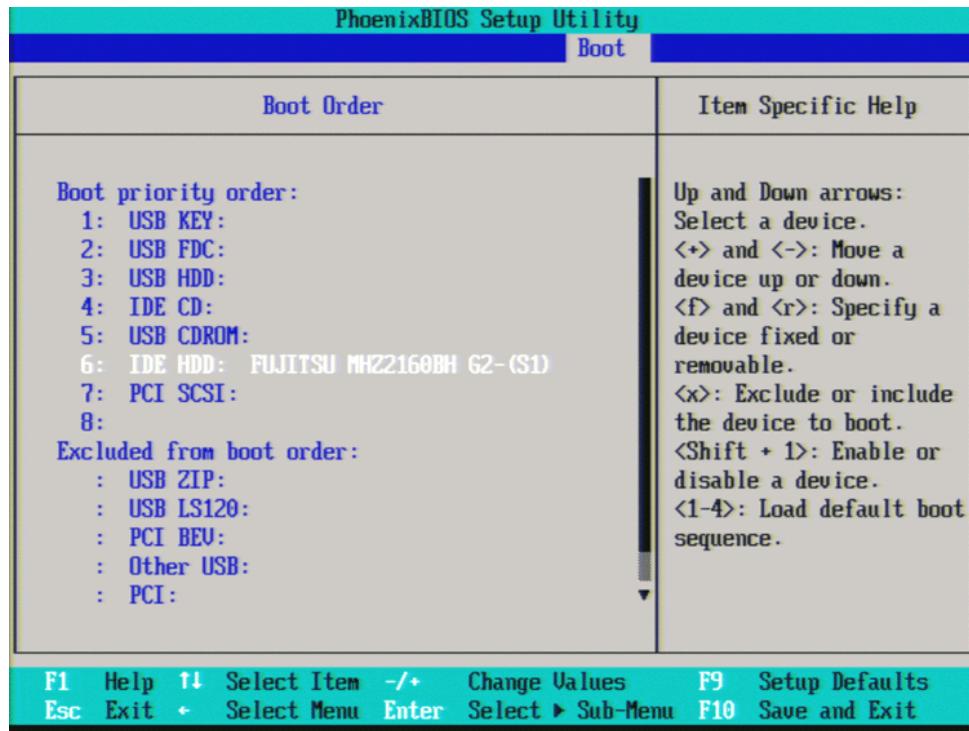
The main menu of the CPU BIOS Setup Utility may appear different than shown above.

5. Press the Right Arrow on the external keyboard until the Boot tab is highlighted as shown in [Figure 5](#).

Figure 5 Boot Tab Highlighted



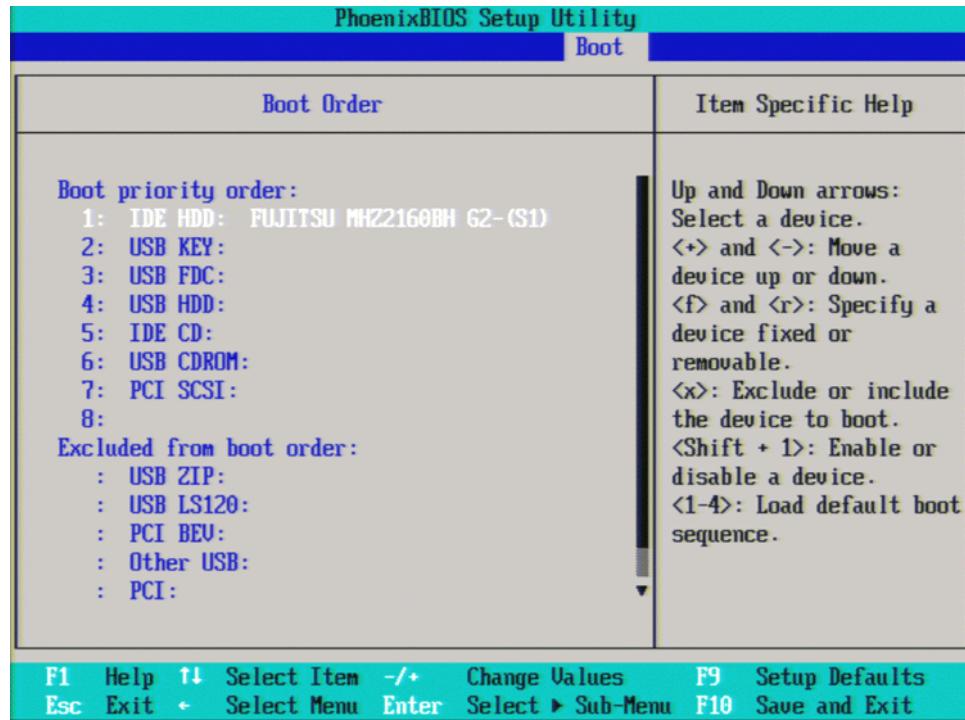
6. With Boot Order highlighted as shown in [Figure 5](#) press Enter on the external keyboard to enter the Boot Order Configuration screen.

Figure 6 Boot Tab Highlighted

7. If IDE HDD is not listed first in the boot priority, press the Down Arrow on the external keyboard to highlight IDE HDD as shown in [Figure 6](#).

8. Press the “+” key on the external keyboard to bring IDE HDD to the top of the list as shown in Figure 7.

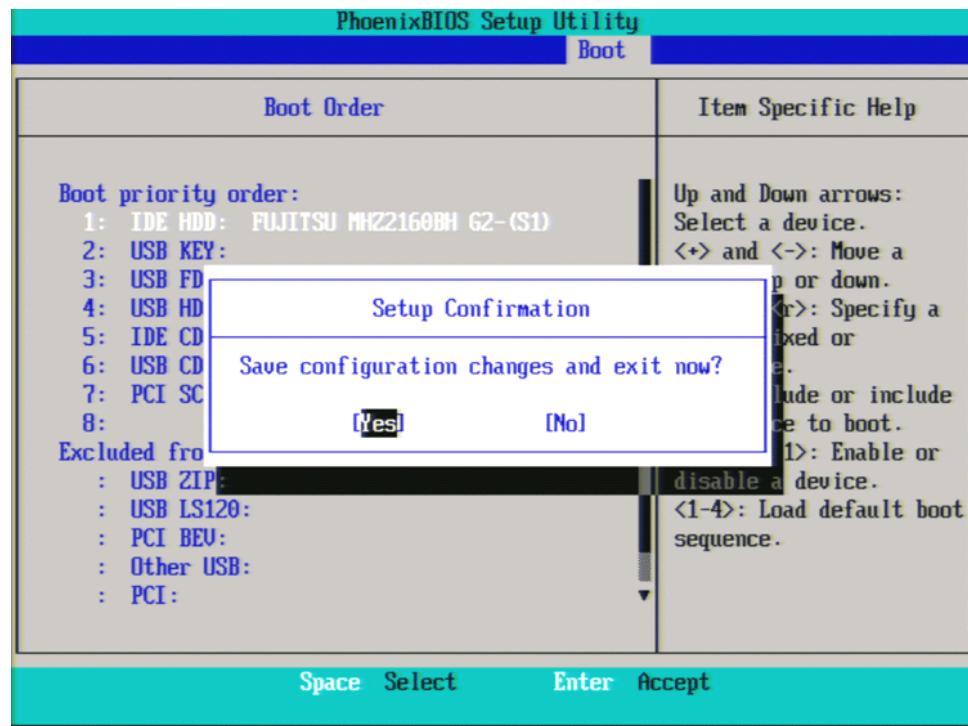
Figure 7 IDE HDD at Top of List



Save Changes

1. Press “F10” on the keyboard to save changes.
2. Press the Enter key on the external keyboard to confirm the BIOS configuration changes as per Figure 8.

Figure 8 Confirm BIOS Configuration



Functional Check:

1. Turn the instrument on.
2. Verify that Operating System can be found and that the Agilent Measurement Application starts up.

Utilities, Adjustments, and Performance Verification Tests

Utilities Required

None

Adjustments Required

None

Performance Testing Recommended

Displayed Average Noise Level

Residual Responses

End of installation.

For assistance, contact your nearest Agilent Technologies Sales and Service Office. To find your local Agilent office access the following URL, or if in the United States, call the following telephone number:

<http://www.agilent.com/find/assist>

1-800-829-4444 (8 am - 8 pm ET, Monday - Friday)