COMPAQ

AlphaServer ES40
667 and 833 MHz CPU Upgrade

Part Number: EK–KN610–UP. B01

February 2001

This document is for persons with appropriate technical training and
experience who are upgrading to an *AlphaServer* ES40 667 or 833 MHz system.

This information is for customers or field service personnel who are upgrading to either an *AlphaServer* ES40 667 or 833MHz system.

If you have purchased an additional 667 or 833 MHz SMP CPU for a system, you do not need to read further. Install the add-on as described in Chapter 5 of the *AlphaServer ES40 Owner's Guide.*

NOTE: The upgrade requires a minimum Rev E0* system motherboard (54-25385-01). If the board in your system is Rev D0* or lower, call your local Field Service office or 1-800-OK-COMPAQ (1-800-652-6672) and inquire about FC0# 00-ES40 F002 for the ES40 system. Under this Field Change Order, Field Service will replace your system motherboard with Rev E0* or higher at no cost to you. Follow the procedure on the next page to determine if the motherboard must be replaced. The system might also contain a motherboard (54-25385-02) of which the minimum revision is A01. If this is the case, then there is no need to replace the motherboard.

Upgrade Kit

1. The KN610-Bx upgrade kits contain the following components:

Component	Part Number	Quantity
CPU card	54-30362-01	1
Alpha Systems Firmware CD	QB-5VUAA-SA	1
Upgrade documentation	EK-KN610-UP	1
Software license (optional – depends on variation)		

2. The KN610-Cx upgrade kits contain the following components:

Component	Part Number	Quantity
CPU card	54-30362-B3	1
Alpha Systems Firmware CD	QB-5VUAA-SA	1
Upgrade documentation	EK-KN610-UP	1
Software license (optional – depends on variation)		

Installation Tools

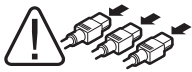The upgrade requires the following tools:

• Phillips #2 screwdriver (a magnetic screwdriver is recommended)

• Allen wrench (3 mm)

• Anti-static wrist strap

Safety Warnings

⚠ **WARNING: To prevent injury, access is limited to persons who have appropriate technical training and experience. Such persons are expected to understand the hazards of working within this equipment and take measures to minimize danger to themselves or others. These measures include:**
1. Remove any jewelry that may conduct electricity.
2. Power down the system and wait 2 minutes to allow components to cool.
3. Wear an anti-static wrist strap when handling internal components.

⚠ **WARNING: To prevent injury, unplug the power cord from each power supply before installing components.**
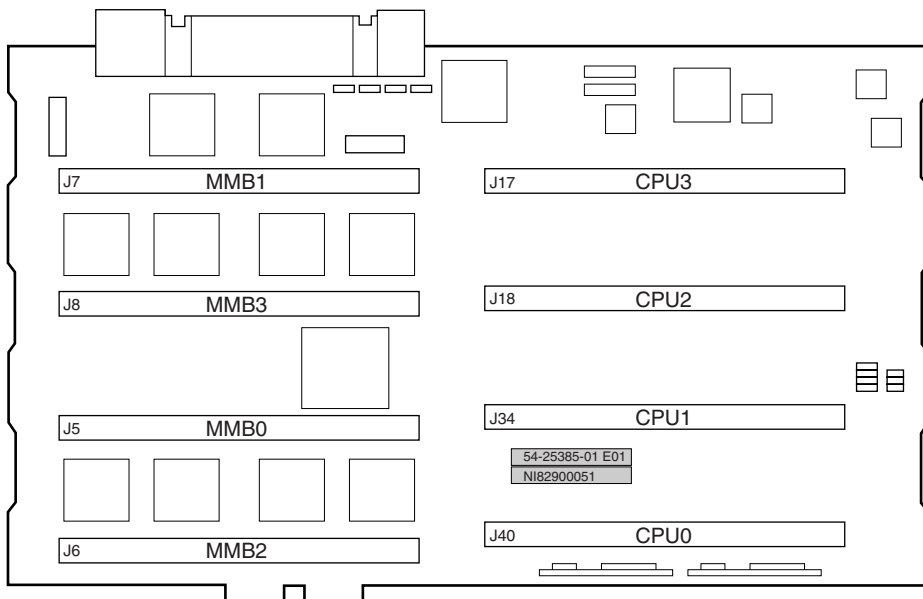
Determining Whether to Replace the System Motherboard

Check the revision of the motherboard before proceeding. If the revision of the 54-25385-01 level is D0* or lower, the board must be replaced before you perform the upgrade. If the motherboard is a 54-25385-02 revision A01, replacement of the motherboard is not needed.

1. Shut down the operating system and turn off power to the system. Unplug the power cord from each power supply.

2. Access the system chassis and remove the covers from the fan area and the system card cage as explained in the *Owner's Guide*.

3. Remove CPU0 to reveal a label on the system motherboard containing the part number (54-25385-01) and revision (see illustration). The minimum required revision level is E01.

   Required Action: For revisions lower than E01, Call your local Field Service office or 1-800-OK-COMPAQ (1-800-652-6672) and reference FC0# 00-ES40 F002 for the ES40 system.

4. If the board revision is E01 or higher, replace CPU0, replace the covers, and plug the power cords into the power supplies.

5. Power up the system to the SRM console prompt and follow the upgrade procedure in the next section.

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Upgrade Procedure

NOTE: You must replace all of the 500 MHz CPUs in your system with either all 667 or 833 MHz CPUs. The system will not run with CPUs of different speeds mixed together.

Review the procedures in Chapter 5 of the AlphaServer ES40 Owner's Guide for configuring and replacing CPUs.

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1. Insert and boot the Firmware Update CD-ROM supplied with the upgrade. The CD contains the Loadable Firmware Update Utility.

2. At the UPD> prompt, enter the **exit** command and answer **y** at the prompt. At the second UPD> prompt, enter the **update** command.

    ```
    UPD> exit
    Do you want to do a manual update [y/(n)] y
    UPD> update
    ```

3. Turn off power to the system. Unplug the power cord from each power supply.

4. Access the system chassis and remove the covers from the fan area and the system card cage as explained in the *Owner's Guide*.

5. Remove all CPU cards.

6. Insert a 667 or 833 MHz CPU card (depending on CPU speed upgrade) into its connectors and push down on both latches simultaneously to seat the card. Install the additional 667 or 833 MHz cards. (Do not mix CPU speeds.)

7. Replace the system card cage cover, fan cover, and enclosure covers.

8. Reconnect the power cords.

9. Power up the system to the SRM console.

Verification

1. At the P00>>> console prompt, issue the **clear_error all** command to initialize the central error repository.

2. Issue the **show config** command to display the status of the new CPUs.