digital ™

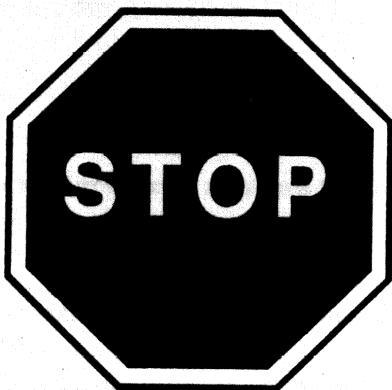## INSTALLATION NOTICE
MODULE: T1001

IMPORTANT

This notice describes items that affect the installation of a KA82X CPU module in the VAX 8200/8250/8300/8350 systems.
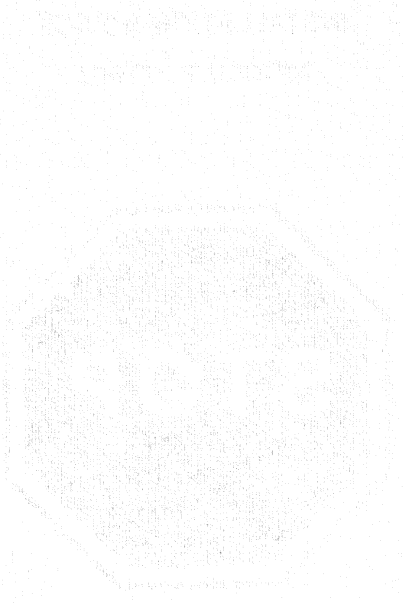
SUMMARY

The following must be performed prior to installation to ensure that the replacement VAX 8200/8250/8300/8350 KA82X CPU module (primary or secondary) performs properly:

1. Pin Grid Arrays (PGAs) must be installed correctly (fully seated).

2. The EEPROM microcode and set-up parameters must be correct for the VAX system in question before the VMS operating system is booted.

3. The KA82X CPU module must be installed in the correct slot.

REFERENCE DOCUMENT

VAX 8200/8300 Owner's Manual AZ-GN4AC-TE

PROCEDURE

NOTE
This is a common replacement routine for both the primary and the attached CPU.

1. FIRST STEP

    A. Figure 1 is an example of a typical module that contains Pin Grid Arrays (PGAs).

    B. Using ESD precautions and an ESD mat, place the CPU module on a flat working surface.

    C. Using the thumb and index finger of each hand, uniformly apply moderate downward pressure to all four corners of each and every PGA to ensure all PGAs are seated properly.
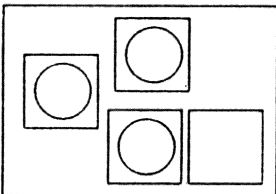

Figure 1   PGAs on a Module

2. SECOND STEP

A. PREPARE MODULE FOR EEPROM CHECK AND UPDATE

— Regardless of which slot the replacement CPU is located in, remove the primary CPU from BI cardcage slot 1 and install the replacement CPU in that slot.

NOTE
Some replacement CPUs may be received with the RCX50 self-test enabled, which will cause it to fail self-test in any slot other than BI cardcage slot 1.

— Determine the current console terminal default baud rate; ensure the console terminal baud rate is set to 1200 (spare CPU default) for both transmit and receive prior to system power-up.

B. VAX 8200/8250/8300/8350 SYSTEM EEPROM SUMMARY CHECK

— Insert the 82XX Utility Floppy in drive 0 of RX50.

— Boot the diagnostic supervisor (EBSAA 11.4 shipped in VAX DIAGNOSTIC Release 34, January 1989) on Utility Floppy by typing:

>>> B CSA1

— Perform the Attach and Select sequences for the CPU located in BI cardcage slot 1.

NOTE
Although the BI node number is usually 2, it should now be verified.

— Run EBUCA (V2.4 shipped in VAX DIAGNOSTIC Release 34, January 1989) and verify the EEPROM patch code and set-up parameters.

** EBUCA STARTUP **
Do you want help Y/N (N) ? NO
Source for loading EEPROM work buffer is primary processor
Want to change this Y/N (N) ? NO

EE> Are you interested in the general section Y/N (N) ? YES
Want to display VAXBI configuration matrix Y/N (N) ? NO
Want to display a summary of EEPROM contents (from the work buffer) Y/N (N) ? YES

Table 1   EEPROM Default Summary for KA82X CPUs (Release 33)

KA820/KA825 EEPROM Summary

CPU serial number - NI00000000	(see NOTE 1)
CPU revision - 5/18	(see NOTE 2)
Patch revision - 28	(see NOTE 3)
Console default baud rate - 1200	(see NOTE 4)
VAXBI self-test timeout in seconds - 20/25	(see NOTE 5)
VAXBI node number of the logical console - 02	(see NOTE 6)
F chip - enabled	
RCX50 self-test - disabled	(see NOTE 7)
Cache - enabled	
The default boot device - DU00	
Boot command parser - version 200	
Boot device type CS - version 101	
Boot device type DU - version 201	
Boot device type MU - version 102	
Boot device type ET - version 104	
EEPROM sanity check is good	

NOTES

NOTE 1. The serial number of the CPU should be the same as the one printed on the module.

NOTE 2. Verify the CPU revision is at the minimum acceptable level.

Part Rev	A	B	C	D	E	etc.
Rev	1	2	3	4	5	etc.

For a T1001 (-00) CPU Rev = Rev
    Example: Part Rev E = CPU Rev 5

For a T1001 (-YA) CPU Rev = 16 + Rev
    Example: Part Rev B = CPU Rev 18

NOTE 3. Verify that the CPU patch revision is at the minimum acceptable level.

NOTE 4. For PRIMARY processors, the console baud rate should be set to the previous baud rate of the console.

NOTE 5. VAXBI self-test timeout for a KA820 CPU in seconds is 20 while for the KA825 CPU it is 25.

NOTE 6. For ATTACHED CPUs this number must match the node number of the PRIMARY processor.

NOTE 7. The RCX50 self-test should be DISABLED for the ATTACHED CPU and ENABLED for the PRIMARY CPU.

C. **VAX 8200/8250/8300/8350 SYSTEM EEPROM UPDATE**

— If the CPU being replaced is the PRIMARY processor, then the DEFAULT BOOT device must also be set up (using the BOOT CODE section of EBUCA).

1. For CLUSTERS, the DEFAULT BOOT device is usually CSA1.

2. For a KDB50 Boot, the KDB50 BI node number (X) and drive unit number (Y) become >>> B DUXY.

    Example: to boot off drive 3 on a KDB50 at BI node number 5, the default boot device would be DU53.

— If the CPU microcode PATCH REVISION is out of revision, and a more recent version of KA00XX.PAT is available on the VAX 8200/8300 Utility Floppy, then the Microcode Patch Section should also be selected.

D. At the end of EBUCA you will be asked if you wish to update the EEPROM contents. If you have had to change any of the defaults, or load a new microcode patch file, then answer "YES". You will be prompted to place the console switch in the update position, respond to the prompt, and then wait for the update to finish.

3. THIRD STEP

A. PRIMARY PROCESSOR—If you replaced the PRIMARY CPU, now type a "T" at the console prompt and then press "RETURN". This will load the EEPROM updates into the CPU. The console terminal's BAUD RATE will have to be changed to reflect the BAUD RATE that was set in the EEPROM.

B. ATTACHED PROCESSOR—If you replaced the ATTACHED CPU, the SYSTEM should now be powered down. The newly-configured ATTACHED CPU should be removed and installed in the slot of the faulty attached CPU, and the former primary CPU should be returned to BI, slot 1. Finally, the console terminal baud rate should be returned to its previous value, and the power should be restored. All BI nodes should pass self-test.