

DATE: July 11, 1985
REVISION DATE: July 11, 1985
BULLETIN NO.: 12/16B:44
PRODUCT: 26-6004/5/6 Model 16B
SUBASSEMBLY: AX-9416 6 Mhz (short) 68000 CPU board (All Revisions)

PURPOSE: Describe modifications to allow Xenix 3.0 to run on a 6 Mhz CPU board.

DISCUSSION: The following describes the procedures for modifying 6 Mhz, or "slow" 68000 CPU boards to allow the running of Xenix System 3. It is important to note that this modification applies only to the "short" 68000 CPU's only. The "long" 68000 CPU boards cannot be modified to run Xenix System 3. The terms "long" and "short" 68000 CPU board refers to width of the board itself. These boards can also be identified by the component location number silk screened on the board. For "long" boards the 68000 processor is located at U22. On the "short" boards its at U19.

PROCEDURE:

NOTE: The parts required for this upgrade will be supplied in the upgrade kit.

- 1.) Install the new PAL in U36.
 - a.) Remove the old PAL in the U36 position on the 6 Mhz 68000 CPU board.
 - b.) On the new PAL (U36) bend pin 5 up so as not to come in contact with the socket when installed.
 - c.) Install new PAL U36. (device number 3646D4, or 46D4)
 - d.) Jump U36 pin 5 to U25 pin 9.
 - 2.) BERR modification.
 - a.) On **SOLDER SIDE** cut trace at U21 pin 9.
 - b.) Jump U9 pin 4 to U33 pin 13.
 - 3.) Install the new U48 PAL.
 - a.) Remove old U48 PAL (device type 16R6).
 - b.) Install new U48 PAL (device type 16R4) This new PAL will have check sum 483999 stamped on top.
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4.) WAIT modification.

- a.) Add 330pf cap from the ground end of C43 to the feed-thru near the 5 volt end of C37 (this feed-thru is hooked to TP-28).
- b.) On the **SOLDER SIDE** of the board, add a ground strap jumper (22-24 gauge stranded wire) from the ground end of C29 to the ground end of C28.

5.) Configure the refresh jumper to E1-E2 (E2 is the middle pin).

6.) Ensure compliance with ALL other Technical Bulletins, paying particular attention to the following:

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7.) Reassemble unit and test with 68000 diagnostics and Xenix 3.0.

REPLACEMENT PARTS LIST

New PAL U36	MX-2125	26-6021	(REPAIR PART ONLY)
New PAL U48	MX-2124	26-6021	
330pf capacitor	CF-1830	26-9999C	
Ground wire			Use 22-24 gauge insulated stranded wire.