### - TANDY COMPUTER PRODUCTS -

DATE:

February 3, 1984

REVISION DATE:

June 24, 1985

BULLETIN NO.:

12/16B:18

PRODUCT:

26-4004/5 26-6004/5 Model's 12/16B

SUBASSEMBLY:

AX-9364 Main Logic Board (Rev. Blank and Rev. A)

PURPOSE: Instructions for the Banked CP/M upgrade for Model's 12 and 16B.

<u>DISCUSSION:</u> The CP/M operating system will require hardware modifications in order to function properly in the Model's 12 and 16B. The following must be accomplished prior to use; 64K of RAM must be added, verify or move the listed jumpers, and exchange IC U5Ø (82S153) included in the upgrade kit.

PROCEDURE: All steps to the CP/M upgrade kit (AXX-7091) are accomplished on the Main Logic board to the rear of the computer's power supply.

# Model 12:

To gain access to this area you must first remove the top cover and bezel. After this is completed the you will have to remove the fan mounting bracket and the perforated plate which covers the rear portion of the Main logic board.

## Model 16B:

To gain access to this area you must first remove the rear panel, and as many boards as you feel necessary for access to the rear area of the Main logic board.

# **Both Models:**

WARNING: DO NOT APPLY POWER TO THE UNIT UNTIL ALL STEPS OF THE

UPGRADE ARE COMPLETED!!!!

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With the rear area of the Main logic board accessible the following steps will be taken:

- 1. Exchange U5Ø with the preprogrammed 82S153 IC in the kit.
- 2. Remove RAM IC's U63 thru U7Ø and add 64k RAM IC's in same locations.
- Remove capacitors C81 thru C84.
   (NOTE: These capacitors may already be removed on some units.)
- 4. Remove jumper E42-E43 located next to U7Ø.
- 5. Install the following jumpers:

E16-E17 Next to U42
E45-E46 Next to U7Ø
E47-E48 Next to U7Ø

E5Ø-E51 Below U49

6. Install wire wrap jumper:

E38-E39 Next to U61

- 7. Test for proper operation, using MEMII memory diagnostics. Memory size should be 128k. Displaying the memory map should show an "X" at upper and lower pages "B", "1", "14", and "15".
- 8. As a final test boot the "Banked" CP/M disk (disk 1 of 4). It should come up to a large CP/M graphic display.