

TECHNICAL BULLETIN INDEX
Sorted by Bulletin Number
04/03/86

No.	Catalog	Description	Rev. Date
200:001	26-3860	Memory upgrade and checkout procedure.	03/04/85
200:002	26-3860	Installation procedures of nicad upgrade.	03/14/85

DATE: March 4, 1985
REVISION DATE: March 4, 1985
BULLETIN NO.: 200:1
PRODUCT: 26-3860 (Model 200)
SUBASSEMBLY: Main Logic PCB

PURPOSE: To describe memory upgrade and checkout procedure.

DISCUSSION:

The Model 200 has the capacity to handle up to 72k of RAM. However, to see the additional memory after the upgrade is installed, one must use the RAM bank select function.

PROCEDURE:

Note: To perform any memory upgrade, first turn the memory power switch (located on the back of the Model 200) to the "off" position. Do not turn the memory power or the main power switches back on until the upgrade is completed.

To bring the Model 200 up to 48k, install the RAM option kit (cat. no. 26-3866) in the first option RAM position. To bring the Model 200 up to 72k, install two RAM upgrade kits, one each in RAM option positions one and two.

To check the system out, turn the memory power and main power switches on. On the LCD, a menu screen should be displayed. In the upper right hand corner of the display, next to the Microsoft logo, should be a pound sign followed by a single digit number (for example, "#1"). The first bank of 24k is denoted as #1, the second bank as #2, and the third bank as #3. To determine whether the Model 200 sees the additional memory, use the "F1" or "TAB" key to switch banks. As you press either key, the memory bank number should increment by one until the third bank is reached, whereupon it will return to the first memory bank. For the amount of free RAM in each bank upon startup, you should see the message "19590 Bytes Free" displayed in the lower right hand corner of the screen. For a thorough memory test, the diagnostics should be run on each bank of RAM.

DATE: March 14, 1985
REVISION DATE: July 15, 1986
BULLETIN NO.: 200:2
PRODUCT: 26-3860 Tandy 200
SUBASSEMBLY: AXX-7103 Nicad Upgrade Kit
SUBASSEMBLY REVISION: All Revisions

PURPOSE: To describe installation procedures for nicad upgrade.

DISCUSSION:

An option to allow the use of rechargable nicad batteries is available for the Tandy 200. Installation procedures are outlined below.

PROCEDURE:

Note: The customer should be advised that this modification allows only the use of nicad batteries in the Tandy 200. If the customer should decide to go back to the use of non-rechargable batteries, the modification for the use of nicad cells will have to be removed. Both procedures are outlined below.

To install nicad batteries:

Turn the Tandy 200 over onto its top side. Turn the memory power switch to the "off" position; remove any existing batteries by opening the battery hatch cover and extracting the cells. Remove the four (4) screws holding the front cover to the back cover. One is present in each corner of the back case. Gently remove the top cover by springing the fingers located on the sides and the front of the machine. Carefully detach the short spectra strip connecting the LCD display unit to the main CPU board. Set the top of the machine to one side.

Move the keyboard so that the insulator and boards located below it are exposed. The board to be modified is the option RAM/ROM board; this board can be identified by the three empty sockets present on it. To remove the option RAM/ROM board, gently spring the two fingers holding it in place and detach the spectra strip and cable connected to it.

Towards one end of the board is an empty switch position with two silk-screened lines connecting two pairs of feedthroughs. There should be a silk-screened "Ni-Cd" in the immediate area. Using the wire provided in the upgrade kit, connect the pairs of feedthroughs indicated by the white silk-screened lines.

Reassemble the computer in the reverse order of the disassembly steps. Install the nicad batteries in the battery compartment. Using a punch, open the pre-stamped screw opening in the battery hatch cover. Install the battery hatch cover and screw it down using the screw supplied in the kit. Install the orange warning sticker over the screw.

Charge the batteries by attaching a DC power adapter to the computer with the memory power turned on. **The memory power must be on in order for there to be a complete circuit to charge the batteries.** Once the batteries are charged check to see that the computer functions correctly using both the DC adapter and battery power only.

To remove nicads and convert back to alkaline cells:

Turn the memory power off. Disassemble the machine as outlined above. Remove the two jumpers installed on the empty switch position on the option RAM/ROM board (they will be installed near the silk-screened "Ni-Cd"). Re-assemble the machine and install alkaline cells. Remove the warning sticker from the battery hatch cover. After turning the memory power back on, check to see that the computer functions correctly using both the DC adapter and battery power only.

DATE: August 5, 1986
REVISION DATE: August 5, 1986
BULLETIN NO: 200:3
PRODUCT: 26-3860 Tandy 200
SUBASSEMBLY: AX-9505 Memory board
SUBASSEMBLY REVISION: A11

PURPOSE: To keep the computer from locking up after AC power is lost with the Ni-Cad upgrade installed.

DISCUSSION:

A problem has shown up while using the Tandy 200 with the Ni-Cad upgrade and an AC adapter. If AC power is lost and the customer pushes the ON/OFF button before removing the adapter plug from the computer, the unit will lock up tight even if he later removes the adapter plug. This problem can be corrected by installing a 1N914 diode between the Ni-Cad batteries and the AC source.

PROCEDURE:

On the memory board of the computer, two jumpers were installed during the Ni-Cad upgrade (J301 and J302). Referring to figure 1 of the Memory PCB, remove the jumper wire J302 and in its place install a 1N914 diode. Note the proper orientation of the diode, the cathode (banded) end should be near the silkscreen J302 label. Because of the space restrictions, trim the diode leads short and check for any solder or wire shorts.

Figure 2 is the power supply section of the main pcb. It shows the schematic change involved with this procedure.

Check for proper operation using the AC adapter and then the Ni-Cad batteries alone.

1N914 diode

National Parts # DX-0010

Catalog # 26-6052

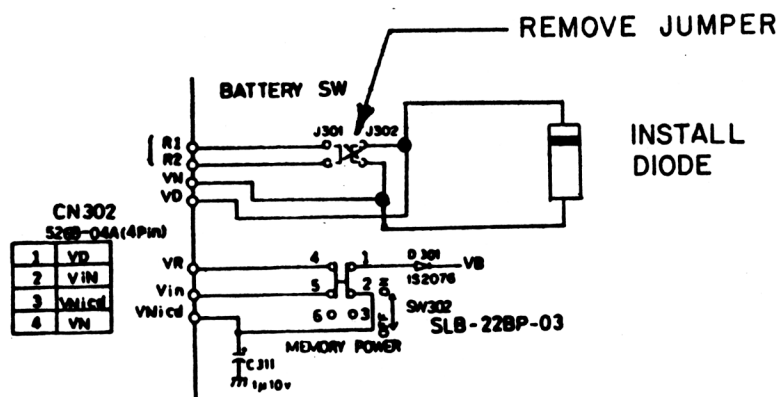


Figure 1. Memory PCB.

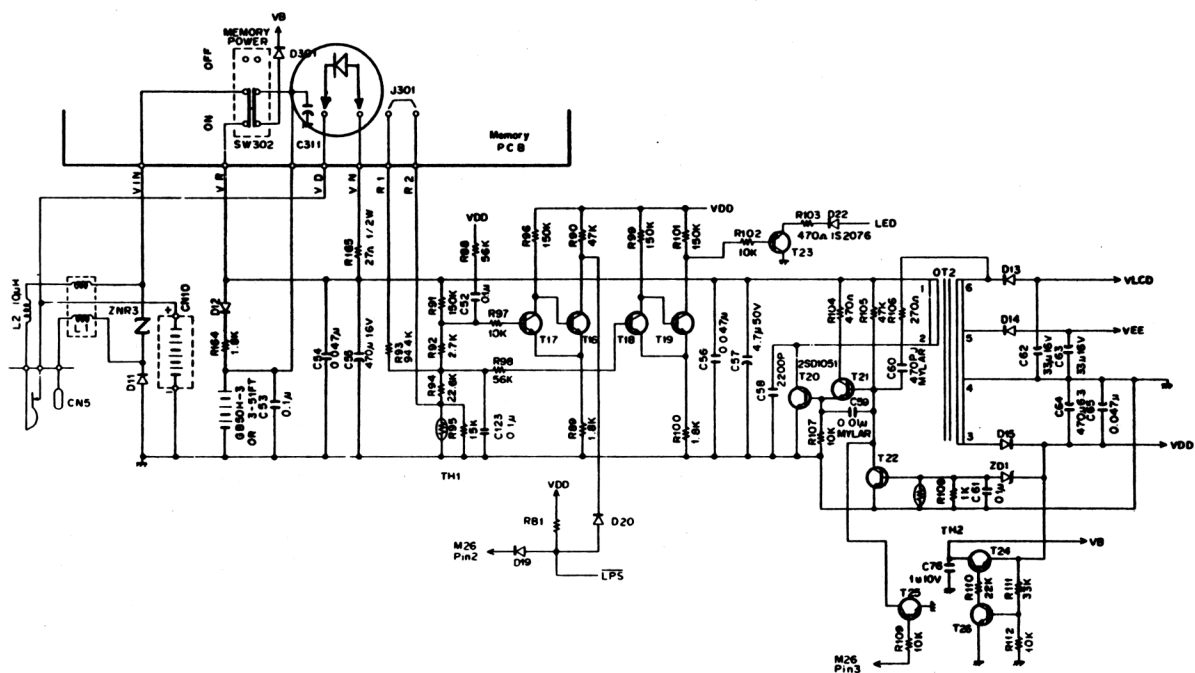


Figure 2. Power Supply Section of Main PCB.