

Radio Shack®

Service Manual

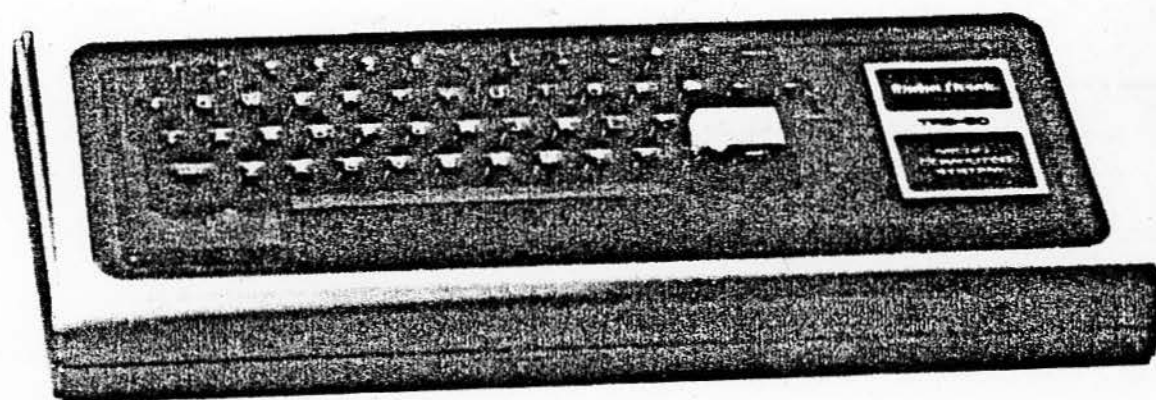
26-1101

ADDENDUM

TRS-80

16K RAM EXPANSION

Catalog Number: 26-1101



CUSTOM MANUFACTURED IN U.S.A. BY RADIO SHACK **TC** A DIVISION OF TANDY CORPORATION

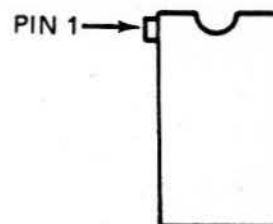
TANDY ADVANCED PRODUCTS

16K RAM EXPANSION RETROFIT INSTRUCTIONS

1. To disassemble the case, place it upside down on your lap or on a non-scratching surface and remove the six screws.
2. Now place it face up and carefully lift off the top half of the case. Note that the "ON" LED is attached to it.
3. To remove the LED, slip the black plastic retaining ring (sample enclosed) off of the LED socket. Now pull on the leads while pressing on the LED from the other side. (If a lead should happen to break, replace the LED with the one provided. Notice that the base of the LED has a flat side. This indicates the polarity of the leads).
4. Lift the keyboard from the posts. Try to flex the connecting ribbon as little as possible.
5. With the keyboard now free from the posts, lift out the Logic Board. At this point you can read either "TRS-80 1700069A" or "TRS-80 1700069D" on the back of the Logic Board. The "A" and the "D" letter suffixes indicate revision levels and will be referred to later. Also, please note and record the number that is marked on the Logic Board with a felt marker. This is the Board's control number. Lay the P.C. Boards flat with the integrated circuits and keys facing up.

6. Locate Z13 through Z20. These are the RAM's (See Figure 1).
7. Before pulling out the old RAM's, note that they have a notch in their cases — all pointing in the same direction. The notches in the new RAM's must also point in the same direction.

NOTE: These are MOS I.C.'s. This means that they can be damaged simply from the discharge of static in the human body. Wear a "static discharge bracelet" if available. If not, temporarily ground yourself to a metal work bench (with all power off, of course) before handling these I.C.'s. Try to avoid making contact with the pins. Also, avoid any unnecessary movement that would cause you to produce a static charge.



8. Remove and replace the RAM's. Use a small screwdriver to gradually pry them loose at both ends. (To preserve the 4K RAM's, place them in the conducting black foam for protection against static).
 9. Locate the sockets for Z3 and Z71. (On "A" revision boards, note that Z3 is blank). Remove any jumper circuits (DIP Shunts) at Z3 and Z71. Install a DIP Shunt in Z3 and one in Z71. They must match the pattern shown in Figure 2. Notice that "A" revision boards use 14-pin DIP Shunts and "D" revision boards use 16-pin DIP Shunts.
- NOTE:** Pin 1 on the DIP Shunts should line up like all other I.C.'s, including the RAM's, as indicated above. Also refer to Figure 2.
10. Now re-assemble the case, making sure that the LED is seated securely (press it in until it snaps into place).
 11. Affix the 16K label to the bottom of the case. Oh yes, don't forget to lacquer a screw-head to maintain the warranty.
 12. Record the computer serial number and the board's control number. These numbers should be returned along with the 4K RAM's to Tandy Advanced Products through the controlling store.

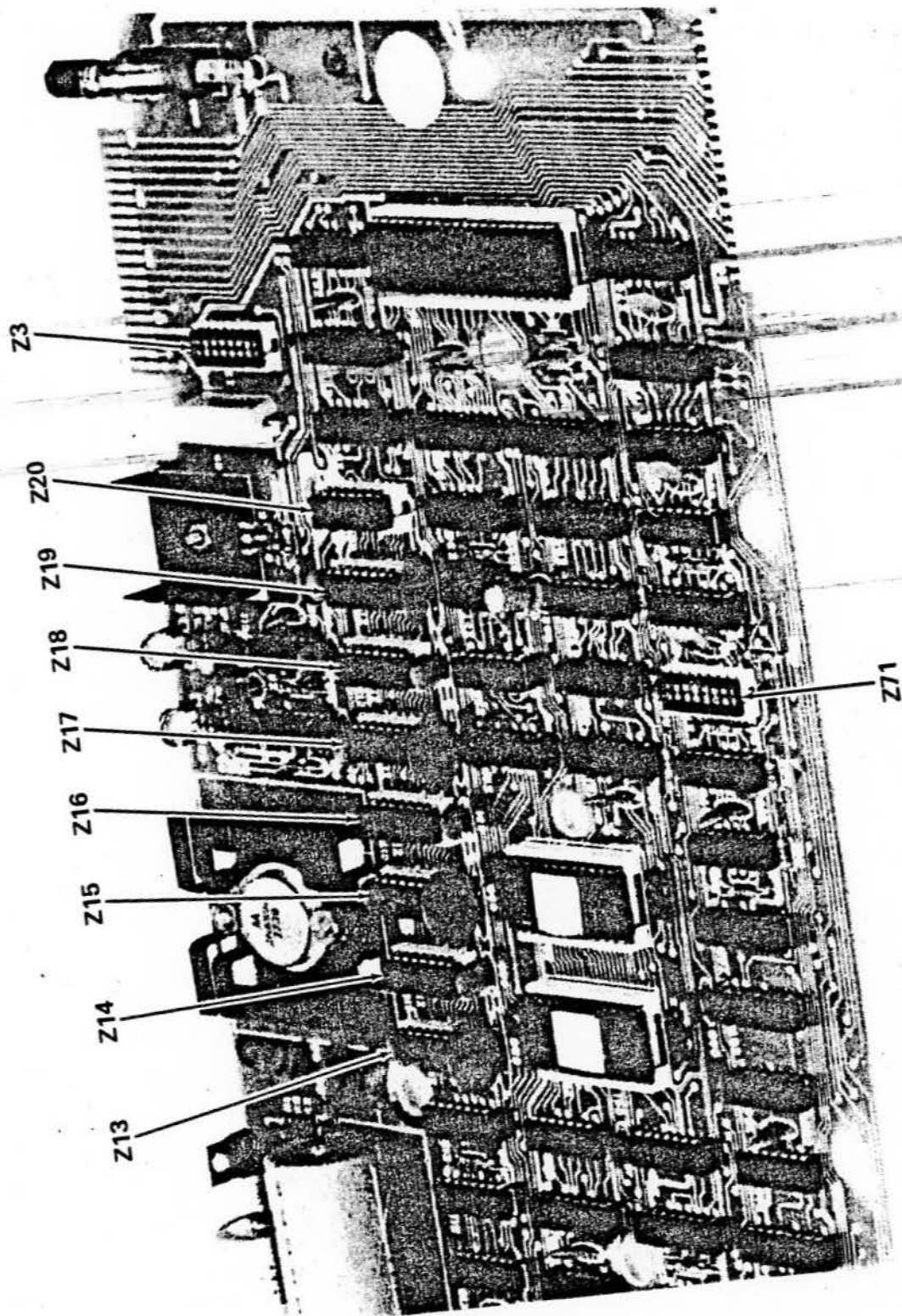
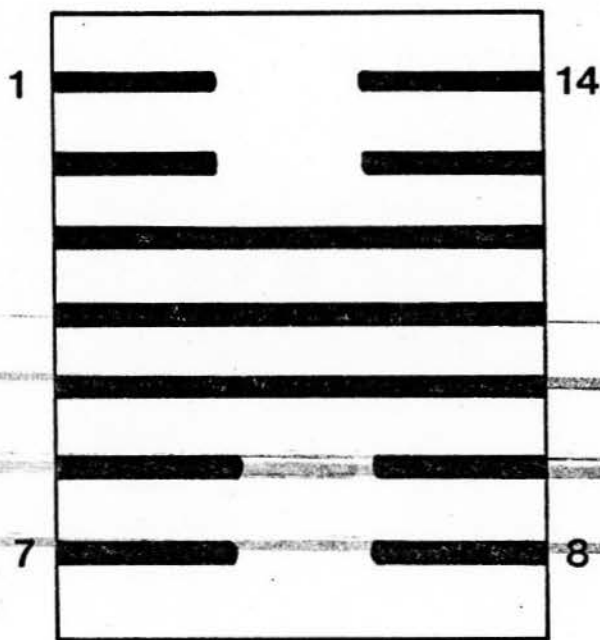


FIGURE 1. RAM LOCATIONS

DIP SHUNTS FOR TRS-80 1700069A BOARDS



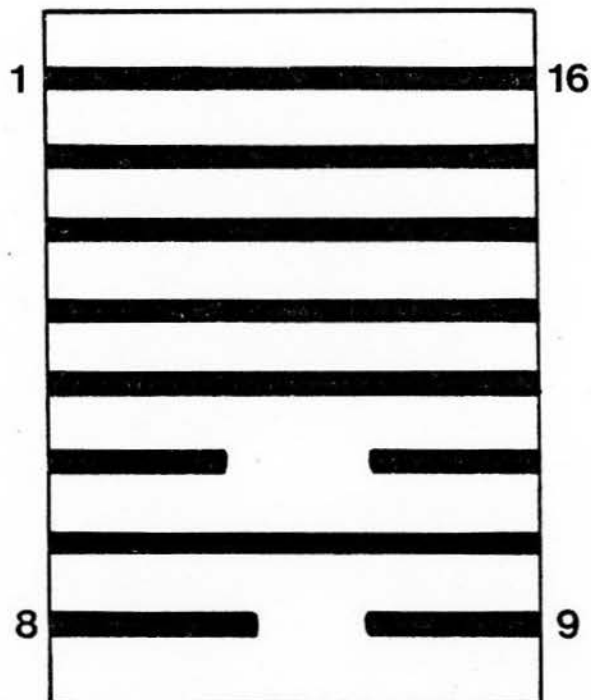
Z3



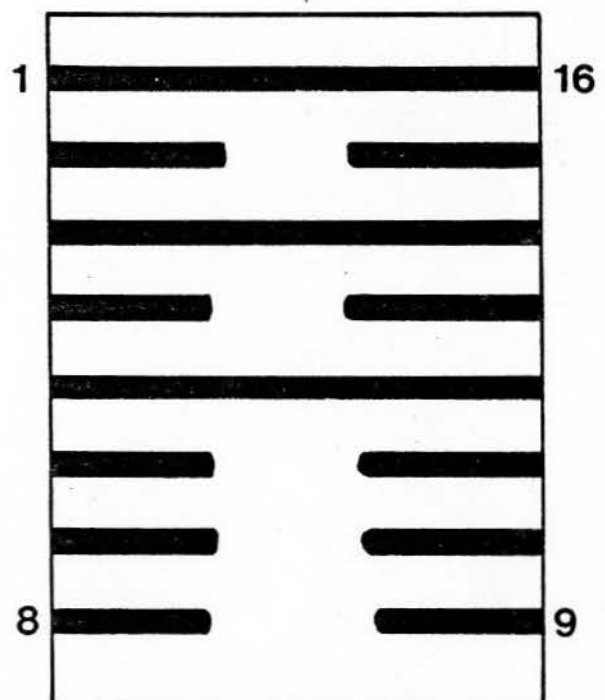
Z71

DIP SHUNTS FOR TRS-80 1700069D BOARDS

Also 1700069E Boards



Z3



Z71

FIGURE 2. DIP SHUNTS