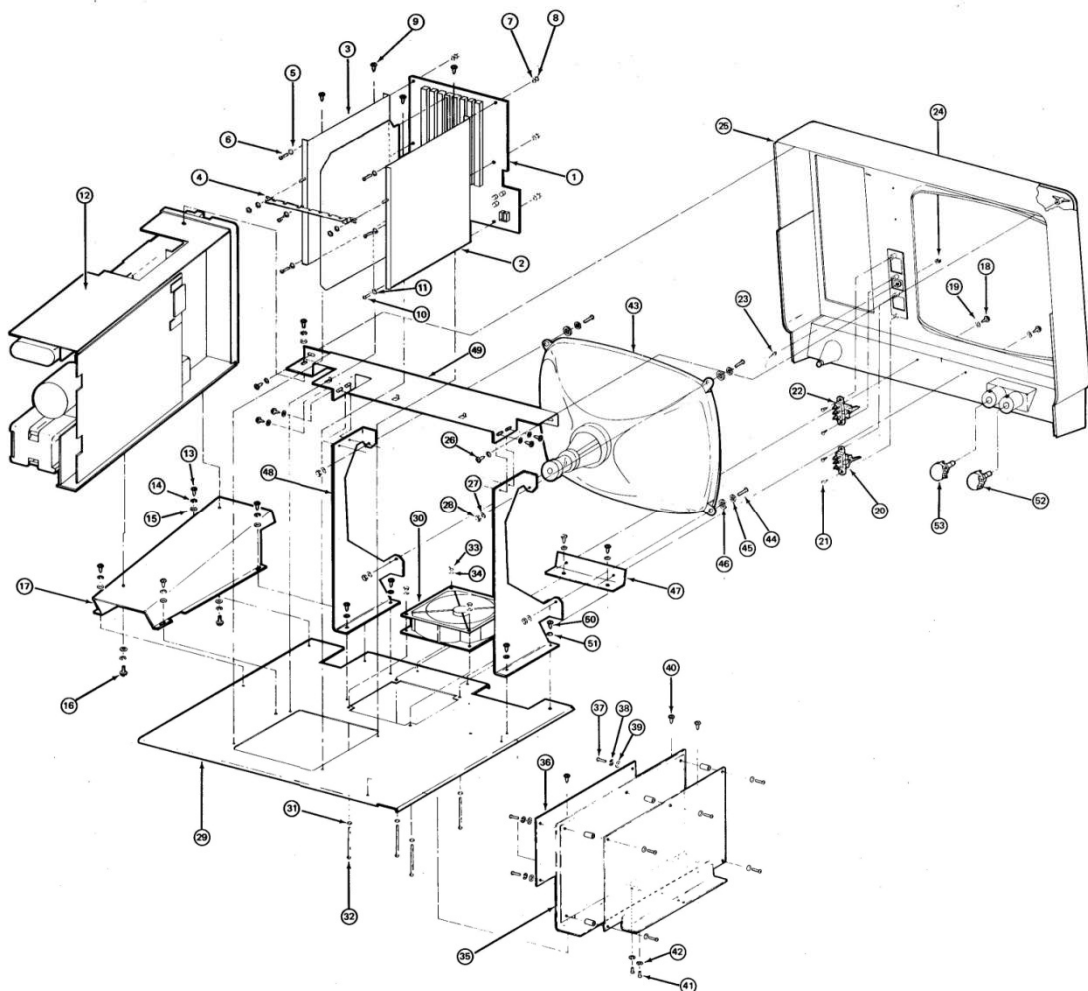# Radio Shack TRS-80 ®
Model 2

TRS-80 Modèle 2 Disassembly
English Tutorial

Making, photos, ... : Christian Schreuder   trs80-wlk@hotmail.com
Supervised by: Hans Rietveld (Netherlands) and Peter Cetinski (USA)

System Disassembly

1. Case:

Cover:

1.1. Remove the two machine screws from the back of the case.

1.2. Lift up on the rear of the top case and angle it toward the front panel, then lift the top case away from the bottom.
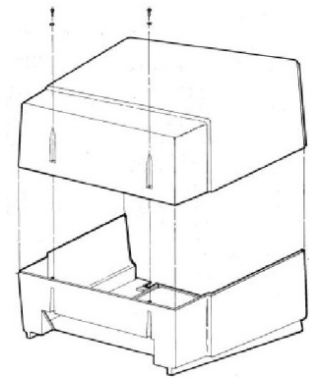

Figure 1.2

Front face:

1.3. Remove the two screws from the video display mounting bracket and bezel.

Figure 1.3

1.4. Remove the 2 screws that secures the mounting bracket on top of the disk drive to the bezel (inside of front panel).
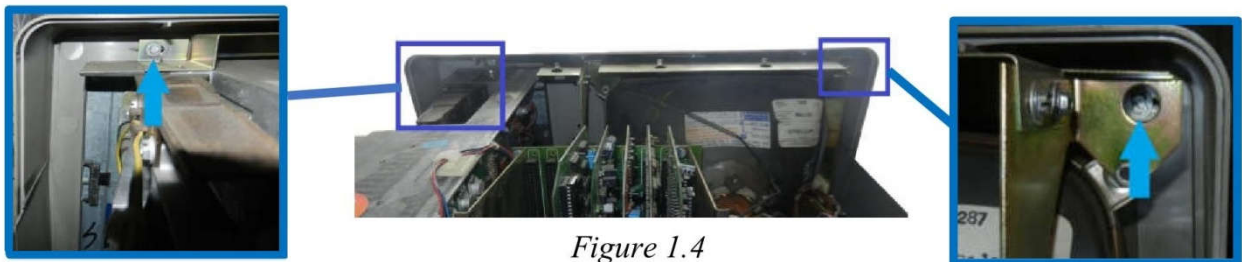

Figure 1.4

1.5. Pull out the keyboard cable only as far as necessary to allow the front panel to lay flat (face down).

1.6. Pull the front panel forward to clear the chassis and lay it face down.

Figure 1.6

2. Chassis :

NOTE (*1) : Removal of the chassis is not always required, but it makes things easier.

2.1. Remove five #8 screws, flat washers and lock washers from locations illustrated Notice that one of the screws is used to help mount the power supply.
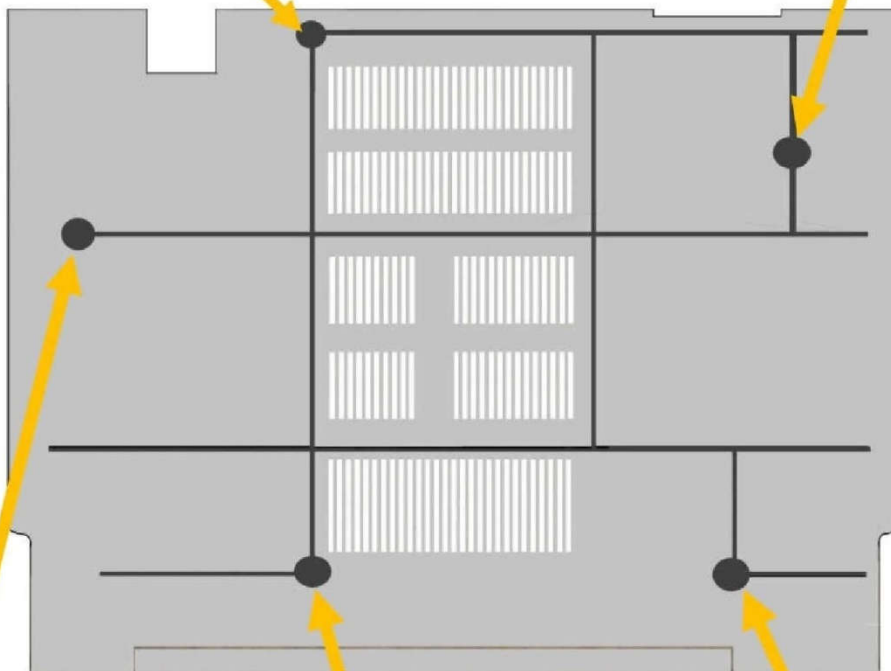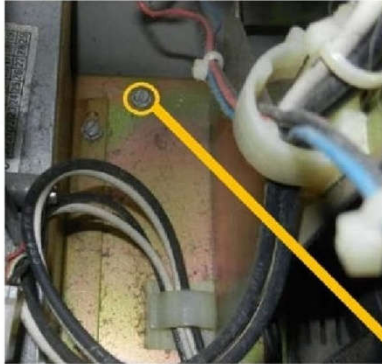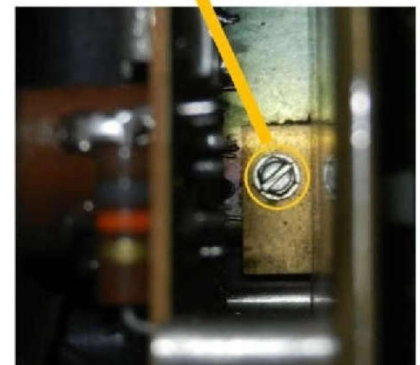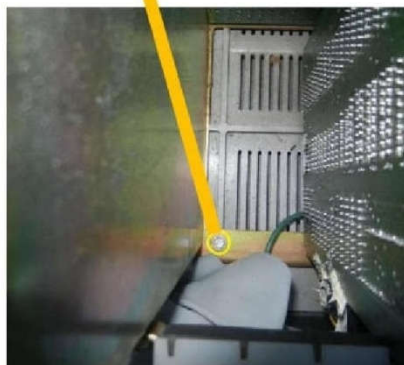

Figure 2 .1
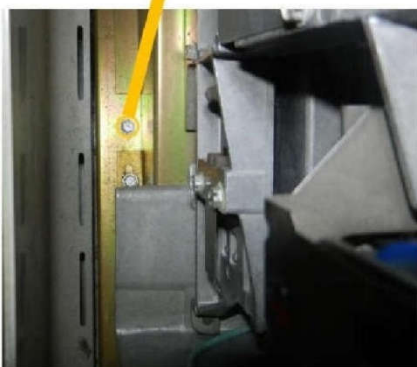
(*1)   Thanks to Peter Cetinski (USA) for this note.

2.2. Lift up chassis slightly (to clear ribs in the bottom case) and slide it forward.

2.3. Perform the following operations :

    A.   Remove screws holding the AC power connector to the connector panel and remove the connector from the panel.

    B. Disconnect two wires from the fuse holder.

    C. Disconnect the ground wire.

    D. Disconnect all I/O cables from disk drive, CPU card and FDC card.

Figure 2.3

2.4. Remove chassis from the bottom case.

3. Power Supply:

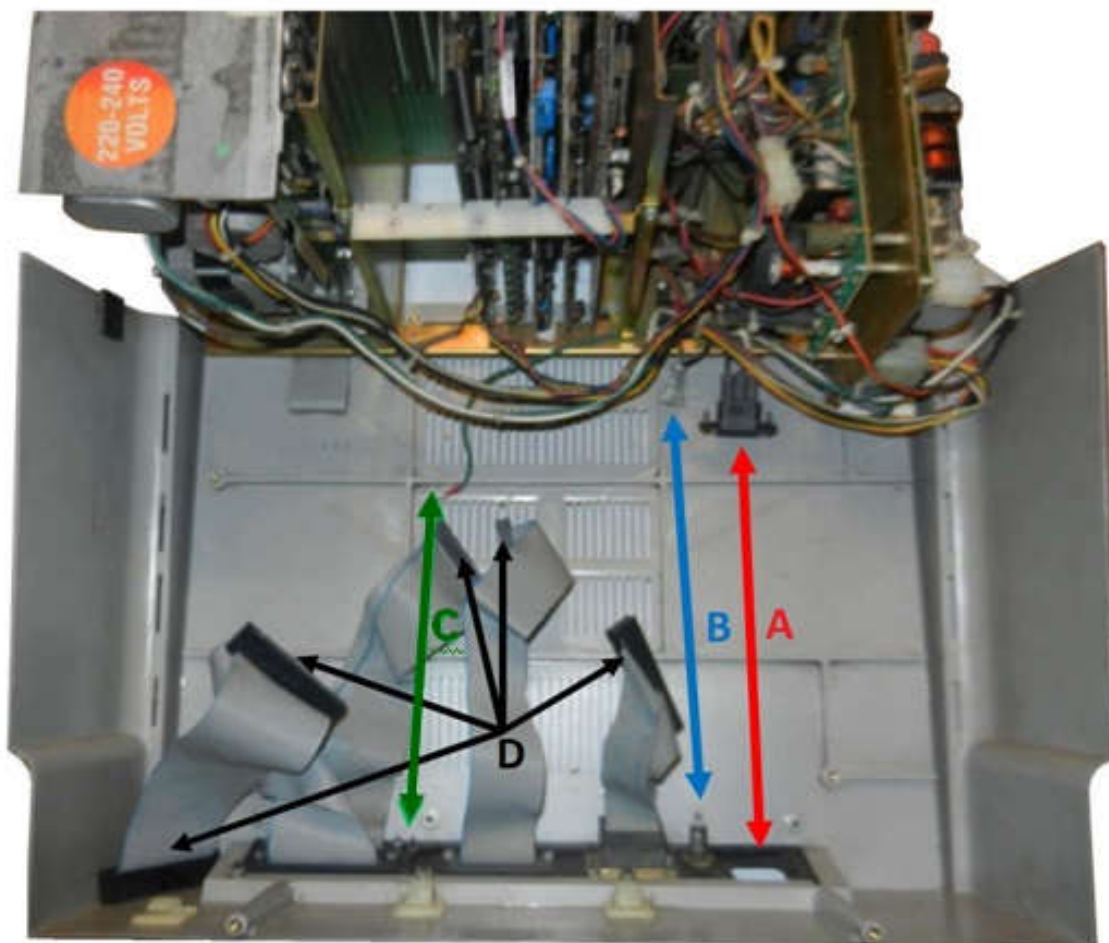3.1. Remove the three-wire AC plug
and the thirteen-wire DC plug
from the power supply PCB.
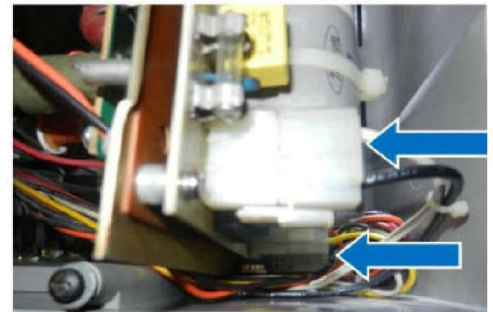
Figure 3.1

3.2. Remove two #8 thread forming screws from
the power supply mounting bracket.

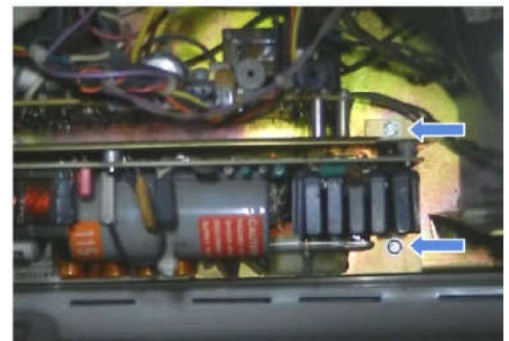

Figure 3.2

3.3. Tilt the power supply toward the outside of the chassis
and remove tree screws, nuts and spacers that mount
the video board to the power supply mounting bracket

Figure 3.3

3.4. Remove five screws, nuts, flat washers and spacers
that secure the power supply to its mounting bracket.

Figure 3.4

3.5. Remove the power supply from the chassis.

4. Removal of Cards from Card Cage:

> **NOTE** (*2) : Before removing the Card Cage, remove all the cards.

4.1. If not previously done, disconnect the signal and control cables from the video/keyboard card and I/O cables from the floppy disk controller and CPU cards.

4.2. Remove the two nuts (*1) that secure the PCB Stabilizer to the card cage mounting brackets and remove the Stabilizer

Figure 4.2

4.3. Notice the location of the CPU, FDC, video/keyboard and memory cards. Ensure that the replacement cards are inserted in the same locations.

4.4. Remove and replace cards as necessary for repair.

5. Card Cage:

5.1. Disconnect the DC cable on the lower right front of the mother board.

5.2. Remove four #8 thread forming screws from the card cage mounting bracket

5.3. Remove six screws, nuts and flat washers that mount the mother board to its mounting brackets and remove the mother board.
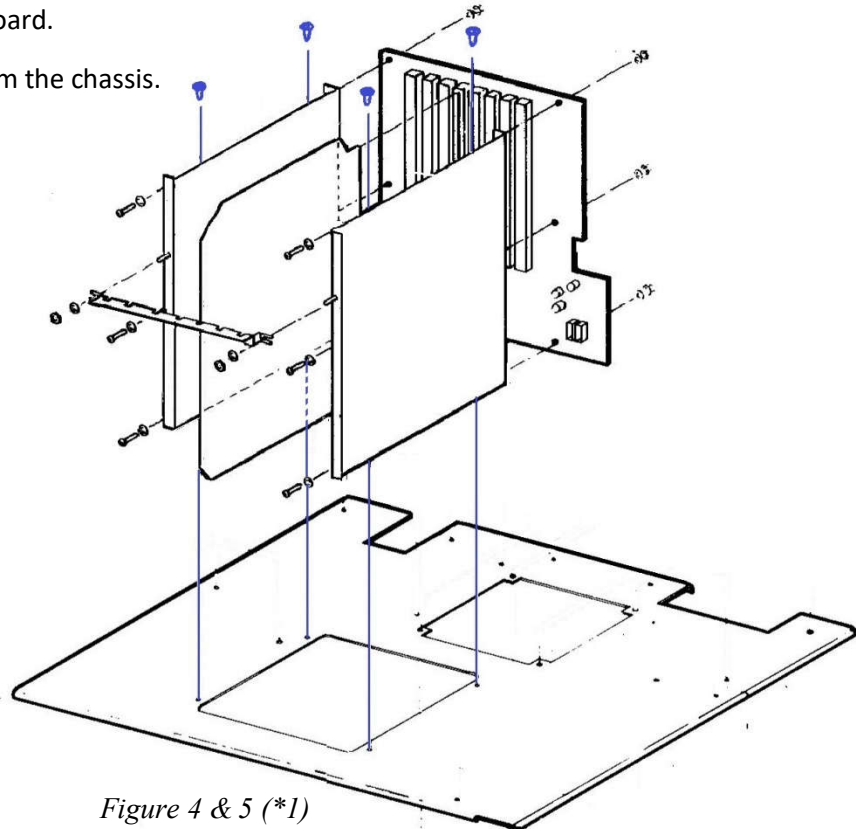
5.4. Remove card cage from the chassis.

*Figure 4 & 5 (*1)*

*(*2)   Thanks to Hans Rietveld (Netherlands) for writing this page.*
(Note and correction of the "Manual Technical Reference").

6. Video Display (CRT) and Video Board

CAUTION

The CRT and video board are matched sets. Do not remove and replace individual pieces. Remove one matched set and replace with another set
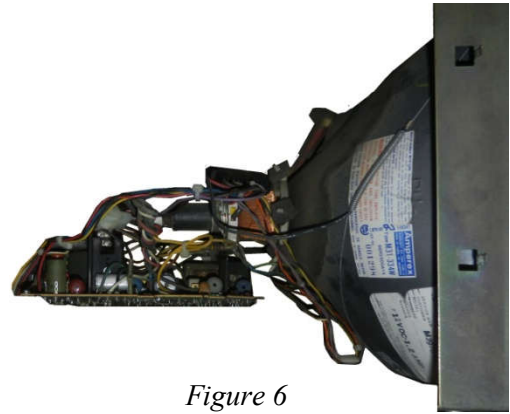

Figure 6

6.1. If the video board is not free from the power supply mounting bracket, perform the steps for removal of the power supply down to removal of the video board.
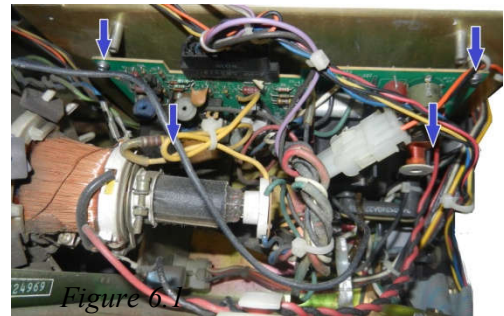
Figure 6.1

6.2. Disconnect four color coded wires with spade lugs from the CRT yoke.

6.3. Disconnect the connector on the rear of the CRT neck.

WARNING

There may be a high voltage on the high voltage anode. To discharge, connect one end of wire to a known ground and connect the other end of the wire to the blade of a common screwdriver. Insert the screwdriver blade under the suction cup and touch it the clip holding the wire to the CRT

6.4. Insert a common screwdriver under the rubber grommet on the high-voltage anode wire on the side of the CRT. Use the screwdriver to compress the clip holding the wire to the tube and pull the wire free.

6.5. Remove the upper right and lower left screws, nuts and washers from the video display mounting bracket.

CAUTION

If dropped, the CRT will implode. To avoid this hind of accident, support the CRT while performing the next step.

6.6. Remove the lower right and upper left screws, nuts and washers from the video display mounting bracket.

6.7. Lift the CRT and PCB out of the chassis.

7. Disk Drive:

7.1. Disconnect two power connectors from the disk drive PCB.

7.2. Disconnect the large (50 pin) card edge connector from the disk drive PCB.

7.3. Remove four screws from the disk drive mounting bracket.

7.4. Lift the drive and mounting brackets out of the chassis.

7.5. Lay the drive on its side (PCB up) and remove two screws from the bottom of the mounting bracket.

7.6. Separate the drive from the bracket.
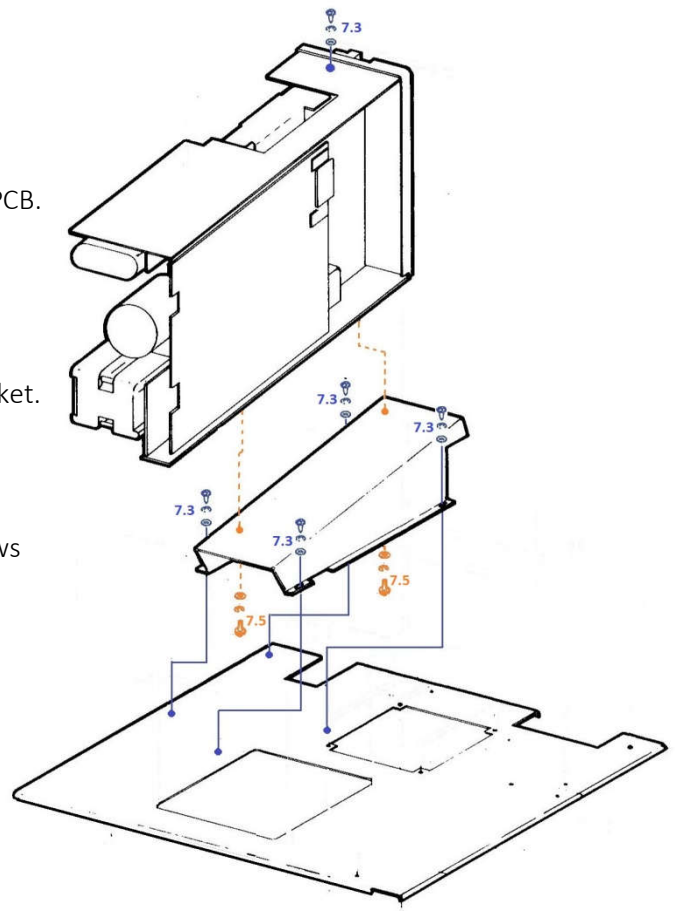
Figure 7

8. Fan :

NOTE:
 The following steps can only be performed with the chassis removed from the case

8.1. Position the chassis so that the four nuts on the bottom of the chassis are accessible.

8.2. Disconnect the power cable on the fan.

8.3. Secure the screw heads while removing the nuts from the bottom of the chassis and remove four nuts.

8.4. Raise the fan away from the chassis to provide clearance for the screws while removing the fan.

Figure 8.3

9. Keyboard:

9.1. Disconnect the keyboard external cable from the keyboard (DIN plug.)

9.2. Place the keyboard with keys down on a soft surface.

9.3. Remove four thread forming screws and two machine screws.

9.4. Place the keyboard with keys up and remove the bezel.

9.5. Disconnect the five-pin connector at J1 on the PCB.

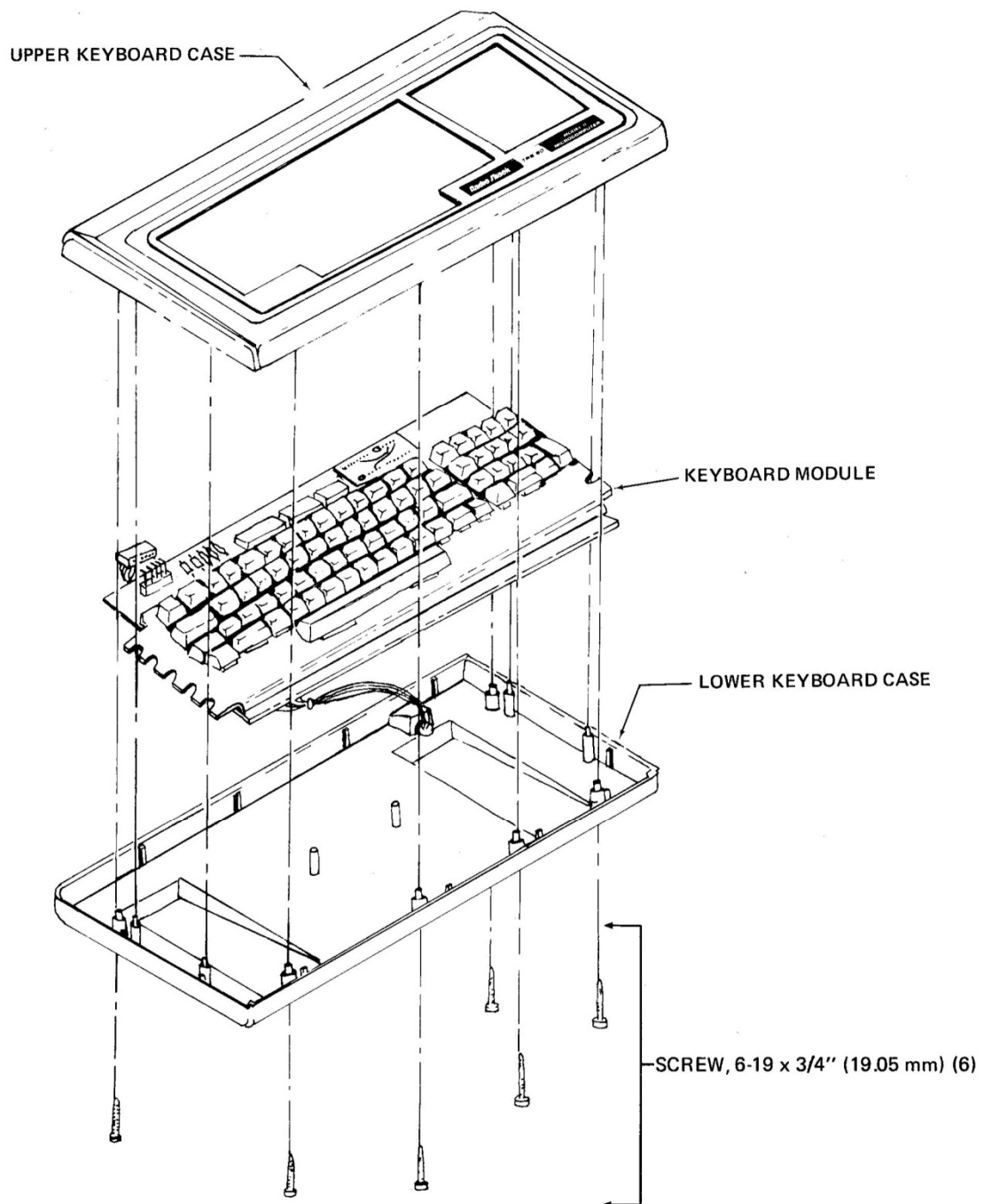9.6. Lift the keyboard with PCB out of the case.

Figure 9

10. Layout:

10.1. Overview

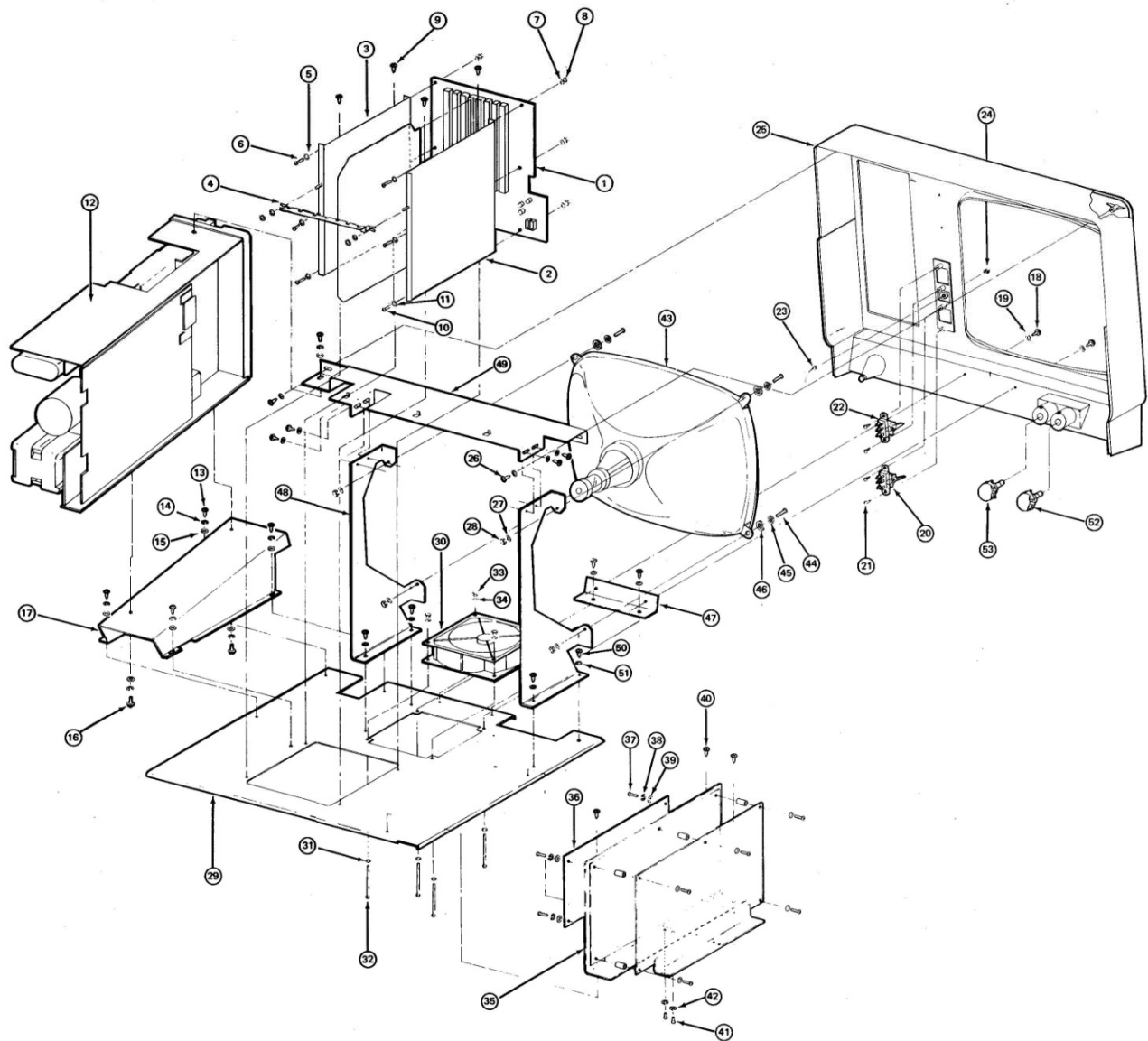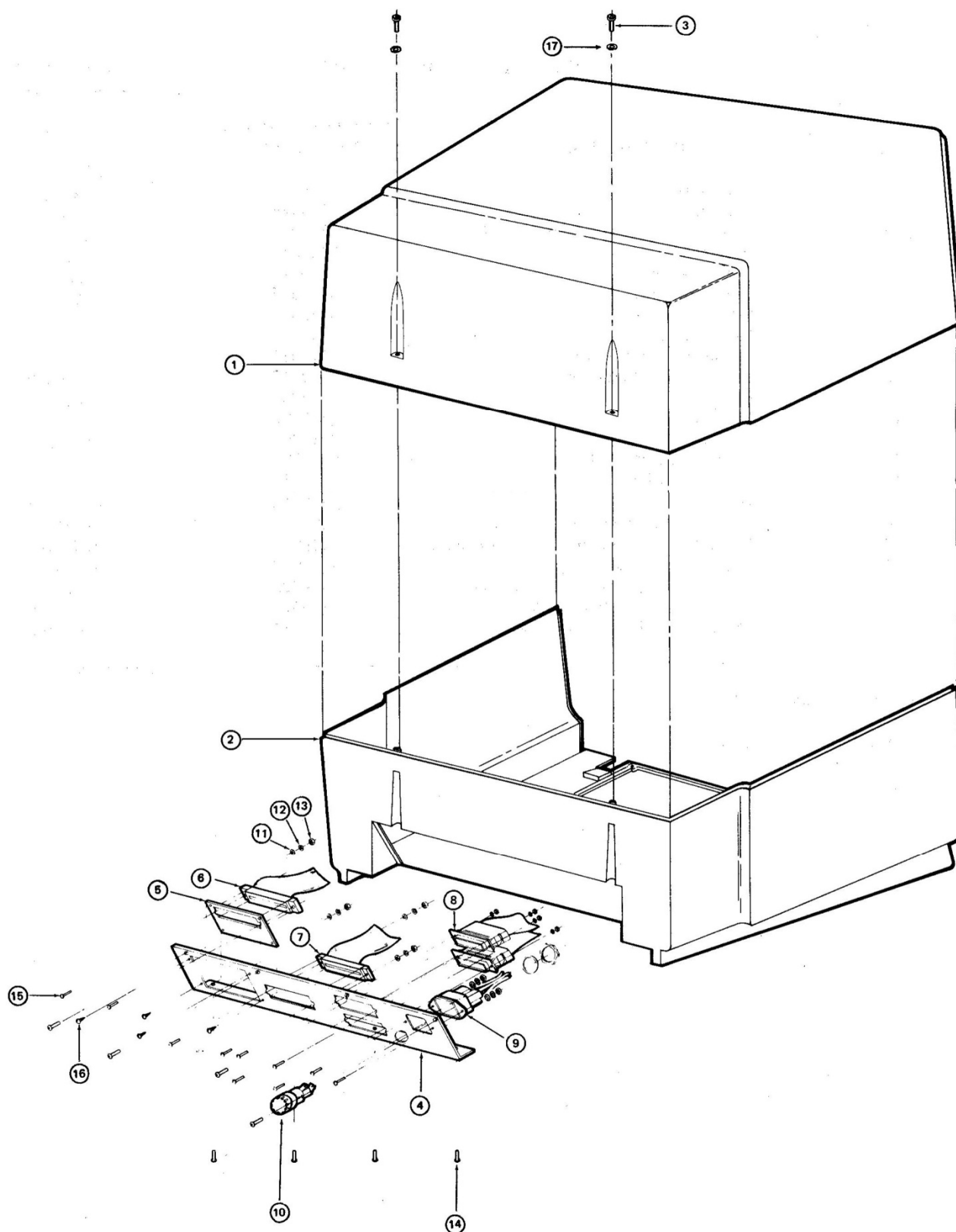*Figure 10.1*

Case Assembly

Figure 10.2

11. Original document :

TRS-80™ MODEL II

TECHNICAL REFERENCE
MANUAL

Catalog Number 26-4921

Radio Shack®

A DIVISION OF TANDY CORPORATION

One Tandy Center
Fort Worth, Texas 76102

System Disassembly

1. **Case:**

   a. Remove the two machine screws from the back
   of the case.

   b. Lift up on the rear of the top case and angle it
   toward the front panel; then lift the top case
   away from the bottom.

   c. Remove the two screws from the video display
   mounting bracket and bezel.

   d. Remove the screw that secures the mounting
   bracket on top of the disk drive to the bezel
   (inside of front panel).

   e. Pull out the keyboard cable only as far as
   necessary to allow the front panel to lay flat
   (face down).

   f. Pull the front panel forward to clear the chassis
   and lay it face down.

2. **Chassis:**

   a. Remove five #8 screws, flat washers and lock
   washers from locations illustrated. Notice that
   one of the screws is used to help mount the
   power supply.

   b. Lift up chassis slightly (to clear ribs in the bot-
   tom case) and slide it forward.

   c. Remove screws holding the AC power connec-
   tor to the connector panel and remove the con-
   nector from the panel.

   d. Disconnect two wires from the fuseholder.

   e. Disconnect all I/O cables from disk drive, CPU
   card and FDC card.

f. Remove chassis from the bottom case.

3. **Power Supply:**

   WARNING

   If the power supply is faulty, the large heat sink
   may have a potential of 330 volts above line com-
   mon. Use extreme caution when handling the power
   supply.

   a. Remove the three-wire AC plug and the thir-
   teen-wire DC plug from the power supply PCB.

   b. Remove two #8 thread forming screws from
   the power supply mounting bracket.

   c. Tilt the power supply toward the outside of the
   chassis and remove four screws, nuts and spacers
   that mount the video board to the power sup-
   ply mounting bracket.

   d. Remove five screws, nuts, flat washers and
   spacers that secure the power supply to its
   mounting bracket.

   e. Remove the power supply from the chassis.

4. **Card Cage:**

   a. If not previously done, disconnect the signal
   and control cables from the video/keyboard
   card and I/O cables from the floppy disk con-
   troller and CPU cards.

   b. Disconnect the DC cable on the lower right
   front of the mother board.

   c. Remove four #8 thread forming screws from
   the card cage mounting bracket.

   d. Remove card cage from the chassis.

5. **Removal of Cards from Card Cage:**

   a. Remove two thread forming screws that con-
   nect the PCB stabilizer to the card cage mount-
   ing brackets and remove the stabilizer.

   b. Notice the location of the CPU, FDC, video/
   keyboard and memory cards. Ensure that the
   replacement cards are inserted in the same loca-
   tions.

   c. Remove and replace cards as necessary for
   repair.

   d. Remove six screws, nuts and flat washers that
   mount the mother board to its mounting brack-
   ets and remove the mother board.

6. Video Display (CRT) and Video Board:

a. If the video board is not free from the power supply mounting bracket, perform the steps for removal of the power supply down to removal of the video board.

b. Disconnect four color coded wires with spade lugs from the CRT yoke.

c. Disconnect the connector on the rear of the CRT neck.

d. Insert a common screwdriver under the rubber grommet on the high-voltage anode wire on the side of the CRT. Use the screwdriver to compress the clip holding the wire to the tube and pull the wire free.

e. Remove the upper right and lower left screws, nuts and washers from the video display mounting bracket.

f. Remove the lower right and upper left screws, nuts and washers from the video display mounting bracket.

g. Lift the CRT and PCB out of the chassis.

7. Disk Drive

a. Disconnect two power connectors from the disk drive PCB.

b. Disconnect the large (50 pin) card edge connector from the disk drive PCB.

c. Remove four screws from the disk drive mounting bracket.

d. Lift the drive and mounting brackets out of the chassis.

e. Lay the drive on its side (PCB up) and remove two screws from the bottom of the mounting bracket.

f. Separate the drive from the bracket.

8. Fan

NOTE: The following steps can only be performed with the chassis removed from the case.

a. Position the chassis so that the four nuts on the bottom of the chassis are accessible.

b. Disconnect the power cable on the fan.

c. Secure the screw heads while removing the nuts from the bottom of the chassis and remove four nuts.

d. Raise the fan away from the chassis to provide clearance for the screws while removing the fan.

9. Keyboard (See Figure 2):

a. Disconnect the keyboard external cable from the keyboard (DIN plug.)

b. Place the keyboard with keys down on a soft surface.

c. Remove four thread forming screws and two machine screws.

d. Place the keyboard with keys up and remove the bezel.

e. Disconnect the five-pin connector at J1 on the PCB.

f. Lift the keyboard with PCB out of the case.

Reassembly

1. Keyboard:

Reassemble the keyboard in reverse order of disassembly.

2. Fan:

a. When installing a new fan, insert the screws into the screw holes before positioning the fan.

b. Ensure that the fan is oriented so that air will flow in from the bottom and out through the top and so that the power connector is accessible.

CAUTION

Do not press down on the fan mounting ears. Tighten the screws and nuts only enough to secure the fan to the chassis.