

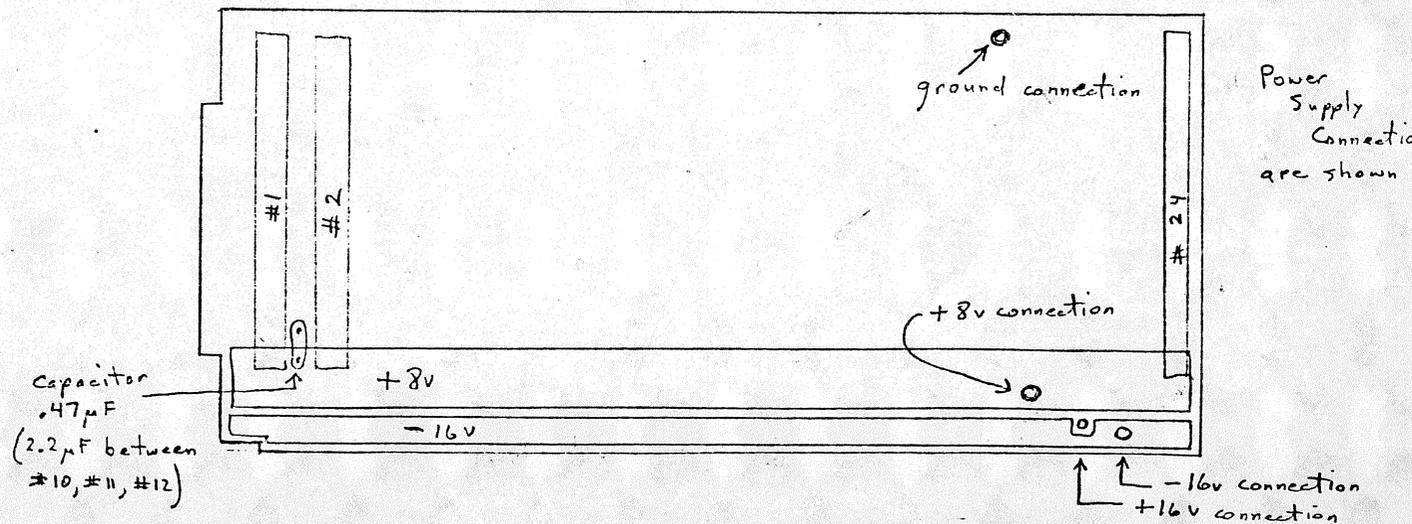
# Assembly Instructions

## Mother Board

Keep these instructions as part of the documentation package for your microcomputer.

1. Carefully inspect your board for broken or shorted traces. Repair minor problems and report major ones to your distributor.
2. Note the orientation of the board. The GROUND PLANE side is the top and all connectors and capacitors are to be inserted from this side. With the board positioned with the edge fingers at the left end, the connector positions are numbered from left to right. Pin one on each connector is the one that connects to the wider power trace and is closer to the back of the board.
3. The system is designed so that the plug-in boards are inserted facing toward the rear of the computer.
4. The connector positions receiving minimum air-flow are positions 1-3, 12-15, and 22-24. If you are not building a fully loaded system, avoid using these connector positions until the others are filled.
5. For optimum noise performance, it is recommended that position #11 be reserved for the CPU card.
6. When actually soldering in the connectors, it is recommended that the end pins be soldered first, making sure that the connector is firmly seated against the board. The mounting screws will go through the holes in the connector ears. Next, solder the center pins, again, making sure the connector is firmly seated against the board.. Now solder the remaining pins.
7. Solder the two 2.2uF capacitors on either side of connector #11 in the holes near pin 1.
8. Solder the 22 remaining capacitors (47uF) in the positions provided.
9. Carefully inspect the finished board and repair any poor solder joints.
10. Total assembly time may be as short as 1 3/4 hrs but take time to do a quality job as you have a large investment in this one piece of hardware.

Sketch of Board - Top View



## MICROCOMPUTER CHASSIS ASSEMBLY INFORMATION

The following information should help you assemble your micro-computer chassis. Complete detailed step-by-step instructions are not given since both writing them and reading them would be tedious and probably unrewarding - besides pictures are worth a thousand words. However, some guidelines and assembly hints that should save time and rework are presented below:

1. I suggest you first sort your nuts and screws into little piles that will allow you to identify them (by part number and description or by quantity supplied).
2. Next, assemble the front and rear frames to the four side struts. Do this but don't tighten the frame up too much yet. There is no difference between the side struts and no front or back end to them. Use the 16 100 degree flat-head screws 2510-0192.
3. The center of the top of the front frame casting has the part number on it. Set the assembled frame on a flat surface right side up. Find the largest aluminum sheet metal piece (the internal deck). Insert the deck through the front frame (you'll have to angle it) with its bent sides towards the bottom until it can be set down between the lower side struts. The rear of the deck is the end with the five holes in the bent edge; the front has only two holes in a shorter bent edge.
4. The front- and rear-panel are the pieces that are folded on all four edges and that fit into the frames. The one with the largest rectangular cut out is the rear-panel. Set it into the rear frame with the bent edges out and the row of five screw holes nearer to the bottom.
5. Lift the deck until its holes match the holes in the rear-panel and the deck is flush with the rear-panel when the rear-panel is in all the way. When everything is positioned correctly five holes in each side of the deck should line up with holes in the side struts. Use hardware items 1 and 8 to fill these holes. Again, don't tighten these too much yet.

6. Most of the rest of the assembling can be done while viewing the drawings. The hints below will help.
- a. Don't tighten the frame up until the rear-panel is attached.
  - b. The square sheet metal plate with all the holes around the edges goes onto the rear-panel using items 1 & 8.
  - c. Put the brackets on the fans before you attach the brackets to the deck and strut. The brackets attach to the deck and strut with items 1 & 8. The bracket with the double bend is the upper one. The ends of the brackets that have the rectangular areas cut out should be attached to the fans. The air flow arrow should be visible from the top of the chassis and pointing inward.
  - d. Attach the front-panel last. You will have two extra items 1 & 8. They are for attaching the front-panel to the deck except the item 1's are supposed to be flat-heads. Our mistake.
  - e. Orient the three large capacitors with their screw holes toward the top of the chassis. I found it best to put them into their clamps before installing the clamps into the chassis.
  - f. Typically, the power cord connector is best oriented with the center pin towards the top of the chassis.
  - g. The smaller blue capacitor (not shown in the drawing) mounts with its clamp to the inside of the front panel near the upper right corner (ends up over the transformer). The key switch mounts into the circular hole near the capacitor.

HARDWARE ITEMS LIST (ITEM NUMBERS ARE THE NUMBERS IN THE FIGURE)

1. HP 2360-0195 Pan-head POZIDRIV machine screw, 6-32 X .312  
(Quantity supplied = 53).
2. HP 2510-0192 100 degree flat-head POZIDRIV machine screw,  
8-32 X .250, patch lock (Quantity supplied = 16).
3. HP 2360-0182 82 degree flat-head POZIDRIV machine screw,  
6-32 X .312 (Quantity supplied = 6).
4. HP 2360-0199 Pan-head POZIDRIV machine screw, 6-32 X .438  
(Quantity supplied = 10).
5. HP 2360-0229 Pan-head POZIDRIV machine screw, 6-32 X .562  
(Quantity supplied = 4).
6. HP 2200-0141 Pan-head POZIDRIV machine screw, 4-40 X .312  
(Quantity supplied = 2).
7. HP 2200-0166 82 degree flat-head POZIDRIV machine screw,  
4-40 X .312 (Quantity supplied = 2).
8. HP 2420-0001 6-32 Hex nut with lock washer (Quantity sup-  
plied = 45).
9. HP 2260-0009 4-40 Hex nut with lock washer (Quantity sup-  
plied = 4).
10. HP 2680-0099 Pan-head POZIDRIV machine screw, 10-32 X .375  
(Quantity supplied = 4).
11. HP 2740-0003 10-32 Hex nut with lock washer (Quantity sup-  
plied = 4).

RELIM. REL. \_\_\_\_\_ DATE \_\_\_\_\_

DEL. TO. \_\_\_\_\_

PROD. REL. \_\_\_\_\_ DATE \_\_\_\_\_

*µ Computer Cabinet*  
*Mounting Screws*

ASSEMBLY ST \_\_\_\_\_

REV	REF DES G	DESCRIPTION	PART NUMBER	NO. REQD.
	✓	6-32 x .312 ✓	Ellie Scott 2360-0175	53
	✓	6-32 x .438 ✓	2360-0199	10
	✓	6-32 x .562 ✓	2360-0229	4
	✓	6-32 x .312 FH ✓	2360-0132	6
	✓	6-32 nut with lock washer ✓	2420-0001	45
	✓	4-40 x .312 ✓	2200-0141	2
	✓	4-40 x .312 FH ✓	2200-0166	2
	✓	4-40 nut with lock washer ✓	2260-0009	4
	✓	10-32 x .375 ✓	2680-0077	4
	✓	10-32 nuts with lock washer ✓	2740-0003	4
	✓	<del>10-32 PEM</del>	<del>0510-0147</del>	<del>6</del>
	✓	<del>6-32 PEM</del>	<del>0510-0153</del>	<del>28</del>
		100 DEG Patch lock 8-32 FH X.250	2510-0192 2510-0078	16

Please make up 78 sets

*buy at 50¢ each for 78 sets*



per p

ML/SL NO.

FORMERLY 4-185003, 112 PITCH ELITE

3120-2786



