

HP 300

Service Handbook Part IV - Basic Diagrams

CHANGE HISTORY PAGE

Every Change Package for this book includes:

1. Complete new copy of the Contents Section.
2. A new copy of this Change History Page.
3. The changed or new Diagrams and Material Lists.

To update the Diagrams Book:

1. Check the new Change History Page against the old one to insure that you have not missed a Change Package.
2. Replace the Contents Section and this Change History Page .
3. Insert the new diagrams in numerical order.

Change History:

6/9/78	Initial Printing
1/15/79	Initial Printing - Basic Diagrams Book (see 1.0 Introduction)

NOTICE

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*Memory Prereg Assembly	D-	31000-60067-	1 B	202
*Memory Preregulator Schematic	C-	31000-60067-	6 B	202 X
*PCA-Line Filter Material List		31000-60068		202
*Line Filter Assembly	C-	31000-60068-	1 A	202
PCA-HP-IB T-Connector	C-	31000-60072-	1 C	161

INDEX SORTED BY DRAWING NUMBER

<-- sort -->

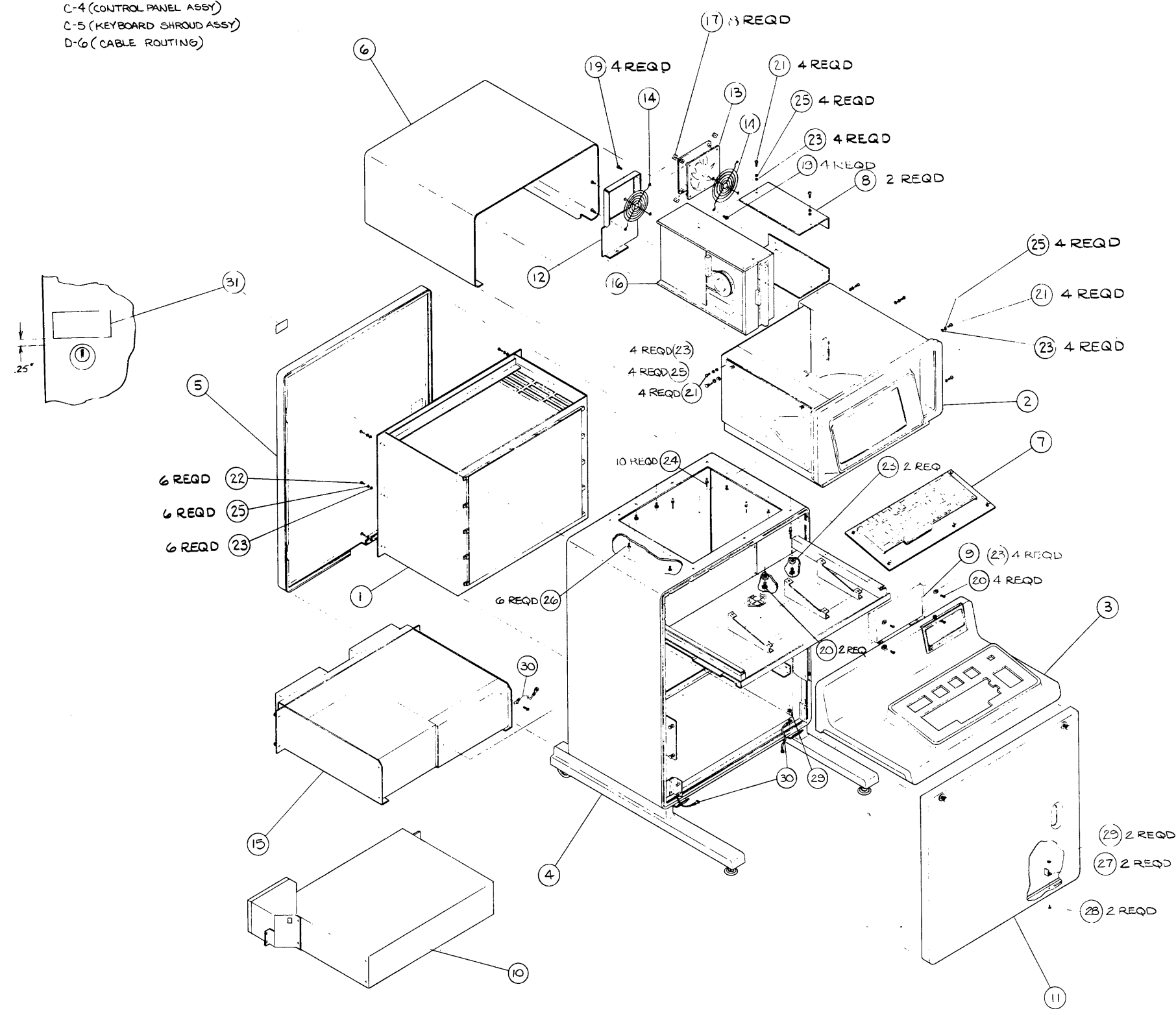
<-- sort -->

Title	Drawing Number	Rev	Sect	Add
*Power Supply Cable Set	C- 31000-60074-	1	B	202
PCA-IDS Cntrl Material List	31000-60075			251
IDS Control Assembly	F- 31000-60075-	1	C	251
PCA-IDS Control Schematic	D- 31000-60075-	6	B	251
CE Control Panel Assy.	D- 31000-60076-	1	A	211
*PCA-Load Plug	C- 31000-60078-	1	A	201
*PCA-Load Plug Schematic	C- 31000-60078-	6	A	201
*Assy-Backplane Pwr Conn	C- 31000-60079-	1	A	201
*Cabinet Assembly	D- 31000-60084-	1	A	201 X
*Rear Door Assembly	D- 31000-60081-	1	B	201 X
*System Environment Table	D- 31032-90023-	1	A	195 X
PCA-Memory Ctlr Material List	31202-60001			221
Schematic-Error Correcting Mem Cntrl	D- 31202-60001-	6	A	221
Memory Control Assembly	D- 31202-60001-	1	E	221
PCA-Mem Mod 128KB Material List	31204-60001			221
Memory Array 128KB Assembly	D- 31204-60001-	1	C	221
Memory Array 128KB Schematic	D- 31204-60001-	6	A	221
*Card Cage Assembly	D- 31213-60010-	1	B	201
*Card Cage Assembly	D- 31213-60010-	2	B	201
*Mainframe	D- 31213-90001-	1		000 X
*Mainframe Exploded View	D- 31213-90001-	1	F	201 X
*Mainframe Cabinet Assembly	D- 31213-90001-	2	K	201 X

Title	Drawing Number	Rev	Sect	Add
*Mainframe Cabinet Assembly	D- 31213-90001-	2	C	201 X
*Keyboard Shroud Assembly	C- 31213-90001-	5	A	201
*Mainframe Assy. Cable Routing	D- 31213-90001-	6	D	201 X
*31213A Reference Dimensions	C- 31213-90002-	1	B	197
*Mainframe Assy. Cable Diagram	C- 31213-90004-	1	A	000 X
*7910 Power Cable Assy	C- 31241-60002-	1	D	262
*7910 Mounting Hardware	D- 31241-90001-	1	D	262 X
PCA-GIC Material List	31262-60001			231
General I/O Channel Assembly	F- 31262-60001-	1	H	231
General I/O Chan Schematic (5 of 5)	D- 31262-60001-	6	A	231
*General I/O Chan Schematic (p.5 only)	D- 31262-60001-	6	A	231
PCA ADCC Main Material List	31264-60001			232
ADCC Main Assembly	F- 31264-60001-	21	B	232
Main Async Data Comm Channel Schematic	D- 31264-60001-	26	B	232
PCA-ADCC Extr Material List	31265-60001			232
ADCC Extender Assembly	F- 31265-60001-	21	B	232
Extd Async Data Comm Channel Schematic	D- 31265-60001-	26	B	232
PCA-PMPI Material List	31321-60001			150
Processor Maint. Panel Interf Assy	F- 31321-60001-	11	C	150
PMPI Schematic	D- 31321-60001-	16	C	150
*Worksurface Assembly	D- 31381-90001-	1	B	201 X

OBSOLETE - SEE 31213-90001-1

REF DRWGS: 1-2 (CABINET ASSY)
 D-3 (7910 MTG HARDWARE)
 C-4 (CONTROL PANEL ASSY)
 C-5 (KEYBOARD SHROUD ASSY)
 D-6 (CABLE ROUTING)



31	1	LABEL, "CAUTION"	7120-6429		
30	1	CABLE SET GROUNDING	31000-60023		
29	4	NUT, #8-32 W/LOCK	2580-0003		
28	2	SCREW, SELF TAP #8-32	0624-0248		
27	2	FASTON CLIP, MALE	0360-1263		
26	6	SELF TAP SCREW	0624-0349		
25	18	WASHER #8 LOCK	2190-0017		
24	10	RIVET-BLIND	0361-1011		
23	24	WASHER #8 FLAT	3050-0139		
22	6	SCREW 8-32 X .50 L	2510-0107		
21	12	SCREW 8-32 X .375 L	2510-0103		
20	6	SCREW 8-32 X .38 L	2510-0045		
19	8	SCREW 6-32 X .75 L	2360-0125		
18					
17	8	NUT SHMET U 6-32	0590-0653		
16	1	FLEXIBLE DISC	7902 A		
15	1	POWER UNIT ASSY	31000-60002		
14	2	FAN GRILLE	3160-0092		
13	1	FAN-TBAX	3160-0218		
12	1	SUPPORT-FAN/LABEL	31000-00011		
11	1	FRONT DOOR	31000-00062		
10	1	7910 DISC		SEE D-3	
9	1	ASSY-CTRL PNL		SEE C-4	
8	2	BRACKET-FX DISC MTG	31000-00077		
7	1	KEY BOARD ASSY	31000-60004		
6	1	DISPLAY SHROUD ASSY	31000-60010		
5	1	REAR DOOR ASSY	31000-60018		
4	1	CABINET ASSY		SEE D-2	
3	1	KEYBOARD SHROUD ASSY		SEE D-5	
2	1	MONITOR ASSY	31000-60043		
1	1	CARD CAGE ASSY	31213-60010		

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .008

MAINFRAME

TITLE

NEXT ASSEMBLY

FINISH

SCALE NONE

HEWLETT-PACKARD

SHEET OF

USING HP 300 DIAGRAMS

1.0 INTRODUCTION

Between them, the Basic Diagrams book (Part IV of the Service Handbook) and the Comprehensive Diagrams Set cover all GSD-made replaceable parts, tools, and test connectors used in the HP 300. They provide information for the following purposes:

- a. training in system concepts
 - b. assembly and disassembly
 - c. parts identification and location
 - d. adjustment of analog circuitry
 - e. signal tracing between subsystems in the system
 - f. signal tracing between boards in a subsystem
 - g. signal tracing between components on a board
- \ |
- | Basic Diagrams
- | (Handbook Part IV)
/ |
\ | Comprehensive
/ |

The Basic book fills the first five of these needs; the Comprehensive set covers the rest.

The diagram books are designed for use by maintenance personnel who have attended the HP 300 Account CE Course. A thorough understanding of the information presented in this course is assumed and is essential to use this material.

The diagrams used are direct reproductions of selected HP 300 manufacturing drawings, schematics, and material lists. The schematics are drawn in Development to a joint Development/Manufacturing/Service standard -- which is included here as Section 6.0. This procedure results in greater accuracy, faster response, and lower cost. The key is that both the factory and the field work from the same data base.

The books are kept up-to-date via subscription services.

In conjunction with the Production Change Summary section for each subsystem (201Z for the 31213 Power Supply, for example), the diagrams books provide a complete change history for the field.

2.0 BASIC VS COMPREHENSIVE

This Introduction and the Indexes are identical for both the Basic book (Part IV of the Handbook) and the Comprehensive set.

The Basic drawings are not duplicated in the Comprehensive set -- they are additive. The two can be combined by discarding one Introduction and the older of the two Indexes.

In the index, the diagrams included in the Basic book are marked with an asterisk; those without an asterisk are included in the Comprehensive set.

3.0 ORGANIZATION

The diagrams are arranged numerically using the Manufacturing Specifications drawing numbers:

- a. The mechanical drawings are numbered arbitrarily -- most with the HP 300 family prefix of 31000. The cross-referencing between drawings provides a pictorial index.
- b. The organization for each Printed Circuit Assembly (PCA) is:
 - (1) Assembly Drawing
 - (2) Schematics
 - (3) Material List... all in order under the 31XXX prefix for that board.

As a general rule, the diagrams for a given assembly are not split between the diagrams books. For example, if a schematic is included in the Basic book to aid in adjustment, the corresponding assembly drawing and material list for that board are also in the Basic book.

4.0 INDEXES

There are three indexes:

- a. Sorted by subsystem using the Service Handbook Summary section number
- b. Sorted alphabetically by drawing name
- c. Sorted numerically by drawing number

Those drawings which are in the Basic Diagrams book are denoted with an asterisk.

Those drawings changed from the previous index (of last update package) have an "X" in the "Add" column.

In addition, there is a pictorial index system:

- a. the HP 300 as a whole is shown on an exploded view of the 31213A Mainframe. This is used as a pictorial index to the subsystems. Each subsystem is identified on this exploded drawing by its name and assembly number so that the appropriate subsystem drawings can be found.
- b. all parts in a subsystem are referenced on the subsystem assembly drawings by name and part number, including cables which are located within the subsystem.
- c. Cables which connect two or more subsystems are shown on the Mainframe Cable Routing drawing.

5.0 DRAWING NUMBERS

A drawing number looks like this:

D	31293-60004-21	B
Original		Revision level of drawing
size of		
drawing		Sub-drawing number and
		revision level of assembly

Original size of the drawing: this is needed to find the drawing in the Manufacturing Specifications files.

Sub-drawing number and revision level of the assembly: these two facts are combined in one two-digit number -- sub-drawing 1 is numbered 1, 11, 21, 31, etc. as the assembly is revised; sub-drawing 6 is numbered 6, 16, 26 and so forth.

Revision level of drawing: this letter corresponds to the last letter used in the revision note box in the upper right-hand corner of the drawing.

Via update packages through the two subscription services, subscribers receive all significant revisions of each diagram. Gaps occur in this sequence to skip drawing versions covering such things as product revisions not shipped, minor manufacturing corrections, etc.

Use the Production Change Summary section (in Part I of the Handbook) to check the complete change history for a given subsystem.

6.0 EXAMPLES OF USE

Here are three examples of diagrams usage. The first two examples show usage of the Basic book for parts identification and disassembly/reassembly; the third example shows usage of the Comprehensive set to trace signals.

Example 1:

You need to identify a part (for example, a bracket damaged in shipping)

- a. Use the exploded drawing of the mainframe to find which subsystem the part belongs to. (If not obvious.)
- b. Find the subsystem's assembly drawing.
- c. Locate the desired part on the assembly drawing and use the reference designators and parts list on the drawing to find the part number.
- d. Check Section 106, Parts and Logistics Summary, in the Service Handbook to determine whether it is exchange, non-exchange, or fabricated.

Example 2:

You need to disassemble or reassemble something. For example, replacing a fan in the power supply unit. Use the assembly drawing for the Power Supply Unit to see which parts need to be disassembled to be able to remove the old fan. Once the old fan has been replaced, the drawing can be used to reassemble the Power Supply Unit.

Example 3: (Comprehensive Diagrams Set)

You need to trace a signal from one board to another within a subsystem.

- a. Find the schematic diagram for each board
- b. Locate the pin numbers in question
- c. If necessary, the cable drawing may be found via either:
 - (1) the cable part number
 - (2) The subsystem assembly drawing
 - (3) The mainframe cable routing drawing.

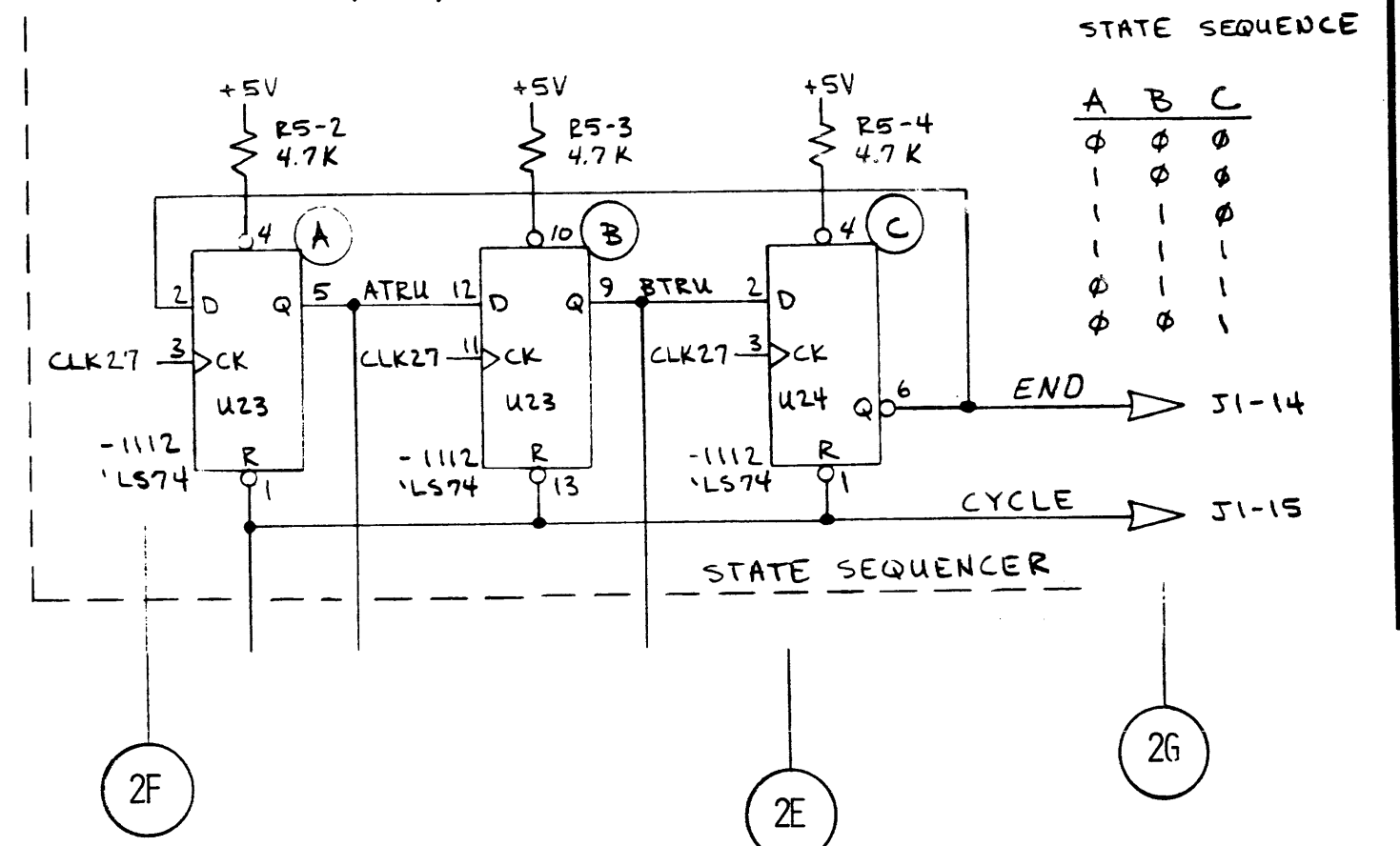
7.0 SCHEMATIC DRAWING NOTATION

-CONTINUED NEXT PAGE-

HP 300 Schematic Diagram Guidelines

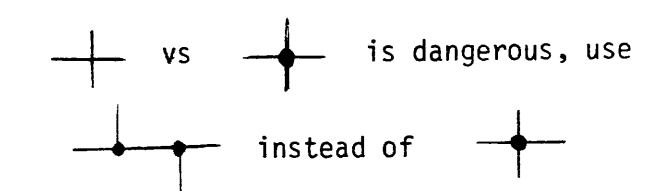
SEPIA <input checked="" type="checkbox"/>					4			G-	
	11	12	14	15	SYM	REVISIONS		APPROVED	DATE
30	32	33	38	43					

1. Purpose Provide accurate up-to-date schematic diagrams in a common database for development, manufacturing, and field.
2. General (Items marked with an asterisk have examples included in the attached schematic.)
 - A. The assembly reference designator, assembly name, and assembly part number must be on each schematic.
 - B. Where there are components associated with an assembly but not on the assembly, they shall be drawn on the same schematic as the assembly, i.e., small connectors, transformers, switches, etc. Provide adequate information to illustrate connectors and their wiring.
 - C. Box all panel and frontplane labeling with a solid box.
 - D. Label all switches, connectors, and indicators with the names used on the front or rear panel, PCA, or board stiffener label.
 - *E. Indicate functional blocks by surrounding components with dotted-line boxes. For example: "Control Decode", "Select Code Detector", "State Register". Blocks should match those referenced by the theory of operation. (See sample schematic.)
 - *F. Lettering should be larger than 0.10". (The blue fade-out grid lines are 0.10" apart.)



EXAMPLE SCHEMATIC FRAGMENT FOR SECTION 2

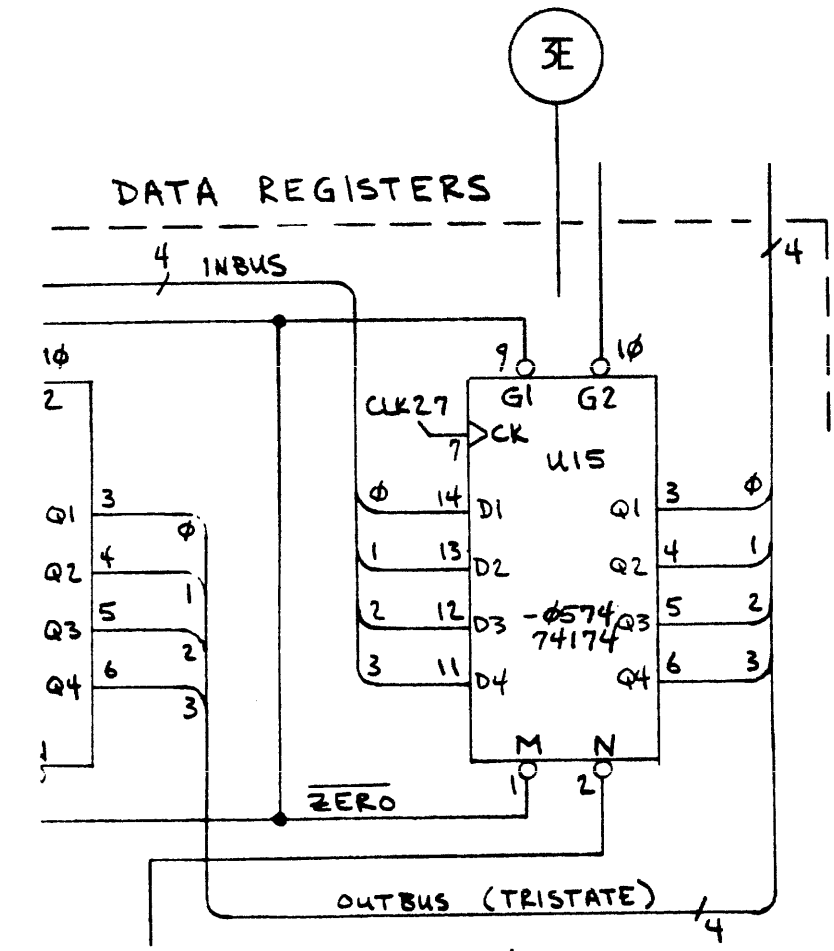
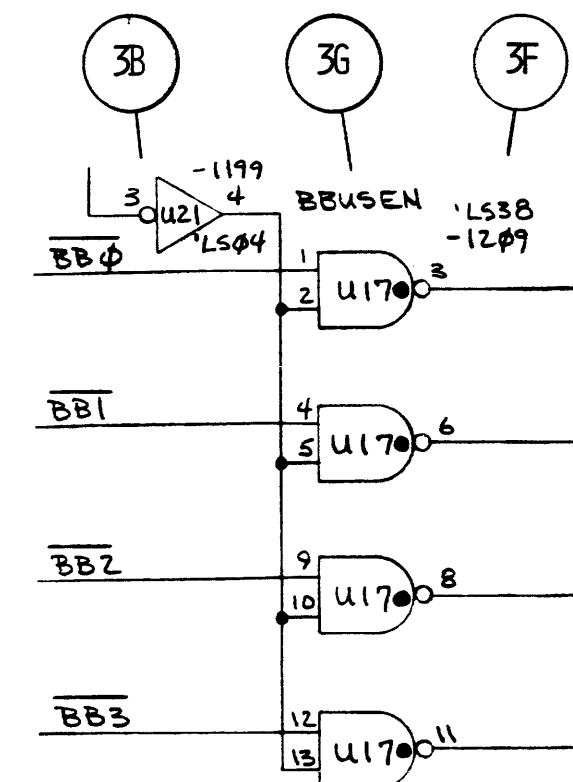
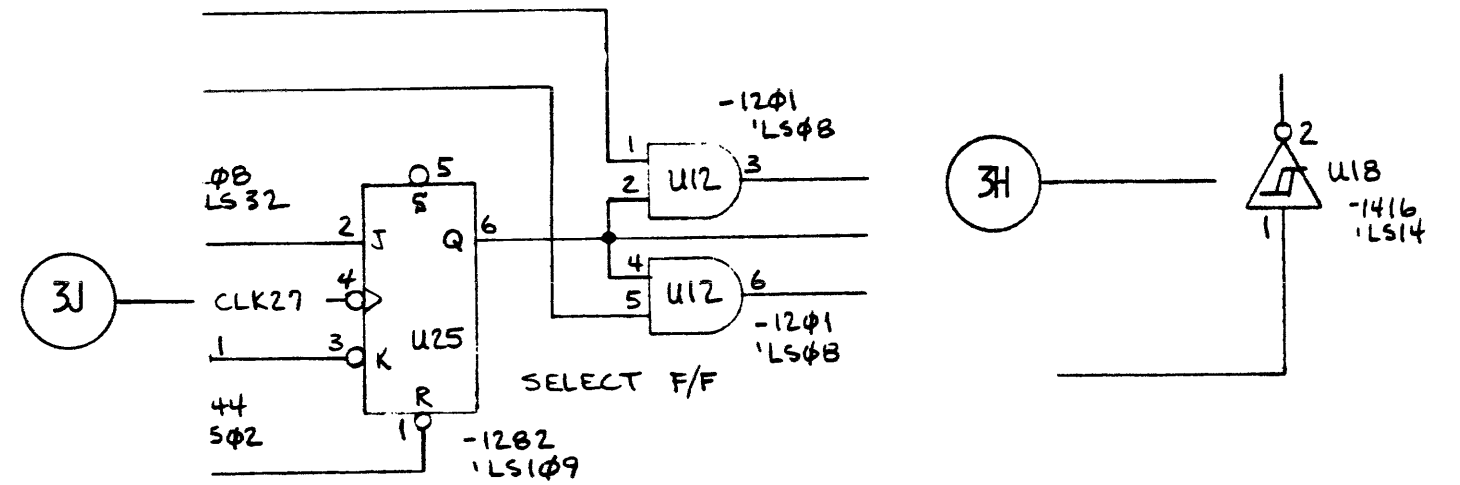
- *G. Place a state table near any sequencer.
- H. Watch out for ambiguity. Avoid potential ambiguity between crossovers and junctions:



where a problem could arise.

3. Logic Symbols

- A. Logic symbols are based on MIL STD-806B. Use the attached sample schematic as a guide.
- *B. Logic symbols with more than one possible symbolic representation should be shown using that symbol which most easily facilitates understanding the circuit operation. If it makes more sense to show a NAND or an OR with inverted inputs, do so. Generally speaking, the symbols used by the responsible engineer should be retained. Label the more complex elements with a descriptive logical name such as "Address Register", "Comparator", "Counter", etc.
- C. For unusual logic elements, use labeled blocks or the manufacturer's notation--do not invent symbols.
- D. All logic elements must have their pin numbers identified.
- *E. All MSI and LSI logic elements must have their pins labeled. Also add descriptive name as per B above.
- *F. Logic elements must be identified by the assembly designator, manufacturer's part number, and HP part number suffix. Use a note to show that the 1820- prefix is assumed.
- *G. Open-collector gates are designated by a dot inside the gate outline near the output. (See sample schematic.) ("OC" is acceptable.)
- *H. Schmidt-trigger gates are designated by a hysteresis symbol inside the gate outline. (See sample schematic.)
- *I. Tri-state gates are designated by the words "Tri-State" next to the bus.
- *J. Use a notch to show edge-triggering. For negative-edge triggering, add an inversion ball.
- K. A single pack of several drivers or buffers can be drawn as a box with a typical gate, to show direction, inside.



3F — 3 ALL IC'S 1820- PREFIX UNLESS OTHERWISE SPECIFIED

CLOCK

EXAMPLE SCHEMATIC FRAGMENTS FOR SECTION 3

4. Discrete Components

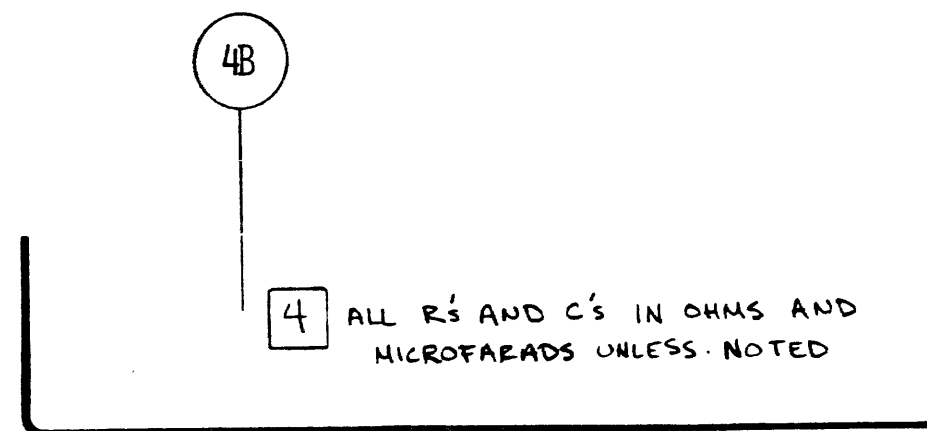
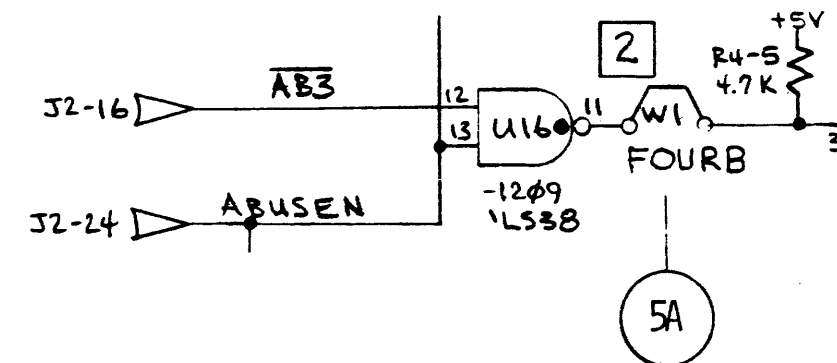
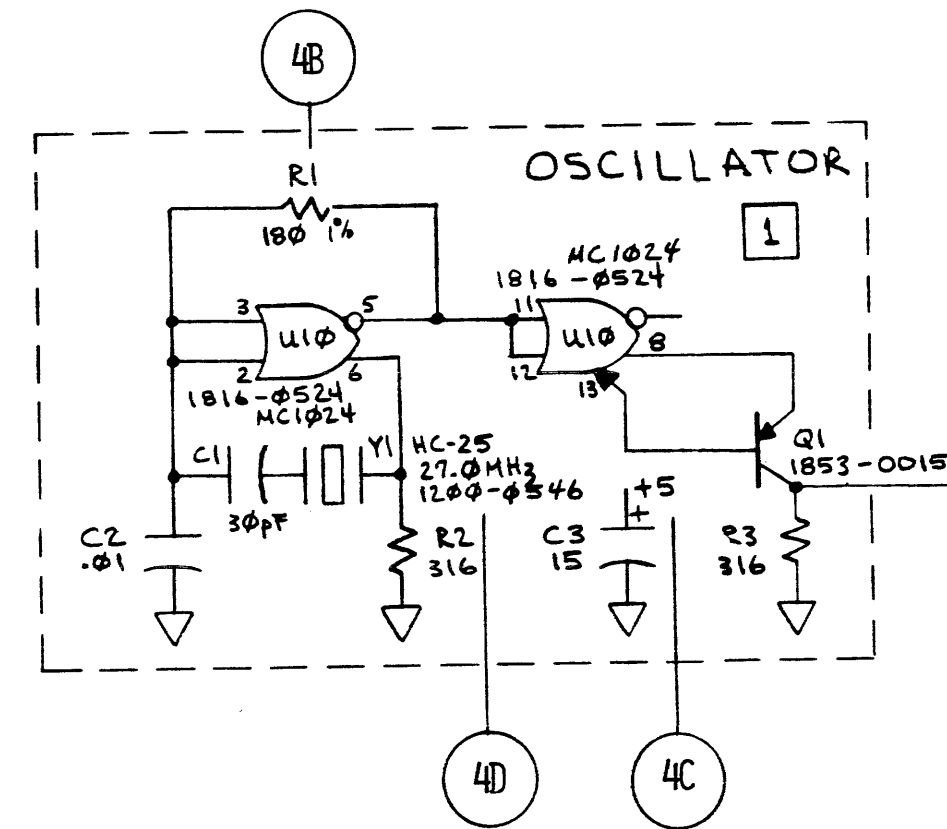
- A. All passive components are to be identified by their assembly designators ("R7", "C25", etc.).
- *B. All passive components must have their values indicated near the symbol even if part of a network. The schematic should carry this note: "Resistance and capacitance values are indicated in ohms and microfarads respectively unless otherwise specified". Tolerances should be indicated, as well as non-obvious voltage and power ratings.
- *C. All polar components such as electrolytic capacitors must have their polarity indicated on the logic diagram.
- *D. Put the HP part number on all parts except resistors and capacitors.

5. Jumpers and Switches

- *A. All jumpers and switches must be identified by both their assembly designator and functional name ("W1 CLKDIS", "S3 Self Test").
- B. A jumper configuration table must appear on the logic diagram. It must relate the circuitry or functional configuration against the presence or absence of a jumper.
- C. Draw a functional schematic representation of each rotary switch used.

6. Connectors

- *A. All lines to or from an edge connector must be labeled with the connector number, pin number, and signal names.
- *B. Connector, switch, and indicator reference designation should be shown in a sketch of the PCA.



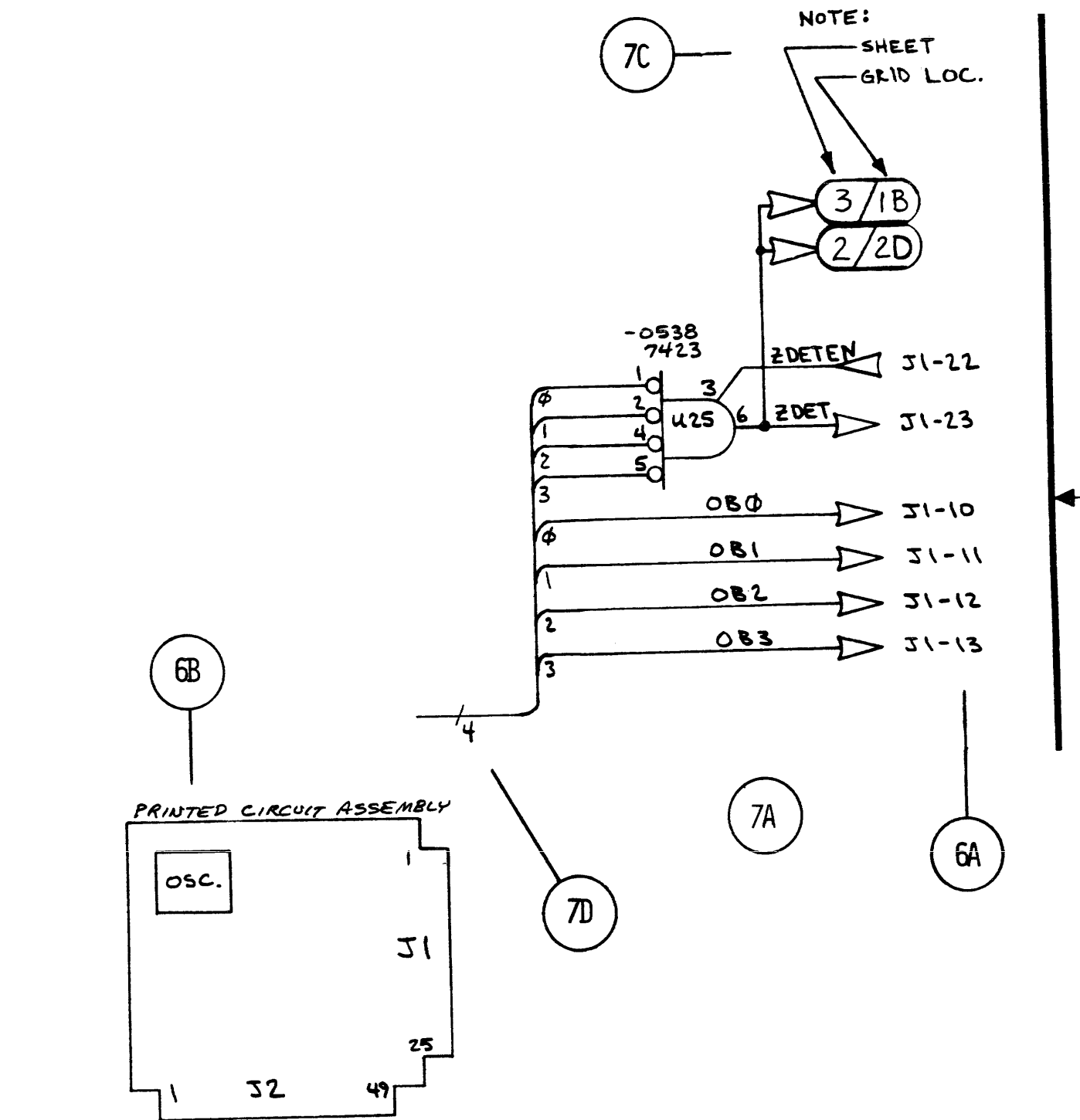
EXAMPLE SCHEMATIC FRAGMENTS FOR SECTIONS 4 AND 5

7. Signal Flow

- *A. Signal flow designators in the form of an arrowhead should be added when the responsible engineer feels that such information clarifies the logic diagram--especially for connectors, page-page connections, and between functional blocks.
- B. In general, signal flow should be from left-to-right and top-to-bottom and symbols oriented with inputs to the left and outputs on the right. Some structures are best drawn not in accordance to left-to-right. For example, an interface module that connects two other systems. Here it is best to have interface to A at left edge and interface to B at right edge. (See the block diagram example.)
- *C. In multi-page schematics, signals should enter the schematic from the left and leave on the right-hand side where possible. Use an arrowhead (opposing arrowheads if bidirectional) on each signal where it enters or exits the page. Show sheet number(s) and grid location in a "pill" shape as on example.
- *D. Show busses as one line with a slash and number indicating the number of signals. (See sample schematic.)

8. Signal Names

- A. Important lines which meander over the logic diagrams should have their names repeated several times as an aid to signal tracing.
- B. Where a large number of lines run in parallel they should be individually named to avoid confusion and error in signal tracing.
- C. Write names on signal lines (signal designators) especially when entering or exiting a board. Signal designators on the lines entering or exiting a board should be the same as in the wire list. Consistency between individual drawings is important.
- D. The TESTAID notation of "ADDR7L" and "DRGH" can be used rather than negation bars in documentation--since the bars make the theory of operation and other documents both difficult to write and error-prone. (Difficult because there is no easy way to handle the bars with text editor output to printers and CRTs; error-prone since the bars have to be drawn by



ITEM	QTY.	MATERIAL-DESCRIPTIC	
DRAWN BY	J. EVANS	DATE	11 NOV 76
ENGINEER	A. KNOLL	DATE	1 NOV 76
RELEASE TO PROD.		TITLE	Sct
SUPERSEDES DWG.		NEXT ASB	
		FINISH	

hand on printer output or typescript.) It is acceptable to use bars on the schematic and another designation ("L" and "H" or "+" and "-") on the documentation. Use of apostrophe as the negation suffix is not acceptable since it is too easily lost in reduction or reproduction.

3

ERING RESPONSIBILITY					
3	4	6	8	9	
19		21	22	23	25
63					

9. Power and Ground

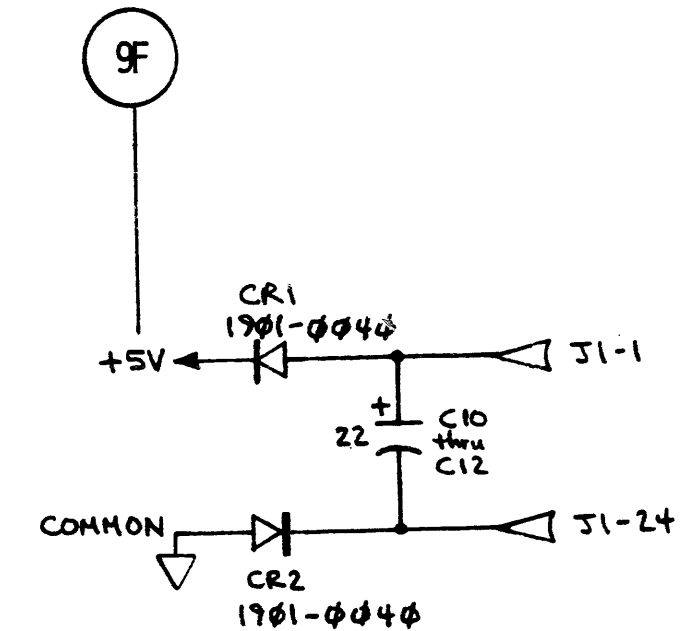
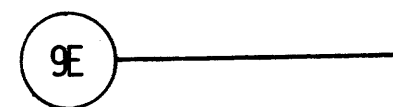
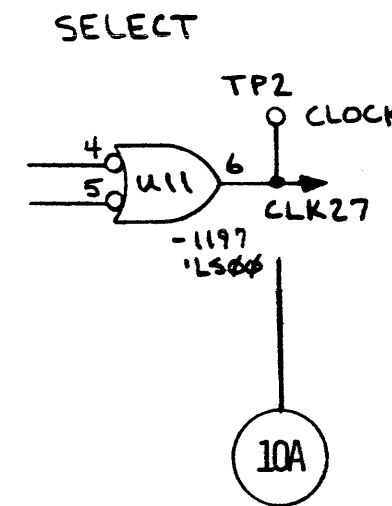
- A. VCC and ground pins on IC's need not be indicated for standard TTL SSI and MSI logic elements.
- B. All power and ground pins must be labeled and identified for MOS and LSI chips.
- C. Power and ground lines to unusual logic elements should not be specifically shown but rather indicated as in 9F to prevent clutter.
- D. The entry point of all power and ground lines should be indicated in some fashion, either by connector pin number, wire number, etc.
- *E. Power related circuitry such as regulators, Zener diodes, decoupling capacitors, etc. should be clustered together near the bottom of the logic diagram.
- *F. Use "+12V" for voltages; "⏚" for logic common. Do not use "⏚"

10. Test Points

- *A. Test points must be identified by both their assembly reference designator and by functional name ("TP12 PCLK"). Symbol is "⏚".
- B. Analog boards should show voltage and condition for said voltage or a small waveform sketch.

11. Timing and Adjustments

- A. Indicate nominal timing for one-shots, delays and clocks. (Also min. or max. if applicable.)
- B. Indicate on potentiometers clockwise (CW) or counterclockwise (CCW) rotation and increase or decrease of adjusted parameter. Use an arrow labeled, for example, "Increase Frequency CW" showing the direction of wiper motion to increase the parameter



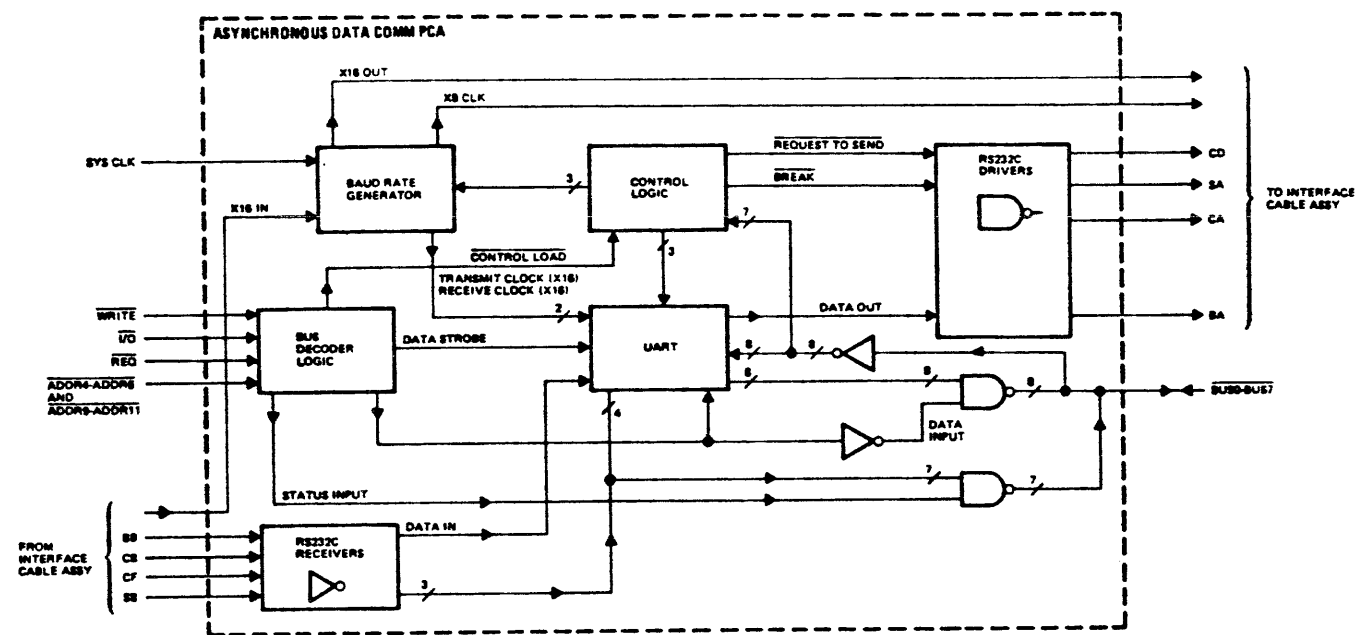
MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
IC SAMPLE	HEWLETT PACKARD	
80099	31999 - 60999	
SCALE	PART NUMBER	
	C - - -	

SHEET 1 OF 3

EXAMPLE SCHEMATIC FRAGMENTS FOR SECTIONS 9 AND 10

12. Examples

A. Here is a good example of block diagram organization:

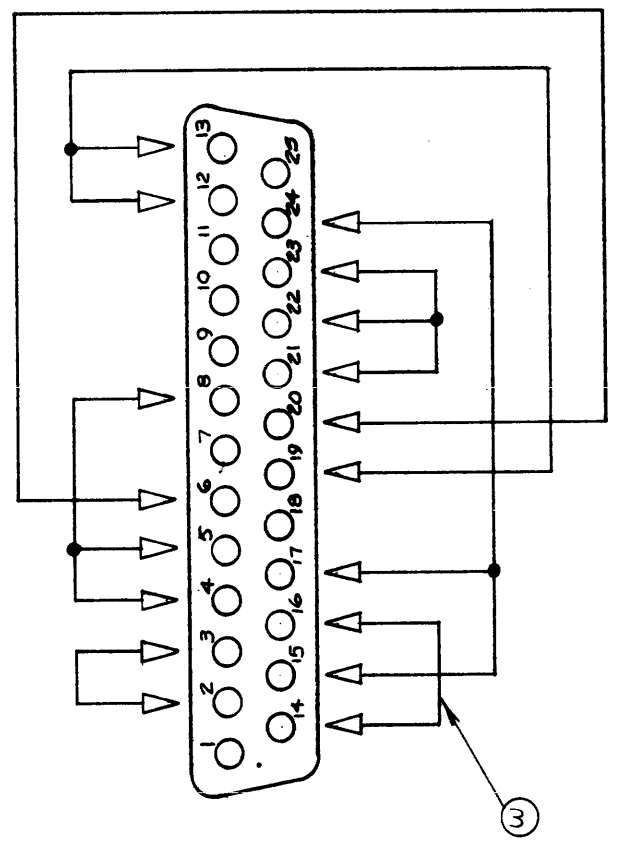
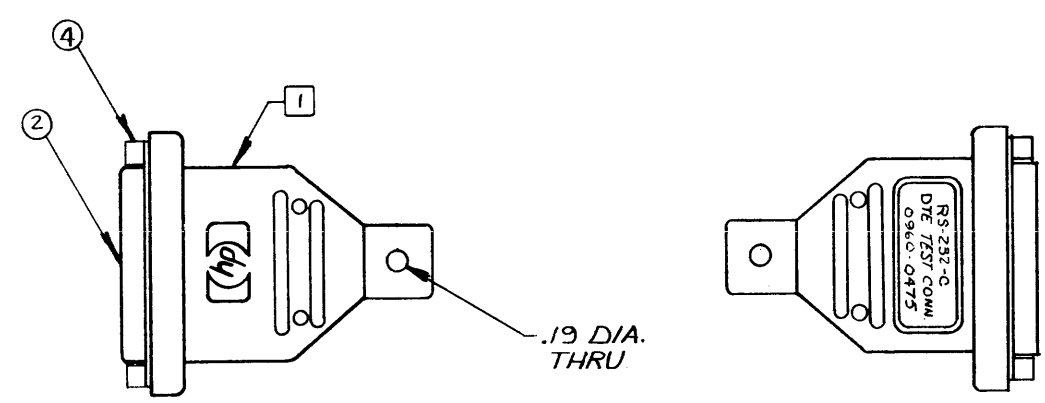


B. An acceptable C-size schematic is shown on the next page reduced 2:1 to B-size. D-size AMIGO schematics will be reduced 4:1 (to B-size).

13. The Master Rule

Keep the purpose of your schematics in mind. No set of rules can be complete-- don't let one of these guidelines act as an obstruction to achievement of the goal. The diagrams which you leave behind should be a source of pride and a mark of your professionalism.

ENGINEERING RESPONSIBILITY															SEPIA															C-0960-0475-1																																	
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																														B REDRAWN-NO CHANGE															R. Heyle	4-5-76																	



- NOTES:**
- CONNECTOR BODY COLOR "JADE GRAY" PER HP VISUAL STANDARD 6009-0021
 - ELECTRICAL TEST FOR CONTINUITY AND SHORTS.- SHORT \equiv < 20 MEGOHMS
CONTINUITY \equiv < 1 OHM
 - COSMETIC SPEC TO BE CATEGORY II, CLASS "B" PER CORPORATE MANUFACTURING STD., SECTION # 741

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
4	2	JACKSOCKET, 4-40 THD x.25	0380-1107		
3	1 FT	WIRE 24 AWG	0150-0299		
2	1	CONN. MOLDED "D" 25P FEM	1251-0064		
1	AJR	MOLDING COMPOUND	0093-0376		

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .008	RS-232-C DTE TEST CONNECTOR		HEWLETT-PACKARD	
	C-1, REV A 12-22-76 SUPERSEDES DWG.		0960-0475 PART NUMBER	
	FINISH	SCALE	C-0960-0475-1 SHEET OF	

REF DRWG: C-2 (CLAMP ASSY)

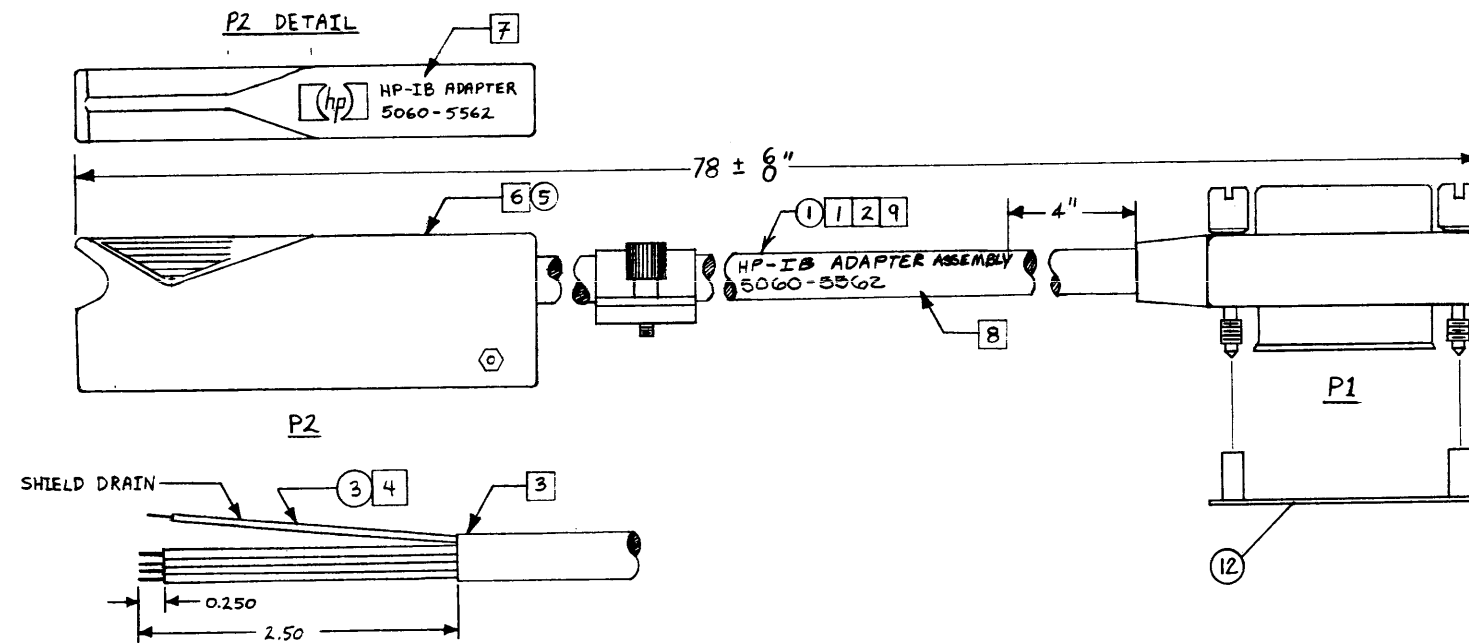
ENGINEERING RESPONSIBILITY															REVISIONS															APPROVED		DATE	
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16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A AS ISSUED															BDB	3-17-78	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	B C-2 DWG ADDED TO NOTE 6, PCO 47-2006															BDB	7/1/78	
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	C ADDED ITEM 12 PC47-2047															BDB	7/1/78	

P2
PIN ASSIGNMENT

WHT/ORN	A	1	BRN
WHT/YEL	B	2	RED
WHT/GRN	C	3	ORN
WHT/BLU	D	4	YEL
WHT/VIO	E	5	GRN
WHT/GRA	F	6	BLU
WHT/BLK/BRN	M	7	VIO
WHT/BLK/RED	J	8	GRA
WHT/BLK/ORN	K	9	WHT
WHT/BLK/YEL	L	10	WHT/BLK
WHT/BLK/GRN	M	11	WHT/BRN
WHT/BLK/BLU	N	12	BLK 22 AWG (SHIELD DRAIN)
	P	13	
	R	14	
	S	15	

P1
PIN ASSIGNMENT

WHT/BLK/BLU	24	12	SHIELD DRAIN
WHT/BLK/GRN	23	11	WHT/BRN
WHT/BLK/YEL	22	10	WHT/BLK
WHT/BLK/ORN	21	9	WHT
WHT/BLK/RED	20	8	GRA
WHT/BLK/BRN	19	7	VIO
WHT/GRA	18	6	BLU
WHT/VIO	17	5	GRN
WHT/BLU	16	4	YEL
WHT/GRN	15	3	ORN
WHT/YEL	14	2	RED
WHT/ORN	13	1	BRN



NOTES:

- REMOVE ALL PREVIOUS IDENTIFYING MARKS FROM ITEM 1 EXCEPT UL MARKINGS.
- ITEM 1 IS 4 METERS LONG. CUT IN HALF AND INSTALL CONNECTOR P2 AS SHOWN. USE EACH END OF CUT ITEM 1 TO MAKE A NEW CABLE. BE SURE CUT IS DEAD CENTER.
- STRIP INFO. FOR CONN. P2:

JACKET	WIRES
2.50 IN.	0.25 IN.
- FORM SHIELD BRAID INTO PIGTAIL AND COVER WITH ITEM 3
- INSTALL ITEM 4 ON EVERY OTHER PIN ON CONN. P2 (0.3 FT. PER PIN).
- INSTALL P2 CONNECTOR AND HOOD ASSEMBLY PER HP DWG# B-5951-5613-1 (ITEMS 2, 3 THRU 11 SHOWN). ASSEMBLE RFI CLAMP PER C-2 DRWG.
- MARK CONN. P2 HOOD AS SHOWN PER HP DWG. NO. A-5951-7363-1.
- MARK CABLE PER HP DWG. NO. A-5950-3733-1
- THE CABLE MUST BE UL TYPE 2448 LOW VOLTAGE COMPUTER CABLE. SHIP CABLES PROPERLY MARKED UL-APPROVED.
- TEST PER HP DWG. NO. A-5950-8795-1, INCLUDING SHORT BETWEEN RFI CLAMP AND P1 SHIELD, AND OPEN BETWEEN RFI CLAMP AND P2 SHIELD.

12	1	MOUNTING PLATE	30070-00043	
11	1	NUT	2260-0002	
10	1	SCREW	2200-0091	
9	1	SCREW - SET	3030-0143	
8	2	SCREW - TAP	0624-0098	
7	1	CLAMP - SMALL	5040-6004	B-5951-5613-1 CONN. ASSY.
6	1	MOUNTING BLOCK	5040-6072	
5	1	HOOD	5040-6086	
4		.3 FT. TUBING - SHRINK	0890-0870	
3		.2 FT. TUBING - SHRINK	0890-0870	
2	1	CONNECTOR (30-PIN)	1251-0159	
1	1/2	CABLE ASSY (4 METERS)	8120-1835	D-8120-9064
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 608

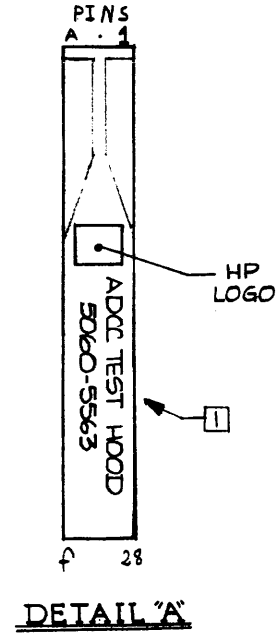
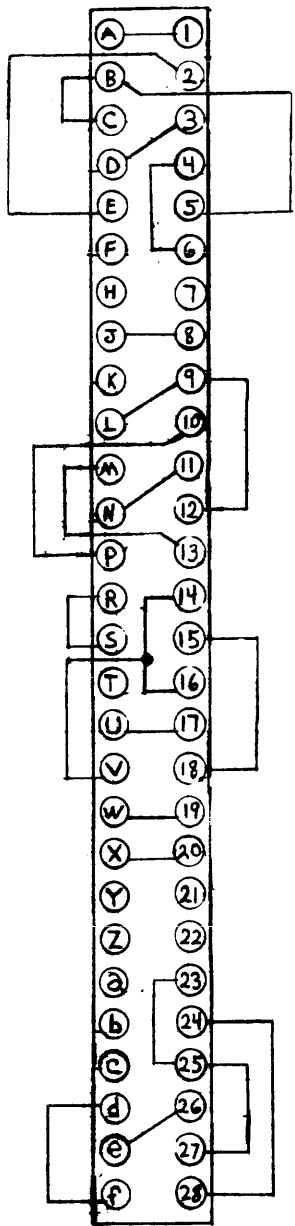
PROCESS REVIEW
DATE 2-17-77 BY Pat Wright

CABLE - HP-IB ADAPTER ASSY		HEWLETT PACKARD	
TITLE		PART NUMBER 5060-5562	
NEXT ASSEMBLY 31262A		C-5060-5562-1	
FINISH		SCALE	

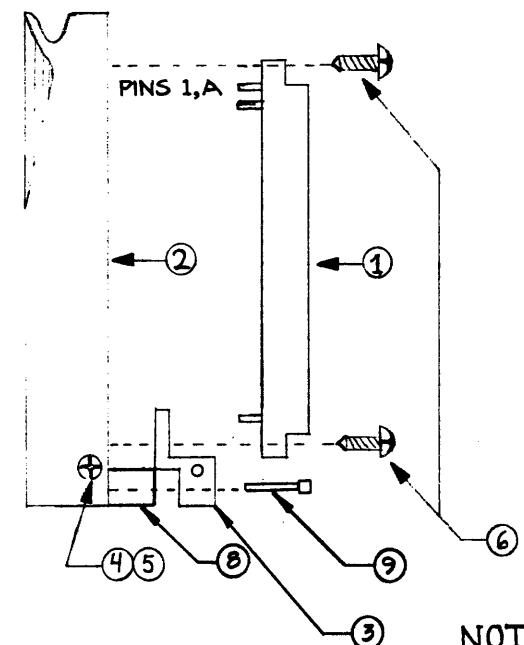
ENGINEERING RESPONSIBILITY																SEPIA		APERTURE CD																																
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6-5060-4		3-1	
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	MLA/MA	3-7-77
B	REVISED PER PROC "A"		4-27-77
C	ITEM 7 WAS 8150-2344 PCA7-2034	KS/MA	6-12-78
D	ADD 31000-67802 TO NEXT ASSY PCA7-2051	KS/MA	9-17-78
E	ADD ITEM 8 AND 9 PCA7-2093	KS/MA	11-15-78

WIRING DIAGRAM



DETAIL 'B'



NOTES

- 1. MARK HOOD PER DETAIL "A" PER REFERENCE DWG A-5950-5669-1
- 2. STRIP WIRES 0.25 INCHES
- 3. WIRE PER WIRING DIAGRAM
- 4. ASSEMBLE PER DETAIL "B"

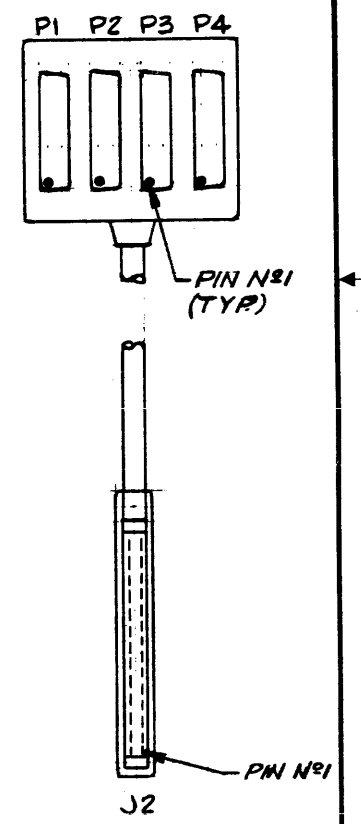
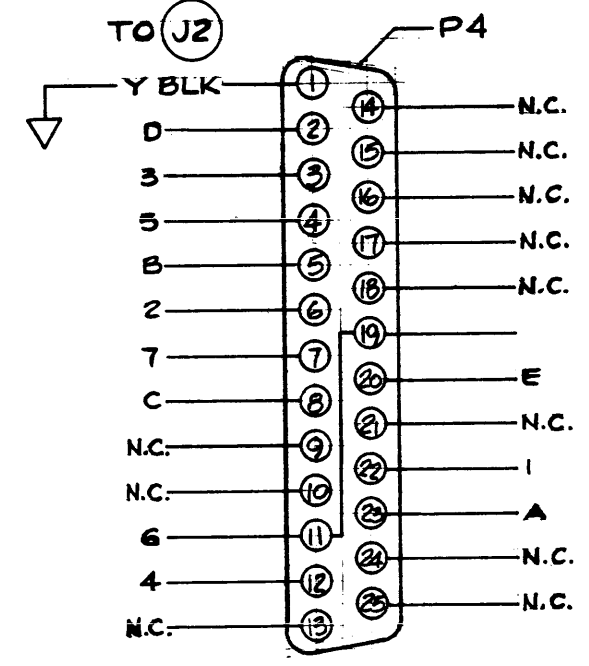
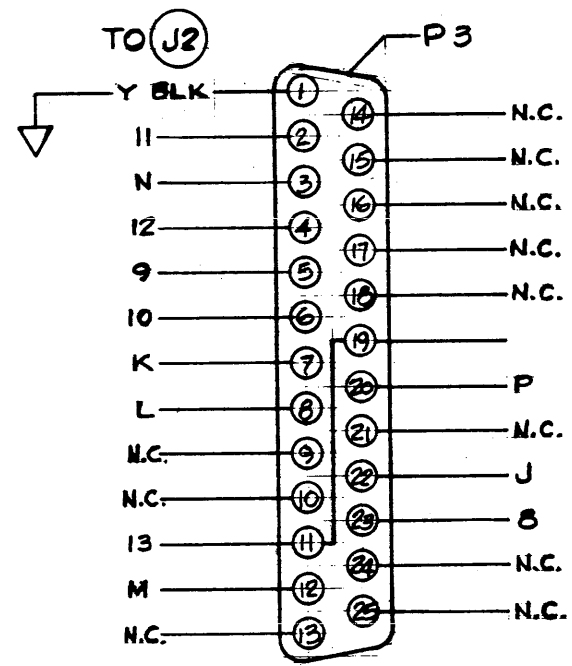
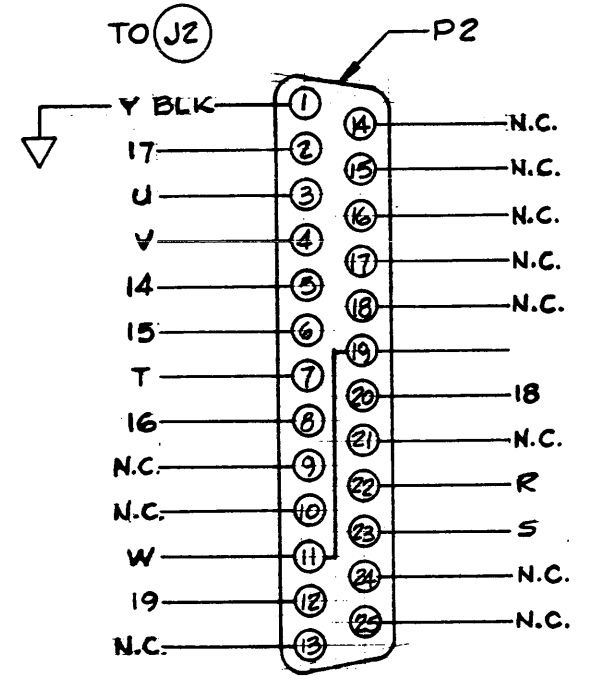
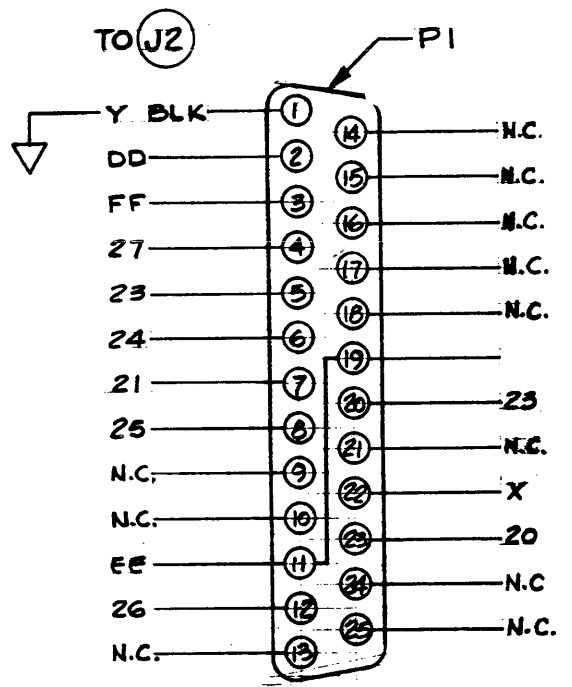
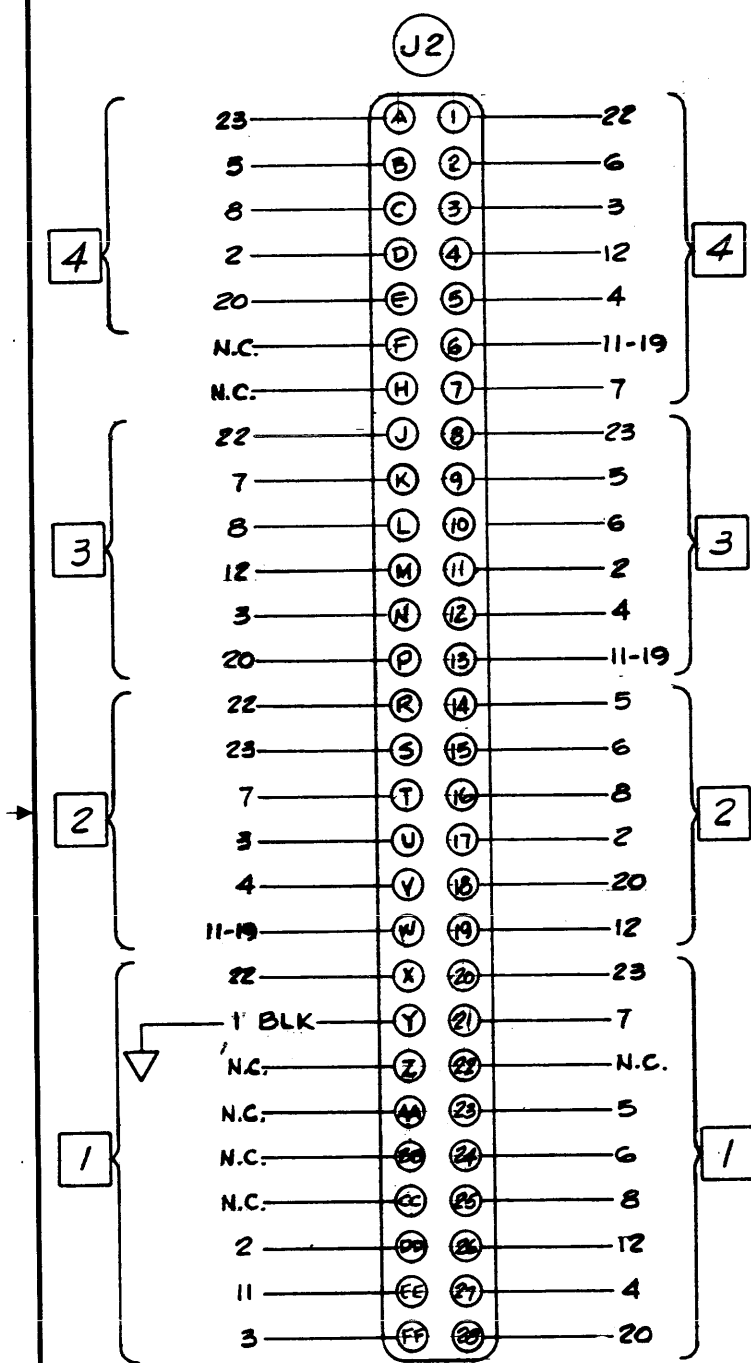
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
9	1	SET-SCREW 6-32 x .50	3030-0143		
8	1	CABLE-CLAMP	5040-6009		
7	20 IN.	WIRE INS. BLK Z4 AWG	8150-0447		
6	2	SCREW SELF-TAPPING PDZ1	0624-0098		
5	1	NUT #4-40 x .1870	2260-0002		
4	1	SCREW #4-40 x .562L	2200-0091		
3	1	SUPPORT BLOCK	5040-7256		
2	1	HOOD CONNECTOR PC	5040-6071		
1	1	CONN PC 2 x 28 CONTACT	1251-4902		

PROCESS REVIEW
DATE 3-7-77 BY Pat Wright

DO NOT SCALE THIS DRAWING		ADDC TEST HOOD ASSEMBLY		HEWLETT PACKARD	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TITLE PERM. PRINT		31000-67802, 31264A, 31265A	
TOLERANCES .XX ± .02 .XXX ± .006		NEXT ASSEMBLY		5060-5563	
SEE CORP. STD. 608		SUPERSEDES DWG.		PART NUMBER	
		FINISH		C-5060-5563-1	
		SCALE		SHEET OF	

REF. DWG: D-1 (ASSY)

ENGINEERING RESPONSIBLE														SEPIA <input checked="" type="checkbox"/>		C-5060		64-2	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BYN	REVISIONS	APPROVED	DATE
16	17	18	19	20	21	22		33	34	35		42	43			A	AS ISSUED	JWM	6/13/72



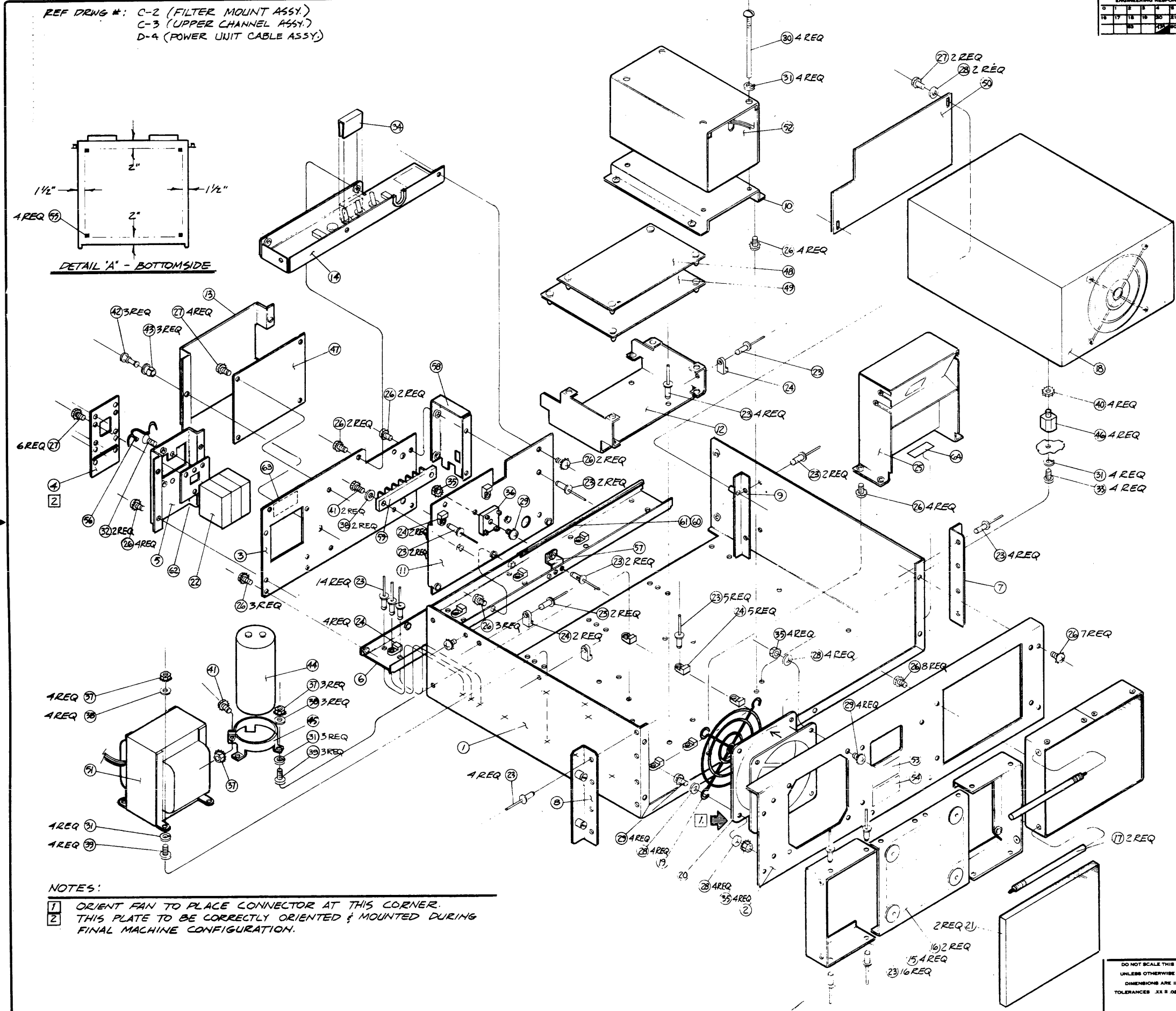
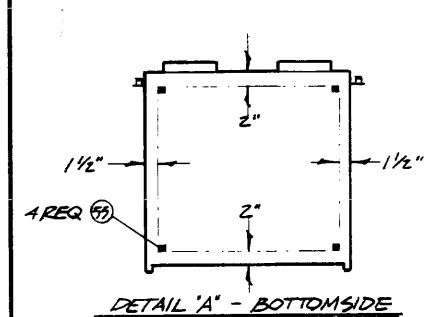
NOTES

- 1 TO P1 USE BROWN WIRES
- 2 TO P2 USE WHITE WIRES
- 3 TO P3 USE ORANGE WIRES
- 4 TO P4 USE RED WIRES
- 5. CONNECTORS VIEWED FROM WIRING SIDE.
- 6. INDICATES CONNECTED TO DRAIN.

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
		WIRING DIAGRAM	HEWLETT PACKARD		
		ADCC - RS 232	5060-5564		
		TITLE CABLE ASSY	PART NUMBER		
		31264A / 31265A	C-5060-5564-2		
		NEXT ASSEMBLY	SCALE		
		SUPSEDES DWG.	SHEET OF		

REF DRWG #: C-2 (FILTER MOUNT ASSY.)
 C-3 (UPPER CHANNEL ASSY.)
 D-4 (POWER UNIT CABLE ASSY.)



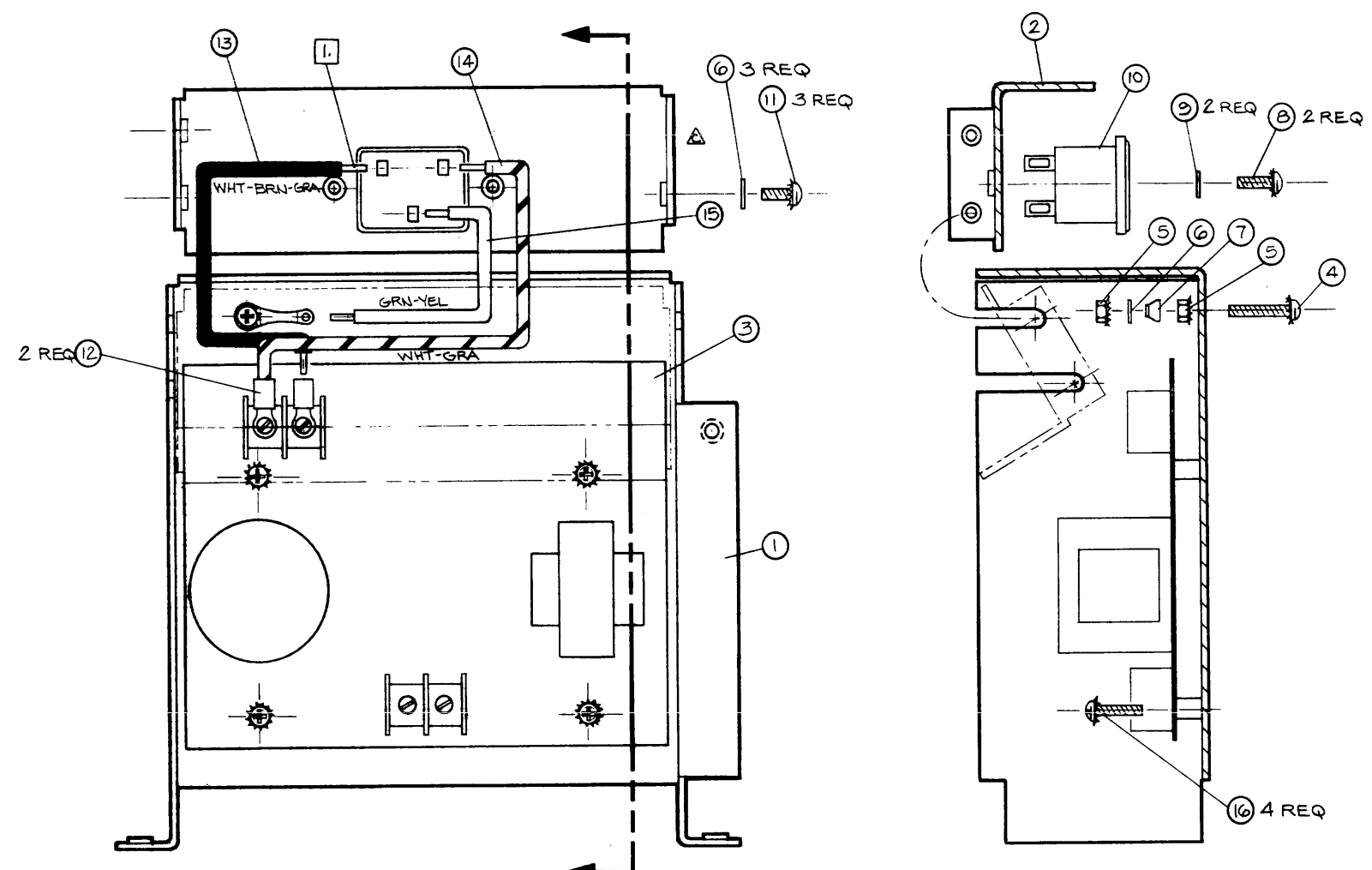
ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
64	1	LABEL - WARNING	7120-4626		
63	1	LABEL - GROUND	7120-6431		
62	1	GROUND PLATE	31000-00086		
61	9,2"	GROMMET-CHANNEL	0400-0082		
60	A/R	ADHESIVE	0470-0010		
59	1	TERMINAL BLOCK	0360-1870		
58	1	END COVER	31000-00085		
57	1	BOARD SUPPORT	31000-00084		
56	1	GUARD-POWER SWITCH	1460-1667		
55	4	RUBBER BUMPER	0403-0324		
54	1	LABEL-FINNISH SAFETY	7120-6605		
53	1	LABEL-"CAUTION"	7120-6428		
52	1	BATTERY PACK	31000-60001		
51	1	TRANSFORMER ASSY	31000-60026		
50	1	POWER DISTRIBUTION BD.	31000-60055		
49	1	MEMORY REGULATOR BD.	31000-60028		
48	1	MEMORY PREREGULATOR BD.	31000-60067		
47	1	POWER CONTROL BD.	31000-60056		
46	4	STANDOFF	0380-1065		
45	1	CAPACITOR HOLDER	0180-1969		
44	1	CAP. 6800 UF 75V	0180-2757		
43	3	NYLATCH GROMMET	1390-0366		
42	3	NYLATCH PLUNGER	1390-0365		
41	3	#8-32 SCREW x .625 W/L	2510-0051		
40	4	#10 STAR LOCK WASHER	2190-0012		
39	7	#8-32 SCREW x .500	2510-0107		
38	9	#8 FLAT WASHER	3050-0139		
37	8	#8-32 NUT W/L	2580-0003		
36	1	BRIDGE RECTIFIER	1906-0017		
35	9	#6-32 NUT W/L	2420-0001		
34	1	TIE CLIP	31000-00078		
33	4	#8-32 SCREW x .375	2510-0103		
32	2	#6-32 F.H. SCREW x .25 x .82"	2360-0181		
31	15	#8 HELICAL LOCK WASHER	2190-0073		
30	4	#8-32 SCREW x 4.00	2520-0014		
29	9	#6-32 SCREW x .625 W/L	2360-0123		
28	14	#6 FLAT WASHER	3050-0100		
27	12	#6-32 SCREW x .375 W/L	2360-0117		
26	42	#8-32 SCREW x .375 W/L	2510-0045		
25	1	FILTER MOUNT ASSY.			C-2
24	14	MOUNT-CABLE TIE	1400-0786		
23	58	BLIND RIVET	0361-1011		
22	1	CIRCUIT BREAKER-3 P	3105-0087		
21	2	FOAM-PLASTIC	4208-0197		
20	1	FAN	3160-0026		
19	1	FAN GRILLE	3160-0092		
18	1	POWER SUPPLY	4331F P02		
17	2	ROD-CABLE RETAINER	31000-20008		
16	2	SUPPORT-AIR FILTER	31000-00076		
15	4	HOUSING-AIR FILTER	31000-00075		
14	1	CHANNEL-UPPER ASSY.			C-3
13	1	BOARD COVER	31000-00052		
12	1	SUPPORT-WIRED BOARD	31000-00031		
11	1	BACK COVER	31000-00028		
10	1	SUPPORT-BATTERY	31000-00027		
9	1	SUPPORT-LEFT END	31000-00025		
8	1	MOUNTING EAR-RIGHT	31000-00024		
7	1	MOUNTING EAR-LEFT	31000-00023		
6	1	CHANNEL-LOWER SUPPORT	31000-00022		
5	1	SWITCH MOUNT	31000-00021		
4	1	SWITCH COVER	31000-00019		
3	1	FRONT COVER	31000-00018		
2	1	REAR PANEL	31000-00017		
1	1	CHASSIS	31000-00017		

NOTES:
 1 ORIENT FAN TO PLACE CONNECTOR AT THIS CORNER.
 2 THIS PLATE TO BE CORRECTLY ORIENTED & MOUNTED DURING FINAL MACHINE CONFIGURATION.

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005		POWER UNIT ASSEMBLY		HEWLETT-PACKARD	
TITLE		31213A		31000-60002	
NEXT ASSEMBLY		NONE		PART NUMBER	
D-1 REV A 5 18 77		SCALE		D-31000-60002-1	
SUPERSEDES DWG.		FINISH		SHEET OF	

REF. DRWGS: D-1 (POWER UNIT ASSY)
 C-3 (UPPER CHANNEL ASSY)
 D-4 (POWER UNIT CABLE ASSY)

ENGINEERING RESPONSIBILITY													REVISE		APPROVED		DATE			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	C-31000-0		02-2		1/23/78
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	SYM	REVISIONS	APPROVED	DATE	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	B	REDRAWN	[Signature]	1/23/78	
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	C	CORRECTED VIEW	[Signature]	3-21-78	
																D	ITEM 12 WAS 0360-0328 IN ERROR	[Signature]	10-19-78	



NOTES:

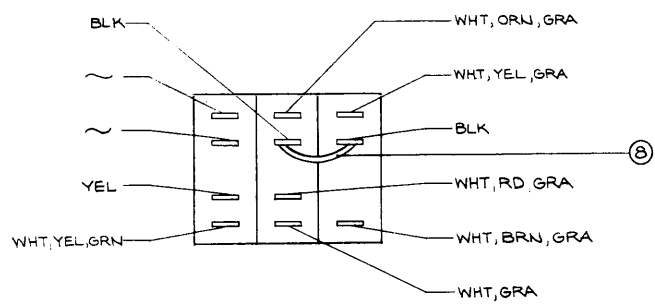
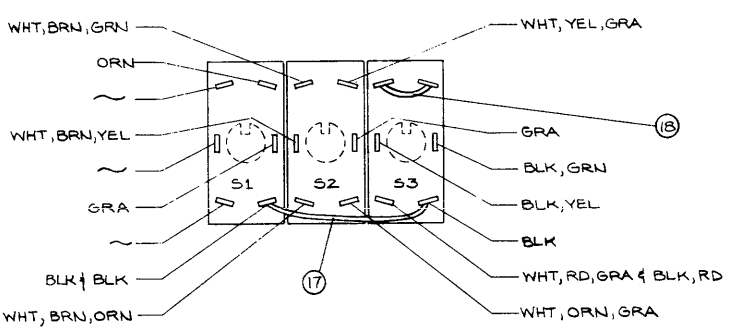
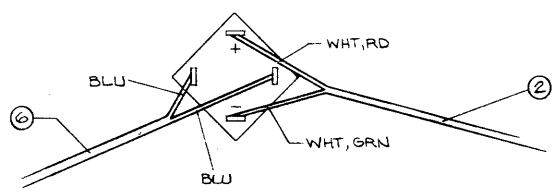
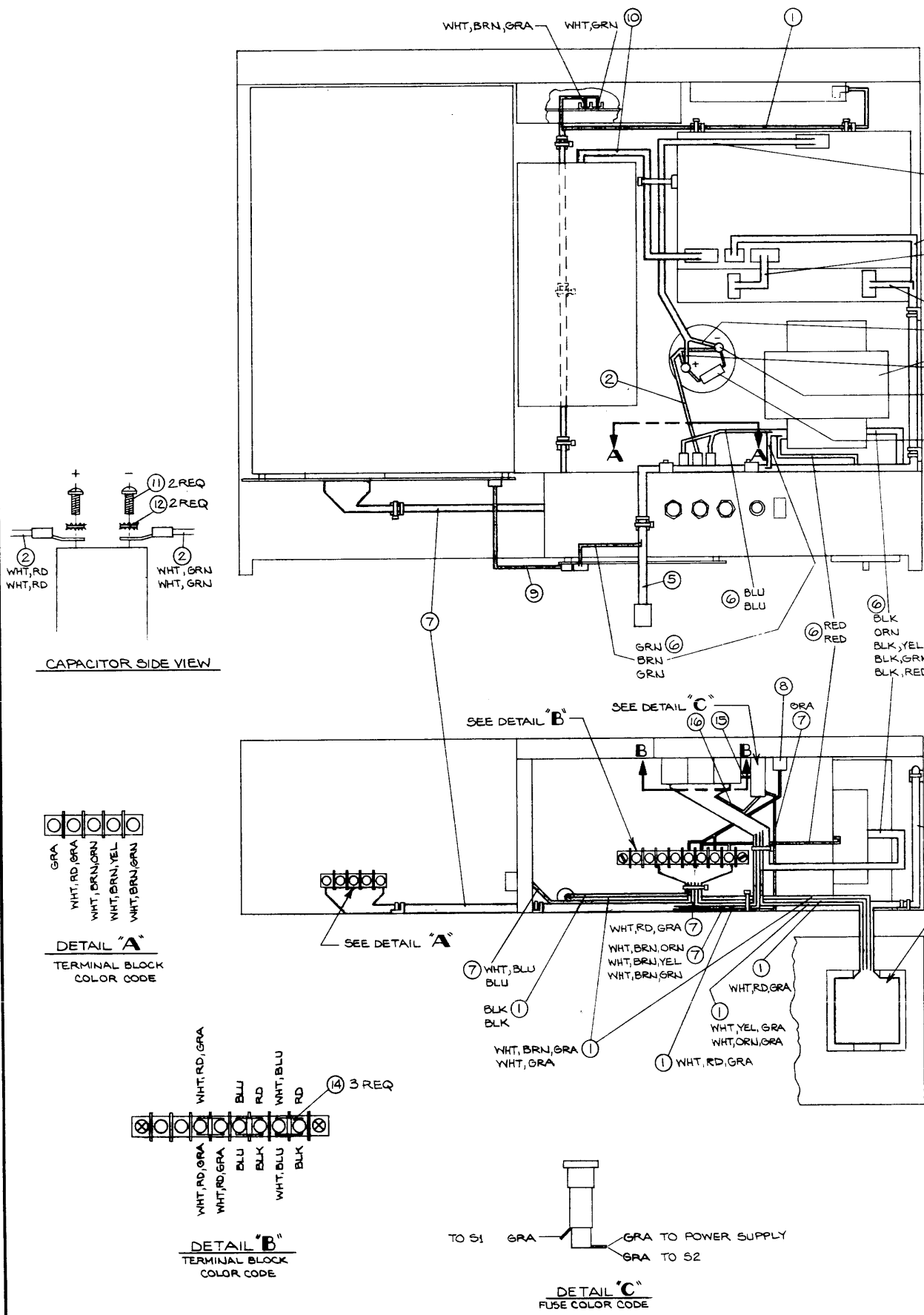
1. STRIP WIRES .25" BOTH ENDS (ALL 3 WIRES)

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
16	4	#6-32 X .375L SCREW W/L	2360-0117		
15	3.5"	WIRE 16 GA GRN, YEL	8150-2629		
14	3.5"	WIRE 16 GA WHT, GRN	8150-2611		
13	3.5"	WIRE 16 GA WHT, BRN, GRN	8150-2614		
12	2	#6 LUG, BLU, CLOSED	0362-0328		
11	3	#8-32 X .375 L SCREW W/L	2510-0045		
10	1	AC POWER SOCKET	1251-4470		
9	2	#4 FLAT WASHER	3050-0229		
8	2	#4-40 X .375L SCREW W/L	2200-0107		
7	1	SOLDER LUG TERMINAL	0360-0269		
6	4	#8 FLAT WASHER	3050-0139		
5	2	#8-32 NUT W/L	2580-0003		
4	1	#8-32 X .625L SCREW W/L	2510-0051		
3	1	LINE FILTER PCA	31000-60068		
2	1	AC SOCKET MOUNT	31000-00016		
1	1	SOCKET SUPPORT	31000-00036		

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005 SEE CORP. STD. 608	POWER UNIT ASSY SOCKET & FILTER MOUNT PERM. PRINT		HEWLETT PACKARD
	TITLE 31213A		
C-2, REV A SUPERSEDES DWG.	5-10-77	FINISH	SCALE FULL
		C-31000-60002-2	

ENGINEERING RESPONSIBILITY												REVISIONS		APPROVED		DATE							
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BYM		DATE					
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	B		22-78	
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	REDRAWN PER PROC 31213A "Y"			

REF DWGS: D-1 (POWER UNIT ASSY)
 C-2 (FILTER MOUNT ASSY)
 C-3 (UPPER CHANNEL ASSY)



CAPACITOR SIDE VIEW

DETAIL A
TERMINAL BLOCK COLOR CODE

DETAIL B
TERMINAL BLOCK COLOR CODE

DETAIL C
FUSE COLOR CODE

ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO	MAT'L DWG NO	MAT'L SPEC
18	1	WIRE BUS, UNINSULATED	8151-0012		
17	2.5'	WIRE, 18 GA BLK	8150-2890		
16	4"	WIRE, 18 GA GRA	8150-2648		
15	4"	WIRE, 18 GA ORN	8150-2648		
14	3	JUMPER, BARRIER BLOCK	0360-0523		
13	17	CABLE TIES	1400-0249		
12	2	#10 L WASHER INT	2130-0011		
11	2	#10 SCREW X.375	2680-0099		
10	1	BATTERY ASSY	REF ONLY		
9	1	REMOTE LOW POWER CABLE	REF ONLY		
8	1	POWER SUPPLY CABLE SET	31000-60074		
7	1	MAIN POWER SUPPLY CABLE	31000-60027		
6	1	TRANSFORMER ASSY	31000-60026		
5	1	MEMORY POWER CABLE	31000-60021		
4	1	BREAKER CONTROL CABLE	31000-60025		
3	1	PREREGULATOR OUTPUT CABLE	31000-60024		
2	1	PREREGULATOR INPUT CABLE	31000-60007		
1	1	FAN & POWER CABLE	31000-60006		

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES XX ± .02 XXX ± .005

SEE CORP STD 608

POWER UNIT CABLE ASSY

TITLE 31213A

NEXT ASSEMBLY

FINISH

SCALE NONE

HEWLETT-PACKARD

PART NUMBER 31000-60002

31000-60002-4

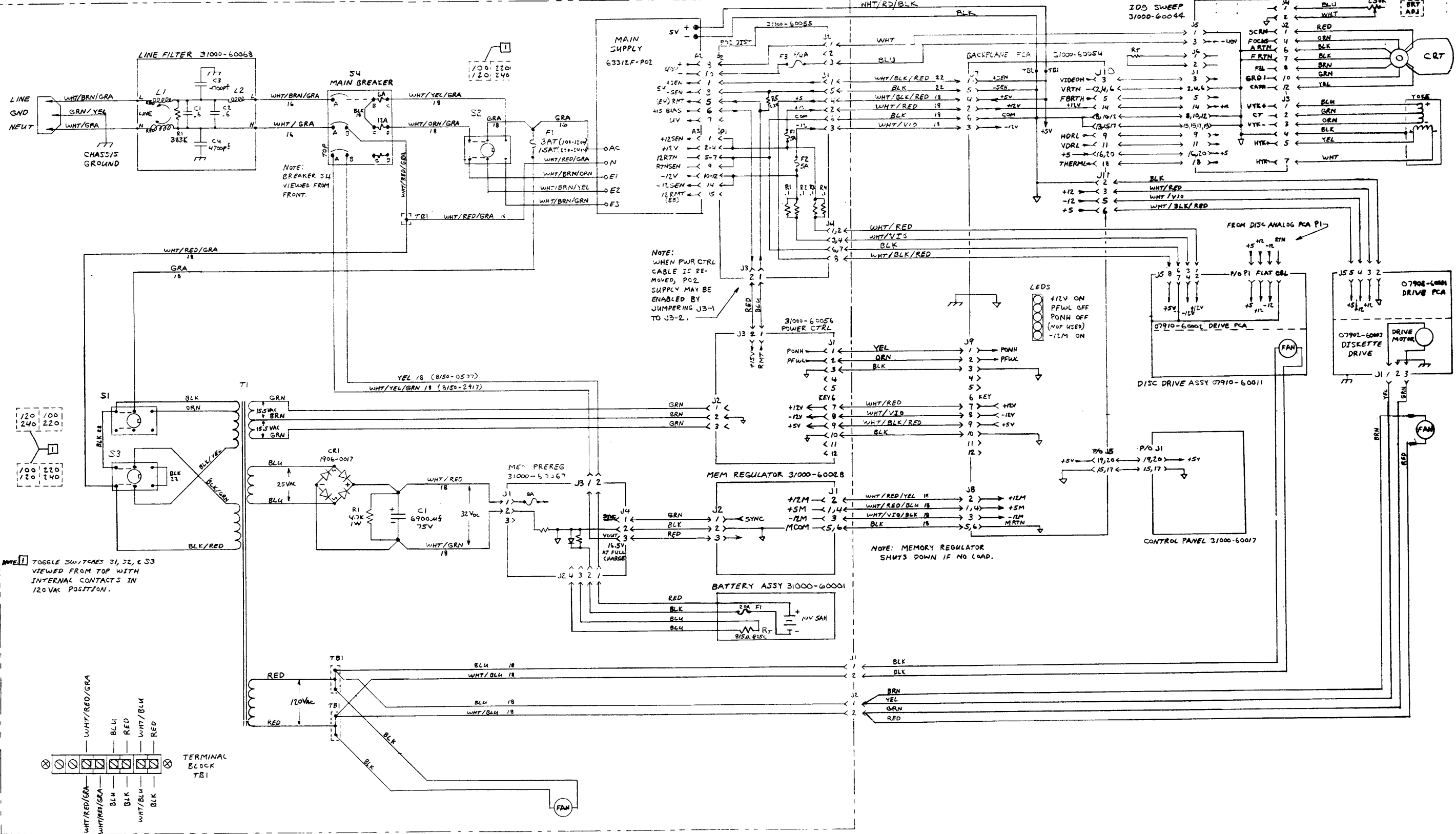
REV H 52677

REPLACES DWG

SHEET OF

POWER SUPPLY UNIT 31000-60002

ENGINEERING RESPONSIBILITY															REVISED														
AS ISSUED															CORRECTED DOC ERRORS														
APPROVED															DATE														



NOTE: BREAKER S4 VIEWED FROM FRONT.

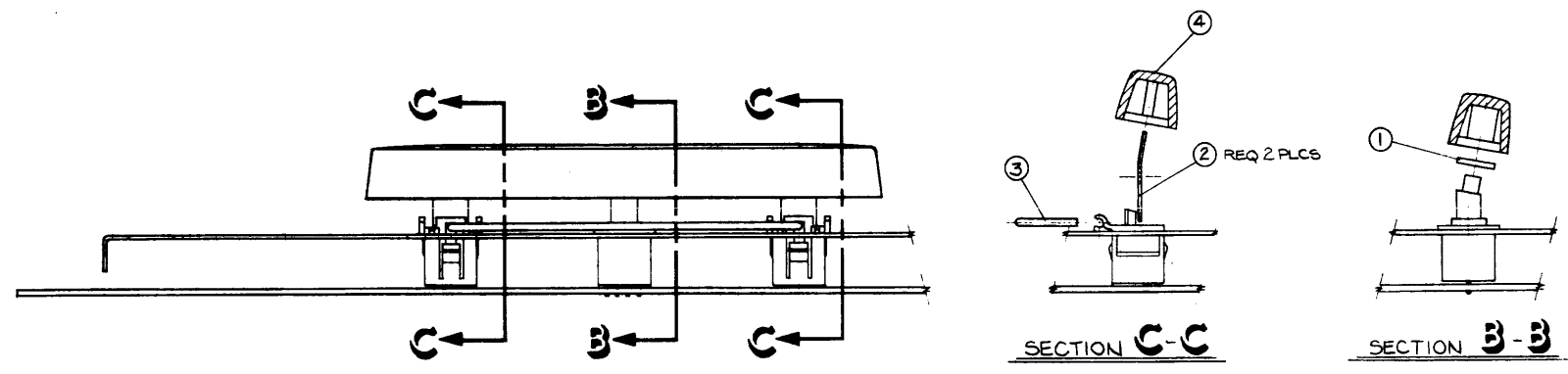
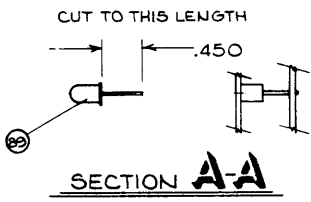
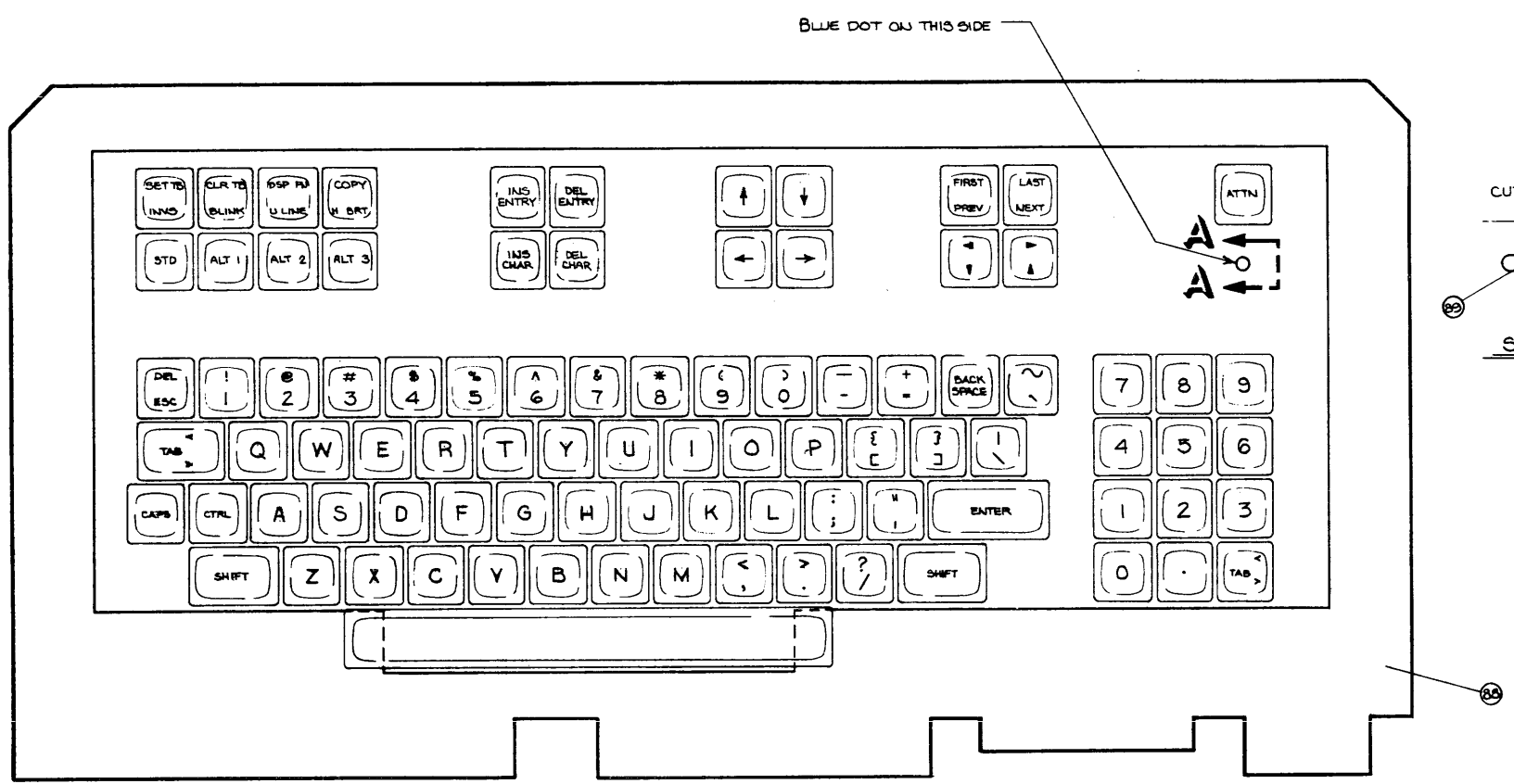
NOTE: WHEN PWR CTRL CABLE IS REMOVED, P02 SUPPLY MAY BE ENABLED BY JUMPERING J3-1 TO J3-2.

NOTE: MEMORY REGULATOR SHUTS DOWN IF NO LOAD.

NOTE: TOGGLE SWITCHES S1, S2, & S3 VIEWED FROM TOP WITH INTERNAL CONTACTS IN 120 VAC POSITION.

DO NOT SCALE THIS DRAWING		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TOLERANCES .XX ± .02, .XXX ± .005		SEE CORP. STD. 608	
POWER SUPPLY UNIT WIRING DIAGRAM SCHEMATIC		TITLE		31000-60002		PART NUMBER	
HEWLETT-PACKARD		MATERIAL DESCRIPTION		MATERIAL PART NO.		MATERIAL DWG. NO.	
31000-60002		MATERIAL SPEC.		MATERIAL DWG. NO.		MATERIAL SPEC.	

ENGINEERING RESPONSIBILITY														REVISED		31000-60004-1			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BYN	REVISED	APPROVED	DATE
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	[Signature]	1/20/74
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	B	REVISED CONTROL FIELD LAYOUT	[Signature]	1/20/74
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	C	PER PROC 31213A *K*	[Signature]	1/20/74
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79		SWITCHED *DEL CHAR* WITH *INS ENTRY*	[Signature]	1/20/74



ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO	MAT'L DWG NO	MAT'L SPEC
89	1	LED, RED	1990-0410		
88	1	KEYBOARD PC. ASSEMBLY	31000-60041		
87	1	FULL KEY CAP *STD*	0371-0823		
86	1	" " " *ALT 1*	0371-0829		
85	1	" " " *ALT 2*	0371-0828		
84	1	" " " *ALT 3*	0371-0827		
83	1	" " " *COPY/H BRT*	0371-0822		
82	1	" " " *DSP FN/U LINE*	0371-0824		
81	1	" " " *CLR TB/BLINK*	0371-0825		
80	1	" " " *SET TB/INVS*	0371-0826		
79	1	" " " *DEL CHAR*	0371-0575		
78	1	" " " *DEL ENTRY*	0371-0576		
77	1	" " " *INS CHAR*	0371-0577		
76	1	" " " *INS ENTRY*	0371-0578		
75	4	" " " *ARROW*	0371-0579		
74	1	" " " *FIRST PREV*	0371-0580		
73	1	" " " *LAST NEXT*	0371-0581		
72	1	" " " *ARROWS *	0371-0582		
71	1	" " " *ARROWS *	0371-0583		
70	1	" " " *ATTN*	0371-0584		
69	1	" " " *DEL ESC*	0371-0586		
68	1	" " " *# 1*	0371-0465		
67	1	" " " *# 2*	0371-0466		
66	1	" " " *# 3*	0371-0467		
65	1	" " " *# 4*	0371-0468		
64	1	" " " *# 5*	0371-0469		
63	1	" " " *# 6*	0371-0470		
62	1	" " " *# 7*	0371-0471		
61	1	" " " *# 8*	0371-0472		
60	1	" " " *# 9*	0371-0473		
59	1	" " " *# 10*	0371-0486		
58	1	" " " *# *	0371-0475		
57	1	" " " *# +*	0371-0485		
56	1	" " " *BACK SPACE*	0371-0478		
55	1	" " " *# ~*	0371-0487		
54	1	" " " *# Q*	0371-0524		
53	1	" " " *# W*	0371-0530		
52	1	" " " *# E*	0371-0512		
51	1	" " " *# R*	0371-0525		
50	1	" " " *# T*	0371-0527		
49	1	" " " *# Y*	0371-0532		
48	1	" " " *# U*	0371-0528		
47	1	" " " *# I*	0371-0516		
46	1	" " " *# O*	0371-0522		
45	1	" " " *# P*	0371-0523		
44	1	" " " *# C*	0371-0476		
43	1	" " " *# J*	0371-0477		
42	1	" " " *# L*	0371-0486		
41	1	" " " *CAPS*	0371-0567		
40	1	" " " *CTRL*	0371-0588		
39	1	" " " *# A*	0371-0508		
38	1	" " " *# S*	0371-0526		
37	1	" " " *# D*	0371-0511		
36	1	" " " *# F*	0371-0513		
35	1	" " " *# G*	0371-0514		
34	1	" " " *# H*	0371-0515		
33	1	" " " *# J*	0371-0517		
32	1	" " " *# K*	0371-0518		
31	1	" " " *# L*	0371-0519		
30	1	" " " *# ;*	0371-0501		
29	1	" " " *# ,*	0371-0502		
28	1	" " " *# Z*	0371-0533		
27	1	" " " *# X*	0371-0531		
26	1	" " " *# C*	0371-0510		
25	1	" " " *# V*	0371-0529		
24	1	" " " *# B*	0371-0509		
23	1	" " " *# N*	0371-0521		
22	1	" " " *# M*	0371-0520		
21	1	" " " *# <*	0371-0503		
20	1	" " " *# >*	0371-0504		
19	1	" " " *# ?/*	0371-0505		
18	1	" " " *# /*	0371-0541		
17	1	" " " *# 8*	0371-0542		
16	1	" " " *# 4*	0371-0538		
15	1	" " " *# 5*	0371-0539		
14	2	" " " *# 6*	0371-0540		
13	1	" " " *# 1*	0371-0535		
12	1	" " " *# 2*	0371-0536		
11	1	" " " *# 3*	0371-0537		
10	1	" " " *# 0*	0371-0590		
9	1	" " " *# *	0371-0506		
8	1	" " " *# TAB (W/ARROW)*	0371-0592		
7	1	1/2 KEY CAP *TAB (W/ARROW)*	0371-0586		
6	2	" " " *SHIFT*	0371-0496		
5	1	DOUBLE KEY CAP *ENTER*	0371-0589		
4	1	SPACE BAR	0371-0544		
3	1	TORSION WIRE	1460-1562		
2	2	END PLINGER (TILTED)	1530-1895		
1	1	FELT WASHER	3050-0666		

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 608

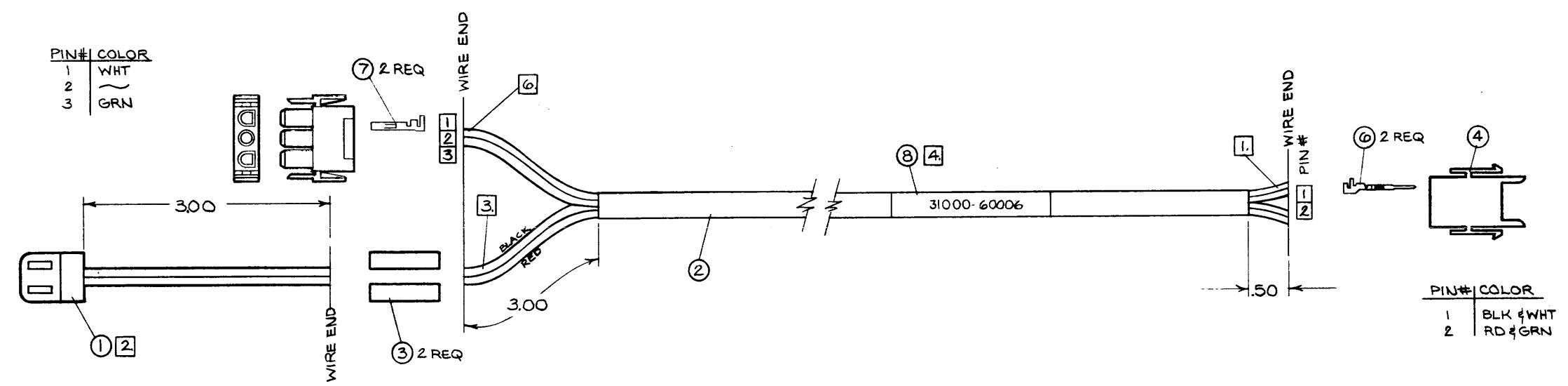
KEYBOARD ASSEMBLY
TITLE
31213A
NEXT ASSEMBLY

HEWLETT PACKARD
PART NUMBER
31000-60004
D-31000-60004-1

SCALE FULL

ENGINEERING RESPONSIBILITY															SEP1A																														
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

SYM		REVISIONS		APPROVED	DATE
B	REDRAWN	PRCR 31213A *F*		<i>[Signature]</i>	7-5-77
C	PC472025	ITEM 5 WAS 1251-4466	ITEM 7 WAS 1251-4272	KS/RLD	5-18-78
D	PC47-2025 (REV A)	ITEM 7 WAS 1251-5223		BDB/RLD	6-12-78



NOTES:

- 1. STRIP WIRE 1/8". CRIMP 2 WIRES TO EACH PIN.
- 2. CUT FAN CORD TO 3". STRIP 1/4".
- 3. STRIP WIRES 1/4".
- 4. MARK PART NUMBER (31000-60006) ON TUBING AND HEAT SHRINK ONTO CABLE.
- 5. TEST PER A-5950-3740-1.
- 6. STRIP WIRE 1/8"

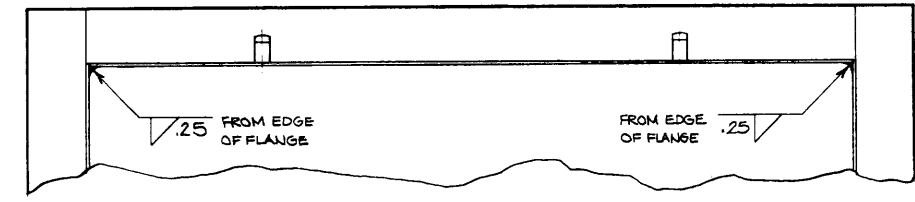
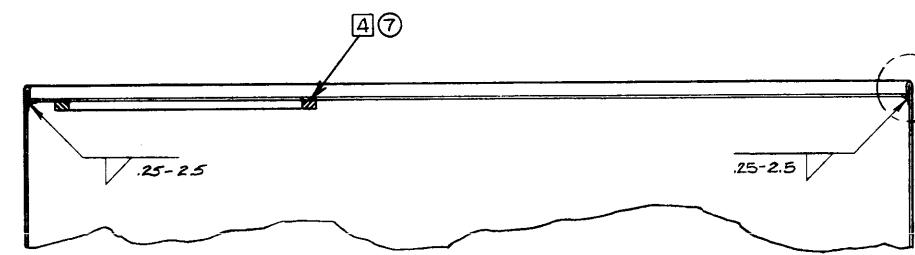
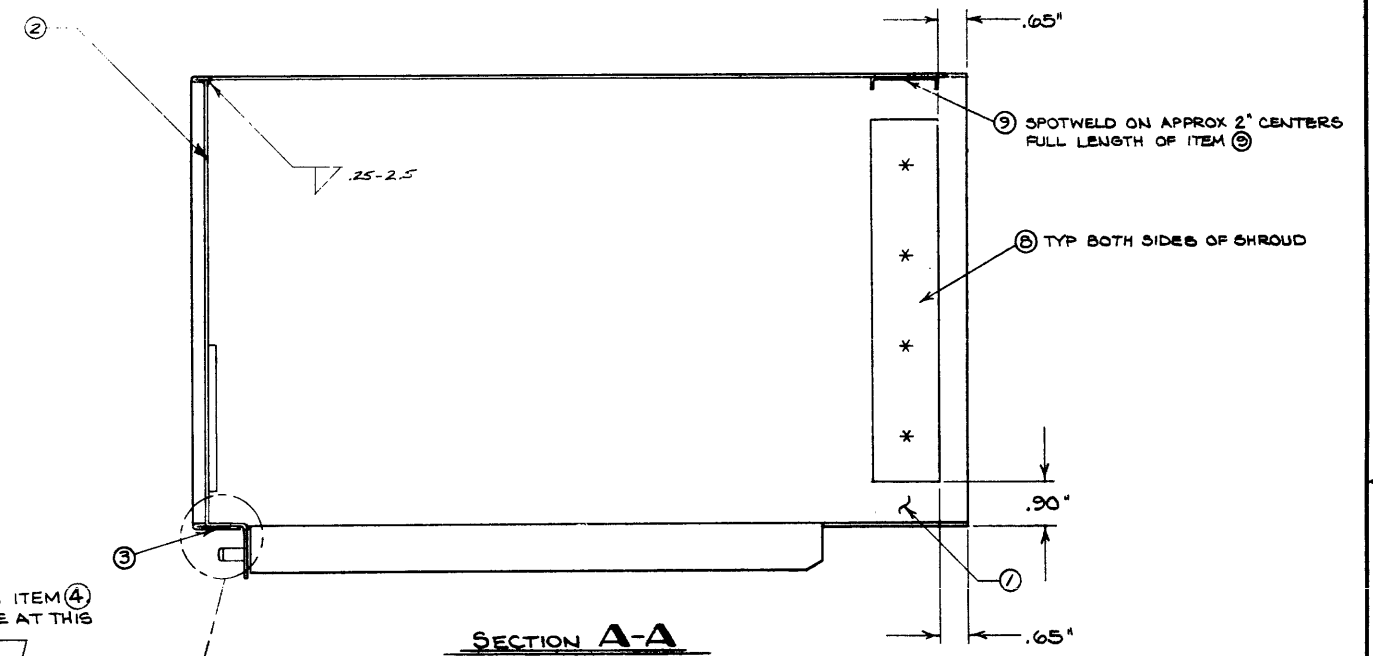
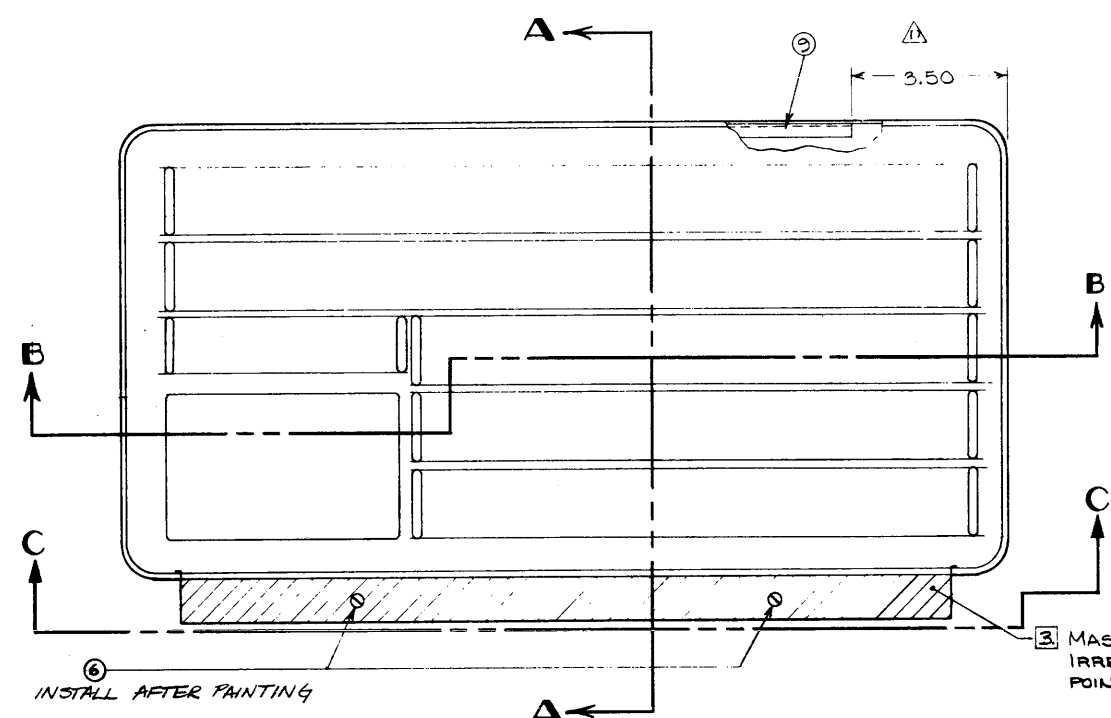
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
8	1.5'	SHRINK TUBING	0890-0291		
7	2	CONTACT	1251-3911		
6	2	CONTACT	1251-0612		
5	1	CONNECTOR 3 PIN	1251-3913		
4	1	CONNECTOR 2 PIN	1251-4130		
3	2	TUBULAR SPLICE	0362-0101		
2	61'	CABLE, 22 GA, 4 COND.	8120-1134		
1	1	FAN CORD	8120-1478		

PROCESS REVIEW
DATE 1-18-78 BY Pat Wright

DO NOT SCALE THIS DRAWING		7902 AC POWER CABLE		HEWLETT PACKARD	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TITLE		PART NUMBER	
TOLERANCES .XX ± .02 .XXX ± .005		31213A		31000-60006	
SEE CORP. STD. 808		NEXT ASSEMBLY		SCALE FULL	
RELEASE TO PROD. C1, REV A SUPERSEDES DWG.		5-13-77		C-31000-60006-1	

ENGINEERING RESPONSIBILITY		DATE	APPROVED	DATE
0	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24
25	26	27	28	29
30	31	32	33	34
35	36	37	38	39
40	41	42	43	44

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	S/S/AL	4-28-78
B	REVISED PER PROC 31213A 1F*	S/S/AL	4-27-78
C	ADDED ITEM (2) (3); R47-2021	S/S/AL	4-28-78
D	ADDED 3.50 DIM PC47-2029	S/S/AL	6-1-78



- NOTES:**
- FINISH - SPRAY WITH METAL ETCH PRIMER.
 - PAINT MAINBODY WITH ITEM ② STIPPLE TEXTURE II.
 - PAINT REAR STRIP WITH ITEM ④ STIPPLE TEXTURE II.
 - ALIGN OPENING IN GASKET WITH OPENING IN SHEET METAL.

ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QWS NO.	MAT'L SPEC.
9	1	DISPLAY SHROUD FRONT STIFFENER	31000-00088		
8	2	DISPLAY SHROUD SIDE STIFFENER	31000-00089		
7	1	GASKET	0905-0717		
6	2	CAPTIVE PANEL FASTENER	1330-0447		
5	A/R	PAINT, PEARL GREY	6010-0655		
4	A/R	PAINT, COCOA BROWN	6010-0659		
3	1	REAR FILLER	31000-00070		
2	1	DISPLAY SHROUD REAR PANEL	31000-00069		
1	1	DISPLAY SHROUD	31000-00060		

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .008

HEWLETT PACKARD

DISPLAY SHROUD ASSEMBLY

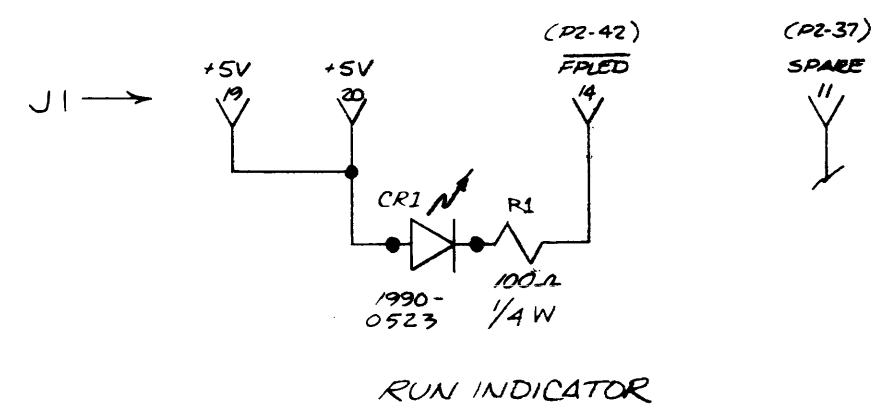
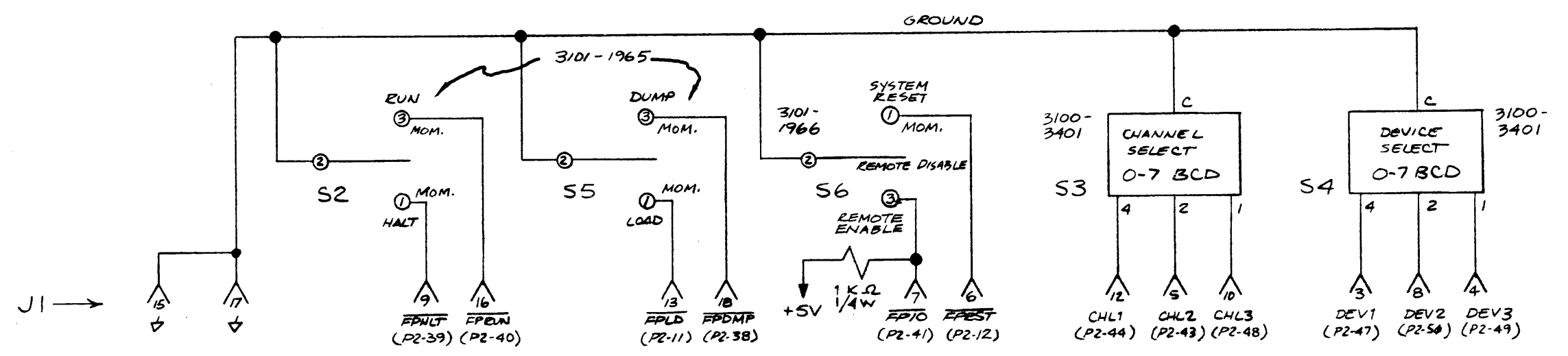
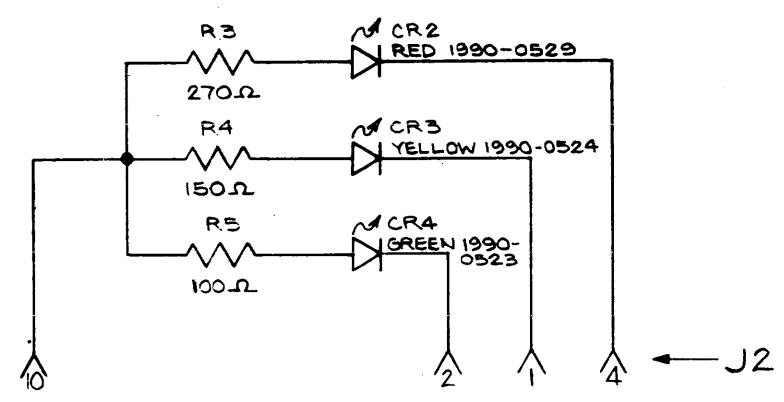
TITLE: 31213A

PART NUMBER: 31000-60010

NOTE 1 2 HALF SCALE

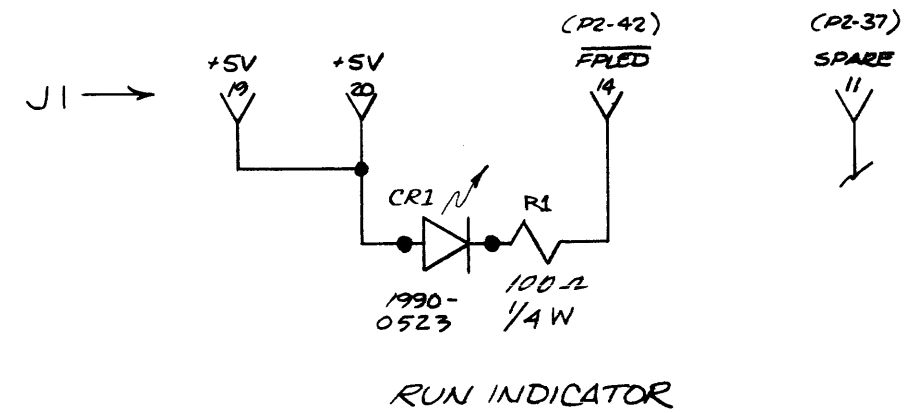
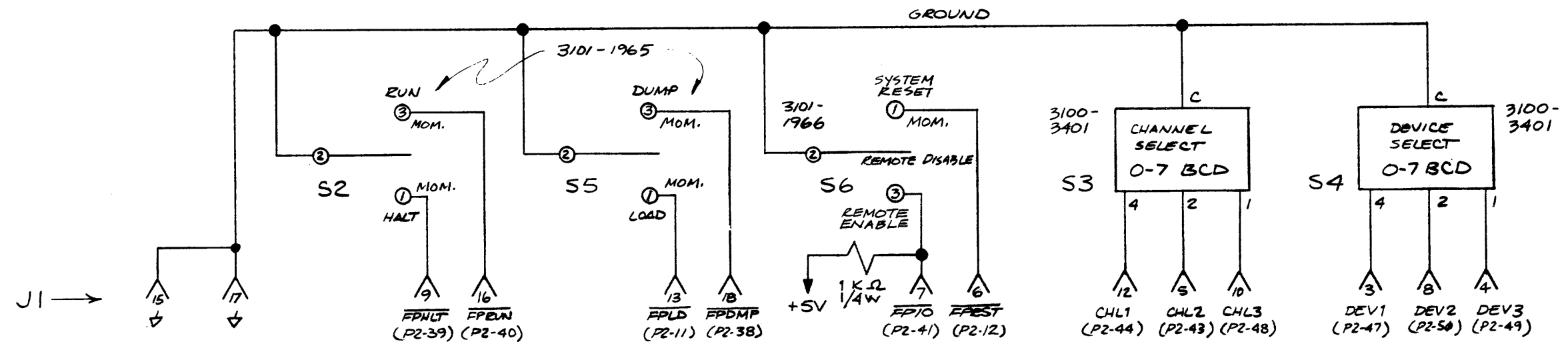
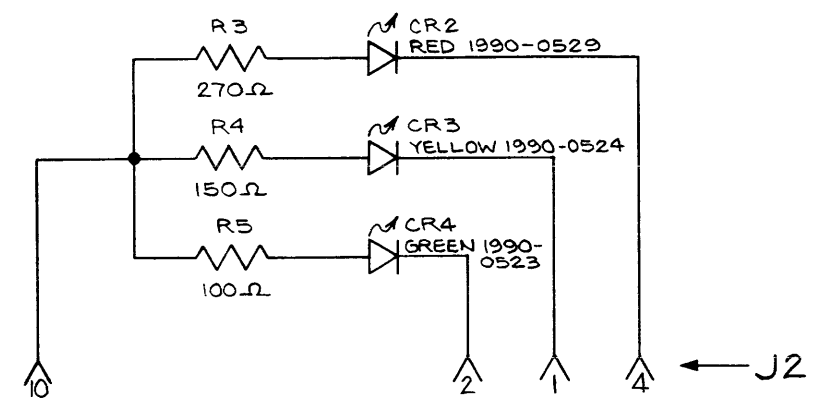
D-31000-60010-1

SHEET / OF 1



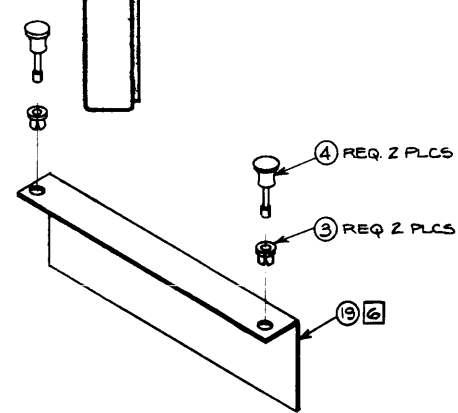
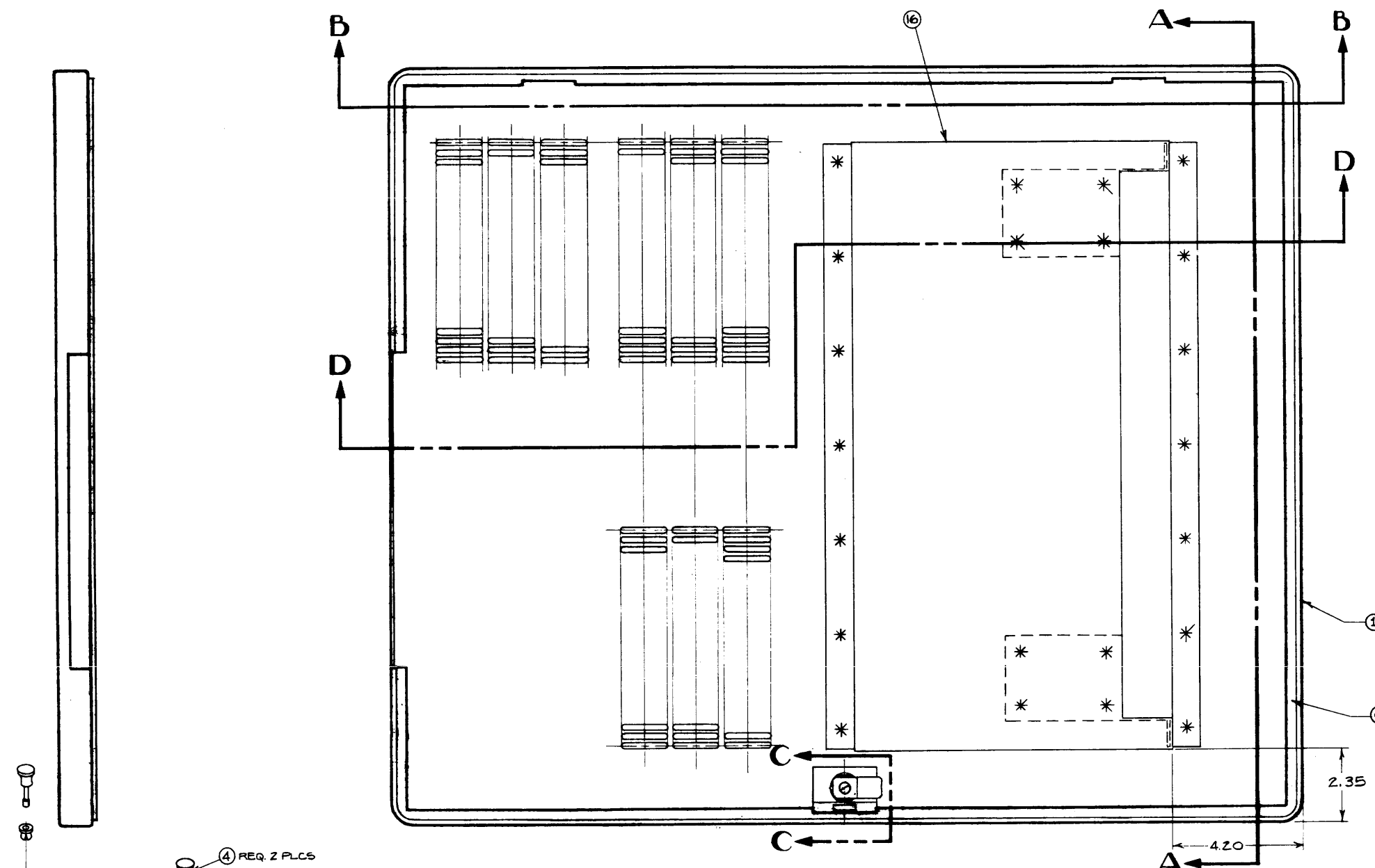
NOTE: J1 PINS 1 AND 2 ARE NOT CONNECTED
 X INDICATES PIN # ON J1 OR J2

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
DO NOT SCALE THIS DRAWING					
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005					
CONTROL PANEL SCHEMATIC			HEWLETT PACKARD		
31000-60076 & 31213A			31000-60017		
NEXT ASSEMBLY			PART NUMBER		
FINISH			SCALE		
SUPERSEDES DWG.			C-31000-60017-16		



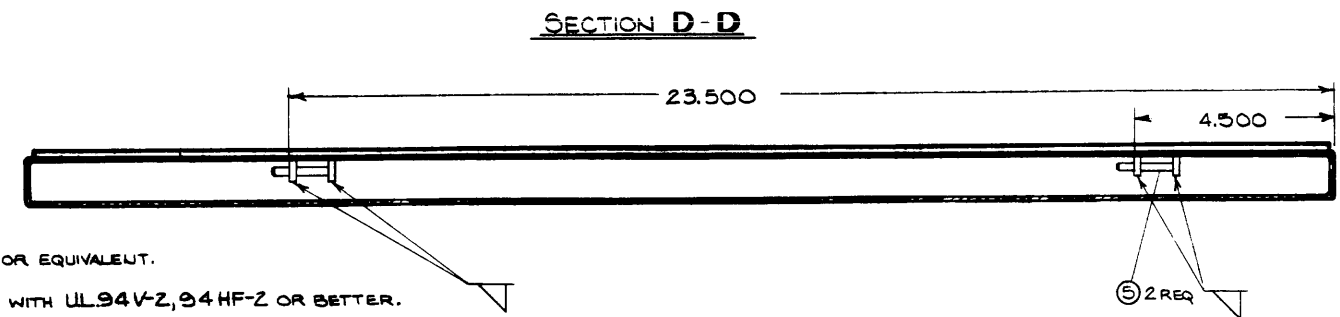
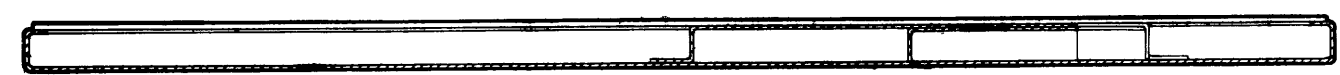
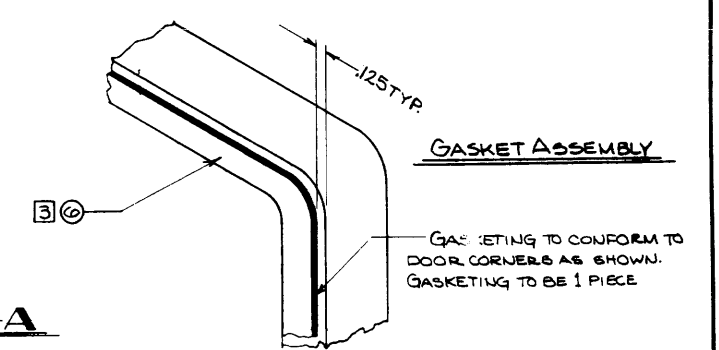
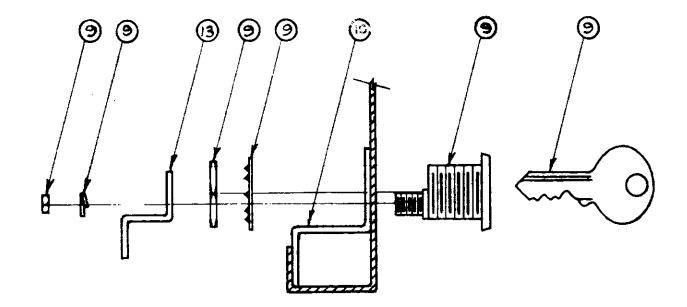
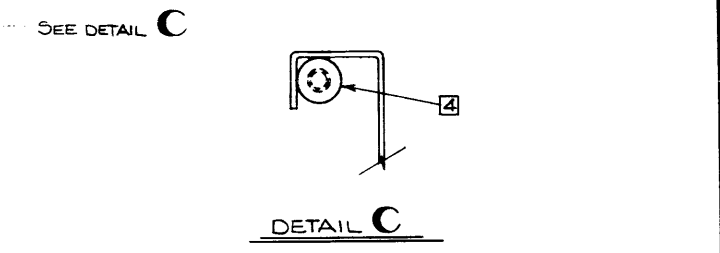
NOTE: J1 PINS 1 AND 2 ARE NOT CONNECTED
 X INDICATES PIN # ON J1 OR J2

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
DO NOT SCALE THIS DRAWING					
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005					
SUPERSEDES DWG.		TITLE		HEWLETT PACKARD	
		CONTROL PANEL SCHEMATIC		31000-60017	
		31000-60076 & 31213A		PART NUMBER	
		NEXT ASSEMBLY		C-31000-60017-26	
		FINISH		SCALE	



NOTES:

- FINISH - CORROSION RESISTANT PHOSPHATE COATING OR EQUIVALENT.
- PAINT WITH ITEM 7; STIPPLE TEXTURE II.
- FOAM GASKETING, ITEM 6, .19 THK X .38 WIDE WITH UL94V-2, 94HF-2 OR BETTER.
- PUSH HINGE PIN INTO CORNER OF DOOR AND WELD.
- ALIGN ITEMS 17 & 18 SO THAT HOLES LINE UP WITH HOLES IN ITEM 16
- INSTALL NYLATCHES AND FASTEN TO LOG BOOK HOLDER, ITEM 16



ITEM	QTY	MATERIAL DESCRIPTION	MATL. PART NO.	MATL. DWG. NO.	MATL. SPEC.
15	1	LOG BOOK COVER	31000-00006		
18	1	CONNECTOR SUPPORT, LEFT	31000-00080		
17	1	CONNECTOR SUPPORT, RIGHT	31000-00078		
16	1	LOG BOOK HOLDER	31000-00004		
15					
14					
13	1	LOCK PAWL	31000-00065		
12					
11	1	REAR DOOR GUIDE	31000-00066		
9	1	LOCK ASSEMBLY	1390-0344		
8					
7	A/R	PAINT-TEXT PEARL GRAY	6010-0655		
6	A/R	FOAM GASKETING	0460-1204		
5	2	HINGE PIN	31000-20009		
4	2	NYLATCH PLUNGER, .25"	1390-0365		
3	2	NYLATCH GROMMET, .25"	1390-0366		
2					
1	1	REAR DOOR	31000-00063		

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES: .XX ± .05, .XXX ± .030.

REAR DOOR ASSEMBLY		HEWLETT PACKARD	
TITLE		PART NUMBER	
31213A		31000-60018-1	
NEXT ASSEMBLY		PART NUMBER	
NOTE 1 2		SCALE HALF	
SUPERSEDES DWG		D-31000-60018-1	

SHEET 1 OF 1

J1

MEMORY & I/O											CPU					
A16	A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	
1	SPARE						RAS						STP1			1
2	SPARE						COM						RSET			2
3	SPARE						RW						RPAR			3
4	SPARE						COM						BIRC			4
5	SPARE						CAS						BWRQ			5
6	SPARE						COM						BRRQ			6
7	SPARE						REFRESH						BX-03			7
8	SPARE						COM						BX-01			8
9	SPARE						LATCH						COM			9
10	SPARE						COM						BNIR			10
11	SPARE						CS						BBUSD			11
12	SPARE						COM						LDEX			12
13	SPARE						A0						BMEMA			13
14	SPARE						A1						COM			14
15	SPARE						COM						CPVCLK			15
16	SPARE						A2						COM			16
17	SPARE						A3						INTCLK			17
18	SPARE						COM						COM			18
19	SPARE						A4						MARST			19
20	SPARE						A5						NIR			20
21	SPARE						COM						DATST			21
22	SPARE						DB						IOAD			22
23	SPARE						D1						ISR			23
24	SPARE						D2						FRZ			24
25	SPARE						COM						BUSEN			25
26	SPARE						D3						CLR			26
27	SPARE						D4						MICRO			27
28	SPARE						D5						MACRO			28
29	SPARE						COM						IRPT			29
30	SPARE						D6						PEN			30
31	SPARE						D7						CPUBUSE4			31
32	SPARE						DB						CPUBUSE3			32
33	SPARE						COM						E2			33
34	SPARE						D9						E1			34
35	SPARE						D10						Ø			35
36	SPARE						D11						1			36
37	SPARE						COM						2			37
38	SPARE						D12						3			38
39	SPARE						COM						4			39
40	SPARE						D13						5			40
41	SPARE						COM						6			41
42	SPARE						D15						7			42
43	SPARE						P22						8			43
44	SPARE						P16						9			44
45	SPARE						COM						10			45
46	SPARE						P8						11			46
47	SPARE						P4						12			47
48	SPARE						P2						13			48
49	SPARE						COM						14			49
50	SPARE						P1						15			50

VIEW IS FROM COMPONENT SIDE

<p>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETRES</p> <p>THIRD ANGLE PROJECTION</p> <p>TOLERANCES: XX ± 0.5 mm or ± 0.4 mm XX.X ± 0.2 mm or ± 0.1 mm STRIKE OUT ONE XX AND ONE XX.X SEE CORP. STD. 608</p> <p>DO NOT SCALE THIS DRAWING</p>	<p>ITEM</p> <p>QTY.</p>	<p>MATERIAL-DESCRIPTION</p> <p style="text-align: center;">BACKPLANE (P1) SCHEMATIC</p> <p>TITLE</p> <p style="text-align: center;">31213-60010</p> <p>NEXT ASSEMBLY</p>	<p>MAT'L-PART NO.</p> <p style="text-align: center;">31000-60020</p> <p>PART NUMBER</p>	<p>MAT'L-DWG. NO.</p> <p style="text-align: center;">C-31000-60020-6</p>	<p>MAT'L-SPEC.</p> <p style="text-align: center;">HEWLETT PACKARD</p>
SUPERSEDES DWG.		FINISH	SCALE		

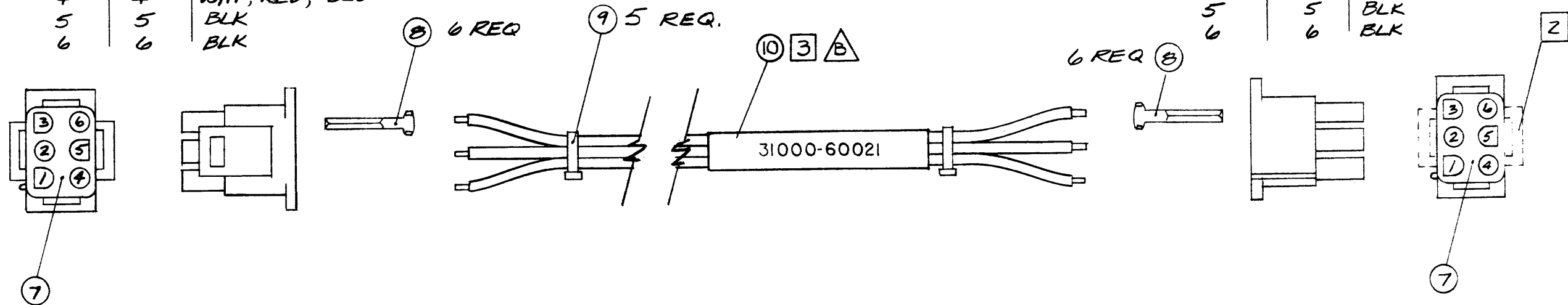
REF DWG: A-2 (WIRE LIST)

ENGINEERING RESPONSIBILITY						SEPIA					
0	1	2	3	4	6	8	9	11	12	14	15
16	17	19	21	22	23	25	29	30	32	33	38
45	46	61	63	47A							

B-31000-60021-1		APPROVED	DATE
SYM	REVISIONS		
A	AS ISSUED	SAS/JP	4-28-77
B	ITEM ⑩ WAS 1251-3818; ITEM ⑦ QTY WAS 7 AND ITEM ⑩ PRCR 31213A "R"	BDB/SM	11-29-77

ITEM #	PIN #	WIRE COLOR
1	1	WHT, RED, BLU
2	2	WHT, RED, YEL
3	3	WHT, BLK, VIO
4	4	WHT, RED, BLU
5	5	BLK
6	6	BLK

ITEM #	PIN #	WIRE COLOR
1	1	WHT, RED, BLU
2	2	WHT, RED, YEL
3	3	WHT, BLK, VIO
4	4	WHT, RED, BLU
5	5	BLK
6	6	BLK



NOTES:

1. STRIP ALL WIRES .12" (1/8")
2. CUT OFF TABS AS SHOWN.
3. MARK "31000-60021" ONTO THE TUBE AND HEAT SHRINK ONTO CABLE.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
10	1.5"	SHRINK TUBING, .375 DIA	0890-0291		
9	5	CABLE TIE	1400-0249		
8	12	CONNECTOR CONTACT	1251-3911		
7	2	CONNECTOR HOUSING, 6 PIN	1251-3817		
6	25"	WIRE, 18GA; BLK	8150-2890		
5	25"	WIRE, 18GA; BLK	8150-2890		
4	25"	WIRE, 18GA; WHT, RED, BLU	8150-2915		
3	25"	WIRE, 18GA; WHT, BLK, VIO	8150-2907		
2	25"	WIRE, 18GA; WHT, RED, YEL	8150-2914		
1	25"	WIRE, 18GA; WHT, RED, BLU	8150-2915		

PROCESS REVIEW
DATE 4-28-77 BY Pat Wright

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 608

MEMORY POWER
TITLE CABLE

31000-60002
NEXT ASSEMBLY

FINISH — SCALE FULL

HEWLETT PACKARD

31000-60021
PART NUMBER

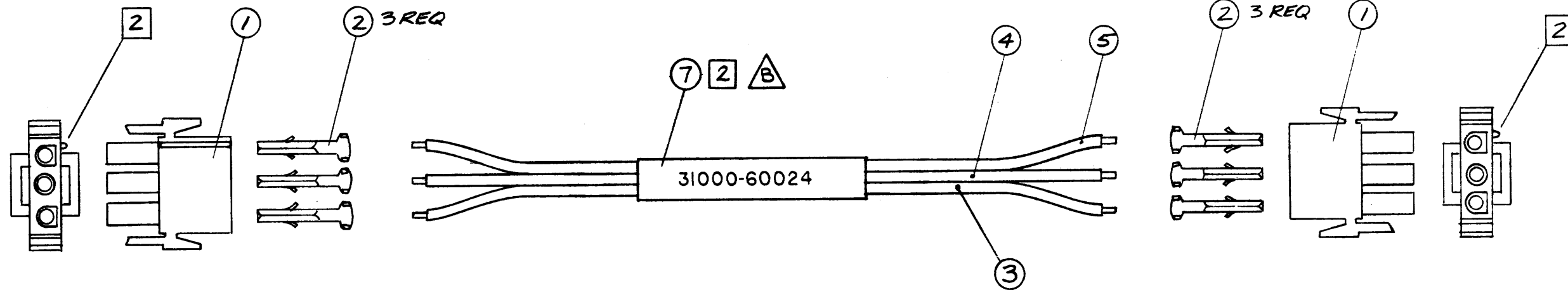
B-31000-60021-1

SHEET 1 OF 1

REF DWG: A-2 (WIRE LIST)

ENGINEERING RESPONSIBILITY <input checked="" type="checkbox"/>															SEPIA <input checked="" type="checkbox"/> APERTURE CD <input checked="" type="checkbox"/>					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
45	46	61	63	47	47A															

		B-31000-60024-1	
SYM	REVISIONS		APPROVED
	A AS ISSUED		S/S/ [Signature] 4-28-77
B	ADD ITEM ⑦ & NOTE ③; ITEM ② WAS		S/S/ [Signature] 1-21-77
	1251-3818 DEL ITEM ② PRCR 31213A/R		



NOTES:

1. STRIP ALL WIRES .12" (1/8")
2. NOTE ORIENTATION OF CONNECTORS.
3. MARK "31000-60024" ONTO TUBE AND HEAT SHRINK ONTO CABLE.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
7	2"	SHRINK TUBING, .375 DIA	0890-0291		
6		DELETED			
5	6.2"	WIRE, 18GA, GREEN	8150-0578		
4	6.2"	WIRE, 18GA, BLACK	8150-2890		
3	6.2"	WIRE, 18GA, RED	8150-2891		
2	6	CONNECTOR CONTACT	1251-3911		
1	2	CONNECTOR HOUSING, 3PIN	1251-3913		

PROCESS REVIEW
 DATE 4-28-77 BY Pat Wright

DO NOT SCALE THIS DRAWING

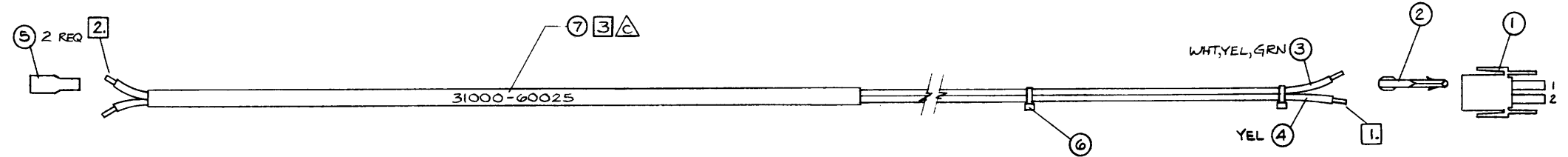
UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.

TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 608

ENGINEER	PREREGULATOR OUTPUT CABLE		HEWLETT PACKARD
RELEASE TO PROD.	31000-60002	31000-60024	
SUPERSEDES DWG.	NEXT ASSEMBLY	PART NUMBER	
	FINISH	B-31000-60024-1	
	SCALE	FULL	

ENGINEERING RESPONSIBILITY															SEMA					C-31000-60025-1	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BYM	REVISIONS	APPROVED	DATE		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	B	REDRAWN PER PRCR 31213A "R"	<i>[Signature]</i>	11-29-77		
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	C	ITEM 6 WAS QTY 6 PER PRCR 31213A "Y"	<i>[Signature]</i>	1-31-78		
																D	ITEM 2 WAS 1251-3818 PCO 4T-2007	<i>[Signature]</i>	3-16-78		



- NOTES:
- 1. STRIP WIRES .125"
 - 2. STRIP WIRES .25"
 - 3. MARK "31000-60025" ONTO TUBING AND SHRINK ONTO CABLE IN POSITION SHOWN

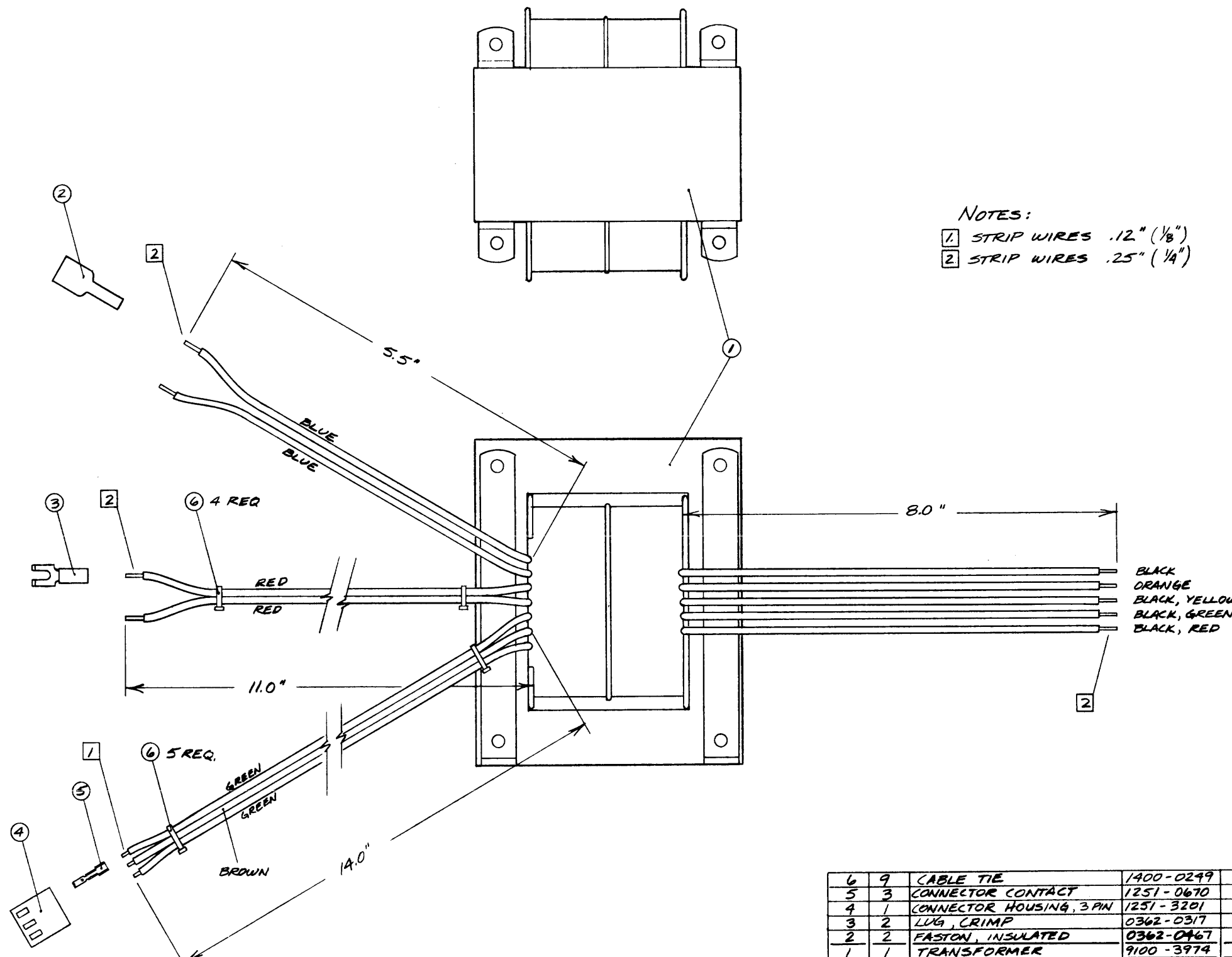
ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
7	8.5"	HEAT SHRINK TUBING .25" DIA	0890-0312		
6	3	CABLE TIE	1400-0249		
5	2	FASTON	0362-0467		
4	20.5'	WIRE, 18 GA, YEL	8150-0577		
3	20.5'	WIRE, 18 GA, WHT, YEL, GRN	8150-2917		
2	2	CONTACT	1251-3911		
1	1	CONNECTOR, 2 PIN	1251-4782		

PROCESS REVIEW
 DATE 12-5-77 *Pat Wright*

DO NOT SCALE THIS DRAWING	BREAKER CONTROL CABLE		HEWLETT PACKARD
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	TITLE	31000-60002	31000-60025
TOLERANCES .XX ± .02 .XXX ± .005	NEXT ASSEMBLY		PART NUMBER
SEE CORP. STD. 608	RELEASE TO PROD.	D-1 REV A 4-28-77	C-31000-60025-1
	SUPERSEDES DWG.		
	FINISH	SCALE FULL	

ENGINEERING RESPONSIBILITY															SEPIA																																			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

C-31000-60026-1		APPROVED	DATE
SYM	REVISIONS	3/5/77	4-28-77
A	AS ISSUED		
E	DIM CHANGES: ITEM ① WAS 0362-0467 PROR 3/11/73A *R*	5/5/77	12-12-77



NOTES:
 ① STRIP WIRES .12" (1/8")
 ② STRIP WIRES .25" (1/4")

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
6	9	CABLE TIE	1400-0299		
5	3	CONNECTOR CONTACT	1251-0670		
4	1	CONNECTOR HOUSING, 3 PIN	1251-3201		
3	2	LUG, CRIMP	0362-0317		
2	2	FASTON, INSULATED	0362-0467		
1	1	TRANSFORMER	9100-3974		

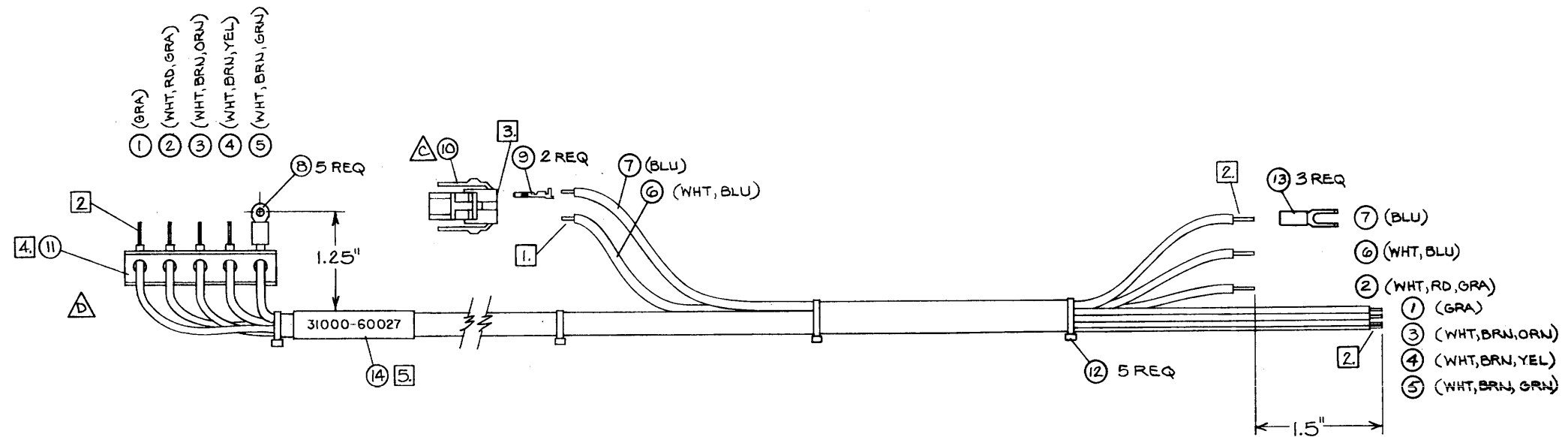
PROCESS REVIEW
 DATE 4-28-77 BY Pat Wright

DO NOT SCALE THIS DRAWING	RELEASE TO PROD.	TRANSFORMER ASSEMBLY	HEWLETT PACKARD
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		31000-60002	31000-60026
TOLERANCES .XX ± .02 .XXX ± .005	SUPERSEDES DWG.	NEXT ASSEMBLY	PART NUMBER
SEE CORP. STD. 608		FINISH	SCALE FULL
			C-31000-60026-1

REF A-Z (WIRE LIST)

ENGINEERING RESPONSIBILITY															SEPIA																																			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

		C-31000-60027-1	
SYM	REVISIONS	APPROVED	DATE
B	REDRAWN PRCR 31213A "F"	SLS/SL	12-9-78
C	ITEM 6 WAS 8150-2900 AND ITEM 10 WAS 8150-2893, ADDED ITEM 13, REDREW ITEM 10, ADDED NOTES PER PRCR "Y"	KS/SLS	2-14-78
D	CABLE REROUTED, ADDED 1.25" DIM	SLS/SLS	4-13-78



NOTES:

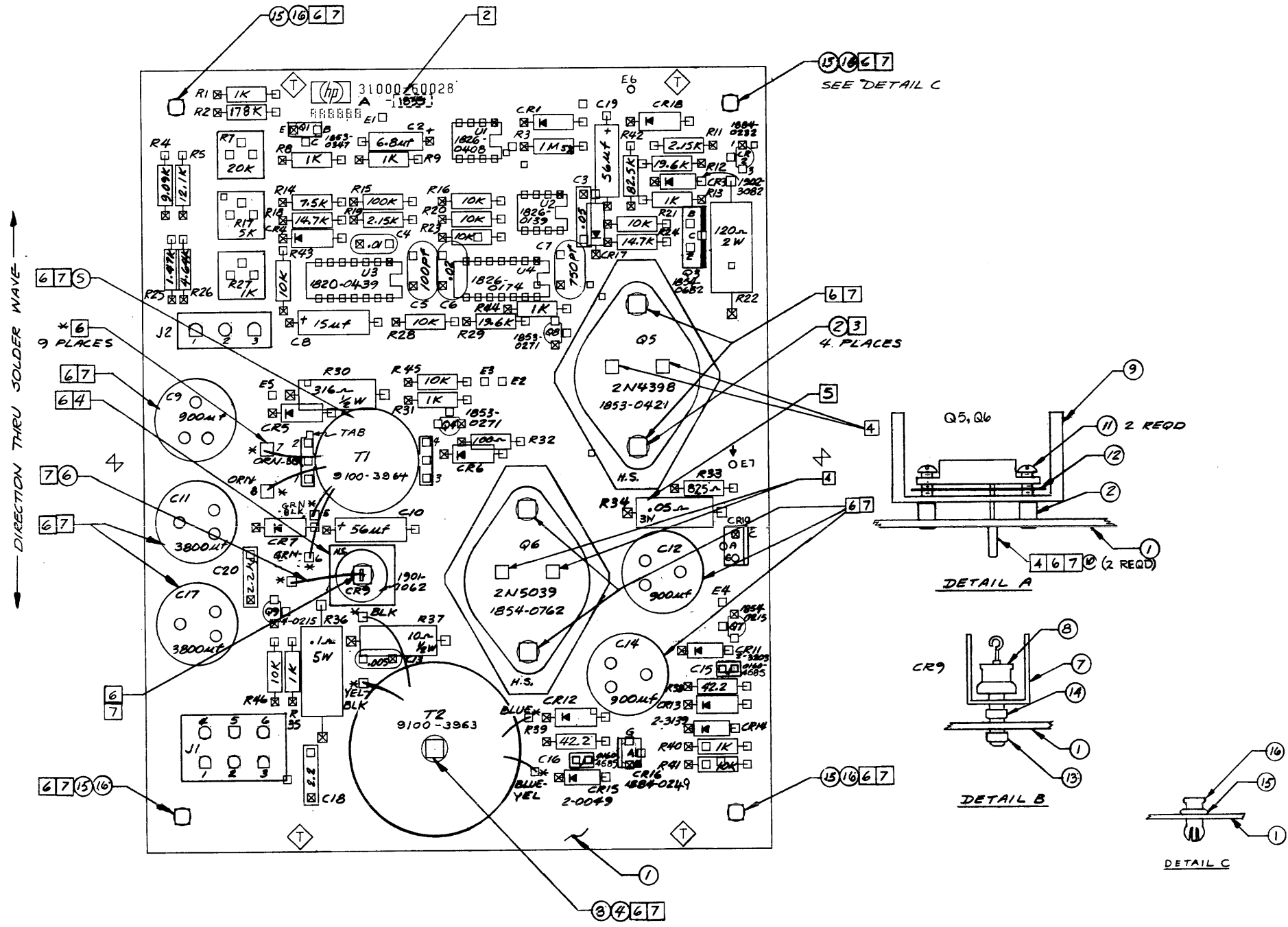
- 1. STRIP WIRE .12"
- 2. STRIP WIRE .25"
- 3. EITHER WIRE 6 OR 7 MAY GO INTO PIN 1.
- 4. CUT PERFORATED STRAP TO ~1.5" LONG (5 HOLES) AND THREAD WIRES THROUGH HOLES AS SHOWN. BE SURE TO PASS EACH COLOR WIRE THROUGH THE CORRECT HOLE.
- 5. MARK PART NUMBER (31000-60027) ONTO TUBING AND HEAT SHRINK ONTO CABLE

14	1.5"	SHRINK TUBING	0890-0291		
13	3	LUG, OPEN END, RED	0362-0317		
12	5	CABLE TIE	1400-0249		
11	1.5"	PERFORATED STRAP	1400-0882		
10	1	CONNECTOR, 2 PIN	1251-4128		
9	2	CONTACT	1251-0613		
8	5	LUGS, CLOSED END, RED	0362-0321		
7	8"	WIRE 18 GA BLU	8150-0656		
6	8"	WIRE 18 GA WHT, BLU	8150-0654		
5	19.5"	WIRE 18 GA WHT, BRN, GRN	8150-2911		
4	19.5"	WIRE 18 GA WHT, BRN, YEL	8150-2910		
3	19.5"	WIRE 18 GA WHT, BRN, ORN	8150-2909		
2	18"	WIRE 18 GA WHT, RED, GRA	8150-2652		
1	19.5"	WIRE 18 GA GRA	8150-2648		
ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.

PROCESS REVIEW
DATE 4-12-78 BY Pat Wright

DO NOT SCALE THIS DRAWING		MAIN POWER SUPPLY CABLE		HEWLETT PACKARD	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		31000-60002		31000-60027	
TOLERANCES .XX ± .02 .XXX ± .005		NEXT ASSEMBLY		PART NUMBER	
SEE CORP. STD. 608		C-1, REV A		C-31000-60027-1	
		5-18-77		SCALE FULL	
		FINISH		SHEET OF	

ENGINEERING RESPONSIBILITY												REVISIONS		DATE																																																																																						
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
												A		AS ISSUED		11-7-77																																																																																				
												B		CISICIS WERE 0160-0576 PER PRCR 31213A "N"		11-7-77																																																																																				
												C		REVISE NOTES 2 & 9; ADD NOTE 10 AND ITEM (D) PC-47-2009		K5/SC 2-15-78																																																																																				
												D		REVISE NOTES 4 & 7; DELETE NOTE 5 AND DATE CODE WAS 1720 PLAT-2019		K5/SC 11-04-78																																																																																				
												E		REVISE NOTE 1 PC-47-2093		K5/SC 6-12-78																																																																																				
												F		R33 WAS 6H/L; REVISE NOTE 5 AND DATE CODE WAS 1815 PLAT-2005		K5/SC 8-31-78																																																																																				



- NOTES:
- 1. UNLESS OTHERWISE SPECIFIED ALL RESISTORS 1/8 W 1%, ALL CAPACITANCE IN MICROFARADS, ALL DIODES ARE 1901-0028 EXCEPT CR5 & CR6 WHICH ARE 1901-1065
 - 2. MARK DATE CODE
 - 3. INSTALL ITEM (2) 4 PLACES PRIOR TO LOADING
 - 4. INSTALL, BUT DO NOT CUT ITEM (D) IN FORMING. MASK BOTTOM OF PINS. SEE DETAIL "A"
 - 5. MOUNT R34 & R36 1/8" ABOVE BOARD
 - 6. MASK AS INDICATED PRIOR TO LOADING.
 - 7. INSTALL IN TOUCH UP: CR9 PER DETAIL B, C9, C11, C17, C12, C14, ITEMS (3) & (4), (5), (6) (15) & (16), AND Q5 & Q6 PER DETAIL "A".
 - 8. DELETED
 - 9. SCHEMATIC C-31000-60028-6
 - 10. AT THE MI STATION, APPLY ITEM (D) NEAR THE HP LOGO.

OBSELETE
 DATE: SEPT 21, 1978
 PC #: 47-2071

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
17	1	LABEL WARRANTY	7120-6830		
16	4	NYLATCH PLUNGER	1340-0365		
15	4	NYLATCH GROMMET	1390-0364		
14	1	NUT 10-32	2740-0002		
13	1	NUT 10-32 W/2CR	2740-0809		
12	2	THERMAL WASHER	0340-0875		
11	4	SCREEN 6-32 X .438	2360-0119		
10	4	XSTR SOCKET	1251-2913		
9	2	HEAT SINK	1205-0289		
8	1	DIODE	1901-1062		
7	1	HEAT SINK	02100-0002		
6	1	WIRE BANG 1/2" WHT	8150-2664		
5	1	XFMR, T1	9100-3964		
4	1	XFMR, T2	9100-3963		
3	1	NUT 6-32 X .250	2420-0001		
2	4	SPACER	0380-0342		
1	1	PC BOARD, ETCHED	31000-60028		

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005

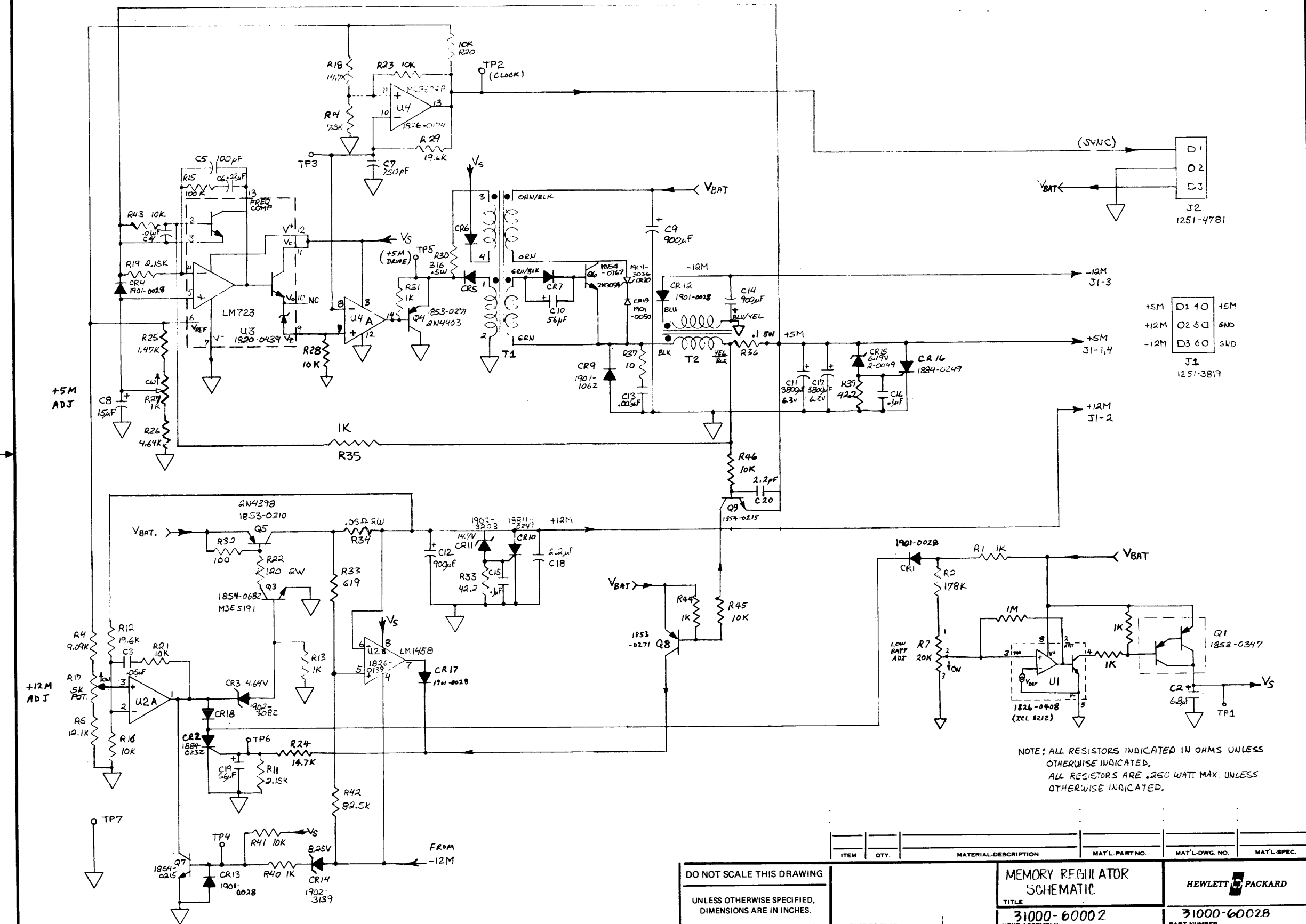
PROCESS REVIEW
 DATE 4-22-77 BY Pat Whight

MEMORY REGULATOR ASSY
 TITLE PERM PRINT
 NEXT ASSEMBLY 31000-60002
 FINISH SCALE 2-1

HEWLETT PACKARD
 PART NUMBER 31000 60028
 PART NUMBER 31000-60028-1

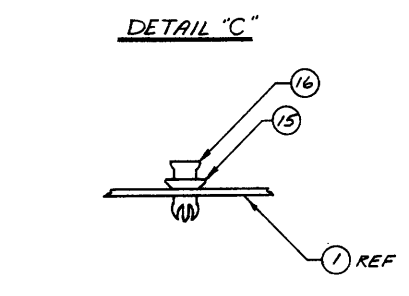
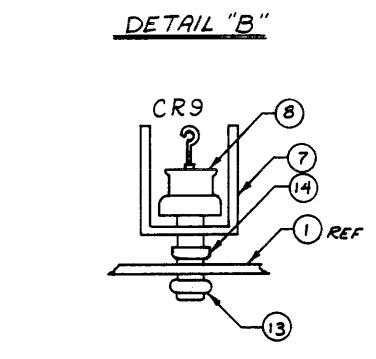
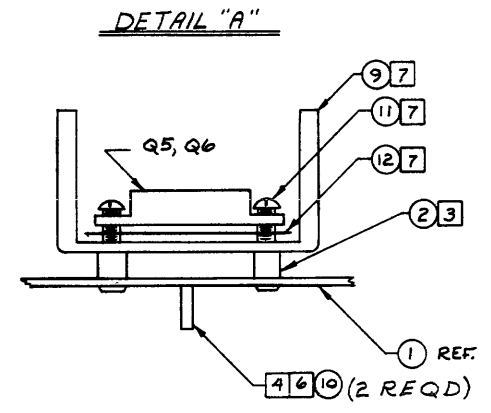
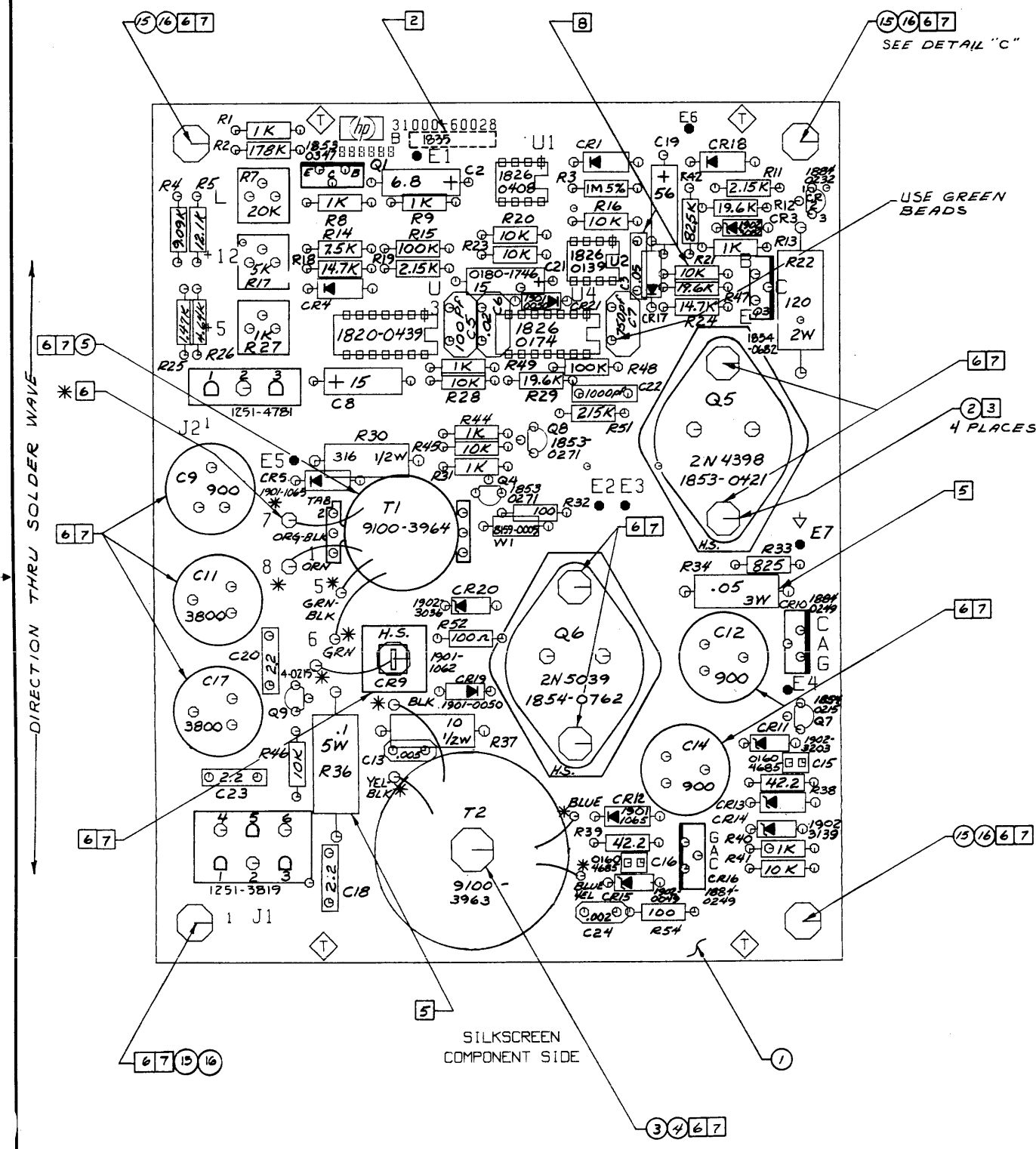
SEE CORP. STD. 608 SUPERSEDES DWG. SHEET 1 OF 1

ENGINEERING RESPONSIBILITY															SEMA															APEPTURE CU															C-31000-60028-6																																
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	SYM	REVISIONS															APPROVED	DATE																
																																																												A	AS ISSUED															A1/KO	2-16-78
																																																												B	REVISED DATE CODE WAG 1720 PLAT 20H A1B15															K5/80	18APR 78



+5M	D1 40	+5M
+12M	O2 50	6V0
-12M	D3 60	6V0
J1		
1251-3819		

DO NOT SCALE THIS DRAWING	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	TOLERANCES .XX ± .02 .XXX ± .005	SEE CORP. STD. 608		
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
MEMORY REGULATOR SCHEMATIC			HEWLETT-PACKARD		
31000-60002			31000-60028		
NEXT ASSEMBLY			PART NUMBER		
FINISH			SCALE		
RELEASE TO PROD.			C-31000-60028-6		
SUPERSEDES DWG.			SHEET 1 OF 1		



NOTES

1. UNLESS OTHERWISE SPECIFIED:
 ALL RESISTANCE IN OHMS
 ALL RESISTORS ARE 1/8 W 1%
 ALL CAPACITANCE IN MICROFARADS
 ALL DIODES ARE 1901-0028
2. MARK DATE CODE
3. INSTALL ITEM 2 4 PLACES
4. INSTALL, BUT DO NOT CUT ITEM 10 SEE DETAIL "A"
5. MOUNT R34, 3/16" ABOVE BOARD
6. MASK AS INDICATED PRIOR TO LOADING
7. INSTALL IN P.C. FINAL ASSEMBLY: CR9 PER DETAIL "B"
 CR9, C11, C12, C14, C17, ITEMS 3, 4, 5 AND 6.
8. C3 AND R21 NOT USED
9. SERIALIZE BOARD IN P.C. FINAL ASSEMBLY
10. SCHEMATIC C-31000-60028-16
11. AT THE MI STATION APPLY ITEM 7 NEAR LOGO.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG NO.	MAT'L-SPEC.
17	1	LABEL, WARRANTY	7120-6830		
16	4	NYLATCH PLUNGER	1390-0365		
15	4	NYLATCH GROMMET	1390-0366		
14	1	NUT, 10-32	2740-0002		
13	1	NUT, 10-32 W/LOCK	2740-0003		
12	2	THERMAL WASHER	0340-0875		
11	4	SCREW 6-32 X .438	2360-0119		
10	4	XSTR SOCKET	1251-2913		
9	2	HEAT SINK	1205-0289		
8	1	DIODE	1901-1062		
7	1	HEAT SINK	02108-00024		
6	1	WIRE, 18 AWG 1/2" WHITE	8150-2664		
5	1	XFMR T1	9100-3964		
4	1	XFMR T2	9100-3963		
3	1	NUT 6-32 X .250	2420-0001		
2	4	SPACER	0380-0342		
1	1	P.C. BOARD, ETCHED	31000-60028		

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
 TOLERANCES XX ± .02 .XXX ± .005

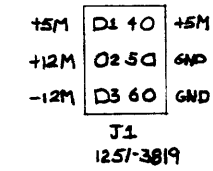
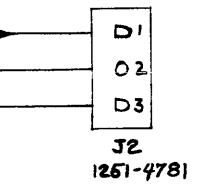
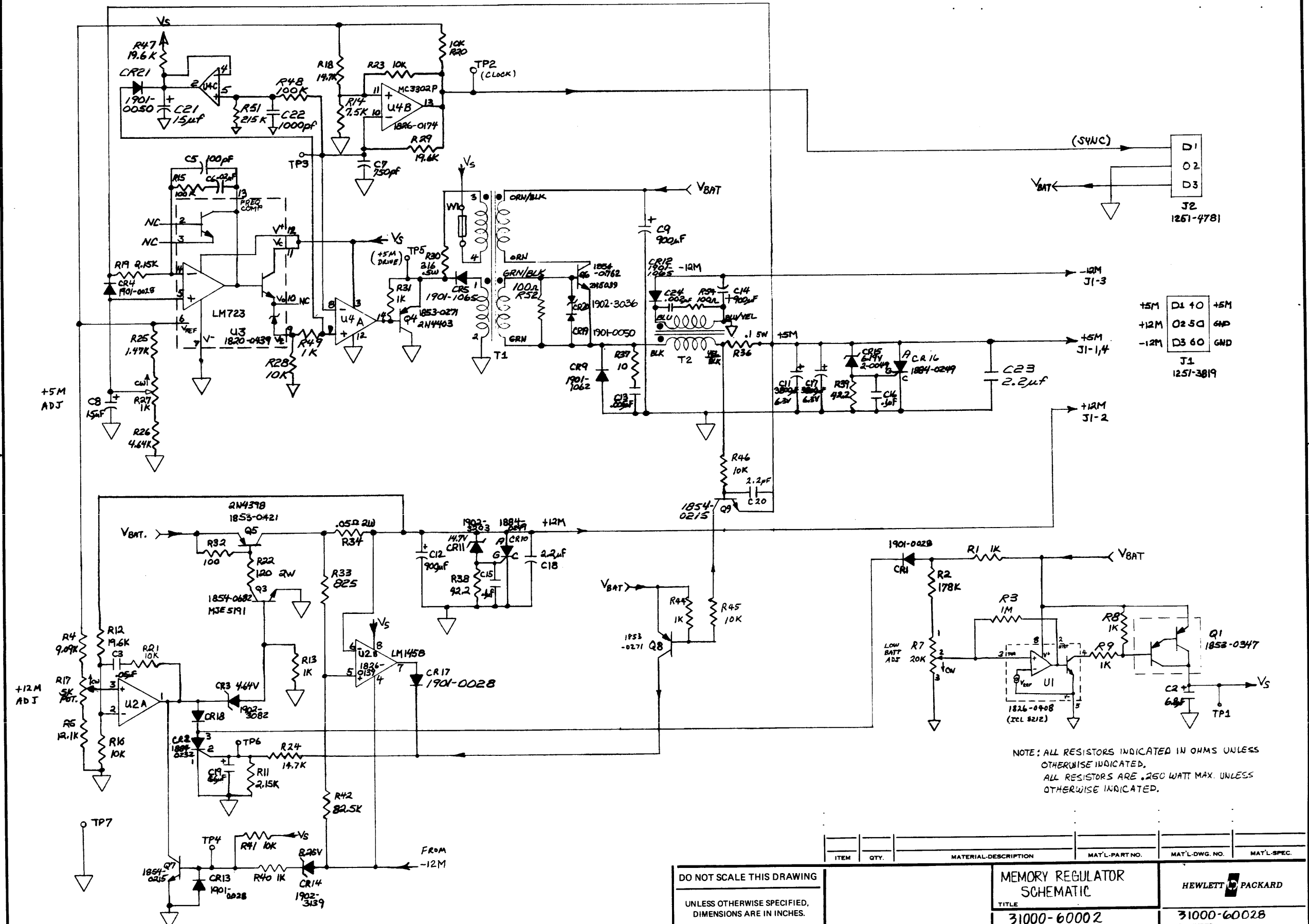
SEE CORP. STD. 808

MEMORY REGULATOR
 PERM. PRINT
 TITLE ASSEMBLY
 31000-60002
 NEXT ASSEMBLY

HEWLETT PACKARD
 31000-60028
 31000-60028-11

FINISH SCALE 2/1

SHEET 1 OF 1



NOTE: ALL RESISTORS INDICATED IN OHMS UNLESS OTHERWISE INDICATED.
ALL RESISTORS ARE .250 WATT MAX. UNLESS OTHERWISE INDICATED.

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005
SEE CORP. STD. 808

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
MEMORY REGULATOR SCHEMATIC					
TITLE			HEWLETT PACKARD		
31000-60002			31000-60028		
NEXT ASSEMBLY			PART NUMBER		
			C-31000-60028-16		
FINISH			SCALE		

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE
PCA-MEM REGULATOR		31000-60028		1 OF
DIV	LT.	PRIMARY MODEL	RELEASE DATE	REVISION DATE
47	25	F	99-09-09	78-09-22
CYCLE	DELIVER TO		POLICY	
YYYYY	H7H3b5b8		NSRM	

YIELD	STOCK	RT	FD	ITEM NO.	REFERENCE DESIGNATOR (FIRST SIX)	PARENT OPTION	PART NUMBER	COMP. OPTION	QUANTITY PER	UM	POLICY #	ISSUE	ALTERNATE DELIVER TO
				D1DIV 47									
				D2DIV 50									
				D3DATE CODE 1835									
P				CAP 2.2UF 20%			0160-0128		3				
P				D1C18,20,23									
P				CAP 1000PF 5%			0160-0938		1				
P				D1C22									
P				CAP 100PF 5%			0160-2204		1				
P				D1C5									
P				CAP 2000PF 10%			0160-3457		1				
P				D1C24									
P				CAP 5000PF 10%			0160-3458		1				
P				D1C13									
P				CAP .02UF 20%			0160-3450		1				
P				D1C6									
P				CAP .05UF-20+80%			0160-3460		1				
P				D1C3									
P				CAP 750PF 5%			0160-3538		1				
P				D1C7									
P				CAP .1UF 50V CER			0160-4685		2				
P				D1C15,16									
P				CAP 6.8UF 35V 1A			0180-0116		1				
P				D1C2									
P				CAP 56UF 6V TA			0180-0548		1				
P				D1C19									
P				CAP 15UF 20V TA			0180-1746		2				
P				D1C8,21									
P				CAP 900UF 25V AL			0180-2755		3				
P				D1C9,12,14									
P				CAP 3800UF 6.3VAL			0180-2756		2				
P				D1C11,17									
P				INSUL-XSTR TO-3			0340-0875		2				
P	NN			TERM-STUD SGL			0360-1682		7		NSRM		
P				D1E1-7									
P	RN			BTDF RVT6-32x.12			0380-0342		4		NREQ		
P	NN			RES 1M 5% .25W			0683-1055		1		NSRM		
							PART NO CONT						

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE
PCA-MEM REGULATOR		31000-60028		2 OF
DIV	LT.	PRIMARY MODEL	RELEASE DATE	REVISION DATE
47	25	F	99-09-09	78-09-22
CYCLE	DELIVER TO		POLICY	
YYYYY	H7H3b5b8		NSRM	

YIELD	STOCK	RT	FD	ITEM NO.	REFERENCE DESIGNATOR (FIRST SIX)	PARENT OPTION	PART NUMBER	COMP. OPTION	QUANTITY PER	UM	POLICY #	ISSUE	ALTERNATE DELIVER TO
							0683-1055						
				D1R3									
P				RES 2.15K 1%.125			0698-0084		2				
P				D1R11,19									
P				RES 4.64K 1%.125			0698-3155		1				
P				D1R26									
P				RES 14.7K 1%.125			0698-3156		2				
P				D1R18,24									
P				RES 19.6K 1%.125			0698-3157		3				
P				D1R12,29,47									
P				RES 178K 1%.125W			0698-3243		1				
P				D1R2									
P				RES 316 1% .5W			0698-3402		1				
P				D1R30									
P				RES 215K 1%.125W			0698-3454		1				
P				D1R51									
P				RES 120 5% 2W M0			0698-3622		1				
P				D1R22									
P				RES 1.0K 1%.125W			0757-0280		8				
P				D1R1,8,9,13,31,40,44,49									
P				RES 9.09K 1%.125			0757-0288		1				
P				D1R4									
P				RES 42.2 1%.125W			0757-0316		2				
P				D1R38,39									
P				RES 100 1% .125W			0757-0401		3				
P				D1R32,52,54									
P				RES 825 1% .125W			0757-0421		1				
P				D1R33									
P				RES 7.5K 1%.125W			0757-0440		1				
P				D1R14									
P				RES 10K 1% .125			0757-0442		8				
P				D1R16,20,21,23,28,41									
P				RES 12.1K 1%.125			0757-0444		1				
P				D1R5									
P				RES 82.5K 1%.125			0757-0463		1				
							PART NO CONT						

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE
PCA-MEM REGULATOR		31000-60028		3 OF
DIV	LT.	PRIMARY MODEL	RELEASE DATE	REVISION DATE
47	25	F	99-09-09	78-09-22
CYCLE	DELIVER TO		POLICY	
YYYYY	H7H3b5b8		NSRM	

YIELD	STOCK	RT	FD	ITEM NO.	REFERENCE DESIGNATOR (FIRST SIX)	PARENT OPTION	PART NUMBER	COMP. OPTION	QUANTITY PER	UM	POLICY #	ISSUE	ALTERNATE DELIVER TO
							0757-0463						
				D1R42									
P				RES 100K 1%.125W			0757-0465		2				
P				D1R15,48									
P				RES 10 1% .5W			0757-0984		1				
P				D1R37									
P				RES 1.47K 1%.125			0757-1094		1				
P				D1R25									
P				RES .05 10% 3W			0811-1826		1				
P				D1R34									
P				RES .1 3% 5W PV			0811-2490		1				
P				D1R36									
P				HT DIS TO-03			1205-0289		2				
P				CONNECTOR; SGL			1251-2913		4				
P				CONN UTIL 6M PC			1251-3819		1				
P				D1J1									
P				CONN UTIL 3PIN M			1251-4781		1				
P				D1J2									
P				SNAP-IN PLUNGER			1390-0365		4				
P				SNAP-IN GRIMMET			1390-0366		4				
P				IC U6E772393 S			1820-0439-47		1				
P				D1J3									
P				IC MC1458 P1 S			1826-0139-47		1				
P				D1J2									
P				IC MC3302 S			1826-0174-47		1				
P				D1J4									
P				IC L8212CPA S			1826-0408-47		1				
P				D1J1									
P				XSTR 2N4403T092S			1853-0271-47		2				
P				D1J4,8									
P				XSTR MJE700 S			1853-0347-47		1				
P				D1J1									
P				XSTR 2N4398 T03S			1853-0421-47		1				
P				D1J5									
P				XSTR 2N3904 PLS			1854-0215		2				
							PART NO CONT						

MATERIAL LIST
HEWLETT  PACKARD

DESCRIPTION		EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	OF
PCA-MEM REGULATOR		31000-60028			4	OF
DIV	REV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
47	25	F		99-09-09	78-09-22	YYYYY#7436568

YIELD	STATUS	ITEM NO	REFERENCE DESIGNATOR	PARENT OPTION	PART DESCRIPTION	PART NUMBER	COMP OPTION	QUANTITY PER	UM	POLICY	ALTERNATE DELIVER TO
		D107,9	PART NO CONT			1854-0215					
	P	D103	KSTR MJES191 S			1854-0682-47 1854-0368		1			
	P	D106	KSTR 2N5039 T038			1854-0762-47		1			
	P	D107	BCR 2N5062 S			1884-0232-47		1			
	P	D108	BCR 2N6398 S			1884-0249-47		2			
	P	D109	DIO 400V .75A			1901-0028		5			
	P	D110	DIO 75V .2A 2N9			1901-0050		2			
	P	D111	DIO 20V 25A			1901-1062		1			
	P	D112	DIO 400V 1A			1901-1065		2			
	P	D113	DIO ZNR 6.19V 5%			1902-0049		1			
	P	D114	DIO ZNR 3.16V 5%			1902-3036		1			
	P	D115	DIO ZNR 4.64V 5%			1902-3082		1			
	P	D116	DIO ZNR 8.25V 5%			1902-3139		1			
	P	D117	DIO ZNR 14.7V 5%			1902-3203		1			
	P	D118	RES TRMR 20K 10%			2100-0558		1			
	P	D119	RES TRMR 1K 10%			2100-3211		1			
	P	D120	RES TRMR 5K 10%			2100-3252		1			
	P	NN	BCR 6-32X.44 PH			2360-0119		4		NSRM	
	P	NN	NUT 6-32 W/LK			2420-0001		1		NSRM	

MATERIAL LIST
HEWLETT  PACKARD

DESCRIPTION		EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	OF
PCA-MEM REGULATOR		31000-60028			5	OF
DIV	REV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
47	25	F		99-09-09	78-09-22	YYYYY#7436568

YIELD	STATUS	ITEM NO	REFERENCE DESIGNATOR	PARENT OPTION	PART DESCRIPTION	PART NUMBER	COMP OPTION	QUANTITY PER	UM	POLICY	ALTERNATE DELIVER TO
	P	NN	NUT 10-32 .375AF			2740-0002		1		NSRM	
	P	NN	NUT 10-32 W/LK			2740-0003		1		NSRM	
	P	NN	LABEL-DATE CODE			7120-6830		1		NSRM	
	P	NN	WIRE 18 WHT			8150-2664		.15 FT		NSRM	
	P	NN	WIRE JUMPERS			8159-0005		1		NSRM	
	P	D1M1	CHOKER			9100-3963		1			
	P	D1T2	TRANSFORMER			9100-3964		1			
	F	D1T1	HEAT SINK			02108-00024		1			
	F		PCB-MEM REG			31000-80028		1			
END OF MATERIAL LIST											

ENGINEERING RESPONSIBILITY		SERIAL		REVISED		APPROVED		DATE	
0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59

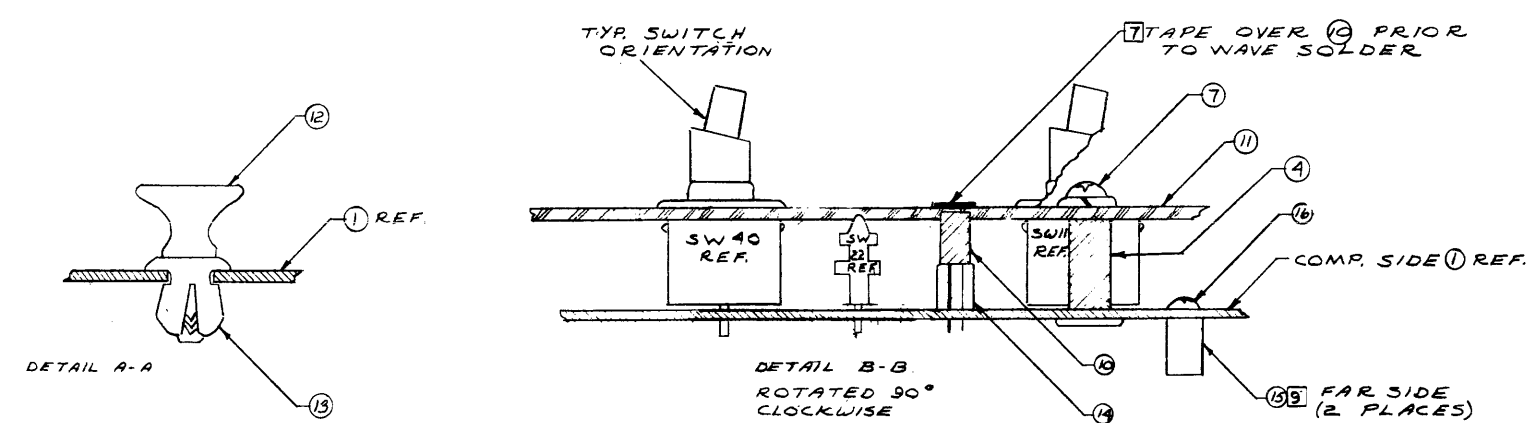
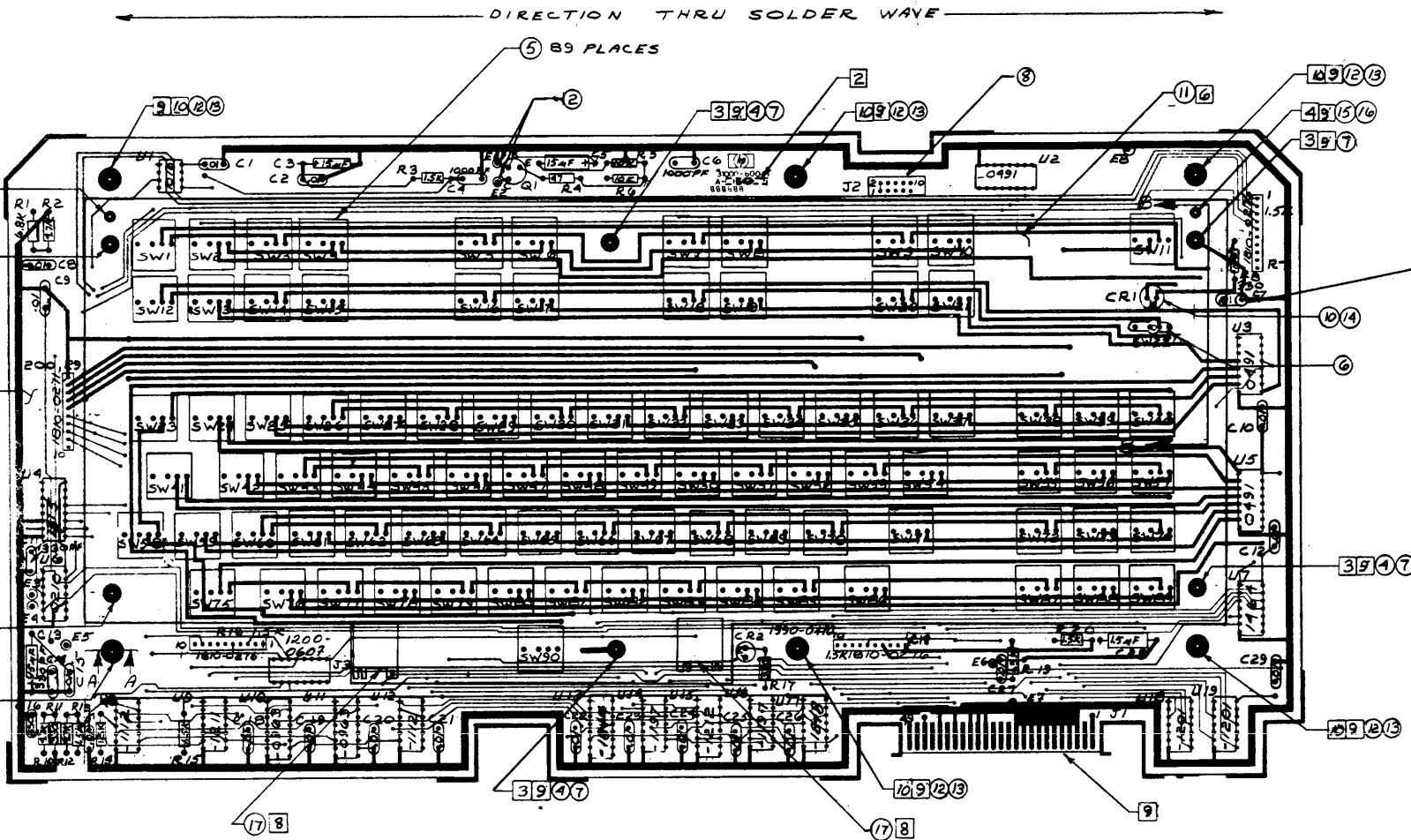
BY	REVISIONS	APPROVED	DATE
A	AS ISSUED	RES/MS	11/13/78
B	REVISE NOTES 211 ADD NOTE 121 ITEM 10 PLAT-2007	KS/MS	11/13/78
C	REVISE NOTES 211 ADD NOTE 121 ITEM 10 PLAT-2007 J51 ITEM 9 WAS 1200-0077 CRZ WAS 1770-0524 C6 VALUE WAS 10; ADD VALUE TO B; ADD 1.5K RESISTOR AT R14; ADD NOTE TO C7; REVISE CAUTION NOTE; DATE CODE WAS 1720; PLAT-2040	KS/MS	3/30/79
D	R19 WAS 350Ω IN ERROR	NB/MS	11/13/78
E	ITEM 16 WAS 2700-0137 PLAT-2067	KS/MS	8/23/78

CAUTION
DO NOT USE NORMAL WAVE SOLDER PROCEDURE, USE EOSIN FOAMING FLUX INSTEAD OF ACID FLUX. DO NOT ALLOW SOLDERED BOARD TO GO THROUGH WASHER OR BE WASHED. LEAVE FLUX RESIDUE ON BOARD.

- NOTES:**
- UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE IN OHMS
ALL RESISTORS 1/4W 5%
ALL CAPACITANCE IN MICROFARADS
ALL CAPACITORS .01 uF CERAMIC DISC
ALL I.C.'S 1820-XXXX
 - MARK DATE CODE
 - INSTALL ITEM 4 IN FORMING, RIVETING AREA
 - INSTALL SCREWS ITEM 10 INTO ITEM 3 IN TOUCHUP
 - INSTALL ITEM 2 & 13
 - INSTALL ITEM 11 USING ITEM 7
 - TAPE OVER ITEM 6
 - INSTALL ITEM 7 (2 PLACES) INTO ITEM 11
 - MASK AS INDICATED PRIOR TO SOLDER WAVE
 - INSTALL ITEMS 2, 3 & LED IN TOUCH UP AS SHOWN IN DETAIL A & B
 - SCHEMATIC D-31000-60041-6
 - AT THE MI STATION, APPLY ITEM 8 NEAR THE HP LOGO

OBSOLETE
DATE 11.13.78
PC # 47-2088

ITEM	QTY	MATERIAL DESCRIPTION	MAT. PART NO.	MAT. LONG. NO.	MAT. ORIG.
15	1	LABEL WARRANTY	7120-6830		
17	2	SPACEBAR HOUSING END	1530-1983		
16	2	SCREW 4-40 X .250	3030-0189		
15	2	SPACER 4-40	0380-0174		
14	1	RUBBER SPACER	0380-0371		
13	6	NYLON LATCH GROMMET	1390-0366		
12	6	NYLON LATCH PLUNGER	1390-0365		
11	1	SWITCH MTG. BRKT	31000-00067		
10	1	SOCKET (SK1)	1450-0528		
9	1	SOCKET (T3)	1200-0607		
8	1	CONNECTOR (T2)	1251-4797		
7	6	SCREW W/LOCK WASHER	2360-0113		
6	1	SWITCH (SW 22)	3401-2198		
5	89	SWITCH (SW 1-21, SW 23-30)	3101-2201		
4	6	STAND OFF	0380-0585		
3	6	TERMINAL (E3-E8)	0360-1632		
2	2	TERMINAL E1 & E2	0360-0124		
1	1	BOARD, ETCHED	31000-60041		



DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES

TOLERANCES X X ± .02 XXX ± .005

SEE CORP. STD. 508

PROCESS REVIEW
MAY 5-6-77 BY P. WRIGHT

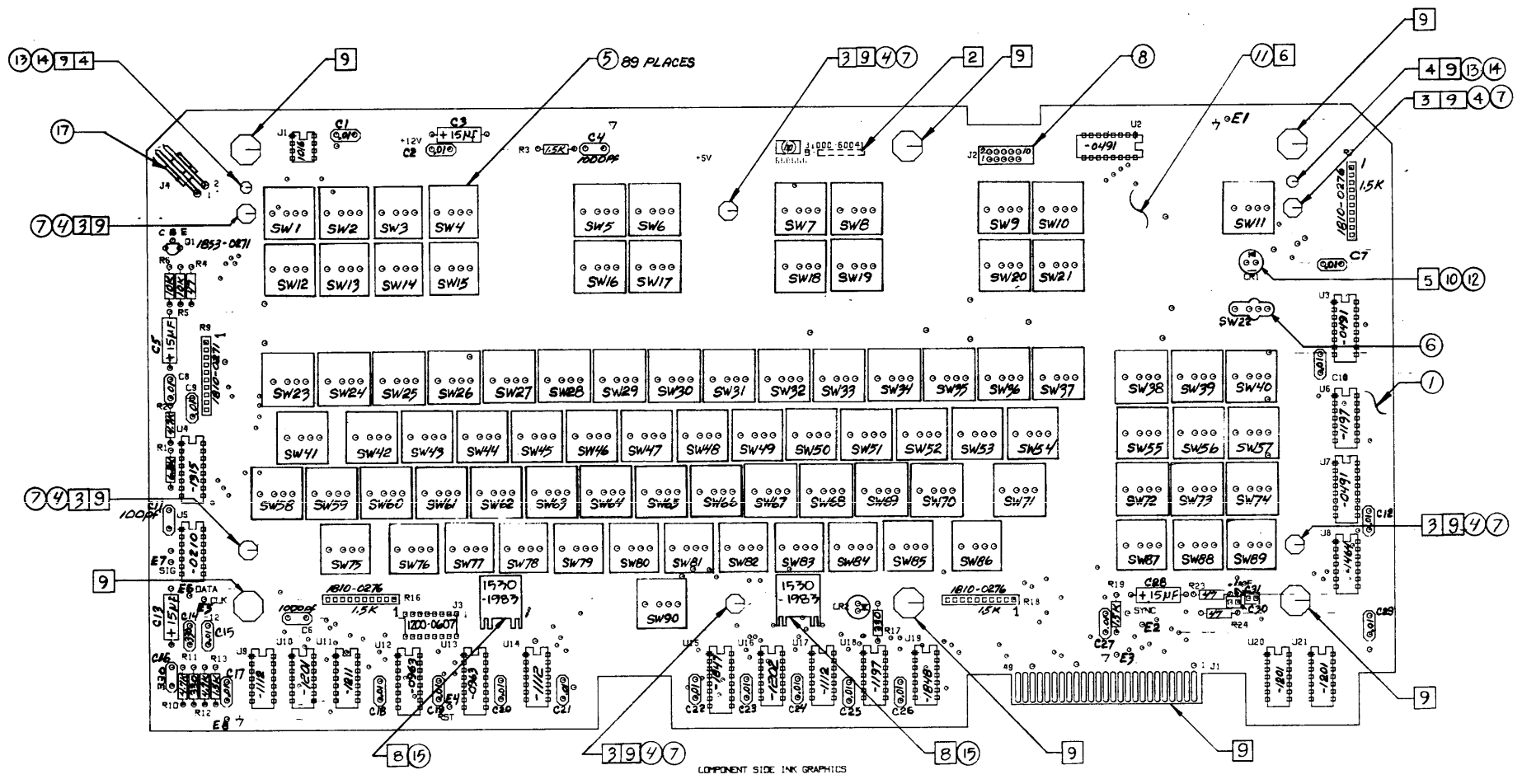
KEYBOARD PCB
TITLE: 31000-60041
NEXT ASSEMBLY: 31000-60041
FINISH: SCALE: 1/1

HEWLETT-PACKARD
31000-60041
D-31000-60041

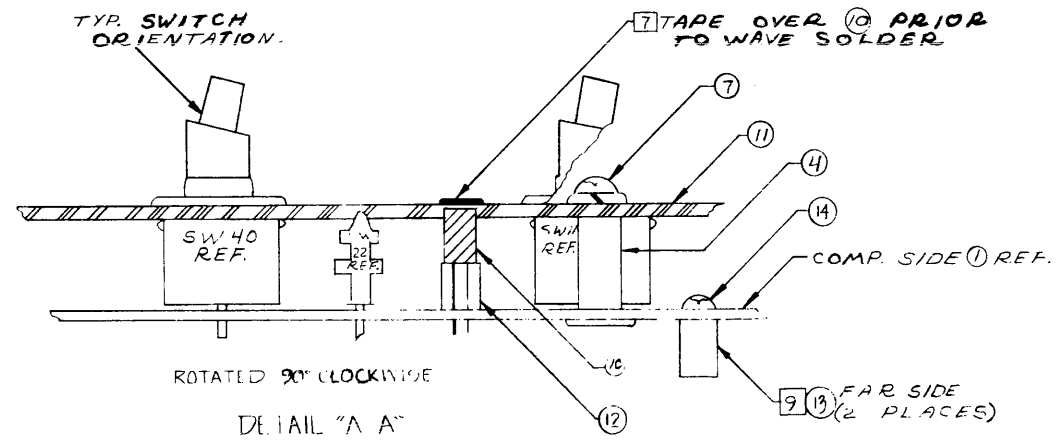
ENGINEERING RESPONSIBILITY														REVISIONS														APPROVED		DATE	
BYM														AS ISSUED														11-8-78		11-8-78	
1751-3618, ADD. NOTE 13.																															

DIRECTION THRU SOLDER WAVE

CAUTION
DO NOT USE NORMAL WAVE SOLDER PROCEDURE. USE ROSIN FOAMING FLUX INSTEAD OF ACID FLUX. DO NOT ALLOW SOLDERED BOARD TO GO THROUGH WASHER OR BE WASHED. LEAVE FLUX RESIDUE ON BOARD.



- NOTES**
- UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE IN OHMS
ALL RESISTORS 1/4 W. 5%
ALL CAPACITANCE IN MICROFARADS
ALL CAPACITORS .01µF CERAMIC DISC
ALL I.C.'S 1820-XXXX
 - MARK DATE CODE "1890"
 - INSTALL ITEM ④ IN FORMING, RIVETING AREA
 - INSTALL SCREWS ITEM ⑭ INTO ITEM ⑮ IN TOUCH-UP
 - INSTALL ITEM ⑩ AND ⑫
 - INSTALL ITEM ⑪ USING ITEM ⑦
 - TAPE OVER ITEM ⑩
 - INSTALL ITEM ⑮ (2 PLACES) INTO ITEM ⑪
 - MARK AS INDICATED PRIOR TO SOLDER WAVE
 - IN TOUCH-UP, INSTALL ITEMS AS SHOWN IN DETAIL "A-A"
 - SCHEMATIC D-31000-60041-16
 - AT THE MECHANICAL INSPECTION STATION, APPLY ITEM ⑮ NEAR THE HP LOGO
 - SEE MODIFICATION DWGS: C-14 & C-15



ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO	MAT'L DWG NO	MAT'L SPEC
17	1	CONNECTOR J4	1751-4795		
16	1	LABEL-WARRANTY	7120-6830		
15	2	SPACEBAR HOUSING END	1530-1983		
14	2	SCREW 4.40 X .25	3030-0189		
13	2	SPACER 4.40	0380-0371		
12	1	RUBBER SPACER	0380-0371		
11	1	SWITCH MOUNTING BKT	31000-00067		
10	1	SOCKET SK1	1450-0528		
9	1	SOCKET J3	1200-0607		
8	1	CONNECTOR J2	1251-4797		
7	6	SCREW N/LOCKWASHER	2360-0113		
6	1	SWITCH SW22	3101-2198		
5	69	SWITCH (SW1-21, SW23-30)	3101-2201		
4	6	STANDOFF RIVET	0380-0585		
3	8	TERMINAL TUL 1-8	0360-1682		
2	1	SELECTED			
1	1	W/ARK-ETCHED	31000-60041		

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES .XX - .02 XXX - .005

SEE CORP STD 608

KEYBOARD ASSY
TITLE
31000-60004
NEXT ASSEMBLY

HEWLETT PACKARD
PERM. PRINT
31000-60041
PART NUMBER
D-31000-60041-11
FINISH
SCALE //

11-8-78 Redwmp

MATERIAL LIST
HEWLETT PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE 1 OF
PCA-KEYBOARD		11000-60041		
DATE	RELEASE DATE	REVISION DATE	CYCLE	DELIVER TO
47	99-09-09	79-01-04	YYYYY	4736568

YIELD	STATUS	ITEM NO.	REFERENCE DESIGNATOR (FIRST SIX)	PART DESCRIPTION	PARENT OPTION	PART NUMBER	COMP. OPTION	QUANTITY PER	UM	POLICY #	ISSUE	ALTERNATE DELIVER TO
		010V50		DATE CODE 1850								
P				CAP .01UF 100V C		0160-2055	U	20				
		01C1,2,7-10,12,15,217-27,29										
P		01C11		CAP 100PF 5%		0160-2204	U	1				
P		01C4,6		CAP 1000PF 10%		0160-3456	U	2				
P		01C14,16		CAP 330PF 10%		0160-3572	U	2				
P		01C30,31		CAP .1UF 50V CER		0160-4685	U	2				
P		01C3,5,13,28		CAP 15UF 20V TA		0180-1746	U	4				
P	NN	01E1-8		TERM-STUD SGL		0360-1682	U	8			NSRM	
P	NN			STDF RND4-40X.25		0380-0174	U	2			NSRM	
P	NN			SPCR #6X.38 FBK		0380-0371	U	1			NSRM	
P	NN			STDF RVTa-32X.53		0380-0585	U	6			NSRM	
P	NN	01R5,6		RES 10K 5% .25W		0683-1035	U	2			NSRM	
P	NN	01R3,13,19		RES 1500 5% .25W		0683-1525	U	3			NSRM	
P		01R11,17		RES 330 5% .25W		0683-3315	U	2				
P		01R4,23,24		RES 47 5% .25W		0683-4705	U	3				
P		01R2,10,12		RES 4700 5% .25W		0683-4725	U	3				
P		01R1		RES 0.8K 5% .25W		0683-0625	U	1				
P		01J3		SKT 16DIP DS		1200-0607	U	1				
P		01J4		CONN POST 2M RA		1251-4795	U	1				

MATERIAL LIST
HEWLETT PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE 2 OF
PCA-KEYBOARD		11000-60041		
DATE	RELEASE DATE	REVISION DATE	CYCLE	DELIVER TO
47	99-09-09	79-01-04	YYYYY	4736568

YIELD	STATUS	ITEM NO.	REFERENCE DESIGNATOR (FIRST SIX)	PART DESCRIPTION	PARENT OPTION	PART NUMBER	COMP. OPTION	QUANTITY PER	UM	POLICY #	ISSUE	ALTERNATE DELIVER TO
P		01J2		CONN HDR 2X5 .10		1251-4797	U	1				
P		01SK1		SKT-LAMP B1PIN		1450-0528	U	1				
P				HOUSING END		1530-1983	U	2				
P		01R9		RES NET 9X200		1810-0271	U	1				
P		01R7,16,18		RES NET 9X1.5K		1810-0276	U	3				
P		01U2,3,7		IC SN74145N S		1820-0491-47	U	3				
P		01U12,13		IC CD4031AE S		1820-0963-47	U	2				
P		01U1		IC SN754538P S		1820-1016-47	U	1				
P		01U9,14,17		IC SN74LS74N S		1820-1112-47	U	3				
P		01U6,18		IC SN74LS00N S		1820-1197-47	U	2				
P		01U10,20,21		IC SN74LS08N S		1820-1201-47	U	3				
P		01U16		IC SN74LS10N S		1820-1202-47	U	1				
P		01U11		IC SN74LS86N S		1820-1211-47	U	1				
P		01U4		IC CD40518E S		1820-1315-47	U	1				
P		01U8		IC SN74393N S		1820-1464-47	U	1				
P		01U15		IC SN74LS138N HS		1820-1847-47	U	1				
P		01U19		IC SN74LS04N HVS		1820-1848-47	U	1				
P		01U5		IC LM361 CMPTR		1826-0210	U	1				
P				ASTR 2N4403T92S		1853-0271-47	U	1				PART NO CONT

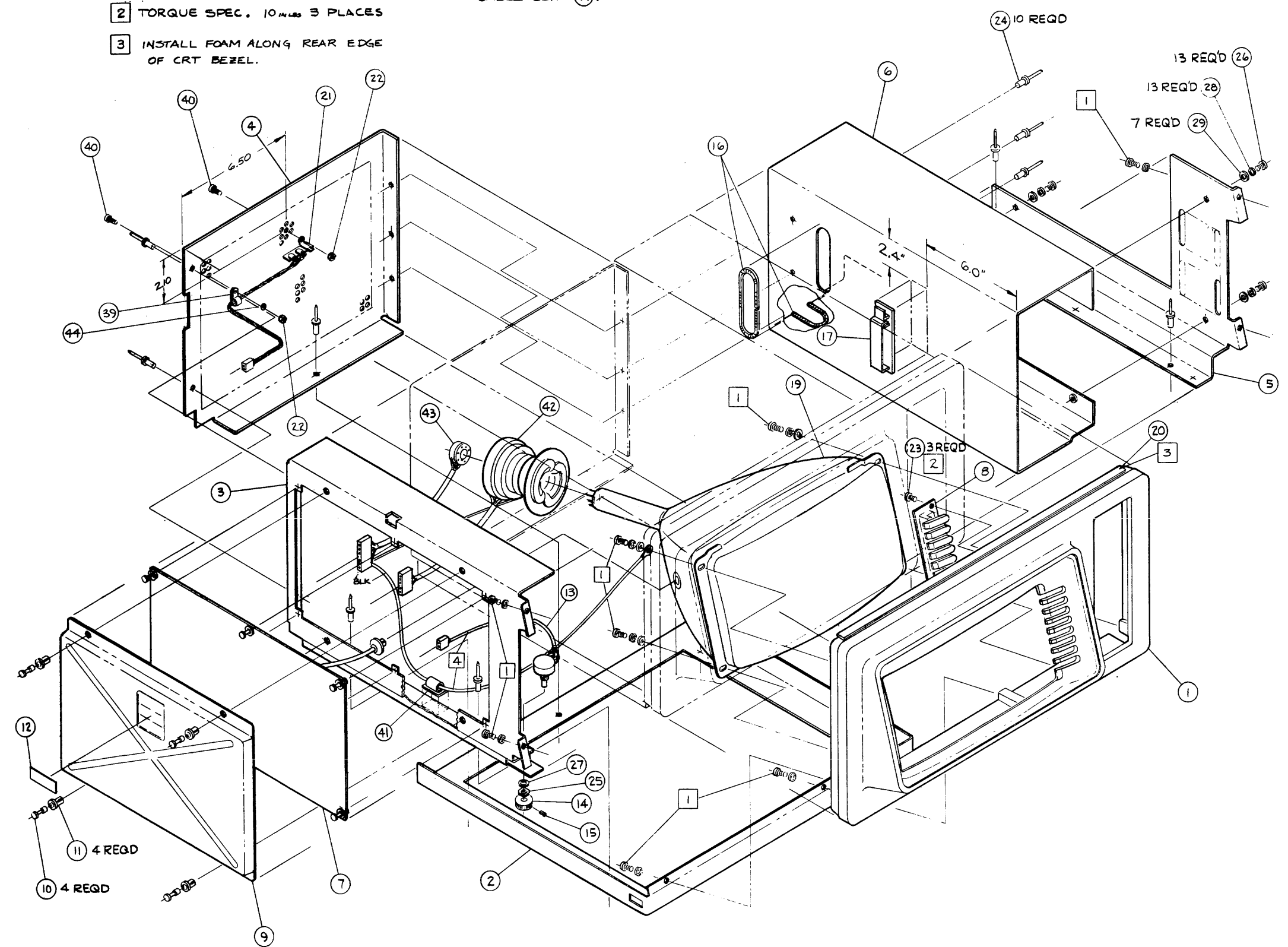
MATERIAL LIST
HEWLETT PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE 3 OF
PCA-KEYBOARD		11000-60041		
DATE	RELEASE DATE	REVISION DATE	CYCLE	DELIVER TO
47	99-09-09	79-01-04	YYYYY	4736568

YIELD	STATUS	ITEM NO.	REFERENCE DESIGNATOR (FIRST SIX)	PART DESCRIPTION	PARENT OPTION	PART NUMBER	COMP. OPTION	QUANTITY PER	UM	POLICY #	ISSUE	ALTERNATE DELIVER TO
		01Q1		PART NO CONT		1853-0271-47						
P		01CR2		LED RED T1.75		1990-0410	U	1				
P	NN			SCR 6-32X.25 PH		2360-0113	U	6			NSRM	
P	NN			SCR CAP 4-40X.25		3030-0189	U	2			NSRM	
P		01SW22		SW KYBD CORE		3101-219A	U	1				
P		01SW1-21,23-90		SWITCH		3101-2201	U	89				
P	NN			LABEL-DATE CODE		7120-6830	U	1			NSRM	
F				SKT-SWITCH MTG		31000-00067	W	1				
F				PCB-KEYBOARD		31000-80041	W	1				
END OF MATERIAL LIST												

NOTES:

- * QTY / ASSY OF MAGNETS UNKNOWN
- 1 TORQUE SPEC. 18 IN LBS 10 PLACES
- 2 TORQUE SPEC. 10 IN LBS 3 PLACES
- 3 INSTALL FOAM ALONG REAR EDGE OF CRT BEZEL.
- 4 ROUTE THESE WIRES THROUGH CABLE CLIP (41).



ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG NO.	MAT'L-SPEC.
44	1	WASHER-FLAT #6	3050-0228		
43	1	ASSY-CRT SOCKET CABLE	31000-60041		
42	1	ASSY-DEFLECTION YOKE CABLE	31000-60046		
41	1	CABLE CLIP	1400-0757		
40	2	SCREW/LOCK #32 X .38L	2360-0117		
39	1	CABLE CLAMP	1400-0082		
38	*	MAGNET	9160-0257		
37	*	MAGNET	9160-0256		
36	*	MAGNET	9160-0255		
35	*	MAGNET	9160-0254		
34	*	MAGNET	9160-0253		
33	*	MAGNET	9160-0252		
32	*	MAGNET	9160-0251		
31	*	MAGNET	9160-0250		
30	*	MAGNET	9160-0249		
29	7	WASHER-FLAT #8	3050-0139		
28	13	WASHER-LOCK #8	2190-0017		
27	1	WASHER-INT LOCK #3/8	2190-0016		
26	13	SCREW-POZ #8-32 X .315L	2510-0103		
25	1	NUT-HEX #3/8-24	2950-0001		
24	10	RIVET-BLIND	0361-1011		
23	3	SCREW-TAPPING #6 X 3/8	0624-0045		
22	2	NUT-HEX #6-32	2420-0001		
21	1	ASSY-THERMISTOR CABLE	31000-60050		
20	18.5"	STRIP-FOAM	0460-1204		
19	1	CATHODE RAY TUBE	2090-0028		
18	A/R	ZAP-ADHESIVE TYPE	0470-0010		
17	1	CLIP-FLAT CABLE	1400-0694		
16	11"	GROMMET-CHANNEL	0400-0133		
15	1	SCREW-SET	3050-0430		
14	1	KNOB-BRIGHTNESS CONT	31000-20002		
13	1	ASSY-BRIGHTNESS CONT CBL	31000-60045		
12	1	LABEL-HI VOLTAGE	7120-4626		
11	4	SNAP-IN GROMMET 1/4	1390-0366		
10	4	SNAP-IN PLUNGER 1/4	1390-0365		
9	1	SHIELD-SWEEP BD	4040-1179		
8	1	ASSY-SOFT KEY	31000-60048		
7	1	ASSY-SWEEP	31000-60044		
6	1	SHIELD-FLOPPY DISC	31000-00010		
5	1	BRACKET-FX/BEZEL	31000-00009		
4	1	BRACKET-LAT.SUPPORT	31000-00008		
3	1	BRACKET-SWEEP MTG	31000-00007		
2	1	SPACER-DISPLAY TOP	31000-00074		
1	1	BEZEL-CRT	31000-40004		

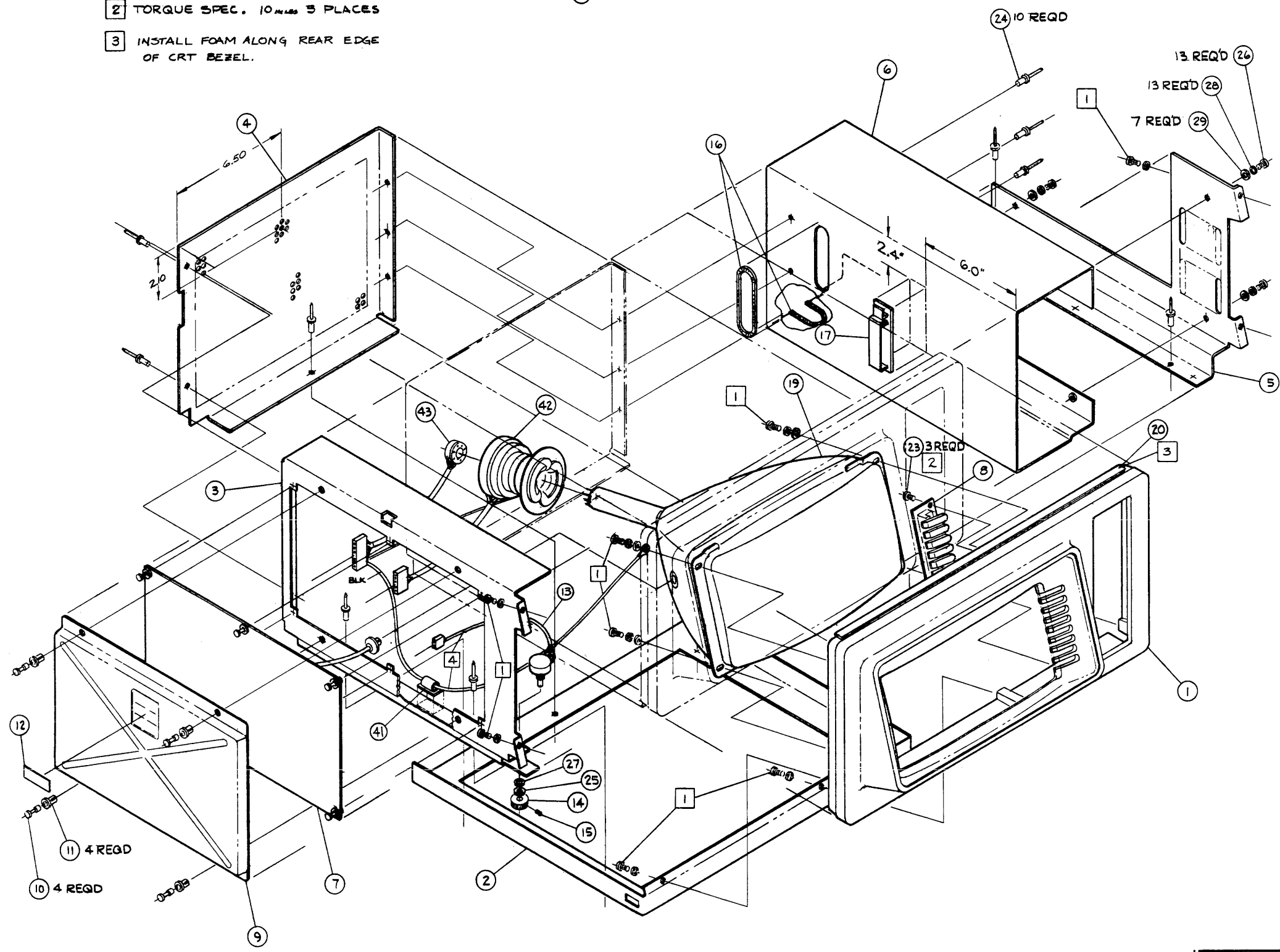
DO NOT SCALE THIS DRAWING		MONITOR ASSY		HEWLETT PACKARD	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TITLE		PART NUMBER	
TOLERANCES .XX ± .02 .XXX ± .005		NEXT ASSEMBLY 31213 A		31000-60043	
SEE CORP. STD. 608		FINISH		D-31000-60043-1	
SUPERSEDES DWG.		SCALE		SHEET 1 OF 1	

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44			

REV	DESCRIPTION	APPROVED	DATE
A	AS ISSUED		
B	REVISED PROC 31213A *F*		
C	ITEM 4 WAS 31000-00008 PC47-2039		
D	ITEM 15 WAS 3030-0430 PC47-2072		
E	DEL ITEMS 21,22,33,40 & 44 PC47-2100		

NOTES:

- * QTY / ASSY OF MAGNETS UNKNOWN
- 1 TORQUE SPEC. 18 IN-LBS 10 PLACES
- 2 TORQUE SPEC. 10 IN-LBS 3 PLACES
- 3 INSTALL FOAM ALONG REAR EDGE OF CRT BEZEL.
- 4 ROUTE THESE WIRES THROUGH CABLE CLIP (41).



ITEM	QTY	MATERIAL-DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
44		DELETED			
43	1	ASSY - CRT SOCKET CABLE	31000-60047		
42	1	ASSY - DEFLECTION YOKE CABLE	31000-60046		
41	1	CABLE CLIP	1400-0757		
40		DELETED			
39		DELETED			
38	*	MAGNET	9160-0257		
37	*	MAGNET	9160-0256		
36	*	MAGNET	9160-0255		
35	*	MAGNET	9160-0254		
34	*	MAGNET	9160-0253		
33	*	MAGNET	9160-0252		
32	*	MAGNET	9160-0251		
31	*	MAGNET	9160-0250		
30	*	MAGNET	9160-0249		
29	7	WASHER - FLAT # 8	3050-0139		
28	13	WASHER - LOCK # 8	2190-0017		
27	1	WASHER - INT LOCK # 3/8	2190-0016		
26	13	SCREW - POZ # 8-32 X .515L	2510-0103		
25	1	NUT - HEX # 3/8 - 24	2950-0001		
24	10	RIVET - BLIND	0361-1011		
23	3	SCREW - TAPPING # 6 X 3/8	0624-0045		
22		DELETED			
21		DELETED			
20	18.5"	STRIP - FOAM	0460-11204		
19	1	CATHODE RAY TUBE	2090-0028		
18	A/R	ZAP - ADHESIVE TYPE	0470-0010		
17	1	CLIP - FLAT CABLE	1400-0694		
16	11"	GROMMET - CHANNEL	0400-0185		
15	1	SCREW - SET	3030-0197		
14	1	KNOB - BRIGHTNESS CONT	31000-20002		
13	1	ASSY - BRIGHTNESS CONT CBL	31000-60045		
12	1	LABEL - HI VOLTAGE	7120-4626		
11	4	SNAP-IN GROMMET 1/4	1390-0366		
10	4	SNAP-IN PLUNGER 1/4	1390-0365		
9	1	SHIELD - SWEEP BD	4040-1179		
8	1	ASSY - SOFT KEY	31000-60048		
7	1	ASSY - SWEEP	31000-60044		
6	1	SHIELD - FLOPPY DISC	31000-00010		
5	1	BRACKET - FK/BEZEL	31000-00009		
4	1	BRACKET - LAT. SUPPORT	31000-00108		
3	1	BRACKET - SWEEP MTG	31000-00007		
2	1	SPACER - DISPLAY TOP	31000-00074		
1	1	BEZEL - CRT	31000-40004		

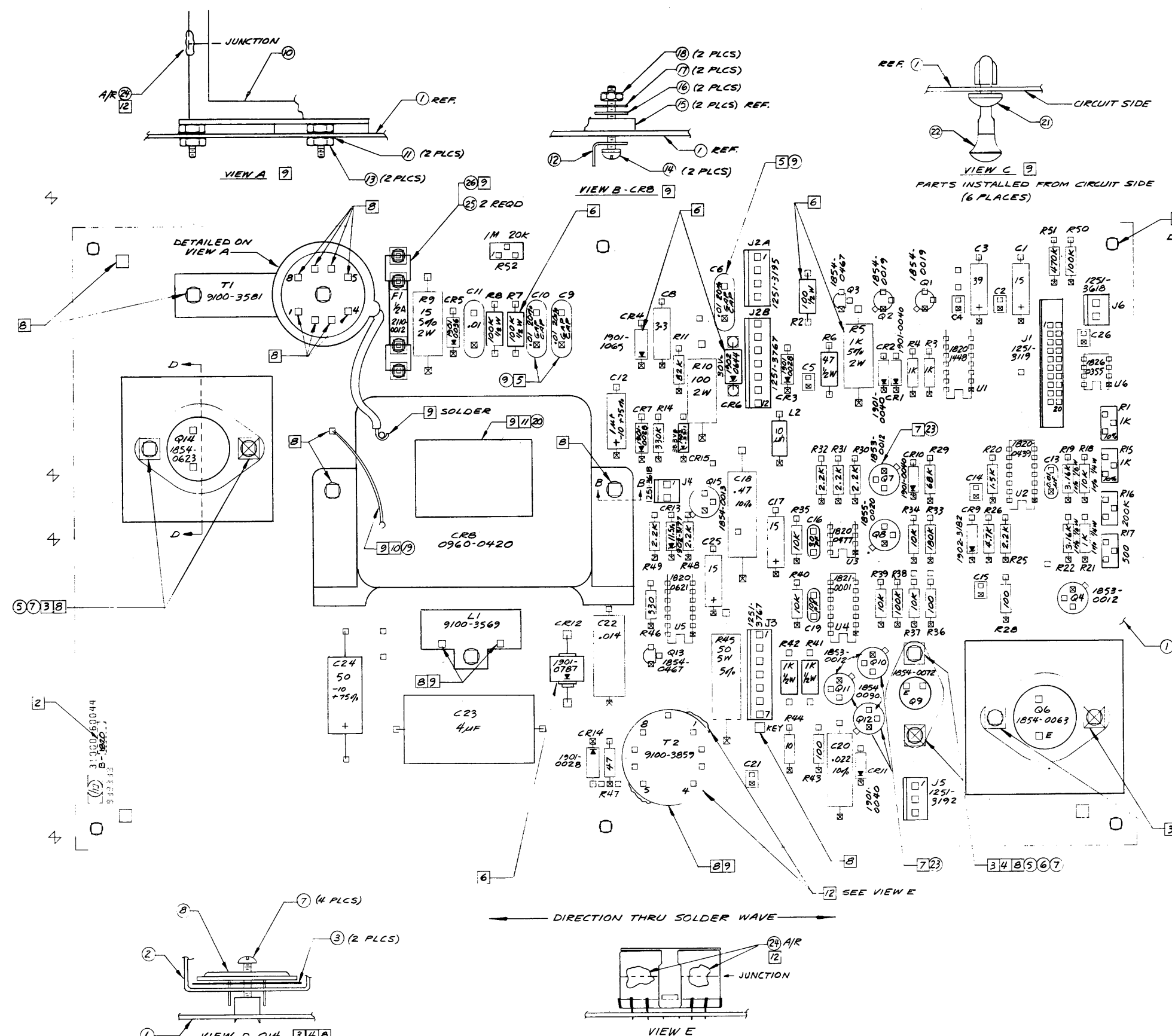
DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES: .XX ± .02, .XXX ± .005

SEE COMP. STD. 808

MONITOR ASSY PERM. PRINT
TITLE: 31213 A
PART NUMBER: 31000-60045
SCALE: 1:1

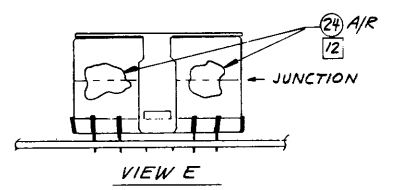
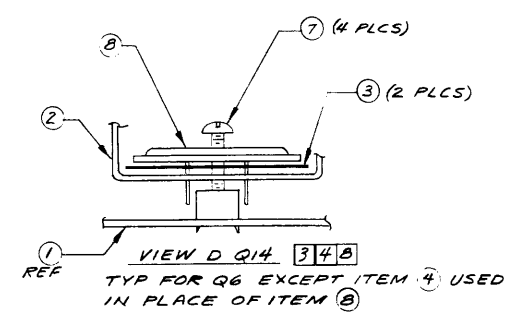
HEWLETT PACKARD
31000-60045-1
SHEET 7 OF 7

REV	DATE	BY	CHKD
1	12-21-78	RESNAVIN	WEL/MS
2	12-21-78	RESNAVIN	WEL/MS
3	12-21-78	RESNAVIN	WEL/MS
4	12-21-78	RESNAVIN	WEL/MS



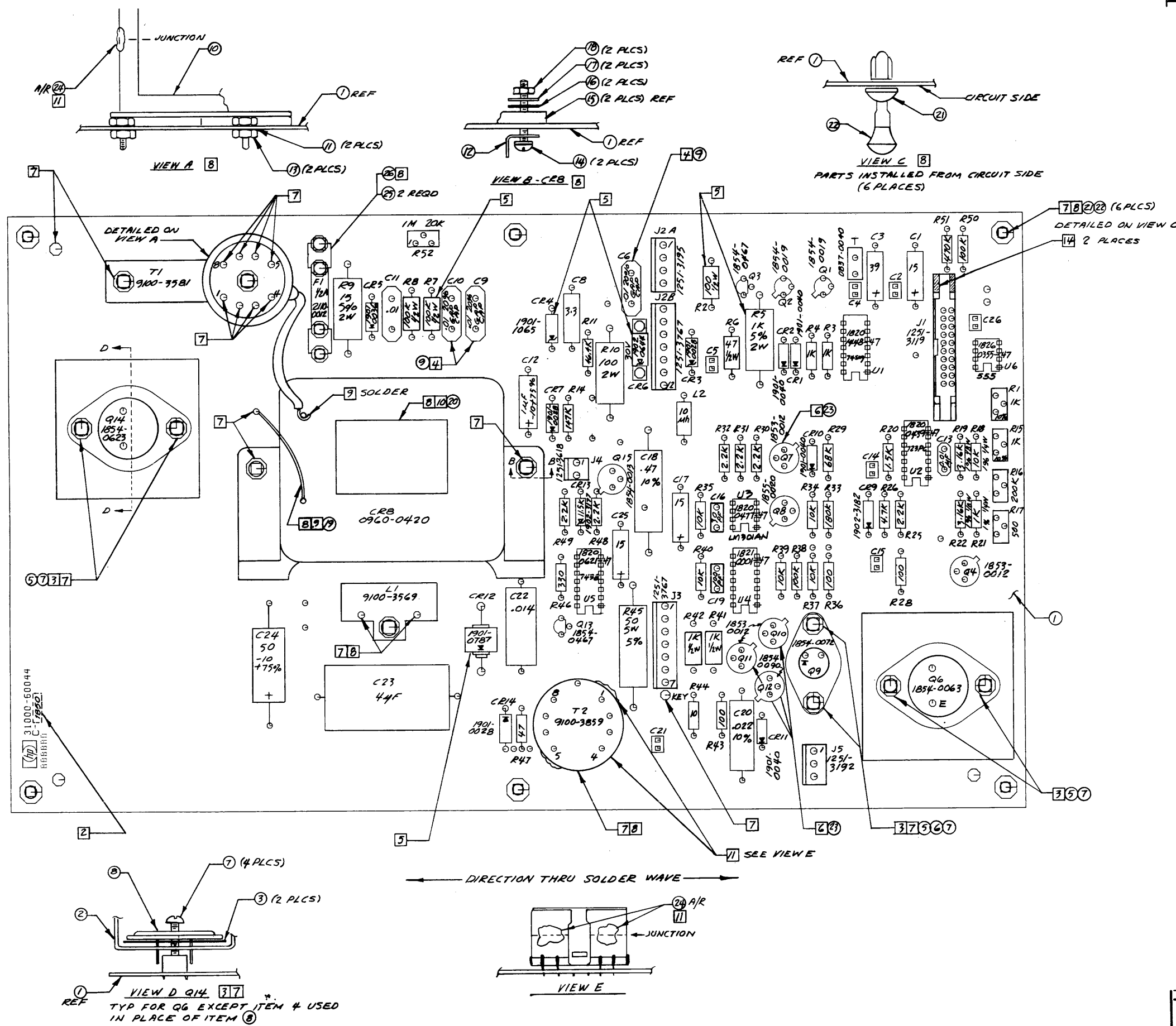
- NOTES:**
- UNLESS OTHERWISE SPECIFIED ALL RESISTANCE IN OHMS, ALL RESISTORS 1/4W, 5%, ALL CAPACITANCE IN MICROFARADS, ALL CAPACITORS ARE .1uF.
 - MARK DATE CODE.
 - INSTALL ITEM (5) (6 PLACES) (SWAGING)
 - DELETED
 - LOAD C6, C9 & C10 USING ITEM (9).
 - LOAD R2, R5, R7, CR4, CR6, & CR12 SO BODY IS .062" (1.5MM, 1/16") OFF P.C. BD. SURFACE.
 - LOAD Q4, Q7, Q8, Q10, Q11 & Q12 USING ITEM (23) IF LEADS ARE NOT CRIMPED.
 - MASK AS INDICATED PRIOR TO WAVE SOLDERING.
 - INSTALL ITEMS (10) THRU (22), (26), L1, T2 & T1 WIRE IN PC FINAL ASSY.
 - STRIP BACK EACH END OF ITEM (19) .5" (12.7MM).
 - PLACE HV LABEL (20) ON TOP SURFACE AND ON CIRCUIT SIDE OF BOARD IN SAME AREA.
 - APPLY ITEM (24) AS SHOWN TO OUTSIDE JUNCTIONS OF T1 & T2 TRANSFORMER SECTIONS AS SHOWN IN VIEWS A & E. (ELIMINATES AUDIBLE NOISE @ APPROX. 11KHZ).
 - SERIALIZE BD. IN PC FINAL ASSY.
 - AT THE MI STATION, APPLY ITEM (21) NEAR THE HP LOGO.
 - SCHEMATIC D-31000-60044-16.

27	1	LABEL	7120-6830
26	1	FUSE 1/2A F1	2110-0112
25	2	CLIP FUSE	2110-0269
24	AIR RTV 112	0470-0409	
23	B	PAD-WNT	1200-0185
22	6	SNAP-IN PLUNGER	1390-0365
21	6	SNAP-IN GRONMET	1390-0366
20	2	LABEL HIGH VOLTAGE	7120-0137
19	2	WIRE 22 BLK	8150-1540
18	2	NUT 6-32 .312AF	2420-0002
17	2	LK WSHR 6HEL	2190-0006
16	2	WSHR #6 BRS	3050-0066
15	1	TRIPLER CRB	0960-0420
14	2	SCR #6-32 X.500L	2360-0201
13	2	NUT 4-40 .250AF	2260-0001
12	1	SOLDER LUG #6	0360-0042
11	2	LK WSHR 4HEL	2190-0003
10	1	XFORMER FLYBACK T1	9100-3581
9	6	INDIAN BEADS	4330-0145
8	1	XSTR T03 Q14	1854-0623
7	6	SCR #6-3 .375LG	2360-0117
6	1	XSTR T066 Q9	1854-0072
5	6	SPCR TAB #6X.125	0380-0342
4	1	XSTR T03 Q6	1854-0063
3	2	INSUL-XSTR	0340-0583
2	2	HEAT SINK FOR T03	1205-0256
1	1	PC BD. ETCHED	31000-60044



DO NOT SCALE THIS DRAWING	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES .010 X .005 X .005	ITEM	QTY	MATERIAL DESCRIPTION	MATL PART NO	MATL DWG NO	MATL SPEC
IDC SWEEP ASSY		TITLE		HEWLETT-PACKARD		DATE	
31000-60043		31000-60044		31000-60044		REV A	
F-1 REV A 11778		SCALE		F-31000-60044-11		SHEET 1 OF 1	

31000-60044		REV. 1	
DATE	ISSUED	BY	CHKD
12-17-78	AC 47-2062	MM	MM
ALL WIRING SHALL BE PERFORMED IN ACCORDANCE WITH THE CIRCUITRY AND PARTS LISTED HEREON.			
ADD T1 (0997-0040) REL. 36 (1251-3416) AND DATE CODE WMS 1040 PLAT. 5100			



- NOTE:
- UNLESS OTHERWISE SPECIFIED ALL RESISTANCE IN OHMS, ALL RESISTORS 1/4W, 5% ALL CAPACITANCE IN MICROFARADS ALL CAPACITORS ARE .1uF.
 - MARK DATE CODE
 - INSTALL ITEM 5 6 PLACES (SWAGING)
 - LOAD C6, C9 & C10 USING ITEM 9
 - LOAD R2, R5, R7, CR4, CR6, & CR12 SO BODY IS .062" (1.5MM, 1/16") OFF P.C. BD. SURFACE
 - LOAD Q4, Q7, Q8, Q10, Q11 & Q12 USING ITEM 23 IF LEADS ARE NOT CRIMPED
 - MASK AS INDICATED PRIOR TO WAVE SOLDERING.
 - INSTALL ITEMS 10 THRU 22 26 LITZ & T WIRE IN PC FINAL ASSY
 - STRIP BACK EACH END OF ITEM 19 .5" (12.7MM).
 - PLACE HV LABEL 20 ON TOP SURFACE AND ON CIRCUIT SIDE OF BOARD IN SAME AREA.
 - APPLY ITEM 24 AS SHOWN TO OUTSIDE JUNCTIONS OF T1 & T2 TRANSFORMER SECTIONS AS SHOWN IN VIEWS A & E (ELIMINATES AUDIBLE NOISE @ APPROX. 11KHZ).
 - SERIALIZE BD. IN PC FINAL ASSY
 - AT THE MI STATION APPLY ITEM 21 NEAR THE HP LOGO.
 - COLOR THIS SURFACE USING INDELIBLE RED FELT TIP MARKER EAGLE NR8824 OR EQUIVALENT
 - SCHEMATIC D-31000-60044-26

QTY	DESCRIPTION	PART NO.	REV.
27	1 LABEL	7120-6830	
26	1 FUSE 1/4R F1	2110-0012	
25	2 CLIP, FUSE	2110-0269	
24	2 R/R PTV 1/2	0420-0409	
23	8 PAD-WHT	1820-0183	
22	6 SHRA IN PLUNGER	1790-0365	
21	6 SHRA IN GROMMET	1790-0364	
20	2 LABEL HIGH VOLTAGE	7120-0137	
19	2 WIRE 22 AWG	5120-1540	
18	2 NUT 6-32 3/16 F	2420-0002	
17	2 LK WSHR 6 HEL	2190-0006	
16	2 WNSR #6 BES	2050-0066	
15	1 TRIPLER CRB	0960-0420	
14	2 SCR #6 32X.500 L	2360-0201	
13	2 NUT 4-40 .250 AF	2260-0001	
12	1 SOLDER LUG #6	0360-0042	
11	2 LK WASHR 4 HEL	2190-0007	
10	1 XFORMER FLYBACK T1	9100-3581	
9	6 INDIAN BEADS	4330-0045	
8	1 XSTR T03 Q14	1854-0623	
7	6 SCR #6-3 .375 LG	2360-0117	
6	1 XSTR T066 Q9	1854-0072	
5	6 SPCR TAB #EX.185	0380-0142	
4	1 XSTR T03 Q6	1854-0067	
3	2 INSUL-XSTR	0340-0583	
2	2 HEAT SINK FOR T03	1205-0254	
1	1 PC BOARD ETCHED	31000-60044	

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: .125 & .0625 & .03125

SCALE: 2:1

100% SWEET PERM. PRINT

TITLE: 31000-60044

DATE: 12-17-78

SCALE: 2:1

NEWLETT & PACKARD

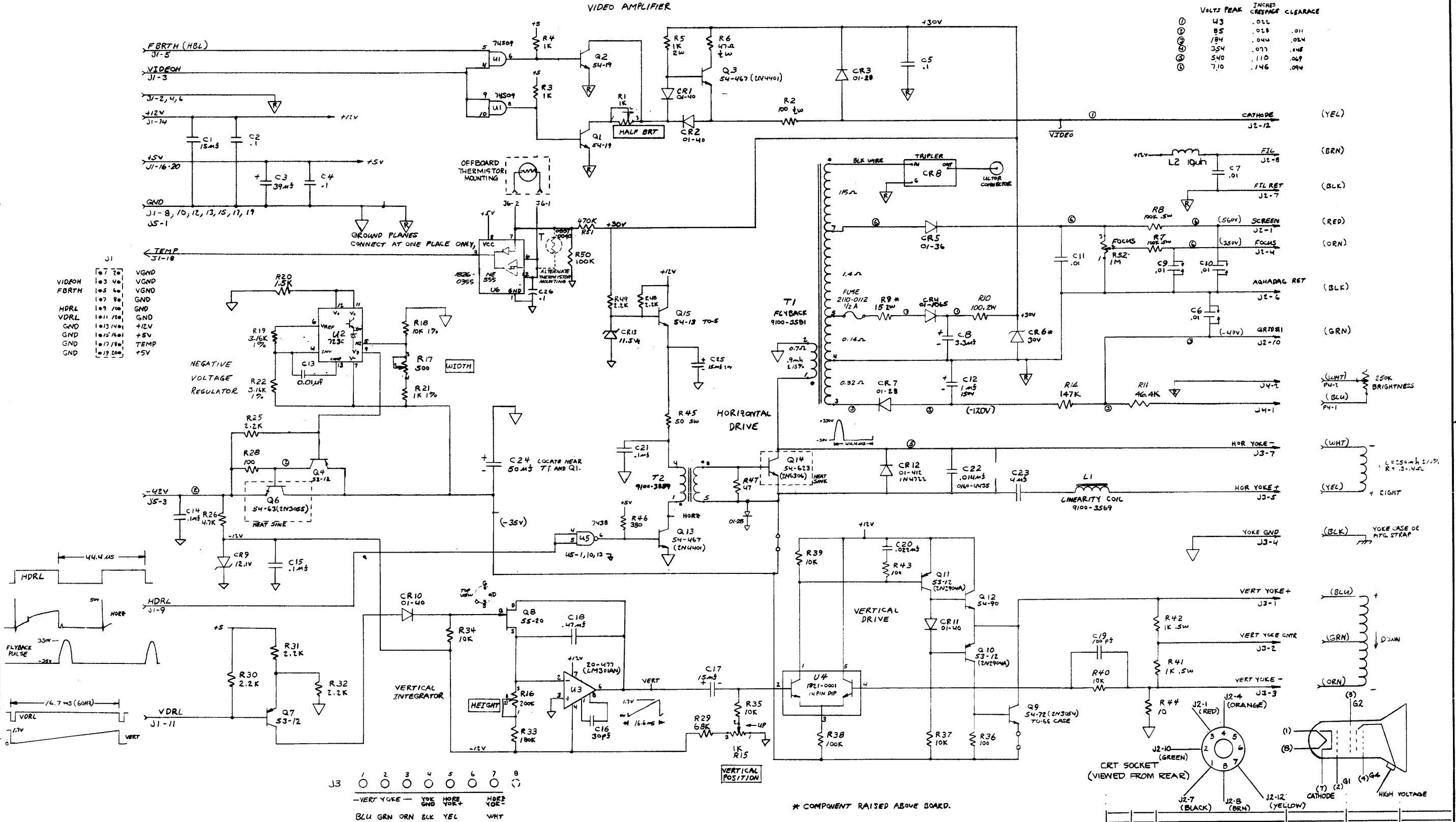
31000-60044

F. 31000-60044-26

NOTES: 1. ASSEMBLIES WITH DATE CODE C1850 OR LATER HAVE THERMISTOR MOUNTED ON BOARD IN THE "ALTERNATE THERMISTOR MOUNTING" POSITION. CONNECTOR J6 IS NO LONGER AVAILABLE FOR CONNECTING TO EXTERNAL LOCATION.

ENGINEERING RESPONSIBILITY										REVISIONS									
AS ISSUED PC47-2062										C1830 NM/CP									
REVISED DATE CODE W49 1830 REAT-2078 C1840										K9									
ADD 0837-0040 NOTE 1 R47-2100 C1850										K5									

VOLTS PEAK	INCHES CREEPING	CLEARANCE
① 43	.011	
② 85	.018	.011
③ 184	.044	.054
④ 354	.077	.148
⑤ 540	.110	.069
⑥ 710	.146	.094



J2	J3A	J3B
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12

J3	J4	J5
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8

* COMPONENT RAISED ABOVE BOARD.

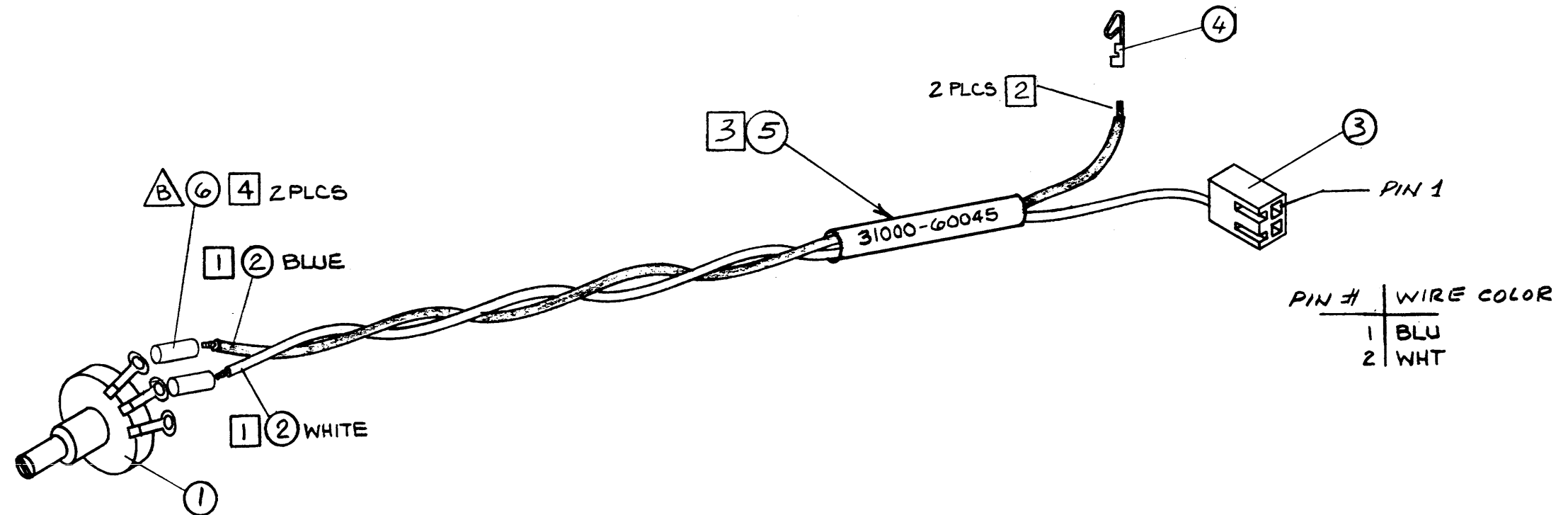
FOR ALL SMALL TRANSISTORS, ALLOW SPACE FOR TO-5 CASES.

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .08 .XXX ± .008					
IDC SWEEP SCHEMATIC					
31000-60043			31000-60044		
HEWLETT-PACKARD			HEWLETT-PACKARD		
SUPERSEDES DWG.			SCALE		

ENGINEERING RESPONSIBILITY <input checked="" type="checkbox"/>													SEPIA <input checked="" type="checkbox"/>		
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47

B-31000 - 60045-1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	<i>[Signature]</i>	4.13.77
B	ADD ITEM ⑥; NOTE ④; ITEM ② QTY WAS 2; PRCR 31213A "R"	<i>[Signature]</i>	11.29.77



NOTES:

- ① STRIP WIRES .250 FOLD OVER & SOLDER
- ② STRIP WIRES .125 & CRIMP CONTACTS.
- ③ MARK 31000-60045 ON TUBING AND AFFIX TO CABLE.
- ④ SHRINK 1/2 OF ITEM ⑥ OVER EACH SOLDER CONNECTION.

⑥	1"	SHRINK TUBING, CLEAR	0890-0870		
⑤	1.5"	TUBING-BLACK .187" DIA	0890-0029		
④	2	CONTACT	1251-0670		
③	1	CONNECTOR 2 PINS	1251-3613		
②	1 FT	WIRE 22 GA. BLU/WHT. TWISTED	B120-2518		
①	1	POTENTIOMETER (250KΩ)	2100-0823		
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 608

PROCESS REVIEW

3-21-77 BY *Pat Wright*

CABLE BRIGHTNESS CONTROL

ENGINEER

TITLE

31000-60043

RELEASE TO PROD.

NEXT ASSEMBLY

FINISH - SCALE -

HEWLETT PACKARD

31000-60045

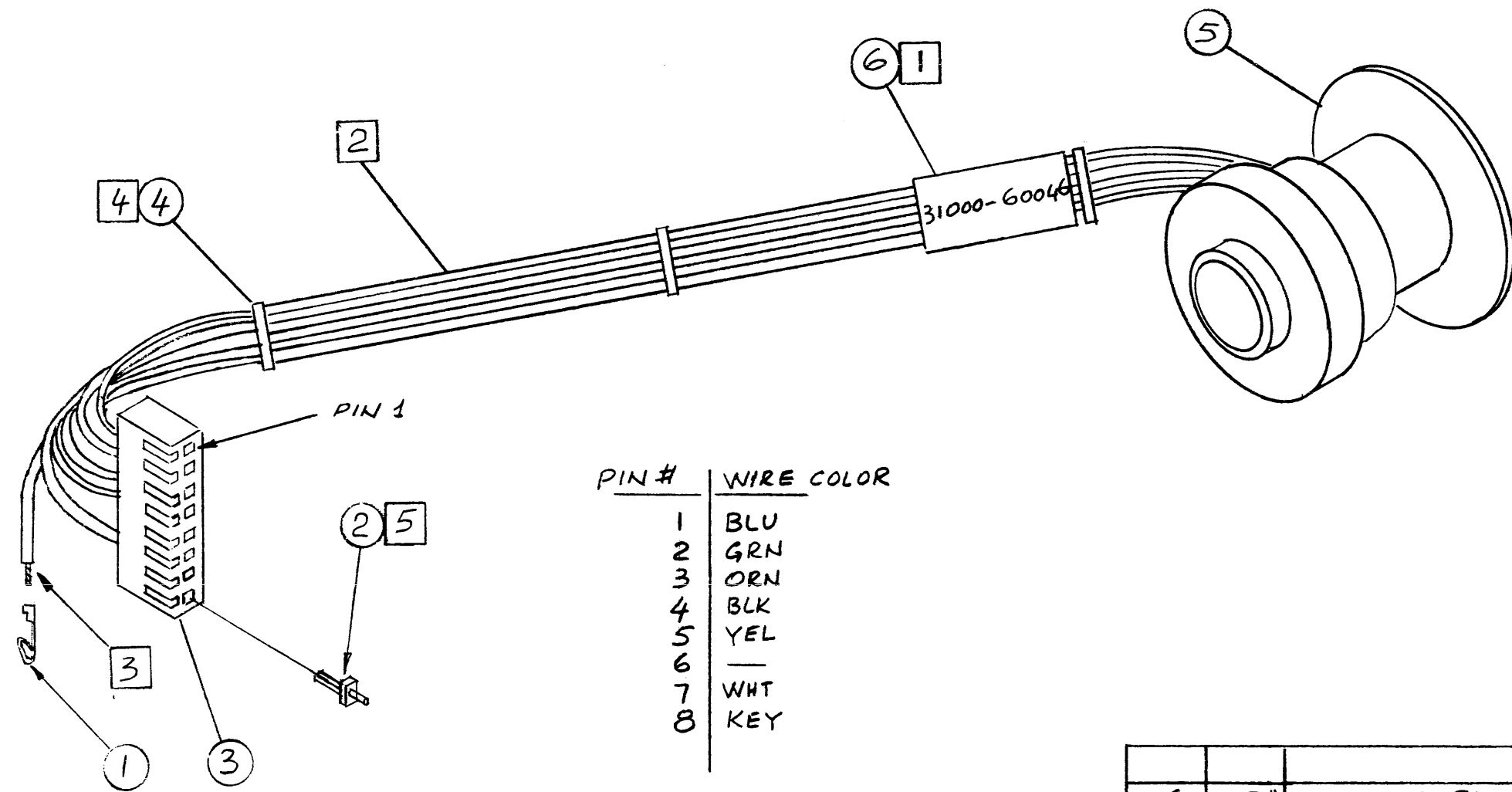
PART NUMBER

B-31000-60045-1

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16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47

B-31000-60046-1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	<i>[Signature]</i>	3-21-77
B	ITEM 6 WAS 0890-0273; REVISE NOTE 2 PRCR 31213A'R	<i>[Signature]</i>	11-29-77



- 1 MARK 31000-60046 ON TUBING & AFFIX TO CABLE
- 2 CUT WIRES 7" FROM EDGE OF YOKE.
- 3 STRIP WIRE .125 & CRIMP CONTACTS.
- 4 TIE WRAP 3 PLACES EVENLY SPACED.
- 5 INSERT POLARIZING KEY INTO PIN 8 OF CONNECTOR.

PIN #	WIRE COLOR
1	BLU
2	GRN
3	ORN
4	BLK
5	YEL
6	—
7	WHT
8	KEY

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
6	1	TUBING-BLACK .500 DIA	0890-0291		
5	1	DEFLECTION YOKE	9100-3580		
4	3	TIE WRAPS	1400-0249		
3	1	CONNECTOR (8 PIN)	1251-3278		
2	1	POLARIZING KEY	1251-3753		
1	6	CONTACT	1251-0670		

PROCESS REVIEW
 DATE 3-21-77 BY *Pat Wright*

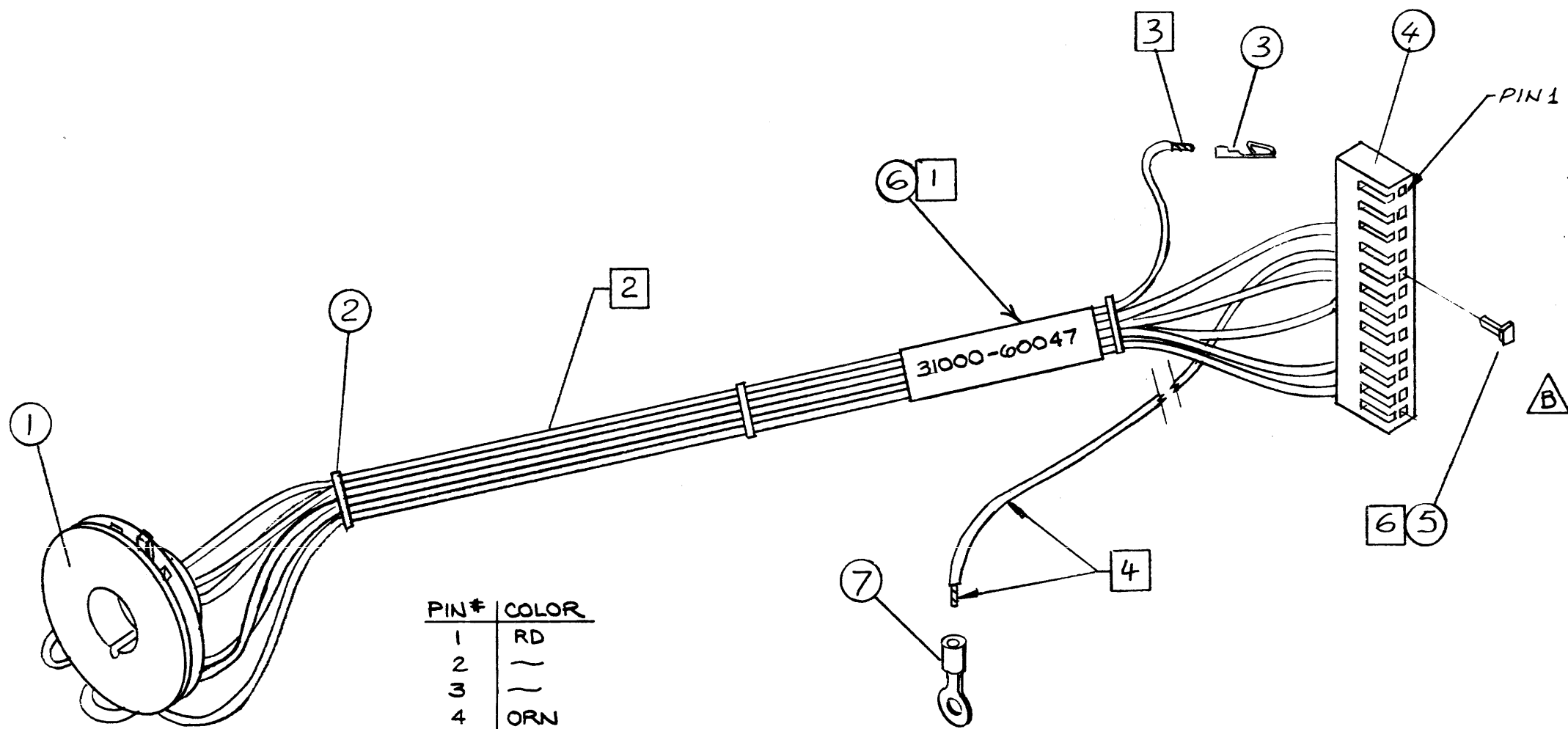
DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005
 SEE CORP. STD. 608

ENGINEER <i>[Signature]</i>	TITLE DEFLECTION YOKE CABLE
RELEASE TO PROD.	NEXT ASSEMBLY 31000-60043
SUPERSEDES DWG.	FINISH — SCALE —

HEWLETT PACKARD
PART NUMBER 31000-60046
B-31000-60046-1

ENGINEERING RESPONSIBILITY												SEPIA						
0	1	2	3	4	6	8	9	11	12	14	15							
16	17		19		21	22	23	25	29	30	32	33	38	43				
45	46	61	63		47A													

SYM		REVISIONS	APPROVED	DATE
A		AS ISSUED	<i>S/S/GE</i>	3-21-77
B		ITEM @ WAS 0890-0273; REVISE NOTE A] PRGR 31213A "R"	<i>S/S/GE</i>	11-29-77



NOTES:

1. MARK 31000-60047 ON TUBING & AFFIX TO CABLE
2. CUT WIRES 13" LONG
3. STRIP WIRE .125 & CRIMP CONTACTS
- △ 4. CUT REMAINING BLK WIRE 21" STRIP .250 CRIMP CONTACT AND INSERT INTO PIN 6 OF ④.
5. TIE WRAP 3 PLCS EVENLY SPACED.
6. INSERT POLARIZING KEY INTO PINS OF CONNECTOR.

PIN #	COLOR
1	RD
2	-
3	-
4	ORN
5	KEY
6	BLK ④ △
7	BLK
8	BRN
9	-
10	GRN
11	-
12	YEL

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
7	1	LUG (RED)	0362-0319		
6	1.5"	TUBING BLACK .500 DIA	0890-0291		
5	1	POLARIZING KEY	1251-0627		
4	1	CONNECTOR (12 PIN)	1251-3279		
3	7	CONTACT	1251-0670		
2	3	TIE WRAP	1400-0249		
1	1	CRT SOCKET CABLE	1200-0543		

PROCESS REVIEW
 DATE 3-21-77 BY *Pat Wright*

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005
 SEE CORP. STD. 608

ENGINEER /
 RELEASE TO PROD.
 SUPERSEDES DWG.

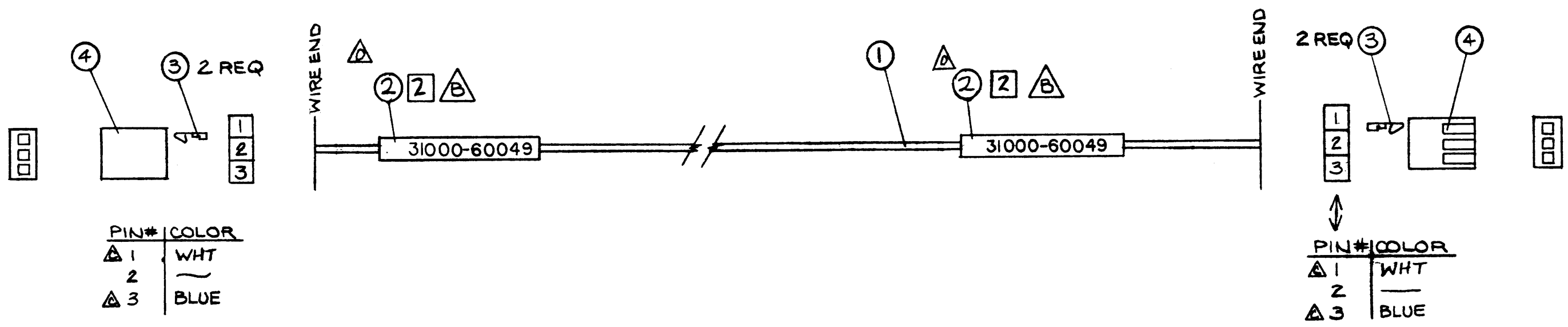
CRT SOCKET CABLE
 TITLE
 31000-60043
 NEXT ASSEMBLY
 FINISH - SCALE -

HEWLETT PACKARD
 31000-60047
 PART NUMBER
 B-31000-60047-1
 SHEET 1 OF 1

ENGINEER		RESPONSIBILITY		SEPIA											
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47

B-31000 - 49 - 1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED	HS	4-19-77
B	REVISED PRCR 31213A "F"	3DB	1-7-78
C	REVISED COLORS FOR PINS 1, 3 AND ITEM 1 WAS 8120-2691 PC47-2065	KS	8-31-78
D	REFERENCE ② WAS MISLABELLED	NB	1-8-79



NOTES:

1. STRIP ALL WIRE .125"
2. CUT TUBING INTO 2 1.5" LENGTHS. MARK PART NUMBER ON EACH AND SHRINK ONTO EACH END OF CABLE.

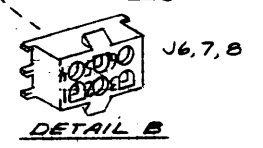
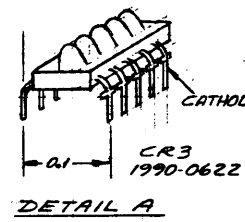
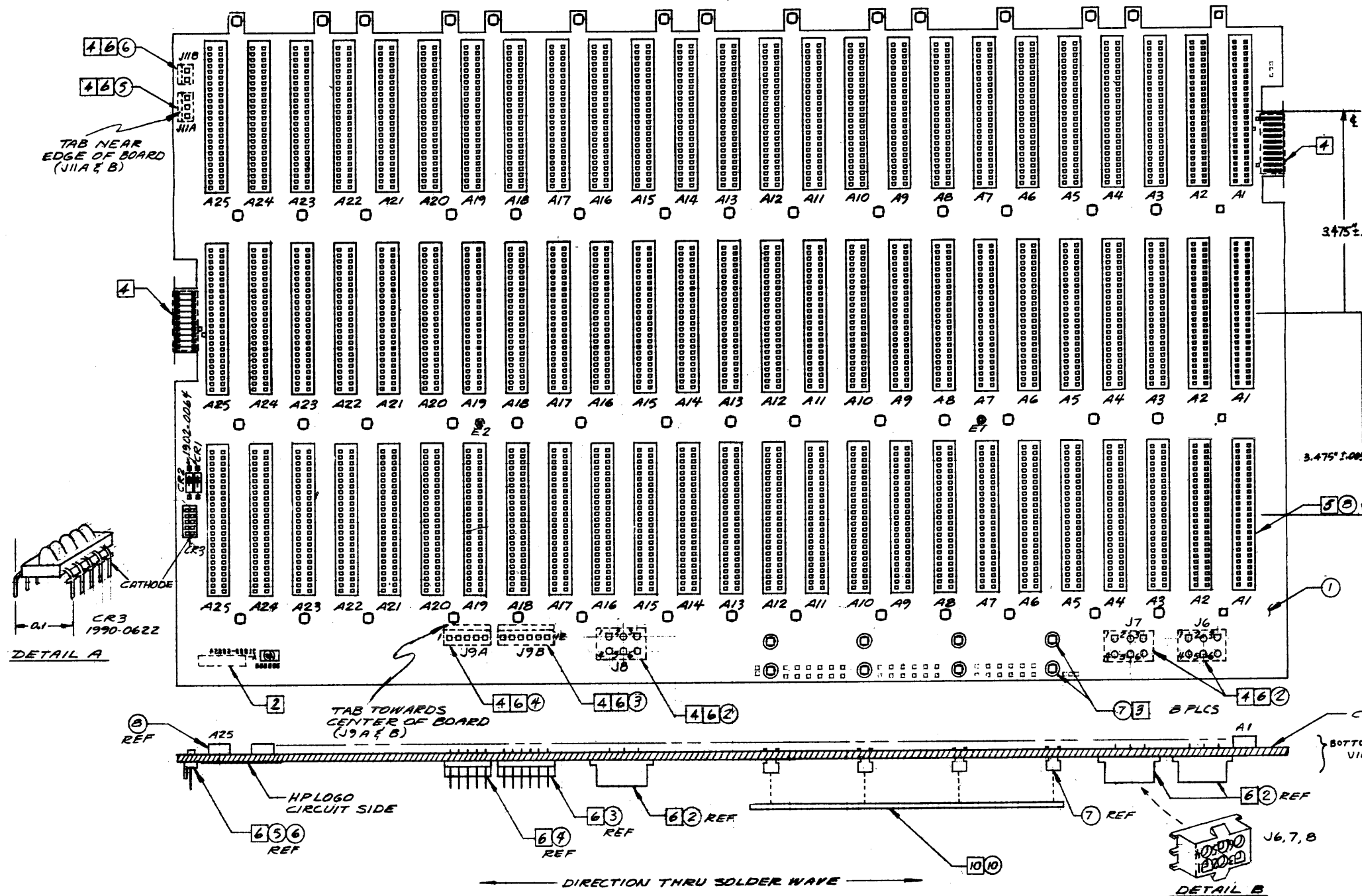
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
4	2	CONNECTOR, 3 PIN	1251-3201		
3	4	CONTACTS	1251-0670		
2	3"	HEATSHRINK TUBING .187 DIA	0890-0029		
1	48"	WIRE, 22 GA TWISTED PAIR	8120-2518		

PROCESS REVIEW
 DATE 4-18-77 BY Pat Wright

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ±
 SEE CORP. STD. 608

SWEPT POWER CABLE TITLE PERM. PRINT		HEWLETT PACKARD
31213A NEXT ASSEMBLY		31000-60049 PART NUMBER
FINISH — SCALE FULL		B-31000-60049-1 SHEET 1 OF 1

REVISIONS										DATE	
1	AS 165DEB										12/17/78
2	ADD NOTE 10 PER ITEM 10										12/17/78
3	ADD NOTE 10 ITEM 10										12/17/78



1. TEST BACKPLANE PER A-31000-80054-9, TEST PROCEDURE
2. MARK DATE CODE "1745" NEAR HP LOGO ON CIRCUIT SIDE.
3. SWAGE STANDOFFS, ITEM 7, ON CIRCUIT SIDE, B PLACES.
4. MASK AS INDICATED PRIOR TO WAVE SOLDERING.
5. LOADING PROCEDURE:
 - A. PLACE THE BACKPLANE SOLDERING FIXTURE WITH THE CONNECTOR LOCATING PINS FACING UP.
 - B. PLACE ALL CONNECTORS, ITEM 8, ON FIXTURE.
 - C. PLACE BOARD, ITEM 1, ON FIXTURE WITH THE CIRCUIT SIDE FACING UP (SIDE WITH HP LOGO). ALL CONNECTOR PINS & FIXTURE PINS WILL GO THROUGH BOARD.
 - D. INSTALL 4 LOCKING STRIPS OVER FIXTURE PINS TO HOLD BOARD FIRMLY IN POSITION.
 - E. TEST BACKPLANE AFTER WAVE SOLDERING PER A-31000-90041-1, TEST PROCEDURE
 - F. INVERT FIXTURE. LOAD ON COMPONENT SIDE CR1 & CR2. LOAD CR3 PER DETAIL "A".
6. INSTALL ITEMS 2-6, E1 & E2 ON CIRCUIT SIDE (SIDE WITH HP LOGO) IN PC FINAL ASSY. SEE DETAIL "B" FOR PIN ORIENTATION OF ITEM 2.
7. SERIALIZE THE BOARD IN PC FINAL ASSEMBLY
8. SCHEMATIC D-31000-60054-6
9. AT THE MECHANICAL INSPECTION STATION APPLY ITEM 9 NEAR THE HP LOGO
10. INSTALL ITEM 10 IN TOUCH-UP

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY. REQ.	MAT'L SPEC.
10	2	PLATE-CURRENT DISTRIB.	31000-00008		
9	1	LABEL-WARRANTY	7120-6690		
8	75	CONN. PC 2X25 .1000	1251-4573		
7	8	STANDOFF 6.32X.125	0380-0679		
6	1	CONN. 2 POS. (J11B)	1251-3618		
5	1	CONN. 3 POS. (J11A)	1251-5192		
4	1	CONN. 5 POS. (J9A)	1251-0513		
3	1	CONN. 6 POS. (J9B)	1251-5276		
2	3	CONN. 6 PIN M (J6,7,8)	1251-3819		
1	1	PC BD. ETCHED	31000-80054		

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES XX ± .02 XXX ± .005

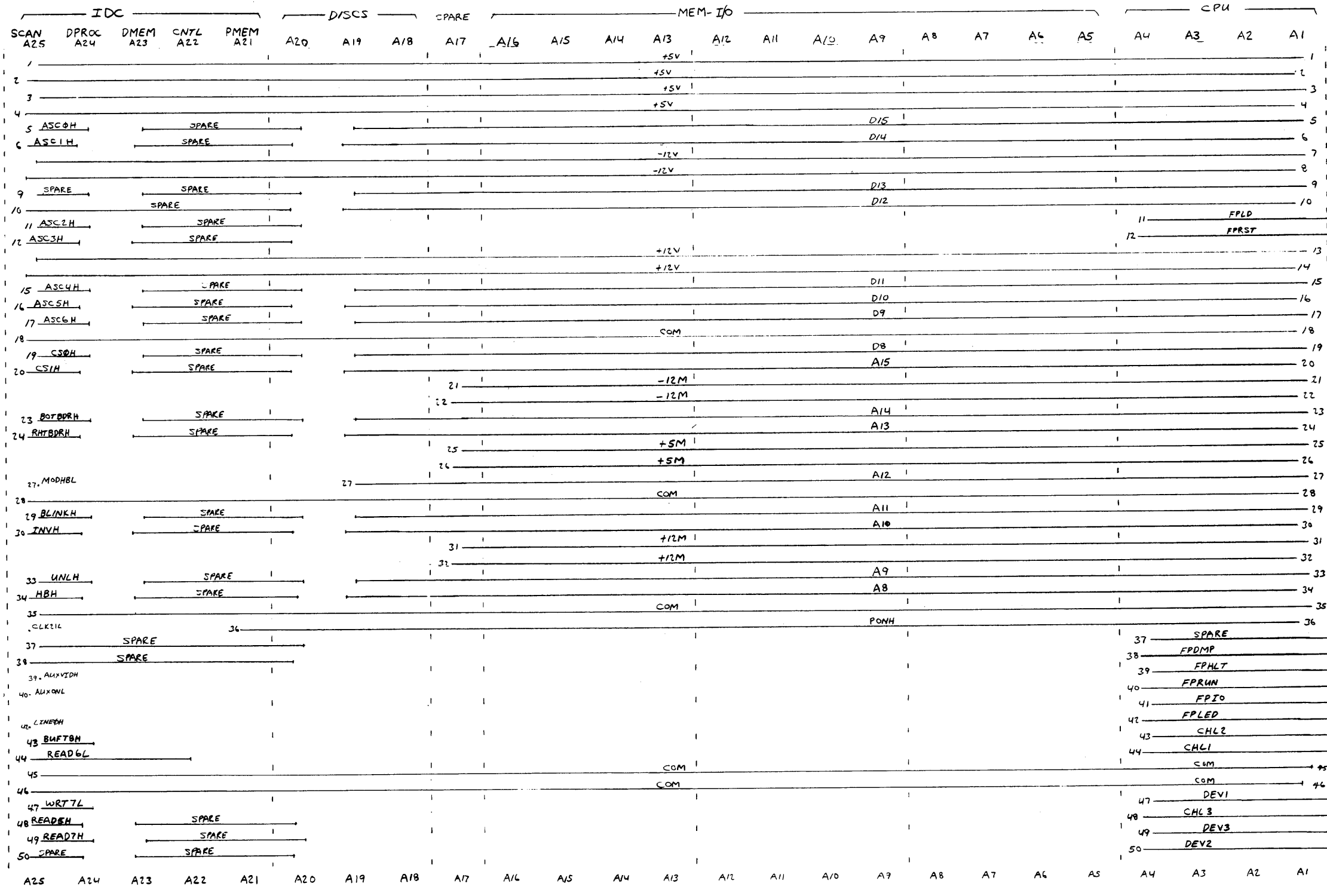
PROCESS REVIEW
DATE 1-25-78 BY *[Signature]*

BACKPLANE ASSY SERIAL PRINT		HEWLETT PACKARD	
TITLE 31213-60010		PART NUMBER 31000-60054	
NEXT ASSEMBLY		SCALE 1-1	
FINISH		D-31000-60054-1	

SEE CORP. STD. 008

J2

ENGINEERING RESPONSIBILITY														REVISED		DATE		
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	BY	DATE	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	1-18-01
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47			



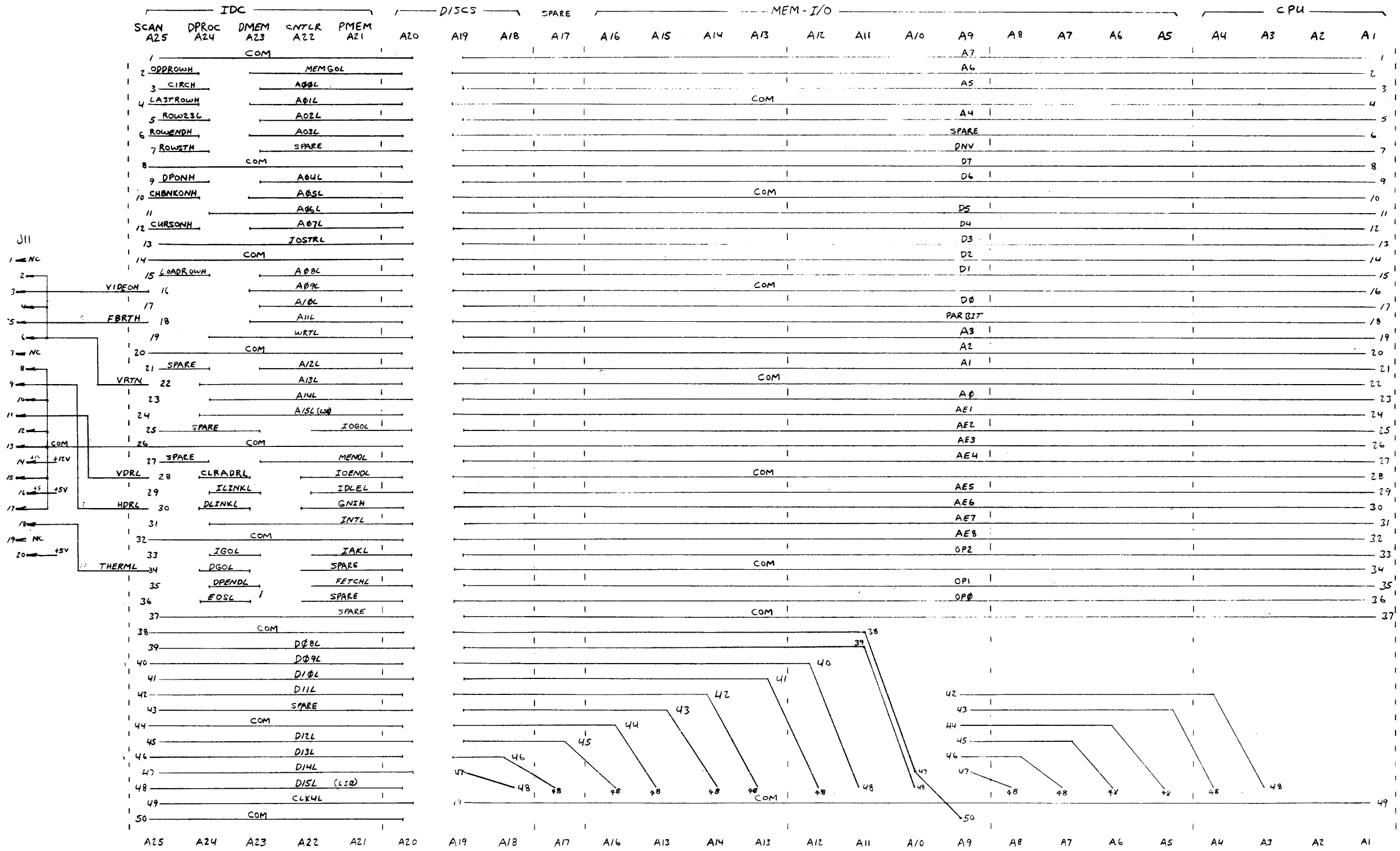
7-11-77 Unpopulated SCAN A15 signal added;
 No trace change.
 11-1-77 J2-47 Deleted A17-A23 (MPHLCKH).

VIEWED FROM COMPONENT SIDE.

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
DO NOT SCALE THIS DRAWING					
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.					
TOLERANCES .XX ± .02 .XXX ± .005					
SEE CORP. STD. 606					
BACKPLANE (J2) SCHEMATIC			HEWLETT-PACKARD		
TITLE			31000-60054		
NEXT ASSEMBLY			PART NUMBER		
31213-60010			D-31000-60054-6		
FINISH			SCALE		

J3

ENGINEERING RESPONSIBILITY															REPLA															REV. NO.		APPROVED		DATE																				
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	SYN	REV. NO.	APPROVED	DATE
SEE SHEET 1																																																						



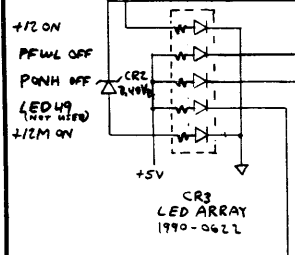
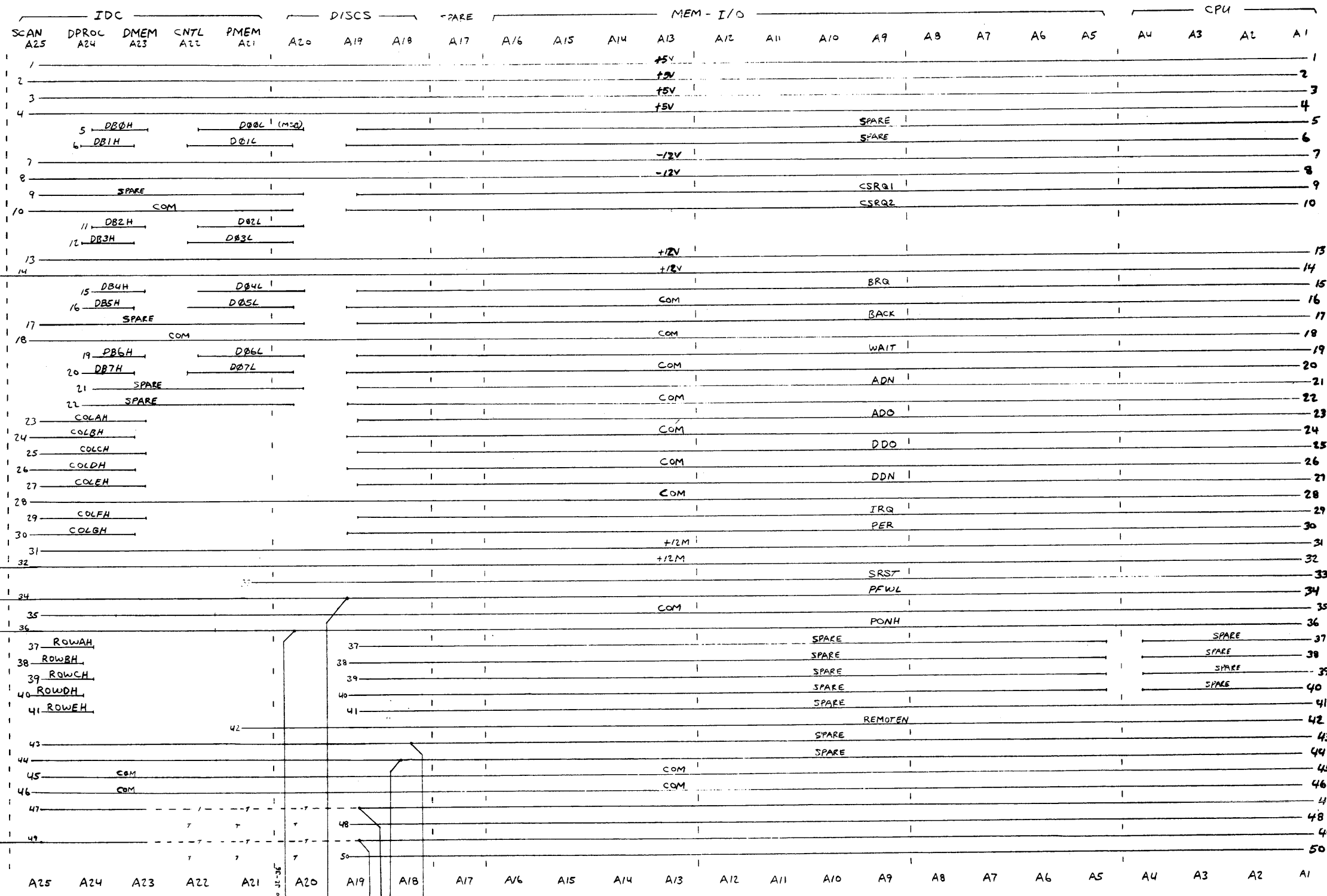
11-1-77 +5V added to J11-2c

VIEWED FROM COMPONENT SIDE.

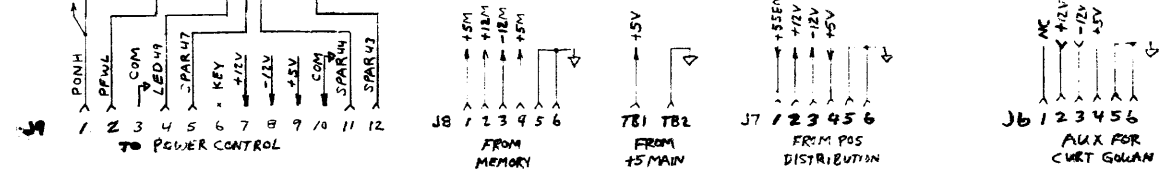
DO NOT SCALE THIS DRAWING	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	TOLERANCES XX + 02 XXX + 005	SEE CORP. STD. 808	ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
						BACK PLANE (J3) SCHEMATIC			
						TITLE	31213-60010		
						NEXT ASSEMBLY			
						FINISH			
						SCALE			
						HEWLETT-PACKARD		PART NUMBER	
						31000-60054		D-31000-60054-6	

J4

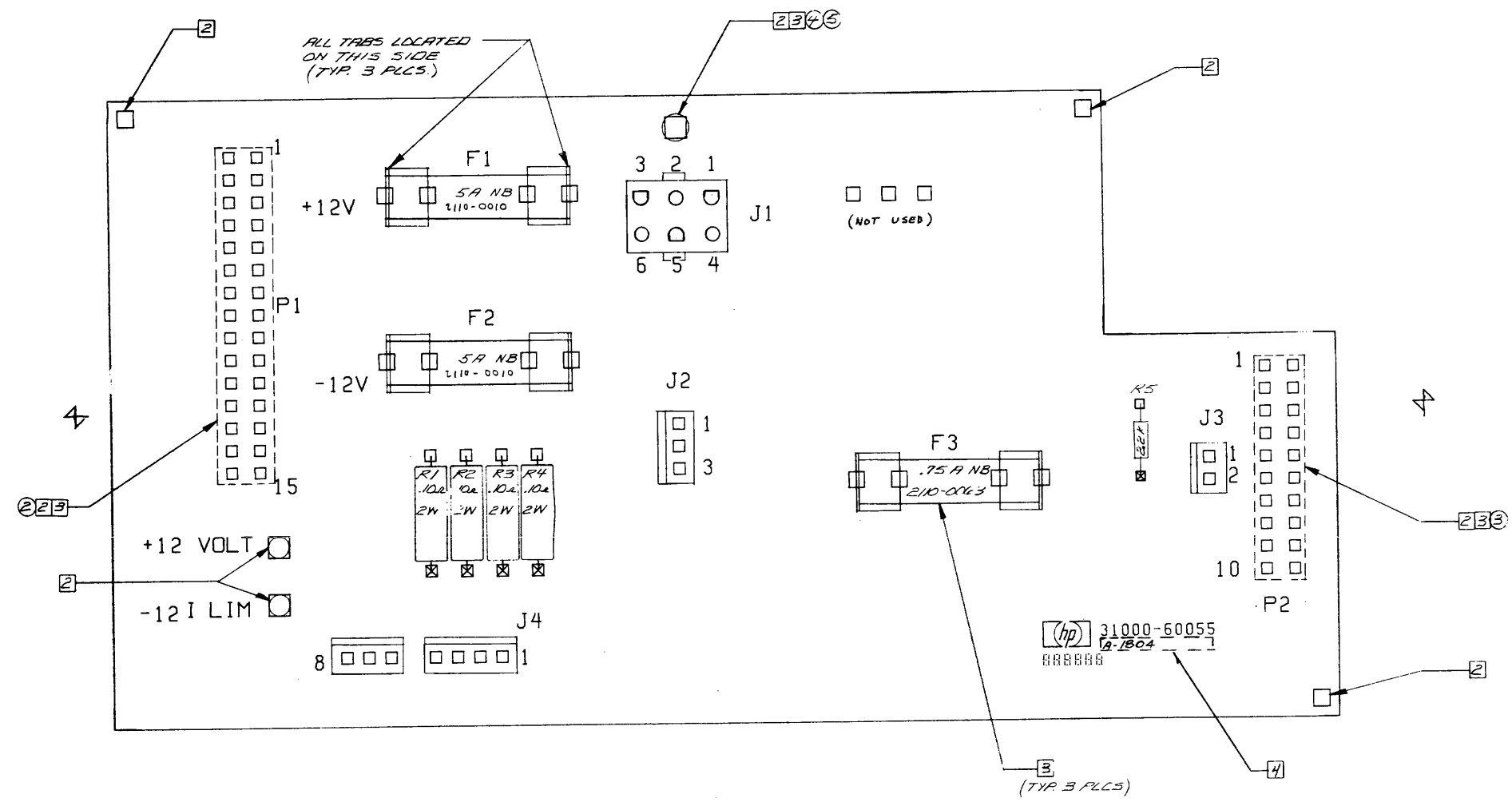
ENGINEERING RESPONSIBILITY										SEPIA										REVISED		APPROVED	DATE																															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	SYM	REVISED	APPROVED	DATE
SEE SHEET 1																																																						



Revisions
 7-8-77 SRST and REMOTEN extended to A21.
 SPAR43, SPAR44 extended to A15
 SPAR47, LED49 extend from A11 to A23 thru A25
 (--- is a trace but no connection to A10, A11, A12)
 (T is T-lead pins reserved on CNTL PCA.)
 7-21-77 J1 Reremanded and connector inserted
 11-1-77 J4-37, 38, 39, 40 CUT BETWEEN A4 & A5.
 11V Use AMP CONNECTOR.
 CONNECTOR REREMANDED.



DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005 SEE CORP. STD. 508		ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
BACKPLANE (J4) SCHEMATIC				HEWLETT PACKARD		31000-60054	
NEXT ASSEMBLY				PART NUMBER		D-31000-60054-6	
FINISH				SCALE		SHEET 3 OF 3	



- NOTES:
- UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE 1/4 W, 5%.
 - MASK AS INDICATED PRIOR TO LOADING.
 - INSTALL IN P.C. FINAL ASSY: F1, F2, F3, P1, P2 (ON CIRCUIT SIDE) ITEMS ②③④⑤.
 - MARK DATE CODE.
 - SCHEMATIC C-31000-60055-6.
 - AT THE MECHANICAL INSPECTION STATION, APPLY ITEM ⑥ NEAR THE HP LOGO.

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
8	1	LABEL-WARRANTY	7120-6030		
7	1	FUSE, F3	2110-0063		
6	2	FUSE, F1 & F2	2110-0010		
5	1	SCREW, (6-32X.25)	2340-0113		
4	1	STAND-OFF (6-32X.50)	0390-0897		
3	1	CONNECTOR	1251-2034		
2	1	CONNECTOR	1251-2035		
1	1	P.C. BD, ETCHED	31000-60055		

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005

PROCESS REVIEW

DATE 1-24-78 BY Pat Wright

SEE CORP. STD. 608

POWER DISTRIBUTION ASSEMBLY

TITLE 31000-60002

NEXT ASSEMBLY

FINISH

SCALE 2X1

HEWLETT-PACKARD

31000-60055

PART NUMBER

31000-60055-1

SHEET 1 OF 1

MATERIAL LIST

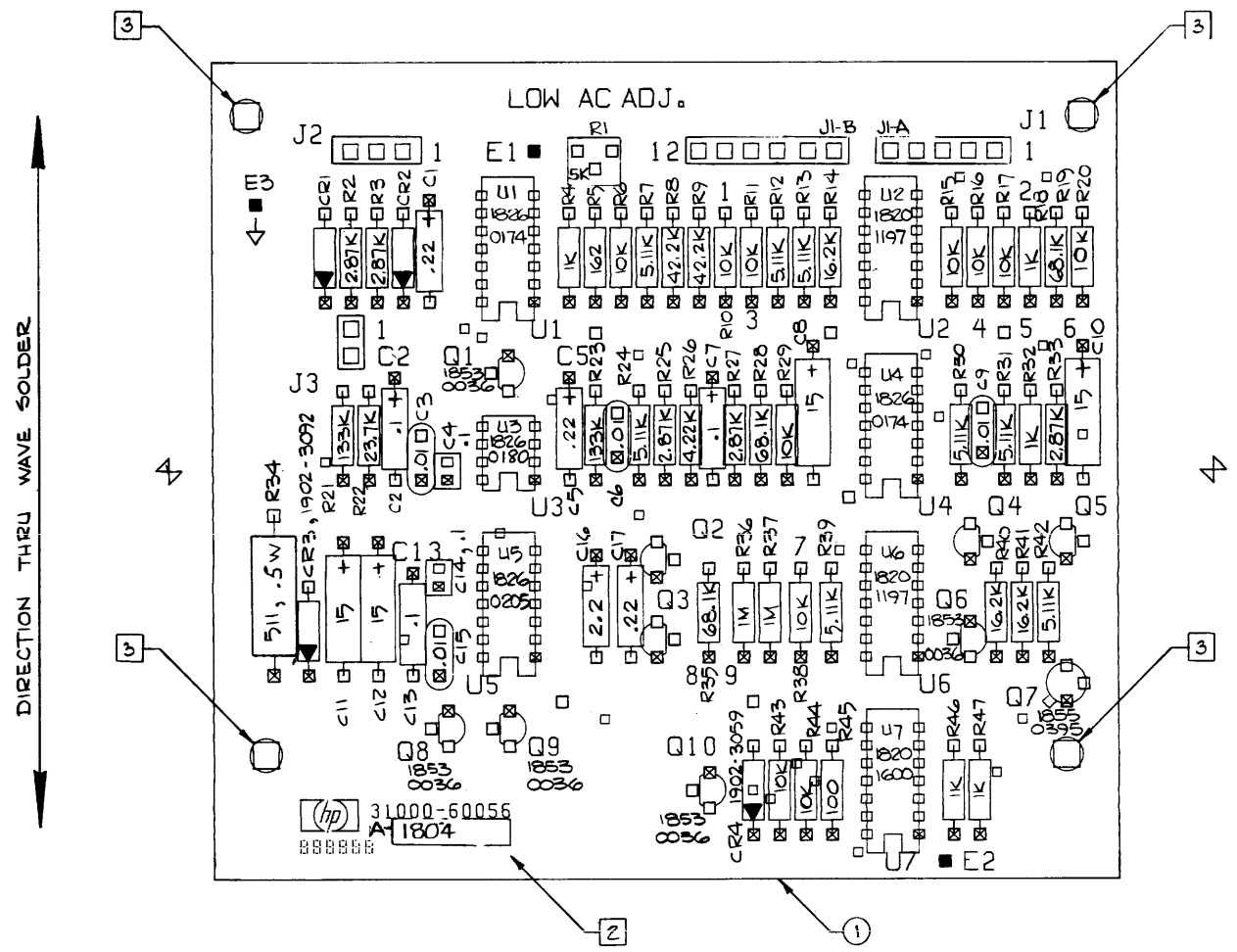
HEWLETT  PACKARD

DESCRIPTION		FOR NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	1 OF
PCA-POWER DISTRB			31000-60055			
DIV	LT	RELEASE DATE	REVISION DATE	CYCLE	DELIVER TO	
87	20 F	99-09-09	78-10-05	YYYYR7R3B5B8		

YIELD	ST	U	P	FD	CO	ITEM	REFERENCE	PARENT	PART	COMP	QUANTITY	UM	POLICY	ALTERNATE
CL	PL	1	2	3	4	NO	DESIGNATOR	OPTION	NUMBER	OPTION	PER		ISSUE	DELIVER TO
NO	NO	NO	NO	NO	NO	NO	FIRST SIX							
							01DATE CODE 1804							
	P						STDF #6X.500 BM		0380-0897		1			
	P						RES 2200 5% .25		0683-2225		1			
						01R5								
	P						RES .1 5% 2W PM		0811-3290		4			
						01R1-4								
	P						CONN PC2X10.156D		1251-2034		1			
						01P2								
	P						CONN PC2X15.156D		1251-2035		1			
						01P1								
	P						CONN POST 3M.156		1251-3192		1			
						01J2								
	P						CONN POST 4M		1251-3305		1			
						01J4A								
	P						CONN POST 2M.156		1251-3618		1			
						01J3								
	P						CONN UTIL 6M PC		1251-3819		1			
						01J1								
	P						CONN POST 3PUS M		1251-4246		1			
						N	FUSE 5A NB		2110-0010		2		SRM	
	P						01F1,2							
							FUSE .75A NB		2110-0063		1			
						01F3								
	P						FUSE CLIP .250D		2110-0269		6			
						NN	SCR 6-32X.25 PM		2360-0113		1		NSRM	
						NN	LABEL-DATE CODE		7120-6830		1		NSRM	
	F						PCB-PO2 DIST		31000-80055		1			

END OF MATERIAL LIST

ENGINEERING RESPONSIBILITY																		REVISED																		D-31000-60056-1																									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	DATE	APPROVED
																																				A AS ISSUED																									
																																				1/26/78																									



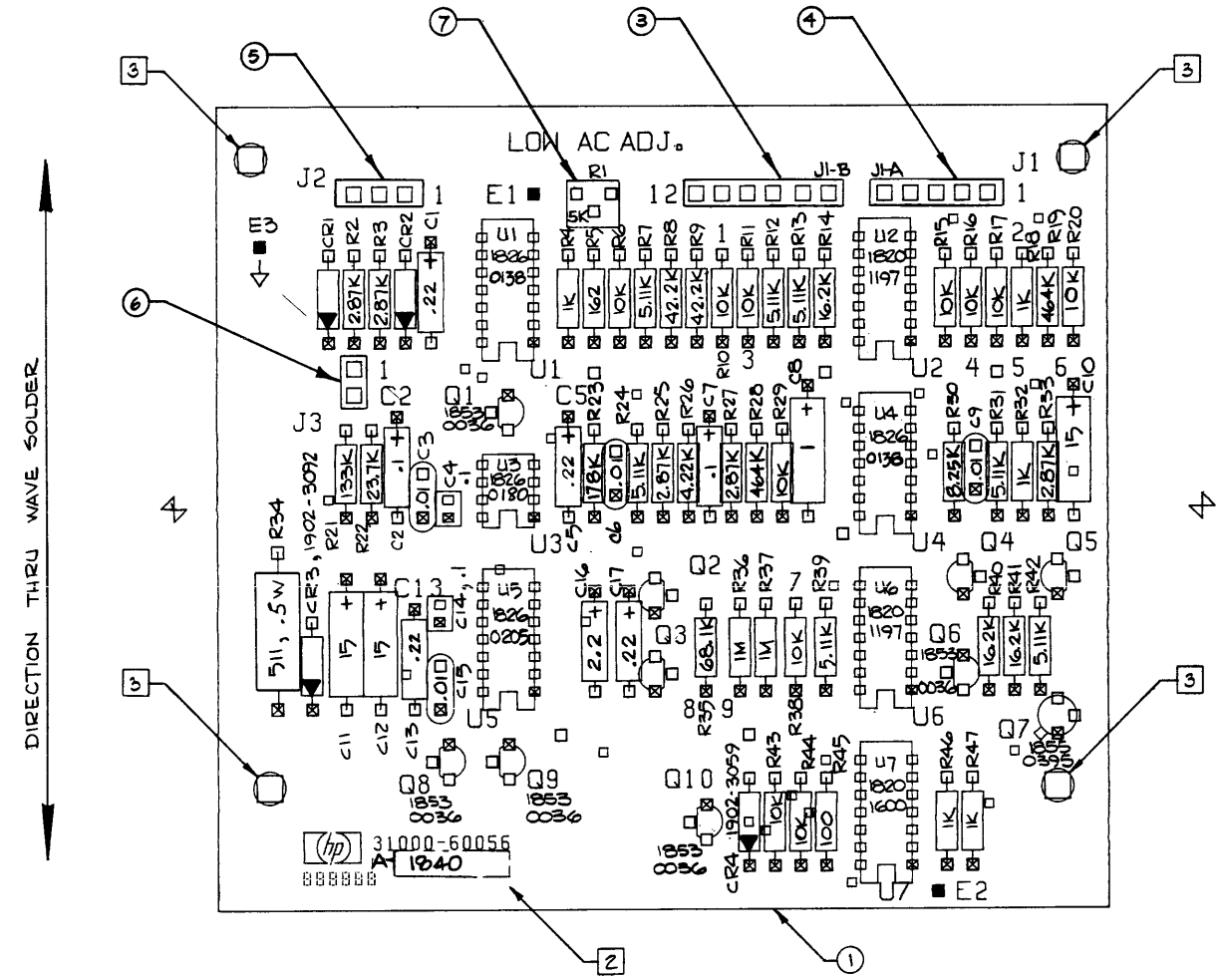
- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTANCE VALUES ARE IN OHMS $\pm 1\%$, 1/4W.
ALL CAPACITANCE VALUES ARE IN MICROFARADS.
ALL TRANSISTORS ARE 1854-0215.
ALL DIODES ARE 1901-0050
 2. MARK DATE CODE
 3. MASK AS INDICATED PRIOR TO WAVE SOLDERING.
 4. SERIALIZE IN PC FINAL ASSEMBLY.
 5. SCHEMATIC: D-31000-60056-6
 6. AT THE MECHANICAL INSPECTION STATION, APPLY ITEM 2 NEAR THE HP LOGO.

PROCESS REVIEW
DATE 1-24-78 BY Pat Wright

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX \pm .02 .XXX \pm .005
SEE CORP. STD. 808

2	1	LABEL-WARRANTY	7120-6830		
1	1	PC BOARD, ETCHED	310008005		
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-OWG. NO.	MAT'L-SPEC.
		ASSEMBLY - POWER CONTROL		HEWLETT-PACKARD	
		TITLE		PART NUMBER	
		31000-60002		31000-60056	
		NEXT ASSEMBLY		PART NUMBER	
				D-31000-60056-1	
		FINISH		SCALE 2/1	
		SUPERSEDES DWG.		SHEET OF	

DESIGN RESPONSIBILITY										DATE																													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
BY: A 5 ISSUED										APPROVED: [Signature]										DATE: 1-26-78																			
R3 WAS 150K C15 WAS 100K R19 250K R26 1K										R23 WAS 100K R30 20K 5.11K C14 WAS 100K C17A										AND DATE CODE WAS 1804 PCAT-2079																			



- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTANCE VALUES ARE IN OHMS $\pm 1\%$, 1/4W. ALL CAPACITANCE VALUES ARE IN MICROFARADS. ALL TRANSISTORS ARE 1854-0215. ALL DIODES ARE 1901-0050
 2. MARK DATE CODE
 3. MASK AS INDICATED PRIOR TO WAVE SOLDERING.
 4. SERIALIZE IN PC FINAL ASSEMBLY.
 5. SCHEMATIC: D-31000-60056-6
 6. AT THE MECHANICAL INSPECTION STATION, APPLY ITEM 2 NEAR THE HP LOGO.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG NO.	MAT'L-SPEC.
7	1	RESISTOR 5K R1	2100-3252		
6	1	CONN-POST 2PIN J3	1251-4795		
5	1	CONN-POST 3PIN J2	1251-4627		
4	1	CONN-POST 5POS J4	1251-3842		
3	1	CONN-POST TYPE J1B	1251-3766		
2	1	LABEL-WARRANTY	7120-6830		
1	1	PC BOARD ETCHED	31000-60056		

PROCESS REVIEW
DATE 1-24-78 BY Pat Wright

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX \pm .02 .XXX \pm .005
SEE CORP. STD. 808
SUPERSEDES DWG.

ASSEMBLY PERM. PRINT		HEWLETT-PACKARD	
- POWER CONTROL			
TITLE	31000-60002	PART NUMBER	31000-60056
NEXT ASSEMBLY		PART NUMBER	D-31000-60056-1
FINISH	SCALE 2/1	SHEET OF	

DESIGN RESPONSIBILITY										DATE																													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
BY: A2 ISSUED										REVISED																													
A1										A1801																													

NOTE: 1. ALL RESISTORS $\frac{1}{4}$ W 1% UNLESS OTHERWISE NOTED.
2. ALL CAPACITANCE IN MICROFARADS.

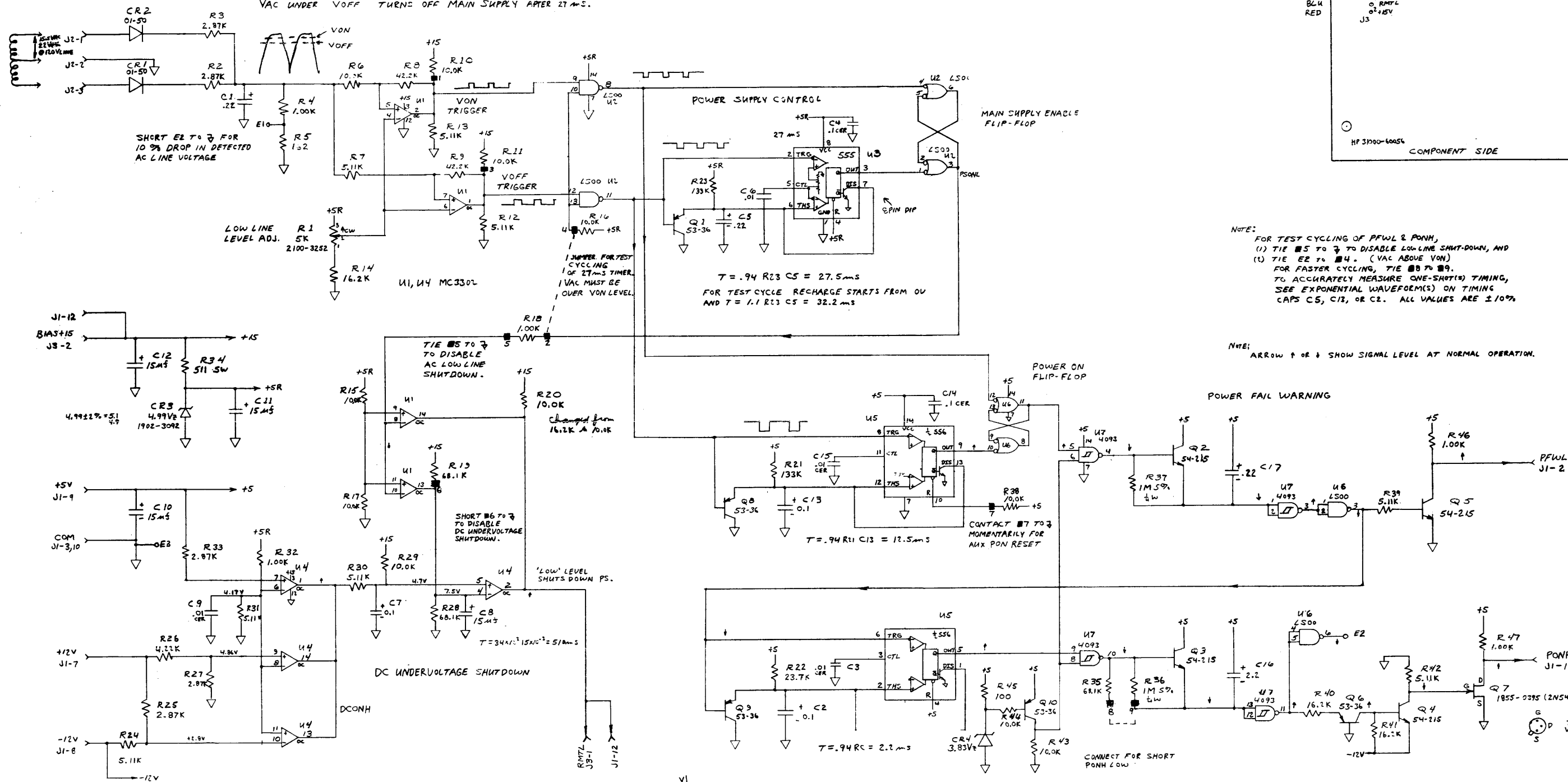
LOW LINE DETECTOR

VAC OVER VON TURNS MAIN SUPPLY ON AND ALLOWS PFWL AND LATER PONH TO GO 'HIGH'.

VAC UNDER VOFF CAUSES PFWL AND 2ms LATER PONH TO GO 'LOW'.

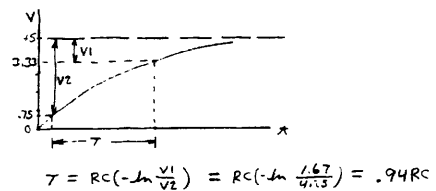
VAC UNDER VOFF TURNS OFF MAIN SUPPLY AFTER 27ms.

8. THESE ARE OVERSIZE SQUARE RESISTOR PADS WITH NO OTHER TRACES UNDER THE RESISTOR LEAD ON THE COMPONENT SIDE. THESE POINTS ARE USED FOR CLIP LEADS DURING TEST ONLY.



NOTE:
FOR TEST CYCLING OF PFWL & PONH,
(1) TIE #5 TO #7 TO DISABLE LOW-LINE SHUT-DOWN, AND
(2) TIE #2 TO #4. (VAC ABOVE VON)
FOR FASTER CYCLING, TIE #8 TO #9.
TO ACCURATELY MEASURE ONE-SHOT(S) TIMING,
SEE EXPONENTIAL WAVEFORM(S) ON TIMING
CAPS C5, C13, OR C2. ALL VALUES ARE $\pm 10\%$

NOTE:
ARROW \uparrow OR \downarrow SHOW SIGNAL LEVEL AT NORMAL OPERATION.



DO NOT SCALE THIS DRAWING		POWER CONTROL SCHEMATIC		HEWLETT PACKARD	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TITLE		PART NUMBER	
TOLERANCES .XX \pm .02 .XXX \pm .006		31000-60002		31000-60056	
SEE CORP. STD. 808		NEXT ASSEMBLY		PART NUMBER	
SUPERSEDES DWG.		FINISH		0-31000-60056-6	
SCALE		SCALE		SHEET 1 OF 1	

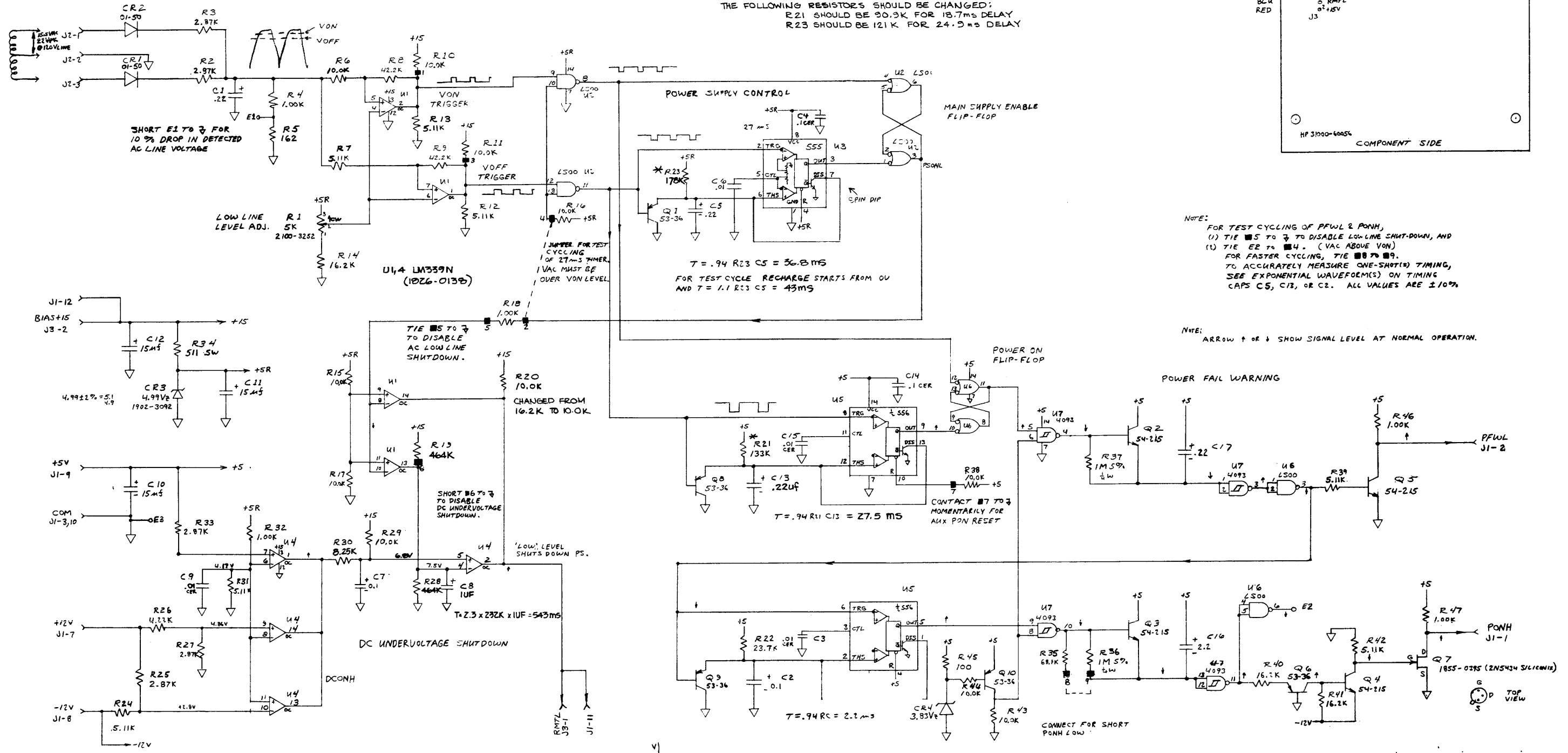
ENGINEERING RESPONSIBILITY		REVISIONS		DATE	
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988	989	990	991	992	993
994	995	996	997	998	999
1000	1001	1002	1003	1004	1005

LOW LINE DETECTOR

VAC OVER VON TURNS MAIN SUPPLY ON AND ALLOWS PFWL AND LATER PONH TO GO "HIGH".
 VAC UNDER VOFF CAUSES PFWL AND 2ms LATER PONH TO GO "LOW".
 VAC UNDER VOFF TURNS OFF MAIN SUPPLY AFTER 37ms.

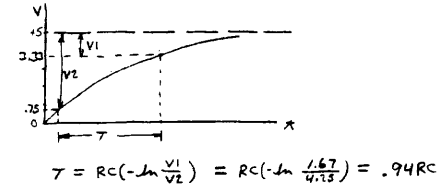
1. ALL RESISTORS 1/4W, 1% UNLESS OTHERWISE SPECIFIED
2. ALL CAPACITANCE IN MICROFARADS
3. WHEN OPERATING THE HP300 SYSTEM WITH INPUT LINE VOLTAGES AT 100 VOLTS RMS OR LOWER, CERTAIN TIMING COMPONENTS ON THIS BOARD MUST BE CHANGED TO ALLOW PROPER SENSING OF LOW LINE CONDITIONS AND RESULTING POWER FAIL WARNING OPERATION. THE CHANGES REQUIRED ARE AS FOLLOWS:
 - R23 121K D757-0461
 - R21 909K D757-0464
4. THERE ARE OVERSIZE SQUARE RESISTOR PADS WITH NO OTHER TRACES UNDER THE RESISTOR LEAD ON THE COMPONENT SIDE. THESE POINTS ARE USED FOR CLIP LEADS DURING TEST ONLY.
- *5. IF MAIN USE OF THIS ASSY IS UNDER 100 VAC LINE CONDITIONS THE FOLLOWING RESISTORS SHOULD BE CHANGED:
 - R21 SHOULD BE 90.9K FOR 18.7ms DELAY
 - R23 SHOULD BE 121K FOR 24.9ms DELAY

CHECK WITH FACTORY SUPPORT PERSONNEL IF OPERATIONS UNDER THESE CONDITIONS ARE EXPECTED.



NOTE:
 FOR TEST CYCLING OF PFWL & PONH,
 (1) TIE #5 TO #7 TO DISABLE LOW LINE SHUT-DOWN, AND
 (2) TIE #6 TO #4. (VAC ABOVE VON)
 FOR FASTER CYCLING, TIE #8 TO #9.
 TO ACCURATELY MEASURE ONE-SHOT(S) TIMING,
 SEE EXPONENTIAL WAVEFORM(S) ON TIMING
 CAPS C5, C13, OR C2. ALL VALUES ARE ±10%

NOTE:
 ARROW + or - SHOW SIGNAL LEVEL AT NORMAL OPERATION.



DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .006
 SEE CORP. STD. 808

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY. NO.	MAT'L SPEC.
POWER CONTROL SCHEMATIC					
TITLE			HEWLETT PACKARD		
31000-6000Z			71000-60056		
NEXT ASSEMBLY			PART NUMBER		
FINISH			SCALE		
SUPERSEDES DWG.			D-31000-60056-6		

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE
PCA-POWER CNTRL		31000-60056		1 OF
REV. NO.	REV. DATE	REV. DATE	REV. DATE	DELIVER TO
47	99-09-09	78-10-17	YYYYY	47436568

YIELD	U	P	ST	FD	ITEM	REFERENCE	PART DESCRIPTION	PARENT	PART NUMBER	COMP	QUANTITY	U/M	POLICY	ALTERNATE
NO.	NO.	NO.	NO.	NO.	NO.	NO.		NO.		NO.			NO.	
						01DIV 47								
						02DIV 50								
						03DATE CODE 1840								
	P					01C3,6,9,15	CAP .01UF 100V C		0160-2055	U	4			
	P					01C4,14	CAP .1UF 50V CER		0160-4685	U	2			
	P					01C16	CAP 2.2UF 20V TA		0180-0197	U	1			
	P					01C8	CAP 1.0UF 35V TA		0180-0291	U	1			
	P					01C1,5,13,17	CAP .22UF 35V TA		0180-1735	U	4			
	P					01C2,7	CAP .1UF 35V TA		0180-1743	U	2			
	P					01C10-12	CAP 15UF 20V TA		0180-1746	U	3			
	P	NN				01E1-3	TERM-STUD SGL		0360-1682	U	3		NSRM	
	P	NN				01R36,37	RES 1M 5% .25W		0683-1055	U	2		NSRM	
	P					01R2,3,25,27,33	RES 2.87K 1%.125		0698-3151	U	5			
	P					01R26	RES 4.22K 1%.125		0698-3154	U	1			
	P					01R22	RES 23.7K 1%.125		0698-3158	U	1			
	P					01R23	RES 178K 1%.125W		0698-3243	U	1			
	P					01R19,28	RES 464K 1%.125W		0698-3260	U	2			
	P					01R8,9	RES 42.2K 1%.125		0698-3450	U	2			
	P					01R21	RES 133K 1%.125W		0698-3451	U	1			
	P					01R4,16,32,46,47	RES 1.0K 1%.125W		0757-0280	U	5			

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE
PCA-POWER CNTRL		31000-60056		2 OF
REV. NO.	REV. DATE	REV. DATE	REV. DATE	DELIVER TO
47	99-09-09	78-10-17	YYYYY	47436568

YIELD	U	P	ST	FD	ITEM	REFERENCE	PART DESCRIPTION	PARENT	PART NUMBER	COMP	QUANTITY	U/M	POLICY	ALTERNATE
NO.	NO.	NO.	NO.	NO.	NO.	NO.		NO.		NO.			NO.	
						01R45	RES 100 1% .125W		0757-0401	U	1			
	P					01R5	RES 162 1% .125W		0757-0405	U	1			
	P					01R7,12,13,24,31,42	RES 5.11K 1%.125		0757-0438	U	7			
	P					01R30	RES 8.25K 1%.125W		0757-0441	U	1			
	P					01R6,10,11,15-17,20,22,29,38,43,44	RES 10K 1% .125		0757-0442	U	11			
	P					01R14,40,41	RES 16.2K 1%.125		0757-0447	U	3			
	P					01R35	RES 68.1K 1%.125		0757-0461	U	1			
	P					01R34	RES 511 1% .5W		0757-0814	U	1			
	P					01J18	CONN POST 6M RA		1251-3766	U	1			
	P					01J1A	CONN POST 5M RA		1251-3848	U	1			
	P					01J2	CONN POST 3M RA		1251-4627	U	1			
	P					01J3	CONN POST 2M RA		1251-4795	U	1			
	P					01U2,6	IC SN74LS00N S		1820-1197-47	U	2			
	P					01U7	IC CD4093BY S		1820-1600-47	U	1			
	P					01U1,4	IC LM339 Q CMPTR		1826-0138	U	2			
	P					01U3	IC NE555V TIMEH		1826-0180	U	1			
	P					01U5	IC 556 DUAL TIM		1826-0205	U	1			
	P					XSTR 2N3906 PL18			1853-0036	U	5		PART NO CONT	

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EQE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE
PCA-POWER CNTRL		31000-60056		3 OF
REV. NO.	REV. DATE	REV. DATE	REV. DATE	DELIVER TO
47	99-09-09	78-10-17	YYYYY	47436568

YIELD	U	P	ST	FD	ITEM	REFERENCE	PART DESCRIPTION	PARENT	PART NUMBER	COMP	QUANTITY	U/M	POLICY	ALTERNATE
NO.	NO.	NO.	NO.	NO.	NO.	NO.		NO.		NO.			NO.	
						0101,6,8-10	PART NO CONT		1853-0036					
	P					0102-5	XSTR 2N3904 PL5		1854-0215	U	4			
	P					0107	FET 2N5434		1855-0395	U	1			
	P					01CR1,2	DIO 75V .2A 2N5		1901-0050	U	2			
	P					01CR4	DIO ZNR 3.83V 5%		1902-3059	U	1			
	P					01CR3	DIO ZNR 4.99V 2%		1902-3092	U	1			
	P					01R1	RES TRMR 5K 10%		2100-3252	U	1			
	P	NN					LABEL-DATE CODE		7120-6830	U	1		NSRM	
	F						PCB-POWER CNTRL		31000-80056	W	1			

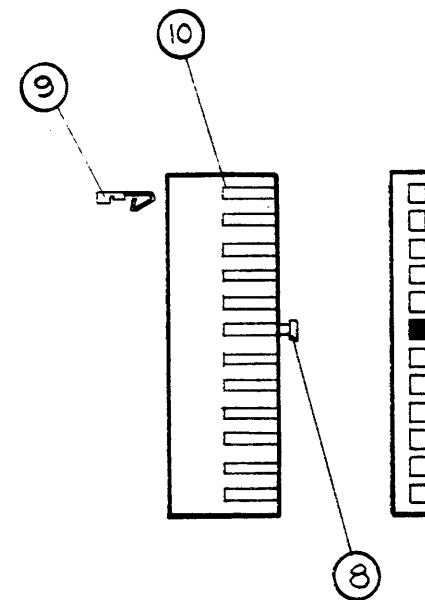
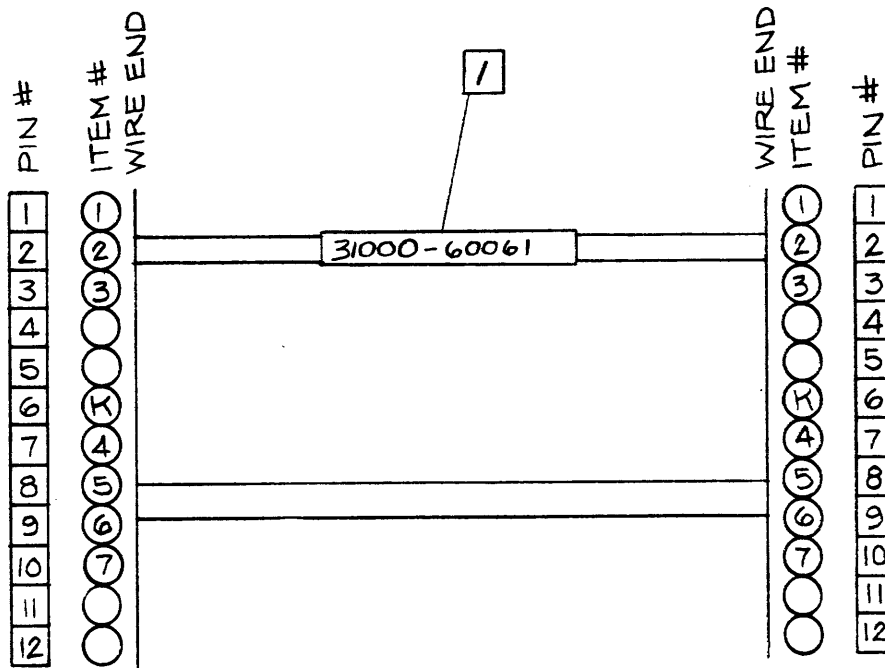
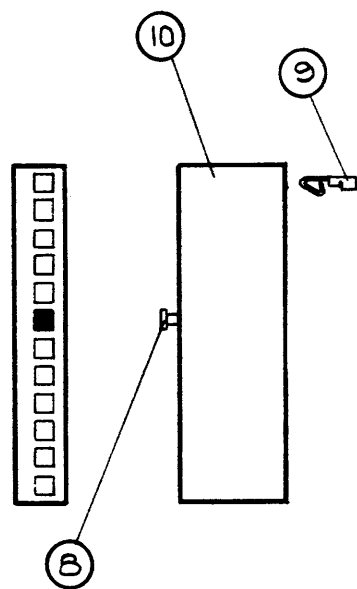
END OF MATERIAL LIST

REF A-2 (WIRE LIST)

ENGINEERING RESPONSIBILITY												SEPIA																								
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																					
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50		

SYM		REVISIONS		APPROVED	DATE
A		AS ISSUED PRCR 31213A "R"		<i>[Signature]</i>	11-23-77

PIN #	COLOR
1	YEL
2	ORN
3	BLK
4	~
5	~
6	KEY
7	WHT, RD
8	WHT, VIO
9	WHT, BLK, RD
10	BLK
11	~
12	~



PIN #	COLOR
1	YEL
2	ORN
3	BLK
4	~
5	~
6	KEY
7	WHT, RD
8	WHT, VIO
9	WHT, BLK, RD
10	BLK
11	~
12	~

NOTES:

1. MARK PART NUMBER (31000-60061) ON TUBING & SHRINK ONTO CABLE AS SHOWN.
2. STRIP ALL WIRES .12" (1/8").

11	2'	SHRINK TUBING, 1/4" DIA	0890-0312		
10	2	MOLEX CONNECTORS, 12 PIN	1251-3279		
9	14	CONTACTS	1251-0670		
8	2	POLARIZING KEY	1251-0627		
7	3.5"	WIRE 22 GA, BLK	8150-1540		
6	3.5"	WIRE 22 GA, WHT, BLK, RD	8150-1560		
5	3.5"	WIRE 22 GA, WHT, VIO	8150-1557		
4	3.5"	WIRE 22 GA, WHT, RD	8150-1552		
3	3.5"	WIRE 22 GA, BLK	8150-1540		
2	3.5"	WIRE 22 GA, YEL	8150-1544		
1	3.5"	WIRE 22 GA, ORN	8150-1543		
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 608

PROCESS REVIEW

DATE 12-5-77 BY Pat Wright

POWER CONTROL CABLE

HEWLETT PACKARD

ENGINEER

TITLE

RELEASE TO PROD.

NEXT ASSEMBLY

SUPERSEDES DWG.

FINISH

SCALE FULL

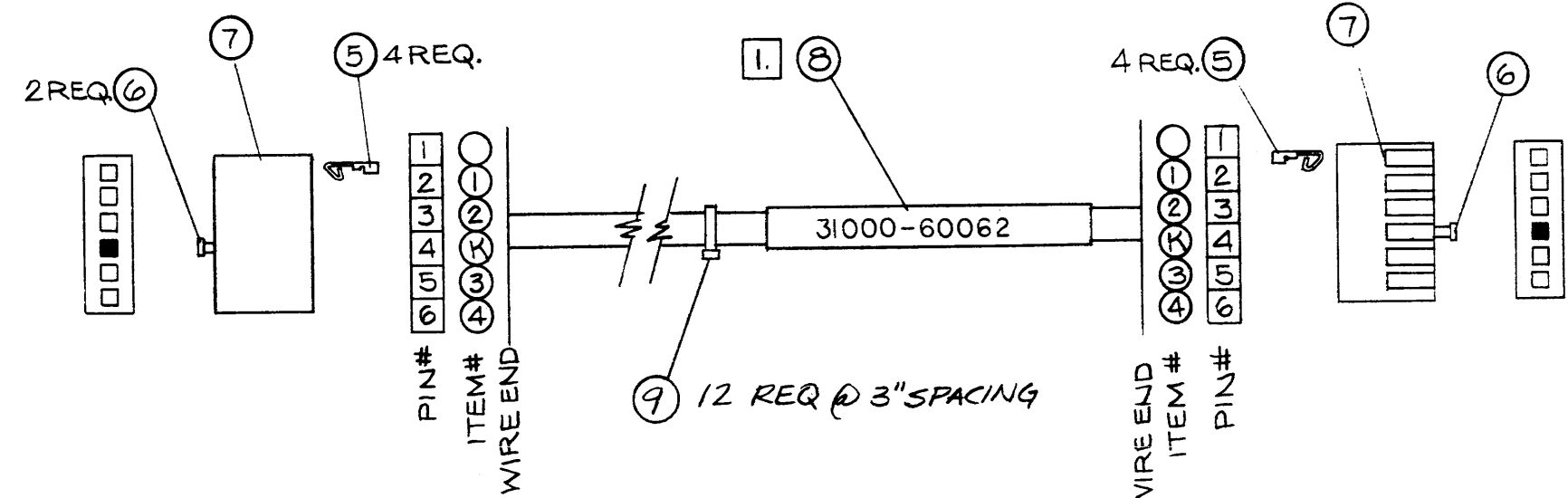
31213A
PART NUMBER

31000-60061
B-31000-60061-1

REF A-2 (WIRELIST)

ENGINEERING RESPONSIBILITY <input checked="" type="checkbox"/>														SEPIA <input checked="" type="checkbox"/>				B-31000 -60062 -1	
0	1	2	3	4	6	8	9	11	12	14	15	SYM	REVISIONS		APPROVED	DATE			
16	17	19	21	22	23	25	29	30	32	33	38	43	A	AS ISSUED PROC 31213A "R"		<i>[Signature]</i>	11-18-77		
45	46	61	63	47A															

PIN#	COLOR
1	~
2	BLK
3	WHT, RD
4	KEY
5	WHT, VIO
6	WHT, BLK, RD



PIN#	COLOR
1	~
2	BLK
3	WHT, RD
4	KEY
5	WHT, VIO
6	WHT, BLK, RD

NOTE:
 [1] MARK "31000-60062" ON TO TUBE AND HEAT SHRINK ON TO CABLE.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
9	12	CABLE TIES	1400-0249		
8	1.5"	HEAT SHRINK TUBING .375 DIA	0890-0291		
7	2	CONNECTOR, 6 PIN	1251-3275		
6	4	POLARIZING KEY	1251-0627		
5	8	CONTACT	1251-0670		
4	44"	WIRE 18GA WHT, BLK, RD	8150-3510		
3	44"	WIRE 18GA WHT, VIO	8150-3737		
2	44"	WIRE 18GA WHT, RD	8150-3246		
1	44"	WIRE 18GA BLK	8150-2829		

PROCESS REVIEW
 DATE 12-5-77 BY Pat Wright

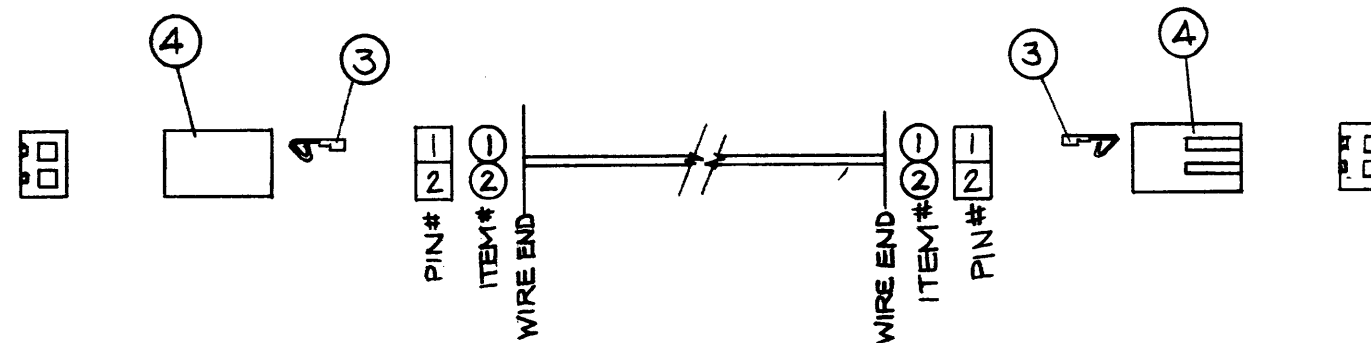
DO NOT SCALE THIS DRAWING	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	TOLERANCES .XX ± .02 .XXX ± .005	SEE CORP. STD. 608	FX DC POWER CABLE	HEWLETT PACKARD
ENGINEER	RELEASE TO PROD.	SUPERSEDES DWG.	FINISH	TITLE 31213A	PART NUMBER 31000-60062
				SCALE FULL	B-31000-60062-1

REF DWG: A-2 (WIRE LIST)

ENGINEERING RESPONSIBILITY						SEPIA					
0	1	2	3	4	6	8	9	11	12	14	15
16	17	19	21	22	23	25	29	30	32	33	38
45	46	61	63	47							

B-31000 - 60063 - 1		APPROVED	DATE
SYM	REVISIONS		
A	AS ISSUED PRCR 31213A "R"	<i>[Signature]</i>	11-29-77
B	REVERSE POSITIONS OF ITEMS 1 & 2 PCAT-2065	<i>[Signature]</i>	8-31-78

PIN#	COLOR
1	BLU
2	RED



PIN#	COLOR
1	BLU
2	RED

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
4	2	CONNECTOR 2 PIN	1251-3613		
3	4	CONTACTS	1251-0670		
2	5.5"	WIRE; 22 GA; RED	8150-1542		
1	5.5"	WIRE; 22 GA; BLU	8150-1546		

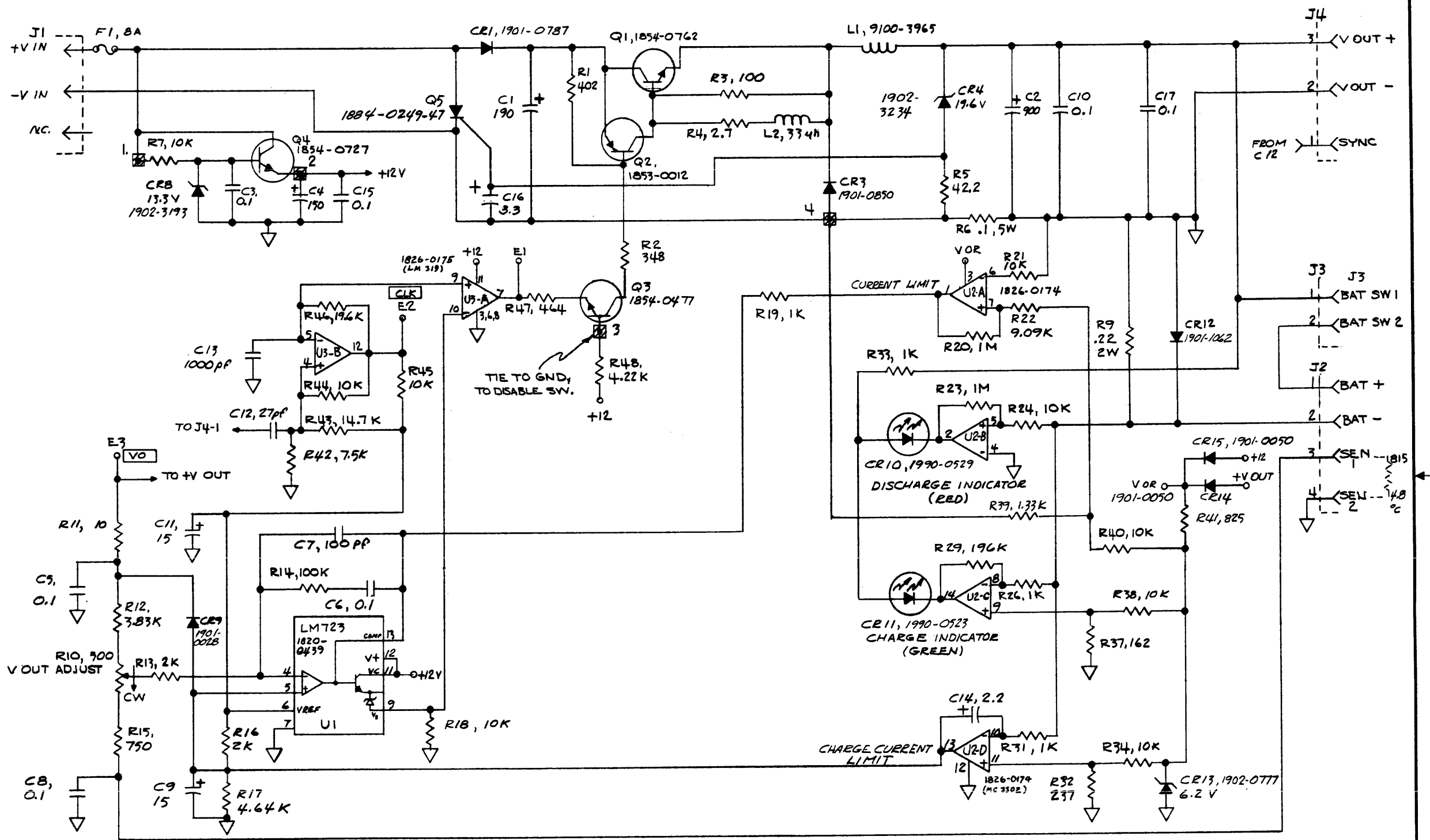
PROCESS REVIEW
 DATE 12-5-77 BY *Pat Wright*

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005
 SEE CORP. STD. 608

SUPERSEDES DWG.

PERM. PRINT
REMOTE LOW POWER
CABLE
 TITLE
 31000-60002
 NEXT ASSEMBLY
 FINISH ~ SCALE FULL

HEWLETT **PACKARD**
 31000-60063
 PART NUMBER
B-31000-60063-1



NOTE:
 UNLESS OTHERWISE SPECIFIED
 ALL RESISTORS 1/8 W ± 1%
 ALL CAPACITANCE IN MICRO FARADS

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 808

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
MEMORY PREREGULATOR SCHEMATIC					
TITLE					
31000-60002					
NEXT ASSEMBLY					
FINISH					
SCALE NONE					
PART NUMBER					
31000 60067					
C-31000-60067-6					

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	1 OF
PCA-MEM PREREG		81000-6007			
DIV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
47	25 F		99-09-09	78-08-24	YYYY47436568

YIELD	U	P	S	BT	FD	C	ITEM NO	REFERENCE DESIGNATOR (FIRST SIX)	PART DESCRIPTION	PARENT OPTION	PART NUMBER	COMP OPTION	QUANTITY PER	UM	POLICY ISSUE	ALTERNATE DELIVER TO
							0101V 47									
							0201V 50									
							03DATE CODE 1833									
P							01C13	CAP 1000PF 5X			0160-0938	U	1			
P							01C7	CAP 100PF 5X			0160-2204	U	1			
P							01C12	CAP 27PF 5x 300V			0160-2306	U	1			
P							01C3,4,5,8,10,15,17	CAP .1UF 50V CER			0160-4685	U	7			
P							01C14	CAP 2.2UF 20V TA			0180-0197	U	1			
P							01C16	CAP 3.3UF 15V TA			0180-0210	U	1			
P							01C9,11	CAP 15UF 20V TA			0180-1746	U	2			
P							01C4	CAP 150UF 15V TA			0180-1747	U	1			
P							01C2	CAP 900UF 25V AL			0180-2755	U	1			
P							01C1	CAP 190UF 75V AL			0180-2761	U	1			
P								INSUL-XSTR T0-3			0340-0875	U	1			
P	NW							TERM-STUD SGL			0360-1682	U	4		NSRM	
P	RN							8TDF RVT6-32x.12			0380-0342	U	2		WREG	
P							01R4	RES 2.7 5% .25W			0683-0275	U	1			
P	NW						01R20,23	RES 1M 5% .25W			0683-1055	U	2		NSRM	
P							01R47	RES 464 1% .125			0698-0082	U	1			
P							01R12	RES 3.63K 1% .125			0698-3153	U	1			
P								RES 4.22K 1% .125			0698-3154	U	1			PART NO CONT

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	2 OF
PCA-MEM PREREG		81000-6007			
DIV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
47	25 F		99-09-09	78-08-24	YYYY47436568

YIELD	U	P	S	BT	FD	C	ITEM NO	REFERENCE DESIGNATOR (FIRST SIX)	PART DESCRIPTION	PARENT OPTION	PART NUMBER	COMP OPTION	QUANTITY PER	UM	POLICY ISSUE	ALTERNATE DELIVER TO
									PART NO CONT		0698-3154					
P							01R48	RES 4.64K 1% .125			0698-3155	U	1			
P							01R17	RES 14.7K 1% .125			0698-3156	U	1			
P							01R43	RES 19.6K 1% .125			0698-3157	U	1			
P							01R46	RES 237 1% .125W			0698-3442	U	1			
P							01R32	RES 348 1% .125W			0698-3445	U	1			
P							01R2	RES 196K 1% .125W			0698-3453	U	1			
P							01R29	RES 402 1% .125W			0698-4453	U	1			
P							01R1	RES 1.0K 1% .125W			0757-0280	U	4			
P							01R19,26,31,33	RES 2.0K 1% .125W			0757-0283	U	2			
P							01R13,16	RES 9.09K 1% .125			0757-0286	U	1			
P							01R22	RES 42.2 1% .125W			0757-0316	U	1			
P							01R5	RES 1.33K 1% .125			0757-0317	U	1			
P							01R39	RES 10 1% .125W			0757-0346	U	1			
P							01R11	RES 100 1% .125W			0757-0401	U	1			
P							01R3	RES 162 1% .125W			0757-0405	U	1			
P							01R37	RES 750 1% .125W			0757-0420	U	1			
P							01R15	RES 825 1% .125W			0757-0421	U	1			
P							01R41	RES 7.5K 1% .125W			0757-0440	U	1			PART NO CONT

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	3 OF
PCA-MEM PREREG		81000-6007			
DIV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
47	25 F		99-09-09	78-08-24	YYYY47436568

YIELD	U	P	S	BT	FD	C	ITEM NO	REFERENCE DESIGNATOR (FIRST SIX)	PART DESCRIPTION	PARENT OPTION	PART NUMBER	COMP OPTION	QUANTITY PER	UM	POLICY ISSUE	ALTERNATE DELIVER TO
									PART NO CONT		0757-0440					
P							01R42	RES 10K 1% .125			0757-0442	U	9			
P							01R7,18,21,24,34,3A,32,40,44,45	RES 100K 1% .125W			0757-0465	U	1			
P							01R14	RES .1 3% 5W PV			0811-2490	U	1			
P							01R6	RES .22 5% 2r PW			0811-3294	U	1			
P							01R9	HT DIS T0-n3			1205-0289	U	1			
P								CONNECTOR; SGL			1251-2913	U	2			
P								CONN UTIL 4PIN M			1251-3837	U	1			
P							01J2	CONN UTIL 2PIN M			1251-4780	U	1			
P							01J3	CONN UTIL 3PIN M			1251-4781	U	2			
P							01J1,4	SNAP-IN PLUNGER			1390-0365	U	4			
P								SNAP-IN GRNMVET			1390-0366	U	4			
P								IC U6E7723393 S			1820-0439-47	U	1			
P							01U1	IC MC3302 S			1826-0174-47	U	1			
P							01U2	IC LM319N CMPTR			1826-0175	U	1			
P							01U3	XSTR 2N2904A T05			1853-0012	U	1			
P							01Q2	XSTR 2N2222AT018			1854-0477	U	1			
P							01Q3	XSTR 2N6474			1854-0727	U	1			
P							01Q4	XSTR 2N5039 T03S			1854-0762-47	U	1			
P							01Q1	SCR 2N6398 S			1884-0249-47	U	1			PART NO CONT

MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	4 OF
PCA-MEM PREREG		31000-60067			
DIV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
17	25 F		99-09-09	78-08-24	YYYY47836568

YIELD	STATUS	UNIT	QTY	DESCRIPTION	PARENT OPTION	PART NUMBER	COMP	U	QTY	UM	POLICY	ALTERNATE
				PART NO CONT		1884-0249-47						
	P			0105								
	P			DIO 400V .75A		1901-0028		U	1			
	P			01CR9								
	P			DIO 75V .2A 2NS		1901-0050		U	2			
	P			01CR14,15								
	P			DIO 600V 6A		1901-0787		U	1			
	P			01CR1								
	P			DIO 50V 6A		1901-0850		U	1			
	P			01CR3								
	P			DIO 20V 25A		1901-1062		U	1			
	P			01CR12								
	P			DIO ZNR 6.2V 5%		1902-0777		U	1			
	P			01CR13								
	P			DIO ZNR 13.3V 5%		1902-3193		U	1			
	P			01CR8								
	P			DIO ZNR 19.6V 5%		1902-3234		U	1			
	P			01CR4								
	P			LED GRN T1.75		1990-0523		U	1			
	P			01CR11								
	P			LED RED T1-3.75		1990-0529		U	1			
	P			01CR10								
	P			PES TRMR 500x10%		2100-3617		U	1			
	P			01R10								
	P			FUSE CLIP .250D		2110-0269		U	2			
	P			FUSE 8A NB		2110-0342		U	1			
	P	NN		SCR 6-32X.38 PH		2360-0117		U	2		NSRM	
	P	NN		NUT 6-32 W/LK		2420-0001		U	1		NSRM	
	P	NN		NUT 10-32 .375AF		2740-0002		U	1		NSRM	
	P	NN		NUT 10-32 W/LK		2740-0003		U	1		NSRM	
	P	NN		CTG CLR		6010-0140		U	.001		NSRM	
	P	NN		LABEL-DATE CODE		7120-6830		U	1		NSRM	
	P	NN		WIRE 18 WMT		8150-2664		U	.10 FT		NSRM	
	P			COIL 33.0 UH		9100-1625		U	1			
				PART NO CONT								

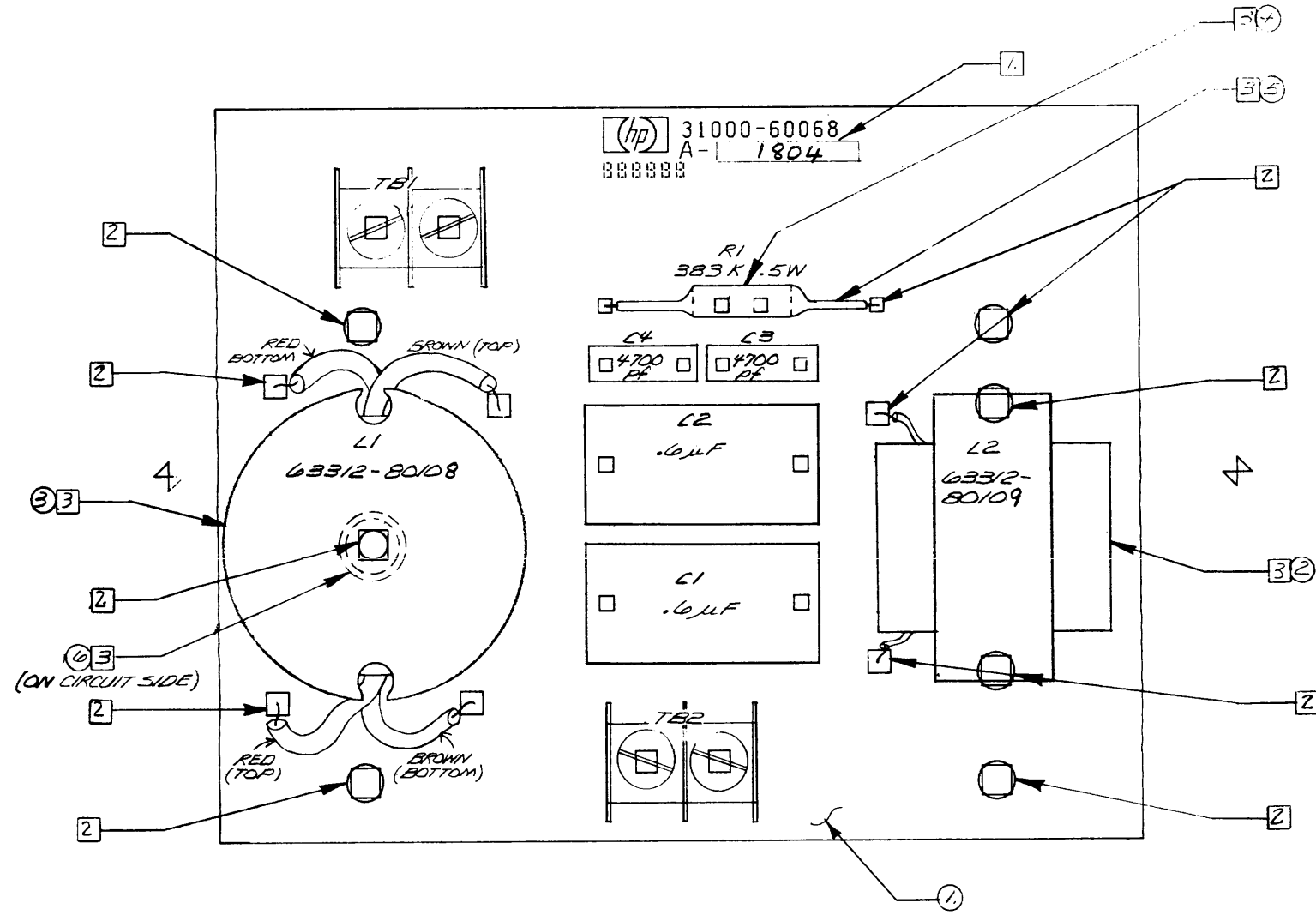
MATERIAL LIST

HEWLETT  PACKARD

DESCRIPTION	EOE NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	5 OF
PCA-MEM PREREG		31000-60067			
DIV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	DELIVER TO
17	25 F		99-09-09	78-08-24	YYYY47836568

YIELD	STATUS	UNIT	QTY	DESCRIPTION	PARENT OPTION	PART NUMBER	COMP	U	QTY	UM	POLICY	ALTERNATE
				PART NO CONT		9100-1625						
	P			01L2								
	P			CHOKE		9100-3965		U	1			
	F			01L1								
	F			PCB-MEM PREREG		31000-80067		W	1			
				END OF MATERIAL LIST								

ENGINEERING RESPONSIBILITY															SEMA					C-31000-60068-1	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM		REVISIONS		APPROVED	DATE
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED		<i>[Signature]</i>	2 15 78	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47						



- NOTES:
- 1 MARK DATE CODE
 - 2 MASK AS INDICATED PRIOR TO LOADING
 - 3 INSTALL ITEMS 2, 3, 4 IN THE ORDER SHOWN
 - 4 SCHEMATIC D-31000-60002-6
 - 5 AT THE MECHANICAL INSPECTION STATION, APPLY ITEM 7 NEAR THE HP LOGO.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
7	1	LABEL-WARRANTY	7120-6830		
6	1	#8 SCREW W/LOCK WSHR	2510-0045		
5	1	TUBING, HEAT SHRINK	0890-0311	1.4" LG.	
4	1	RESISTOR, 383K, 1/8W	0757-0133		
3	1	CHOKE CM. POTCORE	63312-80108		
2	1	CHOKE CORE SOUH	63312-80109		
1	1	PC BOARD, ETCHED	31000-80068		

PROCESS REVIEW
 DATE 1-25-78 BY Pat Wright

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005		PCB LINE FILTER ASSY		HEWLETT PACKARD	
RELEASE TO PROD.	FINISH	SCALE 2:1	31000-60002		
SUPERSEDES DWG.			31000-60068		
SEE CORP. STD. 608			C-31000-60068-1		

MATERIAL LIST

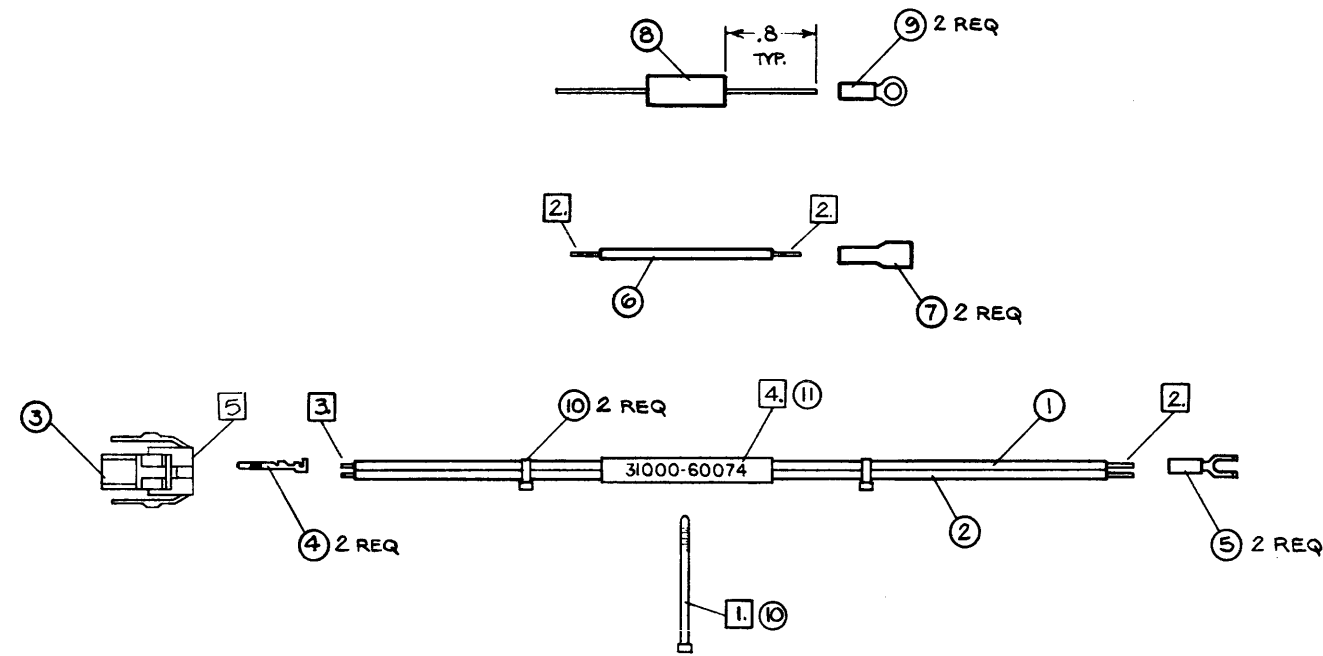
HEWLETT  PACKARD

DESCRIPTION		EQ# NUMBER	MODEL OR ASSEMBLY NUMBER	OPTION	PAGE	1 OF
PCB-LINE FILTER			31000-8006R			
DIV	LT	PRIMARY MODEL	RELEASE DATE	REVISION DATE	CYCLE	DELIVER TO
07	20 F		99-09-09	78-08-24	YYYYY	743656R

YIELD	UNIT	KT	FD	ITEM	REFERENCE	PART DESCRIPTION	PARENT	PART NUMBER	COMP	QTY	UM	POLICY	ALTERNATE
CT	ID		1, P	NO	DESIGNATOR		OPTION		OPTION	PER		ISSUE	DELIVER TO
					01	DATE CODE 1804							
	P				01C1,2	CAP .6UF 250VAC		0160-4413		U	2		
	P				01C3,4	CAP 4700PF 20%		0160-4439		U	2		
	P				01781,2	BLK BARR 2X1 20A		0360-1909		U	2		
	P				01R1	RES 383K 1% .5W		0757-0133		U	1		
	P	NN				SCR 8-32X.38 PH		2510-0045		U	1	NSRM	
	P	NN				LABEL-DATE CODE		7120-6830		U	1	NSRM	
	F					PCB-LINE FILTER		31000-8006R		W	1		
	F				01L1	CHOKE CM POTCORE		63312-80108		W	1		
	F				01L2	CHOKE E CORE70UH		63312-80109		W	1		
END OF MATERIAL LIST													

ENGINEERING RESPONSIBILITY																SEPIA																						
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																							
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	SYM	REVISIONS	APPROVED	DATE
																A	AS ISSUED	<i>[Signature]</i>	12-9-77																			
																B	ADDEM ITEM (11) & NOTE 4, 5 PRCR 31213"EE"	BDS	2-17-78																			

C-31000-60074-1



NOTES:

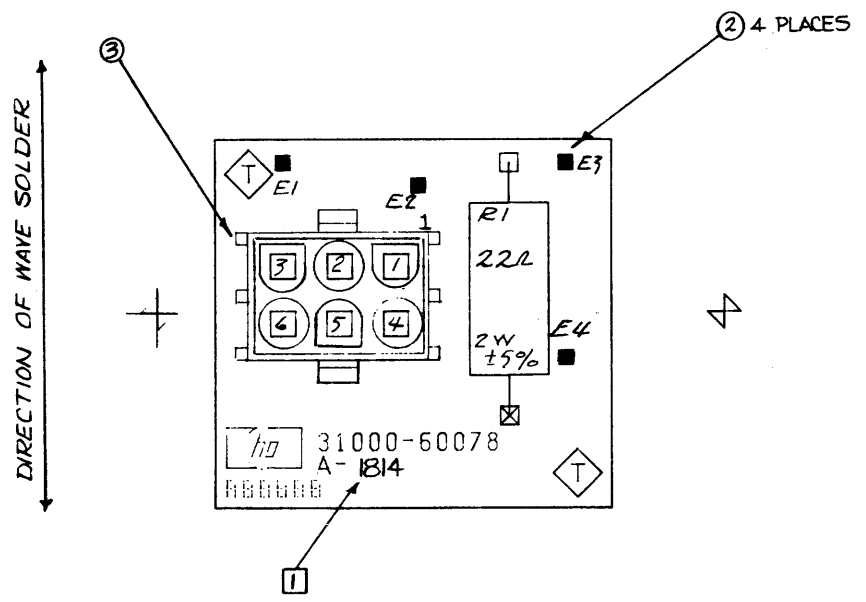
- 1. FASTEN THE THREE CABLES TOGETHER WITH A CABLE TIE.
- 2. STRIP WIRE .25"
- 3. STRIP WIRE .125"
- 4. MARK HP PART NUMBER (31000-60074) ONTO TUBING AND HEATSHRINK ONTO CABLE.
- 5. EITHER WIRE (1) (2) MAY GO INTO PIN 1

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-OWG. NO.	MAT'L-SPEC.
11	1.5"	SHRINK TUBING	0890-0029		
10	3	CABLE TIE	1400-0249		
9	2	LUG, CLOSED END, RED	0362-0319		
8	1	RESISTOR, 4.7 K Ω	0764-0018		
7	2	LUG, FASTON, RED	0362-0467		
6	2"	WIRE, 18GA, BLK	8150-2890		
5	2	LUG - OPEN END, RED	0362-0317		
4	2	CONTACT	1251-0613		
3	1	CONNECTOR, AMP	1251-4128		
2	7"	WIRE; 18 GA; WHT, BLU	8150-0654		
1	7"	WIRE; 18 GA; BLU	8150-0656		

PROCESS REVIEW
DATE 2-23-78 BY Pat Wright

DO NOT SCALE THIS DRAWING	UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	POWER SUPPLY CABLE SET	HEWLETT PACKARD
TOLERANCES .XX ± .02 .XXX ± .005	SEE CORP. STD. 608	TITLE 31000-60002	PART NUMBER 31000-60074
RELEASE TO PROD.	SUPERSEDES DWG.	FINISH	SCALE FULL
			C-31000-60074-1

ENGINEERING RESPONSIBILITY <input checked="" type="checkbox"/>											SEPIA <input checked="" type="checkbox"/>				C-31000-60078-1				
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM	REVISIONS	APPROVED	DATE
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	PW/EG	4/5/78
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47				
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63				



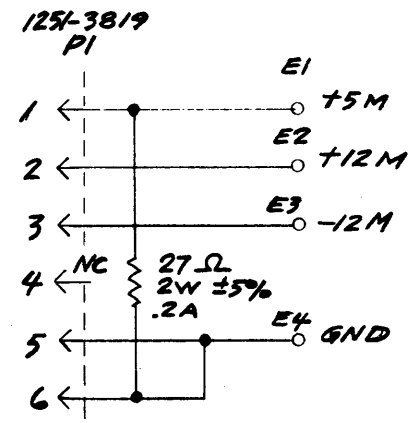
- NOTES:**
- ① MARK DATE CODE & "MADE IN USA"
 - ② MATCH PIN 1 MARKED ON CONNECTOR WITH PIN 1 ETCHED ON BOARD.
 - ③ SCHEMATIC: C-31000-60078-6

4	1	RES 22Ω	0678-3609		
3	4	TERM STUD S6L	0360-1682		
2	1	CONN-UTIL. 6M P	1251-3819		
1	1	BOARD ETCHED	31000-60078		
ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.

PROCESS REVIEW
 by +5-78 or Pat Wright

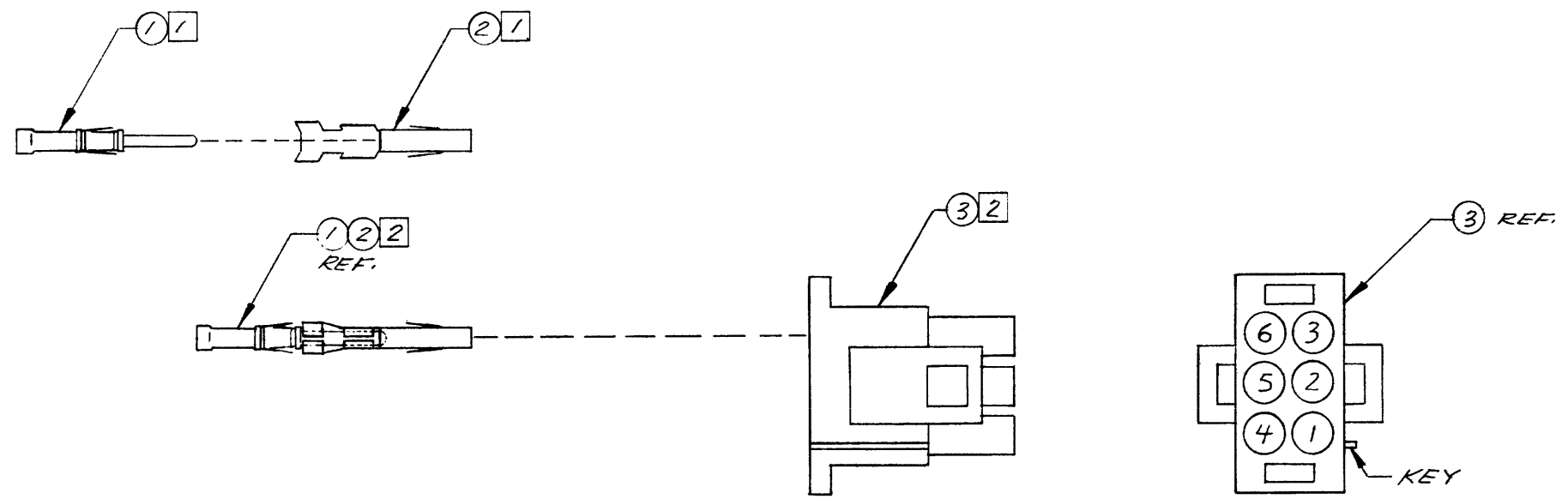
DO NOT SCALE THIS DRAWING		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TOLERANCES .XX ± .02 .XXX ± .005		SEE CORP. STD. 608	
RELEASE TO PROD.		SUPERSEDES DWG.		TITLE LOAD PLUG ASSEMBLY		HEWLETT PACKARD	
				31000-67001 + 67002		31000-60078	
				NEXT ASSEMBLY		PART NUMBER	
				FINISH		SCALE 2/1	
						C-31000-60078-1	
						SHEET 1 OF 1	

ENGINEERING RESPONSIBILITY <input checked="" type="checkbox"/>																SEPIA <input checked="" type="checkbox"/>				31000-6007B-6	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM	REVISIONS	APPROVED	DATE		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	AIB14	PW/KB	4/15/78	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47						



ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.							
<table border="1"> <tr> <td rowspan="3"> DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005 SEE CORP. STD. 608 </td> <td> TITLE LOAD PLUG SCHEMATIC </td> <td> HEWLETT PACKARD </td> </tr> <tr> <td> 31000-67001 & 67002 NEXT ASSEMBLY </td> <td> 31000-6007B PART NUMBER </td> </tr> <tr> <td> FINISH SCALE NONE </td> <td> 31000-6007B-6 SHEET 1 OF 1 </td> </tr> </table>						DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005 SEE CORP. STD. 608	TITLE LOAD PLUG SCHEMATIC	HEWLETT PACKARD	31000-67001 & 67002 NEXT ASSEMBLY	31000-6007B PART NUMBER	FINISH SCALE NONE	31000-6007B-6 SHEET 1 OF 1
DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005 SEE CORP. STD. 608	TITLE LOAD PLUG SCHEMATIC	HEWLETT PACKARD										
	31000-67001 & 67002 NEXT ASSEMBLY	31000-6007B PART NUMBER										
	FINISH SCALE NONE	31000-6007B-6 SHEET 1 OF 1										

ENGINEERING RESPONSIBILITY															SEPA															C-31000-60079-1									
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	BYM	REVISIONS	APPROVED	DATE
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	A	AS ISSUED	Pw/RB	3/20/78																				



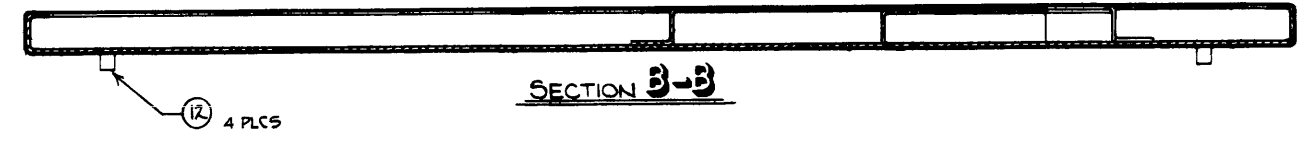
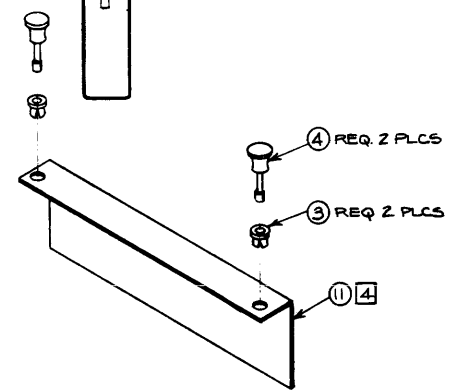
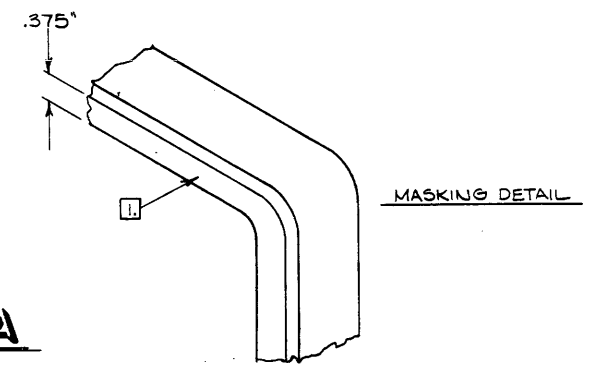
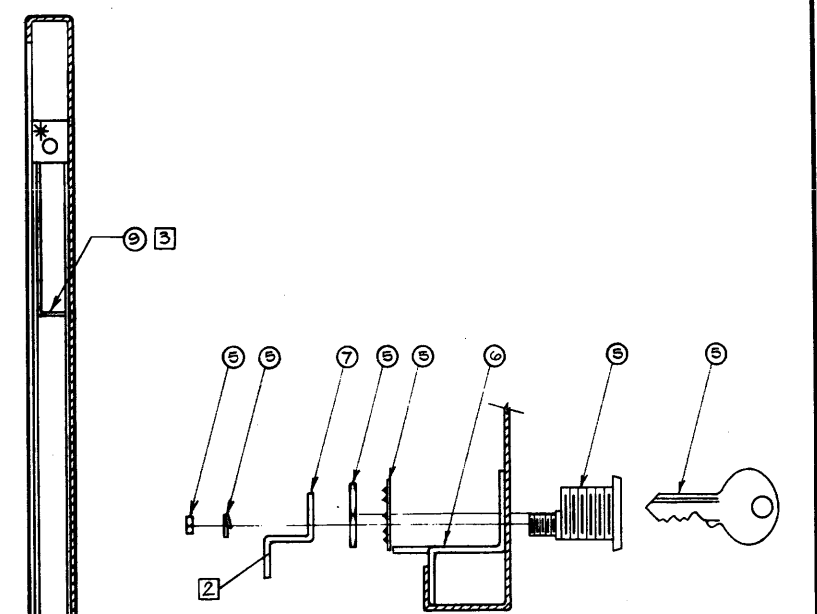
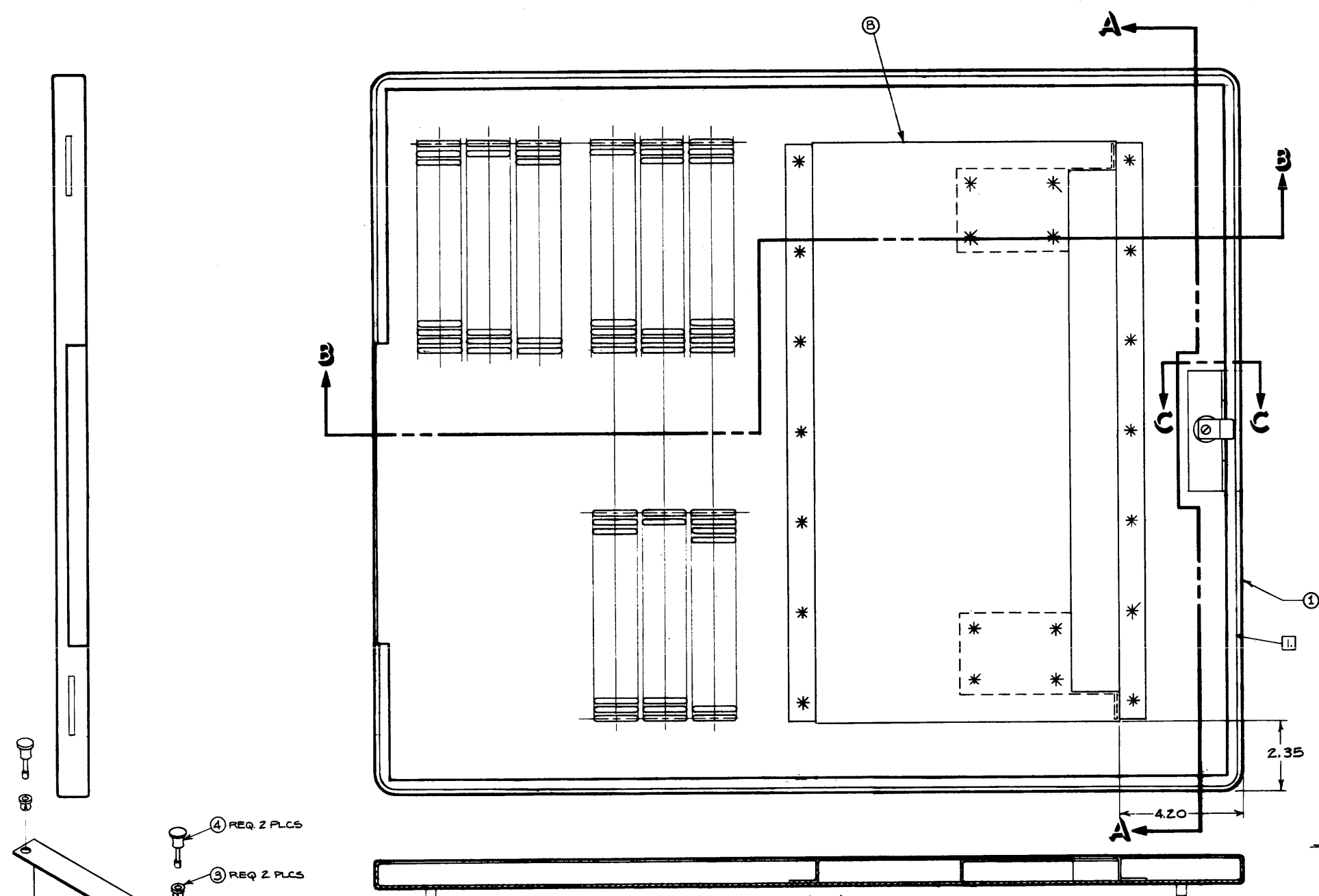
NOTES:

- 1 CRIMP TOGETHER ITEMS ① & ②.
- 2 INSERT ASSEMBLED CONTACTS INTO POSITIONS 2, 4 & 6 OF ITEM ③. (NOTE KEY).
 - #2 - +12V
 - #4 - +5V
 - #6 - GROUND

3	1	CONNECTOR, PWR.	1251-3817		
2	3	CONTACT, CONN. F.	1251-3911		
1	3	CONTACT, CONN. M.	1251-0329		
ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.

PROCESS REVIEW
 DATE 3-14-78 BY Pat Wright

DO NOT SCALE THIS DRAWING		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.		TOLERANCES .XX ± .02 .XXX ± .005		SEE CORP. STD. 608	
RELEASE TO PROD.		SUPERSEDES DWG.		FINISH		SCALE 2-1	
TITLE BACKPLANE POWER CONN. ASSY				HEWLETT PACKARD			
NEXT ASSEMBLY 31000-67001				PART NUMBER 31000-60079			
C-31000-60079-1				SHEET OF			



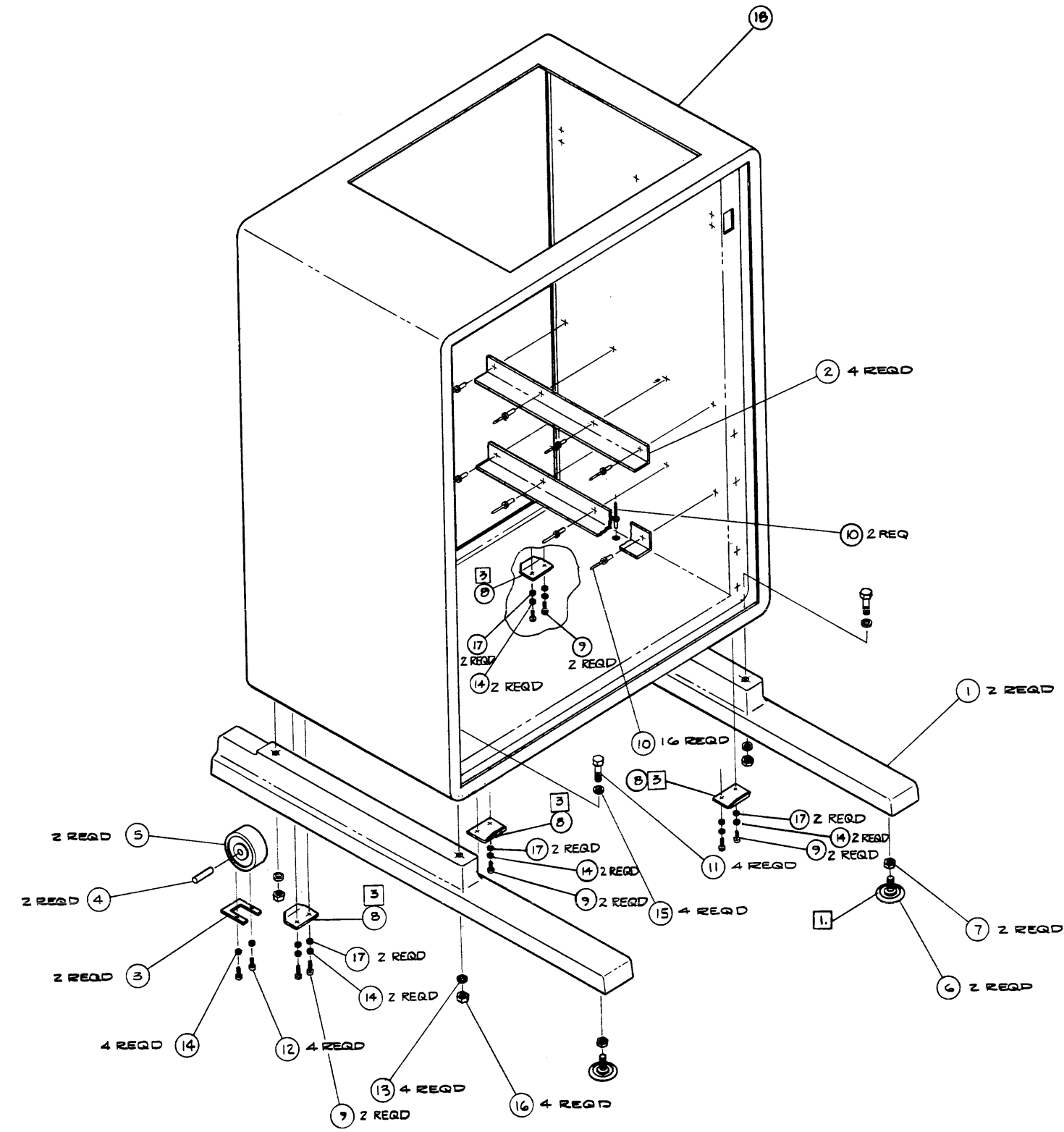
SECTION A-A

- NOTES:**
1. FINISH - ZINC PLATE .001" THK, MASK AS SHOWN AND PAINT WITH ITEM 2; STIPPLE TEXTURE II. INSIDE OF DOOR NEED NOT BE TEXTURED.
 2. LOCK PAWL ITEM 7 MUST BE INSTALLED AS SHOWN WITH LOCK SUCH THAT THE KEY CAN BE REMOVED.
 3. ALIGN ITEMS 9 & 10 SO THAT HOLES LINE UP WITH HOLES IN ITEM 8.
 4. INSTALL NYLATCHES AND FASTEN TO LOG BOOK HOLDER (ITEM 6).
 5. PLACE KEYS IN PLASTIC BAG AND TAPE TO INSIDE OF DOOR POCKET.

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY. NO.	MAT'L SPEC.
12	4	PLASTIC PLUG	6960-0008		
11	1	LOG BOOK COVER	31000-00000		
10	1	CONNECTOR SUPPORT, LEFT	31000-00080		
9	1	CONNECTOR SUPPORT, RIGHT	31000-00079		
8	1	LOG BOOK HOLDER	31000-00004		
7	1	LOCK PAWL	31000-00108		
6	1	REAR DOOR GUIDE - F	31000-00090		
5	1	LOCK ASSEMBLY	1390-0344		
4	2	NYLATCH PLUNGER, .25"	1390-0365		
3	2	NYLATCH GROMMET, .25"	1390-0366		
2	A/R	PAINT - PEARL GRAY	6010-0655		
1	1	REAR DOOR	31000-00049		

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. TOLERANCES: .XX ± .05 .XXX ± .080	REAR DOOR ASSEMBLY		HEWLETT-PACKARD
	TITLE: 31213A		PART NUMBER: 31000-60081
	NEXT ASSEMBLY: [Blank]		PART NUMBER: [Blank]
SCALE: HALF	D-31000-60081-1		SHEET 1 OF 1

ENGINEERING RESPONSIBILITY										REVISIONS										DATE																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	BY	DATE
										A										AS ISSUED		PLAT-2084		12/1/78		12/27/78															



- NOTES:**
1. ADJUST LEVELING PAD TO EXTEND 1/2" FROM BOTTOM EDGE OF FOOT.
 2. INSTALL FEET SUCH THAT VERTICAL SURFACE IS FLUSH WITH CABINET FRONT.
 3. USE ALIGNMENT TOOL (T116652) TO INSTALL DOOR MOUNTING BRACKETS, ITEM 8.

ITEM	QTY	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-OWNS. NO.	MAT'L-SPEC.
18	1	MINIRACK ASSY	31000-60080		
17	8	WASHER-FLAT #8	3050-0139		
16	4	NUT-HEX 5/16-18	2950-0047		
15	4	WASHER-FLAT 5/16	3050-0881		
14	12	WASHER-LOCK #8 HEL	2190-0078		
13	4	WASHER-LOCK 5/16 HEL	2190-0432		
12	4	SCREW-8-32 X.375 L	2510-0105		
11	4	SCREW-5/16-18 X.87L	2940-0056		
10	16	RIVET BLIND	0561-1011		
9	8	SCREW 8-32 X.50L	2510-0107		
8	4	BRACKET-DOOR MOUNT	31000-00086		
7	2	NUT-TWIN HEX 9/16-18	2950-0012		
6	2	LEVELING PAD	0408-0258		
5	2	WHEEL	1482-0037		
4	2	AXLE	31000-20007		
3	2	WHEEL-PLATE	31000-00057		
2	4	BRACKET-SUPPORT	31000-00052		
1	2	FOOT-FINISHED	31000-20001		

TOOLING REVIEW
DATE: _____ BY: _____

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005
SEE COMP. STD. 808

31000-60080-2, REV C | 9-14-78

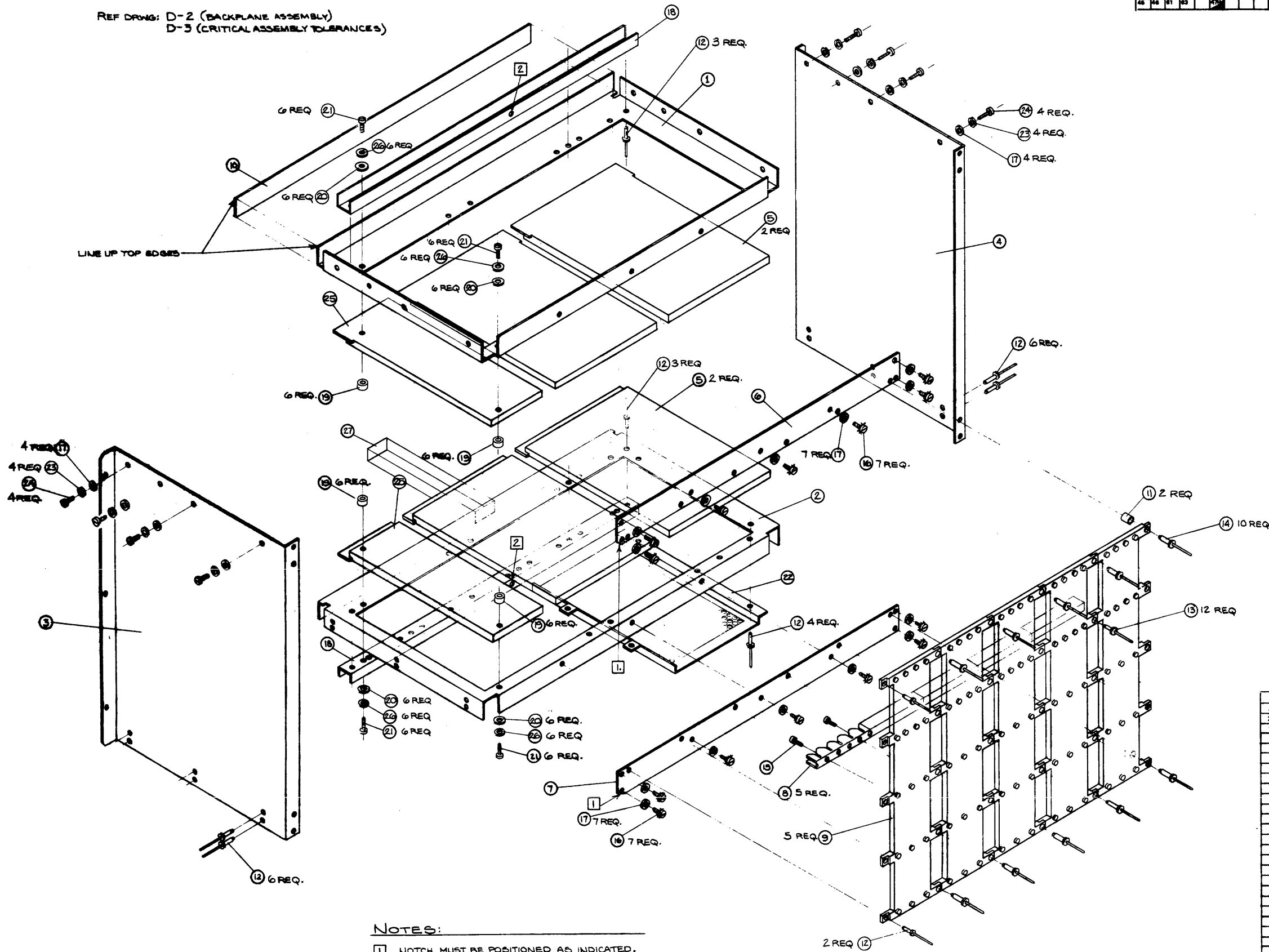
CABINET ASSEMBLY
TITLE: CABINET ASSEMBLY
PART NUMBER: 31000-60084
NEXT ASSEMBLY: 51213A
SCALE: NONE

HEWLETT PACKARD
DATE: 12/1/78
DRAWN BY: JONE
CHECKED BY: JONE
DATE: 12/27/78

SHEET 1 OF 1

REF DRWG: D-2 (BACKPLANE ASSEMBLY)
D-3 (CRITICAL ASSEMBLY TOLERANCES)

ENGINEERING RESPONSIBILITY												REVISIONS												DATE																
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
A AS ISSUED												B REVISED PER PROR 31213A "S"												11/30/71																



NOTES:
 1 NOTCH MUST BE POSITIONED AS INDICATED.
 2 ORIENT CHANNEL WITH LOCATING HOLE AS SHOWN.

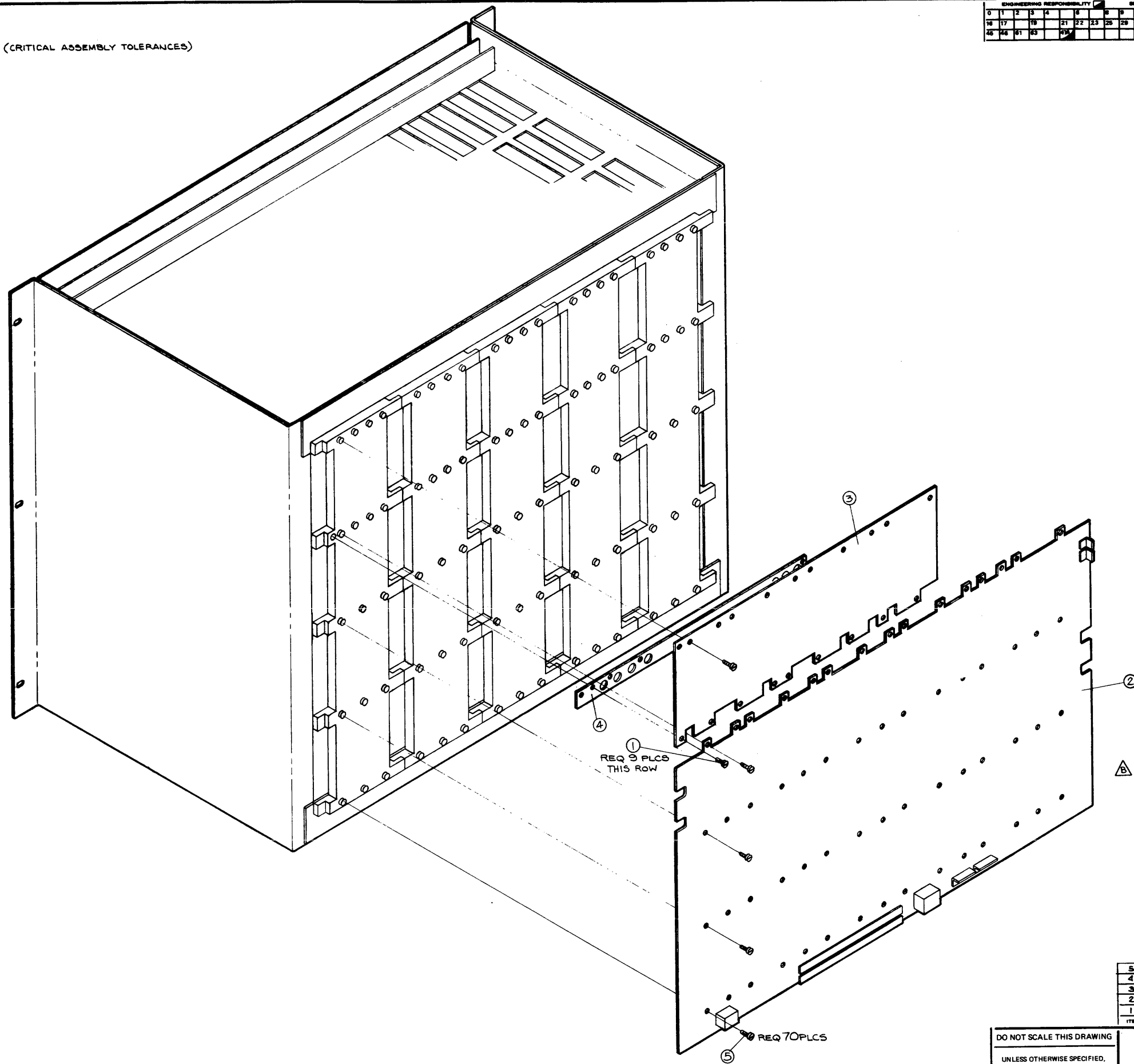
ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
27	1	LABEL "CAUTION"	7120-7051		
26	24	*G HEL SPP LOCK	2190-0851		
25	2	PC GUIDE	31000-20004		
24	8	*G-32 X .375 SCREW	2510-0103		
23	8	*G HEL SPP LOCK	2190-0073		
22	1	GUARD	31000-00091		
21	24	*G-32 X .500 SCREW	2360-0201		
20	24	*G FLAT WASHER	3050-0287		
19	24	*G-32 INSERT	0550-1143		
18	2	BRACE	31000-00078		
17	22	*G FLAT WASHER	3050-0139		
16	14	*G-32 X .375 SCREW W/LOCK	2510-0040		
15	10	*G-32 X .250 SCREW W/LOCK	2360-0113		
14	10	BLIND RIVET .675 LONG	0361-0657		
13	12	BLIND RIVET .550 LONG	0361-0670		
12	24	BLIND RIVET .385 LONG	0361-1011		
11	2	*G X .188 SPACER	0380-0004		
10	1	LABEL PLATE	7120-6614		
9	5	BACKPLANE SUPPORT	31000-20009		
8	5	BACKPLANE CARD GUIDE	31000-40001		
7	1	BOTTOM BACK PLATE	31000-00039		
6	1	TOP BACK PLATE	31000-00012		
5	4	PC GUIDE	5040-6007		
4	1	LEFT SIDE PLATE	31000-00040		
3	1	RIGHT SIDE PLATE	31000-00013		
2	1	BOTTOM CARD GUIDE MOUNT	31000-00015		
1	1	TOP CARD GUIDE MOUNT	31000-00014		

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005
 SEE CORP. STD. 808

CARD CAGE ASSEMBLY TITLE 31213A NEXT ASSEMBLY FINISH		HEWLETT PACKARD PART NUMBER 31213-60010 SCALE NONE D-31213-60010-1	
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REF. DRAWINGS: D-1
D-3 (CRITICAL ASSEMBLY TOLERANCES)

ENGINEERING RESPONSIBILITY															DEPT															31213-60010-2														
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	SYM	REVISED	APPROVED	DATE					
																														A	AS ISSUED	<i>[Signature]</i>	5-11-77											
																														B	REVISED PER PROR 31213A *S*	<i>[Signature]</i>	11-30-77											



REQ 9 PLCS
THIS ROW

REQ 70 PLCS

5	70	#6-32 X .250 SCREW W/LOCK	2360-0113		
4	1	P1 BACKPLANE SHIM	31000-00037		
3	1	P1 BACKPLANE	31000-60020		
2	1	MAIN BACKPLANE	31000-60054		
1	9	*4-40 X .375 W/L	3300-0107		
ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.

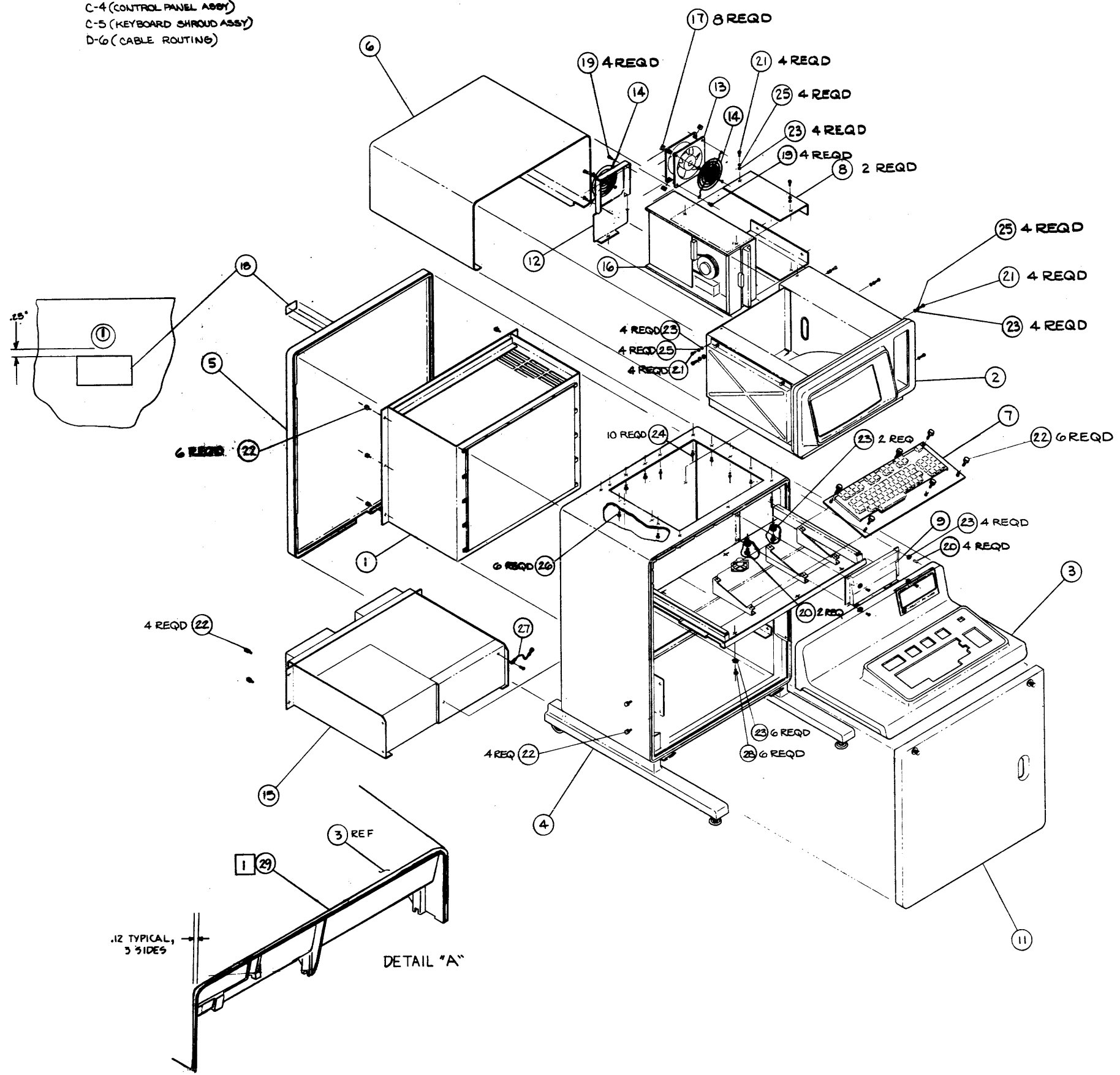
DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005
SEE CORP. STD. 608

CARD CAGE ASSY		HEWLETT PACKARD	
TITLE	31213A	PART NUMBER	31213-60010
NEXT ASSEMBLY		FINISH	SCALE NONE
SUPERSEDES DWG.		D-31213-60010-2	

D-31213-300010	
REV	REVISED
D	REWORKED PCAT-205B
E	DEL ITEM 10 (FLO DISC) AND
F	ADD ITEM 27 NOT 1 DETAIL "A" PCAT-205B
DATE	BY
11/16/78	MS/MSK

REF DRWGS: D-2 (CABINET ASSY)

C-4 (CONTROL PANEL ASSY)
 C-5 (KEYBOARD SHROUD ASSY)
 D-6 (CABLE ROUTING)



1 INSTALL FOAM GASKET (ITEM 29) ON SHROUD (ITEM 6) AS SHOWN IN DETAIL "A"

QTY	A/R	DESCRIPTION	PART NO.	UNIT
29	1	FOAM GASKET	0460-1204	
28	6	#8-32 SCREW X .625 L	2510-0081	
27	1	CABLE SET, GROUNDING	31000-60023	
26	6	SELF TAP SCREW	08E4-0344	
25	12	WASHER #8 LOCK	2190-0073	
24	10	RIVET-BLIND	0361-1011	
23	24	WASHER #8 FLAT	3050-0139	
22	20	SCREW #8-32 HEX HEAD	2510-0254	
21	12	SCREW #8-32 X .375 L	2510-0103	
20	6	SCREW #8-32 X .38 L	2510-0046	
19	8	SCREW #6-32 X .75 L	2360-0125	
18	1	LABEL "CAUTION"	7120-6429	
17	8	NUT SHMET U #6-32	0590-0653	
16	1	FLEXIBLE DISC	7902A	
15	1	POWER UNIT ASSY	31000-60006	
14	2	FAN GRILLE	3160-0092	
13	1	FAN-TBAX	3160-0218	
12	1	SUPPORT-FAN/LABEL	31000-00011	
11	1	FRONT DOOR	31000-00107	
10				
9	1	ASSY-CTRL PNL		SEE C-4
8	2	BRACKET-FX DISC MTG	31000-00077	
7	1	KEY BOARD ASSY	31000-60004	
6	1	DISPLAY SHROUD ASSY	31000-60010	
5	1	REAR DOOR ASSY	31000-60081	
4	1	CABINET ASSY		SEE D-2
3	1	KEYBOARD SHROUD ASSY		SEE D-5
2	1	MONITOR ASSY	31000-60043	
1	1	CARD CAGE ASSY	31013-60016	

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES: .010 IN. DIA. .005 IN. DIM. .005 IN. DIM. .005 IN. DIM.

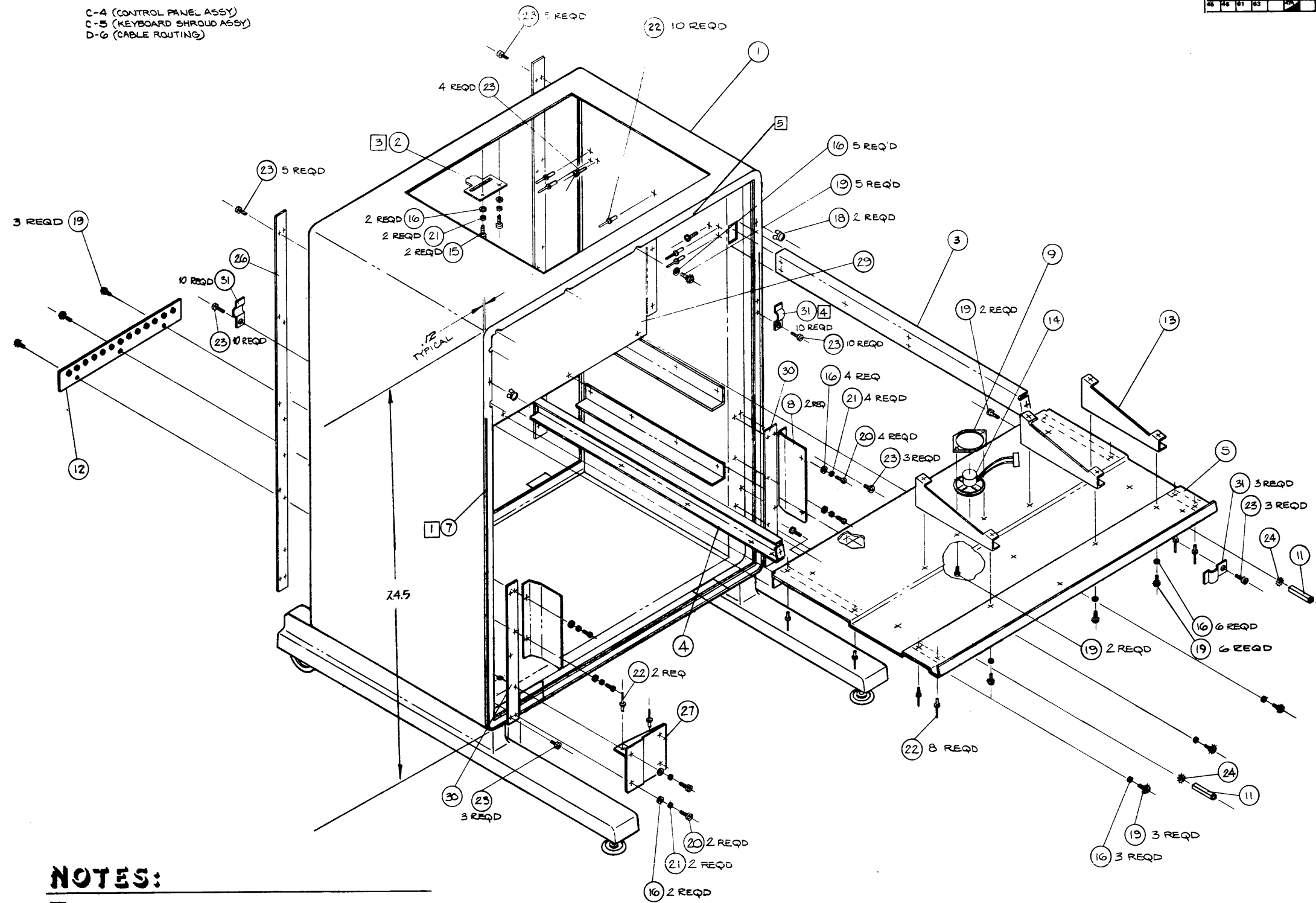
D-1, REV. C 4-10-78

REF DRWS: D-1 (MAIN FRAME)

C-4 (CONTROL PANEL ASSY)
C-5 (KEYBOARD SHROUD ASSY)
D-6 (CABLE ROUTING)

ENGINEERING RESPONSIBILITY												
D	1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38

REV	DESCRIPTION	APPROVED	DATE
D	REDRAWN PLAT-2099		7-11-77
E	ITEM 2 WAS 3124-00007, ITEM 10 WAS QTY		8/16/77
F	34, 2 WAS QTY 10, 2 WAS QTY 16, PLAT-2058		9-14-78
G	ITEM 6 WAS 31000-00066, ITEM 15 QTY WAS 10, ITEM 16 QTY WAS 30, ITEM 21 QTY WAS 16		10-26-78
H	DELETE NOTE 2 PLAT-2008		11-16-78
I	ITEM 1 WAS 31000-60080 PLAT-2084		12-18-78
J	DELETE ITEMS 10 & 17; ITEM 14 WAS 4160-0273 PLAT-2089		
K	REVISE NOTE 1; ADD 24.5 PLAT-2094		
	DEL ITEM 25 (2560-0005) ITEM 23 QTY WAS 4; ITEM 31 QTY WAS 24 ADD NOTES PLAT-2103		



ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY NO.	MAT'L SPEC.
31	23	RFI GROUND CLIP	1600-0794		
30	2	GROUNDING STRIP, FRONT	31000-00102		
29	1	PI BACKPLANE SHIELD	31000-00109		
28					
27	1	DISC MOUNT, FIXED	31241-00008		
26	2	GROUNDING STRIP, REAR	31000-00101		
25					
24	2	WASHER, #8 STAR	2190-0010		
23	49	SCREW, SELF-TAP #4-20 x .38	0624-0349		
22	20	RIVET - BLIND	0861-1011		
21	8	WASHER-LOCK #8	2190-0073		
20	6	SCREW - 8-32 x .38L	2510-0103		
19	21	SCREW/LOCK 8-32 x .38L	2510-0045		
18	2	PLUG - PLASTIC	6960-0088		
17					
16	22	WASHER - FLAT #8	3050-0159		
15	2	SCREW - 8-32 x .50L	2510-0107		
14	1	ASSY - CBL SPEAKER	31000-60064		
13	3	BRACKET - KEYBOARD	31000-00104		
12	1	PLATE - CABLE STRAIN	31000-00097		
11	2	STANDOFF, HEX 8-32 x 1.00L*	0380-0090		
10					
9	1	SPEAKER - MOUNT	31000-00066		
8	2	SUPPORT BKT - PWR SUP	31000-00098		
7	AR	FOAM GASKET	0460-1204		
6					
5	1	KEYBOARD PAN	31000-00106		
4	1	SUPPORT - KBD LEFT	31000-00055		
3	1	SUPPORT - KBD RIGHT	31000-00054		
2	1	GUIDE - ML RR DOOR	31000-00051		
1	1	CABINET ASSEMBLY	31000-60084		

NOTES:

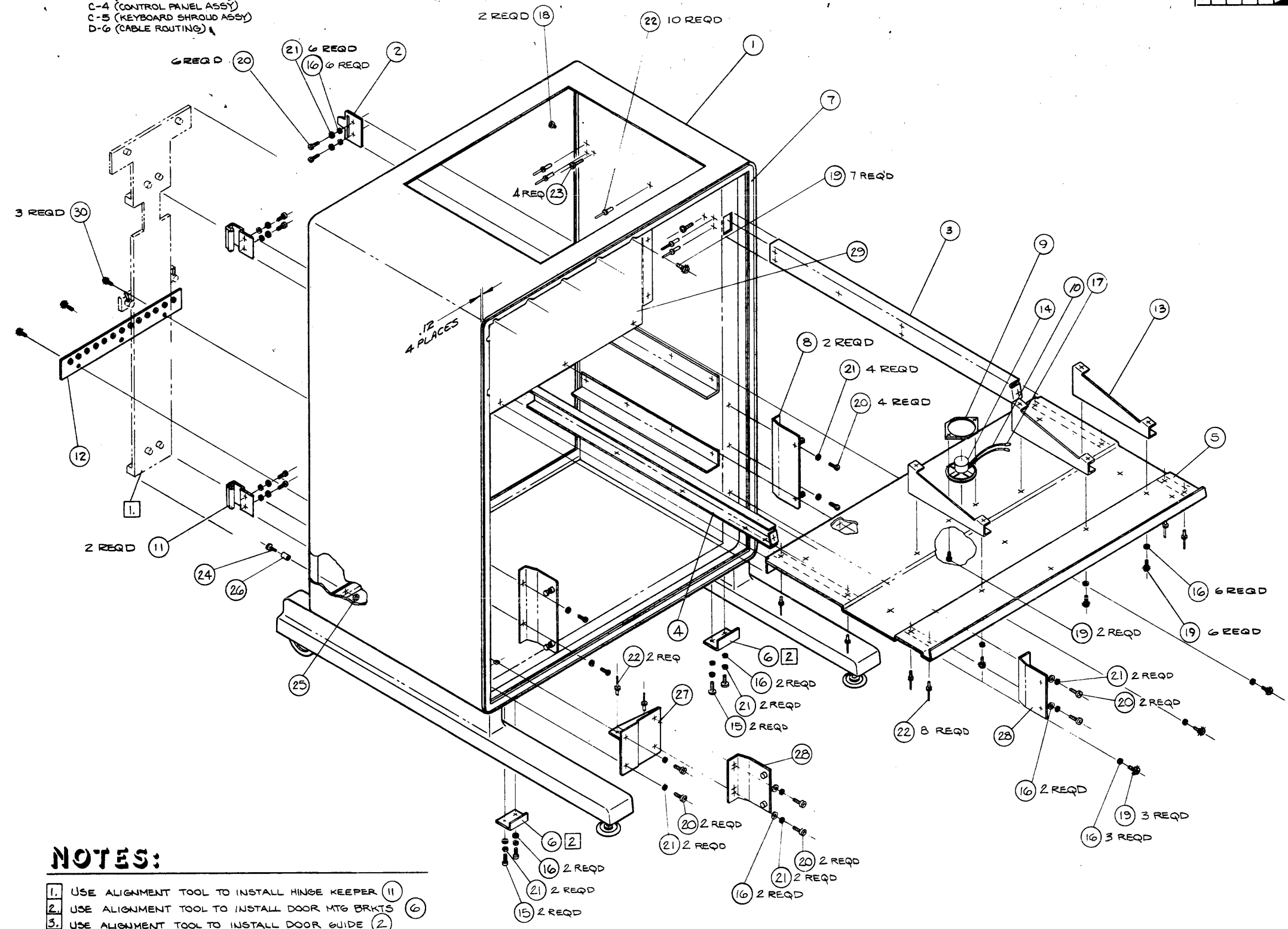
- INSTALL FOAM GASKET ON BOTH FRONT AND REAR OF CABINET - ON FRONT OF CABINET INSTALL ONLY TO DIMENSION MARKED. ON REAR, CONTINUE ON BOTH SIDES AND ALONG TOP
- DELETED
- USE ALIGNMENT TOOL TO INSTALL DOOR GUIDE (2)
- TO INSTALL RFI GROUND CLIP ITEM (31), CUT AWAY FROM GASKET, INSERT TAB INTO SLOT IN CABINET AND INSTALL SELF-TAPPING SCREW ITEM (23). BE SURE SPRING IS FREE TO MOVE THROUGH SLOT.
- DO NOT INSTALL RFI CLIPS IN THE 2 SLOTS AT THE TOP FRONT OF CABINET.

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005
SEE CORP. STD. 888

<p>MAIN FRAME CABINET ASSY</p>		<p>HEWLETT PACKARD</p>	
<p>D-2, REV C 4-10-78</p>		<p>PART NUMBER D-31213-9001-2</p>	

ENGINEERING RESPONSIBILITY													REVISIONS		DATE				
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	REVISED BY		DATE	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	REVISIONS		DATE	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	REVISIONS		DATE	
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	REVISIONS		DATE	

REF DRWS: D-1 (MAIN FRAME)
 D-3 (7910 MTG HARDWARE)
 C-4 (CONTROL PANEL ASSY)
 C-5 (KEYBOARD SHROUD ASSY)
 D-6 (CABLE ROUTING)



NOTES:

1. USE ALIGNMENT TOOL TO INSTALL HINGE KEEPER (11)
2. USE ALIGNMENT TOOL TO INSTALL DOOR MTG BRKTS (6)
3. USE ALIGNMENT TOOL TO INSTALL DOOR GUIDE (2)

ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY NO.	MAT'L SPEC.
30	3	SCREW, FLT HD, 8-32 X .38L	2510-0121		
29	1	P1 BACKPLANE SHIELD	31000-00081		
28	2	DISC MOUNT, REAR	31241-00005		
27	1	DISC MOUNT, FIXED	31241-00006		
26	1	SPACER, #8 X .438"	0380-0007		
25	1	NUT, #8-32 W/LOCK	2580-0003		
24	1	SCREW, #8-32 X .62" ALLEN HD	3030-0025		
23	4	SCREW, SELF-TAP	0624-0349		
22	20	RIVET - BLIND	0861-1011		
21	20	WASHER-LOCK #8	2190-0073		
20	16	SCREW - 8-32 X .38L	2510-0103		
19	18	SCREW/LOCK 8-32 X .38L	2510-0045		
18	2	PLUG - PLASTIC	6960-0088		
17	2	RECEPTACLE-FEMALE	1200-0063		
16	23	WASHER - FLAT #8	3050-0159		
15	4	SCREW - 8-32 X .50L	2510-0107		
14	1	LOUDSPEAKER	9160-0233		
13	3	BRACKET - KEYBOARD	31000-00005		
12	1	PLATE - CABLE STRAIN	31000-00042		
11	2	HINGE KEEPER	31000-20006		
10	1 FT	WIRE SPEAKER	8120-1072		
9	1	SPEAKER - MOUNT	31000-00066		
8	2	SUPPORT BKT - PWR SUP	31000-00058		
7	AR	FOAM GASKET	0460-1204		
6	2	MOUNT BKT - FRONT DOOR	31000-00056		
5	1	KEYBOARD PAN	31000-00053		
4	1	SUPPORT - KBD LEFT	31000-00055		
3	1	SUPPORT - KBD RIGHT	31000-00054		
2	1	GUIDE - ML RR DOOR	31000-00051		
1	1	MINI-RACK ASSY	31000-60003		

DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005
 SEE CORP. STD. 688

MAIN FRAME CABINET ASSY
 TITLE

HEWLETT PACKARD

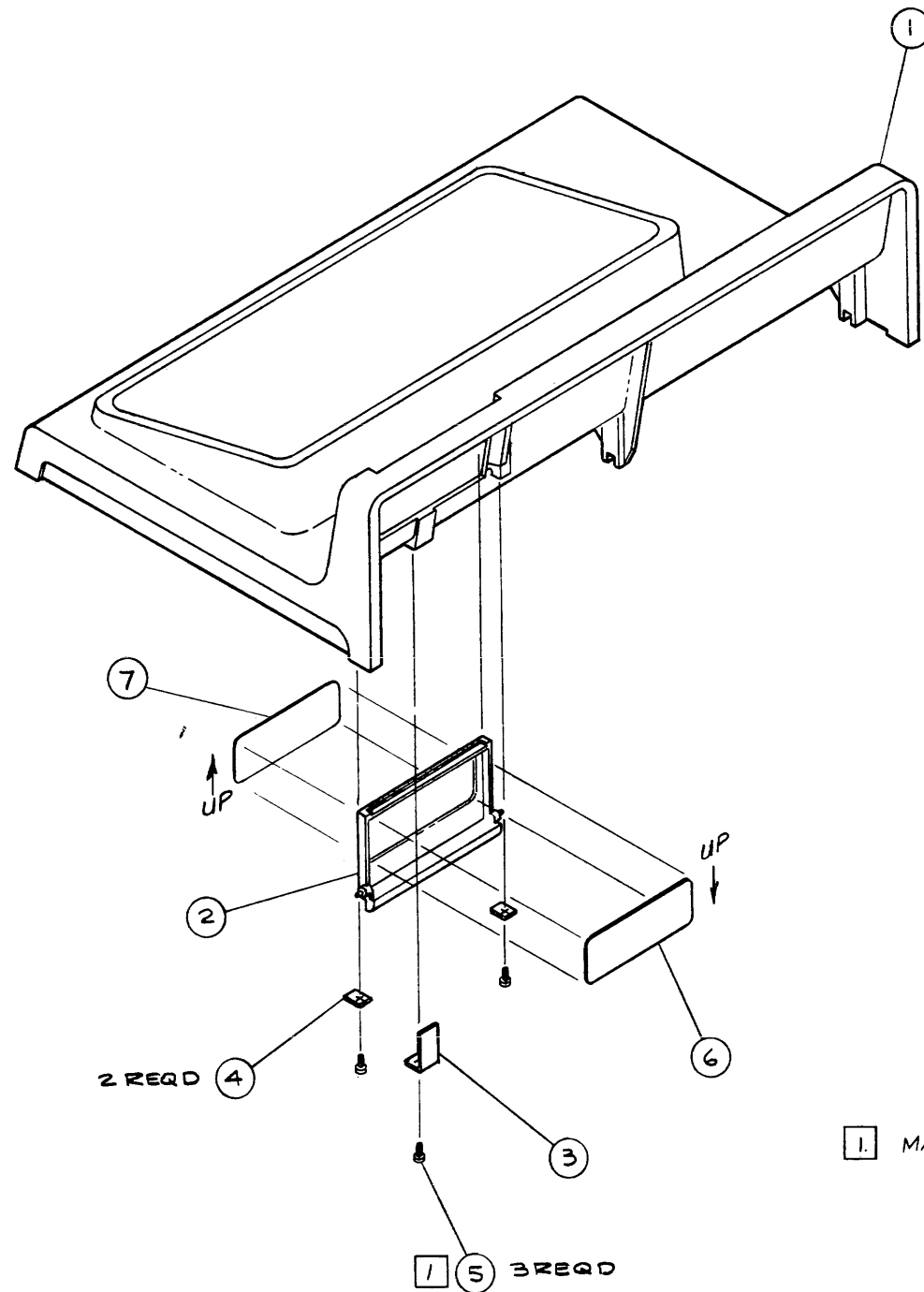
D-2 REV A 5 26 77
 SUPERSEDES DWG

SCALE 1/4

D-31213-90001-2
 SHEET OF

REF DRWGS: D-1 (MAIN FRAME)
 D-2 (CABINET ASSY)
 D-3 (7910 MTG HARDWARE)
 C-4 (CONTROL PANEL ASSY)
 D-6 (CABLE ROUTING)

ENGINEERING RESPONSIBILITY <input checked="" type="checkbox"/> DESIG <input checked="" type="checkbox"/>															C-31213 - 90001 - 5				
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM	REVISIONS	APPROVED	DATE
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	<i>[Signature]</i>	1-17-72
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47				



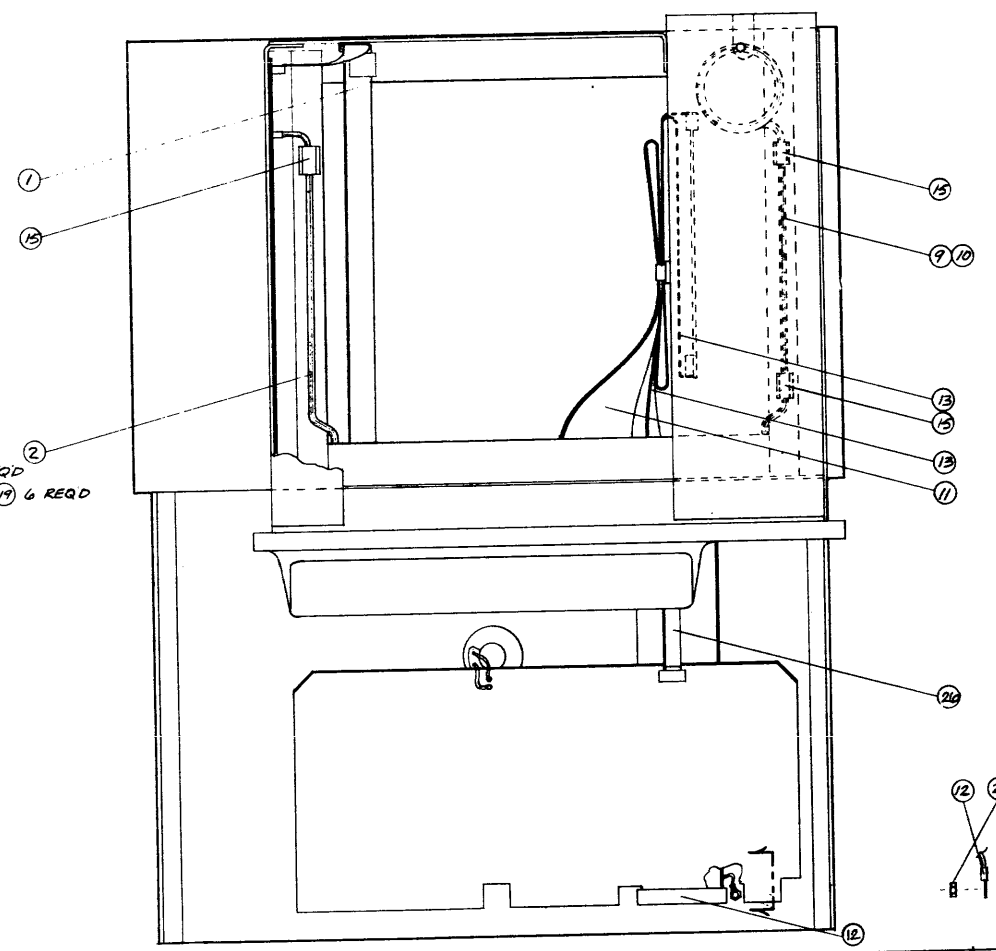
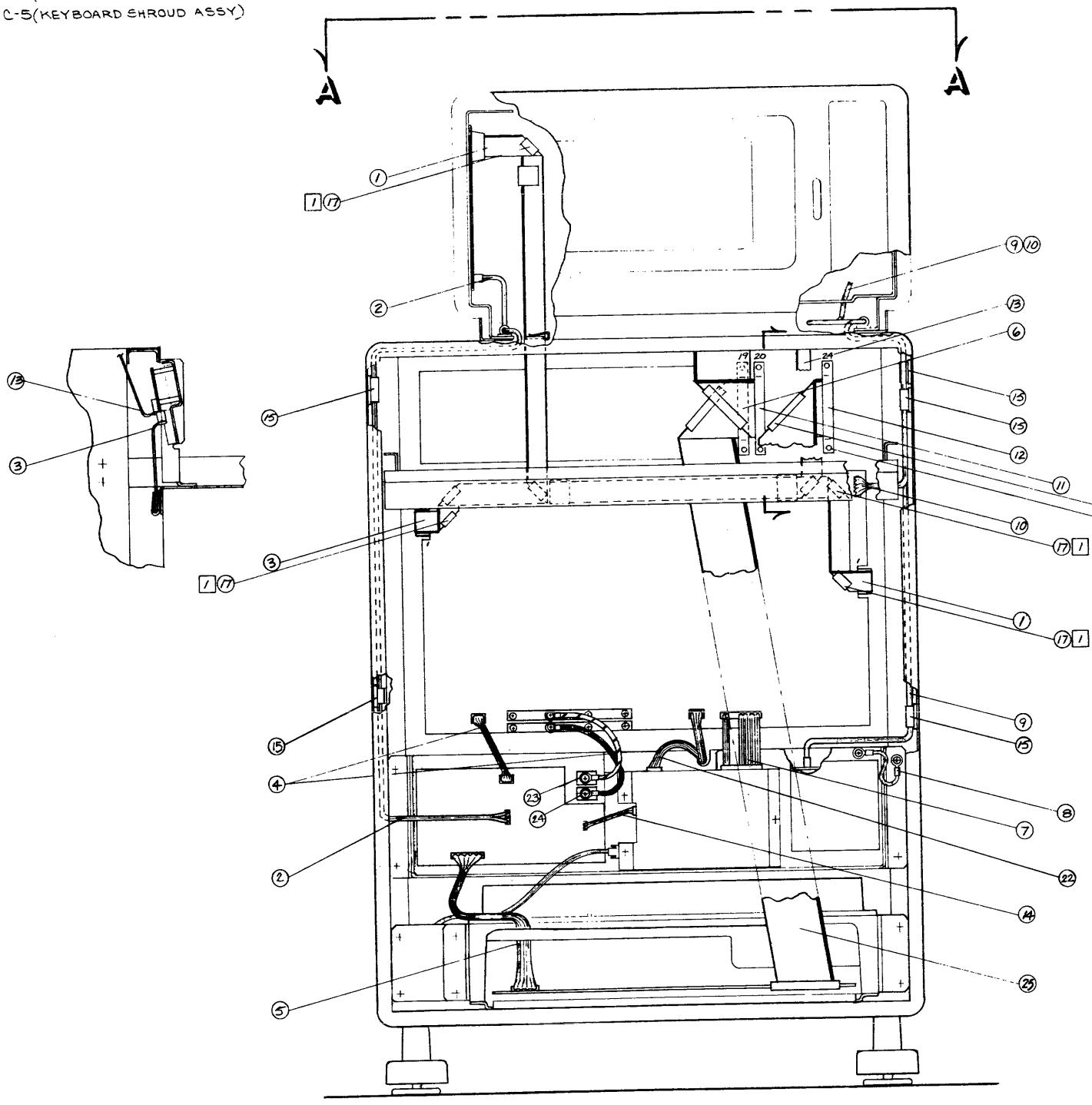
1. MAXIMUM TORQUE - 10 IN LBS

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
7	1	LABEL - FRONT	7120-6928		
6	1	LABEL - REAR	7120-6427		
5	3	SCREW-TAP 6-20X.38L	0624-0045		
4	2	SUPPORT-DOOR HINGE	3100-00002		
3	1	SPRING - DOOR RETURN	3100-00003		
2	1	DOOR - CONTROL PNL	3100-40002		
1	1	KEYBOARD-SHROUD	3100-40005		

DO NOT SCALE THIS DRAWING UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES .XX ± .02 .XXX ± .005 SEE CORP. STD. 608	RELEASE TO PROD.	KEYBOARD SHROUD ASSY	HEWLETT PACKARD
	SUPERSEDES DWG.	NEXT ASSEMBLY	PART NUMBER
	FINISH	SCALE 1/4	C-31213 - 90001 - 5

REF DRWS: D-1 (MAINFRAME)
 D-2 (CABINET, ASSY)
 C-4 (CONTROL PANEL ASSY)
 C-5 (KEYBOARD SHROUD ASSY)

ENGINEERING RESPONSIBILITY																REVISIONS				DATE
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM	DESCRIPTION	APPROVED	DATE	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	A	AS ISSUED	[Signature]	1/6/78	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	E	ADDED ITEM 27, 23 & 24 PCAT 20399	[Signature]	8-19-78	
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	C	ADD ITEM 25, DELETE ITEM 22 (1400-0094) AND ADD REF NOTE TO ITEM 5 PCAT 20398	[Signature]	8-10-78	
																	D	CORRECTED CABLE REFERENCES	[Signature]	1-8-79



NOTES:
 1. CUT CLIP IN HALF & INSTALL ON FOLD.
 2. INSTALL IN SLOT INDICATED WITH
 2- #4 SCREWS, (PART # 2200-0111) &
 2- FLAT WASHERS (PART # 3050-0229).

VIEW A-A

ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG. NO.	MAT'L SPEC.
210	1	SOFT KEY CABLE	8120-21816	REF ONLY	
25	1	7910 SIGNAL CABLE	07910-60016		
24	2	*10 LOCKWASHER	2190-0011		
23	2	*10-32 X .375 SCREW	2680-00939		
22	1	MEM POWER CABLE	31000-60021	REF ONLY	
21	2	NUT, HEX #8-32	2580-0003		
20	1	SCREW- #8-32 X .50"	2510-0049		
19	6	WASHER #4 FLAT	3050-0229		
18	6	SCREW- #4-40 X .50"	2700-0111		
17	7	CLIP, FLAT CABLE	4040-0507		
16	4	CLIP, FLAT CABLE W/ADH	1400-0611		
15	8	CLIP, CABLE	1400-0757		
14	1	REMOTE LOW PUR CABLE	31000-60063	REF ONLY	
13	1	FX STATUS LIGHTS CABLE	31000-60069		
12	1	KEYBOARD CABLE	31000-60042		
11	1	FX SIGNAL CABLE	31000-60005		
10	1	FX DC POWER CABLE	31000-60062		
9	1	FX AC POWER CABLE	31000-60006		
8	1	GROUNDING CABLE SET	31000-60023	REF ONLY	
7	1	POWER CONTROL CABLE	31000-60061		
6	1	7910 DISC SIGNAL CABLE	7910A	REF ONLY	
5	1	7910 DISC POWER CABLE	31241-60002	REF ONLY	
4	1	BACK PLANE PUR CBL SET	31000-60066		
3	1	CONTROL PANEL CABLE	31213-60002		
2	1	SWEEP POWER CABLE	31000-60049		
1	1	SWEEP SIGNAL CABLE	31000-60036		

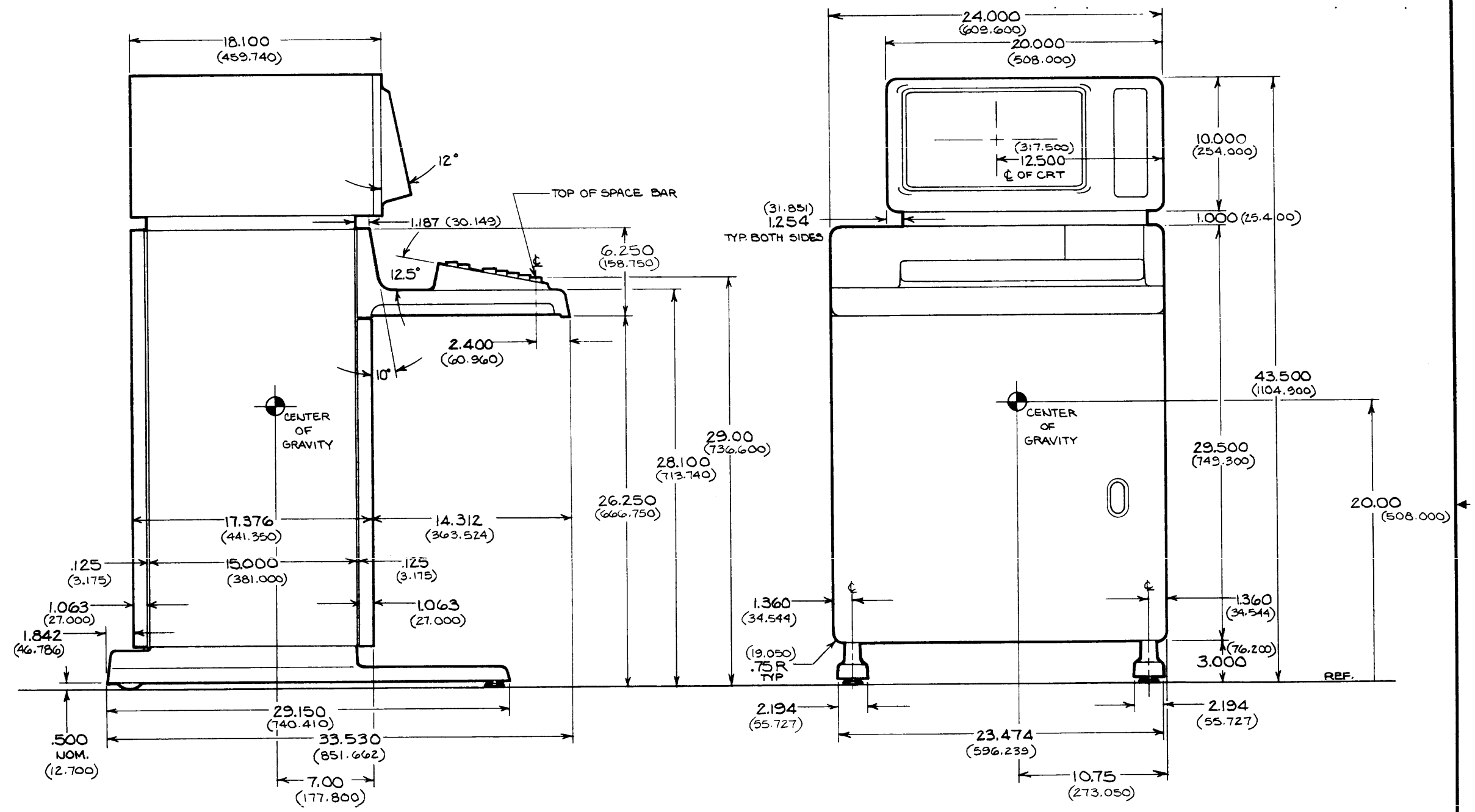
DO NOT SCALE THIS DRAWING
 UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES.
 TOLERANCES .XX ± .02 .XXX ± .005
 SEE CORP. STD. 608

MAINFRAME ASSY
 CABLE ROUTING

HEWLETT PACKARD

0-31213-90001-6

ENGINEERING RESPONSIBILITY															REVISIONS															APPROVED		DATE																			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																DHT/RY		5/17/77																		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																BDB/DHT		5/30/77	
															A AS ISSUED																																				
															B ADDED C.G. DIMENSIONS																																				



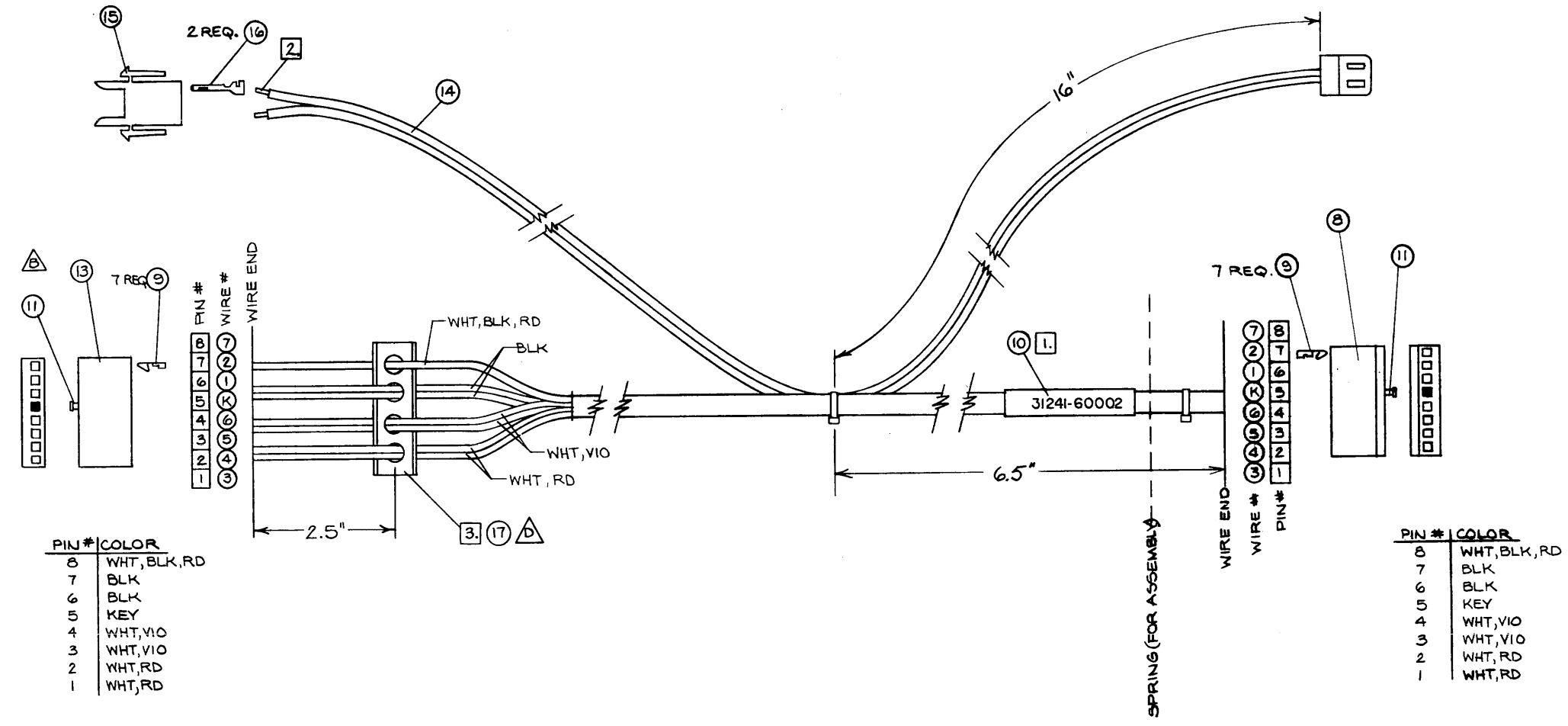
- NOTES:**
1. DIMENSIONS IN PARENTHESES ARE MILLIMETRES.
 2. WEIGHT WITH FULL BOARD SET: 260 lbs

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DO NOT SCALE THIS DRAWING					
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.					
TOLERANCES REF. ONLY					
SEE CORP. STD. 808			RELEASE TO PROD.		
SUPERSEDES DWG.			NEXT ASSEMBLY		
31213A REFERENCE DIMENSIONS			PART NUMBER		
SCALE 1" = 5"			C-31213 - 90002-1		

REF A-2 (WIRE LIST)

ENGINEERING RESPONSIBILITY															
DIEPDA															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47

C-31241 - 60002 - 1		APPROVED	DATE
SYM	REVISIONS		
A	AS ISSUED	SHS/WV	4-13-77
B	REVISED PRCR 31213A "R"	SHS	11-29-77
C	ITEM (8) WAS 1251-2505, (9) WAS 1251-2410 PC 41-2007	SHS/EL	3-16-78
D	ADDED ITEM (11) & NOTE 1.	SHS/EL	4-25-78



PIN #	COLOR
8	WHT, BLK, RD
7	BLK
6	BLK
5	KEY
4	WHT, VIO
3	WHT, VIO
2	WHT, RD
1	WHT, RD

PIN #	COLOR
8	WHT, BLK, RD
7	BLK
6	BLK
5	KEY
4	WHT, VIO
3	WHT, VIO
2	WHT, RD
1	WHT, RD

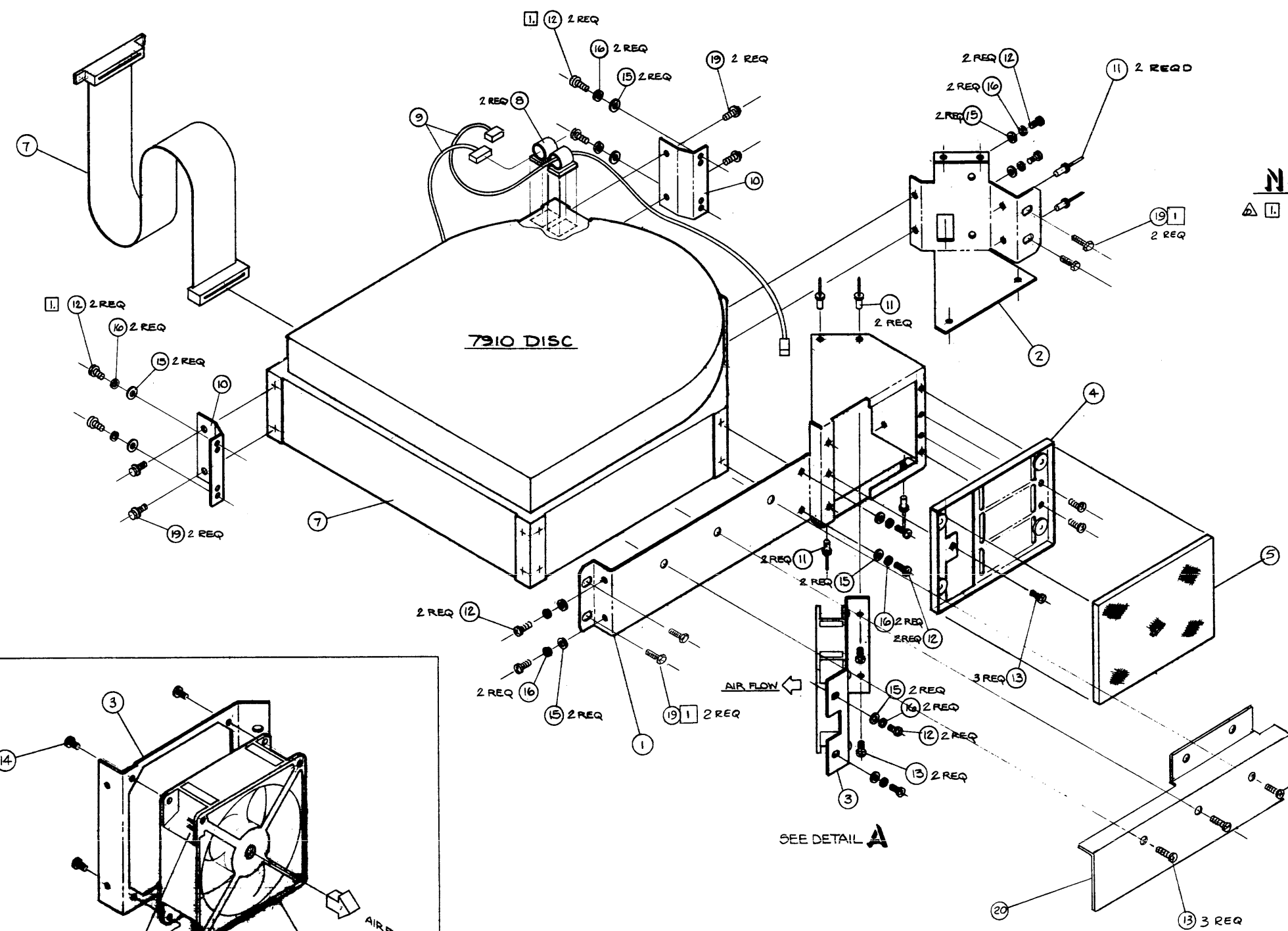
- NOTES:**
- MARK PART NUMBER (31241-60002) ON TUBING AND SHRINK ONTO CABLE.
 - CUT STRIP LENGTH TO 1/4". CABLE LENGTH SHOULD BE 24" ± 1".
 - CUT STRAP 1.5" LONG (4 HOLES). WEAVE WIRES THROUGH HOLES AS SHOWN. NOTICE THAT SOME WIRES GO UP THROUGH THE HOLES AND SOME GO DOWN THROUGH THE HOLES.

ITEM	QTY.	MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
17	1.5"	PERFORATED STRAP	1400-0552		
16	2	CONTACT, FEMALE	1251-0612		
15	1	CONNECTOR, 2 PIN	1251-4130		
14	1	CABLE ASBY, 18GA, 2 COND, 24"L	8120-1478		
13	1	CONNECTOR, 8 PIN, NO RAMP	1251-3278		
12	3	CABLE TIES	1400-0249		
11	2	KEY, POLARIZING	1251-0627		
10	1.5"	SHRINK TUBING .500 DIA	0890-0273		
9	14	CONTACT	1251-0670		
8	1	CONNECTOR, 8 PIN W/RAMP	1251-3068		
7	13"	WIRE, 18GA WHT, BLK, RD	8150-3510		
6	13"	WIRE, 18GA WHT, VIO	8150-3737		
5	13"	WIRE, 18GA WHT, VIO	8150-3737		
4	13"	WIRE, 18GA WHT, RD	8150-3246		
3	13"	WIRE, 18GA WHT, RD	8150-3246		
2	13"	WIRE, 18GA, BLK	8150-2829		
1	13"	WIRE, 18GA, BLK	8150-2829		

PROCESS REVIEW
DATE 12-5-77 BY Pat Wright

DO NOT SCALE THIS DRAWING	7310 POWER CABLE ASSEMBLY	HEWLETT PACKARD
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.	TITLE	
TOLERANCES .XX ± .02 .XXX ± .005	31241A	31241-60002
SEE CORP. STD. 608	NEXT ASSEMBLY	PART NUMBER
	SCALE FULL	C-31241-60002-1
		SHEET 1 OF 1

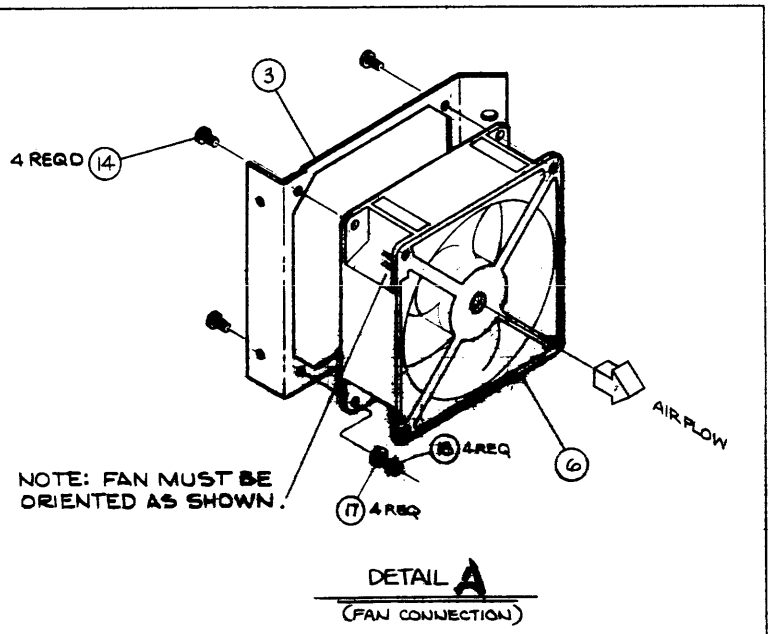
ENGINEERING RESPONSIBILITY												REVISED		31241-90001-1					
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	SYM	REVISIONS	APPROVED	DATE
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	S	REDRAWN PC47-209B	KS	8-15-78
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	C	ITEM 7 WAS 7910A	KS	11-16-78
																D	ADD ITEM 20/ QTY FOR ITEM 13 WAS 5. QTY FOR ITEM 17 WAS 4; REVISE NOTE 1, REVISE 7A	GD/7/2/78	11-29-78



NOTES:

1. 4 EACH OF ITEMS (12) (15) (16) (19) TO BE TAPED TO TOP OF DISC FOR LATER ASSEMBLY.

ITEM	QTY	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY NO.	MAT'L SPEC.
20	1	CABLE SHIELD	31241-00009		
19	8	#8-32 HEXHEAD	2510-0254		
18	4	NUT #8-32 W/LOCK	2420-0001		
17	4	WASHER #6	3050-0227		
16	12	WASHER-LOCK #8	2190-0073		
15	12	WASHER #8	3050-0139		
14	4	SCREW #6-32 X .625	2360-0123		
13	8	SCREW/LKW #8-32 X .375L	2510-0045		
12	12	SCREW #8-32 X .375L	2510-0103		
11	6	RIVET-BLIND	0361-1011		
10	2	DISC MOUNT, REAR	31241-00007		
9	1	7910 DISC PWR CABLE	31241-00002		
8	2	CLIP, CABLE	1400-0757		
7	1	DISC, LOW COST FIXED	7910K OPT.020		
6	1	FAN-TBAX 4.125 SQ.	3160-0026		
5	1	AIR FILTER	4208-0197		
4	1	MOUNT DISC FILTER	31241-00004		
3	1	DISC FAN MOUNT	31241-00003		
2	1	DISC MOUNT- RIGHT	31241-00002		
1	1	DISC MOUNT- FRONT	31241-00001		



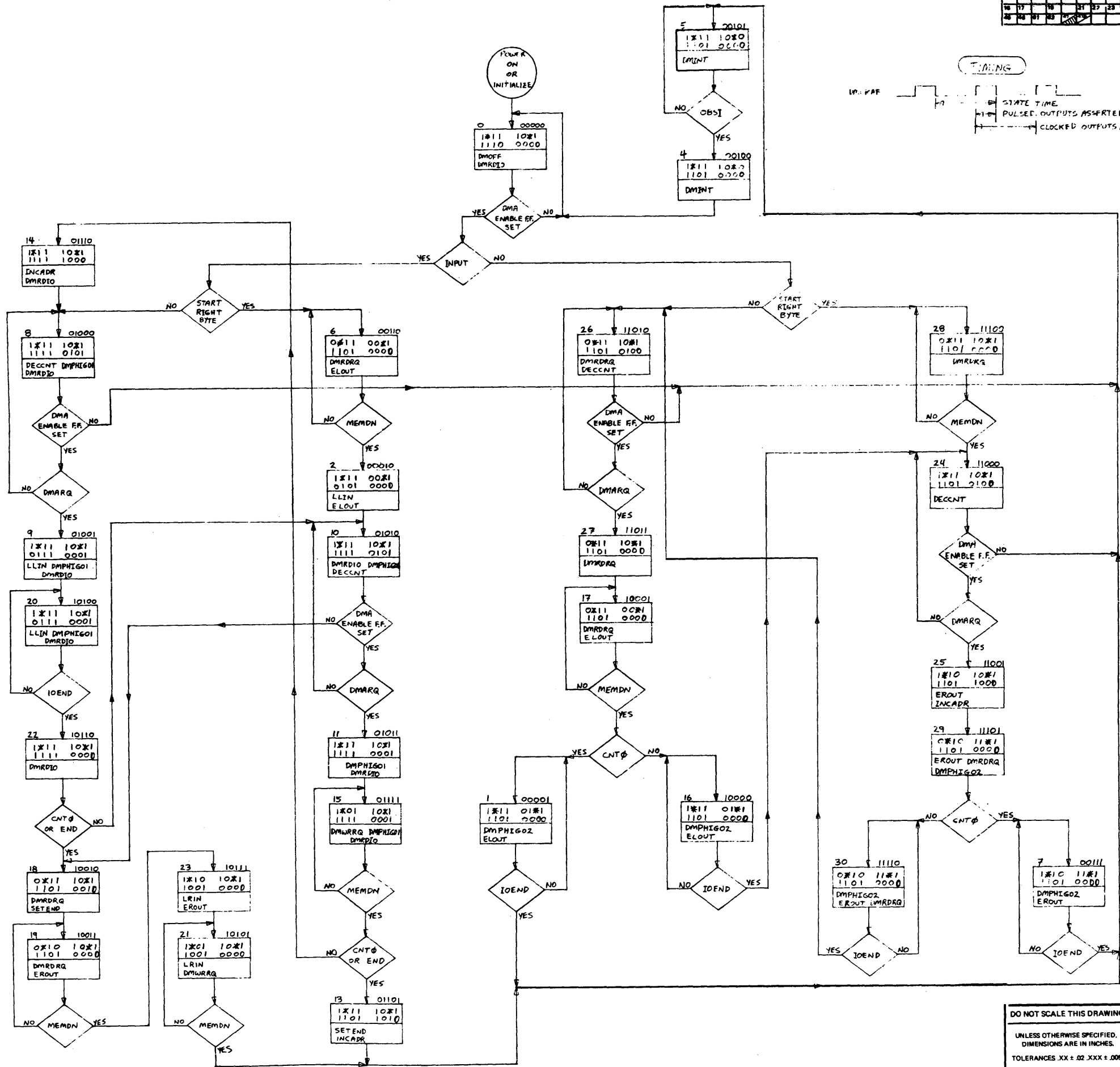
NOTE: FAN MUST BE ORIENTED AS SHOWN.

DETAIL A
(FAN CONNECTION)

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005
SEE CORP. STD. 608

FINAL ASSY MOUNTING 7910 HARDWARE
HEWLETT PACKARD
PART NUMBER
D-31241-90001-1

D-1 REVA
5-11-77
SCALE



LEGEND

STATE NAME (DECIMAL VALUE OF STATE VARIABLES)

STATE VARIABLES (DMY4 - DMY6)

NOTE: ROMA1 AND ROMA6 APPEAR AS # IN ALL STATES, AS THEY ARE NOT USED BY THE DMA MACHINE.

MNEMONICS OF SIGNALS ASSERTED IN THIS STATE.

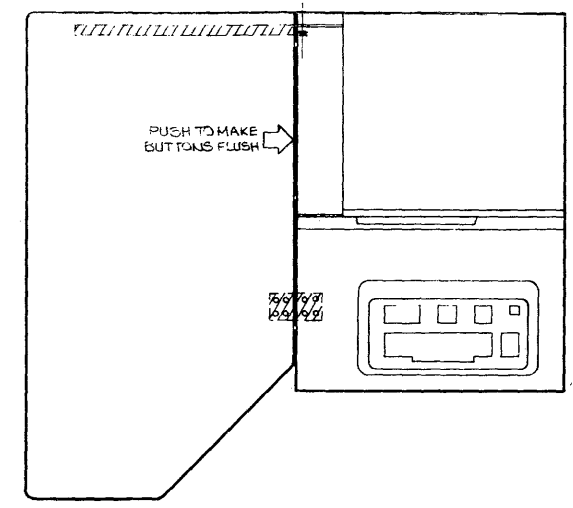
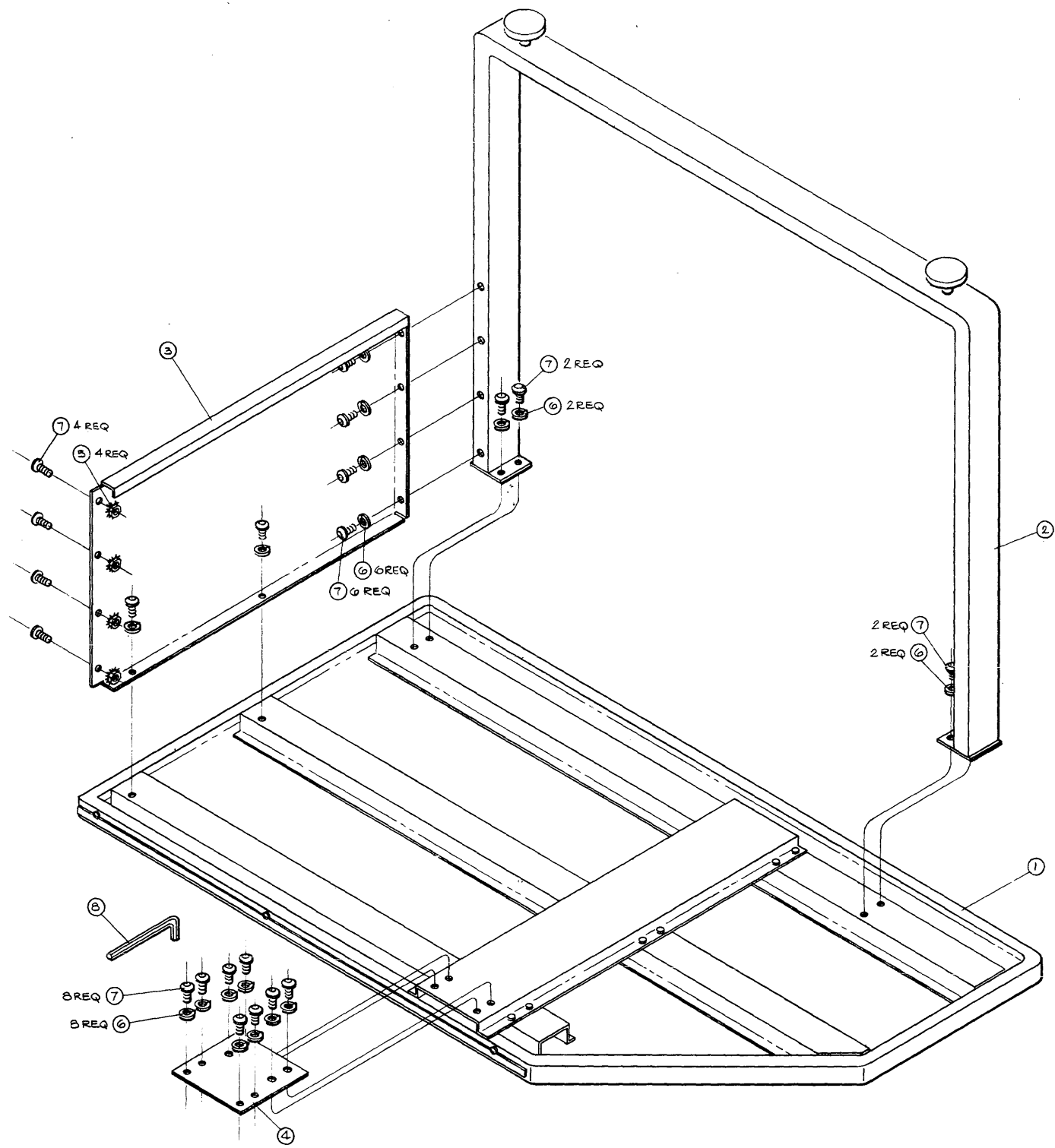
- INPUTS**
- CNT0 = BYTE COUNT REGISTER EQUALS ZERO.
 - DMARQ = INPUT: INBOUND FIFO NOT EMPTY. OUTPUT: OUTBOUND FIFO NOT FULL.
 - IOEND = PHI HANDSHAKE COMPLETED.
 - MEMDN = MEMORY OPERATION COMPLETED.
 - OBSI = IMB "OBSI" COMMAND HAS BEEN DONE.
 - TAG = TAG BITS D0, D1 OF PHI INDICATE END OF TRANSFER.

- OUTPUTS**
- DECCNT = DECREMENT BYTE COUNT AND COMPLEMENT LEFT/RIGHT BIT ONCE IN THIS STATE.
 - DMINT = ASSERT CSRQ. AFTER OBSI, CSRQ IS HELD OFF.
 - DMPHIG0I = START WRITE TO PHI. THIS WILL PROVIDE A "FAST" PHI HANDSHAKE WHICH RELEASES IOG0 AS SOON AS IOEND IS ASSERTED, ASYNCHRONOUS TO DMA MACHINE.
 - DMPHIG0Z = START READ FROM PHI. THIS PROVIDES A PHI HANDSHAKE WHICH RELEASES IOG0 AS SOON AS MEMDN IS ASSERTED, ASYNCHRONOUS TO DMA MACHINE.
 - DMOFF = DMA IS IDLE: RE-ENABLE ALL CSRQ'S AND ALLOW SLAVE ACCESS TO PHI.
 - DMRDIO = SELECT PHI TO READ FIFO. IT IS SELECTED TO WRITE TO FIFO OTHERWISE. IN STATE 0, THE SLAVE MAY OVERRIDE DMRDIO. REQUEST READ OF MEMORY.
 - DMWRDQ = REQUEST WRITE TO MEMORY. THE CYCLE WILL NOT START UNTIL IOEND OR LRIN IS ASSERTED.
 - ELOUT = GATE THE LEFT BYTE OUTPUT REGISTER TO THE PHI DATA LINES.
 - EROUT = GATE THE RIGHT BYTE OUTPUT REGISTER TO THE PHI DATA LINES.
 - INCDR = INCREMENT THE DMA ADDRESS REGISTER.
 - LLIN = CLOCK PHZ DATA LINES INTO LEFT BYTE INPUT REGISTER EACH STATE TIME AT DMKAF.
 - LRAIN = LATCH PHZ DATA LINES INTO RIGHT BYTE INPUT REGISTER.
 - SETEND = SET DMA STATUS TO APPROPRIATE TERMINATION CODE.

- NOTES**
1. OUTPUTS OCCURRING IN CONSECUTIVE STATES DO NOT GLITCH BETWEEN STATES, EXCEPT LLIN, WHICH IS TAKEN DIRECTLY FROM THE DECODER ROM.
 2. THESE INPUTS ARE ASYNCHRONOUS: IOEND, MEMDN, DMARQ, OBSI.
 3. THE ONLY PULSED OUTPUTS ARE: DECCNT, SETEND.
 4. BOTH OUTPUT DATA REGISTERS ARE LOADED AT OCCURRENCE OF MEMDN.
 5. THE HP-IB "END" MESSAGE IS SENT IN STATES 7, 16 UNLESS INHIBITED WITH A DMA CONTROL BIT.
 6. MEMDN REMAINS ASSERTED UNTIL BOTH DMWRDQ AND DMWRQ ARE NOT ASSERTED.
 7. ONCE DMRDQ IS ASSERTED, THE MEMORY CYCLE WILL COMPLETE EVEN IF DMWRDQ IS REMOVED BEFORE MEMDN.

DO NOT SCALE THIS DRAWING
UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES.
TOLERANCES .XX ± .02 .XXX ± .005
SEE COMP. STD. 808

ITEM	QTY.	MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L QTY. NO.	MAT'L SPEC.
GENERAL I/O CHANNEL (DMA MACHINE FLONCHART)					
TITLE: SCHEMATIC					
PART NUMBER: 31262A					
PART NUMBER: 31262-60001					
D-31262-60001-6					



ASSEMBLY SEQUENCE:

1. ASSEMBLE FRONT BRACKET TO UNDERSIDE OF KEYBOARD.
2. ASSEMBLE REMAINDER OF TABLE PARTS TOGETHER AS SHOWN.
3. REMOVE REAR DOOR FROM COMPUTER.
4. REST TABLE ON FRONT BRACKET AND PUSH TO MAKE BUTTONS FLUSH WITH THE COMPUTER SIDE.
5. FASTEN TABLE TO FRONT BRACKET WITH 4 SCREWS AND LOCKWASHERS.
6. FASTEN REAR PANEL OF TABLE TO HOLES IN REAR OF COMPUTER WITH 4 SCREWS, 4 NUTS, AND NO LOCKWASHERS.

ITEM	QTY	MATERIAL DESCRIPTION	MATL. PART NO.	MAT'L. DWG. NO.	MAT'L. SPEC.
8	1	3/32 ALLEN KEY	8710-0880		REF ONLY
7	22	#8-32 X 3/16 SCKT BTM HD CP SCW	3030-0548		REF ONLY
6	18	#8 HELICAL LOCK WASHER	2190-0076		REF ONLY
5	4	#8-32 NUT W/LOCK	2580-0003		REF ONLY
4	1	FRONT BRACKET	31381-0001/L		REF ONLY
3	1	REAR PANEL	31381-0001/E		REF ONLY
2	1	LEG ASSY	31381-60003		REF ONLY
1	1	TABLE TOP ASSY	31381-60001		REF ONLY

DO NOT SCALE THIS DRAWING

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

TOLERANCES .XX ± .02 .XXX ± .005

SEE CORP. STD. 508

WORKSURFACE ASSY
REFERENCE ONLY

TITLE
31381A

NEXT ASSEMBLY
D-1, REV A

FINISH
~

SCALE
1/4

HEWLETT-PACKARD

PART NUMBER
*—

DATE
7-11-78

SCALE
1/4

D-31381-90001-1

SHEET OF