

**ILLUSTRATED  
PARTS  
BREAKDOWN**

**H742  
POWER SUPPLY**

**HOW TO USE THE IPB**

**GENERAL**

This IPB is compiled following the organization and nomenclature of the engineering drawing structure.

**MAJOR ASSEMBLY LOCATOR**

The Major Assembly Locator (first illustration) is an index that provides a description and a figure reference for all illustrations used in this manual.

**INDENTED PARTS LIST**

This manual identifies each assembly being broken down (figure reference callout), and all parts of that assembly. Further breakdown of an assembly is shown by an asterisk (\*) preceding the item callouts in the Description Column. The number of asterisks preceding an item is used to denote the subordination of that item with respect to the Major Assembly. A single asterisk preceding an item description indicates that the item is part of the major assembly being illustrated. Items that are subordinate to single asterisks items, are denoted by two asterisks (\*\*) and immediately follow the related single asterisk item. Additional asterisks are used, as required, to denote further subordination. This system of part identification, provides a means for the user to identify the next higher assembly item and make alternate selections for parts when the required replacement part or assembly is not immediately available.

**COLUMN CALLOUT DESCRIPTION**

**Figure & Item** — Indicates the figure number and item number of each part.

**Description** — Lists the name of the part and pertinent specifications (when required). Asterisks preceding the description denote the subordination of the part to the next higher assembly.

**DEC Part No.** — Lists the DEC part ordering number. A blank in this column indicates a DEC part number was not assigned at the time of publication.

**ECO Cut-In** — The notation at the top of this column indicates the ECO level of the system (option), at which the IPB was initially prepared. Subsequent ECO level designations, that modify existing parts or add new parts to the device, are inserted in the ECO Cut-In column next to the part that is added or modified. A bracket ([]) preceding the item description is used to indicate the parts affected by ECO's.

**Vendor Code/Part No.** — Indicates vendor parts that are not stocked by DEC. Refer to the Field Service Spares Catalog (vendor part number to DEC part number) for the vendor code cross-reference.

**Used On Code** — Letters in this column correspond to the variation codes assigned in Figure 1. Parts with an Alpha notation(s) are used only in those option variations. A blank indicates that the part is used on all option variations.

**Ref Fig No.** — A cross reference between illustrations. For each Major Assembly, the number in this column denotes the figure of the next higher assembly. For all subassemblies, the number in this column denotes the figure showing additional detailed breakdown.

**SYMBOL USAGE**

**Hardware Designators** — Alpha designators for screws (S), washers (W), nuts (N), and retaining rings (R) are inserted after the item number callouts on the illustration when stacked item numbers are used.

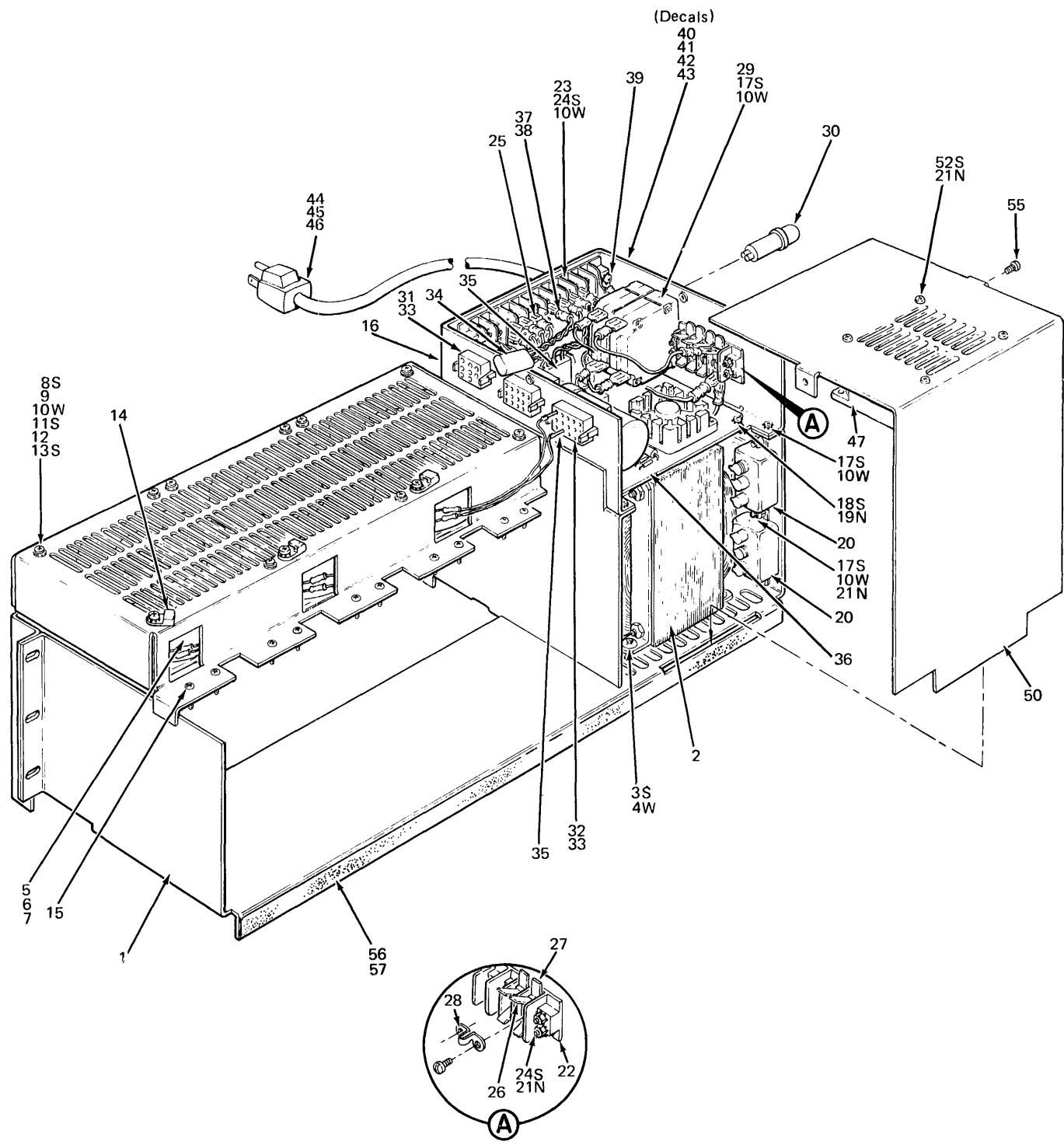
**Attaching Hardware** — The @ symbol is inserted before any part that is used as attaching hardware. Attaching hardware is denoted as those parts that are not an integral part of the referenced assembly.

**(NFR) Not Field Repairable** — The (NFR) symbol is inserted after any assembly that is not to be field dismantled.

**Other Symbols** — Any other symbols that are required for kits, accessories, etc., will be explained and appear as part of the item description.

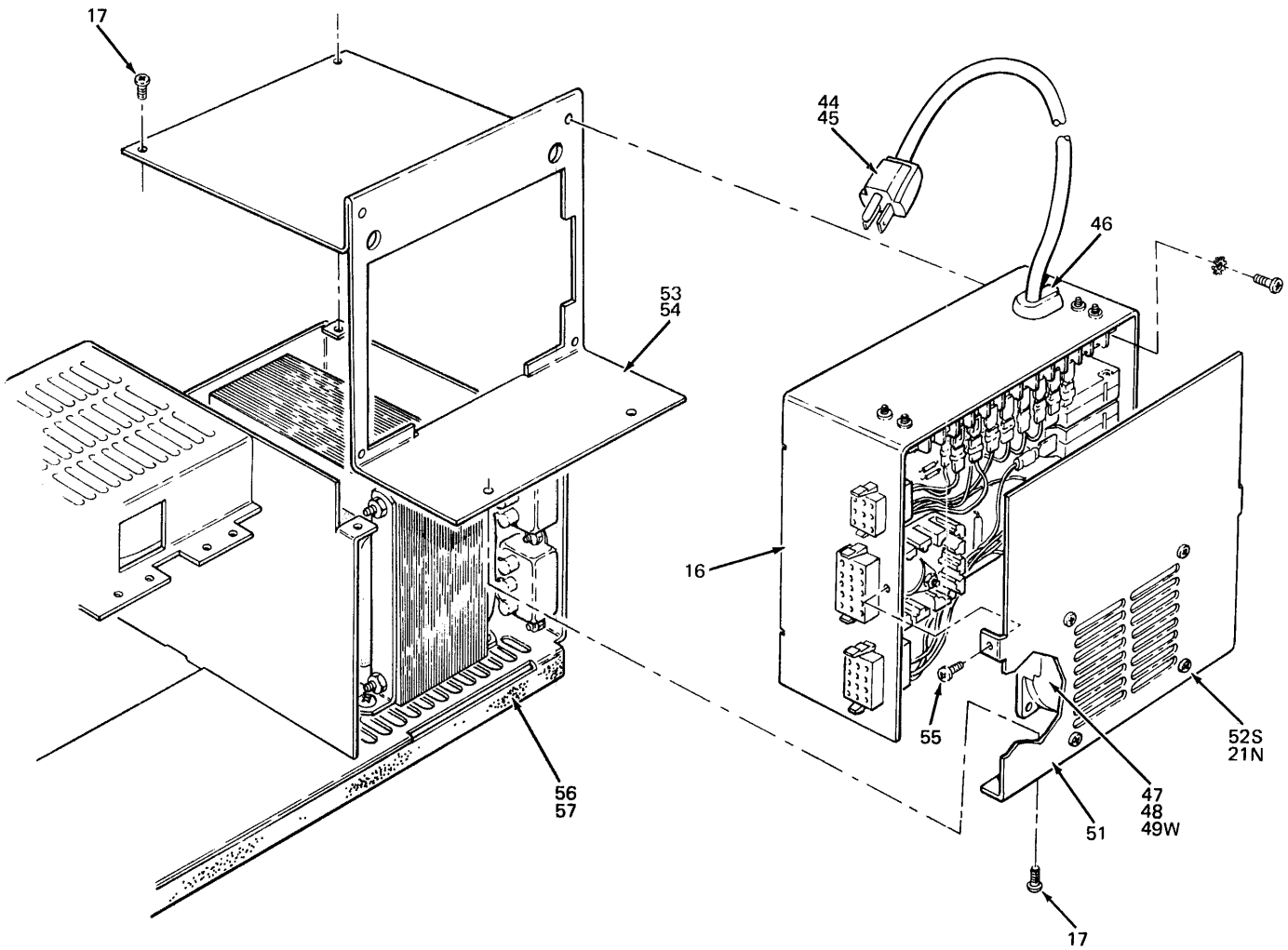
**REVISION HISTORY**

PRINTING	ECO LEVEL	DATE	PAGES AFFECTED
2nd Printing	H742 00000-00024 54-09730 00006-00015	10-13-76	This 2nd Printing EK-H742-IP-002 Supersedes 1st Printing DEC-H742-IPB-001  (NOTE THAT THE DOCUMENT NO. OF THIS IPB HAS CHANGED)



H742 - 01

Figure 1. H742 Power Supply Assembly (Sheet 1 of 2)



H742-02

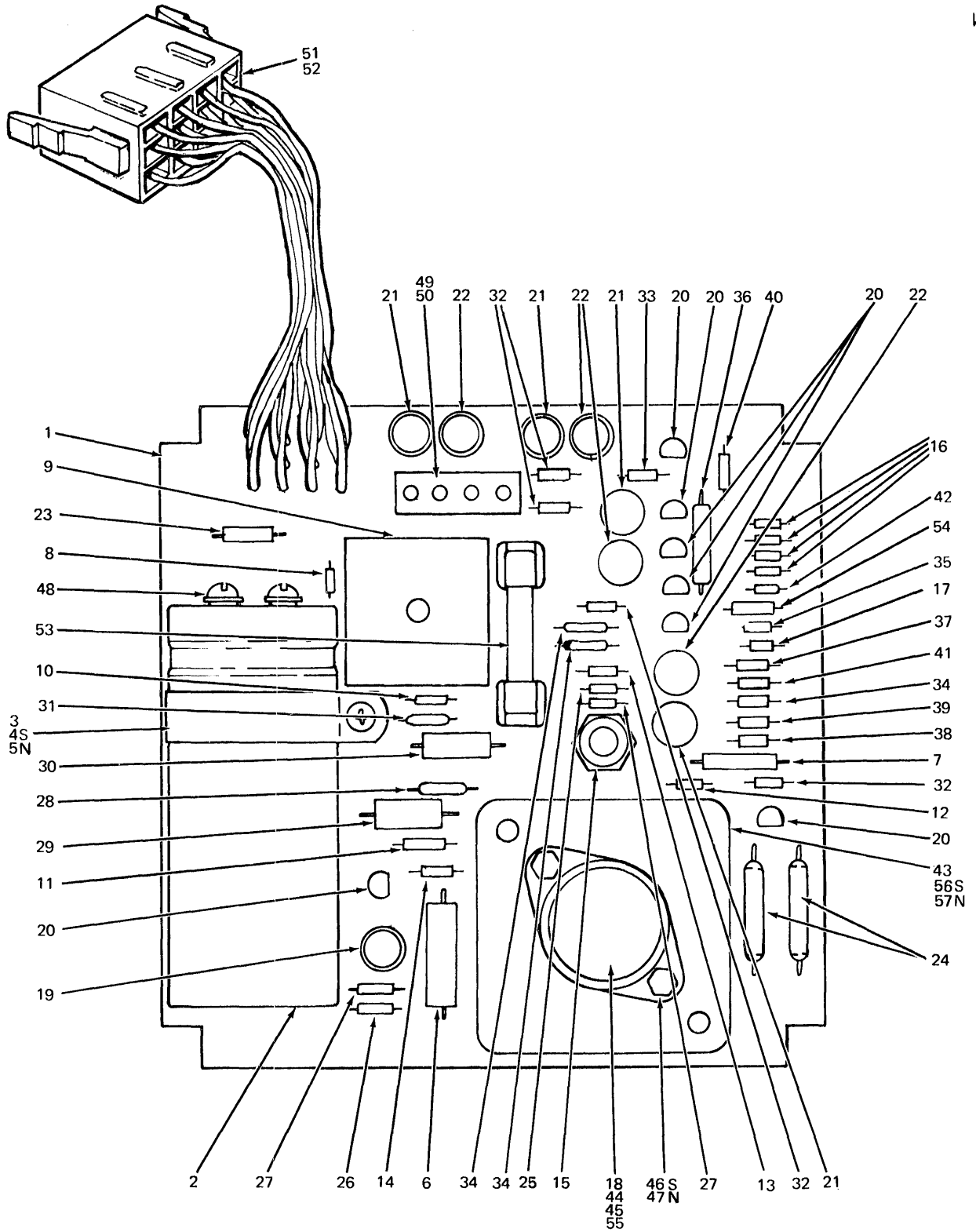
Figure 1. H742 Power Supply Assembly (Sheet 2 of 2)

FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN H742 00000	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
1-	H742 POWER SUPPLY						
	Code A - Used on Model H742-A (115V)	H742-A		A			
	Code B - Used on Model H742-B (230V)	H742-B		B			
	Code C - Used on Model H742-C (115V)	H742-C		C			
	Code D - Used on Model H742-D (230V)	H742-D		D			
1	*Chassis	53-09755-00					
2	*Transformer (T1)	16-10857-00					
3	*Screw, Phl Truss Hd No. 10-32 x 3/8	90-06071-03					
4	*Washer, Lock Ext Tooth No. 10	90-07651-00					
5	*Fan, Boxer, IMC WS2107F-110-01 (Used with Items 8 and 9)	12-09403-01					
6	*Fan, Boxer, Rotron CT3A2 (Used with Items 12 and 13)	12-09403-01					
7	*Fan, Boxer, Howard 9-30-8120 (Added) (Used with Items 12 and 13)	12-02765-01	00020				
8	*Screw, Phl Pan Hd No. 6-32 x 5/8 (Used with Item 5)	90-06025-01					
9	*Clip, Fan Mtg (Used with Item 5)	90-09165-00					
10	*Washer, Lock Ext Tooth No.6	90-07649-00					
11	*Screw, Phl Pan Hd No. 6-32 x 1/2 (Used with Item 6) (Deleted)	90-06024-01	0020A				
12	*Nut, Kep No. 6-32 (Deleted) (Used with Item 6)	90-06560-00					
	*Clip, Fan Mtg (Added) (Used with Item 6 or 7)	90-08208-00	00020				
13	*Screw, Phl Pan Hd No. 6-32 x 9/16 (Added) (Used with Item 7)	90-07793-01	00020				
14	*Holder, Ty Wrap	90-07033-00					
15	*Screw, Phl Pan Hd No. 10-32 x 3/8 Sems (Added)	90-09228-00	0001A				
16	*Box, Power Control	53-09854-00					
17	*Screw, Phl Pan Hd No. 6-32 x 1/4	90-06020-01					
18	*Screw, Phl Truss Hd No. 6-32 x 3/8 (Added)	90-06022-03	0001A				
19	*Nut, Hex No. 6-32 x 5/16 x 1/8 (Added)	90-06558-00	0001A				
20	*Capacitor (C1,C2) 2 x .1 MFD @ 440V AC	10-10193-00	00023				
21	*Nut, Kep No. 6-32	90-06560-00					
22	*Strip, Jones 4 Conn. (TB1)	90-06903-00					
23	*Strip, Jones 12 Conn. (TB2)	90-06916-00					
24	*Screw, Phl Pan Hd No. 6-32 x 9/16	90-07793-01					
25	*Terminal, Solderless (Double Upright 90°)	90-07113-00					
26	*Terminal, Solderless (Double 45°)	90-07269-00		CD			
	*Terminal, Tab, Single Male 90° (Added)	90-08219-00	00024	AB			
27	*Terminal, Solderless (Single Flat)	90-07112-00					
28	*Jumper, Mechanical (Used with Item 22)	90-09002-00					
29	*Circuit Breaker 15A (CB1)	12-10191-03					
30	*Light, Pilot (L1) (Deleted)	12-01280-00					
	*Light, Pilot (L1) (Added)	12-11263-00	00011				
31	*Connector, Mate-N-Lok, 9 Pin (Female)	12-09350-09					
32	*Connector, Mate-N-Lok, 12 Pin (Female) (Deleted)	12-09350-12					
	*Connector, Mate-N-Lok, 15 Pin (Female) (Added)	12-09350-15	00001				

FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN H742 00000	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
1-							
33	*Contact (Female)	12-09379-01					
34	*BALUN ASSEMBLY (Added)	16-11444-00	00016				
35	*Contacts (Male)	12-09378-01					
36	*POWER CONTROL BOARD ASSEMBLY	54-09730-00					2
37	*Tab, Faston (.250 Series) Blue	90-07919-00					
38	*Tab, Faston (.250 Series) Red	90-07917-00					
39	*Terminal, Ring, Blue	90-07929-00					
40	*Decal, H742A	53-10459-00		A			
41	*Decal, H742B	53-10460-00		B			
42	*Decal, H742C	53-10461-00		C			
43	*Decal, H742D	53-10462-00		D			
44	*Cord, Power (115V)	17-00006-06		ACD			
45	*Cord, Power (230V)	17-00016-06		B			
46	*Strain Relief (Deleted)	90-08492-01					
	*Strain Relief (Added)	90-08509-00	00020				
47	*Fan, Peewee Boxer	12-10719-00					
48	*Screen, Mini Boxer Fan (Added)	70-09737-00	00020				
49	*Washer, Lock Int Tooth No. 6 (Added)	90-06633-00	00020				
50	*Cover, Power Control	53-09850-00		AB			
51	*Cover, Power Control	74-09702-00		CD			
52	*Screw, Phl Hd Pan No. 6-32 x .38	90-06022-01					
53	*Bracket, Power Supply	74-09701-00		CD			
54	*Spacer, No. 6-32 x 3/16	90-06796-00		CD			
55	*Screw, No. 6-32 Sems x 3/8	90-06453-00					
56	*Strip, Extended Neoprene (Added)	90-07966-00	00022				
57	*Adhesive, Hyband 80 (Added)	90-07594-00	00022				



FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN 54-09730 00006	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
2-	POWER CONTROL BOARD ASSEMBLY (Etch Rev. D)	54-09730-00					1
1	*Board Power Control (Etch Rev. D)	50-09729-00					
2	*Capacitor (C1) 5.8K MFD 40V	10-10860-00					
3	*Clamp	90-07093-01					
4	*Screw, Phl Pan Hd No. 8-32 x 3/8	90-06037-01					
5	*Nut, Kep No. 8-32	90-06563-00					
6	*Capacitor (C2) 50 MFD 25V	10-01796-00					
7	*Capacitor (C3) 20 MFD 60V	10-10716-00					
8	*Capacitor (C4) .22 MFD 50V	10-10274-00					
9	*Diode, Bridge (D1) NSS 3514	11-10714-00					
10	*Diode (D2) IN 0751AZ	11-05873-00					
11	*Diode (D3) IN 5353B	11-10854-00					
12	*Diode (D4) IN 4001	11-02942-00					
13	*Diode (D5) D664	11-00114-00					
14	*Diode (D6) IN 746A	11-04860-00					
15	*Diode (D7) IN 2970B	11-00134-00					
16	*Diode (D8 thru D11) IN 4002	11-04861-00					
17	*Diode (D12) 5.1V 1MA	11-10925-00					
18	*Transistor (Q1) MJ1000	15-10853-00					
19	*Transistor (Q2) DEC 2219	15-01881-00					
20	*Transistor (Q3,Q6,Q7,Q8,Q9,Q12,Q13) MPSA55	15-10706-00					
21	*Transistor (Q4,Q10,Q14,Q16) 2N1308	15-00583-00					
22	*Transistor (Q5,Q11,Q15,Q17) 2N1309	15-01311-00					
23	*Resistor (R1) 39K Ohm 1/2W 5%	13-00443-00					
24	*Resistor (R2,R3) 200 Ohm 5W 5%	13-09639-00					
25	*Resistor (R4) 390 Ohm 1/4W 5%	13-00309-00					
26	*Resistor (R5) 5.1 Ohm 1/4W 5%	13-09422-00					
27	*Resistor (R6,R9) 1K Ohm 1/4W 5%	13-00365-00					
28	*Resistor (R7) 270 Ohm 1/4W 5%	13-01972-00					
29	*Resistor (R8) 1.5K Ohm 1W 10%	13-00395-00					
30	*Resistor (R10) 390 Ohm 2W 10%	13-01880-00					
31	*Resistor (R11) 560 Ohm 1/4W 5%	13-01890-00					
32	*Resistor (R14,R25,R26,R27) 470 Ohm 1/4W 5%	13-00316-00					
33	*Resistor (R15) 27.4K Ohm 1/8W 1%	13-09417-00					
34	*Resistor (R16,R21,R22) 10K Ohm 1/8W 1%	13-03312-00					
35	*Resistor (R17) 3.48K Ohm 1/8W 1%	13-05114-00					
36	*Resistor (R18) 2.49K Ohm 1/2W 1%	13-00424-00					
37	*Resistor (R19) 3.16K Ohm 1/8W 1%	13-03045-00					
38	*Resistor (R20) 4.64K Ohm 1/8W 1%	13-04856-00					
39	*Resistor (R23) 2.0K Ohm 1/8W 1%	13-02715-00					
40	*Resistor (R29) 2K Ohm 1/2W 1%	13-02329-00					
41	*Resistor (R30) 24.3K Ohm 1/8W 1%	13-09418-00					
42	*Resistor (R31) 10 Ohm 1/4W 5%	13-01317-00					
43	*Heat Sink	12-05817-00					
44	*Compound, Thermal Joint	90-08268-00					
45	*Insulator, Washer	90-06721-00					
46	*Screw, Phl Pan Hd No. 4-40 x 1/2	90-06013-01					
47	*Nut, Kep No. 4-40	90-06557-00					
48	*Terminal, Ring	90-07930-00					
49	*Connector, Mate-N-Lok (J1) (4 Pin)	12-09350-04					
50	*Contacts, Female	12-09456-00					
51	*Connector, Mate-N-Lok (12 Pin)	12-09350-12					
52	*Contacts, Female	12-09379-00					
53	*Fuse (F1)	90-07221-00					



H742-04

Figure 2A. Power Control Board Assembly (Etch Rev. E)



FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN 54-09730 00007	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
2A-	POWER CONTROL BOARD ASSEMBLY (Etch Rev. E)	54-09730-00					1
1	*Board, Power Control (Etch Rev. E)	50-09729-00					
2	*Capacitor (C1) 5.8K MFD 40V	10-10860-00					
3	*Clamp	90-07093-Q1					
4	*Screw, Phi Pan Hd No. 8-32 x 3/8	90-06037-01					
5	*Nut, Kep No. 8-32	90-06563-00					
6	*Capacitor (C2) 50 MFD 25V	10-01796-00					
7	*Capacitor (C3) 20 MFD 60V	10-10716-00					
	*Capacitor (C3) 20 MFD 5% 60V (Deleted)	10-10716-00					
	*Capacitor (C3) 20 MFD 5% 50V (Solid Tantalum) (Added)	10-00002-01	00014				
8	*Capacitor (C4) .22 MFD 50V	10-10274-00					
9	*Diode, Bridge (D1) NSS 3514	11-10714-00					
10	*Diode (D2) IN 0751AZ	11-05873-00					
11	*Diode (D3) IN 5353B	11-10854-00					
12	*Diode (D4) IN 4001	11-02942-00					
13	*Diode (D5) D664	11-00114-00					
14	*Diode (D6) IN 746A	11-04860-00					
15	*Diode (D7) IN 297B	11-00134-00					
16	*Diode (D8 thru D11) IN 4002	11-04861-00					
17	*Diode (D12) 5.1V 1MA	11-10925-00					
18	*Transistor (Q1) MJ1000 (Deleted - See Item 55)	15-10853-00	00008				
19	*Transistor (Q2) DEC 2219	15-01881-00					
20	*Transistor (Q3,Q6,Q7,Q8,Q9,Q12,Q13) MPSA55	15-10706-00					
21	*Transistor (Q4,Q10,Q14,Q16) 2N1308	15-00583-00					
22	*Transistor (Q5,Q11,Q15,Q17) 2N1309	15-01311-00					
23	*Resistor (R1) 39K Ohm 1/2W 5%	13-00443-00					
24	*Resistor (R2,R3) 200 Ohm 5W 5%	13-09639-00					
25	*Resistor (R4) 390 Ohm 1/4W 5%	13-00309-00					
26	*Resistor (R5) 5.1 Ohm 1/4W 5%	13-09422-00					
27	*Resistor (R6,R9) 1K Ohm 1/4W 5%	13-00365-00					
28	*Resistor (R7) 270 Ohm 1/4W 5%	13-01972-00					
29	*Resistor (R8) 1.5K Ohm 1W 10%	13-00395-00					
	*Resistor (R8) 1.5K Ohm 1W 10% (Deleted)	13-00395-00					
	*Resistor (R8) 1K Ohm 2W 10% (Added)	13-00369-00	00010				
30	*Resistor (R10) 390 Ohm 2W 10%	13-01880-00					
31	*Resistor (R11) 560 Ohm 1/4W 5%	13-01890-00					
32	*Resistor (R14,R25,R26,R27) 470 Ohm 1/4W 5%	13-00316-00					
33	*Resistor (R15) 27.4K Ohm 1/8W 1%	13-09417-00					
34	*Resistor (R16,R21,R22) 10K Ohm 1/8W 1%	13-03312-00					
35	*Resistor (R17) 3.48K Ohm 1/8W 1%	13-05114-00					
36	*Resistor (R18) 2.49K Ohm 1/2W 1%	13-00424-00					
37	*Resistor (R19) 3.16K Ohm 1/8W 1%	13-03045-00					
38	*Resistor (R20) 4.64K Ohm 1/8W 1%	13-04856-00					
39	*Resistor (R23) 2.0K Ohm 1/8W 1%	13-02715-00					
40	*Resistor (R29) 2K Ohm 1/2W 1%	13-02329-00					
41	*Resistor (R30) 24.3K Ohm 1/8W 1%	13-09418-00					
42	*Resistor (R31) 10 Ohm 1/4W 5%	13-01317-00					

FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN 54-09730 00007	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
2A-							
43	*Heat Sink	12-05817-00					
44	*Compound, Thermal Joint	90-08268-00					
45	*Insulator, Washer	90-06721-00					
46	*Screw, Phl Pan Hd No. 4-40 x 1/2	90-06013-01					
47	*Nut, Kep No. 4-40	90-06557-00					
48	*Terminal, Ring	90-07930-00					
49	*Connector, Mate-N-Lok (J1) (4 Pin)	12-09350-04					
50	*Contacts, Female	12-09456-00					
51	*Connector, Mate-N-Lok (12 Pin)	12-09350-12					
52	*Contacts, Female	12-09379-00					
53	*Fuse (F1)	90-07221-00					
	*Fuse (F1) 5 AMP AGC (Deleted)	90-07221-00					
	*Fuse (F1) 5 AMP Rectifier	12-13237-02	00015				
54	*Fuse, (F2) Pico 1/4A	12-10929-04					
55	*Transistor (Q1) MJ3000 (Added - Replaces Item 18)	15-11349-00	00008				
56	*Screw, Phl. Pan Hd No. 6-32 x 7/16	90-06023-01					
57	*Nut, Kep No. 6-32	90-08185-00	00012				
							DEC