

HP 3245A Universal Source

Mainframe and Assemblies

Component Level Information Packet

This is the Component Level Information Packet (CLIP) for HP 3245A Mainframe and Assemblies. This packet contains schematics, component locators, and parts lists for the Standard version and for the Option 002 (High-Voltage) version.



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Declaration of Conformity

According to ISO/IEC Guide 22 and EN 45014

The Hewlett-Packard Company declares that the HP 3245A conforms to the following Product Specifications.

Safety: IEC 1010
CSA 231
UL 1244

EMC: CISPR 11, EN 55011, Class A
IEC 801-2, EN 50082-1, 4kVCD, 8kVAD
IEC 801-3, EN 50082-1, 3 V/M
IEC 801-4, EN 50082-1, 1kV


Q.A. Manager
December 1991

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Printing History

The Printing History shown below lists all Editions and Updates of this manual and the printing date(s). The first printing of the manual is Edition 1. The Edition number increments by 1 whenever the manual is revised. Updates, which are issued between Editions, contain replacement pages to correct the current Edition of the manual. Updates are numbered sequentially starting with Update 1. When a new Edition is created, it contains all the Update information for the previous Edition. Each new Edition or Update also includes a revised copy of this printing history page. Many product updates or revisions do not require manual changes and, conversely, manual corrections may be done without accompanying product changes. Therefore, do not expect a one-to-one correspondence between product updates and manual updates.

Edition 1 (Part Number 03245-90033)December 1991

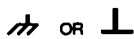
Safety Symbols



Instruction manual symbol affixed to product. Indicates that the user must refer to the manual for specific Warning or Caution information to avoid personal injury or damage to the product.



Indicates the field wiring terminal that must be connected to earth ground before operating the equipment – protects against electrical shock in case of fault.



Frame or chassis ground terminal – typically connects to the equipment's metal frame.



Alternating current (AC).



Direct current (DC).



Indicates hazardous voltages.

WARNING

Calls attention to a procedure, practice, or condition that could cause bodily injury or death.

CAUTION

Calls attention to a procedure, practice, or condition that could possibly cause damage to equipment or permanent loss of data.

WARNINGS

The following general safety precautions must be observed during all phases of operation, service, and repair of this product. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the product. Hewlett-Packard Company assumes no liability for the customer's failure to comply with these requirements.

Ground the equipment: For Safety Class 1 equipment (equipment having a protective earth terminal), an uninterruptible safety earth ground must be provided from the mains power source to the product input wiring terminals or supplied power cable.

DO NOT operate the product in an explosive atmosphere or in the presence of flammable gases or fumes.

For continued protection against fire, replace the line fuse(s) only with fuse(s) of the same voltage and current rating and type. DO NOT use repaired fuses or short-circuited fuseholders.

Keep away from live circuits: Operating personnel must not remove equipment covers or shields. Procedures involving the removal of covers or shields are for use by service-trained personnel only. Under certain conditions, dangerous voltages may exist even with the equipment switched off. To avoid dangerous electrical shock, DO NOT perform procedures involving cover or shield removal unless you are qualified to do so.

DO NOT operate damaged equipment: Whenever it is possible that the safety protection features built into this product have been impaired, either through physical damage, excessive moisture, or any other reason, REMOVE POWER and do not use the product until safe operation can be verified by service-trained personnel. If necessary, return the product to a Hewlett-Packard Sales and Service Office for service and repair to ensure that safety features are maintained.

DO NOT service or adjust alone: Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.

DO NOT substitute parts or modify equipment: Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the product. Return the product to a Hewlett-Packard Sales and Service Office for service and repair to ensure that safety features are maintained.

HP 3245A REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
	03245-80000	1	STANDARD KIT	28480	03245-80000
	03245-04102	1	COVER-BNC FRONT PANEL	28480	03245-04102
	6960-0142	1	PLUG-HOLE DOME-HD FOR .562-D-HOLE	28480	6960-0142
	03245-60201	1	FRONT PANEL ASSEMBLY	28480	03245-60201
LBL1	03245-40201	1	PANEL-FRONT	28480	03245-40201
MP1	03245-81901	1	SW-PADS,RUBBER	28480	03245-81901
MP2	03245-69301	1	WINDOW-DISPLAY SS	28480	03245-69301
* A7	03458-66507	1	DISPLAY LOGIC PRINTED CIRCUIT BOARD	28480	03458-66507
SCW1	0624-0681	1	SCREW-TPG 4-20 .25-IN-LG PAN-HD-TORX	28480	0624-0681
	03245-84302	1	LABEL-PANEL,REAR	28480	03245-84302
	03245-00101	1	DECK-SOURCE BRD	28480	03245-00101
	0361-1228	3	RIVET-SEMITUB OVH .146DIA .188LG	28480	0361-1228
	0590-1088	3	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	46384	S-M3-2-Z1
	0590-1298	7	THREADED INSERT-STDF M3 X 0.5 12-MM-LG	46384	BSOS-3.5M3-12
	0590-1720	7	THREADED INSERT-STDF M3 X 0.5 25-MM-LG	46384	BSOS-3.5M3-25
	1400-0617	3	CLIP-SPRING .375-DIA .375-WD PLASTIC	06915	TC-30-1
	7204-0575	2	ALUMINUM SH .08IN 32IN 48IN AA5052-H321	28480	7204-0575
	03245-04101	1	PLATE-BNC TERMINAL	28480	03245-04101
	03245-04701	3	SPACER-BNC MOUNTING	28480	03245-04701
	03245-24701	1	SPACER-HEX F/F M3.0X50MM	28480	03245-24701
	03245-61604	1	3M RIBBON 40P/20P CABLE ASSEMBLY	28480	03245-61604
	03245-90032	1	CUSTOMER QUALITY AUDIT FORM	28480	03245-90032
	0515-0372	27	SCREW-MACHINE ASSEMBLY M3 X 0.5 8MM-LG	28480	0515-0372
	5180-0409	1	SPRING CLIP	28480	5180-0409
	5180-6646	1	CARTON-CORRUGATED	28480	5180-6646
	7124-2083	1	LABEL-WARNING 1-IN-WD 3.5-IN-LG PPR	28480	7124-2083
	8120-1378	1	CABLE ASSEMBLY 18AWG	16428	CH7081
	8160-0470	2	RFI STRIP-FINGERS BE-CU SN-PL .38-IN-WD	30817	97-541-02-X
	9222-1266	1	BAG-STAT-DISS POLYETH FLM ENV 4-IN X 6-IN	28480	9222-1266
	9222-1438	2	BAG-STAT-DISS POLYETH FLM ENV 4-IN X 4-IN	71983	CHIPLC DP
	03245-66511	1	PRINTED CIRCUIT BOARD-INGUARD SOURCE	28480	03245-66511
A1	03245-66502	1	BACKPLANE PRINTED CIRCUIT ASSEMBLY	28480	03245-66502
* A2	03245-66505	1	OUTGUARD LOGIC PRINTED CIRCUIT ASSEMBLY	28480	03245-66505
* A5	03245-66506	1	OUTGUARD POWER SUPPLY PC ASSEMBLY	28480	03245-66506
* A6					
B1	03458-68501	1	FAN ASSEMBLY	28480	03458-68501
	1252-1878	2	CONTACT-CONNECTOR U/W-POST-TYPE FEM CRIMP	27264	18-02-0088
	1252-2518	2	CONNECTOR-POST TYPE .100-PIN-SPCG 2-CONTACT	27264	50-57-8402
	3160-0492	1	FAN-TUBEAXIAL 12.4-CFM 12VDC	28480	3160-0492
CVR1	03458-04101	1	COVER, TOP	28480	03458-04101
	7204-0810	4	ALUMINUM SHEET .064IN 24IN 48IN AA5005-H	28480	7204-0810
CVR2	03458-04102	1	COVER, BOTTOM	28480	03458-04102
	7204-0810	4	ALUMINUM SHEET .064IN 24IN 48IN AA5005-H	28480	7204-0810
F1M	2110-0202	1	FUSE .5A 250V 1.25X.25 UL	16428	MDL-1/2
FC2	2110-0565	1	FUSEHOLDER CAP 12A MAX FOR UL	28480	2110-0565
FRM1	03458-00104	1	GUSSET, CENTER	28480	03458-00104
	0361-0015	2	EYELET-FL-FLG .743-OD .177-LG .013-THK	57771	A-810
	0361-0161	2	RIVET-SEMITUB OVH .069DIA .125LG	12014	R3718 X 1/8 TIN
	0361-0231	1	RIVET-SEMITUB OVH .123DIA .218LG	12014	R-3472
	0590-1368	2	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	46384	CLS-M3-2
	1460-1311	1	SPRING, GROUND	28480	1460-1311
	3050-0116	1	WASHER-FL NO. 4 .125-IN-ID .375-IN-OD	28480	3050-0116
	5061-1665	1	CLB 18AWG PVC AMP 4177Z/AMP 61783-1	28480	5061-1665
	7144-0323	1	STEEL SH .06IN 32IN 48IN AISI 1010	28480	7144-0323
FRM2	03458-00106	1	CHASSIS, MAINFRAME	28480	03458-00106
	0361-0233	2	RIVET-SEMITUB OVH .123DIA .281LG	12014	R-3682
	0590-1086	4	THREADED INSERT-NUT M4 X 0.7 2-MM-LG	46384	S-M4-2-Z1
	0590-1089	1	THREADED INSERT-NUT M2.5 X 0.45 1.5-MM-LG	46384	S-M2.5-2-Z1
	0590-1102	2	THREADED INSERT-NUT M4 X 0.7 1.5-MM-LG	46384	F-M4-1
	0590-1203	3	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	46384	F-M3-1
	0590-1220	3	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	46384	S-M3-1-Z1
	0590-1590	6	THREADED INSERT-STDF M4 X 0.7 10-MM-LG	46384	BSOS-M4-10
	7144-0521	3	STEEL SH .09IN 24IN 55IN AISI 1010	28480	7144-0521
	9135-0167	1	FILTER-LINE CEE-22-TERMS	28480	9135-0167

* IN-DEPTH COMPONENT LOCATOR IN SECTION UNDER INDIVIDUAL HP PART NUMBER.

HP 3245A REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
FRM3	03458-00105	1	CHASSIS, OUTGUARD	28480	03458-00105
	0590-1088	3	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	46384	S-M3-2-ZI
	0590-1871	5	THREADED INSERT-STDF M3 X 0.5 8-MM-LG	46384	SOSG-3.5M3-8
	7144-0323	1	STEEL SH .06IN 32IN 48IN AISI 1010	28480	7144-0323
HDW1	1510-0038	1	BINDING POST ASSY SGL THD-STUD	74970	111-2223-001
HDW2	2950-0006	1	NUT-HEX-DBL-CHAM 1/4-32-THD .094-IN-THK	73734	9000
HDW3	2190-0027	1	WASHER-LK INTL T 1/4 IN .256-IN-ID	78189	1914-00
HDW4	2190-0119	2	WASHER-FL 15/32 IN .48-IN-ID .75-IN-OD	73734	1499
HDW5-HDW6	2190-0577	2	WASHER-LK NO. 10 .194-IN-ID .294-IN-OD	28480	2190-0577
HDW7-HDW10	2190-0432	4	WASHER-LK 5/16 IN .319-IN-ID .575-IN-OD	28480	2190-0432
HDW11	2190-0119	1	WASHER-FL 15/32 IN .48-IN-ID .75-IN-OD	73734	1499
HDW12	2190-0037	1	WASHER-LK 1/2 IN .512-IN-ID .789-IN-OD	78189	1224-08
HDW13-HDW16	2190-0099	5	WASHER-LK 7/16 IN .472-IN-ID .607-IN-OD	54294	16-886
HDW17-HDW19	2950-0035	5	NUT-HEX-DBL-CHAM 15/32-32-THD	28480	2950-0035
HDW20	2950-0054	1	NUT-HEX-DBL-CHAM 1/2-28-THD .125-IN-THK	28480	2950-0054
HDW21-HDW22	2950-0001	2	NUT-HEX-DBL-CHAM 3/8-32-THD .094-IN-THK	73734	9002
HDW23-HDW24	0360-1632	2	TERMINAL-SOLDER LUG LK-MTG FOR-#3/8-SCR	79963	761-3/8
HDW25	2190-0099	1	WASHER-LK 7/16 IN .472-IN-ID .607-IN-OD	54294	16-886
HDW26-HDW27	2950-0035	1	NUT-HEX-DBL-CHAM 15/32-32-THD	28480	2950-0035
HDW28-HDW29	3050-0604	2	WASHER-FL 7/16 IN .5-IN-ID .75-IN-OD	86928	5710-94-16
HDW30-HDW33	00310-48801	4	INSULATOR	28480	00310-48801
HDW34	3050-0891	1	WASHER-FL 3.0 MM 3.3-MM-ID 6.85-MM-OD	28480	3050-0891
J1-J2	1250-0083	2	CONNECTOR-RF BNC FEM SGL-HOLE FR 50-OHM	24931	28JR130-1
KYC1	5041-0564	1	PB 1/4-COWHT	28480	5041-0564
LBL1	03245-84304	1	LABEL FOR REAR PANEL OPT 02	28480	03245-84304
LBL2	7120-4835	1	LABEL-INFORMATION .75-IN-WD 2-IN-LG PPR	80509	CSA STOCK NO. 8-1113-405
LBL3	03245-84300	1	LABEL-SERIAL NUMBER, 3245A	28480	03245-84300
LBL4	7120-3528	1	LABEL .6-IN-WD 1.8-IN-LG	28480	7120-3528
MNL1	03245-90000	1	USERS MANUAL SET	28480	03245-90000
MP1	03458-01201	1	BRACKET, TRANSFORMER	28480	03458-01201
	0380-1813	1	TERMINAL-TAB QUICK DISC MALE; 45 DEG	00779	42822-2
	0381-0228	1	RIVET-SEMITUB OVH .123DIA .156LG	12014	R-3472
	0590-1088	8	THREADED INSERT-NUT M4 X 0.7 2-MM-LG	46384	S-M4-2-ZI
	7144-0323	1	STEEL SH .06IN 32IN 48IN AISI 1010	28480	7144-0323
MP4-MP7	03458-24701	4	STANDOFF-HEX, (MALE/FEMALE)	28480	03458-24701
MP8	03458-47901	1	BENZEL OVERLAY, REAR	28480	03458-47901
	0590-1866	4	THREADED INSERT-ULTINST M3.5 X 0.8	80201	8075-3.5BR-0038
	1390-0783	4	FASTENER-CAPTIVE SCREW M4 X 0.7 THD;8.0 MM LG	28480	1390-0783
MP9	03458-84303	1	LABEL, KEYBOARD OVERLAY	28480	03458-84303
MP10	3150-0300	1	FILTER-AIR NYLON 2.3-IN-OD .75-IN-LG	28480	3150-0300
MP11	2190-0586	4	WASHER-LK HLCL 4.0 MM 4.1-MM-ID 7.6-MM-OD	28480	2190-0586
MP12	03458-43701	1	PUSHROD, 186.2 L	28480	03458-43701
MP13-MP15	2190-0586	1	WASHER-LK HLCL 4.0 MM 4.1-MM-ID 7.6-MM-OD	28480	2190-0586
MP16-MP19	0390-0006	4	INSULATOR-FLANGE-BUSHING NYLON	73734	103304
MP20-MP23	3050-0893	4	WASHER-FL 4.0 MM 4.4-MM-ID 8.85-MM-OD	28480	3050-0893
MP24	1250-0161	1	ADAPTER-COAX STRAIGHT F-BNC F-BNC	24931	28AS101-2
MP25-MP28	1400-0249	4	CABLE TIE .062-.625-DIA .091-WD NYLON	59730	TY-23M-8
MP34	1460-1311	1	SPRING, GROUND	28480	1460-1311
MP35-MP36	1460-1345	2	TILT STAND STAINLESS STEEL	28480	1460-1345
MP41-MP42	5001-0538	2	TRIM STRIP SIDE 3 1/2	28480	5001-0538
MP43-MP46	5041-8801	4	FOOT FULL MOD	28480	5041-8801
MP47	5041-8802	1	TRIM STRIP TOP	28480	5041-8802
MP49-MP50	5041-8819	2	HANDLE CAP	28480	5041-8819
MP51-MP52	5041-8820	2	HANDLE CAP	28480	5041-8820
MP53-MP54	5062-3704	2	STRAP HANDLE-18 INCH	28480	5062-3704
MP57-MP58	5180-6650	2	STANDOFF, HEX	28480	5180-6650

HP 3245A REPLACEMENT PARTS

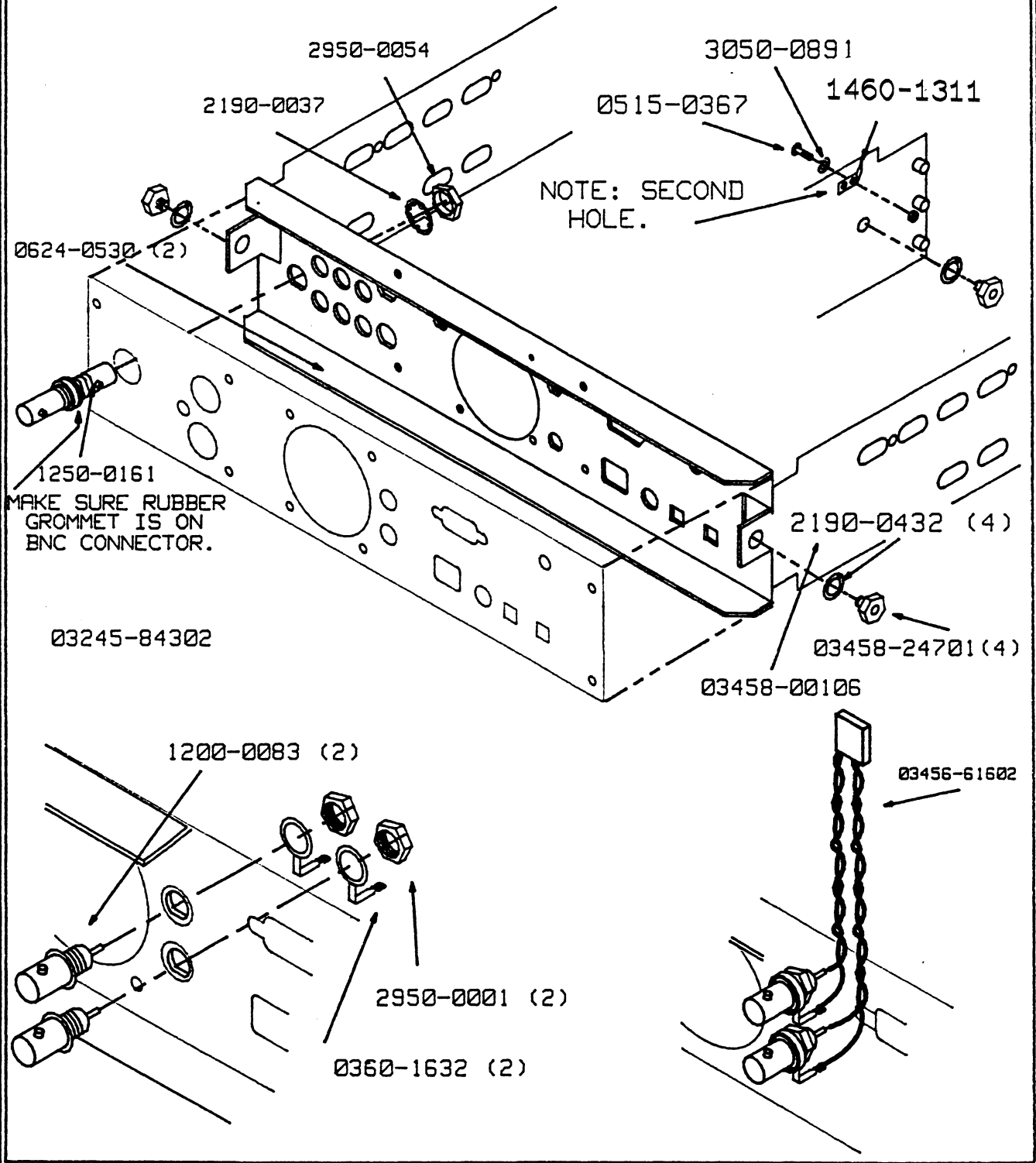
Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
SCW1-SCW4	0515-1404	4	SCREW-MACHINE M4 X 0.7 55MM-LG PAN-HD	28480	0515-1404
SCW5-SCW8	0515-0433	4	SCREW-MACHINE ASSY M4 X 0.7 8MM-LG PAN-HD	28480	0515-0433
SCW11-SCW16	0515-0372		SCREW-MACHINE ASSY M3 X 0.5 8MM-LG PAN-HD	28480	0515-0372
SCW17	0515-0367	1	SCREW-MACHINE ASSY M2.5 X 0.45 8MM-LG PAN-HD	28480	0515-0367
SCW21-SCW24	0515-1132	4	SCREW-MACHINE M3 X 0.8 10MM-LG FLAT-HD	28480	0515-1132
SCW41-SCW42	0624-0530	2	SCREW-TPG 8-16 .375-IN-LG PAN-HD-TORX	28480	0624-0530
T1	9100-4749	1	TRANSFORMER-POWER 100/120/220/240V	05216	PX4881
W1	03458-61601	1	CABLE ASSEMBLY - 20 PIN	28480	03458-61601
	1251-5007	2	PULL TAB-POST 20/28 CONNECTOR	76381	3490-2
	1251-7584	2	CONNECTOR-POST TYPE .100-PIN-SPCG 20-CONTACT	18873	66900-220
	8120-1778	0	CABLE-FLAT-RIBBON 28AWG 20-CNDCT GRA-INSUL	76381	3365-20
W3	03458-61602	1	EXT I/O 4 WIRE CABLE	28480	03458-61602
	1251-3476	4	CONTACT-CONNECTOR U/W-POST-TYPE FEM CRIMP	27264	08-50-0113
	1251-7111	1	CONNECTOR-POST TYPE .100-PIN-SPCG 4-CONTACT	27264	22-01-3047

Code List of Manufacturers - HP 3245A MAINFRAME

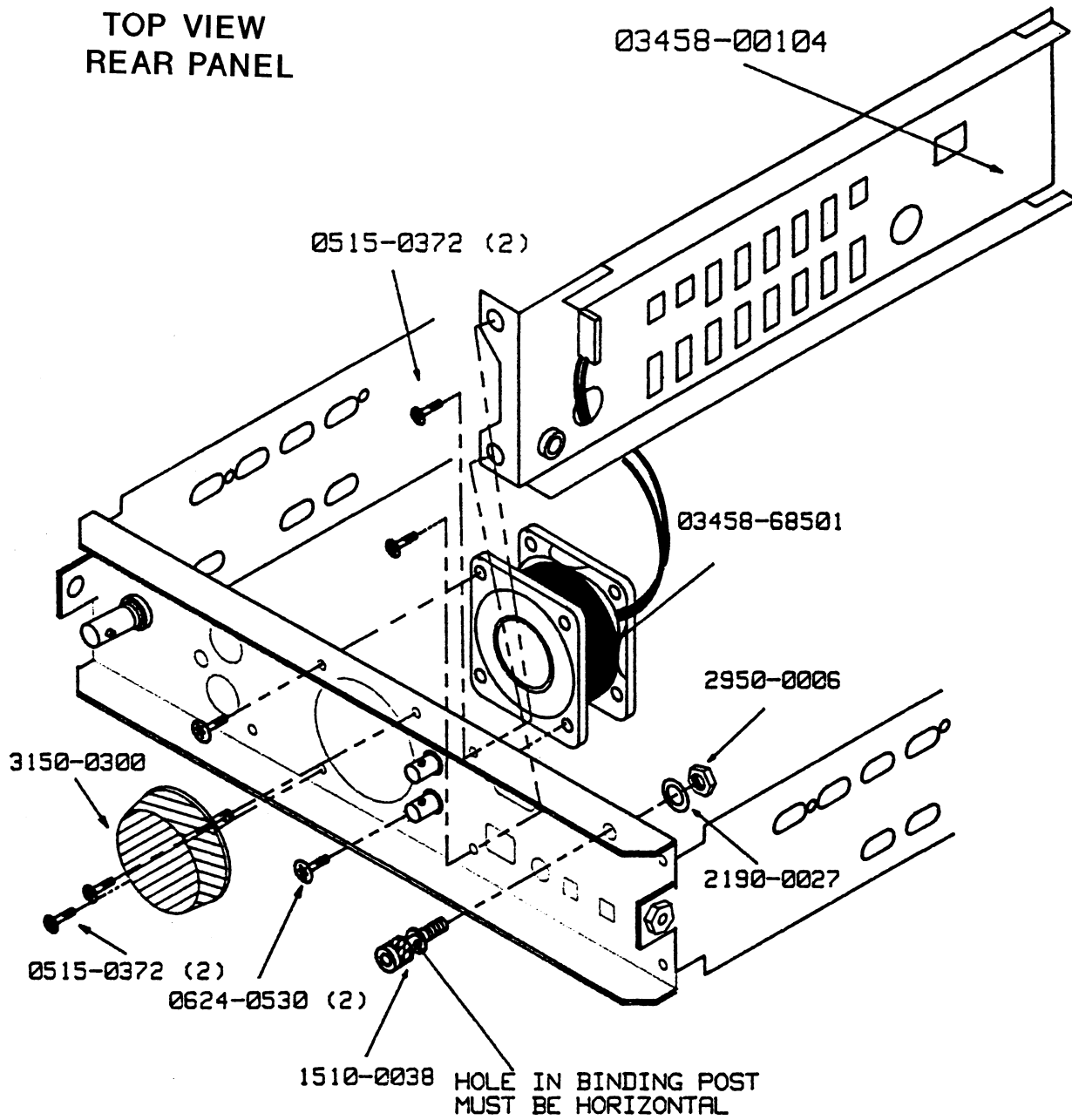
Mfr. Code	Manufacturer's Name	Manufacturer's Address	Zip Code
00779	AMP INC	HARRISBURG PA US	17111
05216	PHOENIX TRANSFORMER CO	PHOENIX AZ US	85040
06915	RICHCO PLASTIC CO	CHICAGO IL US	60646
12014	CHICAGO RIVET & MACHINE CO	NAPERVILLE IL US	60540
16428	COOPER INDUSTRIES INC	HOUSTON TX US	77210
18873	DUPONT E I DE NEMOURS & CO	WILMINGTON DE US	19801
24931	SPECIALTY CONNECTOR CO	FRANKLIN IN US	46131
27264	MOLEX INC	LISLE IL US	60532
28480	HEWLETT PACKARD COMPANY - CORPORATE	PALO ALTO CA US	94304
30817	INSTRUMENT SPECIALTIES CO INC	DEL WATER GAP PA US	07424
46384	PENN ENGINEERING & MFG CORP	DOYLESTOWN PA US	18901
54294	SHALLCROSS INC	NORTHBROOK IL US	60062
57771	STIMPSON EDWIN B CO INC	BROOKLYN NY US	11705
59730	THOMAS & BETTS CORP	RARITAN NJ US	08869
71983	DOW CHEMICAL CO	MIDLAND MI US	48674
73734	FEDERAL SCREW PRODUCTS CO	CHICAGO IL US	60618
74970	EF JOHNSON CO	WASECA MN US	56093
76381	3M CO	ST PAUL MN US	55144
78189	ILLINOIS TOOL WORKS INC SHAKEPROOF	ELGIN IL US	60126
79963	ZIERICK MFG CO	MT KISCO NY US	10549
80509	AVERY LABEL CO	MONROVIA CA US	91016
86928	SEASTROM MFG CO	GLENDALE CA US	91201
90201	EMHART CORP	FARMINGTON CT US	06032

TOP VIEW
REAR PANEL

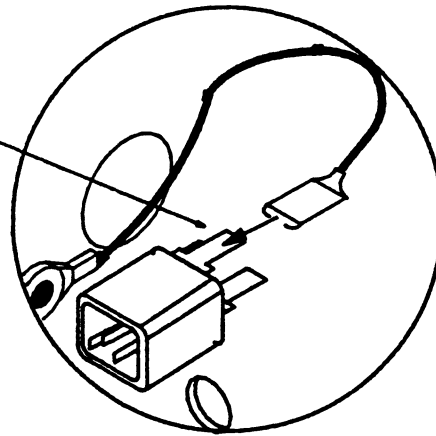
"SOURCE"

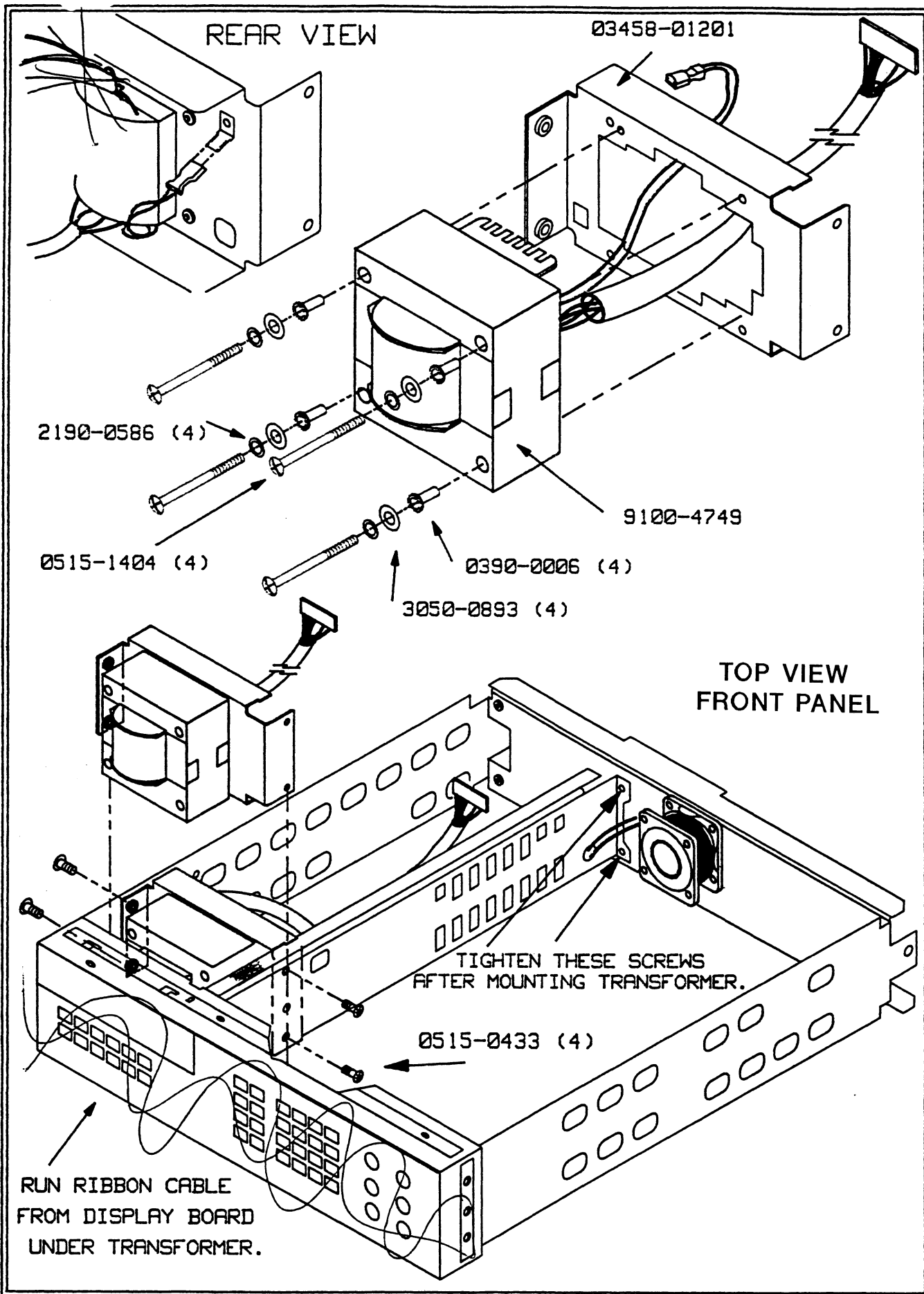


TOP VIEW REAR PANEL

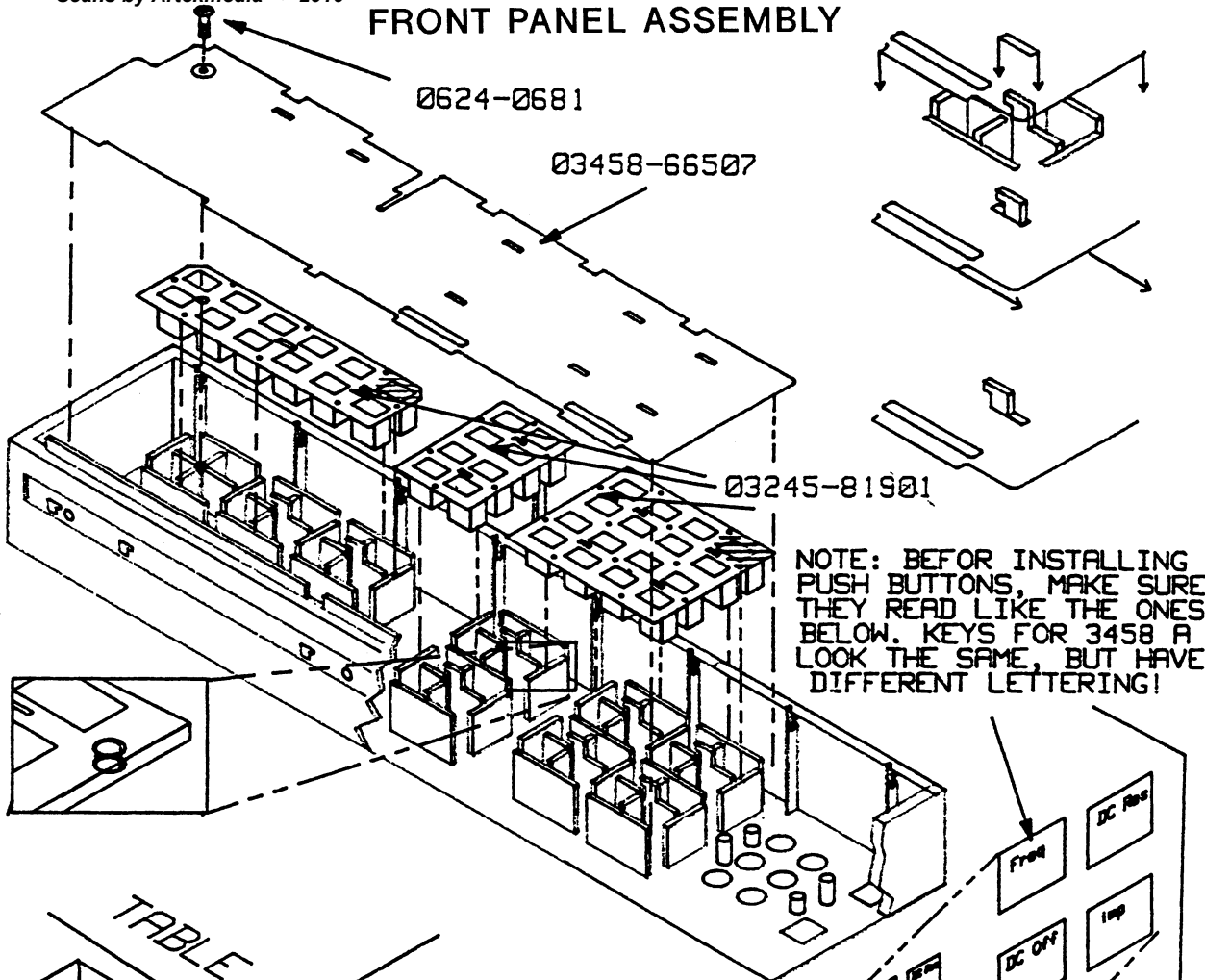


SOLDER THIS CONNECTION
AFTER PLUGGING IT IN.

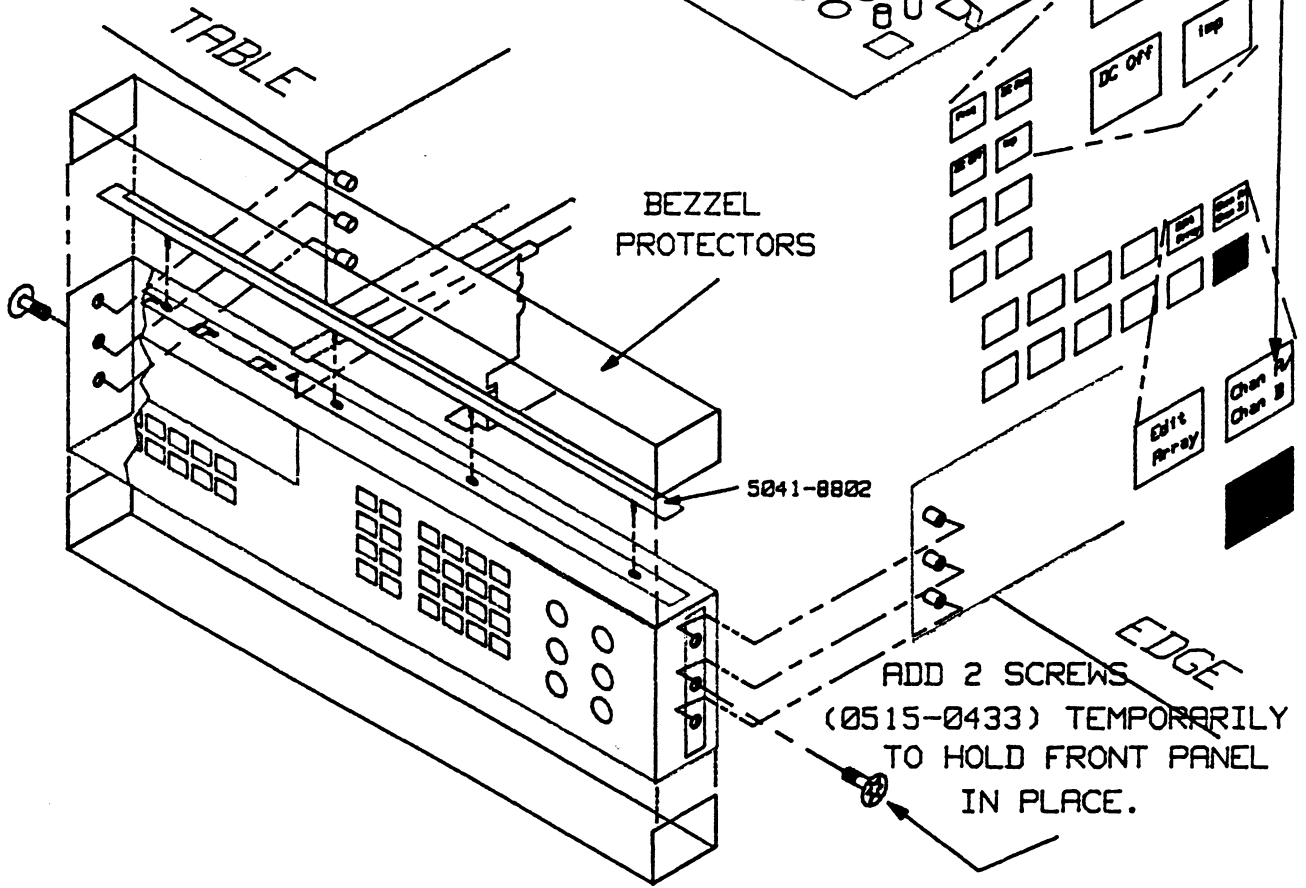


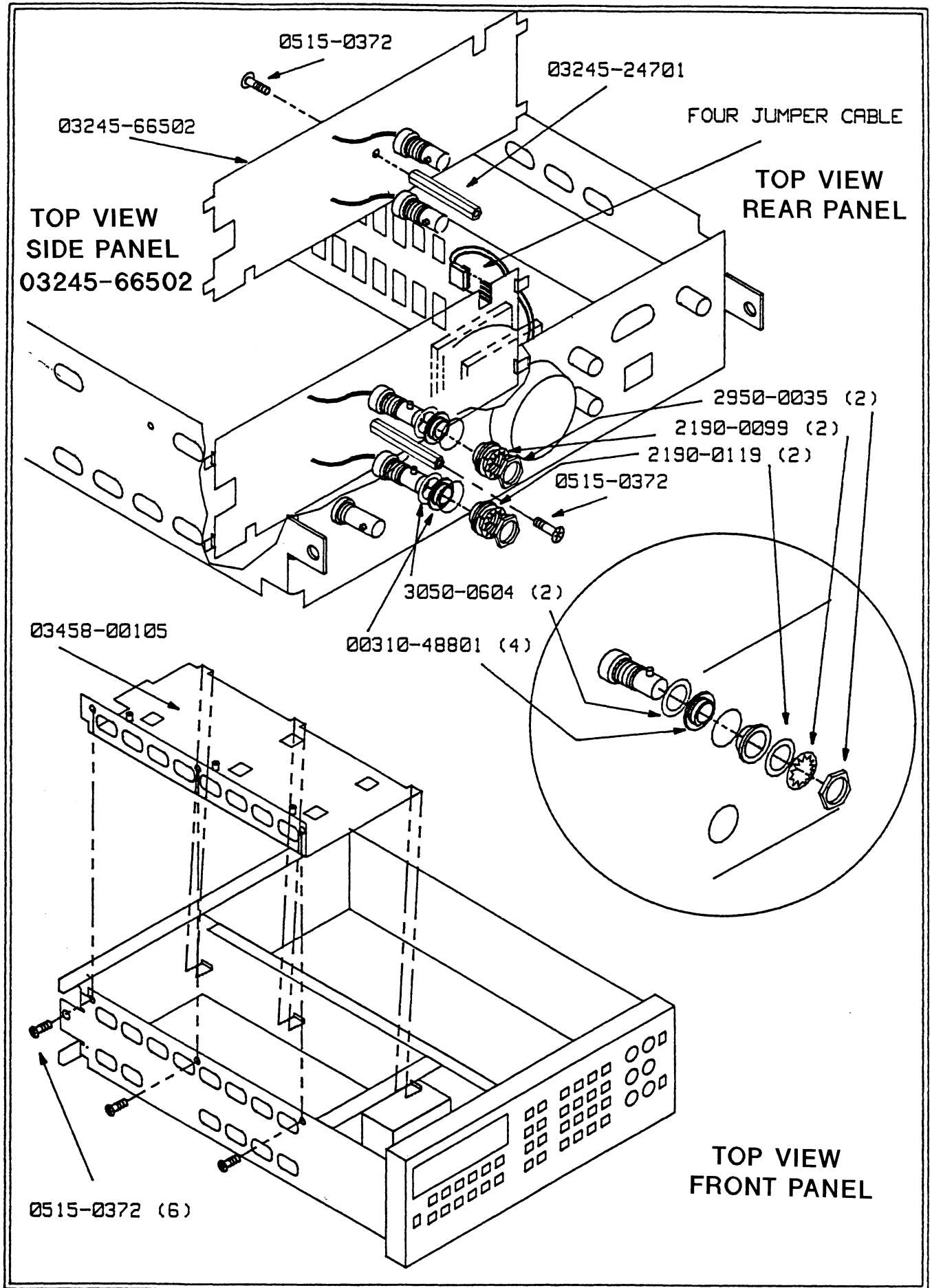


FRONT PANEL ASSEMBLY



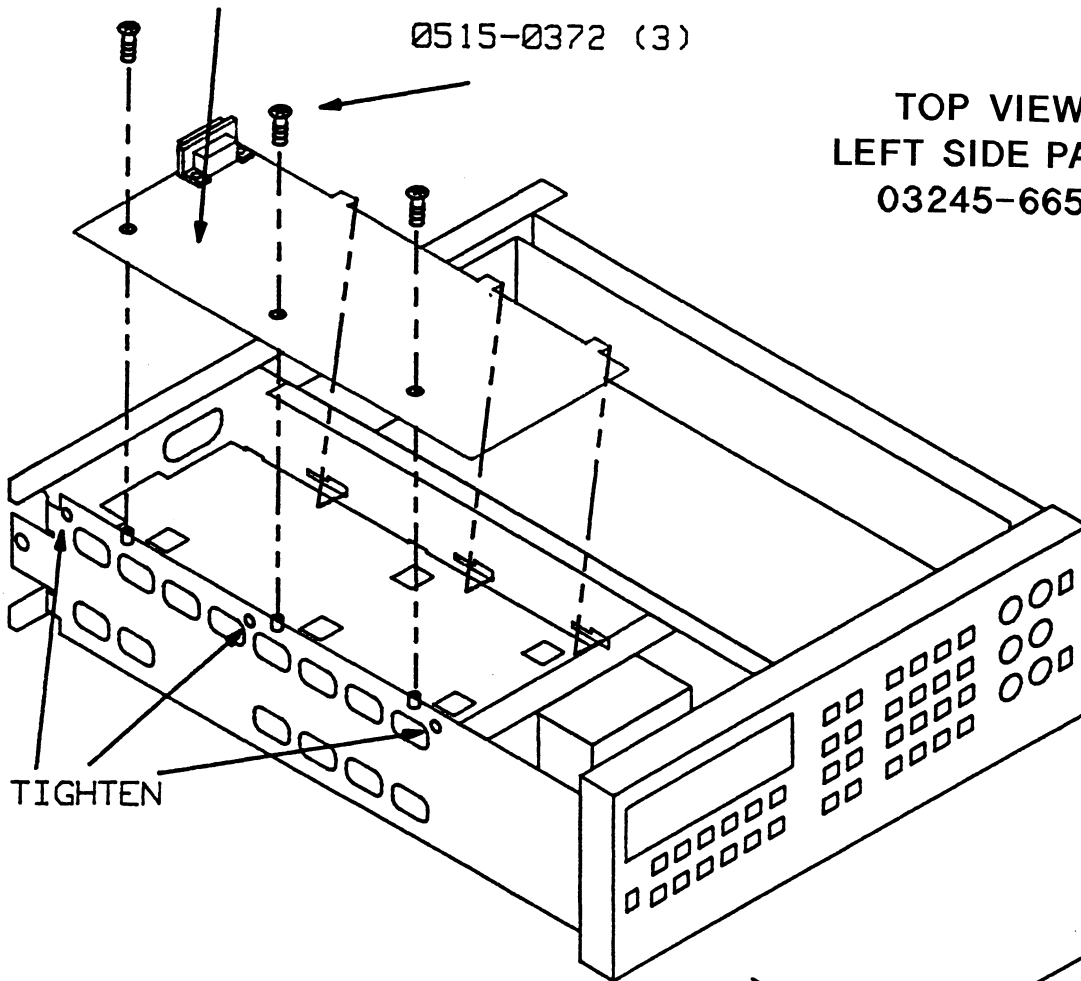
NOTE: BEFORE INSTALLING PUSH BUTTONS, MAKE SURE THEY READ LIKE THE ONES BELOW. KEYS FOR 3458 A LOOK THE SAME, BUT HAVE DIFFERENT LETTERING!



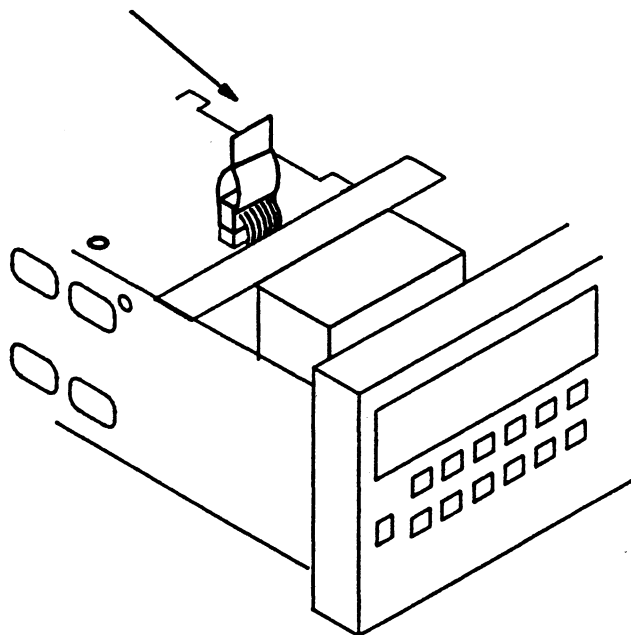


0515-0372 (3)

TOP VIEW
LEFT SIDE PANEL
03245-66505

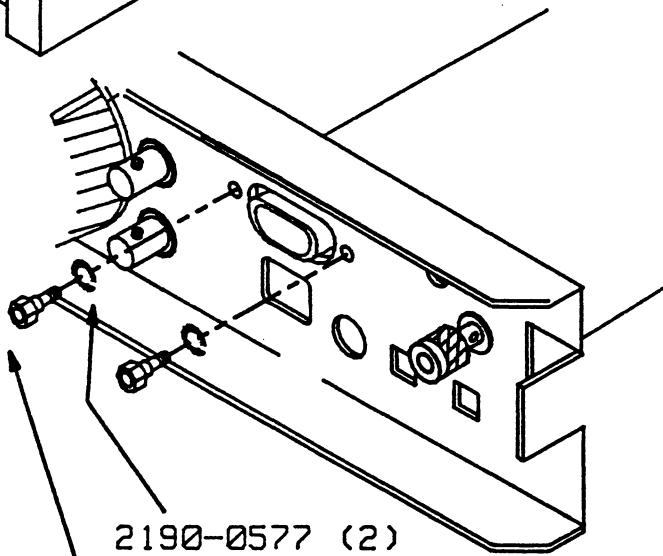


03458-61601

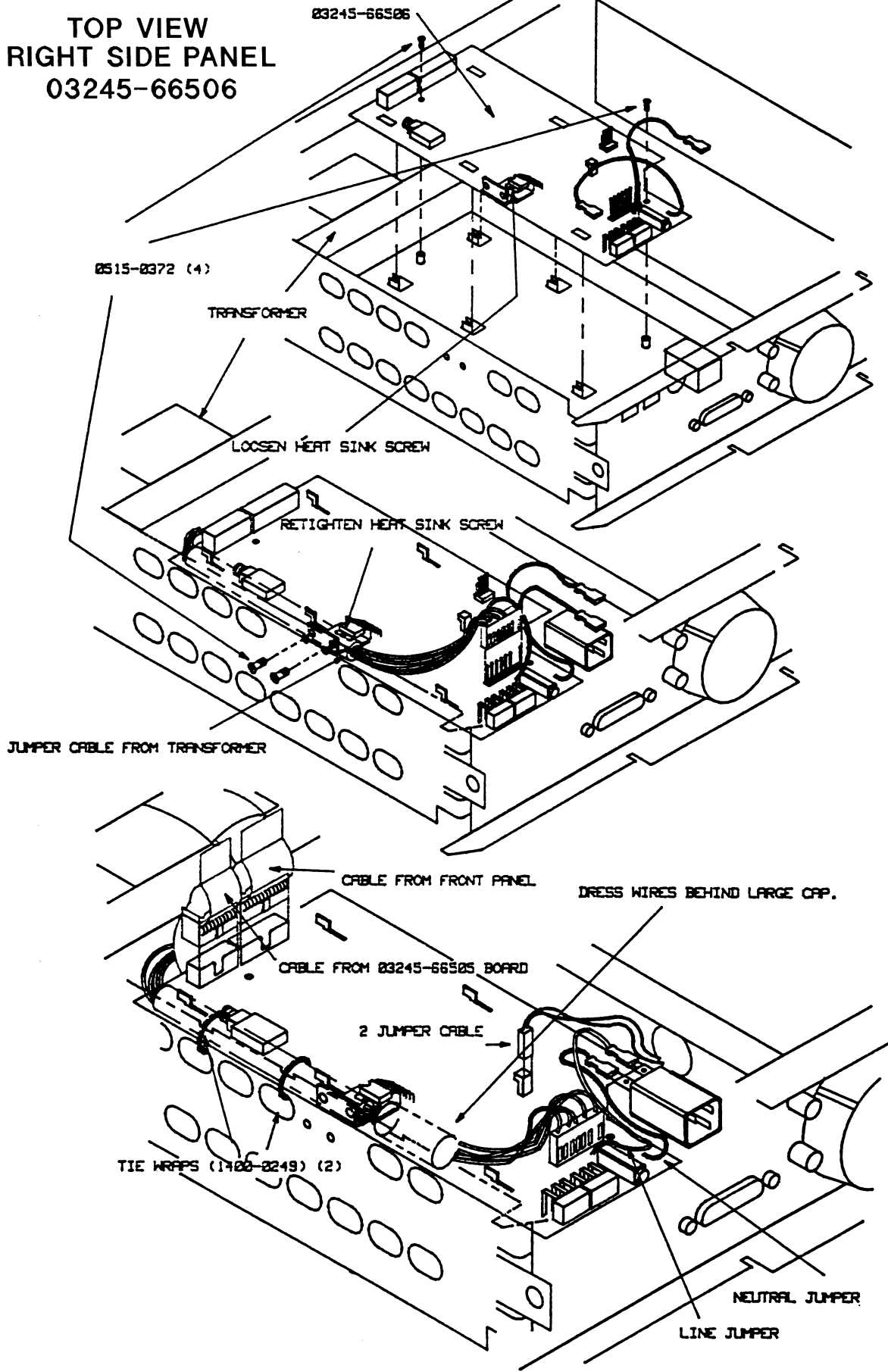


2190-0577 (2)

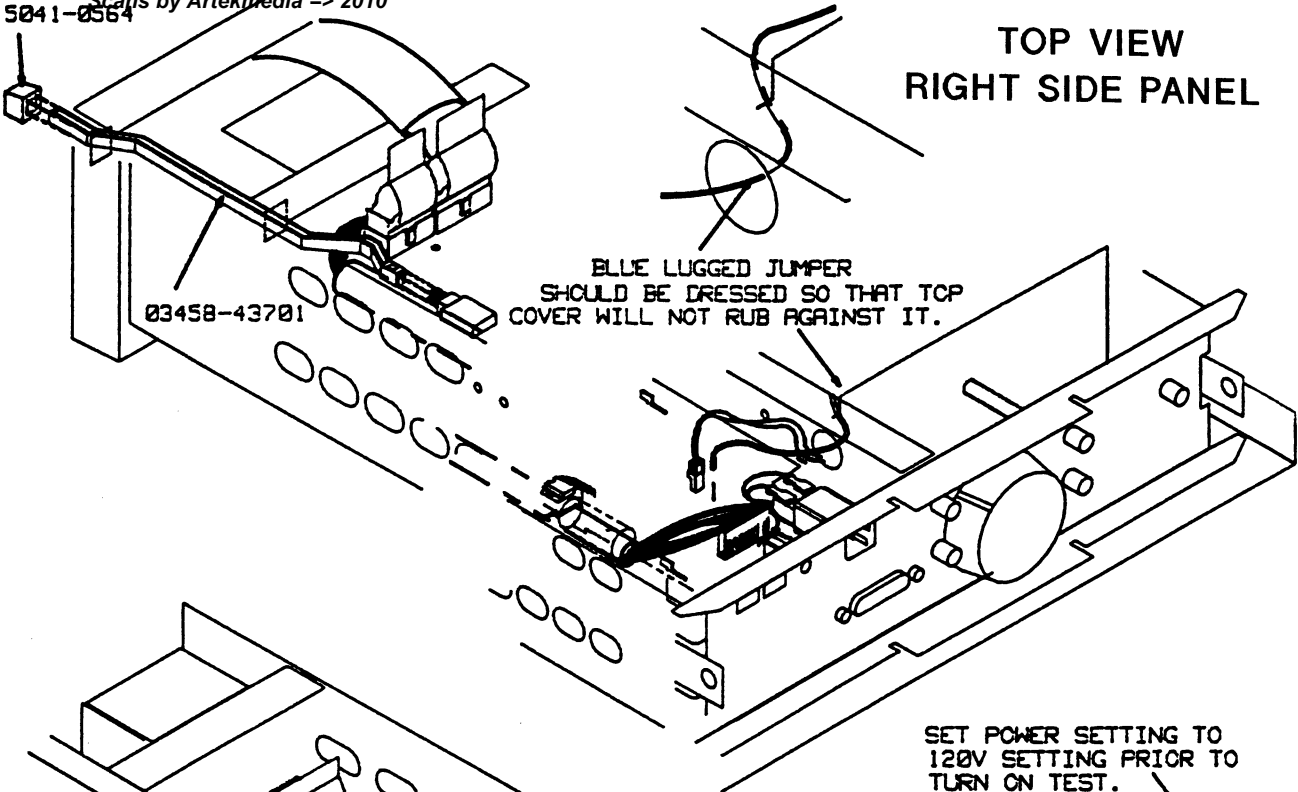
5180-6650 (2)



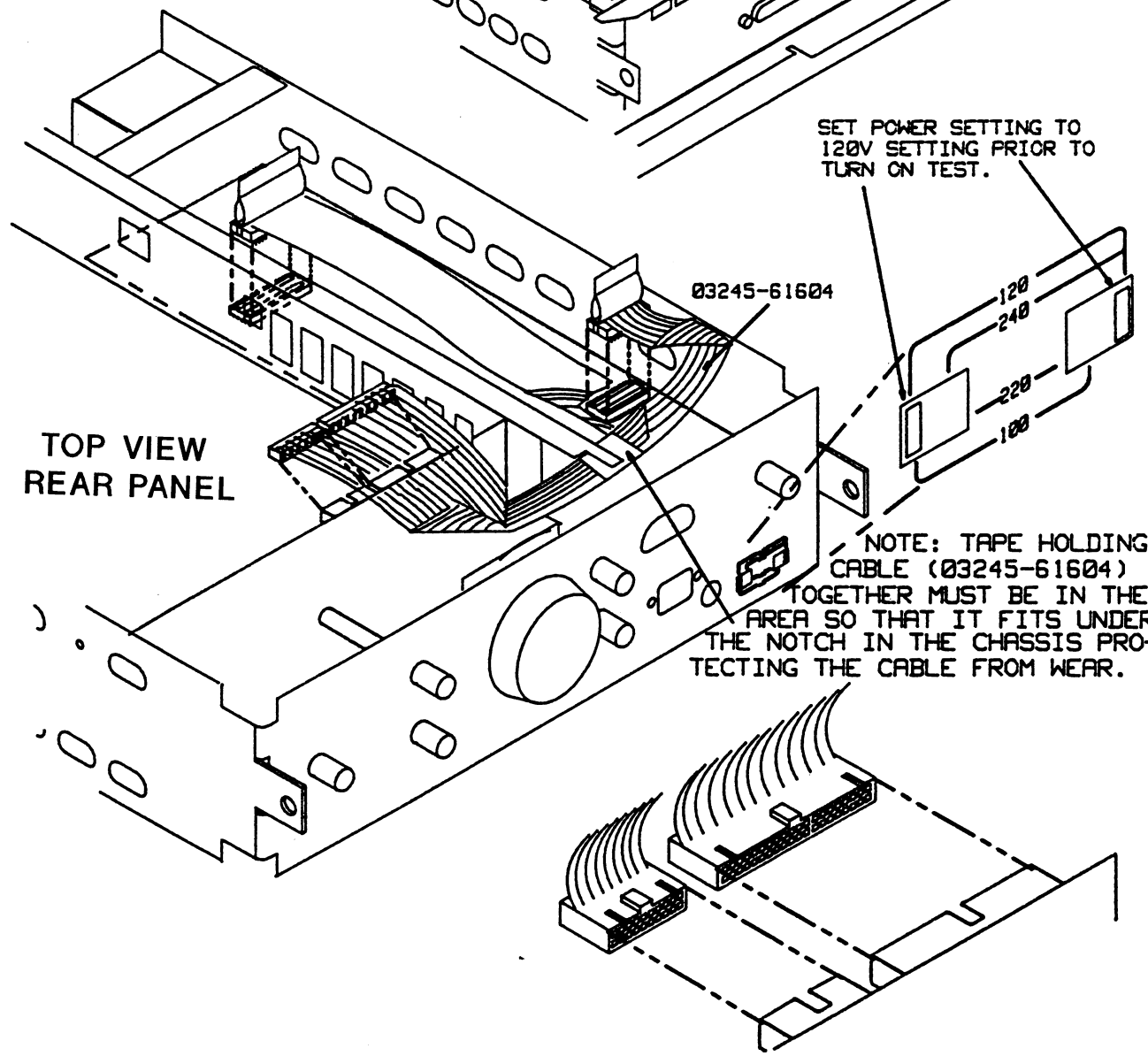
**TOP VIEW
RIGHT SIDE PANEL
03245-66506**



TOP VIEW RIGHT SIDE PANEL

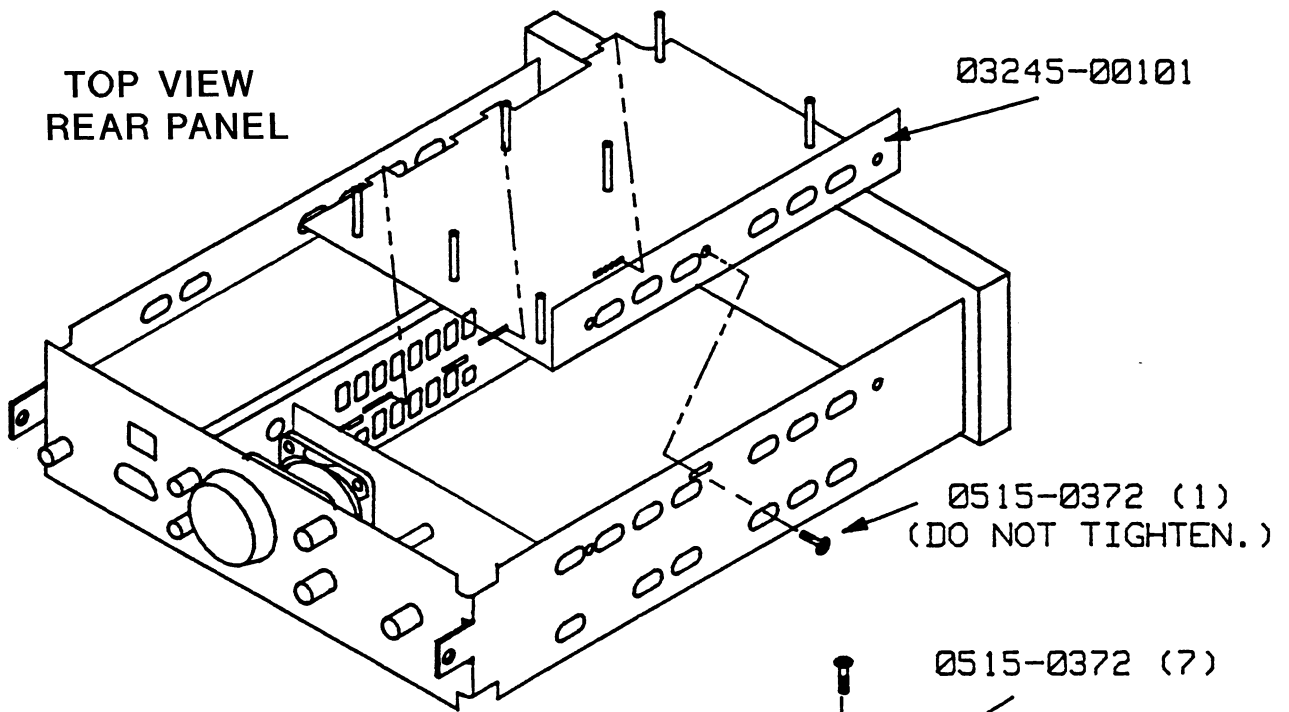


TOP VIEW REAR PANEL



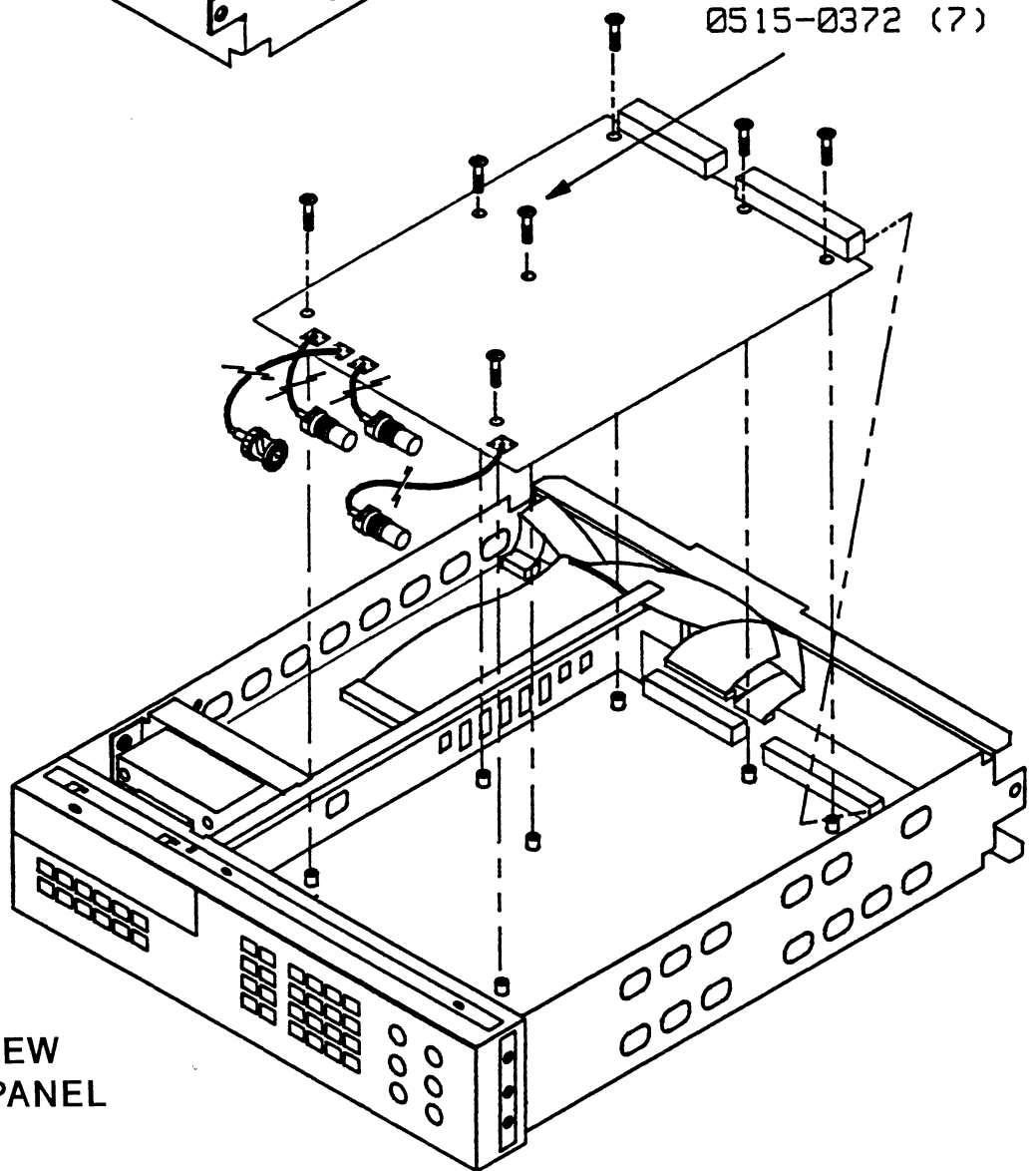
TOP VIEW
REAR PANEL

Ø3245-Ø0101



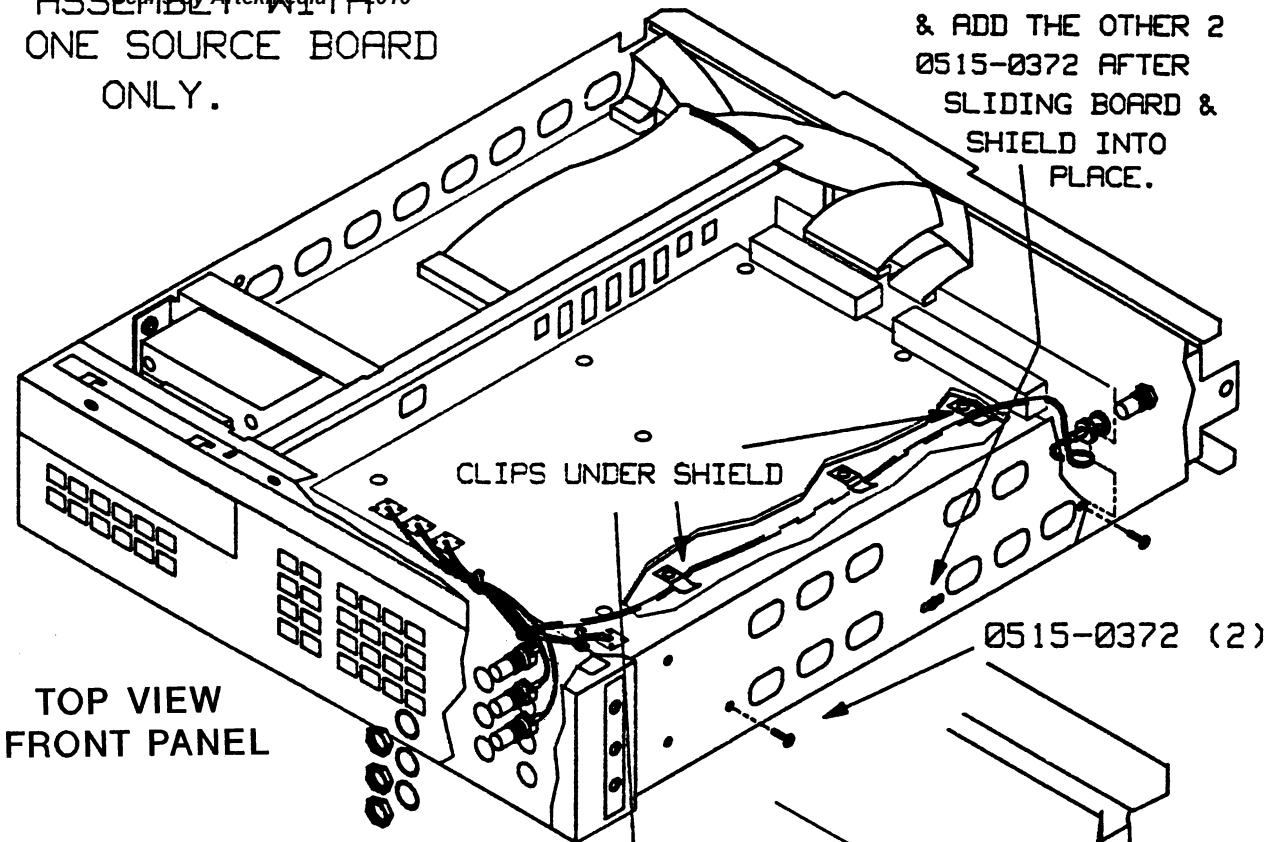
Ø515-Ø372 (7)

TOP VIEW
FRONT PANEL



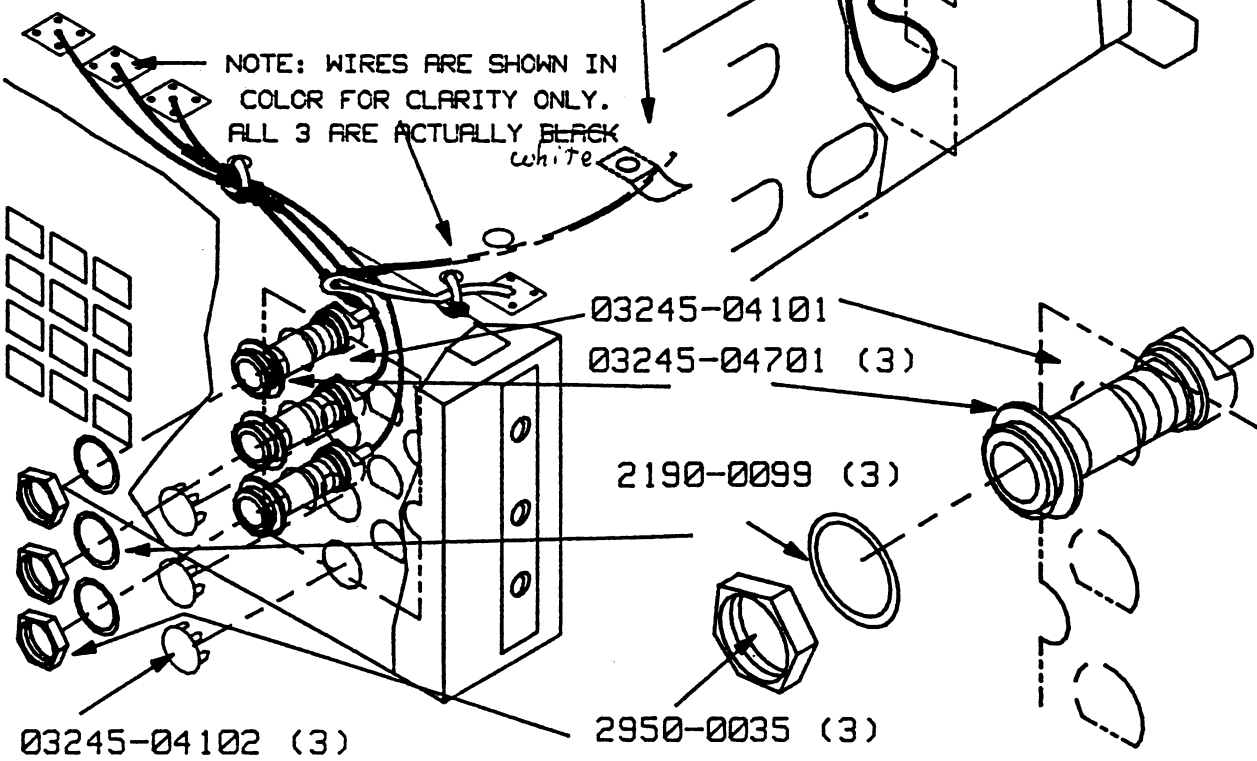
ASSEMBLY WITH
ONE SOURCE BOARD
ONLY.

TIGHTEN THIS SCREW
& ADD THE OTHER 2
0515-0372 AFTER
SLIDING BOARD &
SHIELD INTO PLACE.



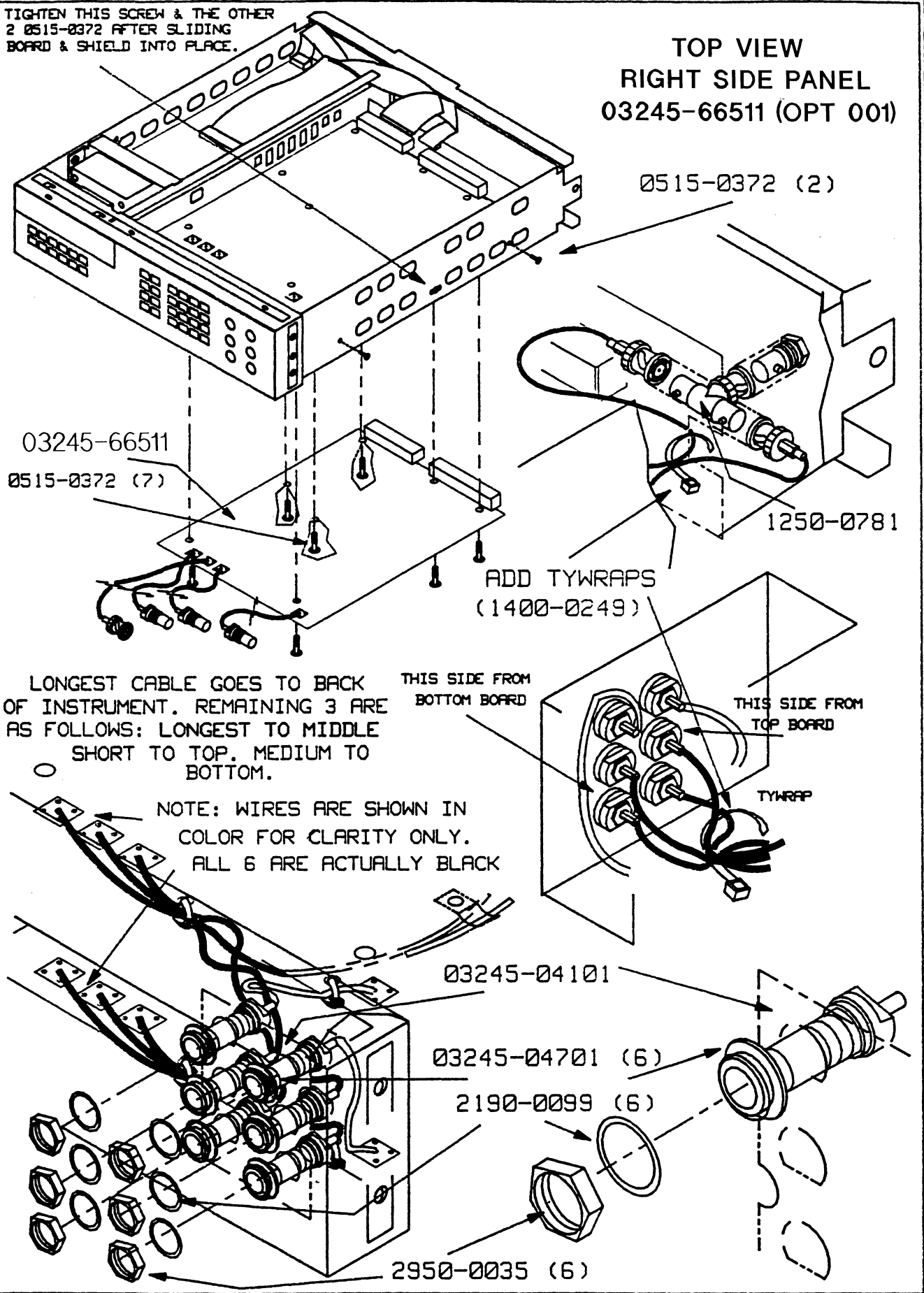
LONGEST CABLE GOES TO BACK OF
INSTRUMENT. OTHER 3 ARE AS FOLLOWS:
LONGEST TO MIDDLE. SHORTEST TO
○ TOP. MEDIUM TO BOTTOM.

NOTE: WIRES ARE SHOWN IN
COLOR FOR CLARITY ONLY.
ALL 3 ARE ACTUALLY BLACK
white



TIGHTEN THIS SCREW & THE OTHER
2 0515-0372 AFTER SLIDING
BOARD & SHIELD INTO PLACE.

TOP VIEW
RIGHT SIDE PANEL
03245-66511 (OPT 001)



03458-04101

TOP VIEW
TOP COVER

03458-00601

5180-0409

03458-04102

ADD SERIAL NUMBER
AT THIS TIME.

5041-8801 (4)

1460-1345 (2)

BOTTOM VIEW
BOTTOM COVER

03458-47901
(ATTACH AFTER TOP
& BOTTOM COVERS ARE
ADDED)

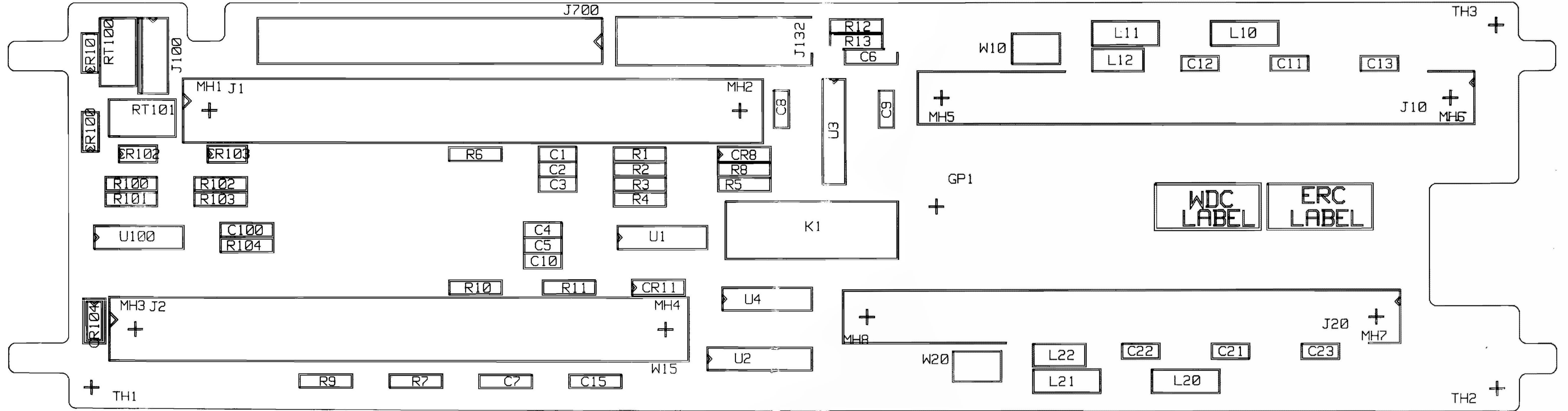
03245-66502 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A2	03245-66502	1	PRINTED CIRCUIT ASSEMBLY - BACKPLANE	28480	03245-66502
	0361-0236	4	RIVET-SEMITUB OVH .123DIA .406LG	28480	0361-0236
	0361-1222	4	RIVET-SEMITUB OVH .099DIA .218LG	28480	0361-1222
A2C1-C5	0160-4805	10	CAPACITOR-FXD 47pF +-5% 100 V CER COG	04222	SA102A470JAAH
A2C6-C7	0160-4571	4	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A2C8-C11	0160-4805	4	CAPACITOR-FXD 47pF +-5% 100 V CER COG	04222	SA102A470JAAH
A2C12-C13	0160-4809	4	CAPACITOR-FXD 390pF +-5% 100 V CER COG	04222	SA101A391JAAH
A2C15	0160-4571	4	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A2C21	0160-4805	4	CAPACITOR-FXD 47pF +-5% 100 V CER COG	04222	SA102A470JAAH
A2C22-C23	0160-4809	4	CAPACITOR-FXD 390pF +-5% 100 V CER COG	04222	SA101A391JAAH
A2C100	0160-4571	4	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A2CR8	1902-0958	1	DIODE-ZENER 10V 5% PD=.4W TC=+.075% IR=10U	28480	1902-0958
A2CR11	1902-0950	1	DIODE-ZENER 4.7V 5% PD=.4W TC=+.025% IR=2U	28480	1902-0950
A2CR100-CR103	1901-0743	4	DIODE-POWER RECTIFIER 1N4004 400V 1A DO-41	71744	1N4004
A2CR104	1902-1291	1	DIODE-ZENER 1N5338B 5.1V 5% PD=5W IR=1UA	04713	1N5338B
A2J1-J2	1252-1590	2	CONNECTOR-POST TYPE 5.08-PIN-SPCG 48-CONTACT	09922	P196B35R00A0N9
A2J10	5180-8213	2	CONNECTOR-2X9F> NO KEY	28480	5180-8213
A2J20	5180-8213	2	CONNECTOR-2X9F> NO KEY	28480	5180-8213
A2J100	1252-0293	1	CONNECTOR-POST TYPE .100-PIN-SPCG 4-CONTACT	27264	22-11-2042
A2J132	1251-8106	1	CONNECTOR-POST TYPE .100-PIN-SPCG 20-CONTACT	76381	2520-6002UB
A2J700	1251-8828	1	CONNECTOR-POST TYPE .100-PIN-SPCG 40-CONTACT	76381	2540-6002UB
A2K1	0490-1423	1	RELAY-REED 1C 250MA 28VDC 5VDC-COIL 3VA	71707	7001-5077
A2L10-L11	9100-2486	4	INDUCTOR RF-CHOKE-MOLDED 330NH +-5%	01961	15M330J
A2L12	9170-1368	2	CORE-SHIELDING BEAD INIT PERMEABILITY	19701	11426-4A6
A2L20-L21	9100-2486	4	INDUCTOR RF-CHOKE-MOLDED 330NH +-5%	01961	15M330J
A2L22	9170-1368	2	CORE-SHIELDING BEAD INIT PERMEABILITY	19701	11426-4A6
.2LBL1	9320-5333	1	LBL-LNE-PTR; .625-IN-WD X .25-IN-LG	28480	9320-5333
A2LBL2	7121-7148	1	LABEL-INFORMATION .25-IN-WD .9-IN-LG	28480	7121-7148
A2PCB1	03245-26502	1	PC BOARD-BLANK	28480	03245-26502
A2R1-R6	0757-0407	8	RESISTOR 200 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-201-F
A2R7	0757-0280	7	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A2R8	0757-0427	1	RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A2R9-R11	0757-0280	3	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A2R12-R13	0757-0407	2	RESISTOR 200 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-201-F
A2R100	0698-4126	2	RESISTOR 35.7 +-1% .125W TF TC=0+-100	28480	0698-4126
A2R101	0757-0280	2	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A2R102	0698-4126	2	RESISTOR 35.7 +-1% .125W TF TC=0+-100	28480	0698-4126
A2R103-R104	0757-0280	2	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A2RT100-RT101	0837-0223	2	THERMISTOR DISC 10-OHM	75263	RL400811040PT2
A2U1	1820-1568	2	IC DRIVER TTL/LS BUS QUAD	01295	SN74LS125AN
A2U2	1820-3466	1	IC FF TTL/ALS D-TYPE POS-EDGE-TRIG COM	01295	SN74ALS175N
A2U3	1820-3796	1	IC DCDR CMOS/74HCT 2-T0-4-LINE DUAL	27014	MM74HCT139N
A2U4	1820-3537	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG	18324	74HCT74N
A2U100	1820-1568	2	IC DRIVER TTL/LS BUS QUAD	01295	SN74LS125AN
A2W10	03245-61603	2	CABLE-PCB/F BNC 135MM LONG	28480	03245-61603
	1250-0050	2	NUT-RF CONNECTOR BNC SERIES; CLAMP NUT	24931	NS101-2
	1250-0051	2	CONTACT-RF CONNECTOR SER BNC; FEMALE	24931	C182-1
	1250-0252	2	BODY-RF CONNECTOR SERIES BNC; STRAIGHT	24931	28JS108-1
	1250-0980	2	SLEEVE-RF CONNECTOR SERIES BNC/TNC	24931	T101-13
	8120-1848	0	CABLE-COAX 800V WHITE	82194	2834
A2W15	8120-3933	1	JUMPER ASSEMBLY 22-AWG 1-COND 225-MM-LG	28480	8120-3933
A2W20	03245-61603	2	CABLE-PCB/F BNC 135MM LONG	28480	03245-61603

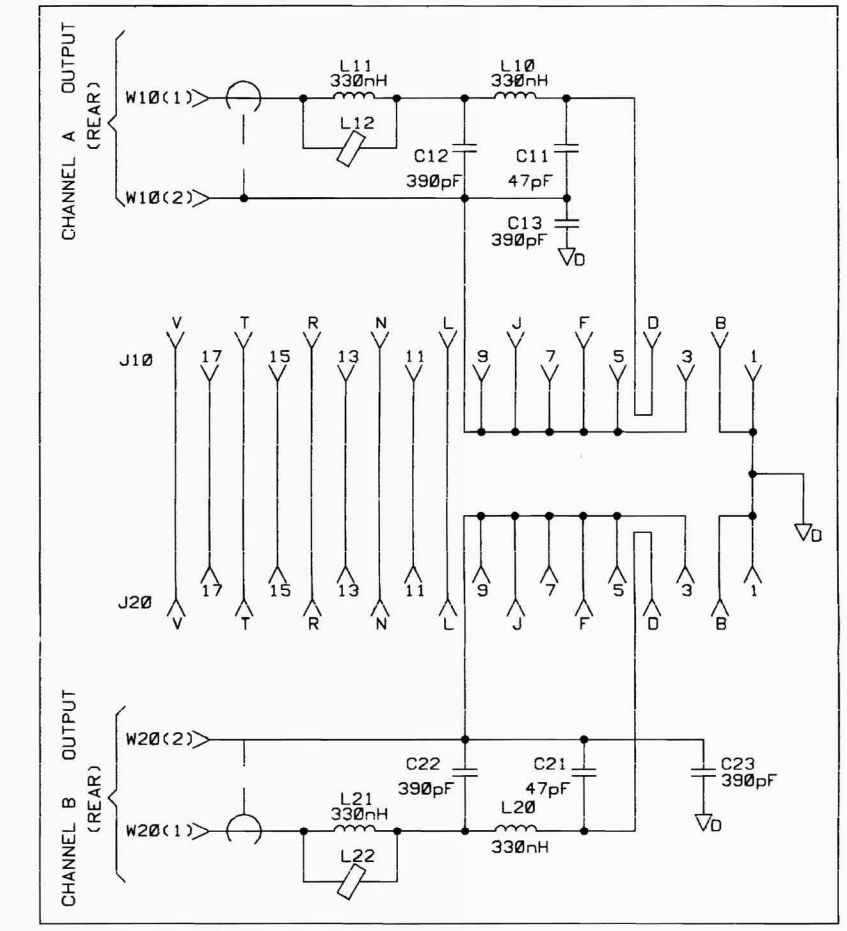
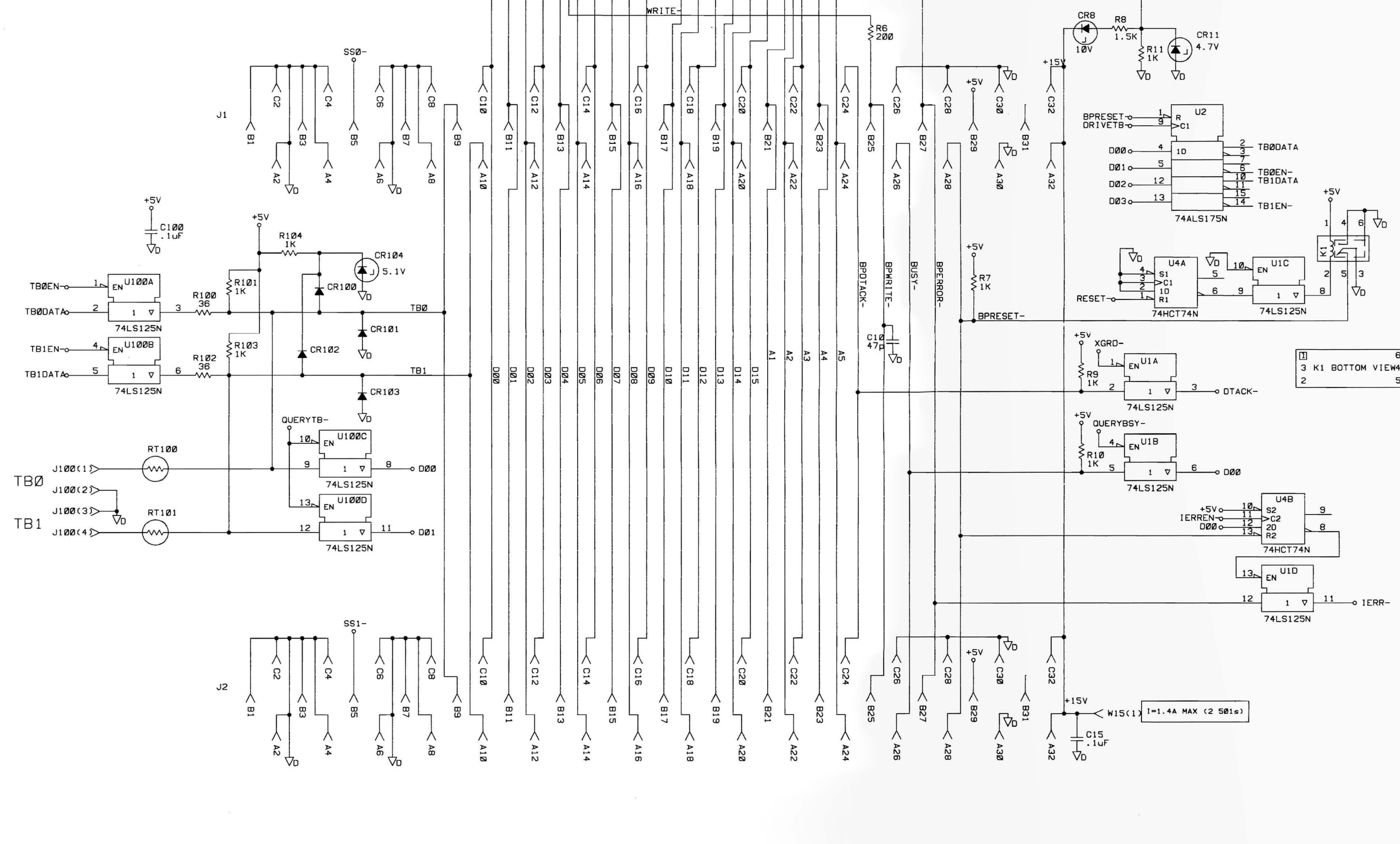
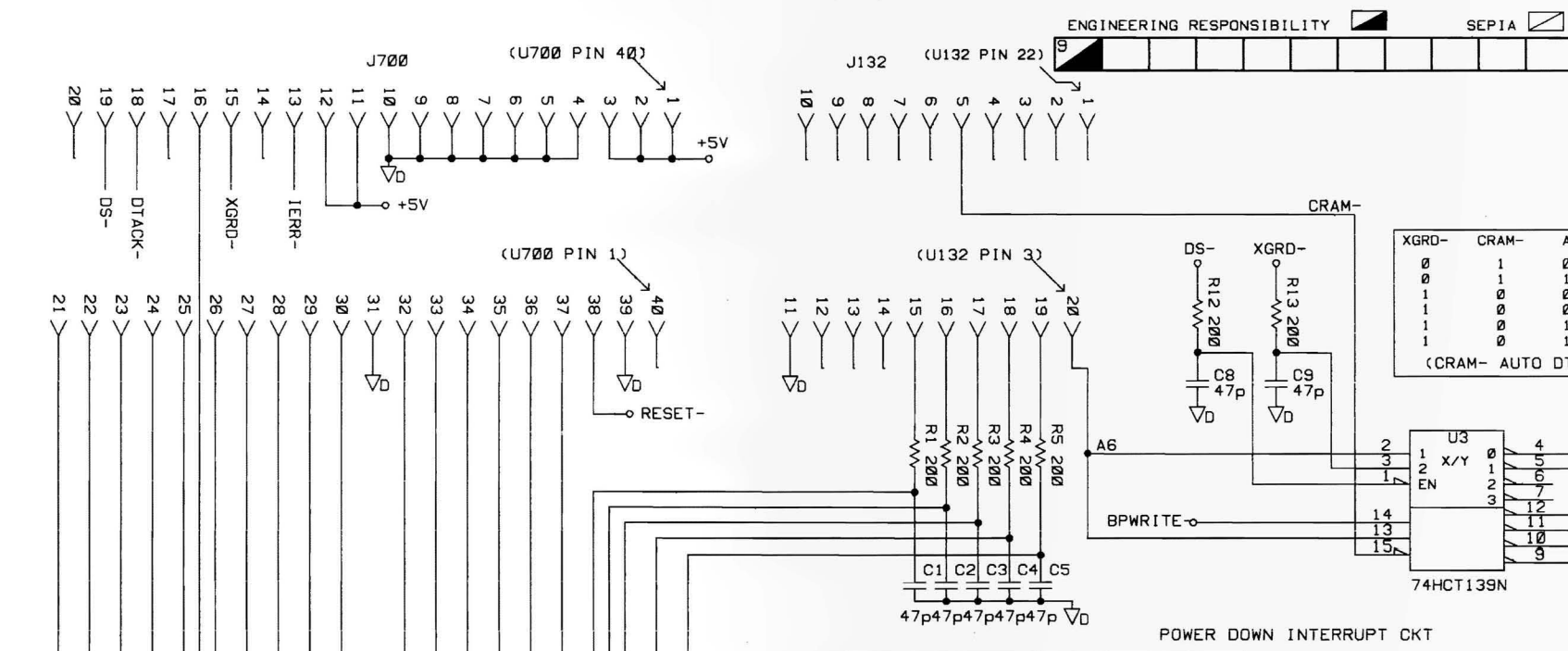
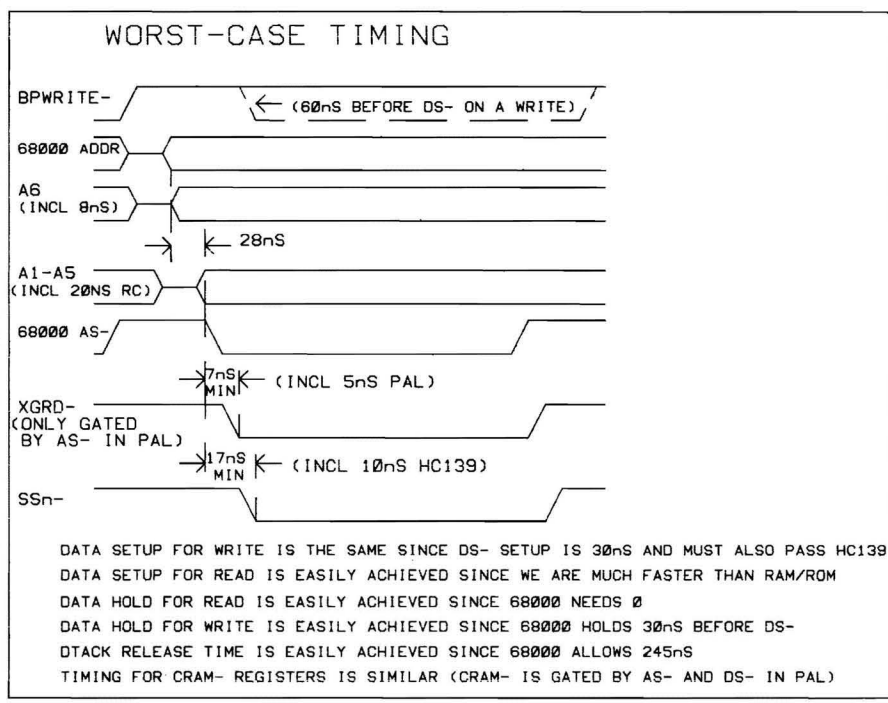
Mfr. Code	Manufacturer's Name	Manufacturer's Address	Zip Code
01295	TEXAS INSTRUMENTS INC	DALLAS TX US	75265
01961	PULSE ENGINEERING INC	SAN DIEGO CA US	92111
04222	AVX CORP	GREAT NECK NY US	11021
04713	MOTOROLA INC	ROSELLE IL US	60195
09922	BURNDY CORP	NORWALK CT US	06856
12014	CHICAGO RIVET & MACHINE CO	NAPERVILLE IL US	60540
18324	SIGNETICS CORP	SUNNYVALE CA US	94086
19701	NORTH AMERICAN PHILIPS CORP	NEW YORK NY US	10017
24546	CORNING GLASS WORKS	CORNING NY US	14830
24931	SPECIALTY CONNECTOR CO	FRANKLIN IN US	46131
27014	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA CA US	95052
27264	MOLEX INC	LISLE IL US	60532
28480	HEWLETT PACKARD COMPANY - CORPORATE	PALO ALTO CA US	94304
71707	COTO WABASH	PROVIDENCE RI US	02907
71744	GENERAL INSTRUMENT CORP	CLIFTON NJ US	07012
75263	KEYSTONE CARBON CO INC	ST MARY PA US	15857
76381	3M CO	ST PAUL MN US	55144
92194	ALPHA WIRE CORP	ELIZABETH NJ US	07207

DRILL SIDE 03245-26502 10-17-90 REV C EGS-200 V2.1

R



C - 03245 - 66502 - 1	
REVISIONS	APPROVED DATE
B REMOVE GNDS ON J10 & J20 PINS V, 17, T, 15, R, 13, N, 11, L	



PINS CONNECTED TO EMBEDDED POWER/GND NETS

U1	7(DC0M)	14(+5V)
U2	8(DC0M)	16(+5V)
U3	8(DC0M)	16(+5V)
U4	7(DC0M)	14(+5V)
U100	7(DC0M)	14(+5V)

ITEM	QTY	B4502	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
RB			3-MAR-89	03245-66502		
DRAWN BY			DATE			
ENGINEER/CHECKER				DC/AC SOURCE		
RELEASE TO PROD.				BACKPLANE & INTERFACE		
C1-REVA				TITLE		
SUPERSEDES DWG.				PART NUMBER		
				SCALE	SHEET 1 OF 1	C - 03245 - 66502 - 1



03245-66505 REPLACEMENT PARTS

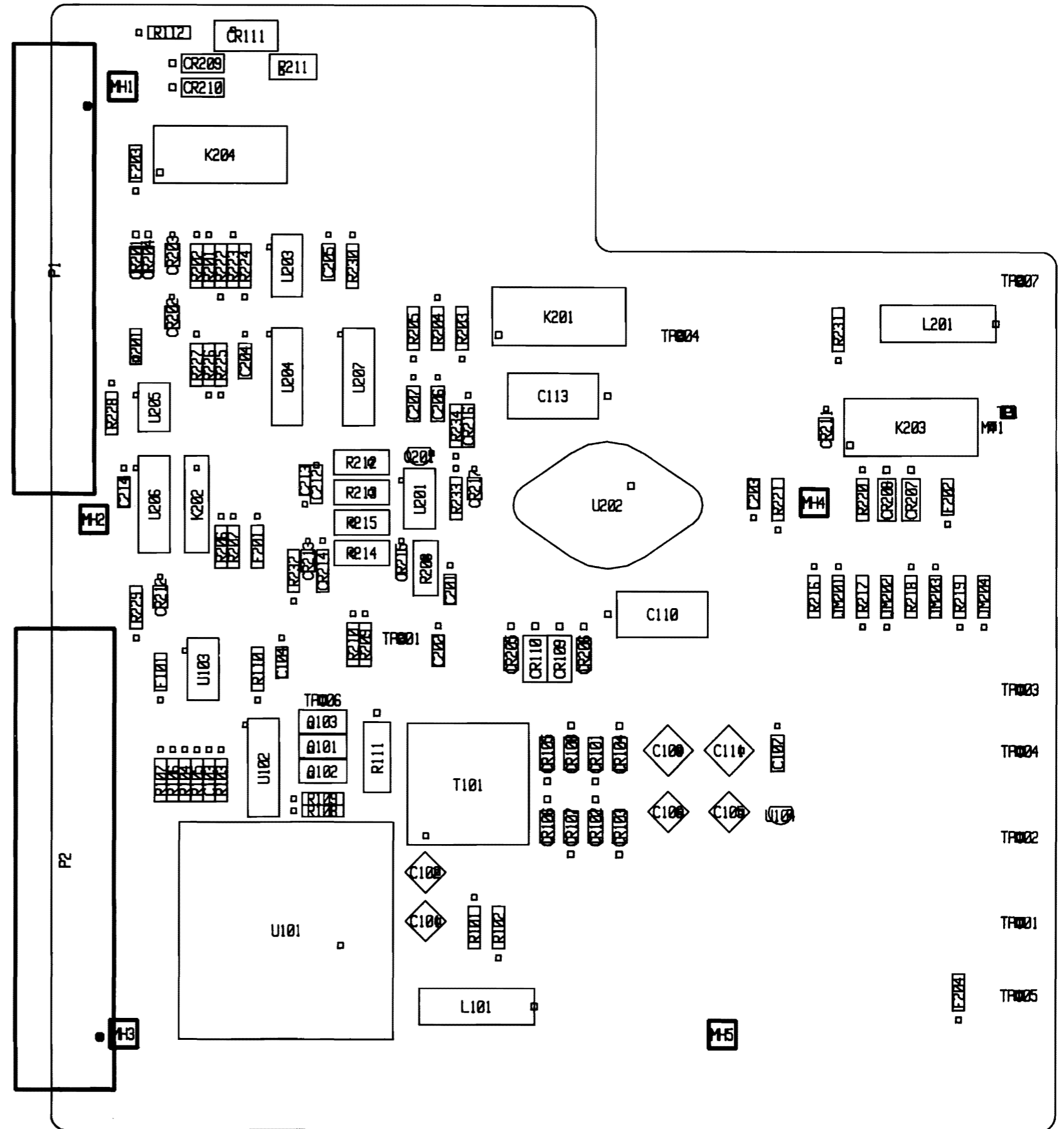
Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A5	03245-66505	1	PRINTED CIRCUIT ASSEMBLY-OUTGRD LOGIC	28480	03245-66505
	0361-0232	2	RIVET-SEMITUB OVH .123DIA .25LG	28480	0361-0232
	9320-5780	0	LBL-LNE-PTR; .9-IN-WD X .25-IN-LG	85480	DAT-50-652
A5C100-C119	0160-4832	30	CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A5C122-C130	0160-4832		CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A5C150-C155	0180-0291	6	CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A5C700	0160-4844	1	CAPACITOR-FXD 1uF +80% -20% 50 V CER Z5U	04222	SA305E105ZAA
A5C701	0160-4791	1	CAPACITOR-FXD 10pF +-5% 100 V CER COG	04222	SA102A100JAAH
A5C801	0160-4832		CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A5J100	1251-8106	1	CONNECTOR-POST TYPE .100-PIN-SPCG 20-CONTACT	76381	2520-6002UB
A5J900	5180-8228	1	CONNECTOR-HPIB	28480	5180-8228
A5JM600	1251-4682	1	CONNECTOR-POST TYPE .100-PIN-SPCG 3-CONTACT	26742	1102-1-103-02
A5JM600A	1258-0141	1	JUMPER-REMOVABLE FOR .025 IN SQ PINS	18873	65474-004
A5L801	9170-1368	1	CORE-SHIELDING BEAD INIT PERMEABILITY	19701	11426-4A6
A5LBL1	9320-5333	1	LBL-LNE-PTR; .625-IN-WD X .25-IN-LG	28480	9320-5333
A5LBL2	7121-7148	1	LABEL-INFORMATION .25-IN-WD .9-IN-LG	28480	7121-7148
A5PCB1	03458-26505	1	PRINTED CIRCUIT BOARD - BLANK	28480	03458-26505
A5R100	0757-0401	5	RESISTOR 100 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-101-F
A5R101-R103	0757-0280	6	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A5R200	0757-0280		RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A5R208-R209	0757-0427	2	RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A5R400	0757-0442	6	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A5R502	0757-0280		RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A5R600	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A5R601	0757-0280		RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A5R700	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A5R701-R702	0757-0401		RESISTOR 100 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-101-F
A5R703	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A5R704-R705	0757-0401		RESISTOR 100 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-101-F
A5R800	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A5R801	0757-0433	1	RESISTOR 3.32K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3321-F
A5R900	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A5RP100-RP103	1810-0286	4	NETWORK-RES 16-DIP 10.0K OHM X 15	11236	761-1-R10K
A5RP105-RP107	1810-0338	3	NETWORK-RES 16-DIP 100.0 OHM X 8	11236	761-3-R100
A5U100	1820-5700	1	IC-16-BIT MPU, 8MHZ, CMOS	04713	MC68HC000P8
A5U101-U102	1820-3378	3	IC LATCH TTL/ALS TRANSPARENT OCTL	27014	DM74ALS373N
A5U103-U104	1820-3121	3	IC TRANSCEIVER TTL/ALS BUS OCTL	01295	SN74ALS245AN
A5U105	03458-88803	1	PAL-PROGRAMMED (1820-5817) 8L14ACN	28480	03458-88803
A5U106	03458-88804	1	PAL-PROGRAMMED (1820-5817) 8L14ACN	28480	03458-88804
A5U107	1820-3378		IC LATCH TTL/ALS TRANSPARENT OCTL	27014	DM74ALS373N
A5U110	03245-88820	1	EPROM-PROGRAMMED (1818-4368) 27C512-2	28480	03245-88820
A5U111	03245-88821	1	EPROM-PROGRAMMED (1818-4368) 27C512-2	28480	03245-88821
A5U112	03245-88822	1	EPROM-PROGRAMMED (1818-4368) 27C512-2	28480	03245-88822
A5U113	03245-88823	1	EPROM-PROGRAMMED (1818-4368) 27C512-2	28480	03245-88823
A5U121-U122	1818-4336	2	IC CMOS 262144 (256K) STAT RAM 150-NS	28480	1818-4336
A5U123-U126	1818-3981	4	IC CMOS 262144 (256K) STAT RAM 120-NS	28480	1818-3981
A5U130	1820-3537	4	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG	18324	74HCT74N
A5U131	1820-4949	2	IC CNTR CMOS/74HCT BIN ASYNCHRO	18324	74HCT4020N
A5U134	1820-3664	2	IC GATE CMOS/HCT NAND QUAD 2-INP	27014	MM74HCT00N
A5U135	1820-4948	2	IC CNTR CMOS/74HCT BIN ASYNCHRO	18324	74HCT393N
A5U140	1820-4721	3	IC GATE CMOS/74HCT OR QUAD 2-INP	18324	74HCT32N
A5U141	1820-4643	1	IC GATE CMOS/74HCT NOR QUAD 2-INP	18324	74HCT02N
A5U200	1820-4948		IC CNTR CMOS/74HCT BIN ASYNCHRO	18324	74HCT393N
A5U400	1820-5875	1	IC-PROGRAMMABLE TIMER MODULE; 6MHZ	28480	1820-5875
A5U401	1820-3664		IC GATE CMOS/HCT NAND QUAD 2-INP	27014	MM74HCT00N

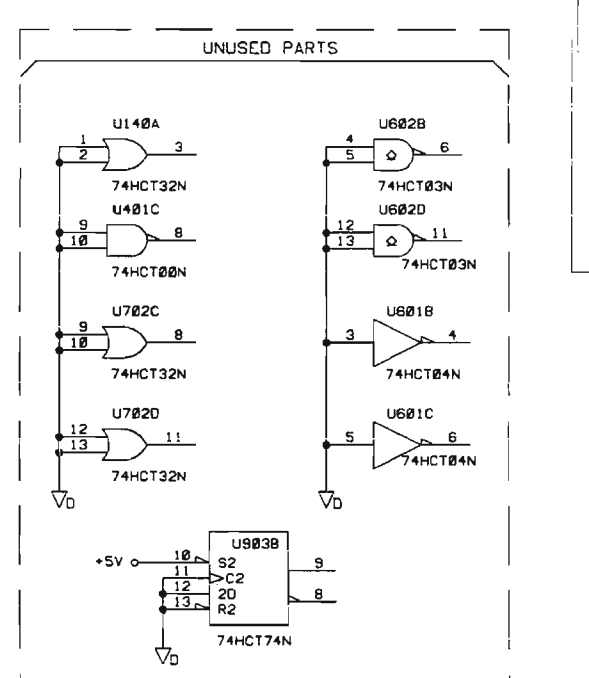
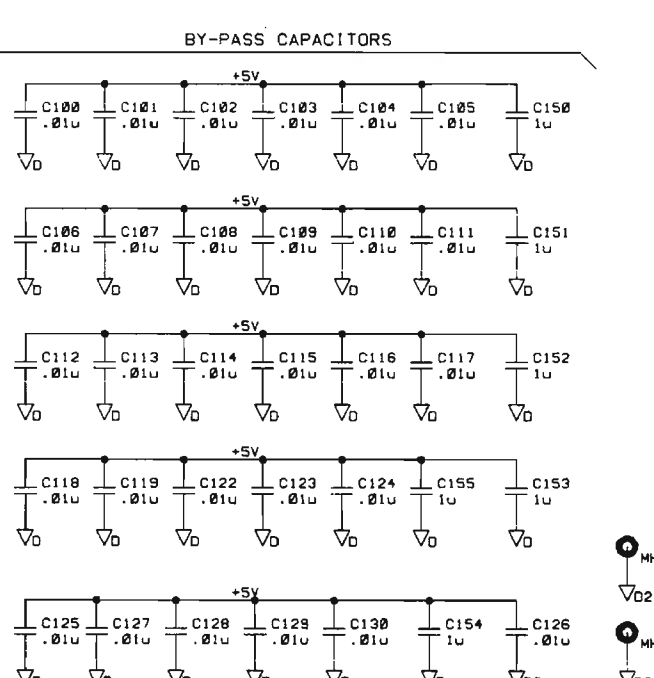
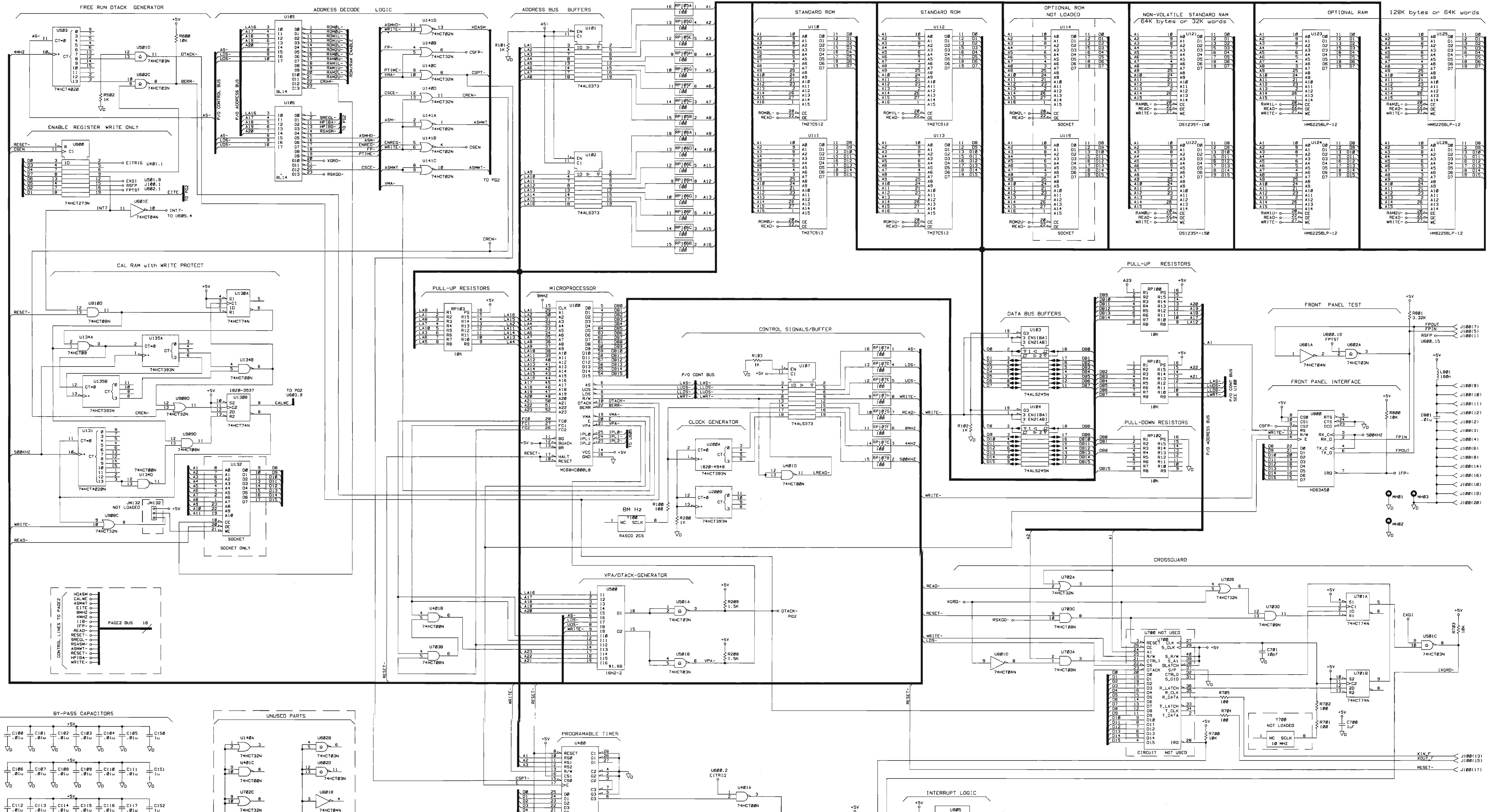
03245-66505 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A5U500	03458-88805	1	PAL-PROGRAMMED (1820-5816) 16H2-2	28480	03458-88805
A5U501	1820-4863	2	IC GATE CMOS/74HCT NAND QUAD 2-INP	18324	74HCT03N
A5U503	1820-4949		IC CNTR CMOS/74HCT BIN ASYNCHRO	18324	74HCT4020N
A5U600	1820-4086	1	IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG	18324	74HCT273N
A5U601	1820-3629	1	IC INVERTER CMOS/HCT HEX	27014	MM74HCT04N
A5U602	1820-4863		IC GATE CMOS/74HCT NAND QUAD 2-INP	18324	74HCT03N
A5U603	1820-4586	1	IC DRIVER/RCVR CMOS/HCT BUS OCTL	01295	SN74HCT541N
A5U605	1820-4675	1	IC ENCDR CMOS/74HC PRIORITY 8-TO-3-LINE	01295	SN74HC148N
A5U701	1820-3537		IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG	18324	74HCT74N
A5U702	1820-4721		IC GATE CMOS/74HCT OR QUAD 2-INP	18324	74HCT32N
A5U703	1820-4583	3	IC GATE CMOS/74HCT AND QUAD 2-INP	18324	74HCT08N
A5U800	1820-5905	1	IC-ASYNCH. COMMUN. INTERFACE ADAPTER	28480	1820-5905
A5U900	1820-3121		IC TRANSCEIVER TTL/ALS BUS OCTL	01295	SN74ALS245AN
A5U901	1820-4147	1	IC LCH CMOS/74HCT TRANSPARENT OCTL	34371	CD74HCT573E
A5U902-U903	1820-3537		IC FF CMOS/74HCT D-TYPE POS-EDGE-TRIG	18324	74HCT74N
A5U904	1820-2548	1	IC-GENERAL PURPOSE INTERFACE BUS ADAPTER	01295	TMS9914ANL
A5U905	1820-6170	1	IC-INTERFACE XCVR BIPOLAR BUS OCTL	01295	SN75ALS160N
A5U906	1820-3513	1	IC-INTERFACE XCVR MISC/UNKNOWN	27014	DS75161AN
A5U907	03458-88816	1	PAL-PROGRAMMED (1820-3600)	28480	03458-88816
A5U908	1820-4721		IC GATE CMOS/74HCT OR QUAD 2-INP	18324	74HCT32N
A5U909-U910	1820-4583		IC GATE CMOS/74HCT AND QUAD 2-INP	18324	74HCT08N
A5XU110-XU113	1200-0861	4	SOCKET-IC-DIP 28-CONTACT DIP DIP-SLDR	00779	2-640362-1
A5XU132	1200-0541	1	SOCKET-IC-DIP 24-CONTACT DIP DIP-SLDR	09922	DILB24P-308T
A5XU700	1200-0817	1	SOCKET-IC-DIP 40-CONTACT DIP DIP-SLDR	00779	2-640379-1
A5Y100	1813-0668	1	CLOCK-OSCILLATOR-XTAL 8.0000-MHZ 0.005%	28480	1813-0668

Code List of Manufacturers - 03245-66505

Mfr. Code	Manufacturer's Name	Manufacturer's Address	Zip Code
00779	AMP INC	HARRISBURG PA US	17111
01295	TEXAS INSTRUMENTS INC	DALLAS TX US	75265
04222	AVX CORP	GREAT NECK NY US	11021
04713	MOTOROLA INC	ROSELLE IL US	60195
09922	BURNDY CORP	NORWALK CT US	06856
11236	CTS CORP	ELKHART IN US	46514
18324	SIGNETICS CORP	SUNNYVALE CA US	94086
18873	DUPONT E I DE NEMOURS & CO	WILMINGTON DE US	19801
19701	NORTH AMERICAN PHILIPS CORP	NEW YORK NY US	10017
24546	CORNING GLASS WORKS	CORNING NY US	14830
26742	METHODE ELECTRONICS INC	CHICAGO IL US	60656
27014	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA CA US	95052
28480	HEWLETT PACKARD COMPANY - CORPORATE	PALO ALTO CA US	94304
34371	HARRIS CORP	MELBOURNE FL US	32901
56289	SPRAGUE ELECTRIC CO	LEXINGTON MA US	02173
76381	3M CO	ST PAUL MN US	55144
85480	BRADY W H CO	MILWAUKEE WI US	53209

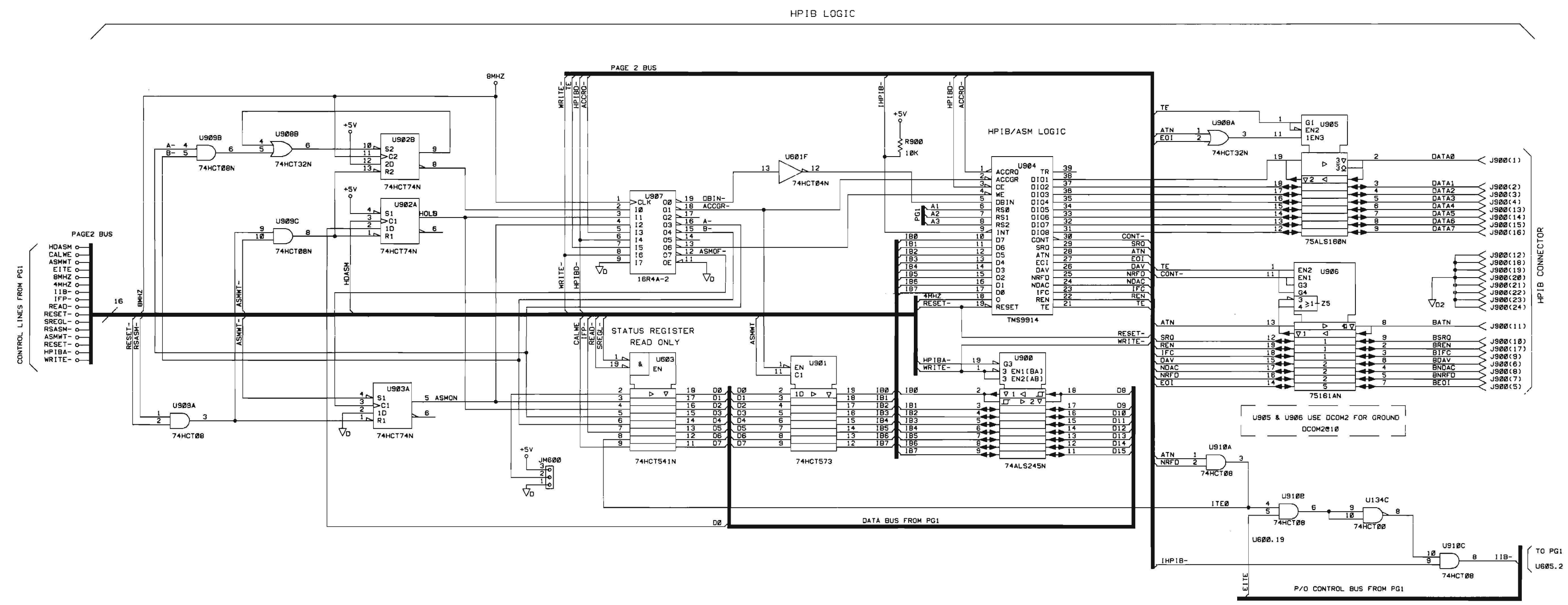




ALL ICs USE +5V & GND FOR PWR & GND
 EXCEPT U85 & U86
 U85 PWR = +5V & GND = DCGH2
 U86 PWR = +5V & GND = DCGH2

ITEM	QTY	A4595*1	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DRAWN BY: DATE: 14-FEB-89						
ENGINEER/CHECKER: CONTROLLER BOARD						
RELEASE TO PROD. TITLE: P/O 03245 PART NUMBER: 03245-66505						
SUPERSEDES DWG. SCALE: SHEET 1 OF 2 D-03245 - 66505 - 1						

ENGINEERING RESPONSIBILITY		SEP14	D - 03245 - 66505 - 1	
SYM.	REVISIONS	APPROVED	DATE	
A	AS ISSUED			



ITEM	QTY	A4505*2	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
RIC BACON			14-FEB-89			
DRAWN BY			DATE			
ENGINEER/CHECKER				OUTGUARD/HP1B		HEWLETT PACKARD
				CONTROLLER BOARD		
RELEASE TO PROD.				P/O 03245		03245-66505
				TITLE		PART NUMBER
SUPERSEDES DWG.				SCALE	SHEET 2 OF 2	D - 03245 - 66505 - 1

03245-66506 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A6	03245-66506	1	PRINTED CIRCUIT ASSEMBLY - OUTGRD P.S.	28480	03245-66506
	0460-0778	.17	TAPE-INDL .75-IN-W .25-IN-T POLYU-FM	87730	TESA 761-4763
	0590-1095	1	THREADED INSERT - M3 X 0.5 1.5-MM-LG	46384	KF2-M3-ZI
	9320-5780	0	LBL-LNE-PTR; .9-IN-WD X .25-IN-LG	85480	DAT-50-652
A6C1	0180-4032	2	CAPACITOR-FXD 680uF +-20% 50 V AL-ELCTLT	28480	0180-4032
A6C2	0180-0116	1	CAPACITOR-FXD 6.8uF +-10% 35 V TA	56289	150D685X9035B2-DYS
A6C3	0160-4819	1	CAPACITOR-FXD 2200pF +-5% 100 V CER COG	04222	SA301A222JAAH
A6C4	0180-0197	3	CAPACITOR-FXD 2.2uF +-10% 20 V TA	56289	150D225X9020A2-DYS
A6C5-C6	0160-4842	2	CAPACITOR-FXD 0.22uF +-80% -20% 50 V CER Z5U	04222	SA115E224ZAAH
A6C7	0160-4204	1	CAPACITOR-FXD .033uF +-10% 500 V CER X7R	28480	0160-4204
A6C8	0180-3898	1	CAPACITOR-FXD 8300uF +-75% -10% 35 V AL-ELCTLT	56289	53D832G035JP7
A6C9	0160-4571	1	CAPACITOR-FXD 0.1uF +-80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A6C11	0180-4032	1	CAPACITOR-FXD 680uF +-20% 50 V AL-ELCTLT	28480	0180-4032
A6C12	0180-0100	1	CAPACITOR-FXD 4.7uF +-10% 35 V TA	56289	150D475X9035B2-DYS
A6C15-C16	0160-4281	2	CAPACITOR-FXD 2200pF +-20% 250 V PPR-MET	28480	0160-4281
A6C103	0160-4835	5	CAPACITOR-FXD 0.1uF +-10% 50 V CER X7R	04222	SA105C104KAAH
A6C104	0160-4787	1	CAPACITOR-FXD 22pF +-5% 100 V CER COG	04222	SA102A220JAAH
A6C105	0180-0197	1	CAPACITOR-FXD 2.2uF +-10% 20 V TA	56289	150D225X9020A2-DYS
A6C200-C201	0180-3828	2	CAPACITOR-FXD 47uF +-20% 63 V AL-ELCTLT	28480	0180-3828
A6C202	0180-3830	1	CAPACITOR-FXD 330uF +-20% 25 V AL-ELCTLT	28480	0180-3830
A6C203	0180-3829	1	CAPACITOR-FXD 220uF +-20% 16 V AL-ELCTLT	28480	0180-3829
A6C301-C303	0160-4835	1	CAPACITOR-FXD 0.1uF +-10% 50 V CER X7R	04222	SA105C104KAAH
A6C304	0180-0197	1	CAPACITOR-FXD 2.2uF +-10% 20 V TA	56289	150D225X9020A2-DYS
A6C400	0160-4822	1	CAPACITOR-FXD 1000pF +-5% 100 V CER COG	04222	SA201A102JAAH
A6C401	0160-4835	1	CAPACITOR-FXD 0.1uF +-10% 50 V CER X7R	04222	SA105C104KAAH
A6C402-C403	0160-4832	7	CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A6C405	0160-4832	1	CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A6C406-C407	0180-0291	2	CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A6C409-C421	0160-4812	20	CAPACITOR-FXD 220pF +-5% 100 V CER COG	04222	SA101A221JAAH
A6C422-C425	0160-4832	1	CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A6C426-C432	0160-4812	1	CAPACITOR-FXD 220pF +-5% 100 V CER COG	04222	SA101A221JAAH
A6CR1	1901-0638	1	DIODE-FULL WAVE BRIDGE 100V 4A	71744	KBU4B
A6CR2	1902-1505	1	DIODE-V-SUPPR 6.5V TO-220AC	04713	M2T4554B
A6CR3	1902-0644	1	DIODE-ZENER 1N5363B 30V 5% PD=5W TC=+29MV	28480	1902-0644
A6CR4	1901-0782	1	DIODE-SCHOTTKY BARRIER 30V 3A	04713	1N5821
A6CR101	1901-0050	2	DIODE-SWITCHING 80V 200MA 2NS D0-35	28480	1901-0050
A6CR301-CR304	1901-0734	4	DIODE-POWER RECTIFIER 1N5818 30V 1A	04713	1N5818
A6CR305	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS D0-35	28480	1901-0050
A6CR306-CR307	1902-0952	2	DIODE-ZENER 5.6V 5% PD=.4W TC=+.046% IR=1U	04713	S230035-10RL
A6CR400	1902-0951	1	DIODE-ZENER 5.1V 5% PD=.4W TC=+.035% IR=1U	04713	S230035-9RL
A6E400	0960-0561	1	AUDIO TRANSDUCER 1-3 VDC; 80DB AT 10CM	28480	0960-0561
A6F1	2110-0043	1	FUSE 1.5A 250V 1.25X.25 UL	75915	312 01.5
A6FC1	2110-0565	1	FUSEHOLDER CAP 12A MAX FOR UL	28480	2110-0565
A6HS2	1205-0318	1	HEAT SINK SGL TO-220-CS	13103	6045B
A6J15	1251-0600	1	CONNECTOR-SGL CONTACT PIN 1.14-MM-BSC-SZ SQ	27264	16-06-0034
A6J100	1251-8106	1	CONNECTOR-POST TYPE .100-PIN-SPCG 20-CONTACT	76381	2520-6002UB
A6J200	1251-8248	1	CONNECTOR-POST TYPE .100-PIN-SPCG 26-CONTACT	76381	2526-6002UB
A6JM1	7175-0057	7	RESISTOR 0 MFS	28480	7175-0057
A6JM100-JM101	7175-0057	1	RESISTOR 0 MFS	28480	7175-0057
A6JM102-JM103	8159-0005	2	RESISTOR 0 MFS	55210	L-2007-1
A6JM200	7175-0057	1	RESISTOR 0 MFS	28480	7175-0057
A6JM300	7175-0057	1	RESISTOR 0 MFS	28480	7175-0057
A6JM400-JM401	7175-0057	1	RESISTOR 0 MFS	28480	7175-0057

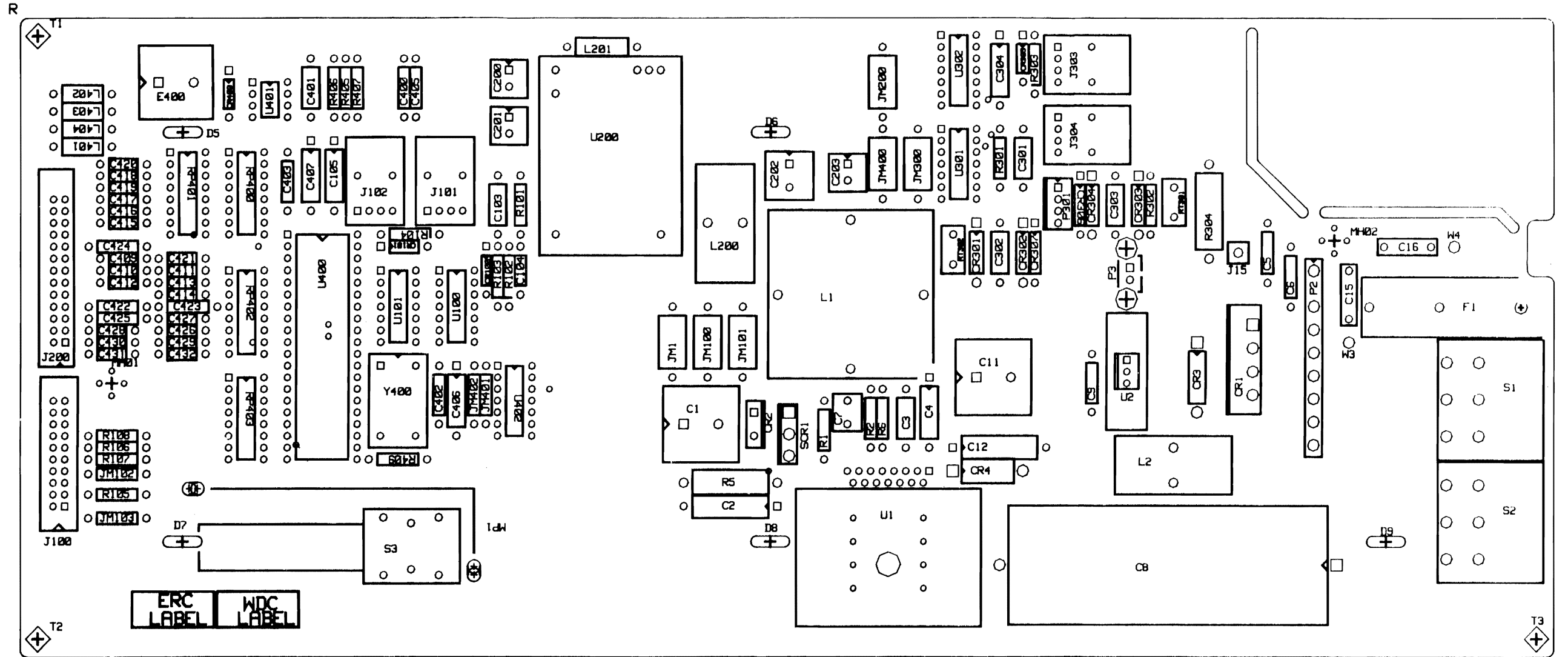
03245-66506 REPLACEMENT PARTS

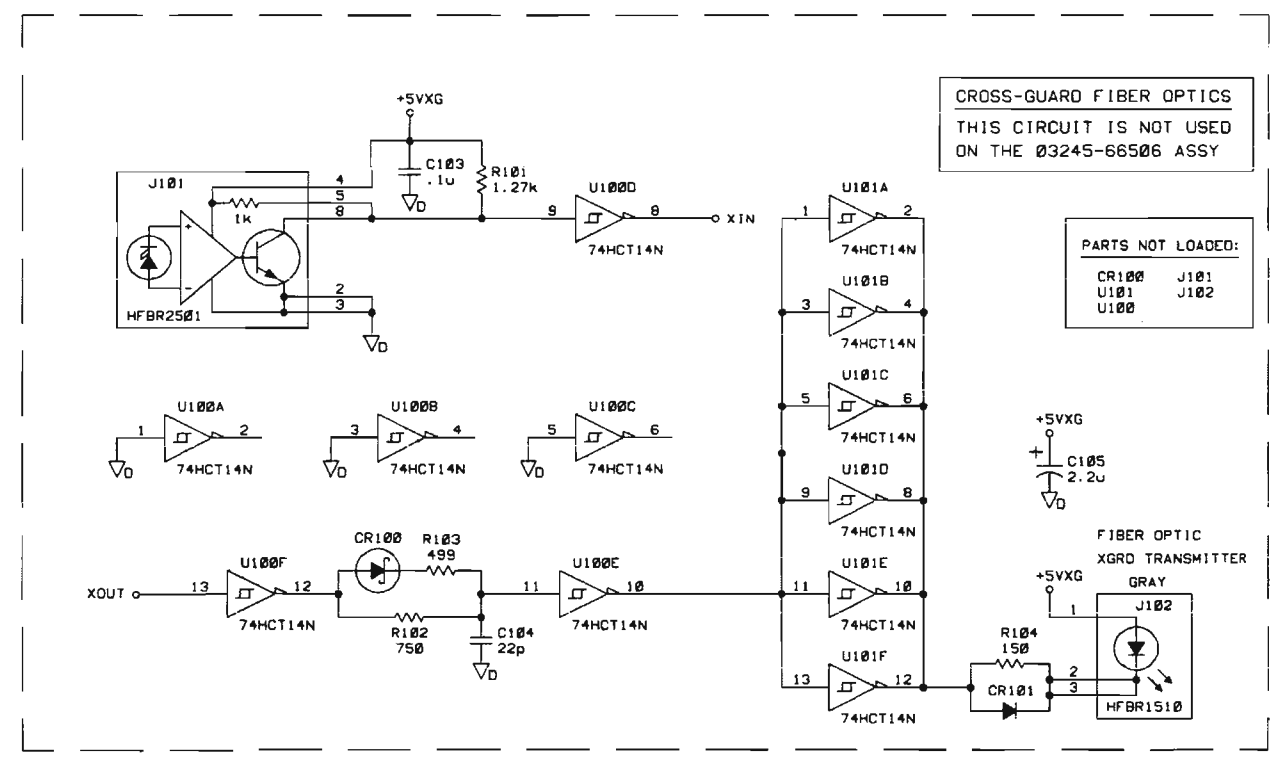
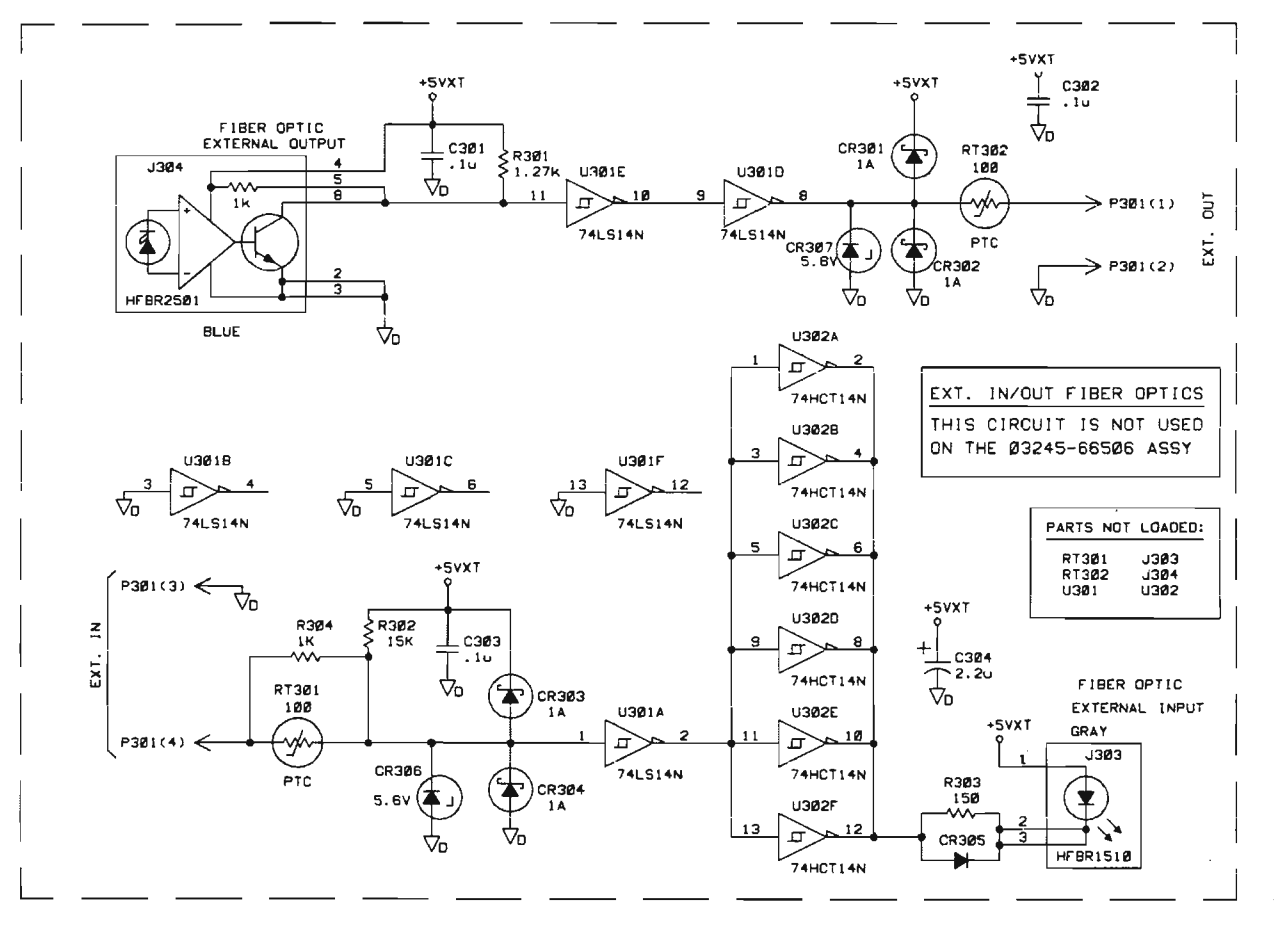
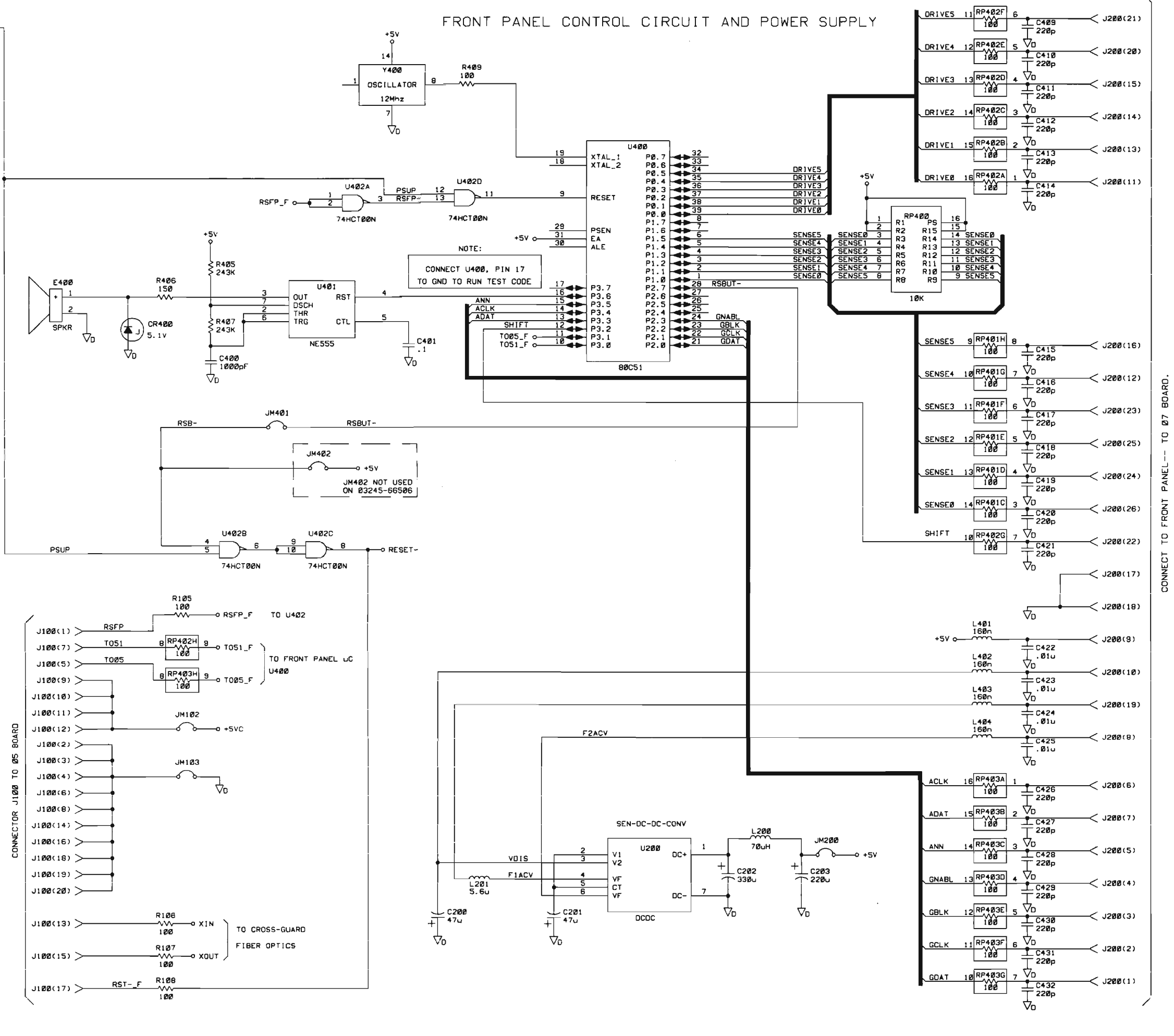
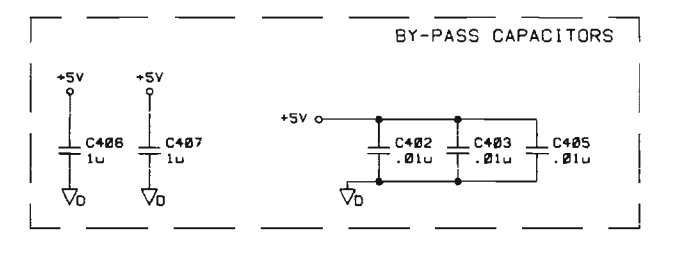
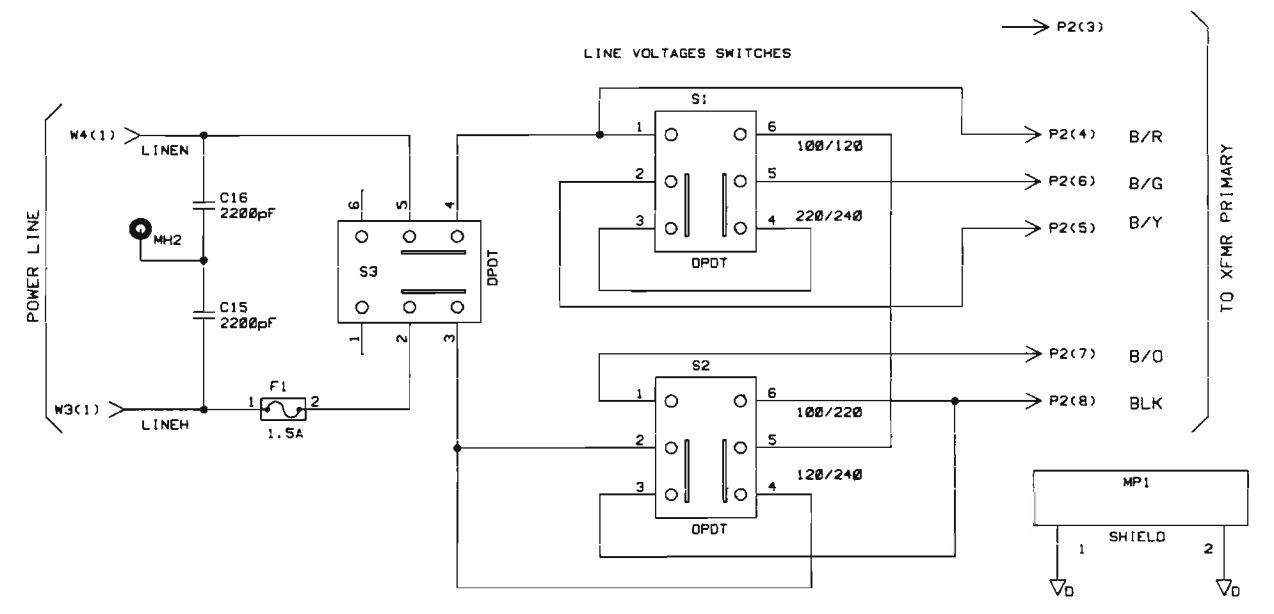
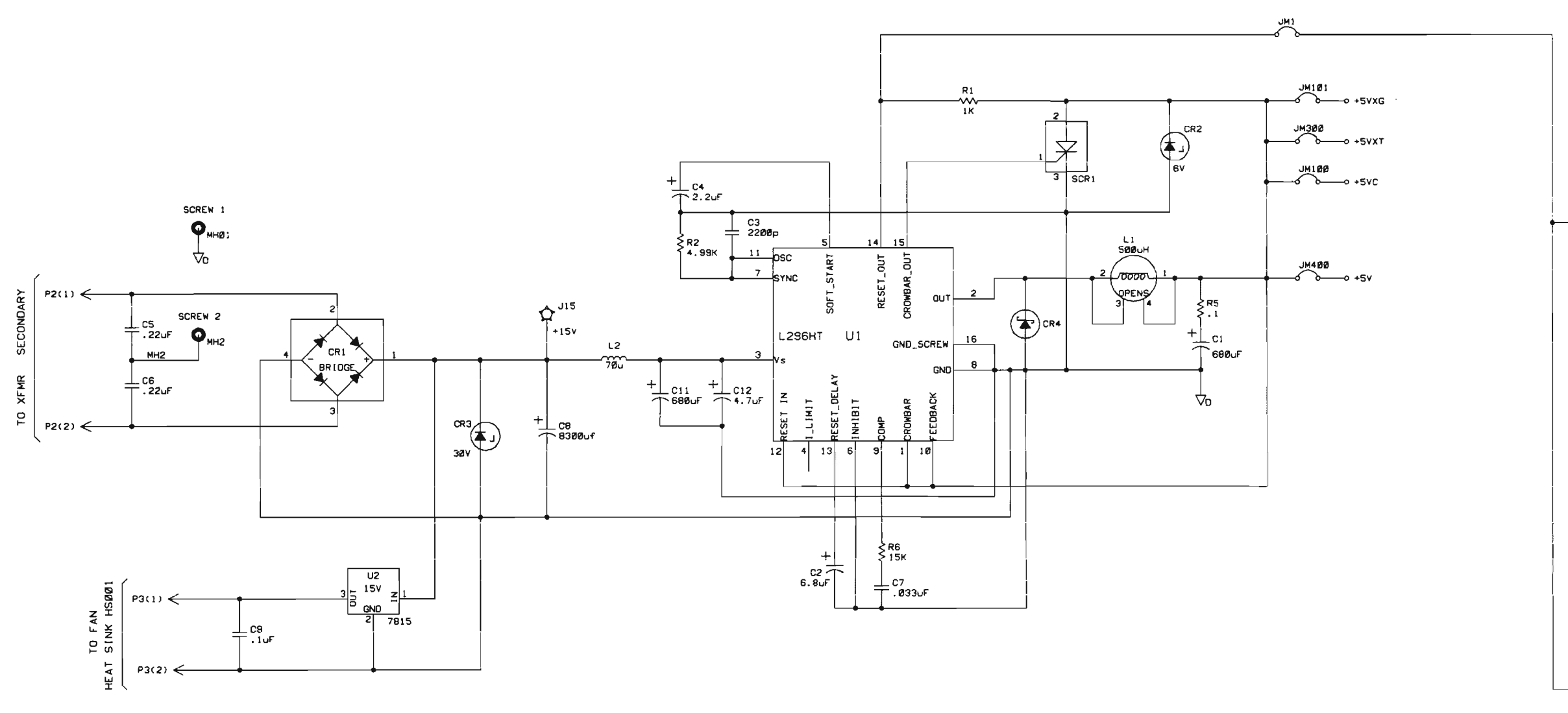
Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A6L1	9140-1178	1	INDUCTOR-FIXED L=643 uH @ 0Adc MIN	01961	PE-51970
A6L2	9140-1062	2	INDUCTOR-FIXED L: 70 UH TYPICAL @ 3.0 A	01961	52679
A6L200	9140-1062		INDUCTOR-FIXED L: 70 UH TYPICAL @ 3.0 A	01961	52679
A6L201	9100-3560	1	INDUCTOR RF-CHOKE-MOLDED 5.6UH +-5%	24226	15M561J
A6L401-L404	9170-1368	4	CORE-SHIELDING BEAD INIT PERMEABILITY	19701	11426-4A6
A6LBL1	9320-5333	1	LBL-LNE-PTR; .625-IN-WD X .25-IN-LG	28480	9320-5333
A6LBL2	7121-7148	1	LABEL-INFORMATION .25-IN-WD .9-IN-LG	28480	7121-7148
A6MP1	03458-01204	1	BRKT-HEAT SINK	28480	03458-01204
	0580-1088	2	THREADED INSERT-NUT M3 X 0.5 1.5-MM-LG	48384	S-M3-2-ZI
	7204-0513	0	ALUMINUM SH .083IN 32IN 48IN AA5052-H321	28480	7204-0513
A6MP1A	0515-0372	1	SCREW-MACHINE ASSEMBLY M3 X 0.5 8MM-LG	28480	0515-0372
A6P2	1252-0239	1	CONNECTOR-POST TYPE 5.0-PIN-SPCG 8-CONTACT	27264	10-16-3081
A6P3	1252-3694	1	CONNECTOR-POST TYPE .100-PIN-SPCG 2-CONTACT	27264	705-45-0071
A6PCB1	03458-26506	1	PRINTED CIRCUIT BOARD-BLANK	28480	03458-26506
A6R1	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A6R2	0698-3279	1	RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A6R5	0699-1075	1	RESISTOR .1 +-3% 3W MFS TC=0+-70	01686	LO-3-0.1-3-RP
A6R6	0757-0446	2	RESISTOR 15K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1502-F
A6R101	0698-4422	2	RESISTOR 1.27K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1271-F
A6R102	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-751-F
A6R103	0698-4123	1	RESISTOR 499 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-499R-F
A6R104	0757-0284	3	RESISTOR 150 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-151-F
A6R105-R108	0757-0401	5	RESISTOR 100 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-101-F
A6R301	0698-4422		RESISTOR 1.27K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1271-F
A6R302	0757-0446		RESISTOR 15K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1502-F
A6R303	0757-0284		RESISTOR 150 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-151-F
A6R304	0764-0016	1	RESISTOR 1K +-5% 2W MO TC=0+-200	28480	0764-0016
A6R405	0757-0474	2	RESISTOR 243K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2433-F
A6R406	0757-0284		RESISTOR 150 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-151-F
A6R407	0757-0474		RESISTOR 243K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2433-F
A6R409	0757-0401		RESISTOR 100 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-101-F
A6RP400	1810-0286	1	NETWORK-RES 16-DIP 10.0K OHM X 15	11236	761-1-R10K
A6RP401-RP403	1810-0338	3	NETWORK-RES 16-DIP 100.0 OHM X 8	11236	761-3-R100
A6S1-S2	3101-2769	2	SWITCH-SL DPDT STD 5A 250VAC PC	28480	3101-2769
A6S3	3101-2887	1	SWITCH-PB DPDTALNG 6A 250 VAC	71468	130222
A6SCR1	1884-0350	1	THYRISTOR-SCR 2N6394 TO-220AB VRRM=50	04713	2N6394
A6U1	1826-1822	1	IC VOLTAGE REGULATOR-SWG 5.1/40V 15 PKG	50088	L296HT
A6U2	1826-0106	1	IC V RGLTR-FXD-POS 14.4/15.6V TO-220 PKG	04713	MC7815CT
A6U200	0950-1904	1	DC-DC CONVERTER 5 VDC TO 25.0 V AND 32.5	28480	0950-1904
A6U400	03458-85502	1	IC-ROM PROGRAMMED (INTELL) 80C51	28480	03458-85502
A6U401	1826-0180	1	IC TIMER TTL	18324	NE555N
A6U402	1820-3664	1	IC GATE CMOS/HCT NAND QUAD 2-INP	27014	MM74HCT00N
A6W3-W4	5061-1664	2	CABLE 18 AWG TERM1;1251-4823 TERM2;8MM STRIP	28480	5061-1664
	1251-4823	1	CONNECTOR-SINGLE CONTACT QDISC-FEM	00778	2-520183-2
	8150-0224	1	WIRE 18AWG W/BK/GY 800V PVC 19X30 105C	28480	8150-0224
A6XF1	2110-0642	1	FUSEHOLDER-EXTRACTOR-POST 6.3A 250V	28480	2110-0642
A6Y400	1813-0661	1	CLOCK-OSCILLATOR-XTAL 12.0000-MHZ 0.01%	28480	1813-0661

Code List of Manufacturers - 03245-66506

Mfr. Code	Manufacturer's Name	Manufacturer's Address	Zip Code
00779	AMP INC	HARRISBURG PA US	17111
01686	RCL ELECTRONICS INC	NORTHBROOK IL US	60062
01961	PULSE ENGINEERING INC	SAN DIEGO CA US	92111
04222	AVX CORP	GREAT NECK NY US	11021
04713	MOTOROLA INC	ROSELLE IL US	60195
11236	CTS CORP	ELKHART IN US	46514
13103	THERMALLOY INC	DALLAS TX US	75234
18324	SIGNETICS CORP	SUNNYVALE CA US	94086
19701	NORTH AMERICAN PHILIPS CORP	NEW YORK NY US	10017
24226	GOWANDA ELECTRONICS CORP	GOWANDA NY US	14070
24546	CORNING GLASS WORKS	CORNING NY US	14830
27014	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA CA US	95052
27264	MOLEX INC	LISLE IL US	60532
28480	HEWLETT PACKARD COMPANY - CORPORATE	PALO ALTO CA US	94304
46384	PENN ENGINEERING & MFG CORP	DOYLESTOWN PA US	18901
50088	SGS-THOMSON MICROELECTRONICS INC	PHOENIX AZ US	85022
55210	GETTIG ENGRG & MFG CO INC	SPRING MILLS PA US	16875
56289	SPRAGUE ELECTRIC CO	LEXINGTON MA US	02173
71468	ITT CORP	NEW YORK NY US	10022
71744	GENERAL INSTRUMENT CORP	CLIFTON NJ US	07012
75915	LITTELFUSE INC	DES PLAINES IL US	60016
76381	3M CO	ST PAUL MN US	55144
85480	BRADY W H CO	MILWAUKEE WI US	53209
87730	UNIMICA	NEW YORK NY US	10013

DRILL SIDE 03450-26506 04-25-88 REV A EGS-200 V2.11

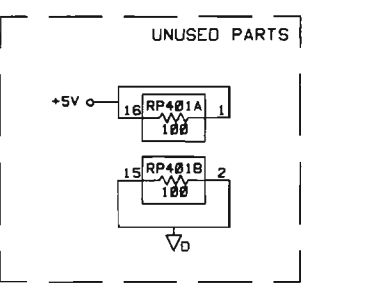




- NOTES:
- PINS CONNECTED TO EMBEDDED POWER/GROUND NETS:
- U11 7(GND), 14(+5VA)
 - U15 4(-15V), 8(+5V)
 - U17 4(-15V), 8(+5V)
 - U18 4(-15V), 8(+5V)
 - U19 4(-15V), 8(+5V)
 - U21 4(-15V), 8(+5V)
 - U22 4(-15V), 8(+5V)
 - U23 4(-15V), 8(+5V)
 - U24 4(-15V), 8(+5V)
 - U25 4(-15V), 8(+5V)
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 - U27 4(-15V), 8(+5V)
 - U28 4(-15V), 8(+5V)
 - U29 4(-15V), 8(+5V)
 - U30 4(-15V), 8(+5V)
 - U31 4(-15V), 8(+5V)
 - U32 4(-15V), 8(+5V)
 - U33 4(-15V), 8(+5V)
 - U34 4(-15V), 8(+5V)
 - U35 4(-15V), 8(+5V)
 - U36 4(-15V), 8(+5V)
 - U37 4(-15V), 8(+5V)
 - U38 4(-15V), 8(+5V)
 - U39 4(-15V), 8(+5V)
 - U40 4(-15V), 8(+5V)
 - U41 4(-15V), 8(+5V)
 - U42 4(-15V), 8(+5V)
 - U43 4(-15V), 8(+5V)
 - U44 4(-15V), 8(+5V)
 - U45 4(-15V), 8(+5V)
 - U46 4(-15V), 8(+5V)
 - U47 4(-15V), 8(+5V)
 - U48 4(-15V), 8(+5V)
 - U49 4(-15V), 8(+5V)
 - U50 4(-15V), 8(+5V)

THE 03245-66506 IS BUILT ON THE 03458-66506 PC BOARD ASSY.

- NOTES:
- 4 GROUNDS CONNECT ONLY AT U1 PIN 8
GROUND 1 ARE 50 MIL TRACES ONLY
 - LOOP CONSISTING OF C11, C12, U1(8), AND CR4 SHOULD BE AS SMALL AS POSSIBLE
 - U1(1,10) SHOULD CONNECT TO EACH OTHER NEAR U1 AND CONNECT TO W2 NEAR W2
 - ALL 4 PINS OF BRIDGE, CR1, SHOULD BE CONNECTED TO LARGE TRACES AS A HEAT SINK



ITEM	QTY	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
RIC BACON		3-MAR-89			
DRAWN BY		DATE			
NARDISO		ENGINEER/CHECKER			
RELEASE TO PROD.					
SUPERSEDES DWG.					

OUTGUARD POWER SUPPLY BOARD		HEWLETT PACKARD
P/O 03245		
TITLE		
SCALE		
SHEET 1 OF 1		
D - 03245 - 66506 - 1		

03245-66511 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A1	03245-66511	1	PRINTED CIRCUIT ASSEMBLY-INGRD SOURCE	28480	03245-66511
	0361-0321	2	RIVET-SEMITUB OVH .123DIA .469LG	42838	TC1-15-ST
	0361-1294	2	RIVET-SEMITUB .099DIA .328LG	28480	0361-1294
	0590-1095	8	THREADED INSERT- M3 X 0.5 1.5-MM-LG	46384	KF2-M3-ZI
	9320-5780	0	LABEL-LNE-PTR; .9-IN-WD X .25-IN-LG	85480	DAT-50-652
A1C1	0180-0229	1	CAPACITOR-FXD 33uF +-10% 10 V TA	56289	150D336X9010B2-DYS
A1C2-C9	0160-4571	36	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C10	0180-3871	1	CAPACITOR-FXD 330uF +-20% 50 V AL-ELCTLT	28480	0180-3871
A1C11-C12	0160-4835	4	CAPACITOR-FXD 0.1uF +-10% 50 V CER X7R	04222	SA105C104KAAH
A1C13	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C14	0160-4800	5	CAPACITOR-FXD 120pF +-5% 100 V CER COG	04222	SA102A121JAAH
A1C16	0160-4800	1	CAPACITOR-FXD 120pF +-5% 100 V CER COG	04222	SA102A121JAAH
A1C17	0160-4532	8	CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C18	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C19	0160-4786	1	CAPACITOR-FXD 27pF +-5% 100 V CER COG	04222	SA102A270JAAH
A1C20	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C300-C301	0160-4800	1	CAPACITOR-FXD 120pF +-5% 100 V CER COG	04222	SA102A121JAAH
A1C302-C303	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C304	0160-4831	4	CAPACITOR-FXD 4700pF +-10% 100 V CER X7R	04222	SA101C472KAAH
A1C400-C401	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C402	0160-4532	1	CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C403	0160-4835	1	CAPACITOR-FXD 0.1uF +-10% 50 V CER X7R	04222	SA105C104KAAH
A1C404	0160-4532	1	CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C405	0180-0291	9	CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1C406-C410	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C411	0160-4791	3	CAPACITOR-FXD 10pF +-5% 100 V CER COG	04222	SA102A100JAAH
A1C412-C415	0160-6941	9	CAPACITOR-FXD 0.01uF +-5% 160 V POLYP-FL	28480	0160-6941
A1C416-C420	0160-6942	5	CAPACITOR-FXD 0.022uF +-5% 160 V POLYP-FL	28480	0160-6942
A1C421	0160-6941	1	CAPACITOR-FXD 0.01uF +-5% 160 V POLYP-FL	28480	0160-6941
A1C422	0160-6841	3	CAPACITOR-FXD 1000pF +-2% 250 V POLYP-FL	28480	0160-6841
1C423	0160-4805	2	CAPACITOR-FXD 47pF +-5% 100 V CER COG	04222	SA102A470JAAH
1C424	0160-4813	1	CAPACITOR-FXD 180pF +-5% 100 V CER COG	04222	SA101A181JAAH
A1C425	0160-5349	1	CAPACITOR-FXD 200pF +-5% 100 V CER COG	04222	SA101A201JAAH
A1C426	0160-5305	1	CAPACITOR-FXD 3.3pF +-10% 200 V CER COG	04222	MA102A3R3KAAH
A1C427-C428	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C429	0160-4831	1	CAPACITOR-FXD 4700pF +-10% 100 V CER X7R	04222	SA101C472KAAH
A1C430	0160-4791	1	CAPACITOR-FXD 10pF +-5% 100 V CER COG	04222	SA102A100JAAH
A1C431-C432	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C433-C434	0160-6941	1	CAPACITOR-FXD 0.01uF +-5% 160 V POLYP-FL	28480	0160-6941
A1C435-C436	0160-4831	1	CAPACITOR-FXD 4700pF +-10% 100 V CER X7R	04222	SA101C472KAAH
A1C438	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C500	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C501	0160-4791	1	CAPACITOR-FXD 10pF +-5% 100 V CER COG	04222	SA102A100JAAH
A1C502	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C504	0160-4532	1	CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C505	0160-4807	1	CAPACITOR-FXD 33pF +-5% 100 V CER COG	04222	SA102A330JAAH
A1C506	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C507	0180-0116	2	CAPACITOR-FXD 6.8uF +-10% 35 V TA	56289	150D685X9035B2-DYS
A1C508	0160-4787	1	CAPACITOR-FXD 22pF +-5% 100 V CER COG	04222	SA102A220JAAH
A1C509	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C510	0180-0116	1	CAPACITOR-FXD 6.8uF +-10% 35 V TA	56289	150D685X9035B2-DYS
A1C511	0180-0291	1	CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1C513-C514	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C515	0160-4800	1	CAPACITOR-FXD 120pF +-5% 100 V CER COG	04222	SA102A121JAAH
A1C600-C603	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
A1C604	0160-6841	1	CAPACITOR-FXD 1000pF +-2% 250 V POLYP-FL	28480	0160-6841
A1C605	0160-6941	1	CAPACITOR-FXD 0.01uF +-5% 160 V POLYP-FL	28480	0160-6941
A1C606	0160-4805	1	CAPACITOR-FXD 47pF +-5% 100 V CER COG	04222	SA102A470JAAH
A1C607	0160-4809	2	CAPACITOR-FXD 390pF +-5% 100 V CER COG	04222	SA101A391JAAH
A1C608	0160-6941	1	CAPACITOR-FXD 0.01uF +-5% 160 V POLYP-FL	28480	0160-6941
A1C609	0180-0291	1	CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1C610	0160-4571	1	CAPACITOR-FXD 0.1uF +80% -20% 50 V CER Z5U	04222	SA105E104ZAAH
1C611	0160-6841	1	CAPACITOR-FXD 1000pF +-2% 250 V POLYP-FL	28480	0160-6841
C612	0160-4809	1	CAPACITOR-FXD 390pF +-5% 100 V CER COG	04222	SA101A391JAAH

03245-66511 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A1C620	0160-4532		CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C900	0180-3872	1	CAPACITOR-FXD 470uF +100 -10% 25 V AL-ELCTLT	56289	672D477H025DS3PD129
A1C901	0180-0291		CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1C902	0160-0161	2	CAPACITOR-FXD 0.01uF +-10% 200 V POLYE-FL	28480	0160-0161
A1C903-C904	0160-4532		CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C905	0160-0161		CAPACITOR-FXD 0.01uF +-10% 200 V POLYE-FL	28480	0160-0161
A1C906	0160-4532		CAPACITOR-FXD 1000pF +-20% 50 V CER X7R	04222	SA101C102MAAH
A1C907	0180-3866	1	CAPACITOR-FXD 100uF +-20% 25 V AL-ELCTLT	56289	513D107M025BB3DD002
A1C908	0180-0291		CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1C909	0180-1731	1	CAPACITOR-FXD 4.7uF +-10% 50 V TA	56289	150D475X9050B2-DYS
A1C910-C911	0180-3904	2	CAPACITOR-FXD 470uF +-20% 50 V AL-ELCTLT	28480	0180-3904
A1C912	0160-4835		CAPACITOR-FXD 0.1uF +-10% 50 V CER X7R	04222	SA105C104KAAH
A1C913	0180-0291		CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1C915-C917	0180-0291		CAPACITOR-FXD 1uF +-10% 35 V TA	56289	150D105X9035A2-DYS
A1CR1	1901-0050	15	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR2-CR8	1901-0743	11	DIODE-POWER RECTIFIER 1N4004 400V 1A DO-41	71744	1N4004
A1CR9	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR13	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR15	1902-1291	1	DIODE-ZENER 1N5338B 5.1V 5% PD=5W IR=1UA	04713	1N5338B
A1CR16	1902-0029	1	DIODE-ZENER 12V 5% PD=1W IR=5UA	28480	1902-0029
A1CR18	1902-0951	3	DIODE-ZENER 5.1V 5% PD=.4W TC=+.035% IR=1U	04713	SZ30035-9RL
A1CR400	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR500-CR502	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR507-CR508	1901-0743		DIODE-POWER RECTIFIER 1N4004 400V 1A DO-41	71744	1N4004
A1CR509	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR511-CR512	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR513	1902-0945	1	DIODE-ZENER 3V 5% PD=.4W TC=-.043% IR=50UA	04713	SZ0035-3RL
A1CR600-CR603	1901-0880	4	DIODE-GENERAL PURPOSE 125MA DO-35	27014	FDH5323.03
A1CR604-CR605	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR620-CR621	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR900-CR901	1902-0951		DIODE-ZENER 5.1V 5% PD=.4W TC=+.035% IR=1U	04713	SZ30035-9RL
A1CR902-CR903	1901-0734	2	DIODE-POWER RECTIFIER 1N5818 30V 1A	04713	1N5818
A1CR904	1901-0050		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A1CR905-CR908	1901-0828	4	DIODE-POWER RECTIFIER 50V 2.5A	28480	1901-0828
A1CR909	1902-0522	1	DIODE-ZENER 1N5340B 6V 5% PD=5W IR=1UA	04713	1N5340B
A1CR910-CR911	1902-0632	2	DIODE-ZENER 1N5354B 17V 5% PD=5W TC=-75% I	04713	1N5354B
A1CR913-CR914	1901-0743		DIODE-POWER RECTIFIER 1N4004 400V 1A DO-41	71744	1N4004
A1F1-F3	2110-0698	3	FUSE-SUBMINIATURE 2.5A 125V NTD AX	75915	R25102.5T1
A1HS180	1205-0623	6	HEAT SINK PLASTIC-POWER-CASE	13103	6079B
A1HS507	1205-0376	1	HEAT SINK SGL PLASTIC-POWER-CASE	13103	6072B
A1HS507A	0340-0564	2	INSULATOR-XSTR THERMAL-CONDUCTIVE	55285	7403-09FR-51
A1HS507B	0340-0564		INSULATOR-XSTR THERMAL-CONDUCTIVE	55285	7403-09FR-51
A1HS900-HS901	1205-0623		HEAT SINK PLASTIC-POWER-CASE	13103	6079B
A1HS904	1205-0623		HEAT SINK PLASTIC-POWER-CASE	13103	6079B
A1HS906-HS907	1205-0623		HEAT SINK PLASTIC-POWER-CASE	13103	6079B
A1JM001-JM009	7175-0057	9	RESISTOR 0 MFS	28480	7175-0057
A1JM1	1251-4682	1	CONNECTOR-POST TYPE .100-PIN-SPCG 3-CONTACT	26742	1102-1-103-02
A1JM1A	1258-0141	1	JUMPER-REMOVABLE FOR .025 IN SQ PINS	18873	65474-004
A1K1	0490-1564	1	RELAY 4A 12VDC-COIL 4A 250VAC	28480	0490-1564
A1K2	0490-1649	2	RELAY 2B 12VDC-COIL 3A 250VDC	28480	0490-1649
A1K3	0490-1563	2	RELAY 3AB 12VDC-COIL 4A 250VAC	28480	0490-1563
A1K4	0490-1649		RELAY 2B 12VDC-COIL 3A 250VDC	28480	0490-1649
A1K90	0490-1563		RELAY 3AB 12VDC-COIL 4A 250VAC	28480	0490-1563
A1L1	9100-3560	1	INDUCTOR-FIXED RF-CH-MLD 5.6UH +-5%	24226	15M561J
A1L2	9100-1788	1	CORE-FERRITE CHOKE-WIDEBAND;IMP:>680	28480	9100-1788
A1L400	9140-0639	1	INDUCTOR-FIXED RF-CH-MLD 100UH +-10%	04213	6376-1
A1L401	9100-2565	1	INDUCTOR-FIXED RF-CH-MLD 180UH +-10%	28480	9100-2565

03245-66511 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A1L600	9100-2486	2	INDUCTOR-FIXED RF-CH-MLD 330NH +-5%	24226	15M330J
A1L601	9170-1368	1	CORE-SHIELDING BEAD INIT PERMEABILITY	19701	11426-4A6
A1L603	9100-2486	1	INDUCTOR-FIXED RF-CH-MLD 330NH +-5%	24226	15M330J
A1L900	9140-1024	1	INDUCTOR-FIXED L: 0.50 MH -0,+30% @	01961	PE-50503-006
A1L901	9140-1175	2	INDUCTOR-FIXED L:1 MH, -0%,+30% @ 0.35 A	01961	PE-50501-004
A1L902	9140-0893	1	INDUCTOR-FIXED 2MH -0%+30%; Q:60 MIN	01961	PE 50502
A1L903	9140-1175	1	INDUCTOR-FIXED L:1 MH, -0%,+30% @ 0.35 A	01961	PE-50501-004
A1LBL1	9320-5333	1	LABEL-LNE-PTR; .625-IN-WD X .25-IN-LG	28480	9320-5333
A1LBL2	7121-7148	1	LABEL-INFORMATION .25-IN-WD .9-IN-LG	28480	7121-7148
A1MP1-MP2	3050-0082	2	WASHER-FL NM NO. 4 .116-IN-ID .188-IN-OD	76854	8942-3
A1P1	5180-6699	1	CONNECTOR-2X9M> NOKEY	28480	5180-6699
A1P2	1252-1591	1	CONNECTOR-POST TYPE 5.08-PIN-SPCG 48-CONTACT	00779	534893-5
A1PCB1	03245-26511	1	PRINTED CIRCUIT BOARD - BLANK	28480	03245-26511
A1Q1	1854-1028	1	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A1Q500	1853-0673	1	TRANSISTOR-DUAL PNP 2N3811 PD=600MW	04713	2N3811
A1Q501	1855-0414	2	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	17856	2N4393
A1Q502	1855-0730	1	TRANSISTOR-J-FET DUAL N-CHAN D-MODE SI	27014	NPDS564(SEL)
A1Q503	1854-1040	1	TRANSISTOR NPN SI PD=310MW FT=50MHZ	27014	2N5088
A1Q504	1853-0563	1	TRANSISTOR PD=310MW FT=250MHZ	04713	2N3906(SEL)
A1Q505	1855-0414	1	TRANSISTOR J-FET 2N4393 N-CHAN D-MODE	17856	2N4393
A1Q506	1854-0233	1	TRANSISTOR NPN 2N3866 PD=1W FT=500MHZ	3L585	2N3866
A1Q507	1854-1187	1	TRANSISTOR NPN SI PD=1.2W FT=120MHZ	2M627	2SD1378
A1Q508	1853-0674	1	TRANSISTOR PNP SI PD=1.2W FT=100MHZ	2M627	2SB1007
A1Q509	1853-0569	1	TRANSISTOR PNP SI PD=310MW FT=40MHZ	28480	1853-0569
A1Q600	1855-0410	1	TRANSISTOR J-FET N-CHAN D-MODE TO-18 SI	28480	1855-0410
A1Q900-Q901	1855-0548	2	TRANSISTOR MOSFET N-CHAN E-MODE TO-220	04713	BUZ71A
A1R1-R2	0698-3279	8	RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A1R3-R4	0757-0424	11	RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R5	0698-3279	1	RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A1R7	0757-0283	6	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
A1R8-R9	0757-0424	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R10	0698-3279	1	RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A1R11	0757-0393	5	RESISTOR 47.5 +-1% .125W TF TC=0+-100	28480	0757-0393
A1R13	0757-0469	3	RESISTOR 150K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1503-F
A1R15	0757-0415	3	RESISTOR 475 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-475R-F
A1R16	0757-0283	1	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
A1R17	0757-0424	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R18	0698-3215	1	RESISTOR 499K +-1% .125W TF TC=0+-100	28480	0698-3215
A1R19	0757-0283	1	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
A1R20-R21	0757-0393	1	RESISTOR 47.5 +-1% .125W TF TC=0+-100	28480	0757-0393
A1R23-R24	0698-4126	2	RESISTOR 35.7 +-1% .125W TF TC=0+-100	28480	0698-4126
A1R25	0757-0442	7	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A1R26	0757-0449	3	RESISTOR 20K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2002-F
A1R27	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A1R28	0698-3279	1	RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A1R29	0698-3496	2	RESISTOR 3.57K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-357R-F
A1R30	0757-0427	6	RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A1R300	0757-0283	1	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
A1R301	0757-0424	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R302	0698-4442	2	RESISTOR 4.42K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4421-F
A1R303	0757-0427	1	RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A1R304	0698-3228	5	RESISTOR 49.9K +-1% .125W TF TC=0+-100	28480	0698-3228
A1R400	0757-0424	1	RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R401	0698-3496	1	RESISTOR 3.57K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-357R-F
A1R402	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A1R403	0757-0469	1	RESISTOR 150K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1503-F
A1R404	0757-0476	1	RESISTOR 301K +-1% .125W TF TC=0+-100	28480	0757-0476
1R405	0698-4442	1	RESISTOR 4.42K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4421-F

03245-66511 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A1R406	0698-3148	2	RESISTOR 102K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1023-F
A1R407	0698-4516	1	RESISTOR 113K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1133-F
A1R408	0698-4484	1	RESISTOR 19.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1912-F
A1R409	0698-3158	1	RESISTOR 23.7K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2372-F
A1R410	0757-0288	2	RESISTOR 9.09K +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-9091-F
A1R411	0757-0463	1	RESISTOR 82.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-8252-F
A1R412	0698-3202	2	RESISTOR 1.74K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1741-F
A1R413	0757-0280	3	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A1R414	0698-3148		RESISTOR 102K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1023-F
A1R415	0698-3150	1	RESISTOR 2.37K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2371-F
A1R416-R417	0698-4508	2	RESISTOR 78.7K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-7872-F
A1R418	0757-0470	1	RESISTOR 162K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1623-F
A1R419	0757-0427		RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A1R420	0757-0446	1	RESISTOR 15K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1502-F
A1R421	0757-0424		RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R422	0757-0427		RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A1R423	0757-0452	2	RESISTOR 27.4K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2742-F
A1R424-R425	0757-0384	4	RESISTOR 20 +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-20R0-F
A1R426	0757-0424		RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R427	0757-0427		RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A1R428	0698-3359	1	RESISTOR 12.7K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1272-F
A1R429	0698-3202		RESISTOR 1.74K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1741-F
A1R430	0757-0270	1	RESISTOR 249K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2493-F
A1R431	0698-3495	1	RESISTOR 866 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-866R-F
A1R432-R433	0698-3279		RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A1R434	0757-0291	2	RESISTOR 24.9 +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-2492-F
A1R500	0757-0410	1	RESISTOR 301 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-301R-F
A1R501	0757-0452		RESISTOR 27.4K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2742-F
A1R502	0757-0465	8	RESISTOR 100K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1003-F
A1R503-R504	0698-4421	2	RESISTOR 249 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-249R-F
A1R505-R506	0757-0402	2	RESISTOR 110 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-111-F
A1R507	0757-0393		RESISTOR 47.5 +-1% .125W TF TC=0+-100	28480	0757-0393
A1R508	0698-4423	1	RESISTOR 1.37K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1371-F
A1R509	0757-0291		RESISTOR 24.9 +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-2492-F
A1R510-R511	0683-0515	2	RESISTOR 5.1 +-5% .25W CF TC=0-400	01121	CB51G5
A1R512	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
A1R516	0757-0465		RESISTOR 100K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1003-F
A1R519	0757-0380	3	RESISTOR 13 +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-13R0-F
A1R521-R522	0757-0465		RESISTOR 100K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1003-F
A1R525	0757-0427		RESISTOR 1.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1501-F
A1R526	0698-3279		RESISTOR 4.99K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-4991-F
A1R527	0757-0288		RESISTOR 9.09K +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-9091-F
A1R531	0757-0465		RESISTOR 100K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1003-F
A1R533	0757-0465		RESISTOR 100K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1003-F
A1R534-R535	0698-6286	2	RESISTOR 100M +-10% .25W CC	28480	0698-6286
A1R600	0757-0420	1	RESISTOR 750 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-751-F
A1R601	0699-0173	1	RESISTOR 866 +-1% .3W MF TC=0+-1.5	28480	0699-0173
A1R602	0698-7479	1	RESISTOR 10K +-0.1% .225W MF TC=0+-1.5	28480	0698-7479
A1R603	0699-2392	1	RESISTOR 100K +-0.5% .6W MF TC=0+-1.5	28480	0699-2392
A1R604	0699-0073	1	RESISTOR 10M +-1% .125W TF TC=0+-100	28480	0699-0073
A1R605-R606	0757-0380		RESISTOR 13 +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-13R0-F
A1R607	0757-0424		RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R608	0699-0064	1	RESISTOR 50 +-0.1% .5W TF TC=0+-25	28480	0699-0064
A1R609	0699-2391	1	RESISTOR 12.4 +-1% .6W MF TC=0+-5	28480	0699-2391
A1R620	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A1R621	0757-0472	1	RESISTOR 200K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2003-F
A1R622	0757-0469		RESISTOR 150K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1503-F
A1R623-R624	0698-3228		RESISTOR 49.9K +-1% .125W TF TC=0+-100	28480	0698-3228
A1R625-R627	0757-0442		RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A1R628-R629	0757-0465		RESISTOR 100K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1003-F
A1R630-R631	0698-3228		RESISTOR 49.9K +-1% .125W TF TC=0+-100	28480	0698-3228
A1R900-R901	0757-0415		RESISTOR 47.5 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-475R-F
A1R902	0699-1075	1	RESISTOR .1 +-3% 3W MFS TC=0+-70	01686	LO-3-0.1-3-RP
A1R903-R904	0757-0449		RESISTOR 20K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2002-F

03245-66511 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A1R905-R906	0757-0384		RESISTOR 20 +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-20R0-F
A1R907	0698-3631	1	RESISTOR 330 +-5% 2W MO TC=0+-200	28480	0698-3631
A1R908	0757-0273	2	RESISTOR 3.01K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3011-F
A1R909	0757-0393		RESISTOR 47.5 +-1% .125W TF TC=0+-100	28480	0757-0393
A1R910	0757-0280		RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A1R911	0757-0273		RESISTOR 3.01K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3011-F
A1R912	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-5111-F
A1R913	0757-0409	1	RESISTOR 274 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-274R-F
A1R914	0757-0280		RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
A1R915	0757-0424		RESISTOR 1.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1101-F
A1R916-R917	0757-0283		RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
A1R918	0698-3268	1	RESISTOR 11.5K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1152-F
A1R919	0698-4471	1	RESISTOR 7.15K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-7151-F
A1RP100	1810-1163	1	NETWORK-RESISTOR 6 db STEP ATTENUATOR	73138	1693-15-0
A1RP101	1810-1164	1	NETWORK-RESISTOR R-ARRAY, 4 X 1K; TOL.	73138	1694-16-0
A1RT1-RT3	0837-0223	3	THERMISTOR DISC 10-OHM	75263	RL400811040PT2
A1SCW180	0515-0886	8	SCREW-MACHINE M3 X 0.5 6MM-LG PAN-HD	28480	0515-0886
A1SCW507A	0515-0886		SCREW-MACHINE M3 X 0.5 6MM-LG PAN-HD	28480	0515-0886
A1SCW507B	0515-0886		SCREW-MACHINE M3 X 0.5 6MM-LG PAN-HD	28480	0515-0886
A1SCW900-SCW901	0515-0886		SCREW-MACHINE M3 X 0.5 6MM-LG PAN-HD	28480	0515-0886
A1SCW904	0515-0886		SCREW-MACHINE M3 X 0.5 6MM-LG PAN-HD	28480	0515-0886
A1SCW906-SCW907	0515-0886		SCREW-MACHINE M3 X 0.5 6MM-LG PAN-HD	28480	0515-0886
A1T900	9100-4694	1	TRANSFORMER-SWITCHING; PRI IND: 1 MH	91637	IPE-1629-16
A1U1	1990-0732	1	OPTO-ISOLATOR LED-PDIO/XSTR IF=20MA-MAX	28480	HCPL-2731
A1U2	1820-3007	1	IC GATE CMOS/74HC EXCL-OR QUAD 2-INP	04713	MC74HC86N
A1U3	1820-3671	1	IC GATE-ARRAY CMOS	28480	1820-3671
A1U4	1820-2924	1	IC GATE CMOS/74HC NOR QUAD 2-INP	04713	MC74HC02N
A1U5	1820-1568	1	IC DRIVER TTL/LS BUS QUAD	01295	SN74LS125AN
A1U6-U7	1820-3665	2	IC TRANSCEIVER CMOS/HCT BUS OCTL	27014	MM74HCT245N
A1U8	1820-3796	1	IC DCDR CMOS/74HCT 2-TO-4-LINE DUAL	27014	MM74HCT139N
A1U9-U10	1990-0996	4	OPTO-ISOLATOR LED-IC GATE IF=10MA-MAX	28480	HCPL-2200
A1U11	1813-0580	1	OSCILLATOR-CRYSTALVXCO; FREQUENCY	28480	1813-0580
A1U12	1820-3975	1	IC DRIVER CMOS/74HC LINE OCTL	01295	SN74HC541N
A1U13	1820-4590	1	IC MV CMOS/74HC MONOSTBL RETRIG DUAL	27014	MM74HC423AN
A1U14	1820-3629	1	IC INVERTER CMOS/HCT HEX	27014	MM74HCT04N
A1U15-U16	1820-3165	2	IC-INTERFACE DRIVER CMOS PERIPHERAL	28480	1820-3165
A1U17	1820-3399	2	IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	04713	MC74HC273N
A1U18	1818-4583	1	IC NMOS 16384 (16K) EEPROM 250-NS 3-S	28480	1818-4583
A1U19	1820-5571	1	IC CNTR CMOS/74HC BIN SYNCHRO DUAL 4-BIT	18324	74HC4520N
A1U20-U21	1990-0996		OPTO-ISOLATOR LED-IC GATE IF=10MA-MAX	28480	HCPL-2200
A1U22	1820-0535	1	IC-INTERFACE DRIVER MISC/UNKNOWN AND DUAL	01295	SN75451BP
A1U23	34521-88801	1	IC-PROGRAMMED (1820-4879) PAL16L8-2CN	28480	34521-88801
	1820-4879	1	IC PROGRAMMABLE-LGC TTL/S PAL UNPROGRAMMED	27014	PAL16L8A2NC UNPRGMD
A1U24	1990-0488	2	OPTO-ISOLATOR LED-PXSTR IF=80MA-MAX	04713	4N25
A1U25	1820-2228	1	IC LATCH CMOS NAND R-S QUAD	04713	MC14048BCP
A1U26	1990-1015	1	OPTO-ISOLATOR LED-IC GATE IF=10MA-MAX	28480	HCPL-2400
A1U27	1820-1200	1	IC INVERTER TTL/LS HEX	01295	SN74LS05N
A1U28	1820-3399		IC FF CMOS/74HC D-TYPE POS-EDGE-TRIG COM	04713	MC74HC273N
A1U100	1826-1346	1	ANALOG SWITCH 4 SPST 16-DIP-P	24355	ADG201HSKN
A1U101	1826-1205	1	ANALOG SWITCH 2 SPDT 16-DIP-P	34371	H13-0390-5
A1U102-U104	1826-0850	3	IC ANALOG SWITCH PIN	17856	DG211CJ
A1U105	1826-0610	1	ANALOG MULTIPLEXER 4 CHNL 16-CERDIP	06665	MUX-24FQ
A1U106-U107	1826-1021	2	ANALOG MULTIPLEXER CHNL 16-DIP-P	17856	DG508ACJ
A1U110-U111	1826-0635	2	IC OP AMP LOW-OFS 8-DIP	06665	OP-07CP
A1U112-U113	1826-1771	2	IC OP AMP HIGH-SPEED 8-DIP-P PKG	27014	LM6364N
A1U114	1826-1767	1	IC OP AMP LOW-NOISE 8-DIP-P PKG	28480	1826-1767
A1U115	1826-1328	1	IC OP AMP LOW-NOISE DUAL 8-PIN DIP-P	01295	NE5532P
A1U116	1826-1382	1	IC OP AMP PRCN 8-DIP-P PKG	28480	1826-1382
A1U117-U118	1826-0521	2	IC OP AMP LOW-BIAS-H-IMPED DUAL 8-PIN	01295	TL072CP

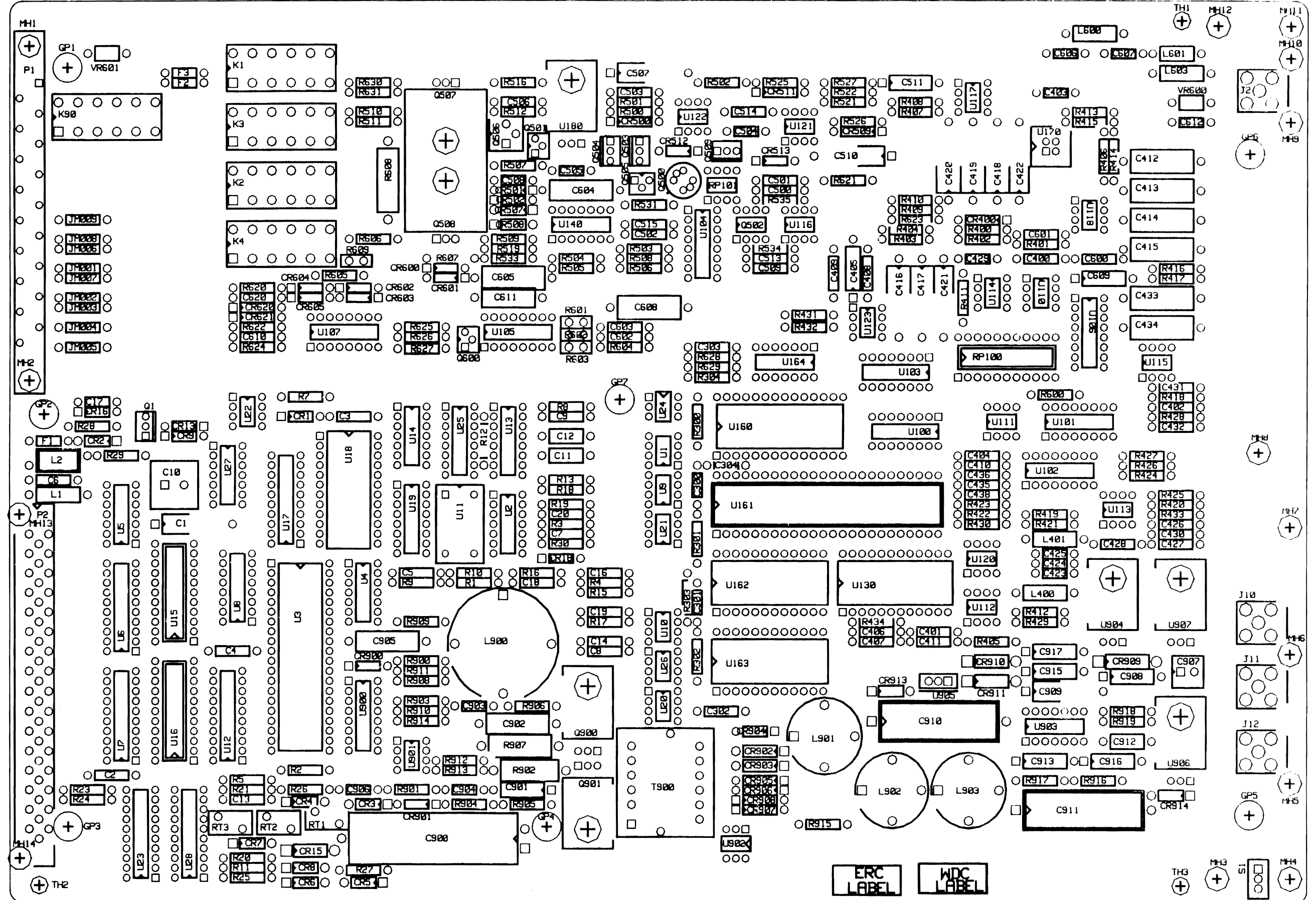
03245-66511 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A1U120	1826-1122	1	IC COMPARATOR GENERAL PURPOSE 8-DIP-P PKG	06665	CMP-01CP
A1U121-U122	1826-0412	3	IC COMPARATOR PRECISION DUAL 8-DIP-P PKG	27014	LM393N
A1U123	1826-0346	1	IC OP AMP GENERAL PURPOSE DUAL 8-PIN DIP-P	27014	LM358N
A1U130	1826-1770	1	IC D/A 12-BIT 24-CERDIP BIPOLAR	27014	DAC1266LCJ
A1U140	1858-0032	1	TRANSISTOR ARRAY 14-PIN PLASTIC DIP	27014	LM3146
A1U160	1820-5648	1	IC ASIC GATE-ARRAY CMOS PLASTIC DIP	28480	1820-5648
A1U161	1820-5647	1	IC ASIC GATE-ARRAY CMOS PLASTIC DIP	28480	1820-5647
A1U162-U163	1818-1611	2	IC CMOS 16384 (16K) STAT RAM 150-NS 3-S	34335	AM9128-15PC
A1U164	1820-2922	1	IC GATE CMOS/74HC NAND QUAD 2-INP	04713	MC74HC00N
A1U170	1826-1249	1	IC V RGLTR-V-REF-FXD 6.8/7.1V TO-46 PKG	28480	1826-1249
A1U180	1826-0393	1	IC V RGLTR-ADJ-POS 1.2/37V TO-220 PKG	27014	LM317T
A1U900	1826-0905	1	IC V RGLTR-SWG 5/5.2V 16-DIP-P PKG	34333	SG3525AJ
A1U901	1826-0412	1	IC COMPARATOR PRECISION DUAL 8-DIP-P PKG	27014	LM393N
A1U902	1990-0488	1	OPTO-ISOLATOR LED-PXSTR IF=80MA-MAX	04713	4N25
A1U903	1826-0409	1	IC V RGLTR-ADJ-POS 2/37V 14-DIP-C PKG	04713	MC1723L
A1U904-U905	1826-0551	2	IC V RGLTR-FXD-POS 4.9/5.1V TO-220 PKG	27014	LM340AT-5
A1U906	1826-0214	1	IC V RGLTR-FXD-NEG -14.4/-15.6V TO-220	04713	MC7915CT
A1U907	1826-0106	1	IC V RGLTR-FXD-POS 14.4/15.6V TO-220 PKG	04713	MC7815CT
A1VR600-VR601	0837-0196	2	VOLTAGE SUPPRESSOR V _{NOM} =430V, 10A PEAK	34371	V430MT3A
A1W2	03245-61603	1	CABLE-PCB/F BNC 135MM LONG	28480	03245-61603
	1250-0050	1	NUT-RF CONNECTOR BNC SERIES; CLAMP NUT	24931	NS101-2
	1250-0051	1	CONTACT-RF CONNECTOR SER BNC; FEMALE	24931	C182-1
	1250-0252	1	BODY-RF CONNECTOR SERIES BNC; STRAIGHT	24931	28JS108-1
	1250-0960	1	SLEEVE-RF CONNECTOR SERIES BNC/TNC	24931	T101-13
	8120-1848	1	CABLE-COAX 600V WHITE	92194	2834
A1W10	03245-61601	2	CABLE-FEM BNC TO PC BOARD 260MM LONG	28480	03245-61601
	1250-0050	2	NUT-RF CONNECTOR BNC SERIES; CLAMP NUT	24931	NS101-2
	1250-0051	2	CONTACT-RF CONNECTOR SER BNC; FEMALE	24931	C182-1
	1250-0052	2	BODY-RF CONNECTOR BNC SERIES; FOR MALE	24931	28P117-1
	1250-0960	2	SLEEVE-RF CONNECTOR SERIES BNC/TNC	24931	T101-13
	8120-1280	2	CABLE-COAX 50-OHM 1.2KV 28PF/FT MAX	72983	421-077
A1W11	03245-61602	1	CABLE-MALE BNC TO PC BOARD 685MM LONG	28480	03245-61602
	8120-1280	2	CABLE-COAX 50-OHM 1.2KV 28PF/FT MAX	72983	421-077
A1W12	03245-61601	1	CABLE-FEM BNC TO PC BOARD 260MM LONG	28480	03245-61601

Code List of Manufacturers - 03245-66511

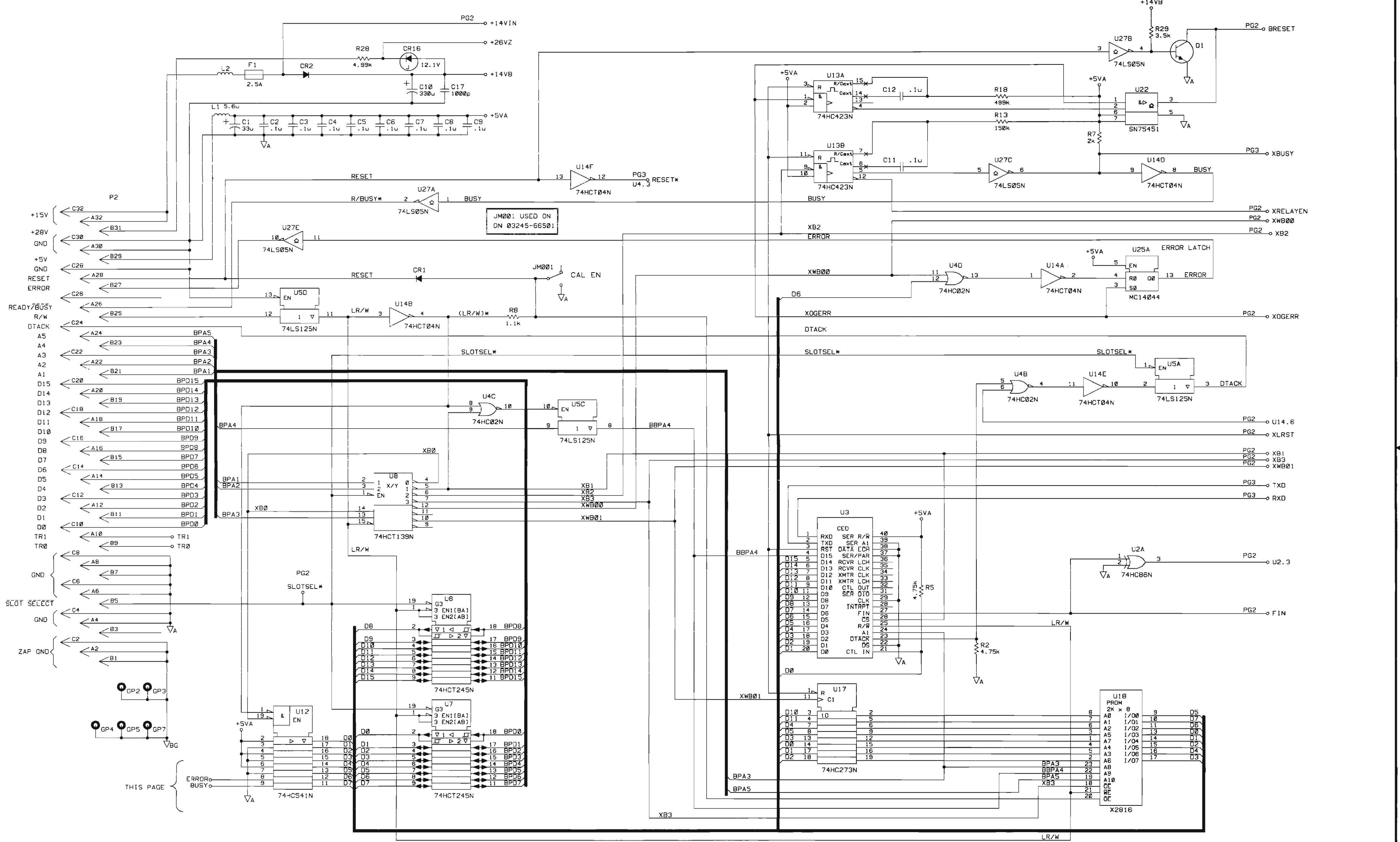
Mfr. Code	Manufacturer's Name	Manufacturer's Address			Zip Code
00779	AMP INC	HARRISBURG	PA	US	17111
01121	ALLEN-BRADLEY CO INC	EL PASO	TX	US	79935
01295	TEXAS INSTRUMENTS INC	DALLAS	TX	US	75265
01686	RCL ELECTRONICS INC	NORTHBROOK	IL	US	60062
01961	PULSE ENGINEERING INC	SAN DIEGO	CA	US	92111
04213	CADDELL-BURNS MFG CO INC	MINEOLA	NY	US	11501
04222	AVX CORP	GREAT NECK	NY	US	11021
04713	MOTOROLA INC	ROSELLE	IL	US	60195
06665	PRECISION MONOLITHICS INC	SANTA CLARA	CA	US	95054
13103	THERMALLOY INC	DALLAS	TX	US	75234
17856	SILICONIX INC	SANTA CLARA	CA	US	95054
18324	SIGNETICS CORP	SUNNYVALE	CA	US	94086
18873	DUPONT E I DE NEMOURS & CO	WILMINGTON	DE	US	19801
19701	NORTH AMERICAN PHILIPS CORP	NEW YORK	NY	US	10017
24226	GOWANDA ELECTRONICS CORP	GOWANDA	NY	US	14070
24355	ANALOG DEVICES INC	NORWOOD	MA	US	02062
24546	CORNING GLASS WORKS	CORNING	NY	US	14830
24931	SPECIALTY CONNECTOR CO	FRANKLIN	IN	US	46131
26742	METHODE ELECTRONICS INC	CHICAGO	IL	US	60656
27014	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA	CA	US	95052
28480	HEWLETT-PACKARD COMPANY - CORPORATE	PALO ALTO	CA	US	94304
2M627	ROHM CORP	IRVINE	CA	US	92713
34333	SILICON GENERAL INC	SAN JOSE	CA	US	95134
34335	ADVANCED MICRO DEVICES INC	SUNNYVALE	CA	US	94086
34371	HARRIS CORP	MELBOURNE	FL	US	32901
3L585	RCA CORP	NEW YORK	NY	US	10112
42838	NATIONAL RIVET & MFG CO	WAUPUN	WI	US	53963
46384	PENN ENGINEERING & MFG CORP	DOYLESTOWN	PA	US	18901
55285	BERQUIST CO	MINNEAPOLIS	MN	US	55420
56289	SPRAGUE ELECTRIC CO	LEXINGTON	MA	US	02173
71744	GENERAL INSTRUMENT CORP	CLIFTON	NJ	US	07012
72983	ESSEX INTERNATIONAL INC	FORT WAYNE	IN	US	46804
73138	BECKMAN INDUSTRIAL CORP	FULLERTON	CA	US	92635
75263	KEYSTONE CARBON CO INC	ST. MARY	PA	US	15857
75915	LITTELFUSE INC	DES PLAINES	IL	US	60016
76854	OAK INDUSTRIES INC CO	WALTHAM	MA	US	02154
84411	AMERICAN SHIZUKI CORP	CANOGA PARK	CA	US	91304
85480	BRADY W H CO	MILWAUKEE	WI	US	53209
91637	DALE ELECTRONICS INC	COLUMBUS	NE	US	68601
92194	ALPHA WIRE CORP	ELIZABETH	NJ	US	07207

R

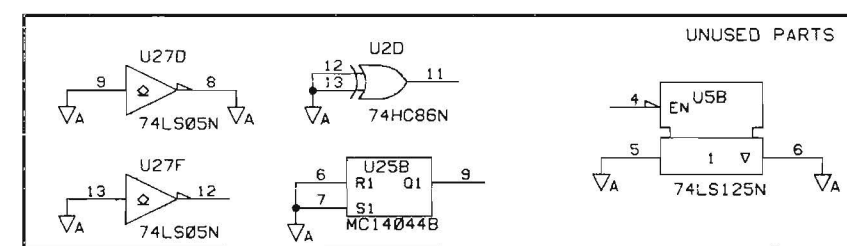


ERC LABEL WDC LABEL

ENGINEERING RESPONSIBILITY		SEP1A	C - 03245-66511-1	
SYM	REVISIONS	APPROVED	DATE	
A	AS ISSUED			



- ICS USED ON THIS PAGE:
- U2A, U2D
 - U3
 - U4-B, C, D
 - U5-A, B, C, D
 - U6
 - U7
 - U8
 - U12
 - U13
 - U14-A, B, D, E, F
 - U17
 - U18
 - U22
 - U25
 - U27-A, B, C, D, E, F



NOTES:

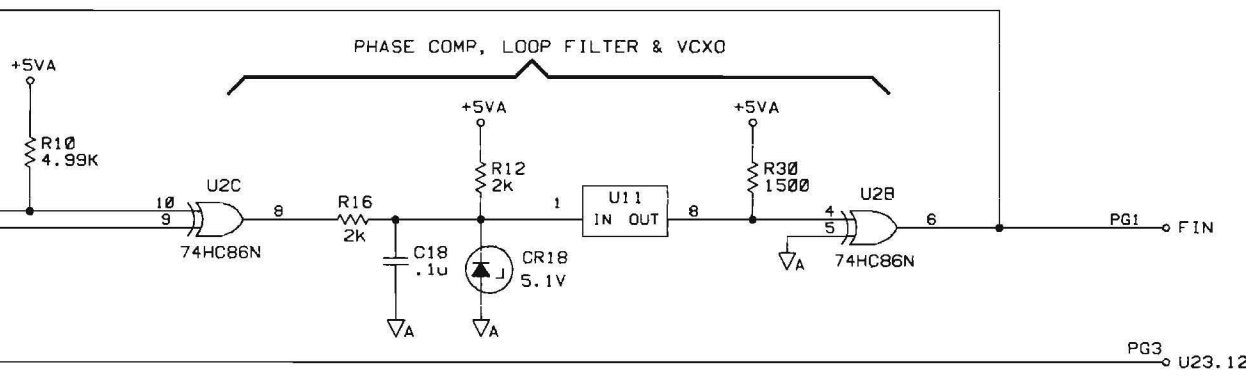
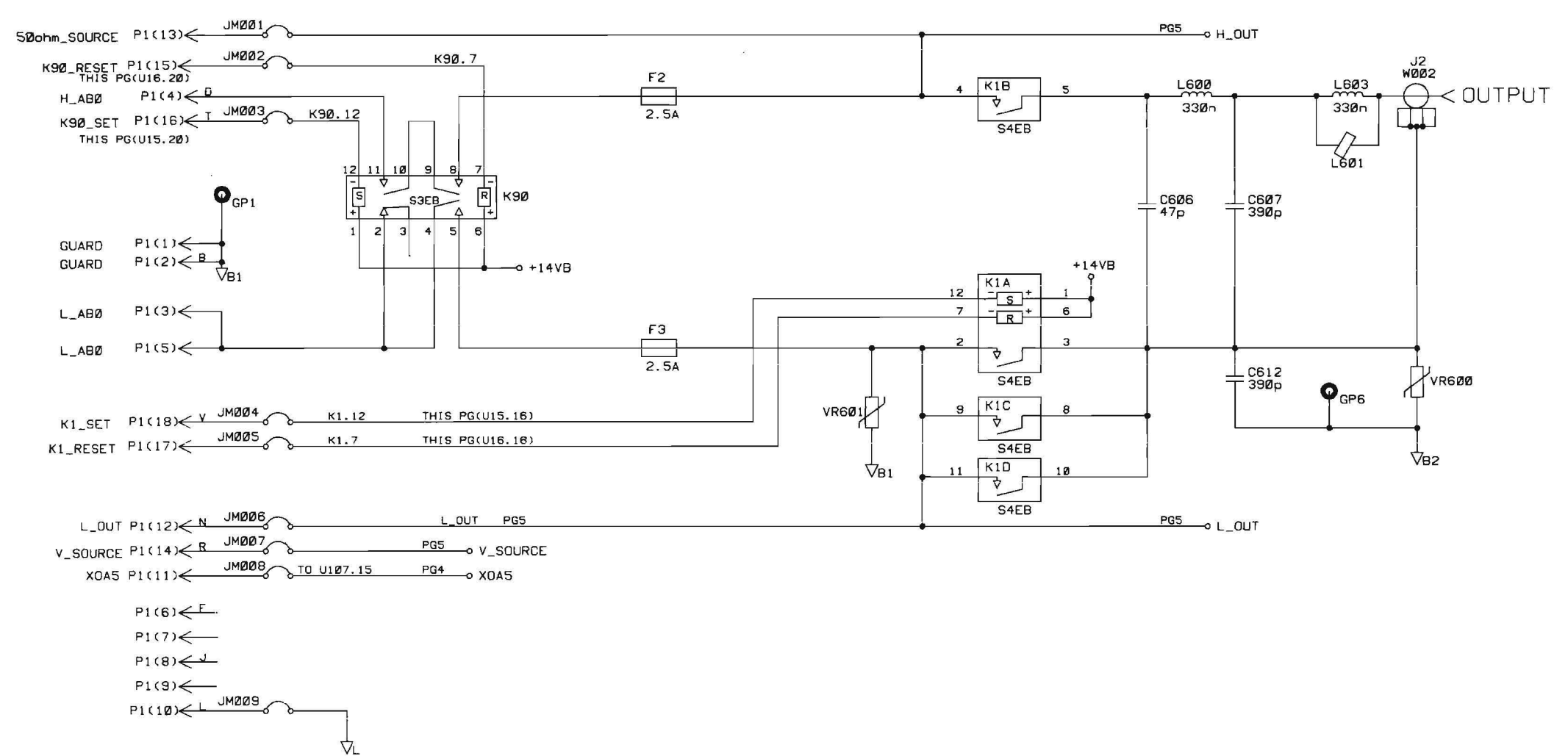
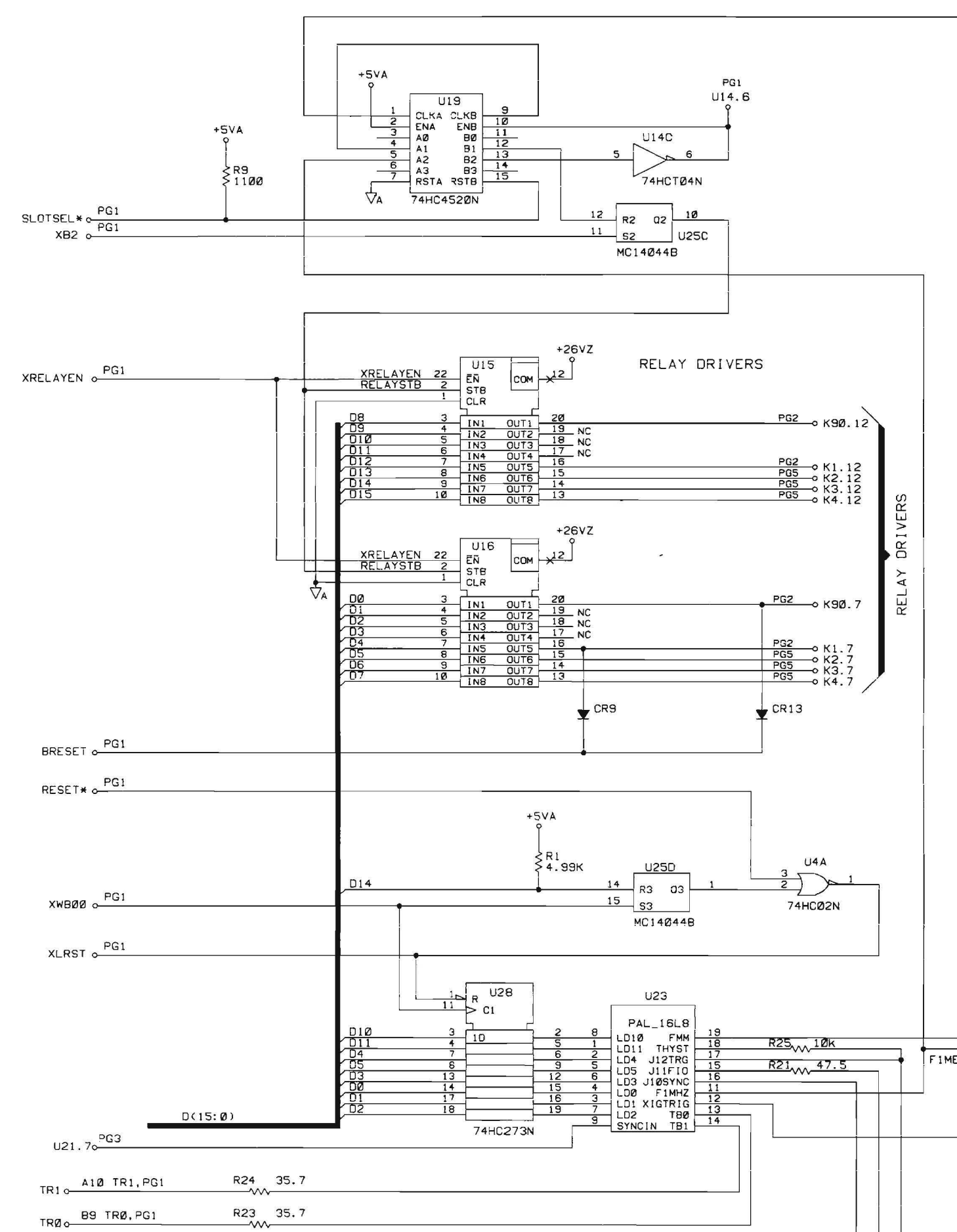
- "CED": INGD ADDR, REG1; STATUS, REG 5; INGD DATA, REG 9
- TRIGGER, ERROR, BUSY, ID, CARD RESET: COMMON REG 0
- RELAY/11ms BUSY: REG 2
- TRIG CONFIG, ERROR CLEAR, CARD RESET: COMMON REG 0
- CAL RAM DATA: REG 3
- CAL RAM ADDR: REG 4

BT4511*1		PART/MATERIAL-DESCRIPTION		MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
ITEM	QTY					
RIC BACON		30-OCT-90		AC/DC-SOURCE-DIGITAL		
DRAWN BY		DATE		POWER SUPPLY		
ENGINEER/CHECKER				OUTGUARD LOGIC		
RELEASE TO PROD.				TITLE		
SUPERSEDES DWG.				SCALE		
				SHEET 1 OF 5	C - 03245	-66511-1



PART NUMBER 03245-66511

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		



- P1(6) ← F
- P1(7) ←
- P1(8) ←
- P1(9) ←
- P1(10) ← JM009

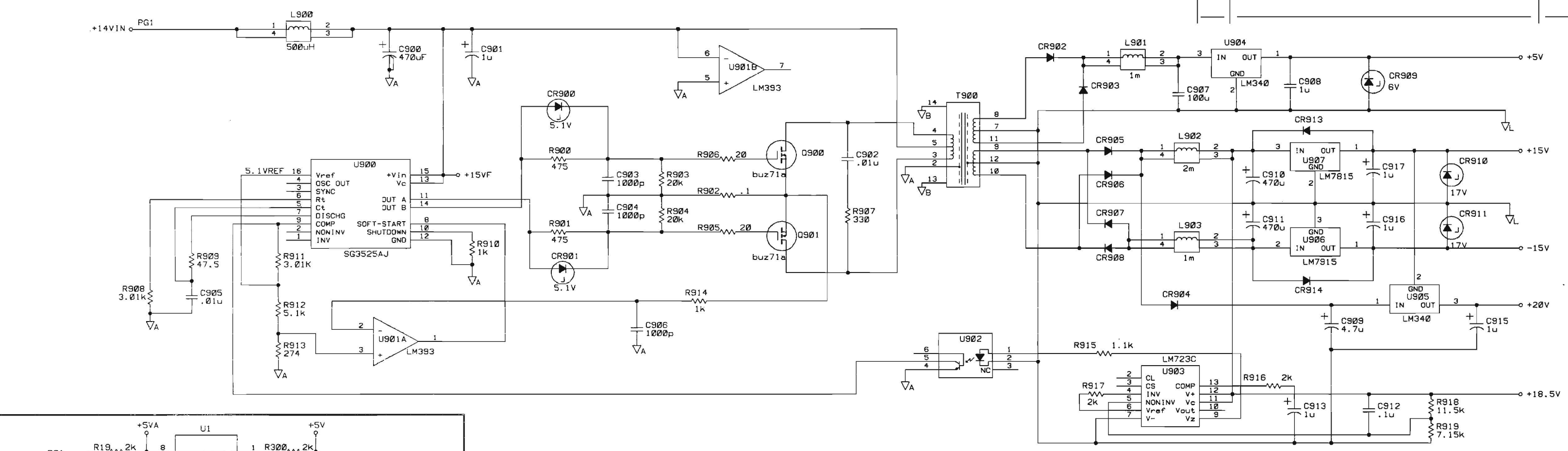
ICs USED ON THIS PAGE:

U2B, U2C
U4A
U11
U14C
U15
U16
U19
U23
U25C, U25D
U28

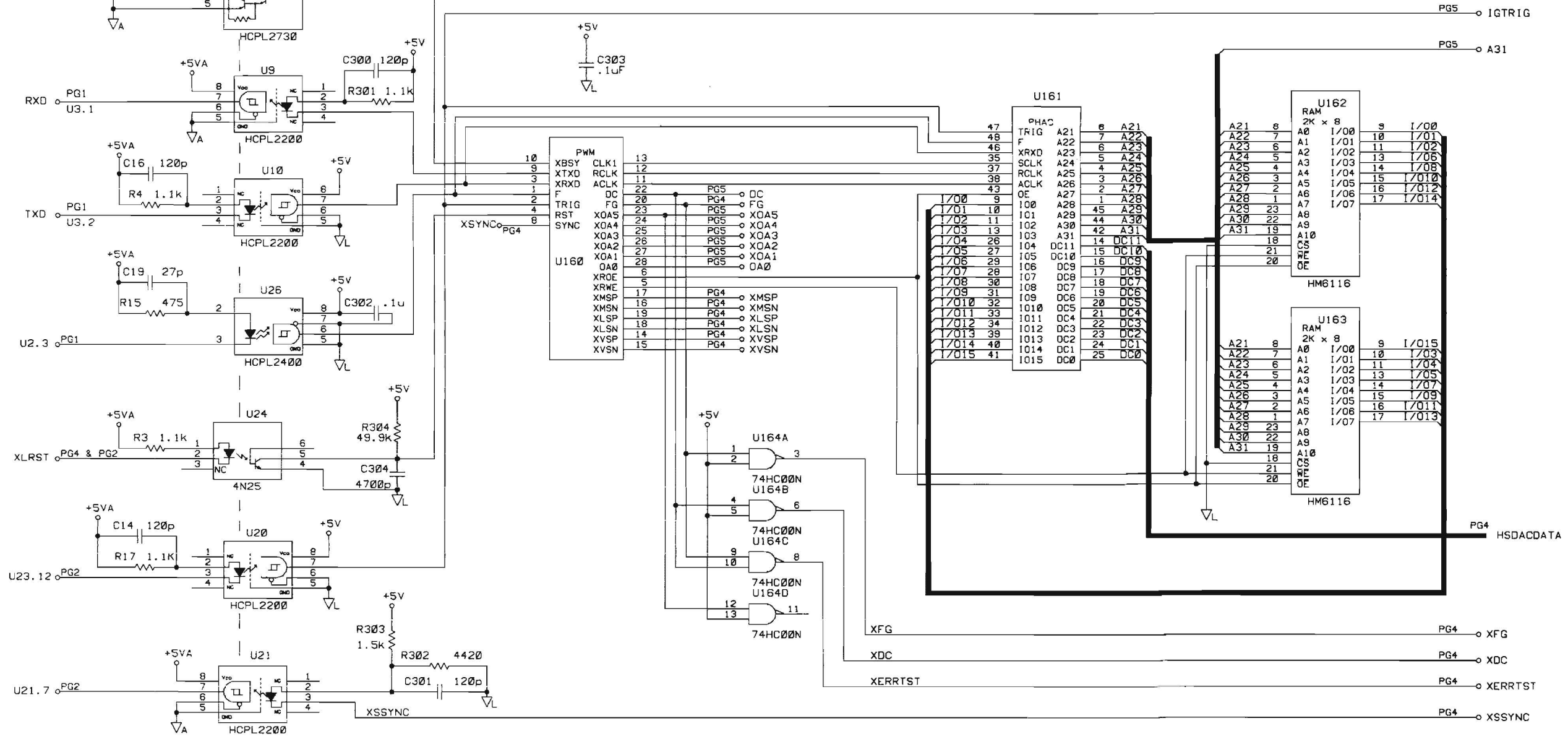
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BT4511*2					
RIC BACON		DATE			
DRAWN BY		30-OCT-90			
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					
AC/DC-SOURCE-DIGITAL RELAYS-OUTPUT BNC-S & PHASE COMP RELAY DRIVERS			HEWLETT PACKARD		
TITLE			PART NUMBER 03245-66511		
SCALE			SHEET 2 OF 5		
			C - 03245 - 66511 - 1		

ENGINEERING RESPONSIBILITY		SEP1A	C - 03245 - 66511 - 1	
SYM	REVISIONS		APPROVED	DATE
A	AS ISSUED			

POWER SUPPLY



INGUARD LOGIC



PINS CONNECTED TO EMBEDDED POWER/GROUND NETS:

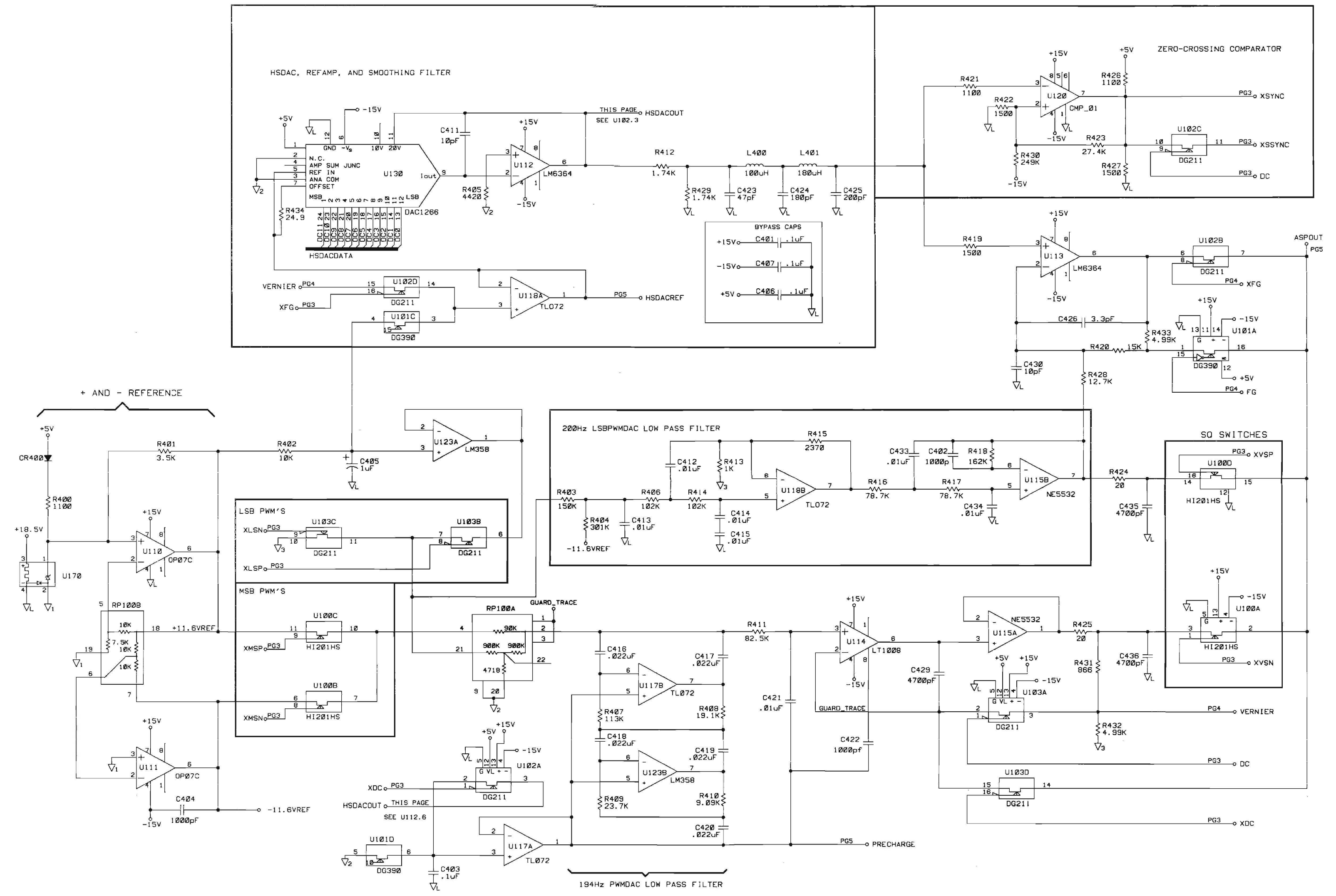
U11	7(GND), 14(+5VA)
U115	4(-15V), 8(+15V)
U117	4(-15V), 8(+15V)
U118	4(-15V), 8(+15V)
U12	10(GND), 20(+5VA)
U121	4(-15V), 8(+5V)
U122	4(LGND), 8(+18.5V)
U123	4(-15V), 8(+15V)
U13	8(GND), 16(+5VA)
U14	7(GND), 14(+5VA)
U15	11(GND), 21(+5VA)
U16	11(GND), 21(+5VA)
U160	7(LGND), 21(+5V)
U161	12(LGND), 36(+5V)
U162	12(LGND), 24(+5V)
U163	12(LGND), 24(+5V)
U164	7(LGND), 14(+5V)
U17	10(GND), 20(+5VA)
U18	12(GND), 24(+5VA)
U19	8(GND), 16(+5VA)
U2	7(GND), 14(+5VA)
U22	4(GND), 8(+5VA)
U23	10(GND), 20(+5VA)
U25	8(GND), 16(+5VA)
U27	7(GND), 14(+5VA)
U29	10(GND), 20(+5VA)
U3	10(GND), 30(+5VA)
U4	7(GND), 14(+5VA)
U5	7(GND), 14(+5VA)
U6	10(GND), 20(+5VA)
U7	10(GND), 20(+5VA)
U8	8(GND), 16(+5VA)
U9	4(GND), 8(+15V)

ICS USED ON THIS PAGE:

U1	U900
U9	U901
U10	U902
U20	U903
U21	U904
U24	U905
U26	U906
U160	U907

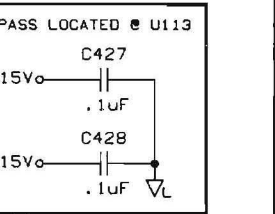
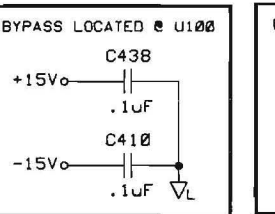
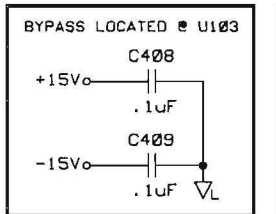
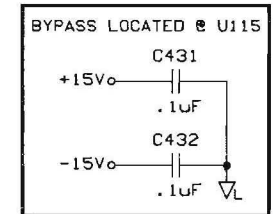
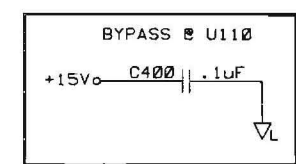
BT4511*3					
ITEM	QTY	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
RIC BACON		30-OCT-90	AC/DC-SOURCE-DIGITAL		HEWLETT PACKARD
DRAWN BY		DATE	POWER SUPPLY		
ENGINEER/CHECKER			INGUARD LOGIC		PART NUMBER 36245-66511
RELEASE TO PROD.			TITLE		
SUPERSEDES DWG.			SCALE	SHEET 3 OF 5	C - 03245 - 66511 - 1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		



ICS USED ON THIS PAGE:

U100	U115
U101	U117
U102	U118
U103	U120
U110	U123
U111	U130
U112	U170
U113	
U114	



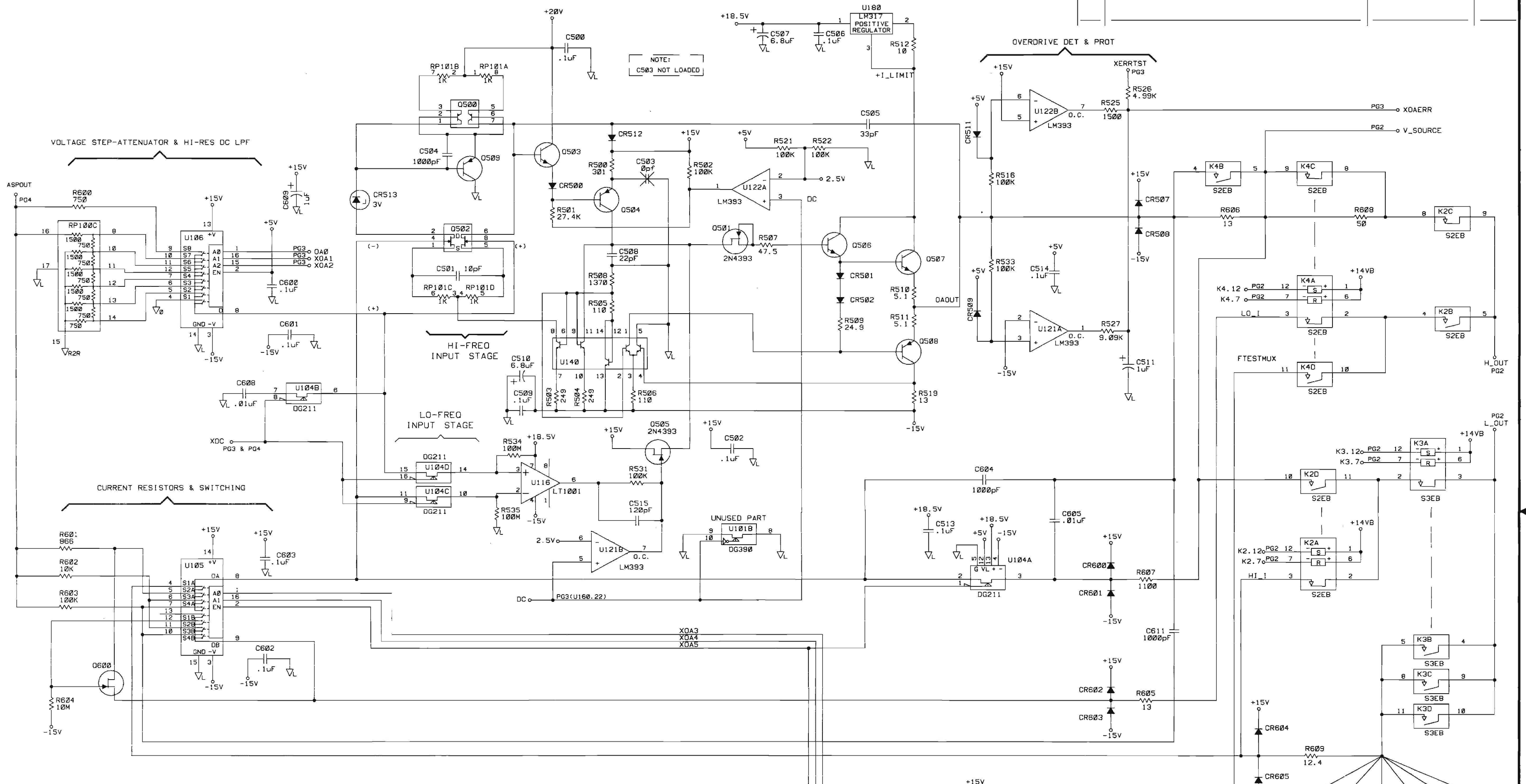
ITEM	QTY	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
		BT4511*4			
RIC BACON		30-OCT-90			
DRAWN BY		DATE			
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					
		AC/DC-SOURCE-DIGITAL			
		HSDAC, REFAMP			
		SMOOTHING FILTER			
		+ & - REFERENCE			
		LOW PASS FILTERS			
		TITLE			
		SCALE	SHEET 4 OF 5	C - 03245 - 66511 - 1	
				PART NUMBER 03245-66511	
				HEWLETT PACKARD	

OUTPUT AMP

ENGINEERING RESPONSIBILITY SEP1A

C - 03245 - 66511 - 1

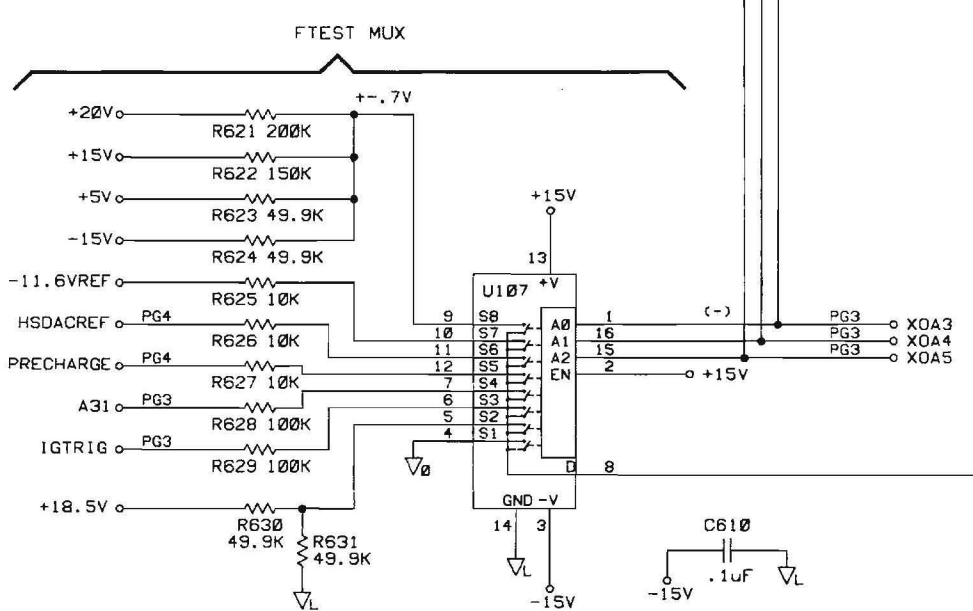
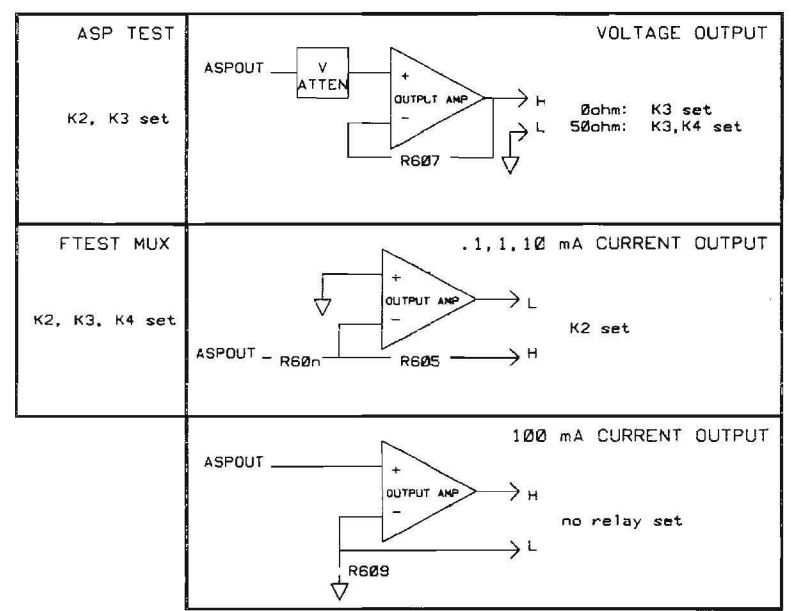
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		



ICs USED ON THIS PAGE:

U101	K2
U104	K3
U105	K4
U106	
U107	
U115	
U121	
U122	
U140	
U180	

FG	DC
--	--
0	0 SO
1	1 DC
0	0 FG
1	1 ERR1ST



ITEM	QTY	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
BT4511*5					
RIC BACON		30-OCT-90	AC/DC-SOURCE-DIGITAL OVERDRIVE DET ATTENUATOR OUTPUT AMP FTEST MUX		
DRAWN BY		DATE			
ENGINEER/CHECKER			TITLE		
RELEASE TO PROD.					
SUPERSEDES DWG.			PART NUMBER 34521-66501		
SCALE		SHEET 5 OF 5	C - 03245 - 66511 - 1		



HEWLETT PACKARD

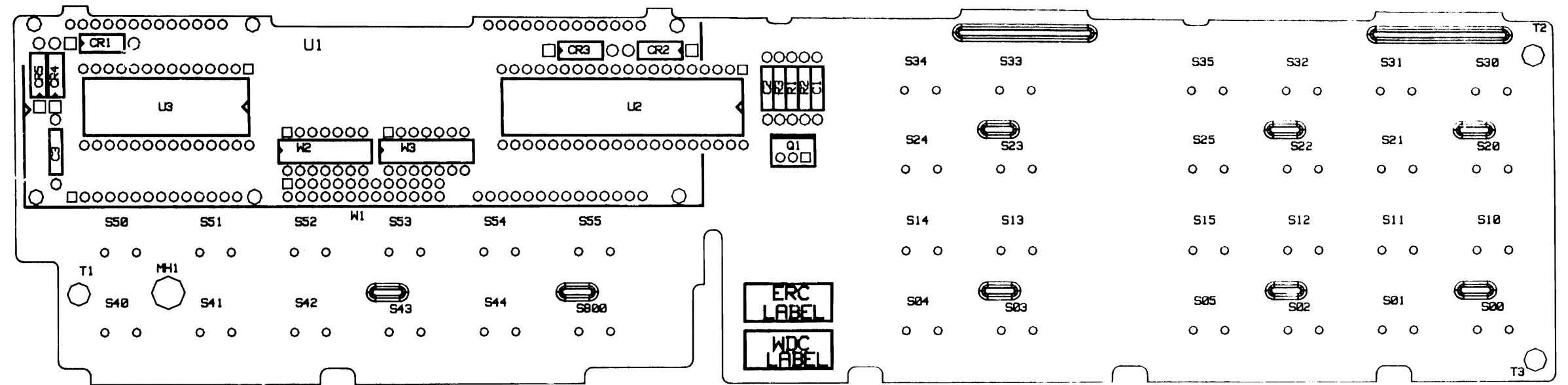
03458-66507 REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
A7	03458-66507	1	DISPLAY LOGIC BOARD	28480	03458-66507
A7C1-C3	0160-4832	3	CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
A7CR1-CR5	1902-0657	5	DIODE-ZENER 43.2V 5% PD=1W TC=+.08% IR=100	28480	1902-0657
A7LBL1	7121-7148	1	LABEL-INFORMATION .25-IN-WD .9-IN-LG	28480	7121-7148
A7LBL2	9320-5333	1	LBL-LNE-PTR; .625-IN-WD X .25-IN-LG	28480	9320-5333
A7PCB7	03458-26507	1	PRINTED CIRCUIT BOARD - BLANK	28480	03458-26507
A7Q1	1853-0510	1	TRANSISTOR PD=625MW	28480	1853-0510
A7R1	0757-0273	1	RESISTOR 3.01K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3011-F
A7R2	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
A7R3	0757-0458	1	RESISTOR 51.1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-5112-F
A7SHD1-SHD2	03458-00604	2	SHIELD-ESD	28480	03458-00604
A7U1	2090-0217	1	DISPLAY-VFD MONITOR	28480	2090-0217
A7U2	1820-5287	1	IC-INTERFACE DRIVER CMOS DISPLAY	27014	MM58248N
A7U3	1820-5286	1	IC-INTERFACE DRIVER CMOS DISPLAY	27014	MM58242N
A7W1	03458-61606	1	CABLE ASSEMBLY 26P	28480	03458-61606

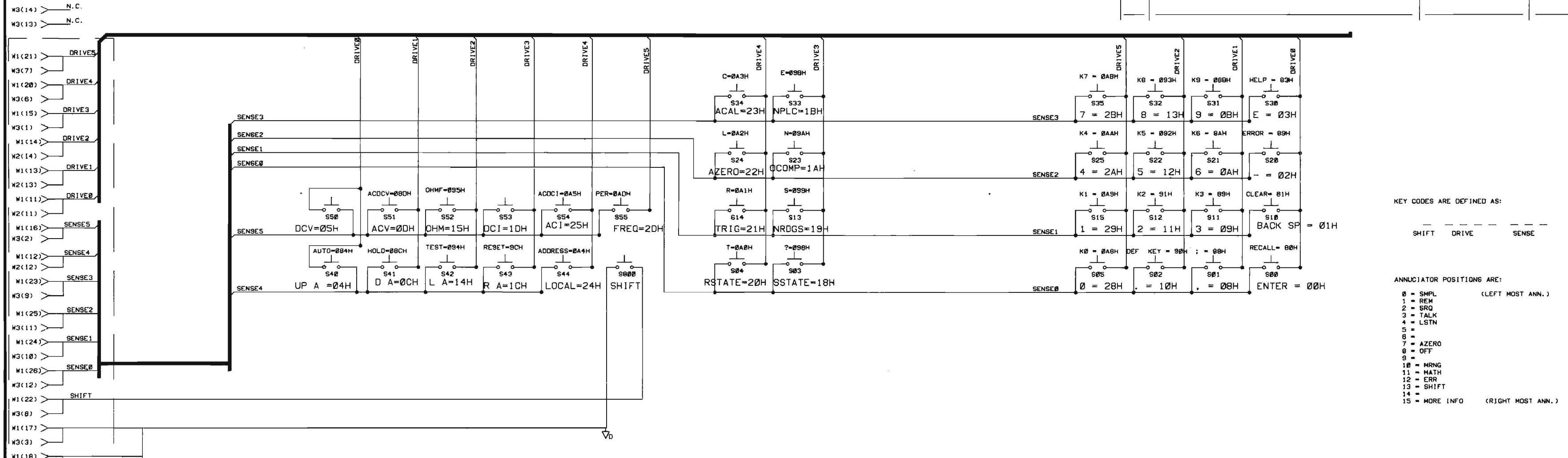
Code List of Manufacturers - 03458-66507

Mfr. Code	Manufacturer's Name	Manufacturer's Address	Zip Code
04222	AVX CORP	GREAT NECK NY US	11021
24546	CORNING GLASS WORKS	CORNING NY US	14830
27014	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA CA US	95052
28480	HEWLETT PACKARD COMPANY - CORPORATE	PALO ALTO CA US	94304

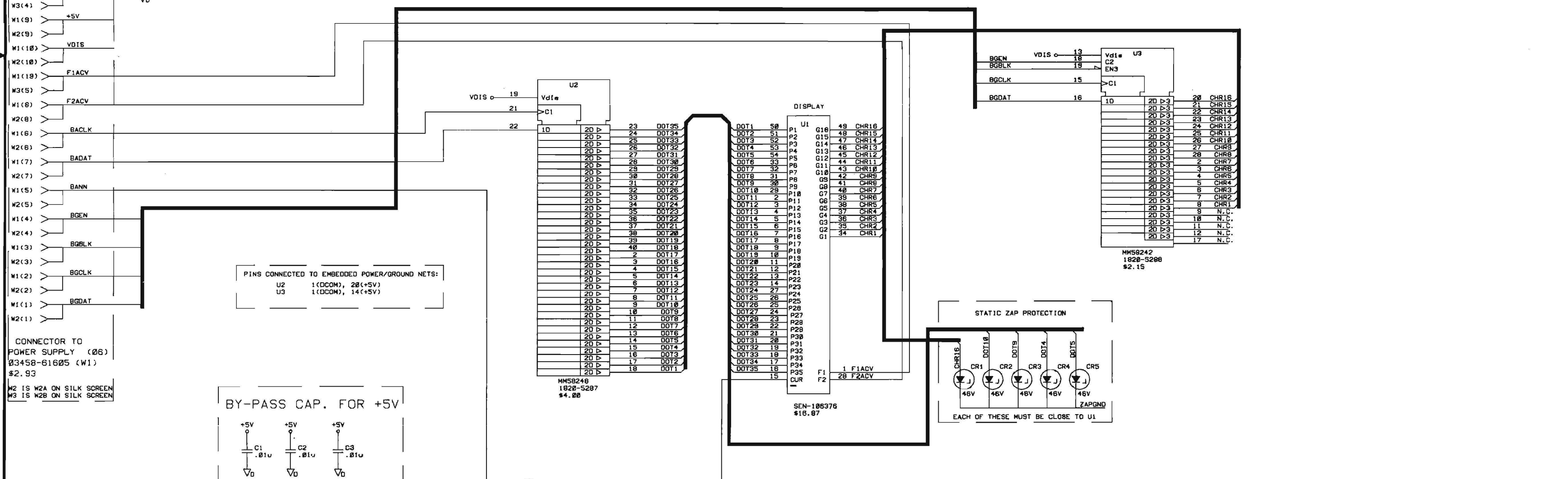
C-03458-66507-2



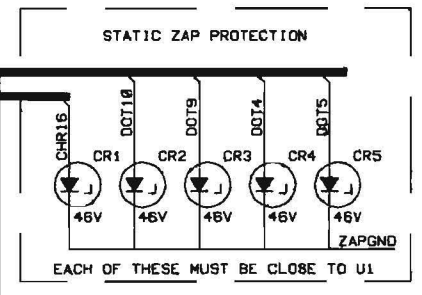
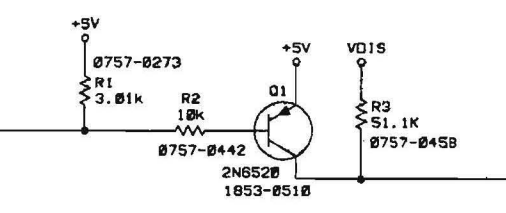
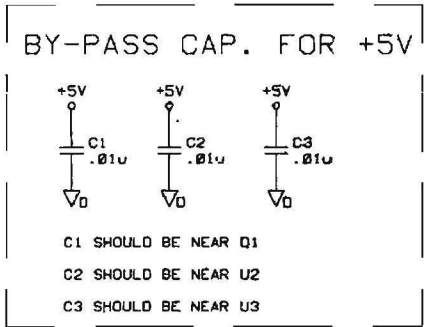
SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		NOV 88



- KEY CODES ARE DEFINED AS:
- SHIFT
 - DRIVE
 - SENSE
- ANNUNCIATOR POSITIONS ARE:
- 0 = SMPLE (LEFT MOST ANN.)
 - 1 = REM
 - 2 = SRQ
 - 3 = TALK
 - 4 = LSTN
 - 5 =
 - 6 =
 - 7 = AZERO
 - 8 = OFF
 - 9 =
 - 10 = MRNG
 - 11 = MATH
 - 12 = ERR
 - 13 = SHIFT
 - 14 =
 - 15 = MORE INFO (RIGHT MOST ANN.)



PINS CONNECTED TO EMBEDDED POWER/GROUND NETS:
 U2 1(DCON), 20(+5V)
 U3 1(DCON), 14(+5V)



ITEM	QTY	PART/MATERIAL-DESCRIPTION	MAT'L-PART NO.	MAT'L-DWG. NO.	MAT'L-SPEC.
DRAWN BY		DATE		20-JAN-88	
ENGINEER/CHECKER		TITLE		FRONT PANEL	
RELEASE TO PROD.		SCALE		SHEET 1 of 1	
SUPERSEDES DWG.		PART NUMBER		03458-66507	
		SCALE		C - 03458 - 66507-1	



HP 3245A OPTION 002 - HIGH VOLTAGE AMP REPLACEMENT PARTS

Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
	03245-80002	1	HIGH VOLTAGE KIT	28480	03245-80002
	03245-60202	1	FRONT PANEL	28480	03245-60202
PNL1	03245-40202	1	PANEL F/W LABEL OPT2	28480	03245-40202
MP1	03245-81901	1	SW-PADS,RUBBER	28480	03245-81901
MP2	03245-69301	1	WINDOW-DISPLAY SS	28480	03245-69301
* A7	03458-86507	1	DISPLAY LOGIC PRINTED CIRCUIT BOARD	28480	03458-86507
SCW1	0624-0681	1	SCREW-TPG 4-20 .25-IN-LG PAN-HD-TORX	28480	0624-0681
	03245-84304	1	LABEL-RR PANEL, OPT2	28480	03245-84304
	0515-0372	5	SCREW-MACH ASSEMBLY M3 X 0.5 8MM-LG PAN-HD	28480	0515-0372
	2190-0099	1	WASHER-LK 7/16 IN .472-IN-ID .607-IN-OD	54294	16-886
	2950-0035	1	NUT-HEX-DBL-CHAM 15/32-32-THD	28480	2950-0035
	03245-66503	1	PRINTED CIRCUIT ASSY HIGH VOLTAGE AMP	28480	03245-66503
	0361-0321	2	RIVET-SEMITUB OVH .123DIA .469LG	42838	TC1-15-ST
	0361-1294	2	RIVET-SEMITUB OVH .099DIA .328LG	28480	0361-1294
	1400-0249	1	CABLE TIE .062-.625-DIA .091-WD NYLON	59730	TY-23M-8
C101-C102	0180-3810	4	CAPACITOR-FXD 68uF +-20% 50 V AL-ELCTLT	28480	0180-3810
C103	0160-4832	1	CAPACITOR-FXD 0.01uF +-10% 100 V CER X7R	04222	SA101C103KAAH
C104	0160-4822	1	CAPACITOR-FXD 1000pF +-5% 100 V CER COG	04222	SA201A102JAAH
C105-C106	0180-3810	1	CAPACITOR-FXD 68uF +-20% 50 V AL-ELCTLT	28480	0180-3810
C107	0180-4130	4	CAPACITOR-FXD 2.2uF +-10% 20 V TA	56289	173D225X9020V
C108	0180-4007	2	CAPACITOR-FXD 4.7uF +-20% 200 V AL-ELCTLT	28480	0180-4007
C110	0160-0168	2	CAPACITOR-FXD 0.1uF +-10% 200 V POLYE-FL	28480	0160-0168
C111	0180-4007	1	CAPACITOR-FXD 4.7uF +-20% 200 V AL-ELCTLT	28480	0180-4007
C113	0160-0168	1	CAPACITOR-FXD 0.1uF +-10% 200 V POLYE-FL	28480	0160-0168
C201	0160-4791	1	CAPACITOR-FXD 10pF +-5% 100 V CER COG	04222	SA102A100JAAH
C202	0160-4805	1	CAPACITOR-FXD 47pF +-5% 100 V CER COG	04222	SA102A470JAAH
C203	0160-4786	1	CAPACITOR-FXD 27pF +-5% 100 V CER COG	04222	SA102A270JAAH
C204	0180-3552	1	CAPACITOR-FXD 4.7uF +-10% 20 V TA	56289	173D475X9020V1
C205-C207	0180-4130	1	CAPACITOR-FXD 2.2uF +-10% 20 V TA	56289	173D225X9020V
C212	0160-4793	1	CAPACITOR-FXD 6.8pF +-7.35% 100 V CER COG	04222	SA102A6R8DAAH
C213-C214	0160-4801	2	CAPACITOR-FXD 100pF +-5% 100 V CER COG	04222	SA102A101JAAH
CR101-CR108	1901-1065	10	DIODE-POWER RECTIFIER 1N4936 400V 1A 200NS	30043	1N4936
CR109-CR110	1901-1307	2	DIODE VOLTAGE SUPPRESSOR (AXIAL PLASTIC)	04713	1.5KE160A
CR111	1990-1022	1	LED-LAMP LUM-INT=4MCD 25MA-MAX BVR=5V RED LENS	28480	HLMP-5030
CR201	1902-0556	2	DIODE-ZENER 20V 5% PD=1W IR=5UA	28480	1902-0556
CR202-CR203	1901-0050	6	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR204	1902-0556	1	DIODE-ZENER 20V 5% PD=1W IR=5UA	28480	1902-0556
CR205-CR206	1901-1065	1	DIODE-POWER RECTIFIER 1N4936 400V 1A 200NS	30043	1N4936
CR207-CR210	0837-0196	4	VOLTAGE SUPPRESSOR VNOM=430V, 10A PEAK	34371	V430MT3A
CR211-CR213	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
CR214	1902-0959	2	DIODE-ZENER 11V 5% PD=.4W TC=+.076% IR=5UA	28480	1902-0959
CR215	1901-0047	1	DIODE-SWITCHING 20V 75MA 10NS DO-35	28480	1901-0047
CR216	1902-0959	1	DIODE-ZENER 11V 5% PD=.4W TC=+.076% IR=5UA	28480	1902-0959
CR217	1901-0050	1	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
F101	2110-0698	1	FUSE-SUBMINIATURE 2.5A 125V NTD AX	75915	R25102.5T1
F201	2110-0757	1	FUSE-SUBMINIATURE .063A 125V AX UL CSA	75915	251.062
F202-F204	2110-0679	3	FUSE-SUBMINIATURE 1.5A 125V NTD AX UL	75915	R25101.5T1
HDW101-HDW101A	0515-0458	4	SCREW-MACH ASSEMBLY M3.5 X 0.6 8MM-LG PAN-HD	28480	0515-0458
HS101	1205-0799	1	HEAT SINK SGL TO-220-CS	30161	552022B
HS202	1205-0798	1	HEAT SINK SGL TO-3-CS	30161	506115B00700
HWD1-HWD2	0590-1237	2	THREADED INSERT-NUT M3.5 X 0.6 1.5-MM-LG	46384	KF2-M3.5
HWD202-HWD202A	0515-0458	1	SCREW-MACH ASSEMBLY M3.5 X 0.6 8MM-LG PAN-HD	28480	0515-0458
J201	1251-4682	1	CONNECTOR-POST TYPE .100-PIN-SPCG 3-CONTACT	26742	1102-1-103-02
JM201-JM204	8159-0005	4	RESISTOR 0 MFS	55210	L-2007-1

* IN-DEPTH COMPONENT LOCATOR IN SECTION UNDER INDIVIDUAL HP PART NUMBER.

HP 3245A OPTION 002 - HIGH VOLTAGE AMP REPLACEMENT PARTS

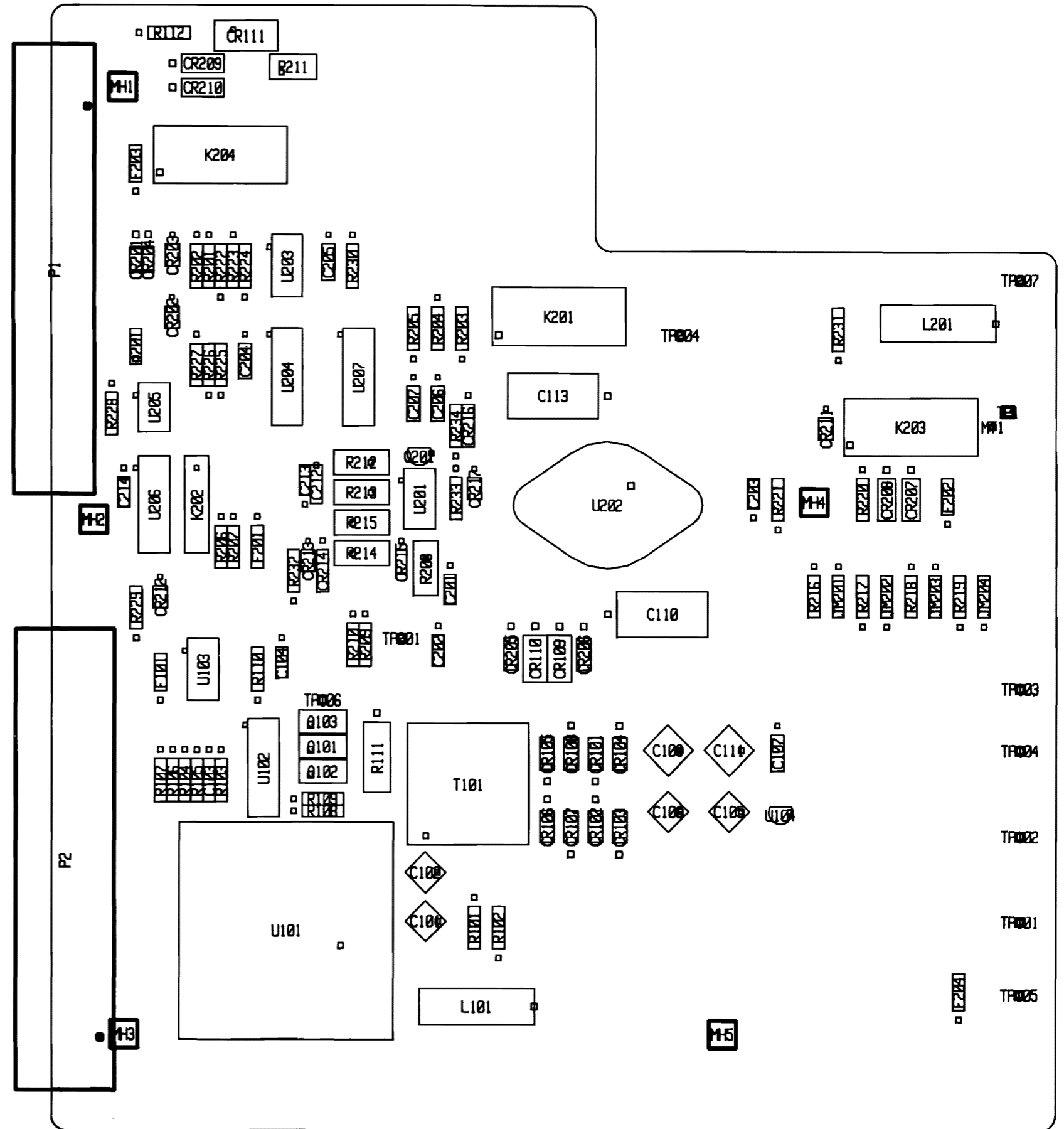
Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
K201	0490-1566	1	RELAY 4A 12VDC-COIL 4A 250VAC	28480	0490-1566
K202	0490-1526	1	RELAY-REED	28480	0490-1526
K203-K204	0490-1649	2	RELAY 2B 12VDC-COIL 3A 250VDC	28480	0490-1649
L101	9100-3334	2	INDUCTOR 25UH +-10% .3D-INX.505LG-IN	99848	ES-2638
L201	9100-3334		INDUCTOR 25UH +-10% .3D-INX.505LG-IN	99848	ES-2638
MT1	03245-61601	1	CABLE-FEM BNC TO PC BOARD 260MM LONG	28480	03245-61601
	1250-0050	1	NUT-RF CONNECTOR BNC SERIES; CLAMP NUT	24931	NS101-2
	1250-0051	1	CONTACT-RF CONNECTOR SER BNC; FEMALE	24931	C182-1
	1250-0052	1	BODY-RF CONNECTOR BNC SERIES; FOR MALE	24931	28P117-1
	1250-0960	1	SLEEVE-RF CONNECTOR SERIES BNC/TNC	24931	T101-13
	8120-1280	1	CABLE-COAX 50-OHM 1.2KV 29PF/FT MAX	72983	421-077
P1	5180-6699	1	CONNECTOR-2X9M> NOKEY	28480	5180-6699
P2	1252-1591	1	CONNECTOR-POST TYPE 5.08-PIN-SPCG 48-CONTACT	00779	534893-5
P201	1258-0141	1	JUMPER-REMOVABLE FOR .025 IN SQ PINS	18873	65474-004
PCB1	03245-26503	1	PRINTED CIRCUIT BOARD - BLANK	28480	03245-26503
Q101-Q103	1855-0548	3	TRANSISTOR MOSFET N-CHAN E-MODE TO-220	04713	BUZ71A
Q201	1853-0700	1	TRANSISTOR PNP SI TO-92 PD=625MW	27014	6292/T62547A
R101	0757-0406	1	RESISTOR 182 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-182R-F
R102	0757-0283	3	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
R103	0757-0277	1	RESISTOR 49.9 +-1% .125W TF TC=0+-100	28480	0757-0277
R104	0757-0280	3	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
R105	0757-0273	2	RESISTOR 3.01K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3011-F
R106	0757-0438	3	RESISTOR 5.11K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-5111-F
R107	0698-4446	1	RESISTOR 267 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-267R-F
R108-R109	0757-0400	3	RESISTOR 90.9 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-90R9-F
R110	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
R111	0699-1075	1	RESISTOR .1 +-3% 3W MFS TC=0+-70	01686	LO-3-0.1-3-RP
R112	0757-0433	3	RESISTOR 3.32K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3321-F
R201-R202	0757-0442	4	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
R203-R204	0698-3457	4	RESISTOR 316K +-1% .125W TF TC=0+-100	28480	0698-3457
R205	0757-0290	2	RESISTOR 6.19K +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-6191-F
R206	0757-0280	1	RESISTOR 1K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1001-F
R207	0757-0284	1	RESISTOR 150 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-151-F
R208	0699-3208	1	RESISTOR 4.443K +-0.1% .3W MF TC=0+-2.5	28480	0699-3208
R209	0698-4351	1	RESISTOR 10.5 +-1% .125W TF TC=0+-100	28480	0698-4351
R210	0698-4486	1	RESISTOR 24.9K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2492-F
R211	2100-3274	1	RESISTOR-TRIMMER 10K 10% TFK SIDE-ADJ 1-TRN	32997	3386X-Y46-103
R212-R215	0699-1125	4	RESISTOR 40K +-1% .6W TC=0+-1.3	28480	0699-1125
R216	0698-4355	1	RESISTOR 12.4 +-1% .125W TF TC=0+-100	28480	0698-4355
R217	0698-3431	1	RESISTOR 23.7 +-1% .125W TF TC=0+-100	28480	0698-3431
R218	0757-0393	1	RESISTOR 47.5 +-1% .125W TF TC=0+-100	28480	0757-0393
R219	0757-0400	1	RESISTOR 90.9 +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-90R9-F
R220	0757-0346	1	RESISTOR 10 +-1% .125W TF TC=0+-100	28480	0757-0346
R221	0757-0123	1	RESISTOR 34.8K +-1% .125W TF TC=0+-100	28480	0757-0123
R222	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
R223-R224	0757-0433	1	RESISTOR 3.32K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3321-F
R225-R226	0698-3457	1	RESISTOR 316K +-1% .125W TF TC=0+-100	28480	0698-3457
R227	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-5111-F
R228	0757-0283	1	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
R229	0757-0442	1	RESISTOR 10K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-1002-F
R230	0757-0290	1	RESISTOR 6.19K +-1% .125W TF TC=0+-100	19701	5033R-1/8-T0-6191-F
R231	0757-0389	1	RESISTOR 33.2 +-1% .125W TF TC=0+-100	28480	0757-0389
R232	0757-0273	1	RESISTOR 3.01K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-3011-F
R233	0757-0438	1	RESISTOR 5.11K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-5111-F
R234	0757-0283	1	RESISTOR 2K +-1% .125W TF TC=0+-100	24546	CT4-1/8-T0-2001-F
T101	9100-4929	1	TRANSFORMER-ISOLATION INPUT V	28480	9100-4929

HP 3245A OPTION 002 - HIGH VOLTAGE AMP REPLACEMENT PARTS

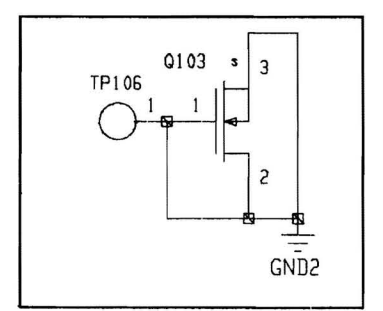
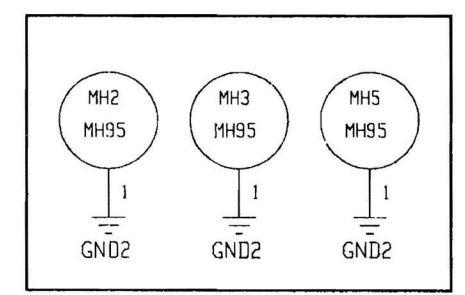
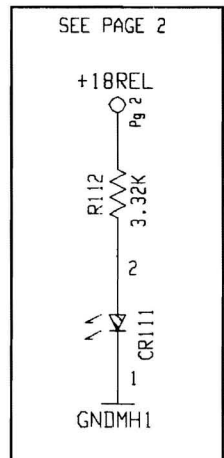
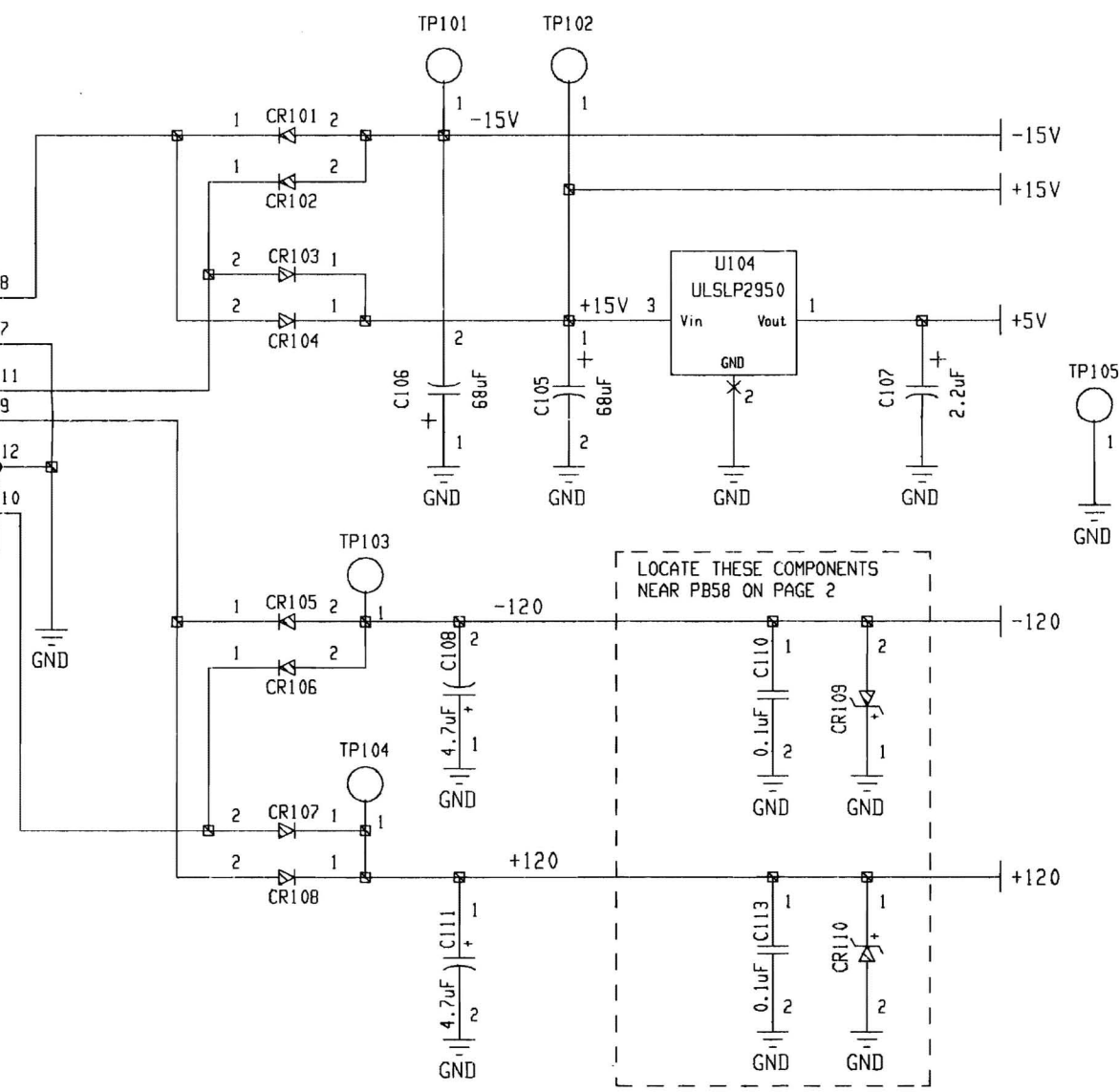
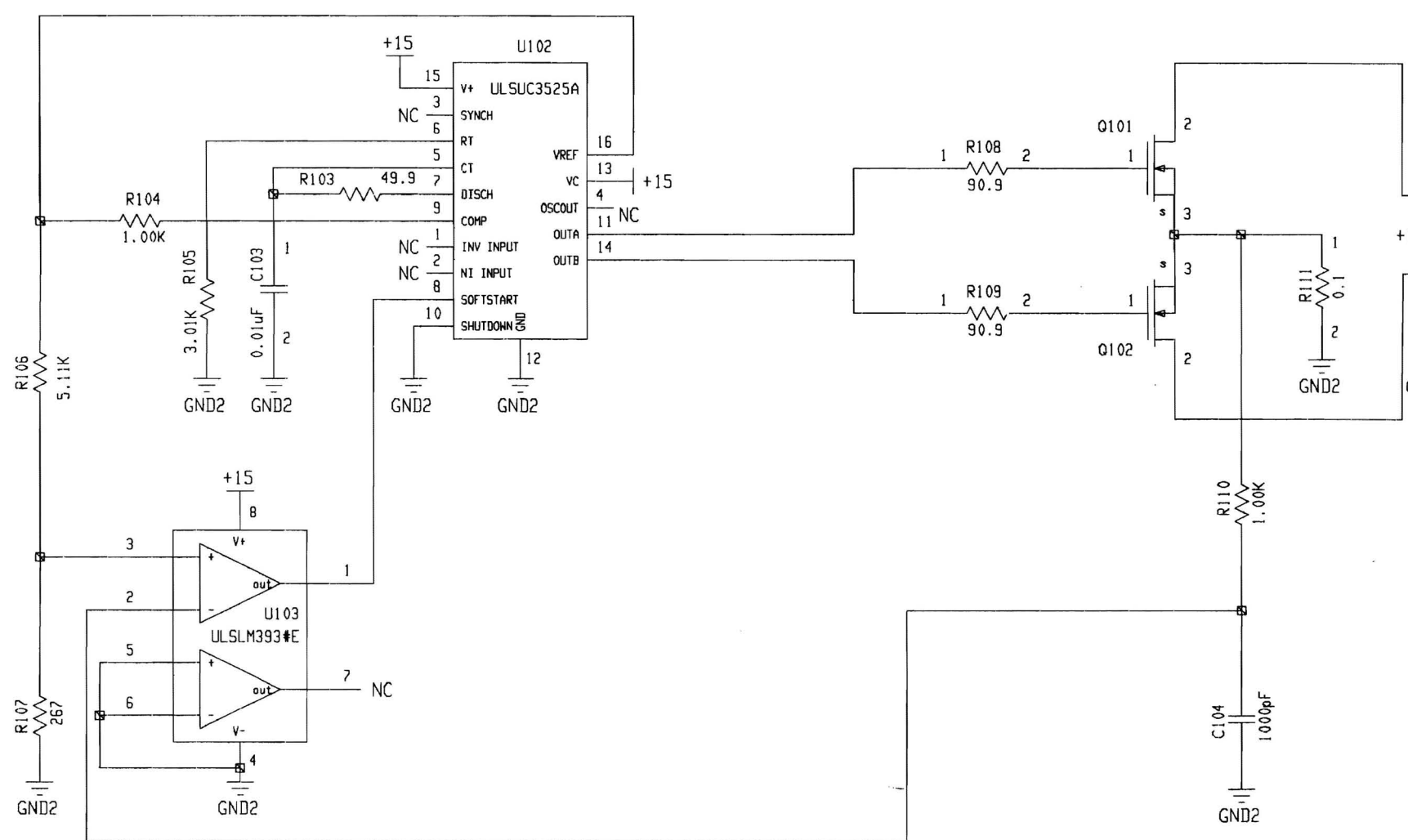
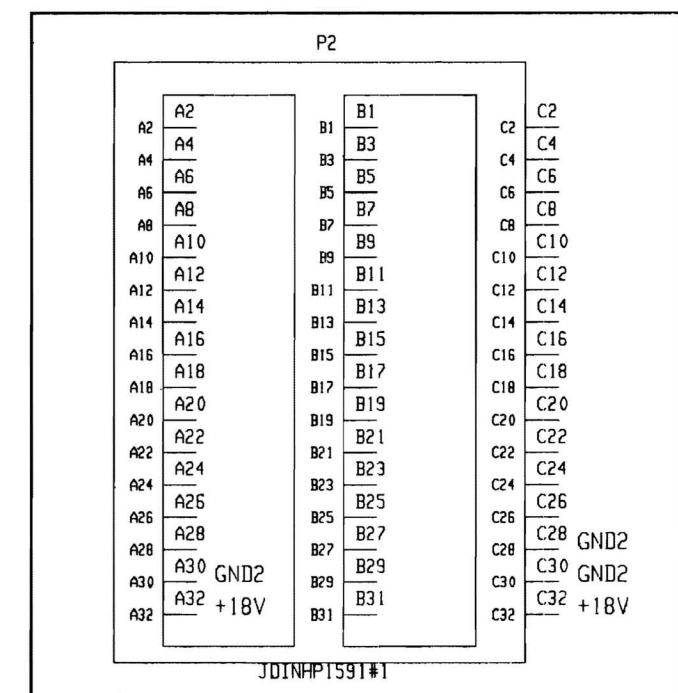
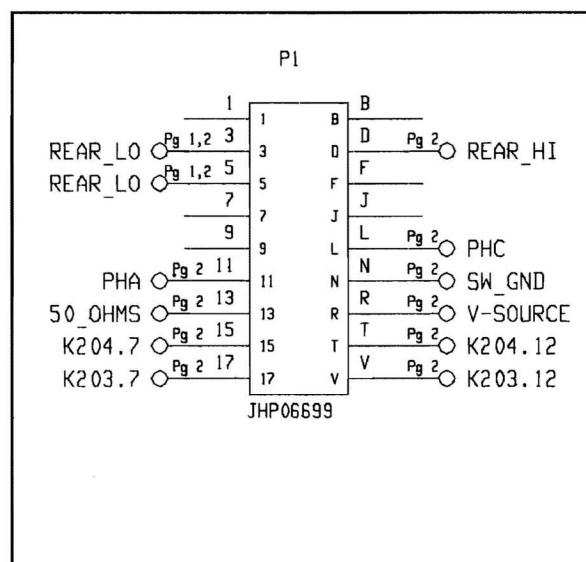
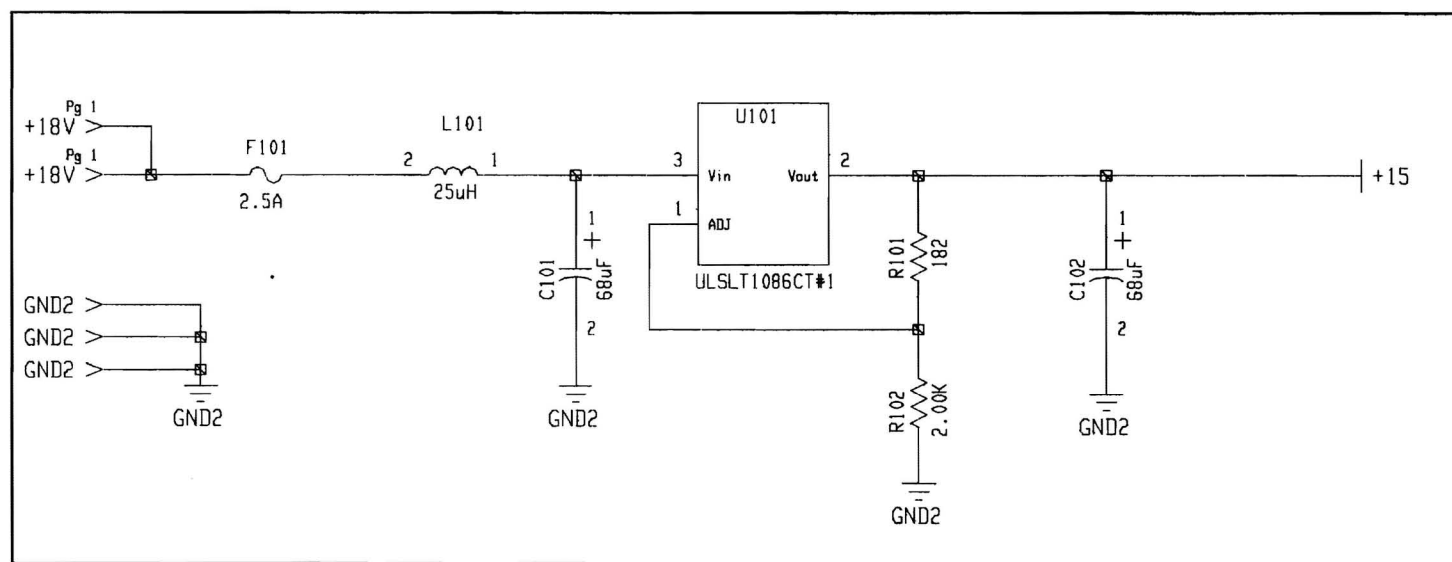
Reference Designation	HP Part Number	Qty	Part Description	Mfr. Code	Mfr. Part Number
TP101-TP106	1251-0600	9	CONNECTOR-SGL CONTACT PIN 1.14-MM-BSC-SZ SQ	27264	16-06-0034
TP201	1251-0600		CONNECTOR-SGL CONTACT PIN 1.14-MM-BSC-SZ SQ	27264	16-06-0034
TP204	1251-0600		CONNECTOR-SGL CONTACT PIN 1.14-MM-BSC-SZ SQ	27264	16-06-0034
TP207	1251-0600		CONNECTOR-SGL CONTACT PIN 1.14-MM-BSC-SZ SQ	27264	16-06-0034
U101	1826-2134	1	IC VOLTAGE RGLTR-ADJ-POS 15/30V 3-TO-220 PKG	28480	1826-2134
U102	1826-0905	1	IC VOLTAGE RGLTR-SWG 5/5.2V 16-DIP-P PKG	34333	SG3525AJ
U103	1826-0412	1	IC COMPARATOR PRECISION DUAL 8-DIP-P PKG	27014	LM393N
U104	1826-1646	1	IC VOLTAGE RGLTR-FXD-POS 4.975/5.025V TO-92	27014	LP2950ACZ
U201	1826-2378	1	IC OP AMP HIGH SPEED SINGLE 8 PIN TO-99	28480	1826-2378
U202	1826-2377	1	IC INSTRMNTN AMPLIFIER PWR SINGLE 8 PIN TO-3	28480	1826-2377
U203	1826-1533	1	IC OP AMP HIGH-SLEW-RATE DUAL 8 PIN DIP-PKG	04713	MC34072P
U204	1826-1370	1	IC COMPARATOR QUAD 16-DIP-P PKG	27014	LP365N
U205	1990-1074	1	OPTO-ISOLATOR LED-PXSTR IF=60MA-MAX	04713	4N35
U206A	1820-2922	1	IC GATE CMOS/74HC NAND QUAD 2-INP	04713	MC74HC00N
U207A	1858-0047	1	TRANSISTOR ARRAY 16-PIN PLASTIC DIP	28480	1858-0047

Code List of Manufacturers - HP 3245A OPTION 002

Mfr. Code	Manufacturer's Name	Manufacturer's Address			Zip Code
00779	AMP INC	HARRISBURG	PA	US	17111
01686	RCL ELECTRONICS INC	NORTHBROOK	IL	US	60062
04222	AVX CORP	GREAT NECK	NY	US	11021
04713	MOTOROLA INC	ROSELLE	IL	US	60195
18873	DUPONT E I DE NEMOURS & CO	WILMINGTON	DE	US	19801
19701	NORTH AMERICAN PHILIPS CORP	NEW YORK	NY	US	10017
24546	CORNING GLASS WORKS	CORNING	NY	US	14830
24931	SPECIALTY CONNECTOR CO	FRANKLIN	IN	US	46131
26742	METHODE ELECTRONICS INC	CHICAGO	IL	US	60656
27014	NATIONAL SEMICONDUCTOR CORP	SANTA CLARA	CA	US	95052
27264	MOLEX INC	LISLE	IL	US	60532
28480	HEWLETT-PACKARD COMPANY - CORPORATE	PALO ALTO	CA	US	94304
30043	SOLID STATE DEVICES INC	LA MIRADA	CA	US	90638
30161	AAVID ENGINEERING INC	LACONIA	NH	US	03247
32997	BOURNS NETWORKS INC	RIVERSIDE	CA	US	92507
34333	SILICON GENERAL INC	SAN JOSE	CA	US	95134
34371	HARRIS CORP	MELBOURNE	FL	US	32901
42838	NATIONAL RIVET & MFG CO	WAUPUN	WI	US	53963
46384	PENN ENGINEERING & MFG CORP	DOYLESTOWN	PA	US	18901
54294	SHALLCROSS INC	NORTHBROOK	IL	US	60062
55210	GETTIG ENGINEERING & MFG CO INC	SPRING MILLS	PA	US	16875
56289	SPRAGUE ELECTRIC CO	LEXINGTON	MA	US	02173
59730	THOMAS & BETTS CORP	RARITAN	NJ	US	08869
72983	ESSEX INTERNATIONAL INC	FORT WAYNE	IN	US	46804
75915	LITTELFUSE INC	DES PLAINES	IL	US	60016
99848	WILCO CORP	INDIANAPOLIS	IN	US	46222



9	SYM	REVISIONS	APPROVED	DATE
	A	AS ISSUED		



ITEM	QTY	PART/MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
DRAWN BY		DATE	13-MAR-91		
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					
		HI VOLTAGE AMP POWER SUPPLIES AND BYPASS CAPS			
		TITLE			
		SCALE	SHEET 1 OF 2	C - 03245 - 66503 - 1	

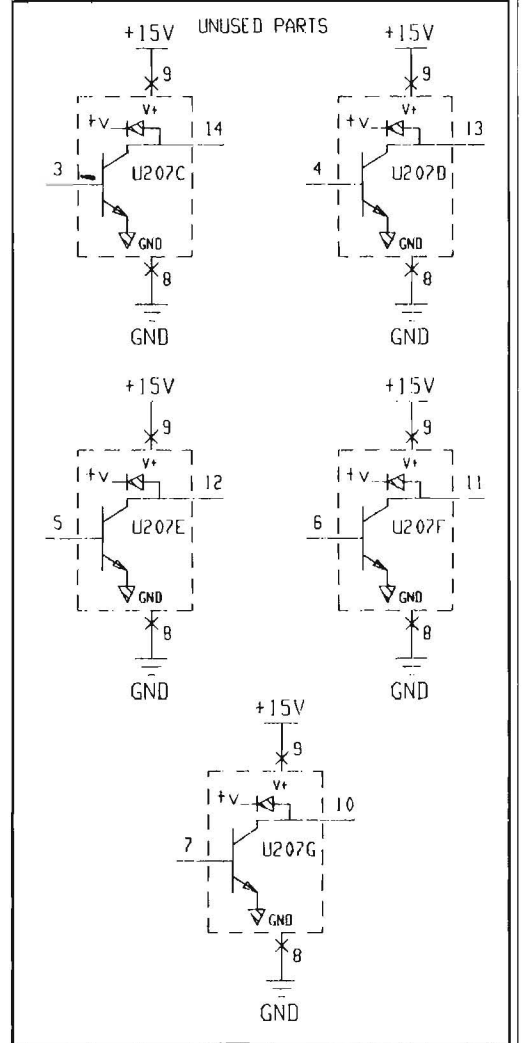
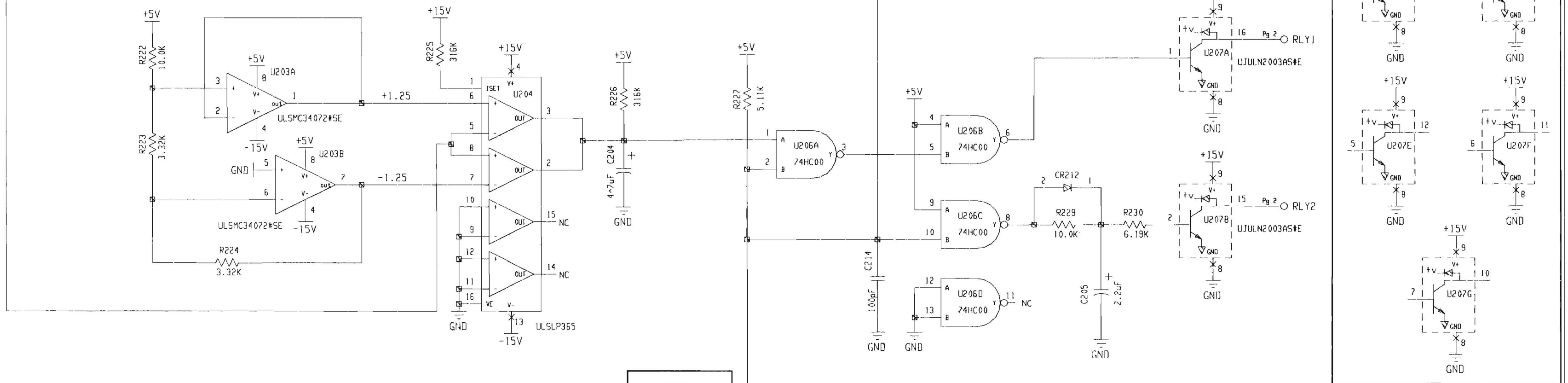
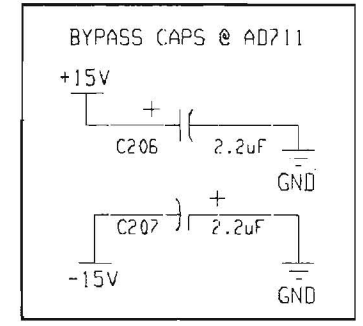
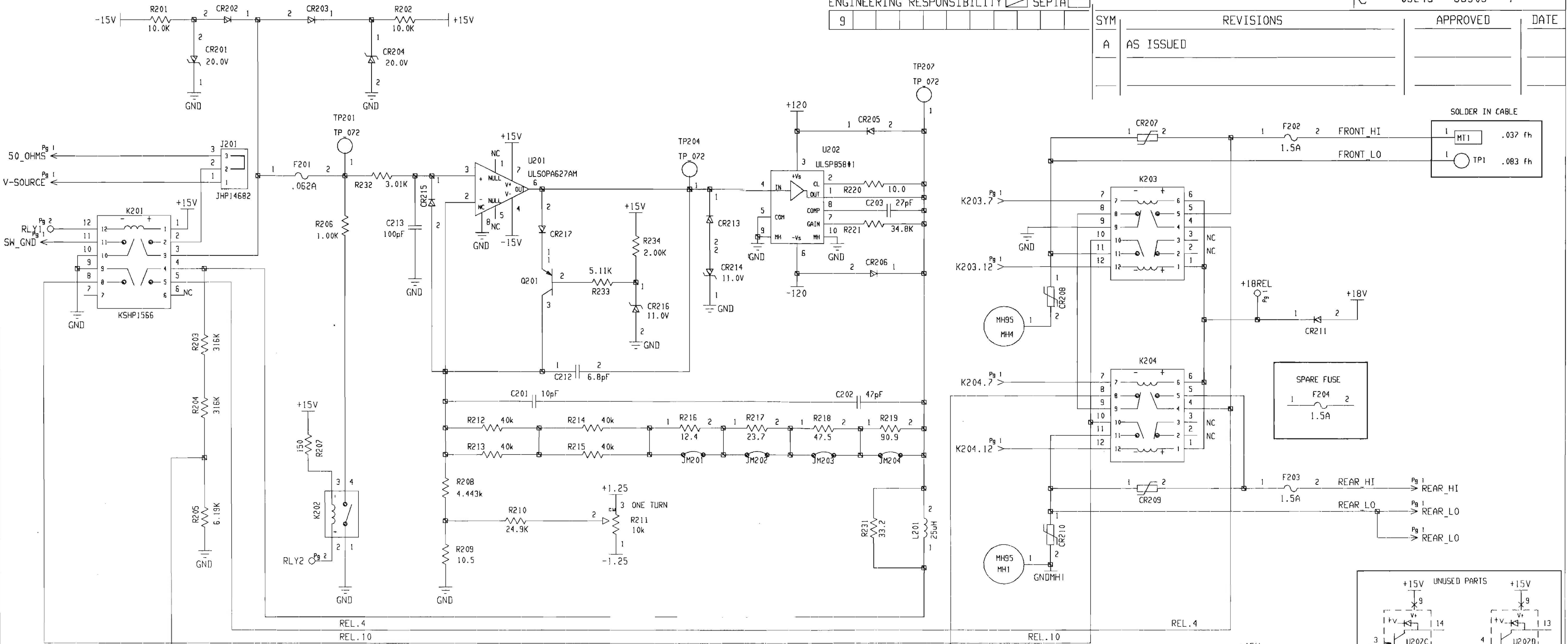


PART NUMBER 03245-66503

ENGINEERING RESPONSIBILITY SEPIA

C - 03245 - 66503 - 1

SYM	REVISIONS	APPROVED	DATE
A	AS ISSUED		



ITEM	QTY	PART/MATERIAL DESCRIPTION	MAT'L PART NO.	MAT'L DWG NO.	MAT'L SPEC.
		Hi Vamp			
DRAWN BY		DATE	13-MAR-91		
ENGINEER/CHECKER					
RELEASE TO PROD.					
SUPERSEDES DWG.					
TITLE			HI VOLTAGE AMP		
			RELAYS, PROTECTION AND AMPLIFIERS		
			PART NUMBER 03245-66503		
			SCALE SHEET 2 OF 2		

C - 03245 - 66503 - 1