

Section 5

List of Replaceable Parts

TABLE OF CONTENTS

ASSEMBLY NAME	DRAWING NO.	TABLE		FIGURE	
		NO.	PAGE	NO.	PAGE
Final Assembly	8050A-0&3	5-1	5-3	5-1	5-4
AI Main PCB Assembly		5-2	5-5	5-2	5-9
100V	8050A-4021	-	-	-	-
120V	8050A-4001	-	-	-	-
240V	8050A-4031	-	-	-	-
Federal Supply Codes for Manufacturers		5-3	5-12	-	-
Hilke Technical Service Centers, U.S. and Canada		5-4	5-12	-	-
Sales and Service Locations, International		5-5	5-12	-	-

5-1. INTRODUCTION

5-2. This section contains an illustrated parts breakdown of the instrument. A similar parts listing for the -01 Option will be found in Section 6. Components are listed alphanumerically by assembly. Both electrical and mechanical components are listed by reference designation. Each listed part is shown in an accompanying illustration.

5-3. Parts lists include the following information:

1. Reference Designation.
2. Description of each part.
3. FLUKE Stock Number.
4. Federal Supply Code for Manufacturers. (See Section 7 for Code-to-Name list.)
5. Manufacturer's Part Number.
6. Total Quantity of components per assembly.
7. Recommended Quantity: This entry indicates the recommended number of spare parts necessary to support one to five instruments for a period of 2 years. This list presumes an availability of common electronic parts at the maintenance site. For maintenance for 1 year or more at an isolated site, it is recommended that at least one of each assembly in the instrument be stocked (see paragraph 5-7).

5-4. HOW TO OBTAIN PARTS

5-5. Components may be ordered directly from the manufacturer by using the manufacturer's part number,

or from the John Fluke Mfg. Co., Inc. or its authorized representatives by using the FLUKE STOCK NUMBER. In the event that the part you order has been replaced by a new or improved part, the replacement will be accompanied by an explanatory note and installation instructions, if necessary.

5-6. To ensure prompt and efficient handling of your order, include the following information:

1. Quantity.
2. FLUKE Stock Number.
3. Description.
4. Reference Designation.
5. Printed Circuit Board Part Number and Revision Letter.
6. Instrument Model and Serial Number.

5-7. A Recommended Spare Parts Kit for your basic instrument is available from the factory. This kit contains those items listed in the REQTY column of the parts list in the quantities recommended.

5-8. Parts price information is available from the John Fluke Mfg. Co., Inc. or its representatives. Prices are also available in a Fluke Replacement Parts Catalog, which is available on request.

CAUTION



Indicated devices are subject to damage by static discharge.

Table 5-1. Final Assembly 8050A

REF DES	DESCRIPTION	FLUKE STOCK NO.	MFG SPLY CODE	MFG PART NO. OR TYPE	TOT QTY	REC QTY	NOTE
FINAL ASSEMBLY 8050A							
FIGURE 5-1 (8050A-1A)							
A1	MAIN PCB ASSEMBLY	ORDER	ONLY	REPLACEABLE PARTS			
H1	SCREW, PHP, 6-32 X 1/2, SS	256156	89536	256156	1		
H2	SCREW, PHP, 6-20 X 3/8 THD/FORM	288266	89536	288266	2		
H3	WASHER, FLAT, #6	340505	89536	340505	2		
MP1	CASE, MOLDED	478008	89536	478008	1		
MP2	DECAL, HANDLE DISC	478248	89536	478248	2		
MP3	DECAL, SPEC	507665	89536	507665	1		
MP4	HANDLE, MOLDED	530092	89536	530092	1		
MP5	PAD, FOOT	538632	89536	538632	2		
MP6	TEST LEADS (NOT SHOWN)	516666	89536	516666	1		
W1	LINE CORD (NOT SHOWN)	343723	89536	343723	1		
XKIT	RECOMMENDED SPARE PARTS KIT (8050A)	533919	89536	533919		AR	
XIM1	INSTRUCTION MANUAL (8050A)	530907	89536	530907	1		

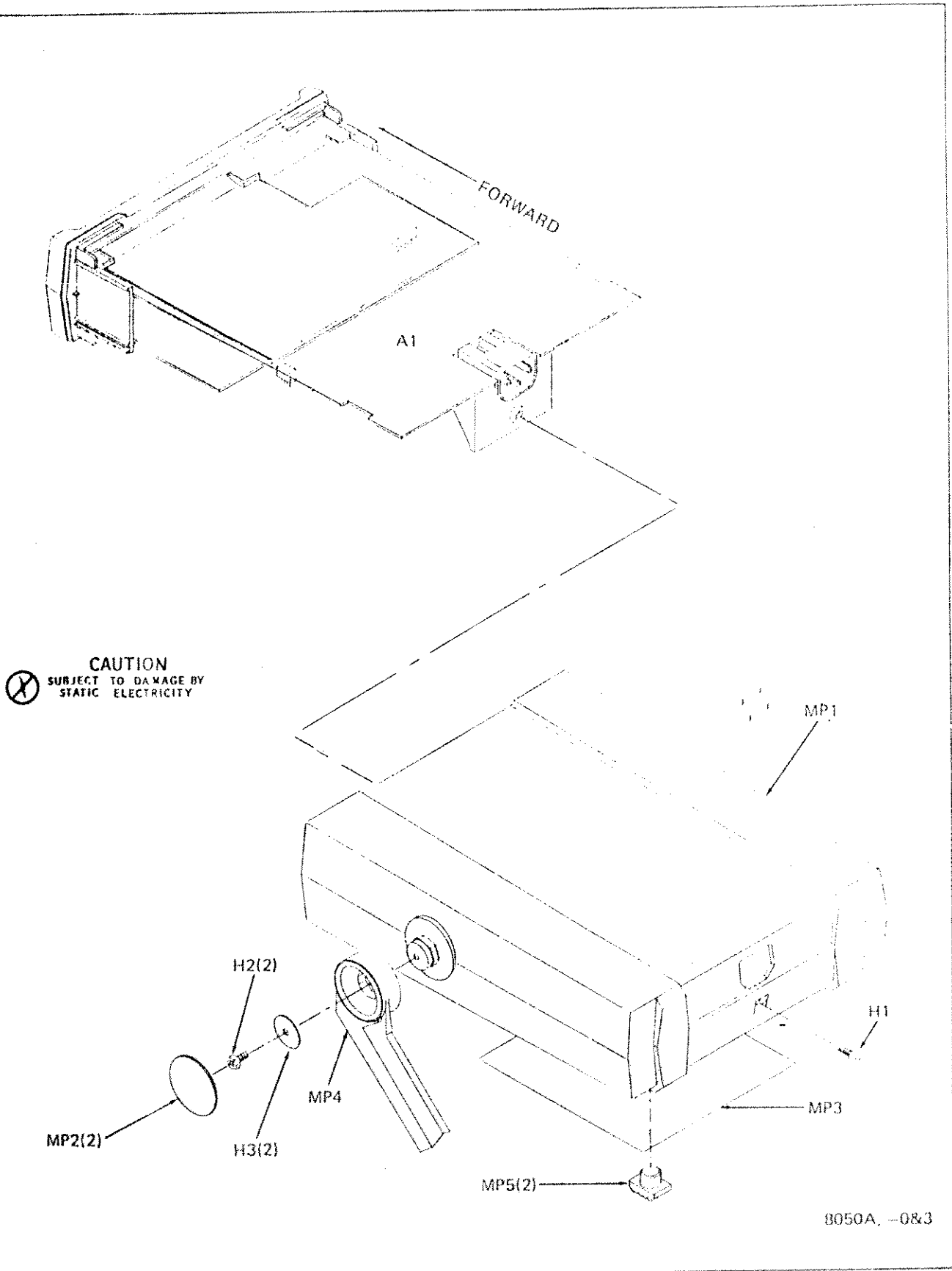


Figure 5-1. Final Assembly 8050A

Table 5-2. A1 Main PCB Assembly

REF DES	DESCRIPTION	FLUKE STOCK NO.	MFG SPLY CODE	MFG PART NO. OR TYPE	TOT QTY	REC QTY	NOTE
A1	MAIN PCB ASSEMBLY FIGURE 5-2	ORDER	ONLY	REPLACEABLE PARTS			
C1	CAP, VAR, 1-5-0.25 PF, 2000V	218206	72982	530-000	2		
C2	CAP, VAR, 1-5-0.25 PF, 2000V	218206	72982	530-000		REF	
C3	CAP, MICA, 120 PF +/-5%, 500V	148486	7213	DM15F 121J	2		
C4	CAP, MICA, 120 PF +/-5%, 500V	148486	72136	DM15F 121J		REF	
C5	CAP, MICA, 1800 PF +/-5%, 500V	148353	89536	148353	1		
C6	CAP, POLYPROP, 0.1 UF +/-10%, 100V	446781	89536	446781	1		
C7	CAP, FILM, 1.0 UF +/-10%, 100V	447847	73445	0280MAH/AM1	1		
C8	CAP, TA, 10 UF +/-20%, 15V	193623	5628	196D106X0015A1	5		
C9	CAP, POLYPROP, .22 UF +/-10%, 100V	446799	89536	446799	1		
C10	CAP, POLYESTER, .022 UF +/-10%, 1000V	448183	52763	MKT.1822 322/10	1		
C11	CAP, NYLAR, .047 UF +/-10%, 250V	162008	73445	C280MAE/A47K	2		
C12	CAP, ELECT, 470 UF -10/+75%, 16V	501510	89536	501510	2		
C13	CAP, ELECT, 470 UF -10/+75%, 16V	501510	8953	501510		REF	
C14	CAP, TA, 10 UF +/-20%, 15V	193623	56289	196D106X0015A1		REF	
C15	CAP, TA, 22 UF +/-20%, 15V	423012	56289	196D106X0015A1	1		
C16	CAP, ELECT, 220 UF -10/+75%, 25V	484071	89536	484071	2		
C17	CAP, ELECT, 220 UF -10/+75%, 25V	484071	89536	484071		REF	
C18	CAP, ELECT, 22 UF -10/+75%, 16V	436840	8953	436840	2		
C19	CAP, ELECT, 22 UF -10/+75%, 16V	436840	89536	436840		REF	
C25	CAP, CER, .01 UF +/-20%, 100V	149153	56289	C023B101F 103M	3		
C26	CAP, CER, .01 UF +/-20%, 100V	149153	56289	C023B101F 103M		REF	
C27	CAP, TA, 2.2 UF +/-20%, 20V	161927	56289	196D226X0020HA1	1		
C28	CAP, POLYPROP, .047 UF +/-10%, 100V	446773	8953	446773	1		
C29	CAP, MICA, 180 PF +/-5%, 500V	148460	72136	DM15F 181J	1		
C30	CAP, MICA, 60 PF +/-5%, 500V	148510	72136	DM15F 168J	1		
C31	CAP, NYLAR, .047 UF +/-10%, 250V	162008	73445	C280MAE/A47K		REF	
C32	CAP, CERAMIC, 1000 PF +/-10%, 500V	357806	56289	C016B102G-102K	3		
C33	CAP, TA, 10 UF +/-20%, 15V	193623	5628	196D106X0015A1		REF	
C35	CAP, CERAMIC, 1000 PF +/-10%, 500V	357806	56289	C016B102G-102K		REF	
C36	CAP, CERAMIC, 1000 PF +/-10%, 500V	357806	56289	C016B102G-102K		REF	
C37	CAP, CER, .025 UF +/-20%, 100V	168435	56289	C023B101H253M	1		
C38	CAP, TA, 39 UF +/-20%, 6V	163915	56289	196D346X006KA1	2		
C39	CAP, TA, 39 UF +/-20%, 6V	163915	5628	196D396X0006KA1		REF	
C40	CAP, MICA, 330 PF +/-5%, 500V	148445	72136	DM15F 331J		REF	
C41	CAP, TA, 10 UF +/-20%, 15V	193623	56289	196D106X0015A1		REF	
C42	CAP, TA, 10 UF +/-20%, 15V	193623	56289	196D106X0015A1		REF	
C43	CAP, CER, .01 UF +/-20%, 100V	149153	56289	C023B101F 103M		REF	
CR1	DIODE, ZEN, CURRENT REGULATOR	393454	0791	TCR5290	1	1	
CR1	DIODE, SI, RECTIFIER, 2 AMP, 50 VOLT	347559	14099	1N5400	1	1	
CR2	DIODE, SI, LO-CAP/LO-LEAK	348177	07263	FD7223	3	1	

Table 5-2. A1 Main PCB Assembly (cont)

REF DES	DESCRIPTION	FLUKE STOCK NO.	MFG SPLY CODE	MFG PART NO. OR TYPE	TOT QTY	REC QTY	N O T E
CR3	DIODE, SI, LO-CAP/LO-LEAK	548177	07263	FD7223	10		
CR12	DIODE, SI, LO-CAP/LO-LEAK	548177	07263	FD7223	10		
F1	FUSE, FAST ACTING, 2 AMP	576582	7140	AGX-2	1	5	
F2	FUSE, FAST ACTING, 3 AMP	475004	71400	UBS-3	1	5	
H1	SCREW, PHP, 6-32 X 1/4	585401	89536	585401	4		
H2	SCREW, PHP, 6-32 X 1/2	256156	89536	256156	1		
H3	SCREW, RHP, 4-40 X 1/4	256156	89536	256156	1		
H4	SCREW, THRD FORMING, 5-20 X 5/16	494641	7818	03-050500-01-02500	1		
LCD1	LIQUID CRYSTAL DISPLAY	507673	89536	507673	1	1	
MP1	BEZEL, LCD	479642	89536	479642	1		
MP2	BRACKET, LCD	471730	89536	471730	1		
MP3	BUTTON, FUNCTION SWITCH	425900	89536	425900	4		
MP4	BUTTON, GREEN	510271	8953	510271	1		
MP5	BUTTON, OFFSET	510164	89536	510164	1		
MP6	BUTTON, RANGE SWITCH	426759	89536	426759	6		
MP7	CONNECTOR, ELASTOMERIC	453092	53217	02-60236	1		
MP8	DOCAL, FRONT PANEL	507657	89536	507657	1		
MP9	FUSE HOLDER ASSEMBLY	516039	8953	516039	1		
MP10	INSERT, SILICONE	525139	89536	525139	2		
MP11	INSULATOR	495044	89536	495044	1		
MP12	INSULATOR	525196	89536	525196	1		
MP13	INTERCONNECT	507723	89536	507723	1	2	
MP14	PANEL, FRONT	510156	8953	510156	1		
MP15	RECEPTACLE, AC	471029	89536	471029	1		
MP16	RETAINER, FLEX	510198	89536	510198	2		
MP17	SHIELD INSULATOR	516021	89536	516021	1		
MP18	SHIELD, MAIN	510172	89536	510172	1		
MP19	SHIELD, TOP	510180	8953	510180	1		
MP20	SOCKET, 4-PIN	417311	30035	5S-109-1-04	1		
MP21	SOCKET, 5-PIN	417899	52072	CA-05S-15D	1		
MP22	SPRING, COMPRESSION COIL	422824	83553	C0240-026-0500-S	1		
MP23	SUPPORT, HYBRID (TO U32)	515635	89536	515635	1		
Q1	XSTR, SI, NPN	218396	8953	218396	3	1	
Q2	XSTR, SI, NPN	218396	89536	218396	REF		
Q3	XSTR, SI, NPN	329698	89536	329698	1	1	
Q4	XSTR, SI, PNP	225599	07263	2N4250	2	1	
Q7	XSTR, FET	370072	89536	370072	2	1	
Q8	XSTR, FET	370072	89536	370072	REF		
Q11	XSTR, SI, PNP	195974	04713	2N3906	1	1	
Q12	XSTR, SI, NPN	168716	07263	519254	1	1	
Q14	XSTR, SI, PNP (SELECTED)	380394	89536	380394	3	1	
Q15	XSTR, SI, PNP (SELECTED)	380394	89536	380394	REF		
Q16	XSTR, SI, PNP	225599	07263	2N4250	REF		

Table 5-2. A1 Main PCB Assembly (cont)

REF DES	DESCRIPTION	FLUKE STOCK NO.	MFG SPLY CODE	MFG PART NO. OR TYPE	TOT QTY	REC QTY	NOTE
Q17	NTDR, 11, PNP (SELECTED)	580394	89536	580394		REF	
Q18	NTDR, 11, NPN	218396	89536	218396		REF	
Q19	NTDR, 111, DUAL N-CHANNEL	419283	89536	419283	1	1	
R1	RES, COMP, 100K +/-10%, 1W	109397	01121	GB1041	1		
R2*	RES, WW, 1000 +/-10%, 2W	474080	89536	474080	1	2	
R3	RES, MTL FILM, 1000 +/-5%, 1/10W	514265	89536	514265	1	1	
R5	RES, CER, 100K +/-10%, 1/2W	529099	89536	529099	1		
R6	RES, VAR, 100 +/-10%, 1/2W	529115	89536	529115	1		
R7	RES, VAR, CER, 1K +/-10%, 1/2W	513259	89536	513259	1		
R8	RES, COMP, 220K +/-10%, 2W	110197	01121	HB1011	1		
R11	RES, VAR, CER, 500 +/-10%, 1/2W	447730	89536	447730	1		
R12	RES, VAR, CER, 200 +/-10%, 1/2W	474973	89536	474973	1		
R14	RES, COMP, 4.7M +/-5%, 1/4W	220046	01121	CB4755	3		
R15	RES, DEP. CAR, 20 +/-5%, 1/4W	442202	80031	CR251-4-5P20E	1		
R16	RES, MTL. FILM, 900 +/-0.1%, 1/8W	461908	91637	CMF 55901	1		
R17	RES, MTL. FILM 90 +/-0.1%, 1/8W	461970	9163	CMF 55902	1		
R18	RES, WW, 9 +/-15%, 1W	461962	89536	461962	1	1	
R19	RES, COMP, 100K +/-5%, 2W	285056	89536	285056	1		
R20	RES, COMP, 2.2M +/-10%, 1/2W	108225	89536	285056	1		
R21	RES, COMP, 22M +/-5%, 1/4W	221986	01121	CB2265	1		
R22	RES, DEP. CAR, 100 +/-5%, 1/4W	348771	80031	CR251-4-5P100E	3		
R23	RES, DEP. CAR, 100 +/-5%, 1/4W	348771	80031	CR251-4-5P100E		REF	
R24	RES, COMP, 4.7M +/-5%, 1/4W	220046	01121	CB4755	4		
R29	RES, VAR, 1M +/-10%, 1/2W	485052	89536	485052	1	1	
R30	RES, DEP. CAR, 470K +/-5%, 1/4W	342634	80031	CR251-4-5P470K	1		
R32	RES, DEP. CAR, 1M +/-5%, 1/4W	348987	80031	CR251-4-5P1M	3		
R33	RES, DEP. CAR, 1M +/-5%, 1/4W	348987	80031	CR251-4-5P1M		REF	
R36	RES, DEP. CAR, 15K +/-5%, 1/4W	348854	80031	CR251-4-5P15K	3		
R37	RES, COMP, 4.7M +/-5%, 1/4W	220046	01121	CB3355		REF	
R38	RES, DEP. CAR, 15K +/-5%, 1/4W	348854	80031	CR251-4-5P15K		REF	
R39	RES, MTL. FILM, 232K +/-1%, 1/8W	276618	91637	CMF 552323	1		
R40	RES, DEP. CAR, 680 +/-5%, 1/4W	368779	80031	CR251-4-5P1K	1		
R42	RES, DEP. CAR, 27K +/-5%, 1/4W	441501	80031	CR251-4-5P27K	2		
R43	RESISTOR (SELECTED IN TEST)	442525	89536	442525	1		1
R44	RES, DEP. CAR, 100 +/-5%, 1/4W	348771	80031	CR251-4-5P100E		REF	
R45	RES, COMP, 4.7M 1/4W	220046	01121	CB4755		REF	
R46	RES, FXD, 24K +/-5%,	442384	80031	CR251-4-5P24KT	1		
R48	RES, DEP. CAR, 15K +/-5%, 1/4	348854	80031	CR251-4-5P15K		REF	
R49	RES, DEP. CAR, 27K +/-5%, 1/4	441501	80031	CR251-4-5P27K		REF	
R52	RES, COMP, 47M +/-10%, 1/2W	146415	89536	146415	1		
R53	RES, COMP, 4.7M +/-5%, 1/4W	220046	0112	CB3355		REF	
R54	RES, DEP. CAR, 1M +/-5%, 1/4W	348987	80031	CR251-4-5P1M		REF	
R55	RES, DEP. CAR, (SELECTED IN TEST)				1		1

Table 5-2. A1 Main PCB Assembly (cont)

REF DES	DESCRIPTION	FLUKE STOCK NO.	MFG SPLY CODE	MFG PART NO. OR TYPE	QTY	REC QTY	NOTE
R56	RES, CAR. (EXP, 1 \pm 5%, 1/4W	357665	80031	CR251-4-5011	1		
RT1	THERMISTOR	446849	50157	180Q10200	1	1	
RV1	VARIATOR	447672	09214	V4 50MA7	3	3	
RV2	VARIATOR	447672	09214	V4 50MA7	REF		
RV3	VARIATOR	447672	09214	V4 50MA7	REF		
51-510	SWITCH ASSEMBLY	507707	89536	507707	1		
511	SWITCH	473736	89536	473736	1		
512	SWITCH	473736	89536	473736	REF		
T1	TRANSFORMER, POWER 120V 100V 220/240 STANDARD UNIT	ORDER FOR APPROPRIATE LINE VOLTAGE					
		512959	89536	512959	1		
		513285	89536	513285	1		
		513285	89536	513285	1		
		513285	AS	120V			
U1	RESISTOR NETWORK	501080	89536	501080	1	1	
U2	RESISTOR NETWORK	512905	89536	512905	1	1	
U3	RESISTOR NETWORK	513556	89536	513556	1	1	
U4	RESISTOR NETWORK	513580	89536	513580	1	1	
U5	RESISTOR NETWORK	519736	89536	519736	1	1	
U6	2-RESISTOR SHUNT	461491	89536	461491	1	1	
U7	IC, OP-AMP, DUAL, COMP.	418566	18324	LM358N/CR3999	2	1	
U8	IC, OP-AMP, DUAL, COMP. 8-PIN DIP	418566	18324	LM358N/CR3999	REF		
U9	IC, LOW POWER, DUAL VOLTAGE COMP.	478354	01295	LM393N	2	1	
U10	⊗ IC, C-MOS, LIQUID-CRYSTAL 4-SEGMENT	453225	02735	CD4054BE	5	1	
U11	⊗ IC, C-MOS, LIQUID-CRYSTAL 4-SEGMENT	453225	02735	CD4054BE	REF		
U12	⊗ IC, C-MOS, LIQUID-CRYSTAL DSPLY DRIVERS	507376	02735	CD4056BE	5	1	
U13	⊗ IC, C-MOS, LIQUID-DSPLY DRIVERS	507376	02735	CD4056BE	REF		
U14	⊗ IC, C-MOS, LIQUID-CRYSTAL DSPLY DRIVERS	507376	02735	CD4056BE	REF		
U15	⊗ IC, C-MOS, LIQUID-CRYSTAL DSPLY DRIVERS	507376	02735	CD4056BE	REF		
U16	⊗ IC, C-MOS, LIQUID-CRYSTAL 4-SEGMENT	453225	02735	CD4054BE	REF		
U17	⊗ IC, C-MOS, 51, N-CHANNEL, 40 PIN DIP	524900	89536	524900	1	1	
U18	⊗ IC, SELECTED	515999	89536	515999	1	1	
U19	⊗ IC, SELECTED	516005	89536	516005	2	1	
U20	⊗ IC, SELECTED	516005	89536	516005	REF		
U21	IC, OPERATIONAL AMP, J-FET INPUT	418780	12040	LF351	2	1	
U22	⊗ IC, C-MOS, QUAD BI-SWITCH, 14-PIN	363838	12040	MM5616AN	1	1	
U23	IC, OPERATIONAL AMP, J-FET INPUT	418780	12040	LF351	REF		
U24	IC, LIN, POSITIVE VOLTAGE REGULATOR	507434	12040	LM78L6.0ACZ	1	1	
U25	IC, NEG VOLTAGE REGULATOR	507442	12040	LM3201-5.0	1	1	
U27	RESISTOR NETWORK	513598	89536	513598	1	1	
U28	RECTIFIER BRIDGE	418582	83003	VM08	2	1	
U29	RECTIFIER BRIDGE	418582	83003	VM08	REF		
U31	IC, LOW POWER, DUAL VOLTAGE COMPARATOR	478354	01295	LM393N	REF		
U32	HYBRID RMS TO DC TO DC CONVERTER KIT	537209	89536	537209	1	1	
U33	RESISTOR NETWORK	513564	89536	513564	1	1	

Table 5-2. A1 Main PCB Assembly (cont)

REF DES	DESCRIPTION	FLUKE STOCK NO.	MFG SPLY CODE	MFG PART NO. OR TYPE	TOT QTY	REC QTY	NOTE
U14	REGISTER NETWORK	519728	89536	519728	1	1	
VR1	DIODE, ZENER, K11	537191	89536	537191	1	1	
W1	WIRE ASSEMBLY, RED	537159	89536	537159	1		
W2	WIRE ASSEMBLY, BLK	537167	89536	537167	1		
W3	WIRE ASSEMBLY, WHI	489096	89536	489096	1		
W4	WIRE ASSEMBLY, BLK	489104	89536	489104	1		
W5	WIRE ASSEMBLY, WHI	489120	89536	489120	1		
W6	WIRE ASSEMBLY, GRN/YEL	489112	89536	489112	1		
XU17	SOCKET, IC	429282	09922	DILB40P-108	1		
Y1	CRYSTAL, 4 MHZ	513663	89536	513663	1		

NOTES:

- 1 MAY OR MAY NOT BE INSTALLED
- R2 IS A FUSIBLE RESISTOR. USE EXACT REPLACEMENT TO INSURE SAFETY.

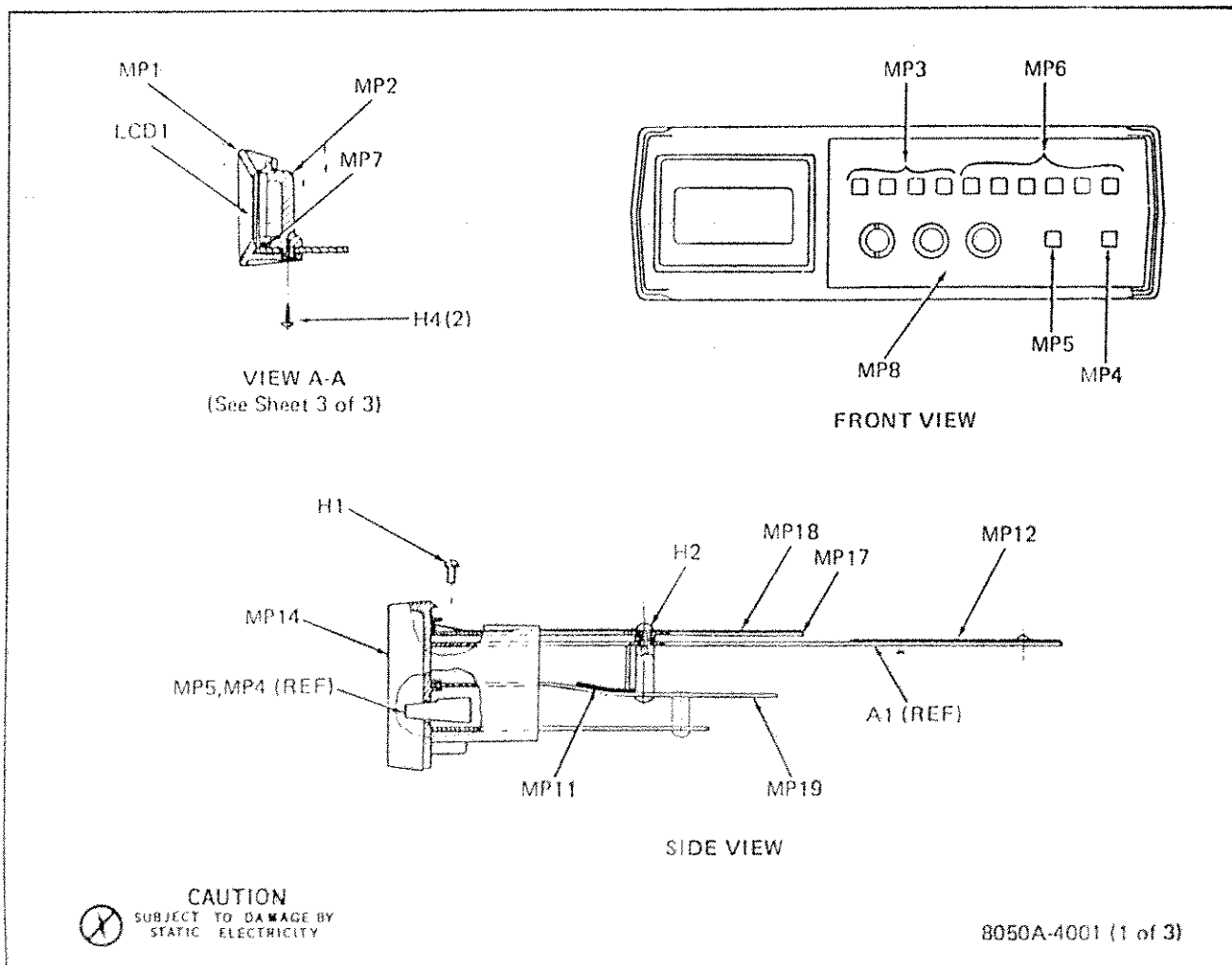
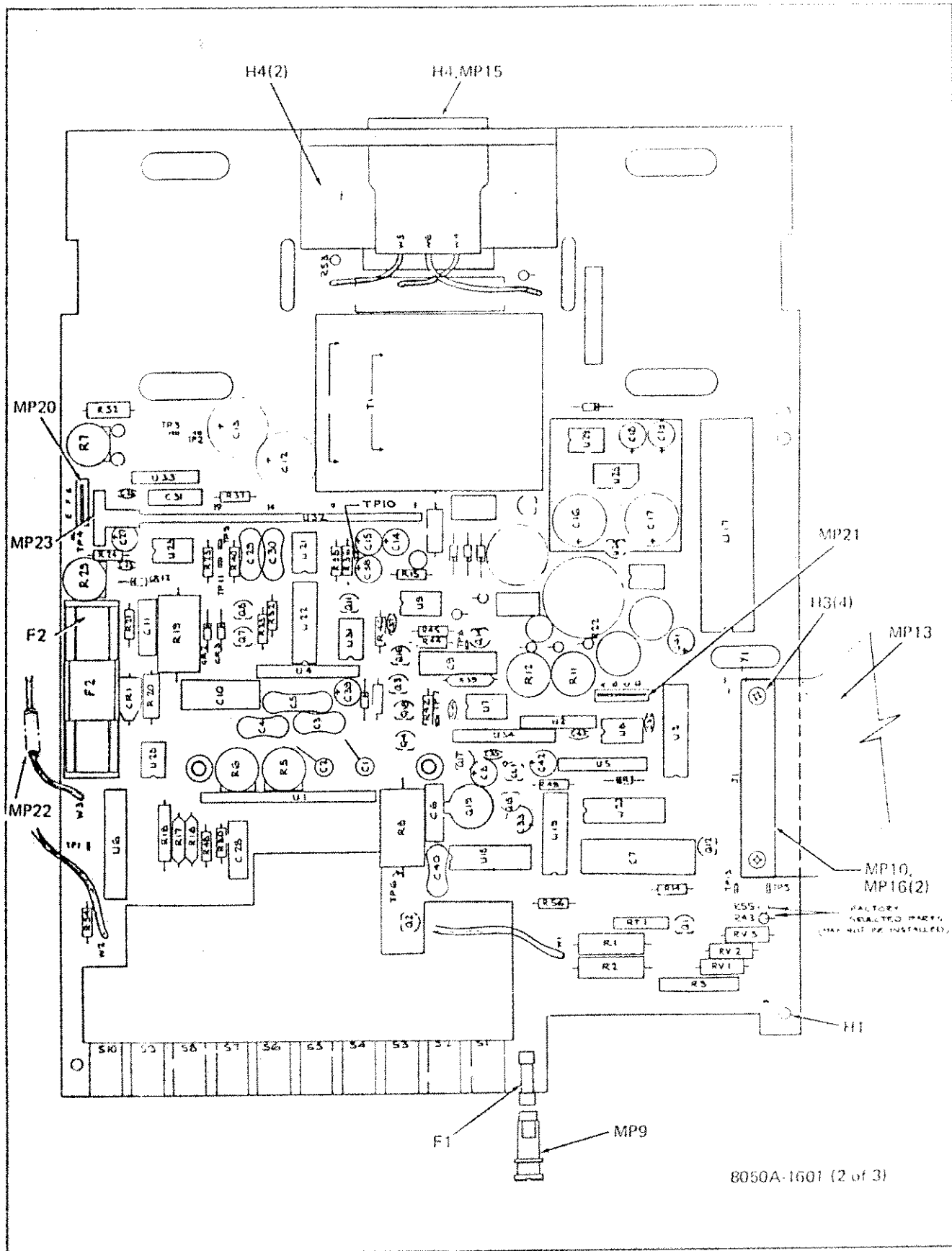
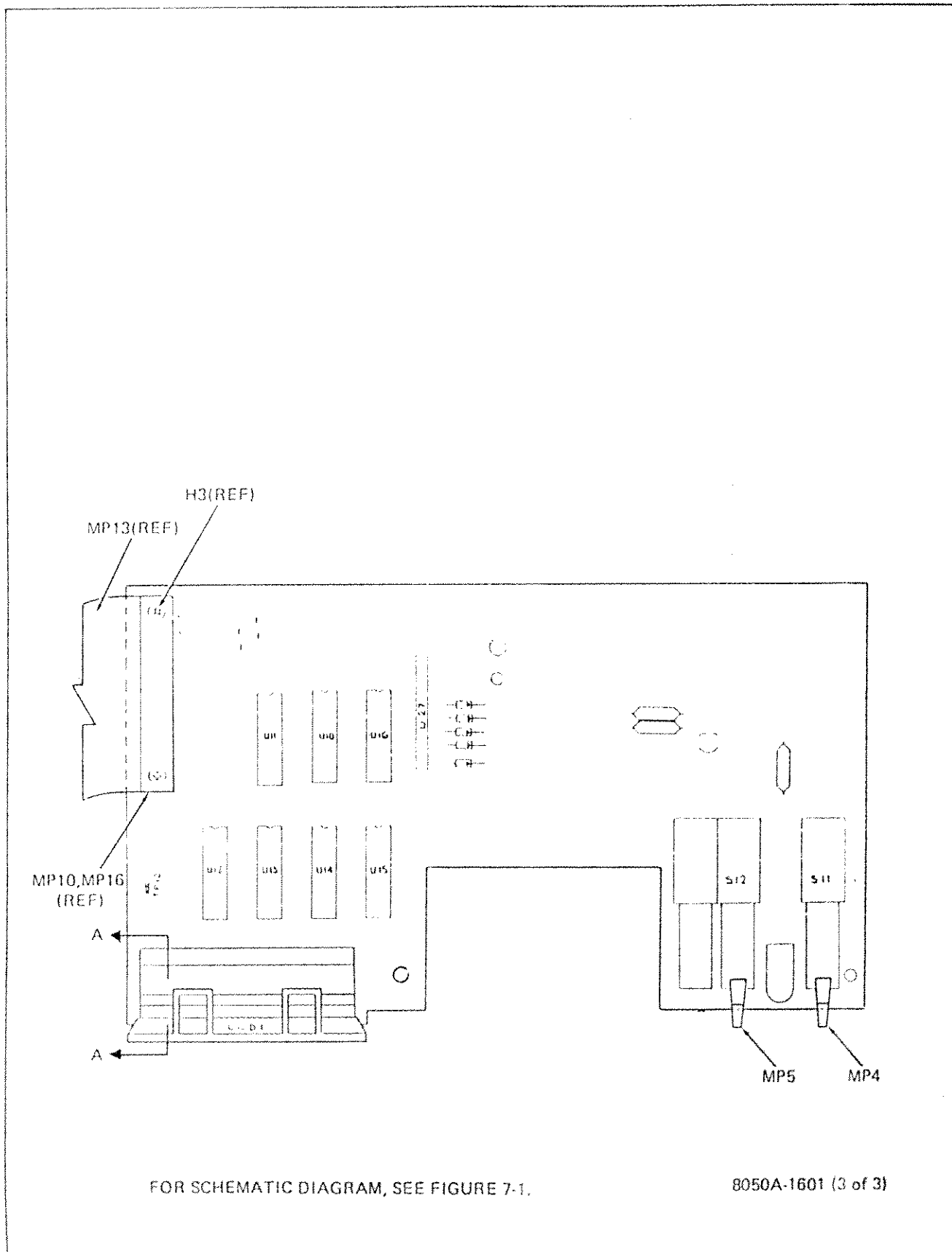


Figure 5-2. A1 Main PCB Assembly



8050A-1601 (2 of 3)

Figure 5-2. A1 Main PCB Assembly (cont)



FOR SCHEMATIC DIAGRAM, SEE FIGURE 7-1.

8050A-1601 (3 of 3)

Figure 5-2. A1 Main PCB Assembly (cont)

Table 5-3. Federal Supply Codes for Manufacturers

01121	Allen-Bradley Co Milwaukee, Wisconsin	12040	National Semiconductor Corp Danbury, Connecticut	72902	Low Tech Products Co Low Point, North Carolina
01295	Texas Instruments Inc Semiconductor Components Div Dallas, Texas	14099	Sentech Corp Newbury Park, California	73445	Amprobe Electronics Corp Rocky Hill, Connecticut
02775	RCA Corp Solid State Div Somerset, New Jersey	18324	Synetics Corp Sanityvale, California	74734	Federal Research Products Chicago, Illinois
04713	Motorola Semiconductor Products, Inc Phoenix, Arizona	30035	Join Industries, Inc Garden Grove, California	80109	Askegard Div. of Biotech Tech Corp Evanston, Illinois
07263	Fairchild Semiconductor Div. of Fairchild Camera & Instrument Corp Mountain View, California	50157	Midwest Components, Inc Muskegon, Michigan	80611	Mepco Div. of Biotech Tech Corp Mount Airy, North Carolina
07910	Teledyne Corp (Continental Division) Hawthorne, California	52703	Stettner-Frost, Inc Cazenovia, New York	80803	Varco Inc Cantonsville, Texas
09214	GE Semiconductor Products Dept Auburn, New York	53217	Technical Wire Products, Inc Santa Barbara, California	81053	Associated Spring Products Co Cortland, New York
09022	Burdick Corp Norwalk, Connecticut	56789	Sprague Electric Co North Adams, Massachusetts	89536	Fluke Corp Mfg. Center Seattle, Washington
11503	Keysone Mfg Div. of Avco Industrial Corp Warren, Michigan	71400	Bussmann Mfg Div. of McGraw-Hill Edison Co Saint Louis, Missouri	91502	Associated Machine Santa Clara, California
		72136	Electro Motive Mfg. Co Williamantic, Connecticut	91637	Dale Electronics, Inc Columbus, Nebraska

Table 5-4. Fluke Technical Service Centers, U.S. and Canada

United States			Canada
CALIFORNIA Burbank Fluke Technical Center 2020 N. Lincoln St. Zip: 91504 Tel. (213) 849-4641	ILLINOIS Rolling Meadows Fluke Technical Center 1400 Hicks Road Zip: 60008 Tel. (312) 398-5800	NEW JERSEY Clifton Fluke Technical Center 460 Colfax Ave. Zip: 07013 Tel. (201) 778-1339	ONTARIO Mississauga Allan Crawford Assoc. Ltd. Fluke Technical Center 6503 Northham Drive Zip: L4V 1J5 Tel. (416) 678-1500

Table 5-5. Sales and Service Locations, International

Supplied and supported by Fluke (Nederland) B.V., P.O. Box 5053, Zevenheuvelenweg 53, Tilburg, Netherlands.			
EUROPE	FINLAND	GREECE	NORWAY
AUSTRIA *Walter Rakusch Elektronische Geräte GmbH & Co. Vertrieb KG Luchtensteinstrasse 97/6 A-1090 Vienna, Austria Tel. (222) 347646-0	*Oy Finchip AB Teollisuusie 7 02700 Kaunainen Helsinki, Finland Tel. 10801 502255	*Hellenic Scientific Representations Ltd 11 Vrassida Street Athens 612, Greece Tel. (0211) 7792320	*Monsieurstrøme & Co. A/S Kongsholmen 3 P.O. Box 6688 Rindøsskua Oslo 5, Norway Tel. (02) 356110
BELGIUM *C. N. Rood S/A 37 Place de Jambonne de Meux B-1040 Brussels, Belgium Tel. (02) 27352135	FRANCE *M. B. Electronique S.A. Rue Fournay ZAC de BUC B. P. No. 31 78530 BUC, France Tel. (01) 9563130	ITALY *Sistrel S.p.A. Via Giuseppe Armetini No. 39 00143 Rome, Italy Tel. (06) 2315551	PORTUGAL *Equipamentos De Laboratório Ltda P.O. Box 1100 Lisbon 1, Portugal Tel. (019) 976551
CYPRUS Chris Radovision Ltd. P.O. Box 1989 Nicosia, Cyprus Tel. 66171	GERMAN FEDERAL REPUBLIC *Fluke (Deutschland) GmbH 4-Dusseldorf Meinckestrasse 53 West Germany Tel. 211-450831	*Sistrel S.p.A. Via Timavo 66 20099 Sesto S. Giovanni (Milano) Italy Tel. (02) 2476893	SPAIN *Hispano Electronica S.A. Poligono Industrial Urbana Apartado de Correos 48 Alcorcon (Madrid), Spain Tel. (09) 341 6194108
DENMARK *Tage Olsen A/S Ballerup Byvej 222 DK-2750 Ballerup Tel. (01) 2 65 81 11	*Fluke (Deutschland) GmbH 8000 Munich 80 Vertreibsbüro Bayern Rosenheimer Strasse 139 West Germany Tel. 089-404061	NETHERLANDS *C.N. Rood, B.V. Cort van der Lindenstraat 11-13 Rijswijk ZH2280AA Netherlands Tel. (070) 996360	SWEDEN *Teleinstrument AB P.O. Box 450 S-162 Vårdebys 4 Sweden Tel. (08) 180170
*Technical Service Available			

Table 5-5. Sales and Service Locations, International (cont)

Supplied and supported by Fluke (Nederland) B.V., P.O. Box 5053, Zevenheuvelenweg 53, Tilburg, Netherlands.

SWITZERLAND *Eckman Electronic AG Sensschstr. 10a 1 8090 Zurich, Switzerland Tel. (01) 2010711	ARGENTINA *Coasin S.A. Virrey del Pino 4071 Buenos Aires, Argentina Tel. 523185	ICELAND Kristjan O. Skagfjord Ltd. P.O. Box 906 Reykjavik, Iceland Tel. 24120	MEXICO *C.J. Christensen S.A. de C.V. Instrumentos Electronicos de Mexico Melchor Ocampo 150-8 Mexico 4, D.F., Mexico Tel. (905) 535-2258
TURKEY *Eckman Electronic's Ateler Nispetbey Cad. 32-3 Karakoy Istanbul Turkey Tel. 341546	AUSTRALIA *Elmeasco Instruments Pty. Ltd. P.O. Box 30 Concord, N.S.W. Australia 2137 Tel. (02) 736-2888	INDIA *Hinditron Services Pvt. Ltd. 69/A.L. Jagmohandas Marg Bombay 400 006, India Tel. 365344	NEW ZEALAND *W & K McLean Ltd. P.O. Box 3097 Auckland, New Zealand Tel. 587-037
UNITED KINGDOM *Fluke International Corp. Colindale Way Watford Herts. WD17 1FL, England Tel. (0923) 40511	Elmeasco Instruments Pty. Ltd. P.O. Box 107 Mt. Waverly, VIC 3149 Australia Tel. 233-4044	Hinditron Services Pvt. Ltd. 412 Raj Mahal Vilas Extn. Bangalore 560 006, India Tel. 33139	NIGERIA Mofat Engineering Co., Ltd. P.O. Box 6369 Lagos, Nigeria
MIDDLE EAST	BANGLADESH Kabir Brothers Ltd 97 - Gulshan Ave., Gulshan G.P.O. Box 693 Dacca-12, Bangladesh Tel. 303104	INDONESIA *P.T. DWI Tunggal Jaya Sakti Sangga Buana Bldg., 1st Floor Jl. Senen Raya 44, P.O. Box 4435 Jakarta, Indonesia Tel. 367390	PAKISTAN Pak International Operations 505 Muhammad House McLeod Road P.O. Box 5323 Karachi, Pakistan Tel. 221127
EGYPT Lotus Engineering Organization P.O. Box 1292 Cairo, Egypt Tel. 71617	BOLIVIA Coasin Bolivia S.R.L. Casilla 7295 La Paz, Bolivia Tel. 40962	P.T. DWI Tunggal Jaya Sakti Jalan Sasakantung 45 Bandung, Indonesia	PERU *Importaciones y Representaciones Electronicas S.A. Avda. Franklin D. Roosevelt 105 Lima 1, Peru Tel. 288650
IRAN *Iranonics Company Ltd. 20 Salam Road, Roosevelt Ave. Tehran, Iran Tel. 829294	BRAZIL *Arotec S.A. Industrial e Comercio Av. Pacaembu 811 Sao Paulo S.P., Brazil Tel. (67) 2393	JAPAN Panetron Division Tokyo Electron Ltd. 1 Higashikata-machi Midori-ku Yokohama 226, Japan Tel. (045) 471-8811	SINGAPORE *O'Connor's (Pte) Ltd. 98 Pasir Panjang Road Singapore 5, Singapore Tel. 637944
ISRAEL *R.D.T. Electronics Engineering Ltd. 46, Sokolov Street Ramat Hasharon 47235, Israel Tel. 482311	*Arotec S.A. Av. Rio Branco, 277 Grupo 1309 Rio de Janeiro - R. J., Brazil	*John Fluke Mfg. Co., Inc. 1 Higashikata-machi Midori-ku Yokohama 226, Japan Tel. (045) 473-5425 Tlx: 3823 666 FLUKJP J	SOUTH AFRICA *Fluke S.A. (Pty) Ltd. P.O. Box 39797 Bramley 2018 Republic of South Africa Tel. (011) 786-3170
JORDAN Trading & Agricultural Development Co. P.O. Box 567 Amman, Jordan Tel. 23052	CHILE *Intronica Chile Ltda. Casilla 16228 Manuel Montt 024-Of. D Santiago 9, Chile Tel. 44940	KENYA Aircorn Limited Inc. P.O. Box 30070 Nairobi, Kenya East Africa Tel. 331955	TAIWAN CCT Associates, Inc. P.O. Box 24209 Taipei, Taiwan Republic of China Tel. (02) 391-6894
KUWAIT Fareq Company P.O. Box Safat 20506 Kuwait, Arabian Gulf Tel. 436100	COLOMBIA Coasin Ltda. Carrera 13, No. 37-37, Of. 407 Ap. Aereo 29583 Bogota DE, Colombia Tel. 285-0230	KOREA *Electro-Science Korea Co. C.P.O. Box 8446 Rm. 1201 Bowon Bldg. 490 Chongro-5Ka Chongro-ku Seoul, Korea Tel. 261-7702	THAILAND Dynamic Supply Engineering R.O.P. No. 56 Ekamai, Sukhumvit 63 Bangkok 11, Thailand Tel. 914434
LEBANON Mabek P.O. Box 11 3823 Beirut, Lebanon Tel. 257631	ECUADOR *Protoco Coasin CIA, Ltda. Edifica "Jerico" Ave. 12 de Octubre No. 2285 y Ave. Orellana (Planta Baja) Quito, Ecuador Tel. 529-684	MALAYSIA O'Connor's (Pte) Ltd. P.O. Box 1197 Kota Kinabalu, Sabah East Malaysia Tel. 54082	URUGUAY Coasin Uruguay S.R.L. Carrizo 617-4, Piso Montevideo, Uruguay Tel. 917978
MOROCCO Mainvest Residence Moulay Ismael Bt. C Boulevard Moulay Stumane, Rabat, Morocco Tel. 27664	HONG KONG *Gilman & Co., Ltd. P.O. Box 56 Hong Kong Tel. 794266	O'Connor's (Pte) Ltd. P.O. Box 91 Peraling Jaya, Selangor West Malaysia Tel. 51563	VENEZUELA *Coasin C.A. APDO Postal 50939 Sabana Grande No. 1 Caracas 105, Venezuela Tel. 782-9109
SAUDI ARABIA Electronic Equipment Marketing Est. P.O. Box 3750 Riyadh, Saudi Arabia Tel. 32700			
SYRIA Mabek Electronics Co Messers G. Ghazzi P.O. Box 4238 Damascus, Syria			

Customers in the following countries: Bulgaria, Czechoslovakia, Hungary, Poland, Romania, U.S.S.R. and Yugoslavia.
Contact: Amtest Associates Ltd., P.O. Box 55, Addlestone, Surrey, KT 15 1DU, England, Tel. (0932) 52121

*Technical Service Available

