

FEDERAL SUPPLY CODE

FOR MANUFACTURERS

From Defense Logistics Agency Microfiche

H4-2 SB 708-42 GSA-FSS H4-2

Ref FMC Column

in Parts Lists

Code	Manufacturer	Code	Manufacturer	Code	Manufacturer
00136	McCoy Elctns.,Mt.Holly Sprinas,PA 17065	15605	Cutler Hammer, Milwaukee,WI 53202	56289	Sprague,North Adams,MA 01247
00192	Wisco Mfg.,Chicago,IL 60181	15782	Houston Inst.,Bellaire,TX 77401	57771	Stimpson,Bayport,NY 11705
00194	Janco Elctns.,Los Angeles,CA 90018	15801	Fenwal Elctns.,Frammingham,MA 01701	58563	Superior Valve,Washington,PA 15301
00327	Welwyn Intntl.,Westlake,OH 44145	15819	Sinclair & Rush,St.Louis,MO 63111	59730	Thomas & Betts,Elizabeth,NJ 07207
00434	Schwaber Elctns.,Westburg,NY 11590	16037	Spruce Pine Mica,Spruce Pine,NC 28777	59875	TRW,Cleveland,OH 44117
00656	Aerovox,New Bedford,MA 02745	16068	Intnt Diode,Jersey City,NJ 07304	60399	Torrington,Torrington,CT 06790
00779	AMP Inc.,Harrisburg,PA 17105	16179	Ommi Spectra,Farmington,MI 48024	61007	Townsend,Braintree,MA 02184
01009	Alend Products,Brockton,MA 02413	16301	Astrolab,Linden,NJ 07036	61637	Union Carbide,New York,NY 10017
01121	Allen Bradley,Milwaukee,WI 53204	16352	Codi,Fairlawn,NJ 07410	61864	United Carr Fast,Boston,MA
01255	Litton Inds.,Beverly Hills,CA 90213	16485	Sterling Inst.,New Hyde Park,NY 11040	63060	Victoreen,Cleveland,OH 44104
01281	TRW,Lawndale,CA 90260	16636	Indiana General,Oglesby,IL 61348	63743	Ward Leonard,Mt.Vernon,NY 10550
01295	TI.,Dallas,TX 75222	16758	Delco,Kokomo,IN 46901	65083	Westinghouse,Bloomfield,NJ 07003
01526	GE,Waynesboro,VA 22980	16950	Precision Dynamics,Burbank,CA 91504	65092	Weston,Newark,NJ 07114
01930	Amerock,Rockford,IL 61101	16952	Amer Micro Devices,Summerville,SC 29483	70106	Adcohet Cap.,New Bedford,MA 02742
01963	Cherry Elctrc.,Waukegan,IL 60085	17117	Elctrc Molding,Woonsocket,RI 02895	70139	Chrysler,Warren,MI 48090
02111	Spectrol Elctns.,City of Industry,CA 91745	17540	Mohawk Spring,Schiller Park,IL 60176	70417	Chrysler,Detroit,MI 48231
02114	Ferrocube,Saugerties,NY 12477	17745	Angstrohm Prestr.,Hagerstown,MD 21740	70485	Atlantic India Rubber,Chicago,IL 60607
02606	Fenwal Lab.,Morton Grove,IL 60053	17771	Singer,Somerville,NJ 08876	70563	Amperite,Union City,NJ 07087
02639	GE,Schenectady,NY 12307	17850	Zeltex,Concord,CA 94520	70611	Ark-Las Switch,Waterbury,MA 02172
02660	Amphenol,Broadview,IL 60153	17856	Siliconix,Santa Clara,CA 95054	70892	Bead Chain,Bridgeport,CT 06605
02735	RCA,Somerville,NJ 08876	18324	Signetics,Sunnyvale,CA 94086	70903	Belden,Chicago,IL 60644
02768	Faxtex,Desplains,IL 60016	18542	New Prod Eng.,Wabash,IN 46992	71126	Bronson,Beacon Falls,CT 06403
03042	Carter Ink.,Cambridge,MA 02142	18677	Scanbe,El Monte,CA 91731	71279	Cambridge Thermionic,Cambridge,MA 02138
03058	GE,Syracuse,NY 13201	18736	Computer Diode,S.Fairlawn,NJ 07936	71294	Clifford,Clifton Forge,VA 24422
03050	Vanguard Elctns.,Inglewood,CA 90302	18795	Cylon,Sunnyvale,CA 94086	71400	Busmann,St.Louis,MO 63107
03063	Grayburn,Yorkers,NY 10701	19111	Durant,Waterbury,CT 06704	71450	CTS,Elkhart,IN 46514
03877	Transiron Elctns.,Wakefield,MA 01880	19178	Zero,Monson,MA 01057	71468	Cannon,Los Angeles,CA 90031
03888	KDI Pyrofilm,Whippany,NJ 07981	19209	GE,Gainesville,FL 32601	71482	Clare,Chicago,IL 60645
03911	Clairex,New York,NY 10001	19373	Eastron,Haverhill,MA 01830	71590	Centralab,Milwaukee,WI 53212
04009	Arrow Hart,Hartford,CT 06106	19396	Paktron,Vienna,VA 22180	71666	Continental Carbon,New York,NY
04643	Digitronics,Albertson,NY 11507	19617	Cabtron,Chicago,IL 60622	71707	Coto Coil,Providence,RI 02905
04713	Motorola,Phoenix,AZ 85008	19644	LRC Elctns.,Horseheads,NY 14845	71729	Crecent Box,Philadelphia,PA 19134
04919	Component Mfg.,W.Bridgewater,MA 02379	19701	Elect.Inds.,Independence,KS 67301	71744	Chicago Min Lamp,Chicago,IL 60640
05079	Resistor Monolith,Santa Clara,CA 95050	20093	Elect.Inds.,Murray Hill,NJ 07974	71785	Cinch,Chicago,IL 60624
05245	Corcom,Chicago,IL 60639	20754	KMC,Long Valley,NJ 07853	71823	Darnell,Downey,CA 90241
05273	ITT Elctrc.,Pomona,CA 91766	21335	Fatnr Brnch,New Britain,CT 06050	72139	Electromotive,Williamstown,CT 06226
05402	Controls Co. of Amer.,Melrose Pk,IL 60160	21688	Ruytheon,New Bedford,MA 02742	72228	Continental Screw,New Bedford,MA 02742
05574	Viking Inds.,Chatsworth,CA 91311	21759	Lenox Fugle,Watchung,NJ 07060	72259	Nytronics,Berkeley Hts,NJ 07922
05624	Barber Colman,Rockford,IL 61101	22526	Berg Elctrs.,New Cumberland,PA 17070	72619	Dialight,Brooklyn,NY 11237
05748	Barnes Mfg.,Mansfield,OH 44901	22589	Electro Space Fabrctrs.,Topton,PA 19562	72699	General Inst.,Newark,NJ 07104
05820	Wakefield Eng.,Wakefield,MA 01880	22753	UID Elctrcs.,Hollywood,FL 33022	72765	Drake,Chicago,IL 60631
06383	Panduit,Tinley Pk,IL 60477	23338	Wavetek,San Diego,CA 92112	72794	Dzus Fastener,Wilisp,NY 11795
06406	Truelove & Maclean,Waterbury,CT 06708	23342	Avnet Elctrcs.,Franklin Park,IL 60131	72825	Eby,Philadelphia,PA 19144
06665	Precision Monolith,Santa Clara,CA 95050	23936	Pamotor,Bulingham,CA 94010	72962	Elastic Stop Nut,Union,NJ 07083
06743	Clevite,Cleveland,OH 44110	24351	Indiana Gnr Elctrc.,Keasby,NJ 08832	72972	Erle,Erle,PA 16512
06795	WLS Stamp,Cleveland,OH 44104	24355	Analog Devices,Cambridge,MA 02142	73445	Ampere Elctrcs.,Hicksville,NY 11801
06915	Richco Plstc.,Chicago,IL 60646	24444	General Semicond.,Trenton,NJ 08621	73559	Carling Elctrc.,Hartford,CT 06110
06928	Telodyne Kntrs.,Soland Bch,CA 92075	24446	GE,Schenectady,NY 12305	73690	Elec Resistor,New York,NY
06978	Aladdin Elctns.,Nashville,TN 37210	24454	GE,Syracuse,NY 13201	73803	TI,Attleboro,MA 02703
07047	Ros Milton,Southampton,PA 18966	24455	GE,Cleveland,OH 44112	73899	JFD Elctrcs.,Brooklyn,NY 11219
07126	Digitran,Pasadena,CA 91105	24602	EMC Technly.,Cherry Hill,NJ 08034	73957	Groov-Pin,Ridgefield,NJ 07657
07127	Eagle Signal,Baraboo,WI 53913	24655	Gen Rad.,Concord,MA 01742	74193	Heinemann,Trenton,NJ 08602
07233	Cinch Graphik,City of Industry,CA 91744	24759	Lenox Fugle,S.Plainfield,NJ 07080	74199	Quam Nichols,Chicago,IL 60637
07261	Avnet,Culver City,CA 90230	25008	Vacrite,Berkeley,CA 94710	74446	Holo-Krome,Hartford,CT 06110
07263	Fairchild,Mountain View,CA 94040	25289	EG&G,Bedford,MA 01730	74545	Hubbell,Stratford,CT 06497
07387	Birtcher,N.Los Angeles,CA 90032	26601	Tri-Country Tube,Nunda,NY 14517	74861	Industrial Cndrs.,Chicago,IL 60618
07595	Amer.Semicond.,Arlington Hts,IL 60004	26805	Ommi Spectra,Waltham,MA 02154	74868	Amphenol,Danbury,CT 06810
07699	Magnetic Core,Newburgh,NY 12550	26806	American Zettler,Costa Mesa,CA 92626	74970	Johnson,Waseca,MN 56093
07707	USM Fastener,Shelton,CT 06484	27014	National,Santa Clara,CA 95051	75042	IRCT(RW),Burlington,IA 52601
07828	Bodine,Bridgeport,CT 06605	27545	Hartford Universal Ball,Rocky Hill,CT 06067	75376	Kurz-Kasch,Dayton,OH 45401
07829	Bodine Elctrc.,Chicago,IL 60618	28480	HP,Palo Alto,CA 94304	75382	Kuka,Mt.Vernon,NY 10551
07910	Cont Device,Hawthorne,CA 90250	28520	Heyman Mfg.,Kenilworth,NJ 07033	75491	Lafayette,Syosset,NY 11791
07983	State Labs.,New York,NY 10003	28875	IMC Magnetics,Rochester,NJ 03867	75608	Linden,Providence,RI 02905
07999	Borg Inst.,Delavan,WI 53115	28959	Hoffman Elctrcs.,El Monte,CA 91734	75915	Litelfuse,Des Plaines,IL 60016
08524	Deutsch Fastener,Los Angeles,CA 90045	30043	Solid State Devices,LaMirada,CA 90638	76005	Lord Mfg.,Erle,PA 16512
08556	Bell Elctrc.,Chicago,IL 60632	30646	Beckman Inst.,Cedar Grove,NJ 07009	76149	Mallory Elctrc.,Detroit,MI 48204
08736	Yemaline Prod.,Franklin Lakes,NJ 07417	30874	BM,Armonk,NY 10606	76241	Maurey,Chicago,IL 60616
09213	GE,Buffalo,NY 14220	30985	Permag Magnetics,Toledo,OH 43609	76381	3 M Co.,St.Paul,MN 55101
09353	C&K Components,Waterbury,MA 02172	31019	Solid State Scntfc.,Montgomery,PA 18936	76385	Minor Rubber,Bloomfield,NJ 07003
09408	Star-Tronics,Georgetown,MA 01830	31514	Standford Appld Engrs.,Costa Mesa,CA 92626	76487	Millen,Malden,MA 02148
09823	Burgess Battery,Freeport,IL 61032	31814	Analogic,Wakefield,MA 01880	76545	Mueller Elctrc.,Cleveland,OH 44114
09856	Fenwal Elctns.,Frammingham,MA 01701	31951	Triridge,Pittsburgh,PA 15231	76684	National Tube,Pittsburg,PA
09922	Bursley,Norwalk,CT 06852	32001	Jensen,Chicago,IL 60638	76854	Oak Inds.,Crystal Lake,IL 60014
10025	Giagnod Prod.,Linden,NJ 07036	33005	Spectrum Control,Fairview,PA 16415	77132	Dot Fastener,Waterbury,CT 06720
10389	Chicago Switch,Chicago,IL 60647	33173	GE,Owensboro,KY 42301	77147	Patton MacGuer,Providence,RI 02905
11236	CTS of Berne,Berne,IN 46711	34141	Koehler,Marlboro,MA 01752	77166	Pass Seymour,Syracuse,NY 13209
11597	Chandler Evans,W.Hartford,CT 06101	34156	Semicon,Costa Mesa,CA 92626	77263	Pierce Roberts Rubber,Trenton,NJ 08638
11983	Nortronics,Minneapolis,MN 55427	34333	Silicon Genrl.,Westminster,CA 92683	77315	Platt Bros.,Waterbury,CT 06720
12040	National,Santa Clara,CA 95051	34335	Advanced Micro Devices,Sunnyvale,CA 94086	77339	Positive Lockwasher,Newark,NJ
12045	Elctrc Transistors,Flushing,NY 11354	34649	Intel,Santa Clara,CA 95051	77342	AMF,Princeton,IN 47570
12498	Telodyne,Mountain View,CA 94043	34677	Solltron Devices,Jupiter,FL 33458	77542	Ray-o-Vac,Madison,WI 53703
12617	Hamiln,Lake Mills,WI 53551	35929	Constanta,Montreal,QUE,CAN	77630	TRW,Camden,NJ 08103
12672	RCA,Woodbridge,NJ 07095	36462	National Ltd.,Montreal,QUE,CAN	77638	General Inst.,Brooklyn,NY 11211
12697	Microstat,Dover,NH 03820	37942	Mallory,Indianapolis,IN 46206	78189	Shakeproof,Elgin,IL 60120
12856	Ciaronets,City of Industry,CA 91744	38443	Marlin Rockwell,Jamestown,NY 14701	78277	Sigma Inst.,Baintree,MA 02184
12854	Dickson Elctns.,Scottsdale,AZ 85252	39317	McGill Mfg.,Valparaiso,IN 46383	78429	Airco Super,St.Marys,PA 15867
12869	Unitrode,Waterbury,MA 02172	40931	Honeywell,Minneapolis,MN 55408	78488	Stackpole,St.Marys,PA 15867
13094	Electrocraft,Hopkins,MN 55343	42190	Muter,Chicago,IL 60638	78553	Tinnerman,Cleveland,OH
13103	Thermalloy,Dallas,TX 75234	42498	National,Melrose,MA 02176	78711	Telephonics,Huntington,NY 11743
13148	Vogue Int.,Richmond Hill,NY 11418	43334	New Departure-Hyatt,Sandusky,OH 44870	79089	RCA,Harrison,NJ 07029
13150	Vernitron,Laconia,NH 03246	43991	Norma Hoffman,Stanford,CT 06904	79136	Walde Kohinoor,New York,NY 11101
13327	Solltron Devices,Tappan,NY 10983	49671	RCA,New York,NY 10020	79497	Western Rubber,Goshen,IN 46526
13715	Fairchild,San Rafael,CA 94903	49956	Raytheon,Waltham,MA 02154	79725	Wiermold,Hartford,CT 06110
13919	Burr Brown,Tucson,AZ 85706	50088	Mostek,Carrollton,TX 75006	79727	Continental Wirt,Philadelphia,PA 19101
14010	Anadex Int.,Van Nuys,CA 91406	50101	GHZ Devices,S.Chelmsford,MA 01824	79840	Mallory Controls,Frankfort,IN 46041
14195	Elctrc Controls,Wilton,CT 06897	50522	Monanto,Palo Alto,CA 94304	79863	Zenick,Mt.Kisco,NY 10549
14196	American Labs.,Fullerton,CA 92634	50721	Datel Systems,Canton,MA 02021	80009	Tektronix,Beaverton,OR 97005
14332	Relton,Anaheim,CA 91006	50761	Aries Elctrcs.,Frenchtown,NJ 08825	80030	Prestole Fastener,Toledo,OH 43605
14433	ITT,W.Palm Beach,FL 33402	51553	Diablo Systems,Hayward,CA 94545	80048	Vicko,St.Louis,MO 63166
14482	Watkins & Johnson,Palo Alto,CA 94304	51622	Centre Eng.,State College,PA 16801	80103	Lambda,Melville,NY 11746
14608	Corbin,Berlin,CT 06037	52648	Plessev,Santa Ana,CA 92705	80183	Sprague,N.Adams,MA 01247
14655	Cornell Dubilier,Newark,NJ 07101	52676	SKF Inds.,Philadelphia,PA 19132	80211	Motorola,Franklin Pk,IL 60131
14674	Corning Glass,Corning,NY 14830	52763	Stettner Trush,Cazenovia,NY 13035	80251	Formica,Cincinnati,OH 45232
14749	Acopian,Easton,PA 18042	53021	Sangamo Elctrc.,Springfield,IL 62705	80258	Standard Oil,Lafayette,IN 47902
14752	Electrocube,San Gabriel,CA 91776	53184	Xciton,Latham,NY 12110	80294	Bourns Labs,Riverside,CA 92506
14889	R&G Stoen,Sun Valley,CA 91352	53421	Tyton,Milwaukee,WI 53209	80368	Sylvania,New York,NY 10011
14908	Elctrc Int. & Spclty,Stoneham,MA 02180	54294	Shalfrosc,Selma,NC 27576	80431	Air Filter,Milwaukee,WI 53215
14936	General Int.,Hicksville,NY 11802	54297	Assoc. Prec Prod.,Huntsville,AL 35805	80583	Hammarlund,New York,NY 10010
15238	ITT,Lawrence,MA 01842	54715	Equip Bros.,Evanston,IL 60202	80740	Beckman Int.,Fullerton,CA 92634
15476	Digital Equip.,Maynard,MA 01754			80756	TRW Ramsey,St.Louis,MO 63166

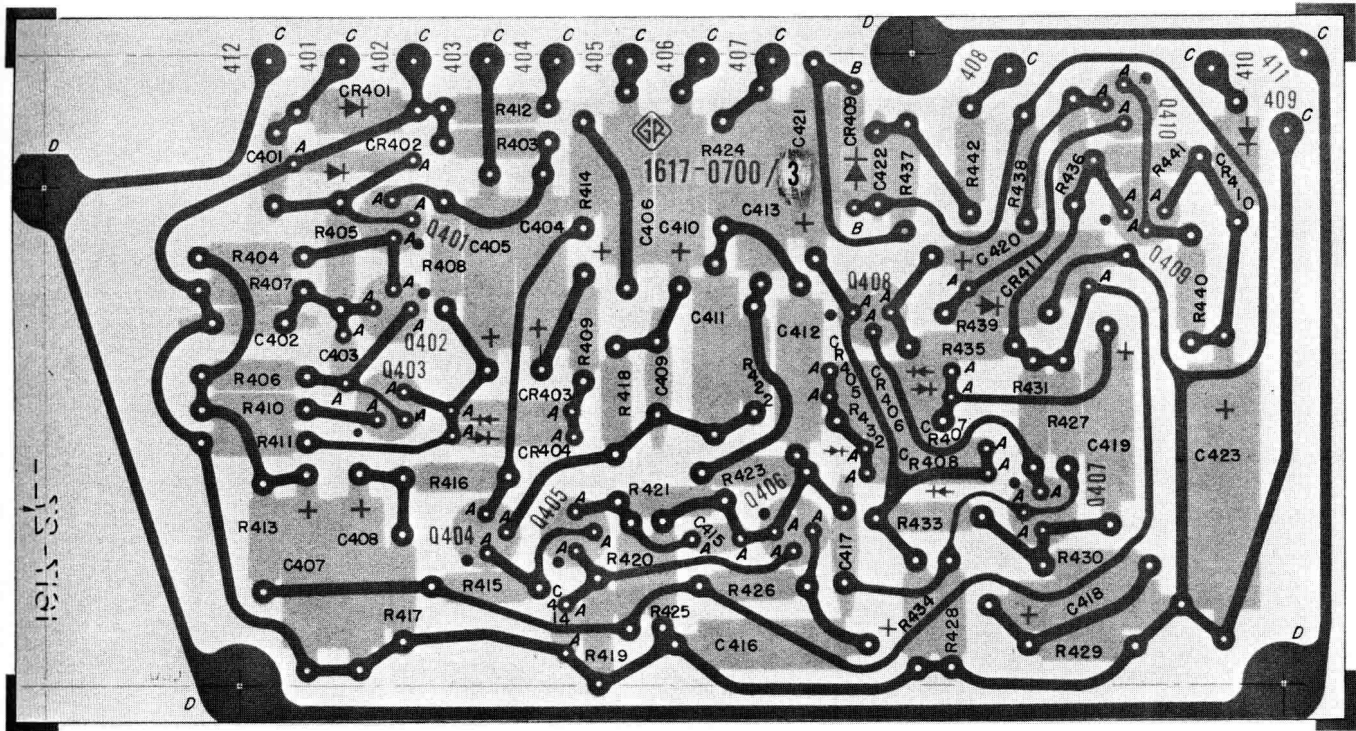
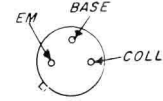
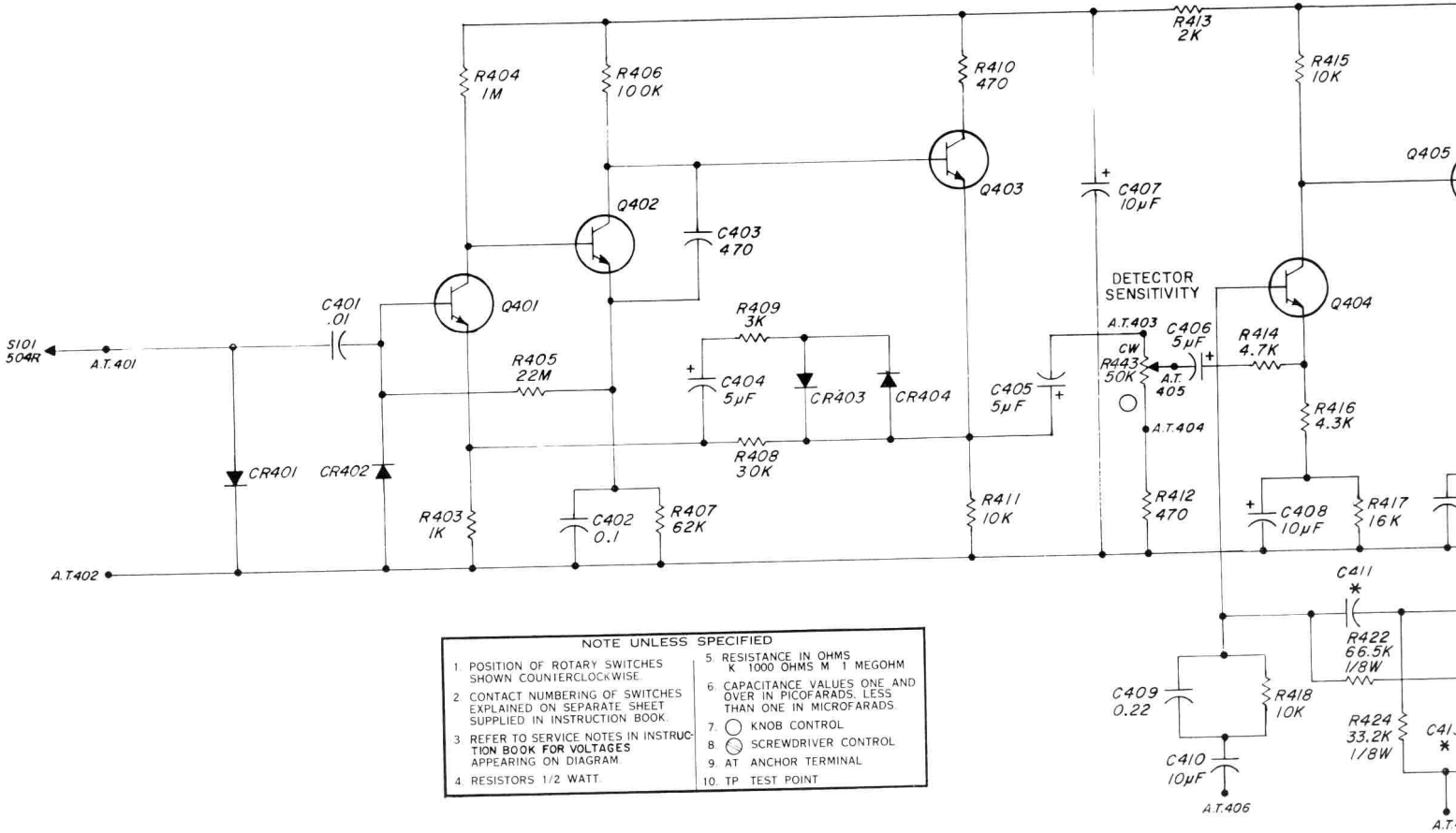


Figure 6-10. The detector etched board, (P/N 1617-2770) for 50-Hz units or P/N 1617-2700 (for 60 Hz units).

NOTE: The number on the foil side is not the part number for the complete assembly. The dot on the foil at the transistor socket indicates the collector lead.



TRANSISTOR OUTLINE
BOTTOM VIEW
Q401, Q403 THRU Q410



- NOTE UNLESS SPECIFIED
- | | |
|--|---|
| 1. POSITION OF ROTARY SWITCHES SHOWN COUNTERCLOCKWISE. | 5. RESISTANCE IN OHMS
K 1000 OHMS M 1 MEGOHM |
| 2. CONTACT NUMBERING OF SWITCHES EXPLAINED ON SEPARATE SHEET SUPPLIED IN INSTRUCTION BOOK. | 6. CAPACITANCE VALUES ONE AND OVER IN PICOFARADS. LESS THAN ONE IN MICROFARADS. |
| 3. REFER TO SERVICE NOTES IN INSTRUCTION BOOK FOR VOLTAGES APPEARING ON DIAGRAM. | 7. ○ KNOB CONTROL |
| 4. RESISTORS 1/2 WATT. | 8. ⊙ SCREWDRIVER CONTROL |
| | 9. AT ANCHOR TERMINAL |
| | 10. TP TEST POINT |

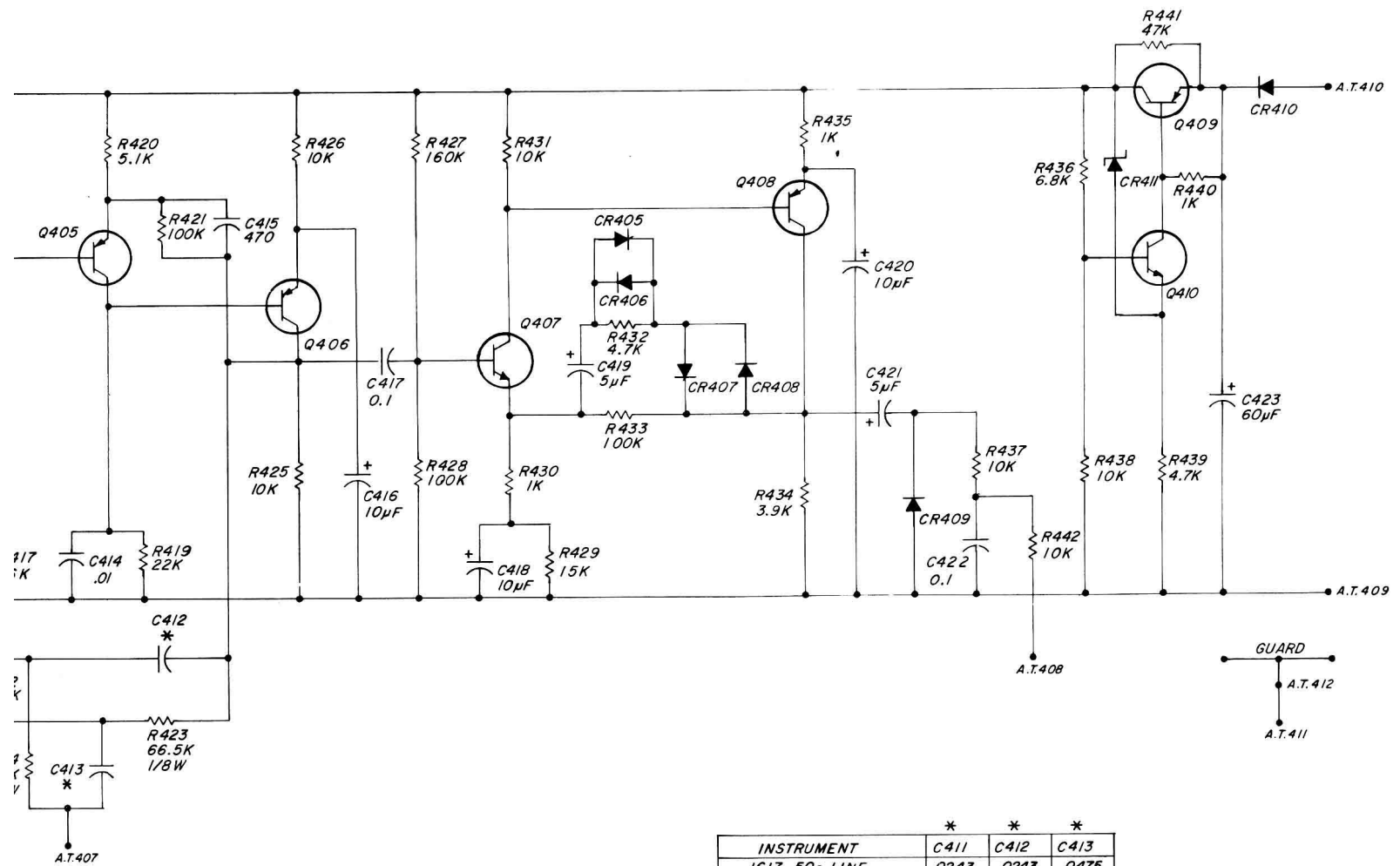


Figure 6-11. Schematic diagram for the detector circuit.

MECHANICAL PARTS LIST

FIG	QNT	DESCRIPTION	GR PART NO	FMC	MEGR PART NO
1	1	HANDLE AND BRACKET ASM	1617-2010	24655	1617-2010
2	1	KNOB ASM D DIAL	5520-5520	24655	5520-5520
		INCLUDES			
2	1	RETAINER	5220-5401	24655	5220-5401
3	1	DIAL ASM D DIAL (115V 60HZ)	1617-1250	24655	1617-1250
3	1	DIAL ASM D DIAL (230V 50HZ)	1617-1260	24655	1617-1260
4	1	KNOB ASM GEN LEVEL MAX VOLTS	5500-5321	24655	5500-5321
		INCLUDES			
4	1	RETAINER	5220-5402	24655	5220-5402
5	1	INDICATOR D DIAL	5460-1303	24655	5460-1303
6	1	CABINET ASM (115V 60HZ)	1617-2001	24655	1617-2001
6	1	CABINET ASM (230V 50HZ)	1617-2002	24655	1617-2002
7	1	GASKET	5168-1470	24655	5168-1470
8	1	DIAL ASM METER (115V-60HZ)	1617-2170	24655	1617-2170
8	1	DIAL ASM METER (230V-50HZ)	1617-2190	24655	1617-2190
9	1	KNOB ASM METER	5500-5420	24655	5500-5420
		INCLUDES			
9	1	RETAINER	5220-5401	24655	5220-5401
10	1	DIAL ASM BIAS VOLTAGE RANGE	1617-2130	24655	1617-2130
11	1	KNOB ASM BIAS VOLTAGE RANGE	5520-5320	24655	5520-5320
		INCLUDES			
11	1	RETAINER	5220-5402	24655	5220-5402
12	1	DIAL ASM LEAK CURRENT RANGE	1617-2140	24655	1617-2140
13	1	KNOB ASM LEAK CURRENT RANGE	5520-5320	24655	5520-5320
		INCLUDES			
13	1	RETAINER	5220-5402	24655	5220-5402
14	1	KNOB ASM EXTERNAL BIAS	5520-5321	24655	5520-5321
		INCLUDES			
14	1	RETAINER	5220-5402	24655	5220-5402
15	1	KNOB ASM MULTIPLIER	5500-5420	24655	5500-5420
		INCLUDES			
15	1	RETAINER	5220-5401	24655	5220-5401
16	1	DIAL ASM MULTIPLIER	1617-2150	24655	1617-2150
17	1	KNOB ASM DETECTOR SENSITIVITY	5520-5321	24655	5520-5321
		INCLUDES			
17	1	RETAINER	5220-5402	24655	5220-5402
18	1	INDICATOR C DIAL	5460-1303	24655	5460-1303
19	1	DIAL ASM C DIAL	1617-1270	24655	1617-1270
20	1	KNOB ASM C DIAL	5520-5520	24655	5520-5520
		INCLUDES			
20	1	RETAINER	5220-5401	24655	5220-5401
21	1	GASKET	5168-0796	24655	5168-0796
22	4	FEET	5260-0900	24655	5260-0900
23	2	PILOT LIGHT CAP	5620-0500	72765	25P UNFLUTED
24	1	COVER	4170-2086	24655	4170-2086
25	1	HOLDER, LAMP MARKED	5600-1023	24655	5600-1023

ELECTRICAL PARTS LIST

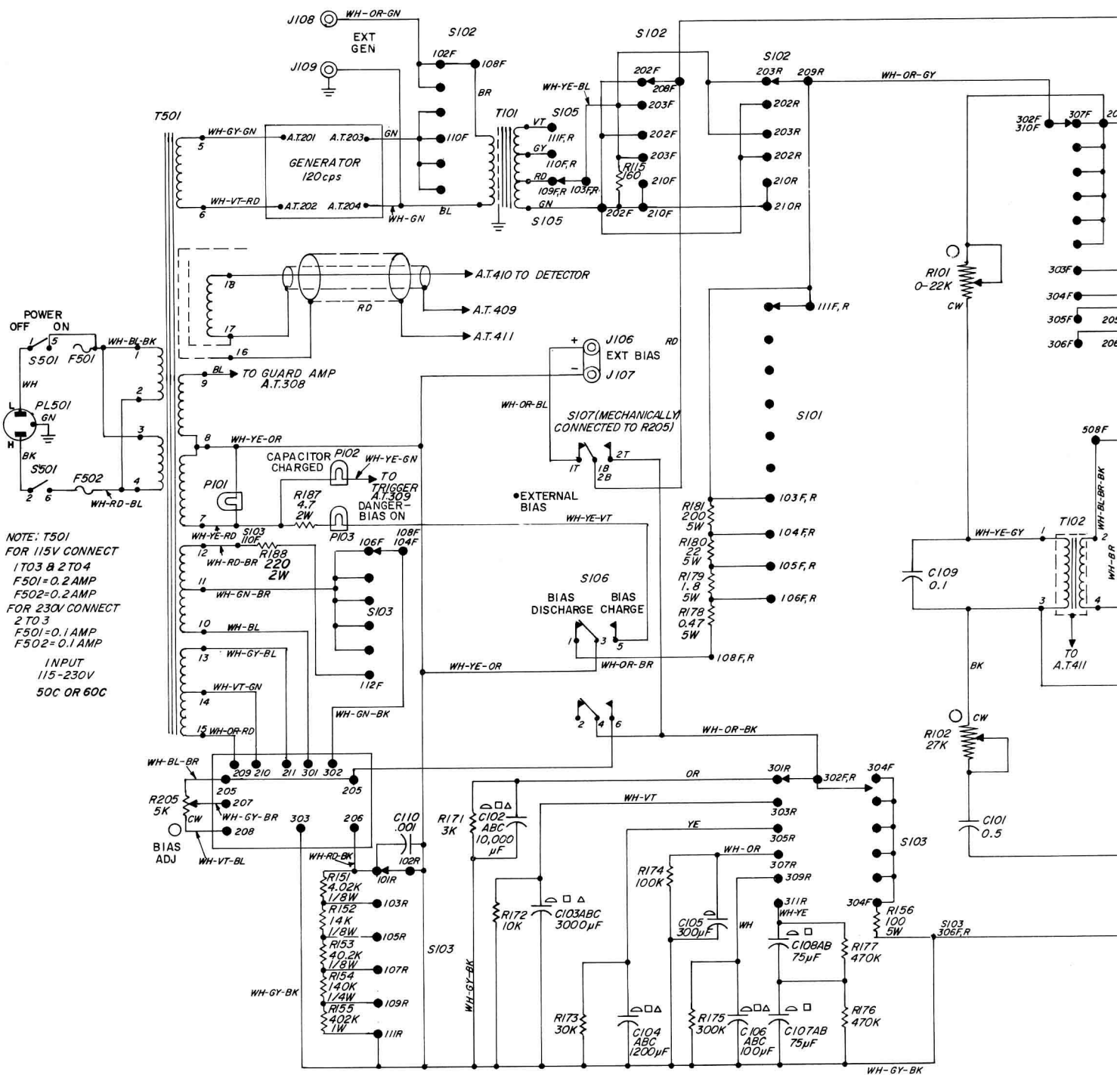
MAIN FRAME & SWITCH ASSEMBLIES

REFDES	DESCRIPTION	PART NO.	FMC	MFGR	PART NUMBER
F 113	RES FLM 20K 1 PCT 1/2W	6450-2200	81349		RN65D2002F
R 114	RES FLM 1.1K 1 PCT 1/2W	6450-1110	81349		RN65D1101F
R 115	RES COMP 160 OHM 5PCT 1/2W	6100-1165	81349		RCR20G161J
R 151	RES FLM 4.02K 1 PCT 1/8W	6250-1402	81349		RN55D4021F
P 152	RES FLM 14K 1 PCT 1/8W	6250-2140	81349		RN55D1402F
R 153	RES FLM 40.2K 1 PCT 1/8W	6250-2402	81349		RN55D4022F
R 154	RES FLM 140K 1 PCT 1/4W	6350-3140	81349		RN60D1403F
R 155	RES FLM 402K 1 PCT 1W	6550-3402	81349		RN75D4023F
R 156	RES WW AX LEAD 100 OHM 5 PCT 5W	6660-1105	75042		AS-5 100 OHM 5PCT
P 158	RES FLM 66.5K 1 PCT 1/2W	6450-2665	81349		RN65D6652F
R 159	RES FLM 232K 1 PCT 1/2W	6450-3232	81349		RN65D2323F
P 160	RES FLM 665K 1 PCT 1/2W	6450-3665	81349		RN65D6653F
R 161	RES FLM 2.32M 1 PCT 1/2W	6450-4232	81349		RN65D2324F
R 162	RES FLM 6.65M 1 PCT 1W	6550-4665	81349		RN75D6654F
R 163	RES FLM 30.1K 1 PCT 1/2W	6450-2301	81349		RN65D3012F
R 164	RES FLM 18.7K 1 PCT 1/2W	6450-2187	81349		RN65D1872F
R 165	RES FLM 976 OHM 1 PCT 1/2W	6450-0976	81349		RN65D9760F
R 166	RES FLM 261 OHM 1 PCT 1/2W	6450-0261	81349		RN65D2610F
R 167	RES FLM 63.1 OHM 1 PCT 1/2W	6450-9681	81349		RN65D6811F
P 168	RES FLM 23.7 OHM 1 PCT 1/2W	6450-9237	81349		RN65D2377F
R 169	RES FLM 10 OHM 1 PCT 1/8W	6250-9100	81349		RN55D1000F
R 171	RES COMP 3.0 K OHM 5PCT 1/2W	6100-2305	81349		RCR20G302J
P 172	RES COMP 10 K 5PCT 1/2W	6100-3105	81349		RCR20G103J
R 173	RES COMP 30 K OHM 5PCT 1/2W	6100-3305	81349		RCR20G303J
R 174	RES COMP 100 K 5PCT 1/2W	6100-4105	81349		RCR20G104J
P 175	RES COMP 300 K OHM 5PCT 1/2W	6100-4305	81349		RCR20G304J
R 176	RES COMP 470 K 5PCT 1/2W	6100-4475	81349		RCR20G474J
P 177	RES COMP 470 K 5PCT 1/2W	6100-4475	81349		RCR20G474J
R 178	RES WW AX LEAD .47 OHM 10PCT 5W	6660-9047	75042		AS-5 0.47 OHM 5PCT
R 179	RES WW AX LEAD 1.8 OHM 5 PCT 5W	6660-9185	75042		AS-5 1.8 OHM 5PCT
R 180	RES WW AX LEAD 22 OHM 5 PCT 5W	6660-0225	75042		AS-5 22 OHM 5PCT
R 181	RES WW AX LEAD 200 OHM 5 PCT 5W	6660-1205	75042		AS-5 200 OHM 5PCT
P 183	POT WW TRM 1K OHM 10 PCT 1T	6050-1300	24655		6050-1300
P 184	THERMISTOR 50 OHM 10PCT	6740-1900	15801		CB15L1
R 187	RES WW MOLDED 4.7 OHM 10 PCT 2W	6760-9479	75042		BWH 4.7 OHM 10PCT
R 188	RES WW MOLDED 220 OHM 10 PCT 2W	6760-1229	75042		BWH 220 OHM 10PCT
S 101	SWITCH ROTARY ASM	7890-3790	24655		7890-3790
S 102	SWITCH ROTARY ASM	7890-3800	24655		7890-3800
S 103	SWITCH ROTARY ASM	7890-3810	24655		7890-3810
S 104	SWITCH ROTARY ASM	7890-3820	24655		7890-3820
S 105	SWITCH ROTARY ASM	7890-3830	24655		7890-3830
S 106	SWITCH TOGGLE 2POS DPDT STEADY	7910-1500	04009		83054
S 107	POT COMP KNOB 5K OHM 10PCT SW	6045-2510	24655		6045-2510
S 501	SWITCH TOGGLE 2POS DPST STEADY	7910-1300	04009		83053
T 101	TRANSFORMER BRIDGE	0746-4440	24655		0746-4440
T 102	TRANSFORMER INDUCTOR	0745-4130	24655		0745-4130
T 501	TRANSFORMER POWER	0345-4012	24655		0345-4012

ELECTRICAL PARTS LIST

MAIN FRAME & SWITCH ASSEMBLIES
 F501 & F502 (5330-0600) FOR 115V OPERATION
 F501 & F502 (5330-0400) FOR 230V OPERATION

REFDES	DESCRIPTION	PART NO.	FMC	MFGR	PART NUMBER
C 101	CAPACITOR ASM 0.5 UF 1/4PCT 800V	0236-4050	24655		0236-4050
C 102	CAP ALUM 5000-2500-2500 UF 6V	4450-5608	56289		60D 6V
C 103	CAP ALUM 1500-750-750 UF 25V	4450-0700	56289		60D 25V
C 104	CAP ALUM 600-300-300 UF 75V	4450-5606	56289		60D 75V
C 105	CAP ALUM 300-150-150 UF 150V	4450-5602	56289		60D 150V
C 106	CAP ALUM 50-25-25 UF 450V	4450-0800	56289		60D 450V
C 107	CAP ALUM 50-25-25 UF 450V	4450-0800	56289		60D 450V
C 108	CAP ALUM 50-25-25 UF 450V	4450-0800	56289		60D 450V
C 109	CAP MYLAR .1UF 10 PCT 100V	4860-8250	56289		410P 0.1 UF 10PCT
C 110	CAP CER DISC 1000PF 10PCT 500V	4405-2108	72982		080108225F00102K
CR 101	RECT 1N4140 100PIV 3A SI A1XM	6081-1014	14433		1N4140
CR 102	RECT 1N4140 100PIV 3A SI A1XM	6081-1014	14433		1N4140
CR 103	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
CR 104	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
CR 105	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
F 501	FUSE SLO-BLOW 2/10A 250V	5330-0600	75915	313	.200
F 501	FUSE SLO-BLOW 1/10A 250V	5330-0400	75915	313	.100
F 502	FUSE SLO-BLOW 2/10A 250V	5330-0600	75915	313	.200
F 502	FUSE SLO-BLOW 1/10A 250V	5330-0400	75915	313	.100
J 101	BINDING POST ASM	0938-4252	24655		0938-4252
J 102	BINDING POST ASM	0938-4252	24655		0938-4252
J 103	BINDING POST ASM	0938-3000	24655		0938-3000
J 104	BINDING POST ASM	0938-3000	24655		0938-3000
J 105	BINDING POST ASM	0938-3002	24655		0938-3002
J 106	BINDING POST ASM	0938-3003	24655		0938-3003
J 107	BINDING POST ASM	0938-3000	24655		0938-3000
J 108	BINDING POST ASM	0938-3002	24655		0938-3002
J 109	BINDING POST ASM	0938-3000	24655		0938-3000
M 101	METER	5730-1383	24655		5730-1383
P 101	LAMP FLANGE BASE 6V 0.2A 1000H	5600-0300	71744		CM-328
P 102	LAMP BAYONET BASE 2V .06A	5600-0800	24455		49
P 103	LAMP BAYONET BASE 6.3V	5600-0700	71744		44
PL 501	CORD 3WR 10A 120V US 5.5FTHAMMER	4200-1903	24655		4200-1903
P 101	POTENTIOMETER 22.6-23.4 K	0433-4130	24655		0433-4130
P 102	POTENTIOMETER 27 K 2PCT	0977-4100	24655		0977-4100
R 103	RESISTOR ASM .01 OHM 0.25PCT	1617-119C	24655		1617-1190
R 104	RESISTOR ASM 0.1 OHM 0.25PCT	1617-1180	24655		1617-1180
R 105	RESISTANCE UNIT 1 OHM	0500-0300	24655		0500-0300
R 106	RES FLM 10 OHM 1/4 PCT 1/2W	6452-9100	81349		RN65D10R0C
R 107	RES FLM 1000HM 1/10PCT 50PPM1/2W	6188-0100	81349		RN70C1000B
R 108	RES FLM 1 K 1/10PCT 50PPM1/2W	6188-1100	81349		RN70C1001B
R 109	RES FLM 10 K 1/10PCT 50PPM1/2W	6188-2100	81349		RN70C1002B
R 110	RES FLM 100 K 1/10PCT 50PPM1/2W	6188-3100	81349		RN70C1003B
P 111	RES FLM 1 M 1/10PCT 50PPM1/2W	6188-4100	81349		RN70C1004B
R 112	RES FLM 10M 1/4PCT 50PPM 2W	6195-5100	81349		RN80C1005C



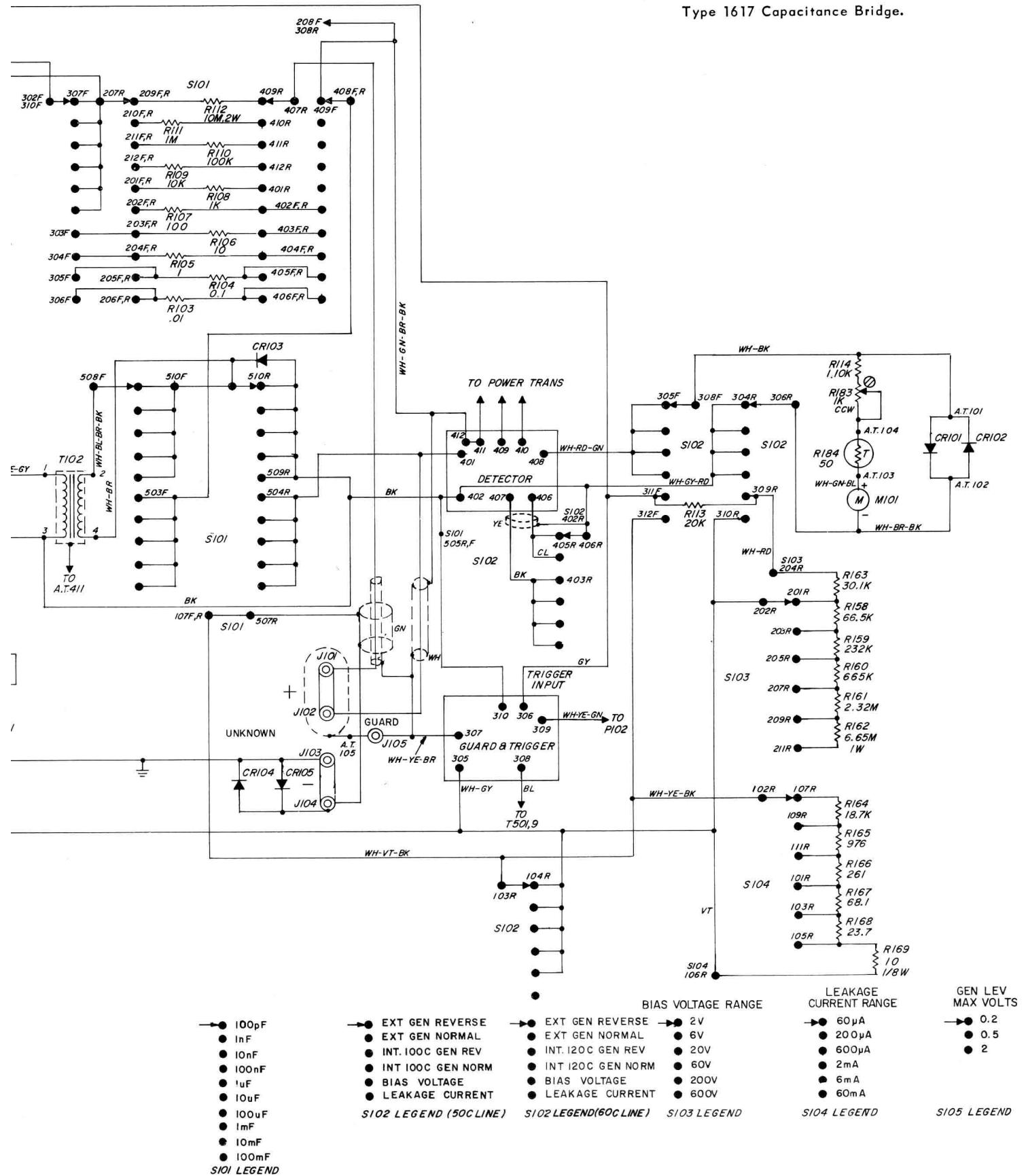
NOTE: T501
FOR 115V CONNECT
1T03 & 2T04
F501=0.2 AMP
F502=0.2 AMP
FOR 230V CONNECT
2T03
F501=0.1 AMP
F502=0.1 AMP
INPUT
115-230V
50C OR 60C

- NOTE UNLESS SPECIFIED
- | | |
|--|---|
| 1. POSITION OF ROTARY SWITCHES SHOWN COUNTERCLOCKWISE. | 5. RESISTANCE IN OHMS
K - 1000 OHMS M - 1 MEGOHM |
| 2. CONTACT NUMBERING OF SWITCHES EXPLAINED ON SEPARATE SHEET SUPPLIED IN INSTRUCTION BOOK. | 6. CAPACITANCE VALUES ONE AND OVER IN PICOFARADS. LESS THAN ONE IN MICROFARADS. |
| 3. REFER TO SERVICE NOTES IN INSTRUCTION BOOK FOR VOLTAGES APPEARING ON DIAGRAM. | 7. ○ KNOB CONTROL |
| 4. RESISTORS 1/2 WATT. | 8. ⊠ SCREWDRIVER CONTROL |
| | 9. AT - ANCHOR TERMINAL |
| | 10. TP - TEST POINT |

ANCHOR TERMINALS USED: A.T.101-105

S101 SECTION 2F CONNECTS ALL UNUSED S110-ARMS RESISTORS TO GUARD(208F)

Figure 6-13. Over-all schematic diagram for the Type 1617 Capacitance Bridge.



APPENDIX



PRECISION DECADE CAPACITOR

Type 1423-A

This capacitor is a versatile tool for calibration laboratories and production-line testing. With it a bridge can be standardized to an accuracy exceeded only by that of the highest quality, individually certified laboratory standards.

Any value of capacitance from 100 pF to 1.111 μ F, in steps of 100 pF, can be set on the four decades and will be known to an accuracy of 0.05%.

Catalog Number	Description
1423-9801	Precision Decade Capacitor 1423-A, Bench Model 1423-A, Rack Model
1423-9811	

STANDARD CAPACITOR

Type 1409

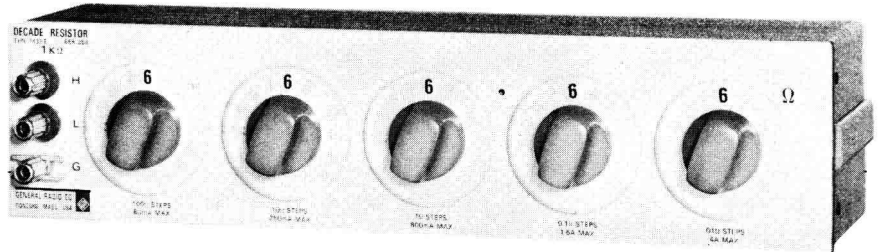
Catalog Number	Type	Nominal Capacitance μ F	Frequency Limit for Max Volts
1409-9706	1409-F	0.001	4.7 MHz
1409-9707	1409-G	0.002	2.7 MHz
1409-9711	1409-K	0.005	1.3 MHz
1409-9712	1409-L	0.01	750 kHz
1409-9713	1409-M	0.02	430 kHz
1409-9718	1409-R	0.05	210 kHz
1409-9720	1409-T	0.1	120 kHz
1409-9721	1409-U	0.2	70 kHz
1409-9724	1409-X	0.5	35 kHz
1409-9725	1409-Y	-1.0	17 kHz



The 1409 Standard Capacitors are fixed mica capacitors of very high stability for use as two- or three-terminal reference or working standards in the laboratory.

DECADE RESISTOR

Type 1433



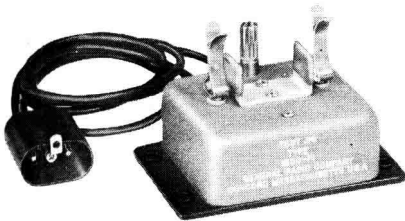
- $\pm 0.02\%$ accuracy
- good frequency characteristics
- low temperature coefficient
- excellent stability
- low zero resistance

The 1433 Decade Resistors are primarily intended for precision measurement applications where their excellent accuracy, stability, and low zero resistance are important. They are convenient resistance standards for checking the accuracy of resistance-measuring devices and are used as components in dc and audio-frequency impedance bridges.

Catalog Number		Type	Total Ohms	Ohms per Step	No. of Dials
Bench	Rack				
1433-9700	1433-9701	1433-U	111.1	0.01	4
1433-9702	1433-9703	1433-K	1111	0.1	4
1433-9704	1433-9705	1433-J	11,110	1	4
1433-9706	1433-9707	1433-L	111,100	10	4
1433-9708	1433-9709	1433-Q	1,111,000	100	4
1433-9710	1433-9711	1433-T	1111.1	0.01	5
1433-9712	1433-9713	1433-N	11,111	0.1	5
1433-9714	1433-9715	1433-M	111,110	1	5
1433-9716	1433-9717	1433-P	1,111,100	10	5
1433-9718	1433-9719	1433-Y	11,111,000	100	5
1433-9720	1433-9721	1433-W	11,111.1	0.01	6
1433-9722	1433-9723	1433-X	111,111	0.1	6
1433-9724	1433-9725	1433-B	1,111,110	1	6
1433-9726	1433-9728	1433-Z	11,111,100	10	6
1433-9729	1433-9730	1433-F	111,111.1	0.01	7
1433-9731	1433-9732	1433-G	1,111,111	0.1	7
1433-9733	1433-9734	1433-H	11,111,110	1	7

TEST JIG

Type 1650-P1



This test-jig adaptor is used to connect components quickly to a pair of terminals and can be placed on the bench directly in front of the operator.

The test jig makes a three-terminal connection to the bridge, so that the residual zero capacitance is negligible.

The lead resistance (0.08 ohm total) has effect only when very low impedances are measured, and the lead capacitance affects only the measurement of the Q of inductors, introducing a small error in D (or $\frac{1}{Q}$) of less than 0.007.

Catalog Number	Description
1650-9601	1650-P1 Test Jig