

PARTS LIST

51J-3 Receiver

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-101	L-101 padding	CAPACITOR: mica, 820 mmf $\pm 2\%$, 300 WV	935 5014 00
C-102	L-101 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-103	L-102 padding	CAPACITOR: mica, 430 mmf $\pm 2\%$, 300 WV	912 0538 00
C-104	L-102 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-105	L-103 padding	CAPACITOR: mica, 220 mmf $\pm 2\%$, 500 WV	912 0517 00
C-106	L-103 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-107	L-104 padding	CAPACITOR: mica, 130 mmf $\pm 5\%$, 500 WV	912 0503 00
C-108	L-104 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-109	L-105 padding	CAPACITOR: mica, 20 mmf $\pm 5\%$, 500 WV	912 0443 00
C-110	L-105 trimming	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-111	V-101 grid coupling	CAPACITOR: ceramic, 2.0 mmf $\pm 1/4$ mmf, 500 WV	916 4373 00
C-112		CAPACITOR: Not used	
C-113	V-101 grid coupling	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00
C-114	V-101 grid decoupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-115	V-101 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-116	V-102 grid coupling	CAPACITOR: ceramic, 1.0 mmf $\pm 1/4$ mmf, 500 WV	916 4368 00
C-117	V-101 plate coupling,	CAPACITOR: ceramic, 2.0 mmf $\pm 1/4$ mmf, 500 WV	916 4373 00
C-118	L-110 padding	CAPACITOR: mica, 910 mmf $\pm 1\%$, 500 WV	935 5015 00
C-119	L-110 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-120	L-107 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-121	L-107 padding	CAPACITOR: mica, 220 mmf $\pm 2\%$, 500 WV	912 0517 00
C-122	L-108 trimming	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-123	L-108 padding	CAPACITOR: mica, 75 mmf $\pm 5\%$, 500 WV	912 0485 00
C-124	L-109 trimming	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-125		CAPACITOR: Not used	
C-126	V-101 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-127	L-111 padding	CAPACITOR: mica, 220 mmf $\pm 2\%$, 500 WV	912 0517 00
C-128	L-111 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-129	L-112 padding	CAPACITOR: mica, 75 mmf $\pm 5\%$, 500 WV	912 0485 00
C-130	L-112 trimming	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-131		CAPACITOR: Not used	
C-132	L-113 trimming	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-133	V-102 grid coupling, bands 4 and 7	CAPACITOR: ceramic, 1.5 mmf $\pm 1/4$ mmf, 500 WV	916 4370 00
C-134	V-102 cathode bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-135	V-102 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-136	V-102 injection coupling	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-137	L-114 to L-115 coupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-138	V-102 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-139	L-115 padding	CAPACITOR: ceramic, 20 mmf $\pm 5\%$, 500 WV	916 4420 00
C-140	L-115 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-141	V-103 cathode bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-142	V-103 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-143	V-103 injection coupling	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00
C-144	L-121 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-145	L-121 padding	CAPACITOR: mica, 150 mmf $\pm 5\%$, 500 WV	912 0506 00
C-146	Bands 29, 30 harmonic tuning	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-147	Bands 27, 28 harmonic tuning	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-148	Bands 25, 26 harmonic tuning	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-149	Bands 23, 24 harmonic tuning	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-150	Bands 21, 22 harmonic tuning	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-151	Bands 23, 24 harmonic tuning	CAPACITOR: ceramic, 15 mmf $\pm 5\%$, 500 WV	916 4412 00
C-152	Bands 12, 20 harmonic tuning	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-153	Bands 17, 18 harmonic tuning	CAPACITOR: ceramic, 36 mmf $\pm 5\%$, 500 WV	916 4448 00
C-154	Bands 17, 18 harmonic tuning	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-155	Bands 15, 16 harmonic tuning	CAPACITOR: ceramic, 47 mmf $\pm 5\%$, 500 WV	916 4463 00
C-156	Bands 15, 16 harmonic tuning	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-157	Bands 13, 14 harmonic tuning	CAPACITOR: ceramic, 68 mmf $\pm 5\%$, 500 WV	916 4309 00
C-158	Bands 13, 14 harmonic tuning	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-159	Spurious filter tuning	CAPACITOR: mica, 150 mmf $\pm 5\%$, 500 WV	912 0506 00
C-160		CAPACITOR: Not used	
C-161	Band 1 harmonic tuning	CAPACITOR: mica, 200 mmf $\pm 2\%$, 500 WV	912 0514 00
C-162	Band 1 harmonic tuning	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-163	V-105 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-164	V-105 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-165	Osc. feedback network	CAPACITOR: ceramic, 15 mmf $\pm 5\%$, 500 WV	916 4412 00
C-166	Osc. feedback network	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00
C-167	Osc. grid circuit trimmer	CAPACITOR: variable ceramic, 3-12 mmf, 350 WV	917 1035 00
C-168		CAPACITOR: mica, 220 mmf $\pm 2\%$, 500 WV	912 0517 00
C-169	Freq. standard adjusting	CAPACITOR: variable ceramic, 5-25 mmf, 350 WV	917 1036 00
C-170	V-104 cathode bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-171	V-104 screen bypass	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-172	V-104 plate decoupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-173	Freq. standard coupling	CAPACITOR: ceramic, 10 mmf ± 1 mmf, 500 WV	916 4406 00
C-174	L-116 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-175	L-116 padding	CAPACITOR: mica, 180 mmf $\pm 2\%$, 500 WV	912 0511 00
C-176	L-117 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-177	L-117 padding	CAPACITOR: mica, 300 mmf $\pm 2\%$, 500 WV	912 0526 00
C-178	V-103 plate bypass	CAPACITOR: ceramic, 10,000 mmf 350 WV	913 0566 00
C-179	L-118 padding	CAPACITOR: mica, 180 mmf $\pm 2\%$, 500 WV	912 0511 00
C-180	L-118 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-181	L-119 padding	CAPACITOR: mica, 300 mmf $\pm 2\%$, 500 WV	912 0526 00
C-182	L-119 trimming	CAPACITOR: variable ceramic, 8-50 mmf, 350 WV	917 1038 00
C-183	V-106 cathode bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-184	V-106 grid bypass	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00
C-185	V-106 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-186	V-106 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-187	Filter crystal parallel	CAPACITOR: ceramic, 10 mmf ± 1 mmf, 500 WV	916 4406 00
C-188	Filter crystal phasing	CAPACITOR: variable air, midget, single section, 3.5 -27 mmf	922 0079 00
C-189	V-107 grid decoupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-190	V-107 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-191	V-107 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-192	T-103 top coupling	CAPACITOR: ceramic, 2.0 mmf $\pm 1/4$ mmf, 500 WV	916 4373 00
C-193	V-108 grid decoupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-194	V-108 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-195	V-108 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-196	T-104 top coupling	CAPACITOR: ceramic, 2.0 mmf $\pm 1/4$ mmf, 500 WV	916 4373 00
C-197	V-109 grid decoupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-198	V-109 cathode bypass	CAPACITOR: paper, 0-1 -0.1 mf +20%, -10%, 600 WV	961 5169 00
C-199	V-109 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-200	V-109 plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-201	V-105 top coupling	CAPACITOR: ceramic, 2.0 mmf $\pm 1/4$ mmf, 500 WV	916 4373 00
C-202	Detector filter	CAPACITOR: mica, 330 mmf $\pm 2\%$, 500 WV	912 0529 00
C-203		CAPACITOR: Not used	
C-204	AVC rectifier coupling	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00
C-205	A. Back bias r-f filter B. AVC amplr. stabilizing C. Noise limiter filter	CAPACITOR: paper, 0.1-0.1-0.1 mmf +20% -10%, 600 WV	961 5187 00
C-206	BFO coupling	CAPACITOR: mica, 5 mmf $\pm 5\%$, 500 WV	912 0428 00
C-207	Line filter	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-208	AVC amplr. stabilizing	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-209	Audio coupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-210		CAPACITOR: Not used	
C-211	Audio coupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-212	Audio output equalizer	CAPACITOR: mica 6,800 mmf $\pm 10\%$, 300 WV	935 2110 00
C-213	AVC time constant	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-214	K-101 noise filter	CAPACITOR: paper, 0.1-0.1 mf $+20\%$ -10% , 600 WV	961 4175 00
C-215	V-111 cathode bypass	CAPACITOR: dry electrolytic, 20 mf 150 WV	184 6509 00
C-216	Back bias filter	CAPACITOR: dry electrolytic, 20 mf 150 WV	184 6509 00
C-217	Power supply filter	CAPACITOR: dry electrolytic, dual section; 35 mf each section -10% $+25\%$, 450 WV	184 5000 00
C-218	V-114 screen bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-219	V-114 screen decoupling	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00
C-220	L-116, L-118 top coupling	CAPACITOR: ceramic, 4.0 mmf $\pm 1/4$ mmf, 500 WV	916 4380 00
C-221	L-117, L-119 top coupling	CAPACITOR: ceramic, 2.0 mmf $\pm 1/4$ mmf, 500 WV	916 4373 00
C-222		CAPACITOR: Not used	
C-223	B+ isolation capacitor	CAPACITOR: dry electrolytic, 8 mf, 350 WV	184 6515 00
C-224	Cal. osc. adjustment	CAPACITOR: variable air, 7-100 mmf	922 0153 00
C-225		CAPACITOR: Not used	
C-226	V-111B grid coupling	CAPACITOR: mica, 100 mmf $\pm 5\%$, 500 WV	912 0494 00
C-227	V-111B plate bypass	CAPACITOR: ceramic, 10,000 mmf, 350 WV	913 0566 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-228	IF output coupling	CAPACITOR: ceramic, 10,000 mmf 350 WV	913 0566 00
C-229		CAPACITOR: Not used	
C-230	Antenna trimmer, all bands	CAPACITOR: variable air, 7-100 mmf	922 0153 00
C-231	Antenna fixed trimmer, bands 8-15	CAPACITOR: ceramic, 100 mmf $\pm 5\%$, 500 WV	916 4059 00
C-232	Antenna fixed trimmer, bands 16-30	CAPACITOR: ceramic, 24 mmf $\pm 5\%$, 500 WV	916 4428 00
C-233	Antenna coupling, band 1	CAPACITOR: ceramic, 100 mmf $\pm 5\%$, 500 WV	916 4059 00
C-234	Antenna coupling, band 2	CAPACITOR: ceramic, 51 mmf $\pm 5\%$, 500 WV	916 4294 00
C-235	Antenna coupling, band 3	CAPACITOR: ceramic, 36 mmf $\pm 5\%$, 500 WV	916 4448 00
C-236	Antenna coupling, bands 4-7	CAPACITOR: ceramic, 22 mmf $\pm 5\%$, 500 WV	916 4424 00
C-237	Antenna coupling, bands 8-15	CAPACITOR: ceramic, 10 mmf ± 1 mmf, 500 WV	916 4406 00
C-238	Antenna coupling, bands 16-30	CAPACITOR: ceramic, 5 mmf $\pm 1/2$ mmf, 500 WV	916 4385 00
CR-101	M-101 rectifier	RECTIFIER: dry disc, instrument type	353 3000 00
E-101	K-101 term bd.		
E-102	Audio output term. bd.		
F-101	Primary power fuse	FUSE: cartridge, 1.5 amp, one time	264 0007 00
I-101	Dial light	LAMP: pilot light, miniature bayonet base bulb, T-3-1/4 bulb	262 3240 00
I-102	Dial light	LAMP: pilot light, miniature bayonet base bulb, T-3-1/4 bulb	262 3240 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
I-103	Dial light	LAMP: pilot light, miniature bayonet base bulb, T-3-1/4 bulb	262 3240 00
I-104	Static discharge	LAMP: glow, bayonet candelabra base, T-4-1/2 bulb	262 0238 00
I-105	Band drum	DIAL: band indicating drum	504 3097 00
J-101	Antenna input	CONNECTOR: receptacle, single round female contact	357 9005 00
J-102	Speaker output	JACK: telephone, 3 circuit, for use with .206" diam plug	358 1050 00
J-103	Phone output	JACK: telephone, 2 circuit, for use with .206" diam plug	358 1040 00
J-104	I-F output	CONNECTOR: receptacle, single round female contact	357 9005 00
K-101	Break-in relay	RELAY: armature, contact rating 3 ampere 150 watt, 12 volts, .021 amp direct current	972 1176 00
L-101	Antenna coil, band 1	COIL ASSEMBLY: RF, single winding, 75 turns, single layer wound	504 3056 001
L-102	Antenna coil, band 2	COIL: RF, single layer wound, 48 turns #28 enameled wire	505 2147 002
L-103	Antenna coil, band 3	COIL: RF, single layer wound, 43 turns #28 enameled wire	505 2148 002
L-104	Antenna coil, bands 4-7	COIL ASSEMBLY: RF, single winding, 27 turns single layer wound	504 3060 001
L-105	Antenna coil, bands 8-15	COIL ASSEMBLY: RF, single winding, 20 turns, single layer wound	504 3061 001
L-106	Antenna coil, bands 16-30	COIL ASSEMBLY: RF, single winding, 20 turns, single layer wound	504 3062 001
L-107	Mixer coil pri., bands 4-7	COIL ASSEMBLY: RF, single winding, 27 turns, single layer wound	504 3060 001

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
L-108	Mixer coil pri., bands 8-15	COIL ASSEMBLY: RF, single winding, 20 turns, single layer wound	504 3061 001
L-109	Mixer coil pri, bands 16-30	COIL ASSEMBLY: RF, single winding, 20 turns, single layer wound	504 3062 001
L-110	Mixer coil, band 1	COIL ASSEMBLY: RF, single winding, 75 turns, single layer wound	504 3056 001
L-111	Mixer coil sec, bands 4-7	COIL ASSEMBLY: RF, single winding, 27 turns, single layer wound	504 3060 001
L-112	Mixer coil sec, bands 8-15	COIL ASSEMBLY: RF, single winding, 20 turns, single layer wound	504 3061 001
L-113	Mixer coil sec, bands 16-30	COIL ASSEMBLY: RF, single winding, 20 turns, single layer wound	504 3062 001
L-114	11.5-10.5 mc i-f coil, band 1	COIL: IF, transformer, single winding, 48 turns, single layer wound	504 3064 001
L-115	11.5-10.5 mc i-f coil, band 1	COIL: IF, transformer, single winding, 16 turns, single layer wound	504 3057 001
L-116	Variable i-f coil pri.	COIL: IF, transformer, single winding, 48 turns, single layer wound	504 3064 001
L-117	Variable i-f coil pri.	COIL: IF, transformer, single winding, 46 turns, universal wound	504 3066 001
L-118	Variable i-f coil sec.	COIL: IF, transformer, single winding, 48 turns, single layer wound	504 5347 001
L-119	Variable i-f coil sec.	COIL: IF, transformer, single winding, 46 turns, universal wound	504 3066 001
L-120	Inj. osc. cathode coil	COIL: RF, 3 windings, 112 turns, universal wound	503 4535 001
L-121	Inj. osc. harmonic selector	COIL: RF, single winding, 46 turns, single layer wound	504 3074 002

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
L-122	Power filter	REACTOR: filter choke, 3.0 hy 120 ma, 100 ohm, 250 TV RMS	678 0432 00
L-123	Power filter	REACTOR: filter choke, 5 hy 80 ma, 300 ohm, 2500 TV RMS	678 0431 00
L-124	Spurious filter	FILTER: band supression, rejection frequency 4 megacycles, .260" diam hole for mounting	504 6646 002
L-125	Spurious filter	COIL: RF, choke, 500 millihenry $\pm$ 10%, #36 wire	240 0073 00
M-101	Signal level & db meter	METER: audio level, 0-1 ma 46 ohms $\pm$ 10%	476 9017 00
P-101	AC plug	CONNECTOR: plug, 2 parallel blade male contacts	368 0040 00
R-101	V-101 grid return	RESISTOR: 1 megohm $\pm$ 10%, 1/2 w	745 1212 00
R-102	V-101 grid decoupling	RESISTOR: .10 megohm $\pm$ 10%, 1/2 w	745 1170 00
R-103		RESISTOR: Not used	
R-104	V-101 screen dropping	RESISTOR: 33,000 ohm $\pm$ 10%, 1/2 w	745 1149 00
R-105	V-101 plate load, band 1	RESISTOR: 10,000 ohm $\pm$ 10%, 1/2 w	745 1128 00
R-106	V-101 plate decoupling	RESISTOR: 6800 ohm $\pm$ 10%, 1/2 w	745 1121 00
R-107	V-102 cathode	RESISTOR: 470 ohm $\pm$ 10%, 1/2 w	745 1072 00
R-108	V-102 grid 1 return	RESISTOR: .33 megohm $\pm$ 10%, 1/2 w	745 1191 00
R-109	V-102 screen dropping	RESISTOR: 47,000 ohm $\pm$ 10%, 1/2 w	745 1156 00
R-110	V-102 plate decoupling	RESISTOR: 2200 ohm $\pm$ 10%, 1/2 w	745 1100 00
R-111	V-103 cathode	RESISTOR: 470 ohm $\pm$ 10%, 1/2 w	745 1072 00
R-112	V-103 grid 1 return	RESISTOR: .10 megohm $\pm$ 10%, 1/2 w	745 1170 00
R-113	V-103 screen dropping	RESISTOR: 33,000 ohm $\pm$ 10%, 1/2 w	745 1149 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
R-114	V-105 screen dropping	RESISTOR: 33,000 ohm $\pm 10\%$, 1/2 w	745 1149 00
R-115	V-105 grid leak	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-116	V-103 plate load	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-117	V-103 plate load	RESISTOR: 47,000 ohm $\pm 10\%$, 1/2 w	745 1156 00
R-118	V-104 grid leak	RESISTOR: .68 megohm $\pm 10\%$, 1/2 w	745 1205 00
R-119	V-104 cathode	RESISTOR: 4700 ohm $\pm 10\%$, 1/2 w	745 1114 00
R-120	V-104 screen dropping	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-121	V-104 plate dropping	RESISTOR: .22 megohm $\pm 10\%$, 1/2 w	745 1184 00
R-122	V-104 plate, screen decoupling	RESISTOR: 10,000 ohm $\pm 10\%$, 1/2 w	745 1128 00
R-123	VFO plate, screen decoupling	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-124	V-103 plate decoupling	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-125	V-107 grid load	RESISTOR: .47 megohm $\pm 10\%$, 1/2 w	745 1198 00
R-126	V-107 screen dropping	RESISTOR: 27,000 ohm $\pm 10\%$, 1/2 w	745 1146 00
R-127	V-106 cathode	RESISTOR: 470 ohm $\pm 10\%$, 1/2 w	745 1072 00
R-128	V-106 screen dropping	RESISTOR: 33,000 ohm $\pm 10\%$, 1/2 w	745 1149 00
R-129	V-106 plate decoupling	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-130	Crystal filter selectivity	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-131	Crystal filter selectivity	RESISTOR: 22,000 ohm $\pm 10\%$, 1/2 w	745 1142 00
R-132	Crystal filter selectivity	RESISTOR: 4700 ohm $\pm 10\%$, 1/2 w	745 1114 00
R-133	V-107 grid decoupling	RESISTOR: 10,000 ohm $\pm 10\%$, 1/2 w	745 1128 00
R-134	V-107 screen dropping	RESISTOR: 47,000 ohm $\pm 10\%$, 1/2 w	745 1156 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
R-135	V-107 plate decoupling	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-136	V-108 grid decoupling	RESISTOR: 10,000 ohm $\pm 10\%$, 1/2 w	745 1128 00
R-137	V-108 screen dropping	RESISTOR: 47,000 ohm $\pm 10\%$, 1/2 w	745 1156 00
R-138	V-108 plate decoupling	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-139	V-109 grid decoupling	RESISTOR: 10,000 ohm $\pm 10\%$, 1/2 w	745 1128 00
R-140	"S" meter zero adjust	RESISTOR: 100 ohm $\pm 20\%$, 2 w	380 0120 00
R-141	V-109 screen dropping	RESISTOR: 47,000 ohm $\pm 10\%$, 1/2 w	745 1156 00
R-142	V-109 plate decoupling	RESISTOR: 2200 ohm $\pm 10\%$, 1 w	745 3100 00
R-143	V-112 filament series	RESISTOR: 10 ohm $\pm 10\%$, 1/2 w	745 1002 00
R-144	AVC amplr stabilizing	RESISTOR: .47 megohm $\pm 10\%$, 1/2 w	745 1198 00
R-145	AVC rectifier load	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-146	AVC amplr load	RESISTOR: 47,000 ohm $\pm 10\%$, 1/2 w	745 1156 00
R-147	AVC amplr plate dropping	RESISTOR: 27,000 ohm $\pm 10\%$, 1/2 w	745 1146 00
R-148	RF gain control	RESISTOR: 10,000 ohm $\pm 20\%$, 2 w	380 0118 00
R-149	RF gain control, fixed	RESISTOR: 820 ohm $\pm 10\%$, 1/2 w	745 1083 00
R-150	Detector load	RESISTOR: 68,000 ohm $\pm 10\%$, 1/2 w	745 1163 00
R-151	Detector load	RESISTOR: 33,000 ohm $\pm 10\%$, 1/2 w	745 1149 00
R-152	Limiter filter	RESISTOR: .47 megohm $\pm 10\%$, 1/2 w	745 1198 00
R-153	Limiter filter	RESISTOR: .47 megohm $\pm 10\%$, 1/2 w	745 1198 00
R-154	Audio gain control	RESISTOR: 500,000 ohm $\pm 20\%$, 2 w	380 0119 00
R-155	V-112B cathode	RESISTOR: 3300 ohm $\pm 10\%$, 1/2 w	745 1107 00
R-156	V-112B plate load	RESISTOR: .22 megohm $\pm 10\%$, 1/2 w	745 1184 00
R-157	V-113 grid load	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
R-158	T-103 pri shunt	RESISTOR: .22 megohm $\pm 10\%$, 1/2 w	745 1184 00
R-159	T-103 sec shunt	RESISTOR: .22 megohm $\pm 10\%$, 1/2 w	745 1184 00
R-160	V-114 screen dropping	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-161	V-114 plate load	RESISTOR: 33,000 ohm $\pm 10\%$, 1/2 w	745 1149 00
R-162	V-114 plate dropping	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-163	"S" meter series	RESISTOR: 160 ohm $\pm 5\%$, 1/2 w	745 1053 00
R-164	Back bias dropping	RESISTOR: wire-wound, 120 ohm $\pm 5\%$, 8 w	747 0032 00
R-165	Back bias dropping	RESISTOR: wire-wound, 310 ohm $\pm 5\%$, 8 w	747 0036 00
R-166	Back bias dropping	RESISTOR: wire-wound, 120 ohm $\pm 5\%$, 8 w	747 0032 00
R-167	AVC amplr stabilizing	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00
R-168	V-111A cathode	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-169	V-108 screen dropping	RESISTOR: 27,000 ohm $\pm 10\%$, 1/2 w	745 1146 00
R-170	"S" meter bridge	RESISTOR: 100 ohm $\pm 10\%$, 1/2 w	745 1044 00
R-171	AVC amplr stabilizing	RESISTOR: 120,000 ohm $\pm 10\%$, 1/2 w	745 1174 00
R-172	Static drain	RESISTOR: .47 megohm $\pm 10\%$, 1/2 w	745 1198 00
R-173	Audio voltage dropping	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-174	B+ isolation	RESISTOR: 1000 ohm $\pm 10\%$, 2 w	745 5086 00
R-175		RESISTOR: Not used	
R-176		RESISTOR: Not used	
R-177	V-111B grid	RESISTOR: .22 megohm $\pm 10\%$, 1/2 w	745 1184 00
R-178	V-111B grid	RESISTOR: .10 megohm $\pm 10\%$, 1/2 w	745 1170 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
R-179	V-111B cathode	RESISTOR: 1000 ohm $\pm 10\%$, 1/2 w	745 1086 00
R-180	V-111B plate dropping	RESISTOR: 2200 ohm $\pm 10\%$, 1/2 w	745 1100 00
R-181	V-116 plate load	RESISTOR: 4000 ohm $\pm 5\%$, 12 w	747 1046 00
S-101	Antenna coil selector	SWITCH: rotary, 1 circuit, 17 position	269 1271 00
S-102	Antenna trimmer selector	SWITCH: rotary, 1 circuit, 17 position	269 1271 00
S-103	RF coil selector	SWITCH: rotary, 1 circuit, 18 position	269 1273 00
S-104	RF amplr plate coil selector	SWITCH: rotary, 1 circuit, 18 position	269 1273 00
S-105	Mixer grid coil selector	SWITCH: rotary, 1 circuit, 18 position	269 1273 00
S-106	Mixer plate circuit selector	SWITCH: rotary, 1 circuit, 17 position	269 1271 00
S-107	Mixer plate circuit selector	SWITCH: rotary, 1 circuit, 17 position	269 1271 00
S-108	Inj osc harmonic selector	SWITCH: rotary, 2 circuit, 15 position	269 1272 00
S-109	Crystal selector	SWITCH: rotary, 1 circuit, 17 position	269 1271 00
S-110	Variable i-f selector	SWITCH: rotary, 1 circuit, 2 position	269 1270 00
S-111	Variable i-f selector	SWITCH: rotary, 1 circuit, 2 position	269 1270 00
S-112	BFO ON-OFF	SWITCH: rotary, 2 circuit, 2 position	259 0380 00
S-113	ON-STANDBY-OFF	SWITCH: band change, 2 circuit, 3 position, shorting	259 0381 00
S-114	SELECTIVITY	SWITCH: band change, 1 circuit, shorting, 5 position	259 0379 00
S-115	AVC ON-OFF	SWITCH: rotary, 2 circuit, 2 position	259 0380 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
S-116	LIMITER IN-OUT	SWITCH: rotary, 2 circuit, 2 position	259 0380 00
S-117	METER INPUT-OUTPUT	SWITCH: toggle, DPDT, 30 ampere continuous	266 3062 00
S-118	CALIBRATE ON-OFF	SWITCH: rotary, 2 circuit, 2 position	259 0380 00
T-101	Crystal filter input	TRANSFORMER: IF, frequency range 490 to 510 kc	278 0093 00
T-102	Crystal filter output	FILTER: bandpass, frequency range 490 to 510 kc	278 0092 00
T-103	First i-f	TRANSFORMER: IF, frequency 490 to 510 kc	278 0090 00
T-104	Second i-f	TRANSFORMER: IF, frequency 490 to 510 kc	278 0090 00
T-105	Third i-f	TRANSFORMER: IF, frequency 490 to 510 kc	278 0090 00
T-106	BFO coil	OSCILLATOR SUBASSEMBLY: frequency range 480 to 520 kc	278 0091 00
T-107	Audio output	TRANSFORMER: AF, line type, pri 5000 ohm, sec'd 600 ohm tapped at 4 ohms, 1500 TV, 3 w max	677 0430 00
T-108	Power input	TRANSFORMER: power, pri 115 v, sec'd #1, 5 v, sec'd #2, 6.3 v, sec'd #3 700 v CT, 60 cps	672 0429 00
V-101	RF amplr	TUBE: type 6AK5, pentode JAN COMMERCIAL	254 0121 00 257 0040 00
V-102	First Mixer	TUBE: type 6BE6, pentagrid JAN COMMERCIAL	254 0799 00 257 0048 00
V-103	Band 1 mixer	TUBE: type 6BE6, pentagrid JAN COMMERCIAL	254 0799 00 257 0048 00
V-104	Cal. osc.	TUBE: type 6BA6, pentode JAN COMMERCIAL	254 0787 00 255 0185 00
V-105	Inj. osc.	TUBE: type 6AK5, pentode JAN COMMERCIAL	254 0121 00 257 0040 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
V-106	Second mixer	TUBE: type 6BE6, pentagrid COMMERCIAL JAN	254 0799 00 257 0048 00
V-107	First i-f amplr.	TUBE: type 6BA6, pentode COMMERCIAL JAN	254 0787 00 255 0185 00
V-108	Second i-f amplr.	TUBE: type 6BA6, pentode COMMERCIAL JAN	254 0787 00 255 0185 00
V-109	Third i-f amplr.	TUBE: type 6BA6, pentode COMMERCIAL JAN	254 0787 00 255 0185 00
V-110	Detector & AVC rectifier	TUBE: type 12AX7, twin triode COMMERCIAL JAN	254 0790 00 255 0201 00
V-111	AVC amplr & IF output	TUBE: type 12AU7, twin triode COMMERCIAL JAN	254 0792 00 255 0199 00
V-112	Limiter & first audio amplr	TUBE: type 12AX7, twin triode COMMERCIAL JAN	254 0790 00 255 0201 00
V-113	Second audio amplr	TUBE: type 6AQ5, pentode COMMERCIAL JAN	254 0788 00 255 0195 00
V-114	BFO	TUBE: type 6BA6, pentode COMMERCIAL JAN	254 0787 00 255 0185 00
V-115	Power rectifier	TUBE: type 5V4G, rectifier COMMERCIAL JAN	254 0102 00 255 0081 00
V-116	Voltage regulator	TUBE: type 0A2, voltage regulator COMMERCIAL JAN	254 0793 00 257 0052 00
XF-101	Holder for F-101	HOLDER: fuse, extractor post for single 3AG fuse	265 1003 00
XI-101	Socket for I-101	SOCKET: lamp, pilot light bracket, miniature bayonet base	262 0240 00
XI-102	Socket for I-102	SOCKET: lamp, pilot light bracket, miniature bayonet base	262 0240 00
XI-103	Socket for I-103	SOCKET: lamp, pilot light assembly, miniature bayonet base	262 0239 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
XV-101 thru XV-109	Sockets for V-101, V-102, V-103, V-104, V-105, V-106, V-107, V-108, V-109	SOCKET: tube, 7 contact miniature, shielded	220 1111 00
XV-110	Socket for V-110	SOCKET: tube, 9 contact miniature, shielded	220 1103 00
XV-111	Socket for V-111	SOCKET: tube, 9 contact miniature, shielded	220 1103 00
XV-112	Socket for V-112	SOCKET: tube 9 contact miniature, shielded	220 1103 00
XV-113	Socket for V-113	SOCKET: tube, 7 contact miniature, shielded	220 1111 00
XV-114	Socket for V-114	SOCKET: tube, 7 contact miniature, shielded	220 1111 00
XV-115	Socket for V-115	SOCKET: tube octal	220 1121 00
XV-116	Socket for V-116	SOCKET: tube 7 contact miniature, shielded	220 1111 00
XY-101 thru Y-110	Socket for Y-101 thru Y-110	BOARD: crystal, accommodates 10 type CR-18/U crystals	504 5009 00
XY-111	Socket for Y-111	SOCKET: crystal, for 100 kc crystal	292 0055 00
Y-101	Bands 29-30 crystal	CRYSTAL: type CR-18/U, 10666.67 kc	291 8134 00
Y-102	Bands 23-24 crystal	CRYSTAL: type CR-18/U, 13,000.000 kc	291 8102 00
Y-103	Bands 19-20 crystal	CRYSTAL: type CR-18/U, 11,000.00 kc	291 8114 00
Y-104	Bands 15-16 crystal	CRYSTAL: type CR-18/U, 9,000.00 kc	291 8083 00
Y-105	Bands 11-12, 25-26 crystal	CRYSTAL: type CR-18/U, 14000.00 kc	291 8135 00
Y-106	Bands 9-10, 21-22 crystal	CRYSTAL: type CR-18/U, 12,000.000 kc	291 8117 00
Y-107	Bands 7-8, 17-18, 27-28 crystal	CRYSTAL: type CR-18/U, 10,000.00 kc	291 8133 00

PARTS LIST

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
Y-108	Bands 5-6, 13-14 crystal	CRYSTAL: type CR-18/U, 8000.000 kc	291 8113 00
Y-109	Band 3 crystal	CRYSTAL: type CR-18/U, 6000.00 kc	291 8132 00
Y-110	Band 1 crystal	CRYSTAL: type CR-18/U, 4000.000 kc	291 8131 00
Y-111	Calibration crystal	CRYSTAL: special 100 kc unit	291 5954 00
Y-112	Filter crystal	CRYSTAL: type CR-7, 500 kc	291 5175 00
70E-15	Variable frequency oscillator, 2-3 mc	This unit has been dehydrated and hermetically sealed, and should be returned to the Collins Radio Company, if servicing is required.	505 0410 003

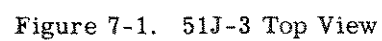


Figure 7-1. 51J-3 Top View

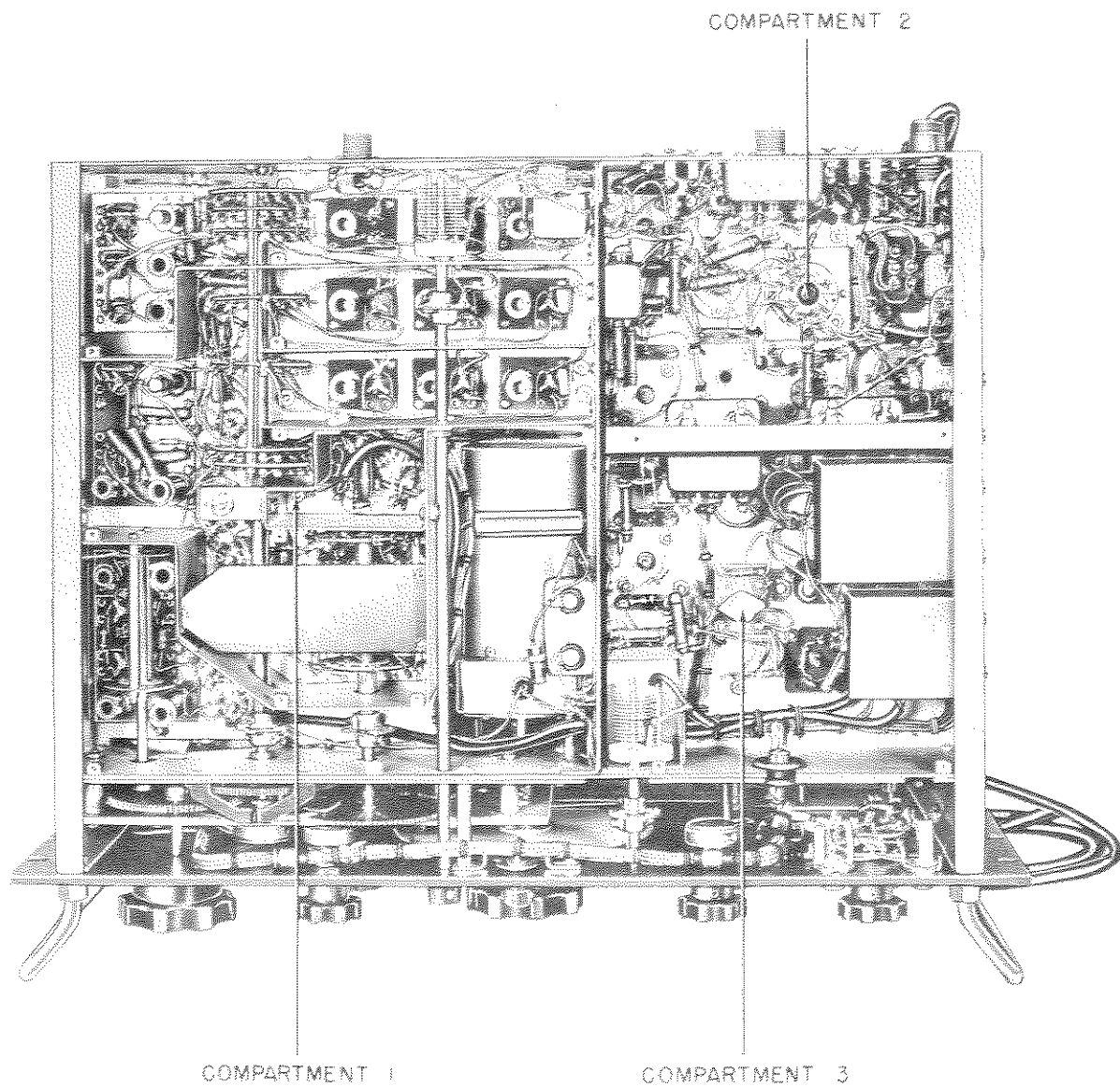


Figure 7-2. 51J-3 Bottom View

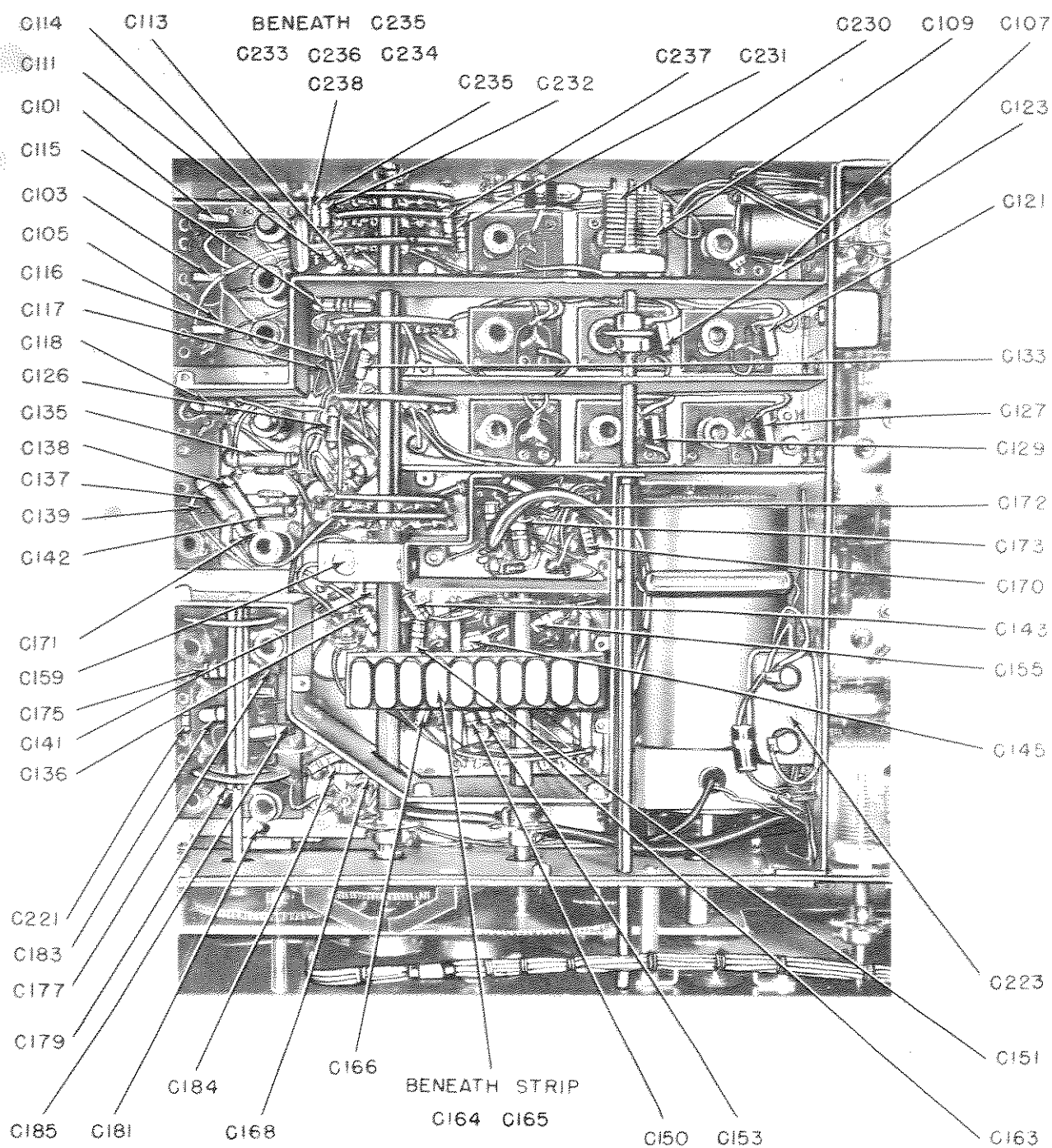


Figure 7-3. 51J-3 Bottom View, Compartment 1, Capacitor

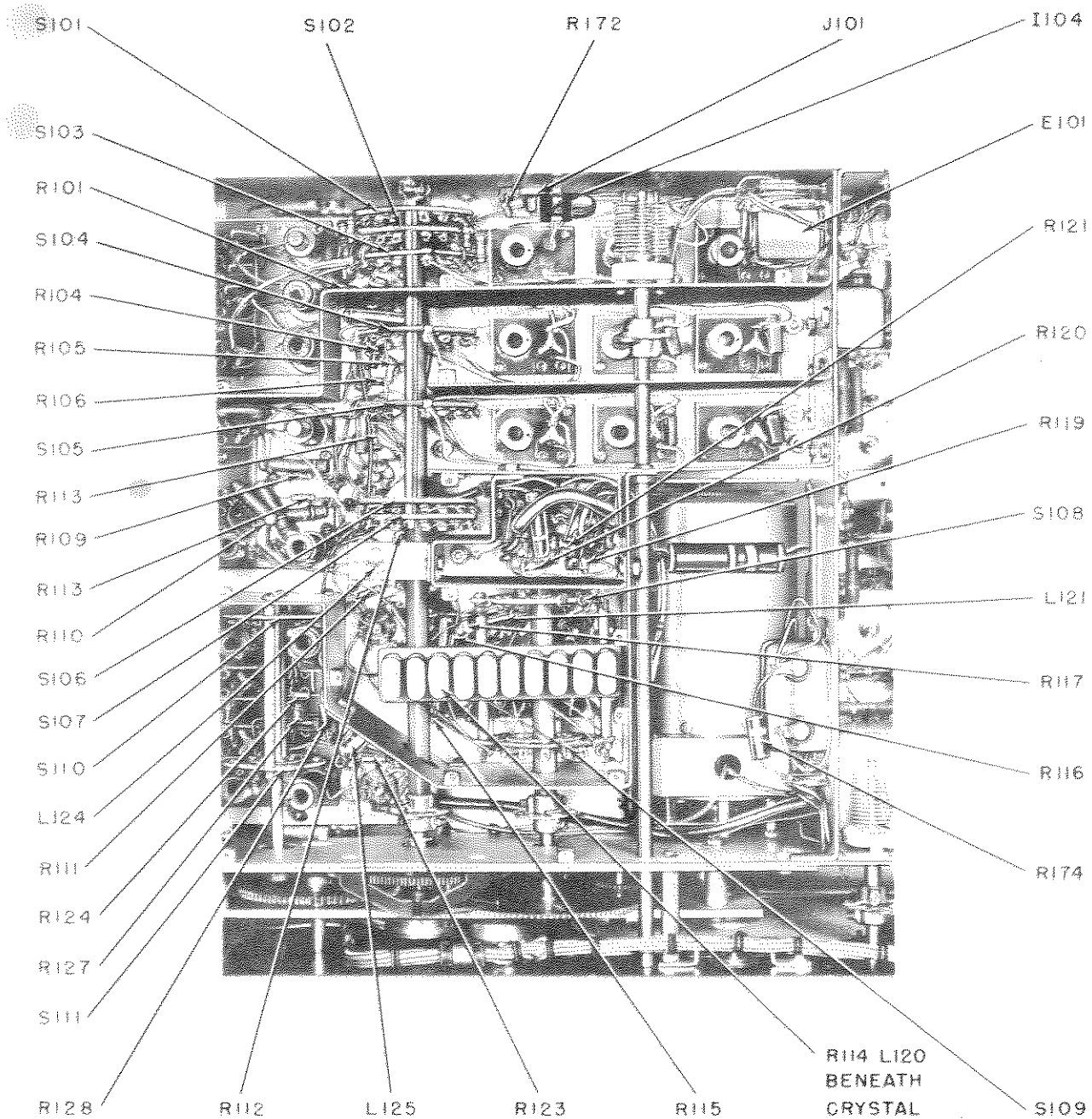


Figure 7-4. 51J-3 Bottom View, Compartment 1, Other Components

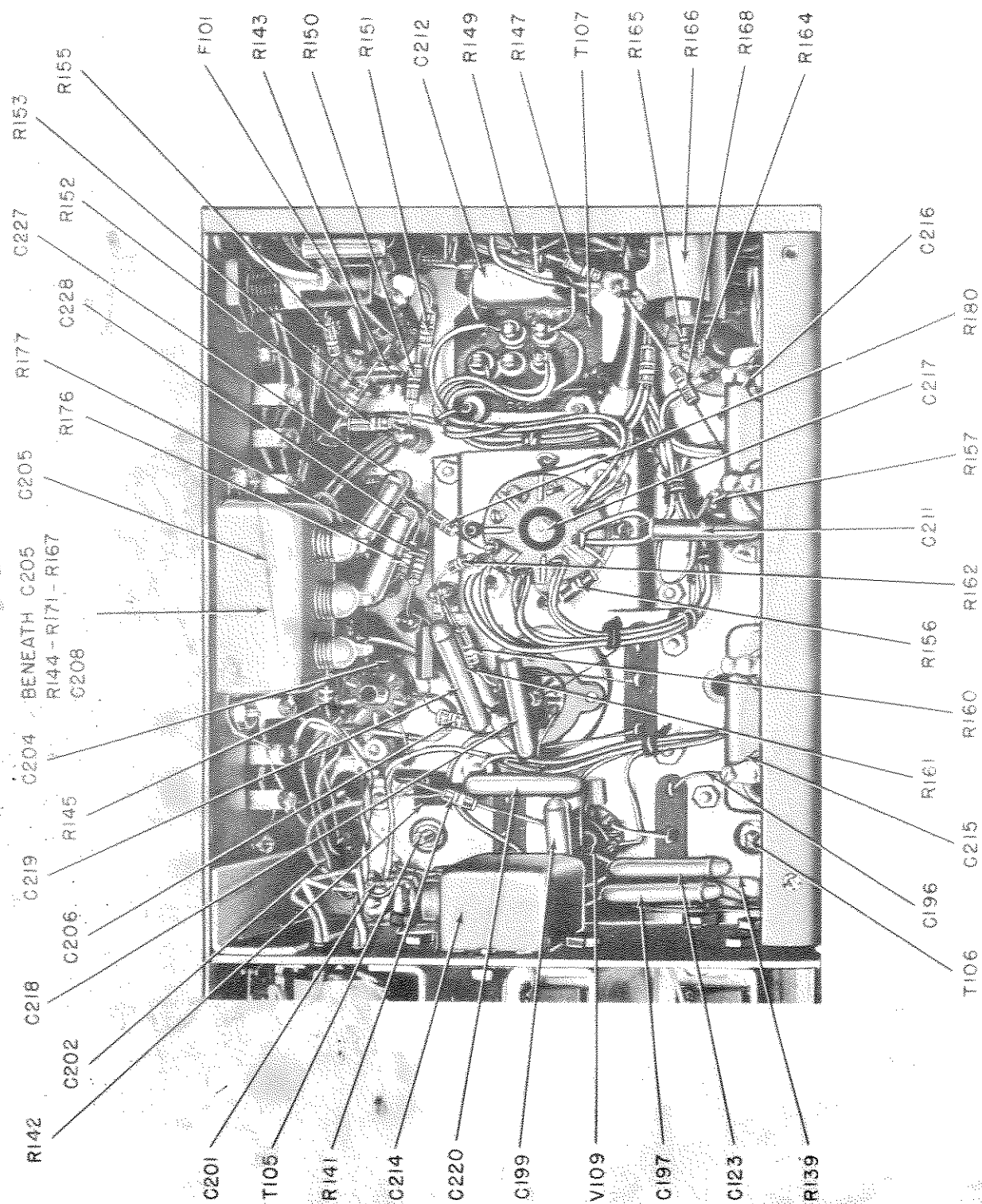


Figure 7-5. 51J-3 Bottom View, Compartment 2

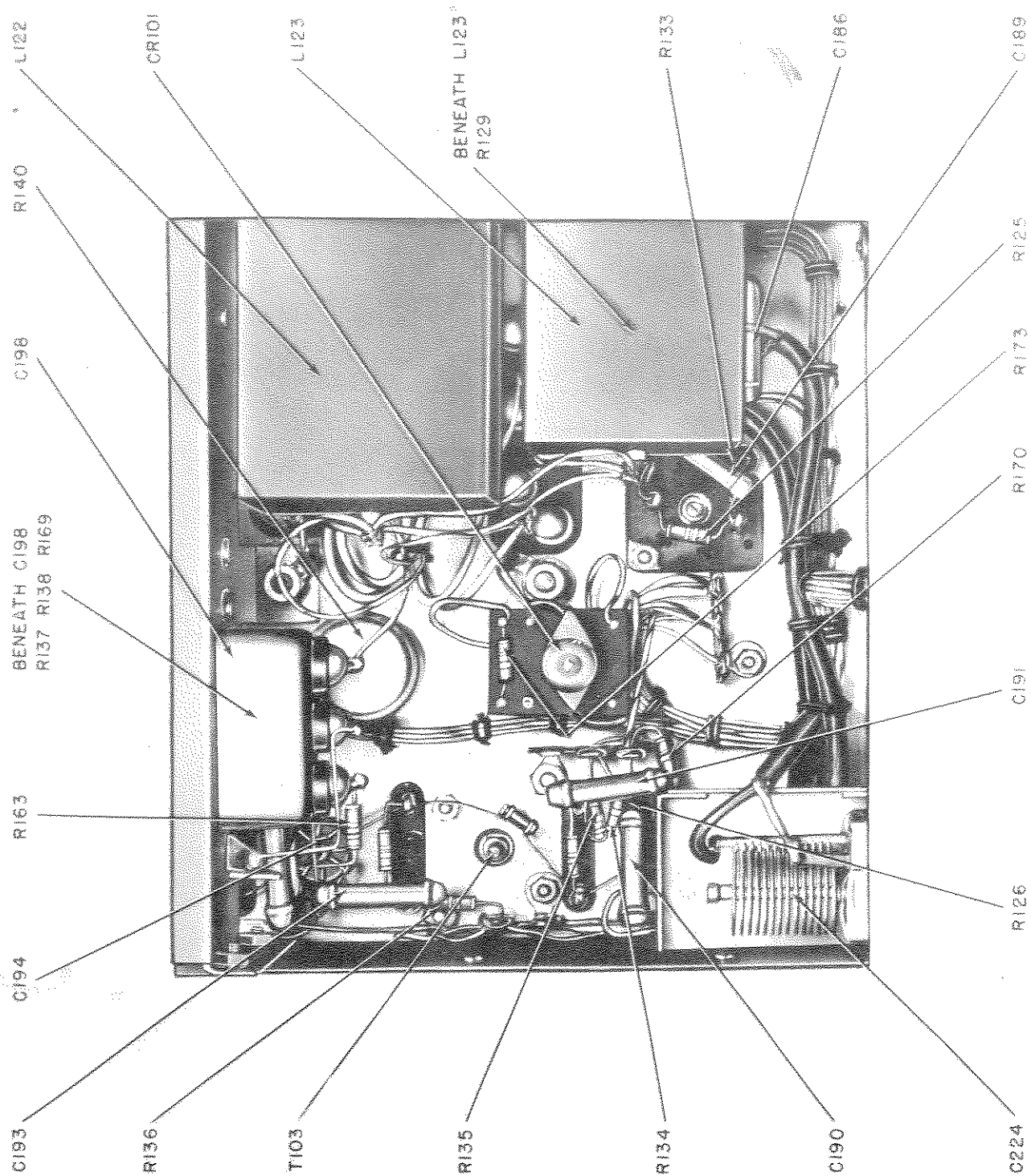


Figure 7-6. 51J-3 Bottom View, Compartment 3