

SECTION VI

PARTS LIST

6.1 534A-1 CABLE HARNESS AND WIRING DUCT.

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
E701	Coaxial "T" connector, type BNC, KWS-1 Cal. Signal pickup	CONNECTOR: adapter; 2 female contacts and 1 male contact; rd; angle type; receiver antenna cable; tee shape, bayonet locking	357 9026 00
J701	Utility outlet	CONNECTOR, RECEPTACLE, ELECTRICAL: 2U hollow female contacts; 10 amp, 250 v a-c rms; plastic dielectric; straight shape; 29/32 in. by 1-3/32 in. by 2-7/32 in.; plastic shell, resistant to corrosion and rust; polarized; jettison-type locking	368 4500 00
J702	Utility outlet	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J701	368 4500 00
J703	Utility outlet	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J701	368 4500 00
J704	Utility outlet	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J701	368 4500 00
J705	Utility outlet	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J701	368 4500 00
J706	Utility outlet	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J701	368 4500 00
J707	Receptacle-type BNC female (mates w/ E701)	CONNECTOR, PLUG: 1 rd female contact; straight; 0.500 in. OD by 1-1/16 in. lg over-all; cylindrical brass body, bayonet locking; cable opening 0.212 in. dia; weatherproofed	357 9050 00
P102	Receptacle, control cable plug	CONNECTOR, RECEPTACLE, ELECTRICAL: 15 polarized female contacts; straight, 500 v a-c rms, 12 contacts at 5 amp, 3 contacts at 15 amp	372 1081 00
	Cover for receptacle	COVER, ELECTRICAL CONNECTOR: metallic material; 0.83 in. by 1.58 in. by 2-1/16 in.; two tapped 6-32 NC-2 mtg holes on tabs located 1 on ea side inside of cover, 0.329 in. from bottom and 1.188 in. c to c	372 1083 00
P701	Plug BNC male (mates w/ 75A-4 ANT. jack)	CONNECTOR, PLUG ELECTRICAL: 1 mating end; 1 rd male contact; 50 ohm; low loss plastic dielectric; straight shape; 0.563 in. OD, 1-1/32 in. lg; bayonet-type locking; 0.206 in. dia cable opening; w/ cable clamp and conduit nut; weatherproofed	357 9018 00
P702	Plug BNC male, KWS-1 Cal. signal output	CONNECTOR, PLUG ELECTRICAL: same as P701	357 9018 00

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Parts List

6.1 534A-1 CABLE HARNESS AND WIRING DUCT (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
P703	Phonotype plug, KWS-1 phone-patch input	CONNECTOR, PLUG ELECTRICAL: phonotype plug for use with shielded audio cable; brass cadmium pl; 13/16 in. lg by 1/8 in. ID	361 0045 00
P704	Plug BNC male (mates w/ E701)	CONNECTOR, PLUG ELECTRICAL: same as P701	357 9018 00
P705	Plug BNC male (mates w/ E701)	CONNECTOR, PLUG ELECTRICAL: same as P701	357 9018 00
P706	Plug type N male (mates w/ KWS-1 ANT. jack)	CONNECTOR, PLUG ELECTRICAL: 1 mating end; 1 rd male contact, 50 ohm, low loss plastic dielectric; straight shape; 25/32 in. OD, 1-13/16 in. lg; 5/8-24 NEF-2 thd for coupling nut; 0.437 in. dia cable opening w/ cable clamp and conduit nut	357 9040 00

6.2 312A-2 CONTROL/SPEAKER.

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
B801	Radio-compass dial	INDICATOR: azimuth; antenna azimuth; 115 v \pm 10 v, 50/60 cycles per sec; panel mtg, arrow indicator, dial marked 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 2°, 10°, 30° graduations; 3-1/8 in. dia by 3-1/32 in. lg over-all	482 0027 00
	Synchro receiver	MOTOR: self-synchronous; 115 v, 50/60 cycles per sec; single phase; 2-1/2 in. dia by 2-7/8 in. lg over-all; closed frame, type no. 1339-0160; shaft 0.1245 in. dia by 1/4 in. lg from housing; three no. 6-32 mtg holes spaced equally on 2.125 in. dia circle for mtg flange, six screw term	482 0027 00
B802	Synchro transmitter	MOTOR: same as motor, B801	230 0142 00
C801	R-f bypass, phone patch	CAPACITOR: mica; 470 uuf \pm 10%, 500 vdcw	935 0134 00
C802	R-f bypass, phone patch	CAPACITOR: same as C801	935 0134 00
C803	R-f bypass, phone patch	CAPACITOR: same as C801	935 0134 00
C804	R-f bypass, phone patch	CAPACITOR: same as C801	935 0134 00
C805	D-c isolation, phone patch	CAPACITOR: electrolytic, tantalum, 4 uf \pm 20%, 100 vdcw	184 7019 00
C806	D-c isolation, phone patch	CAPACITOR: electrolytic, tantalum, 1 uf \pm 20%, 150 vdcw	184 7011 00
C807	Relay supply filter	CAPACITOR: dry electrolytic, 10 uf, -10%, +100%, 150 vdcw	183 1040 00

6.2 312A-2 CONTROL/SPEAKER (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
CR801	Relay supply rectifier	RECTIFIER, METALLIC: type 1N158, selenium, half-wave circuit, single-phase half-wave rectification; 130 v rms, input voltage; 52 v output, resistive load, solder lug terminals	353 0186 00
E802	Station clock	CLOCK: model 1P-244, 1/4 in. numechron clock movement 1/4 in. black numerals on hour and minute wheels, second wheel w/ printed red numerals 5 to 60 at 5 second intervals, 110 v, 60 cycles, a-c; 3 in. h, 4-1/4 in. w, 2-1/2 in. depth	015 0588 00
F801	E802, I801 line fuse	FUSE, CARTRIDGE: 250 v; 20 amp current; normal instantaneous operating; ferrule terminals, 0.250 in. dia; glass body 1-1/4 in. lg by 0.250 in. dia	264 4070 00
F802	312A-2 line fuse	FUSE, CARTRIDGE: same as F801	264 4070 00
I801	Station light	LAMP, FLOURESCENT: 40 w, white light, 11-3/4 in. lg, 1-5/32 in. dia	262 0170 00
I802	Pilot light	LAMP, INCANDESCENT: 6.3 v, 0.15 amp; miniature bayonet base; T-3-1/4 bulb, clear, tungsten filament; 1-1/8 in. lg	262 3240 00
J801	Phone-patch control cable jack	CONNECTOR, PLUG ELECTRICAL: 11 rd male contacts, 1 connector mating end; 50 v a-c rms, 2 large contacts 15 amp, 9 small contacts 5 amp, phenolic dielectric; straight nonlocking	372 1074 00
L801	R-f filter, phone-patch	CHOKE, RADIO FREQUENCY: 4 pi windings, universal wound, 139 turns, ± 2 turns each section, no. 36 AWG, SNE copper wire; 2.0 uh at 350 kc inductance, 20,000 ohms to 50,000 ohms impedance, powdered iron coil form	240 0134 00
L802	R-f filter, phone-patch	CHOKE, RADIO FREQUENCY: same as L801	240 0134 00
LS801	75A-4 loudspeaker	LOUDSPEAKER, PERMANENT MAGNET: 10 in. core; input 8 w normal; voice coil impedance 6-8 ohm; 10-1/8 in. OD by 9-1/8 in. ID by 3-13/16 in. d; speaker mts in cabinet by eight oblong holes, spaced 45° apart on 4.851 in. radius	271 0197 00
M801	302C-2 indicating meter	METER: d-c micrometer scale 0-100 and 0-1000 w, black markings on white background 0-100, 0-1000 (1 k) watts, $\pm 2\%$ full-scale deflection, 1000 ohm $\pm 2\%$ resistance, 3 in. by 3 in. case, four 4-36 NS-2 mtg studs; 1/4-28 NF-2, two studs	458 0388 00
P801	Phone-patch control cable plug	CONNECTOR, PLUG ELECTRICAL: 11 rd female contacts, 2 large and 9 small contacts, 15 amp and 5 amp, 500 v a-c rms, respectively; plastic dielectric; straight shape, 0.415 in. by 0.750 in. by 1.171 in.; accommodates 11 conductor cable, 1 mating end	372 1076 00
R801	Relay supply filter	RESISTOR: comp; 100 ohm $\pm 10\%$, 1 w	745 3310 00

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6.2 312A-2 CONTROL/SPEAKER (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
R802	VOX BAL control	RESISTOR: variable comp; 1000 ohm $\pm 20\%$, 1 w	380 1258 00
R803	Part of phone-patch rcvr, audio atten. pad	RESISTOR: comp; 150 ohm $\pm 10\%$, 1/2 w	745 1317 00
R804	Part of phone-patch rcvr, audio atten. pad	RESISTOR: comp; 470 ohm $\pm 10\%$, 1/2 w	745 1338 00
R805	Part of phone-patch rcvr. audio atten. pad	RESISTOR: same as R804	745 1338 00
R806	Part of phone-patch tel. line. iso. pad	RESISTOR: comp; 220 ohm $\pm 10\%$, 1/2 w	745 1324 00
R807	Part of phone-patch tel. line iso. pad	RESISTOR: same as R806	745 1324 00
R808	Part of phone-patch tel. line. iso. pad	RESISTOR: comp; 820 ohm $\pm 10\%$, 1/2 w	745 1349 00
S801	Antenna selector switch	SWITCH, ROTARY: 5 circuits, 5 pole, 6 positions; 1-7/8 in. h by 3-1/2 in. lg by 1-5/8 in. w	259 0786 00
S802	Rotator control switch	SWITCH, TOGGLE: dpdt; 2 positions, 49/64 in. lg by 1/16 in. by 1-21/64 in. overall excluding handle and bushing; 11/16 in. lg bat-type handle	266 3061 00
S803	Primary power switch	SWITCH, TOGGLE: dpst; 2 positions; 30 amp; 49/64 in. by 1/16 in. by 1-21/64 in. overall excluding handle and bushing, 11/16 in. lg bat-type handle	266 3057 00
S804	I801 primary power switch	SWITCH, ROTARY: single pole, 6 leads, 6 amp 125 v, 3 amp 250 v, 3/8 in. thd shaft, one lock nut supplied	260 1289 00
S805	Phone-patch control switch	SWITCH, ROTARY: 1 section; 2 positions; 3 moving and 9 fixed contacts, 3 pole, 1 throw	259 0791 00
S806	302C-2 indicating meter selector switch	SWITCH, ROTARY: 1 section; 4 positions; 2 moving and 10 fixed contacts, 2 poles, 3 throws a-c, d-c, 230 v, 0.25 amp	259 0758 00
T801	Phone-patch balancing transformer	TRANSFORMER, AUDIO FREQUENCY: primary, 600 ohm p/m 10% at 200 cps; secondary 1200 ohm, primary current rating zero, secondary current rating zero, 2 mtg studs, solder lug terminals 1-5/16 in. by 1-5/16 in. by 2-1/16 in.	667 0233 00
T802	Phone-patch line-to-line transformer	TRANSFORMER, AUDIO FREQUENCY: line type, primary 600 ohm p/m 10%, secondary 600 ohm; zero primary and secondary current rating, compound-filled steel case, solder lug terminals, 2 mtg studs, 1-5/16 in. by 1-5/16 in. by 2-1/16 in. h	667 0234 00

6.2 312A-2 CONTROL/SPEAKER (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
T803	Relay power supply transformer	TRANSFORMER, POWER STEP-DOWN, STEP-UP: 60 cps plate and filament type; primary 117 v, secondary no. one 125 v, secondary no. 2 6.3 v, 2.0 amp; exposed core and coil; wire-lead terminals	662 0231 00
TB801	312A-2 main terminal board	TERMINAL BOARD: bakelite, 3/8 in. thk, 7/8 in. w by 4-3/8 in. lg overall, 10 terminals w/ 5-40 by 3/16 in. lg screws, four 1/8 in. dia mtg holes	367 3100 00
TB802	Relay power supply terminal board	TERMINAL BOARD: phenolic; 31/32 in. thk, 1-1/8 in. w by 3-3/8 in. lg, 6 terminals, 6-32 B, hd, sc, four 0.175 in. dia mtg holes	367 0104 00
TB803	Phone-patch	TERMINAL BOARD: phenolic, 13/32 in. thk, 7/8 in. w by 4-1/8 in. lg; 10 terminals w/ 5-40 NC-2 by 3/16 in. lg screws	367 0018 00

6.3 68Y-1 ANTENNA SELECTOR UNIT.

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C901	Divider capacitor	CAPACITOR: variable; 0.5 min to 3.0 max uuf, 500 vdcw	922 0149 00
C902	Divider capacitor	CAPACITOR: same as C901	922 0149 00
C903	Divider capacitor	CAPACITOR: mica, 500 uuf, $\pm 20\%$, 500 vdcw	912 0667 00
C904	Divider capacitor	CAPACITOR: same as C903	912 0667 00
C905	Phase corrector	CAPACITOR: ceramic; 43 uuf $\pm 1\%$, 500 vdcw	916 4675 00
C906	Phase corrector	CAPACITOR: same as C905	916 4675 00
C907	D-c line filter	CAPACITOR: ceramic; 1000 uuf +80% -20%, 500 vdcw	913 1292 00
C908	D-c line filter	CAPACITOR: same as C907	913 1292 00
C909	D-c line filter	CAPACITOR: same as C907	913 1292 00
C910	D-c line filter	CAPACITOR: same as C907	913 1292 00
CR901	Crystal diode 1N82A	SEMICONDUCTOR, DEVICE DIODE: silicon crystal diode for use as r-f mixer at freq to 1000 mc; avg. rectified cur., 50 ma; peak rectified cur., 150 ma; surge cur. (1 sec.), 500 ma; peak inverse voltage, 5 v; conversion loss, 8 db max; noise figure 14 db max; i-f impedance 450 ohms; injection cur. range, 0.5 to 4.5 ma	353 2542 00
CR902	Crystal diode 1N82A	SEMICONDUCTOR, DEVICE DIODE: same as CR901	353 2542 00
E901	Coaxial elbow type N (mates with J906)	CONNECTOR, PLUG, ELECTRICAL: 1 mating end, 1 coaxial, plain female contact, 50 ohm, low loss plastic; 90° angle; 13/16 in. by 1.468 in. by 1.968 in.; w/ 5/8-24 thd coupling nut; 0.562 in. dia cable accommodated	357 9113 00

SECTION VI
Parts List

6.3 68Y-1 ANTENNA SELECTOR UNIT (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
E902	Coaxial jumper, K902 - K903	CABLE ASSEMBLY: consists of 1 connector plug, single rd male contact, straight; 1-13/16 in. lg by 25/32 in. dia; 1 connector plug; 1 female contact one end, angle type, 1.968 in. lg by 1.468 in. w by 13/16 in. thk overall; cable r-f, RG-8/U; coaxial; 52 ohm impedance, 10-3/4 in. lg	542 0985 003
J902	Receptacle - coaxial BNC RCVR Jack	CONNECTOR, RECEPTACLE, ELECTRICAL: single rd female contact; straight shape	357 9027 00
J903	Receptacle - coaxial type N patch - jack	CONNECTOR, RECEPTACLE, ELECTRICAL: 1 mating end; 1 rd female contact, 50 ohm; low loss plastic dielectric; straight shape; 0.731 in. by 1 in. by 1 in.; w/ silver-plated brass enclosing shell; resistant to corrosion; 5/8-24 NEF-2 thd for locking	357 9003 00
J904	Receptacle - coaxial BNC patch - jack	CONNECTOR, RECEPTACLE, ELECTRICAL: 1 mating end, 1 rd female contact, 50 ohm; low loss plastic dielectric; straight; brass shell; bayonet latch locking	357 9054 00
J905	Receptacle - coaxial type N Trans. Line Jack	CONNECTOR, RECEPTACLE, ELECTRICAL: 1 rd female contact; straight; 2 in. lg by 0.718 in. OD; cylindrical brass silver plated body; four 1/8 in. dia mtg holes spaced on 0.718 in. by 0.718 in. mtg center in flange	357 9061 00
J906	Trans end of 302C-2 coupler	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J903	357 9003 00
J907	Load end of 302C-2 coupler	CONNECTOR, RECEPTACLE, ELECTRICAL: same as J903	357 9003 00
K901	Relay - coaxial Transmit - Receive	RELAY, ARMATURE: 1A contact arrangement; 125.0 v max d-c; coil resistance 4000 ohm $\pm 10\%$; r-f contact rating 600 w into a 52-ohm line; 3 amp at 115 v a-c or 27.5 v d-c auxiliary contact; continuous duty	410 0134 00
K902	Relay - coaxial Antenna Switching	RELAY, ARMATURE: coaxial, contact rating, 600 w into a 52-ohm line; standing wave ratio 1:1.1 max., 3 mc to 30 mc; max operate voltage 125.0 v d-c; coil resistance; 4000 ohm $\pm 10\%$, continuous duty cycle	410 0136 00
K903	Relay - coaxial Antenna Switching	RELAY, ARMATURE: same as K902	410 0136 00
K904	Relay - coaxial Antenna Switching (not supplied)	RELAY, ARMATURE: same as K902	410 0136 00
K905	Relay - coaxial Antenna Switching (not supplied)	RELAY, ARMATURE: same as K902	410 0136 00
K906	Relay - coaxial Antenna Switching (not supplied)	RELAY, ARMATURE: same as K902	410 0136 00

6.3 68Y-1 ANTENNA SELECTOR UNIT (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
L901	R-f choke	COIL, RADIO FREQUENCY: universal wound, 3 pi; 225 total turns no. 36 AWG, enamel insulation; 220 uh inductance, 0.02 amp cur. rating	240 0037 00
L902	R-f choke	COIL, RADIO FREQUENCY: same as L901	240 0037 00
P901	Plug, coaxial type N, male (spare, three supplied)	CONNECTOR, PLUG, ELECTRICAL: 1 mating end; 1 rd male contact, 50 ohm; low loss plastic dielectric; straight shape; 25/32 in. OD, 1-13/16 in. lg; 5/8-24 NEF-2 thd for coupling nut; 0.437 in. dia cable opening; w/ cable clamp and conduit nut; weatherproofed	357 9040 00
P902	Plug, coaxial type BNC, male (mates with J902)	CONNECTOR, PLUG, ELECTRICAL: 1 mating end; 1 rd male contact; 50 ohm; low loss plastic dielectric; straight shape; 0.563 in. OD, 1-1/32 in. lg; bayonet type locking; 0.206 in. dia cable opening; w/ cable clamp and conduit nut; weatherproofed	357 9018 00
P903		NOT USED	
P904	Plug, coaxial type BNC, spare rcvr. ant. plug (not supplied)	CONNECTOR, PLUG, ELECTRICAL: same as P902	357 9018 00
P905	Transmission line plug, coaxial, type N, (mates with J905)	CONNECTOR, PLUG, ELECTRICAL: same as P901	357 9040 00
P906	Transmission line plug, coaxial type N, (mates with type N female on K902 patch-panel jack)	CONNECTOR, PLUG, ELECTRICAL: same as P901	357 9040 00
P907	Transmission line plug, coaxial type N (mates with type N female on K903 patch-panel jack)	CONNECTOR, PLUG, ELECTRICAL: same as P901	357 9040 00
P908	Transmission line plug, type N male (spare, see P901)	CONNECTOR, PLUG, ELECTRICAL: same as P901	357 9040 00
P909	Transmission line plug, type N male (spare, see P901)	CONNECTOR, PLUG, ELECTRICAL: same as P901	359 9040 00
P910	Transmission line plug, type N male (spare, see P901)	CONNECTOR, PLUG, ELECTRICAL: same as P901	357 9040 00
R901	Toroid trans load res.	RESISTOR: film, 10 ohm $\pm 1\%$, 1/2 w	705 2356 00

SECTION VI
Parts List

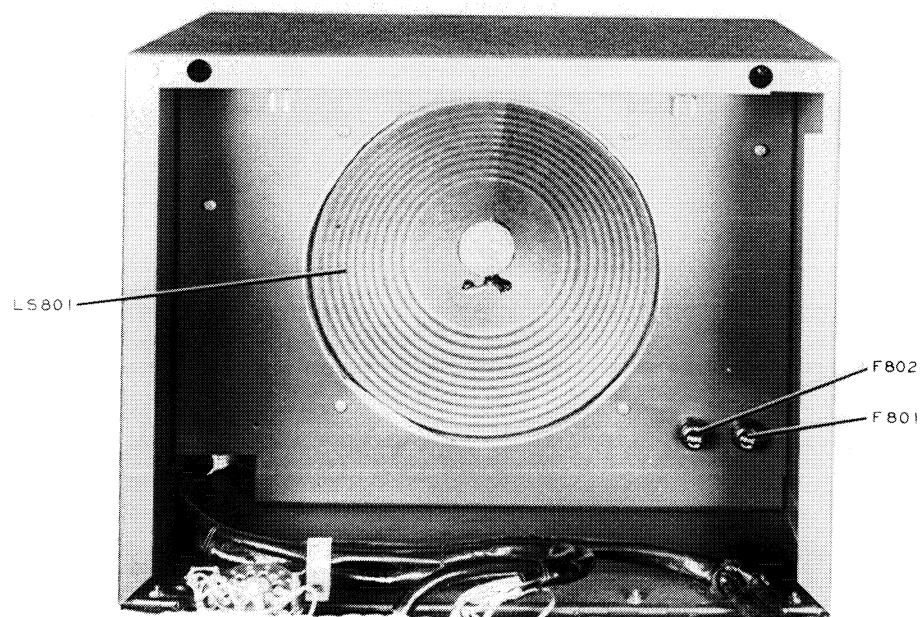
6.3 68Y-1 ANTENNA SELECTOR UNIT (Cont)

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
R902	Toroid trans load res.	RESISTOR: same as R901	705 2356 00
R903 and R904	Selected per operational requirement	RESISTOR: film; 4750 ohms $\pm 1\%$, 1/4 w	705 7255 00
		RESISTOR: film; 4870 ohm $\pm 1\%$, 1/4 w	705 7129 00
		RESISTOR: film; 4990 ohm $\pm 1\%$, 1/4 w	705 7256 00
		RESISTOR: film; 5110 ohm $\pm 1\%$, 1/4 w	705 7130 00
		RESISTOR: film; 5230 ohm $\pm 1\%$, 1/4 w	705 7257 00
		RESISTOR: film; 5360 ohm $\pm 1\%$, 1/4 w	705 7131 00
		RESISTOR: film; 5490 ohm $\pm 1\%$, 1/4 w	705 7258 00
		RESISTOR: film; 5620 ohm $\pm 1\%$, 1/4 w	705 7132 00
		RESISTOR: film; 5760 ohm $\pm 1\%$, 1/4 w	705 7259 00
		RESISTOR: film; 5900 ohm $\pm 1\%$, 1/4 w	705 7133 00
		RESISTOR: film; 6040 ohm $\pm 1\%$, 1/4 w	705 7260 00
		RESISTOR: film; 6190 ohm $\pm 1\%$, 1/4 w	705 7134 00
		RESISTOR: film; 6340 ohm $\pm 1\%$, 1/4 w	705 7261 00
		RESISTOR: film; 6490 ohm $\pm 1\%$, 1/4 w	705 7135 00
		RESISTOR: film; 6650 ohm $\pm 1\%$, 1/4 w	705 7262 00
		RESISTOR: film; 6810 ohm $\pm 1\%$, 1/4 w	705 7136 00
		RESISTOR: film; 6980 ohm $\pm 1\%$, 1/4 w	705 7263 00
R905 and R906	Selected per operational requirement	RESISTOR: film; 51.1 ohm $\pm 1\%$, 1/4 w	705 7034 00
		RESISTOR: film; 100 ohm $\pm 1\%$, 1/4 w	705 7048 00
		RESISTOR: film; 147 ohm $\pm 1\%$, 1/4 w	705 7056 00
		RESISTOR: film; 196 ohm $\pm 1\%$, 1/4 w	705 7062 00
		RESISTOR: film; 249 ohm $\pm 1\%$, 1/4 w	705 7067 00
		RESISTOR: film; 301 ohm $\pm 1\%$, 1/4 w	705 7071 00
		RESISTOR: film; 348 ohm $\pm 1\%$, 1/4 w	705 7074 00
		RESISTOR: film; 402 ohm $\pm 1\%$, 1/4 w	705 7077 00
		RESISTOR: film; 464 ohm $\pm 1\%$, 1/4 w	705 7080 00
		RESISTOR: film; 511 ohm $\pm 1\%$, 1/4 w	705 7082 00

6.3 68Y-1 ANTENNA SELECTOR UNIT (Cont)

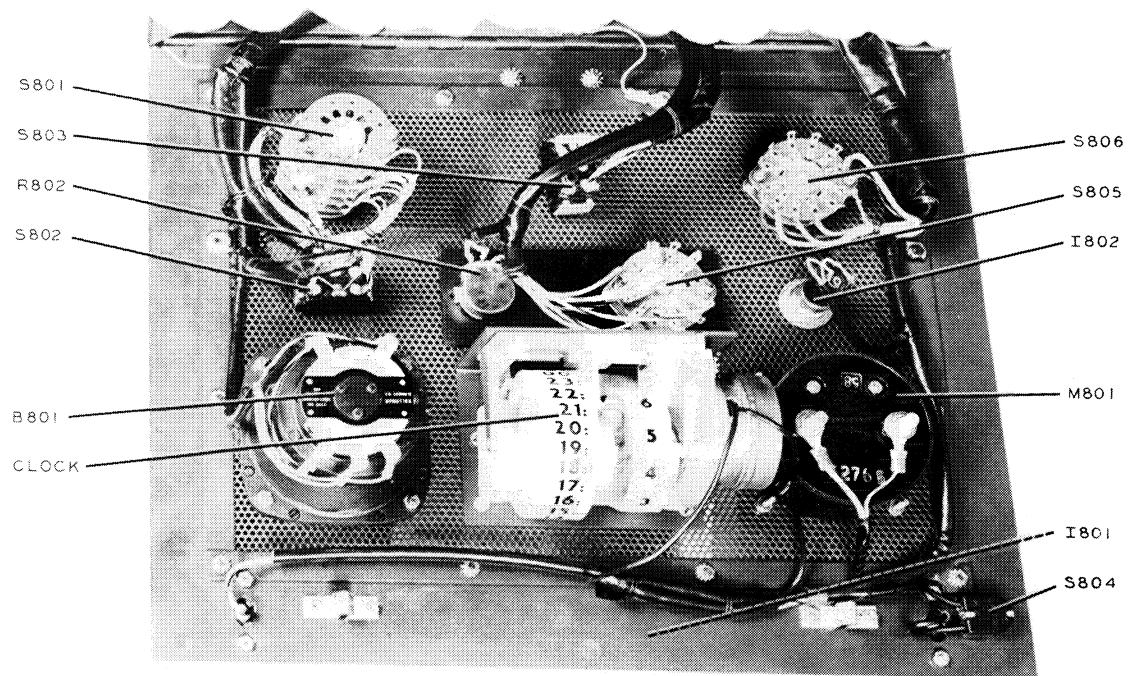
ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
T901	R-f transformer Toroidal	RESISTOR: film; 562 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 619 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 681 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 750 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 835 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 909 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 953 ohm $\pm 1\%$, 1/4 w RESISTOR: film; 1000 ohm $\pm 1\%$, 1/4 w	705 7084 00 705 7086 00 705 7088 00 705 7090 00 705 7092 00 705 7094 00 705 7095 00 705 7096 00 542 0916 002

SECTION VII ILLUSTRATIONS



C183-20-P

Figure 7-1. 312A-2 Control/Speaker Unit, Front View, Front Panel Opened



C183-21-P

Figure 7-2. 312A-2 Control/Speaker Unit, Front Panel, Rear View

SECTION VII
Illustrations

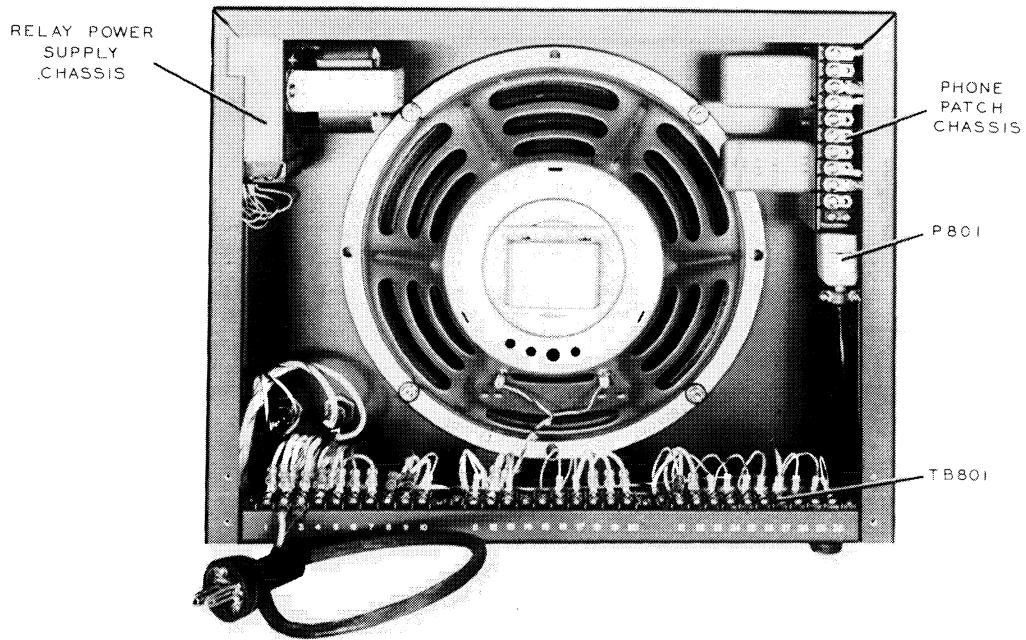


Figure 7-3. 312A-2 Control/Speaker Unit, Rear View

C183-22-P

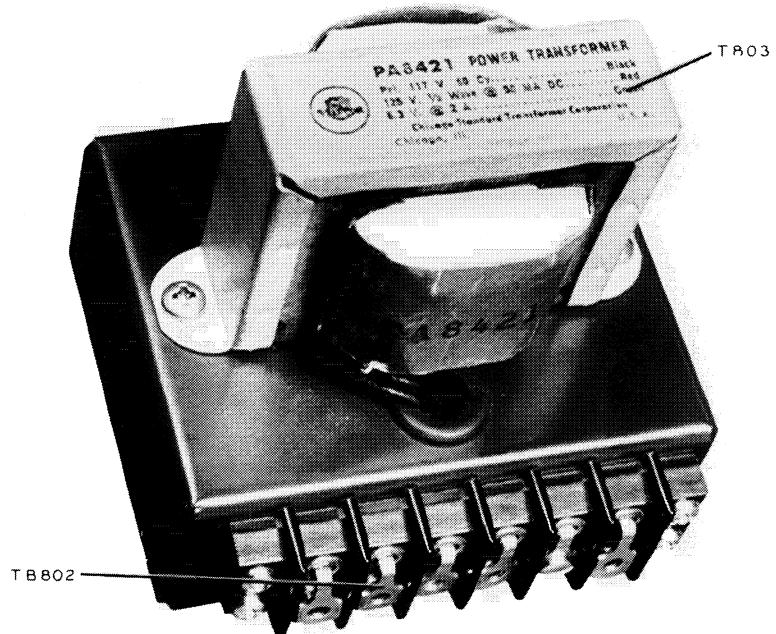
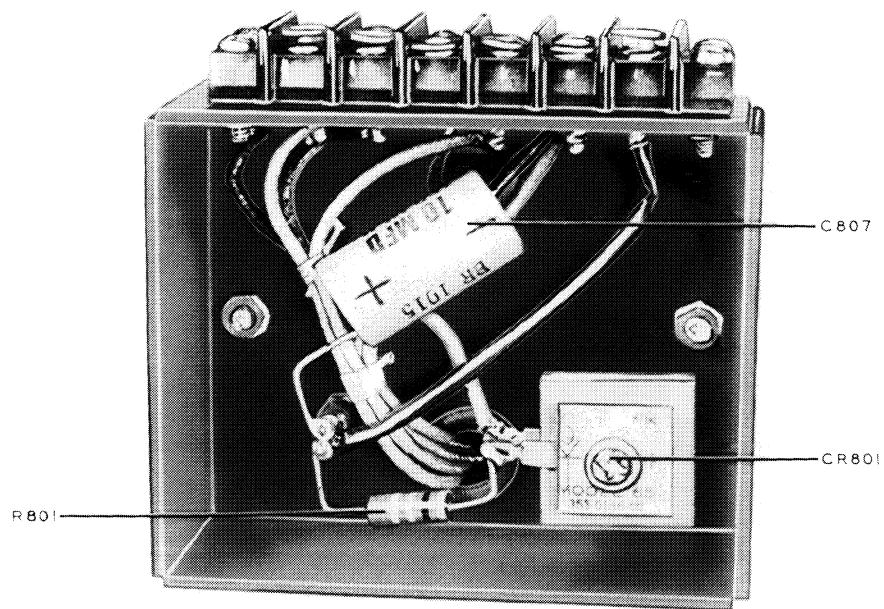


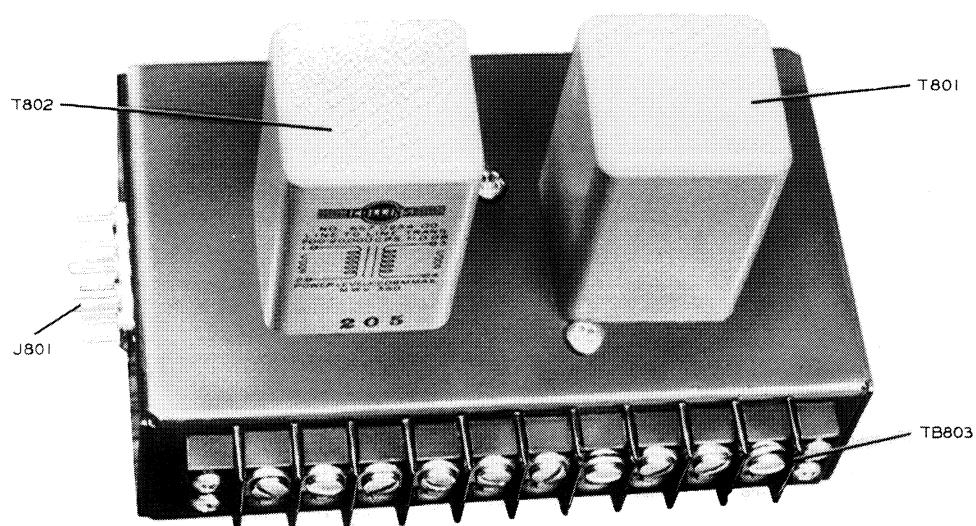
Figure 7-4. 312A-2 Control/Speaker Unit, Relay Power Supply Chassis, Top View

C183-23-P



C183-24-P

Figure 7-5. 312A-2 Control/Speaker Unit, Relay Power Supply Chassis, Bottom View



C183-25-P

Figure 7-6. 312A-2 Control/Speaker Unit, Phone-Patch Chassis, Top View

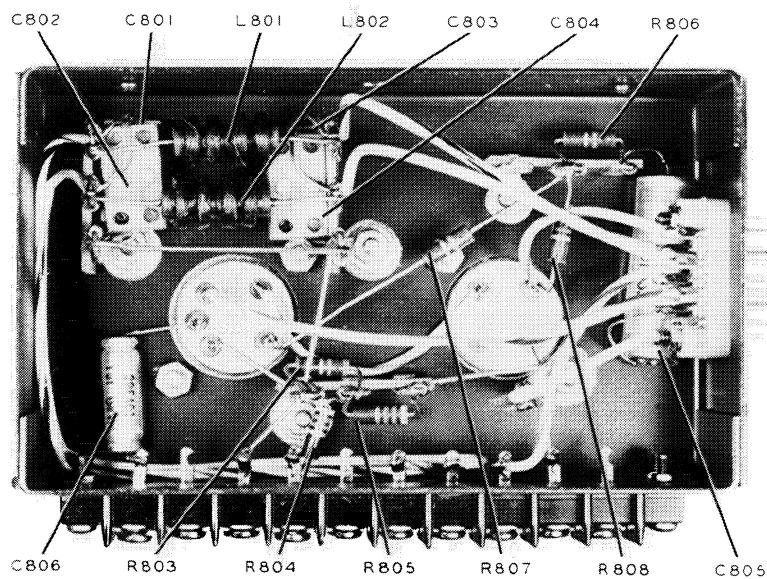


Figure 7-7. 312A-2 Control/Speaker Unit, Phone-Patch Chassis, Bottom View

C183-26-P

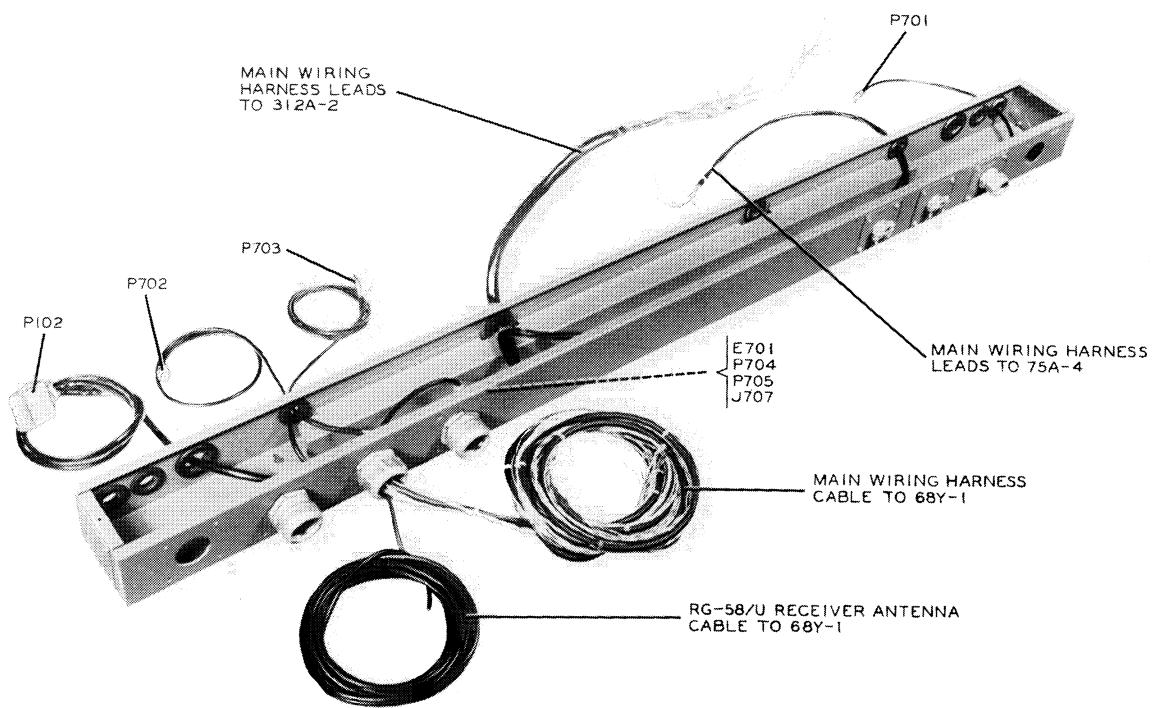
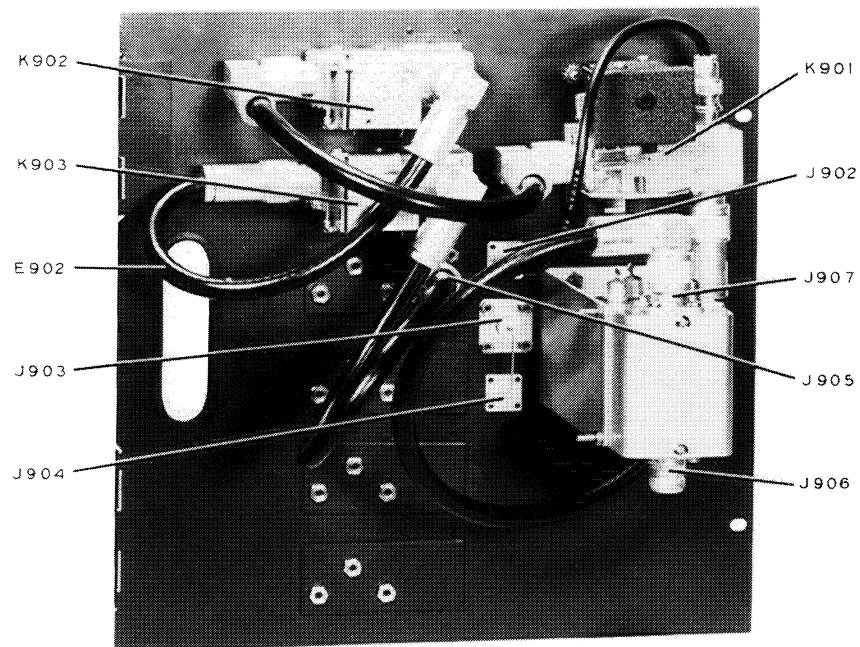


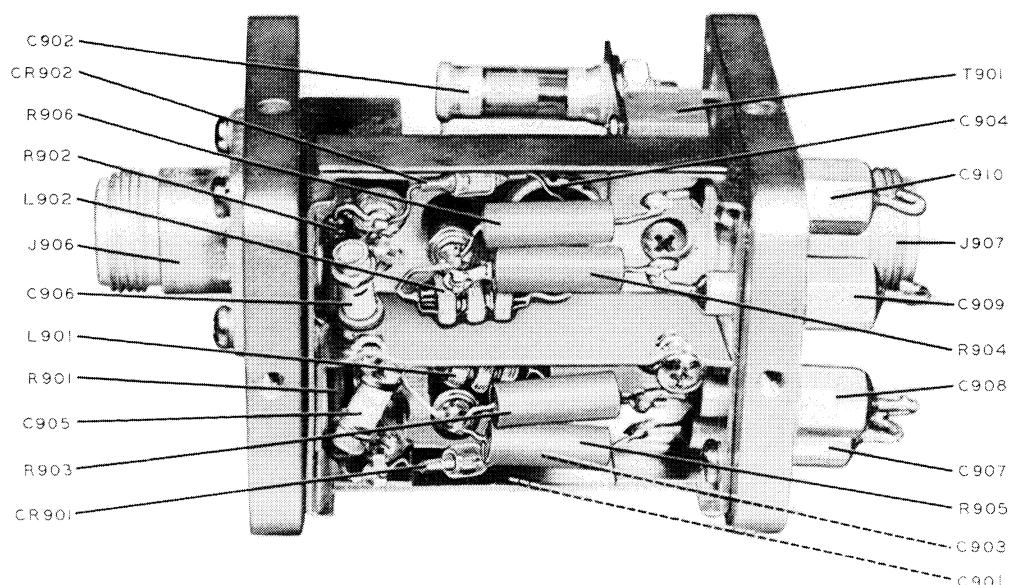
Figure 7-8. 534A-1 Cable Harness and Wiring Duct, Duct Back Plate Removed

C183-27-P



C183-28-P

Figure 7-9. 68Y-1 Antenna Selector Unit, Front Cover, Rear View

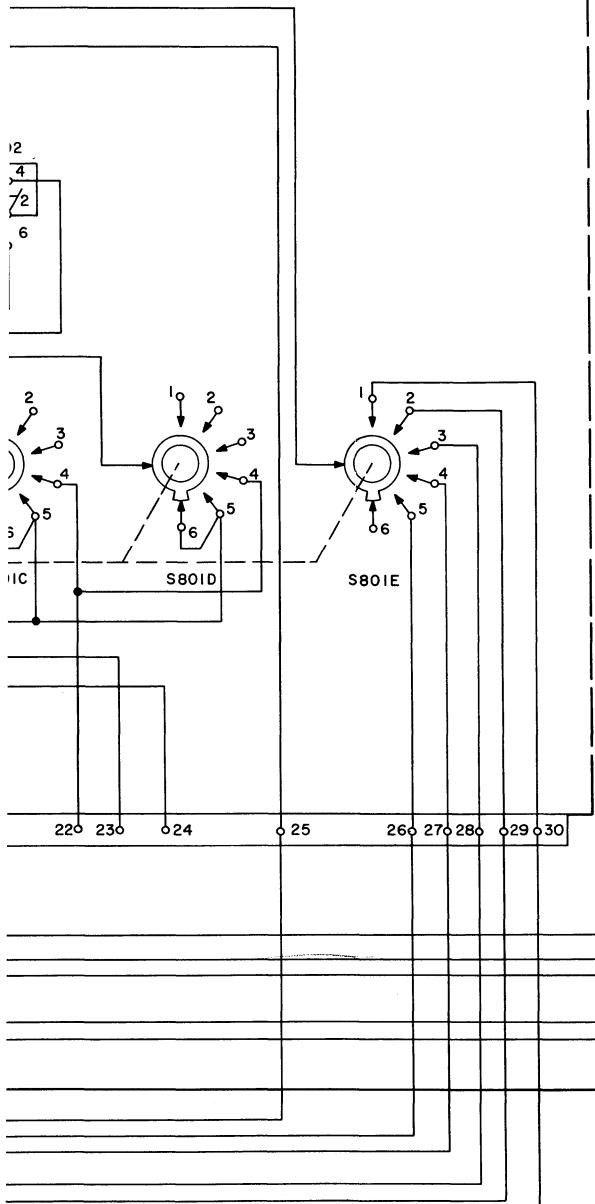


C183-29-P

Figure 7-10. 302C-2 Coupler, Shield Removed

NOTES:

1. SKETCH OPTIONAL EQUIPMENT (SPARE RECEIVER, ETC.) CONNECTIONS IN SPACES PROVIDED. ADD WIRING AS NECESSARY.
2. SKETCH ANY ADDITIONAL RELAYS IN SPACES PROVIDED. CHANGE POSITION OF J905 AS NECESSARY.
3. SKETCH ROTATOR, RELAY, AND OTHER TOWER COMPONENTS IN SPACE(S) PROVIDED. ADD WIRING BETWEEN 312A-2 TERMINALS 16-24 AND TOWER COMPONENTS TO SUIT INSTALLATION.
4. R903 THROUGH R906 SELECTED INDIVIDUALLY FOR CALIBRATION ACCURACY. R903 AND R904 SELECTED FROM RANGE OF 4750-6980 OHMS. R905 AND R906 SELECTED FROM RANGE OF 51.1-1000 OHMS. ALL FOUR RESISTORS $\pm 1\%$.
5. R901 AND R902 ARE A MATCHED PAIR, $\pm 1\%$.

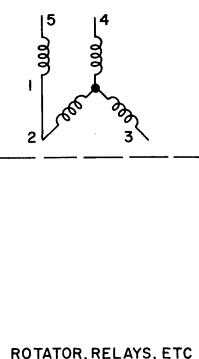


75A-4 RECEIVER

P701
ANTENNA JACK
AUDIO STANDBY

(SPARE RECEIVER
SPECIAL TERMINAL
BOARDS ETC.)
(SEE NOTE 1)

TOWER NO. 1.
(SEE NOTE 3)



TOWER NO. 2
(SEE NOTE 3)

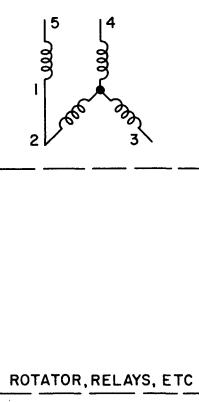
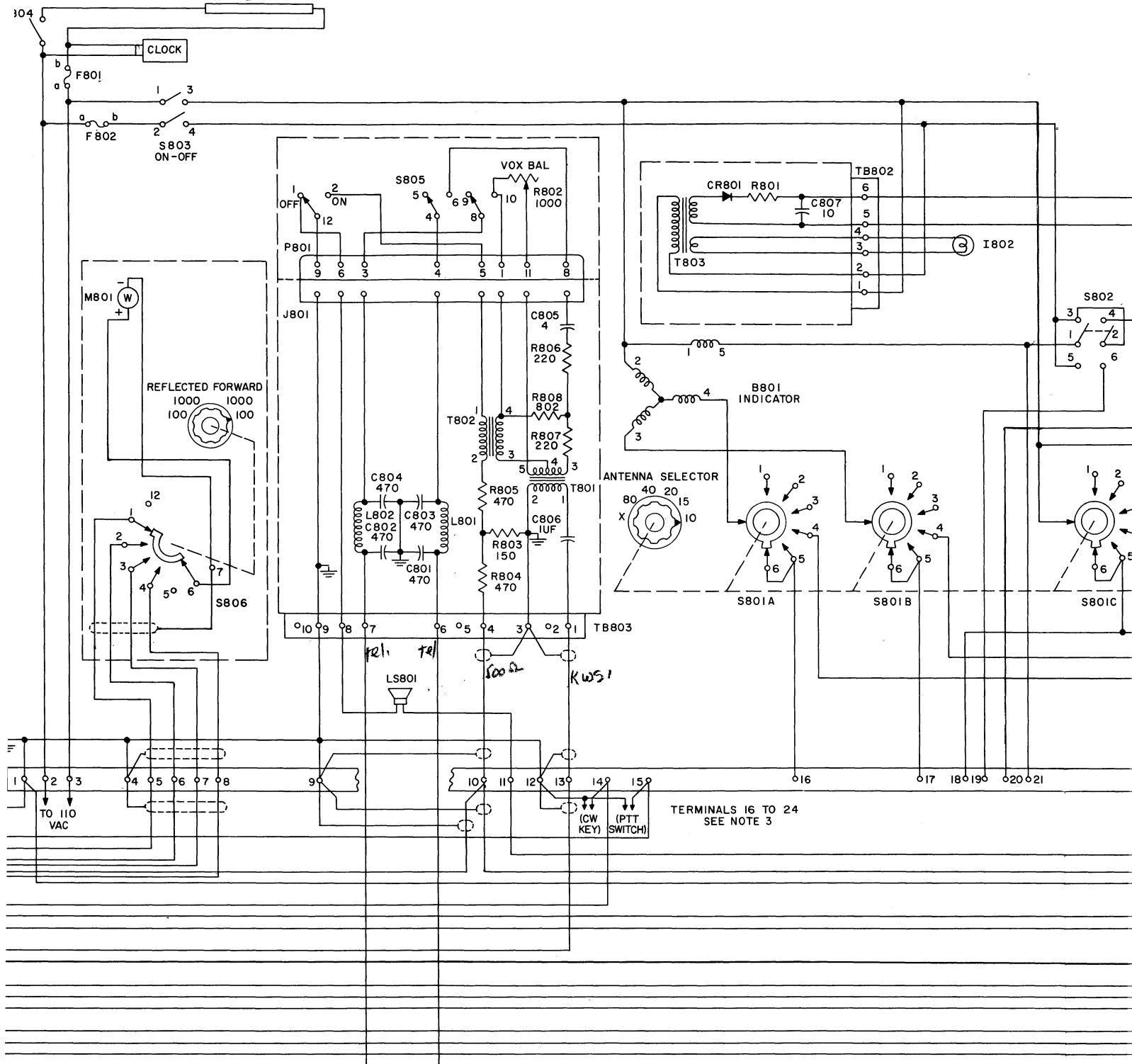


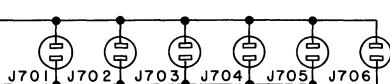
Figure 7-11. SC-101 Station Control, Complete Schematic Diagram

C183-01-6

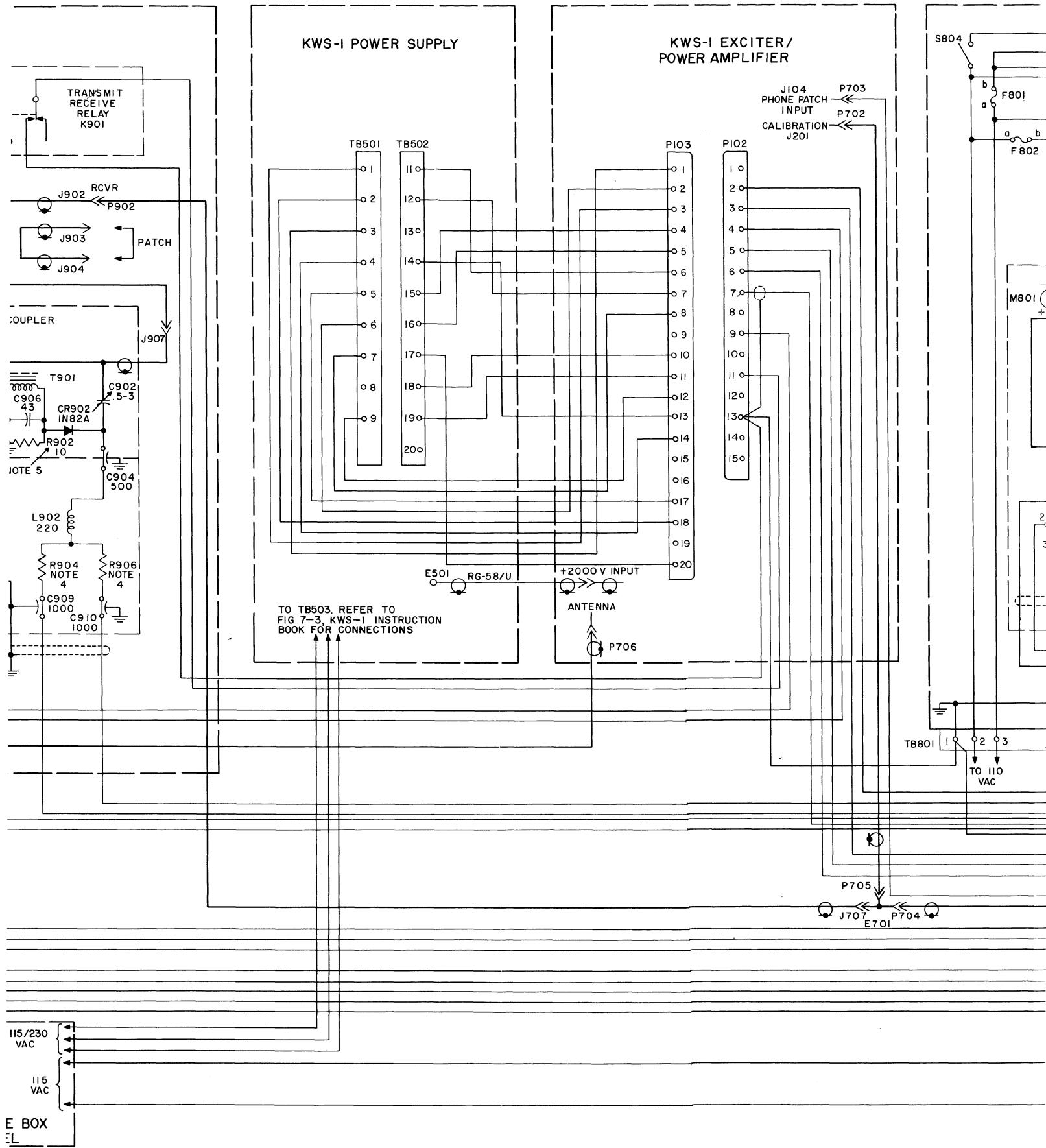
312 A-2 CONTROL/SPEAKER UNIT



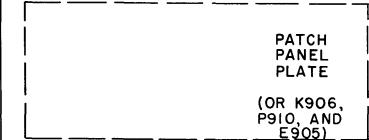
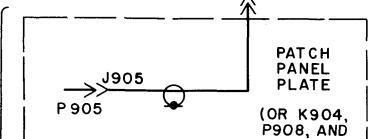
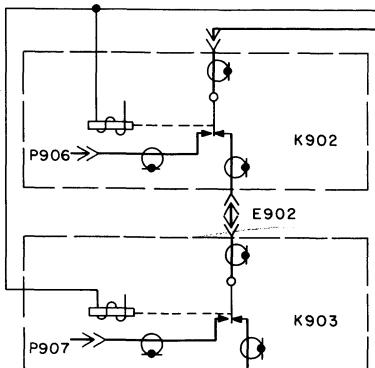
534 A-I WIRING CHANNEL



UTILITY OUTLETS (AC FEMALE PLUG)

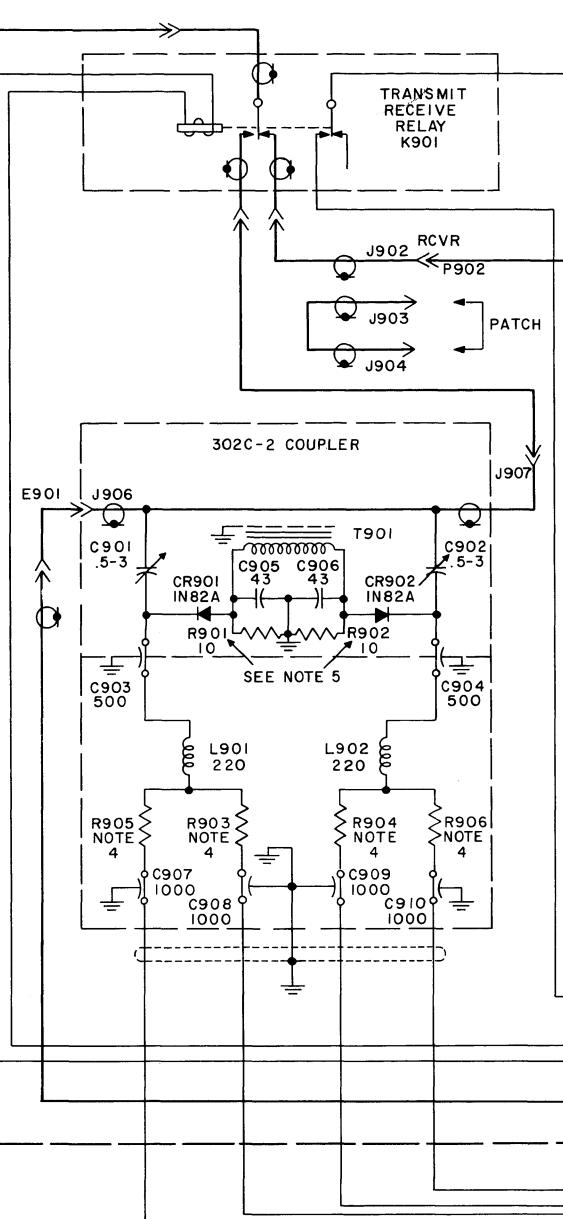


68Y-1 ANTENNA SELECTOR UNIT

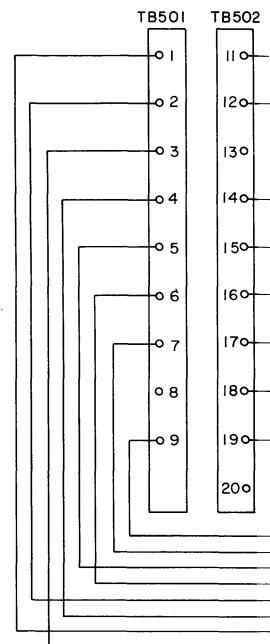


SEE NOTE 2

TO K902, K903, ETC. DRAW RELAY CONNECTION LEADS TO SUIT INSTALLATION.



KWS-I POWER SUP



TO TB503. REFER TO FIG 7-3, KWS-I INSTRUCTION BOOK FOR CONNECTIONS

TELEPHONE LINE CONNECTION BLOCK

PRIMARY POWER FUSE BOX OR BREAKER PANEL

115/230 VAC
115 VAC

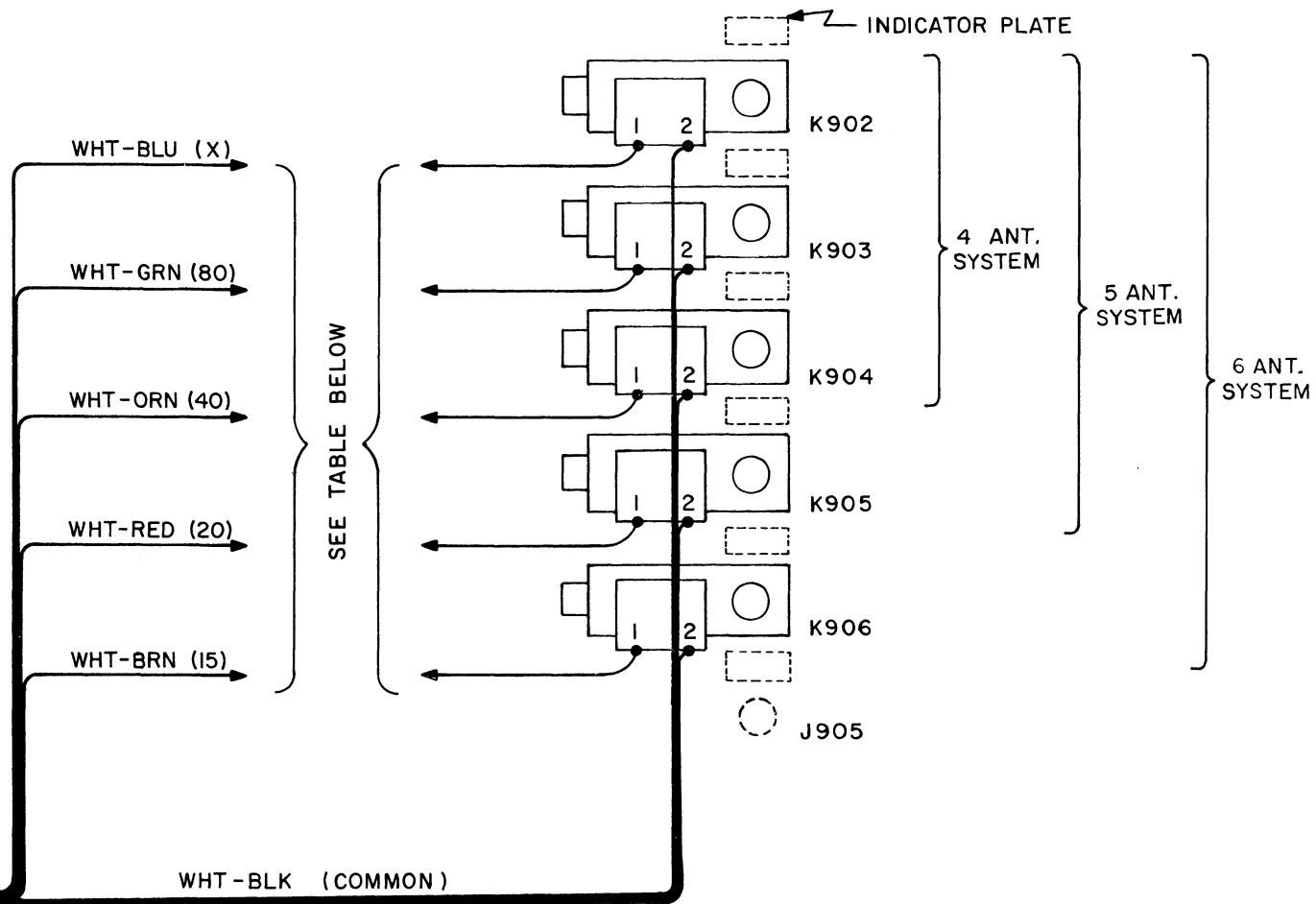
SECTION VIII

INSTALLATION AND WIRING FOR 4, 5, AND 6 ANTENNA SYSTEMS

8.1 INSTALLATION AND WIRING INSTRUCTIONS.

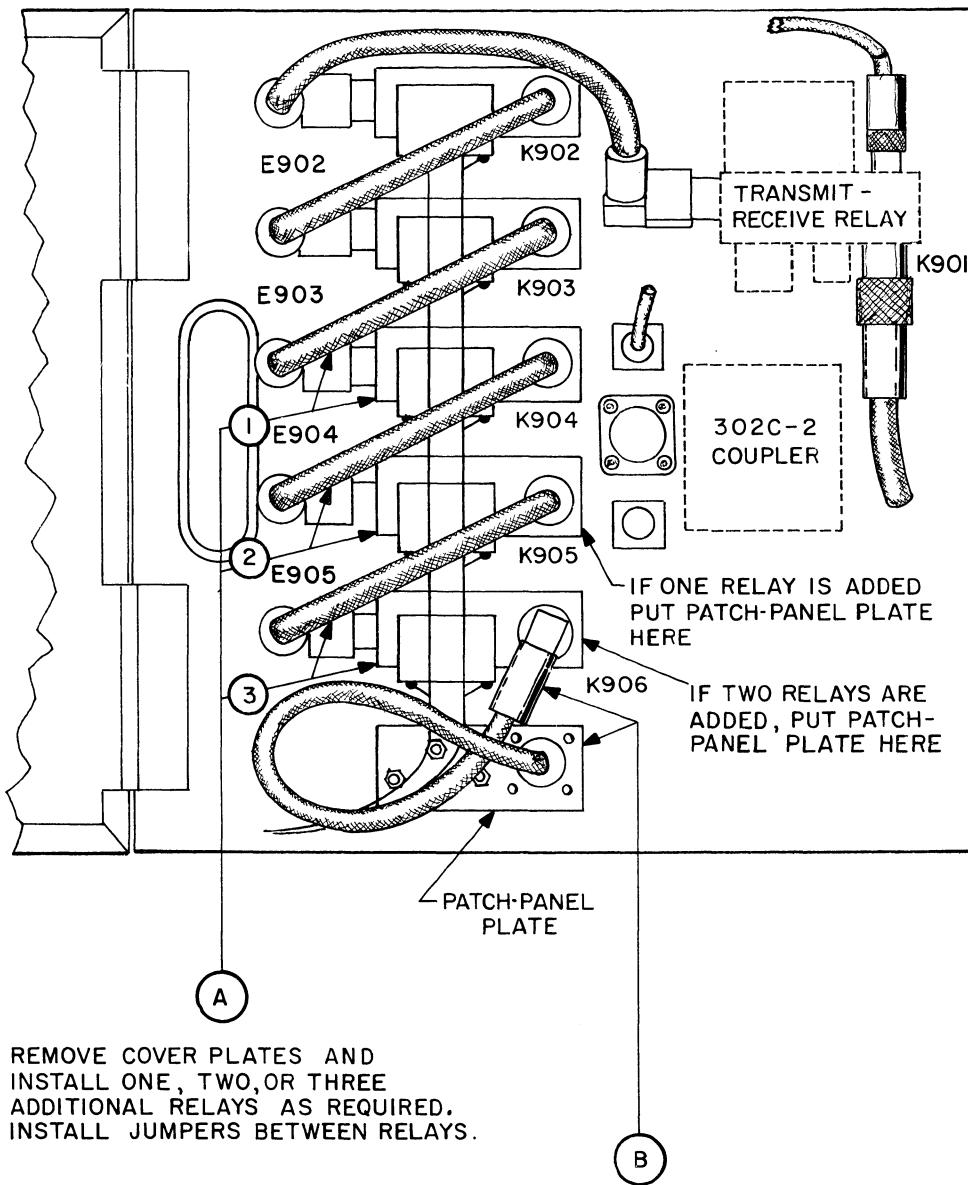
If a four, five, or six antenna system is used, refer to figure 8-1. Install additional relays and jumpers as required. Mount band indicator plates in appropriate positions on the patch panel. Wire the relays as

required. Determine the proper coding from the table. Feed additional RG-8/U cables through the one and one-half-inch conduit and the slot in the front cover of the 68Y-1 unit. Install additional type N male connectors, referring to figure 2-5 for instructions. Connect plugs to proper jacks on the patch panel.



IAS	RELAY TERMINAL NO.1 CONNECTIONS					INDICATOR PLATE POSITIONS						NOTES
	K902	K903	K904	K905	K906	K902	K903	K904	K905	K906	J905	
0,15	WHT-GRN	WHT-ORN	WHT-RED	—	—	80M	40M	20M	—	—	15M	
0,10	WHT-GRN	WHT-ORN	WHT-RED	—	—	80M	40M	20M	—	—	10M	
5,10	WHT-GRN	WHT-ORN	WHT-BRN	—	—	80M	40M	15M	—	—	10M	
5,10	WHT-GRN	WHT-RED	WHT-BRN	—	—	80M	20M	15M	—	—	10M	
5,10	WHT-ORN	WHT-RED	WHT-BRN	—	—	40M	20M	15M	—	—	10M	
20	WHT-GRN	WHT-ORN	WHT-RED	WHT-BRN	—	80M	40M	20M	15M	—	10M	
0, 10	WHT-BLU	WHT-GRN	WHT-ORN	WHT-RED	WHT-BRN	X	80M	40M	20M	15M	10M	EXTRA ANTENNA POSITION WILL VARY WITH SYSTEM USED.

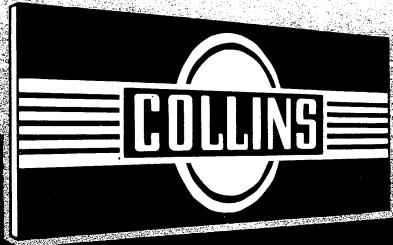
Figure 8-1. Installation and Wiring of Additional Relays in 68Y-1 Antenna Selector Unit



REMOVE COVER PLATES AND
INSTALL ONE, TWO, OR THREE
ADDITIONAL RELAYS AS REQUIRED.
INSTALL JUMPERS BETWEEN RELAYS.

INSTALL PATCH-PANEL PLATE
AND JUMPER IN LAST UNCOVERED
HOLE DOWN THE PANEL.
CONNECT JUMPER TO BOTTOM
RELAY.

RELAY TERMINALS			
SYSTEM	ANTENNAS	K902	K903
4 ANTENNAS	80,40,20,15	WHT-GRN	WHT-ORN
	80,40,20,10	WHT-GRN	WHT-ORN
	80,40,15,10	WHT-GRN	WHT-ORN
	80,20,15,10	WHT-GRN	WHT-RED
	40,20,15,10	WHT-ORN	WHT-RED
5 ANTENNAS	80,40,20 15,10	WHT-GRN	WHT-ORN
6 ANTENNAS	X, 80, 40,20,15,10	WHT-BLU	WHT-GRN



COLLINS RADIO COMPANY
CEDAR RAPIDS, IOWA