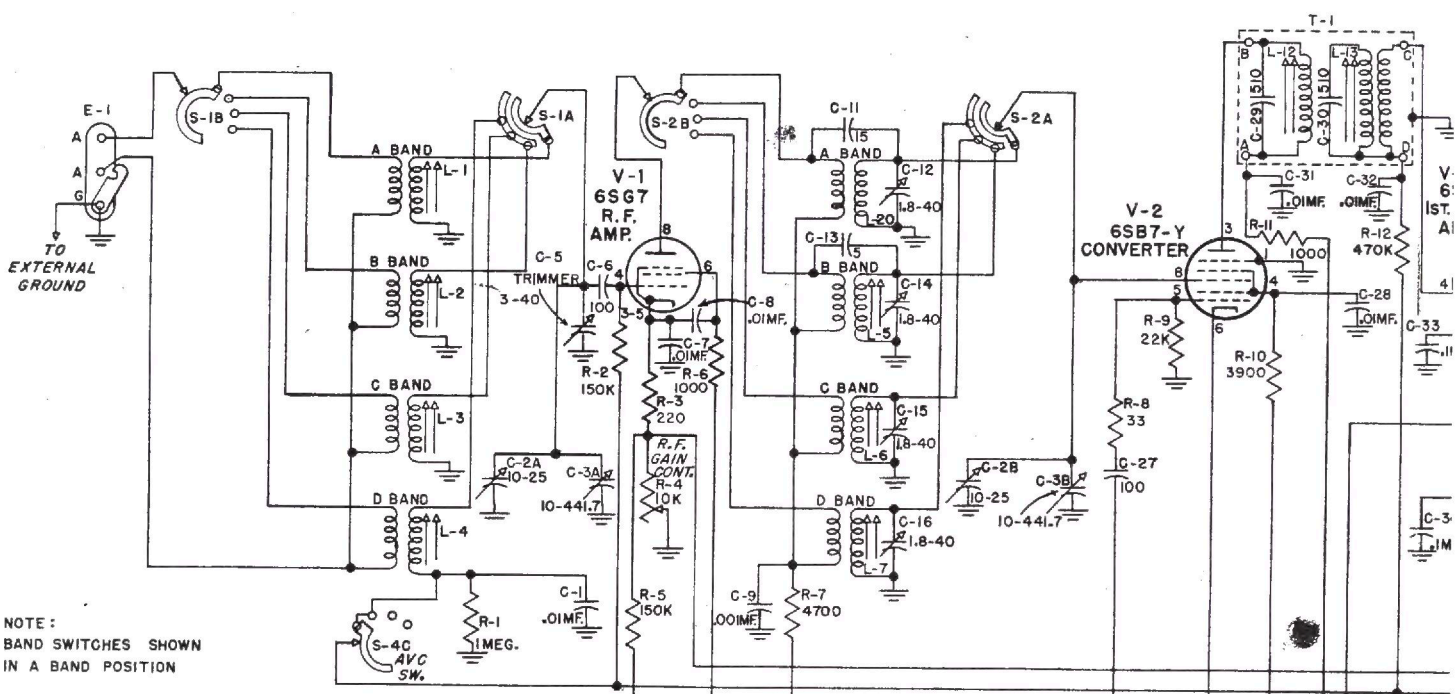


INSTRUCTION MANUAL
for
THE
NATIONAL MODEL
NC-125
RADIO RECEIVER

A truly versatile Receiver in a compact,
modern package at an attractive low
price . . .

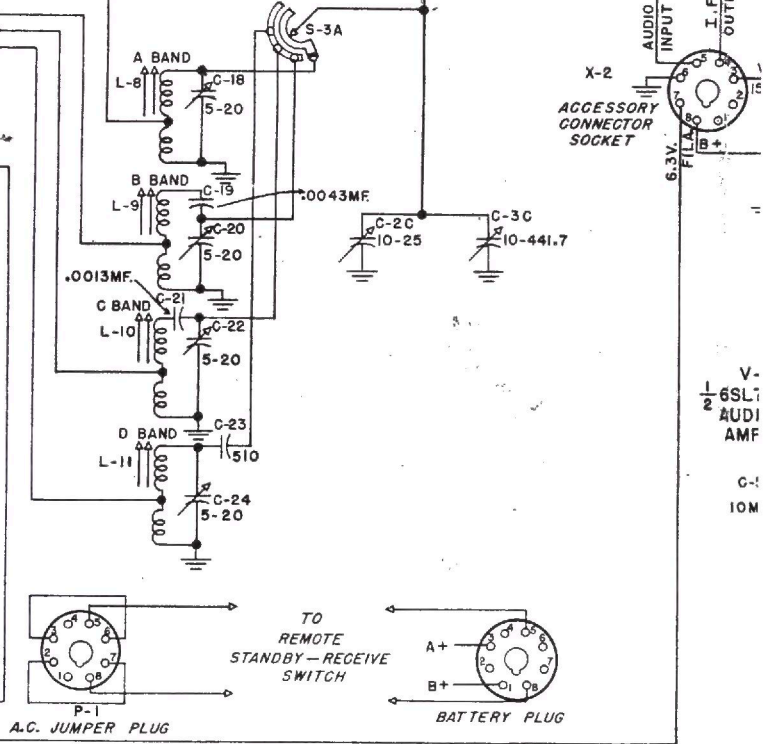
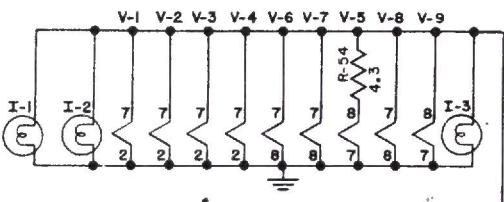
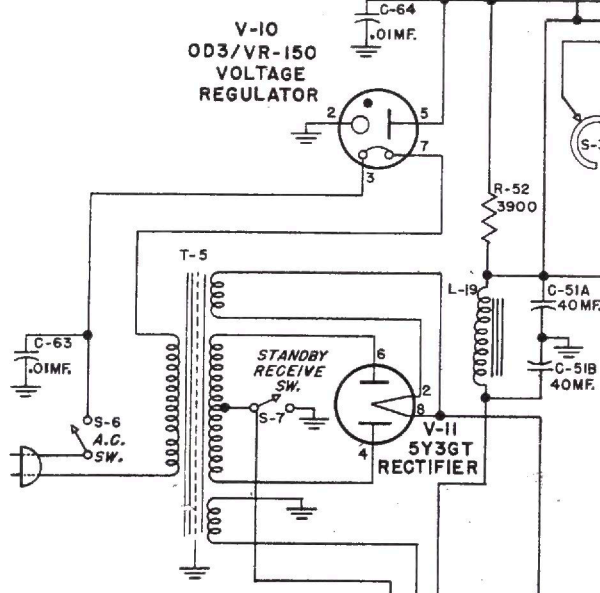


PRICE 30 CENTS

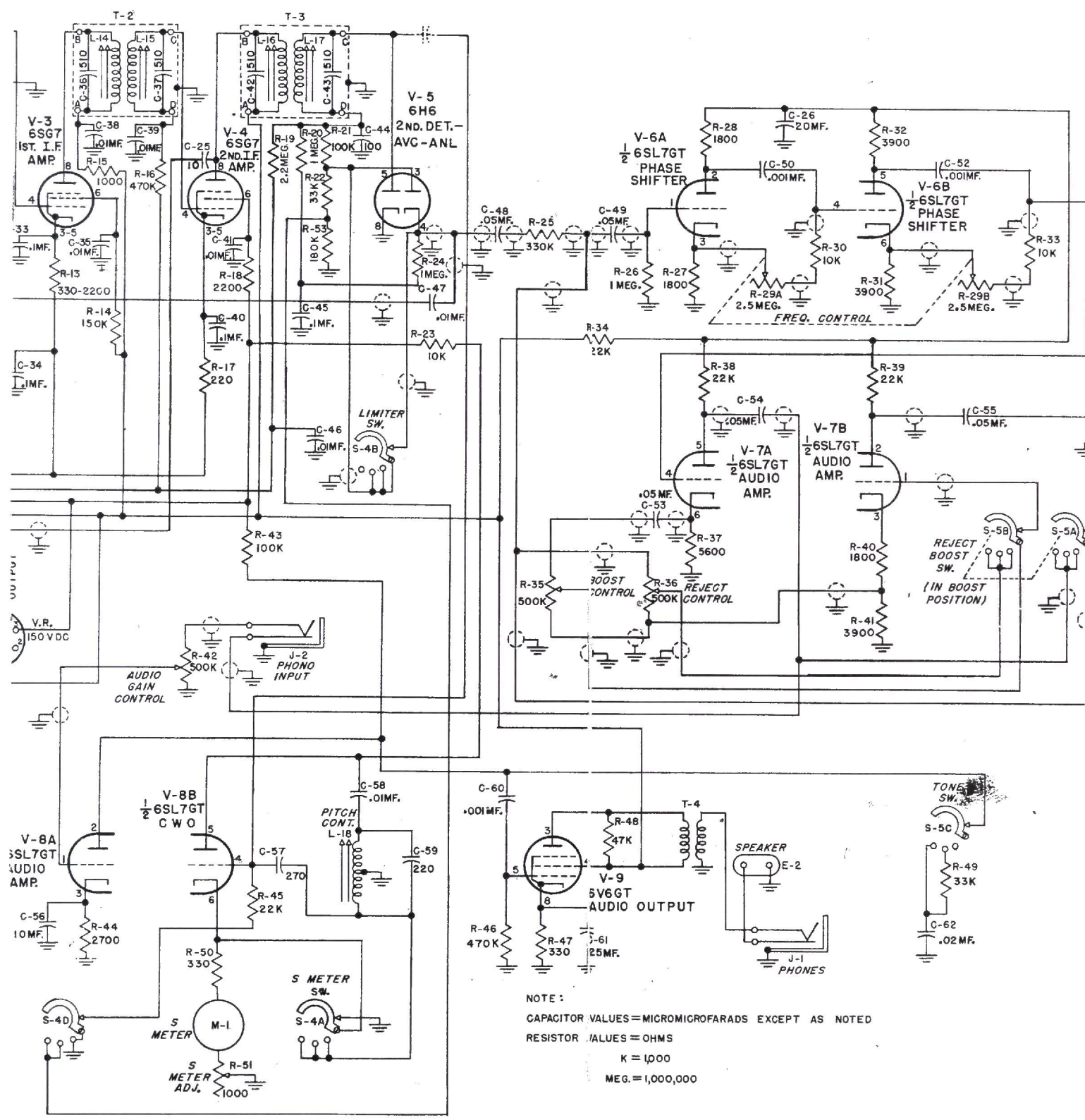


NOTE:
BAND SWITCHES SHOWN
IN A BAND POSITION

V-10
OD3/VR-150
VOLTAGE
REGULATOR



V-6
1/2 6SL7
AUDI
AMF
C-1
10M



NOTE :
 CAPACITOR VALUES = MICROMICROFARADS EXCEPT AS NOTED
 RESISTOR VALUES = OHMS
 K = 1,000
 MEG. = 1,000,000

Figure No. 9. Schematic Diagram

ALIGNMENT TABLE

Step	Band	Adjust Signal Source To:	Set Main Tun. Pointer At:	Set Bandspread Pointer At:	Adjust To Receive Test Signal	Adjust for Maximum Output
1	A	34.0 Mc.	34.0 Mc.	Set	C-18	C-12, C-5
2	A	12.0 Mc	12.0 Mc	Set	L-8	L-20#*, L-1
3	A	34.0 Mc.	34.0 Mc.	Set		Check Step 1. Repeat Steps 1, 2 and 3 if necessary.
1	B	12.0 Mc	12.0 Mc.	Set	C-20	C-14, C-5
2	B	4.4 Mc.	4.4 Mc.	Set	L-9	L-5, L-2
3	B	12.0 Mc.	12.0 Mc.	Set		Check Step 1. Repeat Step 1, 2 and 3 if necessary.
1	C	4.4 Mc.	4.4 Mc.	Set	C-22	C-15, C-5
2	C	1.6 Mc.	1.6 Mc.	Set	L-10	L-6*, L-3
3	C	4.4 Mc.	4.4 Mc.	Set		Check Step 1. Repeat Steps 1, 2 and 3 if necessary.
1	D	0.6 Mc.	0.6 Mc.	Zerp	L-11**	L-7**, L-4
2	D	1.5 Mc.	1.5 Mc.	Set	C-24	C-16, C-5
3	D	0.6 Mc.	0.6 Mc.	Set		Check Step 1. Repeat Steps 1, 2 and 3 if necessary.

#Loop inside coil form for adjustment.

*Accessible only from bottom of chassis.

**Accessible only from top of chassis.

5-4. SELECT-O-JECT CIRCUIT ALIGNMENT

The Select-O-Ject circuit has been pre-set at the factory to provide optimum operating efficiency. If the Reject control has been tampered with or a tube or component part replacement has been made, readjustment may be necessary. This is accomplished in the following manner:

1. Set up the receiver for normal operation as outlined in Section 3.
2. Set the TONE control at either the High, Medium or Low position.
3. Connect a signal generator to the antenna input terminals on a frequency of 1000 kc. with the modulation set to the 400 cycle position.
4. Set the REJECT control on the rear of the chassis for maximum rejection of the 400 cycle note.

5. Set the FREQUENCY control on the front of the panel for a finer rejection of the 400 cycle signal. This adjustment is critical and should be carefully adjusted.
6. Simultaneously adjust both controls for maximum rejection of the 400 cycle note.

5-5. S. METER ADJUSTMENT

Two adjustments are provided to assure correct operation of the S-Meter; one mechanical and the other electrical.

1. Mechanical — With the Receiver turned off, the meter pointer should read 40 db. (the last scale marking). If it does not, correction is effected by the screw adjustment on the front of the meter.

2. Electrical — With the Receiver turned on and controls adjusted for meter operation, the meter pointer should read zero (the first scale marking). This test must be made with no signal input to the Receiver. Correction of the zero setting, if required, is made by means of the S-Meter balancing resistor, R-51. This is a screwdriver type adjustment whose location is shown on Figure Number 4.

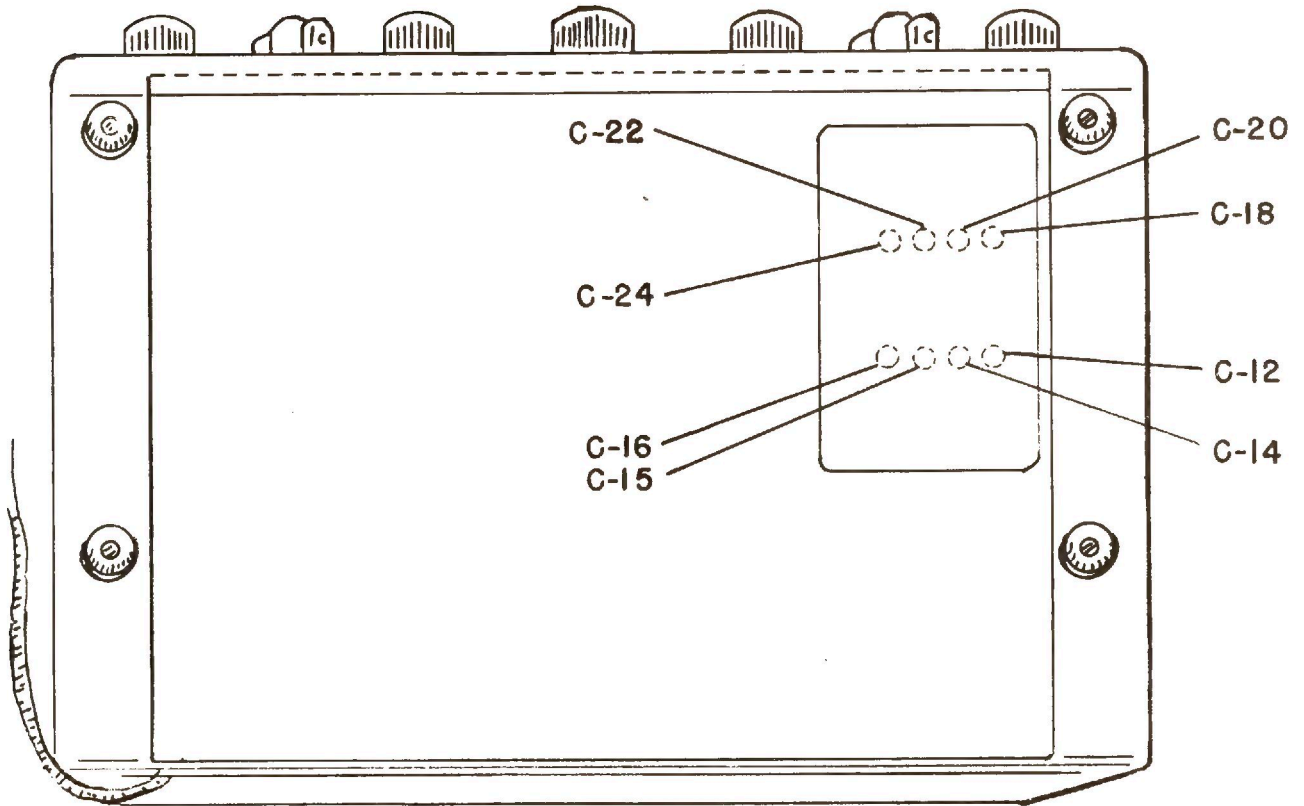


Figure No. 6. R.F. Alignment Trimmer Locations

PARTS LIST

Symbol	Description	Nat. Co. Type	Symbol	Description	Nat. Co. Type
CAPACITORS			CAPACITORS (CONT'D)		
C-1	Paper .01 mfd 400 vdcw	D827-5	C-40	Paper .1 mfd 400 vdcw	D827-12
C-2	Air variable 2 section	SA:8102	C-41	Paper .01 mfd 400 vdcw	D827-5
C-2A	10-25 mmf bandsread	Part of C-2	C-42	Mica 510 mmf 500 vdcw	H500-5
C-2B	10-25 mmf bandsread	Part of C-2	C-43	Mica 510 mmf 500 vdcw	H500-5
C-2C	10-25 mmf bandsread	Part of C-2	C-44	Mica 100 mmf 500 vdcw	J665-32
C-3A	10-441.7 mmf main tuning	Part of C-2	C-45	Paper .1 mfd 400 vdcw	D827-12
C-3B	10-441.7 mmf main tuning	Part of C-2	C-46	Paper .01 mfd 400 vdcw	D827-5
C-3C	10-441.7 mmf main tuning	Part of C-2	C-47	Paper .01 mfd 400 vdcw	D827-5
C-4	Not used		C-48	Paper .05 mfd 400 vdcw	D827-1
C-5	Variable air 3-40 mmf	K351-3	C-49	Paper .05 mfd 400 vdcw	D827-1
C-6	Mica 100 mmf 500 vdcw	J665-32	C-50	Mica .001 mfd 500 vdcw	J666-14
C-7	Paper .01 mfd 400 vdcw	D827-5	C-51	Dry electrolytic 450 vdcw	K945-1
C-8	Paper .01 mfd 400 vdcw	D827-5	C-51A	40 mfd	Part of C-51
C-9	Mica .001 mfd 300 vdcw	J665-71	C-51B	40 mfd	Part of C-51
C-10	Not used		C-52	Mica .001 mfd 500 vdcw	J666-14
C-11	Ceramic 15 mmf 500 vdcw	D825D-405	C-53	Paper .05 mfd 400 vdcw	D827-1
C-12	Variable mica 1.8-40 mmf	D832-3	C-54	Paper .05 mfd 400 vdcw	D827-1
C-13	Ceramic 5 mmf 500 vdcw	D825D-401	C-55	Paper .05 mfd 400 vdcw	D827-1
C-14	Variable mica 1.8-40 mmf	D832-3	C-56	Dry electrolytic 10 mfd 50 vdcw	E338-9
C-15	Variable mica 1.8-40 mmf	D832-3	C-57	Mica 270 mmf 500 vdcw	J665-47
C-16	Variable mica 1.8-40 mmf	D832-3	C-58	Paper .01 mfd 400 vdcw	D827-5
C-17	Not used		C-59	Mica 220 mmf 500 vdcw	H500-21
C-18	Variable ceramic 5-20 mmf	E311-2	C-60	Paper .001 mfd 500 vdcw	D827-32
C-19	Mica .0043 mfd 500 vdcw	J666-37	C-61	Dry electrolytic 25 mfd 50 vdcw	E338-4
C-20	Variable ceramic 5-20 mmf	E311-2	C-62	Paper .02 mfd 600 vdcw	D827-44
C-21	Mica .0013 mfd $\pm 5\%$ 500 vdcw	J666-18	C-63	Paper .01 mfd 400 vdcw	D827-5
C-22	Variable ceramic 5-20 mmf	E311-2	C-64	Paper .01 mfd 400 vdcw	D827-5
C-23	Mica 510 mmf 500 vdcw	H500-5	RESISTORS		
C-24	Variable ceramic 5-20 mmf	E311-2	R-1	Fixed 1,000,000 ohms 1/2 watt	J569-61
C-25	Ceramic 10 mmf 500 vdcw	D825D-402	R-2	Fixed 150,000 ohms 1/2 watt	J569-51
C-26	Dry electrolytic 20 mfd 450 vdcw	E338-3	R-3	Fixed 220 ohms 1/2 watt	J569-17
C-27	Mica 100 mmf 500 vdcw	J665-32	R-4	Variable wire wound 10,000 ohms	K349-1
C-28	Paper .01 mfd 400 vdcw	D827-5	R-5	Fixed 150,000 ohms 1/2 watt	J569-51
C-29	Mica 510 mmf 500 vdcw	H500-5	R-6	Fixed 1000 ohms 1/2 watt	J569-25
C-30	Mica 510 mmf 500 vdcw	H500-5	R-7	Fixed 4700 ohms 1/2 watt	J569-33
C-31	Paper .01 mfd 400 vdcw	D827-5	R-8	Fixed 33 ohms 1/2 watt	J569-7
C-32	Paper .01 mfd 400 vdcw	D827-5	R-9	Fixed 22,000 ohms 1/2 watt	J569-41
C-33	Paper .1 mfd 400 vdcw	D827-12	R-10	Fixed 3900 ohms 1/2 watt	J569-32
C-34	Paper .1 mfd 400 vdcw	D827-12	R-11	Fixed 1000 ohms 1/2 watt	J569-25
C-35	Paper .01 mfd 400 vdcw	D827-5	R-12	Fixed 470,000 ohms 1/2 watt	J569-57
C-36	Mica 510 mmf 500 vdcw	H500-5	R-13	Fixed 330 to 2200 ohms 1/2 watt	
C-37	Mica 510 mmf 500 vdcw	H500-5	R-14	Fixed 150,000 ohms 1 watt	J571-51
C-38	Paper .01 mfd 400 vdcw	D827-5	R-15	Fixed 1000 ohms 1/2 watt	J569-25
C-39	Paper .01 mfd 400 vdcw	D827-5			

PARTS LIST

Symbol	Description	Nat. Co. Type
RESISTORS (CONT'D)		
R-16	Fixed 470,000 ohms 1/2 watt	J569-57
R-17	Fixed 220 ohms 1/2 watt	J569-17
R-18	Fixed 2,200 ohms 1/2 watt	J569-29
R-19	Fixed 2,200,000 ohms 1/2 watt	J569-65
R-20	Fixed 1,000,000 ohms 1/2 watt	J569-61
R-21	Fixed 100,000 ohms 1/2 watt	J569-49
R-22	Fixed 33,000 ohms 1/2 watt	J569-43
R-23	Fixed 10,000 ohms 1/2 watt	J569-37
R-24	Fixed 1,000,000 ohms 1/2 watt	J569-61
R-25	Fixed 330,000 ohms 1/2 watt	J569-55
R-26	Fixed 1,000,000 ohms 1/2 watt	J569-61
R-27*	Fixed 1800 ohms	
R-28*	Fixed 1800 ohms	
R-29	Variable dual control	M879-2
R-29A	2,500,000 ohms	Part of R-29
R-29B	2,500,000 ohms	Part of R-29
R-30	Fixed 10,000 ohms 1/2 watt	J569-37
R-31**	Fixed 3900 ohms	
R-32**	Fixed 3900 ohms	
R-33	Fixed 10,000 ohms 1/2 watt	J569-37
R-34	Fixed 22,000 ohms 1/2 watt	J569-41
R-35	Variable 500,000 ohms	J533-9
R-36	Variable 500,000 ohms screw-driver control	J533-7
R-37	Fixed 5600 ohms 1/2 watt	J569-34
R-38	Fixed 22,000 ohms 1/2 watt	J569-41
R-39	Fixed 22,000 ohms 1/2 watt	J569-41
R-40	Fixed 1800 ohms 1/2 watt	J569-28
R-41	Fixed 3900 ohms 1/2 watt	J569-32
R-42	Variable with switch 500,000 ohms	K347-1
R-43	Fixed 100,000 ohms 1/2 watt	J569-49
R-44	Fixed 2700 ohms 1/2 watt	J569-30
R-45	Fixed 22,000 ohms 1/2 watt	J569-41
R-46	Fixed 470,000 ohms 1/2 watt	J569-57
R-47	Fixed 330 ohms 2 watt	J572-19
R-48	Fixed 47,000 ohms 1/2 watt	J569-45
R-49	Fixed 33,000 ohms 1/2 watt	J569-43
R-50	Fixed 330 ohms 1/2 watt	J569-19
R-51	Variable 1000 ohms 1/2 watt	D831-2
R-52	Fixed 3900 ohms 10 watt	E959-12
R-53	Fixed 180,000 ohms 1/2 watt	J569-52
R-54	Fixed wire wound 4.3 ohms 1 watt	K098-48
<p>*Must be paired within 2% of each other</p> <p>**Must be paired within 2% of each other</p>		

Symbol	Description	Nat. Co. Type
MISCELLANEOUS		
E-1	Terminal board: antenna 3 terminal	E261-3
E-2	Terminal board: speaker 2 terminal	E265-8
I-1	Lamp: bayonet type, #47 6-8 volts - .15 amps	F136-11
I-2	Lamp: bayonet type #47 6-8 volts - .15 amps	F136-11
I-3	Lamp: bayonet type, #47 6-8 volts - .15 amps	F136-11
J-1	Phone jack: midget type closed circuit	K314-1
J-2	Phone jack: midget type closed circuit	K314-1
L-1	Inductor, RF for 'A' band, variable iron core	SA:4863
L-2	Inductor, RF: for 'B' band, variable iron core	SA:4867
L-3	Inductor, RF: for 'C' band, variable iron core	SA:4665
L-4	Inductor, RF: for 'D' band, variable iron core	SA:4666
L-5	Inductor, RF: for 'B' band, variable iron core	SA:4872
L-6	Inductor, RF: for 'C' band, variable iron core	SA:4873
L-7	Inductor, RF: for 'D' band, variable iron core	SA:4874
L-8	Inductor, RF: for 'A' band, variable iron core	SA:4866
L-9	Inductor, RF: for 'B' band, variable iron core	SA:4868
L-10	Inductor, RF: for 'C' band, variable iron core	SA:4658
L-11	Inductor, RF: for 'D' band, variable iron core	SA:4871
L-12	Inductor, IF: T-1 primary, variable iron core	SA:3366
L-13	Inductor, IF: T-1 secondary, variable iron core	SA:4537
L-14	Inductor, IF: T-2 primary, variable iron core	SA:3366
L-15	Inductor, IF: T-2 secondary, variable iron core	SA:3905
L-16	Inductor, IF: T-3 primary, variable iron core	SA:3366
L-17	Inductor, IF: T-3 secondary, variable iron core	SA:3905
L-18	Inductor, BF0: variable brass core	SA:5361

PARTS LIST

Symbol	Description	Nat. Co. Type	Symbol	Description	Nat. Co. Type
MISCELLANEOUS (CONT'D)			MISCELLANEOUS (CONT'D)		
L-19	Choke: iron core, 120 cycles 10 henries, 100 ma, 300 ohms	K317-1	T-5	Transformer: power, 115 v 60 cycles AC primary voltage 300 v at 100 ma, 5 v at 2 amps, 6.3 v at 3.0 amps secondary	K316-2
L-20	Inductor RF: variable iron core, 'A' band	SA:4870	V-1	Tube, electron, semi variable mhu pentode, octal type 6SG7	
M-1	Meter: illuminated, 0-1 milliampere range	J984-3	V-2	Tube; electron, pentagrid converter, octal type 6SB7	
P-1	Plug, 8 prong with 2 jumpers	SA:3731	V-3	Tube; electron, semi variable mhu pentode, octal type 6SG7	
S-1	Switch: band selector; wafer type	K752-1	V-4	Tube; electron, semi variable-mhu pentode octal type 6SG7	
S-1A	Part of S-1; single pole 4 pos		V-5	Tube; electron, twin diode, octal type 6H6	
S-1B	Part of S-1; single pole 4 pos		V-6	Tube; electron, double triode, octal type 6SL7GT	
S-2	Switch: band selector; wafer type	K752-1	V-7	Tube; electron, double triode, octal type 6SL7GT	
S-2A	Part of S-2; single pole 4 pos		V-8	Tube; electron, double triode, octal type 6SL7GT	
S-2B	Part of S-2; single pole 4 pos		V-9	Tube; electron, beam pentode, octal type 6V6GT	
S-3	Switch: band selector; wafer type	K752-1	V-10	Tube; electron, glow discharge diode octal type OD3/VR-150	
S-3A	Part of S-3; single pole 4 pos		V-11	Tube; electron, double diode, octal type 5Y3GT	
S-3B	Part of S-3; single pole 4 pos		X-1	Socket, octal type	K235-1
S-4	Switch: AVC, ANL wafer type, 4 pole, 4 pos	SA:7622	X-2	Socket, octal type	K235-1
S-4A	Part of S-4; single pole 4 pos		MECHANICAL PARTS		
S-4B	Part of S-4; single pole 4 pos		Angle, 8 1/2 inches long top of chassis		P702-1
S-4C	Part of S-4; single pole 4 pos		Angle, for cover (2)		K788-1
S-4D	Part of S-4; single pole 4 pos		Angle, 4 1/8 inches long top of chassis		P703-1
S-5	Switch: band selector; wafer type	SA:7621	Angle, mounted on bottom sides of chassis (2)		K259-1
S-5A	Part of S-5; single pole 4 pos		Bracket, to hold trimmers in oscil- lator compartment		K584-1
S-5B	Part of S-5; single pole 4 pos		Back for cabinet		K247-1
S-6	Switch: SPST	Part of R-42	Bumper, for cover (2)		L180-1
S-7	Switch: single pole single throw toggle	E230-2	Bottom, for cabinet		K234-3
T-1	Transformer: IF; 455 kc, single primary double secondary shielded	SA:4875	Bracket, supports drive mechanism (2)		P730-1
T-2	Transformer: IF; 455 kc single primary and second- ary shielded	SA:4533	Board, backing for drive mechanism		P722-1
T-3	Transformer: IF; 455 kc single primary and secondary shielded	SA:4533	Chassis, less components		SA:8101
T-4	Transformer: audio output, unshielded, 5000 ohms primary 3.2 ohms secondary	K313-1	Coil form; for bandswitch coils (12)		K582-2
			Core, iron; for bandswitch coils (10)		H408-7
			Core, brass; for oscillator coil		K782-1

MECHANICAL PARTS

Description	Nat. Co. Type	Description	Nat. Co. Type
Compartment, oscillator; complete with coils and parts	SA:7598	Pointer, dial	P729-1
Compartment, RF: complete with coils and parts	SA:7600	Socket, (9) ceramic insulation (black)	J625-1
Compartment, mixer, complete with coils and parts	SA:7599	Socket, (4) isolantite insulation (yellow)	K235-1
Cabinet welded wraparound, less jacks switch and meter	SA:8115	Shield, metal bracket for oscillator and mixer sections	SA:4879
Cover, for cabinet	K239-2	Shield, metal bracket for RF section	SA:4878
Coupling for shafts (2)	SA:5277	Socket, to fit miniature bayonet base lamp	K377-4
Channel for dial	P718-1	Socket, for dial light (2)	J721-1
Cord, for Bandsread dial	SA:8112	Shaft, band switch 6 7/8" long	J685-4
Cord, for Main Tuning dial	SA:8113	Shaft, for trimmer capacitor, brass 5 5/16" long	L084-1
Detent, for band change switch	K348-1	Shaft, Bandsread pinch	SA:8106
Drive mechanism for main tuning capacitor complete	SA:8103	Shaft, bandsread drive	SA:8107
Dial	P719-1	Shaft, main tuning pinch	SA:8109
Foot, felt (4)	E293-3	Shaft, main tuning drive	SA:8110
Flywheel on drive shaft	SA:8108	Wafer, bakelite for band switch	K752-1
Grommet, rubber	E923-11	Wheel, pinch (2)	K810-1
Hinge, (2)	J825-2		
Insulator, ceramic standoff	B425-1		
Lug, one ground terminal and one eyelet to the left	D947-1		
Lug, one around terminal and one eyelet to the right	D947-2		
Lug, one eyelet on ground terminal and one to the left	D947-3		
Lug, one eyelet to either side of ground terminal (2)	D947-4		
Lug, one ground terminal and 2 eyelets to the left (2)	D947-6		
Lug, one ground terminal, one eyelet to the left and two to the right	D947-9		
Lug, one eyelet on ground terminal and one to the right	D947-12		
Lug, one eyelet on ground terminal 2 to the left and 1 to the right	D947-14		
Lug, one eyelet on ground terminal, 2 to the left and 2 to the right	D947-18		
Lock, for power cord	K172-1		
Lug, ground (3)	E903-1		
Lug, ground (10)	F774-1		
Plug, button type, rear of chassis	F190-28		
Plate, for mounting electrolytic capacitor	K042-1		
Plate, cover 5 1/2" x3"	K593-1		
Plate, front of set	SA:8104		
Plate for rear of Drive mechanism	SA:8110		