

**RESISTORS**

SYMBOL	DESCRIPTION	PART No.
R1	1 Megohm, 1/2 Watt	60B 8-195
R2	47,000 Ohms, 1/2 Watt	60B 8-473
R3	10,000 Ohms, 1/2 Watt	60E 8-103
R4	1,000 Ohms, 1/2 Watt	60B 8-102
R5	27,000 Ohms, 1/2 Watt	60B 8-273
R6	1,000 Ohms, 1/2 Watt	60B 8-102
R7	100 Ohms, 1/2 Watt	60B 8-101
R8	47,000 Ohms, 1/2 Watt	60B 8-473
R9	15,000 Ohms, 2 Watt	60B 20-153
R10	2.2 Megohms, 1/2 Watt	60B 8-225
R11	47,000 Ohms, 1/2 Watt	60B 8-473
R12	4.7 Megohms, 1/2 Watt	60B 8-475
R13	1 Megohm, 1/2 Watt	60B 8-105
R14	470,000 Ohms, 1/2 Watt	60B 8-474
R15	390 Ohms, 1 Watt	60B 14-391
R16	2 Megohms, Volume Control & On-Off Switch SW3 (Tapped at 1 Megohm)	75B 2-4
R17	47,000 Ohms, 1/2 Watt	60B 8-473
R18	1/2 Megohm, Tone Control	75B 1-11
R19	680,000 Ohms, 1/2 Watt	60B 8-684
R20	220,000 Ohms, 1/2 Watt	60B 8-224
R21	10,000 Ohms, 1/2 Watt	60B 8-103
R22	1 Megohm, 1/2 Watt (In Tuning Eye Socket)	60B 8-105
R23	10 Megohms, 1/2 Watt	60B 8-106
R24	100 Ohms, 1/2 Watt	60B 8-101
R25	15,000 Ohms, 1/2 Watt	60B 8-153
R26	22,000 Ohms, 1/2 Watt	60B 8-223
R27	100,000 Ohms, 1/2 Watt	60B 8-104
R28	100,000 Ohms, 1/2 Watt	60B 8-104
R29	470,000 Ohms, 1/2 Watt	60B 8-474
R30	2 Megohms, 1/2 Watt	60B 8-205
R31	4.7 Megohms, 1/2 Watt	60B 8-475
R32	270,000 Ohms, 1/2 Watt	60B 8-274
R33	27,000 Ohms, 1/2 Watt	60B 8-273

**CONDENSERS**

SYMBOL	DESCRIPTION	PART No.
C1	.0005 mfd., Mica	65B 5-27
C2	30-135 mmfd.	Part of 66A 17-1
C3	.00015 mfd., 3%, Silver Mica	65B 1-37
C4	60-170 mmfd.	Part of 66A 17-1
C5	.00098 mfd., 3%, Silver Mica	65B 1-42
C6	115-225 mmfd.	66A 18-3
C7	5-50 mmfd., Silver Ceramic	66A 19-1
C8	.00025 mfd., Mica	65B 5-22
C9	.0001 mfd., Mica	65B 5-17
C10	.0005 mfd., Mica	65B 5-37
C11	.003 mfd., Mica	65B 5-39
C12	.05 mfd., 600 Volts, Paper	65A 2-24
C13	.05 mfd., 600 Volts, Paper	65A 2-24
C14	10 mmfd., Mica	65B 5-1
C15	.05 mfd., 600 Volts, Paper	65A 2-24
C16	5-50 mmfd., Silver Ceramic	66A 19-1

**CONDENSERS—Continued**

SYMBOL	DESCRIPTION	PART No.
C17	.00013 mfd., 3%, Silver Mica	65B 1-41
C18	30-135 mmfd.	Part of 66A 17-1
C19	60-170 mmfd.	Part of 66A 17-1
C20	.00075 mfd., 3%, Silver Mica	65B 1-38
C21	50-160 mmfd.	66A 18-2
C22	.00005 mfd., Mica	65B 5-11
C23	.05 mfd., 600 Volts, Paper	65A 2-24
C24	.05 mfd., 600 Volts, Paper	65A 2-24
C25	.00014 mfd., Mica	Part of T1
C26	.00014 mfd., Mica	Part of T1
C27	.05 mfd., 600 Volts, Paper	65A 2-24
Used only with No. 72B11 and No. 72B13 I.F. transformer. Omitted if No. 72B29 and No. 72B30 I.F. transformers are used.)		
C28	.05 mfd., 600 Volts, Paper	65A 2-24
C29	.00014 mfd., Mica	Part of T2
C30	.00014 mfd., Mica	Part of T2
C31	.0001 mfd., Mica	65B 5-17
C32	.0001 mfd., Mica	65B 5-17
C33	.01 mfd., 600 Volts, Paper	65A 2-22
C34	.00025 mfd., Mica	65B 5-22
C35	.01 mfd., 600 Volts, Paper	65A 2-22
C36a	20 mfd., 25 Volts, Elect.	67C 6-32
C36b	30 mfd., 400 Volts, Elect.	67C 6-32
C36c	30 mfd., 400 Volts, Elect.	67C 6-32
C37	.005 mfd., 600 Volts, Paper	65A 2-21
C38	.02 mfd., 600 Volts, Paper	65A 2-23
C39	.01 mfd., 600 Volts, Paper	65A 2-22
C40	1 mfd., 400 Volts, Paper	65A 2-25
C43	.02 mfd., 600 Volts, Paper	65A 2-23
C44	.02 mfd., 600 Volts, Paper	65A 2-23
C45	.0018 mfd., Mica	65B 5-36
C46	.00012 mfd., 3%, Silver Mica	65B 1-10
C47	5-50 mmfd., Silver Ceramic	66A 19-1
C48	.00015 mfd., 3%, Silver Mica	65B 1-37
C49	115-225 mmfd.	66A 18-3
C50	30-135 mmfd.	Part of 66A 17-1
C51	.00009 mfd., 3%, Silver Mica	65B 1-40
C52	20-75 mmfd.	Part of 66A 17-1
C53	300 mmfd., Mica	65B 5-23
C54	1000 mmfd., Mica	65B 5-33
C55	.2 mfd., 400 Volts, Paper	65A 2-10
C56	.002 mfd., 400 Volts, Paper	65A 2-16
C57	1 mfd., 400 Volts, paper	65A 2-25

**COILS, TRANSFORMERS, Etc.**

SYMBOL	DESCRIPTION	PART No.
CH1	Choke, Filter	74A 8
CH2	Choke, Coil	AB 103-1
L1	Coil, Broadcast Antenna	AB 100-6
L2	Coil, Shunt	AD 102-7
L3	Coil, Short-Wave R.F.	AD 102-6
L4	Coil, Short-Wave Antenna	AD 102-6
L5	Coil, Broadcast R.F.	AB 100-6

**COILS, TRANSFORMERS**

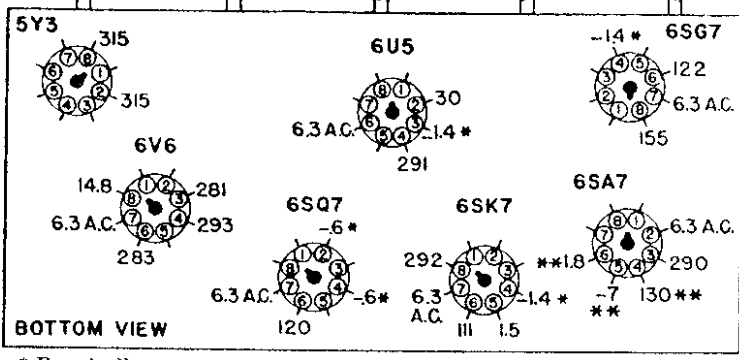
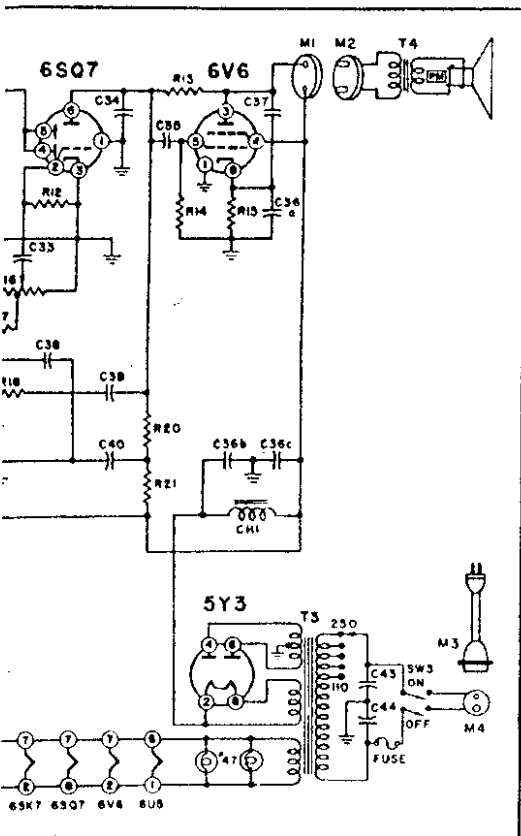
SYMBOL	DESCRIPTION
L6	Coil, Shunt
L7	Coil, Band #2 Oscill.
L8	Coil, Broadcast Oscill.
L9	Coil, Shunt
L10	Coil, Short-Wave Os
L11	Coil, Osc. Feedback
L12	Coil, Osc. Feedback
When Ordering Slugs Specify	
Slug, Iron Core (for L2, L6, L10)	
Slug, Iron Core (for L1, L5, L11)	
Slug, Iron Core (for L3, L4, L12)	
SW1a	Ant. Section of Band (Closest to Chassis)
SW1b	Osc. Section of Band (Second from Chas)
SW1c	R.F. Section of Band (Farthest from Ch)
SW2	Switch, Radio-Phone
SW3	Switch, On-Off
T1	Transformer, 1st I.F.
Note: Use 72B11 with 72B18 2; Use 72B29 with 72B 30 2	
T2	Transformer, 2nd I.F. Power Trans., 110-22 (for 7A1A)
OR	
T3	Power Trans., 110 V (for 7A1)
T4	Transformer, Output (for either speaker)
Speaker	6"x9" Oval P.M. an put Transformer (used in Models 7T09-S and 7T09-X)
Speaker	10" P.M. and Output Transformer (Used in Consc Model 7C74)
Speaker	Extension Cord (for 78B 22 Speaker)

**TUNER PARTS**

DESCRIPTION
Tuning Shaft
Plug (for mounting L3, L4, L1)
Spring Washer (for mounting Spring, Hairpin (for mounting Plug (for mounting L2, L6, L9)
Spring Clip (for mounting L2, L6, L9)
Plug (for mounting L1, L5, L7)
Idler Pulley
Shoulder Screw (for Idler Pulley)
Shaft (for Tuner Housing)

PROPORTION

MODELS 7T09-S, 7T09-X, 7C74,  
CHASSIS 7A1, 7A1A, 7ALB  
**VOLTAGE CHART**



\* Practically zero if readings are taken with 1000 ohm-per-volt meter.  
\*\* Zero or practically zero if readings are taken in phono position.

- Measured on 117 Volt A. C. Line.
- No station tuned in. Dial turned to low frequency end.
- Radio readings with bandswitch in broadcast position (Band #1). Readings taken in phono position will be approximately the same except for those indicated with a double asterisk (\*\*) in the voltage chart; these readings will be zero or practically zero.
- Voltages measured between point indicated and chassis.
- Voltages measured with a vacuum-tube voltmeter. Readings taken with a 1000-ohm-per-volt meter will be approximately the same except for those marked with an asterisk \* in the voltage chart; these readings will be practically zero.

**MISCELLANEOUS—Continued**

DESCRIPTION	PART No.
Washer, "C" (for Tuning Shaft).....	4A 4-1
Washer, Felt (for Knobs).....	5A 4-1
Washer, Fibre (for C7, C16, C47).....	5A 1-11
Washer Fibre (for Tuner Straps).....	5A 1-16
Washer, Spring (for Tuning Shaft)....	4A 6-3-0

Parts listed below used in Model 7C74 only.

**PHONOGRAPH PARTS**

Note: See record changer manual for complete parts list.

M5.....	Cartridge and Needle.....	A 1372
M6.....	Pickup Cable & Plug.....	A 1415
	Centerpost.....	G400B 137-1
	Drive Disc Assem. (under turntable).....	G400A 179
	Idler Wheel (407 B3 Motor).....	G400A 23
	Idler Wheel (407 B1 Motor).....	G400A 57
	Motor.....	407B 3-2
	Pickup Cable and Plug.....	A 1305
	Tilt Out Hinge Assembly (Record Support Side).....	AC 118-1
	Tilt Out Hinge Assembly (Pickup Arm Side).....	AC 118-2
	Tilt Out Spring (2 1/4" long).....	19A 15-1
	Shoulder Eye Bolt (for Tilt Out Spring).....	A 87-1
	Tilt Out Tie Bar.....	15B 126
	Tie Rod (Front of changer).....	28A 25

**MISCELLANEOUS**

M7.....	Socket, 3 prong (Preamplifier Phono Input).....	88A 5-9
M8.....	Phono Preamplifier Power Cable (Attached to Preamplifier Chassis).....	80A 23-2
M9.....	Phono Preamplifier Power Cable (Attached to Receiver Chassis).....	89A 23-1
M10.....	Jack, Shielded (for Preamplifier Output).....	88A 1
	Cable, Shielded (for Preamplifier Output).....	89A 5-2
	Door Bracket (left; near center).....	A1438
	Door Bracket (right; nearest side of cab.).....	A1439
	Door Arm (left, near center).....	A 1513
	Door Arm (right, nearest side of cab.).....	A1515
	Phono-Motor Socket and Leads.....	89A 6-6
	Pin Tip (for phono connections to receiver chassis).....	86A 2-1
	Shoulder Eye Bolt (for adjusting spring).....	1A 87-2
	Socket, Tube (miniature).....	87A 3-4
	Spring, Adjusting (for chassis mounting).....	19A 15-2
	Tie Bar (for chassis mounting).....	15B 160

\*Supplied only if old cabinet cannot be repaired. When ordering, describe condition of old cabinet in detail.

**RS, Etc.—Cont.**

PART No.	DESCRIPTION	PART No.
.....AD 102-7	Drive Pulley, Front.....	27A 18
.....AC 101-6	Drive Pulley, Rear.....	27A 19
.....AC 101-3	Guide Plate Assembly.....	A 1279
.....AD 102-5	Straps, Tuner.....	16A 107
.....AD 102-5	Spring, Strap.....	19A 14
.....Part of AD 102-5	Stud, Slug-Adjusting.....	27A 4
.....Part of AC 101-6		
.....Color Code		
L9).....	71B 1-17	
L8).....	71B 1-2	
L10).....	71B 1-6	
.....	71B 1-9	
.....switch (Front).....		
.....switch (Front).....	76B9	
.....switch (Front).....		
.....switch (Front).....		
.....76A 13-1		
.....Part of R16		
.....72B 11 or 72B29		
.....id I.F. only.		
.....id I.F. only.		
.....72B 13 or 72B 39		
.....0 Volt		
.....80B 3		
.....olt		
.....80B 4		
.....).....	98A 29	
.....d Out-Table		
.....78C 16		
.....e		
.....78B 22		
.....89A 19		
<b>TS</b>		
.....PART No.		
.....28A 13-1		
0).....	32A 3-3	
.....coils).....	4A 6-5-0	
.....coils).....	19A 3-1	
.....).....	32A 24-1	
.....18A 5		
.....L8).....	32A 3-1	
.....).....	27A 21	
.....ey).....	27A 20	
.....).....	28A 12	
M1.....	Speaker Socket.....	87A 4-3
	Speaker Plug (for 78C16 speaker).....	88A 4-3
M2.....	Speaker Plug (for 78B22 speaker).....	88A 14-2
M3.....	Connector, Line Cord, less collar (for 7T09X, 7T09S only).....	88A 6-2
M4.....	Connector, Line Cord (for 7T09X, 7T09S only).....	88A 6-1
	*Cabinet (for models 7T09X, 7T09S Only).....	35D 7-2
	Collar for line cord (for Models 7T09X, 7T09S Only).....	32A 19
	Fuse, 3 amp—250 V.....	84A 1-14
	Fuse Holder.....	84A 3
	Knob, "Volume".....	33A 17-2
	Knob "Tone".....	33A 17-3
	Knob, "Rad-Pho".....	33A 17-4
	Knob, "Band Switch".....	33A 17-5
	Knob, "Tuning".....	33A 17-6
	Screw, #2-56x1/4 RHMS (for Tuner Straps).....	20-125-02-2
	Set Screw, 6-32x1/4 (for Indicator Link).....	1A 44-7
	Set Screw, Bristol, #6-32x5/16 (for Drive Pulley).....	1A 14-10
	Snap Button (for Tuner Housing, Indicator Link).....	13A 1-3-59
	Socket & Cable for Magic Eye.....	87A 1-1
	Socket, Tube (Octal).....	87A 5-1
	Speed Nut (Tuner).....	2A19-1-59

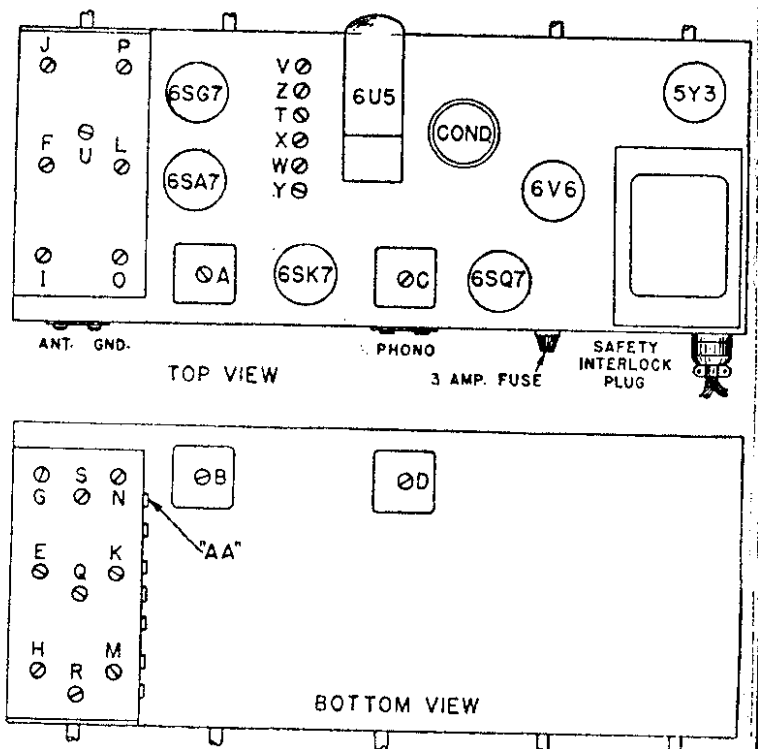
RECORD CHANGER: Admiral Models RC-170, RC-170A, RCD.CH. 16-1

ADMIRAL CORPORATION MODEL 7T09-S, 7T09-X, 7C74,  
CHASSIS 7A1, 7A1A, 7A1B

**TRIMMER IDENTIFICATION CHART**

Trimmer	Symbol	Function
A, B	T1	1st I.F. transformer
C, D	T2	2nd I.F. transformer
E	C49	Osc. trimmer (Band #1)
F	L8	Osc. slug (Band #1)
G	C21	R.F. trimmer (Band #1)
H	C6	Antenna trimmer (Band #1)
I	L1	Antenna slug (Band #1)
J	L5	R.F. slug (Band #1)
K	C47	Osc. trimmer (Band #4)
L	L10	Osc. slug (Band #4)
M	C7	Antenna trimmer (Band #4)
N	C-16	R.F. trimmer (Band #4)
O	L4	R.F. Slug (Band #4)
P	L3	Antenna Slug (Band #4)
Q	L9	Osc. shunt coil slug (Band #5)
R	L2	Ant. shunt coil slug (Band #5)
S	L6	R.F. shunt coil slug (Band #5)
T	C50	Oscillator trimmer (Band #2)
U	L7	Oscillator slug (Band #2)
V	C4	Antenna trimmer (Band #2)
W	C19	R.F. trimmer (Band #2)
X	C52	Oscillator trimmer (Band #3)
Y	C18	R.F. trimmer (Band #3)
Z	C2	Antenna trimmer (Band #3)

**TUBE AND TRIMMER LAYOUT**

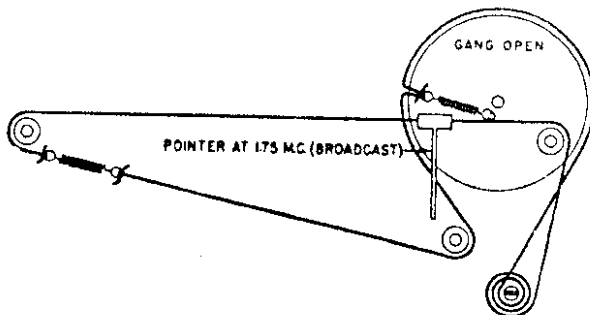


**POINTER ADJUSTMENT**

Turn the tuning control knob clockwise until tuning gang is wide open. The pointer should now be at 1.75 Mc. (end of dial scale). If it is not, move it to 1.75 Mc. without turning the tuning control knob. Then proceed with alignment.

**REPLACING TUNING SLUGS**

Set the gang to its wide open position, unsolder and remove the old slug. Set the slug-adjusting screw about half way down. Place the new slug in position. The slugs indicated as I, F, and J (in the trimmer layout diagram) should be 1-5/16" out of their coil forms. The slugs, O, L, and P, should be 1-3/16" out of their coil forms. The slug U should be 1 1/8" out of its coil form.



**CHASSIS REMOVAL FOR MODEL 7C74**

Due to the type of mounting, the chassis mounting board and receiver chassis are removed from the cabinet as a unit. This is done as follows: Remove the tuning knobs. Remove all cabinet wiring and cable connections from the receiver chassis. Remove the tubes from the phono preamplifier chassis to prevent possible breakage. With the tilt-out assembly in the closed position, remove the four screws that secure the wood chassis mounting board to the back of the tilt-out door. The chassis will now be free to come down against the tie-bar just below the chassis. Pull the bottom edge of the chassis toward the rear of the cabinet and let the chassis down so that the tuning shafts clear the panel.

**CHASSIS REPLACEMENT FOR MODEL 7C74**

Insert the chassis back into the cabinet with the wood mounting board toward the front of the cabinet. The mounting board and receiver chassis should be tipped toward the front of the cabinet. Insert the tuning shafts in their respective holes in the panel. Move the bottom edge of the chassis mounting board forward against the back of the tilt-out door. Move the chassis up to its normal position and reinsert the mounting screws. Replace the tuning knobs.

**IMPORTANT**

The 7C74 radio-phono console is intended for 110 volt, 60 cycle operation only. Operation on any other line frequency will result in improper phono turntable speed and possible damage to the receiver. Operation on higher line voltages will result in burning out the phono motor.

## ADMIRAL CORPORATION

**ALIGNMENT PROCEDURE**

- Check all screws and set screws on tuner to eliminate possibility of backlash. The correct position of the dial drum can be seen in the stringing diagram.
- With the gang wide open, the stop on the rear of the dial must rest against the upper stop post.
- Check slug positioning, with gang wide open. The slugs indicated as I, F, and J should be  $1\frac{1}{8}$ " out of their coil forms. The slugs O, L, and P should be  $1\frac{1}{8}$ " out of their coil forms. The slug U should be  $1\frac{1}{8}$ " out of its coil form. If there is any serious deviation or if there has been any tampering, turn the adjusting screws until this distance is corrected.
- Connect output meter across voice coil.
- Be sure both the set and the signal generator are thoroughly warmed up before starting alignment.
- Turn receiver Volume Control full on.
- Use lowest output setting of signal generator that gives a satisfactory reading on meter.
- Proceed as outlined below.

Step	Connect Signal Generator To	Signal Generator Frequency	Receiver Dial Setting	Trimmer and Type of Adjustment
1	Set Band Change Switch to Broadcast Position (Band #1).			
2	Thru .1 mfd. to point "AA" (bottom view, trimmer location diagram).	455 K.C.	1.75 Mc.	A, B, C, D to maximum output
3	Before proceeding to step 3, check pointer as outlined under paragraph headed "Pointer Adjustment." Leave Band Change Switch in Broadcast Position (Band #1).			
4	Antenna terminal at rear of chassis with 200 mmfd. in series.	1.75 Mc.	1.75 Mc.	E, G, H to maximum output
5	Same as above	1.3 Mc.	1.3 Mc.	F to maximum output
6	Same as above	1.0 Mc.	Tune in Signal	I, J to maximum output
7	Set Band Change Switch to Band #4.			
8	Antenna terminal at rear of chassis with 400 ohms in series.	17.5 Mc.	17.5 Mc.	K Adjust to bring in signal and check for image with signal generator at 18.41 Mc. See NOTE A below.
9	Same as above	14.5 Mc.	14.5 Mc.	L Adjust to bring in signal and check for image with signal generator at 15.41 Mc. See NOTE A below.
10	Same as above	17.5 Mc.	Tune in Signal	M to maximum output
11	Same as above	17.5 Mc.	Tune in Signal	N "Rock" as per NOTE B below
12	Same as above	14.5 Mc.	Tune in Signal	P to maximum output
13	Same as above	14.5 Mc.	Tune in Signal	O "Rock" as per NOTE B below
14	Set Band Change Switch to Band #5.			
15	Same as above	19. Mc.	19. Mc.	Q Adjust to bring in signal and check for image with signal generator at 19.91 Mc. See NOTE A below.
16	Same as above	19. Mc.	Tune in Signal	R to maximum output
17	Same as above	19. Mc.	Tune in Signal	S "Rock" as per NOTE B below
18	Set Band Change Switch to Band #2.			
19	Same as above	4.25 Mc.	4.25 Mc.	T Adjust to bring in signal and check for image with signal generator at 5.16 Mc. See NOTE A below.
20	Same as above	3.8 Mc.	3.8 Mc.	U Adjust to bring in signal and check for image with signal generator at 4.71 Mc. See NOTE A below, and "Rock" as per NOTE B below.
21	Same as above	4.25 Mc.	Tune in Signal	V to maximum output
22	Same as above	4.25 Mc.	Tune in Signal	W to maximum output
23	Set Band Change Switch to Band #3.			
24	Same as above	8.6 Mc.	8.6 Mc.	X Adjust to bring in signal and check for image with signal generator at 9.51 Mc. See NOTE A below.
25	Same as above	7. Mc.	Tune in Signal	Z to maximum output
26	Same as above	7. Mc.	Tune in Signal	Y "Rock" as per NOTE B below

NOTE A: Image check. Trimmers referred to this note can have two peaks. Check to see if proper peak was obtained by leaving receiver dial at its setting and retuning signal generator to frequency indicated in chart above. If image is not heard at or near indicated point, realign to other peak and recheck image.

NOTE B: Trimmers referred to this note should first be adjusted to maximum. Then try to increase output by detuning trimmer slightly and retuning signal generator dial until maximum output meter reading is secured.