

OUTSIDE ANTENNA
CONNECTION

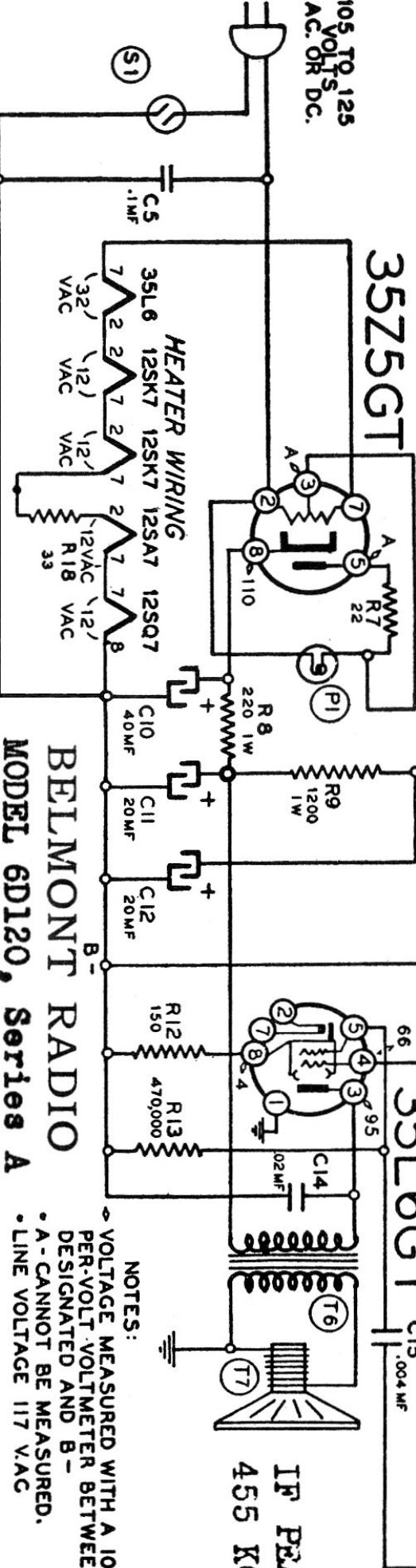
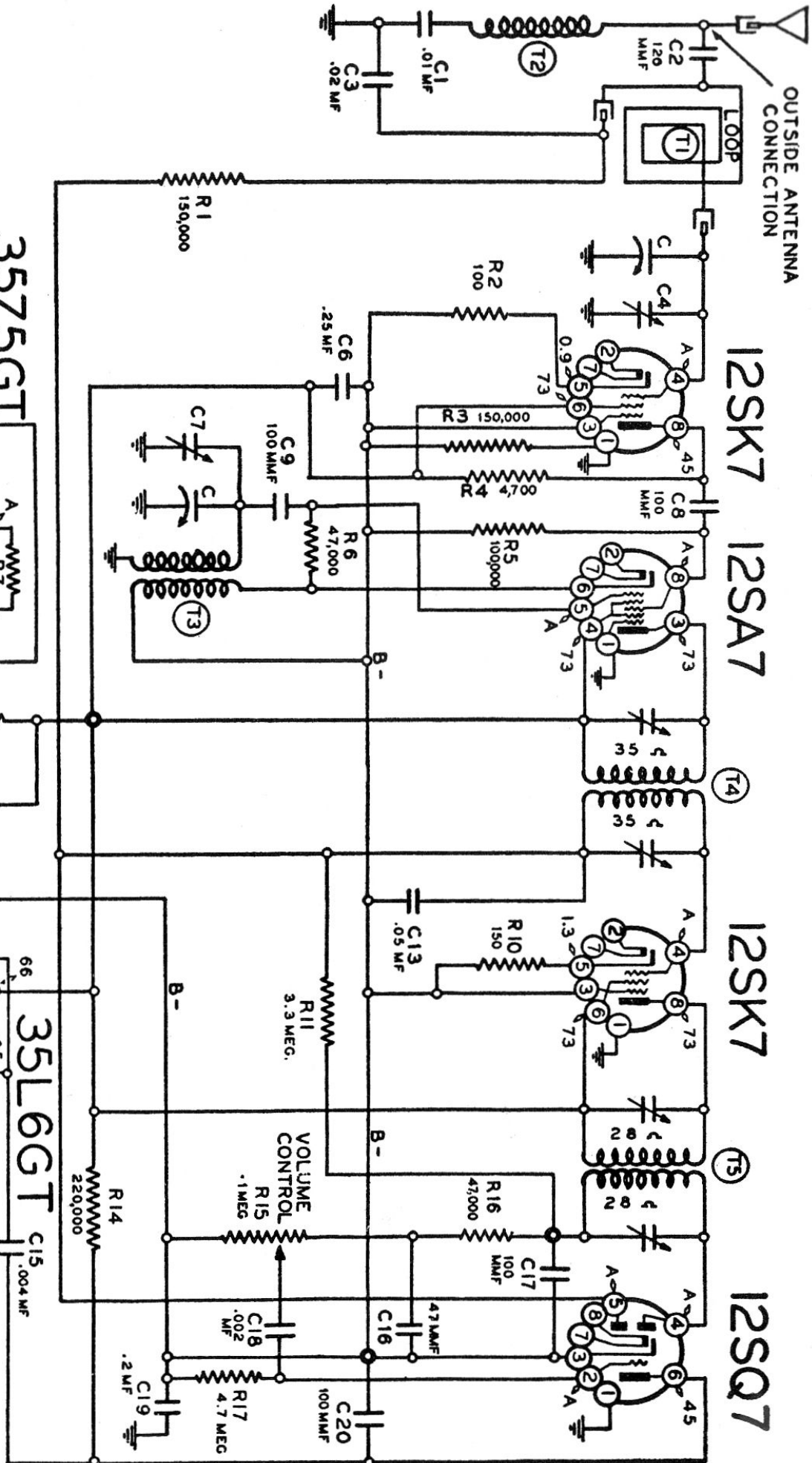
12SK7

12SA7

12SK7

(T5)

12SQ7



BELMONT RADIO MODEL 6D120, Series A

NOTES:
• VOLTAGE MEASURED WITH A 1000-OHM PER-VOLT VOLTMETER BETWEEN PINS DESIGNATED AND B-
• A-CANNOT BE MEASURED.
• LINE VOLTAGE 117 VAC

IF PEAK
455 KC

CAPACITORS*

C4,C7	B-8A-10211	Two-gang, including antenna and oscillator trimmers
C1	C-8D-10761	.01 mf, 400 volts, 20%
C2	C-8F3-114	120 mmf, 500 volts, 10%, mica
C3,C14	C-8D-10774	.02 mf, 400 volts, 20%
C5	C-8D-10760	.1 mf, 400 volts, +20%-10%
C6	C-8D-10775	.25 mf, 200 volts, +20%-10%
C8,C9	C-8F3-8	100 mmf, 500 volts, 20%, mica
C10,C11,	11994	Electrolytic for 60 cycles; 40 mf, 20
C12	or 11995	mf, 20 mf x 150 volts Electrolytic for 25 cycles; 60 mf, 40
C13	C-8D-10770	mf, 40 mf x 150 volts
C15	C-8D-10788	.05 mf, 200 volts, 20%
C16	C-8F3-6	.004 mf, 600 volts, 20%
C18	C-8D-10778	.47 mmf, 500 volts, 20%, mica
C19	C-8D-10942	.002 mf, 600 volts, +40%-15% .2 mf, 400 volts, +30%-10%

RESISTORS*

R1,R3	C-9B1-26	150,000 ohms, 1/2 watt, 20%
R2	C-9B1-50	100 ohms, 1/2 watt, 10%
R4	C-9B1-70	4700 ohms, 1/2 watt, 10%
R5	C-9B1-25	100,000 ohms, 1/2 watt, 20%
R6	C-9B1-82	47,000 ohms, 1/2 watt, 10%
R7	C-9B1-42	22 ohms, 1/2 watt, 10%
R8	C-9B2-54	220 ohms, 1 watt, 10%
R9	C-9B2-63	1200 ohms, 1 watt, 10%
R10,R12	C-9B1-52	150 ohms, 1/2 watt, 10%
R11	C-9B1-34	3.3 megohms, 1/2 watt, 20%
R13	C-9B1-29	470,000 ohms, 1/2 watt, 20%
R14	C-9B1-27	220,000 ohms, 1/2 watt, 20%
R15,S1	101193	Volume control (1 megohm) and on-off switch
R16	C-9B1-23	47,000 ohms, 1/2 watt, 20%
R17	C-9B1-35	4.7 megohms, 1/2 watt, 20%
R18	C-9B2-44	33 ohms, 1 watt, 10%

COILS AND TRANSFORMERS

T1,T2	B-212-11062 or B-212-11404	Loop antenna assembly, including capacitors C1 and C2, coil T2, and cardboard back.
T3	A-13D-10215	Oscillator coil
T4	108140G	Input I.F. coil complete in can.
T5	108145C	Range of trimmers: 56-104 mmf
T6	10595B	Output I.F. coil complete in can. Range of trimmers: 56-104 mmf Output transformer

TUNER MECHANICAL PARTS

115146	Cams (6 used on cam shaft)
115143	Key washers, (12 used)
117528	Spacer (1 used on shaft)
117602	Spacer (4 used on shaft)
117604	Locking collar
131181	Spring washer for collar
A-3N-11086	Spacer on shaft for drive cord
A-49A-11087	Spring on shaft for drive cord
115361	Cam lever with roller
120283	Return spring for lever
112785	Pointer
A-53A-10989	Drive cord (6 inches)
120143	Tension spring for drive cord
B-6D-10241	Dial scale
or	
B-6D-10241-1	Dial scale
112659	Crystal for dial scale
B-2M-10383	Snap-in rivets (4) for crystal

MISCELLANEOUS

T7	114191B	Speaker, 5-inch, P.M.
P1	121171	Socket for tube (6 used)
	10798D	Line cord and plug
	107249	Dial lamp, 6-8 volts, T-47
	107271	Socket assembly for dial lamp
	A-2H-11271	Tube shield for bakelite-base 12SA7GT
	A-2H-10715	Tube shield for metal-base 12SA7GT
	128334B-9	Cabinet, ivory
	A-5B-11249-8	Knob, volume, ivory
	B-5B-10994-9	Knob, tuning, ivory
	120388	Locking spring for tuning knob
	A-3F-10995	Locking screw in tuning knob
	128292B-8	Pushbutton, ivory
	134123	Rubber bumper for bottom of cabinet
	131193	Snap-in rivets (4) for mounting back
	112784	Station call letters, 1 set
	112606	Acetate tabs for call letters

NOTE ON TUBE REPLACEMENT

Replace a defective metal 12SK7 tube with another metal tube. Replace a glass 12SK7 tube with a metal tube or with an exact duplicate of the tube now in the set.

*The values of the resistors and mica capacitors listed above are based on RMA standards. Due to conditions beyond our control, some receivers have been shipped with components of pre-standardized values. This receiver will operate equally well with components of either group. An illustration of the differences follows:

Pre-standardized value—200,000 ohms, 20%, 1/3 watt
RMA value—220,000 ohms, 20%, 1/2 watt
Pre-standardized value—50 mmf, 500 volts, 20%
RMA value—47 mmf, 500 volts, 20%

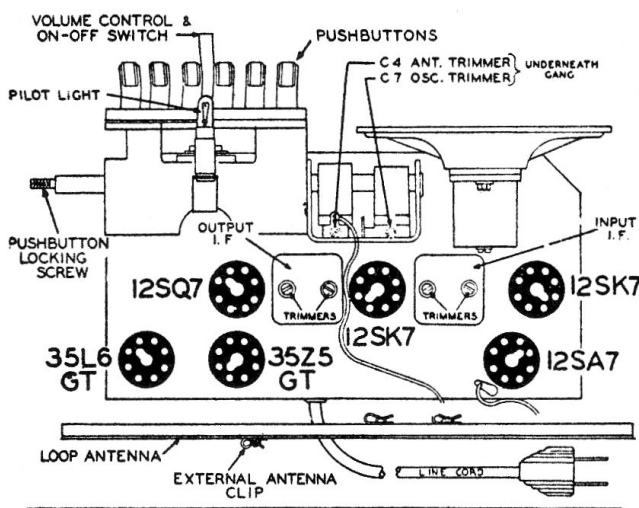
ALIGNMENT PROCEDURE

(Refer to Chassis View for location of trimmers)

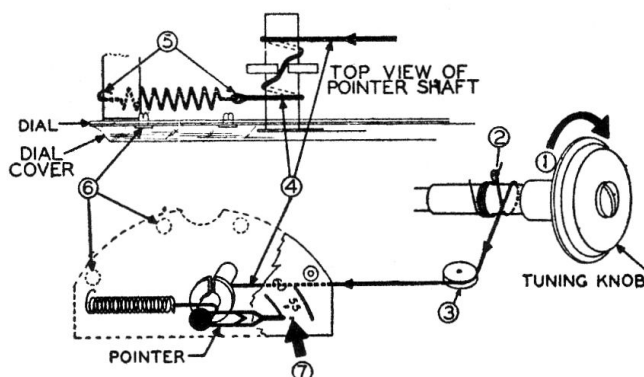
- Output meter across 3.2-ohm output load.
- Align for maximum output. Reduce input as needed to keep output near 0.4 volts.
- Volume control at maximum for all adjustments.
- Connect ground post of signal generator to B— of radio.
- Chassis must be removed from cabinet for proper alignment. Slight adjustments of the oscillator and antenna circuits can be made, without removing the chassis, through two holes provided on the bottom of the cabinet. The screws can be reached with a long screwdriver.

SIGNAL GENERATOR			TUNER SETTING	ADJUST FOR MAXIMUM OUTPUT (in order shown)
Frequency	Dummy Antenna	Connection to Radio		
455 kc	.1 mf	Grid (pin 8) of 12SA7	Plates out of mesh	Trimmers on output and input I.F. cans
1650 kc	.1 mf	Grid (pin 8) of 12SA7	Plates out of mesh	Oscillator trimmer C7 on bottom of gang
1400 kc	200 mmf	See note below	Set dial at 1400 kc	Antenna trimmer C4 on bottom of gang

Note: Lay output lead of generator in back of loop antenna. Turn up generator output. Loop will pick up energy.



Chassis View



SETTING THE PUSHBUTTONS—The pushbuttons may be used, after proper adjustment, for the automatic tuning of any six stations on the standard broadcast band. They can be set up in any order.

1. Turn on the radio.
2. Push out the call letters of the six stations from the call-letter sheets supplied with this manual.
3. Insert one call-letter tab in the rectangular opening in the front of each pushbutton, in any order. Press an acetate tab (supplied in small envelope) into each of the pushbuttons.
4. With the screwdriver supplied, check to see that the locking screw in the center of the tuning knob (see front view) is loose. If it is not, turn it several turns to the left (counterclockwise).
5. Press the first pushbutton down *all the way*. With one hand hold the button down firmly and with the other carefully tune in the desired station. Release the pushbutton.

6. Follow this procedure for each of the five other buttons, setting each one for a different station.

7. Rotate the tuning knob on the side of the cabinet as far to the right as it will go. Tighten the locking screw in the center of the

knob. IT IS IMPORTANT THAT THIS SCREW BE TIGHTENED VERY FIRMLY.

8. The pushbuttons are now properly set for automatic tuning. Any of the six stations may be tuned in simply by pressing the proper button down as far as it will go. If you wish to reset any of the buttons for a new station, loosen the locking screw, set the pushbutton as described above, and re-tighten the locking screw.

DIAL LIGHT—If the dial lamp burns out the set should not be operated until a new lamp has been installed. Failure to heed this caution may result in a burned-out 35Z5GT tube. To replace the lamp, first remove the four buttons which hold the back to the cabinet. On the inside of the back unclip the green, black, and white wires clipped to the back. The Chassis View illustration shows the location of the dial lamp. Pull the lamp bracket toward the rear of the radio. The lamp can now be removed and replaced. Use a 6- to 8-volt lamp, type T-47. When replacing the back on the cabinet, connect the green wire to the green-painted clip, the black wire to the black-painted clip, and the white wire to the unpainted clip.

Belmont 6D120 Series A Drive Cord

REPLACING DIAL POINTER DRIVE CORD

Six inches of cord are required. Numbers below correspond to circled numbers in diagram.

1. Rotate tuning knob to extreme clockwise position.
2. Tie cord to loop in spring as shown.
3. Pass cord over idler pulley.
4. Pass cord OVER pointer shaft; wind it one turn around shaft; pass it through key washer, then once more around shaft.
5. Hook spring over end of dial support. Tie cord to spring. **IMPORTANT:** Full contraction of spring must rotate pointer shaft at least one half turn.
6. Remove dial crystal by removing snap-in rivets.
7. Make sure tuning knob is in extreme clockwise position. Then rotate pointer clockwise, against friction of shaft, until it is in a horizontal position, as shown.

