ALIGNMENT PROCEDURE

- Connect output meter across speaker voice coil.
- Turn receiver volume control full on.
- Use an isolation transformer if available, otherwise connect a .1 mfd. capacitor in series with low side of signal generator and connect to chassis.
  Caution: Do not connect a ground wire directly to chassis.
- Use lowest output setting of signal generator capable of producing adequate output meter indication and then proceed as outlined in chart below.
- Use a **non-metallic** alignment tool for IF transformers.
- Repeat adjustments to insure good results.

Step	Dummy Antenna in Series with Signal Generator	Connection of Signal Generator (High Side)	Signal Generator Frequency	Receiver Gang Setting	Trimmer Description	Trimmer Designation	Type of Adjustment
1	.001 mfd. capacitor	Antenna stator of tuning capacitor	455 KC	Gang fully open	2nd IF 1st IF	*A, B *C, D	Maximum Output
2	.001 mfd. capacitor	Antenna stator of tuning capacitor	1620 KC	Gang fully open	Oscillator (on gang)	E	Maximum Output
3	Loop of several turns of wire or place generator lead close to receiver loop for adequate signal pickup.	No actual connection (signal by radiation)	1400 KC	Tune in generator signal	Antenna (on gang)	F	Maximum Output
4	Set dial pointer slide as shown in Pointer Setting and Dial Cord Stringing Diagram below. Also see instructions below on "Removing Or Installing Chassis In Cabinet" and on "Setting Pointer Slide."						

*Adjustments A and C made from the underside of the chassis. To avoid splitting the slotted head of powdered iron core tuning slugs in IF transformers, use an alignment tool with a blade 1/8" wide.

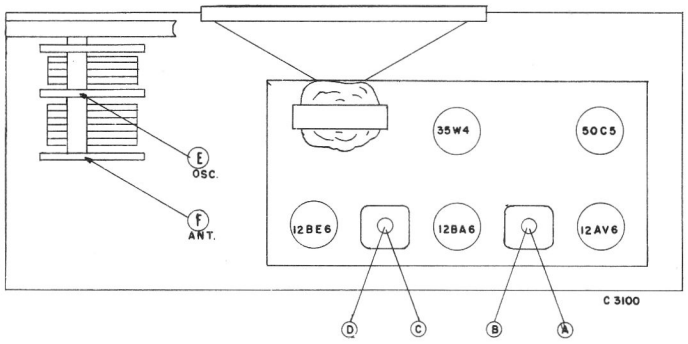
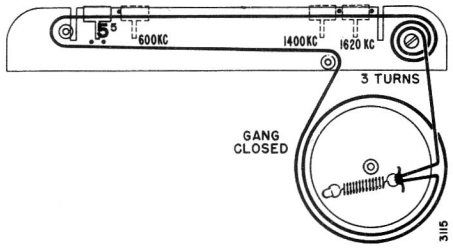


Figure 2. View of Chassis. Location of Components and Alignment Adjustments Shown. Adjustments A and C made from underside.

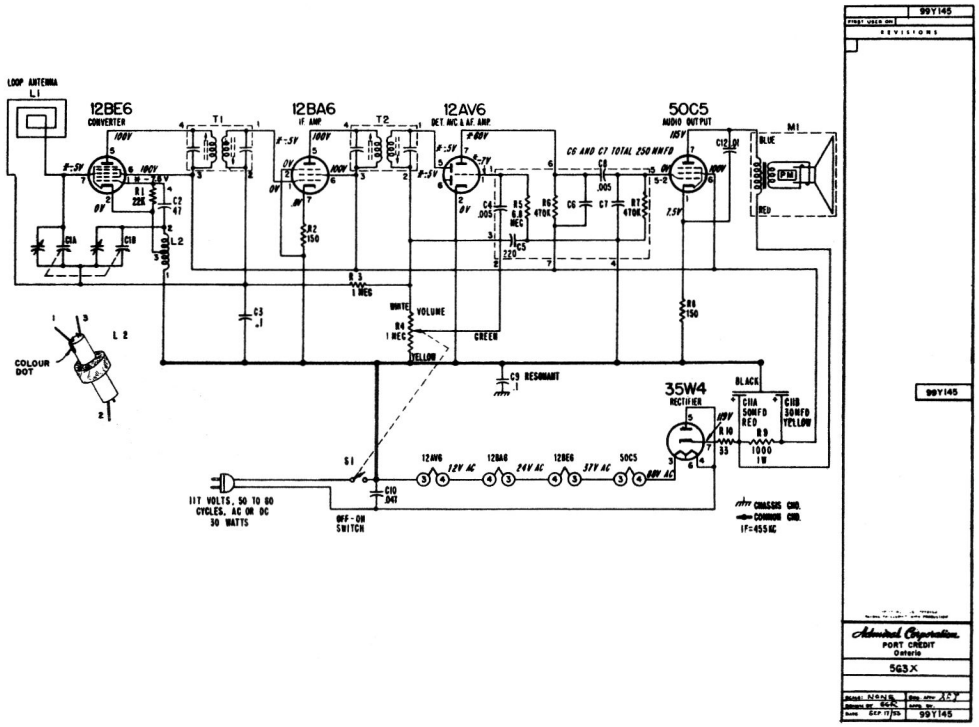
REMOVING OR INSTALLING CHASSIS IN CABINET

When installing, carefully slide the chassis into the cabinet. See the "Pointer Setting and Dial Cord Stringing" diagram at the right. The bracket which mounts the tuning controls is mounted on the speaker frame.

POINTER SETTING AND DIAL CORD STRINGING



With the gang condenser fully closed, place the pointer slide nearest the volume control as shown in the figure above. The three punched holes indicate tracking points.



VOLTAGE DATA

Voltages shown on schematic diagram.

- All readings made between tube socket terminals and B minus.
- Dial turned to low frequency end; volume control at minimum.
- Measured on 117 Volts AC line.
- Voltages measured with vacuum-tube voltmeter.

Models 5G31X Ebony, 5G32X Mahogany and 5G33X Ivory

SPECIFICATIONS

Circuit: Superheterodyne using 5 miniature tubes. See additional circuit information on front page.

Frequency Range: Standard broadcast band, 535 to 1620 KC.

Intermediate Frequency: 455 KC.

Power Supply: Power line of 117 volts, 25 to 60 cycles AC or DC.

Power Consumption: 30 watts.

Antenna: Built-in loop antenna.

Speaker: 4″ PM. with Alnico V magnet. Voice coil impedance, 3.2 ohms.

RESISTORS

Sym.	Description	Part No.
R1	22,000 ohms, 1/2 watt	60B8-223
R2	150 ohms, 1/2 watt	60B8-151
R3	1 megohm, 1/2 watt	60B8-105
R4	1 megohm, Volume Control (Includes switch S1)	75B1-60
§R5	6.8 megohms, 1/2 watt	
§R6	470,000 ohms, 1/2 watt	
§R7	470,000 ohms, 1/2 watt	
R8	150 ohms, 1/2 watt	60B8-151
R9	1,000 ohms, 1 watt	60B28-2
R10	33 ohms, 1 watt	60B28-3

CAPACITORS

Sym.	Description	Part No.
C1A, C1B	420 mmfd, max, Ant. / 108 mmfd, max, Osc. gang (Dial drum spot welded to gang)	68B58
C2	47 mmfd, ceramic	65C6-79
C3	.1 mfd, 200 volts, paper	64B5-30
§C4	.005 mfd, 450 volts	
§C5	220 mmfd, 450 volts	
§C6, §C7	See note on schematic	
§C8	.005 mfd, 450 volts	

CAPACITORS (Continued)

Sym.	Description	Part No.
C9	.1 mfd, 600 volts, Resonant	64W2-2
C10	.047 mfd, 400 volts, paper	64B9-28
C11A, C11B	50 mfd, 150 volts / 30 mfd, 150 volts elect	67L1-5
C12	.01 mfd, ceramic	65C10-3

COILS, TRANSFORMERS, ETC.

L1	Antenna, Loop (mounted on cardboard back)	69Y172-1
L2,	Coil, Oscillator	69W52-5
T1	Transformer, 1st IF	72C28-7
T2	Transformer, 2nd IF	72C28-7
M1	Speaker (4" PM) and Output Transformer	78X84-1
S1	Switch, On-Off	Part of R4
	Couplate	63B6-7
	(Includes R5, R7, C4, C5, C6, C7, C8)	

MISCELLANEOUS PARTS

Cabinet, Plastic	
Ebony	34D68-1
Mahogany	34D68-2

MISCELLANEOUS PARTS (Continued)

Sym. Description	Part No.
Ivory	34D68-3
Baffle Board & Grille Cloth	AA227-9
Dial Background	15B939
Dial Cord (27" Length needed)	50A1-3
Dial Scale	21C69-1
Grommet (for mtg. gang)	12B1-2
Knob, Tuning	
Ebony	33A110-1
Maroon	33A110-2
Ivory	33A110-3
Line Cord	89W1-6
Pointer, Dial	25A56-1
Shaft, Tuning	28A26-8
Snap Button for mtg. cabinet back	13A1-5-71
Socket, Tube	87A3-4
Spacer, Metal "T" (for mtg. gang)	29A2-1-71
Speed Nut	
for mtg. baffle	2B10-47-59
for mtg. dial scale	2B10-12-59
Spring, Dail Cord Tension	19C1-5
Washer, "C" (for tuning shaft)	4K4-2-71
Washer, Spring (for tuning shaft)	4A6-3-0
Washer, Felt (for knobs)	5A4-4
Asbestos Lining	39K1-1

§Part of couplate, part number 63B6-7. Numbers on schematic correspond to lead numbers on couplate 63B6-7.