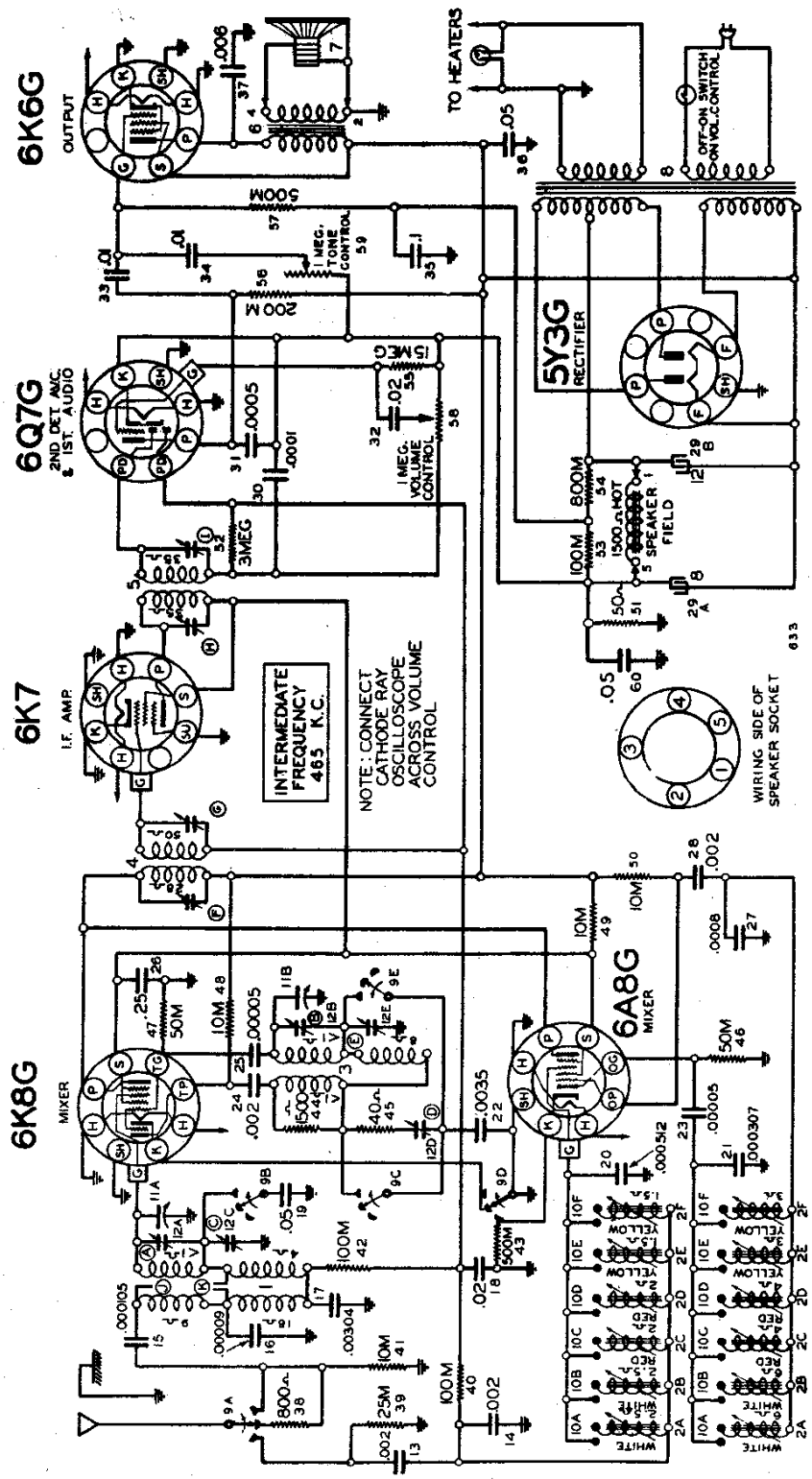
United Motors Service - Delco

Model: R1141 Delco	Chassis:	Year: Pre August 1939
Power:	Circuit:	IF:
Tubes:		
Bands:		

Resources
Riders Volume 10 - UNITED MOTORS 10-20
Riders Volume 10 - UNITED MOTORS 10-21
Riders Volume 10 - UNITED MOTORS 10-22

MODEL R1141 Delco
Schematic

UNITED MOTORS SERVICE, INC.



Date: 9-13-38

GENERAL: The Delco Model R-1141 is a six tube, two band superheterodyne receiver with a 6" dynamic speaker. Tuning is accomplished by means of the conventional manual control, or by push button switches which control adjustable permeability tuned coils. The frequency ranges of the push buttons are, left to right:

1. 535 to 820 K.C.
2. 535 to 820 K.C.
3. 720 to 1120 K.C.
4. 720 to 1120 K.C.
5. 1000 to 1560 K.C.
6. 1000 to 1560 K.C.

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MODEL R1141 Delco
Voltage, Socket
Trimmers, Chassis

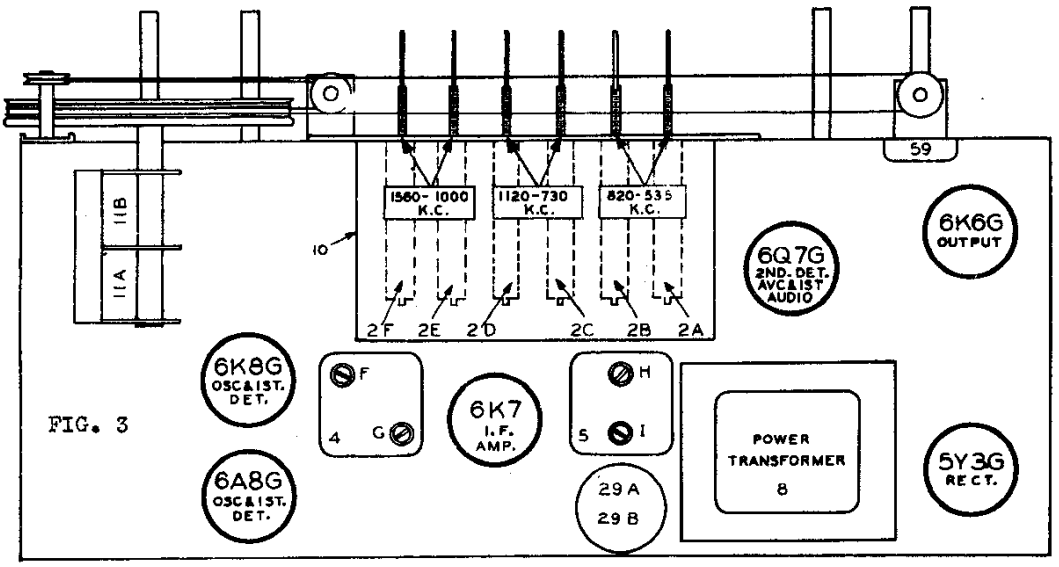
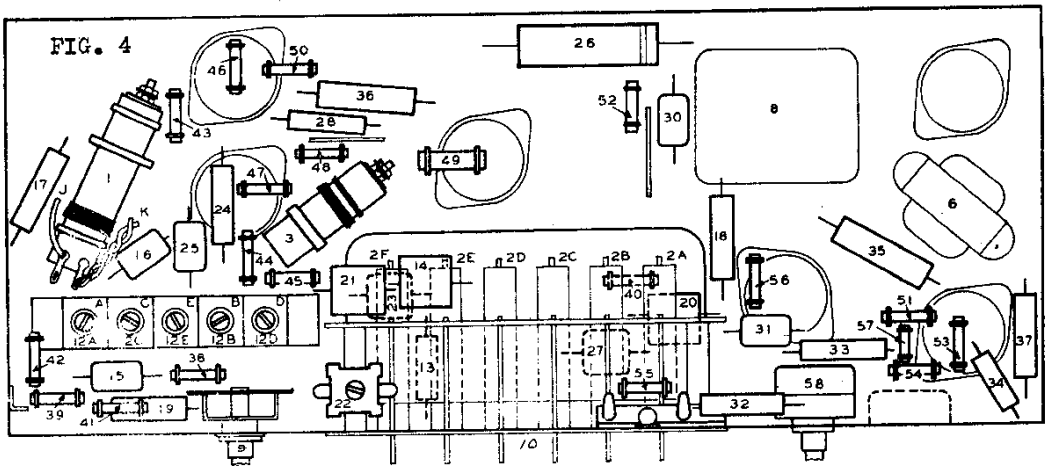
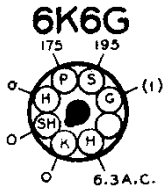
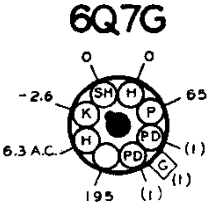


FIG. 3

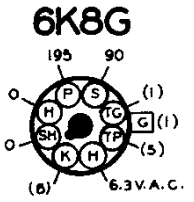


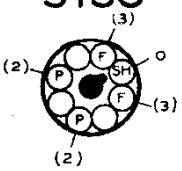
BOTTOM VIEW OF CHASSIS



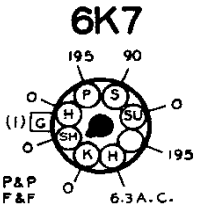


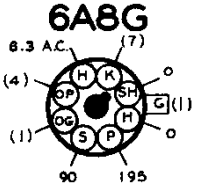
VOLTAGES MEASURED WITH 1000 OHM PER VOLT METER BETWEEN SOCKET TERMINALS AND CHASSIS.
A.C. LINE VOLTAGE 115 VOLTS.
POWER CONSUMPTION 50 WATTS





(1) CANNOT BE READ WITH VOLTMETER
(2) 650 V. A.C. READ ACROSS TERMINALS P&P
(3) 5 V. A.C. READ ACROSS TERMINALS F&F
(4) 155 V. IN PUSH BUTTON OPERATION
(5) 130 V. IN MANUAL OPERATION
(6) 0 IN MANUAL OPERATION
(7) 0 IN PUSH BUTTON OPERATION





REAR OF CHASSIS

621

MODELS R1141,R1142,R1143
Alignment,Tuner
MODEL R1144 Delco
Tuner Data

UNITED MOTORS SERVICE , INC.

MODELS R1141,R1142,R1143 and R1144

SETTING UP AUTOMATIC ELECTRIC TUNING

Setting up the push buttons for pre-selected stations is accomplished by means of a single adjustment for each button, accessible from the front of the cabinet. These screw driver adjustments are made through the small openings in the escutcheon, in which the call letter tabs are placed.

1. Turn the set "on" and set the band change switch to the broadcast manual (center) position and allow about 15 minutes to warm up.
2. Tune in the desired station by means of the manual tuning control.
3. Press one of the buttons which most conveniently covers the frequency of the stations, turn the band change switch to the automatic (left hand) position and, with a small screw driver, adjust the screw directly above the button, until the station is tuned in accurately.
4. Turn the band change switch back to the center position to check the accuracy of the adjustment.
5. Insert the call letters of the station in the opening and cover with the celluloid tab provided.
6. Repeat the operation for the other buttons.

ALIGNMENT FOR MODELS R1141,R1142,and R1143.
NOTE FIGURE REFERENCES IN THE TEXT REFER TO FIGURES SHOWN WITH EACH MODEL.

1. Aligning I-F Stages at 465 Kilocycles

(a) Connect the ground lead of the signal generator to the chassis frame.

(b) Connect the signal lead of the signal generator to the grid cap of the *6A8G tube through a 1.0 mfd. condenser, leaving the grid clip in place. 4 6K8G(R1143)

(c) Connect the output meter across the plate and screen of the 6F6G tube.

(d) Press a button, turn the band change switch to the automatic (left hand) position, volume control on full, and the tone control in the treble position. *R1143 Use #10 Button & Variable Fully Open

(e) Set the signal generator to exactly 465 kilocycles and adjust the trimmers on the second I-F coil (Illus. 5, Fig. 3) and the first I-F coil (Illus. 4, Fig. 3) for maximum output. Use as low a signal from the signal generator as will give a readable indication on the output meter. DO NOT REALIGN THE I-F COILS IN THE MANUAL (CENTER) POSITION (MODEL R1141 ONLY)

(f) After completing the Alignment Procedure, the alignment should be checked with the Model 165 Cathode Ray Oscillograph. Connect the oscillograph across the volume control. [3] For R1143) Across 250 Ohm Pot.

2. Aligning at 17 Megacycles

(a) Remove the signal lead of the signal generator from the grid of the *6A8G and connect to the antenna terminal of the receiver through a 400 ohm resistor. 4 R1143 (6K8G)

(b) [5] Turn the band change switch to the short wave (right hand) position. [5] FOR R1143 - Press #9 Button (S.W.-MANUAL TUNING)

(c) Set the signal generator to exactly 17 megacycles and rotate the variable section of the condenser gang to indicate 17 megacycles on the test scale.

(d) Adjust the oscillator trimmer condenser (Illus. F, Fig. 4) for maximum output. R1142 (ILLUS 12D, FIG 4) R1141, R1143 (ILLUS. B, Fig 2) R1143

(e) Adjust the antenna trimmer [6] (Illus. K, Fig. 4) while rocking the condenser gang back and forth through the signal, until maximum output is obtained. [6] FOR MODEL R1142 SEE (ILLUS. 12A, FIG 4)

(f) Increase the signal from the signal generator and check for image frequency response. If the image does not fall at approximately 1630 megacycles, repeat section 2.

3. Aligning at 1735 Kilocycles (MODELS R1141, R1142 ONLY)

(a) Remove the 400 ohm resistor and connect the signal lead of the signal generator to the antenna terminal of the receiver through a .0002 mfd. mica condenser.

3. Aligning at 5 Megacycles MODEL R1143 ONLY

(a) Press #9 button (Intermediate wave--manual tuning).

(b) Set the signal generator to exactly 5 megacycles and rotate the variable section of the condenser gang to indicate 5 megacycles on the test scale.

(c) Adjust the oscillator trimmer condenser (Illus. G, Fig. 3) for maximum output.

(d) Adjust the antenna trimmer condenser (Illus. C, Fig. 3) for maximum output.

4. Aligning at 1690 Kilocycles MODEL R1143 ONLY

(a) Remove the 400 ohm resistor and connect the signal lead of the signal generator to the antenna terminal of the receiver through a .0002 mfd. mica condenser.

(b) Press #10 button (Broadcast--manual tuning).

(c) Turn the variable plates of the condenser gang completely out of mesh and against the high frequency stop.

(d) Adjust image trimmer (Illus. E, Fig. 3) two turns up from tight.

(e) Set the signal generator to exactly 1690 kilocycles.

(f) Adjust the oscillator trimmer condenser (Illus. H, Fig. 3) for maximum output.

(b) Turn the band change switch to the broadcast Manual (center) position.

(c) Turn the variable plates of the condenser gang completely out of mesh and against the high frequency stop.

(d) Set the signal generator to exactly 1735 kilocycles.

(e) Adjust the oscillator trimmer condenser [4] (Illus. E, Fig. 4) for maximum output. [4] MODEL R1141 ONLY [4] FOR MODEL R1142 SEE (ILLUS 12E, FIG 4)

4. Aligning at 1400 Kilocycles

(a) Set the signal generator to approximately 1400 kilocycles.

(b) Rotate the variable plates of the condenser gang until the signal is tuned in with maximum output.

(c) Adjust the antenna trimmer [6] (Illus. C, Fig. 4) for maximum output.

5. Aligning at 600 Kilocycles [5] MODEL R1141 ONLY FOR MODEL R1142 (ILLUS. 12B, FIG 4) " " R1143 (ILLUS D, FIG 3)

(a) Set the signal generator to approximately 600 kilocycles.

(b) Rotate the variable plates of the condenser gang until the signal is tuned in. FOR R1143-SEE (ILLUS F, FIG 3) FOR R1142-SEE (ILLUS. 12C, FIG 4) FOR R1141

(c) Adjust the oscillator series condenser (Illus. D, Fig. 4) while rocking the condenser gang back and forth through the signal until maximum output is obtained.

6. Aligning for Image Frequency Response

(a) Set the signal generator at 2100 kilocycles. (FOR 9R 1143 AT 1930KC.

(b) Rotate the variable plates of the condenser gang until the image of this signal is tuned in at 1170 kilocycles. (FOR R 1143 AT 1000KC.

(c) Adjust the two-wire capacitor (Illus. K, Fig. 4) by twisting, until a minimum output is obtained. (FOR R1143 - SEE (ILLUS. F, FIG 3)

NOTE: R1143 IS CHECKED ONLY AT 1930KC. THEN READJUST AT 1690KC.

(d) Set the signal generator at 2630 kilocycles.

(e) Rotate the variable plates of the condenser gang until the image of this signal is tuned in at 1700 kilocycles.

(f) Adjust the single wire capacitor (Illus. J, Fig. 4) by moving it either toward or away from the coil winding until a minimum output is obtained.

7. Repeat Sections 4 and 5 for Maximum Output

8. Repeat Section 6 for Minimum Output

9. Repeat Section 2 (e) for Maximum Output