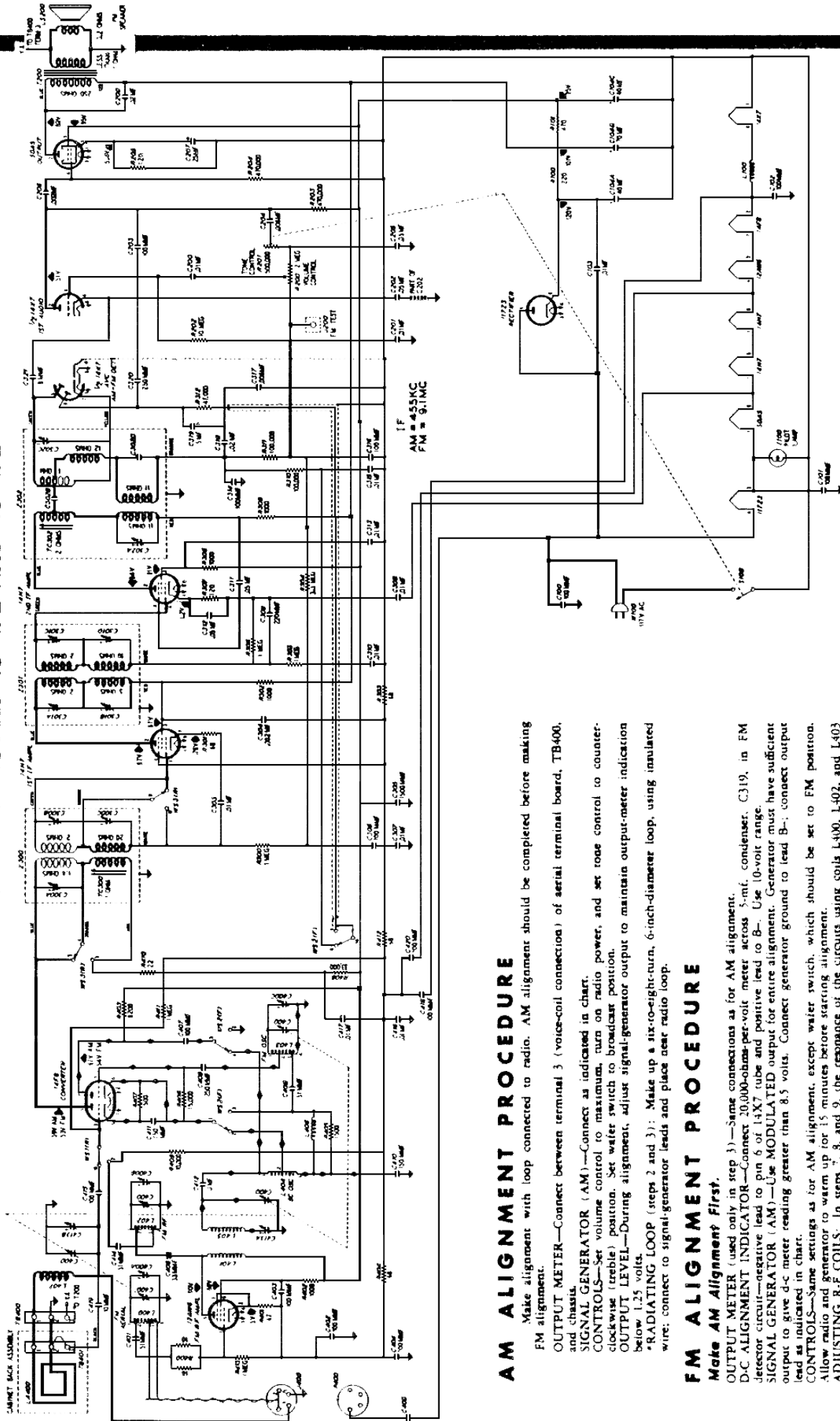


MANUAL OF 1949 MOST-OFTEN-NEEDED RADIO DIAGRAMS

PHILCO RADIO MODELS 48-472 AND 48-472-1



AM ALIGNMENT PROCEDURE

Make alignment with loop connected to radio. AM alignment should be completed before making FM alignment.

OUTPUT METER—Connect between terminal 3 (voice-coil connection) of aerial terminal board, TB400, and chassis.

SIGNAL GENERATOR (AM)—Connect as indicated in chart.

CONTROLS—Set volume control to maximum, turn on radio power, and set tone control to counter-clockwise (treble) position. Set waver switch to broadcast position.

OUTPUT LEVEL—During alignment, adjust signal-generator output to maintain output-meter indication below 1.25 volts.

RADIATING LOOP (steps 2 and 3): Make up a six-to-eight-turn, 6-inch-diameter loop, using insulated wire; connect to signal-generator leads and place near radio loop.

FM ALIGNMENT PROCEDURE

Make AM Alignment First.

OUTPUT METER (used only in step 3)—Same connections as for AM alignment.

D-C ALIGNMENT INDICATOR—Connect 30,000-ohm-per-volt meter across 5-mf. condenser, C319, in FM detector circuit—negative lead to pin 6 of 14X7 tube and positive lead to B+.

SIGNAL GENERATOR (FM)—Use MODULATED output for entire alignment. Generator must have sufficient output to give d-c meter reading greater than 8.5 volts. Connect generator ground to lead B+; connect output lead as indicated in chart.

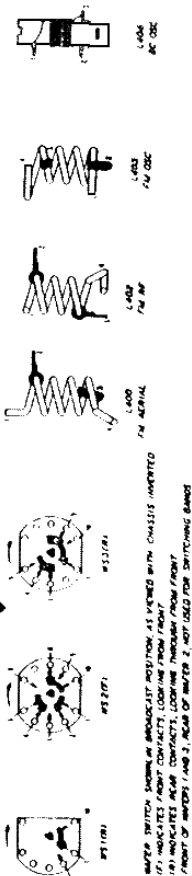
CONTROLS—Same settings as for AM alignment, except waver switch, which should be set to FM position. Allow radio and generator to warm up for 15 minutes before starting alignment.

ADJUSTING R-F COILS: In steps 7, 8, and 9, the resonance of the circuits using coils L400, L402, and L403 may be checked by the use of a powdered-iron tuning core, such as Part No. 36-6100. If the signal strength (meter reading) increases when the iron end is inserted in the coil, compress the turns slightly. If the signal strength increases when the brass end is inserted, spread the turns. If the signal strength decreases when either the brass or iron end is inserted, no adjustment of the coil is necessary. Do not spread or compress excessively, since only a small change is required at these frequencies.

Oscillator coil, L403: Adjust coil for maximum meter reading.

R-f coil, L402: Adjust coil for maximum meter reading while rocking tuning control.

Aerial coil, L400: Adjust coil for maximum meter reading.



WAVER SWITCH SHOWING BROADCAST POSITION AS VIEWED WITH CHASSIS INVERTED
 (A) INDICATES POINT CONTACTS, LOOKING FROM FRONT
 (B) INDICATES POINT CONTACTS, LOOKING THROUGH FROM FRONT
 (C) POINT OF WIPERS; (A) AND (B) ARE OF WIPER 2, NOT USED FOR SWITCHING BANDS