

# PROCEDURE FOR ALIGNING STUDEBAKER TUNING UNIT, PART NO. 77-0588

The following is the procedure for aligning the Studebaker tuning unit after a coil or other part of the assembly has been replaced. The unit should be aligned after it is mounted in the radio.

## I—COMPLETE ALIGNMENT PROCEDURE

- (a) Push in the tuning control knob so that stations can be tuned in by manual tuning.
- (b) Turn the tuning control knob clockwise as far as it will go so that the cores will be in the extreme "out" position. Set the signal generator to 1600 K.C. and adjust padder (3) (Fig. 1) for maximum signal.
- (c) Adjust padder (2) aerial compensator in radio and padder (1) (see Fig. 1) for maximum signal.
- (d) Set the signal generator at 1400 K.C. and tune the manual control to 1400 K.C. Adjust the R.F. and antenna coil for maximum signal by turning the mounting nuts (A) and (B).
- (e) Repeat (c) and (d) until no further improvement is noticed.
- (f) Set the signal generator at 600 K.C. and the tuning control at 600 K.C. Adjust the screw (4) (see Fig. 1) for maximum signal. Rock the tuning control when making this adjustment. Tune the control to the signal and adjust the screw for maximum output. Rotate the tuning control back and forth slightly until maximum output is obtained. Then readjust the screw until no further improvement is noticed.
- (g) In case a great adjustment was necessary in (f) the adjustments (c) and (d) should be repeated.
- (h) In case the dial calibration is off frequency, it can be corrected by changing the start-

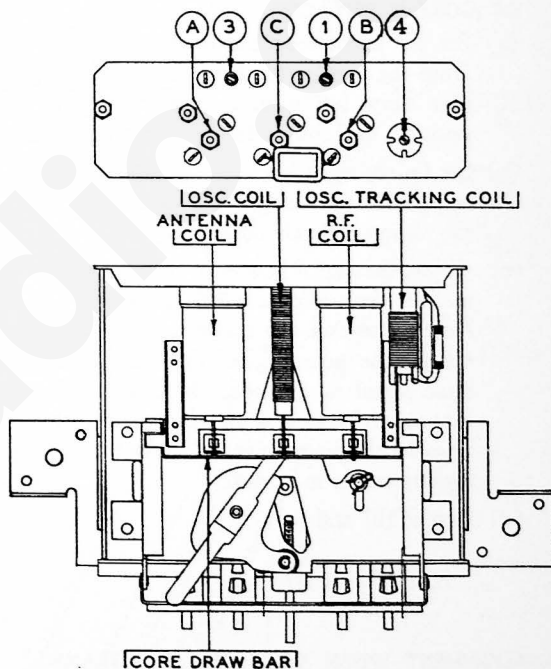


FIGURE 1

ing position of the oscillator core. This is done by unsoldering the piano wire from the lug and moving the core slightly. A change of  $1/64$ " in the position of the core is equivalent to approximately 20 K.C. on the dial. If the dial reads low, it can be corrected by starting the oscillator core further in the coil form. If it reads high, the core should be pulled out. If this position is changed, it will be necessary to realign the radio as described above.

# PROCEDURE FOR ALIGNING STUDEBAKER

## TUNING UNIT,

### PART NO. 77-0588 (CONTINUED)

#### 2—ALIGNMENT WHEN ONLY THE ANTENNA COIL OR CORE IS REPLACED

- (a) Set the piano wire end of the core  $1\frac{1}{4}$ " from the end of the coil form when the core draw bar is in the extreme "out" position, and solder the wire to the lug.
- (b) Set up the signal generator to 1600 K.C., and adjust the aerial compensator (2) in the radio for maximum signal.
- (c) Adjust the signal generator to 1400 K.C. and set the tuning control at 1400 K.C. Adjust the coil for maximum signal by turning the mounting nut (A) until maximum signal is obtained. In case a peak cannot be obtained, it may be necessary to unsolder the piano wire and move the core slightly, either in or out.
- (d) Repeat (b) and (c).

#### 3—ALIGNMENT WHEN ONLY THE R.F. TRANSFORMER OR CORE IS REPLACED

- (a) Set the piano wire end of core  $1\frac{1}{4}$ " from the end of the coil form when the core draw bar is in the extreme "out" position and solder the wire to the lug.
- (b) Set up the signal generator to 1600 K.C. and adjust padder (1) (see Fig. 1) for maximum signal.
- (c) Adjust the signal generator to 1400 K.C. and set the tuning control at 1400 K.C. Adjust the coil form by turning the mounting nut (B) until maximum signal is obtained. In case a peak cannot be

obtained, it may be necessary to unsolder the piano wire and move the core slightly, either in or out.

- (d) Repeat (b) and (c).

#### 4—ALIGNMENT WHEN ONLY THE OSCILLATOR TRACKING COIL OR CORE IS REPLACED

- (a) Set the signal generator to 600 K.C. and the tuning control at 600 K.C. Adjust screw (4) (see Fig. 1) for maximum signal. Rock the tuning control while making this adjustment. Tune the control to the signal and adjust the screw for maximum output. Rotate the tuning control back and forth slightly until maximum output is obtained. Then readjust the screw until no further improvement is noticed.
- (b) Check and readjust the aerial compensator (2) in the radio, and padders (1), (2), and (4) as described in 1.

#### 5—ALIGNMENT WHEN ONLY THE OSCILLATOR COIL OR CORE IS REPLACED

- (a) Set the piano wire end of the core  $1\frac{1}{4}$ " from the end of the coil form when the core draw bar is in the extreme "out" position, and solder the wire to the lug.
- (b) Set up the signal generator to 1600 K.C. and adjust padder (3) (see Fig. 1) for maximum signal.
- (c) Follow the same procedure as outlined under "1—Complete Alignment Procedure".