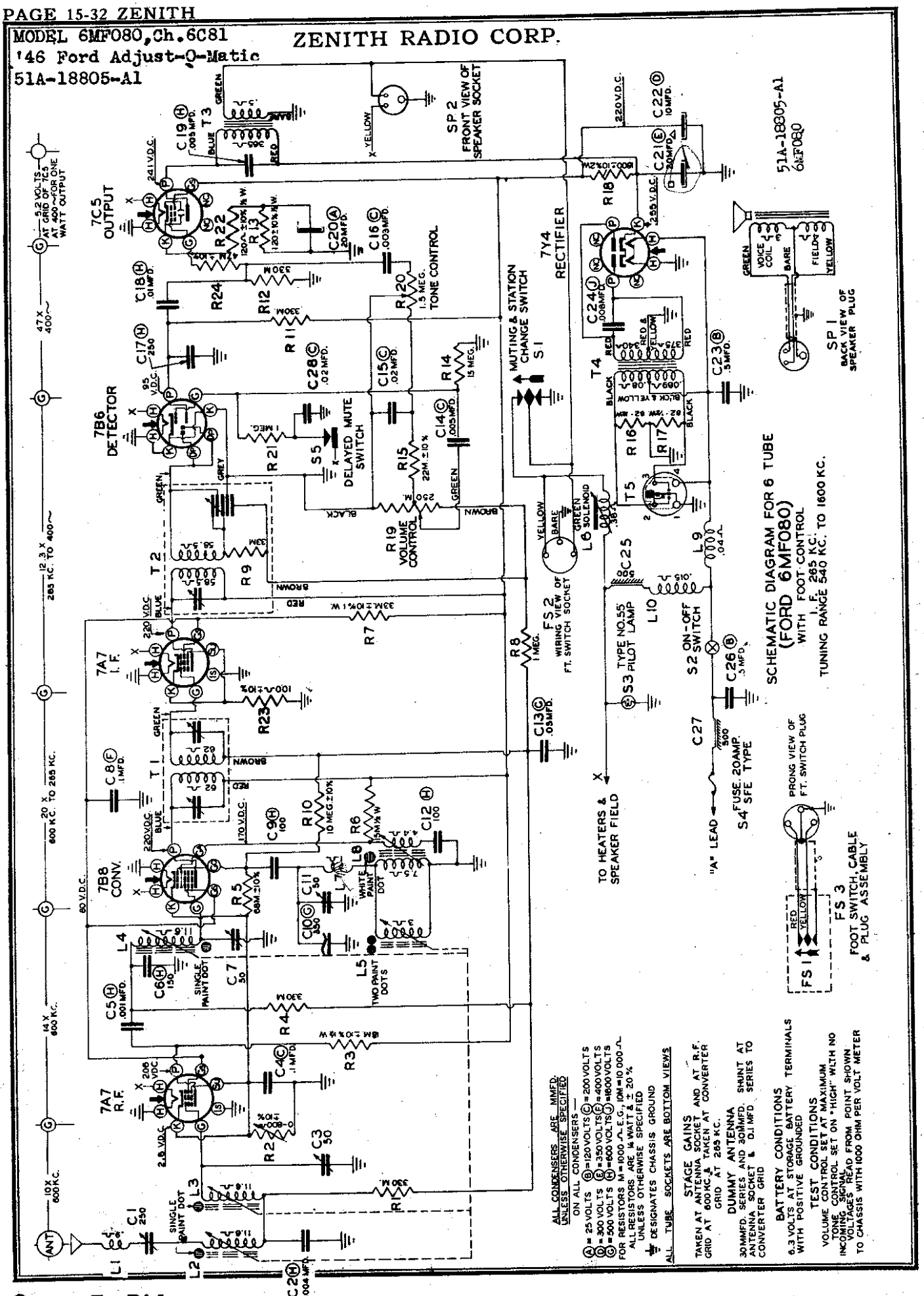
MODEL 6MF080, Ch. 6C81

'46 Ford Adjust-O-Matic

51A-18805-A1

ZENITH RADIO CORP.



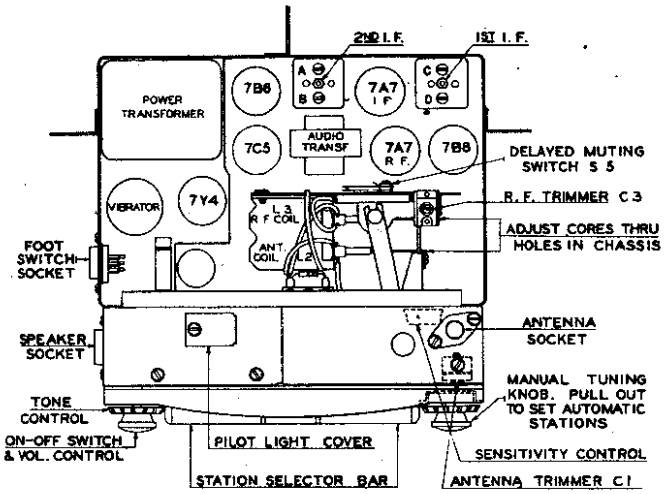


Fig. 7. Top View of Chassis

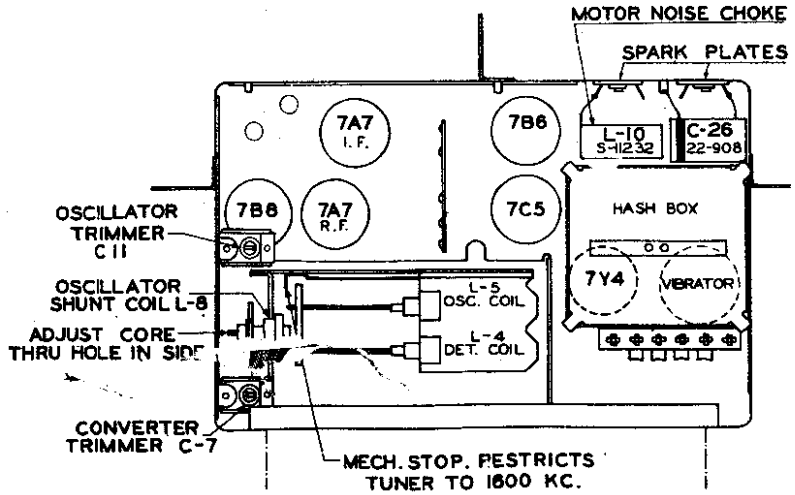


Fig. 8. Bottom View of Chassis

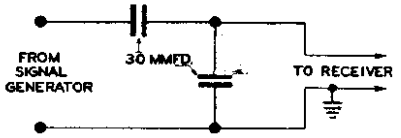


Fig. 9. Dummy Antenna

Fig. 9 shows the schematic of a recommended dummy antenna, closely resembling actual antenna capacity, to be used in series with signal generator leads when aligning the R.F. section of the receiver.

ALIGNMENT

Maximum performance depends on accurate alignment of the receiver; therefore follow these instructions carefully.

CAUTION: Make all alignment adjustments to the receiver with the volume control set at maximum, and the tone control in the treble position. Reduce the signal intensity as much as possible at the signal generator. Connect the output meter across the voice coil.

I.F. ALIGNMENT PROCEDURE

1—Remove top and bottom covers from receiver.

2—Set signal generator to 265 Kc.

3—Apply signal from generator through a .1 Mfd. dummy to 7B8 converter grid. (Pin No. 6 on socket.)

4—Adjust I.F. trimmers A, B, C and D (Fig. 7) in the order named for maximum output. Repeat the operation to assure accurate alignment.

R.F. AND OSCILLATOR ALIGNMENT

1—Connect signal generator leads through dummy, illustrated in Fig. 9, to antenna lead in socket on receiver.

2—Set signal generator to 535 Kc.

3—Place set in manual tuning position and set dial to 535 Kc.

4—Adjust oscillator trimmer C-11 (Fig. 8) for maximum response.

5—Set signal generator to 1200 Kc.

6—Tune set to 1200 Kc.

7—Adjust converter trimmer C-7 (Fig. 8) and R.F. trimmer C-3 (Fig. 7) for maximum response.

8—If dial calibration is off after making above adjustments, a correction can be made by loosening dial scale mounting screws and sliding scale to desired position.

CORE OR COIL REPLACEMENT ONLY

WARNING: The following adjustments are to be made ONLY if a core or coil is replaced.

1—Replace coil or core.

2—Set signal generator to 1700 Kc.

3—Connect signal generator leads through dummy, illustrated in Figure 9, to antenna receptacle on the receiver.

4—Set receiver dial to 1600 Kc. (maximum high frequency end of dial.)

5—Screw the core completely out of the antenna coil, the R.F. coil, the converter coil, and the oscillator coil.

6—Adjust oscillator trimmer C-11 (Fig. 8) at 1700 Kc.

7—Adjust converter trimmer C-7, R.F. trimmer C-3, and antenna trimmer C-1 (Fig. 7 and 8) for maximum output reading.

8—Replace cores to their approximate original position.

9—Set generator dial and receiver dial to 1200 Kc.

10—Adjust oscillator core L-5 (Fig. 8) to scale at 1200 Kc.

11—Adjust the antenna core, R.F. core, and converter core (Fig. 7 and 8) for maximum output reading.

12—Set signal generator to 600 Kc.

13—"Rock in" shunt oscillator coil L-8 (Fig. 8) for maximum output reading. This should be done only as a last resort. This is the same as rocking in the padder condenser on a ganged condenser receiver.

14—Check receiver at 1200 Kc. for calibration and gain. If the receiver is off scale or weak, repeat operations 9, 10 and 11.

15—After alignment is complete, the maximum high frequency tuning range should be checked. If the range is greater or less than 1605 Kc., the mechanical stop for the tuner cross arm should be bent to limit the frequency coverage to 1605 Kc.

After all adjustments have been made, glue core screws with speaker cement.

IMPORTANT: After reinstalling the receiver in the car, allow it to operate for approximately 15 minutes to reach normal operating temperature. Extend antenna to maximum. Check the antenna trimmer alignment on a weak station at approximately 1200 Kc.

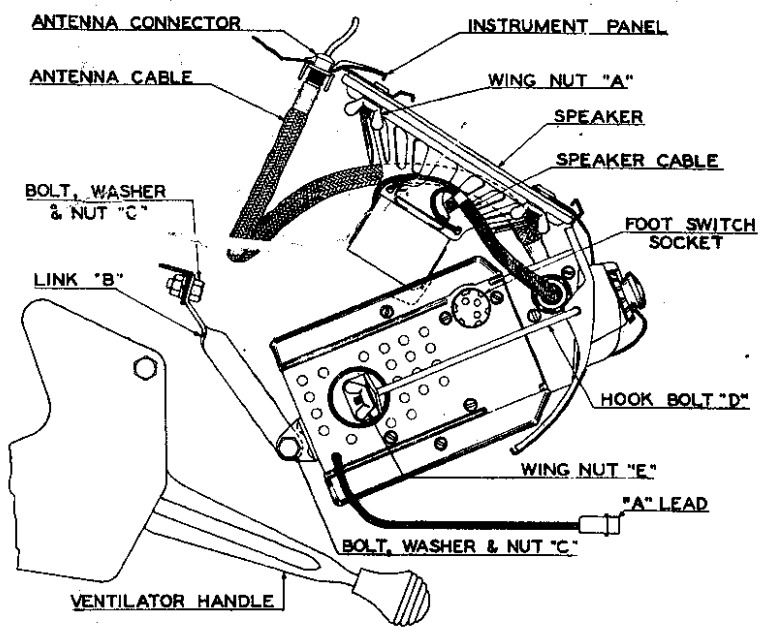


Fig. 1. Set Installed, Cut Away View.

RECEIVER INSTALLATION

Figures 1 and 2, illustrating the installed receiver, the escutcheon plate, and the control knobs, are given here to facilitate removal and reinstallation of this receiver when service or repair is necessary. To take the receiver from the car, remove the link "B" and loosen the hook bolts "D."

MANUAL TUNING

1. Press station selector touch bar (Fig. 2) several times or until the letter "M" appears in indicator window.
2. Pull manual tuning control knob (right hand) outward and turn to tune in desired station. Be sure to tune to exact frequency to assure the best tone quality.

VOLUME—Adjust left hand control knob for desired volume.

TONE CONTROL—The tone control is located behind the volume control knob. Turn in either direction for most pleasing tone.

ADJUST-O-MATIC TUNING

There are five automatic tuning positions which may be adjusted to five desired stations. If these positions have not been previously adjusted proceed as follows:

1. Press station selector touch bar until number 1 appears in station indicator window.

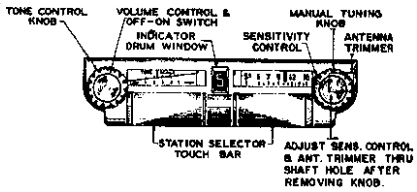


Fig. 2. Front Panel View

2. Pull manual tuning knob outward to engage the adjust-o-matic mechanism.
3. Select the station desired and tune to its frequency by turning the tuning knob. Tune very carefully for clearest reception.
4. Press station selector bar, pull manual tuning knob outward and tune in station desired for No. 2 position. Use same procedure for positions No. 3, 4 and 5.

When the five adjust-o-matic positions have been adjusted to the five desired stations as instructed, it is only necessary to press the station selector bar to return to dial tuning, or to only one of the stations set up on the Adjust-o-Matic.

DELAYED AUTOMATIC MUTING CIRCUIT

Pressing either the touch-bar or the foot control switch automatically mutes the receiver for the duration of the change cycle. This action is accomplished by applying 6 volts negative to the 7B6 first audio grid through the 1 megohm resistor R-21. (See schematic diagram.) This negative voltage blocks the grid of the 7B6 until the voltage bleeds off through the 15 megohm resistor R-14. Then the receiver will again operate normally.

NOTE: If the battery polarity is reversed the receiver will not mute and it may become distorted during the change cycle. Always connect the positive (+) terminal of the storage battery or power supply to the receiver case when checking the receiver.

INTERFERENCE SUPPRESSION

There should be no motor noise or interference from the ignition system if the receiver has been installed in the car according to the instructions furnished with it. The interference suppression equipment may be checked for proper installation by referring to the following illustrations:

The circuit breaker condenser No. 22-1148 should be installed as shown in Figure 3.

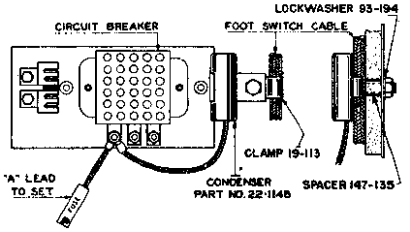


Fig. 3

The voltage regulator condenser No. 22-1148 and the ground strap should be installed as shown in Figure 4 below.

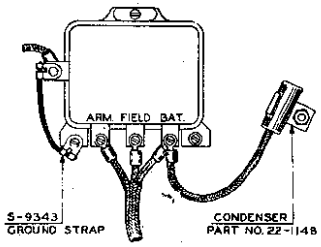


Fig. 4

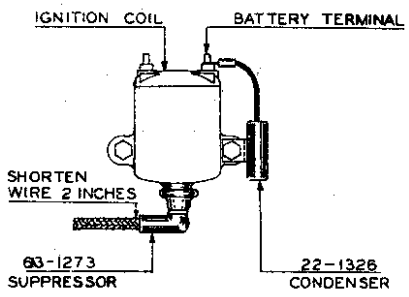


Fig. 5

The ignition coil condenser No. 22-1326 and suppressor with rubber nipple No. S-10408 should be installed as shown above in Figure 5. The oil gauge condenser No. 22-1326 should be installed as shown in Figure 6. Note the different locations for 6 and 8 cylinder cars.

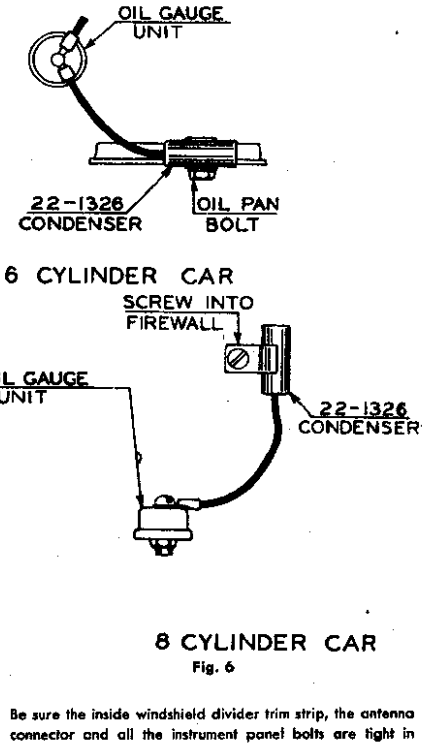


Fig. 6

Be sure the inside windshield divider trim strip, the antenna connector and all the instrument panel bolts are tight in order to make a good ground contact with the car body.