

RADIO

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DIVISION I

SPECIFICATIONS AND ADJUSTMENTS

129-1 ANTENNA TRIMMER ADJUSTMENT

An antenna trimmer adjustment is provided for matching the antenna coil in the receiver to the car antenna. This adjustment must always be made after installation of receiver and windshield antenna, or after any repairs to these units. This adjustment should also be performed whenever the AM radio reception is unsatisfactory.

This adjustment applies only to AM radios or to the AM portion of AM-FM radios. Trimming for FM reception is accomplished automatically whenever the antenna is raised to 31 inches on cars with dealer installed whip antennas.

1. On cars with dealer installed whip antennas, raise antennas to 31 inches.
2. Tune radio to a weak station near 1400 KHZ which can barely be heard with volume turned fully on.
3. Remove right inner and outer knobs.
4. On cars having a rear speaker, it is necessary to fabricate a jumper wire and insert it into center and an outside hole unless it is a stereo radio.

NOTE: *There are three small holes (electrical connecting points) in receiver which are located directly behind right knob. When the car is equipped with a rear speaker, the right larger knob (rear speaker control) has three prongs which interconnect these points. When the rear speaker control is removed to gain access to the trimmer screw behind it, two of the holes (the center and an outside hole) must be interconnected by a short*

piece of jumper wire to channel sound to a speaker. It is generally desirable to trim the radio while using the front speaker.

5. Adjust trimmer screw until maximum volume is achieved.

6. Reinstall both right knobs.

129-2 RADIO PUSH BUTTON ADJUSTMENT

1. Turn on the radio.
2. Pull buttons outward. It is desirable to set up the push buttons in logical sequence. For example -- lowest frequency on first buttons, next higher frequency station on second button, etc.
3. Carefully tune in the desired station manually, then push the button all the way in.
4. Move dial pointer away from the selected station and push the button to make certain the station will be properly tuned in.
5. Turn tuning knob back and forth to make certain that best tuning is obtained with the push button. If best tuning is not obtained, repeat Steps 2, 3, and 4.

NOTE: *On push button selection, if the program sounds shrill or distorted, it is probably caused by improper tuning and can be corrected by adjusting the tuning knob slightly. Since the low notes are more affected by tuning than the high ones, it is preferable to tune the receiver to a point where the low notes are heard best, and high notes are clear but not shrill. This point may be most readily found by listening to the background noise and tuning for the lowest volume and pitch of this noise. Turning the control knob back and forth until the station is almost lost on either side will enable the operator to hear the difference in reception and select the intermediate position giving best results.*

DIVISION II

DESCRIPTION AND OPERATION

129-3 GENERAL DESCRIPTION

The radio system for 1970 Buicks consists of three components: (1) a receiver mounted in the center of the instrument panel, (2) a separate, front mounted speaker and (3) an antenna embedded in the windshield. Five different receivers are used on 1970 Buicks. On 43-44000 series cars, two types of receivers are available - a push button 2-1/2 watt AM receiver and an AM-FM receiver. On 45-46-48-49000 series cars, three types of receivers are available - a Sonomatic push button 5 Watt receiver, an AM-FM receiver, and an AM-FM stereo receiver. When an optional rear seat speaker is provided, the right larger knob controls the sound balance between front and rear speakers. When the control is rotated fully clockwise, the radio sound is channeled through the rear speaker only. Full counter clockwise rotation of the control sends the sound through the front speaker only, and midway positioning of control sends sound through both speakers.

The radio has a current draw of 1.3 amps at 12 VDC. All speakers have an impedance of 10 ohms. When replacing a speaker, the replacement speaker should have the same impedance for satisfactory results.

129-4 RADIO NOISE INTERFERENCE SUPPRESSORS

Two noise suppressor capacitors are used to eliminate radio interference (see Figure 129-1).

The capacitors are exterior mounted, one on the voltage regulator and the other is pressed into the end bell of the Delcotron. The voltage regulator

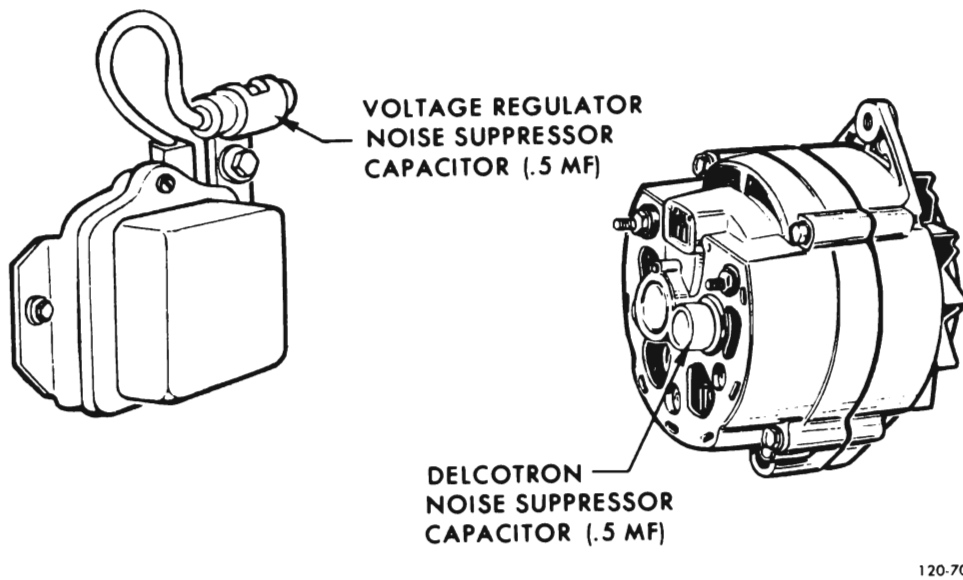


Figure 129-1 - Installation of Noise Suppressors

and delcotron capacitors are both rated at 0.5 MF. All models have resistor spark plugs, .075" rotor gap, and spark plug wires with an approximate resistance of 2000 ohms per foot.

On cars with a 455 cu. in. engine and equipped with an automatic transmission, there is a 150 ohm, 5 watt resistor installed in the vacuum solenoid electrical wiring harness for the timing control system.

129-5 AM-FM RADIO

This radio is identical to the Sonomatic radio as far as the operation of the on-off and volume control, tone control, manual tuning control and push buttons are concerned. The AM-FM selector bar is located directly above the dial face. Movement of the bar to the left exposes the letters "FM" and switches the radio to FM operation. Movement of the bar to the right provides AM radio operation. An automatic frequency control circuit is incorporated in the radio and acts to automatically adjust the receiver to select the strongest of the incoming signals if the tuner is adjusted to a point where more than one

incoming signal is being received. In general, FM operation will provide greater reception fidelity and freedom from static and other atmospheric disturbances. The FM signal is very susceptible to interference due to tall buildings, hills, etc. In these cases, reception may be partially or totally blanked out until the car has moved around or away from the interfering object. In fringe areas (beyond 25 miles from the station) where FM radio reception is weak, the station sound may flutter or vary up and down and interference from passing cars may be picked up by your FM radio. If this happens, the receiver should be readjusted to a stronger station.

129-6 AM-FM STEREO RADIO

A stereo system is offered on 45-46-48-49000 series cars and includes a special AM-FM receiver, a separate second amplifier (or stereo adaptor), and a rear speaker. The radio is designed to receive and reproduce the dual FM stereo signal as well as monaural AM-FM signals. Operation of the controls is identical to previous AM-FM receivers, except the area around the "FM" lights up when tuned to a stereo signal.

DIVISION III

SERVICE PROCEDURES

129-7 REMOVAL AND INSTALLATION OF RADIO PARTS - SPECIAL AND SKYLARK

a. R AND I RADIO

NOTE: Stereo tape player must be removed first if so equipped.

1. Remove radio knobs and escutcheons. Remove two 5/8" hex nuts and two screws from radio filler plate and remove plate.
2. Remove ash receiver assembly.
3. If A/C, remove two screws at lower center A/C duct and remove duct.
4. Remove radio bracket to radio screw and two bracket screws at instrument panel and remove bracket.
5. Remove two instrument panel attaching nuts at radio face.
6. Disconnect radio wiring and remove radio downward.
7. Install radio by reversing above steps.
8. Trim radio.

b. R and I Front Radio Speaker

1. Remove radio knobs and escutcheons. Remove two 5/8 hex nuts and two screws from radio filler plate and remove plate. (Do not remove radio).
2. Unplug speaker connector from radio.
3. Remove screw at speaker bracket and remove speaker through radio filler plate opening.
4. Install speaker by reversing above steps.

NOTE: *If AC, remove radio as explained in subparagraph a. Remove instrument panel upper cover as explained in subparagraph a and remove two screws at upper center AC duct and remove duct.*

129-8 REMOVAL AND INSTALLATION OF RADIO PARTS - LE SABRE, ESTATE WAGON, WILDCAT, and ELECTRA

a. R and I Radio

1. If AC, remove two screws at center AC distribution duct and remove duct.
2. Remove right instrument trim panel and remove screw in bottom of radio.
3. Remove radio knobs and es-cutcheons. Remove two 5/8 hex nuts.
4. Unplug antenna lead from radio receiver.
5. Unplug three wire and single wire connector from radio receiver.
6. Remove radio downward.
7. Install radio by reversing above steps.
8. Trim radio.

b. R and I Front Radio Speaker

1. Remove eight screws from instrument panel cover assembly and remove assembly.
2. If AC, remove two screws at center AC distribution duct and remove duct.
3. Unplug three wire and single wire connector from radio receiver.
4. Remove one 7/16 hex head retaining screw from speaker and slide radio speaker to the right and remove.

5. Install radio speaker by reversing above steps.

129-9 REMOVAL AND INSTALLATION OF RADIO PARTS - RIVIERA

a. R AND I RADIO

NOTE: *Stereo tape player must be removed first if so equipped. (Non-console model)*

1. Remove four screws at ash receiver assembly and remove assembly.
2. Remove radio knobs and es-cutcheons. Remove two 5/8 hex nuts.
3. Unplug antenna lead from radio receiver.
4. Unplug three wire and single wire connector from radio receiver.
5. Remove radio downward through ash receiver opening.
6. Install radio by reversing above steps.
7. Trim radio.

b. R and I Front Radio Speaker

1. Remove radio (subparagraph a.)
2. Remove four 3/8 hex head retaining screws from speaker and remove speaker.
3. Install radio speaker by reversing above steps.

NOTE: *If car is equipped with air conditioning, remove eight screws from instrument panel cover assembly and remove assembly. Remove four 3/8 hex nuts at right underside of dash assembly and four Philips screws at housing assembly. Pull instrument panel upper cover rearward to remove. Remove two screws at center AC duct and remove duct.*

129-10 REMOVAL AND INSTALLATION OF WINDSHIELD GLASS WITH BUILT-IN ANTENNA

a. Removal and Installation

IMPORTANT: *Before removing windshield glass, disconnect antenna lead at lower center of windshield. If glass is to be reinstalled, fold and tape lead wire back onto outer surface of windshield to protect it during glass removal and installation.*

1. Remove and install windshield according to the 1970 Fisher Body Service Manual.
2. Connect windshield antenna lead to radio lead in cable.
3. Trim radio.

DIVISION IV

TROUBLE DIAGNOSIS

129-11 RADIO TROUBLE DIAGNOSIS

The radio trouble diagnosis chart is intended as an aid in locating minor faults which can be correct without a specialized knowledge of radio and without special radio test equipment. If the suggestions given here do not affect a correction, further testing should be *done only by a trained radio technician having proper test equipment.*

NOTE: *Because radio service problems are generally corrected by United Motors Service repair shops, there is a tendency for many dealer servicemen to remove a set when a problem is reported. The irritation to an owner of having to drive with the radio removed can frequently be avoided if the radio trouble diagnosis chart is used to eliminate problems which can be easily fixed or which are not even caused by a faulty receiver.*

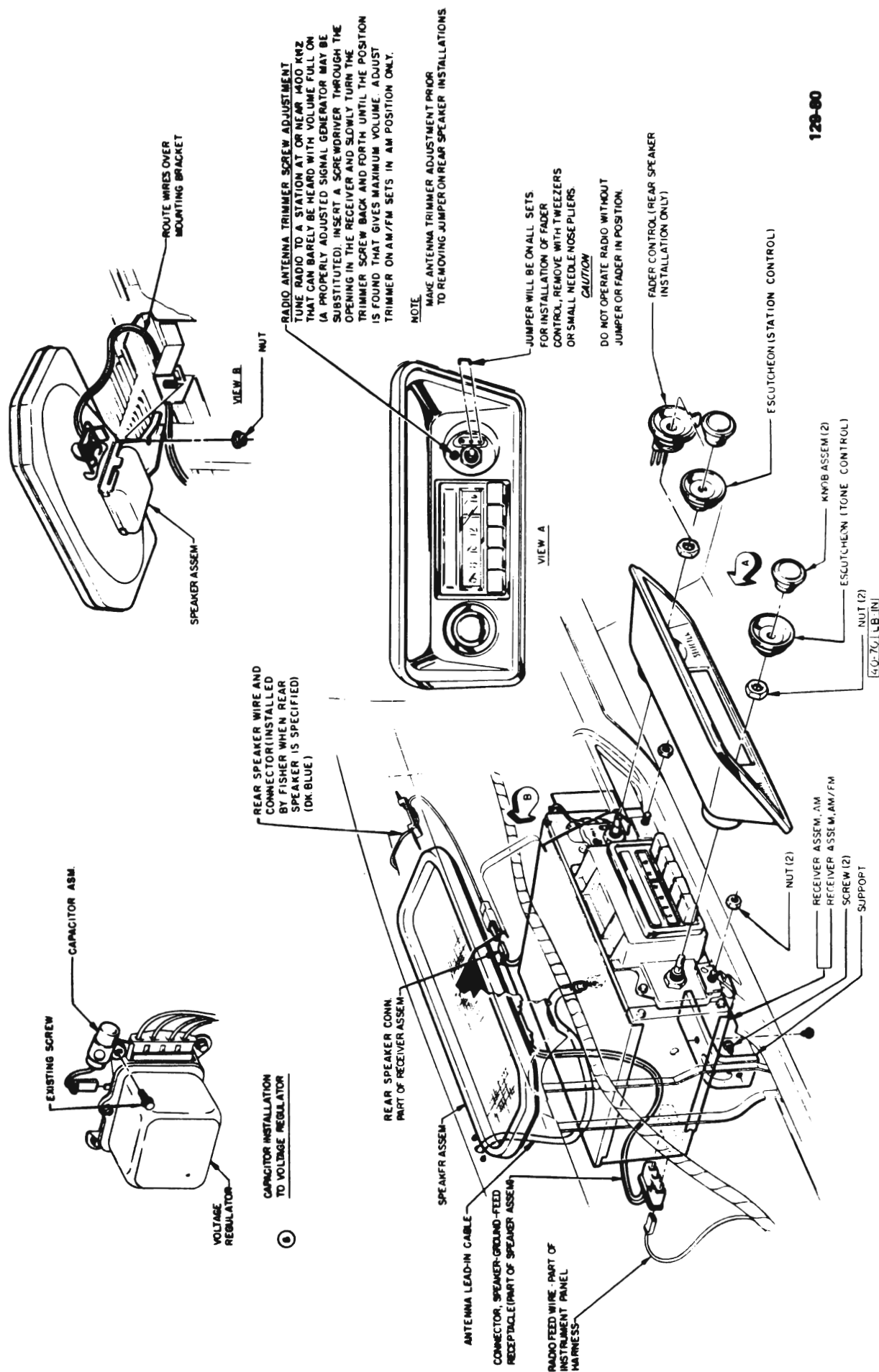


Figure 129-2 43-44000 Radio, Knobs, and Speaker

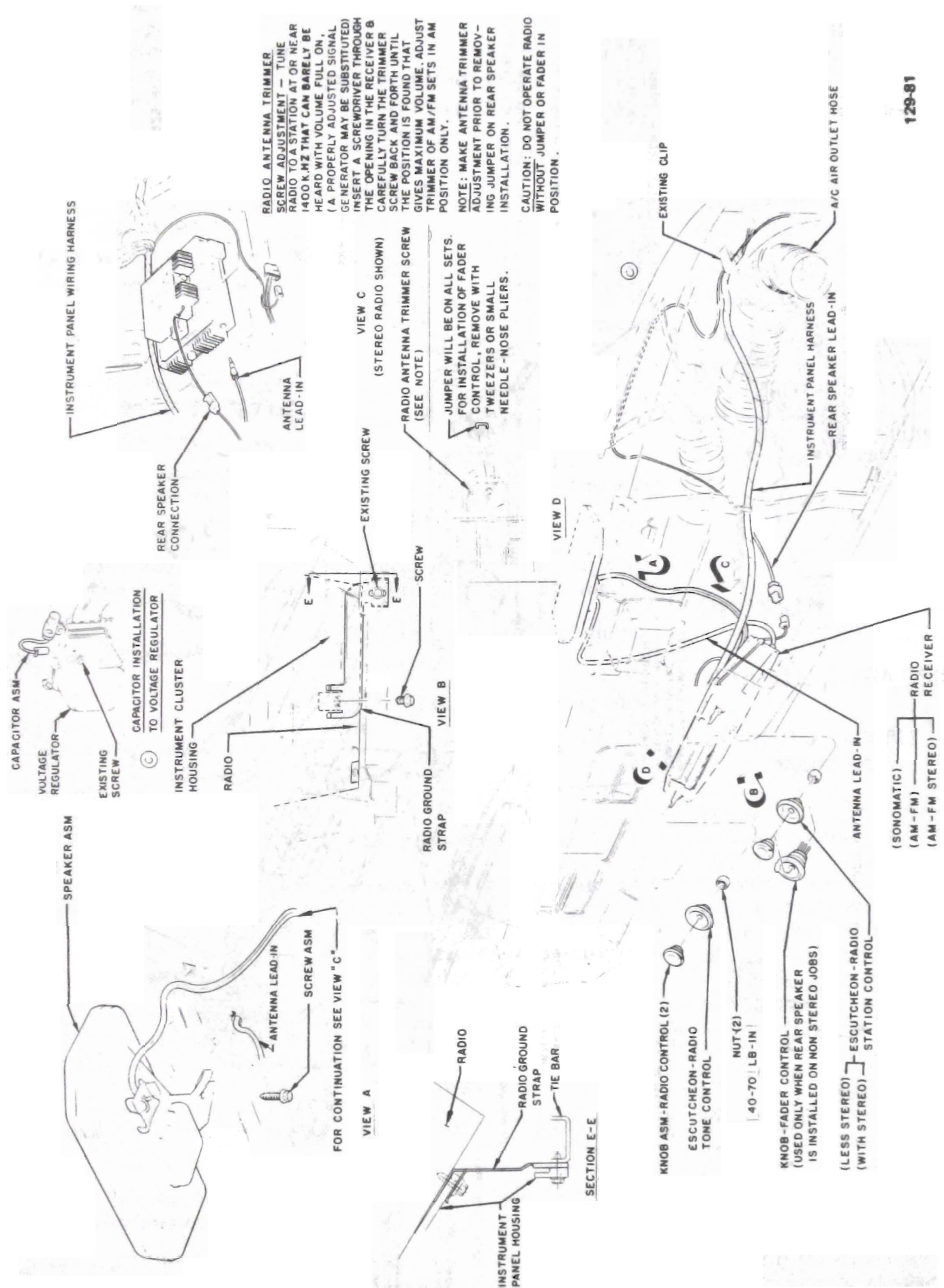


Figure 129-3 45-46-48000 Radio, Knobs, and Speaker

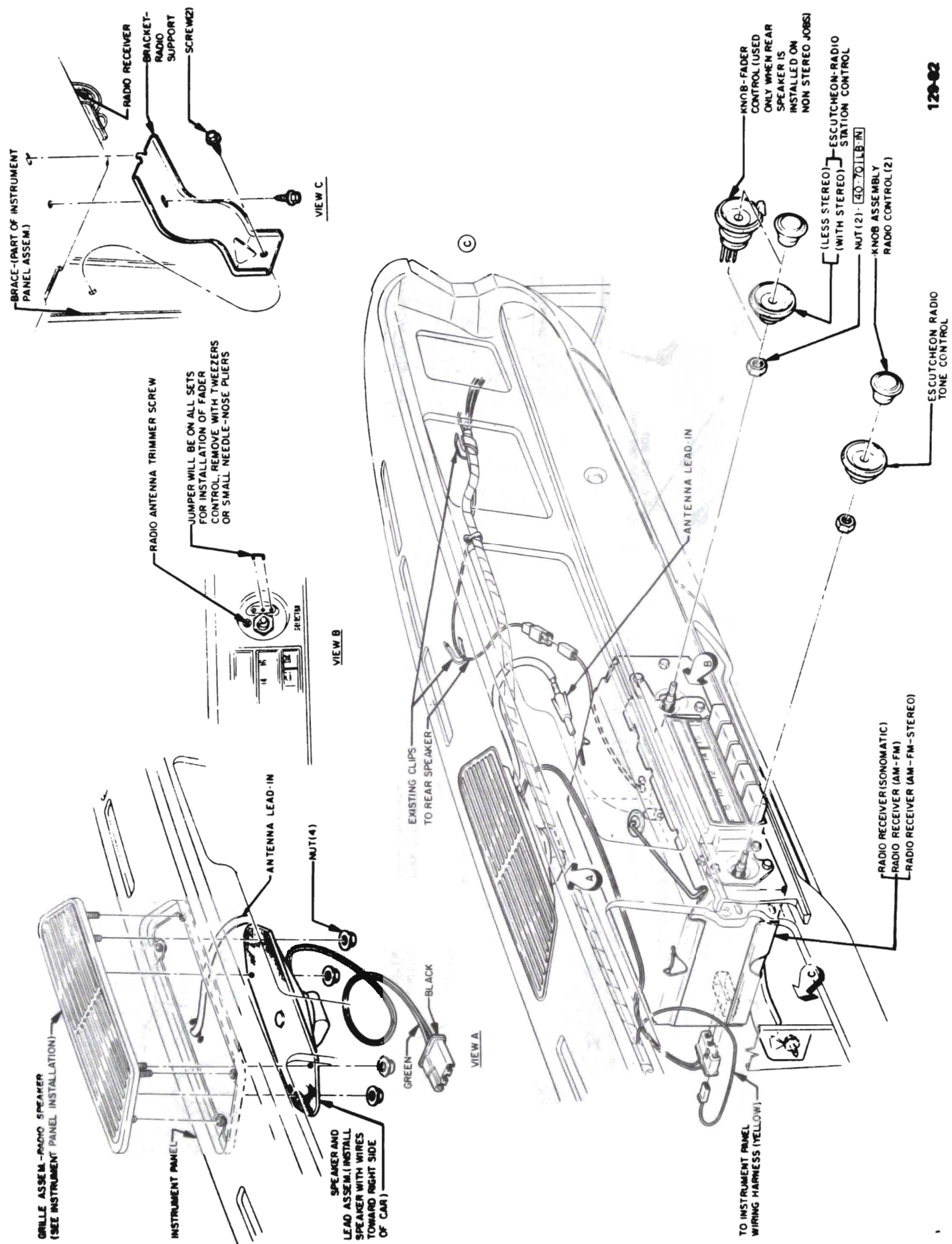
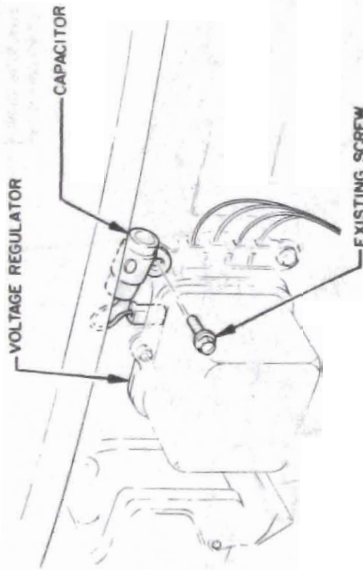
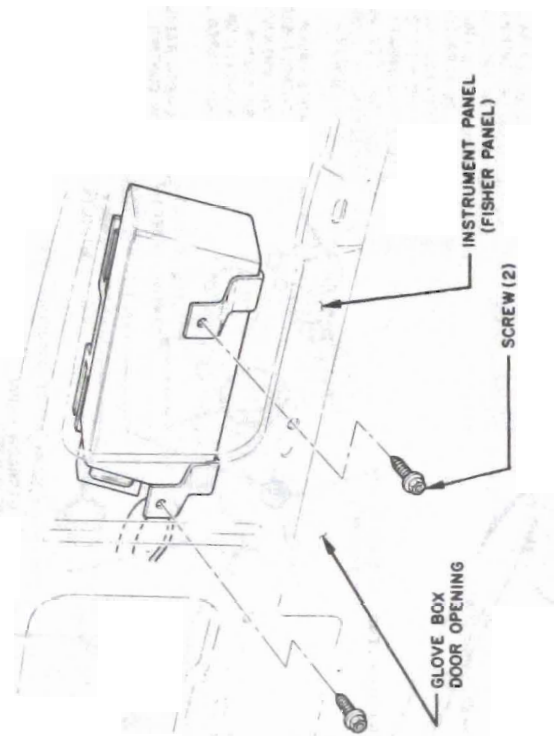


Figure 129-4 49000 Radio, Knobs, and Speaker

INSTALL CAPACITOR CONNECTOR
TO REGULATOR BEFORE
INSTALLING REGULATOR



INSTALLATION OF CAPACITOR
TO VOLTAGE REGULATOR

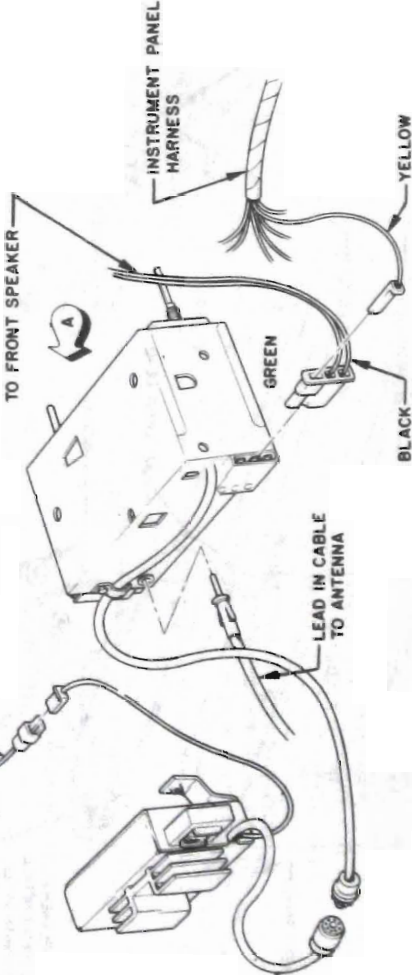


STEREO ADAPTOR MOUNTING

FISHER INSTALLED REAR
SPEAKER WIRE DK-BLUE

STEREO ADAPTOR (THIS UNIT MUST BE
USED WITH REAR SPEAKER)
STEREO SYSTEM RADIOS MUST BE
USED IN MATCHED SETS.

CAUTION: DO NOT OPERATE STEREO
SYSTEM RADIO WITH REAR SPEAKER
DISCONNECTED.



AM-FM STEREO RECEIVER

RADIO ANTENNA TRIMMER SCREW
FOR PROPER ADJUSTMENT - TUNE RADIO TO A STATION AT OR
NEAR 1400 K.HZ. THAT CAN BARELY BE HEARD WITH VOLUME
FULL ON. (A PROPERLY ADJUSTED SIGNAL GENERATOR MAY BE
SUBSTITUTED) INSERT A SCREWDRIVER THROUGH THE OPENING
IN THE RECEIVER AND CAREFULLY TURN THE TRIMMER SCREW
BACK AND FORTH UNTIL THE POSITION IS FOUND THAT GIVES
MAXIMUM VOLUME. ADJUST TRIMMER OF AM/FM SETS IN
AM POSITION ONLY.
NOTE: MAKE ANTENNA TRIMMER ADJUSTMENT PRIOR TO RE-
MOVING JUMPER ON REAR SPEAKER INSTALLATION.

CAUTION: DO NOT OPERATE RADIO WITHOUT
JUMPER OR FADER IN POSITION.

SCREWDRIVER

VIEW A

Figure 129-5 49000 Stereo Adaptor

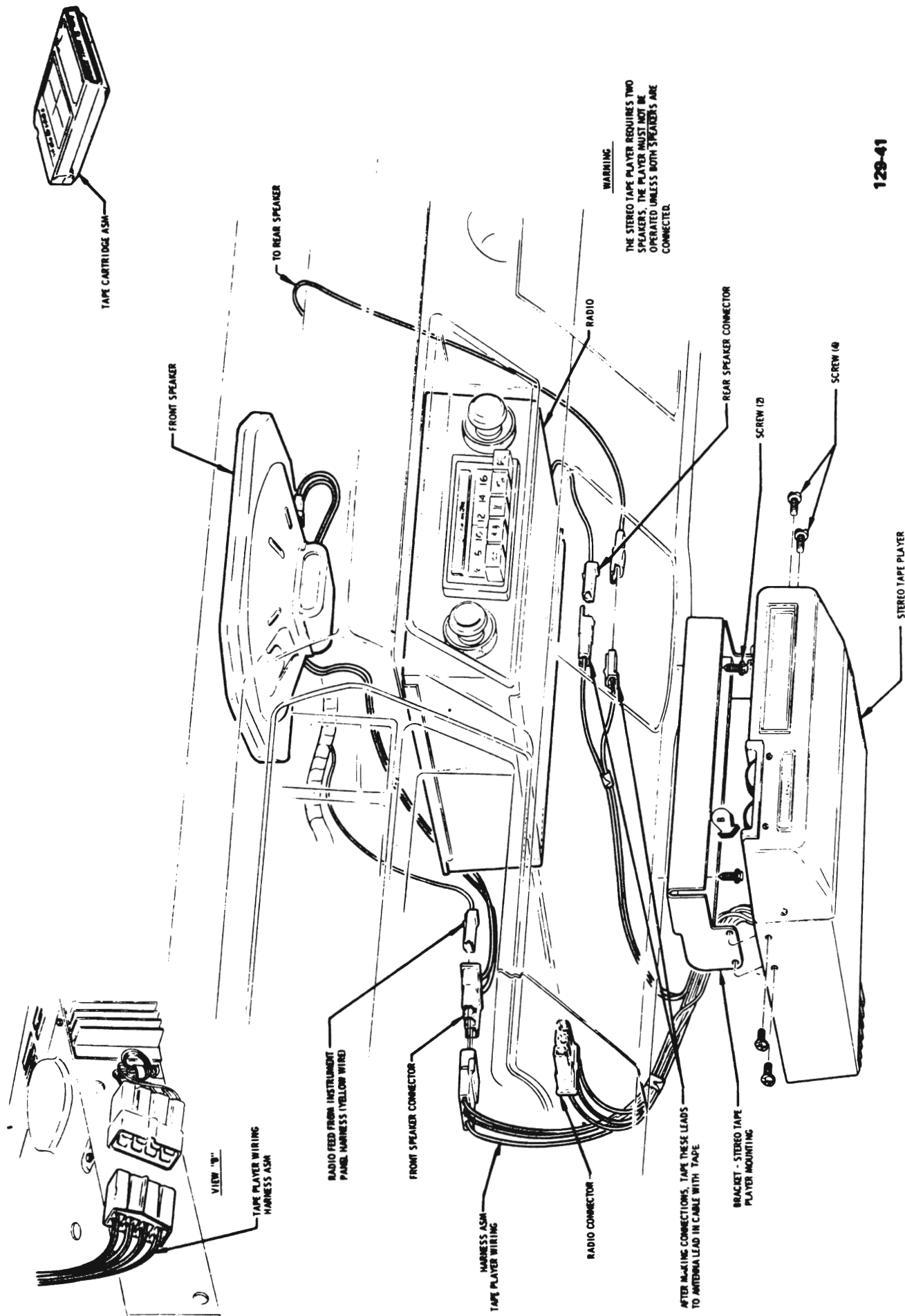


Figure 129-6 43-44000 Stereo Tape Player

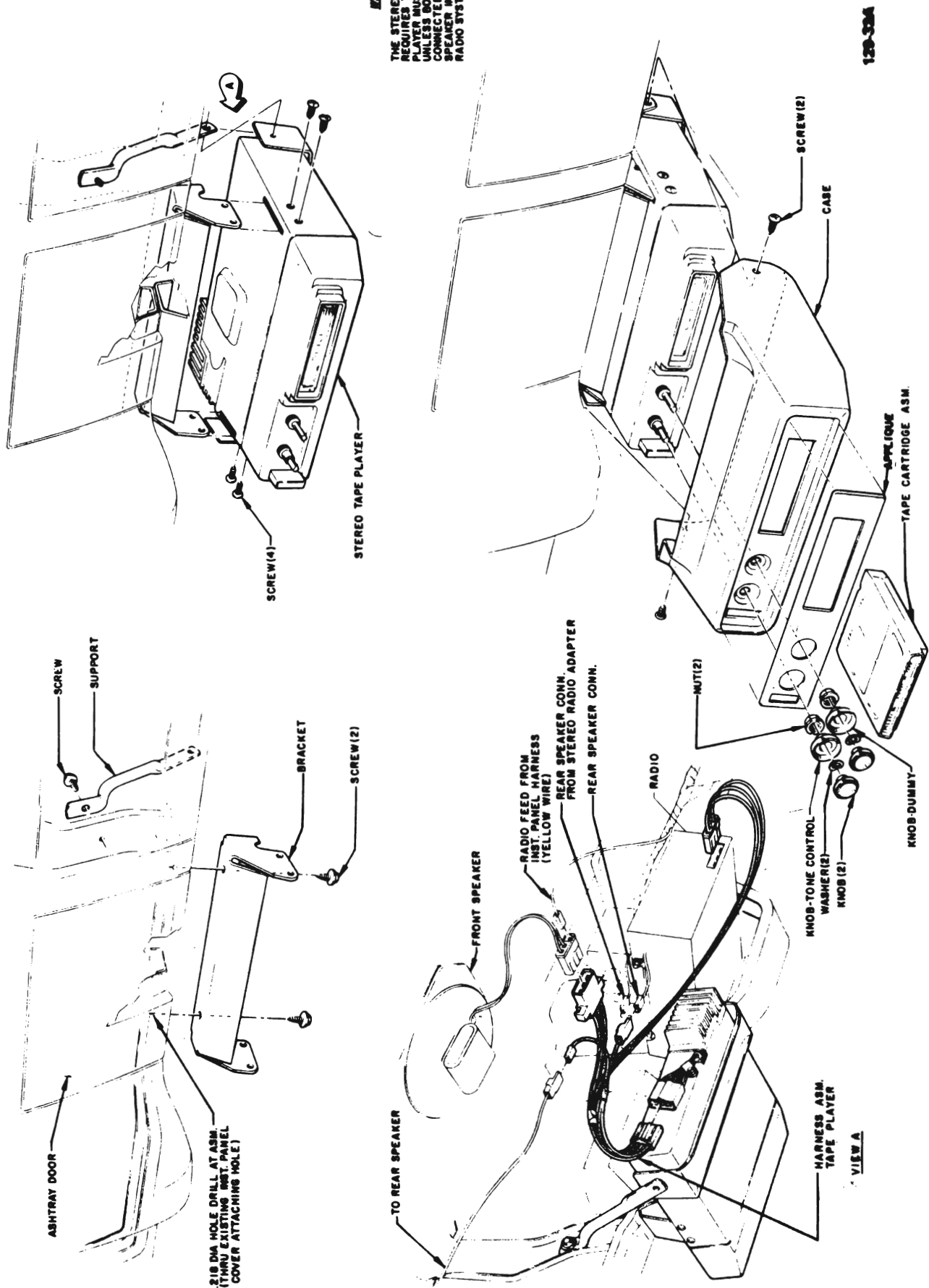


Figure 129-7 45-46-48000 Stereo Tape Player

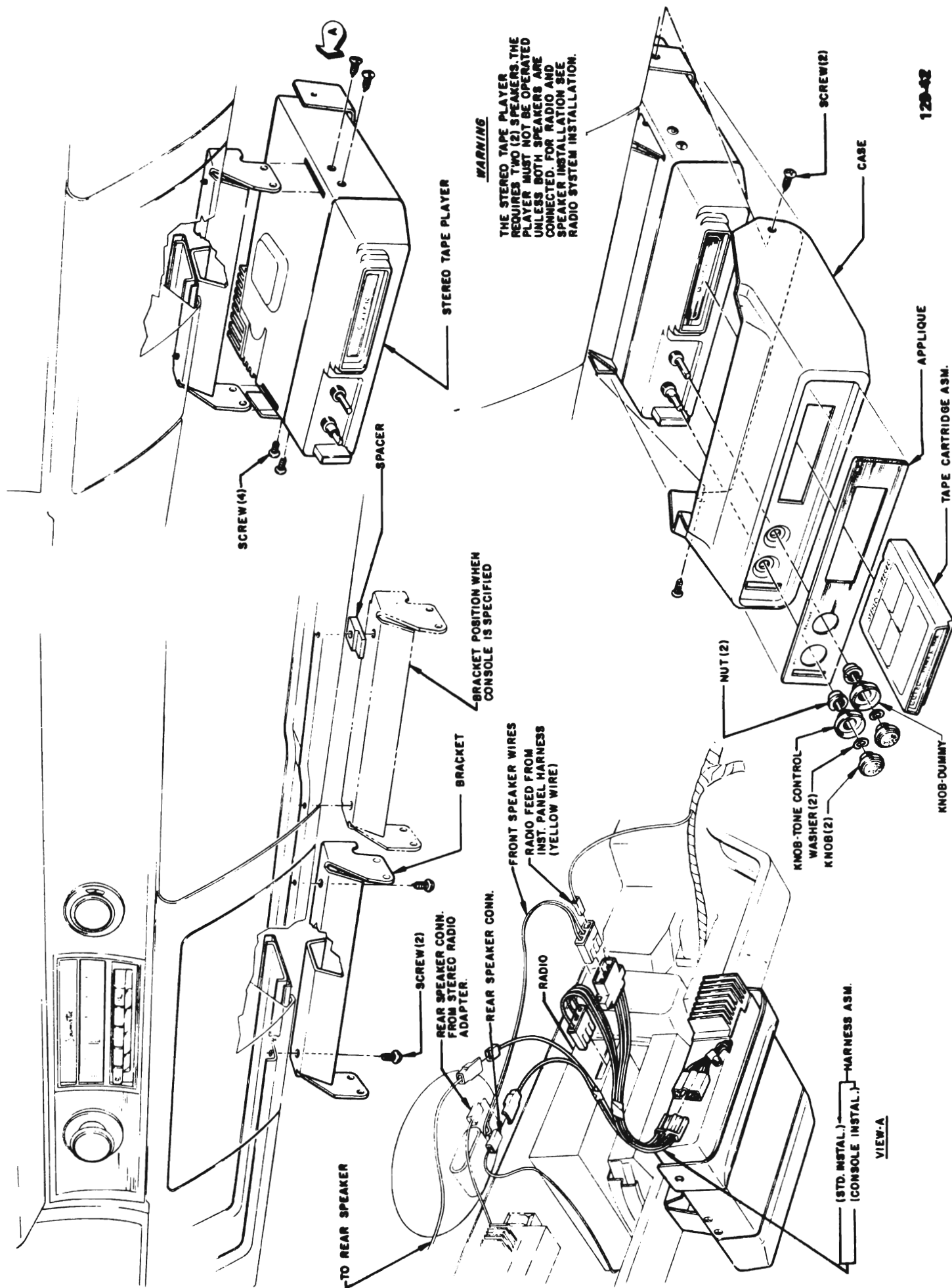


Figure 129-8 49000 Stereo Tape Player

