

OWNER'S MANUAL

Installation and Operating Instructions

VOLVO

AM-FM RADIO

PART NO. 279971
FOR
VOLVO 140 SERIES

This package contains the following:

Quantity	Description	Part Number
1	AM-FM Radio	70D40637C01
1	Antenna	85C41524B01
1	Plate, Front Speaker Mounting	64C43478B01
1	Speaker, 5" Front	50C41265B01
1	Grille, Speaker	13B43169A06
1	Tag, Warranty	54P43304A68
1	Template	68P43306A17
1	Owner's Manual	68P43316A22-0
1	Speaker Control	18C43820A03
2	Insulator, Control	37A42594A02
1	Knob, Inner	36C43219B01
1	Knob, Inner (Red Mark)	36C43219B03
3	Knob, Outer	36B43401B01
2	Washer, Flat	4S136597
2	Nut, $\frac{1}{2}$ x $\frac{5}{8}$	2S124821
1	Strap, Perforated	42K562328
1	Screw, #10x $\frac{1}{2}$ Tapping	3S135147
1	Nut, Hex	2K565333
1	Trim, Bezel	13C43491B02
1	Terminal Adapter	45K538873
4	Screw, #8x $\frac{1}{2}$ Machine	3S134143
8	Nut #8	2S119913
1	Washer, Cup	4K511509
1	Washer, Felt	4S512467
2	Nut, $\frac{3}{8}$	2S1376
1	Speaker, 5" x 7" Rear	50D40525C01
4	Screw, # 8-32 x 1 $\frac{1}{4}$ "	3S136981

MOTOROLA INC.



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10/6/72 219140
15C42403 B01
7578128
Pent. Tr. 46

INSTALLATION INSTRUCTIONS

RADIO INSTALLATION (FIG 4)

1. Install antenna as instructed by antenna template provided.
2. Remove radio opening cover.
3. Position the radio against radio opening from behind instrument panel.
4. Hold radio in position and place trim plate over control shafts from front of the instrument panel. (The word TOP must be positioned properly.)
5. Secure radio in radio opening with the two $\frac{1}{2}$ " nuts.
6. Press knobs on control shafts. (Disc knob with red mark should be on right side with mark in top position.)
7. Attach one end of the support strap to the stud on the rear of the radio. Attach other end of the support strap to an appropriate spot on the body sheet metal with #10 x $\frac{1}{2}$ " screw-washer assembly. (Drill .136 diameter hole for screw.)

FRONT SPEAKER INSTALLATION (FIG. 4)

1. Remove attaching hardware from passenger support handle. Do not lose attaching hardware.
2. To facilitate installation, detach pilot light bracket (1 screw) and glove compartment box (2 bolts).
3. Attach speaker to mounting plate with word TOP on mounting plate facing speaker.
4. Install speaker assembly with support handle attaching hardware as shown in Figure 3. Be sure word TOP on mounting plate is positioned toward car roof.
NOTE: Two existing twist tabs, one located above and one located below the front speaker grille, must be bent against the instrument panel to permit flush mounting of the speaker assembly.
5. Replace pilot light bracket and glove compartment box.

REAR SPEAKER INSTALLATION—ALL SEDANS (Fig. 2)

1. Remove metal knock-out from rear deck panel.
2. Cut speaker opening into upholstered hardboard panel using opening in rear deck panel as a guide.
3. Center the speaker grille over speaker opening and mark the center of each of the four speaker grille mounting holes.
4. Drill a 0.190" diameter hole (# 9 drill) at each mark through both hardboard panel and metal rear deck panel.
5. Attach speaker and speaker grille with four # 8 x $1\frac{1}{4}$ " machine screws and four # 8 nut-washer assemblies.

REAR SPEAKER INSTALLATION—STATION WAGON (Fig. 3)

1. Detach right rear trim panel.
2. Locate center for speaker opening as indicated in Figure 3 and provide a 6" wide by 4" high elliptical opening in trim panel.
3. Drill four .190" diameter holes around speaker opening as indicated in Figure 3 using the speaker grille as guide.
4. Mount speaker and speaker grille to trim panel with speaker terminals facing toward rear of vehicle.
5. Starting at fader control, route rear speaker leads along right side of vehicle, dressing leads behind kick pad, then under floor mat and scuff plates. Continue routing under upholstered and metal panels to rear speaker.
6. Connect leads to rear speaker and replace right rear trim panel.

FADER CONTROL INSTALLATION (FIG. 1)

1. Drill hole in instrument panel at location shown in Figure 1
2. Install fader control.
3. Route fader control leads as shown in Figure 2. (Route front speaker fader control as near as possible along front of instrument panel away from firewall. Fold and tape excess front speaker leads neatly.)

ELECTRICAL CONNECTIONS

1. Connect power lead ("A" lead) to accessory side of ignition switch.
2. Insert antenna lead into antenna receptacle.
3. Connect fader control leads as show in Figure 2. (Be sure insulation sleeves are installed.)

ANTENNA TRIMMER ADJUSTMENT

1. Read radio operating instructions.
2. Extend antenna mast to minimum height of 30".
3. Turn radio on and tune to a weak AM station (or random noise level between stations) between 1400 and 1600 KHz.
4. Adjust antenna trimmer for maximum volume.

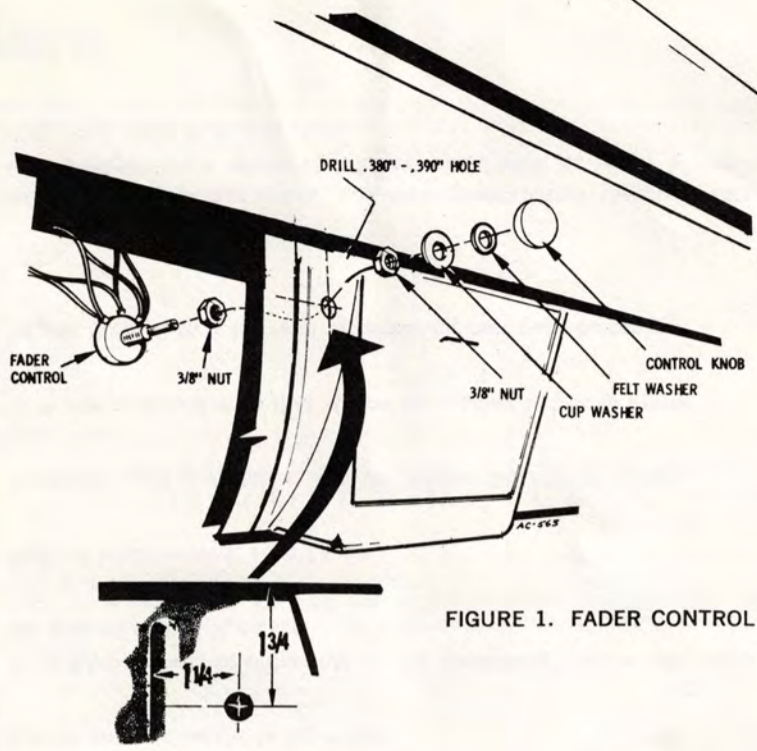
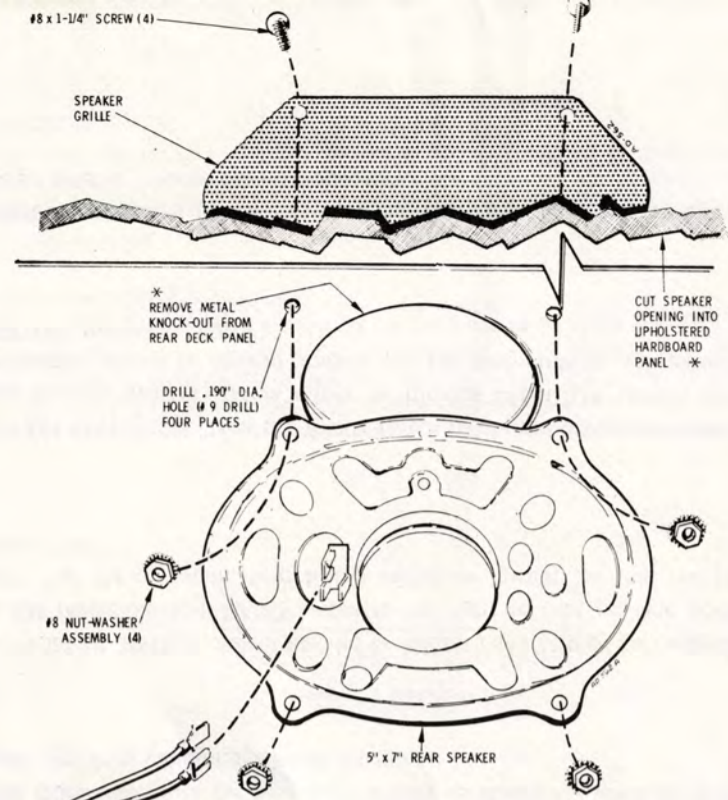


FIGURE 1. FADER CONTROL INSTALLATION

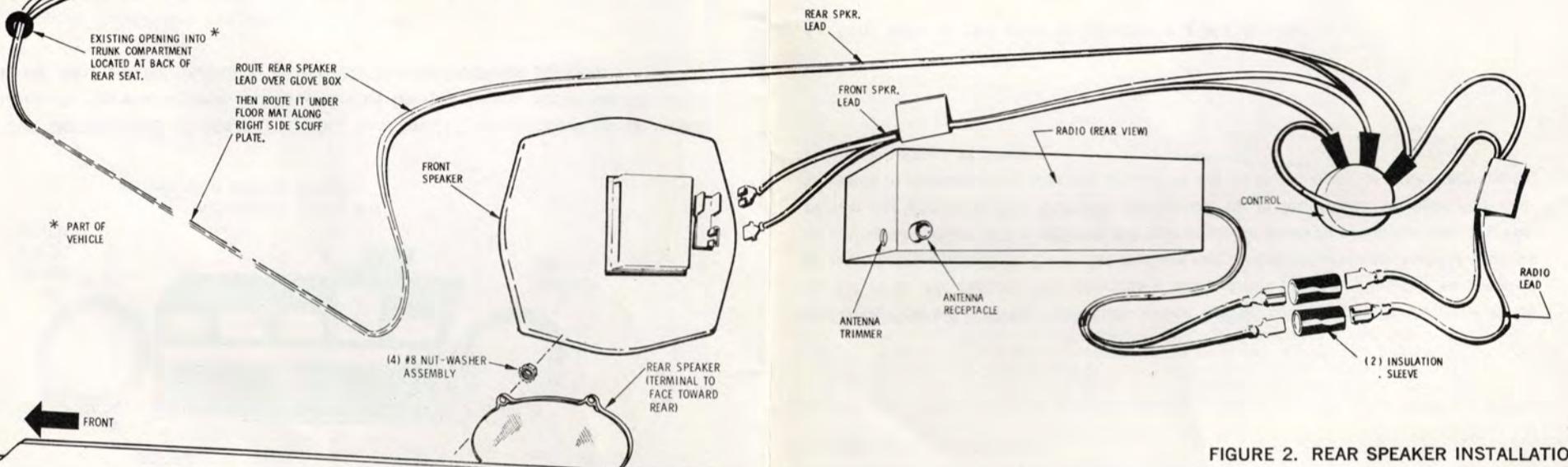


FIGURE 2. REAR SPEAKER INSTALLATION

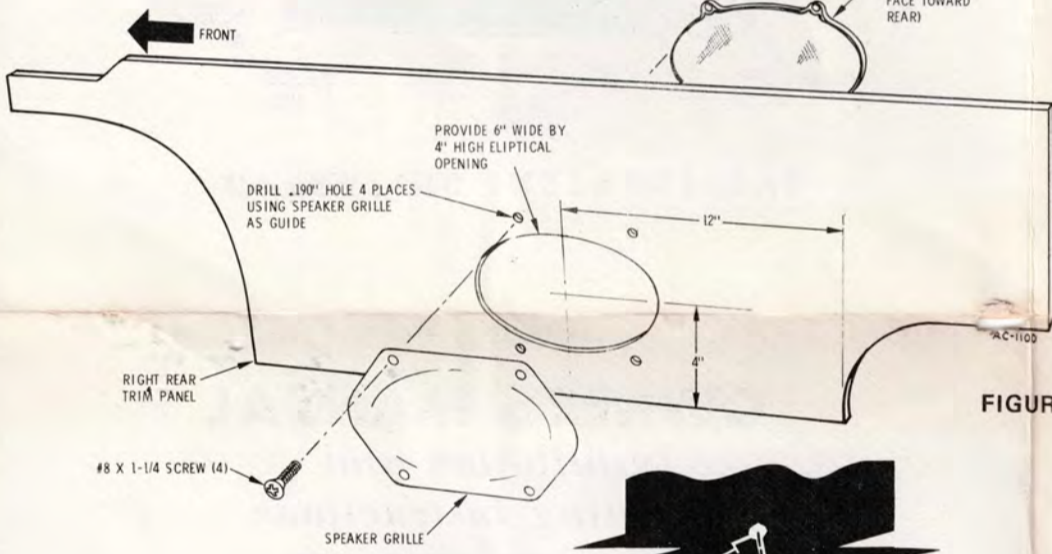


FIGURE 3

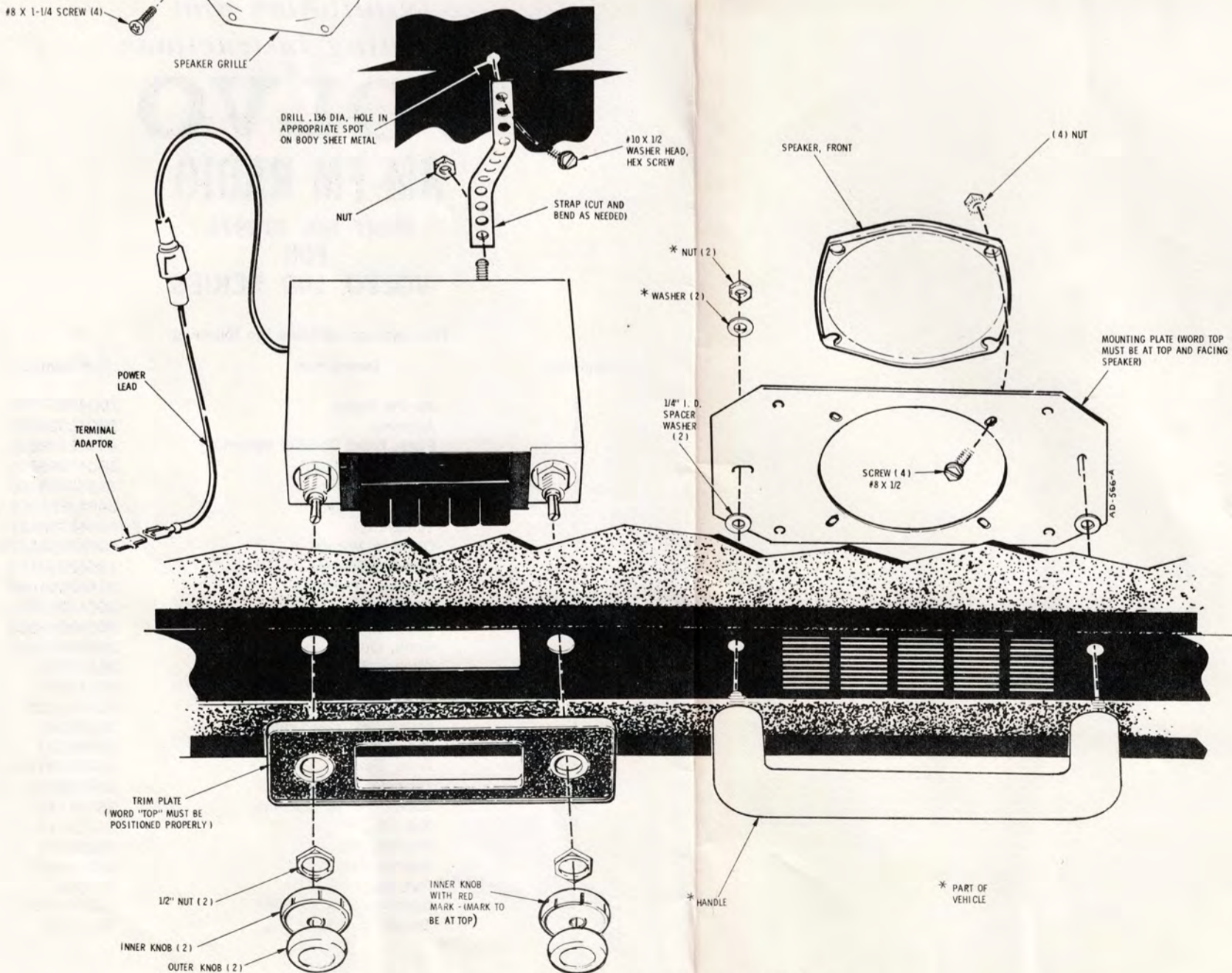
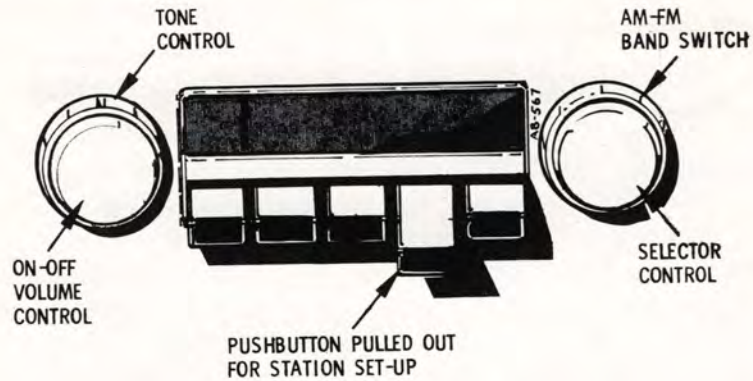


FIGURE 4 RADIO INSTALLATION

OPERATING INSTRUCTIONS



ON-OFF SWITCH AND VOLUME CONTROL. Turn ON-OFF control clockwise to switch radio on. To increase volume, continue turning ON-OFF control clockwise. To switch radio off, turn ON-OFF control to its extreme counter-clockwise position.

TONE CONTROL. Turn the tone control fully clockwise for voice, to mid-position for music, and fully counter-clockwise for bass.

AM-FM BAND SWITCH. Select desired broadcast band (AM or FM) with BAND switch. For AM reception, turn BAND switch to the right so that red line points to letters "AM". For FM reception, turn BAND switch to the left so that red line points to letters "FM".

STATION SELECTION. Turn the BAND switch to desired broadcast band (AM or FM). Then tune in desired station either by turning SELECTOR control or by pressing push-button preset to desired station. (To set push-buttons, see paragraph entitled "SETTING PUSH-BUTTONS".)

FADER CONTROL. Turn control knob either clockwise or counter-clockwise to get desired relative volume between speakers.

ANTENNA HEIGHT. For best FM reception, adjust antenna height to approximately 30 inches. The 30 inch antenna height will also provide good AM reception in most areas.

SETTING PUSH-BUTTONS. Each push-button can be set to one station only—either an AM or an FM station. This provides a total of five stations that can be selected by push-button operation. These five stations can be five AM stations, five FM stations or any combination of five AM and FM stations—for example, four AM and one FM, or two AM and three FM. Stations can be set up in any order; however, for convenience in remembering, stations should be set up in the order of their frequencies. Set push-buttons as follows:

1. Turn radio on and allow to operate for a few minutes.
2. Extend antenna height to 30 inches.
3. Turn BAND switch to either AM or FM, depending upon which broadcast band the desired station is on.
4. Pull out push-buttons. (See Figure.)
5. Accurately tune in a station with the manual SELECTOR control.
6. Lock one push-button to that station by pushing button in firmly.
7. Repeat Steps 3 to 6 for each of remaining four push-buttons.

NOTE: In metropolitan areas, it is recommended that the push-buttons be set up in a shielded place where signals are weak, such as under a viaduct or in a building using steel in its structure.

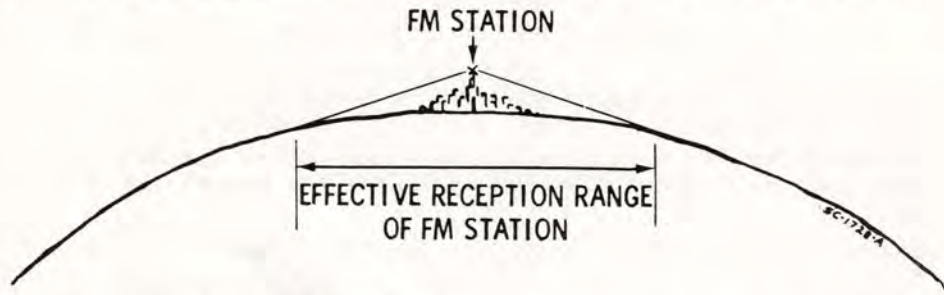
FM-AM RADIO

INTRODUCTION TO FM

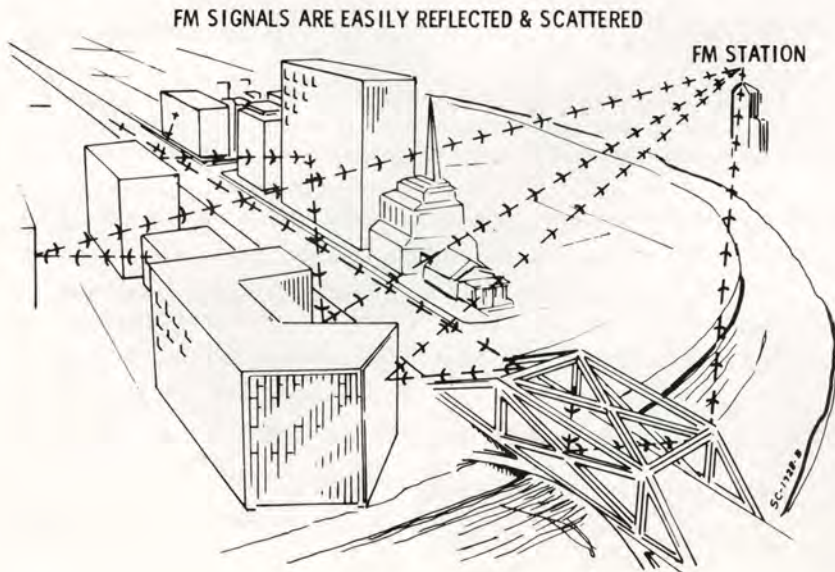
There are many advantages of FM radio—high fidelity reception relatively free from noise with a fine selection of programs, many of which are not otherwise available. Your VOLVO AM-FM radio is designed to make the most of these advantages; it brings you the enjoyment of both superior radio performance and excellence of programs.

FM RECEPTION RANGE

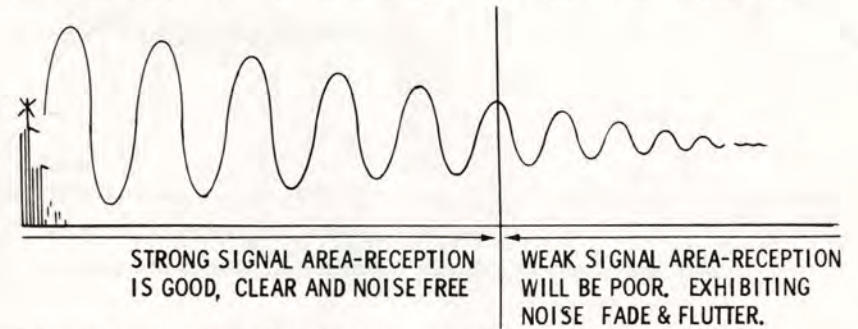
The effective range of FM radio stations is not as great as AM stations. This is mainly due to the fact that FM radio signals travel through the air in straight lines and are easily blocked by obstacles such as hill ranges and the curvature of the earth. In effect, FM radio signals behave as light waves. Because of this characteristic, the usual range of an FM station may be only 25 miles. However, you will find there to be exceptions to this range.



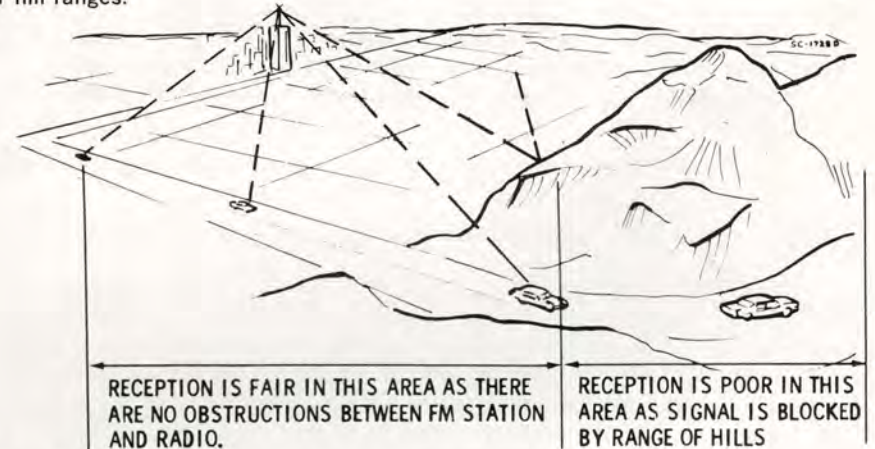
However, within the effective broadcast range of a station, the FM signals are easily reflected and scattered into areas where AM reception is almost impossible—such as under bridges, in underpasses and among tall buildings.



As you drive away from the radio station and into weaker signal areas, you will notice a decrease in FM performance. The radio will also start to pick-up interference. The interference is due to the fact that the radio relies on a certain minimum level of signal strength to provide noise-free reception. Therefore, when listening to a weak signal, it is normal for the radio to pick up noise from surrounding cars and other electrical devices.



In weak signal areas, you will also notice that the radio program may fade out completely or flutter in a similar manner to a TV picture when an airplane is flying overhead. This occurs because the weaker signals are easily blocked from the radio by surrounding objects. Fade-out and flutter are most pronounced when driving in areas having valleys or hill ranges.



AFC CIRCUIT

The AFC (Automatic Frequency Control) circuit reduces the effect of FM drift. It keeps the radio tuned to the station which you have selected. However, the ability of the AFC to hold the radio tuned to a station is dependent upon the strength of the FM signal; that is, the AFC will hold the radio tuned to a stronger station much better than it will to a weak station. Therefore, as you drive away from a station and the signal becomes weaker, it is possible for the AFC circuit to automatically tune in a closer, more powerful station.

ANTENNA CONSIDERATIONS

The regular automotive antenna installed with your radio will provide sufficient reception of FM radio stations. However, due to a characteristic of the FM signal, best reception will be obtained by adjusting the antenna to a height of approximately 30 inches. You will also find that a 30 inch antenna height will provide sufficient reception of AM stations in most areas.