**Factory Radio**

**New Radio**
and radio installation kit

**Other Documents Available For This Vehicle:**

- 865002 Front and rear speaker replacement

**Adobe Acrobat Reader Printing Tips:**

1. Select “FILE” then “PRINT” and select your printer.
2. In the print options box do the following:
   A) Locate check box “Shrink to Fit”. Place check in box.
   B) Locate box “Print Quality”. Select highest print dpi allowed by printer.
   C) If print quality listed is not as high as that printers normal quality, press the “SETUP...” button. In the next screen, press the “PROPERTIES” button and set the printers print quality to the highest print dpi allowed.

**Document Revision History**

- 09/99 Document Creation
- 01/2000 Photo Update
Volvo 740 (1985 thru 1992)
Volvo 760 (1983 thru 1988)

Radio Replacement
Document #: 865001

Overview Of This Radio Install

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<th>Step</th>
<th>What Section To Go To</th>
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<td>Remove old radio from dash</td>
<td>Remove &amp; Install</td>
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<tr>
<td>Wire the new radio</td>
<td>Wire New Radio</td>
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<td>Mount the new radio</td>
<td>Mount New Radio</td>
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<td>Finishing the installation</td>
<td>Remove &amp; Install</td>
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Parts Needed For This Radio Install

<table>
<thead>
<tr>
<th>Parts REQUIRED for the install</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio dash installation kit</td>
<td>Volvo 740 or Volvo “multi” kit</td>
</tr>
<tr>
<td>10-12 feet of speaker wire</td>
<td></td>
</tr>
</tbody>
</table>

Optional parts for this install
None

Tools Needed To Complete This Install

Hand tools needed to remove radio

Accessory tools needed to test and wire the new radio

PLUS: Wire ties or electrical tape: to neatly bundle and organize your wires for a professional appearance.

Tools Needed To Complete This Install

#2 Phillips Socket
8 mm Socket
T30 Torx Socket
Solder/Crimper
Voltage Meter
Small Battery

TOOL TIPS:

Small Battery: use a battery to test speaker wires. Touching the (+) positive and (-) negative battery leads to a pair of speaker will cause the speaker to make a “Pop” sound indicating that pair of wires goes to that speaker.

Voltage Meter: Always check +12 Volt power wires for voltage before making wire connections. These wires will fluctuate between 10 and 14 Volts.

Solder Iron or Crimp Tool: make wire to wire connections using either a solder iron and electrical tape, OR plastic crimp terminals found at most hardware or auto parts stores.

Installation Difficulty Ratings

Easy. No advanced skills or specialty tools needed.
Basics. Simple tools required. Installs quickly.
Intermediate. Requires knowledge of tools, or disassembly of panels.
Advanced. Requires advanced tools, or extra time.
Difficult. Involves modifying or cutting of the installation area. Advanced tools and/or skills required. Best if performed by experienced installers.

Do It Yourselfers
Advanced

Professional Installer
Intermediate

Support Information If You Need Help

Supplemental information if you need help

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</table>
**Remove Factory Radio**

**STEP 1:**
With a sharp pointed tool (could use a small flat head screwdriver or ice pick) remove the thin plastic trim panel that covers the cigarette lighter.

When remove, you will see one (1) brass colored phillips screw, and one (1) black phillips screw. Remove both screws. You will now be able to remove the pocket.

**STEP 2:**
You can now remove the pocket below the radio. You have to pull the left side of the pocket first, angling the pocket. The pocket is secured on the right side with tabs. Once the pocket is angled you will be able to slide the pocket to the left, freeing the tabs on the right. Once the tabs on the right are no longer hooked behind the dash you should be able to pull the pocket forward out of the dash. The pocket should fall near the gear shift, down out of the way.

**Note:** if the pocket seems like it wont remove easily you may find it necessary to pull the cover off the ashtray, then pull the cover off the fuse box located behind the ashtray. This will give the pocket extra room below it and allow the pocket to drop out of the way of the radio.

**STEP 3:**
The radio is secured into the dash with metal compression clips on the side of the radio. Pulling the radio will not free it from the dash. The best and fastest way to remove the radio is to insert a flat head screwdriver between the right side of the radio and the plastic of the dash. Gently pry open a gap between the radio and the dash. This will give the clips enough room to slide out of the dash. With a firm pull, the radio should pull forward out of the dash. (This will NOT damage the dash or the radio)

**STEP 4:**
Unplug the antenna cable from the rear of the radio. Unplug the black connector from the rear of the radio (This connector might be tough to unplug. Each side of the connector has a clip securing that side to the radio. You will need to push in each clip to remove the connector). If there is a round connector connected to the back of the radio, unplug it also. Pull the radio completely out of the dash.

You will know if you have an amplifier in your vehicle if there is a black circular connector plugged into the rear of the radio. This is the cable that sends the audio signal to the amplifier.
**Find And Remove Amplifier**

**Note On Tools:** You will need a tool called a Torx tool. Torx tools are screwdrivers in smaller sizes, and sockets in larger sizes that can be attached to ratchets. This vehicle requires a Torx 30, which at this size can be screwdriver or a socket. Torx 30 sockets are standard sized Torx that are available at automotive stores, as well as Sears, and other tool stores.

**Installation/Removal Note:** The amplifier in this vehicle is located under the steering wheel column, inside the dash, which requires removing 2 panels below the steering column.

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**STEP 1:**
You will need to loosen the lowest panel in the dash, the black panel located directly above the gas and brake pedal. This panel is secured to the main body of the dash with simple plastic screws. With your finger nail you should be able to turn the screw 1/4 of a turn and the plastic screws should fall out. If not, you can pull the black plastic panel and the screws will come out.

**STEP 2:**
You will need to remove the lower part of the dash as shown in the photo above. This panel is secured with three (3) brass colored Torx 30 bolts at the top of the dash. Remove all 3 bolts. Once the bolts are removed, the dash will still be a little stiff and resist being removed. On the back of the panel is a small rod that slides into a hole in the plate behind the panel. Simply pull the panel towards the drivers seat to free the rod from the hole.

**STEP 3:**
Behind the dash panel is a metal plate that also needs to be removed. This metal plate is secured with four (4) brass colored Torx 30 bolts. Remove all 4 bolts and remove the metal plate. Set it aside, out of the way.

**STEP 4:**
The amplifier (shown in the picture of STEP 5) is located behind wires up high in the dash (the metal bracket holding the amplifier is circled in the picture above).

You will have to unbolt the amplifier from the metal bracket in order to get to the speaker wires plugged into the amplifier. The amp is secured to the metal bracket with two (2) 8mm bolts. Remove both bolts and pull the amplifier from the dash.

**STEP 5:**
On the top of the amplifier will be a round connector and a narrow rectangular connector (both connectors are the same types that were plugged into the radio.) Unplug both connectors and the amplifier should now be free to be completely removed from the dash.
Radio Replacement
Document #: 865001

Wiring The New Radio

Move to: Wire New Radio Section

Completing The Radio Installation

Once the connector plugged into the amplifier has been unplugged, you will need to cut the 8 speaker wires and splice 3 feet of speaker wire onto each pair of speakers (1 speaker wire will have a (+) positive wire and (-) negative wire). You will splice the speaker wires here in the lower dash, then run these wires to the radio location. If you look through the opening in the dash where the radio will be mounted you will see a small opening where the speaker wires can be inserted and run up to the radio location. This is why you need to splice on 3 feet of wire for each speaker so you have enough slack to run up to the radios location (you can alway cut off what you do not use, but it is best to leave the slack in case you ever need to pull the new radio out for any reason.

It is also important to verify each wire in the amplifiers connector just removed before you cut it. With a voltage meter, check each wire for voltage. You do not need to cut any wire with voltage on it. In the “Wire New Radio” section, The Install Doctor has listed the colors of each speaker wire you will need.

Installation Note: although these wires should be the same colors as in your vehicle, it is always important to double check each wire before cutting it. Auto makers have been know to use different colored wires in the same vehicle with different production runs. You can use a small battery to verify speaker wires. Attach one wire to the (-) side of the battery, and one wire to the (+) positive side of the battery. A speaker will pop when you do this with both of the speaker wires to that speaker. If the speaker does not pop, you do not have the correct two wires for that speaker. When you find each speaker, you will want someone to look at each speaker and see what direction it is moving. If the speaker moves forward, the wire attached to the (+) positive side of the battery is the (+) positive wire. If the speaker moves backward, the wire needs to be reversed. Try again after you reverse the wires and the speaker should move forward. Again, the speaker attached to the positive side of the battery is the (+) positive wire.

Completing The Radio Installation

Wiring The New Radio

Move to: Wire New Radio Section

Mounting The Radio

Move to: Mounting New Radio Section

STEP 1:
Insert the kit into the dash until the snaps on the side of the kit snap into place.
This step can be seen in more detail in the “Mount New Radio” section at the end of this document.

STEP 2:
Plug the black antenna cable into the rear of the new radio. Make sure all wire connections to the new radio have been completed and plug in any connectors for the new radio. (For ‘DIN’ style radios, slide the radio into the kit)

The Installation Is Now Complete
Step By Step Wiring

Volvo 740 (1985 thru 1992)
Volvo 760 (1983 thru 1988)

Auto Makers
Factory Radio

Wire Harness Inside Vehicles
Dash Which Plugs Into The
Rear Of The Factory Radio

(Note: the radio shown is for display purposes and may not be similar in size or dimensions than the auto makers factory radio in your vehicle)

Supplemental information if you need help

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<th>Document #</th>
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</tr>
<tr>
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<td>999004</td>
</tr>
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</table>

For this vehicle, you will be adding about 3 feet of wire between the wires of the new radio and the wires of the snap on wire harness

STEP 1
Connect the GROUND wire of the new radio to the GROUND wire of the rectangular connector that was originally connected to the rear of the Volvo radio.

STEP 2
Connect the +12 Volt Battery or Constant wire of the new radio to the +12 Volt Battery wire of the rectangular connector that was originally connected to the rear of the Volvo radio.

STEP 3
Connect the +12 Volt Ignition or Switch wire of the new radio to the +12 Volt Ignition wire of the rectangular connector that was originally connected to the rear of the Volvo radio.

STEP 4
If your vehicle has a POWER ANTENNA connect the POWER ANTENNA wire of the new radio to the Powe Antenna wire of the rectangular connector connected to the rear of the Volvo radio.

STEP 5
Connect the LEFT FRONT speaker wires from the new radio to the 3 foot extension wires for the LEFT FRONT speaker wires that were extended to the radio from the amplifier location.

STEP 6
Connect the RIGHT FRONT speaker wires from the new radio to the 3 foot extension wires for the RIGHT FRONT speaker wires that were extended to the radio from the amplifier location.

STEP 7
Connect the LEFT REAR speaker wires from the new radio to the 3 foot extension wires for the LEFT REAR speaker wires that were extended to the radio from the amplifier location.

STEP 8
Connect the RIGHT REAR speaker wires from the new radio to the 3 foot extension wires for the RIGHT REAR speaker wires that were extended to the radio from the amplifier location.

POWER AND SPEAKER WIRES FROM THE VEHICLES

POWER AND SPEAKER WIRES FROM NEW RADIO

3 foot speaker wire extensions
that were extended from the amplifier location under the steering column and run through the dash to the new radio
Volvo 740 (1985 thru 1992)
Volvo 760 (1983 thru 1988)

Radio Replacement
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Radio Wire & Color Code Information

Volvo uses 1 of the following wire harness connectors to connect power and speaker wires to the Volvo radio.

**Radio Wiring Note:**

Connect your new radios **power wires** to the power and ground wires shown in the chart at the top right. These wires are attached to the rectangular connector that was originally plugged into the Volvo radio.

Connect your new radios **speaker wires** to the speaker wires shown in the chart to the right. These wires are the wires cut and extended up from the Volvo amplifier under the steering wheel.

<table>
<thead>
<tr>
<th>Pin</th>
<th>What It Is</th>
<th>Typical Volvo Wire Color Seen At The Radio</th>
<th>Typical New Radio Equivalent Wire Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>+12 Volt Battery Wire</td>
<td>Green w/ Red Stripe</td>
<td>Yellow</td>
</tr>
<tr>
<td>F</td>
<td>+12 Volt Ignition Wire</td>
<td>Orange</td>
<td>Red</td>
</tr>
<tr>
<td>G</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Ground Wire</td>
<td>Black</td>
<td>Black</td>
</tr>
<tr>
<td>M</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Typical Volvo Wire Color**

**Typical New Radio Equivalent Wire Color**

<table>
<thead>
<tr>
<th>What It Is</th>
<th>Typical Volvo Wire Color Seen At The Amplifier</th>
<th>Typical New Radio Equivalent Wire Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Front Speaker (+)</td>
<td>Blue w/ Yellow Stripe</td>
<td>White</td>
</tr>
<tr>
<td>Left Front Speaker (-)</td>
<td>White</td>
<td>White w/ Black Stripe</td>
</tr>
<tr>
<td>Right Front Speaker (+)</td>
<td>Gray w/ White Stripe</td>
<td>Gray</td>
</tr>
<tr>
<td>Right Front Speaker (-)</td>
<td>Gray</td>
<td>Gray w/ Black Stripe</td>
</tr>
<tr>
<td>Left Rear Speaker (+)</td>
<td>Yellow w/ Brown Stripe</td>
<td>Green</td>
</tr>
<tr>
<td>Left Rear Speaker (-)</td>
<td>Yellow w/ Gray Stripe</td>
<td>Green w/ Black Stripe</td>
</tr>
<tr>
<td>Right Rear Speaker (+)</td>
<td>Green w/ Brown Stripe</td>
<td>Purple</td>
</tr>
<tr>
<td>Right Rear Speaker (-)</td>
<td>Green</td>
<td>Purple w/ Black Stripe</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Pin</th>
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<td>+12 Volt Battery Wire</td>
<td>Green</td>
<td>Yellow</td>
</tr>
<tr>
<td>B</td>
<td>+12 Volt Ignition Wire</td>
<td>Yellow w/ Black Stripe</td>
<td>Red</td>
</tr>
<tr>
<td>C</td>
<td>Power Antenna Turn On</td>
<td>Thick Red Wire</td>
<td>Blue</td>
</tr>
<tr>
<td>D</td>
<td>Left Front Speaker (+)</td>
<td>White w/ Yellow Stripe</td>
<td>White</td>
</tr>
<tr>
<td>E</td>
<td>Right Front Speaker (+)</td>
<td>Gray w/ Yellow Stripe</td>
<td>Gray</td>
</tr>
<tr>
<td>F</td>
<td>Do Not Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Left Front Speaker (-)</td>
<td>White</td>
<td>White w/ Black Stripe</td>
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<tr>
<td>H</td>
<td>Right Front Speaker (-)</td>
<td>Gray</td>
<td>Gray w/ Black Stripe</td>
</tr>
<tr>
<td>I</td>
<td>Ground Wire</td>
<td>Black</td>
<td>Black</td>
</tr>
</tbody>
</table>

Standard Volvo wire harness connector for vehicles that do not have a Volvo amplifier.
NOTE:
This vehicle requires a specialty made radio installation kit in order to install a new radio into this vehicle. The radio is installed horizontally into the opening for the radio but the dash is angled in this Volvo dash design. The kit is designed to convert the angle of the dash to allow the radio to fit properly.

Custom designed radio installation kit for Volvo 740/760 dash designs.

Installation Tip: The Install Doctor STRONGLY recommends snapping the kit into the dash BEFORE mounting the new radio (‘DIN’ style radios only) to the installation kit. This is important because the kit secures to the dash with snaps on each side of the kit. If the radio is mounted to the kit before mounting the kit to the dash, the snap brackets on the side of the kit may not snap properly into the sides of the opening in the dash. With the radio removed from the kit, the brackets will have enough room to properly snap into the sides of the opening in the dash. Once the kit is properly snapped into the dash, the radio can then be slid in from the front of the kit (again, this applies only to ‘DIN’ style radios).

For mounting a rectangular ‘DIN’ style of radio to the kit

When the ‘DIN’ mounting “cage” or “sleeve” is inserted into the ‘DIN’ rectangular opening in the kit, bend these tabs behind the kits opening to secure the ‘DIN’ cage to the dash.

‘DIN’ radio opening in the dash.

New radios ‘DIN’ mounting “cage” slid into the ‘DIN’ opening of the kit with its tabs bent securing the cage to the kit.

The radio can now be slid into the ‘DIN’ mounting “cage” which will snap to the radio securing the radio in place.