

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

Radio Replacement

Document #: 865001

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that page

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**Before
You Begin**

**Remove
& Install**

**Wire
New Radio**

**Mount
New Radio**

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Factory Radio



Other Documents Available For This Vehicle:

865002 Front and rear speaker replacement

New Radio

and radio installation kit



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

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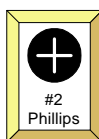
► Overview Of This Radio Install

Step	What Section To Go To
Remove old radio from dash	Remove & Install
Wire the new radio	Wire New Radio
Mount the new radio	Mount New Radio
Finishing the installation	Remove & Install

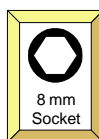
► Parts Needed For This Radio Install

Parts REQUIRED for the install	Description
Radio dash installation kit	Volvo 740 or Volvo "multi" kit
10-12 feet of speaker wire	
Optional parts for this install	
None	

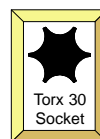
► Tools Needed To Complete This Install



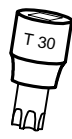
#2
 Phillips



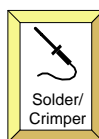
8 mm
 Socket



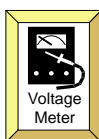
Torx 30
 Socket



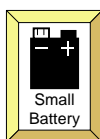
T 30



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.

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.

► 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

Document Title	Document #
Basic DC electronics for automotive applications	999001
Wire splicing: soldering vs. crimping	999004
Why use radio installation kits	999005
Mounting your radio to an installation kit	999007
Why use an optional snap on wire harness	999008
Wiring your new radio using a wire harness	999009
Testing wires when installing a new radio	999013

Radio Replacement

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Note: This vehicle most likely has an external amplifier powering the speakers, not the amplifier inside the radio. This creates problems when installing a new replacement radio. The Volvo amplifier cannot be used and must be bypassed. This document shows you the extensive steps to remove the auto makers radio, find and bypass the auto makers amplifier in the vehicle, and then connect and mount the new replacement radio. If you have 4 speakers in your vehicle (2 in the front doors, and 2 in the rear doors) you most likely have an amplifier in your vehicle.

If your Volvo has only 2 front door speakers, and after following these steps you find out that your Volvo does NOT have an amplifier, turn to the "Wire New Radio" section for the wiring information needed to install a new radio.

► 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.

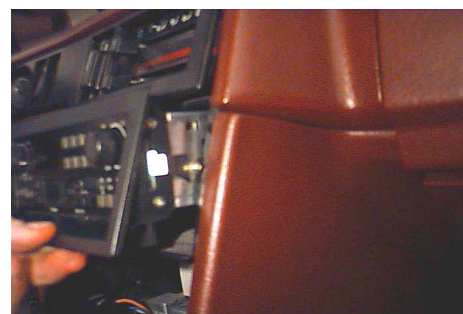
When remove, you will see one (1) **brass colored phillips screw**, and one (1) **black phillips screw**. Remove both screws. You will now be able to remove the pocket.



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

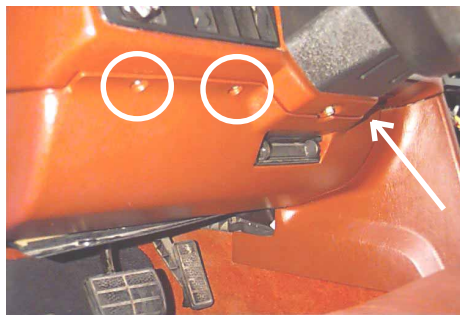
Note On Tools: You will need a tool called a Torx tool. Torx tools are screwdrivers in smaller sizes, and sockets in larger sizes that can be attached to ratchets. This vehicle requires a Torx 30, which at this size can be screwdriver or a socket. Torx 30 sockets are standard sized Torx that are available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



STEP 1:

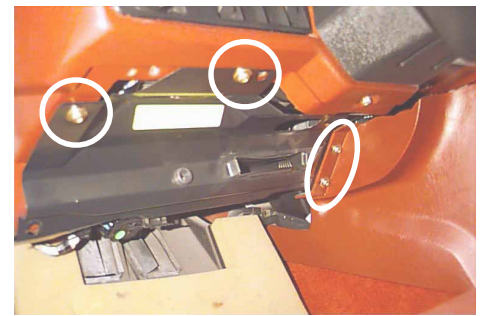
You will need to loosen the lowest panel in the dash, the black panel located directly above the gas and brake pedal. This panel is secured to the main body of the dash with simple plastic screws. With your finger nail you should be able to turn the screw 1/4 of a turn and the plastic screws should fall 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.

▶ Wiring The New Radio

Move to: [Wire New Radio Section](#)

▶ Mounting The Radio

Move to: [Mounting New Radio Section](#)

▶ Completing The Radio Installation

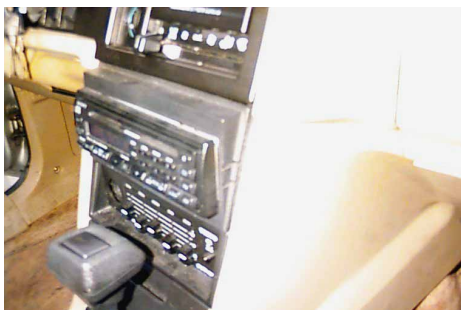


This photo shows all of the speaker wires originally plugged into the amp, grouped together after being cut and separated from the connector they were originally attached to.

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 always 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, then the wires need 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.



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.



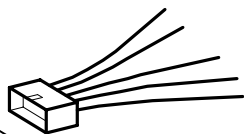
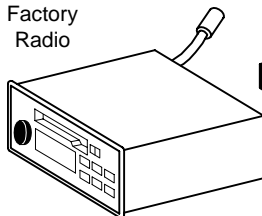
STEP 2:

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**

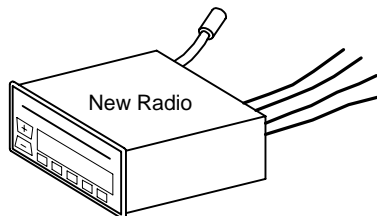
Auto Makers
Factory
Radio



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)

(+) 12 Volt Battery Wire
(+) 12 Volt Ignition Wire
(-) Ground Wire
cut from the rectangular
connector originally connected to
the Volvo radio

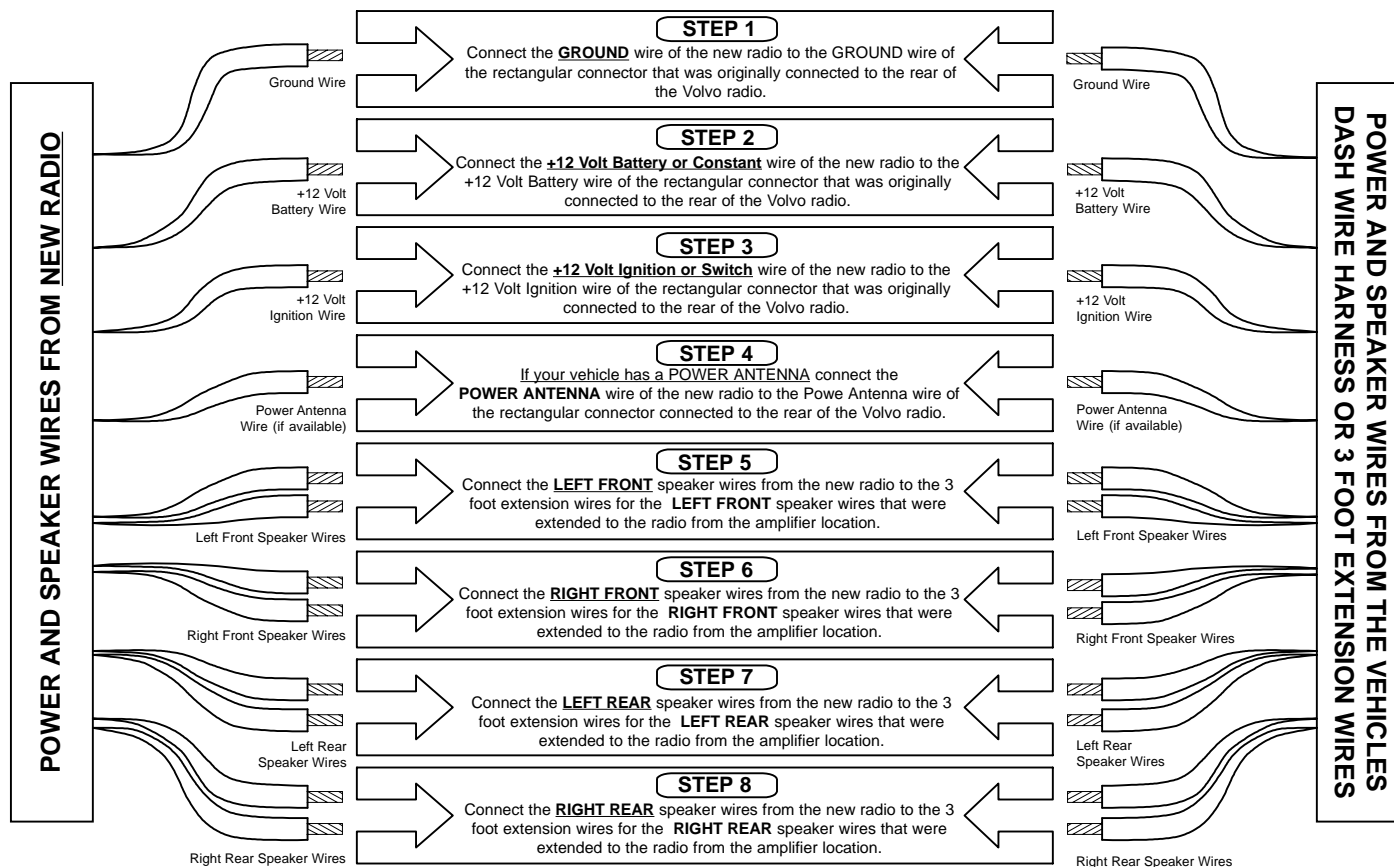


3 foot speaker wire extensions
that were extended from the
amplifier location under the
steering column and run
through the dash to the new
radio

Supplemental information if you need help

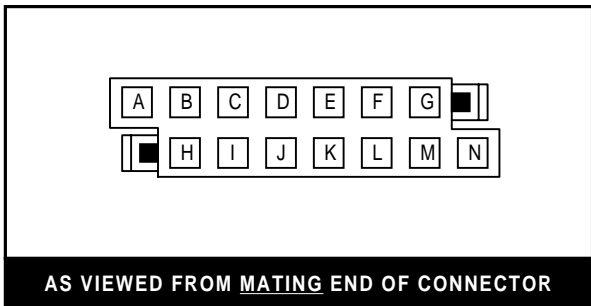
Document Title	Document #
Testing wires when installing a new radio	999013
Why use an OEM snap on wire harness	999008
Wiring your new radio using a wire harness	999009
Wire splicing: soldering vs. crimping	999004

→ 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 ←



▶ Radio Wire & Color Code Information **Page 2 of 2**

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



AS VIEWED FROM MATING END OF CONNECTOR

Wire harness connector when this vehicle has a Volvo Amplifier powering the speakers

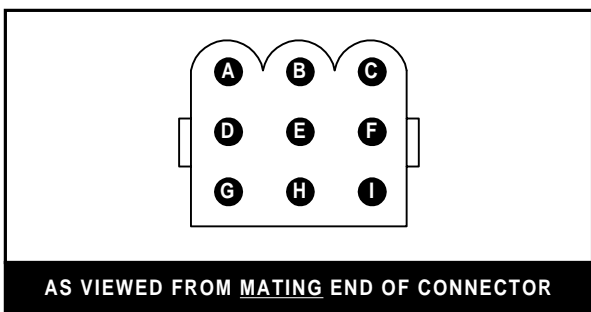
Pin	What It Is	Typical Volvo Wire Color Seen At The Radio	Typical New Radio Equivalent Wire Color
A		Do Not Use	
B		Do Not Use	
C		Do Not Use	
D		Do Not Use	
E	+12 Volt Battery Wire	Green w/ Red Stript	Yellow
F	+12 Volt Ignition Wire	Orange	Red
G		Do Not Use	
H		Do Not Use	
I		Do Not Use	
J		Do Not Use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

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 you 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.

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



AS VIEWED FROM MATING END OF CONNECTOR

Standard Volvo wire harness connector for vehicles that do not have a Volvo amplifier

Pin	What It Is	Typical Volvo Wire Color Seen At The Radio	Typical New Radio Equivalent Wire Color
A	+12 Volt Battery Wire	Green	Yellow
B	+12 Volt Ignition Wire	Yellow w/ Black Stripe	Red
C	Power Antenna Turn On	Thick Red Wire	Blue
D	Left Front Speaker (+)	White w/ Yellow Stripe	White
E	Right Front Speaker (+)	Gray w/ Yellow Stripe	Gray
F		Do Not Use	
G	Left Front Speaker (-)	White	White w/ Black Stripe
H	Right Front Speaker (-)	Gray	Gray w/ Black Stripe
I	Ground Wire	Black	Black

Radio Replacement

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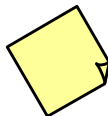
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NOTE:

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.

All information needed to complete the mounting of the new radio to the installation kit is included on this sheet. If you need additional help, please consult the following tech documents:

Document Title	Document #
Why use radio installation kits	999005
Mounting your radio to an installation kit	999007
Radio security	999010

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



Profile view of the radio installation kit. This angle shows how the kit properly adapts the angle of the dash to allow the radio to be mounted properly.

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

