

Factory Radio

AND AND



356002 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.
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Document Revision History

09/99 Document Creation

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New Radio



Ford/Lincoln/Mercury

1989

Radio Replacement

Document #: 356001

THE INSTALL DOCTORY™ www.installdr.com

Before

You Begin

Click on a link tab to jump to that page

Tools Needed To Complete This Install

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Overview Of This Radio Install

What Section To Go To
Remove & Install
Wire New Radio
Mount New Radio
Remove & Install

Parts Needed For This Radio Install

Remove

& Install

Wire

New Radio

Mount

New Radio

Parts REQUIRED for the install	Description
Snap on in dash wire harness	Either a Ford Integration
	or Ford Bypass Harness
	(see instructions)







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.

TOOL TIPS:

Small Battery: use a battery to test speaker wires. Touching the (+) positive and (-) negative baterry 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**: <u>Always</u> 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.

Do It Yourselfers

Intermediate

Professional Installer

Basics

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

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Radio Replacement



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Cover Page

THE

Before You Begin & Install

New Radio

Remove

Wire

Mount

New Radio

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Remove Factory Radio



STEP 1:

To remove the radio, three (3) dash panels must be removed. The first two are horizontal panels on the left and right sides of the steering wheel. The left panel is directly below the headlight switch. The right panel is directly below the radio and runs all the way to the passengers door. These panels simple snap into the dash. With a flat head screw driver or other flat object, gently pry the panel up, slowly releasing each clip. Be careful, the clips in older vehicles that have never had these panels removed may be hard to unclip. Once these two lower horizontal panels have been removed, the third panel can be removed in STEP 2.





The third panel is secured at the bottom with five (5) phillips screws. Three (3) phillips screws on the right side at the bottom of the panel hidden underneath the right side horizontal snap panel. Two (2) phillips screws on the left side at the bottom of the panel hidden underneath the left side horizontal snap panel. Remove all five phillips screws.



STEP 3:

The upper part of the upper dash panel is secured with snaps on the top and sides of the panel. You can unsnap the panel with the same flat head screw driver as with the lower horizontal snap dash panels. Firmly begin to unsnap the upper left and right corners of the dash. Once the dash has been loosened, you can pull the panel with your hands to free it from the dash. There will be wires attached to gauges which are attached to the panel. For best results, angle the dash out of the way of the radio area, but you do not have to unclip the wires attached to the panel.

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Ford/Lincoln/Mercury

1989

Radio Replacement

Document #: 356001

THE INSTALL DOCTOR™ www.installdr.com

Remove

& Install

Wire

New Radio

Mount

New Radio

Before

You Begin

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Cover

Page

M.

Click on a link tab to jump to



STEP 4:

STEP 5:

Once you angle the dash out of the way of the radio, you will be able to see the radio and air conditioner controls. The radio is secured to the dash by clips on the side of the radio located behind the plastic of the dash. Ford radio removal keys can be used to remove the radio. You will notice 2 holes on each side of the radio. Each hole represents the upper and lower part of a clip on each side of the radio. A simple closes hanger can improvise as a Ford Radio Key. Cut the clothes hanger 8-10 inches and bend in the middle in the shape of a "U". Insert the ends into the holes to free each end separately. (See Below)

Once the radios clips have been pushed in, the radio can be pulled from the dash. With your hands, grab the sides of the radio and

pull hard. The radio fit is tight and might require a very firm pull to free the radio from the dash. Unplug all wires and the antenna cable from the rear of the radio.

Wiring The New Radio

Move to: Wire New Radio Section



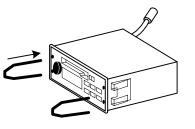
This photo shows a Ford "Integration" wire harness being installed. This wire harness allows the new radio to be wired directly into ("integrated" into) the Ford Premium Sound System amplifier and prevents the need to completely rewire the vehicle. (see Wire New Radio Section for information regarding both of these options)

Mounting The Radio

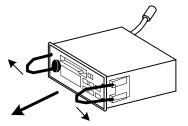
Move to: Mounting New Radio Section

Removing Ford Radios Using "U" Shaped Removal Keys

Insert the "U" shaped keys into the holes as shown in the diagram. Coat hangers can be cut and bent into shape for a quick, cheap replacement or alternative when Ford keys are not available.



In order for the radio to be removed, clips attached to the side of the radio must be moved inward so the radio can slide out of the dash. Insert the keys and push each key out, away from the radio. The ends of the keys will press into the clips. While pushing the keys outward, pull and the radio should slide forward out of the dash.



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Ford/Lincoln/Mercury

1989

Radio Replacement Document #: 356001

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THE

SWZ. Cover Before Click on a link tab to jump to

Remove Wire

Mount

New Radio

You Begin Page

& Install

New Radio

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Completing The Radio Installation





STEP 1:

Insert the new radios 'DIN' mounting sleeve if the new radio is a 'DIN' style radio and secure it to the rectangular opening in the dash. For shafted style radios, install the radio to the installation kit before moving to STEP 2.

STEP 2:

You are now ready to insert the radio into the dash. Attach the antenna cable to the new radio. Make sure all wiring for the new radio has been completed. For 'DIN' radios, slide the new radio into the 'DIN' mounting sleeve. For shafted radios and kits, mount the kit and radio to the opening in the dash.

STEP 3:

Reattach the upper dash panel and secure it with the same phillips screws that were removed earlier.



STEP 4:

Reattach the lower horizontal trim panels on the left and right sides of the steering wheel.

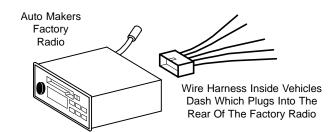


STEP 2:

The finished installation should look like the photo above.

The installation is now complete.

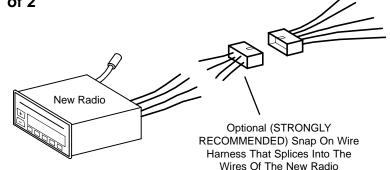




(Note: the radio shown is for display purposes and may not be similar in size or dimensions than the auto makers factory radio in your vehicle)

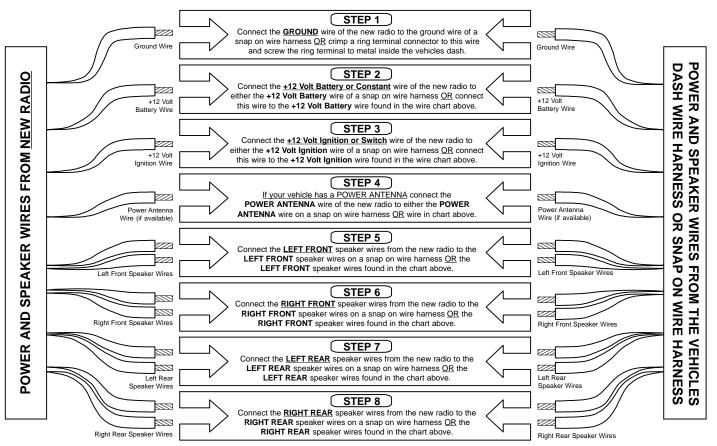
Supplemental information if you need help

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



Wiring Instructions:

The power and speaker wires needed to connect the new radio are attached to the connector of the wire harness located inside the vehicles dash. The Install Doctor **STRONGLY** recommends using an optional snap on wire harness that is specifically designed to snap into the vehicles dash wire harness connector. This will keep you from cutting the vehicles wires. This optional snap on wire harness will have wires on the opposite side of the connector that will allow you to splice these wires to the new radios wires. The only other option is to cut off the vehicles dash wire harness connector and splice the new radios wires directly to these wires. The optional snap on wire harness takes all the guess work out of trying to figure out what each wire is in the vehicles dash wire harness.



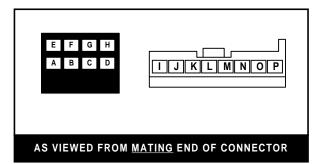
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Radio Wire & Color Code Information

Page 2 of 2

This vehicle uses has a 2 pc wire harness. The black connector is the input to the vehicles separate amplifer. The second plug contains all necessary power wires.



DO NOT CUT THE WIRES OF THE BLACK CONNECTOR

The Install Doctor STRONGLY recommends using a snap on "integration" wire harness which will safely and easily allow you to connect a new radio to the existing wires of the Ford radio system.

The "integration" wire harness will have all necessary wires correctly labeled. This allows you to follow the instructions on the previous page.

Ford Premium Sound System Basics

The Ford radio in your vehicle uses a separate Ford amplifer that powers the speakers instead of the Ford radio powering the speakers. This creates problems when installing a new replacement radio into the vehicle. At the radio, the wire harness inside the dash would normally have all necessary speaker and power wires to install the new radio. However, the speaker wires needed to install the new radio are plugged into the Ford Premium Sound System amplifer which is located away from the radio.

There are (3) options when installing a new radio you need to consider before installing your new radio, one of which is not recommended and requires extensive rewiring of every speaker in the vehicle.

Option 1: you can choose to "integrate" into the Ford amplifier. This is the simplest and easiest installation and for the majority of new replacement radios this is the BEST option. A Ford Integration Wire Harness is needed. This wire harness is very similar to a standard Ford radio snap on wire harness used to install radios in Ford vehicles with standard radios but the harness will have a small box attached to it which will allow you to splice the new radios speaker wires directly to the wires of the integration harness. Inside this box is electronics which will convert the new radios speaker wire outputs into the necessary low voltage signal to run the Ford amplifier. This means that the speakers in the vehicle are being powered by the Ford amplifier, not the amplifier inside the new radio. The information on this sheet is structured to use OPTION 1 to integrate into the original Ford amplifier. This has become the most accepted method of installing a new replacement radio in this type of Ford vehicle with the Premium Sound System.

Option 2: you can also choose to "bypass" the Ford amplifer in the vehicle and choose to power the speakers in the vehicle with the amplifier inside the new radio instead of the Ford amplifier. This is a 2 step process. You still have to wire the new radio at the dash, and you have to find the amplifier in the vehicle and add a jumper cable (included with the bypass wire harness) to the amplifer; unplugging the inputs and outputs of the amplifier and connecting them together with the jumper from the bypass wire harness. This method is only used for radios with more than 40 watts per channel output.

<u>Option 3</u>: or you can choose to completely run new speaker wire directly from the new radio to each speaker. However, this is NOT recommended.

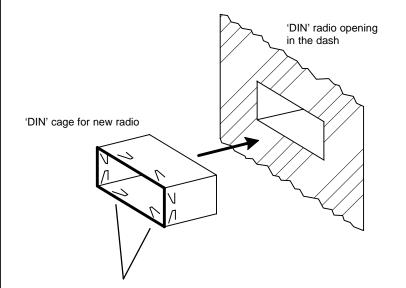


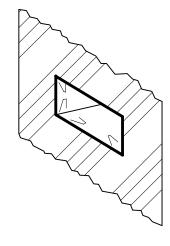
Mounting A Radio

NOTE:

This vehicle does not require using a dash installation kit to mount a 'DIN' style radio. If you are installing a shafted radio, you will need a radio installation kit that converts the rectangular opening to mount the shafted radio. All information needed to complete the mounting of the new radio to the vehicles dash 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





New radios 'DIN' cage slid into the 'DIN' opening of the dash with its tabs bent securing the cage to teh dash.

The radio can now be slid into the 'DIN' cage which will snap to the radio securing the radio in place.

When 'DIN' cage is inserted into the 'DIN' rectangular opening in the dash, bend these tabs behind the opening in the dash to secure the 'DIN' cage to the dash.