Radio Replacement
Document #: 356029

**1987** thru **1991** 





Cover Page Before You Begin Remove & Install Wire New Radio Mount New Radio

Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

## **Factory Radio**



### **New Radio**



### Other Documents Available For This Vehicle:

No additional documnets available at this time

### **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**

12/99 Document Creation

THE INSTALL DOCTORY WWW.installdr.com

Radio Replacement Document #: 356029 1987 thru 1991 Click on a link tab to jump to that page

Cover Page Before You Begin Remove & Install Wire New Radio Mount New Radio

Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

### 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	
Snap on in dash wire harness	Ford 87 and newer 2 pc	
Radio Installation Kit	Multi Purpose Ford Kit	
	(see drawing in instrucitons)	

Optional parts for this install

# 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.

## **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: 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

**Basics** 

**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

All Information, Including Photos And Illustrations, In These Pages Is Believed To Be Correct And Reliable. The Information Contained In These Pages Is Given As General Information For The Installation Of Audio, Video, Security, Communications, And Other Accessory Products Into Mobile And/Or Vehicle Applications. The Install Doctor, Any Subsidiaries Or Divisions Thereof, Or Any Member Of These Companies Shall Not Be Held Liable For Any Damages And/Or Injuries Resulting From The Use Of Information Contained In These Pages. All Information Contained In These Pages Should Be Checked And Verified With Appropriate Test Equipment The Stalled And The Vehicle Itself. Careful Attention Should Be Given To All Electronic/Electric Circuits. High Voltages And Currents Can Cause Bodily Injury, Skin Damage, And Even Death. Installs Are Taken At The Risk Of Each Installer, And/Or Individual.

INSTALL DOCTORY
www.installdr.com

Radio Replacement
Document #: 356029

1987 thru 1991 Click on a link tab to jump to that page

Cover Page Before You Begin Remove & Install Wire New Radio Mount New Radio

Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

## ▶ Remove Factory Radio





#### STEP 1:

The plastic dash panel surrounding the radio unsnaps from the dash. Open the ashtray so it does not block the plastic dash panel from removing. With your hands, pull the top of the plastic dash panel until it unsnaps from the dash.

Once removed, the radio and screws which secure the radio should be visible.





#### STEP 2:

The radio is held in on each side of the radio with 2 screws. Depending upon the year of your vehicle, the screws may be either phillips screws, or 7 mm bolt screws.

Remove all 4 screws. Pull the radio out of the dash. Unplug the black cable plugged into the rear of the radio. Unplug 2 plastic wire harness connectors plugged into the rear of the radio.

**Installation Note:** please read the installation notes in the "**Mount New Radio**" section at the end of this document regarding a small modification needed to the rectangular opening the radio had just been removed from.

Radio Replacement
Document #: 356029

**1987** thru **1991** 

Click on a link tab to jump to that page

Cover Before Page You Begin Remove & Install

Wire New Radio

Mount New Radio

Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

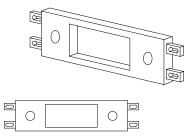
## ➤ Wiring The New Radio

Move to: Wire New Radio Section

## ▶ Mounting The Radio

Move to: Mounting New Radio Section

Ford Radio Installation Kit Needed To Mount And Install Your New Radio (2 shaft version shown for reference only)



## ► Completing The Radio Installation



#### STEP 1:

Please read the INSTALLATION NOTES in the "Mount New Radio" section at the end of this document.

Once you have read the Installation Notes, insert the kit into the rectangular opening in the dash and secure the kit with the same 4 screws that had originally secured the original Ford Radio.





### STEP 2:

Connect the 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 of the new radio into the rear of the radio now. Slide the radio into the dash.

Snap the plastic dash panel back onto the dash.

(Note: if the dash panel does not snap properly back onto the dash, the most likely reason is that the plastic panel is bumping into the top, bottom, and sides of the new radio. One method to solve this is to follow the Installation Notes in the "Mount New Radio" section at the end of this document which addresses this very issue. If this does not solve your problem, you can also try removing the trim ring that surrounds most 'DIN' style radios. If the plastic dash panel was bumping into the new radio most likely the plastic dash panel was actually hitting this trim ring. Unsnapping the trim ring surrounding the new radio should solve this problem.)

#### The installation is now complete

Step By Step Wiring

INSTALL DOCTORY
www.installdr.com

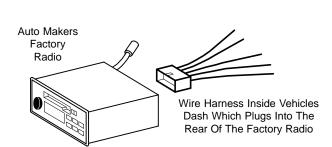
Radio Replacement Document #: 356029 1987 thru 1991 Click on a link tab to jump to that page

Cover Page Before You Begin Remove & Install

Wire New Radio Mount New Radio

Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

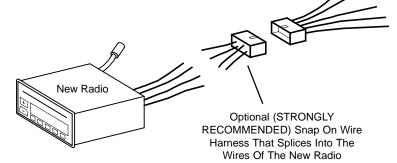
Page 1 of 2



(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)

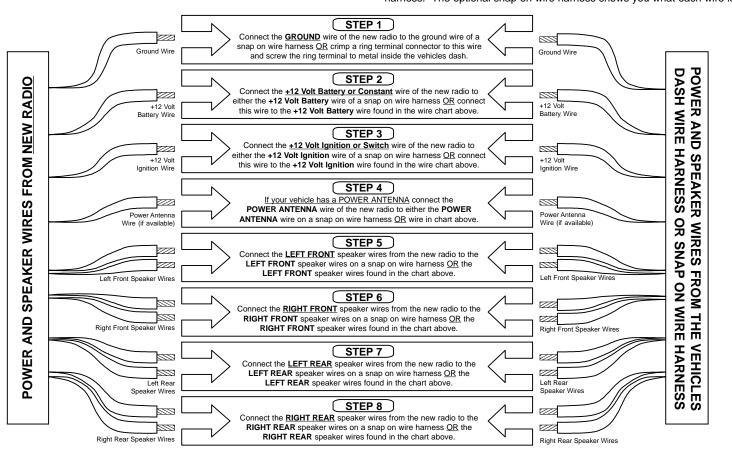
#### Supplemental information if you need help

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. The optional snap on wire harness shows you what each wire is.



Radio Replacement
Document #: 356029

1987 thru 1991



Click on a link tab to jump to that page

Click and a link tab to jump to that page

Click on a link tab to jump to that page

Remove & Install

New Radio

New Radio

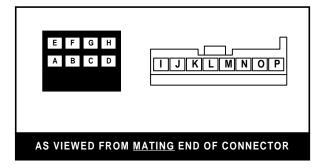
Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

Radio Wire & Color Code Information

Page 2 of 3

# If Your Vehicle Has A Ford Premium Sound System Radio (Some Broncos)

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.

The Ford radio in your vehicle uses a separate Ford amplifier 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 amplifier 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 amplifier 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 amplifier; 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.

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

Radio Replacement 1987

Document #: 356029 thru 1991





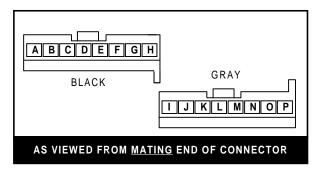
Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

## ► Radio Wire & Color Code Information

Page 3 of 3

## If Your Vehicle Has A Standard Ford Radio

This vehicle uses has a 2 pc wire harness.



Pin	What It Is	Typical Ford In Dash Wire Color	"Typical" New Radio Equivalent Wire Color
Α	Right Rear Spkr (-)	Blue	Purple w/ Black Stripe
В	Right Rear Spkr (+)	White w/ Blue Stripe	Purple
С	Right Front Spkr (-)	White	Gray w/ Black Stripe
D	Right Front Spkr (+)	Blue w/ White Stripe	Gray
Е	Left Rear Spkr (-)	Red w/ Blue Stripe	Green w/ Black Stripe
F	Left Rear Spkr (+)	White w/ Blue Stripe	Green
G	Left Front Spkr (-)	Blue w/ Orange Stripe	White w/ Black Stripe
Н	Left Front Spkr (+)	Purple	White
I	Amplifier Turn On	Do Not Use For This Vehicle	e
J	Power Antenna Turn On	Do Not Use For This Vehicle	
K	Ground Wire		Black
L		Do Not Use For This Vehicle	
М	Dash Light Dimmer Wire		Orange (if available)
N	+12 Volt Ignition Wire		Red
0		Do Not Use For This Vehicle	
Р	+12 Volt Battery Wire		Yellow

**Note:** using an optional snap on wire harness adapter will simplify the wiring. Most snap on wire harness adapters have already converted and color coded the wires from the auto makers in dash wire harness to match typical aftermarket radio wire colors.

<sup>\*\*</sup> The wire colors listed in the chart above are typical for Ford vehicles during these years but may not be the exact colors for this vehicle. This is another reason to use a snap on wire harness adapter. \*\*

1987 Radio Replacement

thru 1991 Document #: 356029



Click on a link tab to jump to that page

Cover **Before** You Begin **Page** 

Remove & Install

Wire **New Radio** 

Slide the new radios installation

sleeve into the kit and secure the

sleeve by bending the tabs on the

Mount **New Radio** 

Publication, Duplication, or Retransmission Of This Document Not Expressly Authorized In Writing By The Install Doctor Is Prohibited. Protected By U.S. Copyright Laws. © 1997,1998,1999,2000.

## **Mounting A Radio**



### **INSTALLATION TIP:**

There are several ways to mount a new radio in this vehicle. The following method is the recommended choice of The Install Doctor because the method shown is the same as the mounting of the factory radio. This is also the best method because the radio installation kit is screwed into the dash of the vehicle making the radio installation as secure as it can be.

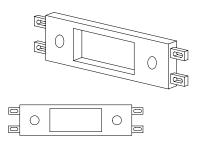
All information needed to complete the mounting of the new radio to the vehicles dash is included on this sheet. If you need additional help, please consult the following tech documents:

Document Title	Document #
Why use radio installation kits	999005
Mounting your radio to an installation kit	999007
Radio security	999010
'DIN' vs. Shafted radio - differences with	999006

sleeve.

#### About The Radio Installation Kit

Ford radio installation kit needed for this vehicle (the kit shown is for 2 shafted radios but shows the proper design of the kit)



Inserts into dash in this direction

**Installation Tip:** The standard mounting configuration is to install the radios installation kit with the mounting tabs at the rear of the kit. BUT, for this installation flip the kit around so that the mounting tabs of the kit are at the front.

## **Drawing of Installation Kit** (Top View)

Front of Kit

Photo of Installation Kit Showing Mounting Tabs At The Front Of The Kit



**Mounting Tabs On Kit** 

# Why Flip The Kit Around?



Cut/Shave the plastic up 1/8 inch until kit fits into the dash opening.

It is necessary to flip the kit around so that the plastic panel that surrounds the radio can snap back onto the dash. If you install the kit in its normal orientation, the radio will extend 1/2 to 3/4 of an inch out of the dash. The plastic dash panel, when snapped backed onto the dash, will hit the top, bottom, and sides of the new radio, blocking it from snapping back onto the dash. If you flip the kit around, the back of the kit will fit into the rectangular opening in the dash between the screw mounting holes. When the radio installation kit is secured with the screws, the new radio will now be in the same position as the original Ford radio, allowing the plastic dash panel to properly snap back onto the dash. BUT, to do this, a small modification has to be made to the thin plastic on the top of the rectangular opening. For the kit to fit into the opening, about 1/8 of an inch of the plastic must be removed. A small hand saw or a file can be used to cut the plastic (see photo to the left).

Body of kit will fit into rectangular radio opening in dash