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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:

No documents 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.

New Radio

With Optional Kit
Pocket Below Radio



Document Revision History

12/99 Document Creation

With Original Toyota
Pocket Below Radio



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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

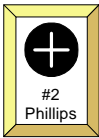
Parts Needed For This Radio Install

Parts REQUIRED for the install	Description
Snap on in dash wire harness	Toyota 87 and newer harness
Kit Pocket below radio for Toyota radios which had an optional CD player mounted below the original Toyota radio (read instructions first)	

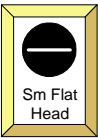
Optional parts for this install

None

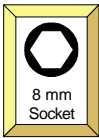
Tools Needed To Complete This Install



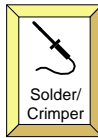
#2
Phillips



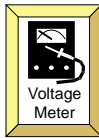
Sm Flat
Head



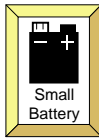
8 mm
Socket



Solder/
Crimper



Voltage
Meter



Small
Battery

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 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

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

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Installation Note: This vehicle may have an external amplifier powering the speakers, not the amplifier inside the radio. However, the wiring for both a standard Toyota radio and the wiring for a Toyota radio powered by an external Toyota amplifier are located directly behind the rear of the radio. The Install Doctor recommends bypassing the Toyota amplifier inside the vehicle and powering the speakers with the amplifier inside the new replacement radio. You will be able to tell if your vehicle has an external Toyota amplifier in the vehicle when you remove the radio. Standard Toyota radio that do not have an external amplifier connected to the radio will have 2 plastic wire harness connectors plugged into the rear of the Toyota radio. Toyota radios that do have an external amplifier connected to the radio will only have 1 plastic connector plugged into the rear of the radio. The following installation steps will show you how to wire either situation.

► Remove Factory Radio



STEP 1:

Insert the tip of a small flat head screwdriver between the lower right corner of the 'U' shaped plastic dash panel surrounding the radio and the softer main dash assembly. Gently pry the 'U' shaped plastic dash panel until the lower corner unsnaps. With your hands, continue to unsnap the plastic panel on the left side. Once the bottom has been freed, pull the plastic panel until the 2 top sections have separated from the dash. The sides of the radio should now be visible.

STEP 2:

The 'U' shaped plastic panel can be left hanging off to the side by the cigarette lighter wiring. Locate and remove four (4) 8 mm bolts securing the radio (2 on each side of the radio). The gear shift will need to be moved out of PARK for the radio to be removed. Pull the radio out of the dash. Unplug the black cable plugged into the rear of the radio. Unplug either 1 or 2 blue plastic connectors plugged into the rear of the radio.

To Determine If Your Vehicle Has An External Toyota Amplifier Connected To The Toyota Radio.



STEP 3:

To install the new replacement radio, you will need two (2) blue plastic connectors. Standard Toyota radios will have these connectors plugged into the rear of the radio. If you have 2 connectors plugged into the rear of the radio, your vehicle does NOT have an external amplifier.

Move to the "Wire New Radio Section".

STEP 4:

If your Toyota radio has only one (1) blue plastic connector plugged into the rear of the radio, your vehicle does have an external amplifier in the vehicle.

We will now bypass this amplifier and locate the two (2) plastic connectors needed to connect the new replacement radio. The 2 blue plastic connectors are located on the right side of the radios opening. They will be plugged into 2 other connectors covered with a tan foam. Unplug both blue connectors as seen in the photo for STEP 3. All the wiring needed to connect a new replacement radio are connected to these 2 blue plastic connectors.

Move to the "Wire New Radio Section".

▶ Wiring The New Radio

Move to: **Wire New Radio** Section

Regardless whether you have a standard radio or had an amplifier in the vehicle, the wiring steps shown on the following pages are the same. Locating the two blue plastic wire harness connectors means you have just converted your vehicle back over to the wiring for a standard Toyota vehicle which is necessary when wiring a new replacement radio.

▶ Mounting The Radio

Move to: **Mounting New Radio** Section

The Install Doctor **STRONGLY** recommends purchasing a 'DIN' radio for this vehicle. 'DIN' radios are a direct replacement for the radio in this vehicle. More information is available in the "**Mounting New Radio**" section.

▶ Completing The Radio Installation

Toyota radio with optional
Toyota CD player below radio



Standard Toyota radio with
pocket/tray below radio



STEP 1:

The radio is secured to the brackets of the radio/pocket assembly with four (4) phillips screws / 8mm bolts, 2 on each side of the radio.

Remove all 4 screws and pull the radio out of the brackets.

NOTE: notice that the face of the radio is flush or level with the pocket below it. This is important to remember when mounting the new radio in latter steps.

Installation TIP: If your vehicle had the optional Toyota CD player mounted below the Toyota radio instead of a pocket/tray The Install Doctor **STRONGLY** recommends removing the CD player and mounting either a Toyota pocket or optional kit pocket below the radio. Toyota pockets can be purchased at a local Toyota dealership and the optional kit pocket can be purchased from a local car stereo installation shop.



STEP 2:

The new replacement radio can be inserted into the brackets in the same location that the auto makers factory radio was mounted.

This information is shown in more detail in the "**Mount New Radio**" section at the end of this document.

Radio Replacement

Document #: 869013

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With Original Toyota
Pocket Below Radio



With Optional Kit
Pocket Below Radio



STEP 3:

Insert and mount the radio/pocket assembly back into the dash. Plug the antenna cable into the rear of the new radio. Make sure all power and speaker wire connections to the new radio have been completed and all connectors for the new radio have been plugged in.

Secure the metal brackets securing the radio/pocket assembly with the same 4 screws that had originally secured the original radio.

STEP 4:

Reattach the 'U' shaped plastic dash panel back onto the main dash.

The Installation Is Now Complete

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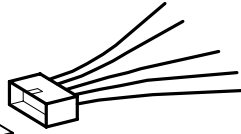
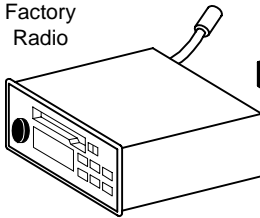
Mount
New Radio

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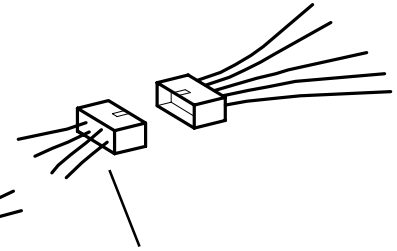
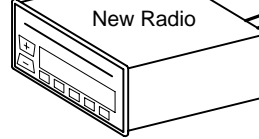
Step By Step Wiring

Page 1 of 2

Auto Makers
Factory
Radio



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



Optional (STRONGLY
RECOMMENDED) Snap On Wire
Harness That Splices Into The
Wires Of The New Radio

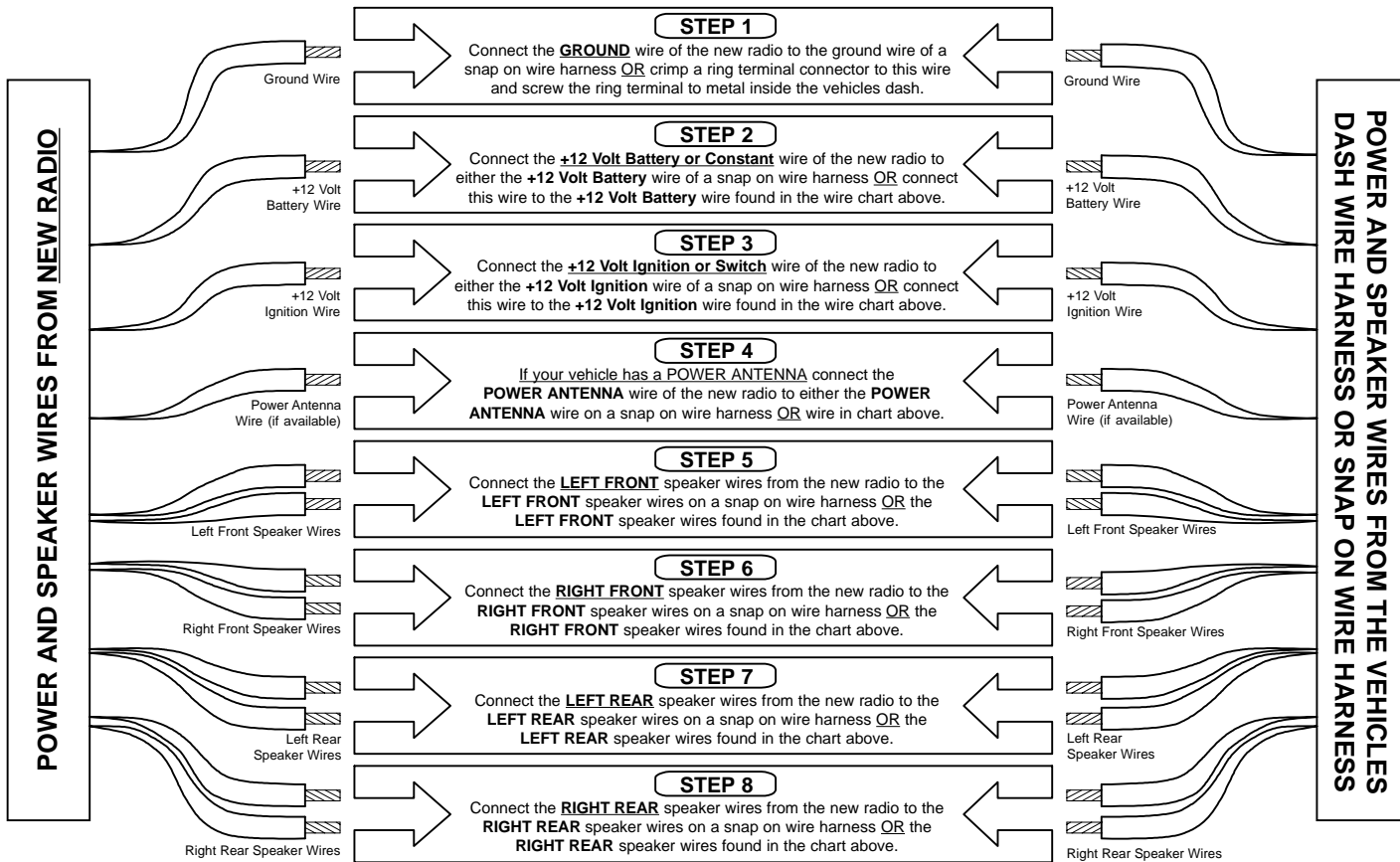
(Note: the radio shown is for display purposes and may not be similar in size or dimensions than the auto makers factory radio in your vehicle)

Supplemental information if you need help

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

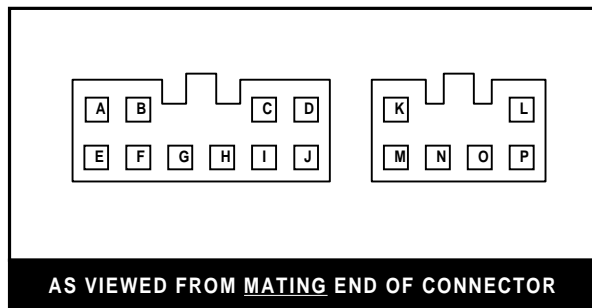
Wiring Instructions:

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 Wire & Color Code Information

Factory in-dash wire harness (this vehicle has a 2 pc harness)
that snaps into the factory radio

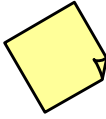


Pin	What It Is	Typical Toyota In Dash Wire Color	Typical New Radio Equivalent Wire Color
A	Right Front Speaker (+)	Green	Gray
B	Left Front Speaker (+)	Pink	White
C	+12 Volt Ignition Wire	Gray	Red
D	+12 Volt Battery Wire	Blue w/ Yellow Stripe	Yellow
E	Right Front Speaker (-)	Blue	Gray w/ Black Stripe
F	Left Front Speaker (-)	Purple	White w/ Black Stripe
G	Ground Wire	Black	Black
H	Power Antenna Wire 1		Blue (join wires 1 & 2
I	Power Antenna Wire 2		together to this blue wire)
J		Do Not Use	
K	Right Rear Speaker (+)	Red	Purple
L	Left Rear Speaker (+)	Black	Green
M	Right Rear Speaker (-)	White	Purple w/ Black Stripe
N		Do Not Use	
O		Do Not Use	
P	Left Rear Speaker (-)	Yellow	Green w/ Black Stripe

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.

** The wire colors listed in the chart above are typical for this vehicle manufacturer 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. **

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NOTE:

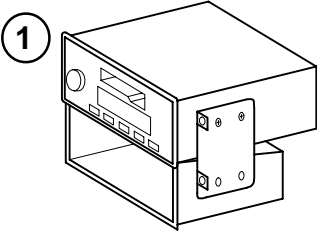
Before you begin: The best method to mount a new radio in this vehicle is to unscrew the auto makers factory radio from the brackets attached to the radio and screw the new radio into the brackets just as the factory radio was. This keeps the vehicle looking as stock from the factory as possible and means that you do not have to purchase an installation kit to mount the radio.

This method is called **"ISO" mounting a radio**. "ISO" mounting a radio has become a very common installation method for new replacement radio. In order to "ISO" mount your radio, three things must exist:

- 1) The radio must be a 'DIN' style rectangular radio
- 2) The 'DIN' radio must have mounting holes pre-drilled into the side of the radio to allow the radio to be 'ISO' mounted
- 3) The radio must have a removable trim ring surrounding the face of the radio

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:

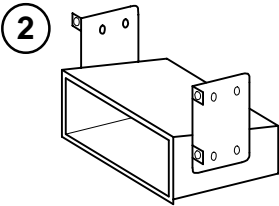
Document Title	Document #
Why use radio installation kits	999005
Mounting your radio to an installation kit	999007
Radio security	999010



Auto makers original radio with attached pocket below the radio

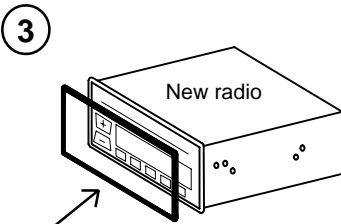
1 Remove the auto makers factory radio/pocket assembly from the vehicle. Remove the screws/bolts securing the radio to the brackets which are also attached to the sides of the pocket below the radio.

Removal Tip: some auto makers use phillips screws, some use 8 mm bolts with phillips screw cutouts in the top of the bolts. For best results use a socket to prevent stripping out the screws. If your radio has hard to remove phillips screws, insert the phillips screwdriver into the phillips screws and firmly tap with a hammer to "break" the tension bond between the phillips screws and the metal chassis of the auto makers factory radio. Then attempt to unscrew the phillips screws.

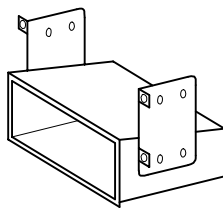


2 Remove the auto makers factory radio, but leave the brackets attached to the pocket.

What if you do not have a pocket? If the radio in your vehicle was a Double 'DIN' radio (or it did NOT have the pocket below the factory radio) **The Install Doctor STRONGLY recommends that you convert your radio assembly over to use a pocket below the radio.** You can purchase the pocket from a Nissan dealership or you can purchase a "multi" pocket radio installation kit that is designed to fit bracket-pocket applications such as this application. Once you have the pocket, secure the pocket to the metal brackets and you can avoid using radio installation kits to mount the new radio to the dash.

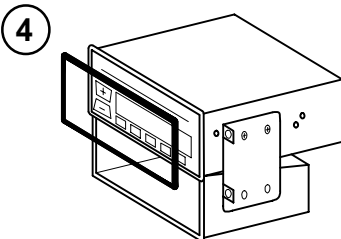


New radios removeable trim ring surround the face of the radio

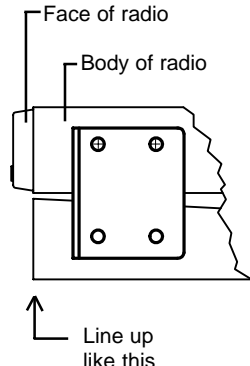


On the side of the new 'DIN' radio should be pre-drilled holes to allow you to 'ISO' mount the new radio into the brackets. Most car radio manufacturers design their radios with many holes on the side of the radio so the radio can be mounted to many different kinds of bracket/pocket configurations.

If you are going to mount your radio in this manner, you will probably have to remove the radios face trim ring around the face of the radio. This trim ring will most likely prevent the vehicles dash panel from securing properly back onto the dash.



New radio attached to the auto makers pocket and brackets



A common **mistake** when mounting your new radio to the auto makers radio bracket and pocket is selecting the wrong holes on the side of the new radio.

The new radio body, **NOT THE FACE PLATE**, should line up with the pocket below the radio. Most new radio manufacturers design their radios with a face that protrudes out from the body of the radio (or even faces that detach from the body). The most common mistake is to mount the new radio with the protruded face lined up level with the pocket below the radio, not the new radios body.

(if the radio does have a detachable face, and the front of the detachable face is lined up with the pocket there will be a large gap when the face is detached from the body. If the body is lined up with the pocket and the face is detached, the body will still be lined up with the pocket and there will be no gap.)