IMPORTANT

Before starting, compare items on your invoice with items received. Carefully check through packaging material. If any item is missing, please call: Crutchfield Customer Support at 1-800-955-9091

Although reasonable attempts are made to verify the accuracy of the information contained in this guide, it is presented without warranties or guarantees of any type due to the constantly changing nature of this type of information and running changes in vehicle production. Any person or entity using this information does so at his, her, or its own risk. If you find our instructions are different from your vehicle, or if you have questions, do not continue with your installation. Contact our toll-free technical support for assistance (tech phone number is on your invoice).

Tools Needed: (depending upon vehicle)

As with any car audio/video installation, your first step is to set the parking brake and disconnect the negative terminal of your car battery to prevent short circuits. Check your Crutchfield MasterSheet™ (available for most vehicles) or vehicle owner’s manual for specific directions. In some vehicles, disconnecting the battery may require you to re-enter a security code or have the dealer reset the internal computer.
Removing The Factory Stereo

For detailed information on how to remove the factory stereo in a specific vehicle, refer to your Crutchfield MasterSheet™ instructions (available for most vehicles). They will walk you through the process step-by-step. Otherwise, you may use the general guidelines below.

Your factory stereo will be mounted in one of two ways:

1. Secured in a metal mounting sleeve by spring clips
2. Bolted to the dash with brackets

Spring clip mounting
If the stereo is held in by spring clips, you’ll need a pair of DIN tools. Insert the DIN tools into the holes on either side of the unit until a click is heard. The tools will release the spring clips and hook onto the sides of the stereo so that you can pull it out easily. Spread the tools apart slightly then pull the stereo out of the dash.

Bolted in place
Sometimes, accessing the stereo requires the removal of one or more trim panels from the dash. You may have to (carefully) pry the plastic trim away from the dash (it is often secured by hidden pressure clips), or locate and remove bolts to disassemble other pieces of panel. Once you have gained access to the factory stereo, removal should be obvious. The stereo will almost always be secured by four screws, sometimes bolted directly to the front of the dash, other times secured to side brackets. Remove the screws and pull the stereo from the dash.

Unplugging the factory stereo
If your vehicle has (or once had) a factory stereo, or if it was pre-wired with a “stereo prep” package, there should be at least one plastic wiring harness behind the stereo opening. The plug(s) connects the stereo to your vehicle’s electrical system, and also makes the speaker connections. You will need to unplug the factory stereo from its wiring harness, and unplug the antenna to complete the removal process.

Disconnect your battery, following the instructions on your Crutchfield MasterSheet™ or vehicle owner’s manual before any installation job.

DIN tools are used to release spring clips that secure some factory stereos.

Four Phillips screws secure the factory stereo in a 1992-94 Geo Metro.

Four bolts and a pair of side brackets attach the stereo to the dash in a 1998 Toyota Sienna.
Prepping The New Stereo

Prepping the new stereo
If Crutchfield carries a custom wiring harness for your vehicle, you can use it to connect your new stereo to your vehicle’s factory wiring harnesses. This will ensure that everything works seamlessly, just like the factory stereo did. You must refer to your new stereo’s instructions to match the wires to the wiring harness.

If a harness is not available for your vehicle or if the factory stereo plug was cut off, you’ll need to identify each of the factory stereo wires in order to connect them to the corresponding wires of your new stereo.

An important safety warning:
Warning chimes in certain vehicles may be disabled by installation of an aftermarket stereo. In these cases, you must use the recommended Crutchfield integration adapter to retain the warning chimes. Failure to do so may result in serious injury or death.
Decide whether you want to crimp or solder the wires together. Crimping is faster and easier. If you crimp the wires together, be sure to use the correct size crimp connector — typical in-dash stereo wires are 18-gauge, but a few use heavier gauge power and ground wires. There are several types of crimp connectors, including bullet connectors (not shown), butt connectors, or crimp caps (pictured below).

Soldering creates a permanent, professional connection that ensures maximum current transfer. We strongly recommend that you use heat-shrink tubing and a heat gun to insulate the soldered connection. Avoid taping the wires together — the tape will dry out and fall off, exposing the wires and making it only a matter of time before something shorts out.

**Crimp Method**

A. Strip wires back 1/2"

B. Twist wires together and insert in crimp cap.

C. Squeeze middle of cap for tight connection.

**Tools Required**

- Wire Stripper/Crimp Tool
- Crimp Caps

**Solder Method**

A. Strip wires back 1/2"

B. Twist wires together

C. Solder
   2. Touch solder to wire, not to iron.

**Tools Required**

- Soldering Iron
- Solder
- Heat Gun & Shrink Tubing
Installing The New Stereo

**Power**

Usually, it is best to make all of the new stereo’s wiring connections via the wiring harness, but if you have to make a direct power connection, you’ll need to know the difference between “switched” and “constant” power.

A **switched power** source is only on when the ignition is keyed — connect your new stereo’s main (switched) power lead to a switched power source, so that the stereo will turn off when you turn off the car, and not drain your vehicle’s battery.

A **constant power** source is always on — connect your new stereo’s memory lead to a constant power source, so that you don’t lose your stereo presets, sound shaping, and clock settings every time you turn off the vehicle.

A few high-powered stereos require you to make a direct constant power connection at the positive terminal of your vehicle’s battery. This requires a heavier gauge power wire, an in-line fuse (usually included), and a ring terminal to connect the power wire to the battery clamp. You will have to route the power wire through the vehicle firewall and into the engine compartment in order to make the connection at the battery.

**Ground**

A good ground connection is vital for proper stereo performance. If you are not using a custom wiring harness, look for a bolt, screw, or wire that contacts the bare metal of your vehicle’s chassis. Loosen the bolt, slip the ground wire underneath (this is almost always a black wire), then tighten the bolt. If your ground wire doesn’t contact bare metal, your stereo won’t operate. A loose or weak ground connection can result in signal noise interfering with your music.

**In-dash video wiring**

If your new stereo has a video monitor built in, you will also need to connect a wire to your emergency brake wire. This wire acts as a switch to turn on the video monitor when the parking brake is engaged.

Follow the instructions included with your in-dash monitor to locate the emergency brake ground wire.

**Installing the new stereo**

If the original stereo was bolted into the dash, you might need to remove the mounting brackets from its sides and attach them to the sides of your new stereo. More likely, you will need a mounting kit (which may include a trim ring, a dash insert, brackets, a faceplate, and/or a metal mounting sleeve) to install the stereo (Figure 1).

If a mounting kit is required, install it first. Then slide the new stereo’s metal mounting sleeve (if included) into the kit. Secure the metal sleeve by using a screwdriver to bend the sleeve’s metal tabs into place (Figure 2).

Once the dash opening is ready for the new stereo, hold the stereo near the opening. Connect the stereo wiring adapter to the vehicle’s wiring harness and plug in the antenna cable.

Slide the stereo into the dash opening, but don’t fasten it down just yet. First, test the stereo to make sure everything is working properly. It’s easier to fix a problem while everything is still exposed. Turn on the power and try each source (AM, FM, and CD). Then adjust the balance and fader settings to check that each speaker is working. Once you’re sure the stereo is wired and working properly, finish securing it in the dash and reinstall any pieces of dash trim panel that you removed.

**Installing a backstrap**

A mounting bracket — or backstrap — is often included with new stereos. For most installations, a backstrap usually is not a necessary part of the installation process. However, it can be useful to help support the stereo in your dash; it also helps reduce vibration. One end of the backstrap attaches (with a screw) to the rear of the stereo. The other end attaches to an existing bolt or screw behind the dash. Just bend and shape the backstrap as necessary to enable mounting.

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**IMPORTANT SAFETY WARNING:**

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Can You Do It?

Dealing with “Premium” factory systems
If your vehicle has a Premium sound system or an integrated stereo and climate control panel, you will probably need a special “OEM integration” adapter in order to install a new stereo. The appropriate adapter can be purchased from crutchfield.com.

Evaluation
By now you should have some idea of what’s involved in replacing your factory stereo with a new, better aftermarket stereo. The next step is to see if Crutchfield has a MasterSheet™ for your vehicle. These installation instructions (custom designed for your vehicle) will describe every step of the process and tell you where to find each screw you need to remove for the installation. Crutchfield MasterSheets™ are available for most vehicles — call a Sales Advisor to see if we carry a MasterSheet™ for your vehicle.

Even without a Crutchfield MasterSheet™, most people can install an in-dash stereo without much trouble, using the tips in this article. Installing it yourself means you don’t have to pay installation fees.

Tech Tips

- In some vehicles, especially Nissans and Toyotas, the trim ring supplied with the new stereo is not used. There will be a gap around the radio chassis.

- Factory wire colors will not match stereo wiring adapter colors. The adapter colors should match color for color to the new stereo wiring. Be sure to check their function.

- Some wires that may not be used are the cell phone, mute and illumination/dimmer wires. If there is not a match on the stereo wire adapter these wires can be taped up.

- Some vehicles have factory amplifiers. If the stereo appears to be playing but no audio is present, it may be necessary to connect the Amp Remote lead from the new stereo to the Blue or Blue/White lead on the wiring adapter harness. Ford premium, Mach Audio, Bose and Infinity are a few factory systems that require this connection.

- If the radio does not power up after installation, be sure to check the factory fuses to see if they are blown. If the fuses seem to be okay, take the radio out to the vehicle battery. Connect the red and yellow wires to the positive post and the black ground to the negative post. Turn radio on to see if it works. If so, recheck the yellow and black wires in the dash.