Wiring Your New Radio Using A Snap On Wire Harness Adapter

Document# 999009
Using A Snap On Wire Harness Adapter

The Install Doctor STRONGLY recommends using a snap on wire harness adapter when replacing the auto makers factory installed radio with a new replacement radio. These snap on wire harness adapters are custom designed to plug into the auto makers indash radio wire harness that originally plugged into the rear of the auto makers factory radio. Because each snap on wire harness is custom designed to fit only a specific auto makers indash wire harness, these are not included with new replacement radios but can be purchased separately.

Power And Speaker Wires

When the auto makers original factory radio is removed, a dash wire harness will unplug from the rear of the radio. For most vehicles all necessary wires to complete the installation of a new replacement radio will be connected to this in dash wire harness.

Power Wires:

(+) 12 Volt Battery Wire (also referred to as the “Constant” wire): (typical replacement radio wire color: Yellow)
This wire allows the radio to have a constant power source for the radio to memorize the correct time and to memorize station presets. The vehicles (+) 12 Volt Battery Wire is almost always attached to the indash wire harness that was originally plugged into the rear of the auto makers original factory radio.

(+) 12 Volt Ignition Wire (also referred to as the “switched” power wire): (typical replacement radio wire color: Red)
This wire is the vehicles as well as the radios on/off switch. This wire will turn the radio on when the ignition is turn on, and turns the radio off when the ignition is turned off. As with the (+) 12 Volt Constant/Battery wire, the vehicles (+) 12 Volt Ignition wire is almost always attached to the indash wire harness that was originally plugged into the rear of the auto makers original factory radio.

Ground Wire: (typical replacement radio wire color: Black)
This wire completes the electric circuit that powers the radio. Many times plugging the antenna into the radio will give a ground for the radio to operate. However, this is not recommended. Unlike the (+) 12 Volt Constant/Battery and (+) 12 Volt Ignition wire, many auto makers do NOT place a ground wire in the radios indash wire harness. Many auto makers factory radios use metal brackets to mount and secure the factory radio to a metal dash. For these radios, the ground is actually a ground path through metal instead of a ground wire. When installing radios where no ground wire exists in the indash wire harness, it is best to crimp on a ring terminal connector to the new replacement radios ground wire and screw the ring terminal and attached ground wire to the metal of the dash when mounting the new radio.

Power Antenna Turn On Wire: (typical replacement radio wire color: Blue)
This wire sends a small pulse of voltage that will activate a power antenna on a vehicle. More commonly in modern car stereo systems the power antenna wire is used to activate or turn on an amplifier. Amplifiers require a “remote turn on” to let the amplifier know the radio has been turned on. The power antenna wire is a perfect wire to do this.

Speaker Wires:

Left Front speaker wire: (typical replacement radio wire colors: (+) Positive: White, (-) Negative: White with black stripe)

Right Front speaker wire: (typical replacement radio wire colors: (+) Positive: Gray, (-) Negative: Gray with black stripe)

Left Rear speaker wire: (typical replacement radio wire colors: (+) Positive: Green, (-) Negative: Green with black stripe)

Right Rear speaker wire: (typical replacement radio wire colors: (+) Positive: Purple, (-) Negative: Purple with black stripe)
A Visual Of Radio Wiring

Vehicles Radio Dash Wire Harness

Optional Snap On Wire Harness

The wires attached to the optional snap on wire harness will splice or connect to the wires of the new radio. The wire harness will then plug or snap into the vehicles dash radio wire harness.

Power and Speaker Wires From The New Replacement Radio (For The Easiest And Most Reliable Installation, Splice These Wires Directly To An Optional Snap On Wire Harness. The Snap On Wire Harness Will Plug Into The Vehicles Dash Wire Harness Preventing The Need To Cut The Vehicles Wires And Make Installation Quicker As Well As Saving Any Warranty The Vehicle May Have.)

STEP 1
Connect the GROUND wire of the new radio to either the GROUND wire in the vehicles dash wire harness OR connect this wire to a ring crimp connector and screw it into metal of the vehicles frame.

STEP 2
Connect the +12 Volt Battery or Constant wire of the new radio to the +12 Volt Battery or Constant wire in the vehicles dash wire harness OR an optional snap on wire harness.

STEP 3
Connect the +12 Volt Ignition or Switch wire of the new radio to the +12 Volt Ignition or Switch wire in the vehicles dash wire harness OR an optional snap on wire harness.

STEP 4
If your vehicle has a POWER ANTENNA connect the POWER ANTENNA wire of the new radio to the Power Antenna wire in the vehicles dash wire harness OR an optional snap on wire harness.

STEP 5
Connect the LEFT FRONT speaker wires from the new radio to the LEFT FRONT speaker wires in the vehicles dash wire harness OR an optional snap on wire harness.

STEP 6
Connect the RIGHT FRONT speaker wires from the new radio to the RIGHT FRONT speaker wires in the vehicles dash wire harness OR an optional snap on wire harness.

STEP 7
Connect the LEFT REAR speaker wires from the new radio to the LEFT REAR speaker wires in the vehicles dash wire harness OR an optional snap on wire harness.

STEP 8
Connect the RIGHT REAR speaker wires from the new radio to the RIGHT REAR speaker wires in the vehicles dash wire harness OR an optional snap on wire harness.

The Install Doctor STRONGLY recommends using a snap on wire harness adapter when installing and wiring a new replacement radio.

For additional information on wiring a new replacement radio, please consult the following technical documents:

999003 Radio Install Basics (How Aftermarket Radios Integrate Into Electronics Of Vehicles)
999004 Soldering vs. Crimping Your Wire Connections (When And Why To Use Each Method)
999008 Why Use A Snap On Wire Harness Adapter
999013 Testing And Verifying Power And Speaker Wires When Installing A New Radio
999501 How To Eliminate Engine Noise (For Basic Radio Installations)