INSTALLATION MANUAL

Level of Difficulty

Difficult

Installation difficulty levels are based on time and effort involved and may vary depending on the installer level of expertise, condition of the vehicle and proper tools and equipment.

Electrical Ratings

Signal circuits	7.5-amps per side
Tail / Running Circuits	7.5-amps total

Check vehicle owner's manual or contact the vehicle manufacturer for more information.

Wiring Location(s)

See below for all locations based on vehicle

Wiring Location Guide* for SUVs and Vans (S)

S1	Behind driver side taillight housing
S2	Behind passenger side taillight housing
S3	Behind driver side rear access panel
S4	Behind passenger side rear access panel
S5	Behind driver side rear bumper
S7	Behind passenger side rear bumper

Wiring Location Guide* for Passenger Cars (P)

P1	Behind driver side taillight housing, outside of trunk
P2	Behind passenger side taillight housing, outside of trunk
P3	Behind driver side taillight housing, inside of trunk
P4	Behind passenger side taillight housing, inside of trunk
P5	Behind driver side rear bumper
P7	Behind passenger side rear bumper

Wiring Location Guide* for Trucks (T)

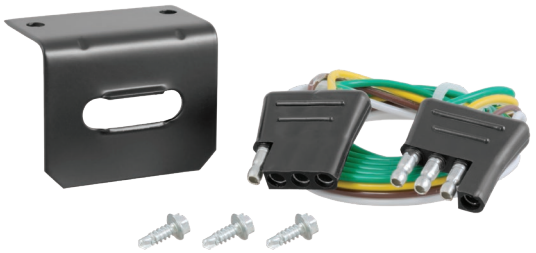
T1	Behind driver side taillight housing
T2	Behind passenger side taillight housing
T3	Behind driver side rear bumper
T5	Behind passenger side rear bumper

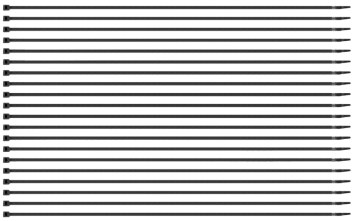
⚠ WARNING

Do not exceed product rating or tow vehicle lamp load rating, whichever is lower.

Product Photo

Included Parts





NOTICE

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

All steps must be followed to ensure the product will function properly. Once installed, test for proper function by using a test light or connecting a properly wired trailer.

Maintenance

Periodic inspection of all wires and connections should be performed to ensure there is no visible damage or loose connections.

Tools Required

Ratchet	Phillips screwdriver	Cutting tool
Socket (varies depending on vehicle type)	Flathead screwdriver	Wire crimper
Socket extension	Trim panel removal tool	Wire stripper
Ratchet extension	Drill	Heat gun
Test light / probe	Drill bit, 3/32"	--

VEHICLE WIRING TYPES

How to determine your vehicle wiring type

First, determine which wires will not be used for installation. With the vehicle running, check to ensure all lights are off at the back of the vehicle. With all vehicle lights off, probe the taillight connectors while they are still connected to the vehicle.

If using a multimeter:
Ensure the meter is in the DC volt setting. Any wires carrying greater than two volts will not be used to determine vehicle wiring type and will not be used by the taillight converter.

If using a test light:
Any wires that illuminate the bulb, dim or fully, will not be used to determine vehicle wire type and will not be used by the taillight converter.

Vehicle wiring type and function signal location in the housing can now be determined by activating each light's circuit, one at a time, and probing the remaining wires. Follow the chart below.

Vehicle Wiring Type	Wiring Description	Wire Probing Voltage on Vehicle Wires			
--	--	Only PS signal activated	Only brakes depressed	Only DS signal activated	Only tail lamps activated
Two-wire	Combined stop and turn signal with an independent tail signal	12V flashing signal on PS	12V signal on both sides - same wire as turn signal	12V flashing signal on DS	12V signal on tail
Three-wire	Independent stop, turn and tail turn signals	12V flashing signal on PS	12V signal on stop wire on both sides	12V flashing signal on DS	12V signal on tail

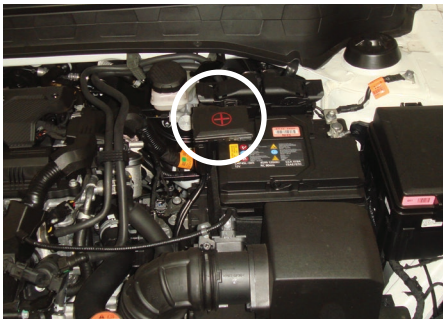
Step 1

Locate the taillight wiring of your vehicle. Refer to the appropriate 'wiring location guide' on page 1 of the instruction manual.

Identify the wiring type of your vehicle using the 'how to determine vehicle wiring types' above. Make note of the function for each wire color.

Step 2

Locate the vehicle battery and disconnect the negative battery terminal. Be sure to fasten this wire down and away from the battery while completing the installation process.



WIRING INSTALLATION

Vehicle Wiring Type	Green Wire	Red Wire	Yellow Wire	Brown Wire
Two-wire	Not used - Close tubes with heat shrink	Splice into labeled side brake / turn wire	Not used - Close tubes with heat shrink	Splice to tail wire
Three-wire	Splice to right turn wire	Splice into labeled side brake wire	Splice to left turn wire	Splice to tail wire

Step 3

Use the above table to determine the brake, turn signal and taillight wires. Cut the wires and use a wire stripper to strip 5/16" of the wire coating off both ends of all the cut wires. Crimp the side of the harness labeled 'input' to the side going to the front of the vehicle and crimp the side labeled 'output' to the side that goes to the taillight.

Step 4

Using a heat gun, heat the shrink-wrap to seal the connections off from potential corrosion.

Step 5

Locate a suitable grounding point near the connector such as an existing screw with nut in the vehicle frame or drill a 3/32" pilot hole for the provided screw. The area should be free of rust, dirt and paint. Secure the white ground wire using the ring terminal and provided screw.

⚠ WARNING

Check for miscellaneous items that may be hidden behind or under any surface before drilling to avoid damage and / or personal injury.

Step 6

Test the functionality of the harness with a vehicle with working trailer lights. Secure any loose wires with the provided cable ties.

Reinstall all items removed during install. If it was disconnected at the beginning of the installation, reconnect the negative battery terminal.

Step 7

If wires are on the exterior, a fish wire may be needed to properly route the harness to the vehicle under the vehicle between the body and bumper covers.

How to Fishwire

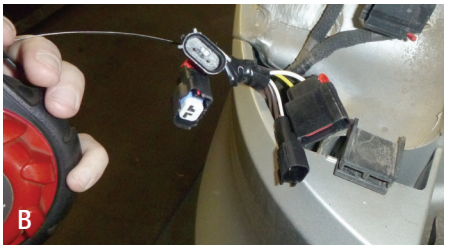
A) Fish wire is a way to push or pull an electrical wire through a blind hole. Make sure the wire is long enough to stick out on the other side.

Insert the fish wire through the blind hole and locate it on the other side.

B) Use tape to secure the harness to the fish wire and pull back up.

The fish wire or harness may get hung up on something, if this happens you may have to push back down, wiggle it around or twist the wire to loosen it from what it's hung up on.

Fish wire could be anything from a cut-up wire hanger, stiff wire, rope or string depending on what is needed for the installation.



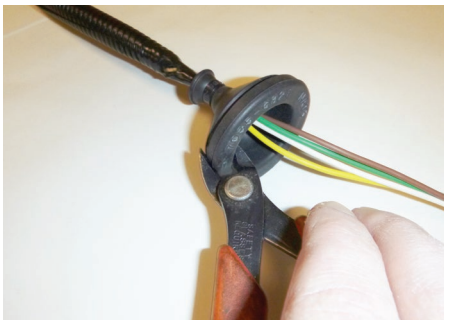
Step 8

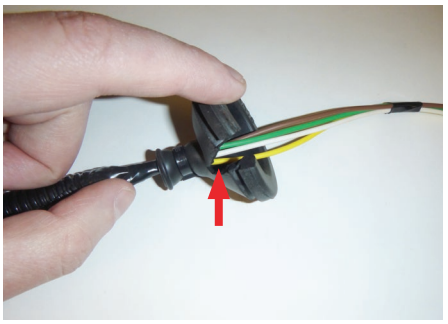
If the wires are inside the vehicle, locate an opening large enough to route the 4-flat out, such as a grommet.

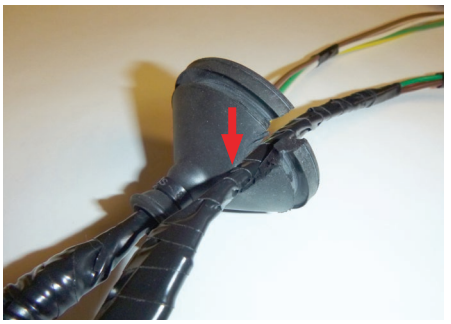
If applicable, locate a grommet on the interior floor pan that has a hole in it large enough to route the custom wiring harness through. If there is not a hole in the floor pan, you will need to drill one.

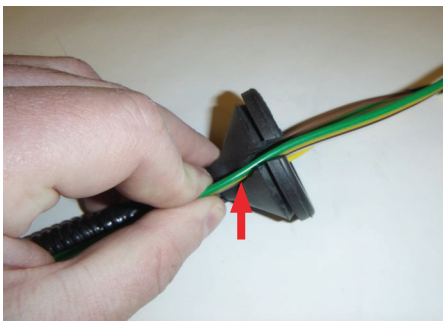
If a grommet is available, remove from the body of the vehicle. Using a wire cutter, make a cut into the grommet big enough to allow the wiring to be placed inside the mounting groove of the grommet. Be careful not to cut any wires.

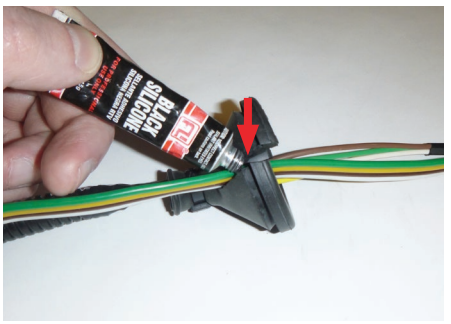
Route the RV harness up from the underside of the vehicle, into the trunk through the grommet opening / drilled hole. If applicable, reseat the grommet. Use the provided sealant to seal the cut in the grommet and around all the wires. Apply additional sealant as needed once the grommet has been reseated to ensure a tight seal. This will keep the trunk dry and exhaust out of the vehicle.











Step 9

Route the 4-flat above any moving or hot parts such as the suspension, driveline or exhaust.
Use the provided cable ties to loosely secure the wires until the harness is completely routed to the front of the vehicle. Tighten all cable tie connections once the harness has been routed to the front of the vehicle.