INSTALLATION MANUAL

Level of Difficulty

Moderate to hard (based on vehicle)

Electrical Ratings

Signal circuits	5.0-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 page 2 for wiring location guide

Tools Required

Test light	Utility knife
Electrical tape	Wire crimper
Paper	Wire stripper
Pen	--

Testing Procedure

If testing with a test light, attach the ground lead of the tester to the exposed ground terminal of the 6-pin connector. Activate the tow vehicle left turn, right turn, tail, brake, and reverse lights one at a time. Probe the three receptacles of the 6-pin connector end to confirm proper functionality.

The short circuit, overload and thermal protection of the powered converter may cause the headache rack lamps to pulse on briefly every two seconds. If this pulsing is seen when testing with a trailer, this is an indication that the lamp circuits exceed the ratings of the product or there is a wiring issue with the headache rack.

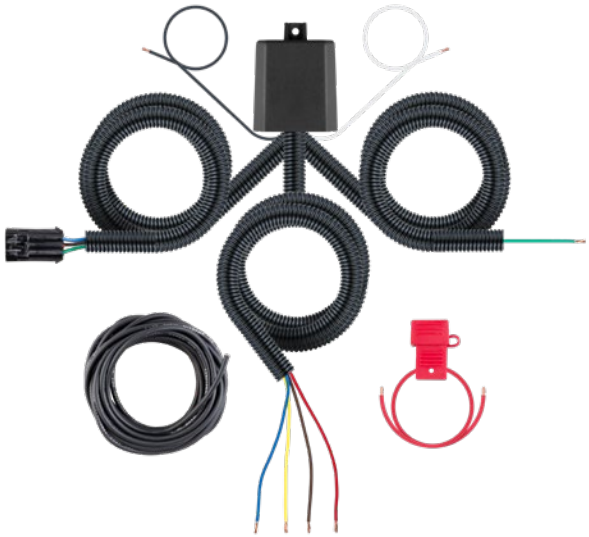
⚠ WARNING

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

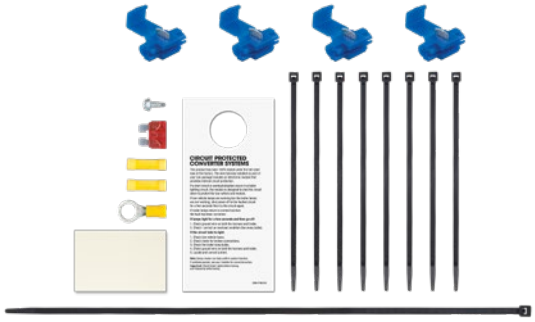
The battery connection must be fuse-protected, 10-amp max. Exceeding the product rating can cause loss of warranty, overheating and potential fire.

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

Product Photo



Hardware Photo



NOTICE

Before you begin installation, read all instructions thoroughly.

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

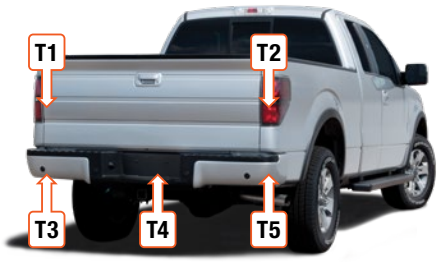
All steps must be followed to ensure the product will function properly. Once installed, test for proper function by using a test light or connecting a properly wired trailer.

Maintenance

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

WIRING LOCATION GUIDES

Wiring Location Guide* for Trucks (T)	
T1	Behind driver side taillight housing
T2	Behind passenger side taillight housing
T3	Behind driver side rear bumper
T4	Behind center of rear bumper fascia
T5	Behind passenger side rear bumper



* Representative vehicle shown

DETERMINING VEHICLE WIRING TYPES

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 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
PWM-ST	Combined stop and tail signal with an independent turn signal	12V flashing signal on PS	12V signal on stop / tail wire on both sides - same wire used as stop and tail	12V flashing signal on DS	12V-5V signal or dim lamp on stop / tail wire on both sides - same wire used as stop and tail
PWM-STT	Combined stop, turn and tail signal	12V flashing signal on PS - same wire used as stop, turn and tail	12V signal on stop / turn / tail wire on both sides - same wire used as stop, turn and tail	12V flashing signal on DS - same wire used as stop, turn and tail	12V-5V signal or dim lamp on stop / turn / tail wire on both sides - same wire used as stop, turn and tail

Step 1

Locate the vehicle battery. Look up the battery location in the owner's manual of your vehicle. Disconnect the negative battery terminal. Be sure to fasten this wire down and away from the battery when completing the installation process.

Step 2

Locate vehicle taillight wiring. Refer to the wiring location guides on page two.

Identify the wiring type of your vehicle using the 'How to Determine Vehicle Wiring Types' instructions on page two.

Locate vehicle battery and disconnect the negative battery terminal.

Step 3

Using snap locks, attach the input wires of the taillight converter to the corresponding vehicle harness wires identified in Step 2 using the 'Wiring Installation' table below.

Step 4

Locate a flat spot inside the vehicle, near the taillight. Adhere the black converter box using the provided double-sided tape.

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 5

Mount the converter a secure position and route the 6-pin connector to the driver side between the rear of the cab and front of the box. Attach to the headache rack.

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.

Follow the power wire instructions below.

WIRING INSTALLATION

Vehicle Wiring Type	Green Wire	Red Wire	Yellow Wire	Brown Wire
Two-wire	Splice to right stop / turn wire	Ground with white wire	Splice to left stop / turn wire	Splice to tail wire
Three-wire	Splice to right turn wire	Splice to stop wire	Splice to left turn wire	Splice to tail wire
PWM-ST	Splice to right turn wire	Splice to stop / tail wire	Splice to left turn wire	Ground with white wire
PWM-STT	Splice to right turn / stop / tail wire	Ground with white wire	Splice to left turn / stop / tail wire	Ground with white wire

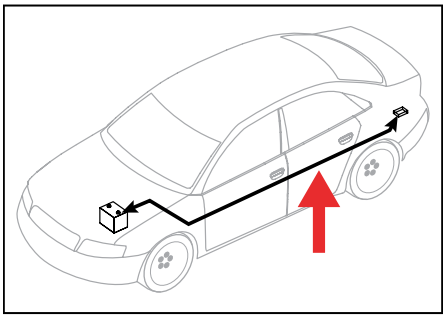
POWERED CONVERTER LEAD INSTRUCTION SHEET
FICHE DE CONSIGNES DU CONVERTISSEUR D'ALIMENTATION
HOJA DE INSTRUCCIONES DEL CONDUCTOR DEL ADAPTADOR ALIMENTADO POR BATERÍA

NOTICE
AVIS / AVISO

Illustrations are for reference only. Battery location may differ depending on the vehicle.

Les images ne sont fournies qu'à des fins de référence. L'emplacement de la batterie peut varier en fonction du véhicule.

Las ilustraciones son solo para referencia. La ubicación de la batería puede variar según el vehículo.



WARNING
AVERTISSEMENT / ADVERTENCIA

Route 12 GA wire to vehicle battery location, taking care to avoid any pinch points and hot or rotating components.

Acheminer le câble de calibre 12 à la batterie du véhicule en prenant soin d'éviter les points de pincement et les éléments chauds ou pivotants.

Pase el cable calibre 12 hacia la ubicación de la batería del vehículo, con cuidado de evitar atascos y componentes calientes o giratorios.

WARNING
AVERTISSEMENT / ADVERTENCIA

To avoid personal injury or property damage, check for miscellaneous items that may be behind or under any surface before drilling.

Pour éviter les blessures et les dommages matériels, vérifier les divers articles qui peuvent se trouver derrière ou sous la surface avant de percer.

Para evitar lesiones personales o daños materiales, verifique que no haya ningún elemento detrás o debajo de la superficie antes de perforar.

NOTICE
AVIS / AVISO

1. This converter system is to be used only on 12 volt negative ground systems.
2. Secure power wire to vehicle chassis using cable ties provided.
3. When passing the power wire through sheet metal, use an existing grommet, add a grommet or use silicone to protect the power wire from sharp edges.
4. Overall T-connector design may differ from illustration. The illustration should be used for power lead instruction only. Illustration is not to scale.

1. Ce système de convertisseur ne doit être utilisé qu'avec une prise de masse de polarité négative de 12 volts.
2. Fixer le câble d'alimentation au châssis du véhicule à l'aide des courroies d'attache de câble fournies.
3. Utiliser un œillet existant, ajouter un œillet ou appliquer du silicone pour protéger le câble d'alimentation des rebords tranchants au moment de le passer à travers la tôle.
4. La disposition générale du connecteur en T peut différer de l'illustration. Celle-ci ne doit être utilisée que pour le convertisseur d'alimentation. L'illustration n'est pas à l'échelle.

1. Este sistema de adaptadores solo se debe utilizar con sistemas con polo negativo a masa de 12 voltios.
2. Sujete el cable de alimentación al chasis del vehículo utilizando los sujetacables suministrados.
3. Al pasar el cable de alimentación por la lámina de metal, utilice la arandela pasacable existente, agregue una arandela pasacable o utilice silicona para proteger el cable de alimentación de los bordes filosos.
4. El diseño general del conector T puede ser distinto de la ilustración. La ilustración solo se debe utilizar para la instrucción del conductor de alimentación. La ilustración no está a escala.