

# INSTALLATION INSTRUCTIONS

## 7-WAY VEHICLE PREP KIT

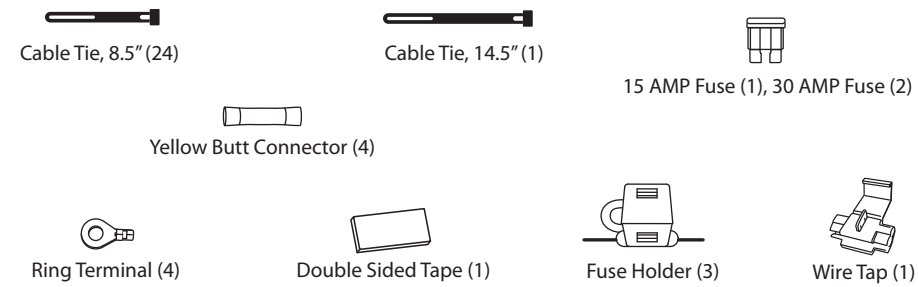
Approximate Install Time: 120 minutes

### READ THIS FIRST:

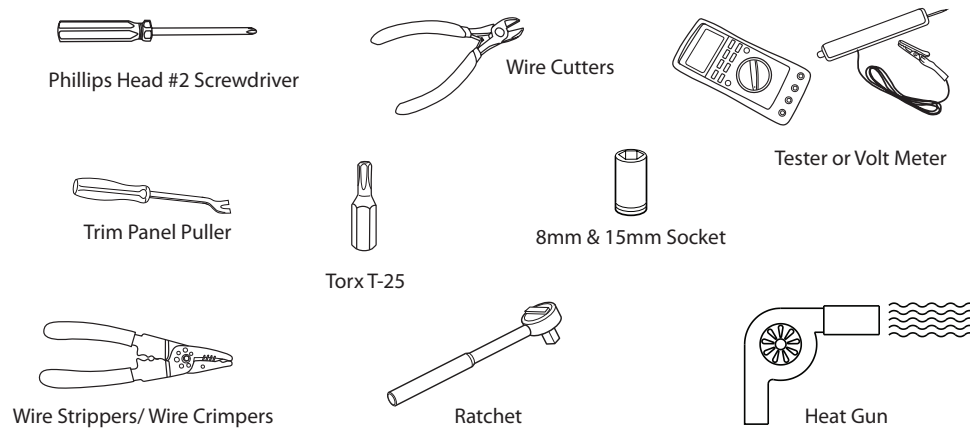
Read and follow all vehicle warnings and installation instructions before beginning installation. Wear safety glasses and use all safety precautions during installation.



### HARDWARE OVERVIEW:



### REQUIRED TOOLS :



### WARNING

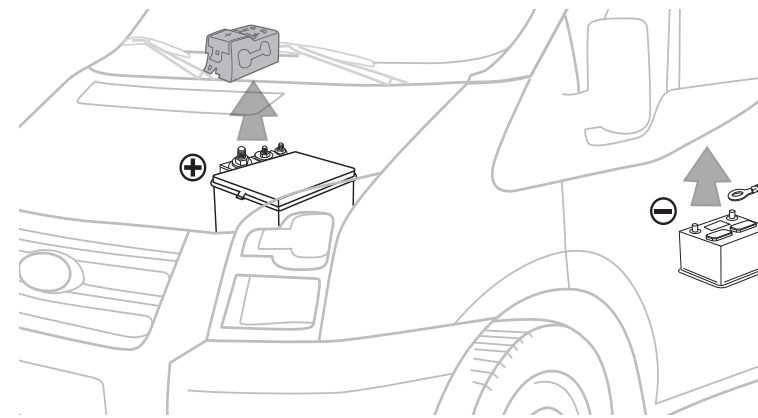
Overloading circuit can cause fires. DO NOT exceed:

- Max. stop/turn/backup light: 2 per side (4.2 amps)
- Max. tail lights: (7.5 amps)
- Max. 7 Way 12 Volt +: (30 amps)

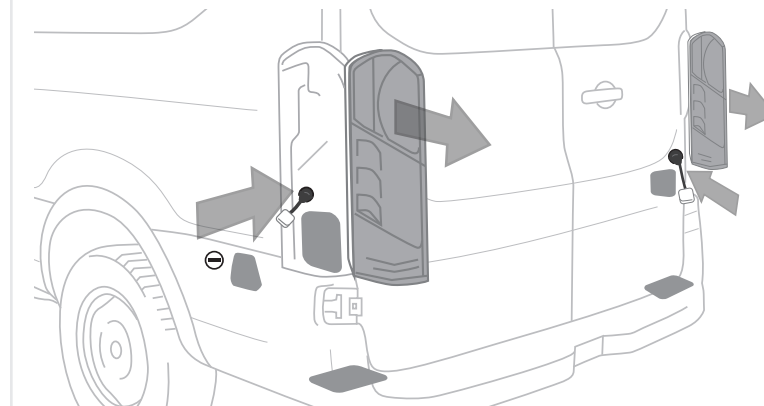
Read vehicle's owners manual & instruction sheet for additional information.

### PREP VEHICLE:

- Disconnect and isolate the vehicle's negative battery terminal.
- Locate positive post underneath hood, on drivers side.

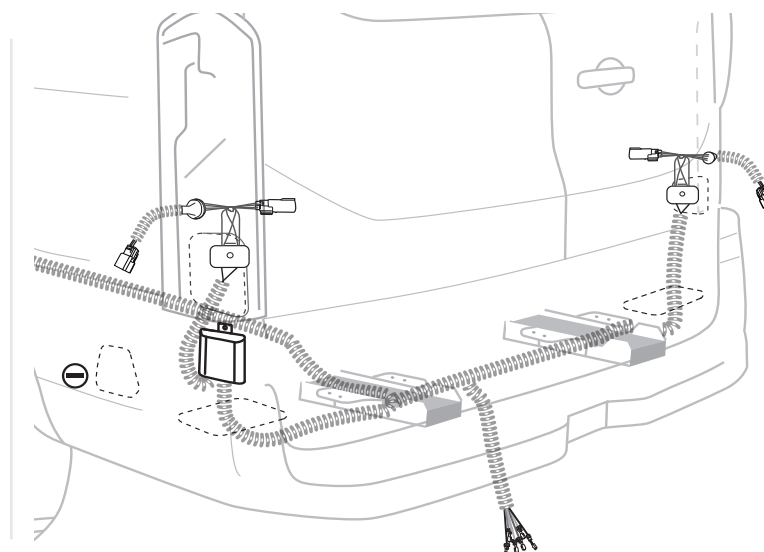


- Open rear door's, using Torx 25 bit remove rear combination lights and set aside. Push vehicle connector and grommet into rear cargo area.
- Locate and temporarily remove grommets. Three in the rear cargo area and two underneath the vehicle.



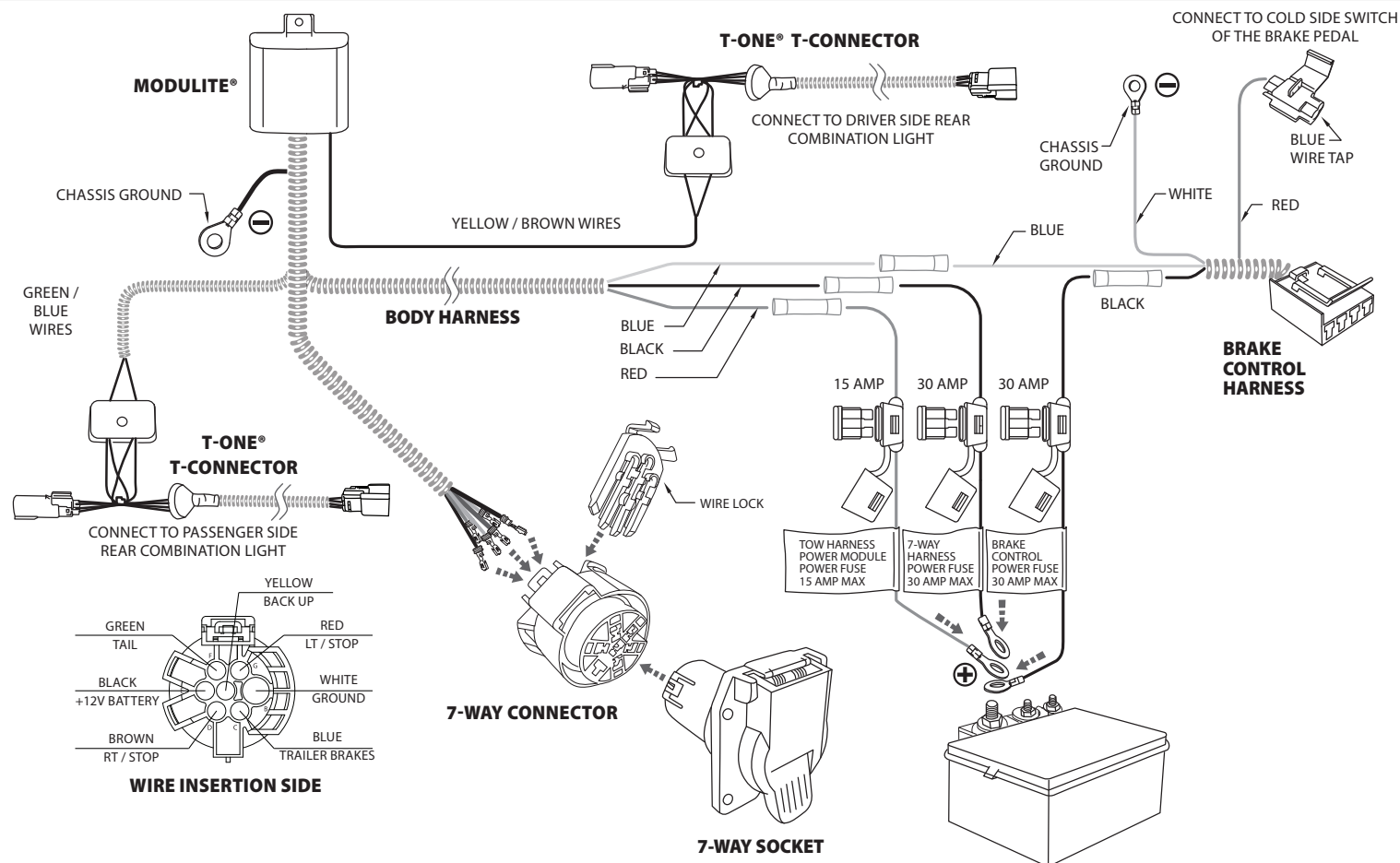
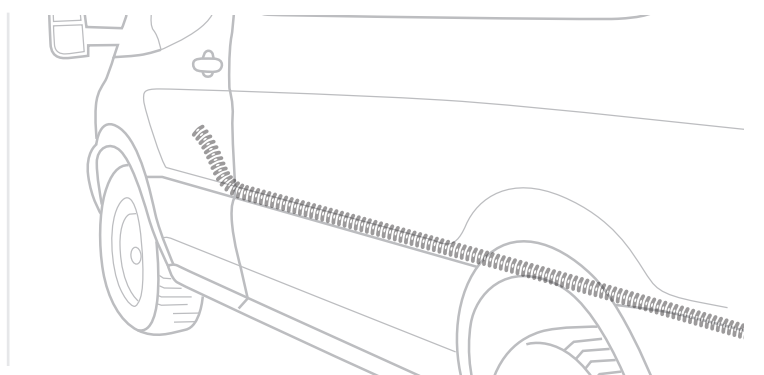
### T-ONE® T-CONNECTOR ENDS AND MODULITE®:

- Beginning underneath vehicle, on drivers side. Route Modulite®, T-One® T-Connector end with Yellow/Brown wires and chassis ground up through exposed access point and up into the rear cargo area.
- Connect the T-One® T-Connector end, with the yellow/brown wires, to the vehicle wiring connector and lock into place. Be careful not to damage the locking tabs and be sure that connector is fully inserted with locking tabs in place. Route the connector end with grommet out to the rear combination light pocket and seat grommet.
- Route chassis ground ring terminal to existing vehicle chassis ground point. Mount ring terminal.
- Secure loose wires near Modulite® and mount Modulite® box with supplied double sided tape and/or cable tie.
- Route T-One® T-Connector end, with the green/blue wires behind rear bumper fascia to passenger side access point and up and up into the rear cargo area. Repeat T-One® T-Connector step from driver's side.
- Connect the T-One® T-Connector ends to the rear combination lights. Be careful not to damage the locking tabs and be sure that connector is fully inserted with locking tabs in place. Replace rear combination lights.



### BODY HARNESS:

- Beginning underneath vehicle, on driver's side, route body harness with red/black/blue wires to the engine compartment. Route harness through channel of rear bumper support bracket. Then following existing wires route to positive post underneath hood.
- **WARNING** Route the wire being careful to avoid any hot pipes, heat shields, the fuel tank or any other points that may pinch or break the wire.
- Route body harness' Black wire to vehicle's positive post underneath hood. Using 30 amp fuse holder (7-Way), butt connector, and ring terminal, connect to battery.
- Route Red wire to vehicle's positive post underneath hood. Using 15 amp fuse holder (Tow Harness), butt connector and ring terminal, connect to battery.



## BRAKE CONTROL HARNESS:

- Determine a suitable mounting point on the tow vehicle for the Electric Brake Control Harness.

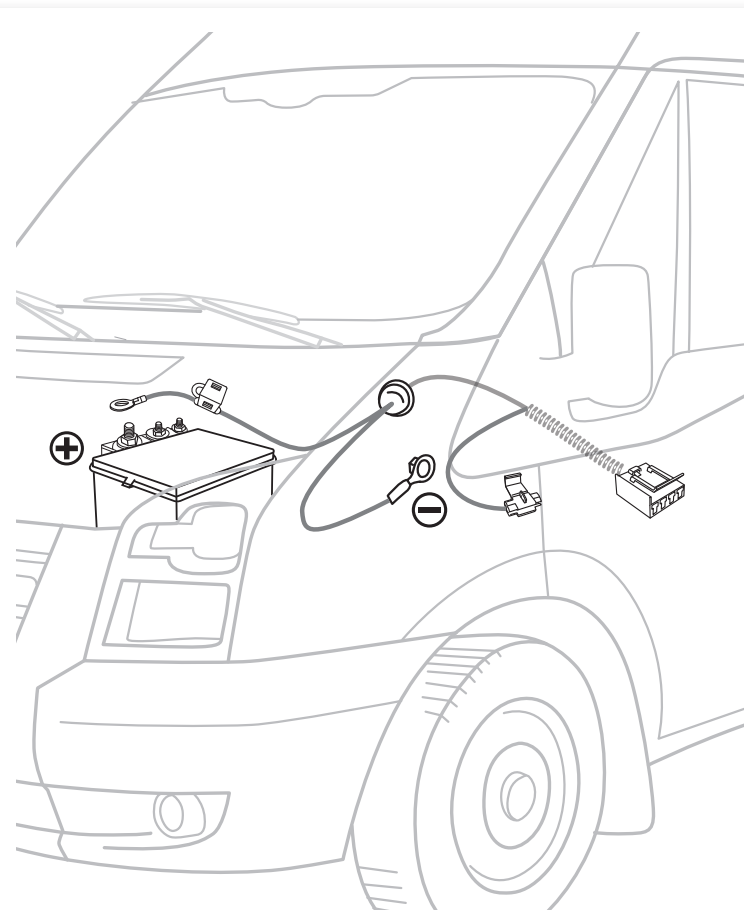
Note: Brake Control not included. Brake Control Harness designed to work with Tekonsha® Brake Controls such as: 90195, 90885 or 90160.

- Route the Brake Control Harness' White/Blue/Black wires through an existing grommet on the fire wall and into the engine compartment. Route wires through grommet by creating a small hole in the grommet to pass the wires through.
- Route the Brake Control Harness' white wire to existing vehicle chassis ground point. Using provided ring terminal, mount.
- Route the Brake Control Harness' Black wire to vehicle's positive post underneath hood. Using 30 amp fuse holder (Brake Control), butt connector, and ring terminal, connect.
- Route Blue wire (Electric Brake Output) to Body Harness Blue wire. Using butt connector, connect blue wires.
- Using the supplied convoluted tubing, cover the Blue/Black (and partially cover the white) wires from the grommet to the fuse holder.
- Route the red wire to the cold side switch of the brake pedal. Connect using supplied wire tap or the best suited alternative.
- When using a volt meter or circuit tester, carefully probe one wire at a time.

**CAUTION** Do not probe across two wires or across vehicle structure.

**CAUTION** When splicing use appropriate gauge wire splices. Provided blue tap are for 16-18 gauge wire only.

- Secure the brake harness connector near desired Brake control mounting location.



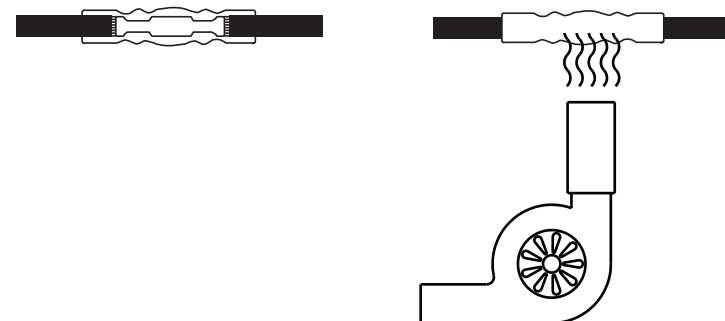
## 7-WAY HARNESS:

- Determine 7-Way mounting location.
- Route the 7-Way Harness containing the 7 wires behind rear bumper fascia and over bumper support bracket, towards the Mounting location.

- Using wire insertion detail, pin 7-Way Connector.
- Connect 7-Way connector and 7-Way socket. Mount 7-Way (Bracket not included).

## COMPLETION:

- Secure harness with the cable ties provided, to prevent damage or rattling. Be careful to avoid any areas that would pinch, cut or melt the wire.
- Apply heat directly to butt connectors, working from the center out to the edges, using a hot air gun or other source, until the tubing recovers and the adhesive flows. Allow to cool before inspecting splice and checking integrity.
- Replace all coverings, grommets or any other components that were removed for ease of installation. Some grommets will need to be altered to allow wires to pass through. Seal altered grommets with silicone.
- Reconnect the vehicle's Negative (-) battery cable.
- Test and verify installation with a test light or trailer once installed.



## TROUBLE SHOOTING GUIDE:

<b>7-Way not functioning properly</b>	Ensure T-One® T-Connector ends are fully inserted and locked in place. Remove Tow Harness power Module 15 amp fuse for 10 seconds and repeat test.	Check chassis grounds. Ensure ring terminals are in full contact with vehicle's chassis. Remove Tow Harness power Module 15 amp fuse for 10 seconds and repeat test.
<b>No Power to 7-Way</b>	Installation may have activated circuit protection. Start vehicle and turn all functions off: Tail (head lights), brake and turns. Remove Tow Harness power Module 15 amp fuse for 10 seconds and repeat test.	Ensure 15 amp fuse is fully inserted into fuse holder. Fuse should have no breaks. Fuse holder connected properly to positive post of battery. Remove 15 amp fuse for 10 seconds and repeat test. Ensure module is connected to B+. Using a tester or volt meter check for voltage on either side of the yellow butt connector near the module. Remove Tow Harness power Module 15 amp fuse for 10 seconds and repeat test.