TEKONSHA®

INSTALLATION INSTRUCTIONS

ZCI™

Approximate Install Time: 60 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


*Power Wire (1)


*Cable Tie, 8.5" (20)


*Cable Tie, 14.5" (1)


*Fuse Holder (1)


Reference Card (1)


Double Sided Tape (1)


Foam Tape (4)


*Yellow Butt Connector (2)


Notice Label (1)

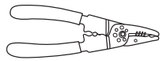

Self-Tapping Screw (1)


*Ring Terminal (1)


15 AMP Fuse (1)

*Item not included in 119250. Wire kit 118150 or 118151 sold separately.

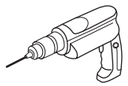
REQUIRED TOOLS


Wire Strippers/ Wire Crimpers


Wire Cutters


Tester or Volt Meter


Socket & Ratchet Set


Drill (3/32" Drill Bit)


Phillips Head #2 Screwdriver

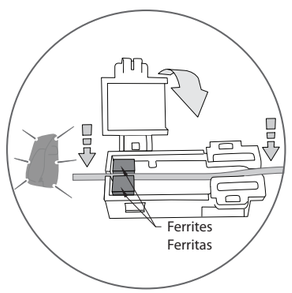


FIGURE A

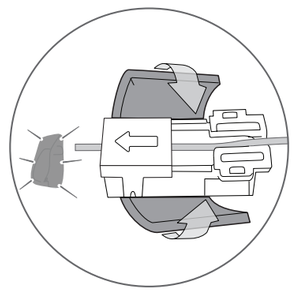


FIGURE B

⚠ WARNING

Overloading circuit can cause fires. DO NOT exceed lower of towing manufacturer rating or:

- **Max. stop/turn light: 2 per side (4.2 amps)**
- **Max. tail lights: (7.5 amps)**

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

TESTING:

- 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.

- Determine type of Vehicle wiring system and location of required input functions.
- Determine each of the tow vehicle inputs as shown in the illustration.

INPUT SENSOR – DETERMINATION:

Vehicle Wiring Code & Description	Description of Vehicle's Electrical System	Input Wires Used	Input Wires Exceptions
A - 2 wire system	The vehicle's turn & brake functions are combined on one wire and the tail light function is on a separate wire.	Yellow to vehicle Left Turn/Brake wire, Green to vehicle Right turn/Brake wire & Brown to vehicle Tail wire.	Brake wire (red) is not used.
B - 3 wire system	The vehicle's turn, brake and tail light function are on separate wires.	Yellow to vehicle Left Turn wire, Green to vehicle Right turn wire, Brown to vehicle Tail wire & Red to vehicle Brake wire.	NONE - Use all wires.
BT - Brake/Tail multiplexed wiring system	The vehicle's brake & tail functions are combined on one wire and the turn functions are on separate wires.	Yellow to vehicle Left Turn wire, Green to vehicle Right turn wire & Red to vehicle Brake/Tail wire.	Tail wire (brown) is not used.
BTT - Brake/Tail/Turn multiplexed wiring system*	The vehicle's brake, tail & turn functions are combined on one wire.	Yellow to vehicle Brake/Tail/Left Turn wire & Green to vehicle Brake/Tail/Right turn wire.	Tail wire (brown) & Brake wire (red) are not used.

*Module may not work with some BTT wiring systems. To alleviate, you may need to route tail wire to rear license plate illumination circuit and/or brake to center high stop light.

INPUT SENSOR – INSTALLATION:

- Apply required input sensors, as determined in the previous step.
- Ensure sensor end is orientated correctly. The arrow on the lid should be pointing towards the vehicle's light.
- Lay the wire between the sensor's ferrites and snap the lid closed. See Figure A.
- G code (Low Side Switched) vehicles: For all used input sensors, the arrow will be pointing away from the vehicle's light.
- Secure all sensor ends with foam tape. Ensure ends will not move around during operation. See Figure B.

HARNESS INSTALLATION:

NOTE: Required wiring kit may be sold separately

- Determine mounting location of the module. Secure using the double-sided tape provided. Using butt connector, connect module's black wire and 12 gauge (or larger gauge) wire.

⚠ WARNING Make sure module is mounted so that the epoxy side of the module is pointed towards the ground to prevent any water buildup.

- Locate a suitable grounding point near the module such as an existing ground stud or drill a 3/32" hole and secure the white wire using the eyelet and screw provided. (Do not drill into vehicle floor or bed.) Clean dirt and rustproofing from area.

⚠ CAUTION Verify what is behind any surface prior to drilling to avoid damage to the vehicle and/or personal injury. Do not drill into any exposed surfaces.

- Disconnect and isolate the vehicle's negative battery terminal.

⚠ WARNING Read and follow all warnings and cautions printed on the tow vehicle's battery.

- Route wire to vehicle's positive side of battery. Using fuse holder, butt connector and ring terminal, connect to battery. DO NOT insert 15 amp fuse.

⚠ CAUTION Module must be connected to a constant power source. Do not use an alternative power source that is interrupted when the vehicle is off.

⚠ CAUTION 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.

- Wrap notice label around yellow fuse holder wire, near ring terminal.
- Secure harness with the cable ties provided, to prevent damage or rattling.
- Reconnect the vehicle's Negative (-) battery cable.

MODULE LEARN MODE AND VERIFICATION:

- Start vehicle and turn all functions off: Tail (head lights), brake and turns. Initiate ZCI learn mode by inserting 15 amp fuse into fuse holder.
- Activate each function separately for approximately 5 seconds (Tail, brake, right turn and left turn).
- Test and verify installation with a test light or trailer.
- Hand ZCI Reference card to vehicle owner or place in glove box.

TROUBLE SHOOTING GUIDE:

No Power to 4-Flat or outputs not functioning properly.	Remove 15 amp fuse and repeat Module learn mode and verification steps.	Ensure sensors are installed per the Input Sensor – Determination findings. Remove 15 amp fuse and repeat Module learn mode and verification steps.	Ensure sensor ends are installed and orientated properly. Repeat input sensor installation steps. Remove 15 amp fuse and repeat Module learn mode and verification steps.
No Power to 4-Flat	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 and repeat Module learn mode and verification steps.	Check chassis ground. Ensure ring terminal is in full contact with bare metal of the vehicle's chassis. Remove 15 amp fuse and repeat Module learn mode and verification steps.	

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