



**EZS14**

**Self Closing 14-Pin  
Heavy Duty  
Hardwired Plug  
Versions**

**Installation Instructions  
*and*  
*Product Warranty***



## **Thank you for purchasing our EZS14 Connector!**

Your choice displays your recognition and value in the utmost in safety and reliability. This is a superior designed, quality crafted product that will provide years of trouble-free service if properly installed & maintained..

It is important that care and attention to detail be taken during the installation of this connector in order to realize all of its benefits. The exceptional quality of this connector will still not overcome a poor installation, or dysfunctional wiring.

We congratulate you on your purchase!

- EZ Connector

## **Notice!**

***(PROFESSIONAL INSTALLATION REQUIRED!)***

**There are certain steps in these instructions that if skipped, will require you to back-up & cut connections you have already made. Please follow these instructions carefully. Specifically, ensure that you:**

- 1. Always slide heat shrink tubing, both large and small onto wires before making any wire connections.**
- 2. For all installations, make sure that you choose a socket location within reach of the vehicle splice providing at least 2.5 inches of depth to accommodate the socket before drilling the minimum 2 " hole.**

## **Socket Installation**

3. Open the lid and insert the small wood block above the index tab to hold the lid open while installing. Insert connector into large drilled hole and mark one hole, drill with a #21 drill and use a 10-32 tap, and install 1 screw and tighten. Using a 13/64 drill, mark the remaining 3 holes, remove screw and connector. Drill and tap the remaining holes. Replace connector, start all screws, then tighten screws. Remove the block.
4. For EZS14-08, determine the desired length of the cable and mark it. Error to the long side when cutting your cable. Excess cable can always be coiled and tied whereas too short of a cable is unworkable.
5. Strip 3 3/4" of the insulation off of the cable. Stagger cut the lengths of the individual wires so that all the butt connectors will not be together which could cause a large knot preventing the large shrink tube from sliding over the connections. Next strip the individual wires 5/16" - 3/8".
6. Place the piece of the larger (3/4") shrink tubing over the cable and slide it way up out of the way.
7. For EZS14-05, strip the individual wires 5/16" - 3/8".
8. Determine the equipment's wiring configuration. Since your equipment's wire color coding may not match the plug's, it is imperative that you test the circuits using a test light as well as use the equipment's owners manual to determine which color matches which circuit. Write down which color wire you will be connecting to each of the socket wires. See Figure 1 next page.
9. Cut the long piece of 1/4" shrink tubing into 7 equal pieces. Place one over each of the 7 wires prior to making any connections.
10. Match up each of the wires and pair-by-pair place the stripped ends into opposite sides of an electrical butt connector. Use the larger butt connectors for the larger diameter wires (white, blue and black). Crimp the connector well, and pull-test to ensure integrity.
11. After all wires are connected and crimped, slide each of the small heat shrink tubes back over the connections and apply heat to the tubings.
12. Then slide the large heat shrink tubing back over the entire connection covering all the connected wires (both vehicle and plug). Apply heat until the tubing has

shrunk down around all of the wire connections forming a water tight seal.

## **PLUG INSTALLATION**

**Always slide heat shrink tubing onto wires before making any wire connections.**

### **Installing the plug holder:**

1. Install the plug holder in a location on the equipment that when the plug is stored will prevent the cable from dragging on the ground if the equipment is moved without the plug being hooked up.
2. Choose a location that will be within easy reach, yet **NOT** susceptible to being submerged in water as the holder is not waterproof with the plug removed.

### **Installing the plug and splicing wire if necessary:**

1. Before cutting cable remember, error to the long side when cutting your cable if necessary. Excess cable can always be coiled and tied whereas too short of a cable is unworkable.
2. Follow step 5 & 6 from the vehicle installation.
3. Determine the equipment's wiring configuration. Using a 12-volt power source apply voltage to all wires individually to determine which circuits correspond to each wire color. Write down your findings.
4. Follow steps 9-12 from the socket installation.
5. Secure the cable to the equipment using the zip-tie strap to keep any pull-strain off of the spliced wires and to adjust the cable slack to the socket.

## **Connector Maximum Design Specifications**

Maximum Voltage: 36 Volts

Max Current any single conductor: 35 amp

Max Total Combined Current all conductors: 120 amp

The above ratings are for the contacts within the connector, actual ratings may be less due to the cable size, length and type of cable, and operating environment.

## **Dimensional Specifications**

Connector:

Width: 3.25"

Height : 3.50"

Min Center Hole Size Diameter: 2"

Max Screw Size: #10

Hole Centers: Vertical 1.750, Horizontal 2.500"

Height: Above Center Hole 2", Below Center Hole 1.5"

Min Depth Behind Mounting Surface: 2.50"

Projection Above Mounting Surface:

Lid Closed: 1.5"

Lid Open: 4.25"

Plug disconnection Force: Can be designed from 5– 30 lb

Variable, typical 25 lbs @180 degree, 50 lbs @90 degree

### **For a professional installation, you will need to:**

1. Not compromise the integrity of the equipment wiring.
2. Ensure that the electrical connections are strong and protected from the elements and corrosion.
3. Comply with all applicable codes and regulations.
4. Correctly wire to properly transmit the appropriate signal to the corresponding device.

**Operation:**

1. Remove the trailer plug from the holder pulling straight out.
2. Lift the cover and insert the plug into the socket and rotate until the alignment index lines up with the tab and pulls in for connection.
3. Check operation of all circuits before operating equipment.
4. Do not remove the plug from the socket at an angle across the index tab which can potentially break the index tab.
5. Avoid dropping the plug in the dirt which may necessitate removal of metallic particles from them.

**Maintenance:**

1. Periodically lubricate the o-ring seals with a di-electric lubricant or petroleum jelly. **DO NOT APPLY DI-ELECTRIC GREASE TO THE CONTACT SURFACES, DI-ELECTRIC GREASE IS NON-CONDUCTIVE.**and can impede the flow of electricity between the contacts.
2. Replace O-Rings if damaged or missing using ASTM 028 Buna 50 durometer O-Rings available at better automotive outlets or from EZ Connector.
3. To keep components dirt and water free, keep socket or holder and plug mated at all times.
4. Underside of cover should be wiped free of salt, grime, mud or other contaminants before disconnecting plug to prevent contamination of the inside of the socket.
5. If the interior of the socket or plug becomes wet during coupling (particularly with salt water) wipe down before re-coupling.
6. In the event that metal shavings attach to the magnet, place a cloth or plastic bag over the magnet of one of the other components and move it near the contaminated magnet to attract the shavings. Then separate the magnets and remove the bag with the shavings from the second magnet. Compressed air may also be used to remove metal.
7. Do not apply di-electric grease to the contact surfaces, di-electric grease is non-conductive
8. Minor oxidation of the contact surfaces may occur and can be removed with ultra fine sandpaper (1200 grit) or finer ,mild abrasives or brass oxidation remover( Brasso, Never-Dull) etc.

**Low Voltage Applications Only!**

This plug is designed for use in applications requiring no more than 36 volts. Applying greater voltages may damage the plug and/or other equipment and may create an electrical shock hazard with potential injury or death.

**Warning – Strong Magnets**

The magnets used in this plug exert a strong magnetic force. Take care when handling any of the plug’s components.

- Keep fingers clear as there is the possibility of being pinched as the plug engages.
- When pulling the plug from its socket, clear the area around the plug of sharp objects as your hand may recoil as the magnets release.
- Keep jewelry, such as earrings, and other loose metallic items away from the plug as they may attract and stick to the plug.
- Individuals with pace-makers should avoid using the EZ Connector.

**Warning – Plastic Packing Materials**

Keep the packing materials used with this product away from small children to prevent suffocation or choking.

## PRODUCT WARRANTY AND DISCLAIMER

### LIMITED WARRANTY

A. EZ CONNECTOR, INC. warrants the following:

1. That the Product is free from defects in material and workmanship.
2. When professionally installed and used in accordance with the instructions supplied, the Product will operate substantially in the function of low voltage electrical continuity.
- B. The above Product has a limited lifetime warranty on the original installed equipment to the original non-commercial end user purchaser of the Product and a 5 year commercial warranty, provided the product is registered along with proof of purchase, to the manufacturer within 30 days of purchase. Warranty does not apply to adapters.

C. EZ CONNECTOR, INC.'s sole liability under this warranty shall be:

1. To replace the defective Product component(s) in accordance with EZ CONNECTOR, INC.'s return procedures, or
2. At EZ CONNECTOR INC.'s sole option, to refund the purchase price upon return of the defective item. The warranty period for replaced Products shall be the remainder of the original warranty period for the replaced item.

D. EZ CONNECTOR, INC. shall incur no obligation under this warranty if:

1. If EZ CONNECTOR, INC.'s verifiable tests disclose that the alleged defect is not due to defects in material or workmanship; or
2. If, in EZ CONNECTOR, INC.'s sole judgment, the Product has been subjected to misuse or neglect, alteration, damage or improper installation or maintenance.

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**PRODUCT RETURN PROCEDURES**

A. No Product shall be returned without prior EZ CONNECTOR, INC. Return Merchandise Authorization (RMA) obtained by contacting our customer service phone line or email listed below. Inoperative or malfunctioning Products must be returned by Customer in protective material, securely packaged to prevent damage in transit with a copy of the purchase receipt, and shipped prepaid to:

EZ CONNECTOR, INC.

Attn: RMA #####

1010 E Walnut Ave

Tulare, CA 93274

Phone: (559) 685-9184

Customerservice@EZconnector.com

B. EZ CONNECTOR, INC. will return replaced Product via surface freight to Customer's location. The cost of expedited freight, if requested, shall be at Customer's expense. Product found to be operable after testing (i.e. no trouble found), may be subject to shipping and handling charges.

**EZS7**  
**Made in the USA**

**Protected by**  
**US Patents #5,172,751; #5,174,362; #6,478,619**  
**Pending and Foreign Patents**

**EZ Connector, Inc., Tulare, CA USA**  
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