

# PURKEYS

A MISSION CRITICAL ELECTRONICS BRAND

## BOSS™ DUMP TRAILER CHARGING SYSTEM

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## INSTALLATION GUIDE





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## GENERAL INFORMATION

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The BOSS™ Dump Trailer Charging System utilizes a DC/DC converter to boost the voltage and optimally charge the dump trailer battery.

The BOSS has an easy to interpret LED indicator that clearly shows the battery status.

The Boss:

- Can be used with Flooded and AGM batteries
- Can be used with two batteries

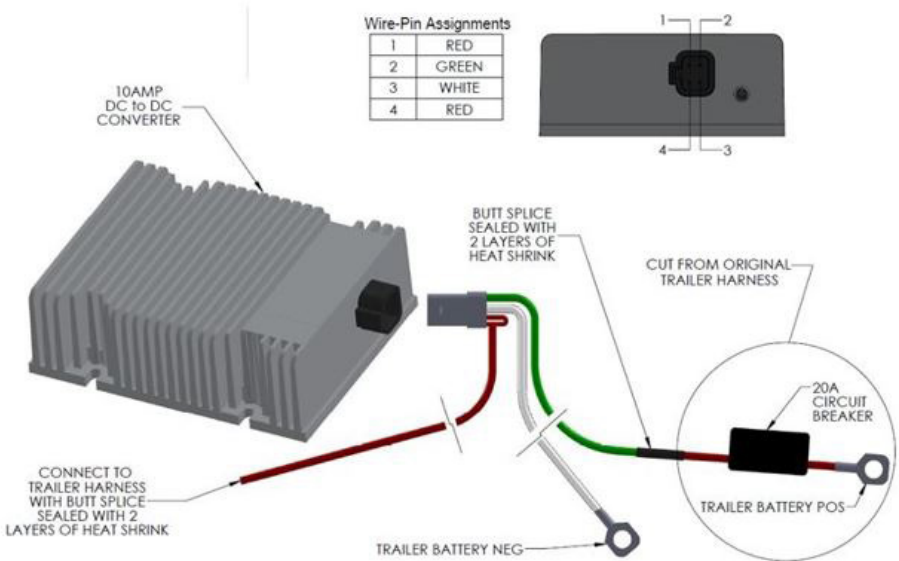
We recommend using a battery with a higher RC capacity and lower CCA.

**Warning:** If your vehicle does not have a key-switch activated 7-way, it is recommended that you unplug your trailer from the vehicle when not in use.

**NOTE:** Be sure the trailer is grounded somewhere between the frame and the negative battery post on the battery using a 10-gauge wire and between the negative post on the pump motor to the negative post on the battery, to ensure proper operation.

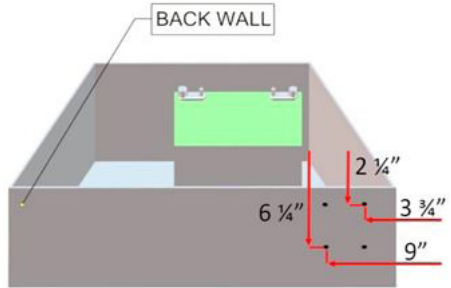
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## DIAGRAM



## INSTALLATION

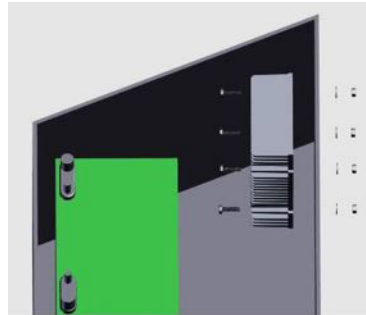
Step 1: Prep the dump trailer battery box for mounting the 10 amp DC/DC converter using a drill and a 5/16" bit. Follow the dimensions in this figure for proper drilling location.



**Note:** It may be easier to drill the 5/16" holes from the back side of the battery box, which means the dump bed will need to be raised.

**Caution:** Ensure there is nothing inside the battery box that can be damaged when drilling from the backside.

Step 2: Mount the DC/DC converter on the back wall inside the battery box via the 4 holes that were drilled in step 1. Use hardware for mounting.



Step 3: Plug the 4-pin deutsch harness into the 10 amp DC/DC converter. Ensure that the plug snaps into place.



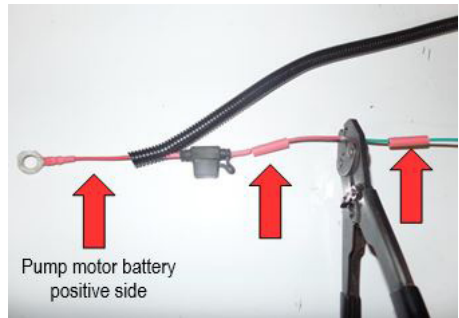
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Step 4: Cut the red 20 amp circuit breaker from the original trailer harness. **DO NOT DISCARD.** This will be used in step 6.



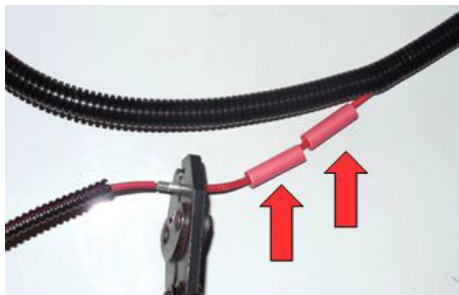
Note: If the circuit breaker holder is still connected to the pump motor battery, pull the circuit breaker to avoid cutting a live wire.

Step 5: Crimp the green output wire of the DC/DC converter harness to the red 20 amp circuit breaker that was removed in step 4.



Note: Use 2 pieces of red heat shrink to seal this connection.

Step 6: Crimp the red input wire of the DC/DC converter harness to the red wire of the original trailer harness.



Note: This is the wire that the 20 amp circuit breaker was cut from in step 4.

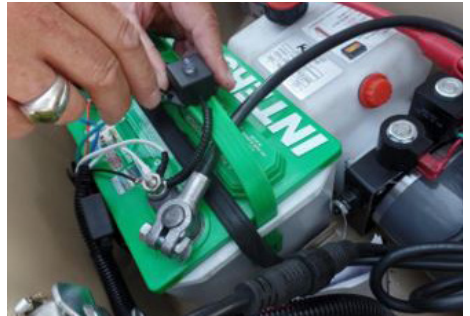
Step 7: Connect the 20 amp circuit breaker wire of the DC/DC converter harness to the positive post on the pump motor battery. Connect the white negative wire of the DC/DC converter harness to the negative post on the pump motor battery.



Step 8: Install the BOSS LED indicator by connecting the positive side of the LED (this is the side that the 15 amp fuse is on) to the positive post of the pump motor battery. Connect the white negative wire of the LED to the negative post of the pump motor battery.



Step 9: Drill two 3/16" holes in the battery handle and use zip ties to secure the LED indicator in place.



Installation Complete



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## LED LOGIC

| LED                  | CONDITION  | ACTION NEEDED  | TOWING VEHICLE ENGINE STATUS |
|----------------------|--|--|------------------------------|
| Solid Green          | Charging mode  | None   | Running                      |
| Slow Flashing Green  | Batteries in good state of charge (more than 12.4 volts)   | None   | Off                          |
| Slow Flashing Orange | Battery in low state of charge (voltage between 6.0 and 12.39 volts)   | Charge and test battery                                    | Off                          |
| No LED               | Open circuit from battery positive and the dump trailer charge controller, or disconnect ground in battery box | Repair circuit by repairing the wire or replacing the fuse | Off                          |



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## LIMITED COMMERCIAL WARRANTY POLICY

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MCE Purkeys FE, LLC (hereafter “Purkeys”), warrants each product to be free of defects in material or workmanship under normal use and service. This warranty is for the benefit of Original Equipment Manufacturers, Dealers, Warehouse Distributors, Fleets, or other End Users (hereafter “Customers”) and covers products manufactured by Purkeys and sold new to Customers either directly by Purkeys or by its authorized dealers, distributors, or agents. The length of the Warranty Period is 36 months.

The warranty period commences on the in-service or install date and is not transferable. Failure to provide the in-service or install date on the warranty claim form will cause the warranty period to begin on the date the part was manufactured, or date of sale recorded on the original sales invoice, whichever is earlier.

A completed warranty claim form should accompany all parts submitted to Purkeys for consideration for repair or replacement under warranty. The submitted claim form should contain all of the information required. Lack of a properly or fully completed claim form will result in delay or denial of warranty claim. Claims must be submitted no later than 30 days after part is removed.

This warranty does not apply if, in sole judgement of Purkeys, the product has been damaged or subjected to accident, faulty repair, improper adjustment, improper installation or wiring, neglect, misuse, or alteration or if the product failure is caused by defects in peripheral vehicle components or components attached to the Product or failure of a part not manufactured by Purkeys.

This warranty shall not apply if any Purkeys product is used for a purpose for which it is not designed or is in any way altered without the specific prior written consent of Purkeys. ANY product alleged by a Customer to be defective must be inspected by Purkeys as a part of the warranty claims process in order to confirm that the part has failed as a result of a defect in material or workmanship.

Transportation for products and parts submitted to Purkeys for warranty consideration must be prepaid by Customer. Repaired or replaced products and or components will be returned to Customer pre-paid by Customer or “freight collect” to the address provided by Customer in the warranty claim form. No charge will be made for labor or material in effecting such repairs.

The Warranty provided by Purkeys hereunder is specifically limited to repair or replacement of the Product as Purkeys deems most appropriate in its sole discretion. Purkeys neither assumes nor authorizes any other person to assume on its behalf any other warranty or liabilities in connection with Purkeys products. The Warranty does not apply to fuses or other “consumable” or maintenance items which are or may be a part of any Purkeys product.

**THIS WARRANTY DOES NOT APPLY TO LOSS OF VEHICLE OR EQUIPMENT, LOSS OF TIME, INCONVENIENCE, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. PURKEYS SPECIFICALLY DISCLAIMS AND SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES arising out of or from the use of Purkeys products by the Customer.**

**THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, INCLUDING COMMON LAW WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, AND ANY OTHER EXPRESS OR IMPLIED WARRANTIES. ALL OTHER SUCH WARRANTIES ARE SPECIFICALLY DISCLAIMED.**

This Limited Commercial Warranty supersedes all previous Warranty Policies issued by Purkeys and any of its suppliers.

