

# PURKEYS

A MISSION CRITICAL ELECTRONICS BRAND

## DC/DC CONVERTER REPLACEMENT

## INSTALLATION GUIDE





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## GENERAL INFORMATION

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These instructions are to ensure proper removal and replacement of the DC/DC converter on Purkeys Direct and Select liftgate charging systems.

Tools needed:

- 3/8" drive 9/16" socket and ratchet or wrench
- 3/8" drive 7/16" deep well socket
- 7/16" wrench
- #1 Phillips screwdriver or bit
- 1/4" drive 3/8" socket and ratchet or nut driver

NOTE: power tools are not recommended as they can damage the electrical studs and terminal blocks.

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## REPLACEMENT STEPS

Step 1: Before you begin:

- A. Take a picture or label the wires connected to the charge plate. This will aid in reassembly (or consult the proper Purkeys product manual).
- B. Disconnect all power input sources.
  - a. Single or Dual pole stinger (unplug from nosebox).
  - b. 7-way cord (unplug from nosebox).
  - c. Solar charging systems (remove fuse).
  - d. Reefer power for charging (remove fuse).
  - e. Output power wire to the liftgate batteries or, if equipped, turn the 1-2 switch to the off position.

Step 2: Remove the 2-amp fuse (see Figure 1).

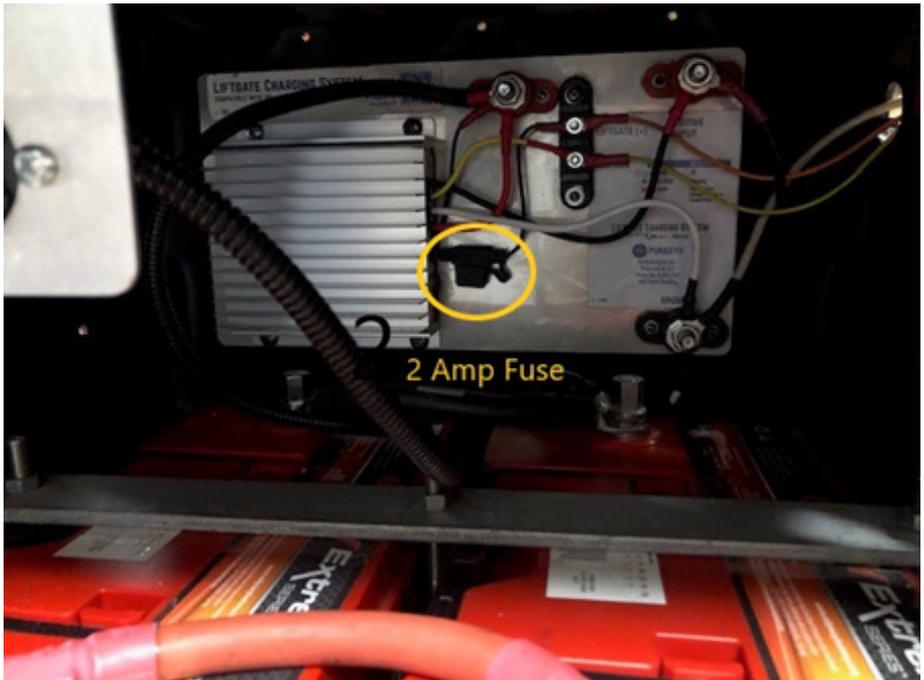


Figure 1

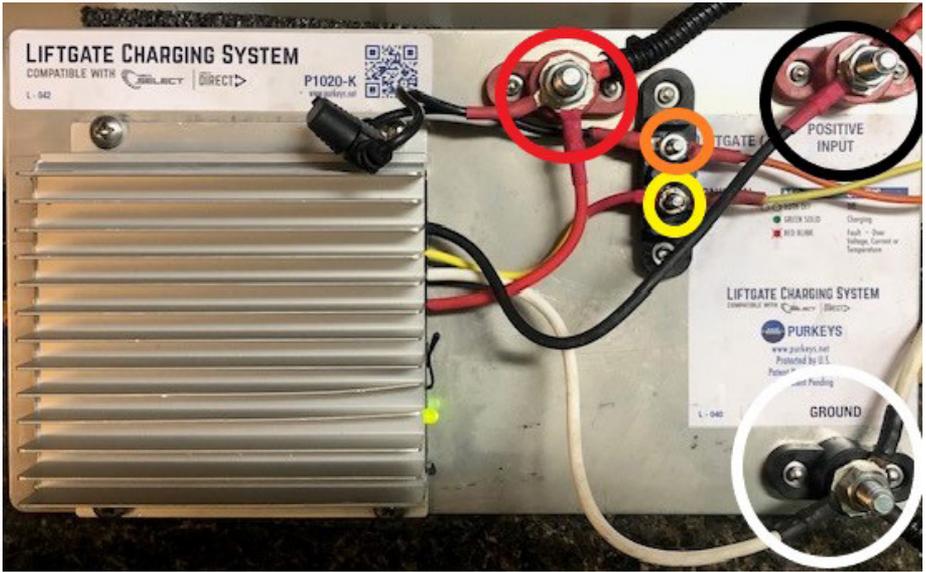


Figure 2

Step 3: Using a 3/8" socket and ratchet or nut driver, remove the orange and yellow wires (labeled liftgate and ignition) from the 2-post terminal strip (see Figure 2).

Step 4: Using a 9/16 socket and ratchet remove the black input power wire, white ground wire and red output wires from their respective 3/8" posts (see Figure 2).



Figure 3A

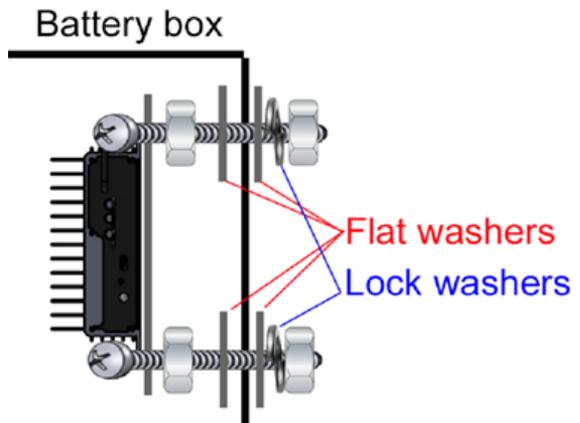


Figure 3B

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Step 5: Using a 7/16” socket and ratchet and remove the 7/16” nuts holding the charge plate to the liftgate battery box (see Figure 3A and 3B).

Step 6: Take the charge plate out of the battery box using caution so you do not contact a positive and negative post at the same time, creating a spark.

NOTE: Observe your company work practices and remove the batteries if needed for safer work practice.

Step 7: Using a 7/16” wrench and a #1 Phillips screwdriver in a cordless drill, loosen the nuts holding the DC/DC converter to the charge plate.

NOTE: The nuts do not need to be removed completely. Unscrew the nuts on the top of the plate to the end of the screws and the bottom ones about 1” (see Figure 4).

Step 8: Slide the top screws out of the slots on the converter and lift it out of the bottom one.

Step 9: Install the new converter, sliding it onto the bottom screws, then placing the top screws in the slots and tightening the nuts.



Figure 4

Step 10: Reinstall the charge plate in the battery box into the existing holes that it came out of. See Figure 3B for the proper position of the mounting hardware.

Step 11: Install the nuts on the back of the battery box and tighten them using a 7/16” socket and ratchet.



Figure 5

Step 12: Reattach the red wire to the stud above the DC/DC converter with the fuse holder and the wire going to the 30-amp circuit breaker (see Figure 5).

Step 13: The black wire goes to the Positive Input stud (see Figure 5).

Step 14: The white wires will be placed on the Ground stud (see Figure 5).

Step 15: The yellow wire goes on the ignition stud (see Figure 5).

Step 16: The orange wire and fuse holder go on the Liftgate + stud (see Figure 5).

Step 17: Connect the negative cables back to the batteries.

Step 18: Reinstall the 2-amp fuse and test system operation.

NOTE: While reassembling, make sure you inspect and repair any damaged or improper connections.

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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 and/or branded 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. Products from other manufacturers, that are branded by said manufacturer, will carry the manufacturer’s original stated warranty.

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. An RMA# should be requested prior to returning any product for warranty consideration. Please contact the Purkeys’ Warranty Department to request an RMA# at [warranty@purkeys.net](mailto:warranty@purkeys.net) and to provide your warranty claim information.

This warranty does not apply if, in sole judgment 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. No labor reimbursement will be provided. 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 Policy supersedes all previous Warranty Policies issued by Purkeys.

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