

This converter section has been designed as a converter section replacement in the following MagneTek or Parallax Power Supply series products and models with DC output amperages up to a maximum of 55 DC amperes.

**WARNING: RISK OF ELECTRICAL SHOCK OR BURNS.**

**This converter section should be installed by a qualified electrician or certified RV technician.**

Improper installation or connection could damage the replacement converter section and void the product warranty. NO ENDORSEMENT OF USER TECHNICAL EXPERTISE IS EITHER EXPRESSED OR IMPLIED.

**GENERAL INFORMATION**

This converter section can deliver its entire DC output toward battery charging. The RV battery wiring to and from the battery or batteries should be of adequate size and ampacity rating to safely accommodate the maximum DC amperage capacity of the converter section and must be protected within 18 inches of the battery with an appropriately rated fuse or breaker. #8 AWG conductors minimum are recommended for converter output amperage capacities up to 55 DC amperes. Refer to the current NFPA 70 National Electrical Code 2014, Table 310.15(B)(16 ) for allowable ampacities for insulated conductors and use appropriate fusing for internal wiring of the battery to the converter.

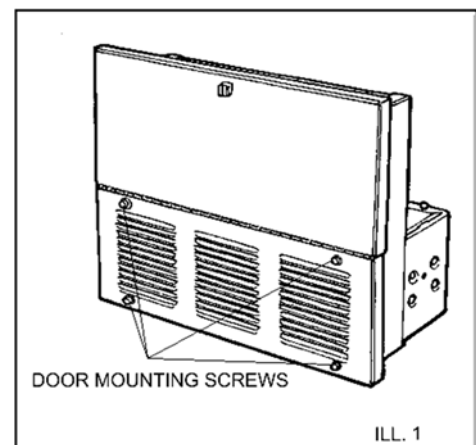
**WIRING OF THE BATTERY TO THE CONVERTER MUST USE 90°C MINIMUM INSULATION RATING.**

**SECTION 1, – SAFETY FIRST**

- 1. DISCONNECT THE 120VAC SHORELINE POWER FROM RV.**
- 2. MAKE SURE THE ON BOARD GENERATOR (IF EQUIPPED) IS POWERED OFF.**
- 3. DISCONNECT BOTH NEGATIVE AND POSITIVE BATTERY CABLES TO THE DC SYSTEM AT THE BATTERY OR BATTERIES.**

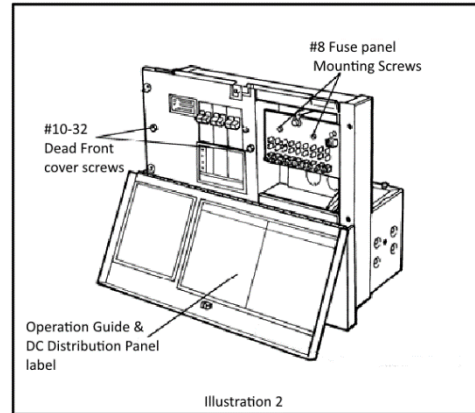
**SECTION 2, – DOOR REMOVAL**

1. Remove the door mounting screws shown in illustration 1.
2. Remove the door and set it aside (with the screws) in an area where the door will not be damaged or the door screws lost. The door and screws will be reused.



## SECTION 3, - 120 VAC PANELBOARD SECTION

1. Remove the (2) #10-32 screws shown in illustration 2 from the 120 VAC panelboard “Dead Front” cover plate and remove the plate.
2. Locate the black and the white 120 VAC converter input supply wires (both #14 AWG) coming up from the lower converter section.
3. Disconnect the #14 AWG white converter section neutral wire from the isolated neutral terminal bar.
4. Disconnect the #14 AWG black converter Line input supply wire from the 120 VAC branch load circuit breaker.



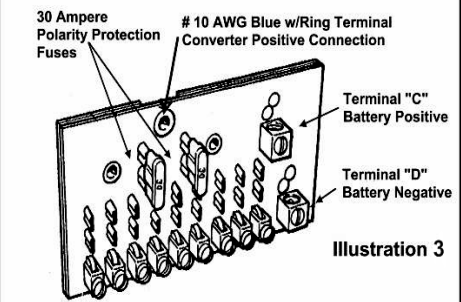
NOTE: THE BLACK WIRE CONNECTED TO THE 120VAC LOAD BREAKER MAY HAVE AN ADDITIONAL CIRCUIT CONNECTED TO A “PIGTAIL” WIRE. IF SO, REMOVE THE YELLOW WIRE NUT AND DISCONNECT THE BRANCH LOAD CIRCUIT FROM THE PIGTAIL. TAG THE BRANCH LOAD CIRCUIT BLACK “HOT” WIRE FOR LATER RECONNECTION.

## SECTION 4, CONVERTER DC WIRING REMOVAL Applies to 6300 or 7300 Series Models

### **DO NOT DISCONNECT ANY DC BRANCH LOAD CIRCUITS AT THIS TIME!**

1. Disconnect the battery positive wire at terminal “C” and the battery negative wire from the front of the DC fuse panel at terminal “D”. Refer to ILL. 3. This step would be unnecessary for a 7300 series replacement
2. Remove the lock washer and nut from the 10-32 screw assembly located at top center of the DC fuse panel. Remove the #10 AWG blue converter positive DC wire (including the ring terminal). Put the lock washers and nut back on the screw. The screw, washers, and nut will be reused during reassembly in Section 8a.
3. Remove the (2) #8 fuse panel mounting screws shown in ILL. 2. Screws will be reused during reassembly.
4. Lean the fuse panel forward and remove the white (#10 AWG) converter DC negative wire at terminal “D”. See photo to the right.
5. 6300 series models will have a red (#10 AWG) wire connected to the back of terminal “C”. Disconnect the red wire.

NOTE: 6300 SERIES DC FUSE PANELS DID NOT PROVIDE 30 AMPERE POLARITY PROTECTION FUSES.

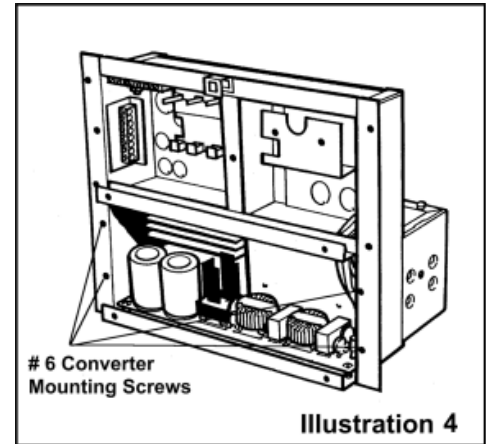


NOTE-6300 SERIES: THERE IS NO RED #10 AWG OUTPUT WIRE PROVIDED OR NEEDED WITH THE NEW CONVERTER SECTION. THE NECESSARY CONNECTION TO PROVIDE BATTERY CHARGING IS MADE INTERNALLY ON THE NEW 12 VOLT FUSE PANEL.

6. Pull the red (if equipped), white and blue DC wires into the lower converter section.

## **SECTION 5, CONVERTER SECTION REMOVAL**

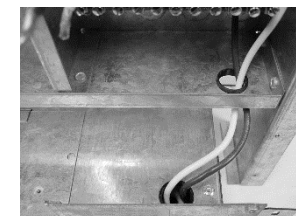
1. Remove the four #6 converter mounting screws shown in illustration 4.
2. Leave the black and white #14 AWG 120 VAC leads connected to the converter section. Remove the converter by pulling it straight out.
3. On a 7300 series converter section, there should be 4 wires attached to the old converter after removal.
  - 2- DC output leads – both #10 AWG, 1 blue and 1 white
  - 1- 120VAC neutral lead, white
  - 1- 120VAC Line lead (with 6” “pigtail” lead if so equipped), black.
4. On a 6300 series converter section, there should be 5 wires attached to the old converter after removal.
  - 1- 120VAC neutral lead, white
  - 1- 120VAC Line lead (with 6” “pigtail” lead if so equipped), black.
  - The red charger output wire referenced in the 6300 Series Note on the preceding page.
  - 2- DC output leads – both #10 AWG, 1 blue and 1 white



## **SECTION 6, REPLACEMENT CONVERTER SECTION INSTALLATION**

See the photos at the right.

1. Slide the new converter section into the frame.
2. Route the 120VAC leads (1-black, 1-white, both #14 AWG) up through the lead routing hole in the bottom the 120VAC breaker panel on the left side into the breaker panel compartment.
3. Route the DC leads (1-blue, 1-white, both #10 AWG) up into the DC fuse panel compartment through the lead routing hole on the right side.
4. Carefully pull up any slack wire in the 120VAC or the DC wiring leads into their respective upper section wiring compartments.
5. Secure the new converter section using the four #6 converter mounting screws removed in section 5.1



## **SECTION 7, 120VAC WIRING RECONNECTION TO THE 120 VAC PANELBOARD**

1. Connect the white #14 AWG Neutral wire to the isolated neutral terminal bar where the original white neutral wire was connected. **Tighten to 35 inch pounds.**
2. Connect the black #14 AWG line “hot” to the same branch load circuit breaker the original converter section was connected to. **Tighten the breaker set screw to the specifications listed on the branch load circuit breaker.**
3. Connect the “pigtail” (if originally used) to the tagged branch load circuit “hot” with the yellow wire nut. Reference the note at the end of section 3.
4. Make sure all wire strands are inside the terminals.
5. **Tighten all connections to the required specifications per the panel board wiring label located on the back of the panel board Dead Front cover plate.**
6. Replace the panel board Dead Front cover plate using the original screws removed in section 3.1.

## **SECTION 8a, DC WIRING RECONNECTION**

**Section 8a applies when replacing the converter in a 7300 Series model.**

If using this converter section as a replacement in a MagneTek or Parallax 7300 series system a #10 ring terminal (provided in the accessory bag) may be crimped to the new converter section blue DC positive output lead and the original 7300 series DC fuse panel may be reused.

1. Cut off only the soldered end portion of the new converter’s blue DC positive lead and strip off 1/4 inch of the insulation.
2. Crimp the ring terminal to the end of the new converter blue DC output lead.

Note: Proper crimping tools and techniques must be used during the application of the ring terminal to prevent connection related failures such as excessive voltage drop and conductor insulation overheating.

3. Remove the lock washers and nut from the 10-32 screw assembly at top center of the of the original DC fuse panel.
4. Put the ring terminal on the blue converter DC positive lead over the screw threads on the top side of the original fuse panel. Reinstall the lock washers and nut. Tighten the nut to 30 inch pounds.
5. Install the #10 AWG white converter DC negative lead to the back of the fuse panel at terminal “D”. Refer to illustration 3 and the photo on page 2. Tighten the set screw to 25 inch pounds.
6. Reconnect the battery positive lead to terminal “C” on the DC fuse panel. **Tighten the set screw to 40 inch pounds.**
7. Reconnect the battery negative lead to terminal “D” on the DC fuse panel. **Tighten the set screw to 40 inch pounds.**
8. Re-install the converter outer cover door using the original door screws.
9. Proceed to Section 9

## **SECTION 8b, DC WIRING RECONNECTION TO THE NEW DC FUSE PANEL**

Section 8b applies when replacing a 6300 Series model converter.

**THE SUPPLIED DC DISTRIBUTION FUSE PANEL MUST BE INSTALLED TO ENSURE DC FUSE PANEL COMPATIBILITY WITH THE NEW CONVERTER SECTION. (See III. 5)**

The M036-7100-000 DC distribution fuse panel provides:

- Two additional load circuit terminals at positions 1 & 2 that are capable of 30 ampere load circuits when used with an appropriate wire size, insulation rating, and over-current protection fuse.
- Front side wiring terminals.
- “Open” fuse LED indicators on all 11 load circuit terminals.

**Important!** The M036-7100-002 DC fuse panel provides the capacity for 3 polarity protection fuses. **For converter output amperages up to a maximum of 55 DC amperes, only two 30 ampere Littlefuse® type 257 or Bussman® type ATC fuses may be used. DO NOT OVER FUSE!** Converter damage may result if over-fused and the battery system is reverse connected.

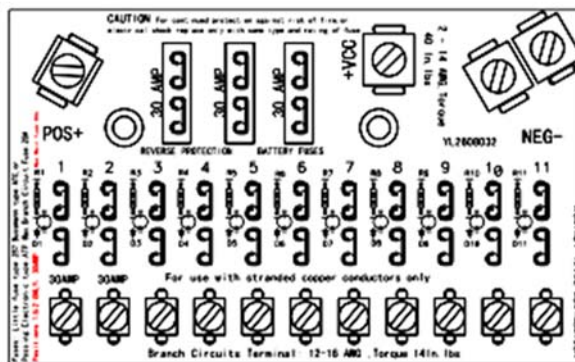


ILLUSTRATION 5

1. Attach the new DC fuse panel with the original screws removed in section 4.3.
2. Insert the blue #10 AWG wire to the lug labeled **VCC+**. **Tighten the set screw to 40 inch pounds.**
3. Insert the white #10 AWG converter DC negative into the left lug labeled **NEG -**. **Tighten the set screw to 40 inch pounds.**
4. Remove the battery positive lead from terminal “C” on the old DC fuse panel. Insert the battery positive lead into the lug on the new fuse panel labeled **POS +**. **Tighten the set screw to 40 inch pounds.**
5. Remove the battery negative lead from terminal “D” on the old DC fuse panel. Insert the battery negative lead into the right wiring lug labeled **NEG-** on the new DC fuse panel. **Tighten the set screw to 40 inch pounds.**
6. Working with one circuit at a time, remove each positive DC load wire and fuse from the old fuse panel and reconnect the lead and fuse to its original load terminal position on the new DC fuse panel. Ensure the correct fuse is moved with each load circuit wire.

**6300 SERIES NOTE: USE DC BRANCH LOAD TERMINALS 3-11 IF YOU WISH TO RESERVE TERMINALS 1 & 2 FOR FUTURE USE WITH 30 AMPERE DC LOAD CIRCUITS.**

7. **Tighten each load circuit terminal to 14 inch pounds.**

8. Check all wiring connections for proper torque per specifications listed on the DC fuse panel or the DC wiring label.
9. Fill in the DC load circuit identification information in the spaces provided on the new Operation Guide & DC Distribution label and place the label **on the inside** of the outer converter door. Refer to Illustration 2.
10. Re-install the converter outer cover door using the original door screws.

## **SECTION 9, EXTERNAL POWER SOURCES RECONNECTION**

1. **Clean battery posts (recommended).**
2. **Verify battery wiring polarity** prior to reconnecting the battery or batteries.

<p><b>CAUTION:</b> Reverse polarity of battery wiring to the batteries will blow the 30 ampere polarity protection fuses on the DC distribution fuse panel and could damage the new converter section.</p>
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3. Connect the battery positive and negative cable terminals to the battery system. **Tighten the battery cable terminal connectors to the RV or battery manufacturers recommended specifications.**
4. Plug in the RV's 120 VAC "shoreline" utility power cable. Make sure that all 120 VAC circuit breakers in the RV load panel are "on".

### **THE INSTALLATION OF THE UPGRADE KIT IS NOW COMPLETE.**

**Remember...** This converter section is TempAssure<sup>®</sup> compatible and can be upgraded using the Parallax Power Supply part number 4400TAU. The TempAssure module and sensor cable is designed to work with your new converter section to provide temperature compensated output voltage for enhanced battery system management. Get more information on the features and benefits of the TempAssure<sup>®</sup> system and other great Parallax Power Supply products at our website: <http://www.parallaxpower.com>

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