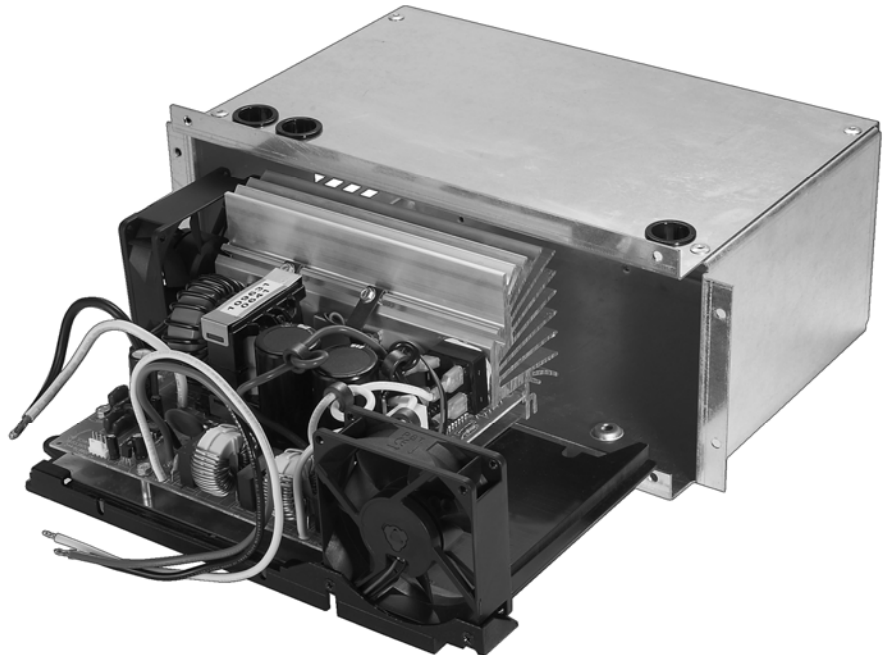




Installation and Operation Guide PD4600 Series Converter Replacement

Extended warranties
are available for purchase at
www.progressivedyn.com



Thank you for selecting Progressive Dynamics as your choice for your RV power needs! We'd like to welcome you to a full line of industry leading and time tested products, including our newest addition to the PDI family, the PD4600 Series Converter Replacement Unit.

The PD4600 Series Converter Replacement offers break-through technologies that help maintain and lengthen the life of your batteries such as our patented Charge Wizard.

The built-in Charge Wizard® microprocessor constantly monitors the battery voltage and automatically adjusts the converter output voltage to provide fast recharges and long-term maintenance.

The intelligent way to charge and maintain your RV battery!

Progressive Dynamics, Inc.

507 Industrial Rd. Marshall, MI 49068

269.781.4241, Fax 269.781.7802

www.progressivedyn.com

Patent Numbers: 5,687,066 - 5,600,550 - 5,982,643 - 6,184,649 - 7,782,002.

Table of Contents

Installation Instructions	1-4
The Charge Wizard	5
Reverse Battery Protection	5
Technical Specs	5

LIMITED WARRANTY

- I. **LIMITED WARRANTY:** Progressive Dynamics, Inc. warrants its power control center to be free from defects in material or workmanship under normal use and service; and limits the remedies to repair or replacement.
- II. **DURATION:** This warranty shall extend for a period of two years from the original date of purchase, and is valid only within the continental limits of the United States and Canada.
- III. **WARRANTY EXCLUSIONS:** This warranty specifically does not apply to:
- A. Any product which has been repaired or altered in any way by an unauthorized person or service station;
 - B. Damage caused by excessive input voltage, misuse, negligence or accident; or an external force;
 - C. Any product which has been connected, installed or adjusted or used other than in accordance with the instructions furnished, or has had the serial number altered, defaced or removed;
 - D. Cost of all services performed in removing and re-installing the power converter; and
 - E. ANY LOST PROFITS, LOST SAVINGS, LOSS OF USE OF ENJOYMENT OR OTHER INCIDENTAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE PRODUCT. THIS INCLUDES DAMAGES TO PROPERTY AND, TO THE EXTENT PERMITTED BY LAW, DAMAGES FOR PERSONAL INJURY. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- IV. **PROOF OF PURCHASE:** A warranty claim must be accompanied by proof of the date of purchase.
- V. **CLAIM PROCEDURE:** Upon discovery of any defect, Progressive Dynamics, Inc. shall be supplied the following information at the address listed below:
- A. Name and address of the claimant;
 - B. Name and model of the product;
 - C. Name, year and model of the recreational vehicle in which the product was installed;
 - D. Date of purchase; and
 - E. Complete description of the claimed defect.

Upon determination that a warranty claim exists (a defect in material or workmanship occurring under normal use and service,) the converter section shall be shipped postage prepaid to Progressive Dynamics, Inc. together with proof of purchase. The product will be repaired or replaced and returned postage prepaid.

INSTALLATION INSTRUCTIONS

PD4600 SERIES CONVERTER REPLACEMENT KIT

General

This retrofit kit is intended to replace existing 35, 45, and 55 Amp AC to DC power converters (depending on model). Installation should be completed by a licensed electrician or certified RV Technician. Converter models this kit is intended to replace are as follows, and instructions for replacement of each model is contained in this manual.

Model PD4635 (35 Amp) for replacement of:

Parallax/Magnetek model 6336
WFCO model 8935

Model PD4645 (45 Amp) for replacement of:

Parallax/Magnetek model 6345
Parallax model 7345
WFCO model 8945

Model PD4655 (55 Amp) for replacement of:

Parallax/Magnetek model 6355
Parallax model 7355
Parallax model 7155
WFCO model 8955

SAFETY FIRST!!!

To insure immediate and continued safety of installation and use of your new Progressive Dynamics Power Converter, please adhere to the following guidelines for ALL installations:

1. Do not install a converter whose amperage rating is higher than that which originally came installed in your application. Doing so may cause wiring to overheat, resulting in damage to components and/or fire.
2. Disconnect all power sources prior to removal of the old converter. Power sources may include, but are not limited to:
 - 120VAC shoreline power (unplug shoreline power cords)
 - Onboard generator (disconnect per manufacturer's instructions)
 - 12VDC battery power (disconnect negative terminal(s) from battery(ies))

IMPORTANT! Do not discard any components or fasteners until installation is complete and all aspects of power center pass testing. Labeling and/or organizing fasteners as they are removed will improve ease of installation, as some fasteners will be re-used from your current configuration!

Replacement instructions for

Parallax/Magnetek Models: 6336, 6345, 6355, 7345, 7355**Removal:**

1. Disconnect all power sources as outlined on page (1) of this manual.
2. Remove front panel by removing (4) screws at bottom of panel.
3. Remove AC power section cover by removing (2) screws.
4. Disconnect the neutral (white) converter feed wire from distribution block, and hot (black) wire from AC branch breaker. Pull wires thru the hole at the bottom left of the AC power section.
5. Remove the (2) DC power distribution board mounting screws.
6. Pull the DC board outward and remove the blue wire from the top of the board, and red and white wires from the BACK side of the board. Pull wires thru the hole at the bottom right of the DC power section.
7. Remove red wire from the FRONT of the old DC board, and reconnect to the terminal labeled "BATT POS+" on the new DC board. Remove the white wire from the FRONT of the old DC board, and reconnect to the terminal labeled "BATT NEG-" on the new DC board. Transfer branch circuit wiring in this same fashion.
8. Remove the (4) screws securing the old converter assembly to power center, and remove converter assembly.

Installation:

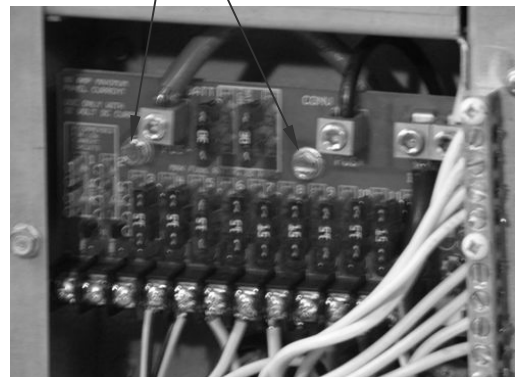
9. Slide new converter into power center. Route black/white/green wire-set into AC power section, and black/white wire-pair into DC section. Secure using (4) screws removed in step #8.
10. In the AC power section, connect new converter neutral (white) wire to neutral distribution block, and converter ground (green) wire to ground bar. Connect hot (black) wire to the existing AC branch breaker.
11. Replace AC power section cover and secure using (2) screws removed in step #3.
12. In the DC power section, route new converter DC wires behind new DC power distribution board. Connect new converter power (black) wire to the new DC power distribution board terminal labeled "CONV POS+". Connect the negative (white) wire to the DC board terminal labeled "CONV NEG-".
13. Making sure new DC feed wires remain behind DC board, secure DC board to power center using (2) screws removed in step #5.
14. Connect 4-pin header on DC board to 4-pin header on converter assembly using 4-wire harness (included).
15. Replace power center cover using (4) screws provided with kit.
16. Transfer DC Distribution branch circuit information to the new label provided with the retrofit kit, and adhere label over existing label on the inside of the power center cover. Affix green Replacement Notice label in any unused area of the power center cover.

Steps #3 & 11



Steps #8 & 9

Steps #5 & 13



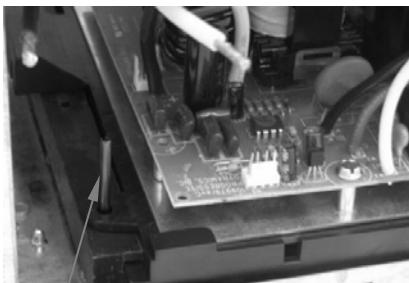
Replacement instructions for
Parallax/Magnetek Models: 7155

Removal:

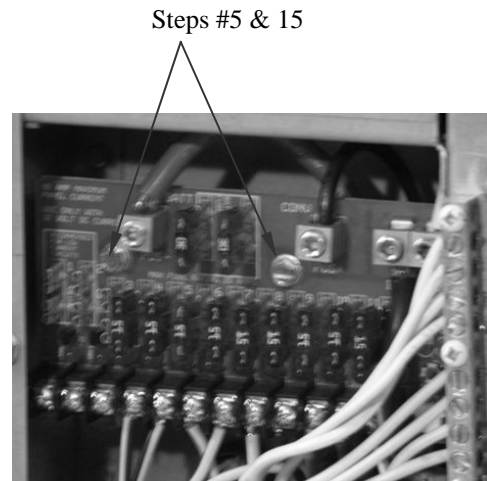
1. Disconnect all power sources as outlined on page (1) of this manual.
2. Remove front panel by removing (4) screws at bottom of panel.
3. Remove AC power section cover by removing (2) screws.
4. Disconnect the neutral (white) converter feed wire from distribution block, and hot (black) wire from AC branch breaker. Pull wires thru the hole at the bottom left of the AC power section.
5. Remove the (2) DC power distribution board mounting screws.
6. Pull the DC board outward and remove the blue wire from the top of the board, and red and white wires from the BACK side of the board. Pull wires thru the hole at the bottom right of the DC power section.
7. Remove red wire from the FRONT of the old DC board, and reconnect to the terminal labeled "BATT POS+" on the new DC board. Remove the white wire from the FRONT of the old DC board, and reconnect to the terminal labeled "BATT NEG-" on the new DC board. Transfer branch circuit wiring in this same fashion.
8. Remove the (2) screws securing the old converter assembly to power center, and remove converter assembly.

Installation:

9. Remove new converter core assembly from provided enclosure by depressing the button on the bottom of the enclosure, and sliding converter out. Discard enclosure.
10. Remove spring from converter base lock-button.
11. Slide new converter core into power center. Route black/white/green wire-set into AC power section, and black/white wire-pair into DC section. Secure by placing roll-pin thru converter base tab into mounting rail.
12. In the AC power section, connect new converter neutral (white) wire to neutral distribution block, and converter ground (green) wire to ground bar. Connect hot (black) wire to the existing AC branch breaker.
13. Replace AC power section cover and secure using (2) screws removed in step #3.
14. In the DC power section, route new converter DC wires behind new DC power distribution board. Connect new converter power (black) wire to the new DC power distribution board terminal labeled "CONV POS+". Connect the negative (white) wire to the DC board terminal labeled "CONV NEG-".
15. Making sure new DC feed wires remain behind DC board, secure DC board to power center using (2) screws removed in step #5.
16. Connect 4-pin header on DC board to 4-pin header on converter assembly using 4-wire harness (included).
17. Replace power center cover using (4) screws removed in step #2.
18. Transfer DC Distribution branch circuit information to the new label provided with the retrofit kit, and adhere label over existing label on the inside of the power center cover. Affix green Replacement Notice label in any unused area of the power center cover.



Step #11



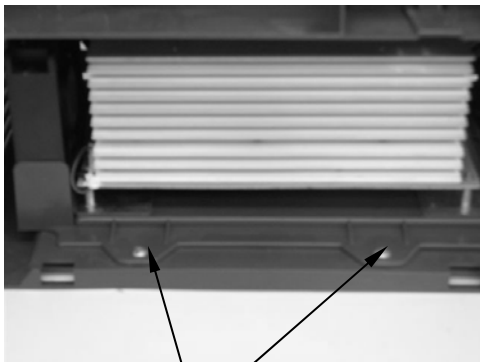
Replacement instructions for
WFCO Models: 8935, 8945, 8955

Removal:

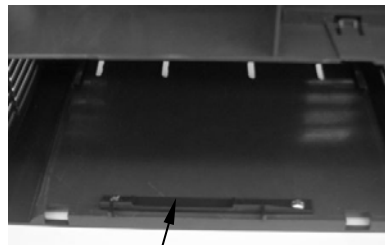
1. Disconnect all power sources as outlined on page (1) of this manual.
2. Remove front panel by removing opening access door and loosening (2) screws.
3. Disconnect the neutral (white) converter feed wire from distribution block, and hot (black) wire from AC branch breaker. Pull wires thru the hole at the bottom left of the AC power section.
4. Depress tab securing DC Board, and pull the DC board outward. Remove the red and white wires from the front of the board. Pull wires thru the hole at the bottom right of the DC power section.
5. Remove main power wires from the old DC board, and unsecure DC board from power center. Pull converter DC wires out of DC power section. Connect red battery wire to new DC board lug labeled "BATT POS+", and white battery wire to new DC board lug labeled "BATT NEG-". Secure new DC board to power center, and transfer branch circuit wiring. Discard old DC board.
6. Remove the (2) screws securing the old converter assembly to power center, and remove converter assembly.

Installation:

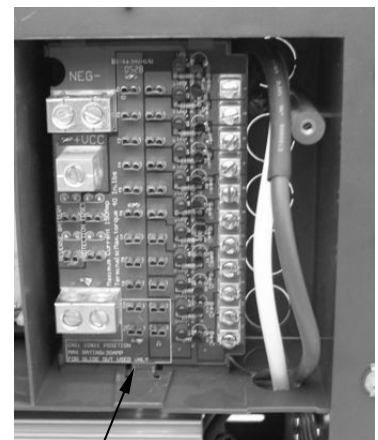
7. Attach new adapter bracket to power center using (2) screws removed in step #6.
8. Remove new converter core assembly from provided enclosure by depressing the button on the bottom of the enclosure, and sliding converter out. Discard enclosure.
9. Slide new converter into power center. Route black/white/green wire-set into AC power section, and black/white wire-pair into DC section. Secure by snapping into bracket installed in step #7.
10. In the AC power section, connect new converter neutral (white) wire to neutral distribution block, and converter ground (green) wire to ground bar. Connect hot (black) wire to the existing AC branch breaker.
11. In the DC power section, route new converter DC wires to new DC power distribution board. Connect new converter positive (black) wire to the new DC power distribution board terminal labeled "CONV POS+". Connect the negative (white) wire to the DC board terminal labeled "CONV NEG-".
12. Connect 4-pin header on DC board to 4-pin header on converter assembly using 4-wire harness (included).
13. Replace power center cover using (2) screws removed in step #2.
14. Transfer DC Distribution branch circuit information to the new label provided with the retrofit kit, and adhere label to the inside of the power center door. Affix green Replacement Notice label in any unused area of the power center cover or door.



Step #6

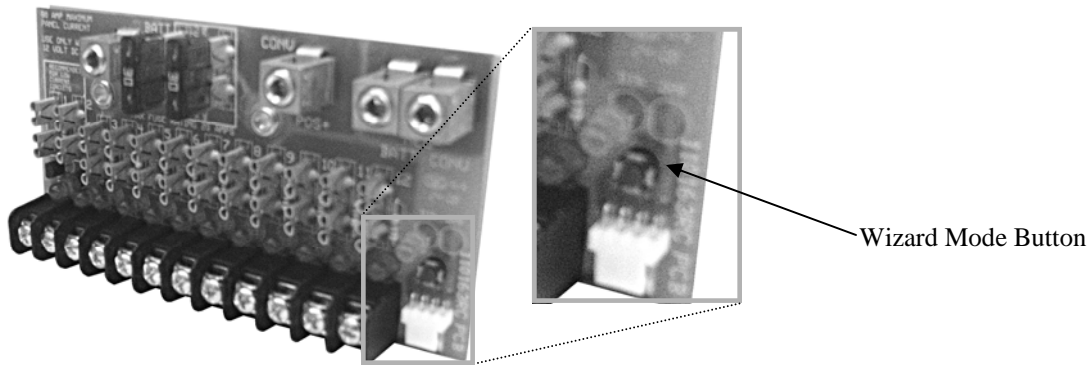


Step #7



Step #4

The Charge Wizard Operation:



While the built-in Charge Wizard automatically determines which operating mode is best suited to recharge or maintain optimum battery condition, the **Wizard Mode Button** allows for manual override and has an indicator light to indicate the mode of operation. (Located on DC board, included)

Light "ON" – Indicates the converter is in the **Boost Mode** and the output voltage is 14.4 VDC to rapidly recharge the battery up to 90% of full charge.

Light Blinks Rapidly (every 2-3 seconds) – Indicates the converter is in the **Normal Mode** and the output voltage is 13.6VDC. In this mode the converter is safely completing the charge of the battery.

Light Blinks Slowly (every 5-6 seconds) – Indicates the unit is in the **Storage Mode** and the output voltage has been lowered to 13.2VDC. In this mode the RV battery is fully charged and the converter is maintaining the charge.

MANUAL BUTTON. The manual button has been provided to allow the operator to manually override the converter (not recommended) and to verify the converter is operating properly. For manual operation, Press and Hold the button. The indicator light will soon remain "ON" indicating Boost Mode. Continue to hold the button and the light will blink rapidly indicating the converter is in the Normal Mode. Continue to hold the button until the light blinks slowly indicating the converter is now in the Storage Mode. After the manual button is released the converter will return to the automatic mode of operation, after a period of time, to prevent damage to the battery.

REVERSE BATTERY PROTECTION CIRCUIT

If a battery is accidentally hooked up backwards, the converter will be protected. Easily accessible ATC type fuses will blow when a battery is connected in reverse. All PD4600 Series Converter Replacement units require (2) 30AMP fuses which must be installed to distribute DC power.

Model	PD4635	PD4645	PD4655
Specifications	Input: 105-130 VAC 50/60 Hz 550 Watts Output: 13.6 VDC, 35 Amps Weight: 9 lbs	Input: 105-130 VAC 50/60 Hz 725 Watts Output: 13.6 VDC, 45 Amps Weight: 9 lbs	Input: 105-130 VAC 50/60 Hz 950 Watts Output: 13.6 VDC, 55 Amps Weight: 10 lbs

(Specifications subject to change without notice)



Progressive Dynamics, Inc.

Visit us on the web for other great products!
www.progressivedyn.com

507 Industrial Rd
Marshall, MI 49068
Phone: 269-781-4241
Fax: 269-781-7802