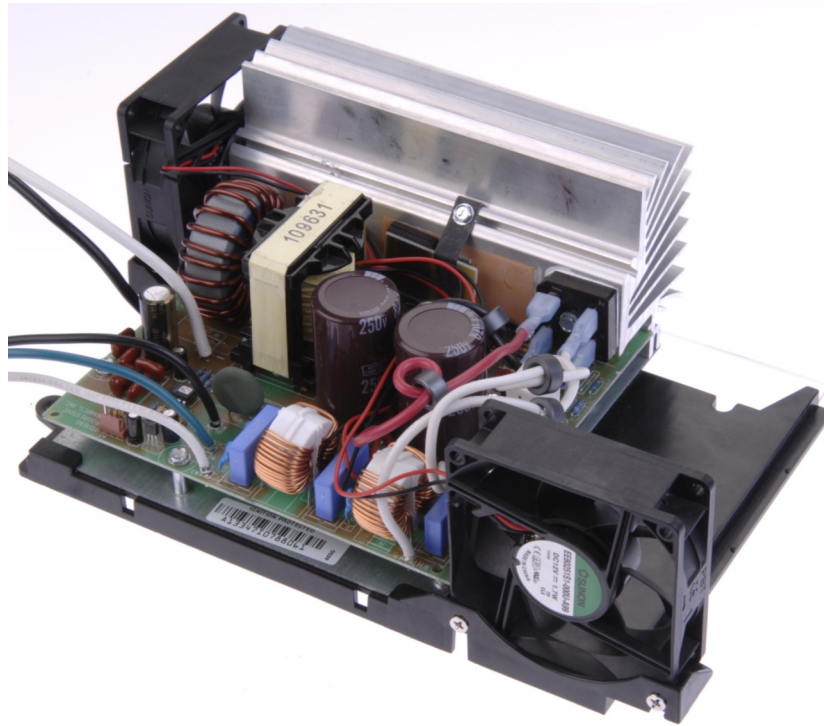


Installation and Operation Guide

PD4655TV Series Converter Replacement



Member
RVIA

We'd like to welcome you to a full line of industry - leading and time - tested products, including our newest addition, the PD4655TV Series Converter Replacement Unit.

The PD4655TV 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!

Patent Numbers: 7,782,002.

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LIMITED WARRANTY

- I. **LIMITED WARRANTY:** 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 three 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, manufacturer 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 together with proof of purchase. The product will be repaired or replaced and returned postage prepaid.

INSTALLATION INSTRUCTIONS

PD4655TV SERIES CONVERTER REPLACEMENT KIT

General

This retrofit kit is intended to replace existing 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 are contained in this manual.

Model PD4655TV (55 Amp) for replacement of:

WFCO model 8955
Parallax model 7155

SAFETY FIRST!!!

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

1. Do NOT install a converter whose amperage rating is higher than the one originally 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 shore power (unplug shore power cord)
 - 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!

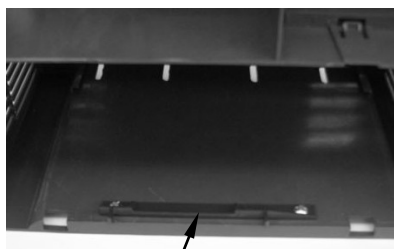
Replacement instructions for
WFCO Models: 8955

Removal:

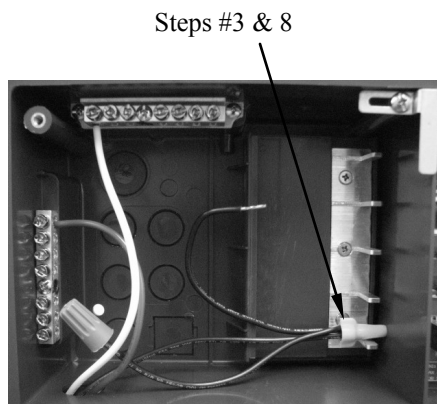
1. Disconnect all power sources as outlined on page (1) of this manual.
2. Remove front panel by opening access door and removing (2) screws.
3. Disconnect the neutral (white) and ground (green) converter feed wires from distribution blocks and hot wire from AC branch breaker. If the utility pigtail is used, remove wire nut. Pull wires thru the hole at the bottom left of the AC power section.
4. Remove the converter+ (red) and converter- (white) wires from the front of the DC fuse board. Pull wires thru the hole at the bottom right of the DC power section.
5. Remove the (2) screws securing the old converter assembly to power center, and remove converter assembly.

Installation:

6. Attach new adapter bracket to power center using (2) screws removed in step #5.
7. 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 converter by snapping into bracket installed in step #6.
8. 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. If the utility pigtail was used on the original installation, two short lengths of 14AWG wire and a wire nut may be used to provide the utility pigtail. DO NOT install (2) wires into the breaker.
9. 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 '+VCC'. Connect the negative (white) wire to the DC board terminal labeled 'NEG-'.
10. Connect pendant to 4-pin header on converter.
11. Replace power center cover using (2) screws removed in step #2.
12. Affix green Replacement Notice label over old branch circuit distribution label.



Step #6



Replacement instructions for
Parallax/Magnetek Models: 7155

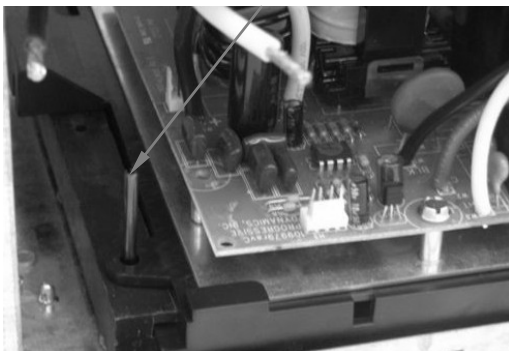
Removal:

1. Disconnect all power sources as outlined on page (1) of this manual.
2. Remove front panel by removing (6) 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. If the utility pigtail is used, remove wire nut. Pull wires thru the hole at the bottom left of the AC power section.
5. Remove the converter+ (blue) and converter- (white) wires from the board. Pull wires thru the hole at the bottom right of the DC power section.
6. Remove the (2) screws securing the old converter assembly to power center, and remove converter assembly.

Installation:

7. 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 converter by placing roll-pin thru converter base tab into mounting rail.
8. 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. If the utility pigtail was used on the original installation, two short lengths of 14AWG wire and a wire nut may be used to provide the utility pigtail. DO NOT install (2) wires into the breaker.
9. Replace AC power section cover and secure using (2) screws removed in step #3.
10. 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-'.
11. Making sure new DC feed wires remain behind DC board, secure DC board to power center using (2) screws removed in step #5.
12. Replace power center cover using (6) screws removed in step #2.
13. Affix green Replacement Notice label in any unused area of the power center cover.

Step #7



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 remote pendant)

BOOST MODE – Indicated by green LED remaining on. The output voltage is 14.4VDC to rapidly recharge the battery up to 90% of full charge.

NORMAL MODE – When the battery is between 50% and 90% charged, the green LED will flash once per second. When the battery has reached 90% of full charge, the green LED will flash 2 - 3 times per second. In this mode the output voltage is 13.6VDC and the converter is safely completing the charge of the battery.

STORAGE MODE – Indicated by green LED flashing every 6 - 8 seconds. In this mode the output voltage has been lowered to 13.2VDC, the RV battery is fully charged and the converter is maintaining the charge.

WIZARD MODE BUTTON - The manual button has been provided to allow the operator to temporarily override the converter (not recommended) or 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 stay in the selected mode. When the battery charge status changes, the converter will return to the automatic mode of operation to prevent damage to the battery.

- All times and voltages provided above are approximate. -

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. The PD4655TV Series Converter Replacement unit requires (2) 30AMP fuses to distribute DC power. Replace with same type and rating.

Model	PD4655
Specifications	Input: 105-130 VAC 50/60 Hz 950 Watts Output: 13.6 VDC, 55 Amps Weight: 4.5 lbs

(Specifications subject to change without notice)

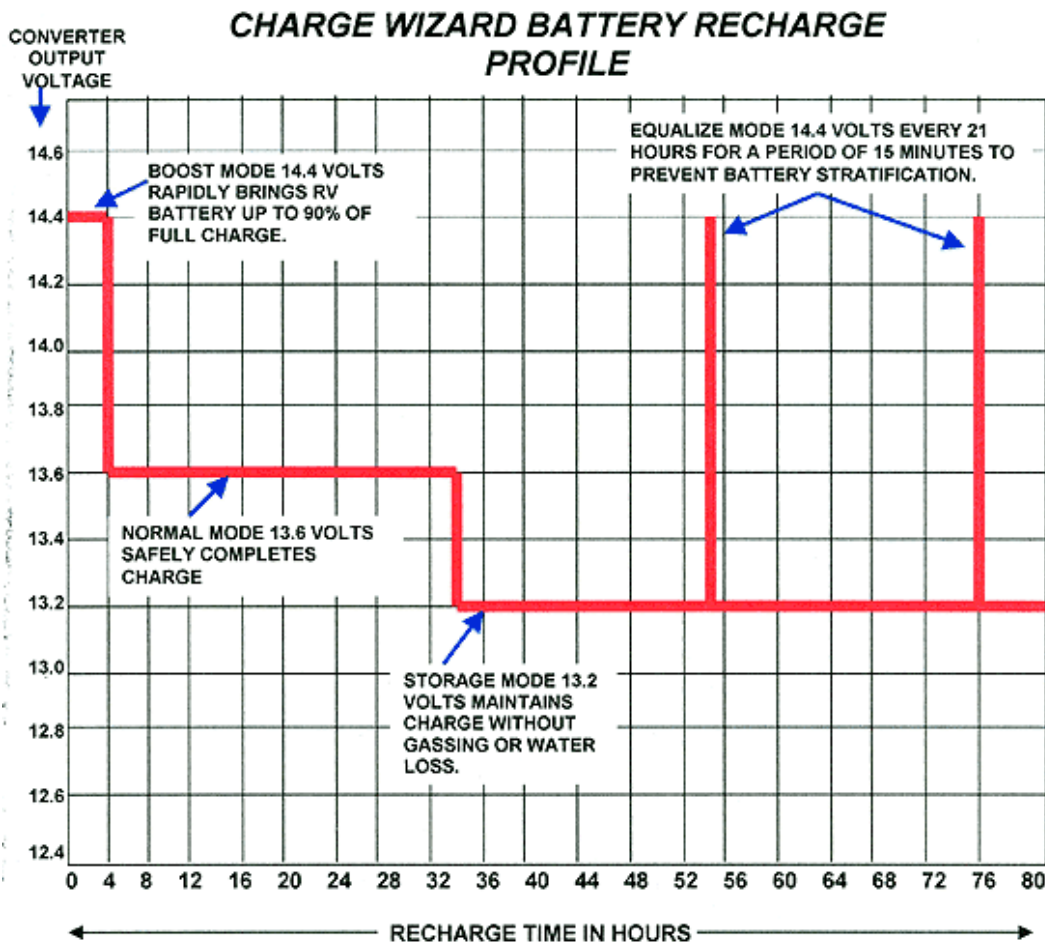
Charge Wizard Battery Recharge Profile

The Charge Wizard constantly monitors battery voltage and battery usage then selects one of the following four operating modes to properly charge and maintain the battery.

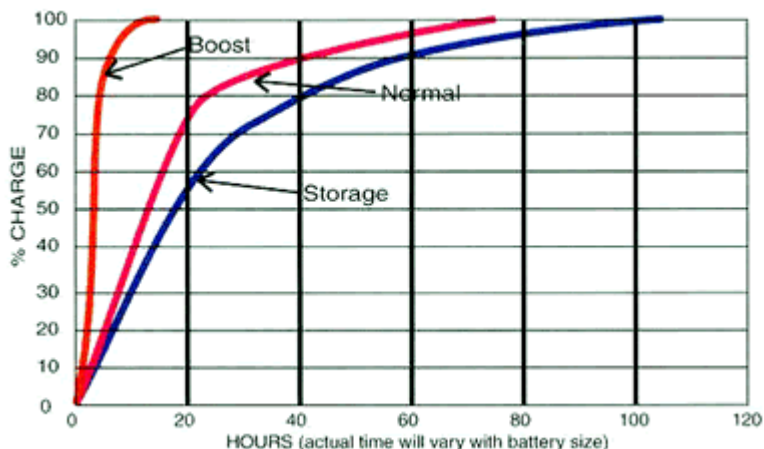
BOOST Mode 14.4 Volts - Rapidly brings the RV battery up to 90% of full charge.

NORMAL Mode 13.6 Volts - Safely completes the charge.

STORAGE Mode 13.2 Volts - Maintains charge with minimal gassing or water loss.



Battery Recharge Curves with Converter Output Voltage set at 14.4, 13.6, and 13.2 volts



As you can see the Charge Wizard's ability to increase the voltage of our converters from the Normal Output Voltage of 13.6-volts to 14.4-volts in the Boost Mode, will significantly reduce the time it takes to recharge your RV battery. The lower voltage 13.2-volts Storage Mode, helps prevent battery gassing and water loss allowing you to keep your RV plugged into 120 VAC power during storage to maintain the battery at full charge.