



The Power to Bring People and Places Together !

7300 Series Installation Guidelines



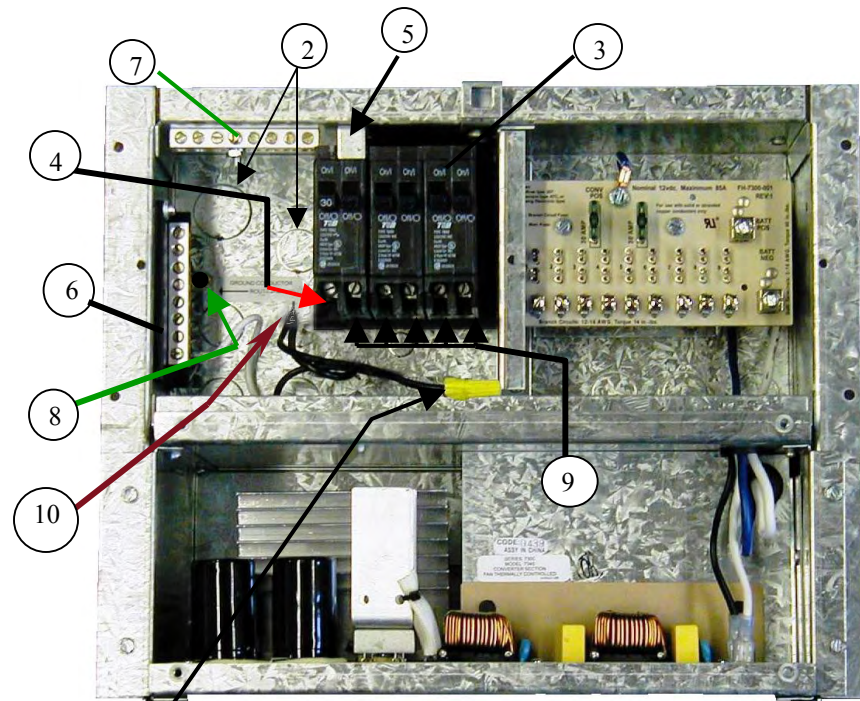
120 VAC Electrical installation shall comply with Article 551 and other applicable sections of the National Electric Code.

12 VDC installation shall comply with ANSI/RVIA 12 V.

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7300 Series AC Wiring

1. **Horizontal Mounting Only!** Mount the 7300 Series to a vertical surface with the front of the control center open to the living area of the RV. Leave adequate space behind unit for ventilation and wire routing.
2. Install appropriately sized conduit nipples on all AC or DC Chassis knockouts removed to provide wire support and strain relief.
3. **Panel rated for a main 30 ampere and a maximum of 5 branch circuits.** See AC wiring label for list of suitable breakers for main and branch circuits. Use suitable filler plates for any unused breaker locations.
4. Connect 30 ampere Shore line cord (black) “hot” lead into base of 30 ampere maximum main breaker.
5. **NEC requires breaker “hold-down” bracket to secure 30 ampere “main” breaker.**
6. Shore Line and 120 VAC load circuit (white) Neutrals connect to this isolated terminal bar.
7. Shore Line and 120 VAC load circuit (green) grounds and bonding conductor connect to this terminal bar.
8. AC bond routing hole for (# 8 AWG minimum required) AC bonding conductor.
9. 120 VAC load breakers amperage rating chosen by AWG wire size used for the load. Connect to (black) load circuit “hot” leads. #14 AWG “Romex” connect to maximum 15 ampere load breaker. #12 AWG “Romex” connect to maximum 20 ampere load breaker.
10. Connect wire pin on (black) converter power “hot” lead to a 20 ampere (maximum) load breaker.



Product shown with Door and dead front plate removed.

*** Note- AC Breakers and DC load fuses not supplied with unit.

*** “Pigtail” lead not to be utilized unless load and load circuit wiring for this circuit originally installed in the Vehicle Manufacturer’s plant facility.

Electrical installation shall comply with Article 551 and other applicable sections of the National Electric Code.

Refer to breakers and wiring labels for terminal torque ratings. .



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Parallax Power Supply L.L.C. Technical Note

ISSUES CONCERNING THE MOUNTING CLEARANCES FOR THE 7300 SERIES POWER CENTERS.

There seems to be some confusion about a statement in the Owner's Manual for the 7300 series power centers. The statement is in the Mounting clearances portion of the document. The intention of this letter is to clarify the meaning and intent of the statements.

The statement is made that there must be provided a minimum of 22 inches clearance to the front of the converter. Also, that adequate room should be left for wire routing and fan air intake located in the top and rear of the converter. Another marking on the nameplate label required by UL states that the converter should not be mounted in zero clearance compartments because overheating and thermal shutdown will result.

As to the issue of the 22-inch clearance to the front of the converter:

This statement was made in reference to the NEC article 551-45(b) exception No 1 pertaining to the AC panelboard section of the converter. Also see the RVIA handbook page E-66. It simply states that the power center panelboard must have 22 inches of clearance workspace after Installation.

The panelboard is considered exposed where the panelboard face is within 2 inches of the finished surface to which it is mounted . A non-locking decorative door may be installed in front of the distribution panelboard however the panelboard must be within 2 inches of a finished surface, not including the door thickness. This is so that the panelboard can be readily accessed when the door is opened, exposing the 22-inch minimum clearance workspace but not allowing enough room between the panelboard and the door for storage.

As to the issue of the adequate room for wire routing and fan air intake:

Our intent here is to state that there must be enough clearance around the converter to provide adequate intake airflow for cooling the converter system electronics. Also you must leave enough room for the AC and DC field wiring to be installed. In most cases leaving enough room for the field wiring will assure adequate air intake clearance. The main concern seems to be about the clearance to the converter exhaust louvers located in the front of the converter when a decorative door is added over the front of the converter. Because of physical design of the converter the exhaust louvers and the AC panelboard are in the same plane, hence the added door will not be greater than 2 inches from the louvers because of compliance with NEC 551-45 (b) requirement for the panelboard. This will restrict to some degree the exhaust airflow.

The only way to attack this problem is through trial and error. The converter must be placed under the clearance-limiting condition then its operation monitored to verify correct operation. If the converter shuts down due to overheating then the clearance area must be increased to allow proper airflow. The converter has been tested under completely blocked ventilation conditions and will not become a fire hazard but will not hold up to its full rated output load specifications.

Please keep in mind that operating the converter under restricted air flow conditions will elevate the operating temperatures inside the converter and may reduce the life expectancy over time. The converter was designed to operate indefinitely at full load @25c (77f) ambient with the ventilation openings open to the living quarters.

Parallax Power Supply L.L.C. cannot be held liable for poor performance or failures of the converter due to restricted air flow installations.



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7300 Series Wiring Labels

120 VAC Wiring Label

(located on back of metal dead front plate covering breaker compartment)

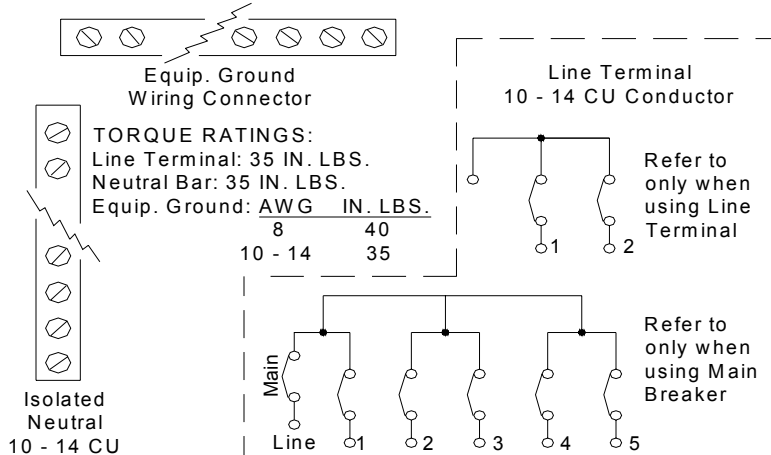
Electrical installation shall comply with Article 551 and other applicable sections of the National Electric Code.

PANELBOARD WIRING DIAGRAM MOUNT PANEL AS SHOWN BELOW

Short circuit rating of this panelboard is 10,000 RMS symmetrical amperes, 120VAC, but the rating is limited to the lowest interrupting capacity at a supply voltage of any breaker installed. The replacement circuit breakers must be of the same type and interrupting ratings.

NOTE: One of the typical diagrams, shown below pertains to this model. Main breaker must be used when 3 or more branch breakers are used. The following breakers are suitable for MAIN and BRANCH breakers:

Bryant - BR, BD, GFCB, Filler Plate-fp-1B
 ITE Gould - QP, QT, Filler Plate-QF3
 Thomas & Betts - TB, TBBD
 Filler Plate - FP-1CTB
 Square D - HOM: Filler Plate-HOMFP
 TORQUE RATINGS: 8-14 AWG - 36 IN. LBS.
 Square D - HOMT: Filler Plate-HOMFP
 TORQUE RATINGS: 8-14 AWG - 26 IN. LBS.



FIELD WIRING 60 C MIN.

When Equipped with " Option A" option, suitable for use in accordance with article 702 of the National Electrical Code, ANSI/NFPA 70.

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Examples of Listed Circuit Breaker Types

THOMAS & BETTS

Type TBBD Twin Pole-Plug In

Requires One 1" Space

HACR	SWD Rated
120/240VAC	10,000 AIC



SIEMENS ITE /GOULD

Type QT Twin Pole-Plug In

Requires One 1" Space

HACR	120/240VAC
10,000 AIC	



SQUARE D

Type HOMT Twin Pole-Plug In

Requires One 1" Space

HACR	120/240VAC
10,000 AIC	



Cutler-Hammer Bryant

Type BD- Type C Twin Pole-Plug In

Requires One 1" Space

HACR	SWD Rated
120/240VAC	10,000 AIC



7300 Series Wiring Labels

OPERATION GUIDE

A: AC DISTRIBUTION PANEL

This panel contains the AC breakers for each of the 120 VAC branch circuits of the RV. To turn AC breakers ON or OFF, switch breaker handle. Breaker position is indicated by visual ON, OFF. To reset a tripped breaker, switch breaker handle OFF, then ON.

B: DC DISTRIBUTION PANEL

This panel contains the 12 volt DC fuses for each of the 12 VDC load circuits of the RV. The DC distribution panel is designed for blade type fuses with a maximum size of 20 amperes. If a fuse blows, do not replace with a fuse larger than indicated on the label.

C: Power Converter - 120 VAC TO 12 VDC

When 120 VAC is connected to the Power Converter section either via commercial power or generator, the converter will automatically provide the 12 volt DC power to operate the 12 volt DC power lights and 12 volt DC motors in the RV. When 120 VAC is not connected to the Power Converter section, the RV storage battery(ies) automatically provide the necessary 12 volt DC to operate this equipment.

D: BATTERY CHARGING SECTION

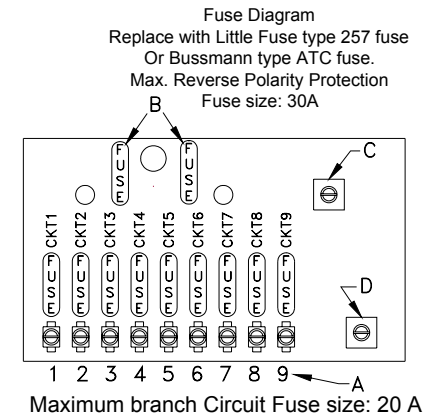
When 120 VAC is connected to the Power Converter section, the total DC amperage output of the converter is available for recharging the RV battery(ies), minus current used by 12 volt load equipment.

E: INSTALLATION REQUIREMENTS (HORIZONTAL MOUNTING ONLY)

Mount the series 7300 Power Plus Control to a verticle surface with the front of the control center open to the living area of the RV. Leave adequate room for ventilation and wire routing.

DC DISTRIBUTION PANEL

1. _____ AMP _____
2. _____ AMP _____
3. _____ AMP _____
4. _____ AMP _____
5. _____ AMP _____
6. _____ AMP _____
7. _____ AMP _____
8. _____ AMP _____
9. _____ AMP _____



A: CONVERTER OUTPUT: CKTS 1 - 9 VDC Positive load circuits for RV 12 volt loads. DO NOT USE HIGHER THAN 20 AMPERE FUSE.

B: REVERSE BATTERY POLARITY PROTECTION FUSES. REPLACE WITH 30 AMPERE MAXIMUM.

C: LUG FOR POSITIVE LEAD OF 12 VOLT BATTERY. Use #8 AWG CU conductor with 90 degree Celcius insulation rating minimum.

D: LUG FOR NEGATIVE LEAD OF 12 VOLT BATTERY. Use #8 AWG CU conductor with 90 degree Celcius insulation rating minimum.

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE OR ELECTRIC SHOCK, REPLACE ONLY WITH SAME RATINGS AND TYPE OF FUSE.



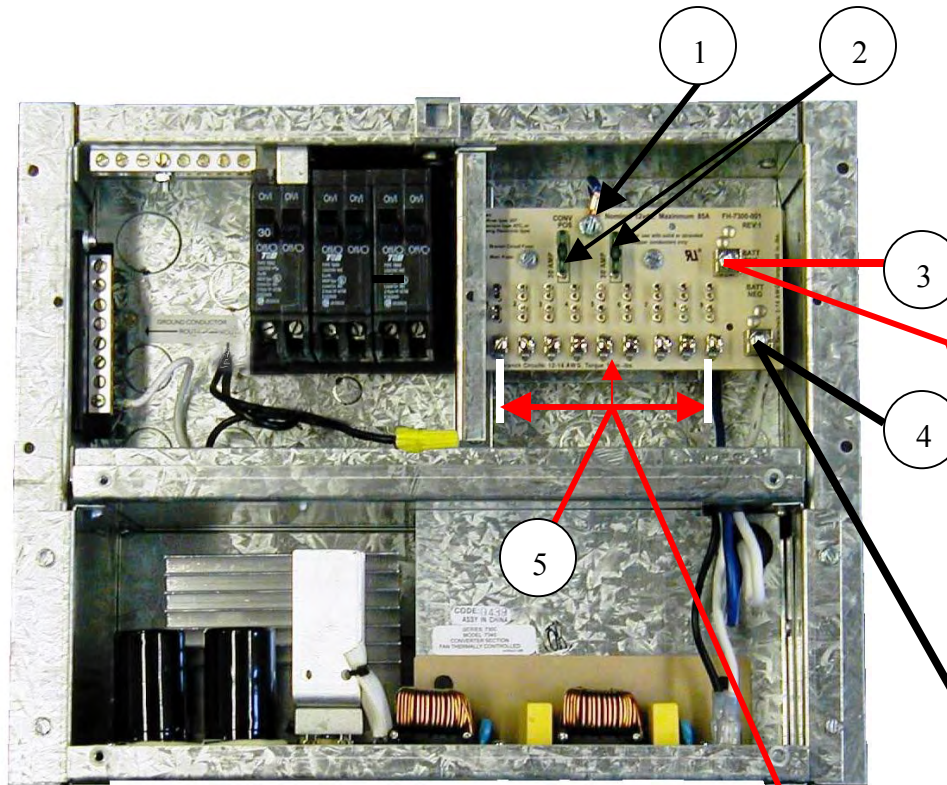
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DC Wiring Label
(located inside door right side)

12 VDC installation shall comply with ANSI/RVIA 12 V.

7300 Series DC Wiring

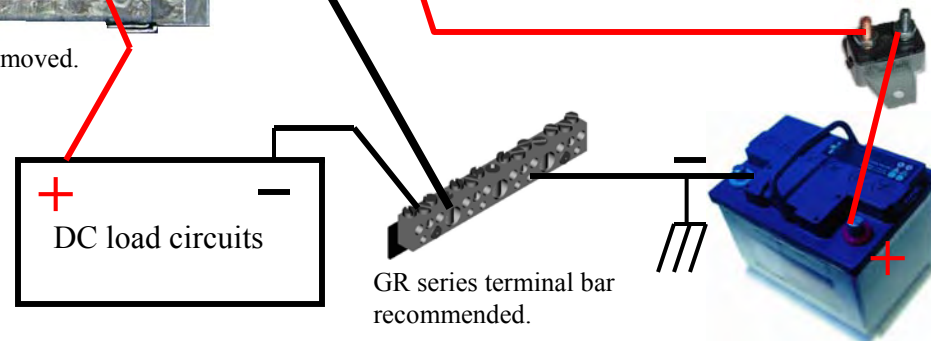


Product shown with Door and dead front plate removed.

1. Converter DC output lead.
2. Converter “reverse battery polarity” protection fuses.
3. “C” Terminal – Connect to battery Positive wiring. # 8 CU AWG minimum w/ 90 degree Celsius insulation rating required.
4. “D” Terminal – Connect to 12 volt load Negatives and battery Negative. # 8 CU AWG minimum w/ 90 degree Celsius insulation rating required.
5. 12 Volt load circuit Positive connection terminals. Fuse each load circuit per NEC Code (Table 310-16) appropriate to AWG and temperature rating of conductor used.

12 VDC installation shall comply with ANSI/RVIA 12 V

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GR series terminal bar recommended.