



FLEXware 250

User's Guide

Includes Mounting, Installation, and
Product Registration



OutBack Power Systems FLEXware is a system of modular aluminum mounting hardware and installation components designed for convenient system installation and integration.

About OutBack Power Systems

OutBack Power Systems is a leader in advanced energy conversion technology. Our products include true sine wave inverter/chargers, a maximum power point charge controller, system communication components, as well as breaker panels, breakers, accessories, and assembled systems.

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Requirements and Warnings

The OutBack Power Systems FLEXware 250 (FW250) is listed by ETL as an indoor enclosure to UL standard UL 508A Industrial Control Panels.

This enclosure is intended for battery circuits configured for 12 to 48 volts nominal.

Grounding Instructions – The frame of this enclosure should be connected to a grounded, permanent wiring system. For most installations, the negative battery conductor should be bonded to the grounding system at one (and only one) point in the DC system. All installations should comply with all national and local codes and ordinances. System grounding as required by the National Electric Code, ANSI /NFPA 70-1996, is the responsibility of the system installer.

The equipment ground on FLEXware 250 is marked with this symbol: 

FLEXware is designed for indoor mounting only with appropriate fasteners and a secure mounting surface that can handle the full weight of an assembled system.

Welcome to OutBack Power Systems' FLEXware

FLEXware is a convenient all-aluminum power system offering simpler, code-compliant installation of OutBack power electronics components. Three versions of FLEXware are available:

- FLEXware 250 for single FX Series Inverter/Charger installations along with the desired AC and DC disconnects
- FLEXware 500, which supports up to two FXs and two MX Charge Controllers, accommodating both split-phase and/or higher power output as needed
- FLEXware 1000 accommodates up to four FXs and four MX Charge Controllers

Please Note: Both the FLEXware 500 and the FLEXware 1000 power systems provide locations for FW-X240 Auto-Transformers, multiple DC shunts and other essential components required in higher kW systems.

FLEXware 250 Parts List

FW250 consists of an aluminum chassis or enclosure which can be used for either the AC or DC side of an FX Series Inverter/Charger. Each FW250 includes:

- installed ground bus bar
- Breaker Guard (for DC installations)
- Hardware Kits for mounting to an FX and for securing AC and DC breakers (refer to the hardware bag label for a complete listing of parts)
- Cover Plate
- Breaker Label Kit

The chassis itself features conduit knockouts (see Figures 2-5) and knockouts for AC breakers, DC breakers, and a GFCI receptacle on the AC side.

- DC installations include a slot for either a 175 or 250 amp OBDC breaker and slots for four load breakers.
- AC installations allow for either the optional 120 or 230 amp Input/Output/Bypass Assembly (IOB) kits and a GFCI

Optional Parts:

- GFCI duplex receptacle
- FW-IOB (Input/Output/Bypass Assembly) Kits for 120 VAC or 230 VAC

Getting to Know FLEXware 250

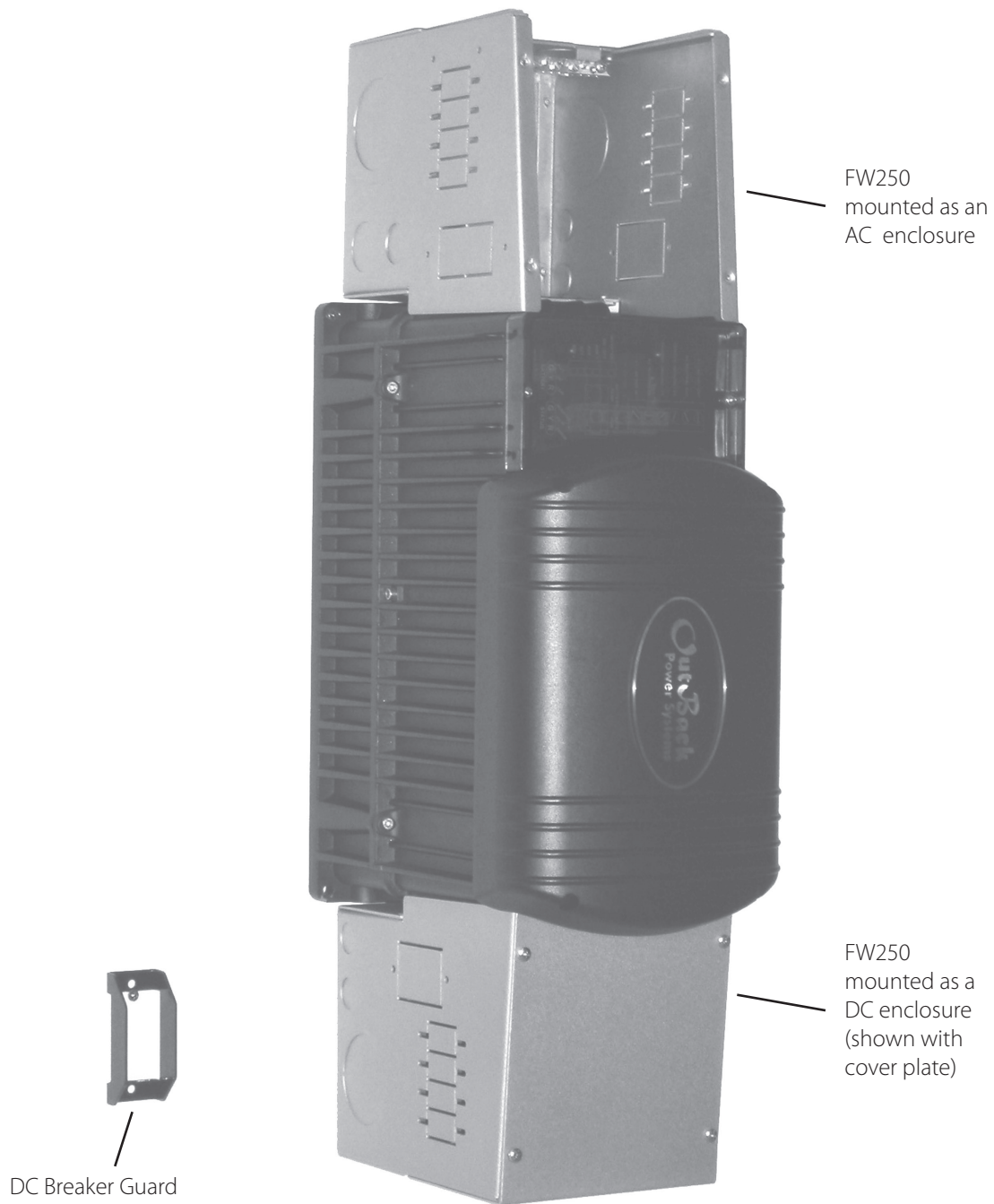


Figure 1: FLEXware 250

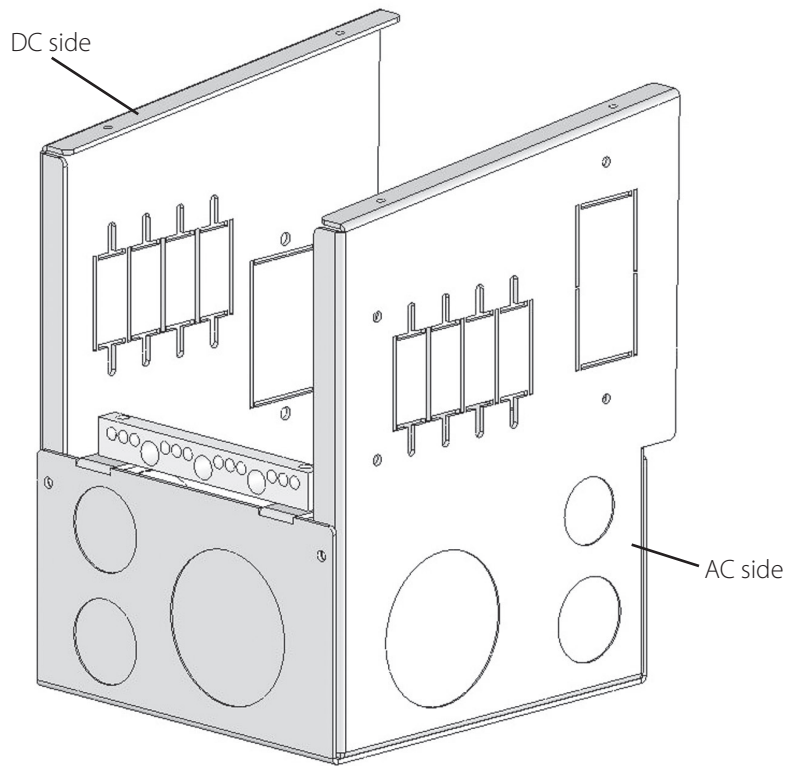


Figure 2: FW250 chassis

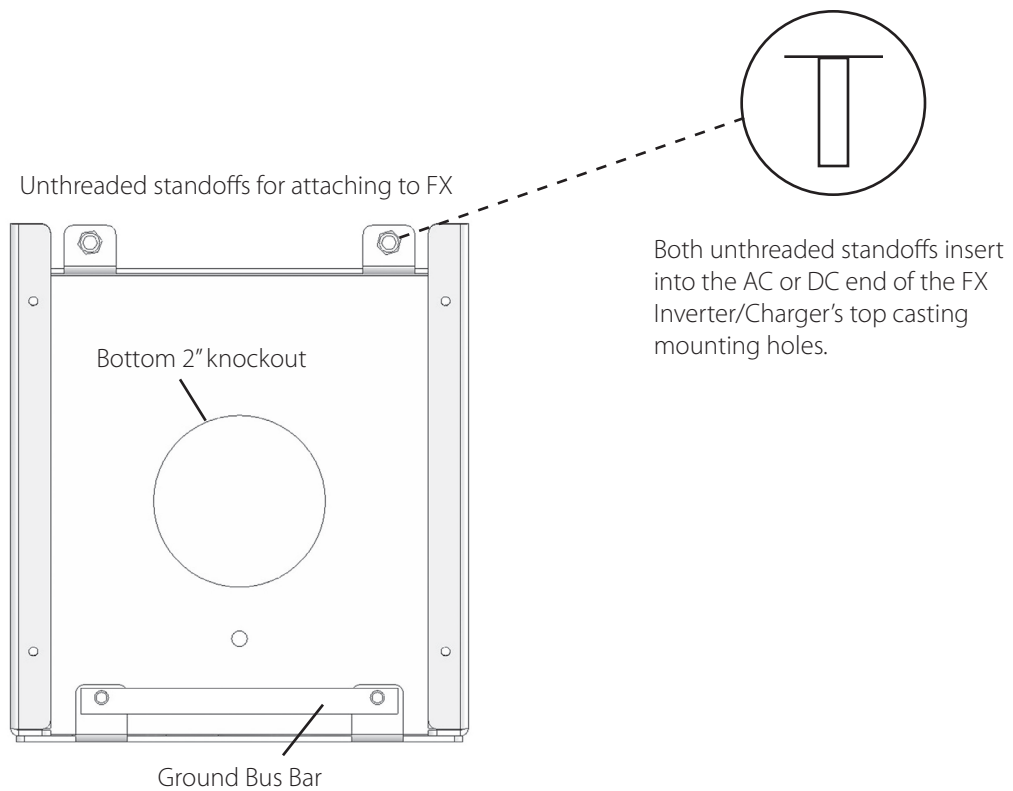


Figure 3: FW250 top view

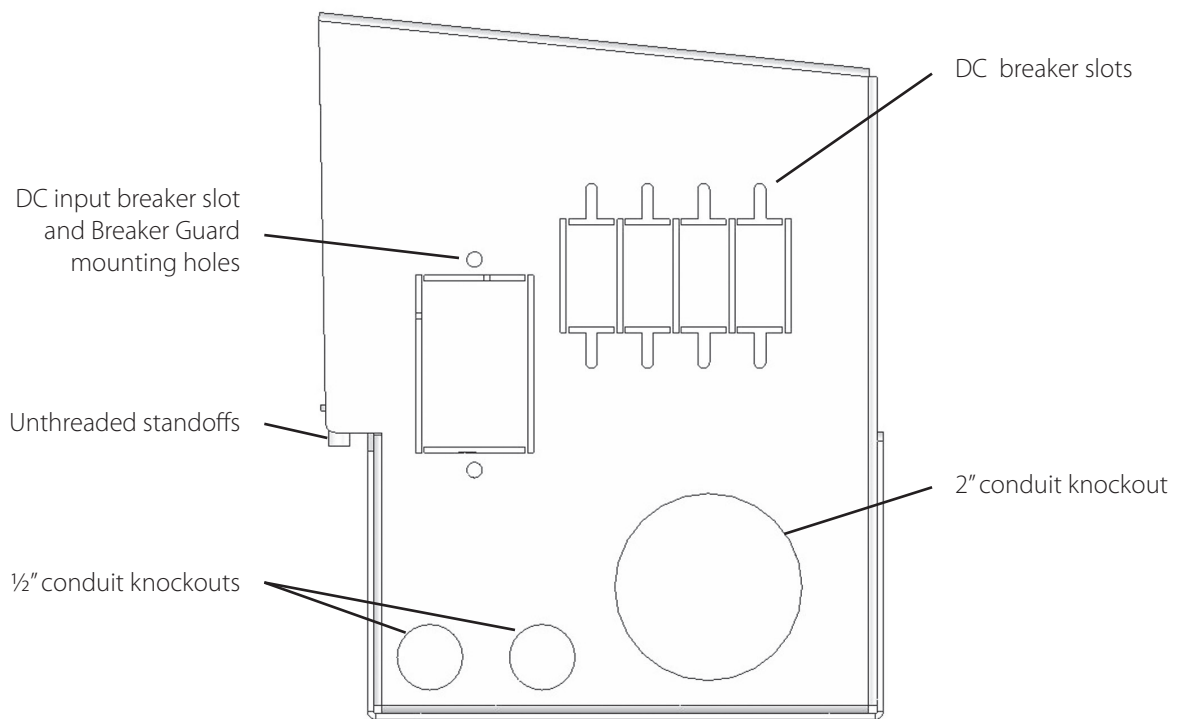


Figure 4: FW250 DC side

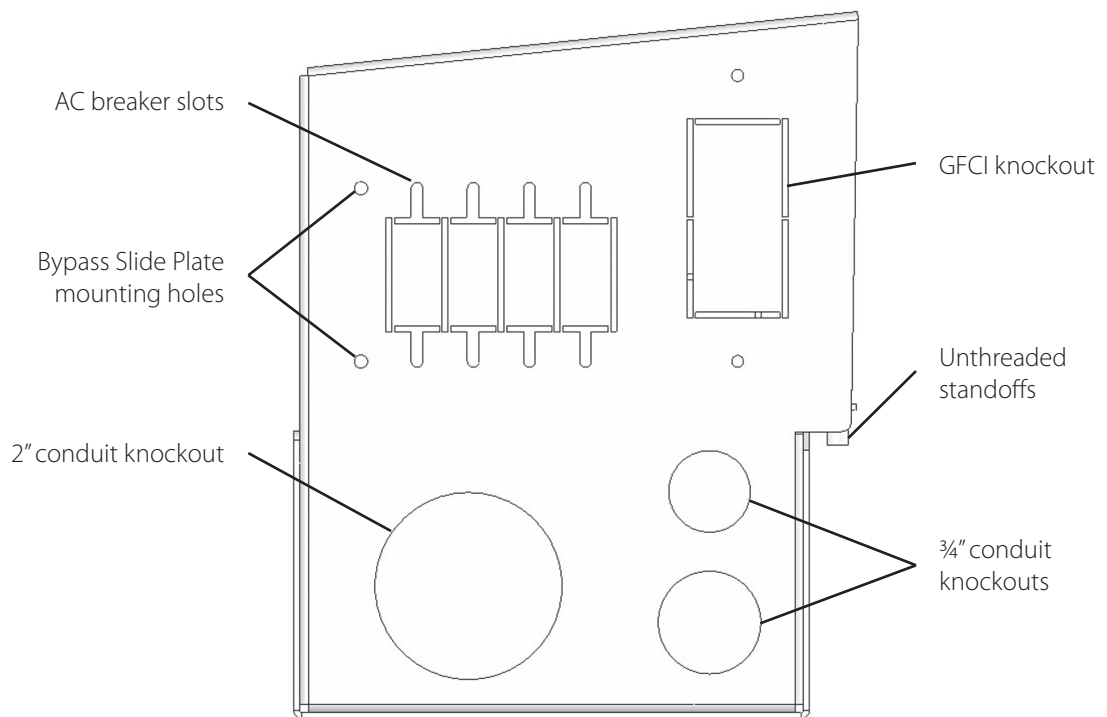
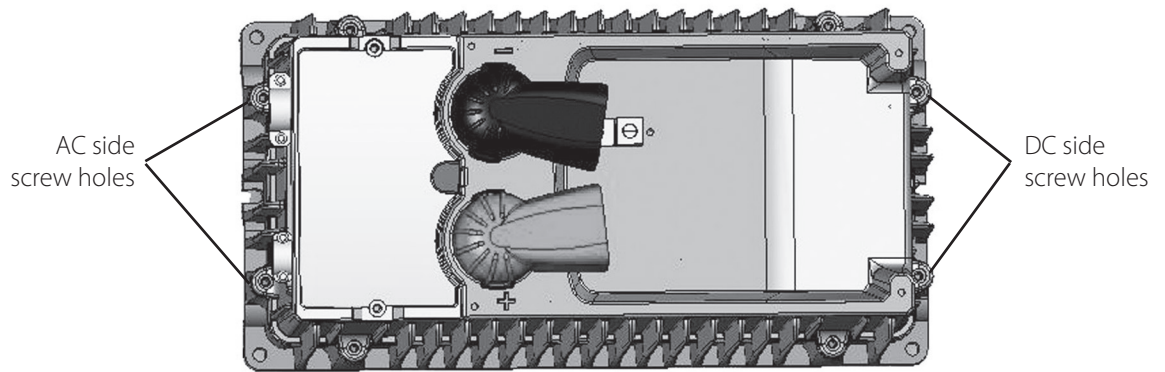


Figure 5: FW250 AC side



Remove these screws to install the FW250 on the AC side of the FX (unthreaded standoffs insert into screw holes)

Remove these screws to install the FW250 on the DC side of the FX (unthreaded standoffs insert into screw holes)

Figure 6: FW250 AC and DC chassis mounting locations

Installing the FLEXware 250

With the FX secured (see FX Series Inverter/Charger Installation Manual for details), the FW250 installs on either DC or AC side of the FX.

To install the FW250:

- Remove the cover plate screws and cover plate.
- Verify which knockouts will be removed for the installation and remove those knockouts.
- Remove only the two M5 X 12mm screws that secure the FX's upper and lower casing halves on whichever side (AC or DC) you first install the FW250.
- Insert the unthreaded standoffs into the holes on the FX and then insert two M5 X 25mm screws, included with the FW250, into the standoffs and tighten.
- After all wiring has been completed, install the DCC and securing with four M5 X 12mm screws (included with the DCC).
- Install each FW250 top cover plate and secure the 10 X 3/8 sheet metal screws.

For AC wiring instructions for the FW250, please see the schematics in the individual AC Input/Output/Bypass Assembly (IOB) kits.

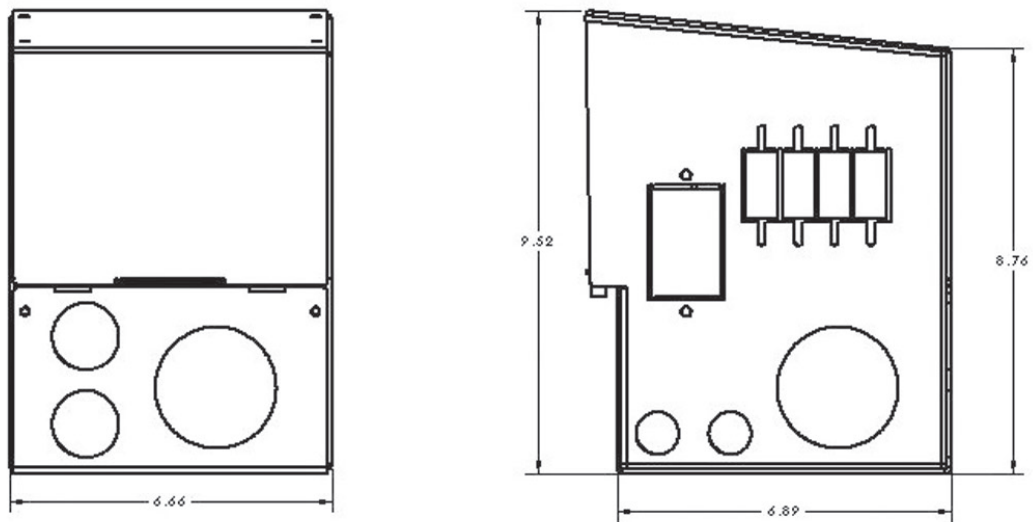


Figure 7: FW250 Dimensions

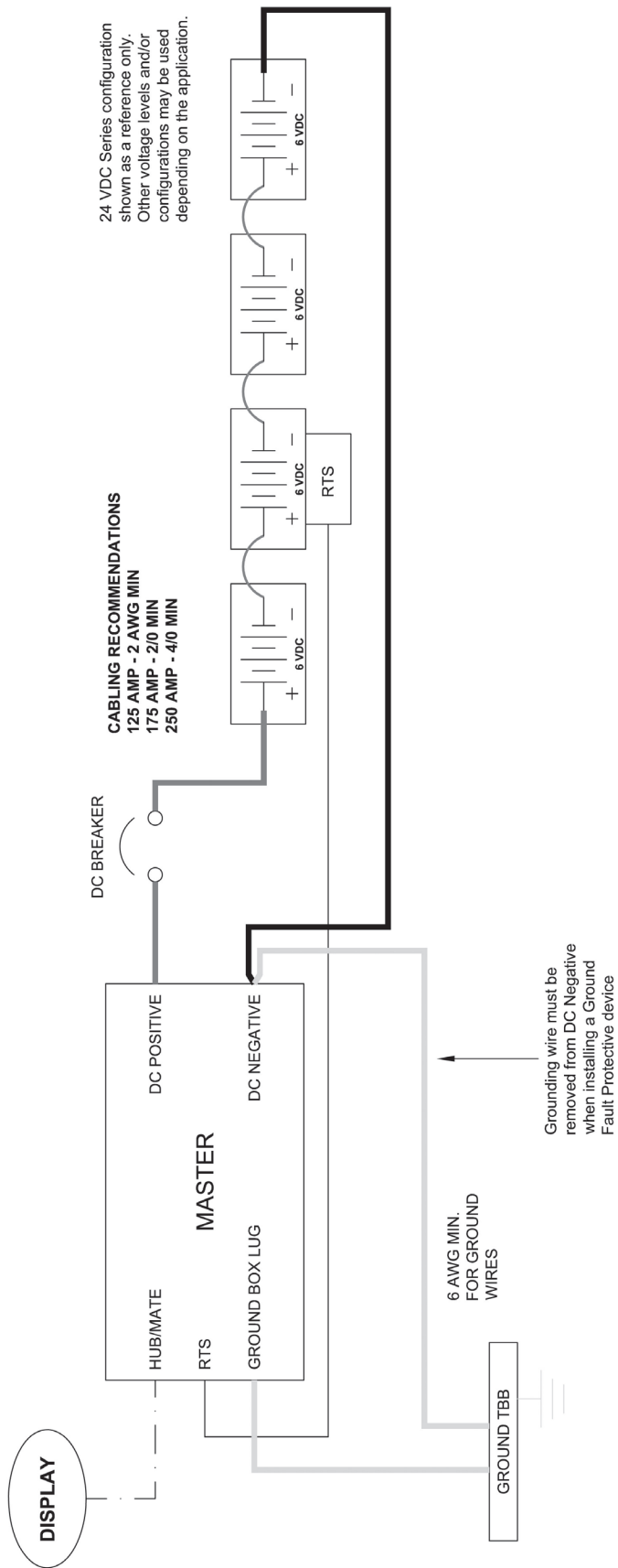


Figure 8: FW250-DC Wiring Diagram

Product Registration

Please take a moment to register and provide us with some important information. Send to:
OutBack Power Systems, 19009 62nd Avenue NE, Arlington, WA 98223 USA.

Name: _____

Address: _____

City, State, Zip Code: _____

Country: _____

Telephone Number: _____

E-mail: _____

Sold by: _____

Installer: _____

Purchase Date: _____ Model Number: _____

Serial Number: _____

Check all that apply:

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