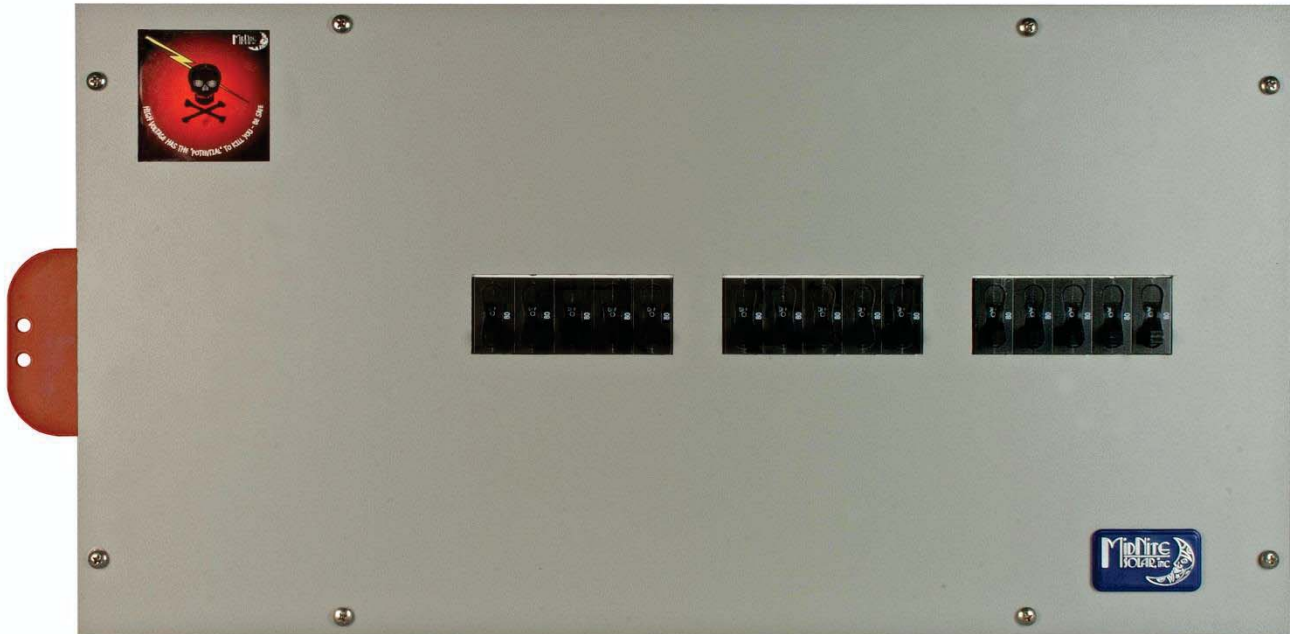




# MNDC15 Instructions



## MNDC15

Shown with optional circuit breakers

The MNDC15 General Purpose Enclosure holds up to 15, 5-100 Amp panel mount type breakers and a 175 or 250 Amp DC breaker. The enclosure has provision for mounting up to 8 MNSBB short terminal blocks.

This Manual covers the following model:

- MNDC15

### Applications:

- General Purpose enclosure
- DC Load Center

### Features:

- Durable powder coated steel construction
- Room for easy clean looking wiring
- 15 Position ground busbar
- Numerous knockouts

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# IMPORTANT SAFETY INSTRUCTIONS

**SAVE THESE INSTRUCTIONS** - These instructions contain important safety and operating instructions for the MidNite Solar MNDC15 General Use Enclosure.

If you do not fully understand any of the concepts, terminology, or hazards outlined in these instructions, please refer installation to a qualified dealer, electrician or installer. These instructions are not meant to be a complete explanation of a renewable energy system.

## GENERAL PRECAUTIONS

If service or repair should become necessary, contact MidNite Solar Inc. Improper servicing may result in a risk of shock, fire or explosion. To reduce these risks, disconnect all wiring before attempting any maintenance or cleaning. Turning off the inverter will not reduce these risks. Solar modules produce power when exposed to light. When it is not possible to disconnect the power coming from the Photovoltaics by an external means such as a combiner, cover the modules with an opaque material before servicing any connected equipment.

Do not work alone. Someone should be in the range of your voice or close enough to come to your aid when you work with or near electrical equipment.

Remove rings, bracelets, necklaces, watches etc. when working with photovoltaic modules or other electrical equipment. Power from an illuminated photovoltaic array makes a very effective arc welder with dire consequences if one of the welded pieces is on your person.

## Disclaimer of Liability

MidNite products are not intended for use in connection with Life Support Systems. MidNite Solar makes no warranty or representation in connection with their products for such uses.

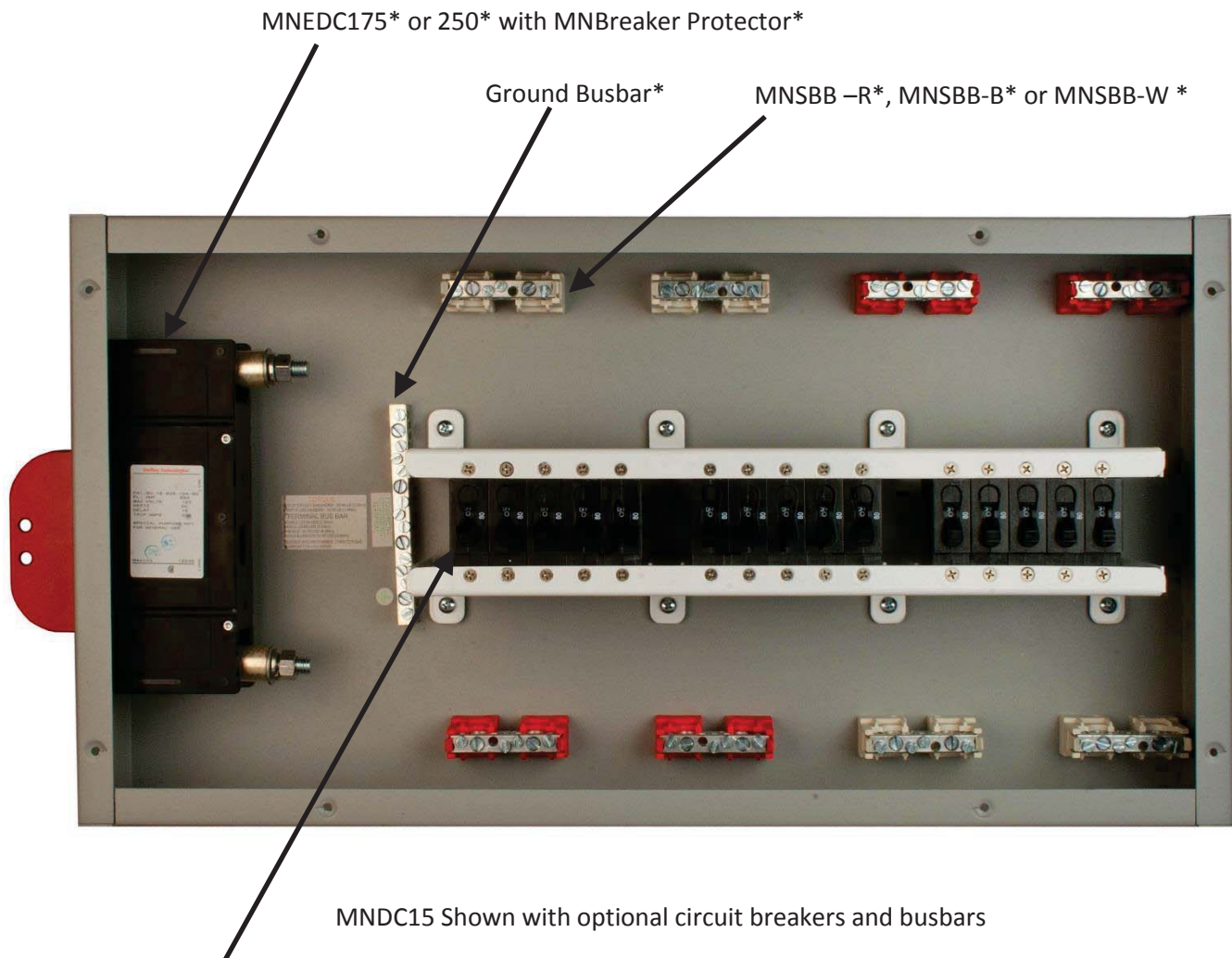
Since the use of this manual and the conditions or methods of installation, operation, use of the Combiner(s) are beyond the control of MidNite Solar, this company does not assume responsibility and expressly disclaims liability for loss, damage or expense, whether direct, indirect, consequential or incidental, arising out of or anyway connected with such installation, operation, or use.

Unless specifically agreed to in writing, MidNite Solar Inc.

(a) Makes no warranty as to the accuracy, sufficiency or suitability of any technical or other information provided in its manuals or other documentation.

(b) Assumes no responsibility or liability for loss or damage whether direct, indirect, consequential or incidental, which might arise out of use of such information. The use of any such information will be entirely at the user's risk.

## MNDC15 Major Components



**\*Sold separately**

Included parts:

- (1) 3-374-10 Powdercoated steel chassis
- (1) 3-375-1 cover
- (2) 3-376-1 Circuit breaker mounting brackets
- (1) 10-002-1 Sticker set

Hardware kit consisting of:

- (30) 6-178-1 6-32 X 5/16 Countersunk Screw – for circuit breaker(s)
- (8) 6-037-1 10-32 X 5/16 TapTite Screw – for circuit breaker mounting Bracket
- (8) #10 X 5/16 Type B sheet metal screw – for cover

## INSTALLATION:

Select a suitable location and secure the MNDC15 to the wall with appropriate hardware, screws, wall anchors etc. There are four mounting locations, one near each corner. Use a minimum of #10 hardware. The MNDC15 is a type 1 enclosure and should be installed indoors in a dry location.

## WIRING:

The MNDC15 is a general purpose enclosure that holds up to 15 MNEDC circuit breakers and a 175 or 250 amp DC breaker (Sold separately).

Optional busbars are available for even more wiring flexibility.

Circuit breakers are mainly to protect the wiring! Make sure to use an adequate gauge wire for the breaker size selected.

The breakers may be wired individually or as a DC distribution center.

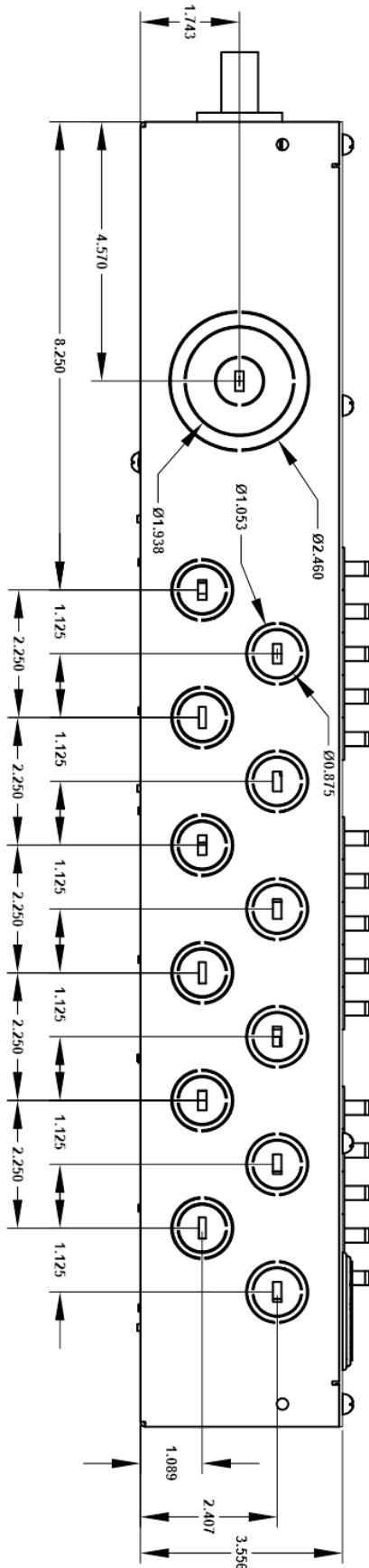
When wired individually, remove as many knockouts as required, insert wires and secure with an appropriate strain reliefs. The MNEDC breakers have ¼-20 studs for wiring. Use appropriate lugs and torque according to the chart below.

When wired as a DC distribution center the main positive (Do not break the negative) connects to the optional 175 or 250 amp breaker and then to one or more of the optional busbars for distribution to the individual breakers and out to the loads. Observe the polarity markings on the large breaker and make sure that the breaker is in the off position before making any connections. The optional busbars may be used for distributing the negative side as well. Busbar supports are available in appropriate colors.

Be sure to properly torque all connections and re-torque after one hour. Do *not* skip this step. Wires can cold flow causing them to loosen significantly after the initial tightening. Thoroughly check your work before applying power.

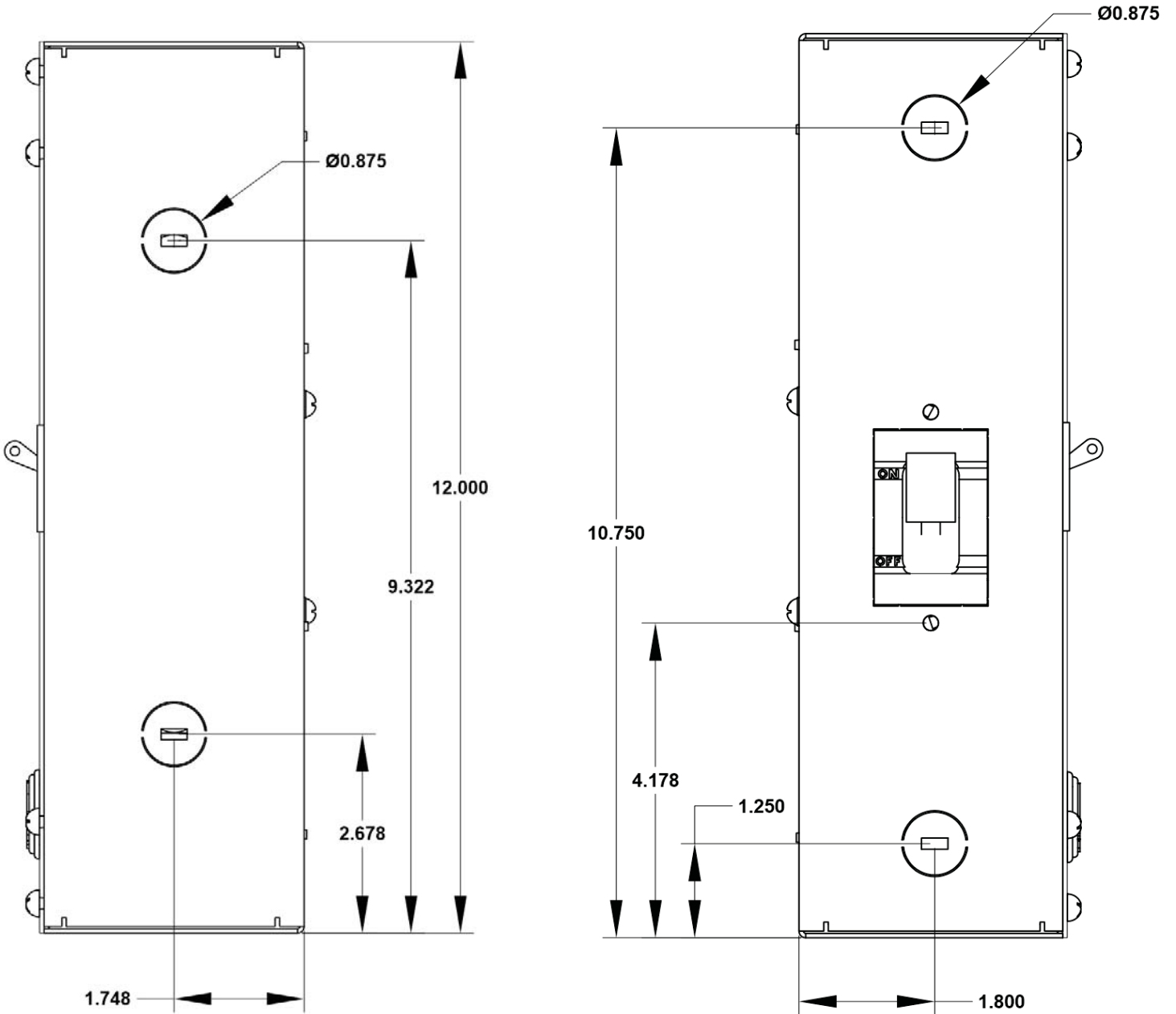
It is the installer's responsibility to ensure compliance with all electrical codes.

TORQUE		
MNEDC Breakers	-	30-35 In-Lbs (3.9Nm)
175 & 250 Amp Breakers	-	220 In-Lbs (24.9 Nm)
Torque breakers as shown above. Re-torque after one hour.		



## Knockout Size and Location

Top And Bottom



### Knockout Size and Location

Side View