EG4® 100Ah INDOOR BUILDABLE CONDUIT BOX

USER MANUAL

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VERSION 1.0 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
MODEL #: CB-100-BD-IN-00

TABLE OF CONTENTS

1. ABBREVIATIONS

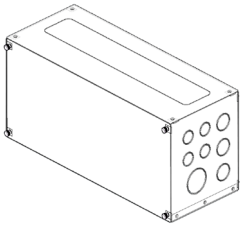
- AWG – American Wire Gauge
- A – Amps
- Ah – Amp hour(s)
- AC – Alternating Current
- AFCI – Arc-Fault Circuit Interrupter
- AHJ – Authority Having Jurisdiction
- kAIC – kilo-Amp Interrupting Capability
- ANSI – American National Standards Institute
- BAT – Battery
- BMS – Battery Management System
- COM – Communication
- CT – Current Transformer
- DC – Direct Current
- DIP – Dual In-line Package
- DOD – Depth of Discharge
- EG – Equipment Ground
- EGS – Equipment Grounding System
- EMC – Electromagnetic Compatibility
- EPS – Emergency Power System
- ESS – Energy Storage System
- E-Stop – Emergency Stop
- FCC – Federal Communication Commission
- GE – Grounding Electrode
- GEC – Grounding Electrode Conductor
- GFCI – Ground Fault Circuit Interrupter
- GFDI – Ground Fault Detector/Interrupter
- Imp – Maximum Power Point Current
- IEEE – Institute of Electrical and Electronic Engineers
- IP – Ingress Protection
- Isc – Short-Circuit Current
- In-lbs. – Inch Pounds
- kW – Kilowatt
- kWh – Kilowatt-hour
- LCD – Liquid Crystal Display
- LFP – Lithium Iron Phosphate
- L1 – Line 1
- L2 – Line 2
- mm – Millimeters
- MPPT – Maximum Power Point Tracking
- mV – Millivolt
- N – Neutral
- NEC – National Electric Code
- NEMA – National Electrical Manufacturers Association
- NFPA – National Fire Prevention Association
- Nm – Newton Meters
- NOCT – Normal Operating Cell Temperature
- PC – Personal Computer
- PCB – Printed Circuit Board
- PE – Protective Earth
- PPE – Personal Protective Equipment
- PV – Photovoltaic
- RSD – Rapid Shut Down
- SCC – Standards Council of Canada
- SOC – State of Charge
- STC – Standard Testing Conditions
- UL – Underwriters Laboratories
- UPS – Uninterrupted Power Supply
- V – Volts
- VOC – Open-Circuit Voltage
- VMP – Voltage Maximum Power

2. BRIEF DESCRIPTION

The EG4® Indoor Buildable Conduit Box allows users a simple and effective way to protect cables and connections between the EG4 WallMount Indoor 100Ah Lithium Battery and the EG4 6000XP Off-Grid inverter.

3. PACKING LIST

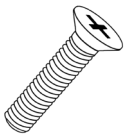
The items listed below will arrive with the product shipment:



100Ah Indoor Buildable Conduit Box (7 pcs)
Total Weight: 8.7 lbs. (3.96 kg)

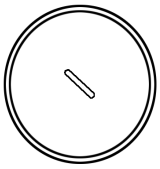
M6 x 12mm Phillips
Hex Head Screw w/
Washer set (x5)

M4 x 12mm
Phillips Flat Head
Screw (x10)

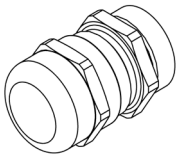


M5 x 12mm
Phillips Flat
Head Screw (x5)

Grommets	
RSB-28	Qty 1
RSB-35	Qty 3
RSB-45	Qty 1
RSB-50	Qty 1

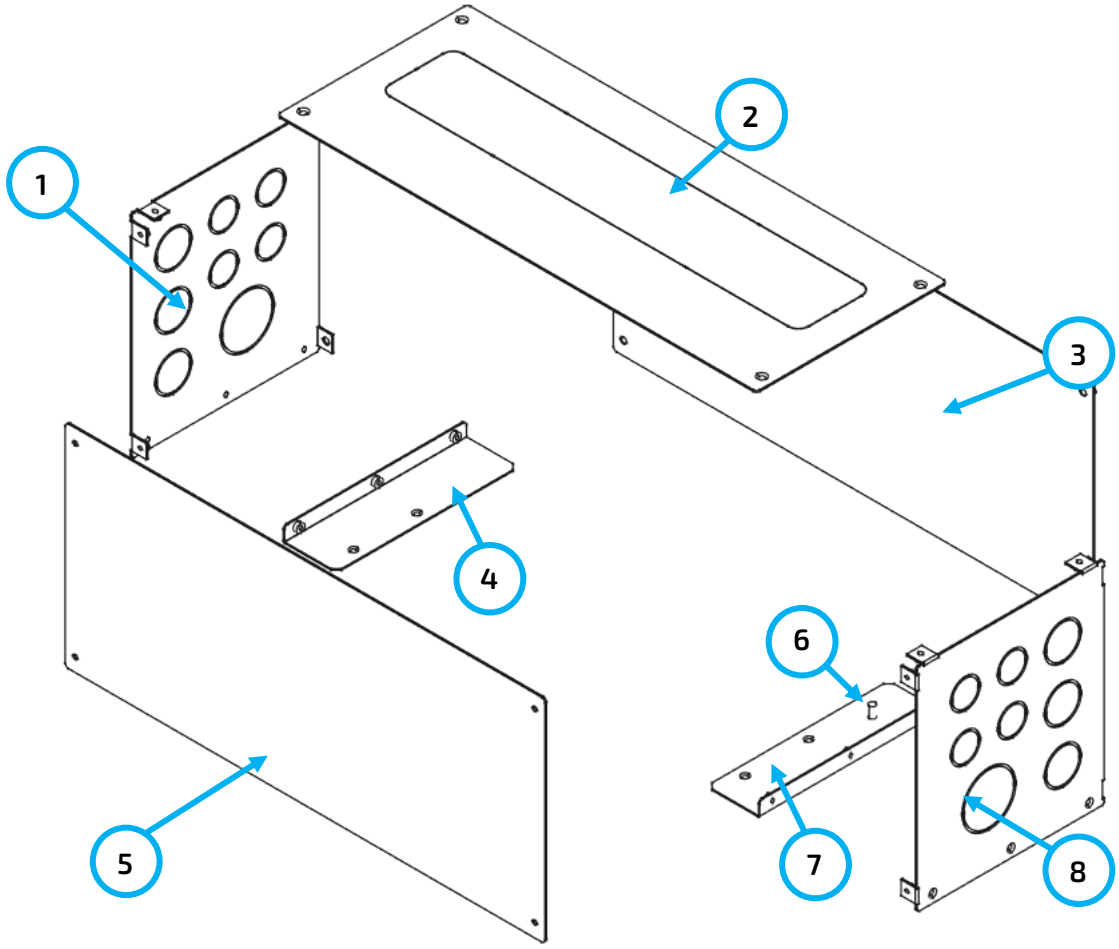


Rotating Cover	
GLW-G1	Qty 6
GLW-PG21	Qty 8
GLW-M50	Qty 2



Waterproof Gland	
PG/M50-38G	Qty 2
PG/M32-25G	Qty 2

3.1 EXPLODED VIEW



No.	Item
1	Left Side Plate
2	Top Plate
3	Back Plate
4	Left Side Bottom Plate
5	Front Plate
6	Preassembled Ground Cable/Screw
7	Right Side Bottom Plate
8	Right Side Plate

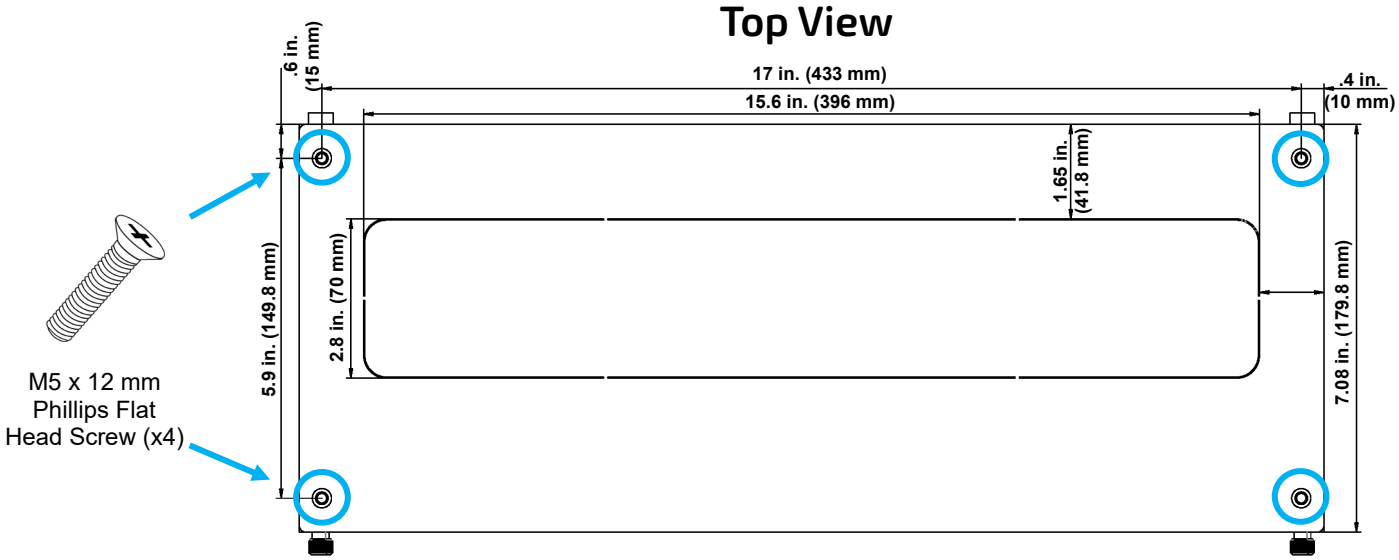
WARNING:
The conduit box may have sharp edges that can cause injury. Always wear appropriate PPE and ensure that the edges are properly deburred or smoothed before assembly to prevent cuts or abrasions during installation.

NOTE: ***The bottom plate will have a preassembled ground cable to the back right when viewing the front of the assembly (labeled 6 in the image above).***

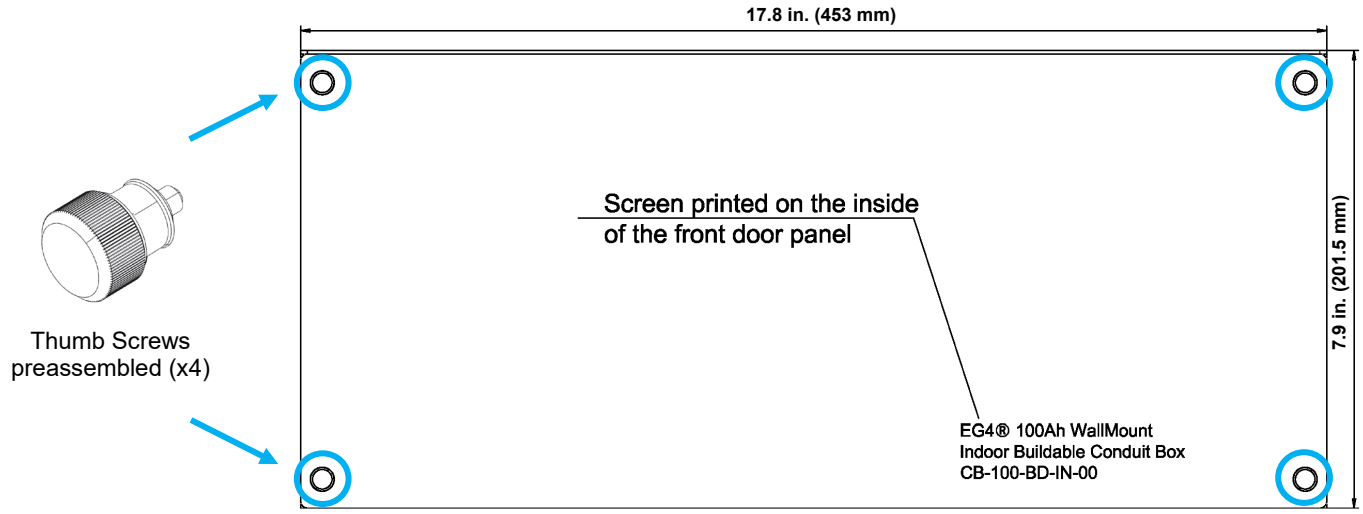
4. CONDUIT BOX DIMENSIONS

4.1 TOP, FRONT, & BACK VIEWS

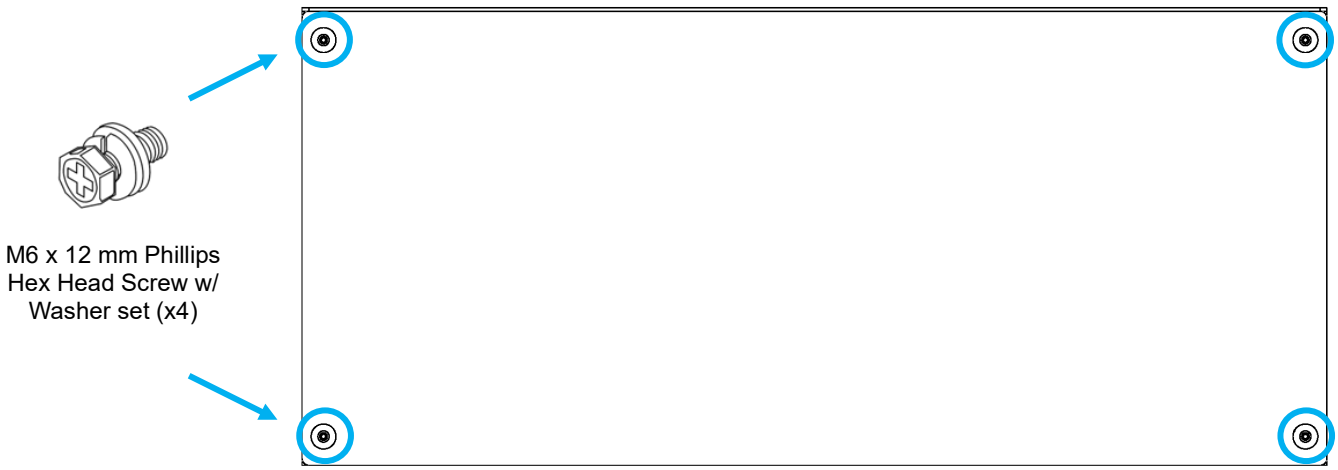
Top View



Front View



Back View

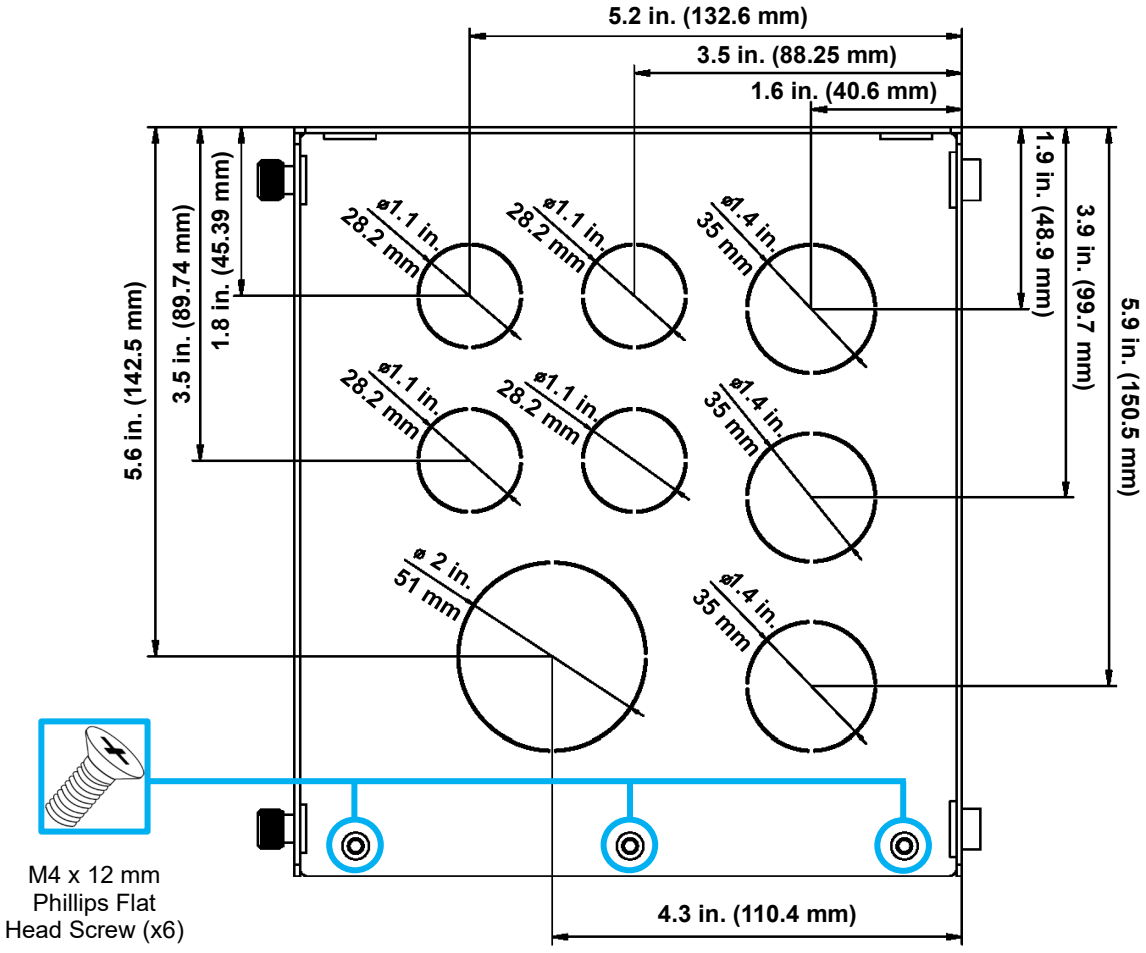


4.2 LEFT & RIGHT PLATE KNOCKOUT

The left and right side plates have identical knockout dimensions, ensuring uniformity and compatibility for installation.

U.S. NOM. TRADE SIZE	ACTUAL KNOCKOUT SIZE
3/4 in.	1.12 in. (28.2 mm)
1 in.	1.38 in. (35 mm)
2 in.	2.48 in. (51 mm)

Right & Left Plate



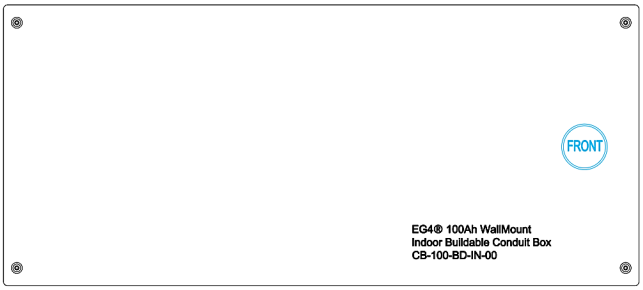
M4 x 12 mm
Phillips Flat
Head Screw (x6)

5. CONDUIT BOX ASSEMBLY

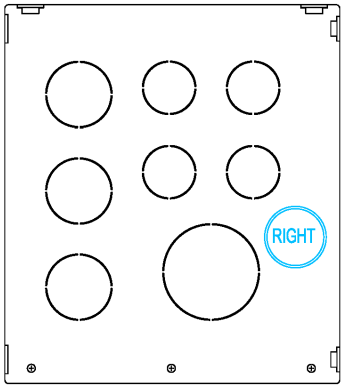
The following pages outline the detailed steps for assembling the conduit box. Each of the 7 parts will have a blue label on the inside, which will be used in the steps on page 7 when assembling.

5.1 INTERIOR LABEL LOCATION

Front Plate

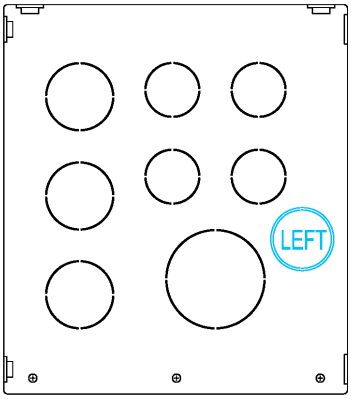


Right Plate



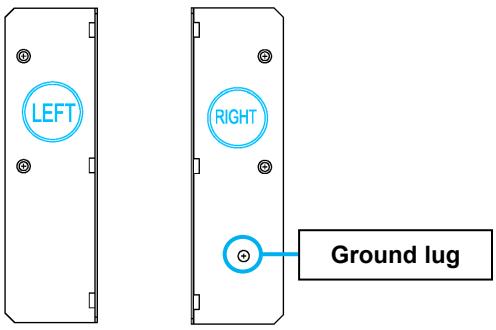
Top Plate

Left Plate



Back Plate

Left & Right Bottom Plate

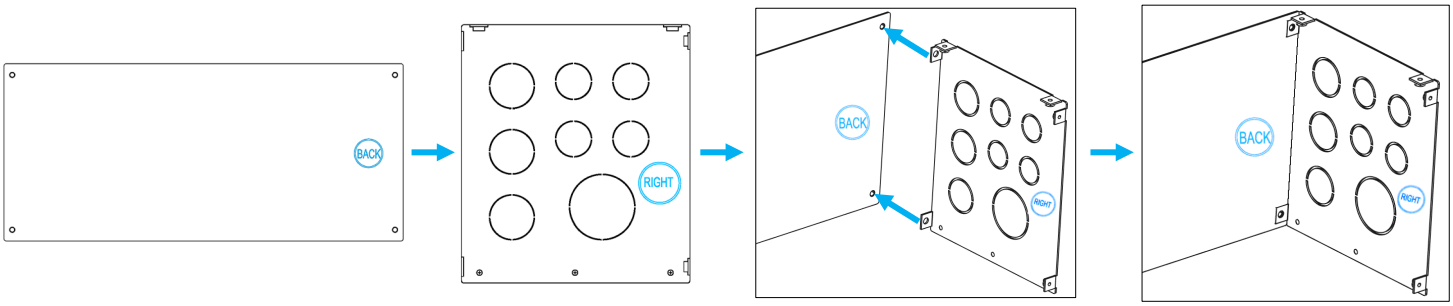


5.2 ASSEMBLING INSTRUCTIONS

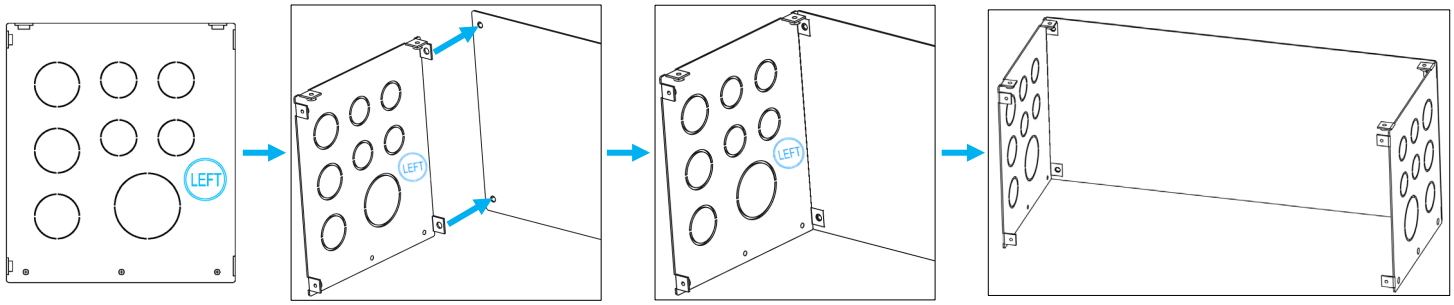
Tools Needed

- Phillips head screwdriver #2
- 10 mm socket and ratchet
- Proper PPE (Personal Protective Equipment)

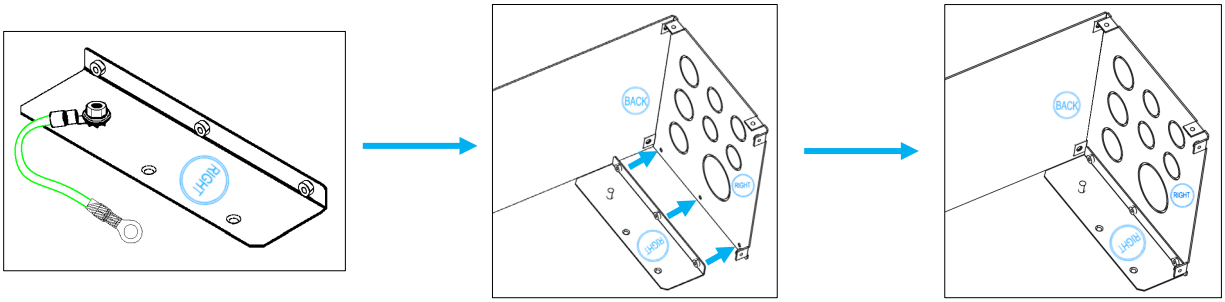
1. Starting with the back plate (labeled “back”) and right-side plate (labeled “right”), align the top and bottom holes of the back plate to the right-side plate. Attach the right-side plate to the back plate using two of the included M6 × 12 Phillips head screws, that will be attached from the interior of the box, not the exterior.



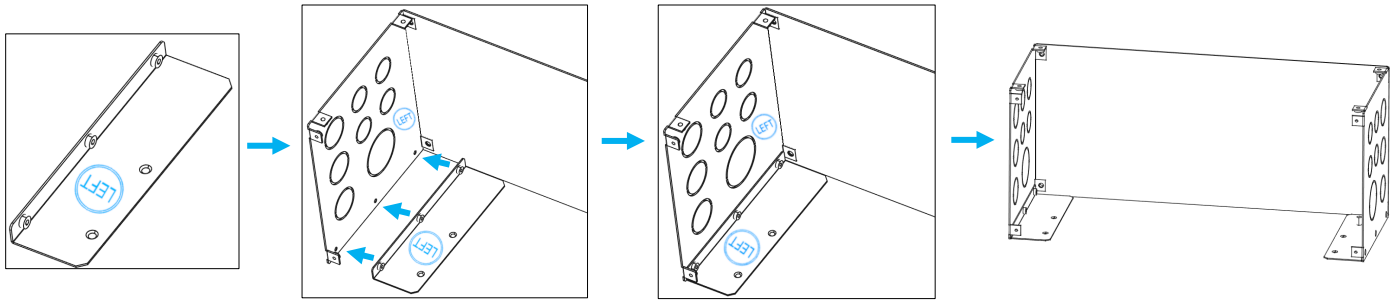
2. Locate the left-side plate (labeled “left”) and align the top and bottom holes of the back plate to the left-side plate. Attach the left-side plate to the back plate using two of the included M6 × 12 Phillips head screws, that will be attached from the interior of the box, not the exterior.



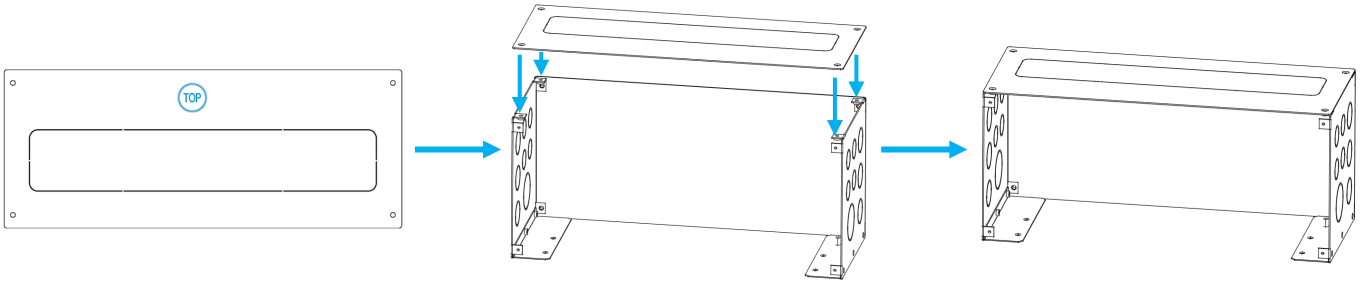
3. Locate the right-side bottom plate (labeled “right”) and ensure the pre-assembled 14 AWG PVC cable and ground screw are securely fastened. Align the right-side bottom plate with the right-side plate that is attached to the back plate. Attach the right-side bottom plate using three of the included M4 × 12 Philips head screws.



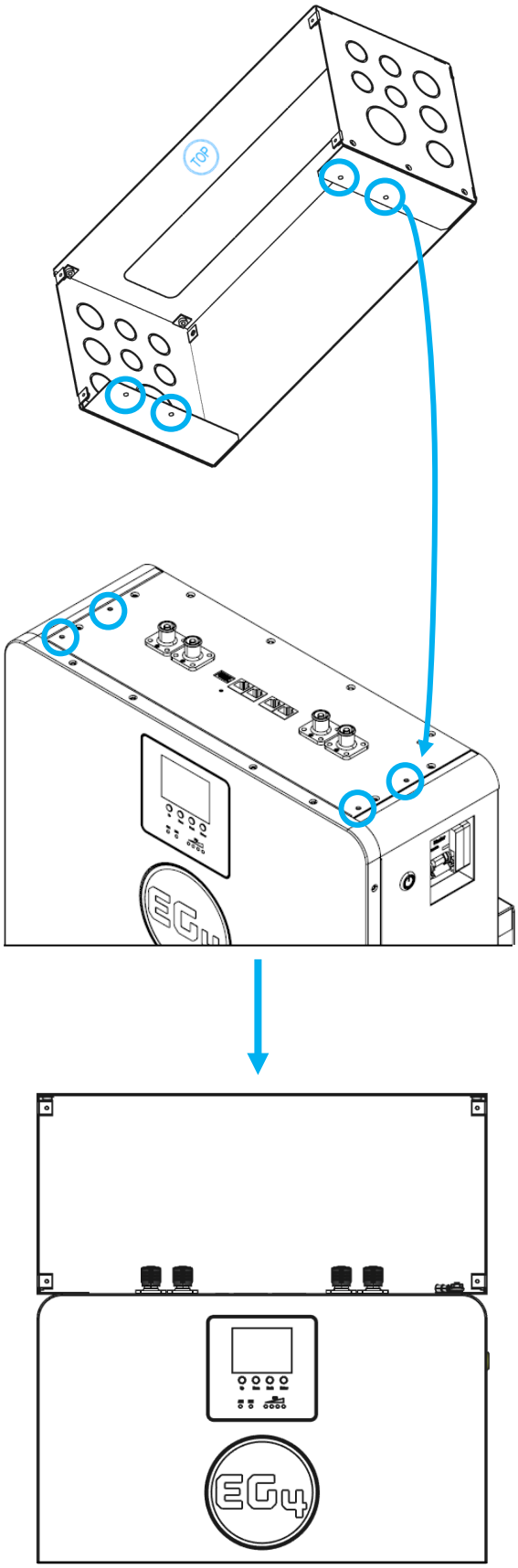
4. Locate the left-side bottom plate (labeled “left”). Align the left-side bottom plate with the left-side plate that is attached to the back plate. Attach the left-side bottom plate using three of the included M4 × 12 Philips head screws.



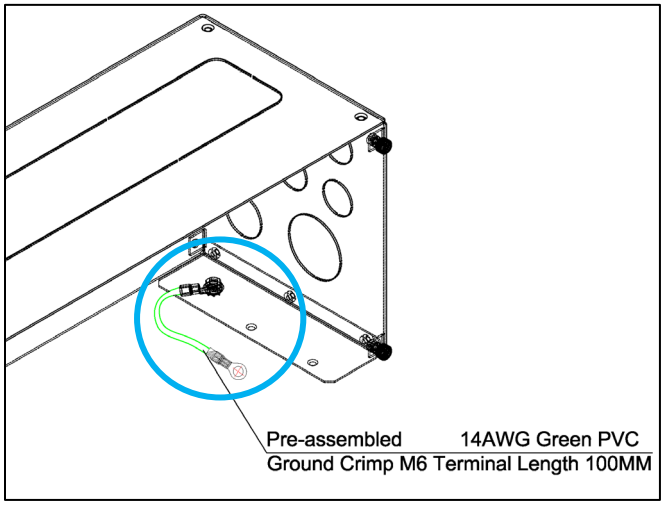
5. Locate the top plate (labeled “top”) and align it with holes on top of the left and right-side plates. Make sure that the label faces the inside of the conduit box. Attach the top plate using four of the included M5 x 12 Phillips flat head screws.



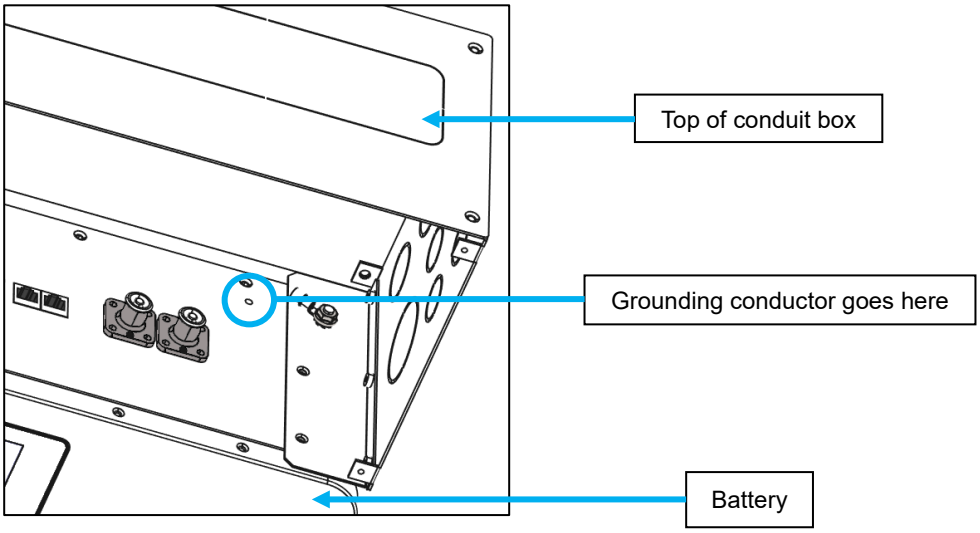
6. Use the four M4 x 12 Hex head screws with washer sets to mount the conduit box to the battery.



7. The EG4® 100Ah Indoor Buildable Conduit Box will come with a pre-assembled 14 AWG green PVC ground cable attached to the right-side bottom plate. Ensure the cable and screw are securely fastened before proceeding.



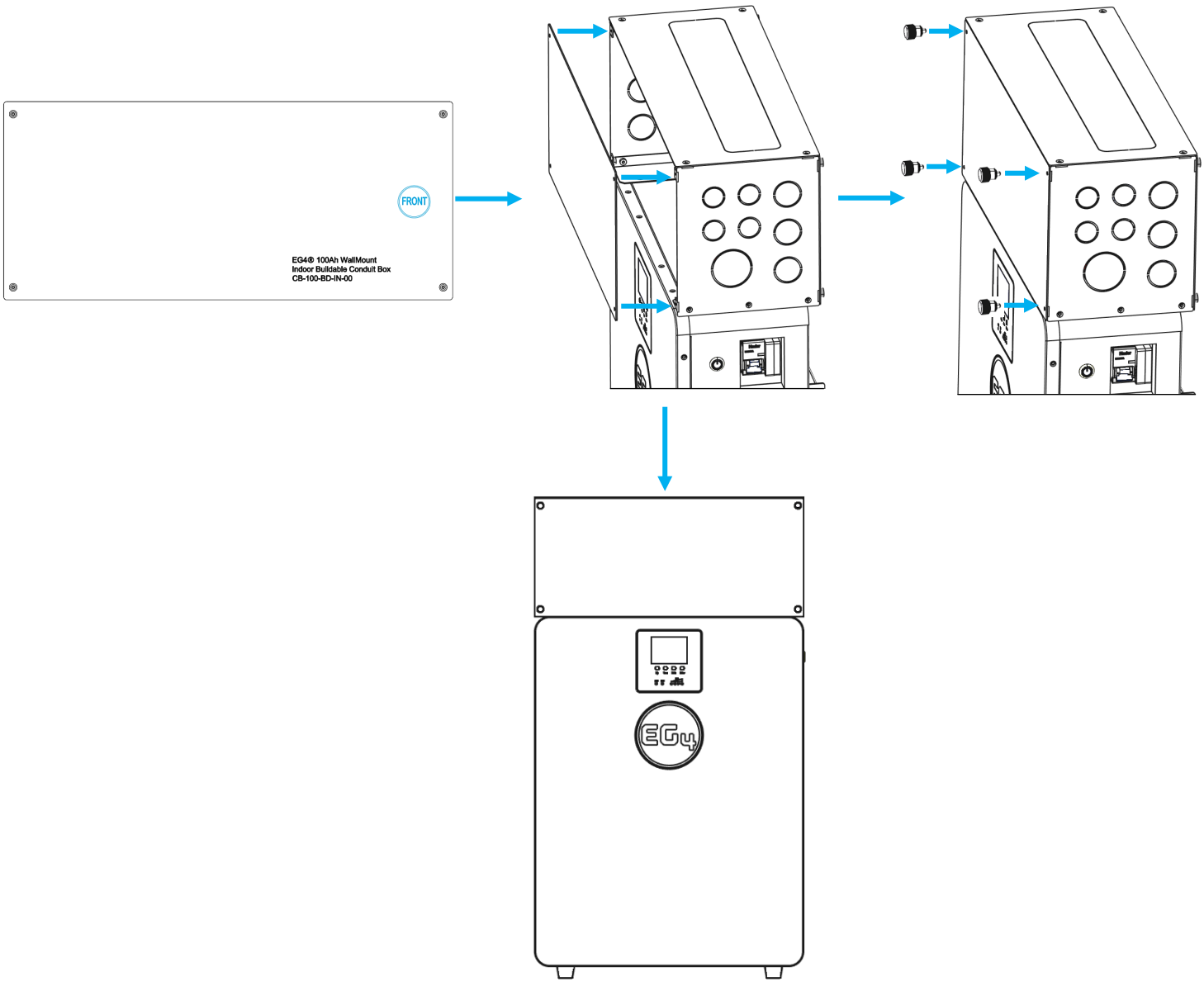
8. This will be attached to the equipment grounding conductor on top of the battery. Ensuring proper grounds are made and the system is kept safe.



CAUTION:

An ungrounded conduit box can lead to equipment damage, fire hazards, and potential failure of circuit protection devices. Grounding ensures that any stray electricity is safely directed away from people and sensitive components.

9. Locate the front plate (labeled “front”). Align it with the holes on the front-side of the left and right-side plates. Attach the front plate using the four thumb screws. Once this has been attached, the assembly is complete.



For more information on installing the battery and conduit box along with an EG4® 6000XP Off-Grid Inverter, scan the QR code below.

NOTES

CONTACT US

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