

On Power-Up LEDs can take up to 30 seconds to glow. While restarting, wait for 2 minutes after powering off the IQ Gateway before powering it back on.



000000	0	100
111111	1	100

000000	0	100
111111	1	100

**WARNING**  
DE-ENERGIZE ALL CIRCUITS BEFORE INSTALLING THE CT LEAD WIRES. BELOW THIS DEADFRONT IS A SAFETY HAZARD AND RISK OF EQUIPMENT DAMAGE IF INSTALLED WHILE CIRCUITS ARE ENERGIZED.

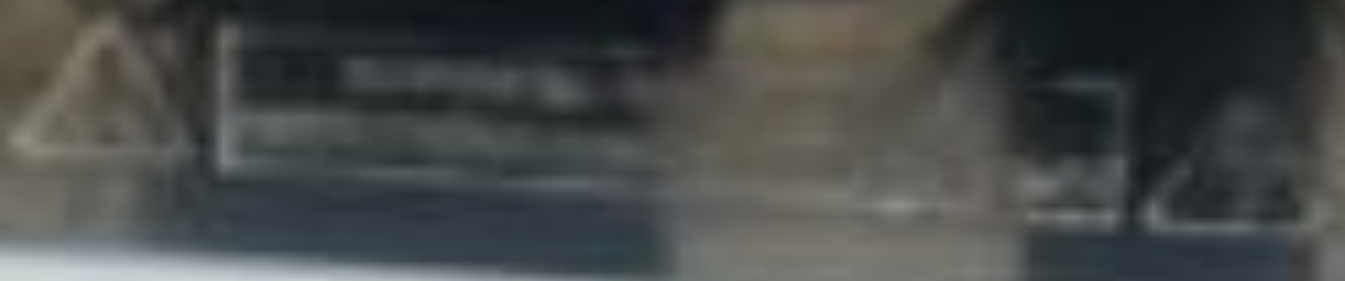
**WARNING**  
DO NOT TOUCH THE CIRCUITS OR WIRING IN THIS DEADFRONT. SAFETY HAZARD AND RISK OF EQUIPMENT DAMAGE IF INSTALLED WHILE CIRCUITS ARE ENERGIZED.

000000	0	100
111111	1	100

000000	0	100
111111	1	100

000000	0	100
111111	1	100

DO NOT TOUCH THE CIRCUITS OR WIRING IN THIS DEADFRONT. SAFETY HAZARD AND RISK OF EQUIPMENT DAMAGE IF INSTALLED WHILE CIRCUITS ARE ENERGIZED.































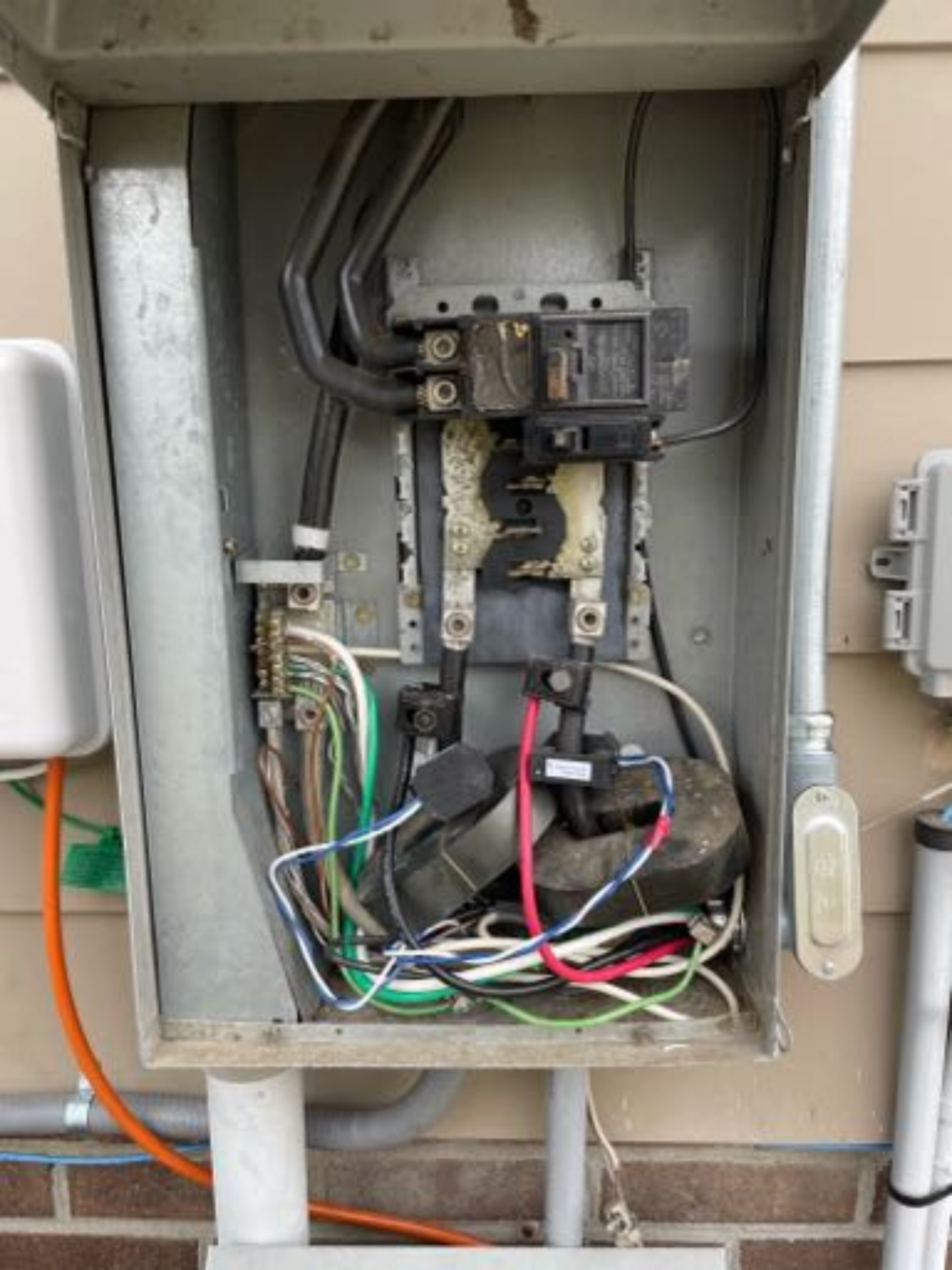
























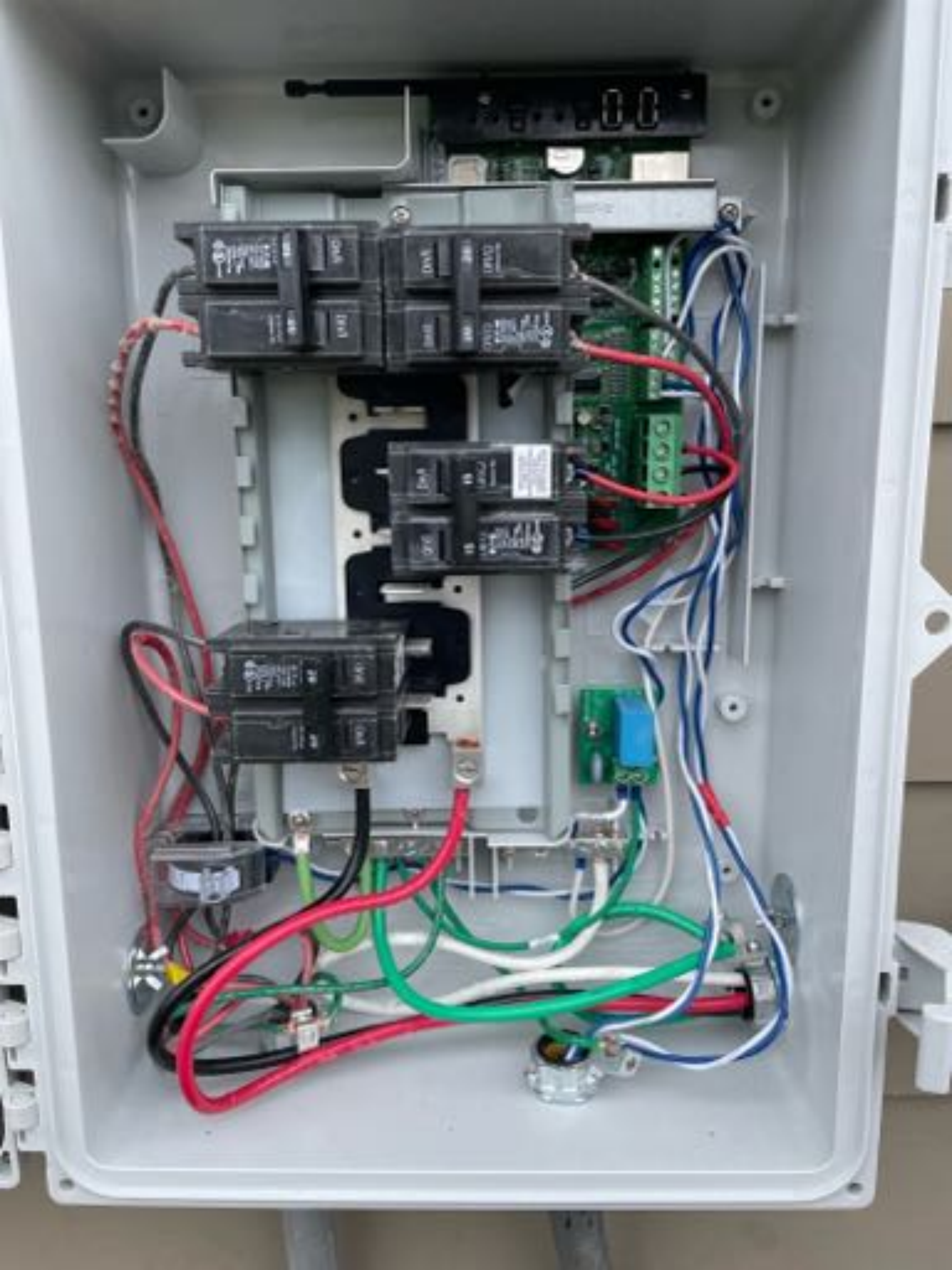






















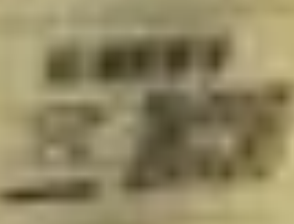
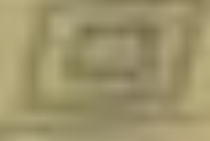
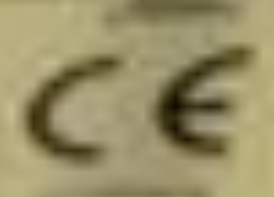
**JinKO** Solar

Model: JSM-70-120  
Power: 70W  
Voltage: 12V  
Dimensions: 1650x670x35mm

**PHOTOVOLTAIK MODULE**

Module approved by the UL6173 from under safety standard, Class 2

Module Type	JSM-70-120
Maximum Power (P <sub>max</sub> )	70W
Maximum Power Voltage (V <sub>mp</sub> )	17.5V
Maximum Power Current (I <sub>mp</sub> )	3.98A
Open Circuit Voltage (V <sub>oc</sub> )	21.0V
Short Circuit Current (I <sub>sc</sub> )	4.20A
Temperature Coefficient (P <sub>max</sub> )	-0.45%/°C
Temperature Coefficient (V <sub>oc</sub> )	0.01%/°C
Temperature Coefficient (I <sub>sc</sub> )	0.05%/°C
Operating Temperature	-40°C ~ 85°C
Humidity	95% ~ 98%
Weight	1.2kg
Dimensions (LxWxH)	1650x670x35mm
Warranty	5 Years



**WARNING**  
This module is a Class 2 power source. It is not intended for use as a Class 1 power source. Do not connect this module to a Class 1 power source. Do not touch the module terminals when the module is connected to a power source. Do not touch the module terminals when the module is connected to a power source. Do not touch the module terminals when the module is connected to a power source.





**CUSTOMER  
OWNED  
EQUIPMENT**































1763 WIRE RD.  
BUNNLEVEL NC 28314

TERRY  
JADEN  
DAVID  
ELWAH



















THOMSON-2 90C 07Y / WHT 2/C 12AWG -40

1122  
Overhaul

1122  
Overhaul



















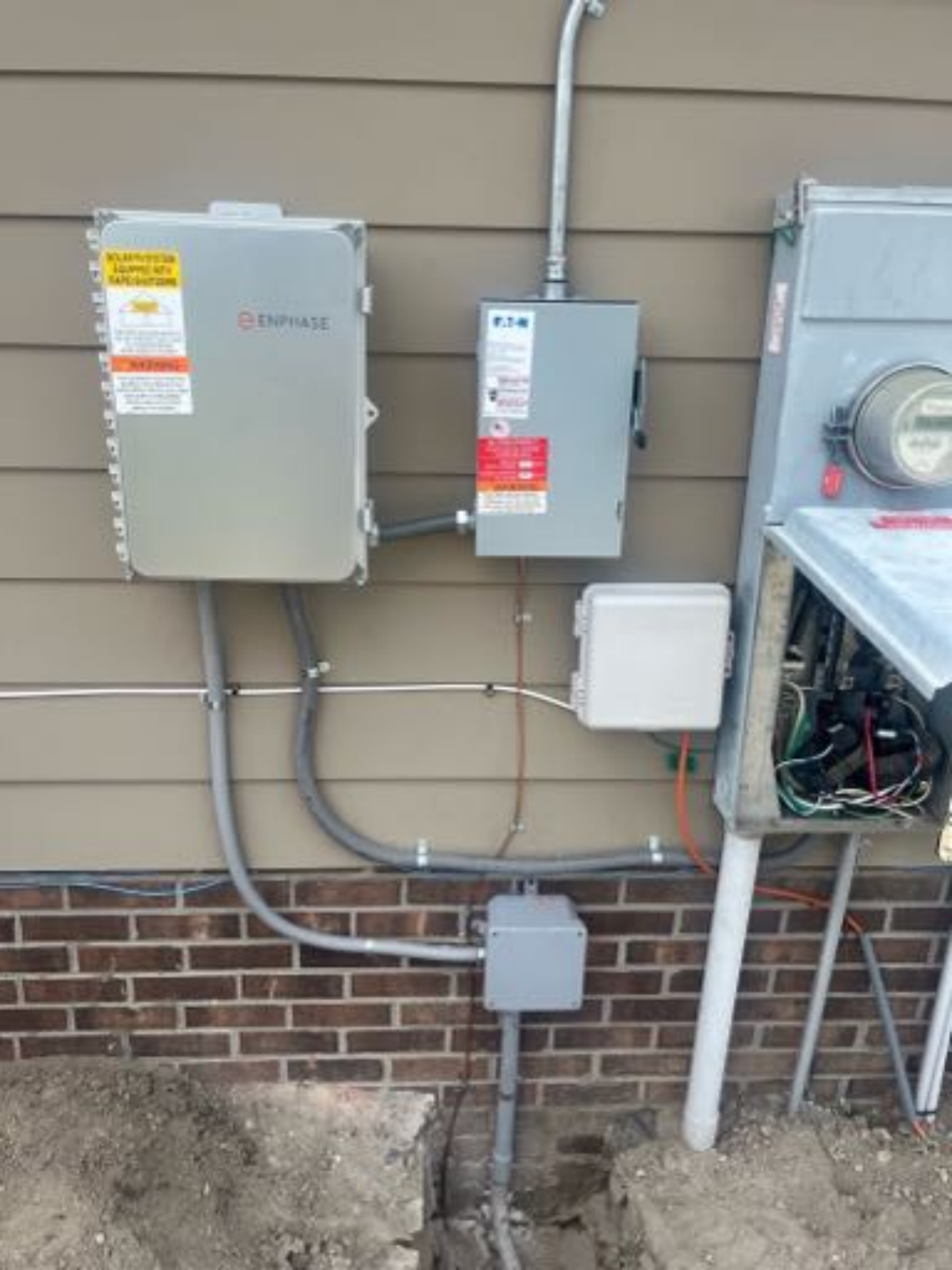
MAYRENE HERTZLER  
1763 WIRE RD  
BUNNLEVEL NC 28314











WARNING  
DANGER  
ELECTRIC SHOCK  
DEATH

ENVIASE

7.2-4

WARNING  
DANGER  
ELECTRIC SHOCK  
DEATH

WARNING  
DANGER  
ELECTRIC SHOCK  
DEATH



**EATON**

Read the following instructions carefully before attempting to install or maintain this equipment. Failure to follow these instructions could result in personal injury or property damage.

**CAUTION**  
Always use proper safety practices when working with electrical equipment.

**WARNING**  
Always use proper safety practices when working with electrical equipment.



**AC DISCONNECT**  
PHOTOVOLTAC SYSTEM  
POWER SOURCE

RATED AC OUTPUT CURRENT **40.0** AMPS

NOMINAL OPERATING AC VOLTAGE **120** VOLTS

**WARNING**  
ELECTRIC SHOCK HAZARD  
TERMINALS ON THE LINE AND  
LOAD SIDES MAY BE ENERGIZED  
IN THE OPEN POSITION















240V 15A 1P  
15A 1P 240V

3







**SOLAR PV SYSTEM  
EQUIPPED WITH  
RAPID SHUTDOWN**



TURN RAPID SHUTDOWN SWITCH TO  
THE 'OFF' POSITION TO SHUT DOWN  
PV SYSTEM AND REDUCE  
SHOCK HAZARD IN THE ARRAY

**⚠ WARNING**

THIS EQUIPMENT FED BY MULTIPLE  
SOURCES. TOTAL RATING OF ALL  
OVERCURRENT DEVICES, EXCLUDING  
MAIN SUPPLY OVERCURRENT  
DEVICE, SHALL NOT EXCEED  
CAPACITY OF BUSBAR.

 ENPHASE.







**JinKO** Solar

Model: JSM-70-120  
Power: 70W  
Voltage: 12V  
Dimensions: 1650x670x35mm

**PHOTOVOLTIC MODULE**

Module designed to the USA from solar cells made in China

Module Type	MONO-CRISTALLINE
Maximum Power (P <sub>max</sub> )	70W
Maximum Power Voltage (V <sub>mp</sub> )	17.8V
Maximum Power Current (I <sub>mp</sub> )	3.93A
Open Circuit Voltage (V <sub>oc</sub> )	21.0V
Short Circuit Current (I <sub>sc</sub> )	4.45A
Temperature Coefficient (P <sub>max</sub> )	-0.45%/°C
Temperature Coefficient (V <sub>oc</sub> )	2.00%/°C
Temperature Coefficient (I <sub>sc</sub> )	0.05%/°C
Standard Test Conditions (STC)	1000W/m <sup>2</sup> , 25°C, AM1.5
Module Efficiency	18.2%
Weight	4.5kg
Dimensions (LxWxH)	1650x670x35mm



**WARNING**  
This module contains hazardous materials. Do not touch the solar cells. High voltage can be generated under certain conditions. Use proper safety procedures when handling the module.

**CAUTION**  
Do not use the module as a step or ladder. The module is not designed for mechanical stress.















### Device communication LED

- Flashing green when in factory & waiting for commissioning
- Flashing yellow if ground connection is not communicating with inverter
- Flashing red if any of three communication are not communicating with inverter
- Off all communication for non-communicating with inverter
- Flashes once during thermostat start of a night



### Device scan button

- Used to enable device production in commissioning phase
- Operates in device control device and inverter box

### RED LED

- Flashing green when software update is in progress
- Flashing once when in factory & waiting



# ENPHASE

**IQ Combiner 4**  
 Photovoltaic  
 Combiner Box  
 X2-IQ-AM1-240-4



### Electrical ratings

- Voltage: 240VAC, 60Hz
- DC Breakers: 80A MAX (combined)
- DC Inputs: 64A MAX (combined)
- Output: 60A MAX, 90A MAX feeder OCPD
- Temperature: 44°C MAX ambient
- For DC breaker, use only Eaton BFC series

800.441.1111  
 202.3030.75832

800.441.1111  
 202.3030.75832

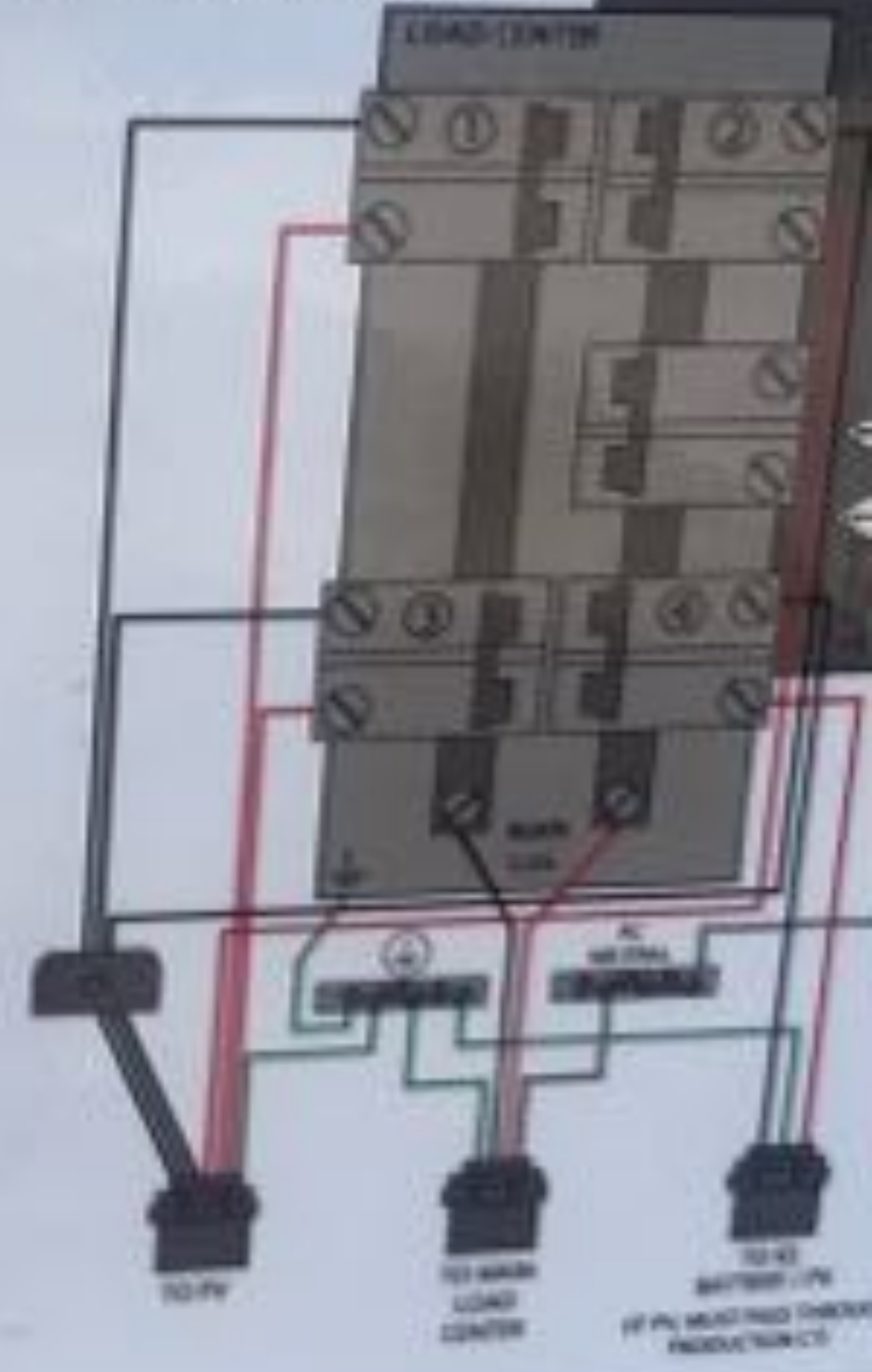
800.441.1111  
 202.3030.75832

Use standard wire and DC Combiner Box - do not use both  
 10 AMP or 15 AMP DC Circuit Breaker will need to be listed

Conductor	Wire Size	Temp	
DC Breaker	14-10 AWG	125 deg (20 deg-110)	
(-, 2, 3, 4)	8 AWG	125 deg (20 deg-110)	
	6-4 AWG	125 deg (20 deg-110)	
	4-1/2 AWG	125 deg (20 deg-110)	
With Circuit Breaker only	14-10 AWG	125 deg (20 deg-110)	
DC Feeder Breaker	14-10 AWG	125 deg (20 deg-110)	
Neutral and ground	Large wire	2-1/2 AWG	125 deg (20 deg-110)
		16-2 AWG	125 deg (20 deg-110)
	Small wire	4 AWG	125 deg (20 deg-110)
		8 AWG	125 deg (20 deg-110)
Main leg	10-4 AWG	125 deg (20 deg-110)	
	6-2 AWG	125 deg (20 deg-110)	

Clearance installation only - read man. TPC  
 Follow NFPA 70 (NEC) or CSA C22.1 part 1, and all local codes  
 For DC breaker larger than 30A, use wire installed for BFC  
 based on 75°C ampacity.  
 Designed in California and New Zealand  
 Made in Mexico

## For IQ-8 Grid Forming Systems











































































































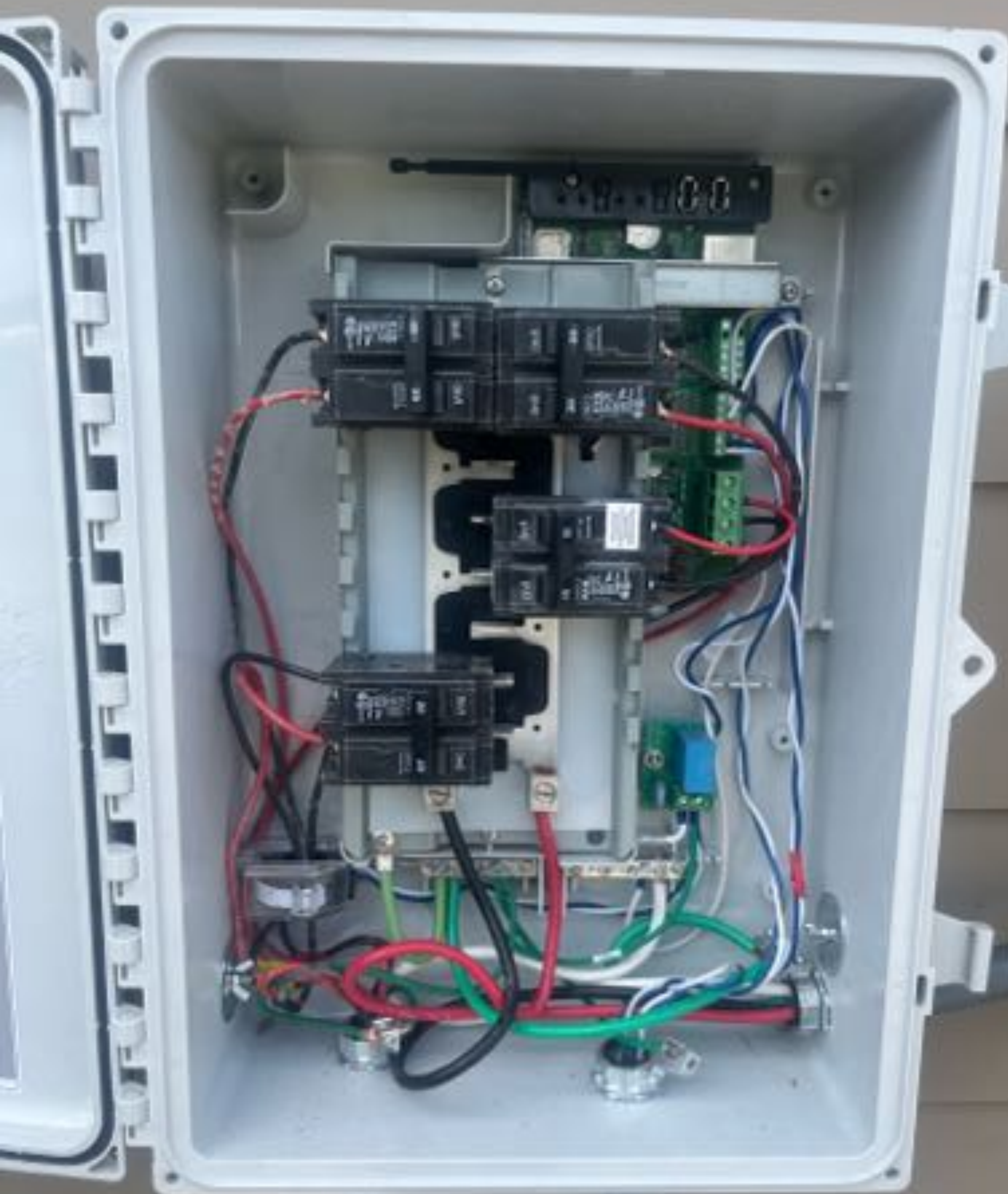
















































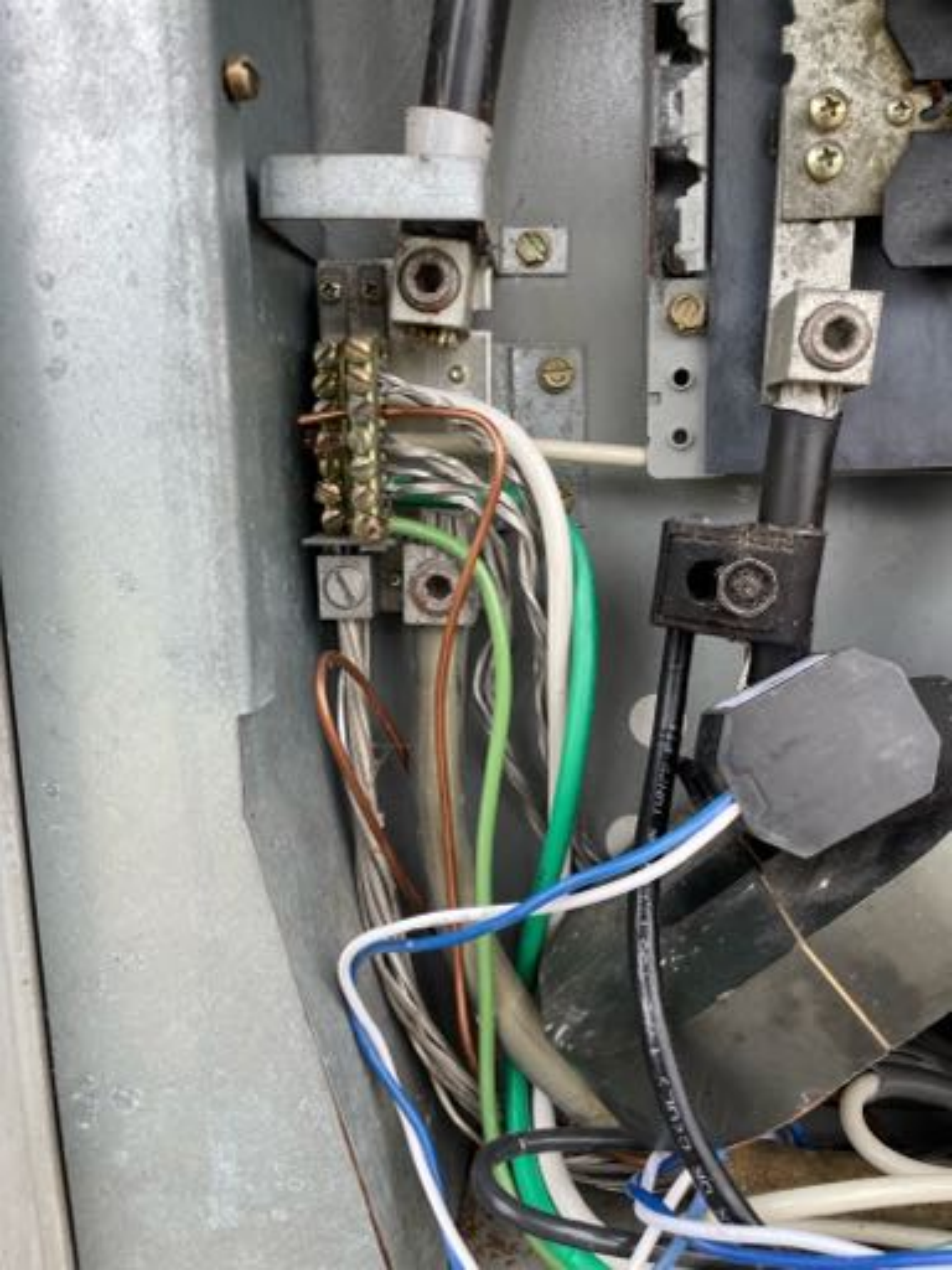










































MAYRENE HERTZLER  
1763 WIRE RD  
BUNNLEVEL NC 28314









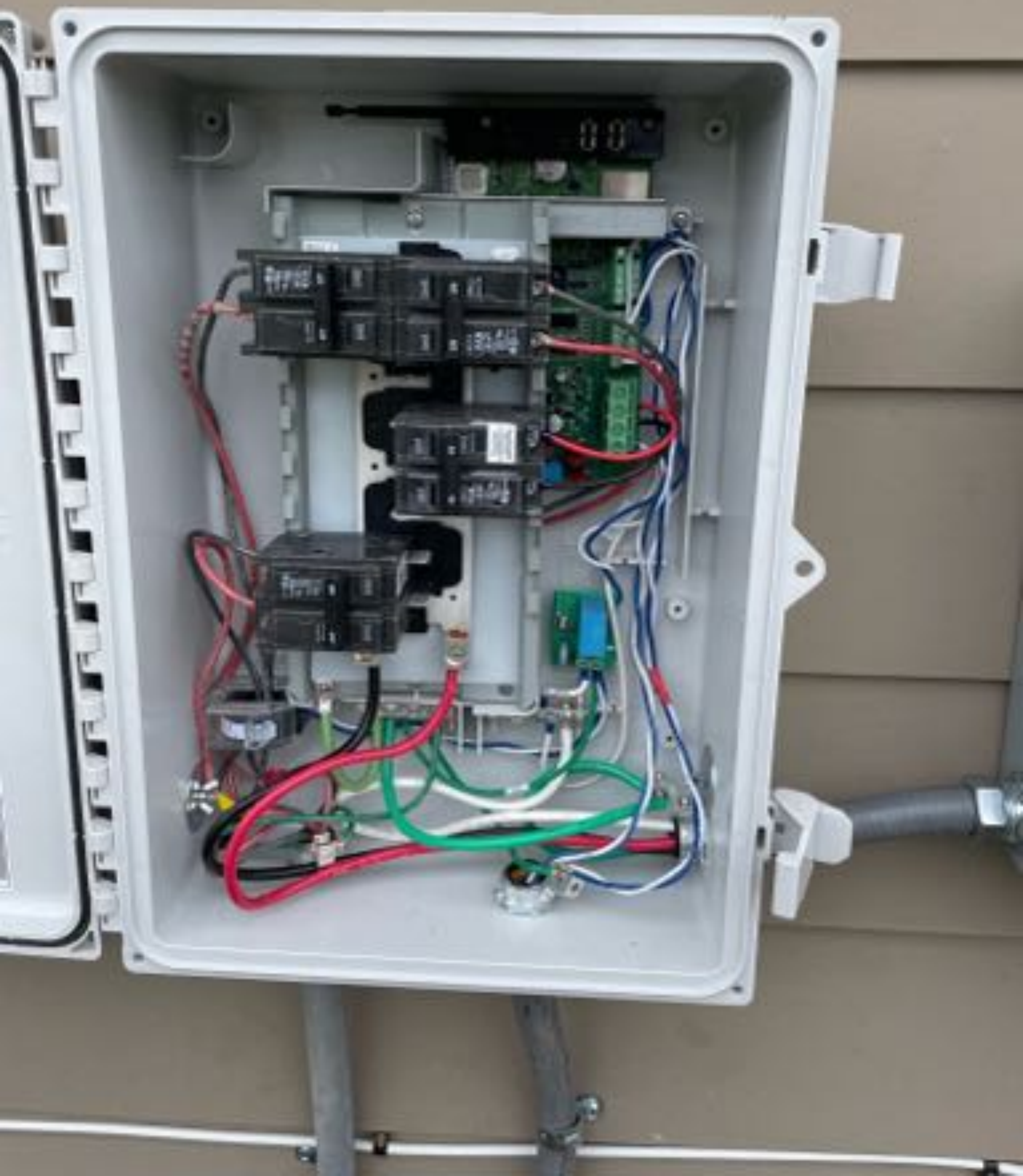
CENTRA ELECTRONIC - TYPE 1E SIZE 5/8" **CENTAUR** 1/2" SQUARE STUD BOLT CONDUIT













**WARNING**

DUAL POWER SUPPLY

SOURCES: UTILITY GRID  
AND PV SOLAR  
ELECTRIC SYSTEM

**CAUTION**

SOLAR POINT OF CONNECTION

**CAUTION: SOLAR ELECTRIC  
SYSTEM CONNECTED**



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