

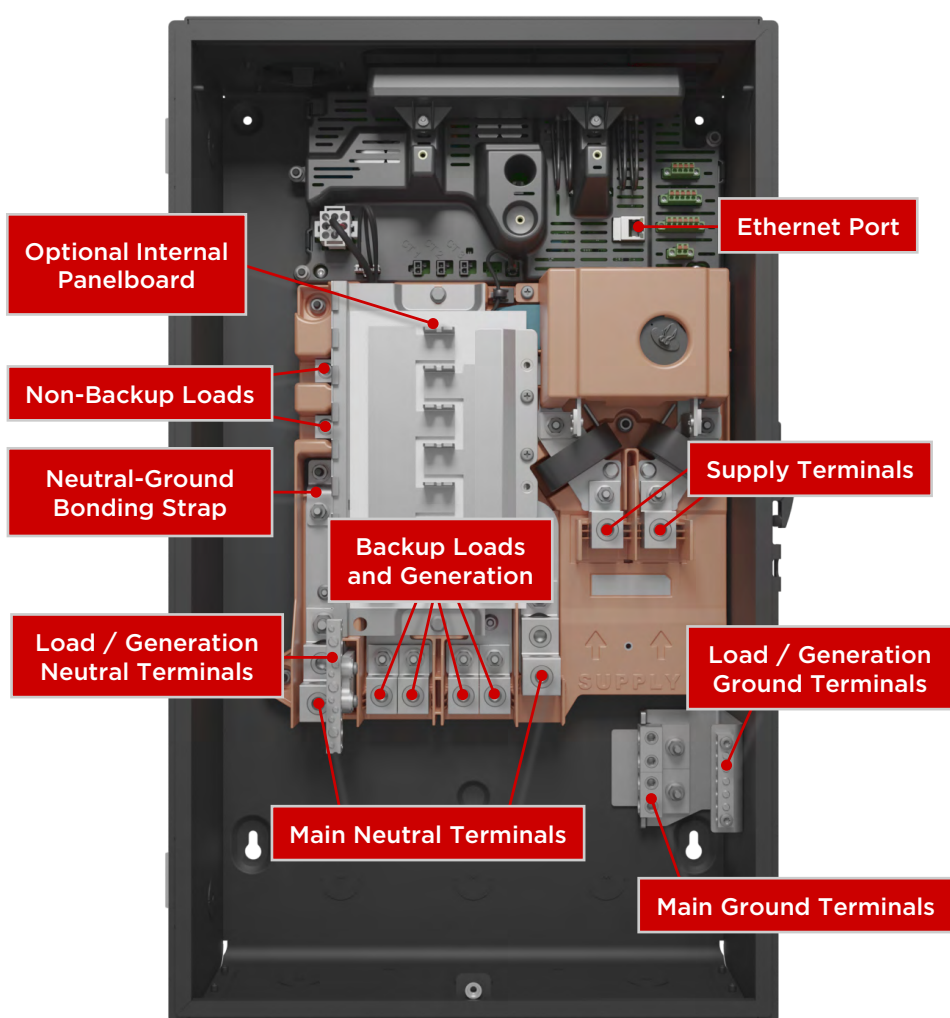


# POWERWALL WITH BACKUP GATEWAY 2

## [View Partner Portal](#)

The *Powerwall 2 AC (Backup Gateway 2) Installation Manual (North America)* can be found in the *Installation* section in the Powerwall documents

## BACKUP GATEWAY 2 OVERVIEW



## SYSTEM WIRING CONFIGURATIONS

Backup Gateway  
*Without* Internal Panelboard



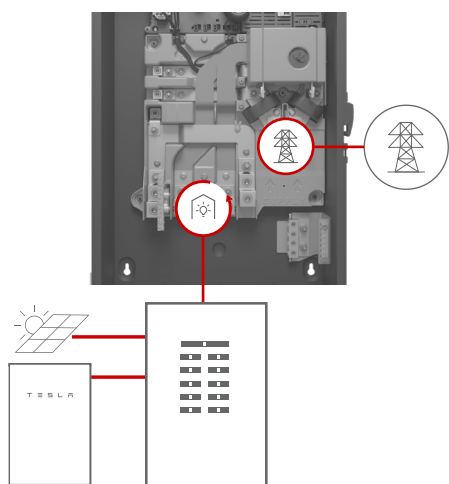
Backup Gateway  
With Internal Panelboard



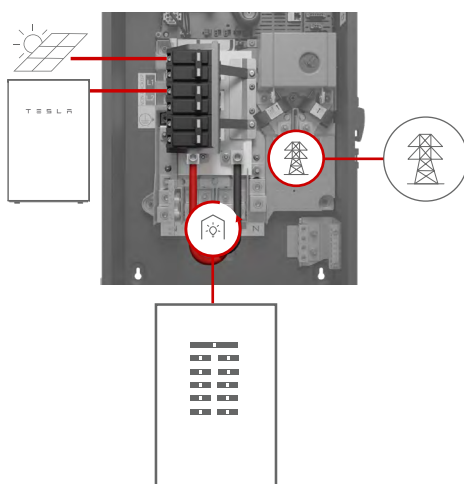
## WHOLE HOME BACKUP

Where all loads can be supported by Powerwall

Powerwall and Solar  
in existing panel



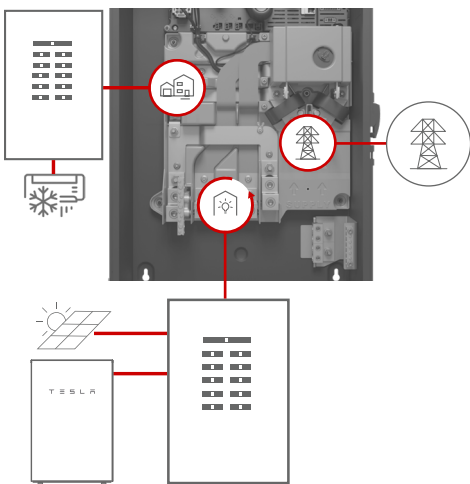
Powerwall and Solar  
on backup internal panelboard



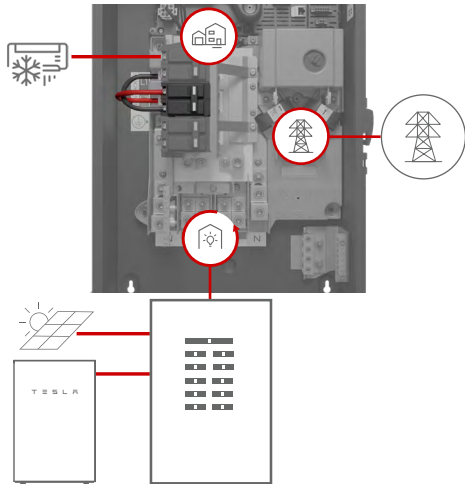
## PARTIAL HOME BACKUP

Heavy loads cannot be supported by Powerwall

Heavy loads in existing non-backup subpanel



Heavy loads on non-backup internal panelboard



See **System Wiring Diagrams** in the *Installation Manual* for detailed diagrams of common configurations

### LEGEND



Backup Loads



Non-Backup Loads



High Demand Loads

### REQUIRED TOOLS

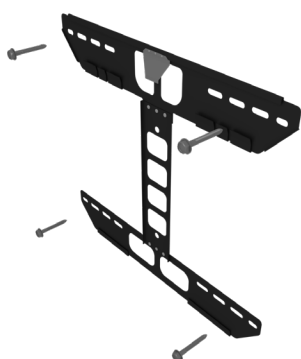


### SUGGESTED TOOLS

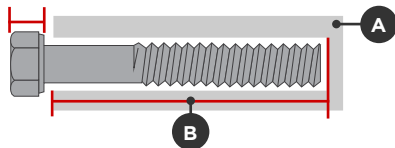


## MOUNT POWERWALL

1



Max 9 mm

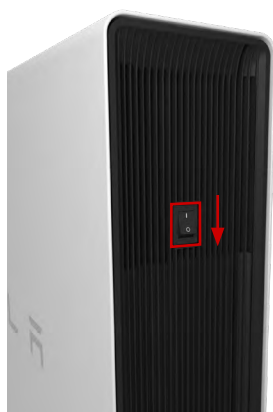


A	Material	B	Minimum Embedment
	Wood Studs		2 1/2"
	Plywood		1/4" beyond back of plywood (min 1/2" plywood)
	Metal Studs		3 threads beyond stud / backing
	Concrete / Masonry		1 1/2"
	Channel Strut		2 1/2" into wood studs 3 threads beyond metal studs



See **Powerwall Mounting Details** in the *Installation Manual* for additional details

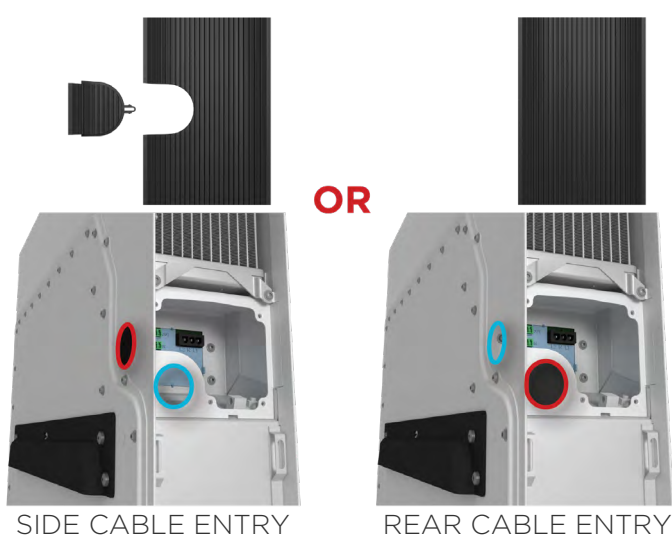
2



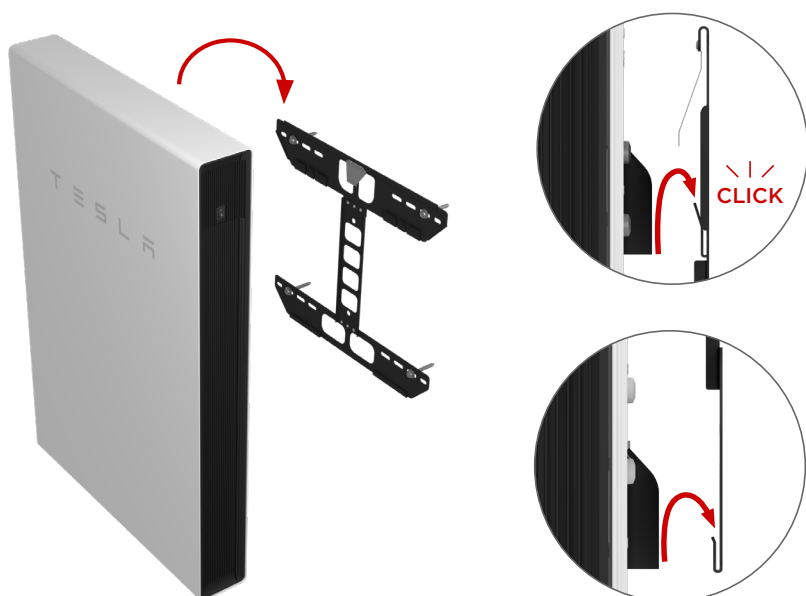
3



4



5



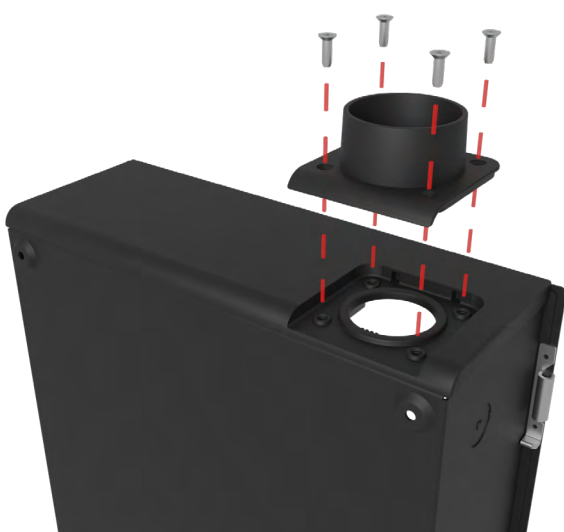
## MOUNT THE BACKUP GATEWAY

6

BOTTOM, REAR, OR SIDE CABLE ENTRY



OPTIONAL: TOP CABLE ENTRY VIA CONDUIT HUB KIT



7

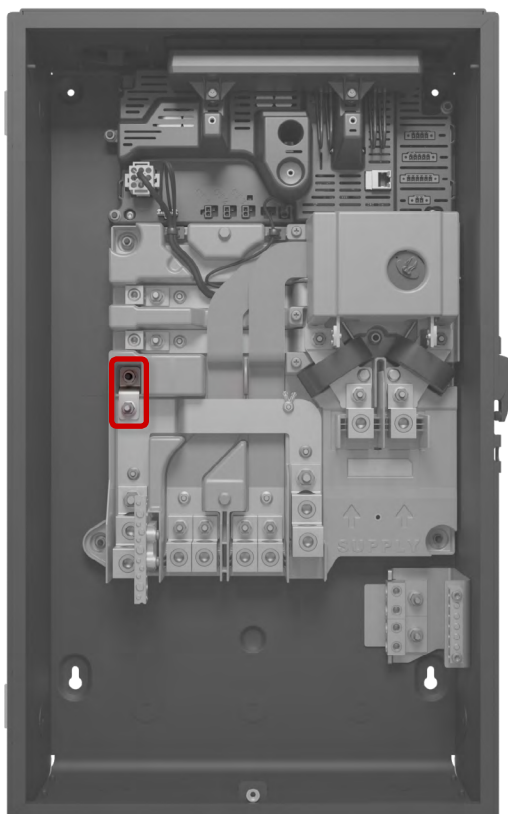


8

## IS GATEWAY INSTALLED AS SERVICE EQUIPMENT?

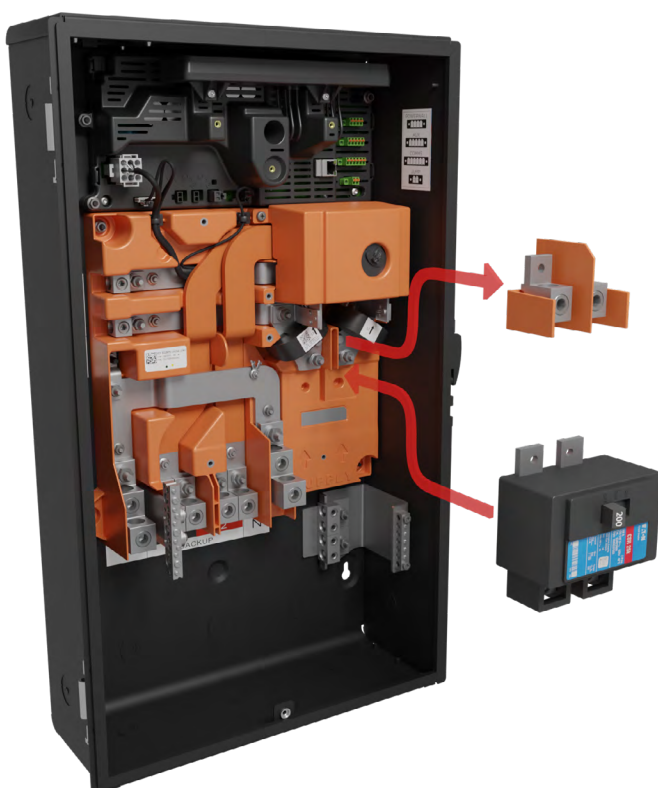
NO

GATEWAY **IS NOT** INSTALLED AS SERVICE EQUIPMENT  
REMOVE NEUTRAL-GROUND BONDING STRAP



YES

GATEWAY **IS** INSTALLED AS SERVICE EQUIPMENT  
INSTALL MAIN BREAKER

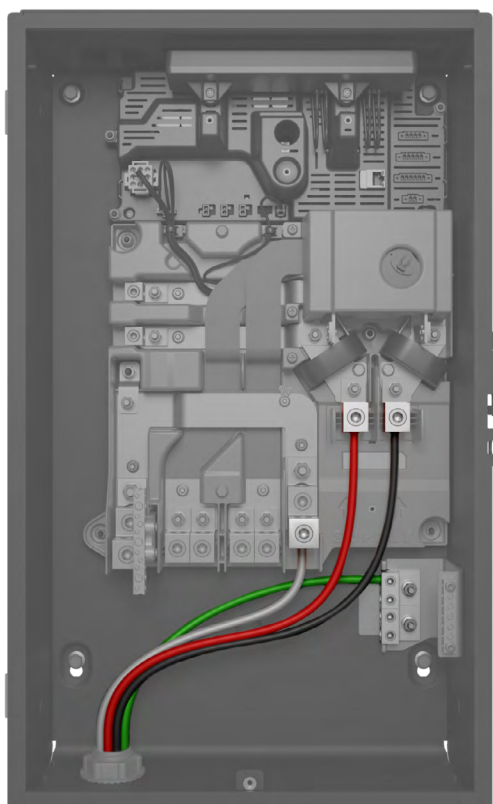


See **Wiring Reference** in the *Installation Reference Manual* for breaker types

## MAKE BACKUP GATEWAY AC POWER CONNECTIONS

9

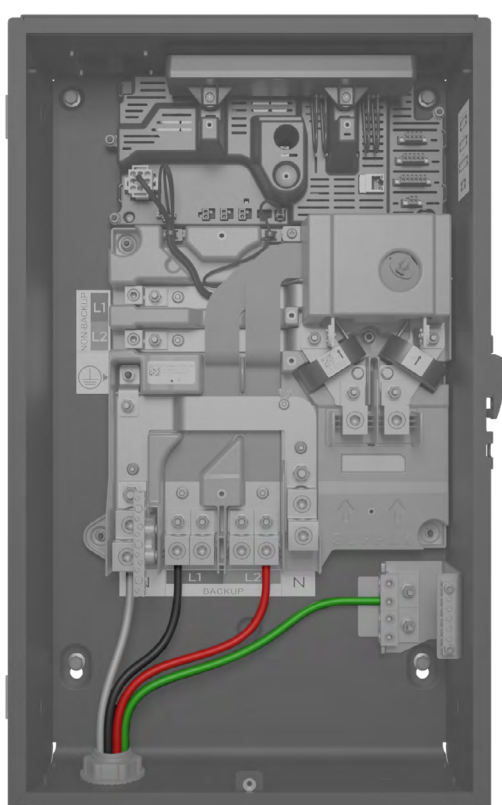
## SUPPLY SIDE CONDUCTORS



- 1 1/4"
- 6 AWG - 250 kcmil
- 6 AWG - 250 kcmil
- 6 AWG - 250 kcmil
- 275 in-lbs
- 5/16"
- 3/4"
- 14 AWG - 2/0
- 120 in-lbs
- 3/16"



## BACKUP LOAD PANEL CONDUCTORS



1 1/4"

6 AWG - 250 kcmil

6 AWG - 250 kcmil

6 AWG - 250 kcmil

275 in-lbs



5/16"

3/4"

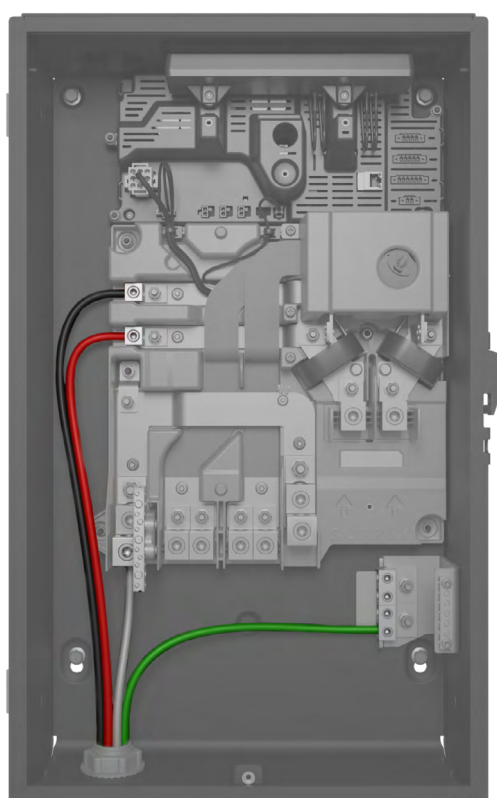
14 AWG - 2/0

120 in-lbs



3/16"

## NON-BACKUP PANEL CONDUCTORS



1 1/4"

6 AWG - 250 kcmil

275 in-lbs



5/16"

3/4"

14 AWG - 2 AWG

14 AWG - 2 AWG

14 AWG - 2/0

120 in-lbs



3/16"

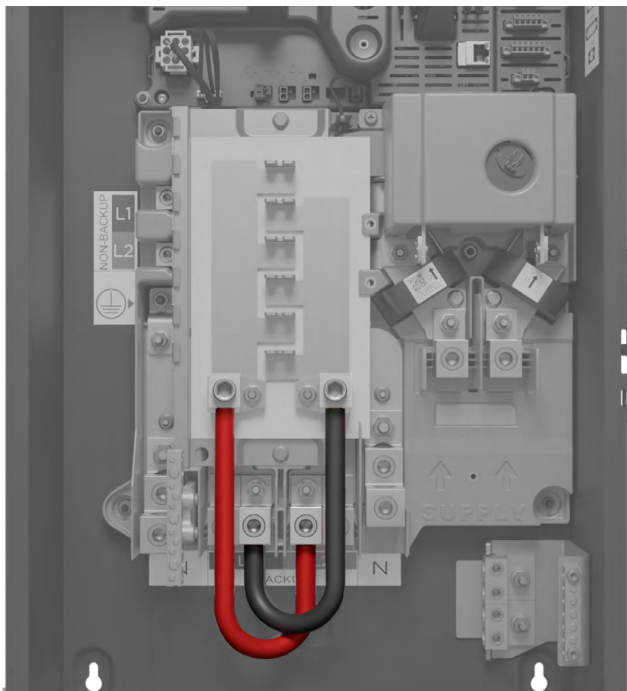
## OPTIONAL: INSTALL INTERNAL PANELBOARD

10



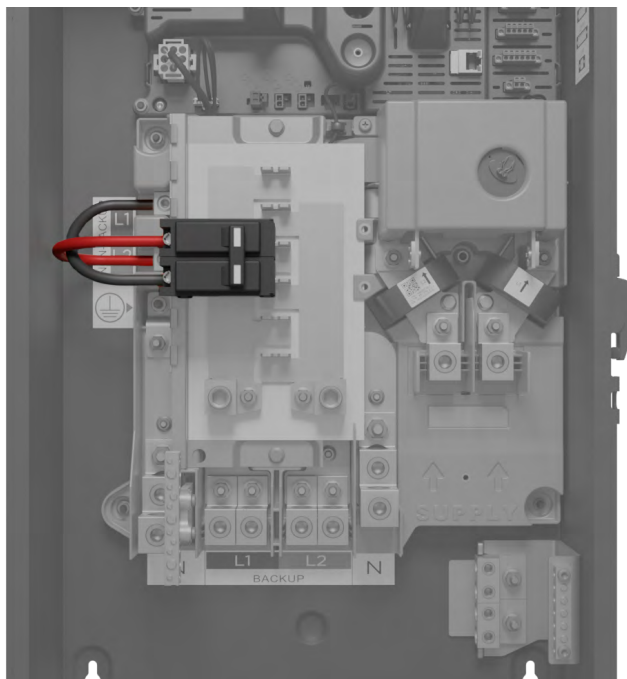
11

BACKUP INTERNAL PANELBOARD



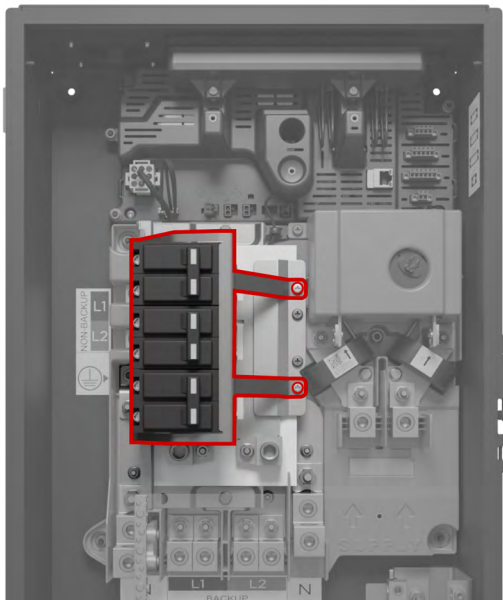
OR

NON-BACKUP INTERNAL PANELBOARD



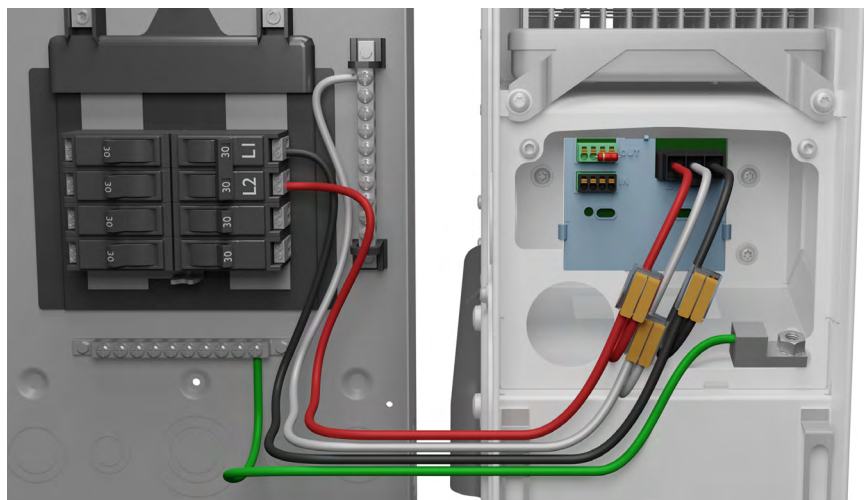
12

INSTALL BREAKER HOLD-DOWN



MAKE POWERWALL AC POWER CONNECTIONS

13

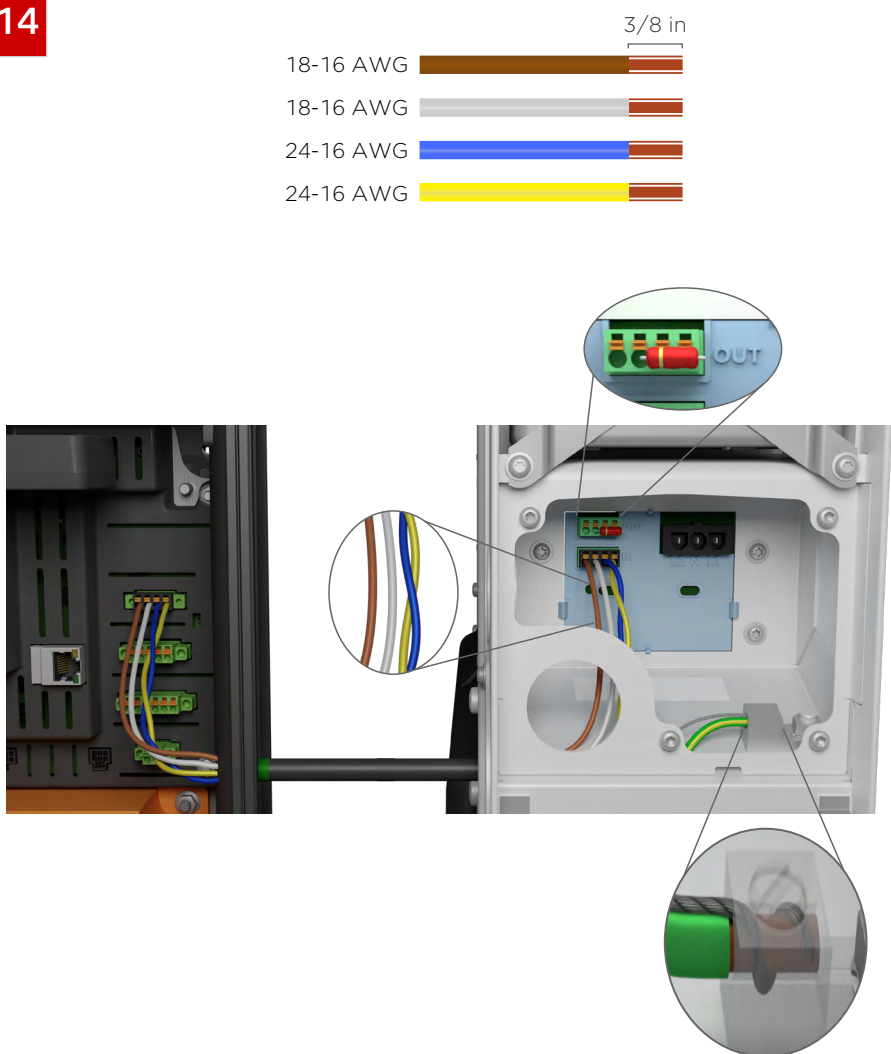


7/16"

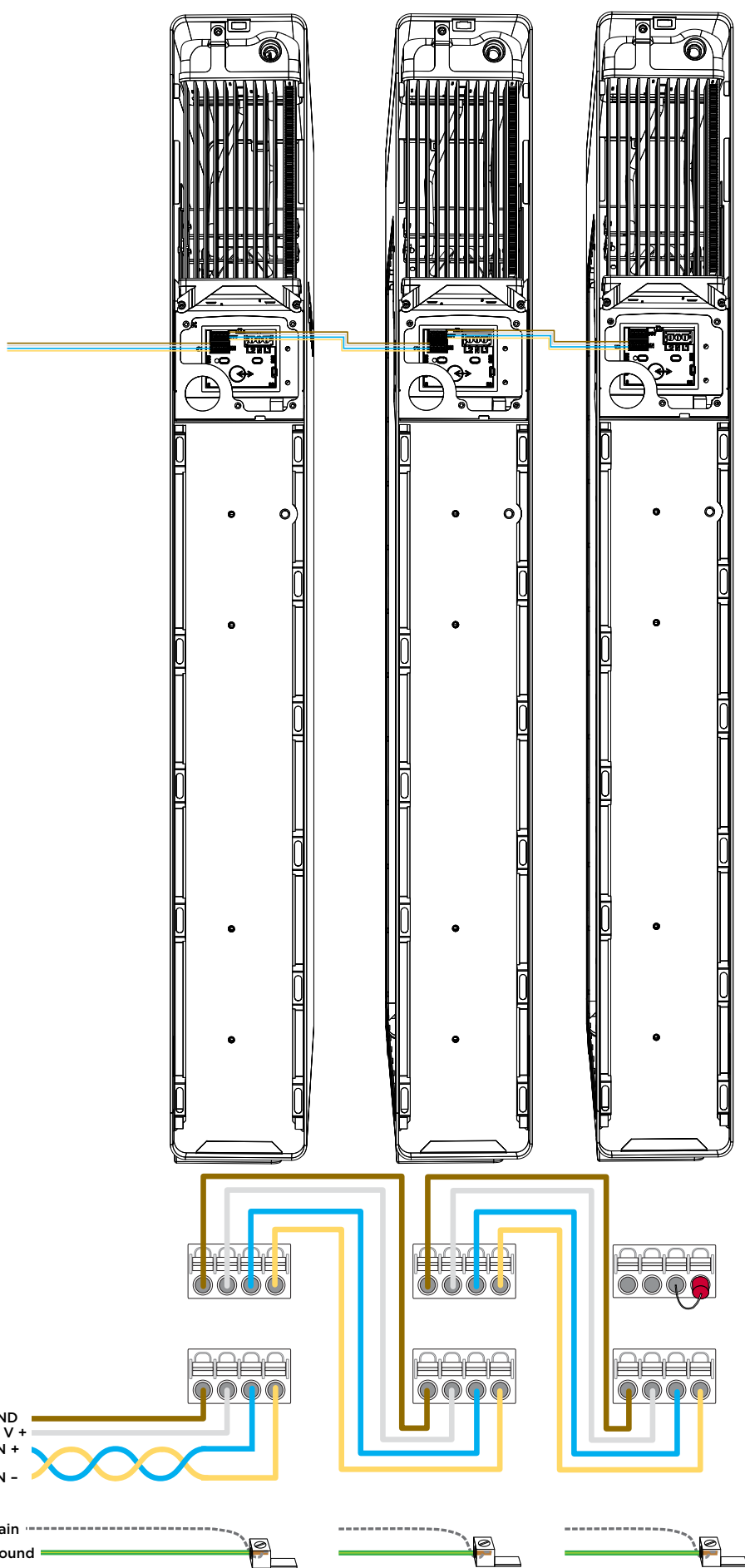
10 - 8 AWG 

10 - 8 AWG 

10 - 8 AWG 



## MULTI-POWERWALL COMMUNICATION WIRING



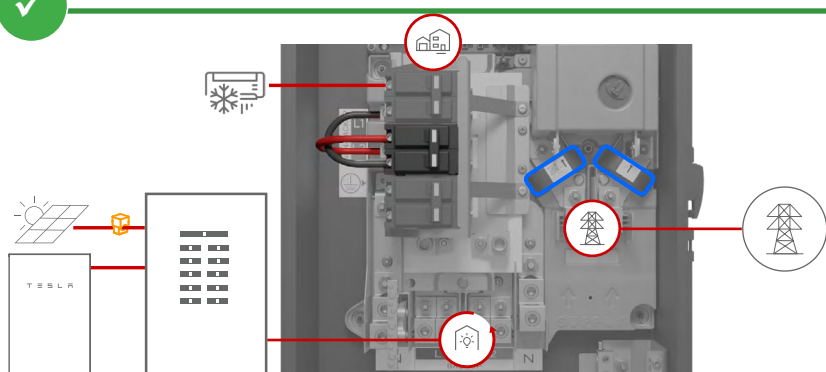




See **Install Optional Remote Disable Switch** in the *Installation Manual* for information on switch operation and design considerations.

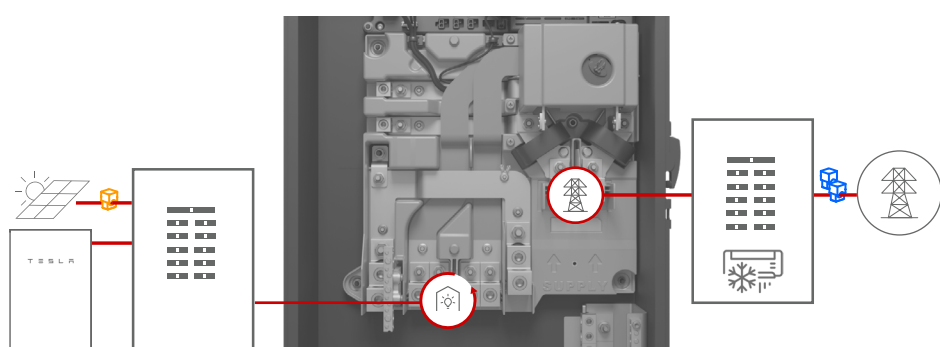
## INSTALL METERING



### METERING OVERVIEW

#### Correct Metering Installation



All **Site** loads monitored with two integrated CTs   
All **Solar** monitored with one auxiliary CT 



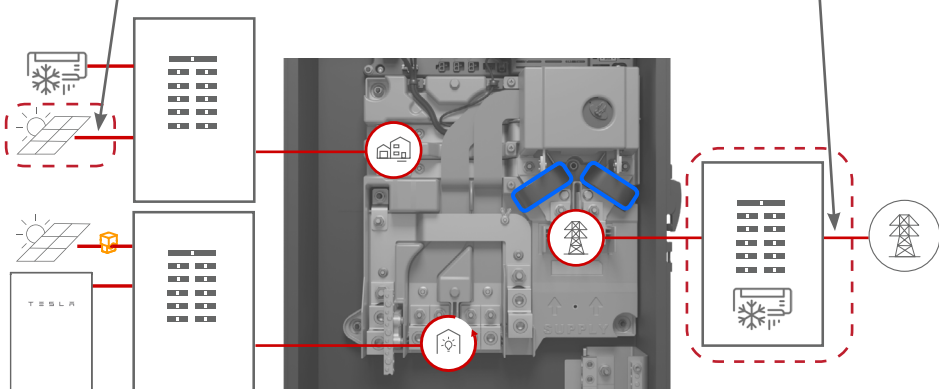
All **Site** loads monitored with two auxiliary CTs   
All **Solar** monitored with one auxiliary CT 

#### Incorrect Metering Installation

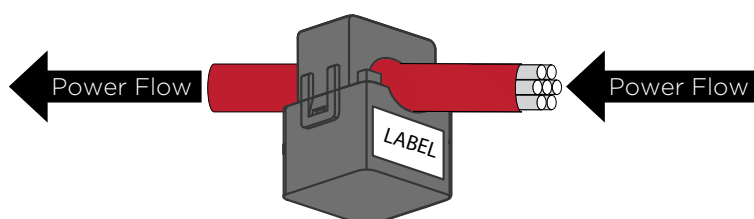


Secondary **Solar** is **not** monitored

Non-Backup **Site** loads are **not** monitored by integrated CTs



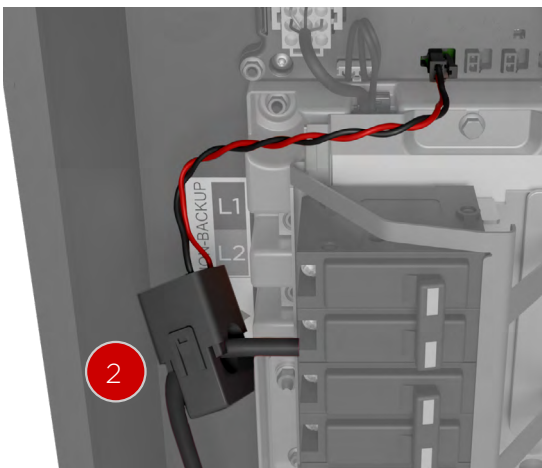
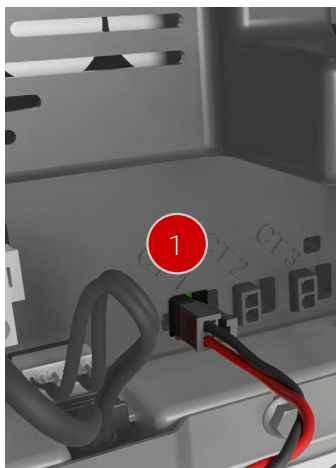
### CT ORIENTATION



CT Label → Source of Power

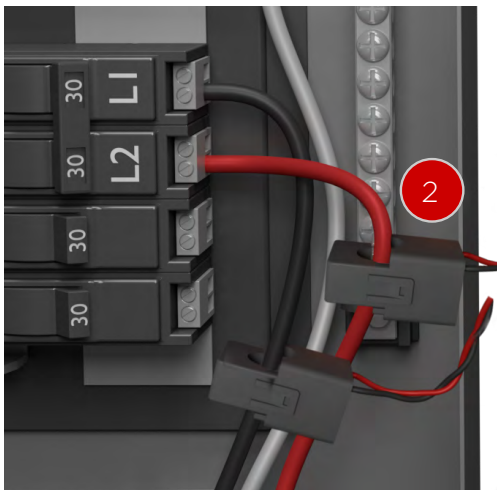
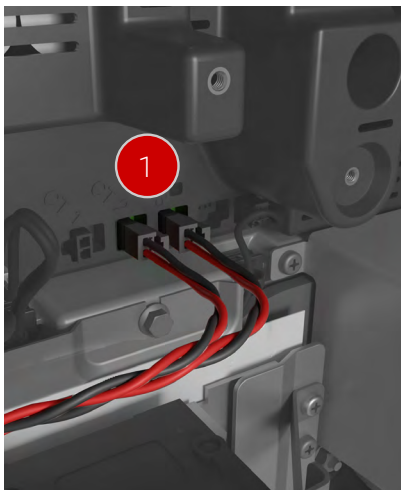


INSTALL SOLAR METERING



INSTALL REMOTE SITE METERING

(Required for Home Loads upstream of Gateway)



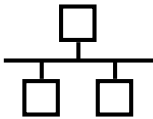
Note: If installing a Neurio meter and additional CTs, connect the Neurio over Wi-Fi to update



See the *Installation Manual* for a detailed overview of metering, system wiring diagrams with meter placement, and instructions for installing a remote Neurio meter.

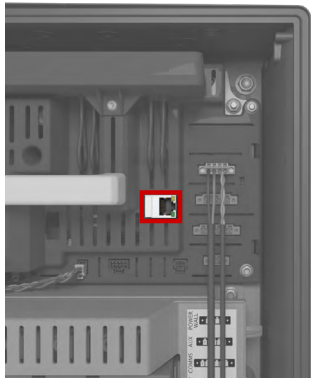
CONNECT BACKUP GATEWAY TO THE INTERNET

Ethernet



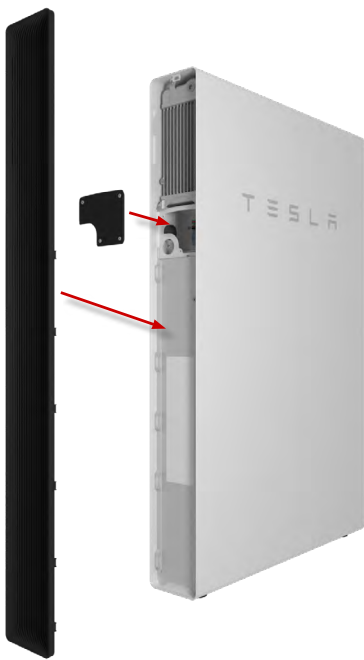
AND / OR

2.4 GHz / 5GHz Wi-Fi

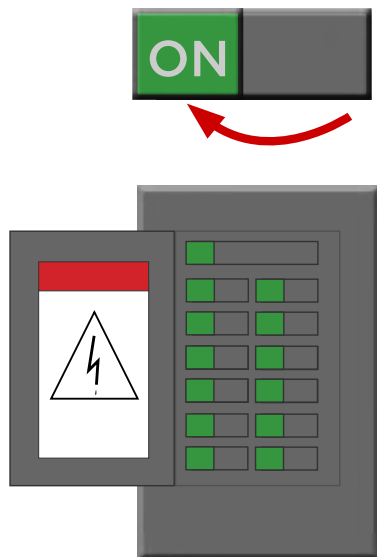


HOMEOWNER NETWORK  
HOMEOWNER PASSWORD

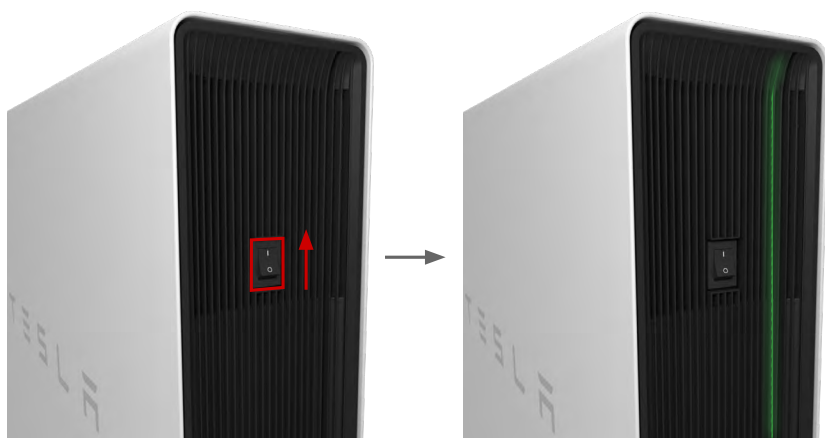
CLOSE WIRING COMPARTMENTS AND POWER ON



20



21

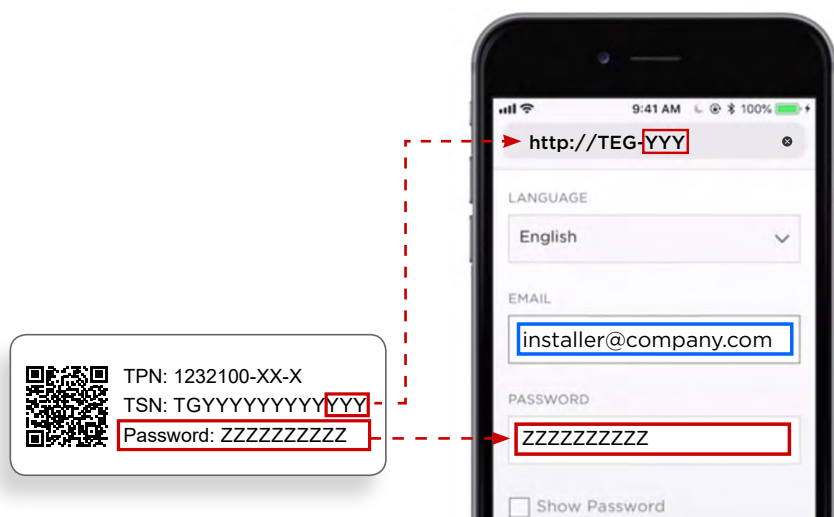


## COMMISSION THE SYSTEM

22



23



TIPS

- Use **Chrome: Incognito** mode or **Safari: Private Browsing** mode.
- Work in one browser tab only.
- For security message **Your connection is not private**, select **Advanced** and **Proceed**.
- For **Error: Bad Credentials**, select **FORGOT PASSWORD** to reset password.
- For **Error: Login Error (Cannot Start Wizard)**, select **Click for More** and tick the **Force Launch Wizard** option. Try again.
- If experiencing other issues, refresh the web page.
- If issues persist, reboot Gateway using **RESET** button.