

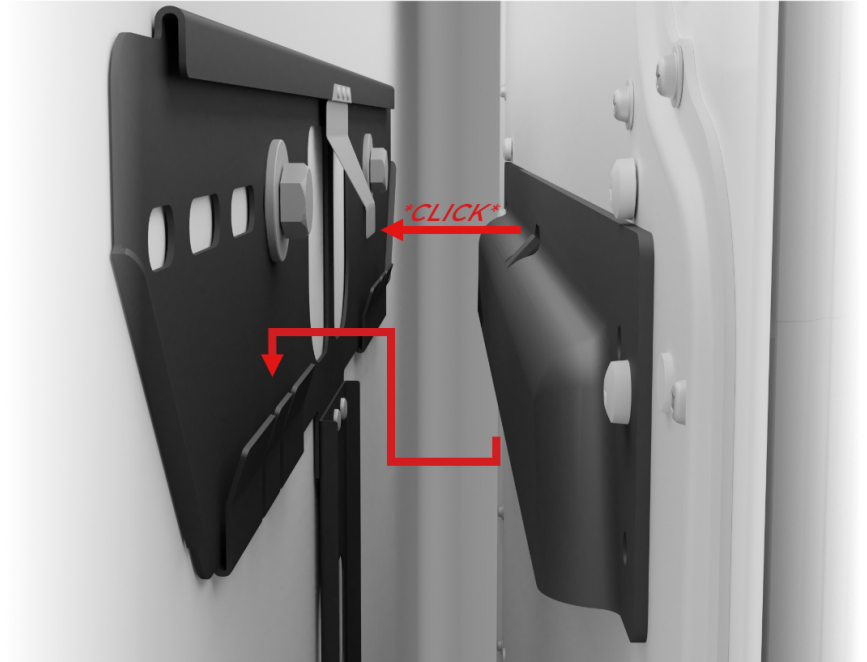
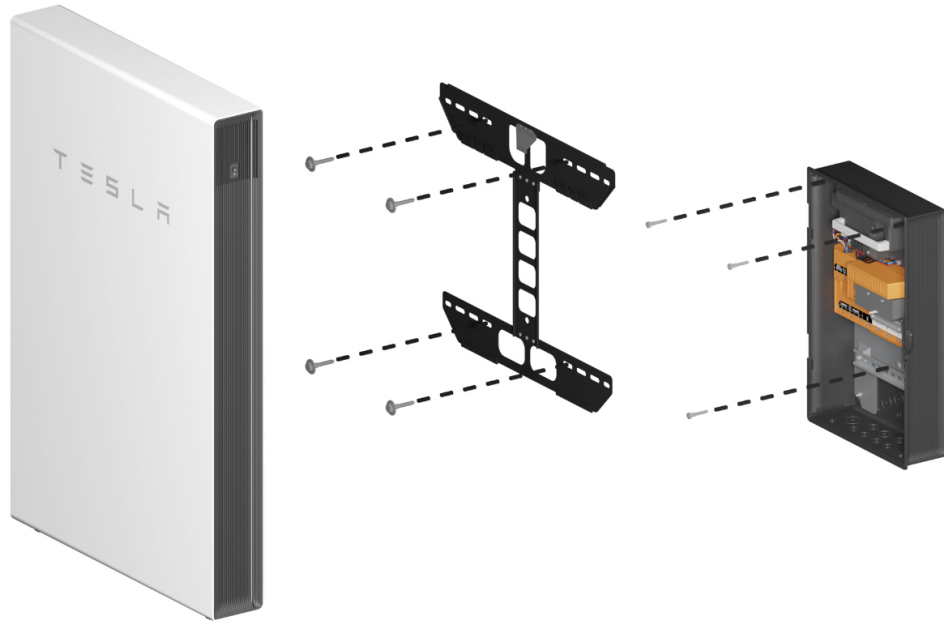


TESLA



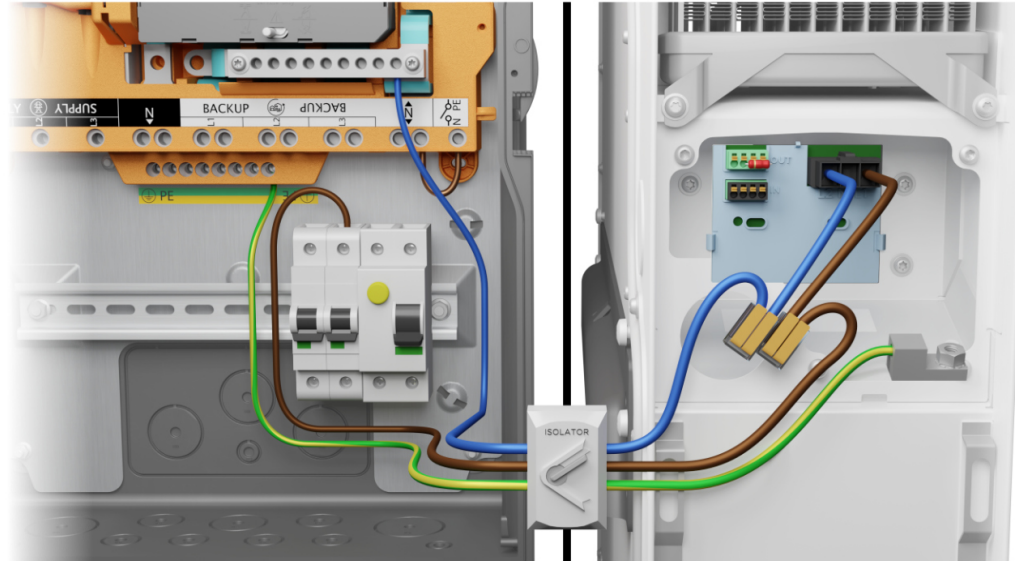
Powerwall 2 AC
Quick Reference Guide
with Backup Gateway 2

POWERWALL 2 - ENCLOSURE MOUNTING

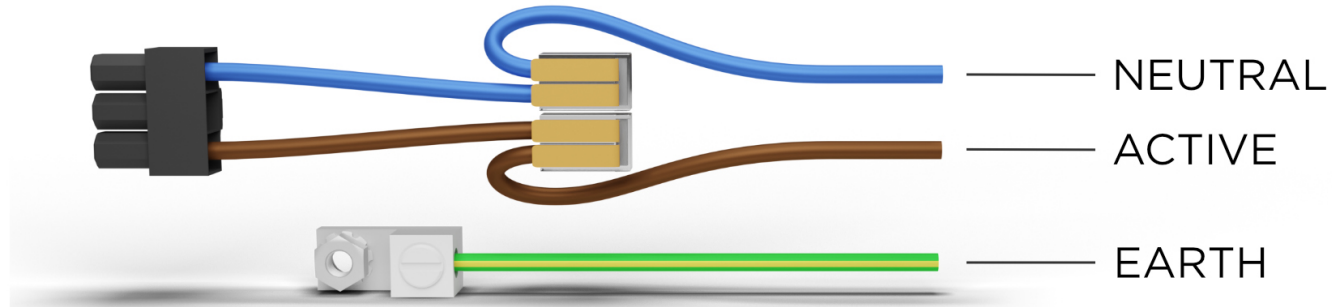


POWERWALL 2 - POWER WIRING

GATEWAY



POWERWALL 2

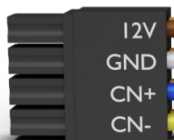
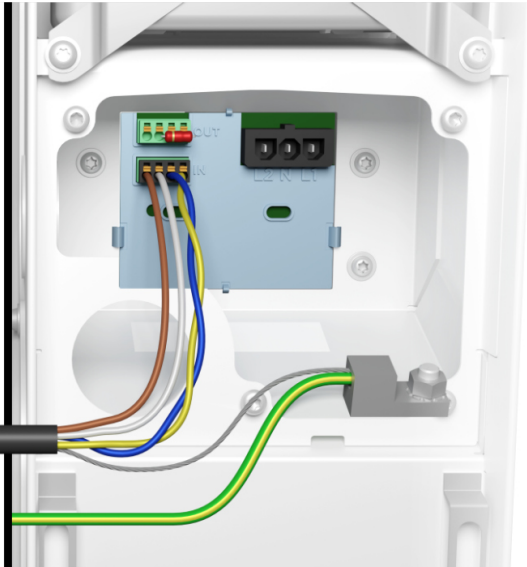


POWERWALL 2 - COMMUNICATION WIRING

GATEWAY



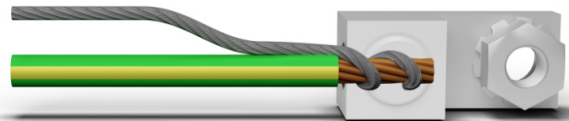
POWERWALL 2



12V
GND
CN+
CN-

LOGIC+
LOGIC-
CAN HI
CAN LO

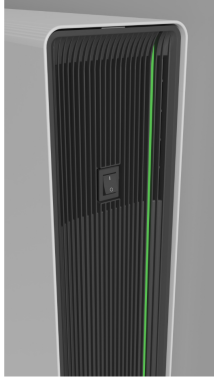
DRAIN
EARTH



POWERWALL 2 - COMMISSIONING

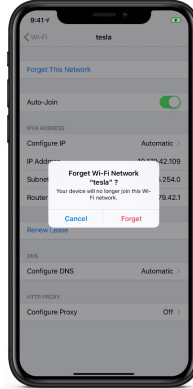
1

Power on the Gateway and Battery.



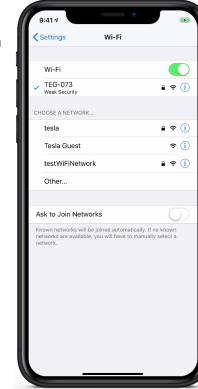
2

Forget all known networks in the area.



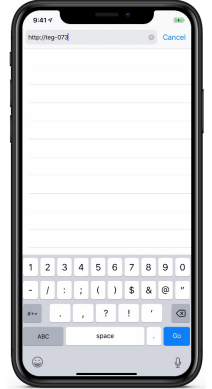
3

Connect to the TEG WiFi Network. The password is located on the sticker behind the Gateway's door.



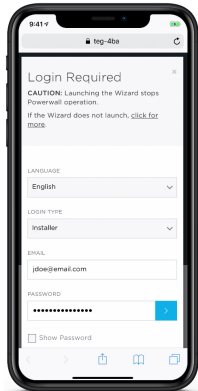
4

Using Safari or Chrome, connect to: **http://TEG-XXX** Where "XXX" is the last 3 digits of the Gateway serial number. Proceed past the security warning.



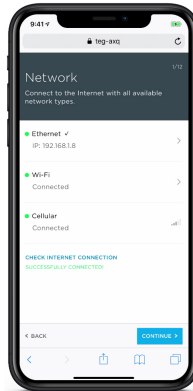
5

Login as an installer using the same WiFi password



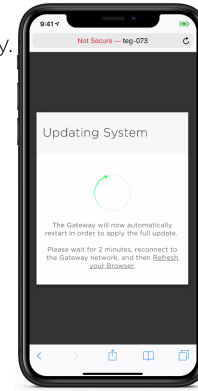
6

Connect the Gateway to the internet with **both** Ethernet and WiFi



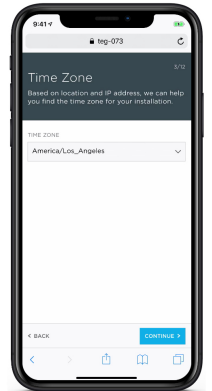
7

Update the Gateway. After several minutes, rejoin the TEG WiFi network and refresh the page.



8

Follow the commissioning steps for setting the time, verifying Powerwalls, confirming the grid code, and adding solar equipment.

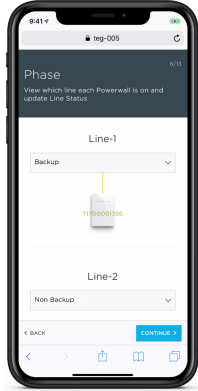


POWERWALL 2 - COMMISSIONING

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Phase Detection:

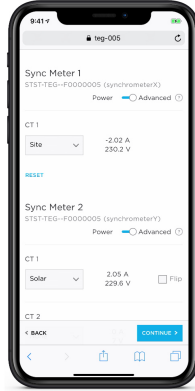
- On 3-phase sites, designate which phase is backed up by the Powerwall by selecting "Backup"
- Only one of the phases can be set to "Backup"
- If there are additional Powerwalls, designate their phases as "Non Backup" - they will not operate during a grid outage



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Metering:

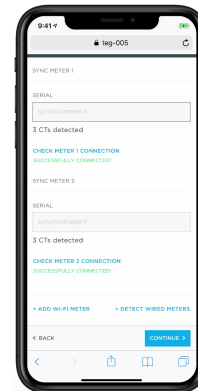
- The pre-paired meter may automatically update
- Click add WiFi meter to add additional meters
- The Short ID and Serial Number are located on the meter's sticker
- For hardwired meters, tap "Detect Wired Meters"
- Confirm that each meter shows "Successfully Connected"



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Current Transformers:

- Select what the CT is measuring & designate its Amp rating
- Ensure unused CT ports are set to "None" Do not use the CT option "Load"
- Use the Power/Advanced Slider to check the measurements. Powerfactor should be close to 1.0 if over 1 kW
- Use the flip check box if the polarity is incorrect



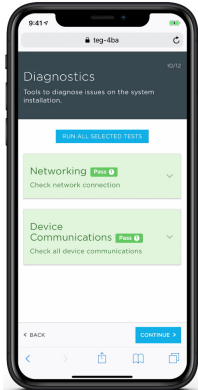
12

- Verify that the site readings match the utility meter, and that solar readings match the inverter's production screen.
- With the solar inverter off, turn on a large load such as an electric kettle and verify that the site reading becomes a greater positive value.
- Turn the solar inverter "On".

13

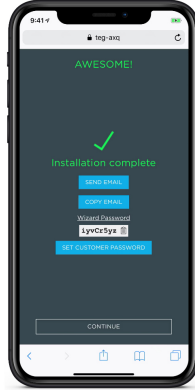
Continue on to:

- Operation Settings
- Diagnostics
- Installation Information
- Customer Privacy Policies and Information
- Summary Screen
- Verification Screen



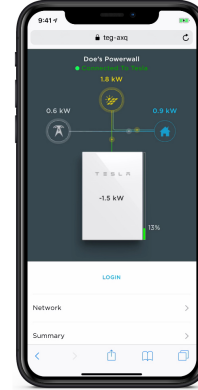
14

Copy the auto-generated password into your notes



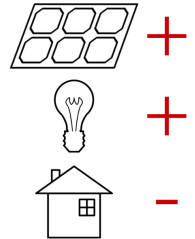
15

Visit the landing page and verify that the Powerwall is charging after a few minutes.



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- Solar is positive
- Loads are positive
- Site is negative only when exporting



POWERWALL 2 - ADVANCED TROUBLESHOOTING

Germany - Local: 08921 093303



Italy - Local: 069 480 1252



UK - Local: 0162 845 0660

For further support, refer to Powerwall 2 AC Installation Manual with Backup Gateway, "Step 13: Commissioning the System"

ACCESSING THE POWERWALL UI

- Wi-Fi Password is located on the sticker behind the Gateway's door.
- Use Safari: Private Browsing mode, or Chrome: Incognito mode and type "http://192.168.91.1/" in the URL bar.
- If you are unable to connect, try a different device.
- A webpage security message may read "Your connection is not private". Click "Advanced" and "Proceed to 192.168.91.1 (unsafe)".
- If issues persist Reboot Gateway using the RESET button.
- 'Error: Bad Credentials' - Click FORGOT PASSWORD to reset the installer password.
- 'Error: Login Error (Cannot Start Wizard)' - In the line above the error message, click "click for more", tick the "Force Launch Wizard" option, then try again.

UPDATING

- CHECK INTERNET CONNECTION to verify Gateway network connection.
- "Check for Update" to verify you are on the latest firmware. Factory firmware ending in **GF** must be updated.
- Never power down during an update, as it may result in damage to the system.
- For multi-Powerwall systems it may take up to 3 minutes per Powerwall to download updates from the Gateway. This process should not be interrupted.
- If internet connection is not successful and is preventing firmware from being updated, try alternate internet connection methods (eg: hotspot from a third party device and connect the Gateway to it via Wi-Fi).
- During the update the Gateway will reboot which will cause the "TEG-XXX" Wi-Fi to disconnect. When reconnected, refresh the webpage.

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SETTING UP ENERGY METERS

- Ensure all solar inverters are monitored with CTs.
- CT Ports 1 & 4 correspond to L1 on the energy meter.
- Select "Site" and "Solar" for related CT configuration. Configuring "Load" CTs is uncommon and generally for special install cases.
- Turn on home loads, such as an electric kettle.
- "Advanced" Power Factor (PF) for CT readings only occur with loads greater than 1 kW.
- Use handheld clamp or fork meter to verify CT readings.
- Turn off Solar Inverter. Turn on home loads. "Site" CTs should then be **POSITIVE**.
- Validate individual CT readings before continuing.

VERIFYING POWERWALL OPERATION

- After registering the Gateway, "CLICK TO CONTINUE" to return to the Powerwall UI and verify the functionality.
- Ensure the page shows "Connected to Tesla" after a few minutes. If not, enter the wizard and verify the internet connections.
- Site is positive for **import** - Site is negative for **export**.
- Solar is **NEVER** negative during daytime. Check for flipped CTs.
- Load is **NEVER** negative. Check CT placement or voltage referencing (eg: incorrect phase referenced).
- Powerwall will charge from grid at **3.3kW** to reach its backup reserve limit unless there is a greater amount of excess solar.
- If loads are unusual and Powerwall is at maximum charge or discharge (**5kW**), check CT placement.
- If all excess solar is exporting to grid (battery not charging) check Powerwall AC line is live and Enable switch is on.
- Simulate a power outage with the main switch to confirm correct backup mode operation (eg: solar still operates, battery discharges to home).
- If Powerwall is near 100% charged or in very cold conditions, Powerwall may not immediately grid-charge and PV may be intentionally curtailed while in backup mode.