

## SAVANT SAVANT Load Management With Tesla Powerwall



# SAVANT Load Management With Tesla Powerwall Installation Guide

[Home](#) » [SAVANT](#) » SAVANT Load Management With Tesla Powerwall Installation Guide 

### Contents

- [1 SAVANT Load Management With Tesla Powerwal](#)
- [2 Specifications](#)
- [3 Wiring Instructions](#)
- [4 Wiring](#)
- [5 Enable Low Voltage Relay for Tesla](#)
- [6 Finding the Tesla IP Address](#)
- [7 Add a Power Source](#)
- [8 Savant Load Management with Tesla Powerwall Reference Page](#)
- [9 FAQs](#)
- [10 Documents / Resources](#)
  - [10.1 References](#)

## SAVANT

### SAVANT Load Management With Tesla Powerwal



## Specifications

- **Product Name:** Savant Load Management with Tesla Powerwall
- **Document Number:** 009-2449-01
- **Document Date:** December 2024
- **Compatible with:** SavantOS 11 and higher, Savant Power & Light app 3.2.2 and higher
- **Contact:** 45 Perseverance Way, Hyannis, MA 02601 | [Savant.com/power](https://www.savant.com/power) | 508.683.2500

## Wiring Instructions

### Wiring with a Tesla Powerwall 2

Instructions for connecting the Tesla Powerwall 2 to the system.

### Wiring with a Tesla Powerwall 3

**Note:**

Tesla Powerwall 3 requires a Backup Switch or Gateway 2 for installation.

### Wiring with a Tesla Powerwall+

**Note:**

Tesla Powerwall+ also requires a Backup Switch or Gateway 2 for installation.

### Enable Low Voltage Relay for Tesla

**Note:**

This step is only necessary when using Tesla Gateway 2.

### Finding the Tesla IP Address

1. Navigate to the menu option and select Devices on Network.
2. Find the IP Address of the Tesla system and record it.
3. Select Power Sources in the main menu to proceed.

### Add a Power Source

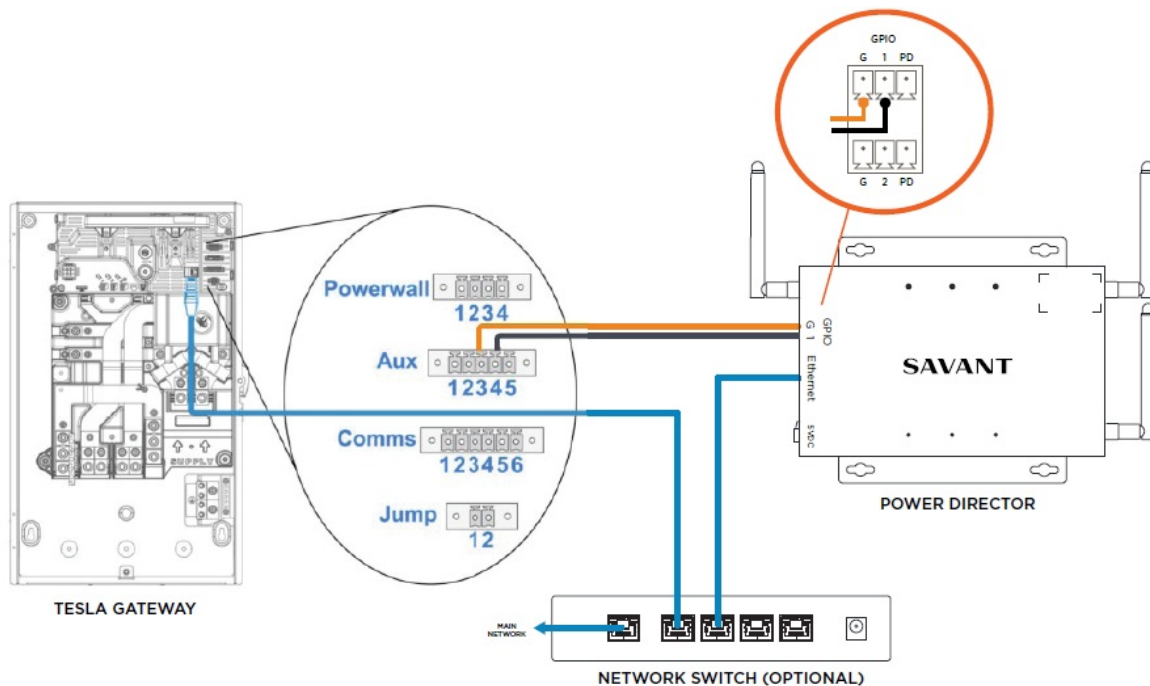
1. Choose Battery Storage under Power Sources and select the appropriate Tesla Powerwall model.
2. If using GPIO wiring for Grid Detection, set the GPIO for Grid State setting to GPIO 1.
3. Enter the recorded IP Address as the Inverter IP Address.
4. Enter the maximum Continuous Inverter Output (kW) of the Battery Inverter.
5. Important: Only enable Whole Home Backup if the Battery Inverter can support the full capacity of backed-up loads while Off-Grid.

## Wiring

### Wiring with a Tesla Powerwall 2

The Savant Power Director and Tesla Powerwall 2 are connected via Ethernet cable or Wi-Fi and must be on the

same network. Savant recommends running a single pair of black and red wire size #18-16 AWG from auxiliary pins 3 and 4 on the Tesla Gateway to the GPIO 1 connection port of the Director. The GPIO is used to monitor the Grid State and is recommended when using an off-grid load-shedding relay. The detection of grid changes by the Director is faster than the Ethernet connection when using the GPIO. However, GPIO connections are not required for the Director to function. See the diagram below.

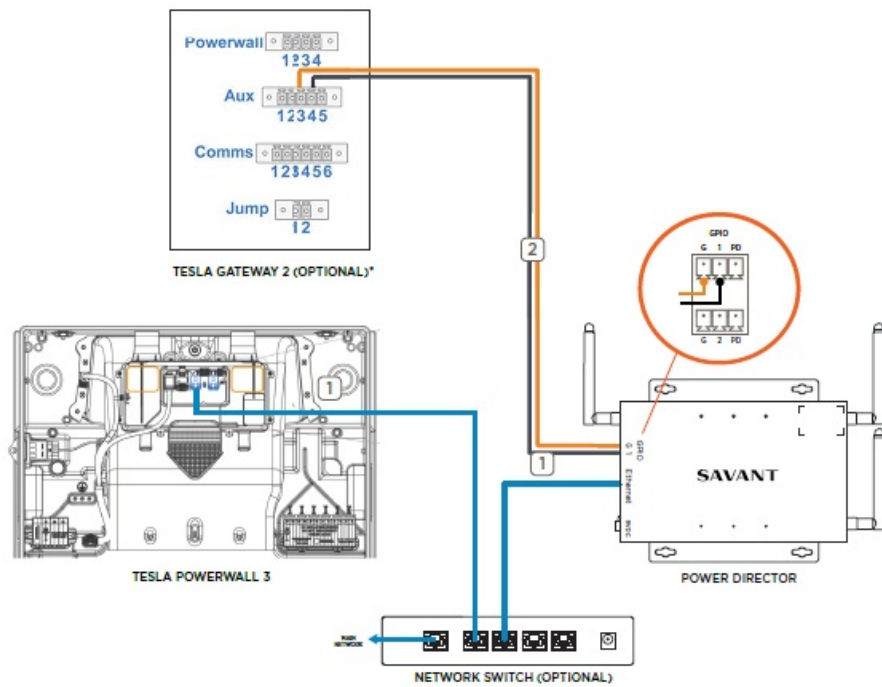


### Wiring with a Tesla Powerwall 3

The Savant Power Director and Tesla Powerwall 3 are connected via Ethernet cable or Wi-Fi and must be on the same network. If the installation includes a Tesla Gateway 2 run a single pair of black and red wire size #18-16 AWG from the auxiliary pins 3 and 4 on the Gateway to the GPIO 1 connection port of the Director. The GPIO is used to monitor the Grid State and is recommended when using an off-grid load-shedding relay. The detection of grid changes by the Director is faster than the Ethernet connection when using the GPIO. However, GPIO connections are not required for the Director to function. See the diagram below.

### NOTE:

The Tesla Powerwall 3 requires a Backup Switch or Gateway 2. If the installation is using the Backup Switch the GPIO wiring is not used.



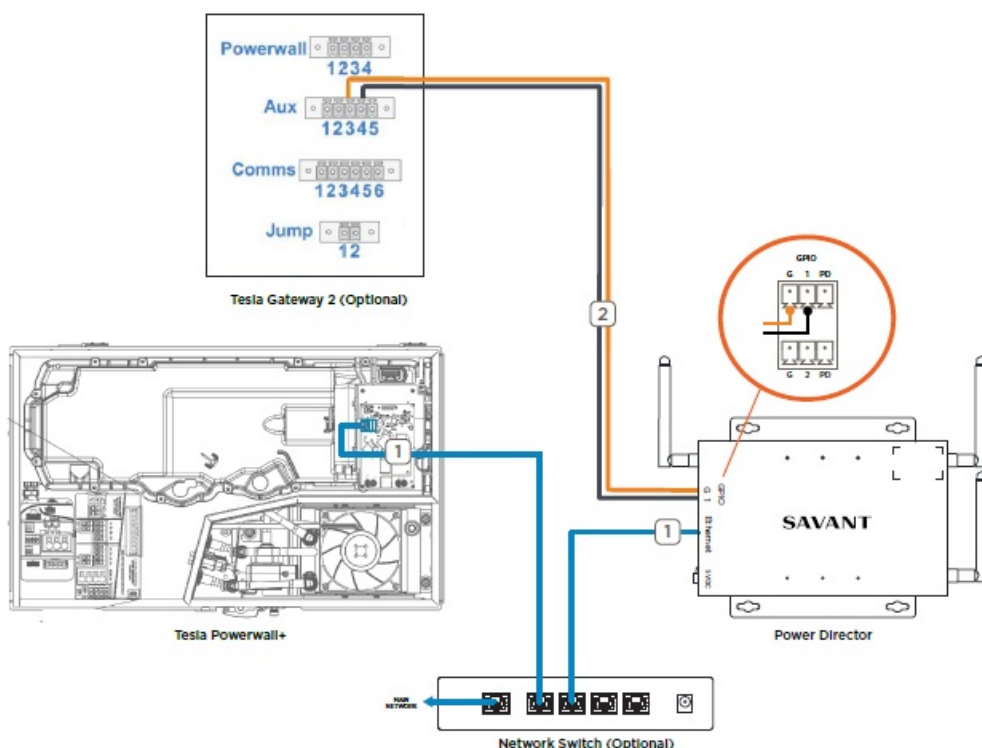
As of the release of this document; the Tesla Powerwall 3 does not support GPIO connection to the Tesla Gateway 2. This is planned for a future release by Tesla.

### Wiring with a Tesla Powerwall+

The Savant Power Director and Tesla Powerwall+ are connected via Ethernet cable or Wi-Fi and must be on the same network. If the installation includes a Gateway 2, Savant recommends running a single pair of black and red wire size #18-16 AWG from the auxiliary pins 3 and 4 on the Gateway to the GPIO 1 connection port of the Director. The GPIO is used to monitor the Grid State and is recommended when using an off-grid load-shedding relay. The detection of grid changes by the Director is faster than the Ethernet connection when using the GPIO. However, GPIO connections are not required for the Director to function. See the diagram below.

### NOTE:

The Tesla Powerwall+ requires a Backup Switch or Gateway 2. If the installation is using the Backup Switch the GPIO wiring is not used.

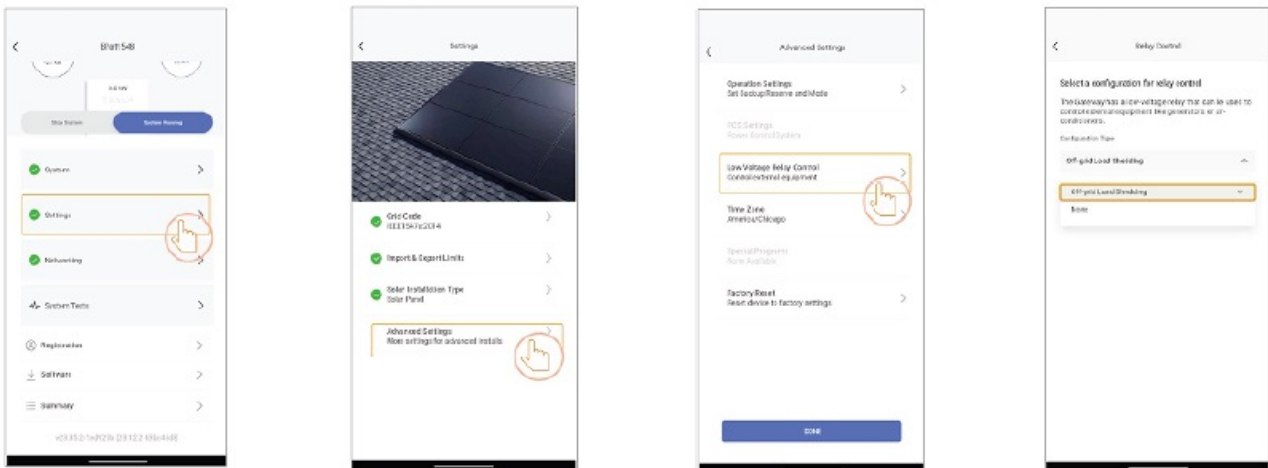


## Enable Low Voltage Relay for Tesla

During the commissioning of the Tesla Gateway, ensure that the Low Voltage Relay Control (LVRC) is enabled if the GPIO wiring was installed with the Gateway 2. This feature can be enabled in the Advanced Settings section of the Tesla One app. A login is required to access the Tesla One app settings. Enabling the LVRC is a critical step to facilitate communication between Tesla and Savant. This will enable the GPIO communication between the Tesla Gateway and the Savant Director that was established in Step 1.

### NOTE:

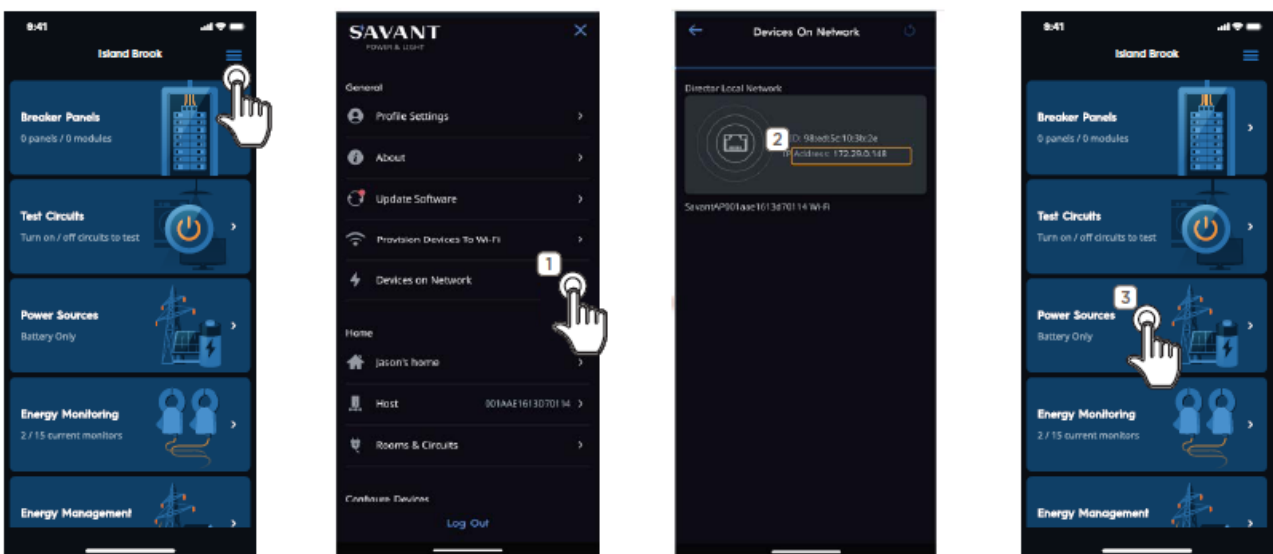
This step is not required if using the Backup Switch and is only available when using Tesla Gateway 2.



## Finding the Tesla IP Address

The Tesla IP Address is needed to enable communication between Tesla and Savant.

1. Navigate to the menu option at the top right of the screen, then select Devices on Network.
2. Here is the IP Address of the Tesla system. Record the IP Address for the next step.
3. Select Power Sources in the main menu to move forward.

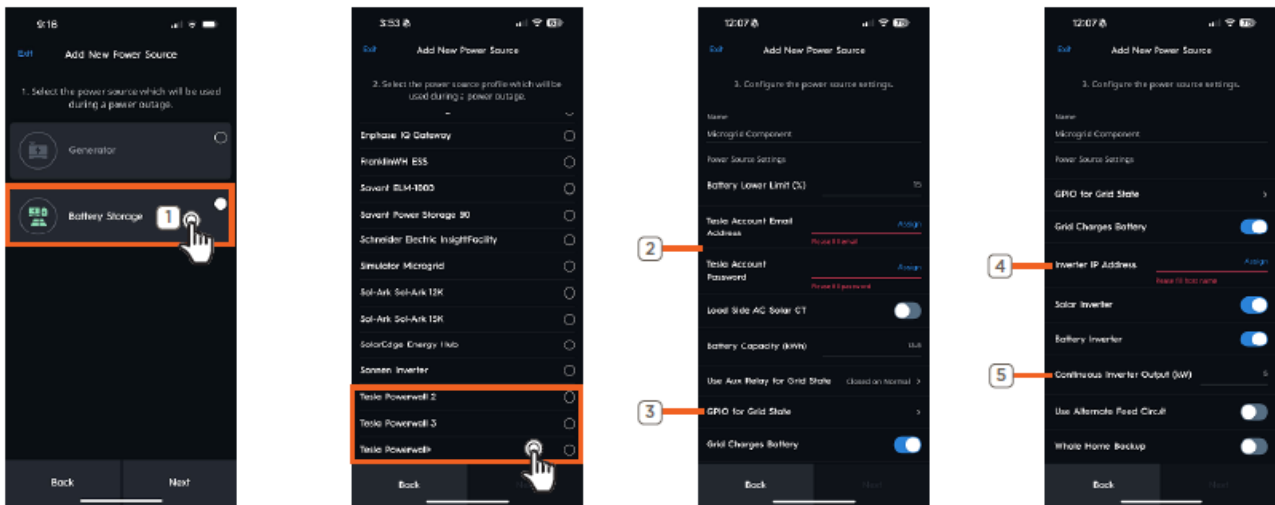


## Add a Power Source

1. In the Power Sources option, choose Battery Storage. Then, select the appropriate Tesla Powerwall that

matches the hardware being integrated, from the available options. (Tesla Powerwall 2, Powerwall 3, or Powerwall+)

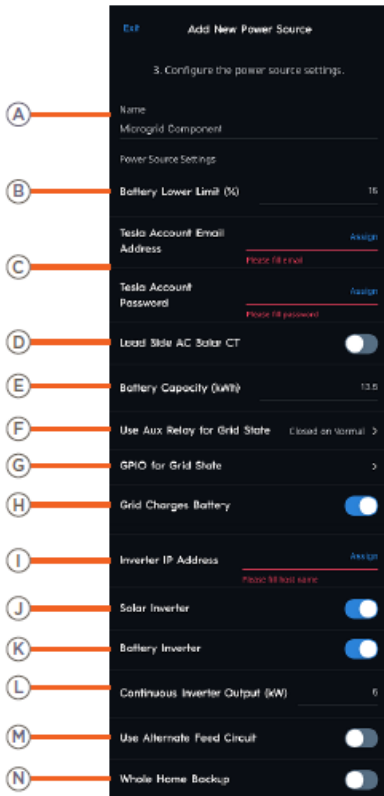
2. Enter the Tesla Account Email Address and Tesla Account Password.
  - The Tesla Account Email Address can be either the Installer or Customer Email Address.
  - For Powerwall 2 and Powerwall +, use the Tesla Account Email Password to log in.
  - For Powerwall 3, the Tesla Account Password is the last 5 digits of the Network Password printed on a sticker attached to the Powerwall.
3. If the GPIO wiring for Grid Detection is used, set the GPIO for Grid State setting to GPIO 1, otherwise leave the setting blank.
4. Enter the IP Address recorded in section 3 step 2 for the Inverter IP Address.
5. Enter the maximum Continuous Inverter Output (kW) of the Battery Inverter.



### IMPORTANT!

Only enable Whole Home Backup if the Battery Inverter can support the full capacity of backed-up loads while Off-Grid.

### Savant Load Management with Tesla Powerwall Reference Page



Setting	Description
<b>A</b> Name	Name of the inverter as it will appear in the Power & Light app.
<b>B</b> Battery Lower Limit (%)	Affects battery scaling of the Savant Power system. <b>Example:</b> When set to 20%, the Savant Power System will reflect the battery is at 0% within the Power & Light app at 20%.
<b>C</b> Tesla Account Email Address	Enter Tesla Gateway account email here.
<b>D</b> Tesla Account Password	Enter Tesla Gateway account password here.
<b>E</b> Load Side AC Solar CT	Enable if a Current Track Module or SEM-2015 is used to measure Solar.
<b>F</b> Battery Capacity (kWh)	The capacity of the battery in kWh.
<b>G</b> Use Aux Relay for Grid State	If using GPIO to measure Grid State set to "Closed on Normal". Otherwise set to "Not Used".
<b>H</b> GPIO for Grid State	If using GPIO to measure Grid State select GPIO 1 or 2. Otherwise leave the setting blank.
<b>I</b> Grid Charges Battery	<b>Enabled:</b> Grid will charge the installed battery. <b>Disabled:</b> Grid will not charge the installed battery.
<b>J</b> Inverter IP Address	IP Address of the Inverter.
<b>K</b> Solar Inverter	Whether solar panels are present within the Savant Power System.
<b>L</b> Battery Inverter	Whether batteries are present within the Savant Power System.
<b>M</b> Continuous Inverter Output (kW)	Rated capacity of the Inverter.
<b>N</b> Use Alternate Feed Circuit	Monitor Feed with Current Track Module instead of Inverter data.
<b>O</b> Whole Home Backup	Whether the inverter is capable of powering the entire home during a power outage. For more information, see the Savant Power System Design Guide.

### IMPORTANT NOTE!:

The Tesla Account must be the Customer Account used to log in to the Tesla Gateway. This account can differ from the credentials used for the Tesla One app. Follow the Tesla Documentation to log in to the Gateway with a Customer Account and verify credentials are correct.


Savant Power Load Management with Tesla Powerwall – Supplemental Guide Copyright 2024 Savant Systems, Inc 009-2449-01 | 24121145 Perseverance Way, Hyannis, MA 02601 [Savant.com/power](https://www.savant.com/power) | 508.683.2500

## FAQS

**Q: Is it necessary to use a Backup Switch or Gateway 2 with all Tesla Powerwall models?**

**A:** Yes, both Tesla Powerwall 3 and Powerwall+ require a Backup Switch or Gateway 2 for installation.

## Documents / Resources

	<a href="#">SAVANT Load Management With Tesla Powerwall</a> [pdf] Installation Guide Load Management With Tesla Powerwall, Load Management With Tesla Powerwall, Managemen nt With Tesla Powerwall, Tesla Powerwall, Powerwall
-------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## References

- [S What is Savant Power - Savant](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.