FranklinWH Generator Module as Smart Circuit Operations Manual

aGate X, SKU: AGT-R1V2-US; AGT-R1V3-US
Generator Module, SKU: ACCY-GENV2-US

Apr 20, 2026

Please visit *FranklinWH Support* for the latest FranklinWH documents.

Please read this document carefully to ensure the best reliability of the product and your warranty eligibility. For further information about the warranty, please refer to the ***FranklinWH Limited Warranty***.

This document is intended for use by professional installation and maintenance service providers only and no statements, information or recommendations in this document constitute any express or implied warranty.

Please read this document carefully before installing or using the FranklinWH equipment. Failure to follow any instructions or warnings in this document may result in damage to the equipment, personal electric shock, severe injury, or even death.

Product Information

This document applies only to the following products: The FranklinWH aGate X and Generator Module.

FranklinWH Energy Storage Inc. (FranklinWH) reserves the right to make any improvements to the product, and the contents in this document shall be subject to updates without further notification.

All images and pictures provided in this Manual are only for demonstration purposes and may differ in detail from the product, based on the product version.

Feedback

If you have any questions or comments, please send us an email at: *service@franklinwh.com*

Disposal of Scrapped Products

Scrapped products (including their internal chemicals and electrical materials) should not be disposed of with household waste. Please refer to your local laws and regulations regarding disposal.

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Overview

The FranklinWH System provides integration for third-party standby generators/Vehicle-to-Load (V2L) through its optional Generator Module. The module also functions as a Smart Circuit for a large load or subpanel. It can be easily installed without any external components.

The homeowner can have loads controlled by the panel based on battery SOC, time schedule, or overload detection.

The maximum capacity of the Smart Circuit is up to 160 A, depending on your installed appliances.

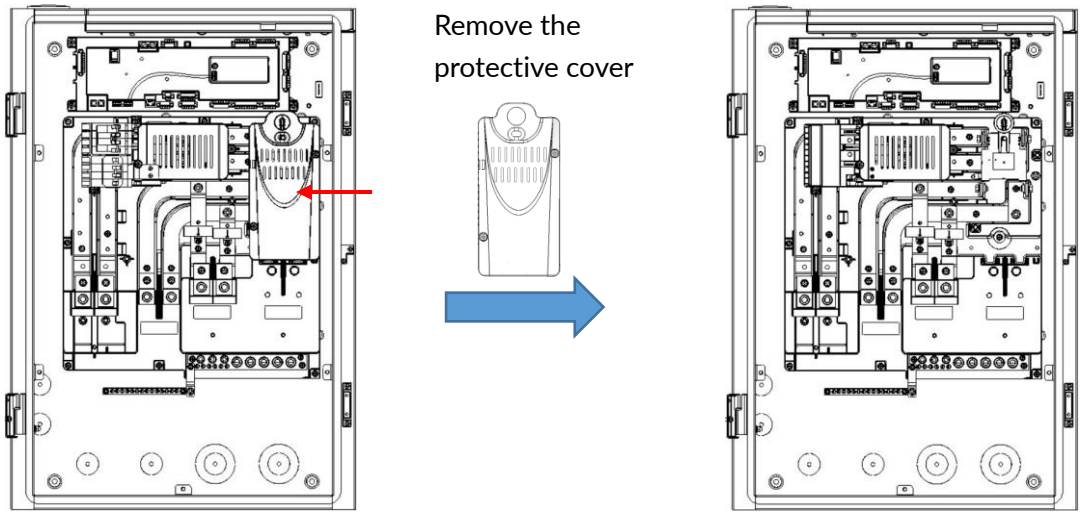
Preparation

The Generator Module does not come with breakers, or the wiring and conduit necessary to connect the generator, load, or subpanel. Before heading to the installation site, evaluate the installation needs and bring all necessary components.

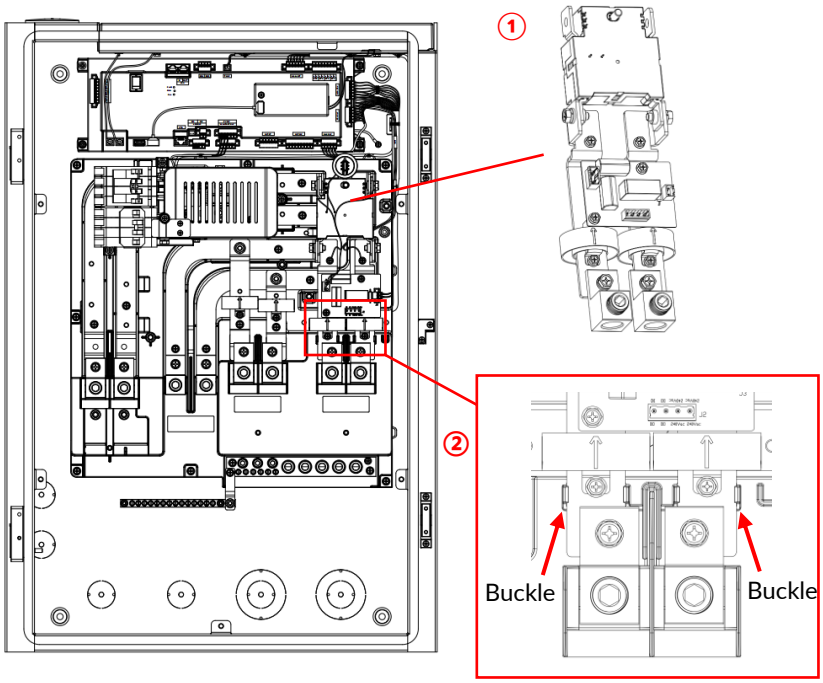
Generator Module Assembly

Before assembly, make sure all breakers in the aGate X and all switches connected to the aGate are disconnected. Use a multimeter to check the voltages at both input and output terminals of aGate are zero (0).

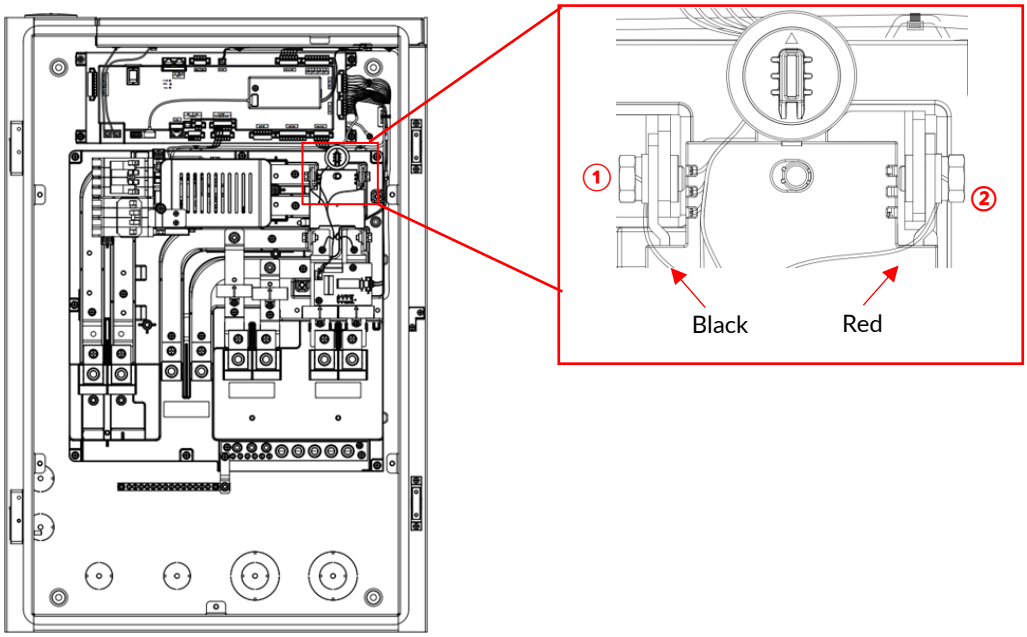
1. Use a Phillips head screwdriver to loosen the two M5 captive screws on the protective cover. Remove the protective cover and keep it in good condition.



2. Place the Generator Module in the position as shown in the figure below and check that all mounting holes are properly aligned. Ensure that the generator module copper plate is properly seated in the buckle and that the cable is not pinched.



3. Connect the black wire L1 of the W008 cable to position 1, the red wire L2 to position 2, and use a 10 mm wrench to tighten the two M6x12 screws at positions 1 and 2 to the recommended torque.

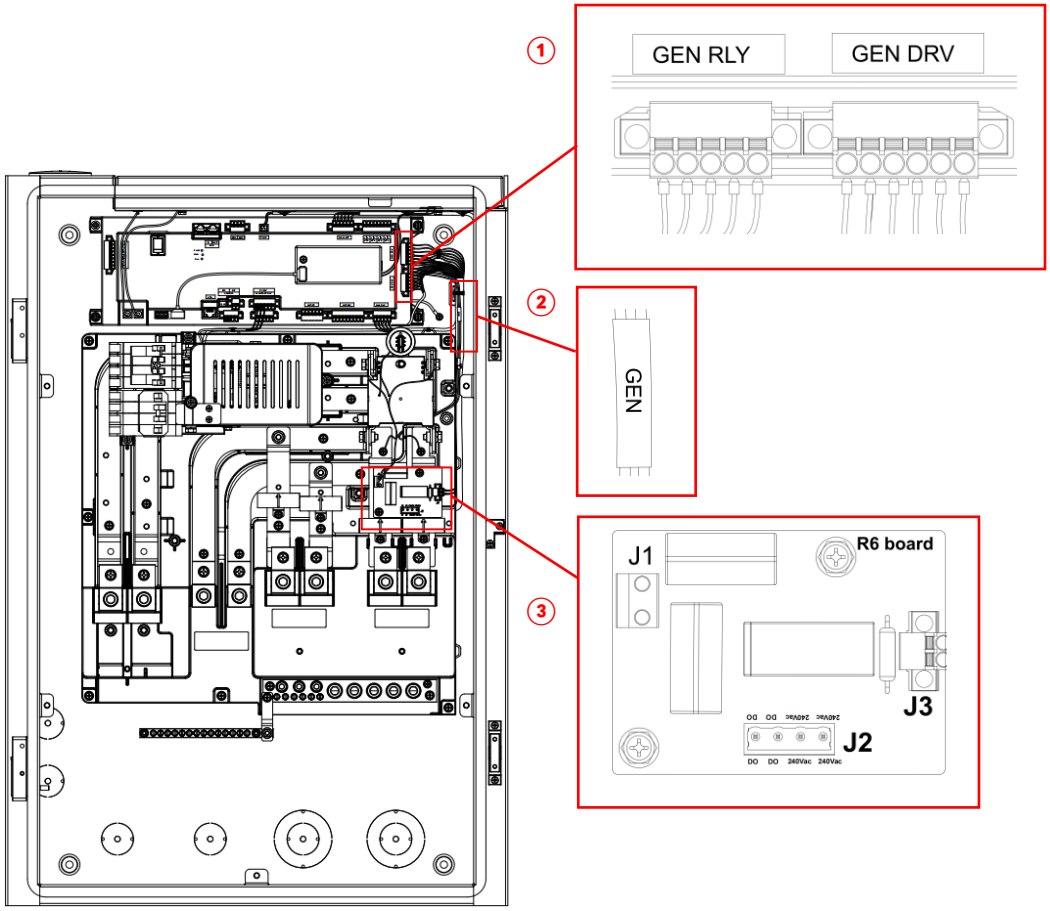


4. Connect the wires as shown in the figure below.

Position 1: Connect the GEN RLY cable to the GEN RLY connector on the EMS module. Connect the GEN DRV cable to the GEN DRV connector. Remove the adhesive film on the cable holder and stick the cable holder onto the inner wall of the aGate.

Position 2: Plug the GEN cable from the generator module to the corresponding reserved GEN cable on the right side of the EMS.

Position 3: Attach the R6-J1 cable to the J1 connector and the R6-J3 cable to the J3 connector on the R6 board.

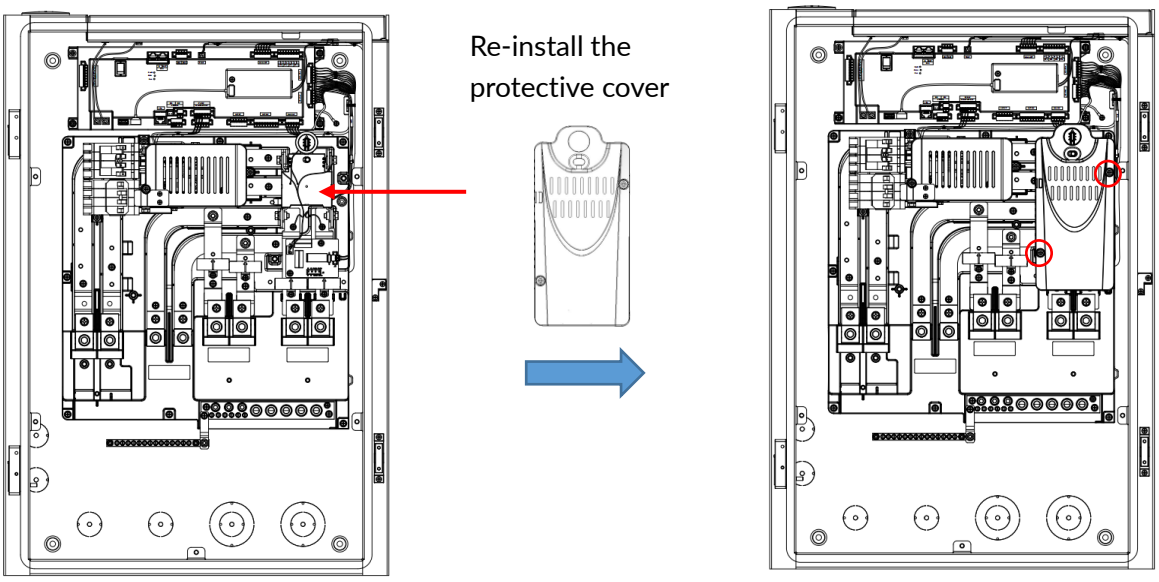


NOTE

- The label can be found on the cable.

- There is an adhesive cable holder for the GEN DRV cable.

5. Re-install the protective cover and fasten the two M5 captive screws using a Phillips head screwdriver.

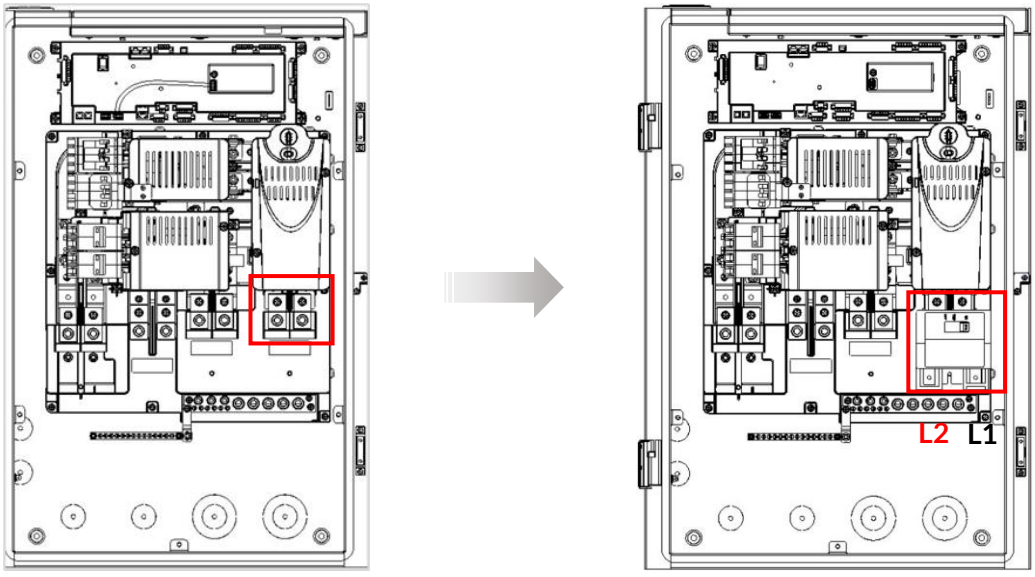


Breaker Assembly (if needed)

Provide a generator breaker according to local laws, regulations, standards, and the National Electric Codes (NEC), ANSI/NFPA 70 or Canadian Standards Association CSA C22.1. The generator breaker is not included and must be ordered separately. Refer to Appendix 1 for compatible breakers.

Before installing a generator breaker, remove the connected lugs. When a generator breaker is not installed, the conductors can be directly connected to these lugs. Follow the instructions below to remove the lugs and install a generator breaker:

1. Using a Phillips head screwdriver, remove the two M6 x 16 combination bolts holding the lugs and save them for later use. Then remove the lugs.
2. Use the two M6 x 16 combination bolts to attach the breaker. Then use the M4 x 10 screw to secure the breaker. Tighten the M4 screw to 1.03 lbf·ft (1.4 Nm) and the M6 screw to 4.42 lbf·ft (6.0 Nm) using a Phillips head torque screwdriver.
3. Attach the provided **L2** and **L1** labels on the surface of generator breaker.



Connect a load or subpanel to the Generator Module

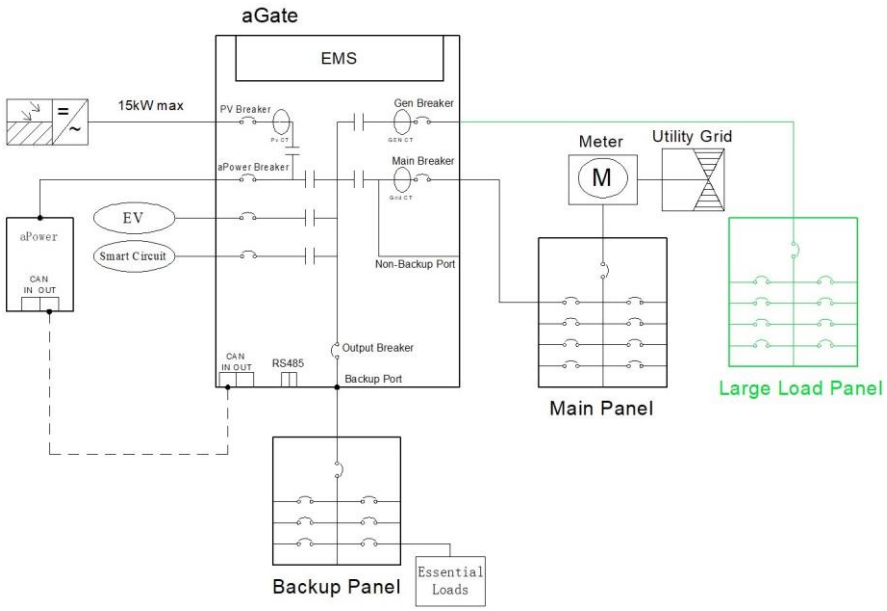
When used as a Smart Circuit, the generator module can connect to a large load or subpanel, as shown in the diagram below.

WARNING

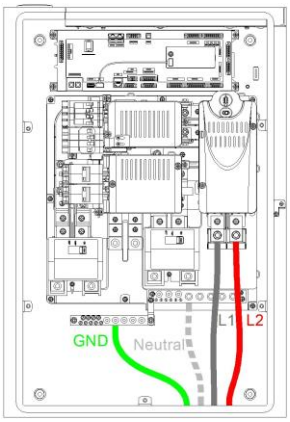
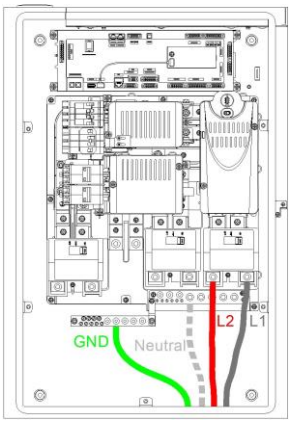
An aPower, PV AC, standby generator, or V2L cannot be connected to this port when the generator module is used as a Smart Circuit.

Only load-type appliances can be connected to the Generator Module when it is used as the Smart Circuit.

NOTE: Once the generator module is configured for Smart Circuit use, it cannot be used for generator connection including V2L unless re-purposed entirely.



Connect the load conductors to the generator output terminals on the aGate (L1, L2 & Ground) as shown below. The neutral wire should be connected or disconnected based on the load demand.

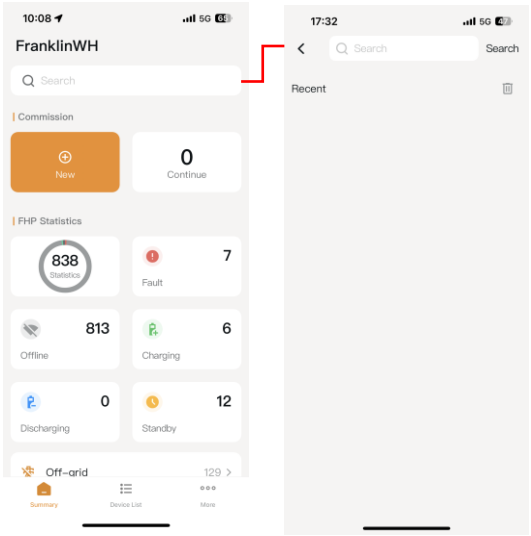
Without breaker	**With breaker**
The conductors can be connected directly to the lugs.	The conductors can be connected directly to these lugs.
	

Configure the FranklinWH App Settings

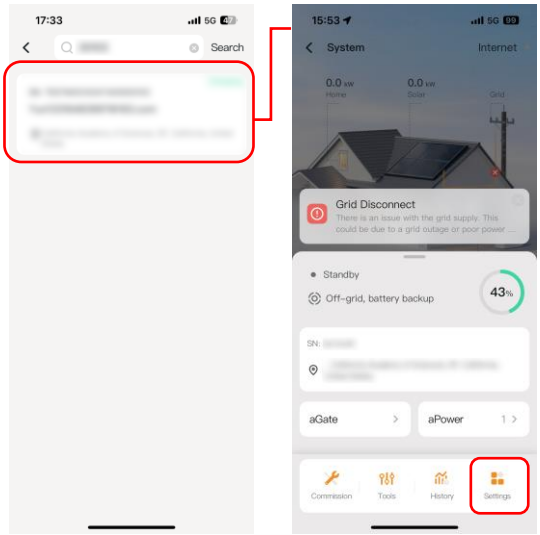
After completing the installation and wiring, login to the FranklinWH App and select either **Installer** or **Homeowner** to configure the Smart Circuit parameters.

Settings for the Installer

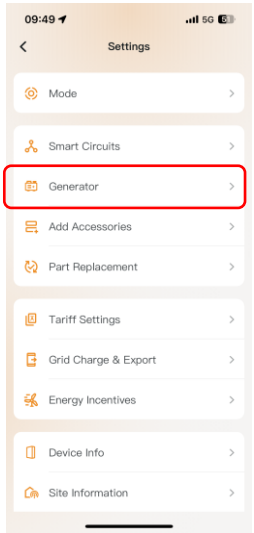
1. Login to the FranklinWH App with the installer account.
2. Search for the aGate serial number in the **Search Devices** box for which the Generator Module needs to be commissioned, click to select.



3. Tap on the search result to access the system and select **Settings**.

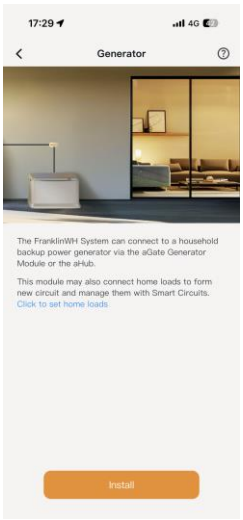


4. On the **Settings** page, tap **Generator**.

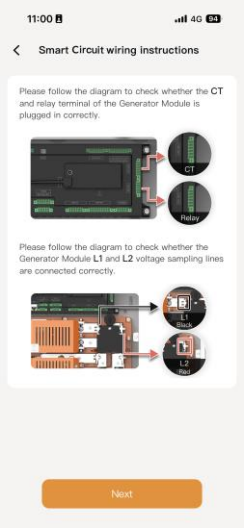


5. On the **Generator** page, tap **Click to set home loads**.

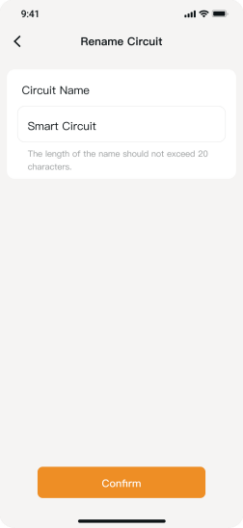
   This module can also be used for load management, allowing heavier home loads or subpanels to be connected and controlled via a Smart Circuit. Click to configure the generator module for Smart Circuit.



6. After checking the installation against the wiring instructions shown, tap **Next**.



7. Tap the **Circuit Name** bar, enter the name, and then tap **Next**.



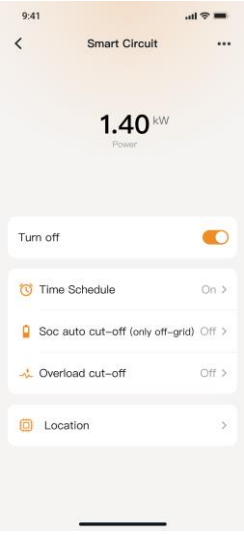
8. Customize settings for the circuit.

   Turn on/off: Tap the slide to manually turn the circuit on or off.

   Time Schedule: Customize the time period or electricity consumption to automatically turn the circuit on or off.

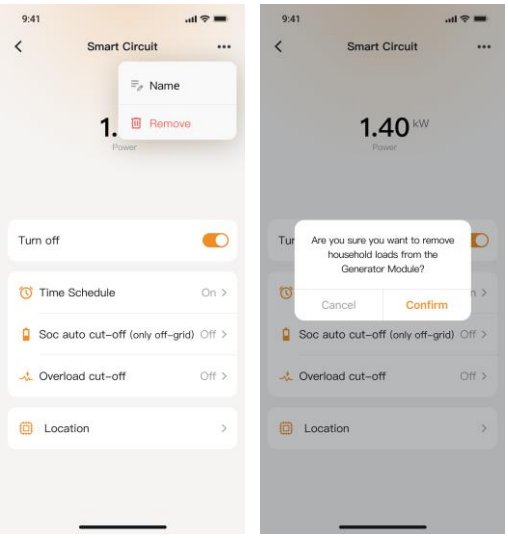
   SOC Auto Cut-off (only off-grid): Extend backup hours by automatically disconnecting circuits in sequence based on battery SOC during a grid outage.

   Overload Cut-off: If the load exceeds the main panel's capacity, the system will automatically disconnect circuits to prevent overload damage.



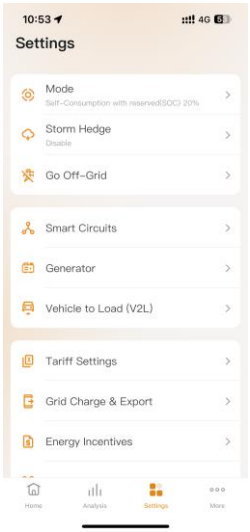
9. If the homeowner wants to rename the module's circuit, tap the three dots on the top right, then tap **Name** to provide a name.

   If the homeowner wants to disconnect the generator module load, tap the three dots on the top right then tap **Remove**.

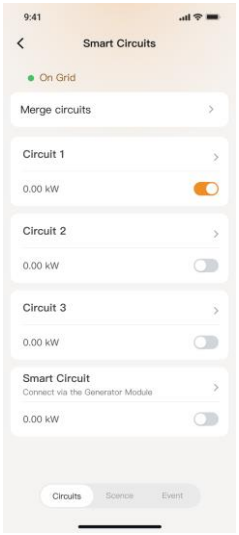


Settings for the Homeowner

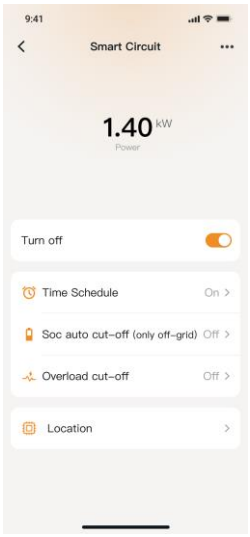
1. Login to the FranklinWH App with the homeowner account.
2. On the energy home screen, tap **Settings** > **Smart Circuits**.



3. Find the circuit name set by your installer in the list. You can manually turn the Smart Circuit on or off.

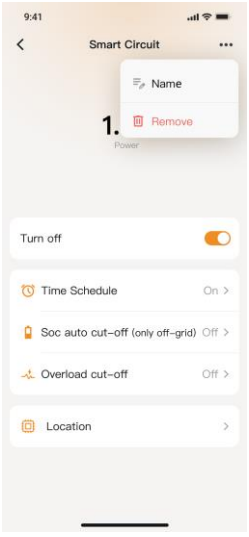


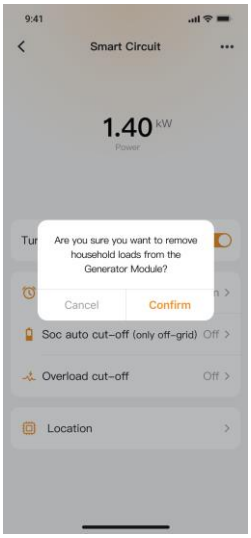
4. Customize settings for the circuit.



10. If the homeowner wants to rename the module's circuit, tap the three dots on the top right, then tap **Name** to provide a name.

    If the homeowner wants to disconnect the generator module load, tap the three dots on the top right then tap **Remove**.





Appendix 1 Recommended Generator Breakers

S/N	Model	Current	Description
1	CSR2100	100 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 100 A/240 V
2	CSR2125N	125 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 125 A/240 V
3	CSR2150N	150 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 150 A/240 V
4	CSR2175N	175 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 175 A/240 V
5	CSR2200N	200 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 200 A/240 V
6	BW2100	100 A	Eaton#Circuit Breaker; 2-Pole, 10 kAIC, 100 A/240 V
7	BW2125	125 A	Eaton#Circuit Breaker; 2-Pole, 10 kAIC, 125 A/240 V
8	BW2150	150 A	Eaton#Circuit Breaker; 2-Pole, 10 kAIC, 150 A/240 V
9	BW2175	175 A	Eaton#Circuit Breaker; 2-Pole, 10 kAIC, 175 A/240 V
10	BW2200	200 A	Eaton#Circuit Breaker; 2-Pole, 10 kAIC, 200 A/240 V
11	BWH2100N	100 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 100 A/240 V
12	BWH2125N	125 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 125 A/240 V
13	BWH2150N	150 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 150 A/240 V
14	BWH2175N	175 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 175 A/240 V
15	BWH2200N	200 A	Eaton#Circuit Breaker; 2-Pole, 25 kAIC, 200 A/240 V

NOTE: *The generator breaker may be installed outside the aGate depending on the site condition.*

Appendix 2 Wiring

Terminal Name	Wire Gauge	Tool	Strip Length	Torque
Single-lug terminal	4 AWG–250 MCM CU/AL	8 mm hex wrench 5/8-18 UNF hex screw	1 in.	3/0 AWG–250 MCM 275LB-IN 4 AWG–2/0 AWG 110LB-IN
Neutral bar terminal lug	4 AWG–250 MCM CU/AL	8 mm hex wrench 5/8-18 UNF hex screw	1 in.	3/0 AWG–250 MCM 275 LB-IN 4 AWG–2/0 AWG 110 LB-IN
	14 AWG–2/0 AWG CU/AL	5 mm hex wrench 7/16-20 UNF hex screw	1 in.	3 AWG–2/0 AWG 110 LB-IN 14 AWG–4 AWG 35 LB-IN
	14 AWG–4 AWG CU/AL	Straight screwdriver 1/4-28 UNF	0.6 in.	14 AWG–4 AWG 26 LB-IN
Ground bar terminal lug	14 AWG–2/0 AWG CU/AL	5 mm hex wrench 7/16-20 UNF hex screw	0.8 in.	3 AWG–2/0 AWG 110 LB-IN 14 AWG–4 AWG 35 LB-IN
	14 AWG–4 AWG CU/AL	Straight screwdriver 1/4-28 UNF	0.4 in./0.8 in.	14 AWG–4 AWG 26 LB-IN