FranklinWH Generator Module Quick Installation Guide

Version 1.2

aPower, SKU: APR-05K13V1-AU
aGate, SKU: AGT- R1V1 -AU
Generator Module, SKU: ACCY-GENV1-AU

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Please read this document carefully to ensure the best reliability of the product and your warranty eligibility. For further information about 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 Franklin Home Power 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

Franklin Home Power (FHP) system is composed of aPower, aGate and other electrical components, and this document applies only to the following products: aPower and aGate.

FranklinWH Australia Pty Ltd. (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-au@franklinwh.com*

Disposal of Scrapped Products

Scrapped products (including their internal chemicals and electrical materials) should not be disposed of with household wastes. Please refer to your local laws and regulations regarding disposal. These certification labels are for information only.

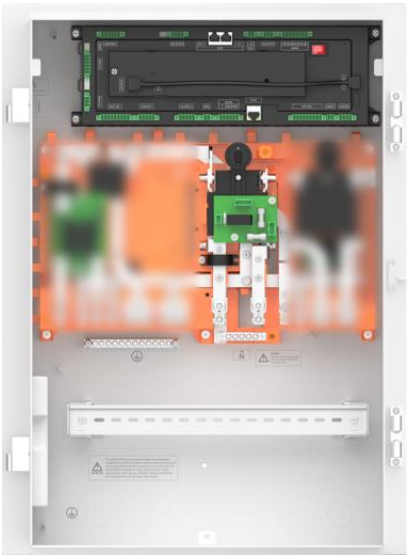
Generator Module Overview

Backup generators are a critical energy management source where power outage is becoming more common. To address the power instability concern, we have developed a solution that enable generator seamless integrate into FranklinWH Home Power solution. The Generator Module is an optional aGate component that have the function to achieve the above-mentioned function.

Integrated Power Management
The generator can both power home loads and charge the aPower X battery

Easy Installation
The Generator Module is an optional aGate X component which can be easily installed without requiring any external components.

Wide Adaptability
Compatible with most models of standby generators. Applicable for new and retrofit installations.



DANGER

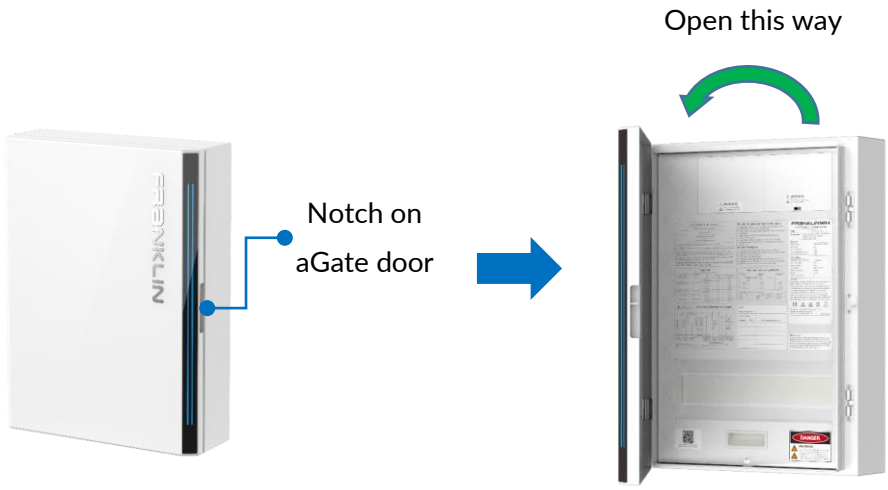
Despite being able to control the Smart Circuits through the FranklinWH App, the remote **OFF** status does not mean the circuit has been physically disconnected. It is important to test the circuit status during the installation process.

Do not touch the output ports of the Generator Module directly or indirectly through conductive material, before disconnecting the circuit breakers.

Installation Steps

1) Remove the door and inner panel from the aGate

a) Grasp the small notch on the right side of the aGate. Lift it slowly until the door of aGate is completely open.



WARNING

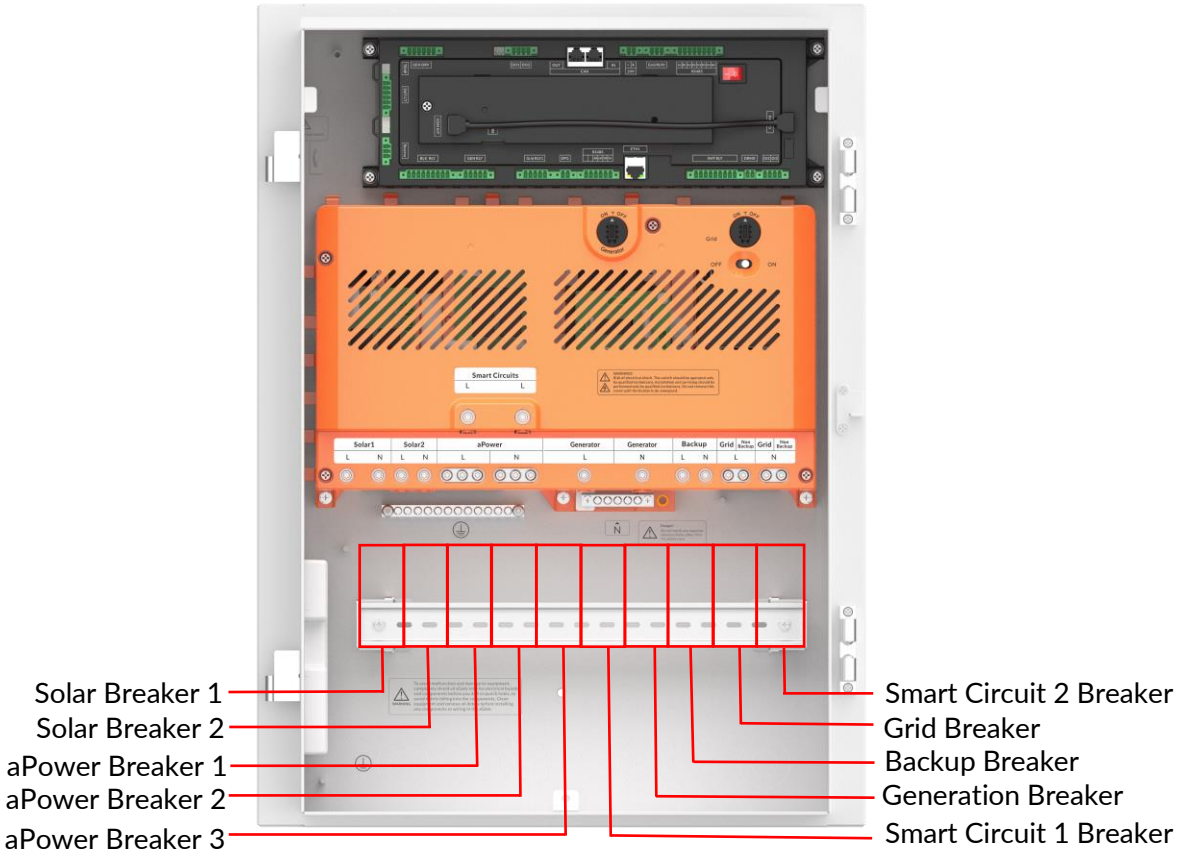
The door should not open wide large than 100°

b) Remove the door: Gently lift the door panel upward, remove the aGate door after the hinges are separated, and properly store it.

c) Remove the inner panel: Use a #3 Phillips head screwdriver or an electric screwdriver with a Phillips head screw bit. Turn the 1 combination screws fastening the inner panel counterclockwise to remove the screws. Remove the aGate inner panel and properly store it.

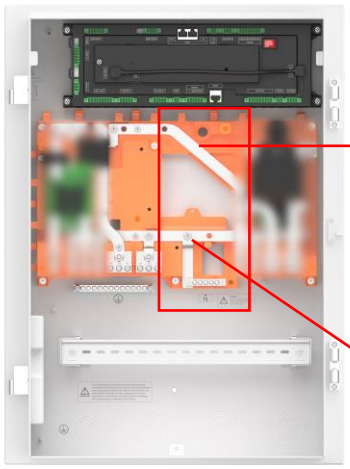
2) Install the Generator Module

a) Make sure all breakers in the aGate and all switches connected to the aGate are disconnected. Use a multimeter to check that the AC voltages at both input and output terminals of the aGate, as shown below, are zero (0).



b) Use a Phillips head screwdriver to loosen the four M5 captive screws on the protective cover, remove the protective cover and keep it in good condition.

Follow the steps below to install the Generator Module onto the aGate.

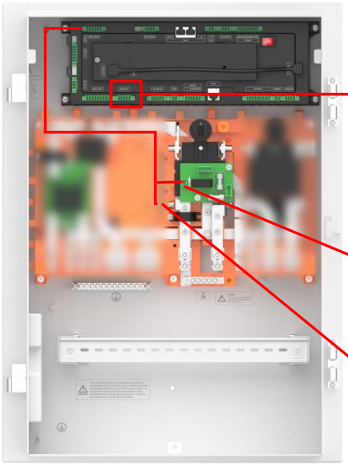


1

Place the Generator Module in the proper position and check that all installation holes are aligned. Tighten the two M6 combination screws at the positions marked to the recommended torque.

2

Remove the thermoplastic casing on the outside of the voltage sampling wire.



3

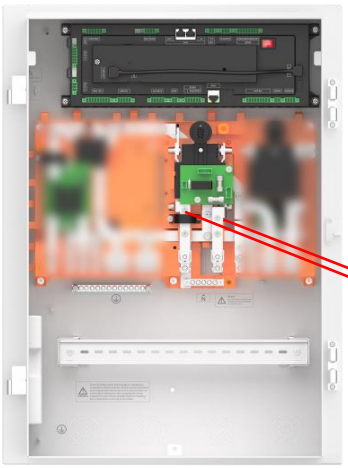
Connect the W007 cable to the Gen RLY connector on the EMS module. Tighten the screws on both ends of the terminal.

4

Connect the W008 cable R3-J3 plug to the J3 connector on the R3 board.

5

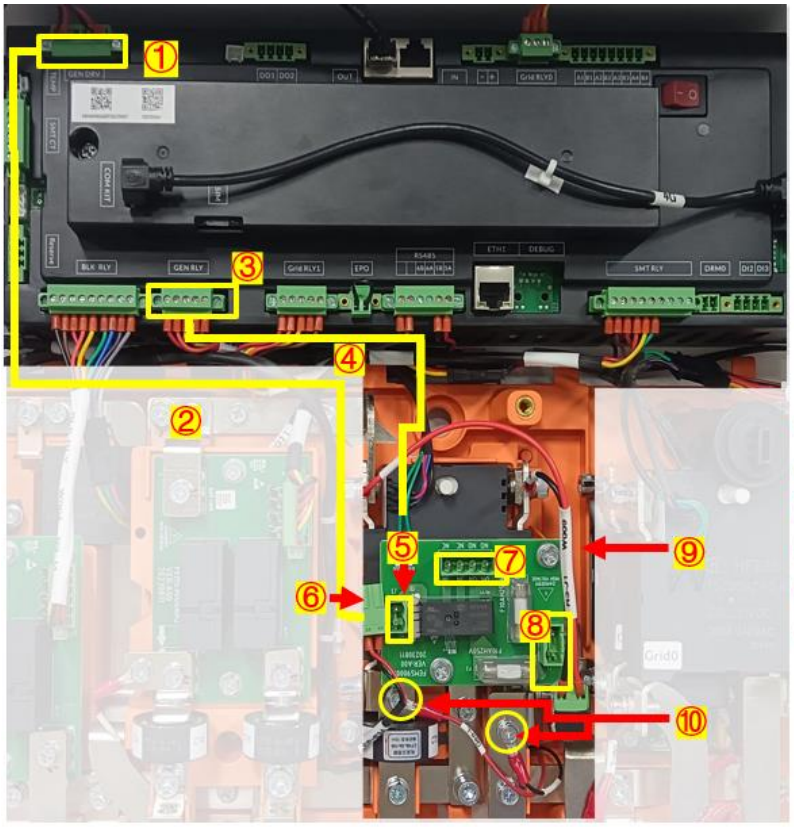
Connect the W008 cable Gen DRV plug to the Gen DRV connector on the EMS module. Tighten the screws on both ends of the terminal.



6

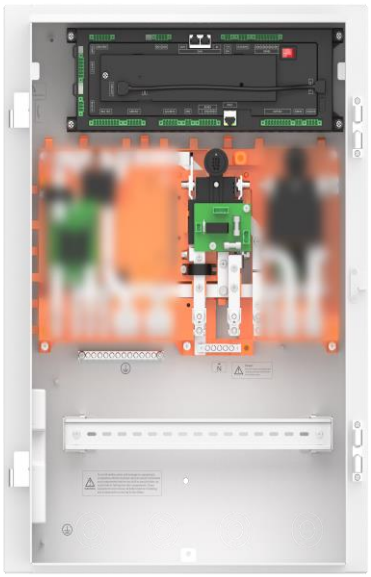
Connect the voltage sampling cable and tighten the M4 x 10 screw with a Phillips screwdriver to a torque of 1.4 Nm.

The following image provides a close-up wiring reference.
Do not wire J1 port, J2 port and J3 port before knowing the generator startup type
(one type of the voltage sensing/ ATS / Dry Contact). Use a cable tie for the J1 & J3 cables.

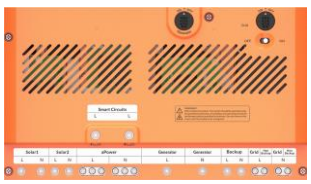


① GEN DRV Port (ON EMS)
② GEN DRV cable (On Module)
③ GEN RLY Port (On EMS)
④ GEN RLY Cable (On Module)
⑤ J3 Port Socket (On R3 Board)
⑥ J3 connector and cable (On Module)
⑦ J2 Port Socket (On R3 Board)
⑧ J1 Port Socket (On R3 Board)
⑨ J1 connector and cable(On Module)
⑩ Voltage sampling cable (On Module)

If the generator is not ready to be connected, re-install the protective cover and fasten the four M5 captive screws using an electric screwdriver, and then tighten them to the recommended.



Re-install the protective cover



3) Connecting the Generator

There are three wiring plans, depending on the type of generator.

Type 1: Voltage Sensing

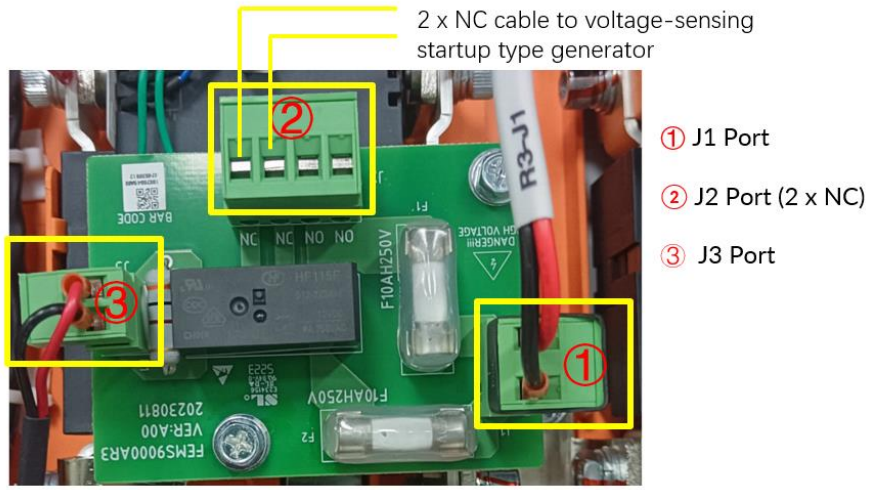
NOTE

Due to differences in various generator types, the wiring diagram is for reference only. Refer to the specific generator instructions for actual wiring requirements.

a) Connect the generator power output wires (L, N, GND) to the generator input terminals on aGate (L, N & GND).

b) Follow these steps for connection:

b1. Plug R3-J1 cable to J1 port on the generator module board.
b2. Plug R3-J3 cable to J3 port on the generator module board.
b3. Remove the original voltage sensing port cable from the generator and strip the sensing cable around 4mm then connect to the 2 NC pins of J2 port provided in the accessories package.



c) Used cables ranging from 1 mm² to 2.5 mm² according to local regulations or AS/NZS3000.

d) Make sure to connect the generator's starting battery charge terminal in the generator to the wire from a branch circuit of the Backup Panel.

NOTE

A secure connection must be kept between the battery charge terminal and the Backup Panel branch terminal, whether the generator is on or off.
Do not plug short terminals in the shipping attachment into any interface on the R3 board.

Type 2: ATS

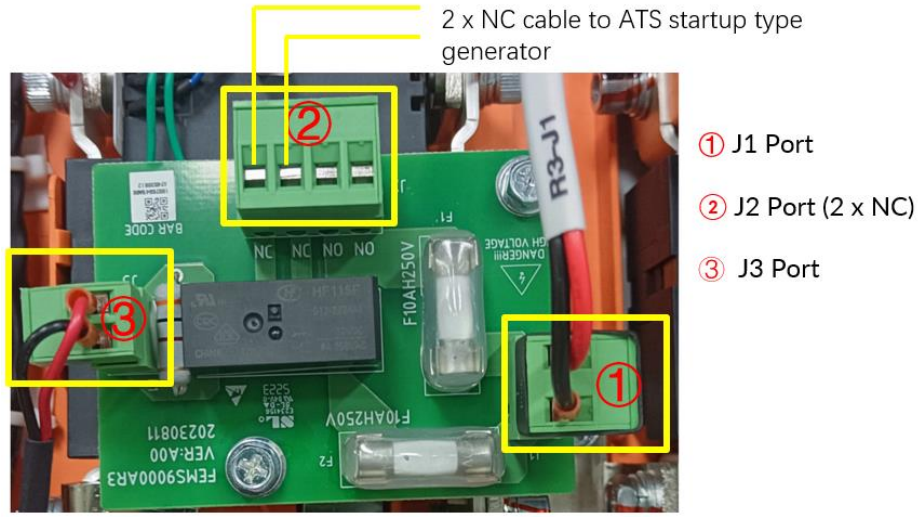
a) Remove the power grid input cable from the power grid port on the ATS.

b) Connect the grid input cables to the grid terminals (L, N & GND) in aGate.

c) Connect the output terminals of the generator system to the generator input terminals on the aGate.

d) Follow these steps for connection:

d1. Plug R3-J1 cable to J1 port on the generator module board.
d2. Plug R3-J3 cable to J3 port on the generator module board.
d3. Remove the original voltage sensing port cable from the generator and strip the cable around 4mm then connect to the 2 NC pins of J2 port provided in the accessories package.



e) Used cables ranging from 1 mm² to 2.5 mm² according to local regulations or AS/NZS3000.

NOTE

Do not plug short terminals in the shipping attachment into any interface on the R3 board.

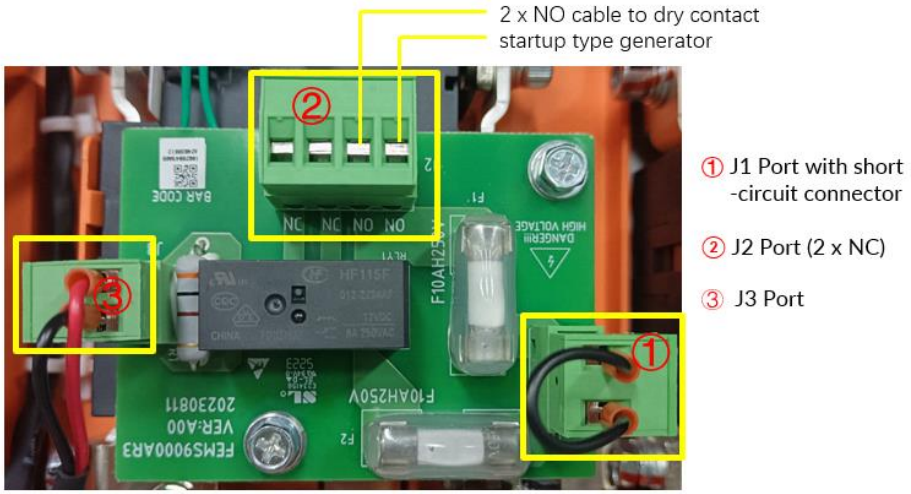
Type 3: Dry Contact

a) Connect the generator power output wires (L, N, GND) to the aGate generator input terminals (L, N, GND).

b) Follow these steps for connection:

b1. Plug J1 Port by using the short-circuit J1 port from the accessories package. Plug R3-J3 cable to J3 port on the generator module board.

b2. Remove the original startup cable from the generator and strip the cable around 4mm then connect to the 2 NO pins of J2 port provided in the accessories package.



c) Used cables ranging from 1 mm² to 2.5 mm² according to local regulations or AS/NZS3000.

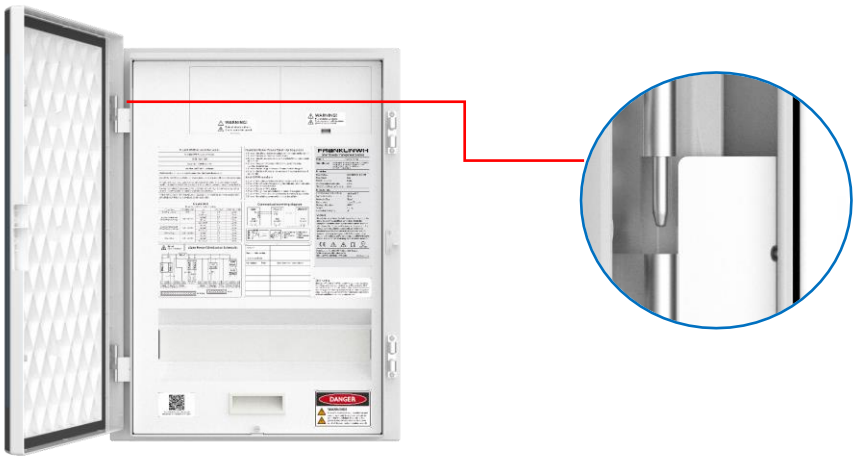
d) Connect the generator's starting Battery Charge terminal in the generator to the wire from a branch circuit of Backup Panel.

NOTE

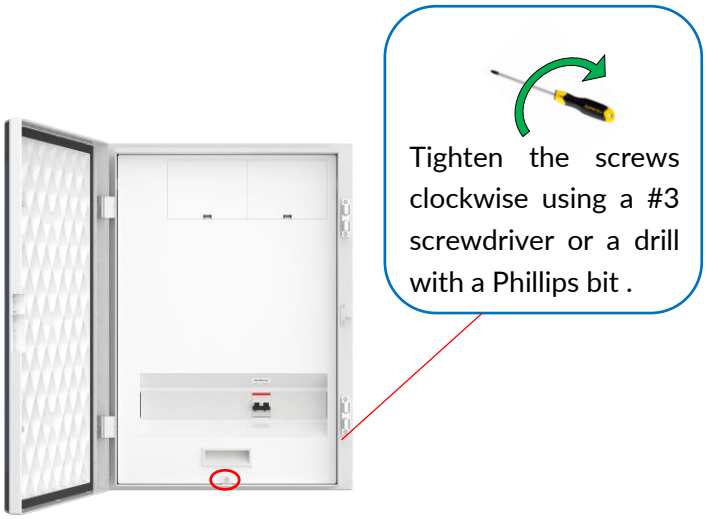
The connection must be kept between the Battery Charge terminal and the Backup Panel branch terminal, whether the generator is on or off.
Do not insert the R3-J1 terminal reserved for the aGate into any interface on the R3 board.

4) Completing Installation

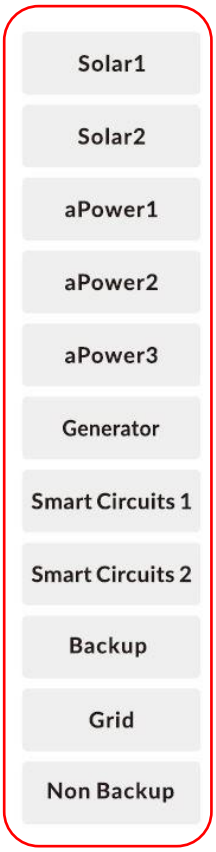
a) Mount the hinges on the aGate door to the aGate cabinet.



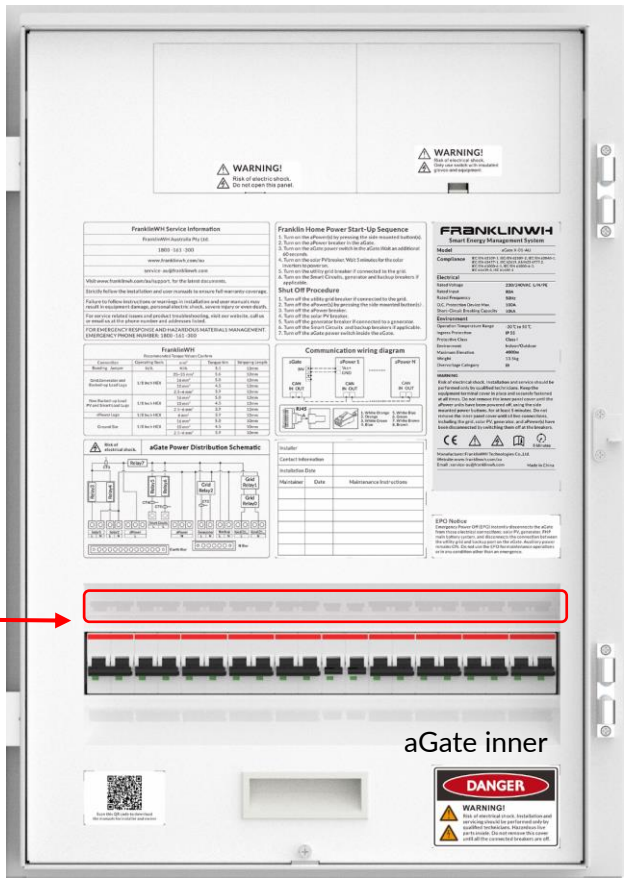
b) Install the inner panel and fasten it by tightening the 1 M5 x 12 combination bolts.



After the breakers are installed, place the labels from the literature kit (bag with labels and accessories) on the inner panel of aGate according to the position of the breaker, as shown in the diagram below.



Labels



Label positions.

5) Commission the Generator with the FranklinWH App

After the Generator Module has been installed in the aGate and added to the FHP system in the FranklinWH App, commissioning will be needed to be performed to test and confirm that the Generator Module is working properly. The commissioning process is as follows:

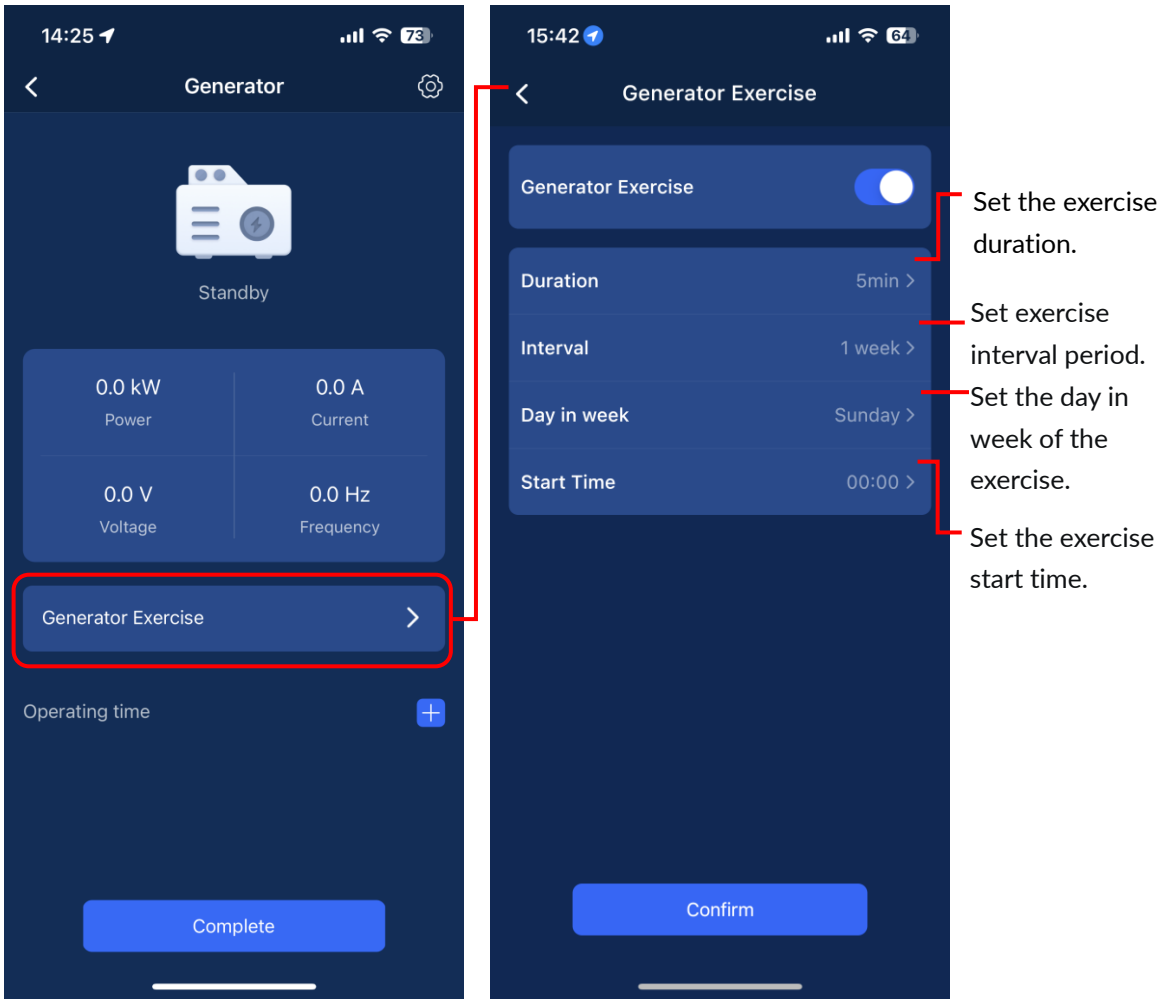
a) Sign in to the FranklinWH App on the installer account.

b) Search for the aGate serial number for which the Generator Module is to be commissioned in the Search Device box, and then click.

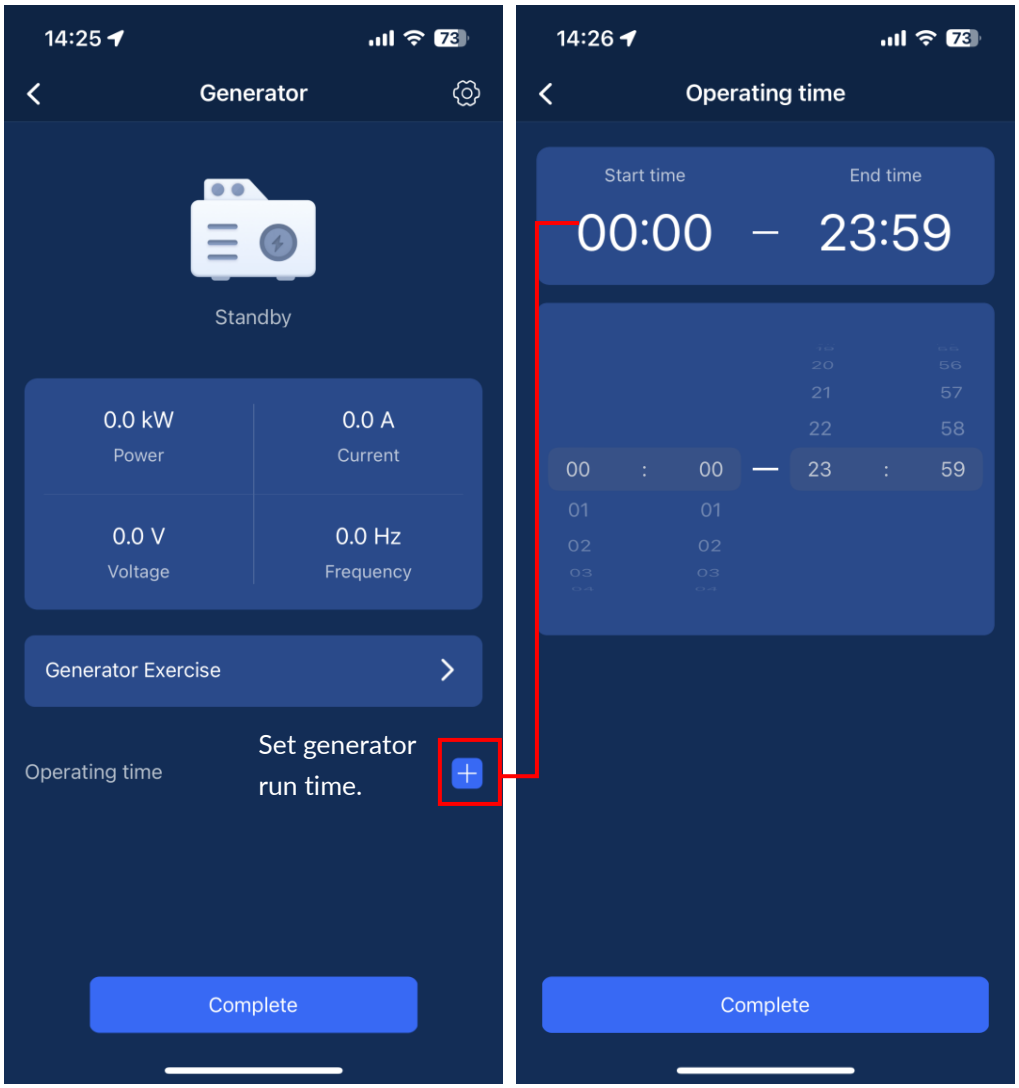
c) Click on Settings in the menu.

Click **Generator** to view and manage the generator settings.

Click the **Generator exercise** to enter the setting page. In this page, turn on **Generator exercise** slider to enable the setting parameters.

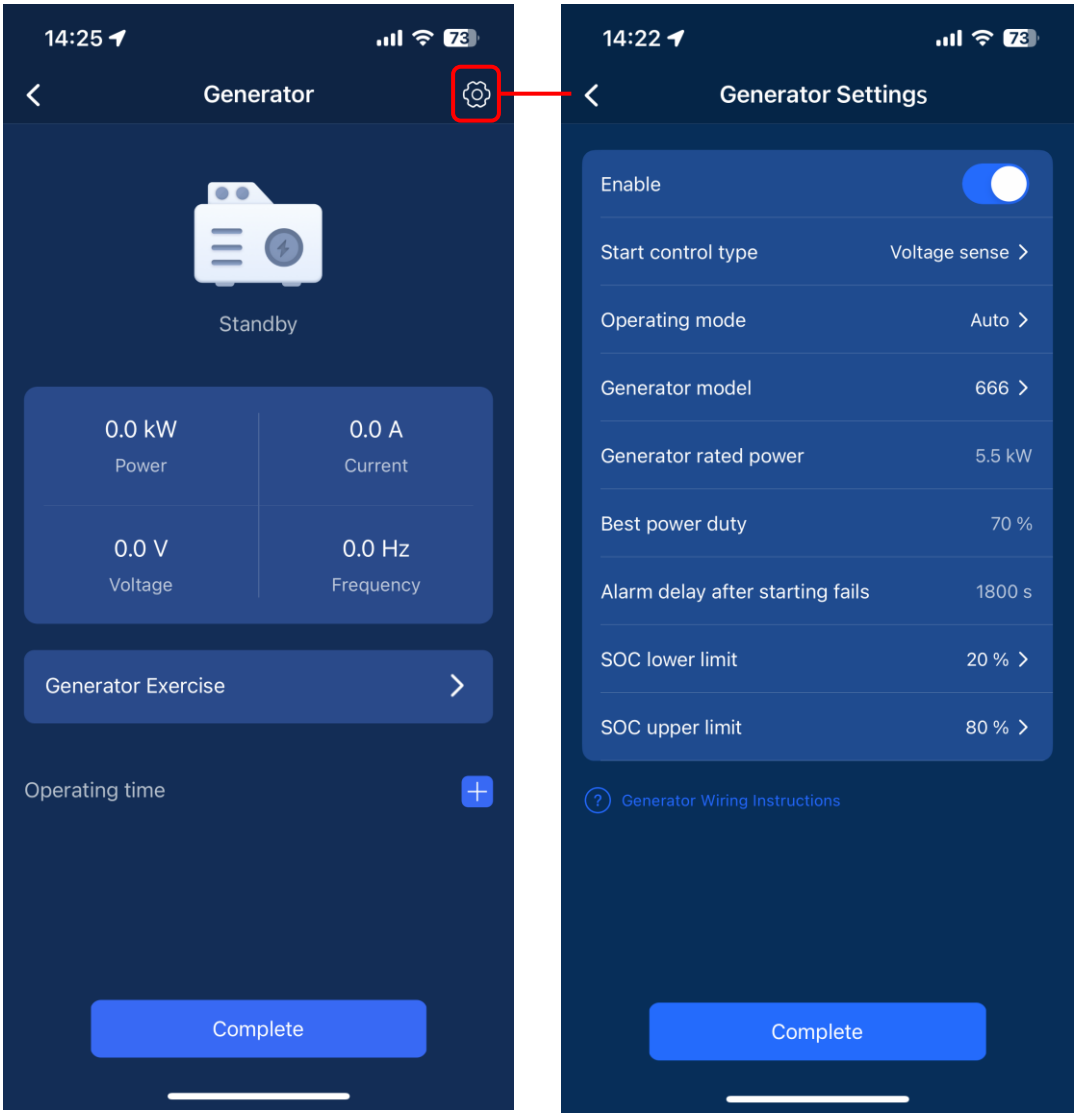


You can also set the generator run time by tapping the plus sign in the bottom right corner.

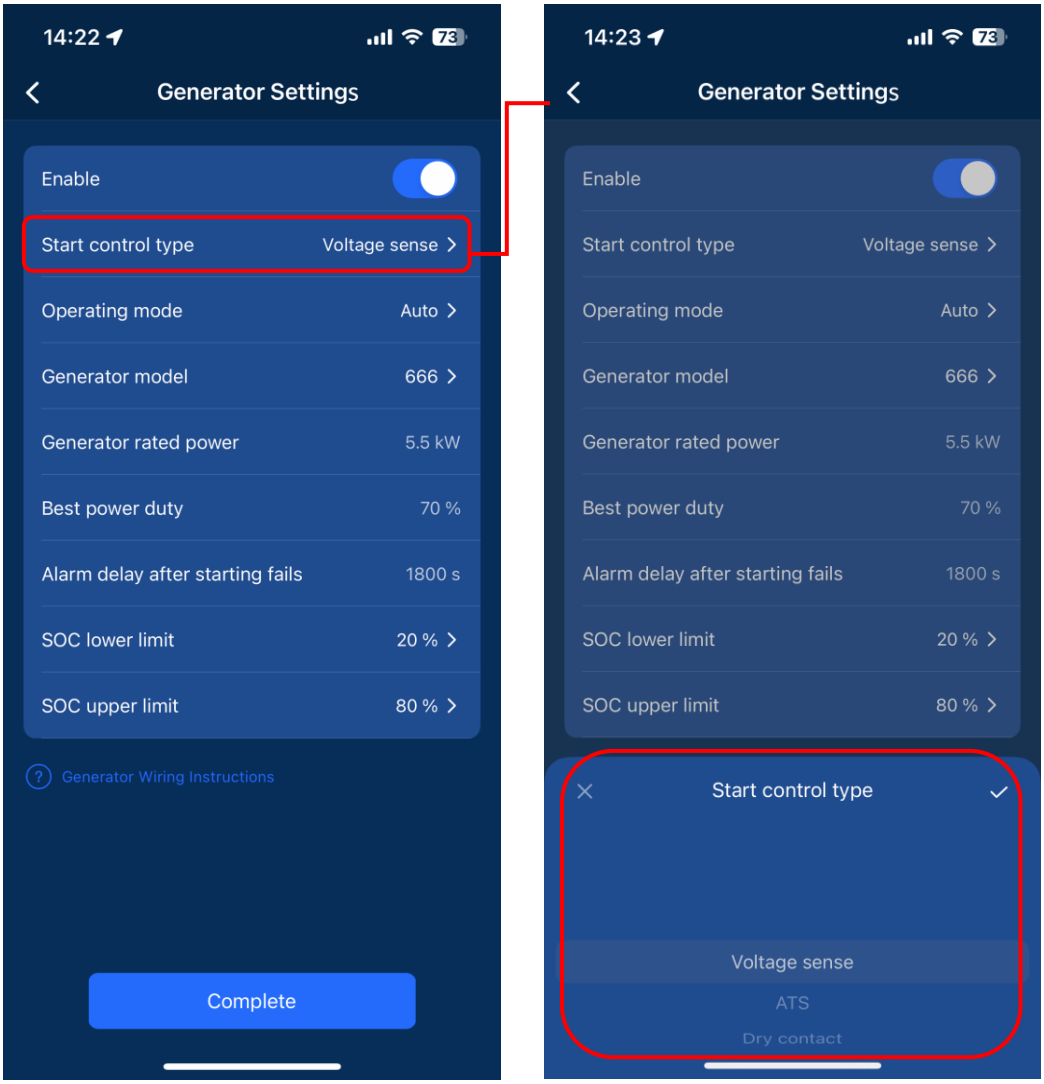


Click the setting icon in the top right corner to enter the **Generator Setting** page. In this page, you can enable the settings **Start control type**, **Operation mode**, **Generator model**, and **SOC low limit** and **SOC upper limit**. You can click **Generator Wiring Instructions** to check if the wiring is correct.

Note that **Generator rated power, Best power duty** and **Alarm delay after starting fails** are set from the installer interface and are only displayed on this page.

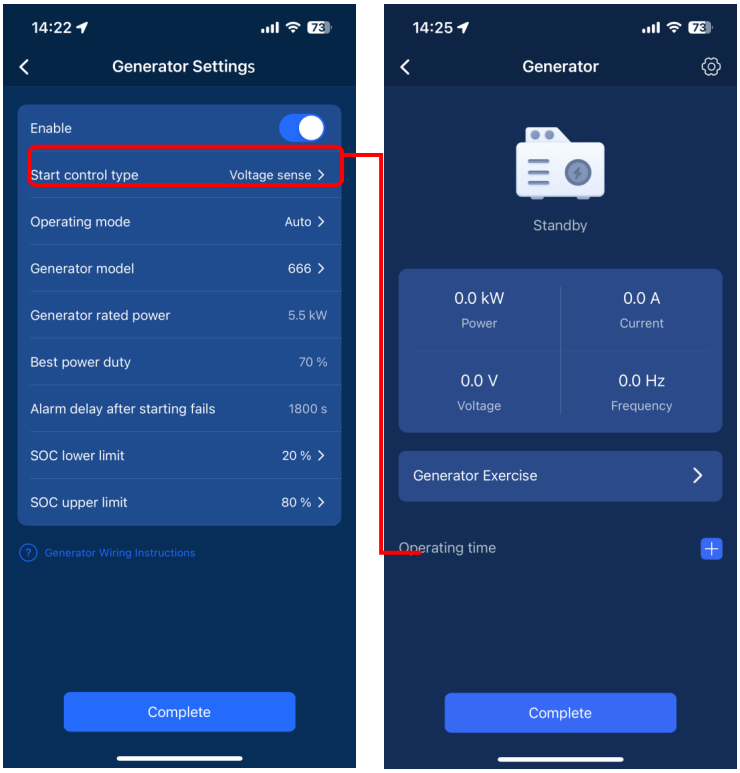


Click **Start control type**, then select a control type from the option box. There are three options, Voltage sense, ATS, and Dry contact.



Click **Operating mode**, then select either Auto or Manual.

- Auto: The generator will run in accordance with the set time periods or the SOC lower and upper limit values.



- Manual: Customers may manually start or stop the generator.