



HORIZON



POWER

Quick Reference Guide

SGD + GoodWe Installation

1. GoodWe compatible devices

Here is the list of GoodWe inverters compatible with Horizon Power Smart Connect Solar

Model	Size in KW	No Of Phases	Equipment Category
GW3000D-NS (AS4777-2 2020)	3	1	Grid Connect PV Inverter
GW4200D-NS (AS4777-2 2020)	4.2	1	Grid Connect PV Inverter
GW5000D-NS (AS4777-2 2020)	4.999	1	Grid Connect PV Inverter
GW5000-MS (AS4777-2 2020)	5	1	Grid Connect PV Inverter
GW6000-MS (AS4777-2 2020)	6	1	Grid Connect PV Inverter
GW8500-MS (AS4777-2 2020)	8.5	1	Grid Connect PV Inverter
GW10K-MS (AS4777-2 2020)	10	1	Grid Connect PV Inverter
GW3600-EH (AS4777-2 2020)	3.6	1	Multiple Mode Inverter - PV and Battery
GW5000-EH (AS4777-2 2020)	5	1	Multiple Mode Inverter - PV and Battery
GW6000-EH (AS4777-2 2020)	6	1	Multiple Mode Inverter - PV and Battery
GW5KL-ET (AS4777-2 2020)	5	3	Multiple Mode Inverter - PV and Battery
GW6KL-ET (AS4777-2 2020)	6	3	Multiple Mode Inverter - PV and Battery
GW8KL-ET (AS4777-2 2020)	8	3	Multiple Mode Inverter - PV and Battery
GW10KL-ET (AS4777-2 2020)	10	3	Multiple Mode Inverter - PV and Battery

2. Hardware & Software Checklists

Hardware

- A GoodWe (DNS/MS/ET/EH)
 - B Horizon Power Secure Device Gateway 'SGD'
 - C SGD Power Supply
 - D Ethernet cable + Ethernet/USB adapter
 - E Any serial/twisted pair cable (RJ45) and a RS485 to USB converter.
- Please note these are not provided with the SGD box and must be catered by the installer.

A



B



D



C



E



Software

Ensure you have a user account with installer accreditation for the following applications:

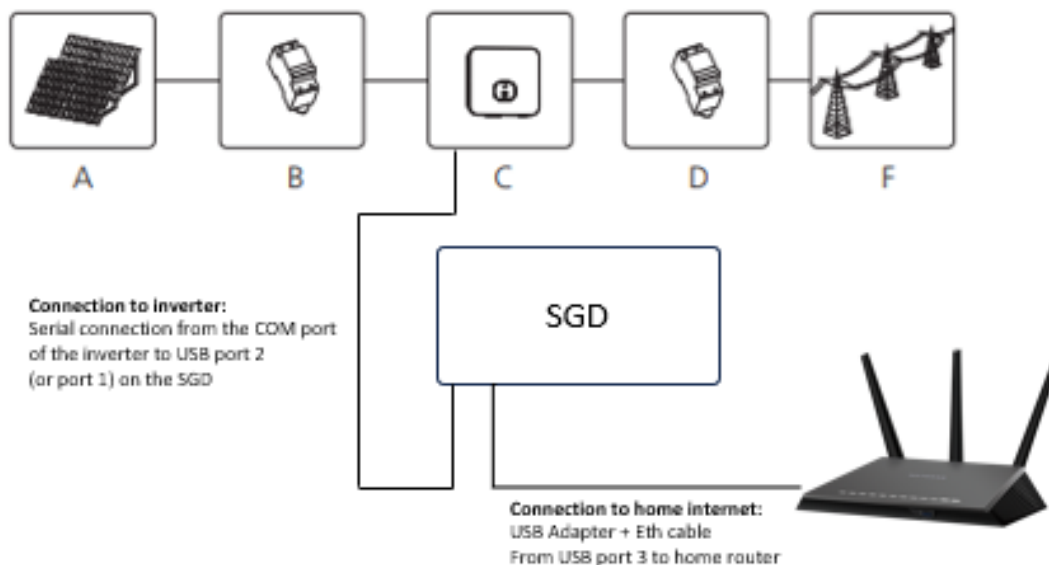
GoodWe Solar App: this application is needed with installer permission access to fine-tune the inverter settings.

Stormcloud (SwitchDin): Ensure you pass the HP Installer accreditation to get installer permissions open on the user account you create on this app.

2. Physical connection

Behind the meter configuration overview

Here is the overview of the physical connections you need to establish between devices



Position	Description
A	PV modules
B	DC load circuit breaker
C	Inverter
D	AC load circuit breaker

Mount the SGD

Start by mounting the SGD on a DIN Rail using the pre-fitted DIN Rail mounting bracket.



DIN rail mounting bracket

Connect to Home Internet

Then connect the SGD to the internet by plugging the USB-Ethernet adapter with a CAT 6 cable from the home router into the USB port number 3 as shown here.

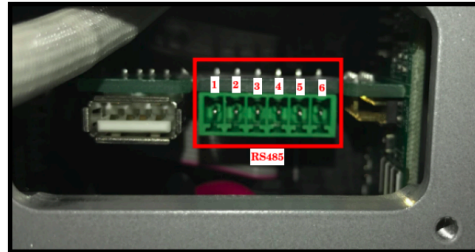
Please be aware that there is no other USB port that will accept any Internet traffic.



**For home internet
connect USB-Ethernet adapter here ONLY**

Connect to GoodWe inverter

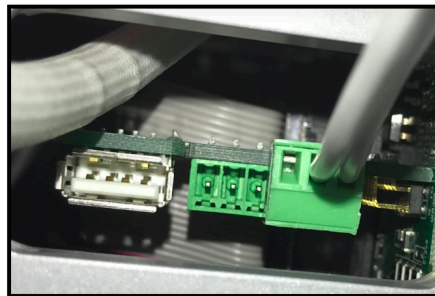
Pick a set of wires, and connect the right pins to the RS485 to the USB converter according to the manufacturer's manual. Let's have a look:



The above image shows the RS485 connection point for the GoodWe DNS inverter.

Pick a set of wires and connect pin 6 to the -ve port of the RS 485 connector and pin 5 to the +ve port of the RS 485 connector.

The wires should be connected to the RS485 port as follows:



Then connect the USB adaptor to any of the USB ports left on the droplet.

Do not use USB port #3 which is restricted to Internet connection only.



Connect the main 4G antenna

Make sure you connect the main 4G antenna to the WLAN-B connection as shown here.



Power up the SGD

Ensure you connect the power supply as below.

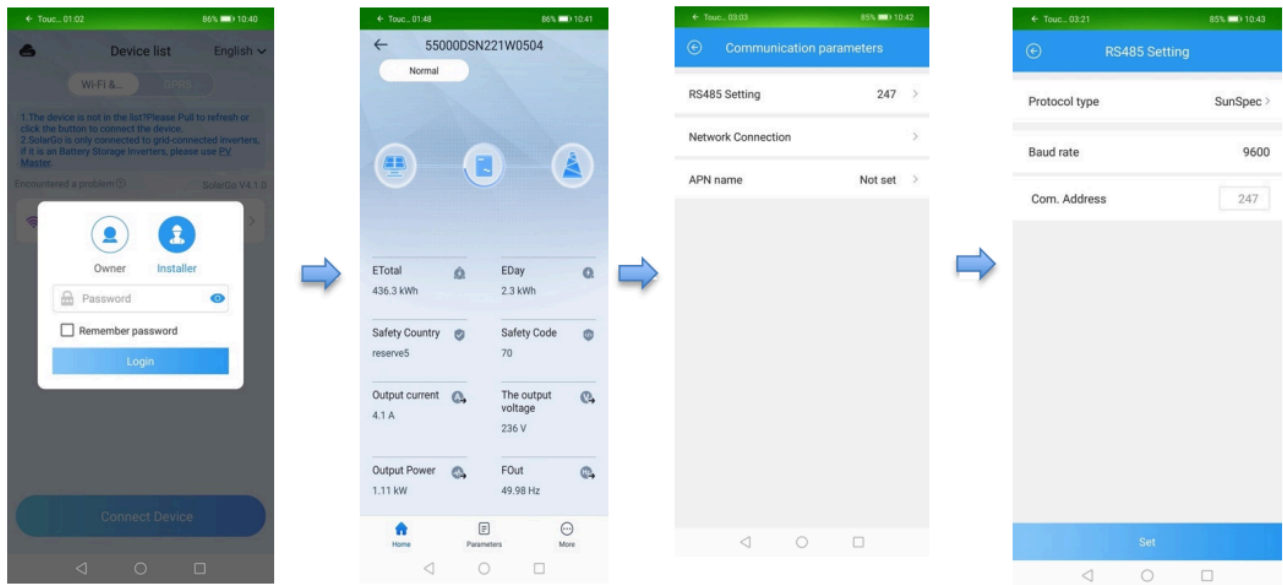


3. GoodWe inverter settings

Setting Modbus

Login to GoodWe Solar App as an Installer.

2. Add the inverter to the App.
3. Navigate to communication parameters under **“More”**.
4. Select **“RS485 Setting”**.
5. Select Protocol type as **“SunSpec”**



Failsafe mode

Ensure that the default value for export limitation is set to 0.

The failsafe setting is a protection when communication between SGD is lost, the inverter runs at the default setting to not over the limitation value.

Inverter region setting

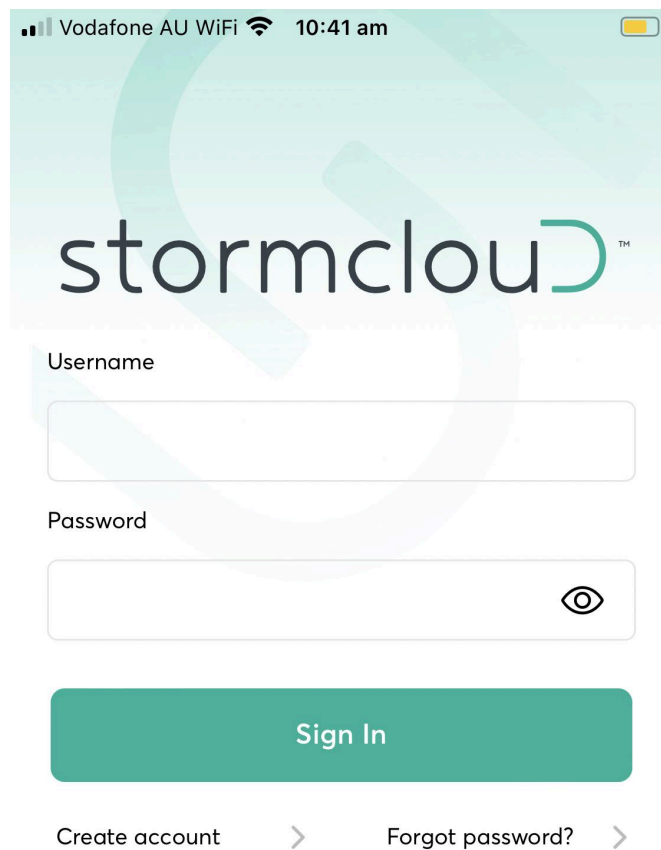
Ensure that you set the country to Australia and the region to **C** for Horizon Power

4. Commissioning the SGD

Open the Stormcloud application and sign in.

Please follow this [link](#) if you are creating your user account. You must ensure you have permissions on this account opened by SwitchDin.

Your username is an email address. (both username and password are CASE sensitive)
If two-factor authentication has been enforced, you will receive a passcode valid for 300 seconds in your email inbox to finish logging in to the SwitchDin portal.



Vodafone AU WiFi 10:41 am

stormcloud™

Username

Password

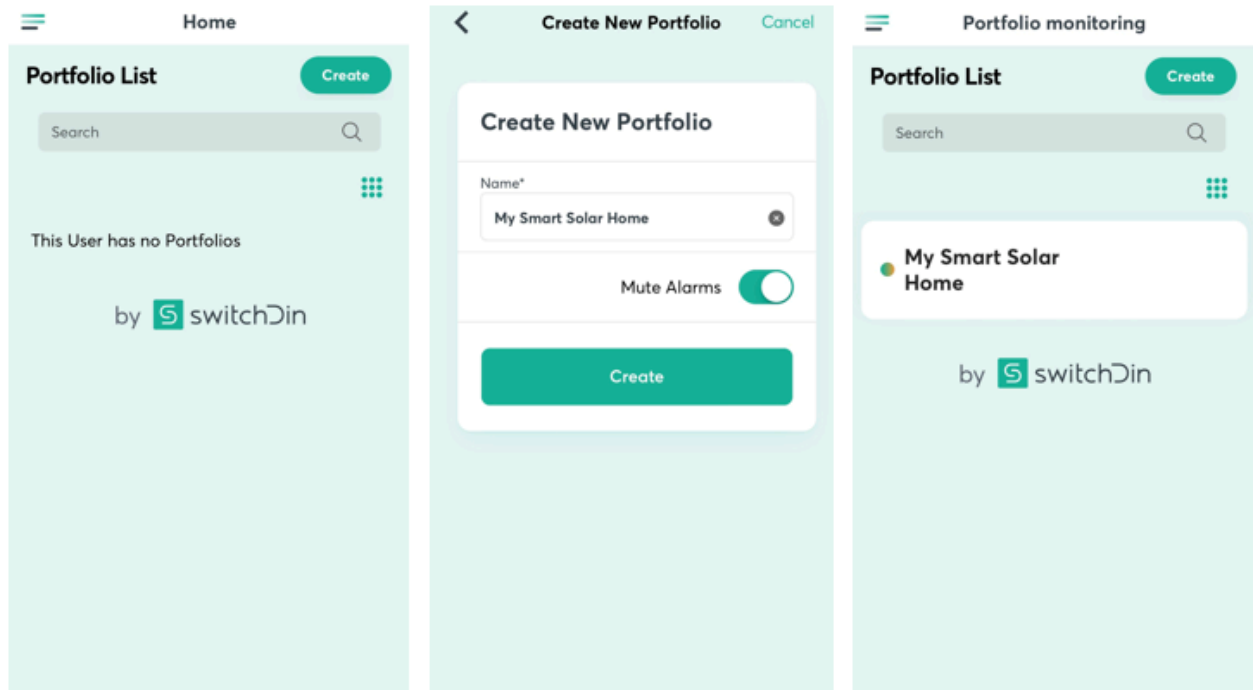
Sign In

Create account > Forgot password? >

by  switchDin

Create a portfolio

On first signing into the application, you can create a folder regrouping all the sites where you install SGD's. We call this folder a portfolio. As an installer, feel free to use the name of your business or area.



Create a unit

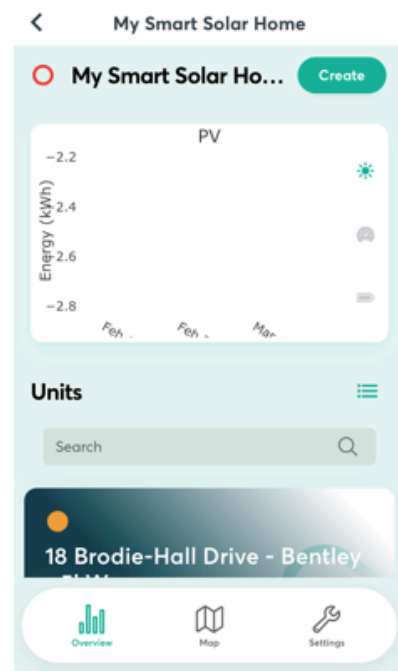
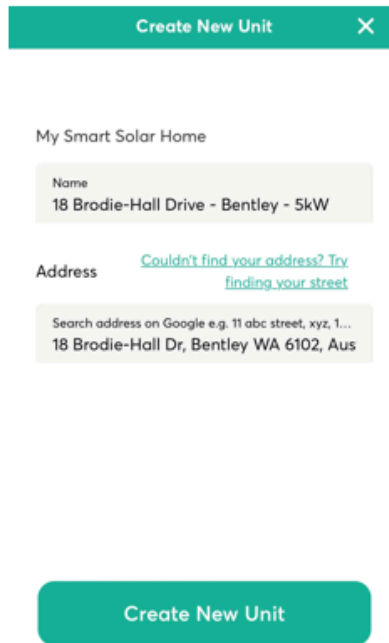
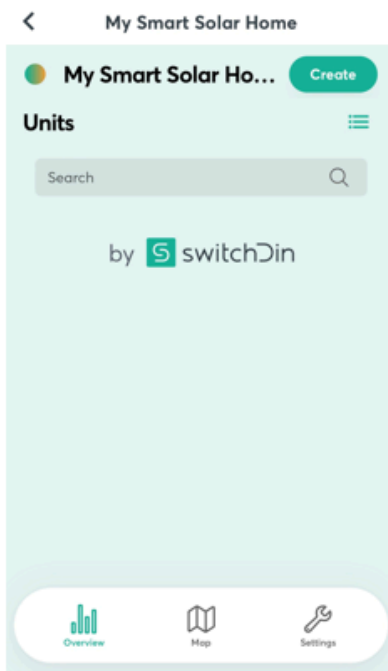
Tap on your portfolio to create your first unit. Tap on 'Create' in the top right corner.

In the Unit Name field, please use the following naming convention:
Street address or significant place name - Town - Inverter size (kW)

For example:

1. 12 Test Road - Onslow - 5kW
2. Broome Test School - Broome - 25kW

Then enter the address in the Street Address field and tap Create New Unit.

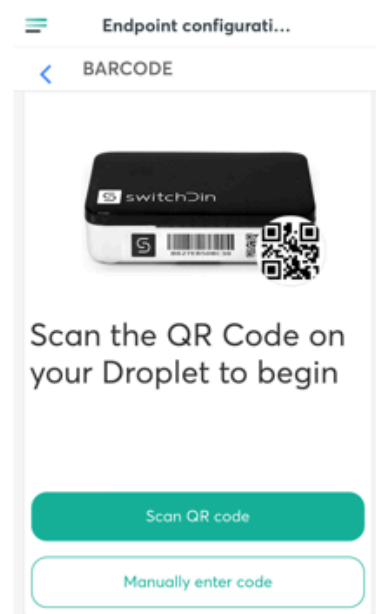
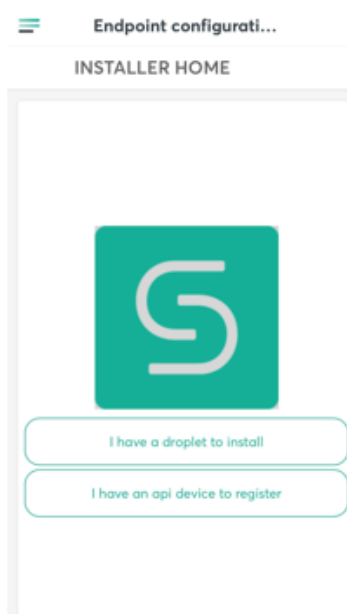
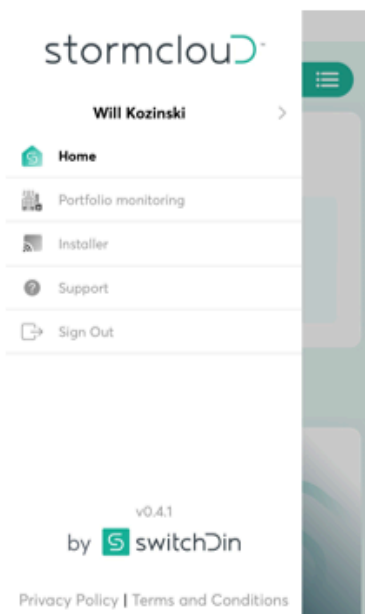


Add the SGD to the unit

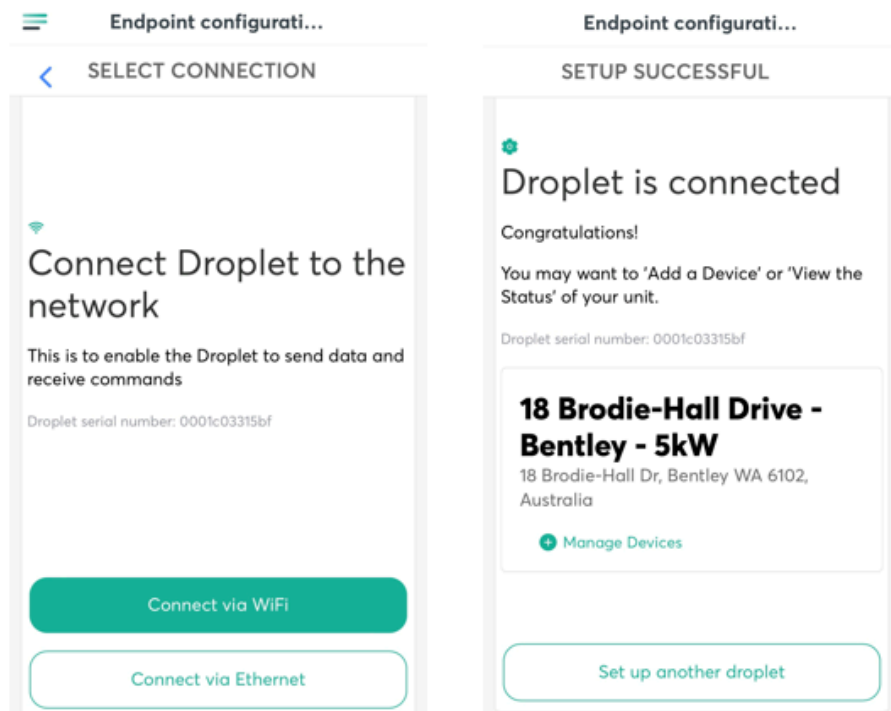
Start the Installer application from your mobile application's top left menu bar.

Select 'I have a droplet to install'

Scan the QR code on the SGD or manually enter the serial number (located below the bar code on the SGD). If you cannot reach the QR code or serial number on the SGD, it can also be found on the packaging it arrived in.

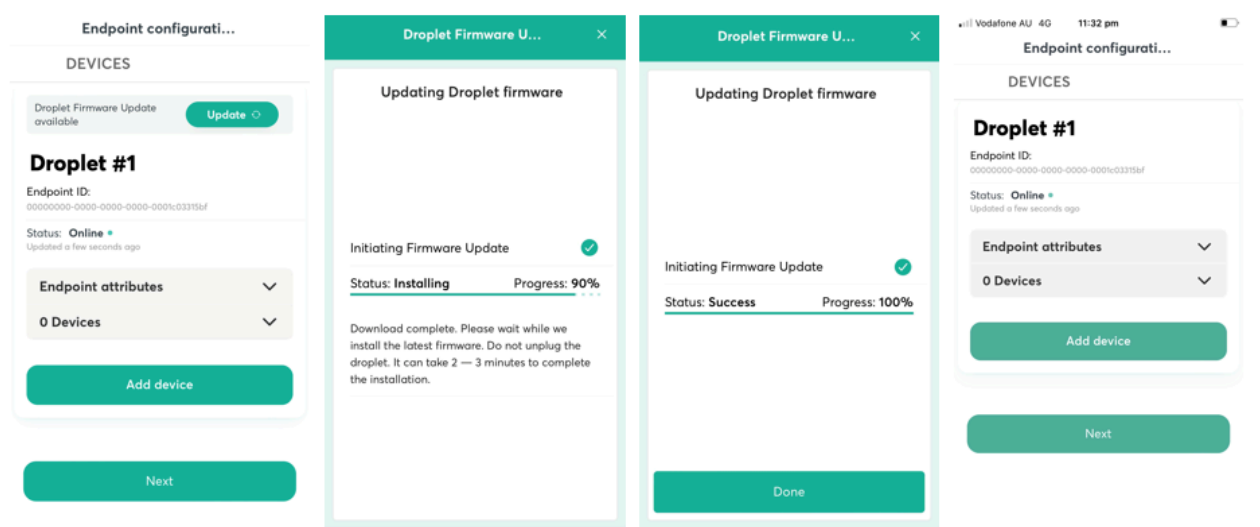


Then select 'Connect via Ethernet' as you should have plugged the USB/ETH adaptor into the local LAN and port USB3 of the SGD.



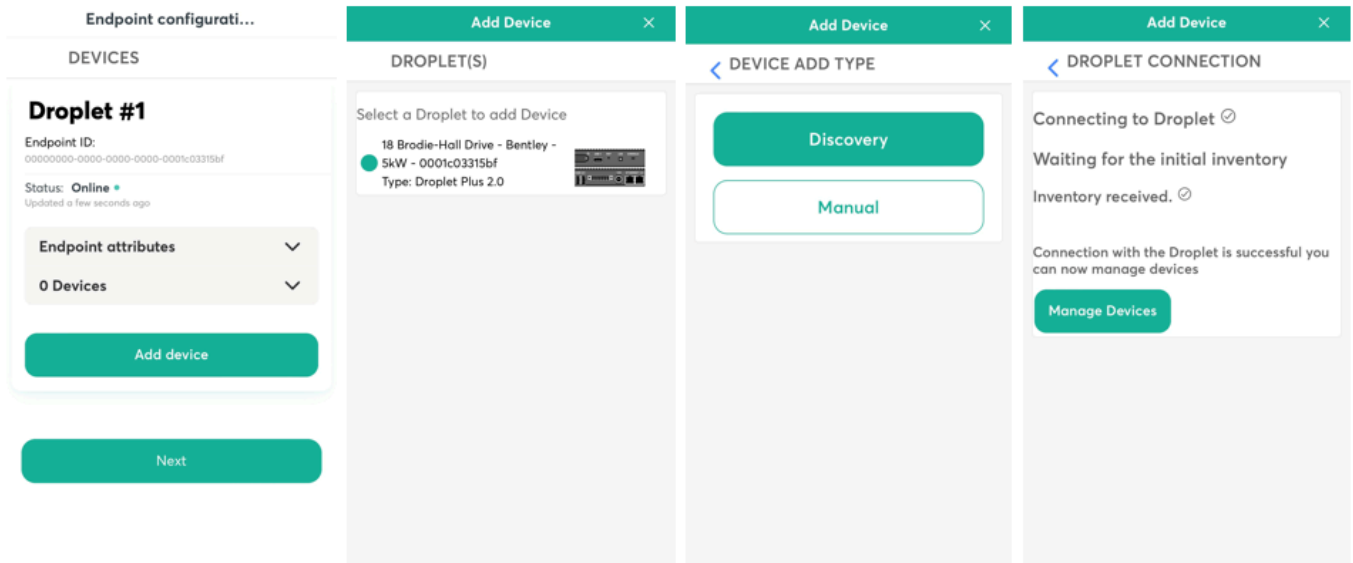
Update firmware

Select 'Manage Devices' and tap at the top of the screen to download the latest firmware update if available.



Manage Devices

Tap on Add device, tap on the droplet you want to select, then tap on 'Discovery'.
Tap on 'Manage Devices'



Tap the settings button in front of the USB port you have used to connect the inverter to the SGD. Then select the model/type of inverter. Specify if you have a grid or load meter.

Optional: If you have connected a smart meter, you will configure it from selecting the other USB port you have used.



Add the Horizon Power Controller

Now that a device has been added to the SGD, you will be able to tap on 'Add Controller'. Select 'Horizon Power Controller' from the drop-down menu then 'Create'.

The image displays two screenshots of the SGD (SwitchDin GoodWe) interface. The left screenshot shows the 'Endpoint configuration...' screen. Under the 'CONTROLLERS' section, there is a status bar indicating 'Inventory received'. Below this, 'Droplet #1' is listed with its 'Endpoint ID' and 'Status: Online'. A section for 'Endpoint attributes' shows '0 Controllers'. A green 'Add Controller' button is visible at the bottom of the configuration area. The right screenshot shows the 'Add Controller' modal. It features a title bar with a back arrow, 'Add Controller', and a 'Cancel' button. The form includes a pre-filled 'Endpoint ID', a 'Controller type' dropdown menu, and a 'Name' text field. A green 'Create' button is at the bottom.