

# Droplet installation and commissioning

with

Q CELLS Q.HOME+ ESS HYB-G2



# Droplet Specifications



- Wifi
- Ethernet
- USB
- RS232, RS485 and more  
via converters

# Droplet Overview



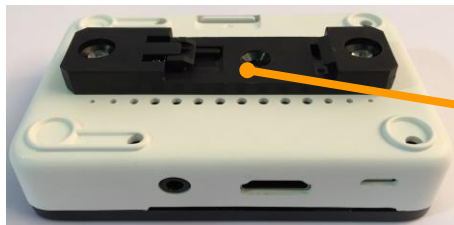
Status Indicators

Power  
(Micro USB)

Ethernet Port

4 x USB  
Ports

DIN rail mount



# Notes for pre-installation

- To ensure devices are discovered and controllers can be added on-site the **Droplet software needs to be updated before installation.**
- This requires that the droplet is powered on and connected to the internet via Ethernet overnight.
- The update will occur automatically at ~ 11:30 PM AEDT.

Required LED indicators  
for successful internet  
connection (G,R,B,G,G)



Ethernet



# Droplet Installation



## Packing List



- 1 x SwitchDin Droplet
- 1 x Power Supply
- 1 x USB adaptor  
(optional depending on inverter)

## Inspection



- Check that all parts are as per packing list.
- Check for signs of physical damage.
- If any parts are missing or visibly damaged, please contact SwitchDin prior to installation.

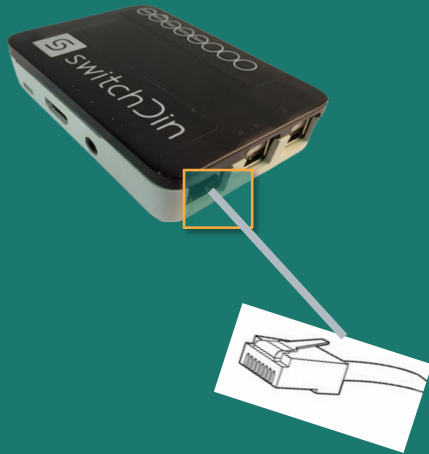
## Mounting



- The Droplet can be mounted on a standard DIN rail.
- Indoor installation.
- Below 40 degrees ambient

# Droplet internet/network connection

## Droplet



## WiFi

Download the **SwitchDin Installer app** from the Google Play or iOS App store and follow the instructions.



## Notes for internet/network connection

- The best place to install the Droplet is close to the router/modem with an ethernet connection. This simplifies installation and provides the highest reliability.
- If a wifi or ethernet over powerline extender is being used, it is compulsory to connect the device directly to the USB port of the Droplet using an Ethernet - USB converter (see below)

# Power the Droplet

## Resi Droplet



Plug power supply into GPO

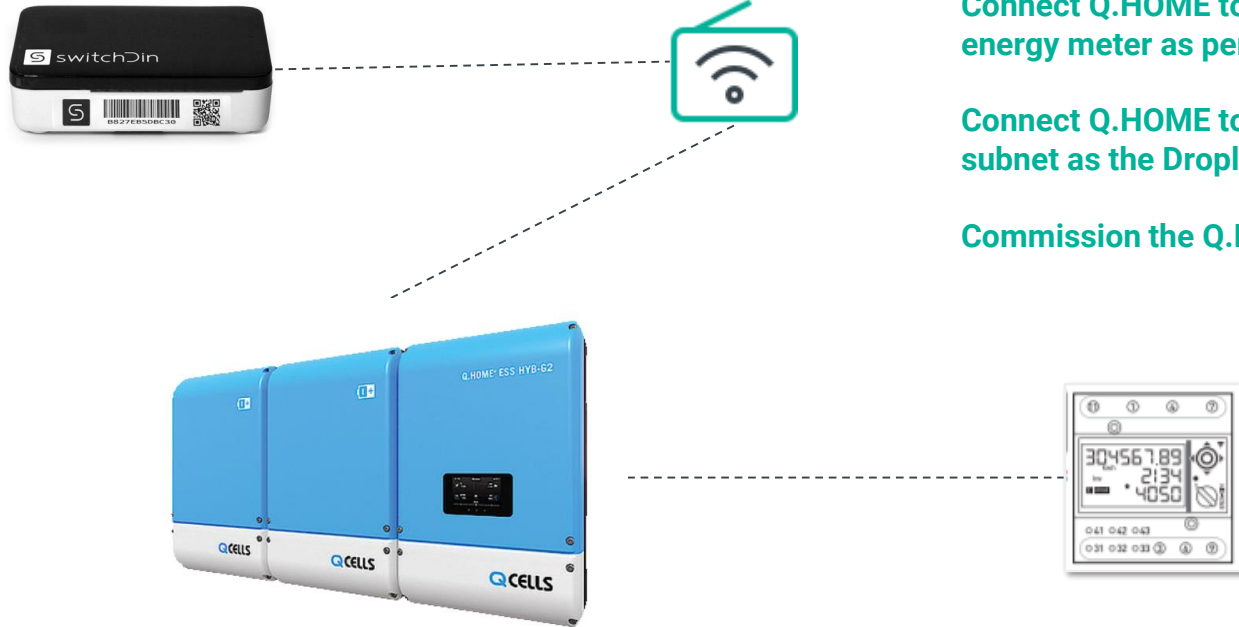
## Internet prerequisites

Mobile/tablet being used for commissioning is required to have an internet connection (wifi/4G) to configure the Droplet.

Internet connection required on site for Droplet/Stormcloud operation.



# Q.HOME connection Option 1



Connect Q.HOME to (EM112 / EM24) energy meter as per normal installation.

Connect Q.HOME to the same network and subnet as the Droplet (Ethernet preferred)

Commission the Q.HOME

# Q.HOME connection Option 2 (if converter is supplied)

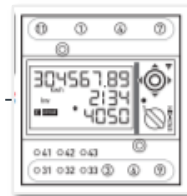


Connect Q.HOME to energy meter (EM112 / EM24) as per normal installation.

Connect inverter Ethernet directly to Droplet via Ethernet to USB converter provided.

The Droplet will provide internet connection to the Q.HOME.

Commission the Q.HOME.



# Q.HOME activating Modbus TCP port 1502

Through Q.ONNECT portal  
au.qcells-qonnect.com



Log in and within the basic setting > product details page enable 3rd party control

Product Details

HSHP4601QAJ09002AB

- SITE ID: 10000014  
- Serial No.: HSHP4601QAJ09002AB  
- Model Name: HSHP4601  
- Date Installed: 14/02/2020 11:44:34

- User Name: Ricky  
- Country: Commonwealth of Australia  
- Operation Test: -

Back Operations Test

Product Info Installation Info **Basic Setting** Advanced Settings Status Info More

- PV1 Capacity (W) 200 Enter the maximum capacity of PV1  
- PV2 Capacity (W) 200 Enter the maximum capacity of PV2  
- Feed-In Limit(A) 100 Set the maximum feed-in limitation rate (0% ~ 100%, No Feed-In Limit)

- 3rd Party Control ☒ Enable ☐ Disable  
- unctrlDOD ☐ NONE ☐ EX112 ☒ EX40

Directly from inverter  
(when no internet connection is available)

Enable PMS External Mode as per Section 7 in the [Q.HOME manual](#).

MENU LIST

BMS Setting

Install Setting

Maintenance

- Q.HOME  
- PMS S/W: P04.04.05  
- Sep 18 2020 - IP\_ESS

[Logout]

Install Setting Menu

Country / Region Information

Q1 VOLT 937 HSHP4601QAJ09002AB

Region: Sydney

Country: Australia

Grid Regulation: AS/NZS 4777.2:2015

Country / Region Conf

Save and Reboot

Product Information

Installed PV1 Power: 1500 (W)  
- Range: 1000 ~ 1500 (W)  
- 0: the PV1 is not installed

Installed PV2 Power: 1500 (W)  
- Range: 1000 ~ 1500 (W)  
- 0: the PV2 is not installed

Feed In Limit percentage: 100 (%)  
- Range: 0 ~ 100 (%)  
- 0 (%) means "No Limit"  
- 0 (%) means "No Feed-In"

Automatic Operation type: ☒ Smart Mode ☐ Basic Mode  
- The "Smart" type is more advanced Algorithm

Battery Count: 1

PMS External Mode Enable: ☒ Enable ☐ Disable

Date/Time Setting

Year: 2020 Month: 08 Day: 08

Hour: 18 Minute: 08 Second: 00

Smart Meter Information

Smart Meter Type: RS485

Having issues? Please call 1800 QHOME 0 and Q CELLS can support

# Status and Installer App

## Status Indicators

	Indication	Red	Green	Blue
PWR	Power	N/A	Power	N/A
WiFi	WiFi	No WiFi	WiFi connected	Weak WiFi signal
iNet	Internet	No internet	Internet connected	Configure via SwitchDin app
SDin	SwitchDin comms	Cannot see SwitchDin	Connected to SwitchDin	N/A
Devs	Devices attached	No devices	Devices detected	N/A



## Download and open the Installer app

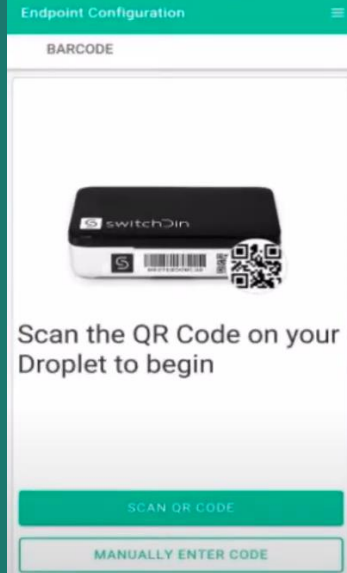
The app is available by searching for "SwitchDin" in the Apple iOS App Store or the Google Play store. [Create an account!](#)



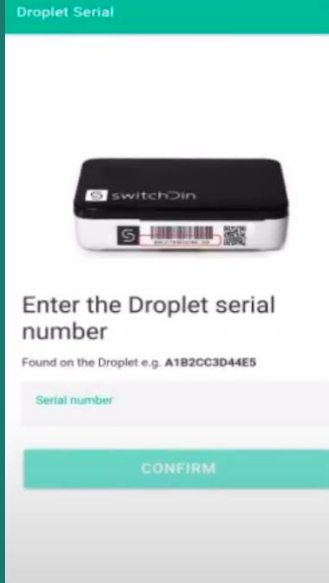
V0.2.28+

# Commissioning

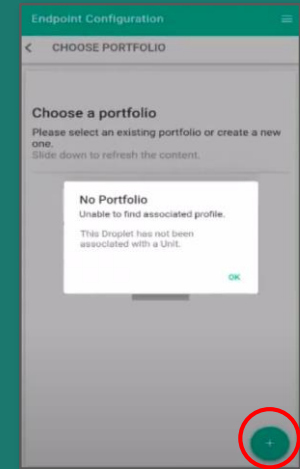
## Scan QR Code



## Or manually enter serial number



## Create portfolio or add to existing



Only create a portfolio if it is your first installation!

**Use a single portfolio for systems which require an agent!**

# Commissioning - setting up a site

## Create a UNIT or choose an existing UNIT

Endpoint Configuration

< CHOOSE UNIT

**Choose a Unit**

Please select an existing unit or create a new one.  
Slide down to refresh the content.

QOSPOS

dan  
24 some street somewhere

+

## Enter UNIT details

Create New Unit

QOSPOS

Name

Address

Street Address

CREATE NEW UNIT

## Add Droplet to UNIT

Endpoint Configuration

< CLAIM ENDPOINT

**Add Droplet to a unit**

Please confirm that you wish to add this Droplet to this unit.

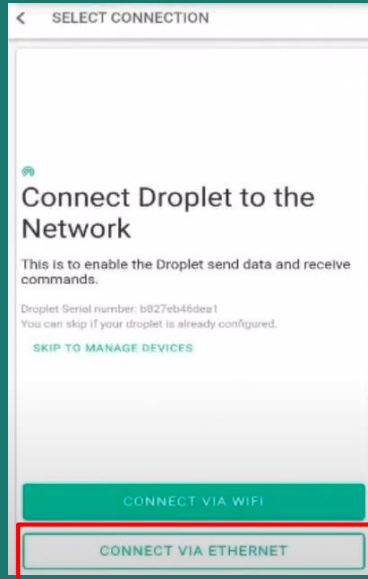
Droplet Serial number: b827eb46dea1

Portfolio  
TEDDY BEAR  
24 some street somewhere

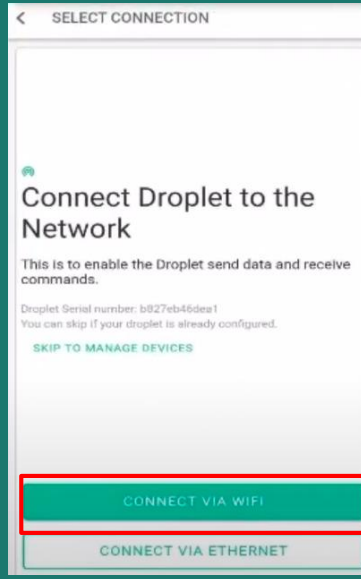
ADD DROPLET

# Commissioning - Ethernet preferred

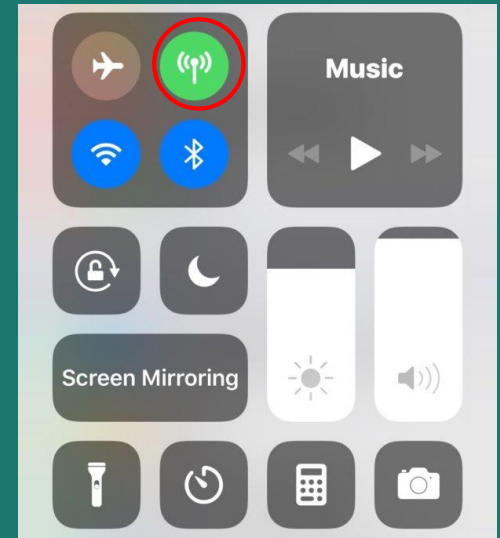
**Connect via Ethernet**  
Connection should be automatic



**If Ethernet is not available. Connect via WiFi**



**Turn off mobile data to ensure personal hotspot is off**



# Commissioning Wifi - skip if Ethernet is used

## Connect to Droplet

Endpoint Configuration

< WIFI SETTINGS

**Connect To Droplet**

Go to your mobile **Settings** and **disable mobile data**

☒ My mobile data is disabled

CONNECT TO DROPLET

## Select WiFi network

Endpoint Configuration

< SELECT WIFI

**Select Wifi**

Please select the Wifi network the Droplet should connect to.

Slide down to refresh the content.

WiFi Network

- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]
- [WiFi Icon]

## Enter WiFi password

Endpoint Configuration

< SET WIFI PASSWORD

**Wifi Password**

Please enter the password for this network. If you are auto filling or pasting the password, sometimes the system will append an extra whitespace at the end of the password which will generate incorrect password. WiFi Network

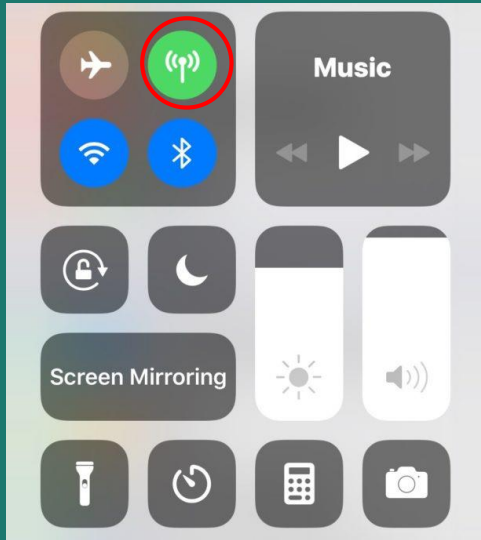
Wifi Password

CONNECT

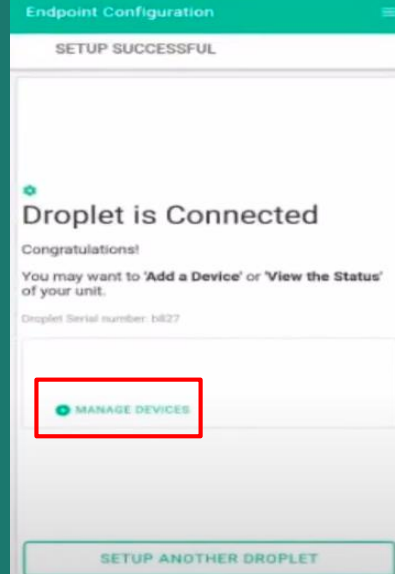


# Commissioning

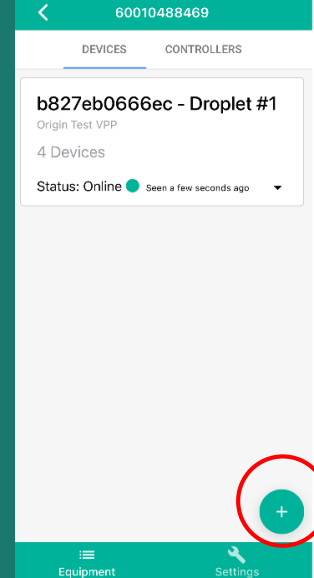
Turn on your mobile data



Select **MANAGE DEVICES**

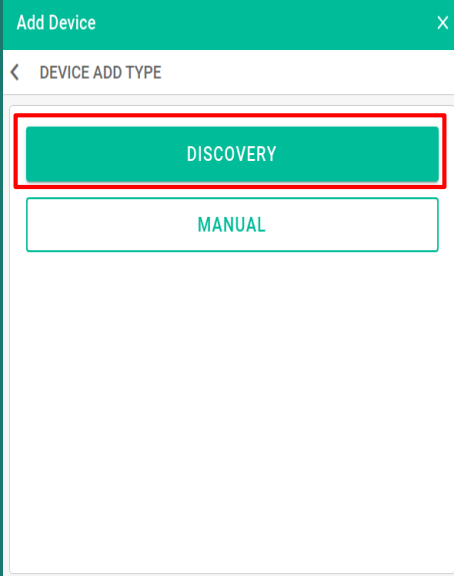


Add a device



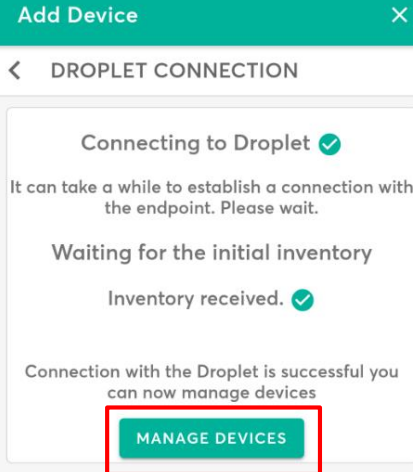
# Commissioning

## Choose DISCOVERY option



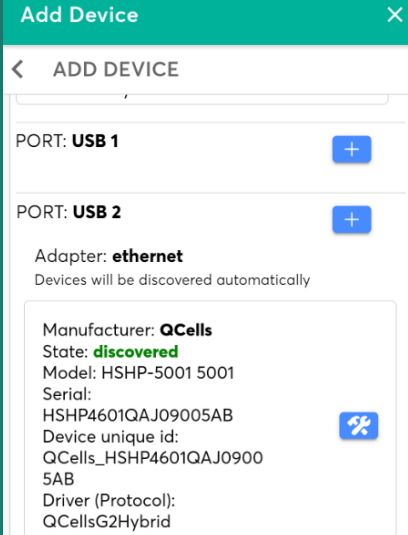
The screenshot shows the 'Add Device' screen with a teal header and a close button. Below the header is a back arrow and the text 'DEVICE ADD TYPE'. There are two buttons: 'DISCOVERY' (highlighted with a red box) and 'MANUAL'.

## Select MANAGE DEVICES



The screenshot shows the 'Add Device' screen with a teal header and a close button. Below the header is a back arrow and the text 'DROPLET CONNECTION'. The screen displays the following text: 'Connecting to Droplet' with a green checkmark, 'It can take a while to establish a connection with the endpoint. Please wait.', 'Waiting for the initial inventory', 'Inventory received.' with a green checkmark, and 'Connection with the Droplet is successful you can now manage devices'. At the bottom, the 'MANAGE DEVICES' button is highlighted with a red box.

## The Droplet will automatically discover the devices



The screenshot shows the 'Add Device' screen with a teal header and a close button. Below the header is a back arrow and the text 'ADD DEVICE'. The screen displays the following information: 'PORT: USB 1' with a blue plus button, 'PORT: USB 2' with a blue plus button, 'Adapter: ethernet' with the text 'Devices will be discovered automatically', and a box containing the following details: 'Manufacturer: QCells', 'State: discovered' (in green), 'Model: HSHP-5001 5001', 'Serial: HSHP4601QAJ09005AB', 'Device unique id: QCells\_HSHP4601QAJ09005AB', and 'Driver (Protocol): QCellsG2Hybrid'. A blue gear icon is next to the device details box.

# Commissioning

## Configure the inverter

Manufacturer: **QCells**  
State: **discovered**  
Model: HSHP-5001 5001  
Serial:  
HSHP4601QAJ09005AB  
Device unique id:  
QCells\_HSHP4601QAJ0900  
5AB  
Driver (Protocol):  
QCellsG2Hybrid



PORT: **USB 4**

### Confirm

Are you sure you want to  
configure this device?

Manufacturer: **QCells**  
Model: **HSHP-5001**  
Serial No.:  
**HSHP4601QAJ09005AB**

NO YES

Ma  
Sta  
Mo  
Ser  
HSHP4601QAJ09005AB  
Device unique id:  
QCells\_HSHP4601QAJ0900  
5AB  
Driver (Protocol):  
QCellsG2Hybrid



## Add a CONTROLLER

< 60010488469

DEVICES

CONTROLLERS

Inventory received ✓

**b827eb0666ec - Droplet #1**

Origin Test VPP

0 Controllers



Equipment

Settings

Name: Chosen Agent (SAPN/Origin/SG)  
Description: inverter serial number  
Controller type: Generic DRM Controller

### Add Controller

Name \*

Description \*

Controller Type \*

Add Controller

# Inviting system owner and updating details

## Add the site NMI

60010488469

UNIT DETAILS USERS

Unit Details

Unit Name \*

60010488469

Couldn't find your address? Try finding street

Address

Footscray VIC 3011, Australia

Australia/Melbourne timezone

National Metering Identifier

Equipment Settings

## Invite end customer to join

60010488469

UNIT DETAILS USERS

Search

Users

Equipment Settings

## Enter details and UNIT SERVICE CUSTOMER access level

Invite User

User Details

The person will be granted access to this Unit. Access will be granted immediately if the user already has an account, otherwise they will be prompted to create one.

Name\*

Email\*

Access Level\*

Profile Theme\*

SwitchDin

Invite User

The background of the slide is a green marbled paper with intricate, swirling patterns in various shades of green, from light to dark. A white rectangular box is positioned on the left side of the slide, containing the title text.

# Troubleshooting

# Troubleshooting

**The LED Header indicates that there is no power. What should I do?**



1. Check the GPO is switched on and has voltage.
2. Check whether the micro USB connector has become dislodged from the Droplet.
3. Test another power supply which uses micro USB. A mobile phone charger may be suitable.

[Link to video troubleshooting guide](#)

**The LED header indicates the inverter is not connected. What should I do?**



1. Is the inverter on the same network/subnet as the Droplet?
2. Is the inverter powered up?
3. Is the Modbus TCP port open/activated?
4. Is the Droplet connected to the network?
5. Have the cables connecting Droplets to inverters been tested for continuity?
6. Power cycle inverter and Droplet.

# Troubleshooting

**The Droplet will not connect to the network. What should I do?**



1. Reboot router/modem/switch.
2. Check number of devices connected to the network. Home networks may have a limit of 10-20 devices.
3. If possible, try Ethernet instead of Wi-Fi as the Wi-Fi may be weak.
4. Ensure password entered is correct.
5. Check internet connectivity of the Ethernet cable by plugging into a laptop.
6. IF using Ethernet, are the two lights on the Ethernet port blinking. If there are no blinking lights the link is broken. Check the continuity of the Ethernet cable.

[Link to video troubleshooting guide](#)

# Removing devices (if required)

## Remove device from device list

**b827ebd865f7 - Droplet #1**  
test  
2 Devices

Status: Online ● Seen a few seconds ago

Software: droplet-armv7l-master-577bd2ca0923eb0ddd38c13d39a89b8e99acbec0.tar.gz  
PNUM: 32331  
Shell URL: /devices/00000000-0000-0000-0000-b827ebd865f7/reverse-ssh

Endpoint attributes

Site Energy Aggregates +

QCells G2 Hybrid Inverter +

Overview **Equipment** Alerts Extras Settings

## Confirm device removal

**b827ebd865f7 - Droplet #1**  
test  
2 Devices

Status: Online ● Seen a few seconds ago

**Confirm**  
Are you sure?

NOTE: You are about to remove **QCells G2 Hybrid Inverter** device.

NO **YES**

Site Energy Aggregates +

QCells G2 Hybrid Inverter +

Overview Equipment Alerts Extras Settings



# Process for support

## Troubleshooting

Follow the troubleshooting guide in this document and videos on support page.

## Send information

If the Troubleshooting does not fix the issue, send the following info to [support@switchdin.com](mailto:support@switchdin.com)

1. Droplet ID
2. How is the droplet Connected to devices/inverters?
3. Brand/model of inverters/meters?
4. Description of issue and relevant troubleshooting results.

If the Droplet is connected to the internet, we will be able to remotely perform diagnostics

## If needed, call.

If the Droplet is not connected to the internet and there is an urgent need of support, please call our helpdesk on +61 02 4786 0426

# For more information

## SwitchDin Support

**General enquiries:** [info@switchdin.com](mailto:info@switchdin.com)

**Warranty claims & support:** [support@switchdin.com](mailto:support@switchdin.com)

**Phone:** +61 (0) 2 4786 0426

## Q CELLS Support

**Warranty claims & technical support:** [support@qhome.email](mailto:support@qhome.email)

**Phone:** 1800 QHOME 0 (1800 746 630)