

A Step-by-Step Guide

Table of Contents

| | | |
|-----------|---|-----------|
| 1 | InstaGen App Installation Instructions | 2 |
| 1.1 | Create an Installer account | 2 |
| 1.2 | Download the Installer App | 2 |
| 1.3 | Set up the homeowner's access | 2 |
| | If adding solar panels, please check the polarity of any DC strings before connecting them to the inverter | 2 |
| 2 | DTS Dongle Setup Guide | 2 |
| 2.1 | Secure the DTS dongle | 2 |
| 2.2 | Power on the inverter | 3 |
| 2.3 | Check the LED indicator | 3 |
| 2.4 | Enable flight mode | 3 2.5 |
| | Enable Wi-Fi | 3 2.6 |
| | Connect to the DTS network..... | 3 |
| 2.7 | Enter the DTS password | 3 |
| 2.8 | Connection confirmation | 3 |
| 3 | Installer App - Getting Started | 4 |
| 3.1 | Network configuration steps | 4 |
| 3.2 | Create a New Plant | 5 |
| 3.3 | Add Owner Information | 6 |
| 3.4 | Bind Devices | 7 |
| 3.4 | App Settings | 9 |
| 4 | DTU Password Resetting Process | 11 |
| 5 | Grid and Solar Meter Location Setup Process | 11 |
| 6 | Firmware Version Update | 13 |
| 6.1 | To check if there are any updates | 13 |
| 7 | Battery Settings Configuration | 14 |
| 8 | Performing an Auto Test | 14 |
| 9 | Working Mode Selection | 15 |
| 10 | Exporting to the Grid | 16 |
| 11 | ESS Safety Configuration | 17 |
| 12 | Switching On / Resetting the battery | 19 |
| 13 | Startup & Shutdown procedures | 20 |
| 14 | Decommissioning | 21 |

For a more detailed guide, please go to [Technical Documents - InstaGroup](#) and find our document [Instagen Cloud Operation-Guide](#)

1

a. Scan the QR code to download.



Instagen Installer



Instagen End-user

b. Search "Instagen Installer" or "Instagen End-user" in the Google Play or App Store.

1 InstaGen App Installation Instructions

1.1 Create an Installer account

Contact InstaGen Solar Technical Division before the installation day to request an Installer Account for your business.

1.2. Download the Installer App

- Scan the 'InstaGen Installer' QR code to download the InstaGen Installer App
- Use the login details provided by InstaGen to access the app

1.3. Set up the homeowner's access

- The homeowner must scan the 'InstaGen End-User' QR code to view their system after installation
- The End-User login details must be created through the Installer App

If adding solar panels, please check the polarity of any DC strings before connecting them to the inverter

2 DTS Dongle Setup Guide

2.1 Secure the DTS dongle

Ensure the DTS dongle is securely fastened to the inverter with the screws provided in the kit

2.2 Power on the inverter

- Turn on the breaker inside the fuseboard labelled PV or similar
- Turn on the battery breaker located on the battery
- On the battery, Press the silver button twice keeping the button pressed for 1 second each time
- Turn on the DC isolator(s) located beside the inverter and or on the inverter located underneath
- Turn on the AC isolator located next to the inverter
- Wait 5 minutes for the system to reset

2.3 Check the LED indicator

Before proceeding, confirm that the 'RUN' LED is lit blue

2.4 Enable flight mode

On your phone:

- Android: Enable Flight Mode
- iPhone: Enable Airplane Mode

2.5 Enable Wi-Fi

Ensure your Wi-Fi setting is turned on

2.6 Connect to the DTS network

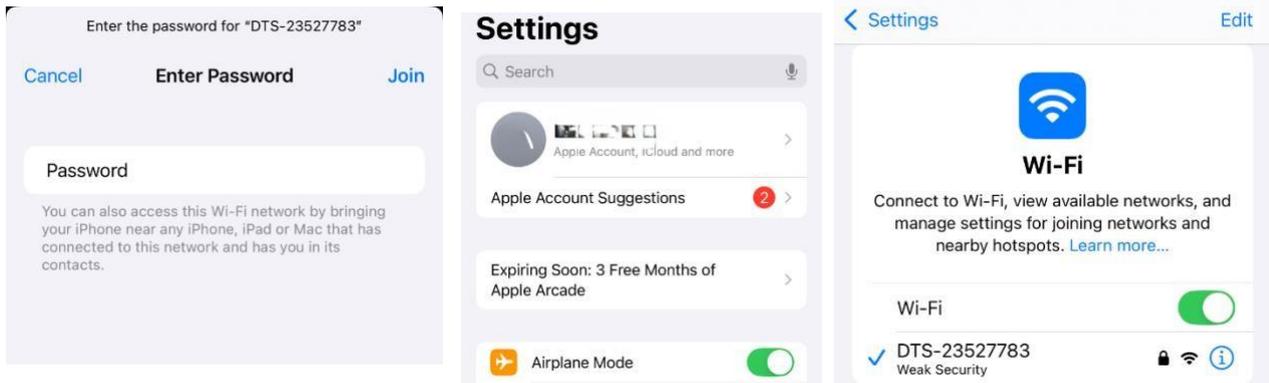
Select Data Transfer Stick (DTS-XXXXXXXX) from the available Wi-Fi networks

2.7 Enter the DTS password

- Default DTS Password: ESS12345
- Select 'Join'

2.8 Connection confirmation

You are now connected to the DTS (Data Transfer Stick)

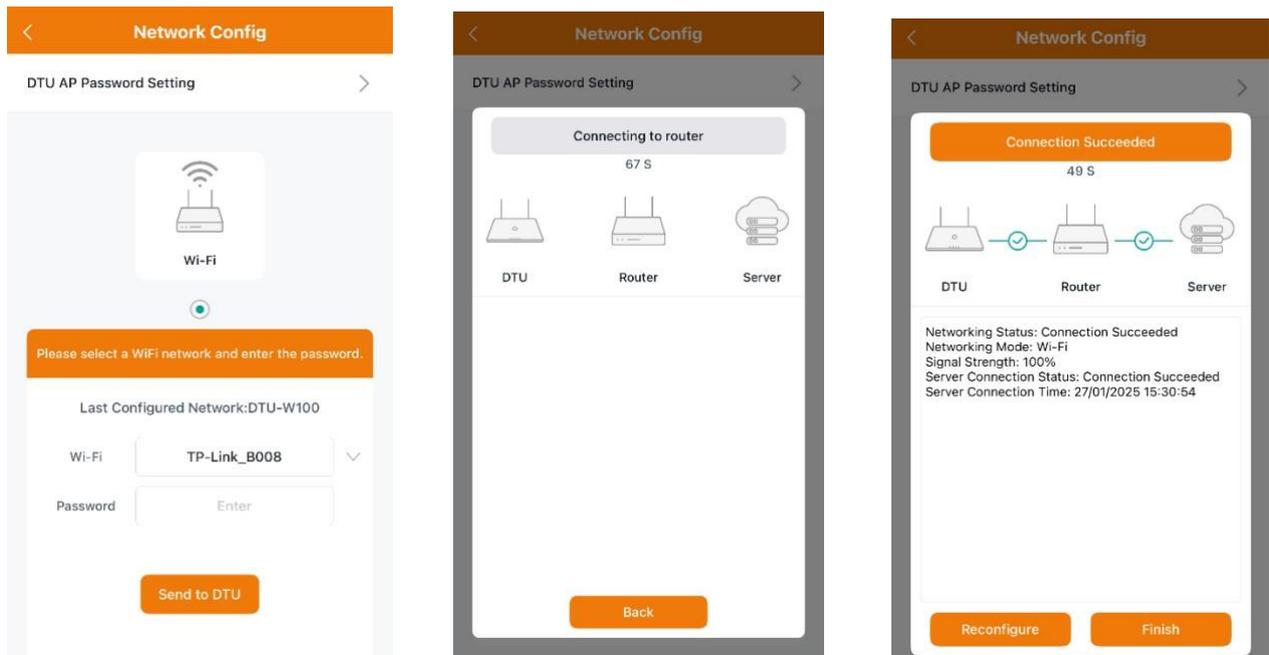


3 Installer App - Getting Started

Launch the InstaGen Installer App on your device

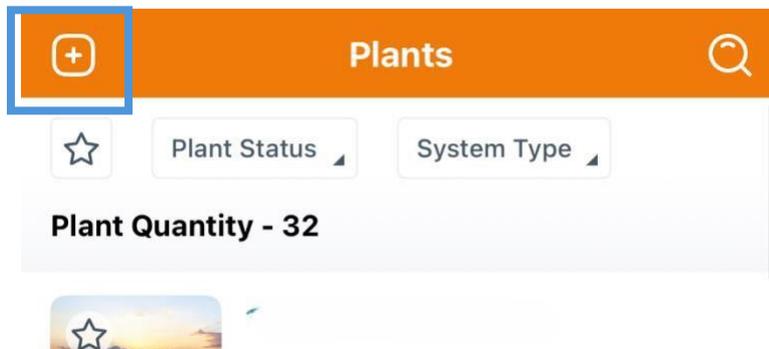
3.1 Network configuration steps

1. On the Plants page, Click the icon showing crossed spanner and screwdriver – Then Toolkit, Network config Icon
2. Phone needs to be still connected to the DTS Wi-Fi
3. Look for DTS-xxxxxx
4. Password = ESS12345
5. Click connect
6. Enter Name of Homeowners Wi-Fi (Like VMxxxxx for example)
7. Enter router password
8. Send to DTU
9. Click Finish
10. The DTS (Dongle) should now be showing 3 blue LED lights

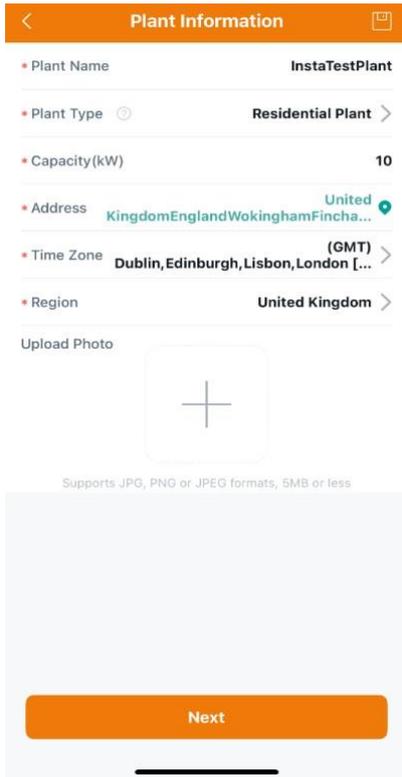


3.2 Create a New Plant

On the Plants page, press the '+' button to create a New Plant.



1. Plant name is the first line of the address
2. Plant type 'Residential' or 'Commercial'.
3. Capacity means the Inverter size in kW



Plant Information

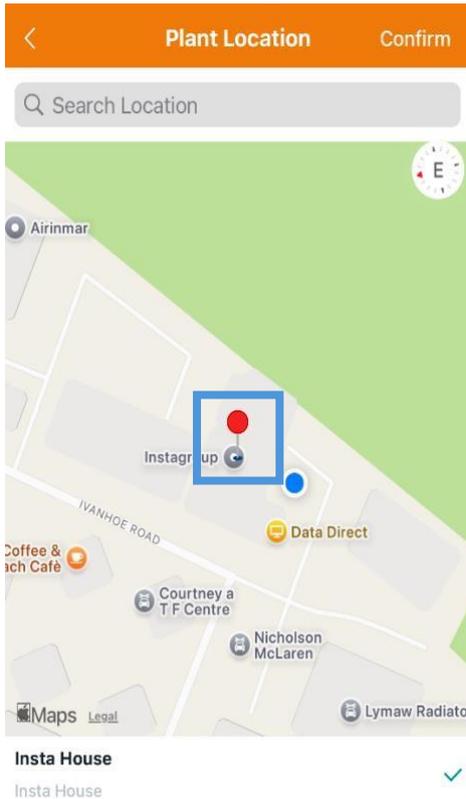
- Plant Name: InstaTestPlant
- Plant Type: Residential Plant
- Capacity (kW): 10
- Address: United Kingdom, England, Wokingham, Finchampstead
- Time Zone: GMT
Dublin, Edinburgh, Lisbon, London [...]
- Region: United Kingdom

Upload Photo

Supports JPG, PNG or JPEG formats, 5MB or less

Next

4. Time Zone 'GMT'
Dublin, Edinburgh, Lisbon, London
5. Region 'United Kingdom'
6. Upload Photo - to display on main page
7. Click Next

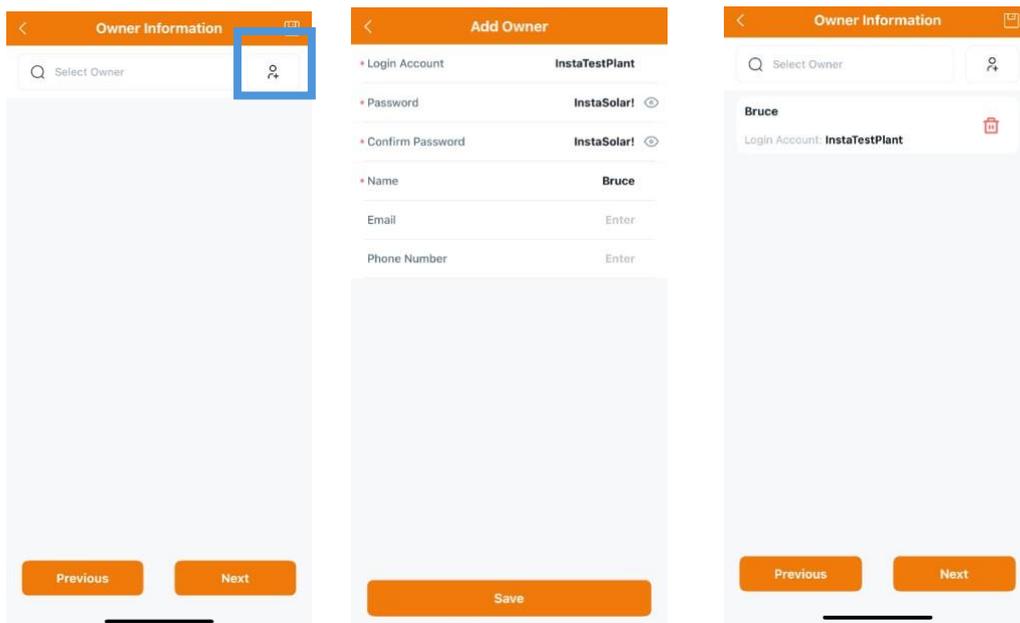


8. Locate & select plant location: use pin to adjust and click 'confirm'

3.3 Add Owner Information

1. Click the 'Person' icon at the top right next to the search bar.
2. You the installer, will need to add the customers login and password.
Usually, the login is the customer's name and password is 'InstaSolar'.
3. Click Save

Tip – screenshot these login credentials, in case you need them again at a later stage.

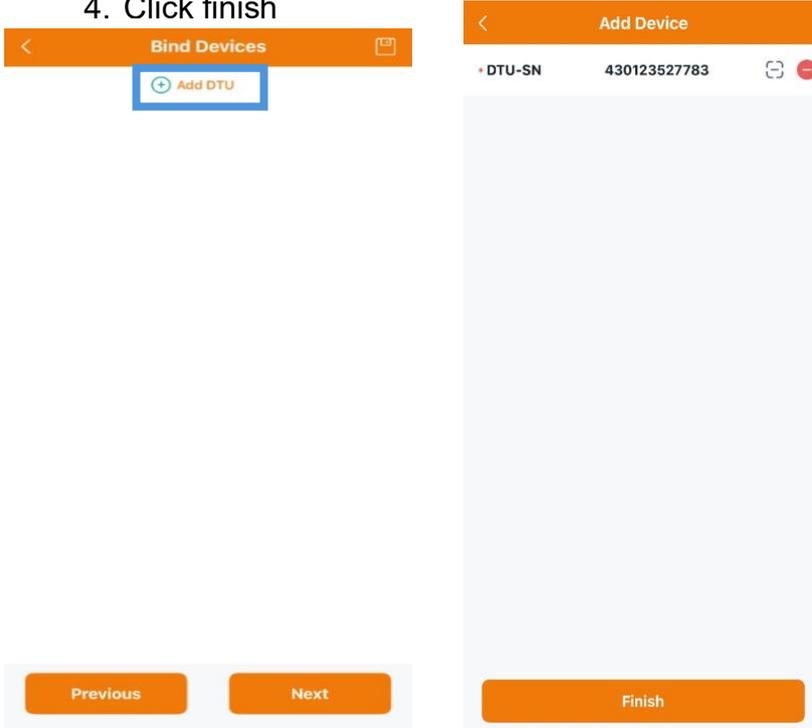


4. Owner information will now be showing in the next screen
5. Click 'Next'

3.4 Bind Devices

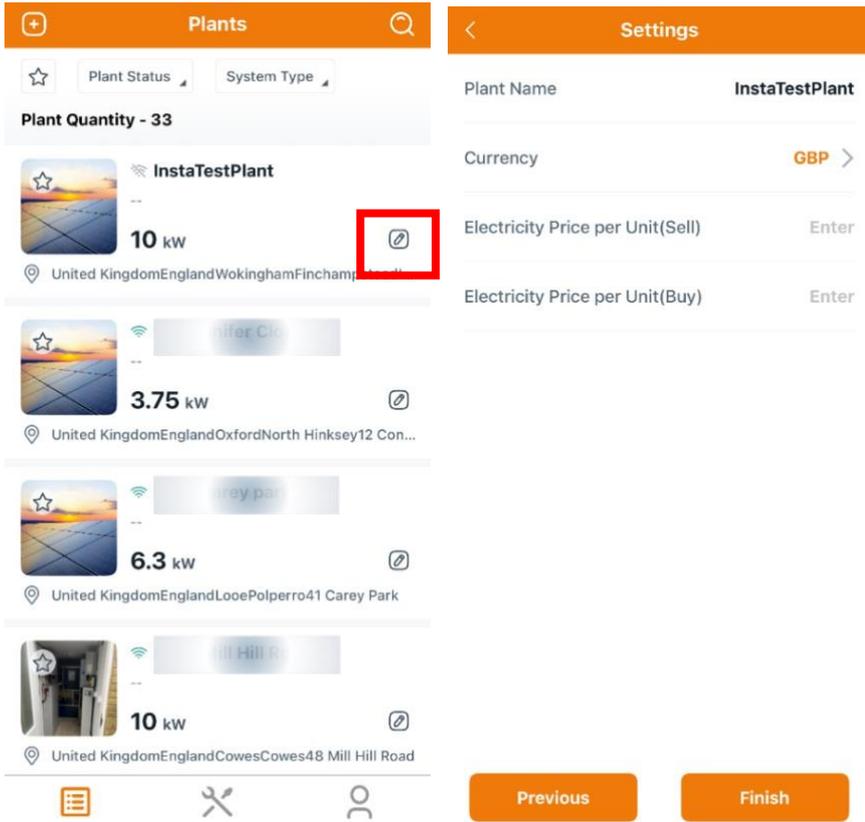
1. Click 'Add DTU' icon - This is also referred to as the DTS and is the data stick dongle.
2. Enter DTU serial Number (This is found below the barcode, either on the box or on the side of the unit itself).
3. Tip - The Inverter serial number will auto detect once the dongle serial number has been entered.

4. Click finish



3.4 App Settings

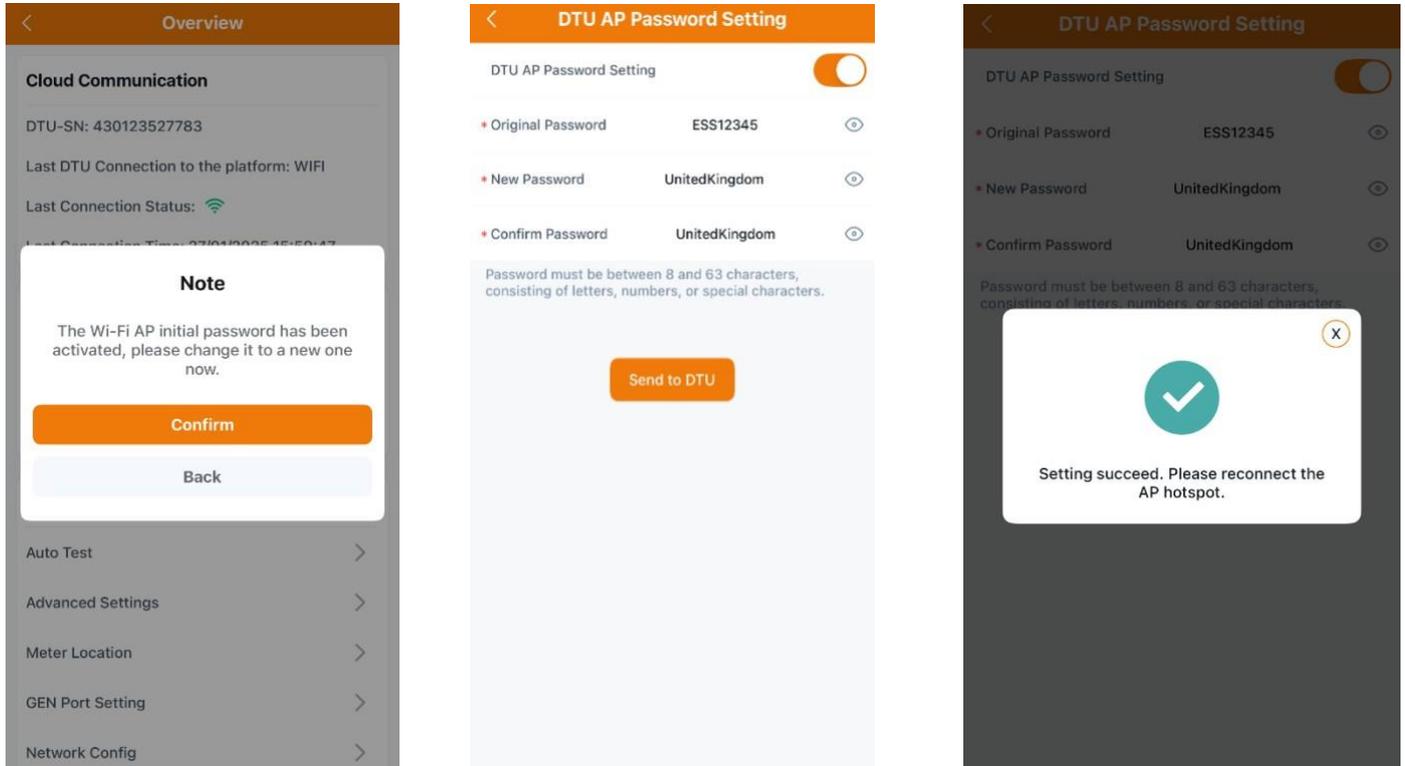
1. Select GBP for currency and add tariff information if available.



The plant has now been successfully created

4 DTU Password Resetting Process

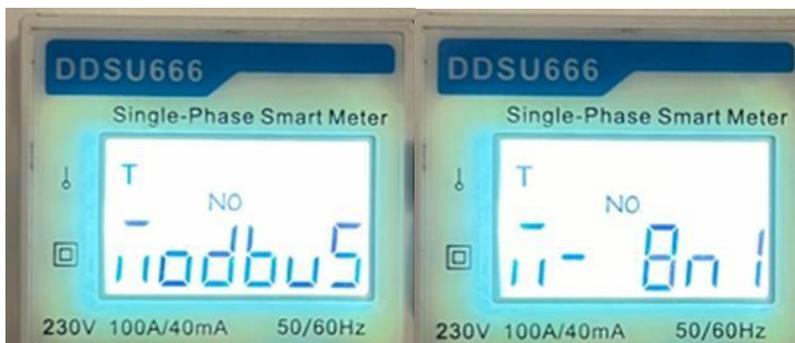
You will be prompted to change the default password. *This is necessary under new guidelines.*



5 Grid and Solar Meter Location Setup Process

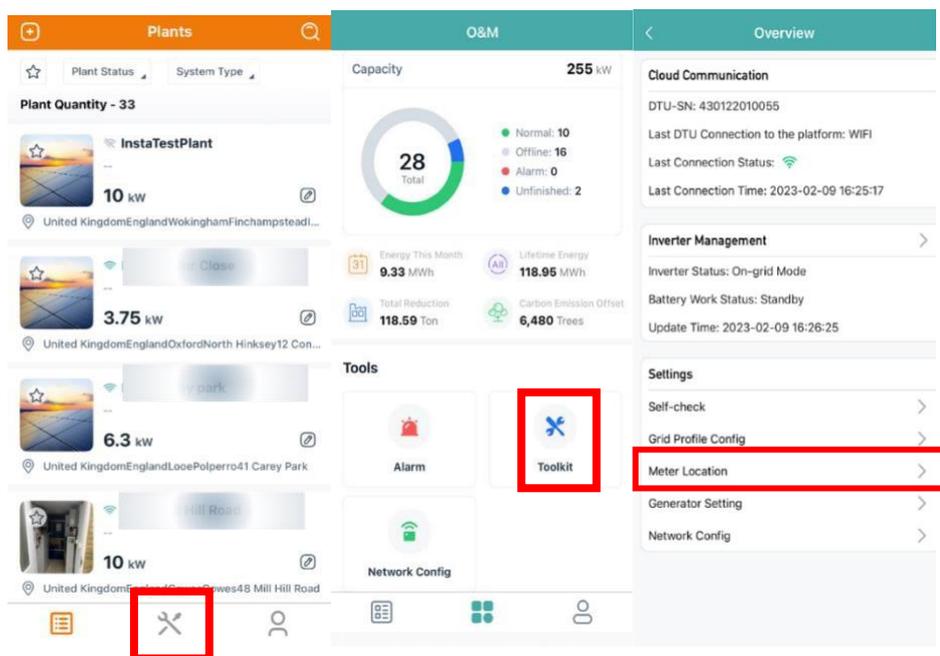
Follow these steps to set up the grid and solar meter locations:

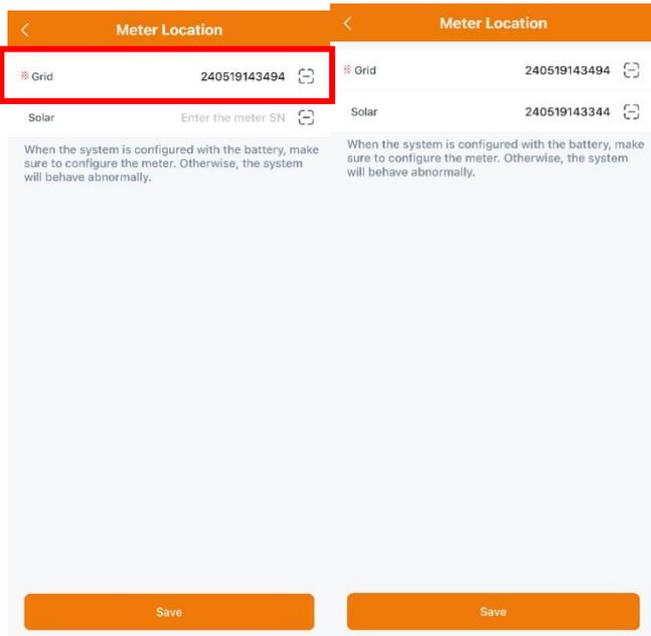
1. Ensure the Modbus meter(s) are correctly configured
 - 001 for the Solar PV
 - 002 for the Grid





2. Go to the Plants page and click on the O&M icon (*Spanner and Screwdriver crossed*) at the bottom of the screen.
3. Then click on Toolkit.
4. Near the bottom of this page click on Meter Location.
5. Enter the serial number of the Grid (*Chint*) Modbus meter. You will find this either on the box it came in or the right side of the meter itself.
6. Repeat this process for the Solar PV Meter if applicable (*AC coupled system with 3rd party PV*)
7. Click Finish

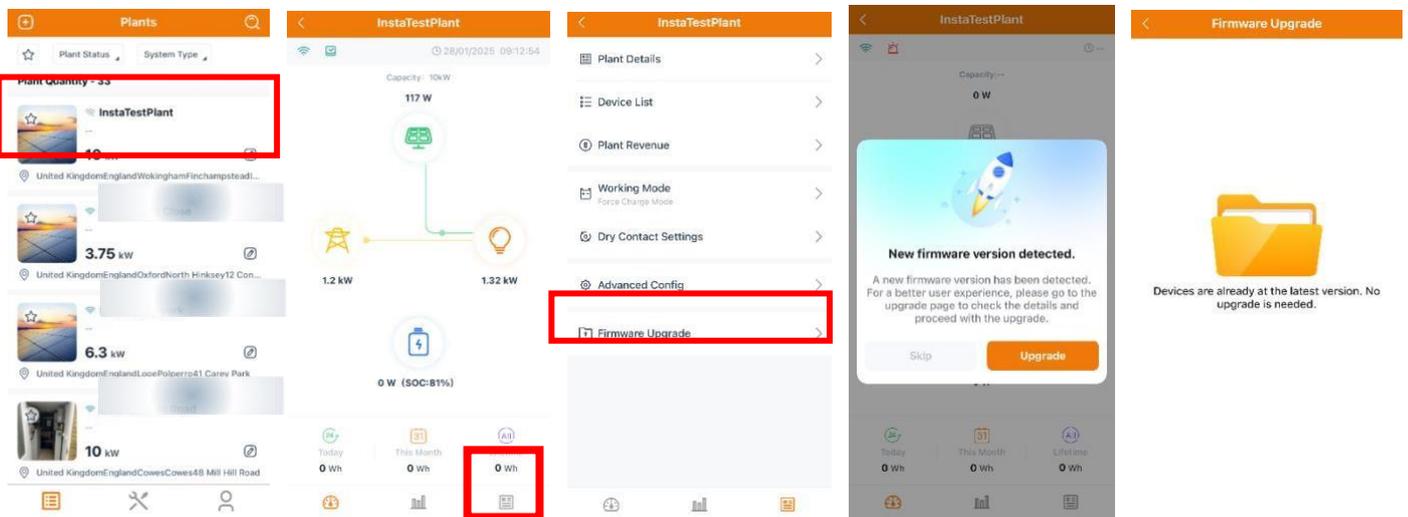




6 Firmware Version Update

The system will automatically detect a new version of firmware is available. While the system is upgrading, you can leave the page, and the process will continue in the background.

You'll know the system is fully up to date when the 4th image appears, showing that there are no available updates.



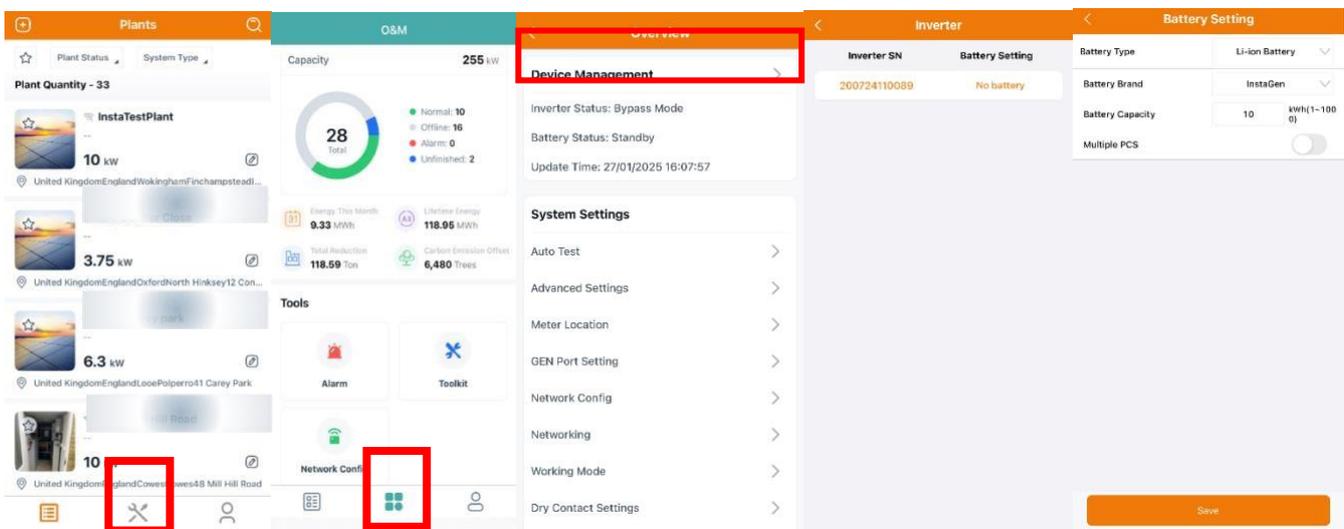
6.1 To check if there are any updates

Go to the Plants page, click on the plant you want to check – Then click the bottom right icon – The Firmware Upgrade listing will be found at the bottom.

7 Battery Settings Configuration

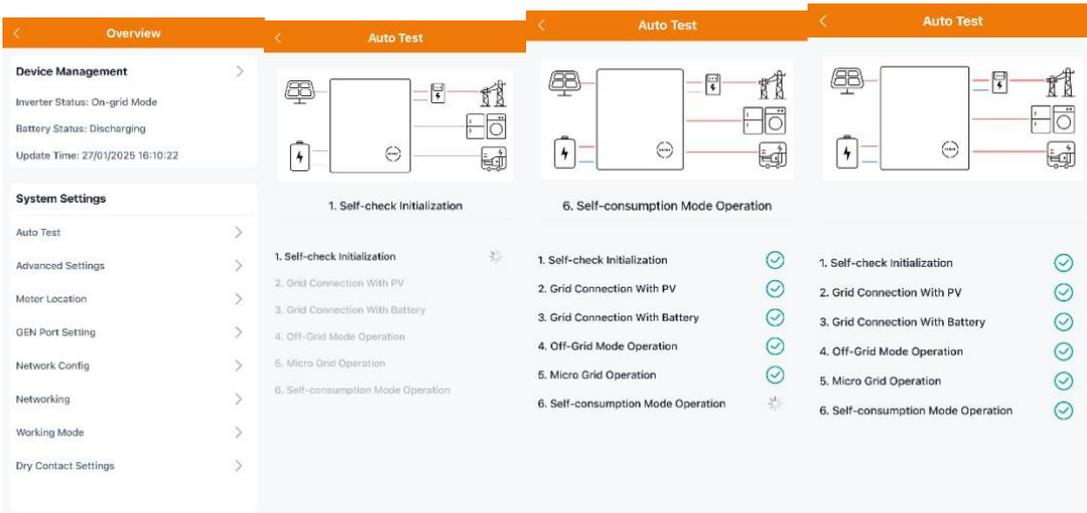
Follow these steps to set up your battery settings correctly:

1. On the Plants page click on the O&M icon
2. Then click on Toolkit
3. Click on Device Management
4. Select 'Battery Setting'
5. Choose the appropriate battery settings using the drop-down tabs.
6. Save your settings.



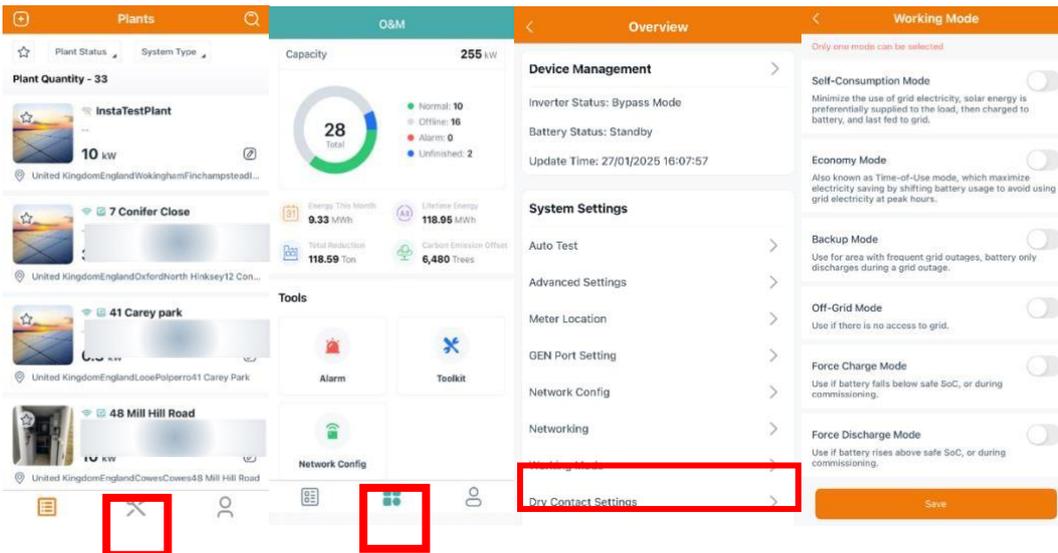
8 Performing an Auto Test

1. Start the Test
 - a. Select 'Auto Test'.
2. Allow the Test to Run
 - a. The system will automatically check all parameters.
3. Check for Faults
 - a. Any system faults or hardwiring issues will be identified during this step.
4. Re-Test if Needed
 - a. After resolving any issues, run the test again to ensure all six tests pass successfully.



9 Working Mode Selection

- The working mode can be selected based on the customer's requirements
- Only one mode can be selected at a time
- The setting can be adjusted seasonally or based on the customer's energy consumption



- This screen displays a fully functional plant
- For battery-only installations, the PV panel icon will appear greyed out



10 Exporting to the Grid

To adjust the energy flow to the grid: 1.

Scroll to the bottom of the page.

2. Locate the 'Max Export Power Limit' setting.
3. Adjust the value (expressed as a percentage) to set the desired export limit.

<
Advanced Config

ESS Advanced Config

ESS Safety Config

| | | |
|-----------------------|--|------------|
| Voltage Set Point V1 | <input style="width: 80px;" type="text" value="90"/> | %(80~99) |
| Voltage Set Point V2 | <input style="width: 80px;" type="text" value="93"/> | %(80~99) |
| Voltage Set Point V3 | <input style="width: 80px;" type="text" value="107"/> | %(101~120) |
| Voltage Set Point V4 | <input style="width: 80px;" type="text" value="110"/> | %(101~120) |
| Reactive Set Point Q1 | <input style="width: 80px;" type="text" value="43.6"/> | %(0~100) |
| Reactive Set Point Q2 | <input style="width: 80px;" type="text" value="0"/> | %(0~100) |
| Reactive Set Point Q3 | <input style="width: 80px;" type="text" value="0"/> | %(0~100) |
| Reactive Set Point Q4 | <input style="width: 80px;" type="text" value="43.6"/> | %(0~100) |
| Volt-Var Lock In | <input style="width: 80px;" type="text" value="20"/> | %(0~20) |
| Volt-Var Lock Out | <input style="width: 80px;" type="text" value="5"/> | %(0~20) |

Generation Control Function (GCF)

GCF Function Activated

Max. Export Power Limit %(0~200)

Save

11 ESS Safety Configuration

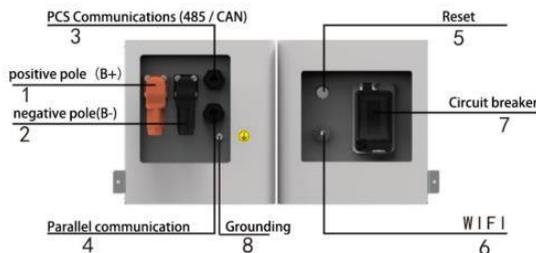
Follow these steps to ensure the ESS settings are correctly configured:

1. Access Advanced Settings
 - a. Select the icon in the bottom right-hand corner
 - b. Tap 'Advanced Config' to open the Advanced Settings page
2. Set the Grid Profile
 - a. From the drop-down menu, select 'UK_G98 for inverters of 3.68kW and less, and G99 for inverters above 3.68kW'
3. Save Your Settings

The screenshot displays the InstaTestPlant application interface. On the left, a summary card shows plant details: Capacity: 10kW, 117 W, 1.2 kW, 1.32 kW, and 0 W (SOC:81%). Below this are energy usage metrics for Today, This Month, and Lifetime, all showing 0 Wh. A red box highlights the 'Advanced Config' menu item in the left sidebar. The main content area shows the 'Advanced Config' screen with two tabs: 'ESS Advanced Config' and 'ESS Safety Config'. The 'Grid Profile' dropdown is set to 'UK_G98/G99' and is highlighted with a red box. Below this are sections for 'Safety' and 'Voltage Ride Through (VRT)' with various settings and trip times. A 'Save' button is located at the bottom of the configuration screen.

| Category | Setting | Value | Range |
|----------------------------|-----------------------------|-------|------------|
| Safety | Safety Nominal Voltage | 230 | V(230-230) |
| | Safety Nominal Frequency | 50 | Hz(50-50) |
| Voltage Ride Through (VRT) | High Voltage 2 (HV2) | 264.5 | V(230-299) |
| | HV2 Maximum Trip time (MTT) | 0.1 | s(0.1-5) |
| | High Voltage 1 (HV1) | 264.5 | V(230-276) |
| | HV1 Maximum Trip time (MTT) | 0.1 | s(0.1-100) |
| | Low Voltage 1 (LV1) | 184 | V(46-230) |
| | LV1 Maximum Trip Time | 0.1 | s(0.1-100) |
| | Low Voltage 2 (LV2) | 103.5 | V(46-230) |
| | LV2 Maximum Trip Time | 0.1 | s(0.1-100) |

12 Switching On / Resetting the battery



| No. | Interface Name | Cable mark |
|-----|--------------------------------|----------------|
| 1 | Output positive pole (DC +) | B + |
| 2 | Output negative pole (DC-) | B - |
| 3 | PCS Communications (485 / CAN) | COM1 |
| 4 | Parallel communication | COM2 |
| 5 | Reset | RESET |
| 6 | WIFI | WIFI |
| 7 | circuit breaker | ON OFF |
| 8 | Ground connection | Grounding sign |

System battery debugging

System power-off (All cables must be connected correctly).

1. Turn off the battery breaker switch located on the side of the battery.
2. Press and hold the silver button for 3 seconds The indicator light on the battery will turn off.

System power-on

1. Turn on the battery breaker switch located on the side of the battery.
2. Press and hold the silver button for 3 seconds **(if starting the battery for the first time, double click the silver button holding for 1 second for each press)**

Display Description

1. The green light flashes in charging mode
2. The green light is always on in discharge mode
3. In standby mode, the blue light will be on for 3 minutes, then it will be off for 3 minutes and then for 10 seconds
4. The red light is always on when a fault occurs.

Indicator light



13 Startup & Shutdown procedures

Commissioning

NOTICE

Before commissioning the inverter, please make sure:

- The inverter DC switch and AC Isolator and breaker are in the off position
- Double check the wiring and connections
- Check whether the grid voltage is within the permissible range (230 volts -6%, +10%) before turning on the AC supply
- Unused terminals must be sealed using the corresponding sealing plugs provided
- Nothing is left on top of the inverter and battery
- Cables are routed in a safe place or protected against mechanical damage
- Warning signs and labels are in place

System Power-on Procedure

| Step | Procedure |
|------|---|
| 1 | If the inverter is connected to the battery, turn on the battery following 4.2 System power-on on the previous page |
| 2 | Turn on the AC breaker between the inverter and the grid. |
| 3 | (Only for HYS series inverters) Rotate the DC switch to "ON" if the inverter is connected to the PV strings. |
| 4 | Check whether the inverter is operating properly through the inverter indicators status. |

System Power-off Procedure

| Step | Procedure |
|------|---|
| 1 | Stop the inverter from working via the InstaGen App. |
| 2 | Disconnect the AC breaker between the inverter and the grid. |
| 3 | (Only for HYS series inverters) Rotate the DC switch to "OFF" if the inverter is connected to the PV strings. |
| 4 | Turn off the DC breaker between the inverter and the battery. |
| 5 | Check whether the inverter indicators are off. |

Decommissioning

NOTICE

After powering off the inverter, follow the steps below if needed:

- Wait at least 10 minutes after the LED indicators turn off to release the internal energy.
- Disconnect all cables.
- Remove DTS and power meter.
- Remove the inverter from the wall, remove the bracket if necessary, and finally pack the inverter and accessories.