



INSTALLATION MANUAL

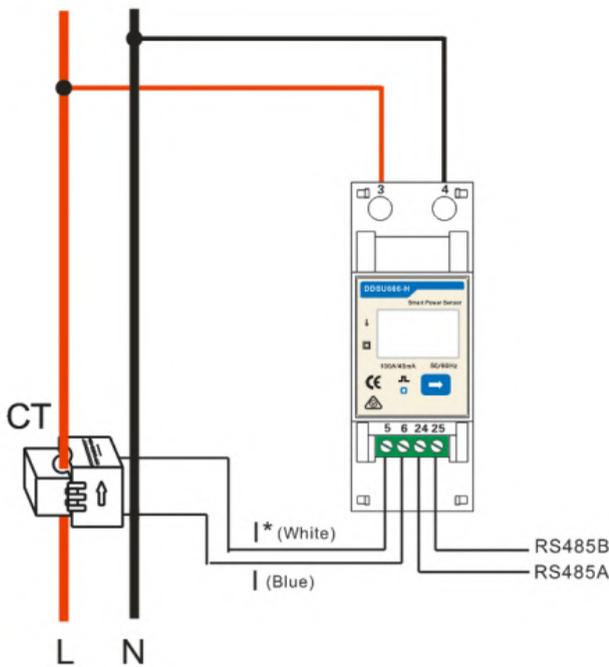
INTEGRATION AND CONFIGURATION OF
HUAWEI INVERTER WITH TRYDAN

Electric Installation

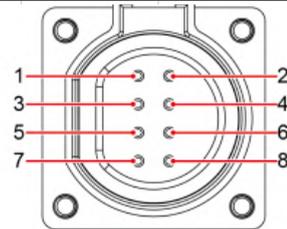
First, we must make sure that our **Huawei SUN2000-5KTL-L1** inverter has been correctly installed and configured. In order to be able to take home consumption measurements we will need to connect one of the compatible meters provided by Huawei to our inverter. For this manual we will use the **DDSU666-H** meter.

Power Meter Installation (DDSU666-H)

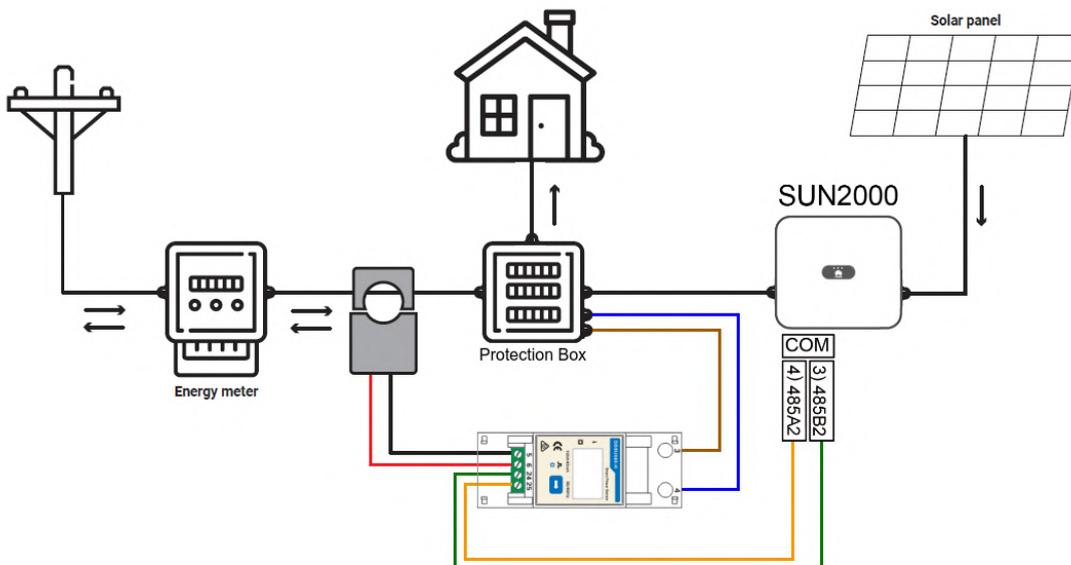
The meter is responsible for calculating the household consumption and sending it to the inverter via RS485. For this communication to be established, the following connections must be made:



N.º	Label	Definition	Single SUN2000	Cascaded SUN2000
1	485B1	RS485B, differential signal - from RS485		
2	485A1	RS485A, differential signal + from RS485		Connects to SUN2000 units
3	485B2	RS485B, differential signal - from	They are used for connection to the RS485 signal ports of the battery and power meter. When both the battery and power meter are configured, they must be crimped to ports 485B2.	Used for connection to the RS485 signal ports of the battery and power meter. When configuring both the battery and power meter, they must be crimped to ports 485B2 and 485A2.
4	485A2	RS485A, differential signal + from RS485		



To power the meter, we must connect the phase and neutral of the line we want to measure to pins 3 and 4, respectively. After that, we must establish RS485 communication by connecting pin 24 (A) and 25 (B) of the meter to pin 3 and 4 of the communications connector of the Huawei inverter respectively. The clamp should be connected according to the following scheme:



Communications Configuration

This section will show step by step how to configure the Huawei inverter to communicate with Trydan and send the measurement data to Trydan.

Huawei Configuration SUN2000

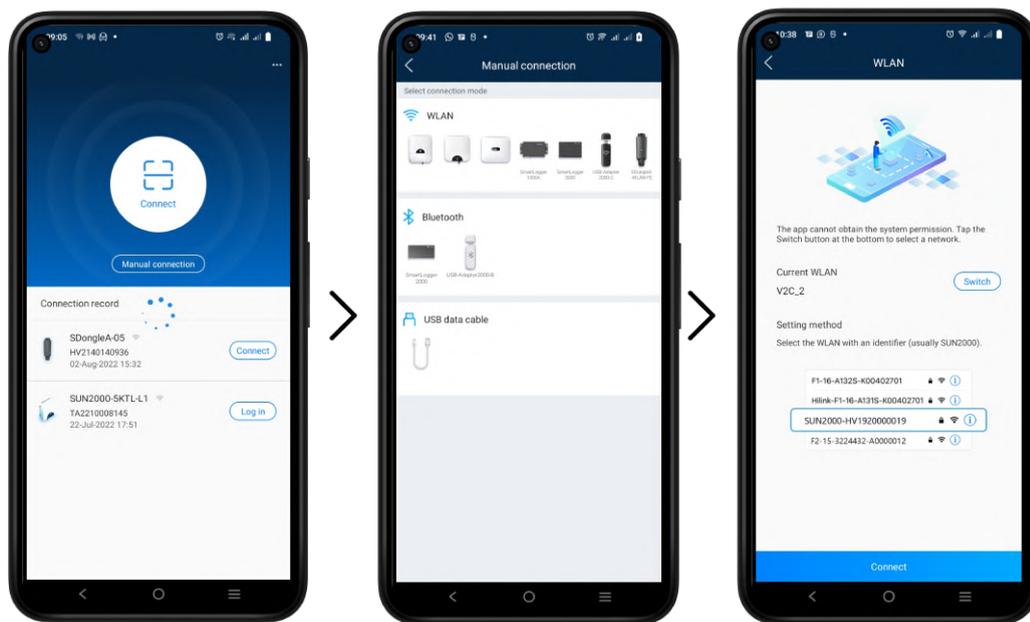
Once the installation is done, we will be able to configure the communication of the Huawei inverter thanks to the Wi-Fi signal it generates. This configuration can be executed from a smartphone, so we will use as an example the configuration from the mobile app.

To do this, we must download the SUN2000 app and install it on our device. As an example, we will use an Android device, and with the following link the download will start automatically: <https://appgallery.cloud.huawei.com/appd/C10279542>.

We can also scan this QR code:

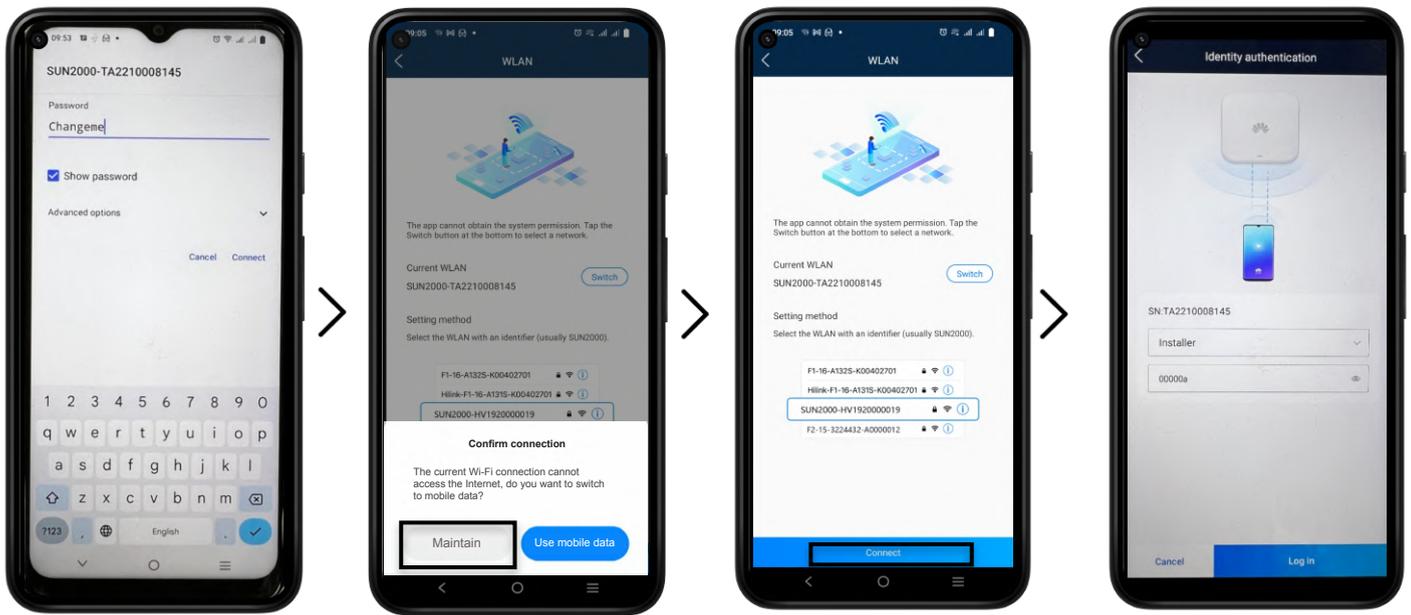


After installation, when we start the app, we will accept the privacy policy and all the permissions required.

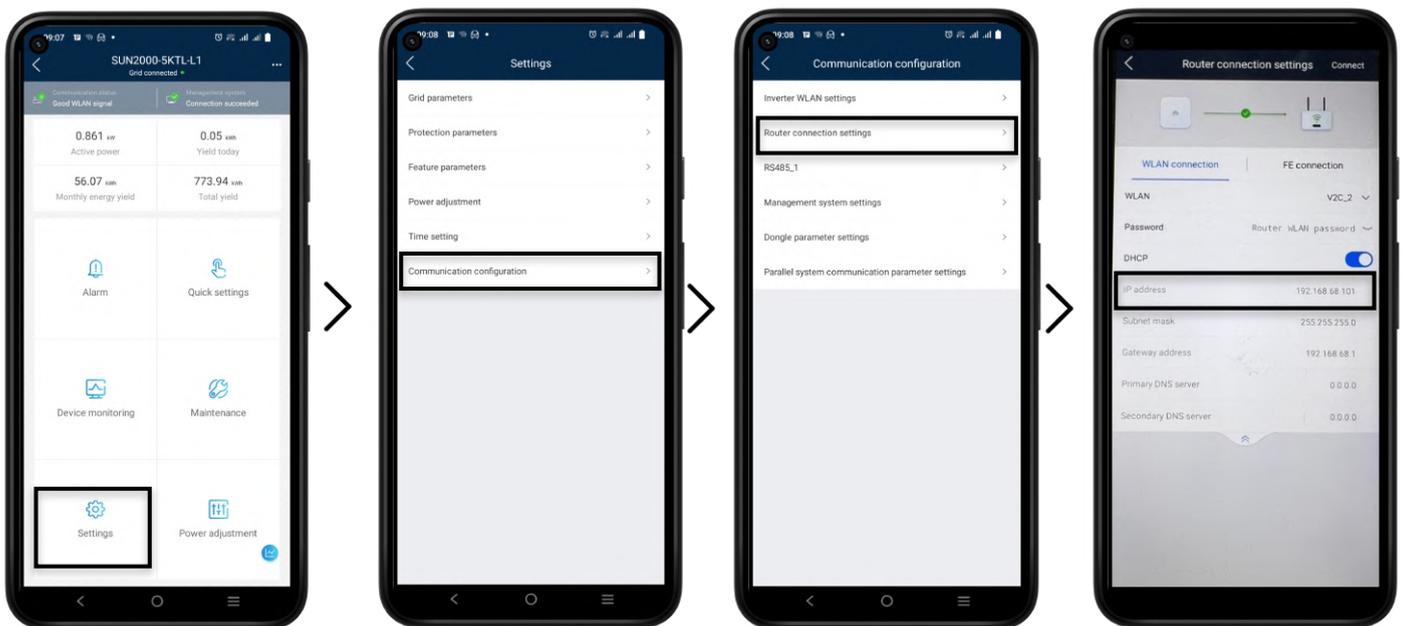


The first thing it shows us is a scanner to configure our inverter. The QR code that can scan is located on the right side of the inverter but in this manual, we will configure the SUN2000 manually. Click on Manual connection and select the image of our inverter.

In order to enter the configuration, we need to connect to the Wi-Fi that the SUN2000 generates. To do this, press change and we will be redirected to the Wi-Fi configuration where we will search for this network.



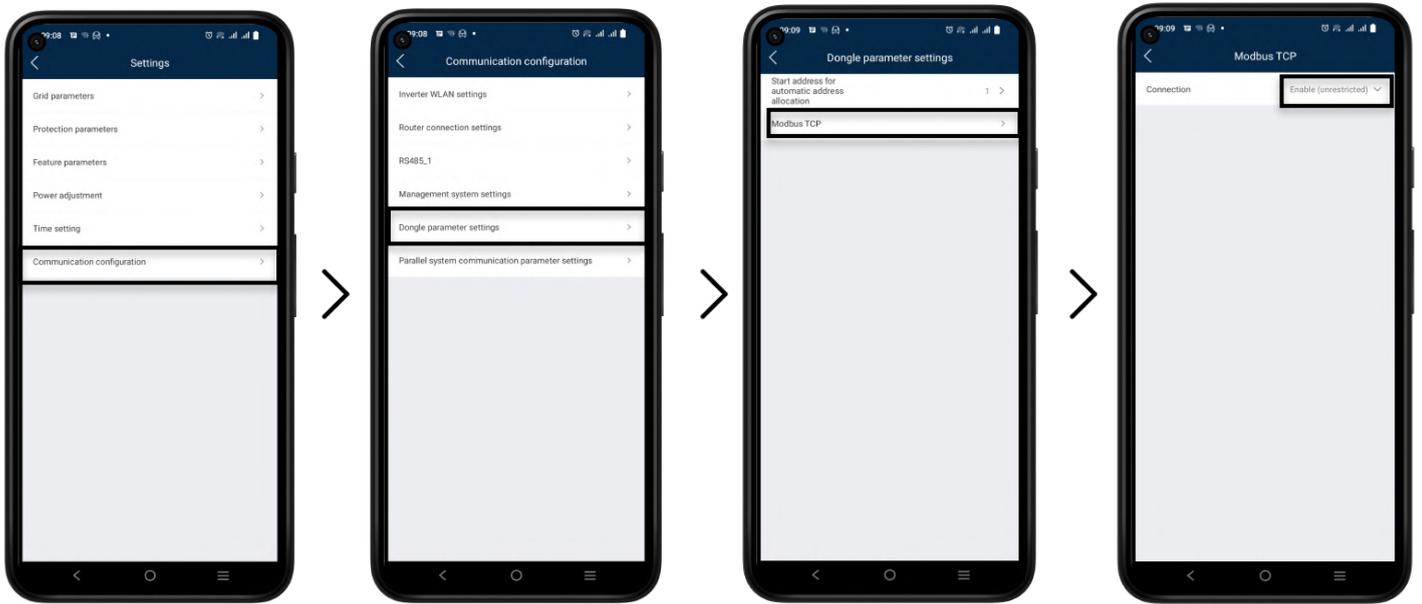
By default, the network SSID will be **SUN2000-(SERIAL NUMBER)** and the password is **Changeme**. Once connected, some devices will show a warning that the network has no internet connection. We will have to press to maintain the connection and then we will press to continue inside the SUN 2000 app. We will be asked for a password for the Installer user, by default it should be 00000a. This will allow us to enter the Home screen.



Once we get in the home screen click on **Settings >> Communication settings >> Router connection settings**. We can now see if the router to which it is connected is the same as Trydan or if it needs to be configured. If it is configured, we should note down the IP it occupies in our network for further configuration of Trydan.

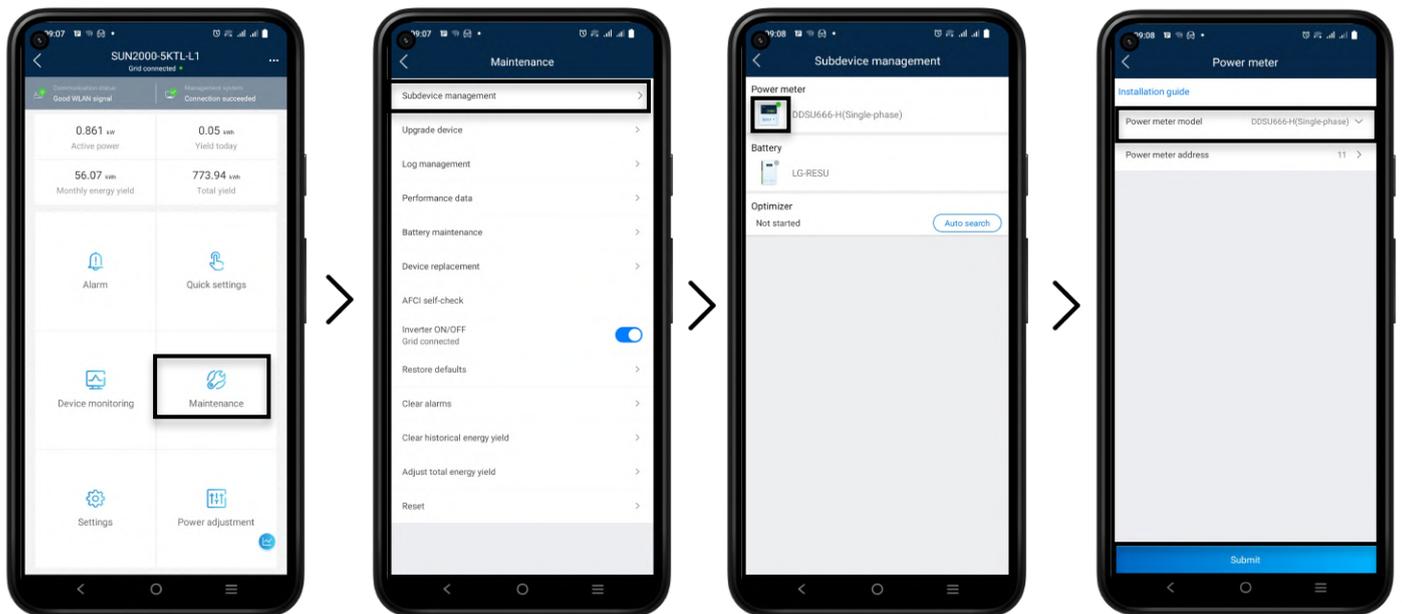
Dongle parameter settings

Before exiting the Communication configuration settings, select the option **Dongle parameter settings >> Modbus TCP**, indicating the option (Enable without restrictions).

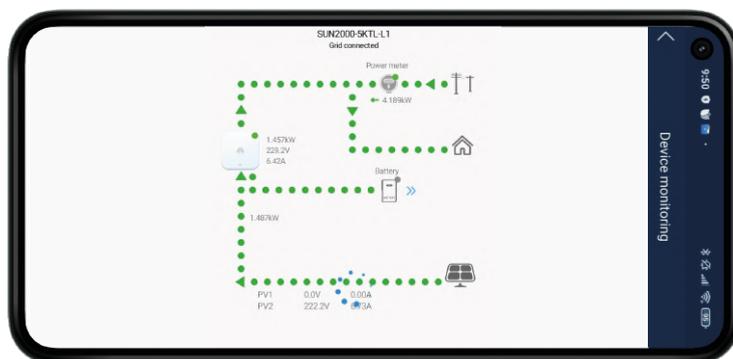


Power meter configuration

To configure the meter, go to **Maintenance** from the home screen. Click on **Manage sub-device** and add our **DDSU666-H (single phase)** meter. The inverter will start scanning the device and if the connections are correct, it will add it automatically.



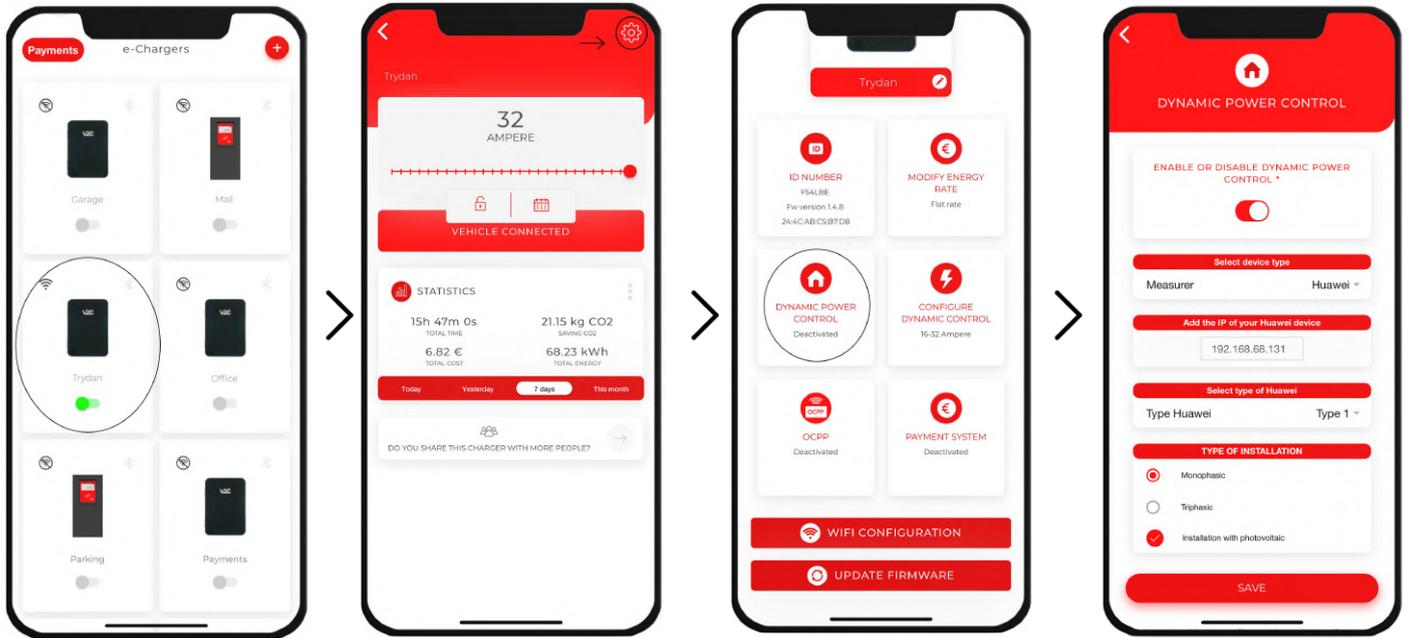
If the measurements or the energy diagram shown is not logical, we must change the direction of the clamp or configure this direction in the meter options through this same app.



The result should be a diagram in which the photovoltaic power is always positive as well as that of the household. Only the total consumption should be negative if the house is consuming less than the PV system is generating.

Trydan Configuration

Once the SUN2000 is configured, we open the V2C application where we can access our e-Charger.



Enter the desired e-Charger and click on the configuration icon at the top right. Enter the DYNAMIC POWER CONTROL section and choose **Huawei** as the slave type and enter the IP address we specified earlier (e.g. 192.168.1.229). After choosing whether our network is single-phase or three-phase and whether it includes photovoltaic installation, we will save the configuration. Trydan will save the configuration and restart to apply these changes.

Final result

When Trydan finishes its startup, it will connect to Huawei and obtain the measurements via Modbus TCP to vary the load intensity dynamically depending on the mode we have chosen. In the Trydan screen we will be able to see the measurements obtained:



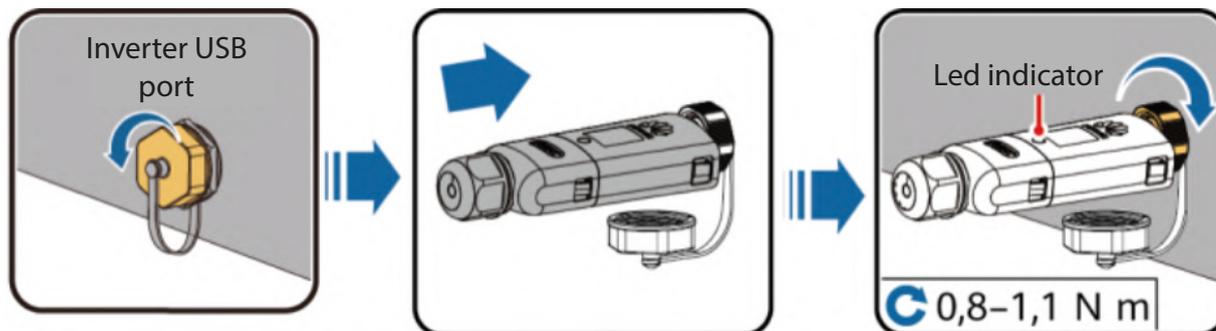
Trydan will display an error message if it fails to connect to Huawei, check your connection and make sure that the two devices are connected to the same network. If the connection is correct, it will show the measurements.

Problems after Huawei inverter update

Due to the recent update that Huawei has released to the SUN2000 family inverters, the communication protocol used by Trydan has been disabled. After contacting Huawei to solve this problem, they indicate that the only way to re-establish communication is by connecting an SDongleA to our inverter.

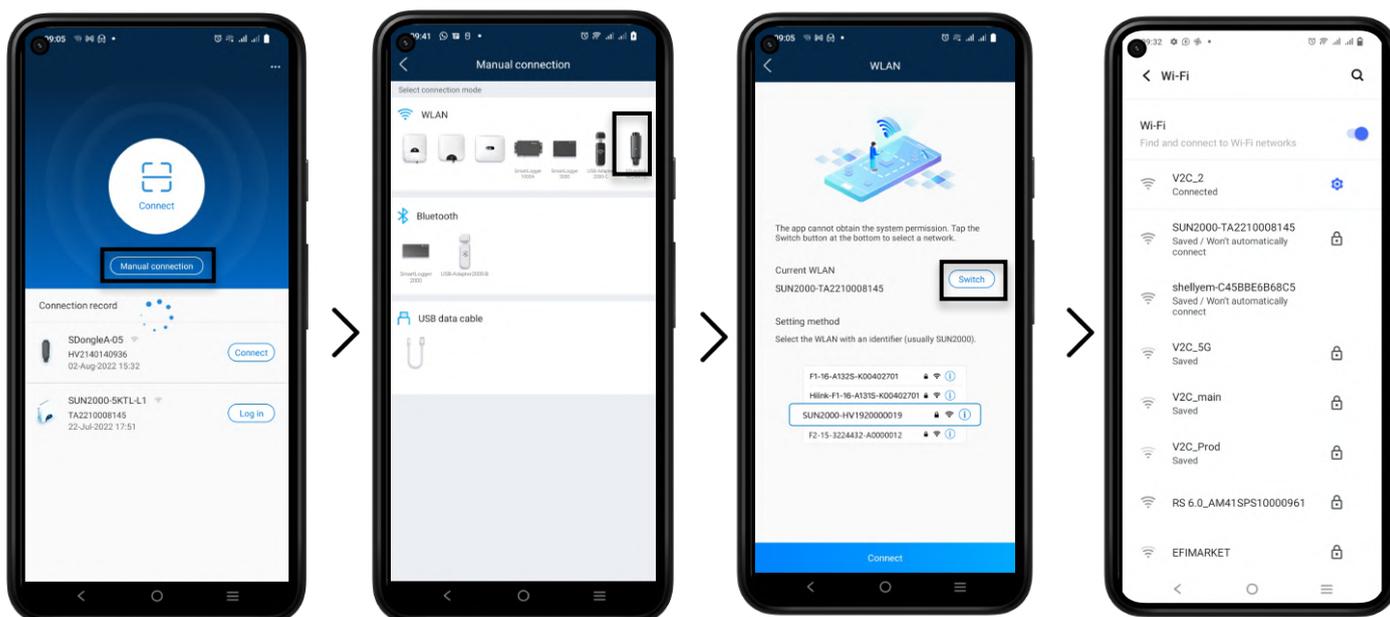
This device is an upgraded Wi-Fi adapter manufactured by this brand. Below, we describe the process of installing and upgrading this device to be able to establish communication with Trydan again.

Physical connection of SDongleA al to the inverter



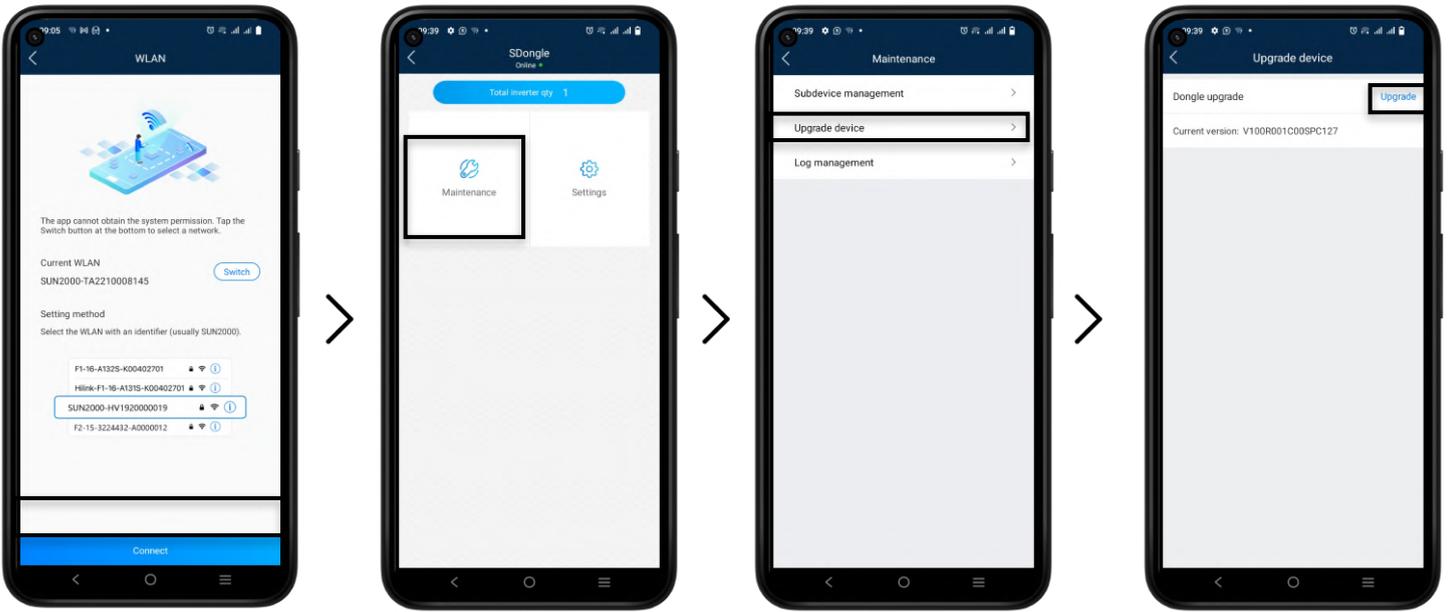
Connect the dongle to the USB port of our inverter as shown in the pictures. After that, the Dongle will start the boot protocol and the LED will start blinking red. When finished, the blinking will be green and it will generate a Wi-Fi access point for 3 minutes.

We must connect to this access point, which will have a name similar to "**SDongleA-XXXX...**". To do this, open the SUN2000 application. Click on Manual Connection and select **SDongleA**. Click on Change in Current WLAN and connect to the SDongleA WiFi with the password **Changeme**.



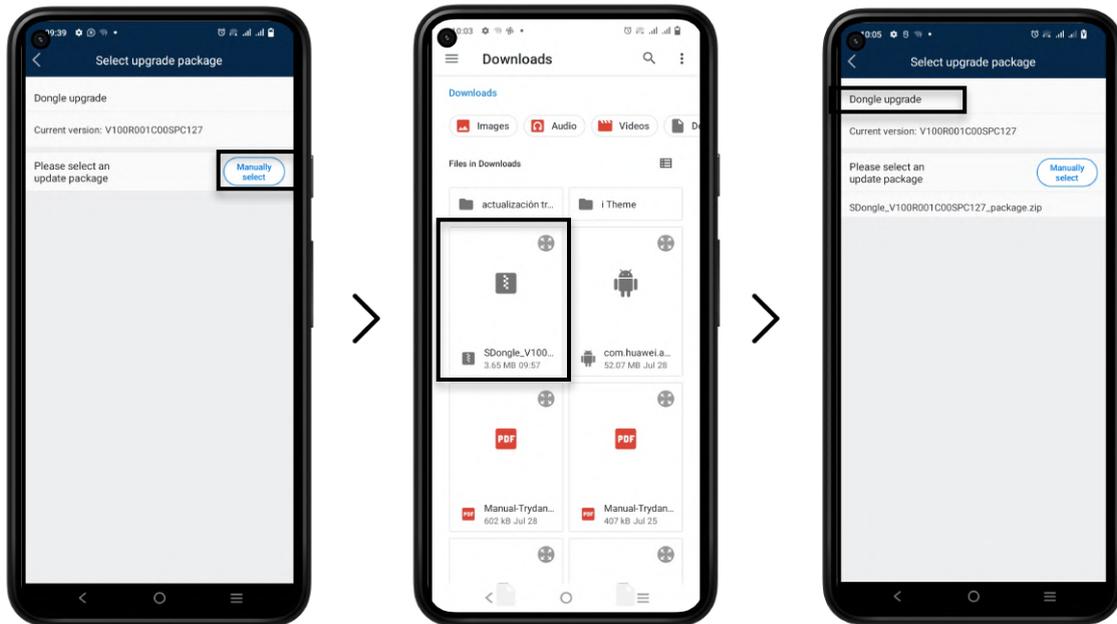
Once done, click on connect and the authentication screen will appear. We identify ourselves as **Installer** with the password **00000a**.

We can see the two options that allow us to configure the SDongleA of which we are only interested in **Maintenance**. We enter this option and click on **Upgrade Disp**. We can see what version the Dongle has installed and check that it is version **V100R001C00SPC127**. If it is not, click on **Upgrade**.



It will allow us to update the equipment to be the correct version by uploading it from our smartphone. Click on Manual Selection and look for this file which can be downloaded from the following link:

https://drive.google.com/file/d/1mqxrzA3c_7eEkTUueztCHdiApzA6vv51/view?usp=sharing

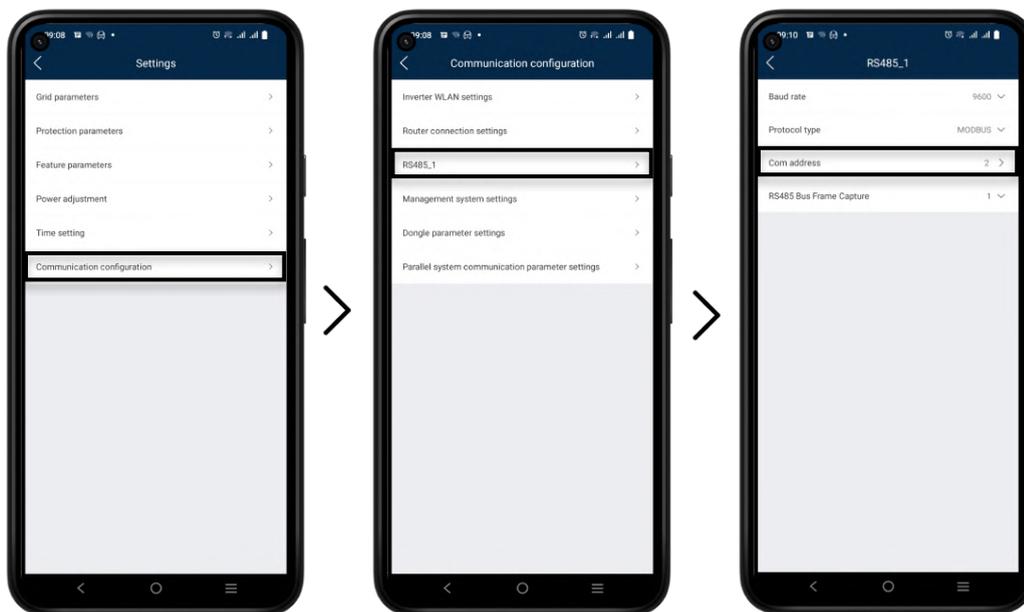


Click on **Dongle Update** and wait for the process to finish following the instructions on the screen. This process should not modify the Wi-Fi configuration of the inverter, but it is advisable to check it later by entering the inverter configuration. Once this process is done, the communication between the inverter and Trydan will be re-established.

Display RS485_1 Dongle communication channel

We must consult the communication channel used by the Huawei inverter to then be incorporated into the Dynamic Power Control settings. Currently there are 3 communication channels (0, 1, 2).

To do this, click on **Communication Settings >> RS485_1 >> Comm Address**.



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