

Setting up WiFi

September | 2023

USB dongles come in 2 varieties: WiFi and 4G.

Please note: You only require a WiFi dongle with our AC coupled inverters and GEN 1 hybrid inverters.



WiFi dongle serial numbers start with **WF, WO, or WZ.**

You can tell the difference by removing the blue rubber cap at the base of the device and taking a look inside.



WiFi has a reset button* 4G has a SIM card slot

**Reset instructions are found on Page 9*

Insert the dongle into the USB port on the underside of the GivEnergy hybrid inverter. (See right.)

IMPORTANT:

Please ensure the dongle is screwed into the bottom of the inverter on both sides.

The WiFi dongle can be powered up on the USB port on the underside of the inverter, or another USB supply if the inverter is not yet powered up.



Flashing light - **Connecting**

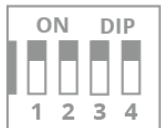
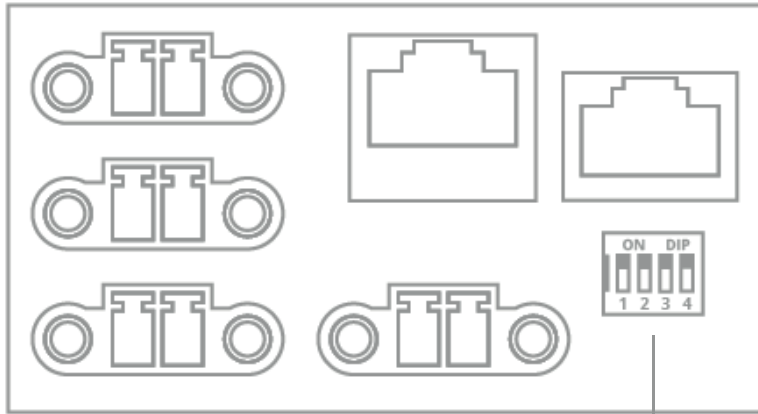
Solid light - **Connected***

**If dongle is solid but not connected, please refer to the troubleshooting steps on Page 9*



INTERNAL WIFI

Setting the inverter to WiFi



WiFi mode

The built-in WiFi serial numbers all begin with either **WH, WG, WJ, or WK**. Remove the **bottom cover** of the inverter. Check the dipswitches (pictured) and configure them to **WiFi mode**.

Please note: Only the Gen 2 and Gen 3 hybrid inverter, the All in One and Giv-Gateway have built-in WiFi.

Gen 2: WG

Gen 3: WH*

All in One: WJ

Giv-Gateway: WK

**If considering resetting the internal WiFi on a Gen 3 inverter please contact the support desk beforehand.*

WE / WF / WO / WG / WH / WJ / WK SERIAL NUMBER

1. Accessing your WiFi settings

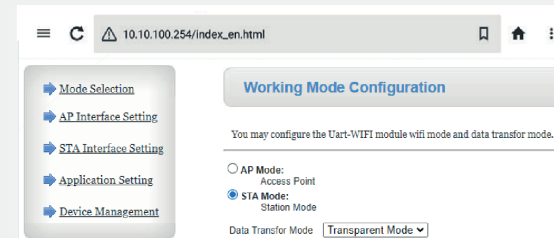


Access your **WiFi settings**.

Select the WiFi network that matches the dongle **serial number**.

Click **Connect** when it is visible (ensure **Connect automatically** is ticked).

2. Logging in to your local inverter WiFi settings

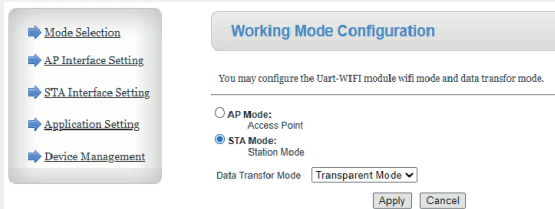


Open your **web browser** (preferably Google Chrome).

Type **10.10.100.254** into the address bar.

When prompted enter:
Username: admin
Password: admin*

3. Select Mode

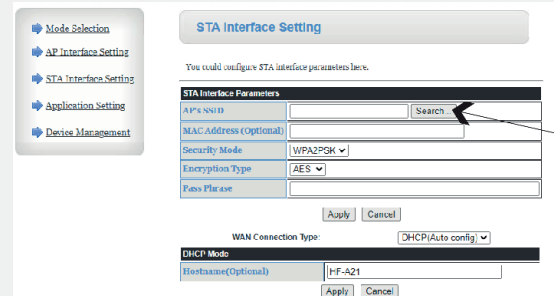


Select **Mode Selection**.

Select **STA mode**.

Click **Apply**.

4. Connecting to your WiFi



Select **STA Interface Setting**.

Click the **Search** button.

*Username and password may have been changed by your installer, to reset you will need to reset your dongle/internal WiFi. Please see page 9 on how to reset.

WE / WF / WO / WG / WH / WJ / WK SERIAL NUMBER

5. Selecting your WiFi network

Select your WiFi network from the list. Click **Apply**. Click **Refresh** if your network doesn't appear (see troubleshooting for more support).

Site Survey							
	SSID	BSSID	RSSI	Channel	Encryption	Authentication	Network Type
<input checked="" type="radio"/>	GivEnergy Lab	74.da.88.95.c7.de	37%	6	AES	WPA2PSK	Infrastructure
<input type="radio"/>	DISPLAY_TABLETS	06.ec.da.3b.77.5d	26%	6	AES	WPA2PSK	Infrastructure
<input type="radio"/>	WF2125G793	34.ea.e7.7f.e6.5c	89%	11	NONE	OPEN	Infrastructure
<input type="radio"/>	HideSSID	76.ac.b9.97.33.e6	83%	11	AES	WPA2PSK	Infrastructure
<input type="radio"/>	WE1812G001	f0.1e.6b.73.4b.98	20%	11	AES	WPA2PSK	Infrastructure
<input type="radio"/>	WZ2108G038	98.d8.63.9b.29.b9	78%	11	NONE	OPEN	Infrastructure
<input type="radio"/>	WF2026G304	98.d8.63.97.37.fc	100%	11	NONE	OPEN	Infrastructure

Apply Refresh

RSSI (signal strength) should be at least 60% for a reliable signal.

A WiFi booster/extender may be required if signal strength is <60% (see diagram).

6. Inputting your WiFi password

STA Interface Setting

You could configure STA interface parameters here.

STA Interface Parameters

AP's SSID: GivEnergy Lab | Search...

MAC Address (Optional):

Security Mode: WPA2PSK

Encryption Type: AES

Pass Phrase:

Apply Cancel

WAN Connection Type: DHCP(Auto config)

DHCP Mode

Hostname(Optional): HF-A21

Apply Cancel

Note: If the desired network does not appear, you can manually enter it here.

Enter the customer's WiFi password.

Click **Apply**.

7. Setting your security modes

AP Interface Setting

AP interface setting such as SSID, Security...

Wireless Network

Network Mode: 11b/g/n mixed mode

Network Name(SSID): WF2141G615 | Hide

BSSID: 28.9c.68.2f.98.84

Frequency (Channel): 2437MHz(channel 8)

Wireless Distribution System(WDS): WDS Configuration

Apply Cancel

WF2141G615

Security Mode: WPA2-PSK

Apply Cancel

LAN Setup

IP Address(Default DHCP Gateway): 10.10.100.254

Subnet Mask: 255.255.255.0

DHCP Type: Server

Apply Cancel

Select **AP Interface Setting**. Select **WPA2-PSK** from the drop down menu in **Security Mode**. Click **Apply**.

To hide the WiFi network name of the dongle when it is broadcasting you can tick the hide SSD box.

If you are having interference on a WiFi channel, or if it is causing issues with your home WiFi you can try changing the WiFi channel here.

If you wish to change the IP address of the dongle you can modify this here.

8. Selecting your dongle password

AP Interface Setting

AP Interface Setting such as SSID, Security...

Wireless Network

Network Mode: 11b/g/n mixed mode

Network Name(SSID): WF2141G615 | Hide

BSSID: 28.9c.68.2f.98.84

Frequency (Channel): 2437MHz(channel 8)

Wireless Distribution System(WDS): WDS Configuration

Apply Cancel

WF2141G615

Security Mode: WPA2-PSK

WPA

WPA Algorithms: TKIP AES TKIPAES

Pass Phrase: SA1214G667

Apply Cancel

LAN Setup

IP Address(Default DHCP Gateway): 10.10.100.254

Subnet Mask: 255.255.255.0

DHCP Type: Server

Apply Cancel

Choose a **password** (inverter serial no. is recommended).

Click **Apply**.

WE / WF / WO / WG / WH / WJ / WK SERIAL NUMBER

9. Restart Dongle

The screenshot shows a web interface for Device Management. On the left is a navigation menu with options: Mode Selection, AP Interface Setting, STA Interface Setting, Application Setting, and Device Management. The main content area is titled 'Device Management' and includes a version number '5.08T.04' and a note: 'You may configure administrator account and password, load default setting or update firmware.' Below this are four sections: 'Administrator Settings' with 'Account' and 'Password' fields (both containing 'admin') and 'Apply'/'Cancel' buttons; 'Restart Module' with a 'Restart' button; 'Load Factory Defaults' with a 'Load Default' button; and 'Update Firmware' with a 'Location' field (containing 'Choose file' and 'No file chosen') and an 'Apply' button.

Select **Device Management**.

Select **Restart**.

The screen will display **Rebooting**, this will stay on your screen indefinitely but the process only takes at maximum 10 minutes.

If after 10 minutes your system is still not connected refresh your page and then please try the steps again, or refer to our **Troubleshooting** steps on page 9.

WZ SERIAL NUMBER DONGLES

1. Accessing your WiFi settings

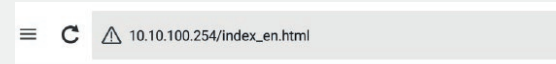


Access your **WiFi settings**.

Select the WiFi network that matches the dongle **serial number**.

Click **Connect** when it is visible (ensure **Connect automatically** is ticked).

2. Logging in to your local inverter WiFi settings

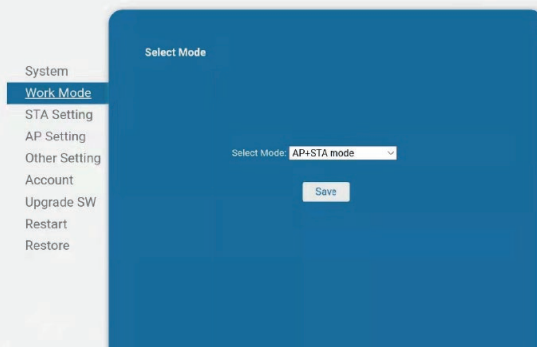


Open your **web browser** (preferably Google Chrome). Type **10.10.100.254** into the address bar.



When prompted enter:
Username: admin
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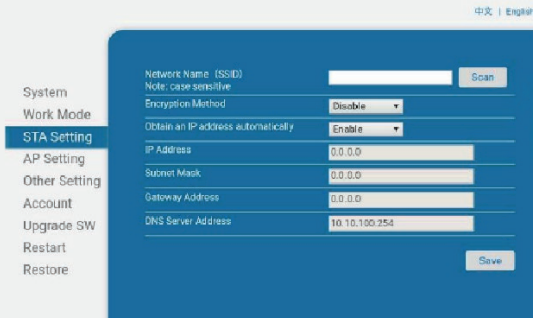


Select **Mode Selection**.

Select **STA mode**.

Click **Save**.

4. Connecting to your WiFi



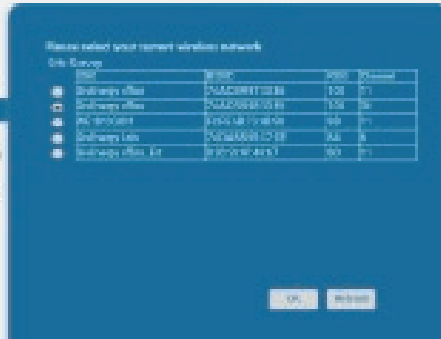
Select **STA Interface Setting**.

Click the **Search** button.

*Username and password may have been changed by your installer, to reset you will need to reset your dongle/internal WiFi. Please see page 9 on how to reset.

WZ SERIAL NUMBER DONGLES

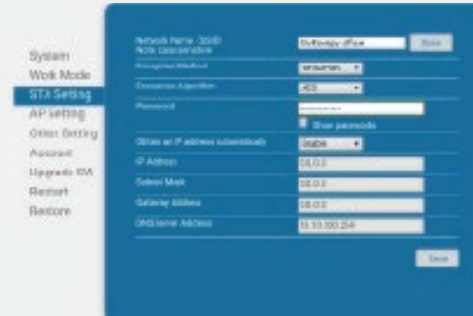
5. Selecting your WiFi network



Select your WiFi network from the list. Click **Apply**. Click **Refresh** if your network doesn't appear (see troubleshooting for more support).

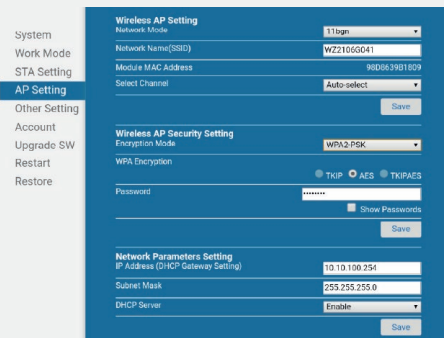
RSSI (signal strength) should be at least 60% for a reliable signal. A WiFi booster/extender may be required if signal strength is <50%. (See diagram)

6. Inputting your WiFi password



Note: If the desired network does not appear, you can manually enter it here. Enter the customer's WiFi password. Click Apply.

7. Re-securing your network



Select AP setting. Select WPA2-PSK from the drop down menu in Select Channel. Choose a password (inverter serial no. is recommended). Click Save.

8. Restart dongle

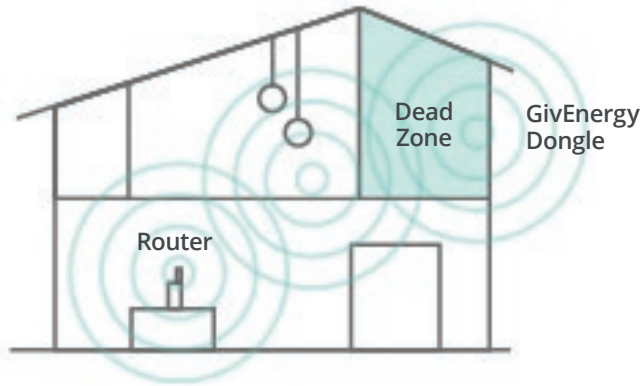


Select **Restart**.

The screen will display **Rebooting**, this will stay on your screen indefinitely but the process only takes at maximum 10 minutes.

If after 10 minutes your system is still not connected refresh your page and then please try the steps again, or refer to our **Troubleshooting** steps on page 9.

➤ ADDING A WIFI EXTENDER



When installing the inverter and the router is situated on the other end of the building, a WiFi extender may be needed for a good connection between the GivEnergy Dongle and the Internet router.



When installing the inverter into an outbuilding, such as a garage, the signal may not be strong enough to reach the dongle.

Position the WiFi extender approximately midway between the router and the inverter.

The SSID of the WiFi extender should be a different name from the customer's main network (i.e. add _EXT to the end).

The dongles only connect to a 2.4ghz frequency, if you have a dual band WiFi you will need to disable your 5ghz frequency.

▀ TROUBLESHOOTING

- ▀ All of our WiFi **only connects to 2.4 GHz** (not dual band), you may need to activate 2.4GHz frequency on your router. If you are unsure how to do that, please contact your internet provider.
- ▀ Our dongles channel to 7654 on the router. If there is a firewall in place, the dongle **will not be able to connect**. If you are unsure how to open available ports please contact your internet provider.
- ▀ If you cannot find the user's WiFi network, try **restarting the user's internet router**.
- ▀ Signal strength (RSSI) should be **at least 60%** for a reliable connection. A WiFi extender may be required if signal strength is lower than 60%.
- ▀ You can manually write in a network's SSID in the network name as well as your WiFi password and encryption if it does not show in the list of available WiFi networks.
- ▀ The USB plug on the dongles has 4 pins, the two outer pins are power and are longer, the two inner pins are data and are shorter - **make sure the dongle is screwed into the inverter**.
- ▀ When entering a password, remember that passwords are **case sensitive**.
- ▀ Only one device can be connected to the dongle at any one time. If multiple devices are connected, it may disconnect you from the dongle.
- ▀ If you change your WiFi try renaming your router to your previous router name and setting the same password, this should allow the dongle to automatically reconnect.
- ▀ If you can't connect to the dongle/internal WiFi as the W##### network is password protected - try your inverter serial number, if not **reset the dongle/internal WiFi**. This can be done by pressing the small button under the cover on the bottom of the dongle and holding down for 15 seconds. Please wait 30 minutes to allow the dongle to fully reset. Should the dongle not reset, repeat the process.
- ▀ If your device is disconnecting from the dongle forget all networks and turn data off on your device
- ▀ Ensure you're close to the inverter when configuring
- ▀ If you are an installer, ensure dongle is on the portal