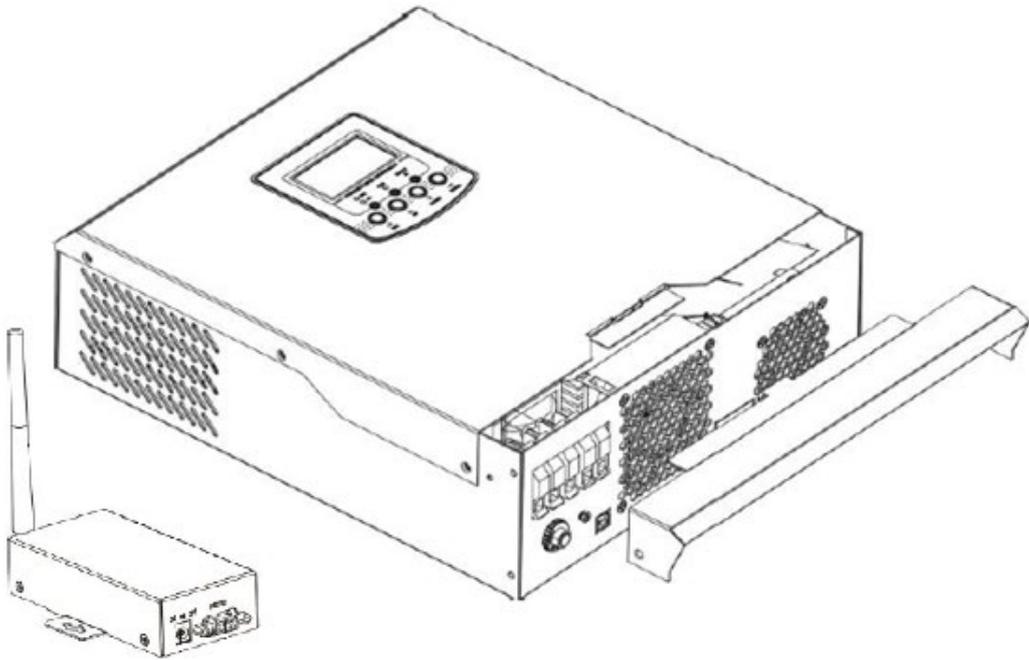# RENTECH INVERTER & WIFI BOX
Installation guide

1. **Inverter installation:** *Please refer to the installation manual for your specific inverter*
   a. Unbox the Inverter and remove the bottom cover panel to expose the connection screws.
   b. Connect the AC inputs and outputs. Double check to ensure you have not connected the incoming AC mains to the inverter's AC output by accident.
   c. Connect the battery and PV inputs. Once again double check polarities are correctly connected and the PV is not connected to the battery terminals.
   d. Ensure the incoming AC breaker to the inverter and inverter's AC output breakers to the load(s) are open. Start-up the inverter from battery power and ensure it is working correctly and no errors are displayed.
   e. Do the inverter setup the correct battery type and battery voltages and currents.
   f. Then only close the AC breakers and verify the system is working properly.

2. **Wi-Fi box Installation**
   a. Before you start, *take note of your Wi-Fi router's SSID, password and security type (None, WEP, WPA1, WPA2).*
   b. Screw in the provided antenna into the Wi-Fi box and connect it to the RS-232 port on the inverter. (Note: If your inverter does not have an RS232 connector, install the small RS232 board provided with the Wi-Fi box.)
   c. Once the installation is complete search for new wi-fi connections and connect to the "wificard" Wi-Fi network that your WiFi box is providing. If you do not see the "wificard" Wi-Fi network, do the following:
      i. Unplug the Wi-Fi box and remove the Wi-Fi box cover and move the UC2 jumper from pins 1-2 to pins 2-3 for factory default settings.

      ii. Reconnect the Wi-Fi box serial connector to the Inverter.
      iii. Move the UC2 jumper back to pins 1-2.
      iv. Connect to the "wificard" Wi-Fi network.
   d. Open your browser and enter 192.168.1.1 into the URL bar.
   e. Click on "Application Config" and set the time zone to the correct one you are in (UCT+2 hours for SA) and set daylight saving time to the applicable state. Click "Apply" once you have done this.

f. Click on "Network Config" and scroll down to "Add Profile". Enter your Wi-Fi network details and once filled in click on "Add".

     i. *NB: You must select the same network security type as for your router otherwise the router will not allow the Wi-Fi box to connect.*

g. Scroll to "Device Role" and set the "Mode" to "Station" and click on "Apply". After 5 seconds, unplug the Wi-Fi box and plug it back in to put the settings into effect.

h. If you made any mistakes or want to reset the Wi-Fi box to its factory settings, follow the steps in point 1.c. above.

3. Embedded Webserver

a. Open a new browser tab and re-enter the URL "192.168.1.1" and navigate to the device list to find the new IP address of the Wi-Fi box. (The "wificard" with its new IP address should be listed under your router's Advanced settings / Network / LAN /DHCP Client list.)

b. Once you have found it, type it into an URL bar to access the embedded webserver.

c. On the "System Information" screen, you will be able to see the status of the Wi-Fi box and its communications to and from the inverter and the webserver. Scroll down to the "SN" line and copy the inverter serial number.

4. Data server

a. In a new browser tab enter http://power-datacenter.com.

b. Follow the steps to register a new account if you do not already have one.

c. Log into your account and at "Location Manager" click on "Go >>".

d. Add the details of the site to create a new location.

e. Go back to the home page and click on "Go >>" at "Device Manager".

f. On the "Bind device" tab, enter the inverter's serial number in the "Device" field, complete the other fields and click on "Bind".

     i. Note that if you have multiple inverters in parallel, and the Wi-Fi box is connected to the master inverter, all will be shown on the Wi-Fi box webserver and all can be bound here.

     ii. BUT the current version of the Wi-Fi box can only log the detail data of the inverter to which it is connected. If you want to log all the inverters' data, each will require a Wi-Fi box.

g. Go back to the home page and click on "GO >>" at "Monitor" to check that the setup was successful.

h. The location should be displayed with information about the status of the system.

i. Click on browse to view the information and data sent to the server.

j. Go back to the home page and click on "Go >>" at "User Manager".

k. Click on "Create" and add the details of the user that will be viewing the data. You can also set the role of the user during this stage.

l. Go back to the home page and to the "Device Manager" page and click on "Assign device". Here you can assign the device to the end user that will be seeing the information.