Service Bulletin

Wi-Fi box: Multiple Inverters

The Wi-Fi box is designed to allow several functions that the Wi-Fi stick is not designed for. One of these is to connect directly to Ethernet cable in areas where the Wi-Fi signal from the site is intermittent or not existent. There may be several reasons for this: long distance to the router, obstructions between the router and the inverter or the external building materials of the site contain wire mesh, as in stucco exteriors, or other metals that attenuate the signal from the router.

In addition, the Wi-Fi box also allows the connection of multiple inverters to a single Wi-Fi or wired connection. Up to 10 inverters can be connected to a single Wi-Fi box. The connection is easy, using the supplied cable to connect to the inverter MODBUS interface and then to the Wi-Fi box. The monitoring setup is very similar to the Wi-Fi stick with the exception of an option for cable connection on the setup page.

However, that is not the end of the installation of the Wi-Fi box. First, the Wi-Fi box is not rated for outdoor use and must be either housed in a water tight box or be placed indoors. Leaving the Wi-Fi box outside without some means of protection will cause the box to fail.

Next, we have to configure the inverters to have unique identifier or addresses. All inverters are shipped with a default address of "1" from the factory. With multiple inverters attached to a single WiFi box, the box can't identify which inverter it is communicating with if they all have the same address. So, we change the addresses on all but one of the inverters to something else. I suggest making them sequential. For instance, if you have 3 inverters on site, leave one at address "1" and set the others to "2" and "3". Remember to record these for future reference. If you must replace one of the inverters, you want to set the new inverter to the same address as the one you removed.

Setting the address is quick and easy.

From the main screen, Press the ESC button

Press the DOWN button until "SETTINGS" appears

Press the ENTER button to select "SETTINGS"

Press the DOWN button until "SET ADDRESS" appears

Press the ENTER button to select "SET ADDRESS"

Press the UP or DOWN buttons to change to the desired address

Press the ENTER button to save the address

Press the ESC button to return to the previous menu