



## TECHNICAL NOTE

### Sunny Boy US Inverters – 3<sup>rd</sup> Party Wi-Fi Options

This Technical Note is applicable to the following inverter types:

Inverter

**Sunny Boy 3.0/3.8/5.0/6.0/7.0/7.7-US**

Type designation

**SB x.x-1 SP-US-41**

Worldwide demand for electronic components is elevated, leading to shortages for numerous manufacturers, including SMA. As a result, until further notice, certain Sunny Boy inverters cannot be produced with the built-in WLAN (Wi-Fi). These model Sunny Boys have external stickers noting **NO WLAN INTEGRATED**. As a consequence, if Wi-Fi connectivity is desired, you will have to buy a 3<sup>rd</sup> party device such as the options listed below. This will allow commissioning via a smart phone, tablet, or laptop; and connection to a customer's existing Wi-Fi network. SMA does not endorse or recommend any particular manufacturer device, and the below are three options provided for illustrative purposes. Page 2 lists setup steps.



#### **Vonets VAP11G - 300 (~\$25)**

- Can connect USB and RJ45 directly to Sunny Boy
- [Vonets Product page](#)
- [Quick Start Video](#)



#### **Vonets VAR11G - 500 (~\$35, longer range)**

- Can connect USB and RJ45 directly to Sunny Boy
- [Vonets Product page](#)
- [Quick Start Video](#)



#### **TP-Link RE105 (~\$25)**

- Can connect CAT5e cable from Sunny Boy to TP-Link, then TP-Link can be plugged into a nearby electrical outlet. Follow Quick Guide.
- Easy WPS setup, Tether smartphone app, or via laptop
- [TP Link Product page](#)
- [Quick Start Videos](#)



**Step 1** - Check your Sunny Boy US-41 inverter model to confirm if it has built-in WLAN or NO WLAN.

**Step 2** - (if NO WLAN, and Wi-Fi is needed [not using CAT5e or Cellular] on the jobsite) Choose one of the 3<sup>rd</sup> party Wi-Fi bridge options (or your preferred choice), to allow the Sunny Boy to connect to the customer's existing Wi-Fi network. Make sure to get from the customer, the customer's Wi-Fi network name and password.

**Step 3** - (if Vonets type) After installing inverter, install the Vonets Wi-Fi bridge USB power cable and RJ45 cables to the Sunny Boy USB and Network A slots, respectively. Max power 2W. Take photo of back of Vonets. Connect Sunny Boy LCD display and securely close the inverter cover.

**Step 4** - Turn ON inverter (AC & DC). Follow the Vonets Quick setup instructions provided in the box, and contact Vonets for support if needed. [Quick Start Video](#) or YouTube.com > Search "vap11g-300 with smart phone". A smart phone, tablet, or laptop can connect wirelessly to the Vonets Wi-Fi bridge; then follow the setup wizard, search for, and choose the customer's Wi-Fi network, and enter the password.

**Step 5** - Wait a few minutes for the inverter to startup and receive an IP address. Tap on Sunny Boy's LCD screen to switch up to the message E-IP: 169.254.xxx.xxx. Take a photo of this for use on the next step.

**Step 6** - Using a device (smart phone, tablet, or laptop) that is on the customer's Wi-Fi network, open a web browser and enter the inverter E-IP in the address bar of a web browser. This should direct you to the Sunny Boy's Web User Interface (click advance/continue/proceed if presented with a security screen).

**Step 7** - Choose User group and create a password for the User group (provide to owner). Click Save. Then, choose Installer group, and create a password for the Installer group (save for records). Click Save.

**IMPORTANT:** *The Installer password is also the system password when registering in ennexOS Sunny Portal, so choose the same password for all SMA inverters to be registered in the same ennexOS.SunnyPortal.com system.*

**Step 8** - Click Start the Installation Assistant, and complete. TIPS: Ethernet. (If using SMA JMS-Fs for RSD) "SunSpec shutdown" > Secure Power Supply "No". For notifications String-Failure Detection "On." Ensure inverter has Device status OK, and has expected Current power readings.

**Step 9** - Register inverter(s) via [ennexOS.SunnyPortal.com](http://ennexOS.SunnyPortal.com) > Configuration > Create system. Make sure to Add User with the System owner's name and email, so they can view it.

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