Quick Guide
WiFi Kit S-WE02

This manual is suitable for firmware version of H4.01.40Y2.0.02W1.0.03 +.
WiFi Kit S-WE02 is an external data logger in the SolarMAN PV monitoring series.

By connecting with single or multiple inverters through RS485/422/232 interface, the Kit can collect information of PV systems from inverters. With the integrated WiFi function, the Kit can connect to router and transmit data to the web server, realizing remote monitoring for users. In addition, Ethernet is also available for connection to router, enabling transmission of data.

Users can check the runtime status of the device by checking the 4 LEDs on the panel, indicating Power, 485/422, Link and Status respectively.

A : Unpack

B : Install data logger

C : Connect data logger and inverters

D : Connection setting

E : Register on SolarMAN Portal

F : Log in SolarMAN Portal to manage power station

G : Debug

H : Contact
This Quick Guide is intended to assist users in quick installation and start of WiFi Kit S-WE02. If any problems, please refer to corresponding chapters of S-WE02 User Manual for details.

A: Unpack

I. Checklist

After unpacking the box, please make sure all the items are contained as follows:

1. 1 PV data logger (WiFi Kit S-WE02)
2. 1 power adapter with European or British plug or other suitable plug
3. 2 screws
4. 2 expandable rubber hoses
5. 1 Quick Guide
II. Interface and connection

Notice: Some products may use RS232.

B: Install data logger

WiFi Kit can be either wall-mounted or flatwise. Please refer to User Manual for details.
**C: Connect data logger and inverters**

**Notice:** 1. Power supply of inverters must be cut off before connection. Make sure that all connections are completed, then power the data logger and inverters, otherwise personal injury or equipment damage may be caused.

2. Basic version of WiFi Kit with RS485/422 port can be connected to up to 4 inverters at a time; Advanced version may support up to 32 devices. WiFi Kit with RS232 port can be connected to 1 inverter at a time.

**I. Connection with single inverter**

Connect inverter and data logger with network cable, and connect data logger and power supply with power adapter.
II. Connection with multiple inverters

1. String connect multiple inverters with network cables.
2. Connect the first or last inverter in the string to data logger with network cable.
3. Connect data logger to power supply with power adapter.

Notice: The connectors of the connection cable may differ according to the brands and models of connected inverters.

III. Line order of connector to WiFi Kit

Order

Line order
1. White Orange
2. Orange
3. White Green
4. Blue
5. White Blue
6. Green
7. White Brown
8. Brown
IV. Confirm connection

When all connections are finished and with the power on for about 5 minutes, please check the 4 LEDs. If POWER, RS485/422 and STATUS are permanently on, the connection should be successful. If any problems, please refer to G. Debug.
**D: Connection setting**

The Kit can transfer information via either WiFi or Ethernet, users may choose the appropriate method accordingly.

The configuration of the Kit may be set via PC or APP tool for iPhones and smart phones with Android operating system. Please visit App Store or Google Play to get SolarMAN App for free.

**I. Connection via WiFi**

*Notice: The setting hereinafter is operated with Windows 7 for reference only. If other operating systems are used, please follow the corresponding procedures.*

1. Prepare a computer or device, e.g. tablet PC and smartphone, that enables WiFi.

2. Obtain an IP address automatically

   ① Open **Control Panel** and click **Network and Sharing Center**
2. Click **Local Area Connection**, and click **Properties**, then double click **Internet Protocol (TCP Version / Ipv4)**

3. Select **Obtain an IP address automatically**, and click **OK**
3. Set WiFi connection to the data logger

① Click the network icon at bottom right of the screen.

② Select wireless network of the data logger, no password as default. The network name consists of AP and the serial number of the product, then click Connect.
Notice: If AP_{(serial number of product)} is not available in the wireless network list, there may be problems in the connection or setting of data logger. Please refer to User Manual for troubleshooting.
4. Set parameters of data logger

1. Open a web browser, and enter **10.10.100.254**, or **http://wifi/** then fill in username and password, both of which are **admin** as default.

Supported browsers: Internet Explorer 8+, Google Chrome 15+, Firefox 10+
② In the Status page, you can view general information of the data logger.

③ Follow the setup wizard to start quick setting.

(a) Click **Wizard** to start, then click **Start** to continue.
(b) Select **Wireless connection**, and select the type of your inverter, then click **Next**.

(c) Click **Refresh** to search available wireless networks, or add it manually.
(d) Select the wireless network you need to connect, then click Next.

**Notice:** If the signal strength (RSSI) of the selected network is <15%, which means unstable connection, please adjust the antenna of the router, or use a repeater to enhance the signal.

The SSID of your selected router network should be less than 30 characters, in which characters such as ‘&’, ‘#’, ‘%’, blank space should not be included.
(e) Enter the password for the selected network, then click Next.

**Notice:** The password is being verified, please wait for a while. If you have entered an invalid password or encryption method, an error notice will pop up. Router password cannot be recognized if it contains any character such as `&`, `#`, `%`, and blank space.
(f) Select **Enable** to obtain an IP address automatically, then click **Next**

![Wizard configuration screen](image)

(g) Enhance security settings of the WIFI Kit by selecting any options as listed, then click **Next**

- **Option1**

![Enhance Security screen](image)

If you choose to **Hide AP**, the SSID of the AP network for your WiFi Kit will be invisible on your wireless network list. Please reconfirm the IP address of the WIFI Kit on your router before you log in this server next time.
If you wish to change the **encryption mode** of the AP network, you will need to enter the correspondent encryption method and password before you connect to this WIFI Kit next time.

If you wish to change the user name and the password of the Web server, please enter the new username and password when you need to re-log in this server.
(h) If setting is successful, the following page will display. Click **OK** to restart.

(i) If restart is successful, the following page will display. If this page does not display automatically, please refresh your browser.
(j) Re-log on the setting page and check Status page after the Web server is restarted.

After network setting is complete, the Wireless STA mode should be enabled and relative information of your router will display on the interface automatically. Remote server A should be pingable as shown in the following picture.
II. Connection via Ethernet

1. Connect the data logger to the router via Ethernet port with network cable. Make sure that your computer and the data logger are connected within the same local area network.

2. Reset the data logger.

Press the reset button with a needle or open paper clip and hold for a while when the 4 LEDs should be the same as before. Reset is successful when 3 LEDs, except POWER, turn off.

3. Enter the configuration interface of your router, and check the IP address of the data logger assigned by the router. Open a web browser and enter the assigned IP address to get access to the configuration interface of the data logger. Fill in username and password, both of which are **admin** as default.

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*Supported browsers: Internet Explorer 8+, Google Chrome 15+, Firefox 10+*
1 Click **Wizard** to start, then click **Start** to continue.

2 Select **Cable Connection** and the type of your inverter, and you can choose to enable or disable the wireless function, then click **Next**.
Please refer to Step (f) to (j) from page 15 for the following procedures.

**E: Register on SolarMAN Portal**

*Open a web browser and visit the portal website:*
http://www.solarmanpv.com/portal

*Supported browsers: Internet Explorer 8+, Google Chrome 10+, Firefox 9+, Safari 4+

1. Click **Register Now**
② Fill in your email address and password, then click Next

③ Fill in the information as required, then click Complete
If registration is successful, the following page will display. Click OK to return to the homepage of the portal.

**F: Log in SolarMAN Portal to manage power station**

After successful registration, open the login page of SolarMAN Portal, and input your E-mail and password to access the monitoring system and start monitoring and management of power plants.

**Notice**: If users access the monitoring system for the first time within ten minutes after successful registration, please check the "Real Time" interface. If there are data shown in the Real Time interface, network setting of data logger and other connection are deemed successful.
G:Debug

I. LED indication

<table>
<thead>
<tr>
<th>LEDs</th>
<th>Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>On</td>
<td>Power is normal</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Power is abnormal</td>
</tr>
<tr>
<td>LINK</td>
<td>On</td>
<td>Connection between data logger and inverter is normal</td>
</tr>
<tr>
<td></td>
<td>Flashing</td>
<td>Data is transmitting between data logger and inverter</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Connection between data logger and inverter is abnormal</td>
</tr>
<tr>
<td>STATUS</td>
<td>On</td>
<td>Connection between data logger and server is normal</td>
</tr>
<tr>
<td></td>
<td>Flashing</td>
<td>Data logger is under cable connection or AP mode of wireless connection</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Connection between data logger and server is abnormal</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>Data logger works normally</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Data logger works abnormally</td>
</tr>
</tbody>
</table>
### II. Trouble shooting

<table>
<thead>
<tr>
<th>Phenomenon</th>
<th>Meaning</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Off</td>
<td>No power supply</td>
<td>Connect power supply and ensure good contacts.</td>
</tr>
<tr>
<td>RS485/422 Off</td>
<td>Connection with inverter is abnormal</td>
<td>Check if router can connect to Internet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure the stability of RJ-45.</td>
</tr>
<tr>
<td>LINK Flashing</td>
<td>Wireless connection is under AP mode</td>
<td>Ensure that inverter is working under normal condition.</td>
</tr>
<tr>
<td>LINK Off</td>
<td>Connection to remote server failed</td>
<td>Check if the device is covered by the signal range of the router.</td>
</tr>
<tr>
<td>Status Off</td>
<td>Data logger works abnormally</td>
<td>Check if the antenna is loose or falls off. If so, please screw to tighten.</td>
</tr>
<tr>
<td>Weak WiFi</td>
<td></td>
<td>Please refer to User Manual for further information or have the data logger tested with the diagnosis tool.</td>
</tr>
</tbody>
</table>

**Note 1:** Please check the status of these 4 LEDs about 5 minutes later after the data logger is powered on.

**Note 2:** When screw or adjust the antenna, please note that only the metal part can be touched, and do not screw the plastic part, otherwise the antenna may be damaged.

**Note 3:** If the equipment still fails to work upon above solutions, please contact your device customer service.

### III. Reset

Press the reset button with a needle or open paper clip and hold for a while when the 4 LEDs should be on. Reset is successful when 3 LEDs, except POWER, turn off.
Contact

If any technical problems, please contact us, with the following information in hand:

- Device model
- Serial number of product
- Number of inverters connected
- Problem description
- Screenshot of Status page

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