



Quick Manual

Ver. 1.0

Mono **X**® ACe

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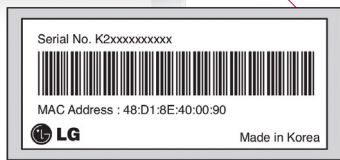
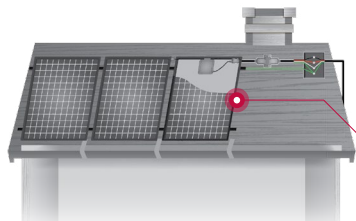
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A Installation Complete of AC module on Roof

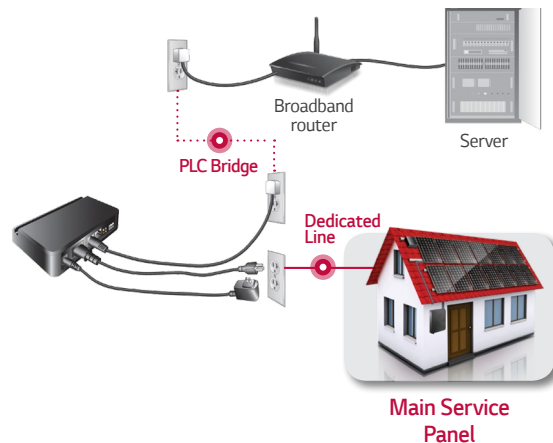


- 1 Peel off the bar code sticker of all AC modules.
- 2 Put it on a paper to make a map of AC module system
- 3 MAC Address of the AC module will be located on the bar code sticker.
- 4 EnerVu website will identify each AC module by its MAC Address.
- 5 If any installation problem occurs, please refer to Appendix A.

Install EnerBox

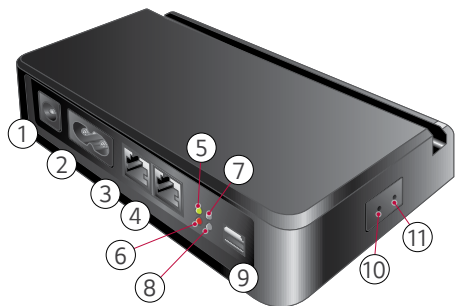
Install EnerBox

B Install a Dedicated Outlet and Plug In EnerBox



- 1 Install a dedicated outlet connected directly to the main service panel. Using enclosure for dedicated outlet is at installer's choice.
- 2 To bridge the router and the EnerBox in enclosure, PLC Bridge is usable. WLAN Bridge can be used, but it may not send or receive a signal in the enclosure.
- 3 LG supplies 1set of PLC Bridge for free of charge. Please ask your distributor for free PLC bridge.
- 4 For PLC Bridge, more than 500Mbps model is strongly recommendable.

C Check the status of LED Lamp of the EnerBox



- 1 All 3 LED Lamps (AC Power ⑤, PLC ⑦, WLAN ③) should turn **GREEN**.
- 2 This should take max 1 Minute for all lamps to turn **GREEN**.
- 3 LED lamp (GFDI ⑥) has only one color, **RED**. This lamp should ALWAYS be off. If it is ON, this signals a ground faulting problem.
- 4 If only one of the lamps is not **GREEN**, (Either ⑤ or ⑧), then please refer to the installation manual.
- 5 EnerBox should have [blue dot sticker] on the ③ Outer box and ④ on the bottom of EnerBox. If not, contact to distributor.

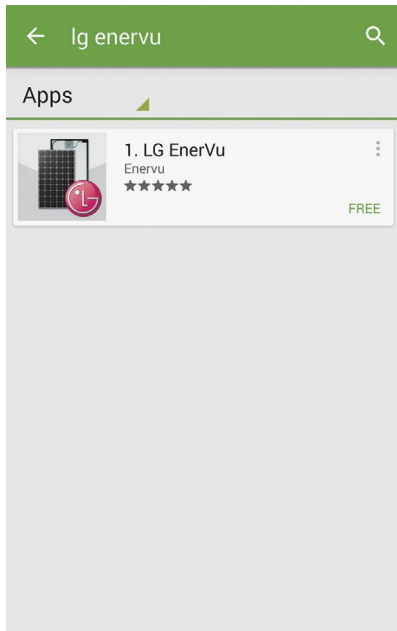
D Connect Mobile Device to EnerBox



Default WLAN Name : LGE_EnerBox
Default Password : 87654321

- 1 The EnerBox will produce a WLAN signal for your mobile device to connect to. Connect your mobile device to WLAN.
Default WLAN Name : LGE_EnerBox
Default Password: 87654321
- 2 If you cannot find the WLAN on your mobile device, make sure that the WLAN on your mobile device is turned ON. Once the EnerBox is turned on, it will automatically produce a WLAN signal.

E Download EnerVu App



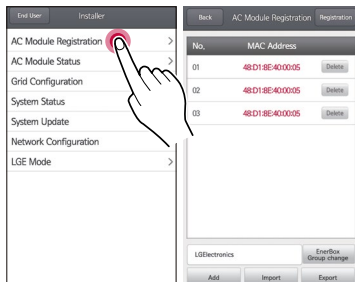
Download and Install the "LG EnerVu" App on your mobile device - Search the name "EnerVu" on your Apple App or Google Play store.

F Installer Mode



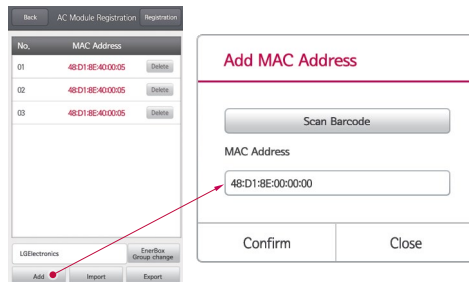
Installer Mode - Press the **LG EnerVu** for 3-5 seconds. This will direct you to the Installer Mode of the "LG EnerVu" APP.

G AC Module Registration



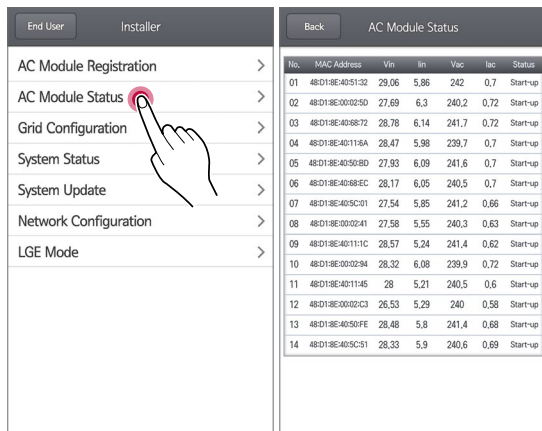
- 1 Click on **AC Module Registration** >
- 2 Find the MAC Addresses for all the AC Modules.
- 3 The number of MAC address will be equal to the number of AC module installed on the rooftop. The MAC Addresses will be found on the bar code sticker in Step A.
- 4 Once all AC Modules are listed, then press **Registration**. If not, Do not press **Registration** and refer to rear page. If you pressed Registration button before listing all AC modules, refer to rear page as well.
- 5 After pressing **Registration**, LED color of PLC Lamp ⑦ will turn **ORANGE** for about 5 seconds per module. [**ORANGE** means updating]. Once updating is completed, the PLC Lamp will automatically turn **GREEN**.

G AC Module Registration (Trouble Shooting)



- 1 If all AC Modules are not detected or you pressed **Registration** button before listing all AC modules, please proceed followings.
- 2 Find out MAC address that has been installed on rooftop that are not being seen on APP. MAC address can be found a Map of AC Module System made at Step A.
- 3 Make sure that same MAC address should not be input twice.
- 4 Press **Add** button and input the new AC module MAC address into popup screen like above.
- 5 Check if new MAC Address was input correctly at the end of MAC address list.
- 6 Press **Registration** button.
- 7 Go to **AC Module status** > to check if new MAC address is correctly registered.

H AC Module Status



- 1 Make sure all AC modules are not displayed in Red. Red means bad communication between EnerBox and AC module.
- 2 There are more than one AC module in red, go back to previous page and press AC Module status > again.
- 3 Communication between AC modules and EnerBox is updated by every 15 minutes. Red continues more than 15 minutes, call to LG service call center. (1-888-865-3026)

H AC Module Status

- 1 Check if all AC Modules are displayed as [Start-up] after 15 minute.
- 2 If any AC modules are under faulty condition, there are a number of reasons. Look at the installation manual for more detailed trouble shooting.
 - Notice #1, #2 AC Voltage High / Low
 - Notice #3 AC Frequency Changing Too Fast
 - Notice #4, #5 AC Frequency High / Low
 - Notice #6 Wireless LAN Notice
 - Notice #7 EnerBox Not Reported
 - Error #1 DC Voltage High
 - Error #2 DC Current High
 - Error #3 AC Current High
 - Error #4 Inverter Failure
 - Error #5 Temperature Protection
 - Error #6 PLC Modem Alert
 - Error #7 DB File Error
 - Alert #1 GFDI
 - Alert #2 SD Card Alert

- 3 Remember to check which utility grid system you are working with. If you are not working with our default system (Single phase 240V), then go to Appendix B, and upon completing Step I, repeat Appendix B.

Network Connection (Quick Setup)

Back Network Connection

Quick Setup Set

Manual Setup Set

Select Service Type Set

☒ ON

- 1 Click on **Set** button at **Quick setup** to finish network connection.
- 2 When [All settings have been completed] pop up is on, you click on **ON** button at **Select Service Type** to finish automatic network configuration and send information from EnerBox to EnerVu Webserver.
- 3 When error pop up is on, please refer to direction at the rear page.

Network Connection (Trouble Shooting)

Error Message

[The settings were not completed.
Please try again.]

If the reason for incomplete is followings,
please refer to following direction

- 1 Time Sync, NTP Setting, Web Server Setting
 - ▶ Please redo **Quick setup** again
 - ▶ Please do **Manual Setup**
if still fails after this, call to LG service call center (1-888-865-3026)
- 2 Ethernet Setting
 - ▶ Please do **Manual Setup**

Network Connection (Manual Setup1)

Back Network Connection

Manual Setup Set

Time Synchronization Set

Ethernet Setting

IP

Netmask

Gateway 192.168.1.1 Set

☒ Ethernet Auto Settings

NTP Setting

NTP Server time.nist.gov Set

Web Server Setting

URL http://acgw.us.enervu.lg-solar.com Set

Web Server is not connected Check

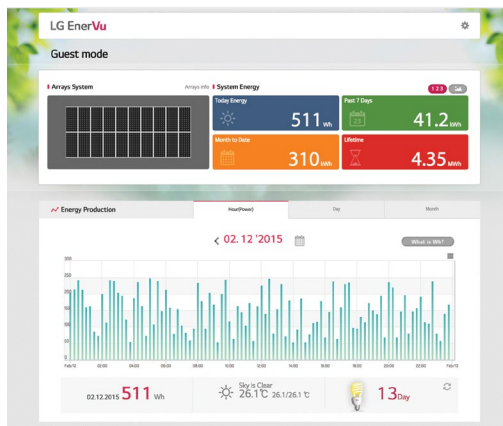
Select Service Type Set

- 1 Please follow steps in rear pages.
Do not skip any steps.
Must click **Set** from steps 1-6 in order
for the system to configure properly.
- 2 Skipping or clicking **Set** out of order may
result in Network connection error.
- 3 This is merely final step of the APP setup of
the EnerBox.
Must set up on the EnerVu Web Server and
sign up to monitor your system.
- 4 Serial Number sticker at the bottom of
EnerBox is necessary to register in EnerVu.
Bring it with you.

Network Connection (Manual Setup2)

- 1 Click **Time Synchronization** to sync
the time zone of the EnerBox and web server.
- 2 The IP address is assigned from the broadband
router automatically.
Check the Ethernet Auto Settings.
**In case of static IP, manually input IP, Netmask,
EnerBox address and Click Set.
- 3 Click **Set** to automatically set NTP (Network
Time Protocol - real time sync)
**If you are operating an iPhone, you need to
input manually "time.nist.gov" in the space.
- 4 Click **Set** to automatically set Web Server
(EnerVu web address).
**If you are operating an iPhone, you will need to
input manually.
"http://acgw.us.EnerVu.lg-solar.com" into the space.
- 5 **Check** the Web Server connection.
If connected then it should say,
"Web Server has been connected."
If not connected then it should say,
"Web Server is not connected."
- 6 Select **On** and click **Set** button to finish
web server activation.

J Sign EnerVu webpage to monitor the EnerBox



1 <http://EnerVu.lg-solar.com/installer>
for Installer

※ Sign in for the end-customer :
<http://EnerVu.lg-solar.com/>

2 For detailed information on setting and operating the web server, you can find downloadable manuals in the web addresses below :

Download route

1) www.lg-solar.com

2) <http://EnerVu.lg-solar.com/support/downloads>

Set up Web

Set up Web

K System and End User Infor

1 Log in to Installer Menu (not End User)

2 Click on **Activation** – **Add a new system**

3 Input PV system information and click on **Save**

4 Input EnerBox Serial number and click on **Save**

5 Check if registered EnerBox serial number has all installed Micro Inverter

6 Click on **Save and Open EnerVu Design**

7 Drawing PV system array using EnerVu Design

8 Input End user information and click on **Save**

9 Click on **System Activation**

K System and End User Infor

The screenshot shows the 'ACTIVATIONS' page in the LG EnerVu system. The page is divided into several sections: 'System Info', 'Location', 'EnerBox', 'Installation', 'End User', and 'Summary'. A sidebar on the left contains links to 'DASHBOARD', 'SYSTEMS', 'ACTIVATIONS', and 'ACCOUNT'. A top navigation bar shows 'Add a New System' and 'In Process'. A right sidebar contains a checklist of steps: 01 System Info Entered, 02 Add MAC Region, 03 Array Built, 04 End User Confirmed, and 05 System Activated. A red box highlights the 'Save' button at the bottom right of the 'System Info' section. A red box highlights the 'Check' button at the bottom right of the 'Location' section. A red box highlights the 'Save and Open EnerVu Design' button at the bottom right of the 'End User' section. A red box highlights the 'Save' button at the bottom right of the 'Installation' section. A red box highlights the 'Save' button at the bottom right of the 'Summary' section.

1. System Info and Location fields.

2. EnerBox S/N and Grid Connected fields.

3. Save and Open EnerVu Design

4. End User information.

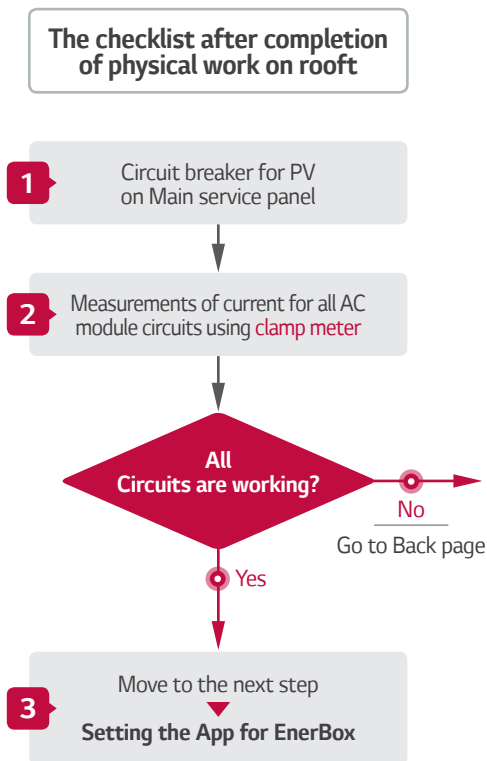
5. Save and Open EnerVu Design

K System and End User Infor

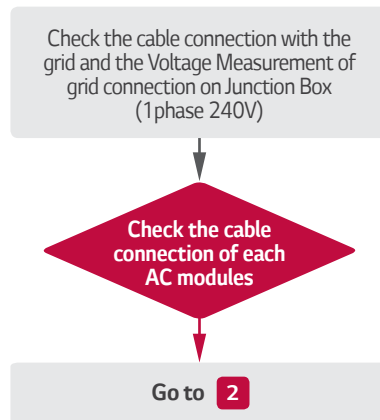
- Input **System Info** and **Location** fields.
 - Weather service is based on the city and zip code. Input correctly.
 - Must click on **Save**
- Input the EnerBox serial number and click **Check** if the serial number is correct, EnerVu can get the micro inverter information from that EnerBox. Proceed next step (Step 3) even if you find missing micro inverters since it might sometimes take more than a day to receive all micro inverter information.
- Click on **Save and Open EnerVu Design** for array design.
- Input End user information and click on **Save**
 - When end user is already signed in, **Existent email address** pop up is on
 - When end user is not signed in, **Non Existent email address** pop up is on
- Click on **System Activation**

Appendix A Physical Check-Up of Installation Before Web and App Setup

Job Site Works



Appendix A Physical Check-Up of Installation Before Web and App Setup



Current figures will depend on

- series of AC module
- Irradiation condition
- Rated maximum current :
1.27 A per each module 1 phase 240V

In case of 20EA modules are installed

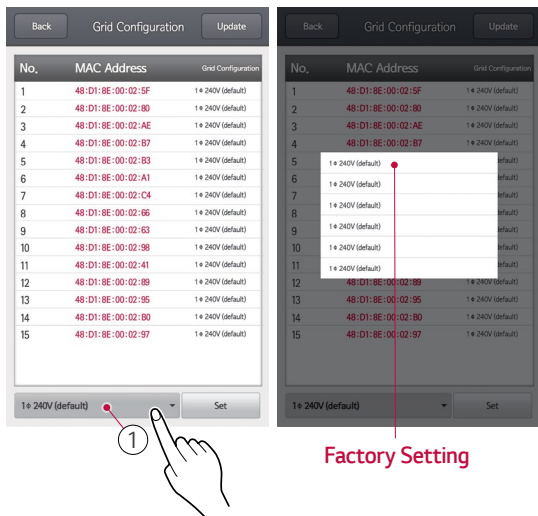
- String 1 : 12 EA
- String 2 : 08 EA

Assumption :

Measurement value of current for "string 1" is about 12A under operation condition, current value for "string 2" will be close to 8A.

- ▶ It will depend on irradiation and temp conditions.

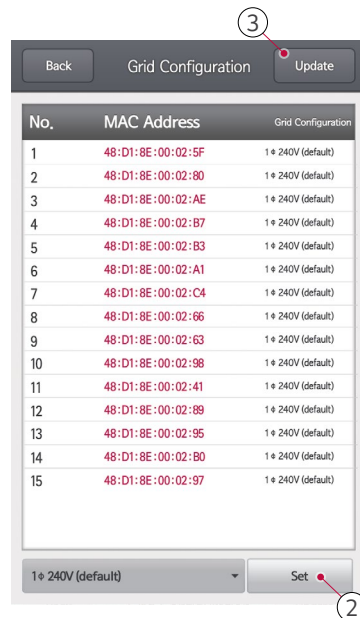
Appendix B Grid Configuration [Optional]



*** This is an optional step if you are not working with a single phase 240V grid system**

- 1 Enter into Grid Configuration and set the grid configuration to suit your environment. If the grid configuration is wrong, AC modules may not operate correctly.

Appendix B Grid Configuration [Optional]



- 2 Press the Set button. It takes about 5 seconds per module for setting.
- 3 Press the Update button and check that the selected grid setting is correct. If all AC modules are not updated, please try again.

Important Notice

1 LG Call center service call **1-888-865-3026**
operation hours : 6 am - 4 pm PST

2 LG supplies free of charge PLC Bridge. Please
ask your distributor.

3 More than 500Mbps PLC Bridge is strongly
recommendable.

Compatible PLC Bridge List

1. TPL-406E2K/A (TRANDNET)
2. TL-PA4010 (TP-LINK)

4 Compatible Clip for Trunk cable management
in rear page.

Important Notice

Burndy ACC-F2-90

