LG

All In One System

- 120/240V Split Phase
- 60Hz

HOME 5/8 ENERGY STORAGE SYSTEM

QUICK COMMISSIONING GUIDE

LG

Life's Good

Home 5/8
All In One Energy Storage System
Commissioning Quick Guide

Home 5/8 Quick Commissiong Guide
Power Up & Set Up

Power up the Home 5/8 per the QIG, follow these steps exactly, please.

1 In the All-In-One (AIO) battery enclosure(s), turn ON the DC circuit breaker

2 In the Smart Energy Box (SE Box)

    a. Turn ON the Main Service circuit breaker

        i. If Partial Backup, turn ON Main Service circuit breaker outside of SE Box

        ii. Wait for touch screen to turn on (up to 30 seconds or so)

    b. Turn ON the circuit breaker for the AIO(s)

    c. Turn ON the circuit breaker for the PV inverter input

3 Return to the AIO "battery" enclosure

    a. Press and release the Power button, it will remain "pressed in" - ON position

    b. Press and HOLD the Black Start Button, until you hear click-click (up to about 6 seconds)

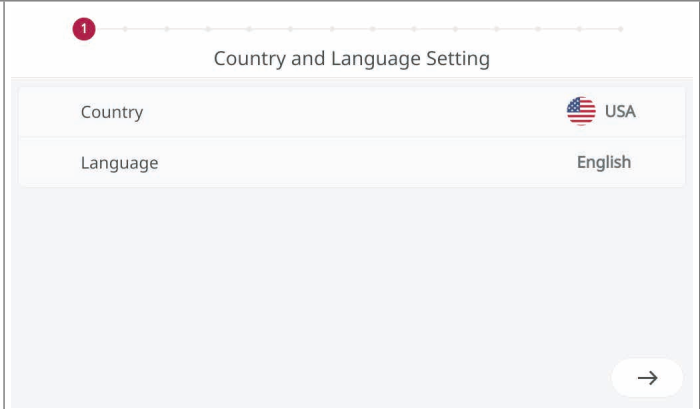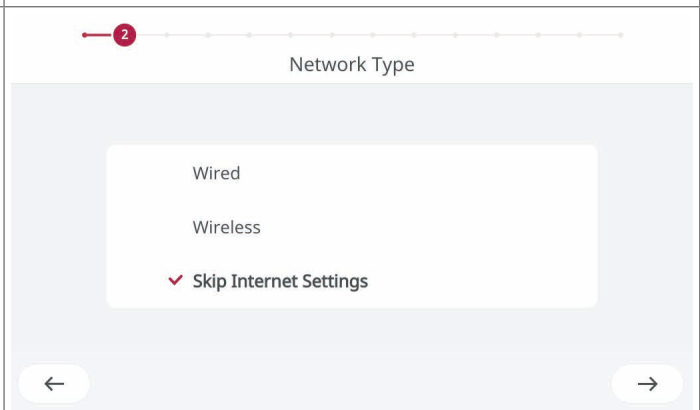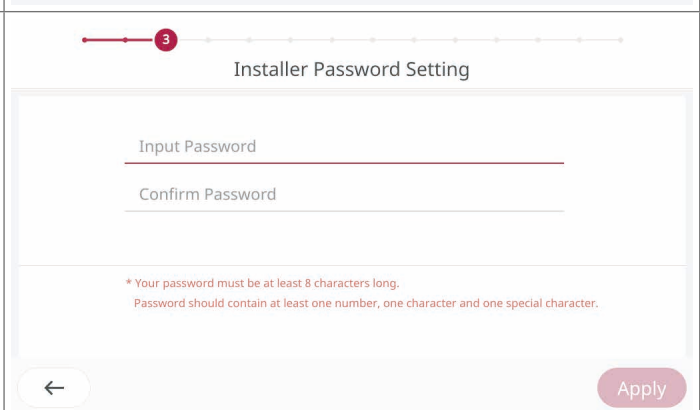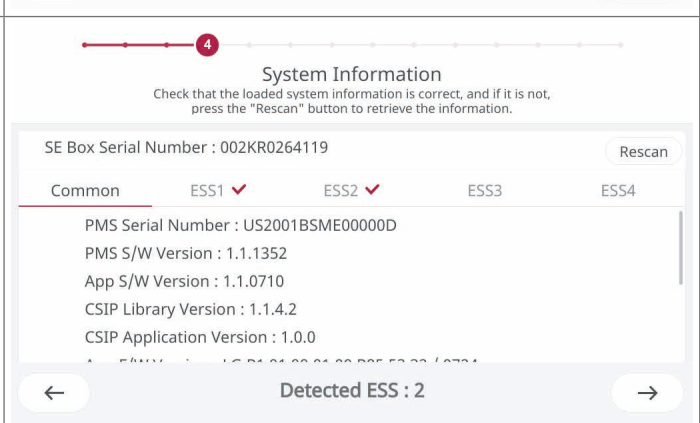4 Return to the SE Box, continue with Touch Screen Setup

Quick Commissioning Guide (QCG)

Set up | commission test | connect to Internet | enable system | ThinQ homeowner App setup

Easy to use TOUCH Screen

Full details in the Installation Manual > Installer and User Settings > page 89

1 Country and Language a. Touch arrow to advance	① Country and Language Setting Country — 🇺🇸 USA Language — English →
2 Network / Internet Connection a. **SKIP** Internet Connection for now b. Home 5/8 does not require Internet, App or laptop to commission c. Touch arrow to advance	② Network Type Wired Wireless ✓ Skip Internet Settings ← →
3 Installer Password Creation a. 8 characters minimum b. Requires (1) number, (1) letter, (1) special character c. Allows access to detailed PCS settings d. Write password on back of SE Box safety cover if desired e. Most installers prefer to use same password for all Home 5/8	③ Installer Password Setting Input Password Confirm Password * Your password must be at least 8 characters long. Password should contain at least one number, one character and one special character. ← Apply

4 System Information Check
 	
 a. Number of AIO (ESS) detected
 	
 b. Serial numbers
 	
 c. Software versions
 	
 d. Touch arrow to advance
 	
 e. ESS model name in each ESS tab.
  - Home5 : RA500K16A11
  - Home 5/8 : RA768K16A11
	④ System Information
	Check that the loaded system information is correct, and if it is not, press the "Rescan" button to retrieve the information.
	
	SE Box Serial Number : 002KR0264119　Rescan
	
	Common　ESS1 ✓　ESS2 ✓　ESS3　ESS4
	
	PMS Serial Number : US2001BSME00000D
	PMS S/W Version : 1.1.1352
	App S/W Version : 1.1.0710
	CSIP Library Version : 1.1.4.2
	CSIP Application Version : 1.0.0
	
	← Detected ESS : 2 →

Commission

5 Firmware

   a. Touch arrow to advance

   b. Firmware update will advance after system is enabled, and registered in ThinQ app

   c. No need to take vital install time to update here

Firmware Update

USB Status : UnPlugged

Current version   PMS : 1.1.1352   APP : 1.1.0710

ESS1	PCS	LG P1 01.00.01.00 R85 53.32	Battery	0724
ESS2	PCS	LG P1 01.00.01.00 R85 53.32	Battery	0724

Sync version

PCS	LG P1 01.00.01.00 R85 53.32	Battery	0724

←   Match Version   →

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6 Date and Time Settings

   a. Touch each field to update

   b. Auto Date and Time will set after Home 5/8 is connected to the Internet

Date & Time Settings

Timezone	New York
Automatic date and time	Auto
Date	Thu Jul 13 2023
Time	08:54 PM
Time format	12 Hour

←   →

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7 System Name, Install Date

   a. Touch/Enter System Name

   b. Most installers prefer homeowner last name/city/ESS, i.e. Smith Chicago ESS

   c. Touch/Enter install date

Additional System Information

System Name	My ESS
Installation Date	Apr 14, 2023

←   →

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8 Utility Information

   a. Touch/Enter utility company name

   b. Profile and Parameters are ok as is, for this stage

Utility Information

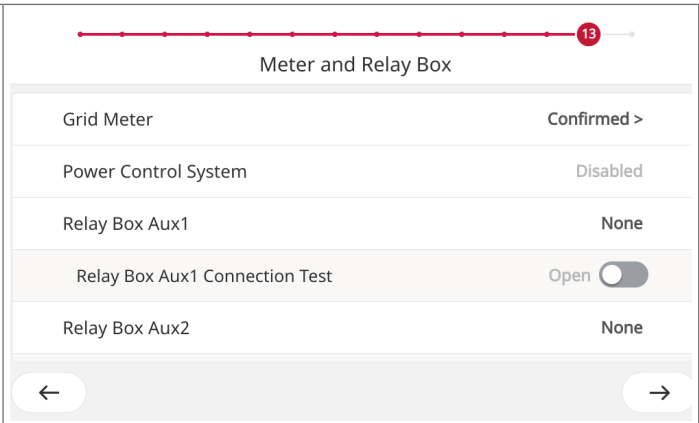| Utility Company	pgne
Grid Profile	UL1741SB
Network Settings	Edit >
Config Parameters	Edit >

←   →

9 PV Inverter Information

    a. Touch/Enable PV use

    b. Touch/Enter PV inverter AC output nameplate rating

    c. Touch/Enter PV DC array size

    d. To verify the power in PV meter

PV	
PV Inverter	Use ⬤
Rated Output Power	10.00 kW
Installed PV Panel Capacity	18.00 kWp
PV Meter	Confirmed >

← →

10 External E-Stop

    a. If installed, enable this button

    b. Port 1-2 can be skipped at this stage

External Device	
External Shutdown Switch	Not Installed ⬤
Port 1	None
Port 2	None

← →

11 Operating Mode

    a. Touch / choose Backup Only Mode for this stage

    b. Easily updated later, in ThinQ homeowner monitoring App

Operating Mode

✓ **PV Self-consumption**

Time of Use

Backup Only

← →

12 Backup and Battery Setting

    a. Touch slider to "Enabled" Backup Operation

    b. Change related battery parameters

    c. "If the Backup Operation is "Disabled", the installer cannot be updated related battery parameters.

    d. Touch Reserve Mode SoC

    e. Change to 10%

    f. Can be updated later if needed

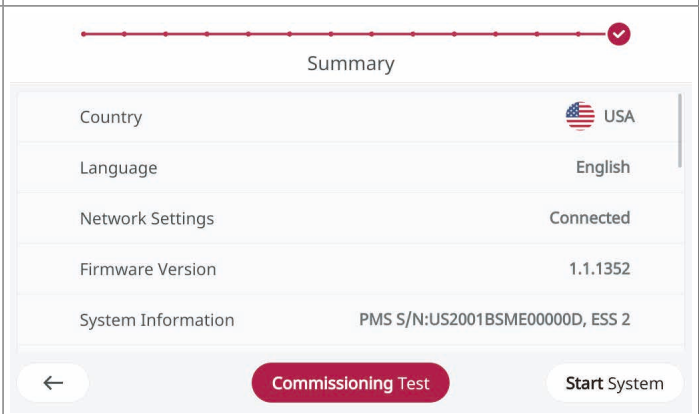   g. Touch arrow to return to Setup

    h. Touch arrow to advance

Backup and Battery Setting	
Backup Operation	Enabled ⬤
Backup Mode Grid Under Volt Level	88.0 %
Backup Mode Grid Under Volt Trip Time	0.3 ms
Backup Mode Start Freq Level	62.5 Hz
Reserve Mode SoC	0 %

← →

Commission

13 Meter and Breaker Size a. Touch Grid Meter b. To verify the power in L1 and L2 c. If you set the PCS (Power Control System) function, activate the Import Only function after entering the Power Control System and confirm. d. If you set up a Relay Box, proceed with a normal connection test after setting the Type. e. Touch arrow to advance	**Meter and Relay Box** Grid Meter — Confirmed > Power Control System — Disabled Relay Box Aux1 — None Relay Box Aux1 Connection Test — Open Relay Box Aux2 — None ← →
14 Summary a. Touch Commissioning Test	**Summary** Country — 🇺🇸 USA Language — English Network Settings — Connected Firmware Version — 1.1.1352 System Information — PMS S/N:US2001BSME00000D, ESS 2 ← **Commissioning Test** **Start System**

Home 8

Commission

Commissioning Test

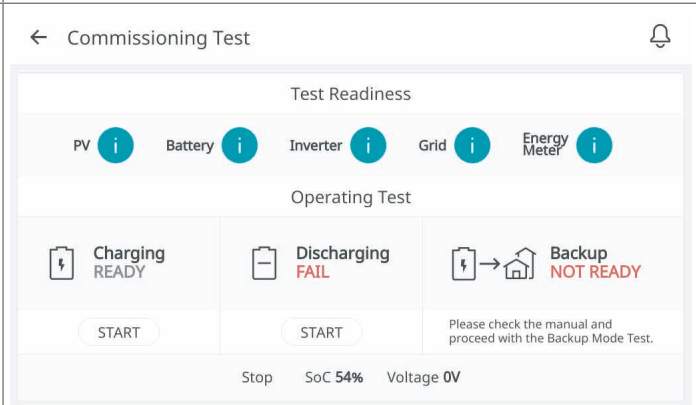|	
• All items require **green circle** to proceed. • If all **green**, touch Charging (READY) 5-minute wait period countdown, then test begins • If **FAIL** condition on any item (**red** triangle), touch triangle to see details, pursue error codes (Page 116 – Install Manual)	← Commissioning Test Test Readiness PV Battery Inverter Grid Energy Meter Operating Test Charging READY Discharging READY Backup NOT READY START START Please check the manual and proceed with the Backup Mode Test. Stop SoC 51% Voltage 0V
• Charging test will show "RUNNING", and progression bar with percent complete	← Commissioning Test Test Readiness PV Battery Inverter Grid Energy Meter Operating Test Charging RUNNING c Discharging READY Backup NOT READY 50% STOP Please check the manual and proceed with the Backup Mode Test. Charging Power 10.8kW SoC 54% Voltage 0V
• Complete test will return **SUCCESS**. Touch Discharging (READY), test will begin immediately	← Commissioning Test Test Readiness PV Battery Inverter Grid Energy Meter Operating Test Charging SUCCESS Discharging READY Backup NOT READY START START Please check the manual and proceed with the Backup Mode Test. Charging Power 0.0kW SoC 54% Voltage 0V
• If **FAIL** result is produced, touch the (Discharging) test button to display detailed info and pursue error codes (Page 116 in Install Manual)	← Commissioning Test Test Readiness PV Battery Inverter Grid Energy Meter Operating Test Charging READY Discharging FAIL Backup NOT READY START START Please check the manual and proceed with the Backup Mode Test. Stop SoC 54% Voltage 0V
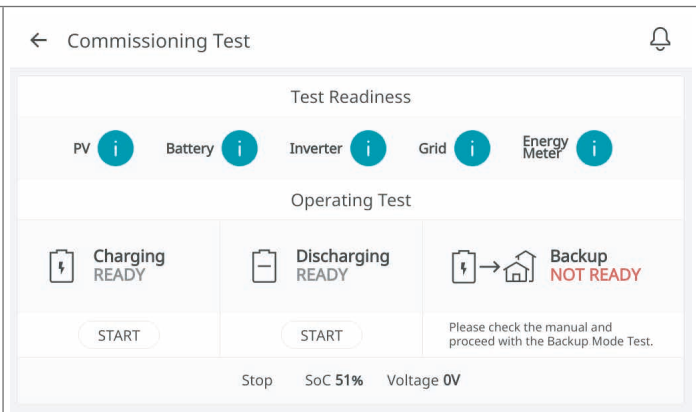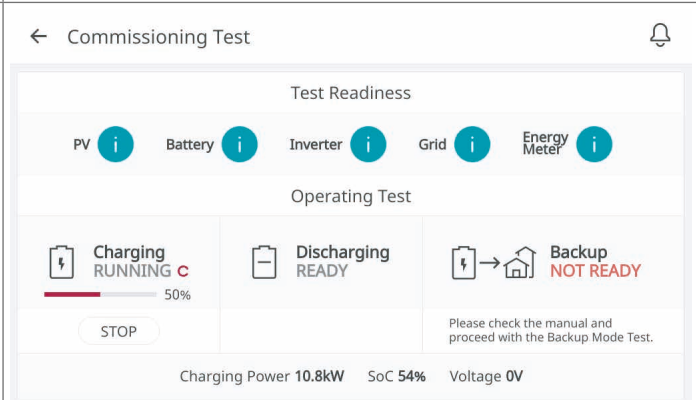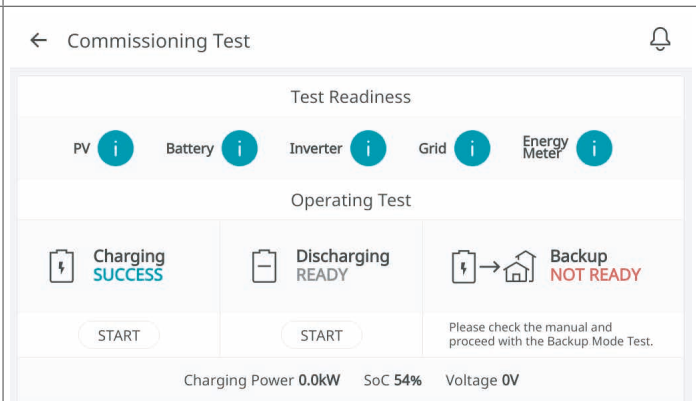
Commission

- When Charging and Discharging Tests are complete, with **SUCCESS**, Backup test will show READY
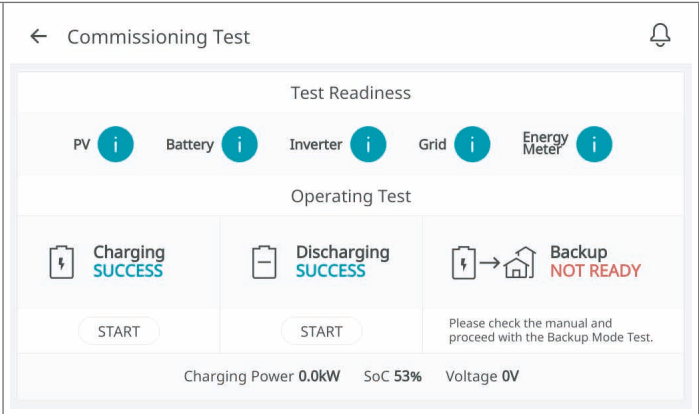
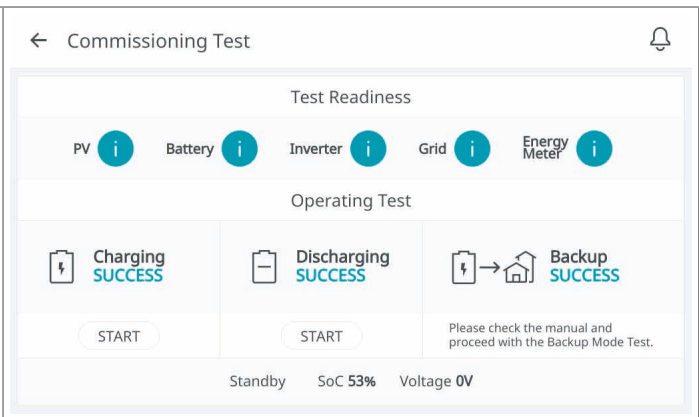## Backup Test

- Open the Main Service breaker to simulate grid down condition, to activate Backup Operation.

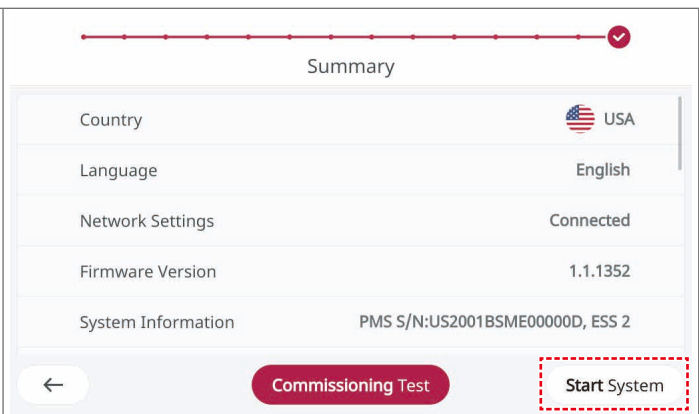- Transition to Backup <100ms Commission Test Status will be RUNNING
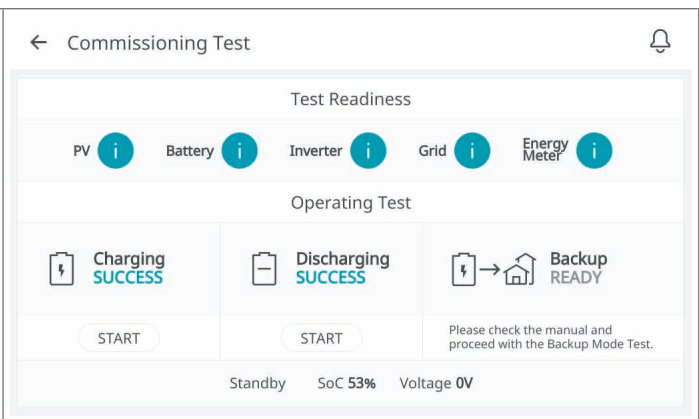
Return to Grid Power, end Backup Test

- Turn on Main Service circuit breaker to restore grid power, look for **SUCCESS** under Backup
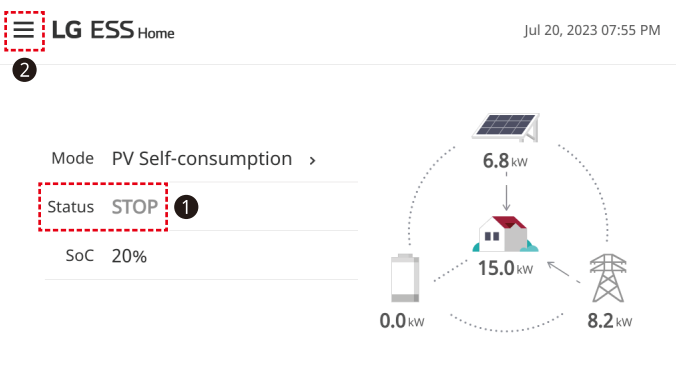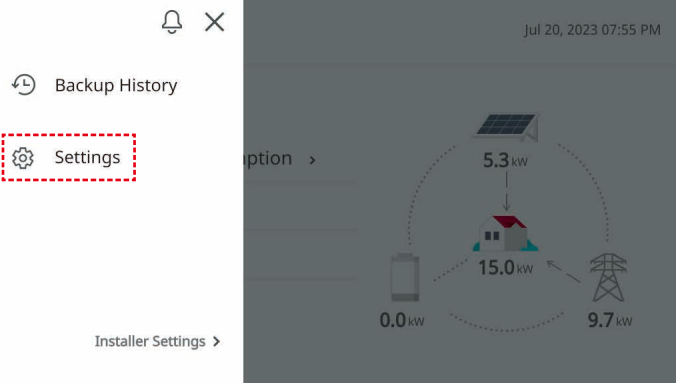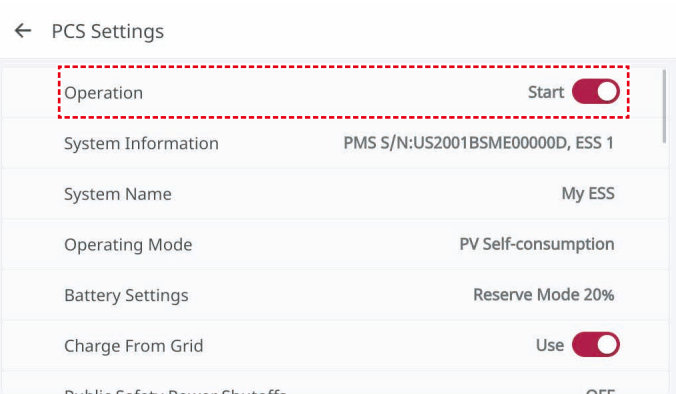
- Touch arrow to return to Summary Screen
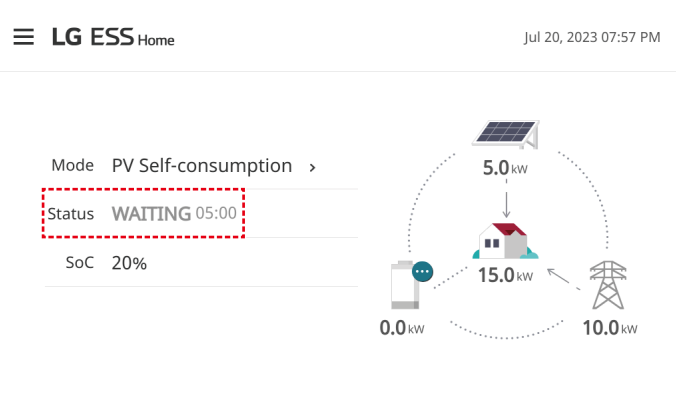
Start System

- Touch Start System to go to Home Screen

Home 5/8 Quick Commissiong Guide
Commission

• Home Screen • ❶ Status will be STOP • ❷ Touch Menu bars	☰ **LG ESS** Home Jul 20, 2023 07:55 PM ❷ Mode PV Self-consumption › Status STOP ❶ SoC 20% 6.8 kw 15.0 kw 0.0 kw 8.2 kw
• Touch Settings > PCS Settings	🔔 ✕ Jul 20, 2023 07:55 PM 🕘 Backup History ⚙ Settings ...ption › 5.3 kw 15.0 kw 0.0 kw 9.7 kw Installer Settings ›
• Touch/Enable Start to Enable System • Touch arrows to return to Home Screen	← PCS Settings Operation Start 🔴 System Information PMS S/N:US2001BSME00000D, ESS 1 System Name My ESS Operating Mode PV Self-consumption Battery Settings Reserve Mode 20% Charge From Grid Use 🔴 Public Safety Power Shutoffs OFF
• 5-minute waiting period to active Status (Charging, etc)	☰ **LG ESS** Home Jul 20, 2023 07:57 PM Mode PV Self-consumption › Status WAITING 05:00 SoC 20% 5.0 kw 15.0 kw 0.0 kw 10.0 kw
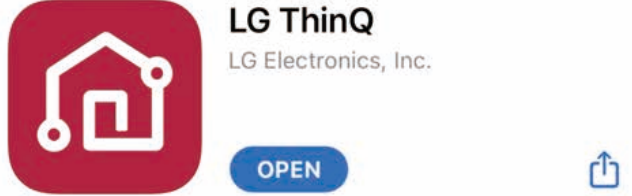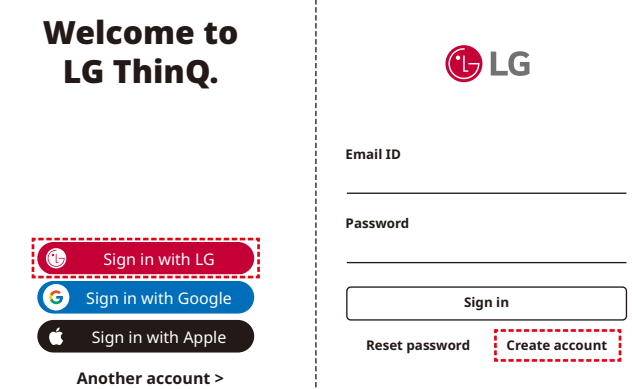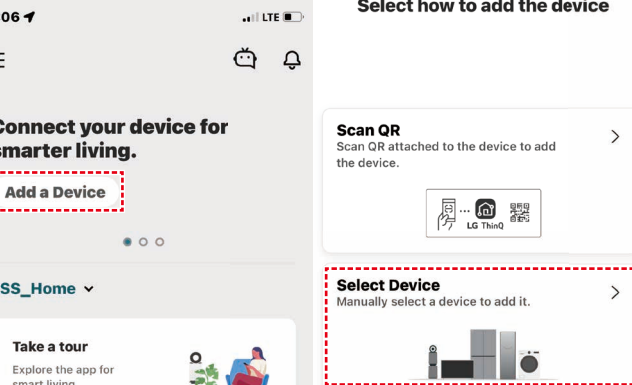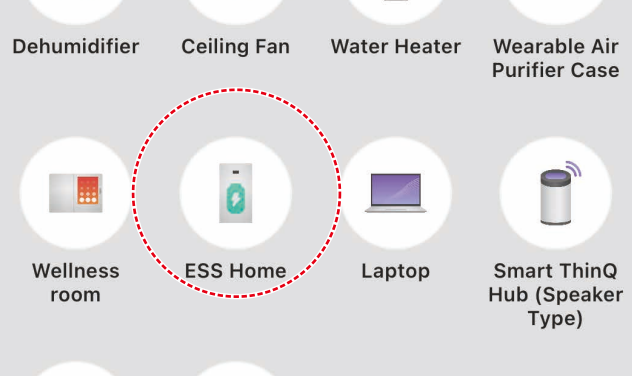
Enable Internet Connection

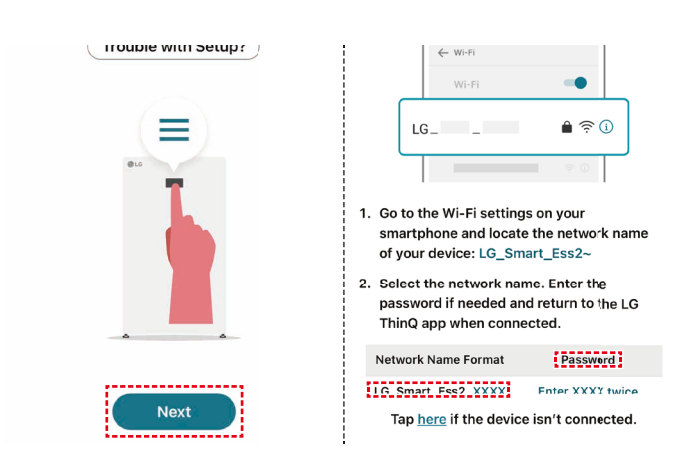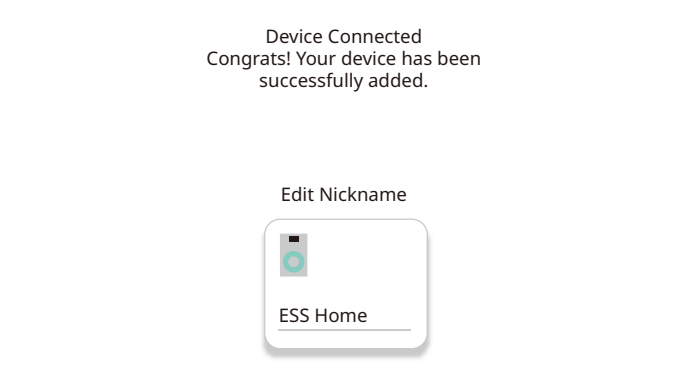|	
• Touch Menu bars	**≡ LG ESS** Home — Jul 20, 2023 07:58 PM Mode — PV Self-consumption › Status — DISCHARGING SoC — 20% 8.0 kW — 15.0 kW — 7.0 kW — 0.0 kW
• Touch Settings	🔔 ✕ 🕐 Backup History ⚙ Settings ...ption › Installer Settings › Jul 20, 2023 07:55 PM 5.3 kW — 15.0 kW — 0.0 kW — 9.7 kW
• Touch General Settings • Touch Network Settings • Touch Wired or Wireless • For Wireless, choose homeowner SSID, enter wifi password • **Note** - use only 2.4GHz wifi band • Touch arrows to return to Home Screen	← User Settings General Settings — Edit > PCS Settings — Edit >

Home 8

Home 5/8 Quick Commissiong Guide
ThinQ App

ThinQ App – Register Home 5/8 ESS

• Download LG ThinQ App • iOS or Android App store	**LG ThinQ** LG Electronics, Inc. OPEN
• Create Account on ThinQ • Suggest "Sign in with LG" Touch Create Account • Use homeowner email address Set password (8 characters min. - upper/lower case, number, special character)	**Welcome to LG ThinQ.** Sign in with LG Sign in with Google Sign in with Apple Another account > LG Email ID Password Sign in Reset password Create account
• Add a Device • Touch Add a Device Touch Select Device Touch Next	4:06 ⬆ LTE Connect your device for smarter living. Add a Device ESS_Home ⌄ Take a tour Explore the app for smart living. **Select how to add the device** **Scan QR** Scan QR attached to the device to add the device. LG ThinQ **Select Device** Manually select a device to add it.
• Touch ESS Home	Dehumidifier Ceiling Fan Water Heater Wearable Air Purifier Case Wellness room ESS Home Laptop Smart ThinQ Hub (Speaker Type)

|	

• Move to SE Box
 	
• On Home Screen, touch Menu bars
  Touch Settings > General
  Touch Soft AP to enable wifi Access Point
	← General Settings
	
	Network Settings — Connected
	Firmware Version — 1.1.2012
	Date & Time Settings — Jul 21, 2023 03:08 AM
	Soft AP — OFF
	Open Source
	Reboot
	Reset Settings

• Move back to homeowner smart phone and ThinQ App
 	
• Touch Next
  Follow directions here to connect phone to SE Box Soft wifi Access Point
 	
• Go to phone Settings > WiFi
  Look for SSID LG_Smart_ESS2_XXX network, and take note…
  Password is XXX entered two times
 	
• Touch this network to connect
  Enter Password
 	
• Return to LG ThinQ App and wait, watch…
	Trouble with Setup?
	
	Next
	
	← Wi-Fi
	Wi-Fi
	LG_____
	
	1. Go to the Wi-Fi settings on your smartphone and locate the network name of your device: LG_Smart_Ess2~
	
	2. Select the network name. Enter the password if needed and return to the LG ThinQ app when connected.
	
	Network Name Format — Password
	LG_Smart_Ess2_XXXY — Enter XXXY twice
	Tap here if the device isn't connected.

• ESS Registration Proceeds • Once ThinQ is connected to SE Box Soft AP, ESS registration should proceed automatically. • Edit Nickname for Home 5/8 ESS if desired	Device Connected Congrats! Your device has been successfully added. Edit Nickname ESS Home
• Firmware Update • It is possible that Firm/Software may download through the ThinQ App, and update on the Smart Energy Box and All-in-One enclosure ("the battery"). • If so, simply allow the process to proceed before making any other changes.	Downloading software... (71%) **Device** Useful Features Maryland 48°F Solar 10.2kw Home Usage 1.1kw ESS	85% Grid 5.4kw 3.7kw

Home 5/8 Quick Commissiong Guide
ThinQ App

• Smart Energy Box Touch Screen • During Firmware update. • Percent complete, and progress bar.	**2**% Firmware updating..
• All-In-One Enclosure Display • During Firmware update, "Udt".	Udt
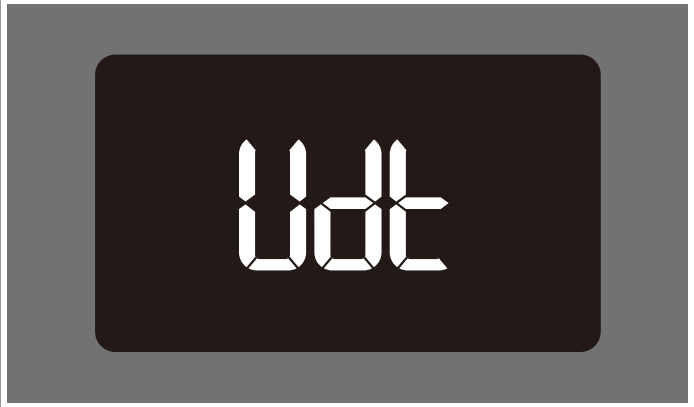
Product Specification

Specifications

Model	Home 5	Home 8
Nominal Voltage (L-N/L-L)	120/240V Split Phase	
Grid Frequency (Nominal)	60 Hz	
Rated AC Power (Discharging)	5.0 kVA [1]	7.5 kVA [1]
Rated AC Power (Charging)	5.0 kVA [1]	5.4 kVA [1]
Total Capactiy	15.8 kWh	
Usable Capacity	14.4 kWh [2]	
Round Trip Efficiency	> 90 % [3] [4]	
CEC Efficiency (PCS only)	98%	
Overvoltage Category	Category IV	
Interface	LED Display	

1) Adjustable, limited by the battery pack output capability such as charging/discharging power derating by the atmosphere temperature.

2) Usable energy may be limited for enhancing the battery lifespan and system stability. The capacity may decrease as the battery ages.

3) Verified according to LG Electronics conditions.

4) AC to battery to AC with 4.32 kW charging and 2.88kW discharging power at 25˚C (77˚F) at the beginning of life.

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LG Customer Information Center
1-888-865-3026
Register your product online!
https://www.lg.com/us/ess