

Luxpower Inverter Handbook

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5. Typical Application Instruction LXP3-6K Hybrid
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7. Luxpower view App guide(Hybrid)-for Distributor
8. Luxpower view App guide(Hybrid)-for End User



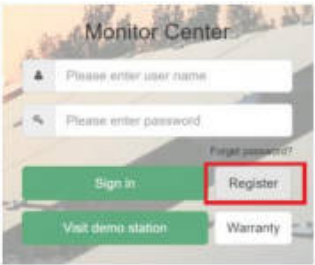
Android APP



IOS APP

End user need to ask your installer to register a Monitor account for you.Or you can register by yourself,**remember to ask** your installer or distributor for their **customer code!** Installers and distributors require your upper-level distributor to register a Monitor account for you,you will get **your special customer code from them!**

When you register account for your customer,you can set a customer name for them.

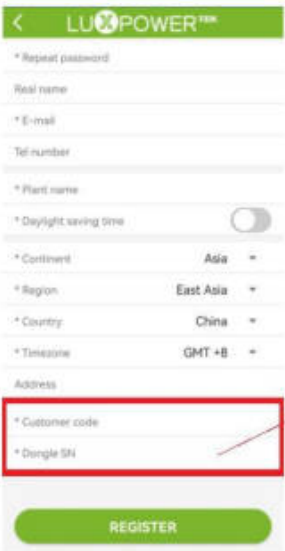
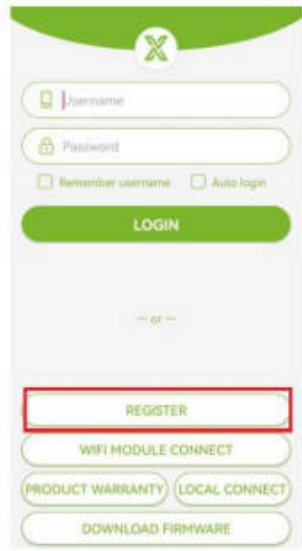


Register end user account on the Web or APP

1.Register an account

Step1.
Register Monitor account for end user,please visit <http://server.luxpowertek.com> ,or download the 'Lux Power Monitor'APP to do that.

If you are distributor or installer,please contact your upper-level distributor to get an account,or you can contact info@luxpowertek.com



Step2.Filling in all information truthfully

a. **Customer code**: it is the code of your distributor or installer, please contact them to get their customer code

b.**Dongle SN**:showed on the label of WIFI/WLAN shell as below



The Web register steps is same as you register in APP

Step3.Click REGISTER to submit

2.WIFI configuration

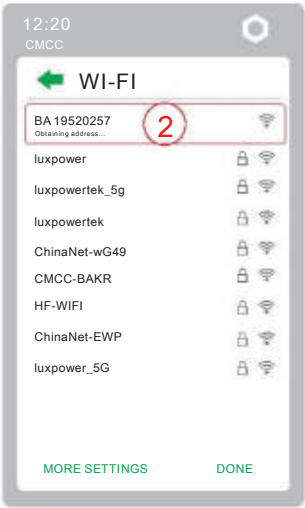
You can connect your home wifi to the inverter through APP or Website

2.1 Use APP to configure WIFI

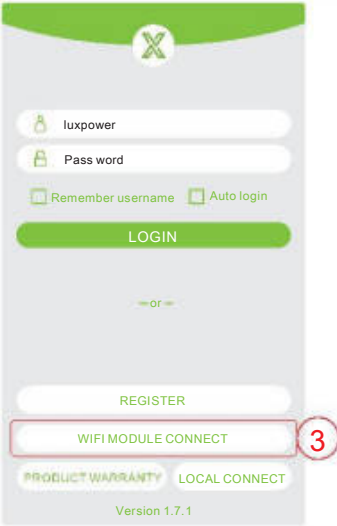
Step1. Plug in the wifi module and Power on the inverter.



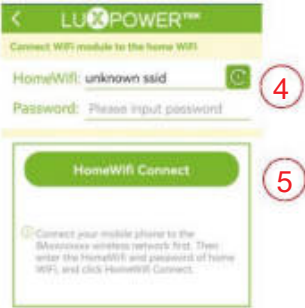
Step2.Wait the INV LED becomes solid on,then use your phone to connect WIFI module's hotspot,generally it's named as dongle SN"BA****"



Step3.Open the APP, click "WIFI MODULE CONNECT"



Step4.Choose the wifi you want to connect in the HomeWiFi , and input the password



Step5.Click "HomeWiFi Connect", then inverter will restart automatically, you will see three LED of WIFI module become solid on one by one.

Use Web to configure WiFi&
Use APP for Local Monitor and Setting

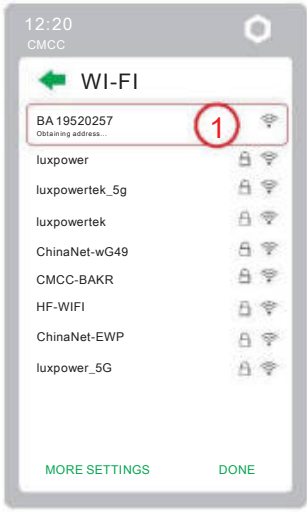


Done

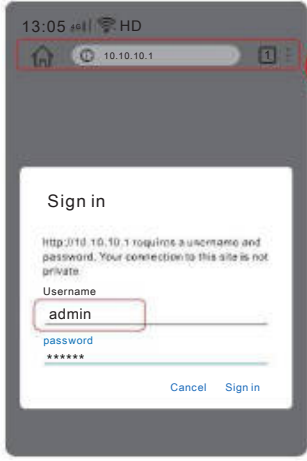
You can login your account to use monitor.

2.2 Use Web to configure WIFI

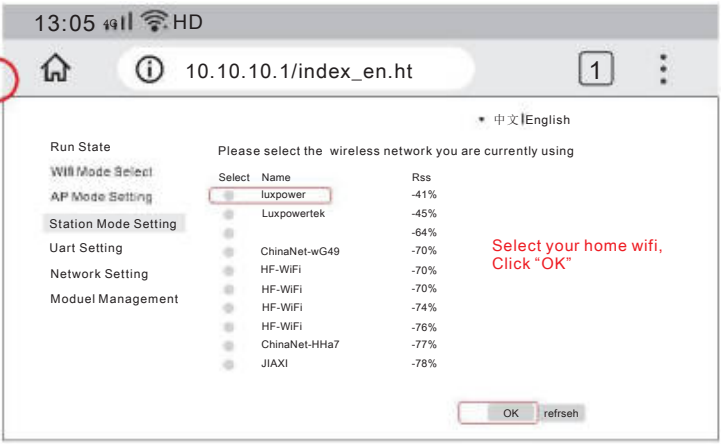
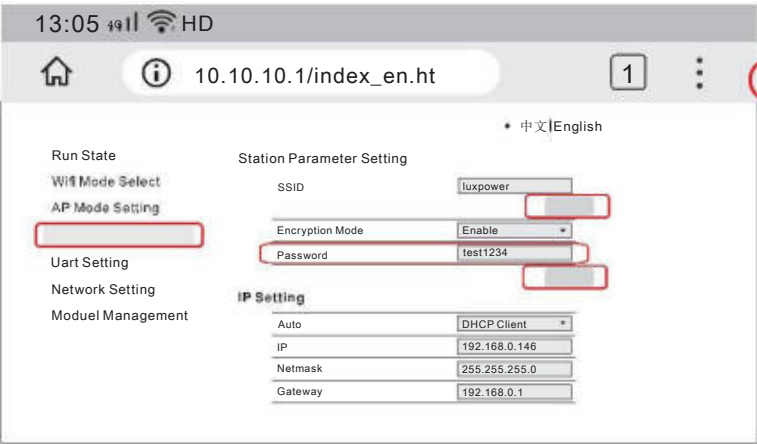
Step1.Power on the inverter, Wait the INV LED becomes solid on, then use your phone or laptop to connect WIFI module's hotspot, generally it's named as dongle SN"BA****"



Step2. Enter 10.10.10.1 in the browser. Both username and password are "admin" for dialog box. After log in, select English on the right side.



Step3. Go to the "Station Mode Setting" page. Click "Scan" to choose your home wifi in SSID program, input the password ,and click "save" .



Step4.After you save your home wifi setting, inverter will restart automatically, you will see three LED of WIFI module become solid on one by one,this will take some times, then you can login your account to use monitor.

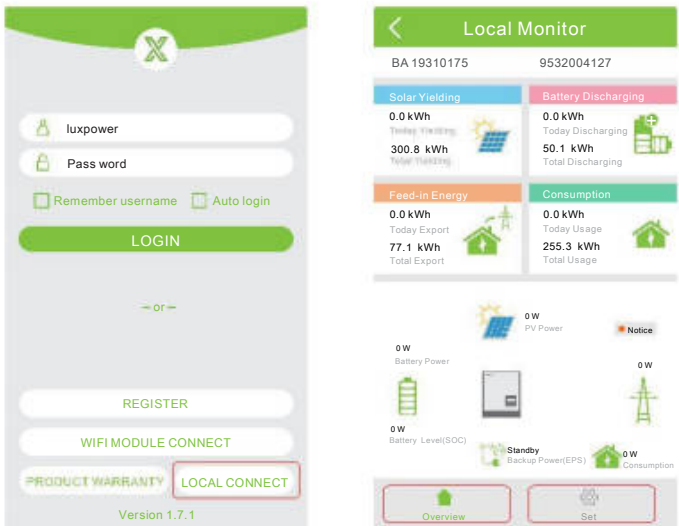
3. Use Lux Power Monitor for Local Monitor and Setting

If there is no wifi signal at the station,users can use "LOCAL CONNECT" function to monitor and setup the system

Step1.Power on the inverter,wait the INV LED becomes solid on, then use your phone to connect WIFI module's hotspot, generally it's named as dongle SN"BA****"

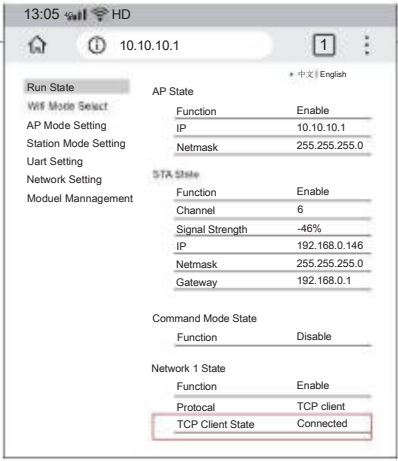
Step2. Open the Lux Power Monitor APP

Step3. Click "Local Connect", then you can monitor and set the system as below

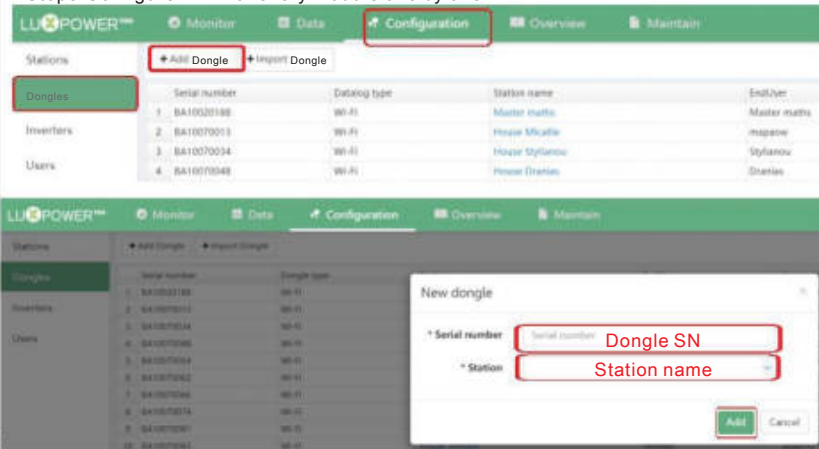


Q&A

Q: Why does the middle light of wifi module is flashing?
A: After set the right password of wifi, three lights should be solid on, if it is still flashing, please
(1) Make sure you have set the right password and the wifi is good, you can use your mobile connect to wifi hotspot and visit website 10.10.10.1 to check, the login user name and password are both 'admin', the TCP client state should be 'connected' as show in the picture, otherwise check your wifi name and password.



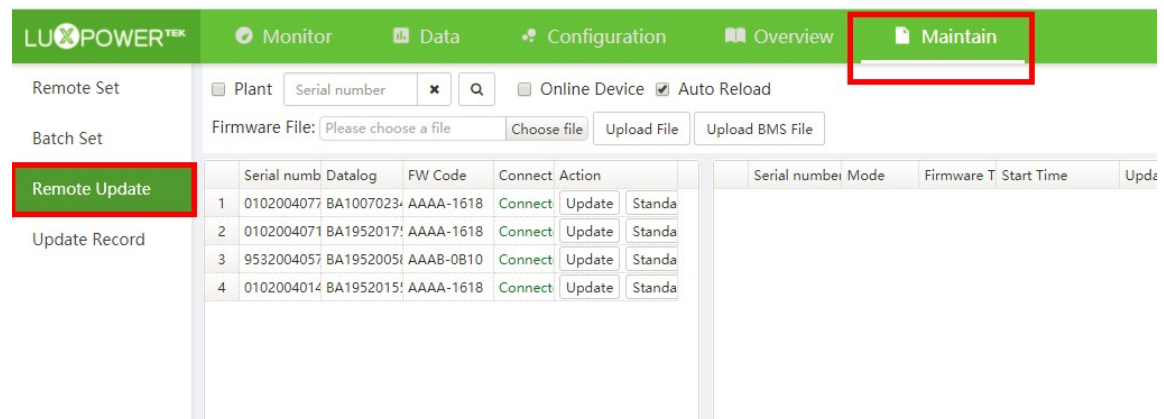
(2) If you have more than 1 inverter and dongle in the system,please follow :
Step1.Register your account with one of dongles' SN and PIN
Step2.Login your account on the APP or Web
Step3.Add extra dongles' SN and PIN
Step4.Reconnect the dongle
Step5.Configure WIFI for every module one by one



2. Firmware remote update by Website

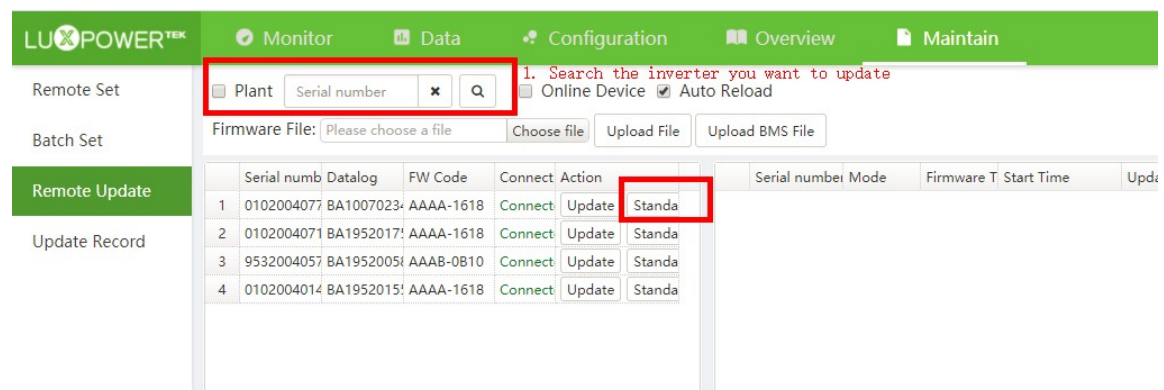
1. Distributors and installers are able to update firmware for inverters and BMS(support some brands) by Lux power website monitor system. You can use standard update to regular updates and if you have some special functions, please contact Lux power team for the firmware file first.

2. Login in Luxpower monitor system, go to maintain-->remote update



Serial numb	Datalog	FW Code	Connect	Action
1	0102004077	BA1007023	AAAA-1618	Connect Update Standby
2	0102004071	BA1952017	AAAA-1618	Connect Update Standby
3	9532004057	BA1952005	AAAB-0B10	Connect Update Standby
4	0102004014	BA1952015	AAAA-1618	Connect Update Standby

3. If you do not have any special requirements and just want to update the firmware to latest version, you can use standard update function and do not need to upload any file, choose the inverter you need to update and then click 'standard '. The system will update two firmware in the inverter automatically. The latest version will be showed in the right bottom window.



Serial numb	Datalog	FW Code	Connect	Action
1	0102004077	BA1007023	AAAA-1618	Connect Update Standby
2	0102004071	BA1952017	AAAA-1618	Connect Update Standby
3	9532004057	BA1952005	AAAB-0B10	Connect Update Standby
4	0102004014	BA1952015	AAAA-1618	Connect Update Standby

Remote Set

Batch Set

Remote Update

Update Record

Serial number	Datalog	FW Code	Connect	Action	Standby
1	0102004077	BA1007023	AAAA-1618	Connect	Update
2	0102004071	BA1952017	AAAA-1618	Connect	Update
3	9532004057	BA1952005	AAAA-0810	Connect	Update
4	0102004014	BA1952015	AAAA-1618	Connect	Update

Serial number	Mode	Firmware Ty	Start Time	Update Stat	Rate of Progress	Stop Time	Action
1	UPF3-SE.hex		2020-09-25 15:09:37				Remove
2	UPF5K_ComApp.hex		2020-09-25 15:00:38				Remove
3	UPF5K_ComApp_20200915.hex		2020-09-18 10:34:47				Remove
4	UPF3-5K_20200915.hex		2020-09-18 10:30:08				Remove
5	APP_PCS_AAAA-16xx_202007_4_PCS		2020-09-08 16:11:08				Remove
6	BAAA-xx11_0812_DSP.hex	PCS	2020-09-02 09:42:16				Remove
7	BAAA-11xx_20200812_App.hex	PCS	2020-09-02 09:42:00				Remove

4. If you have any special requirement and already get the firmware file, please save it in your computer and then choose the file

Remote Set

Batch Set

Remote Update

Update Record

Choose file

Upload File

Upload BMS File

Serial number	Datalog	FW Code	Connect	Action	Standby
1	9192004039	BA18380206	AAAA-1314	Connect	Update
2	8422005103	BA18380145	AAAA-1112	Connect	Update
3	0262004093	BA10070208	AAAA-1517	Connect	Update
4	9252006047	BA19230022	BAAA-0A0A	Connect	Update
5	9262004024	BA19250045	AAAA-1314	Connect	Update
6	8422005114	BA18380121	AAAA-1314	Connect	Update
7	9192001005	BA19170161	AAAA-1212	Connect	Update
8	9192001003	BA19370424	AAAB-080B	Connect	Update
9	9382004006	BA19370292	AAAB-090C	Connect	Update
10	9382004013	BA19370465	AAAB-090C	Connect	Update
11	9382004025	BA19370227	AAAB-080B	Connect	Update
12	9382004029	BA19370249	AAAB-080B	Connect	Update
13	9382004051	BA19310226	AAAB-090C	Connect	Update
14	9382004057	BA19370277	AAAB-080B	Connect	Update

Serial number	Mode	Firmware Ty	Start Time	Update Stat	Rate of Progress
1	APP PCS	AAAA-16xx	202007_4_PCS		2020-09-08 16:11:08
2	BAAA-xx11	0812 DSP.hex	PCS		2020-09-02 09:42:16
3	BAAA-11xx	20200812 App.hex	PCS		2020-09-02 09:42:00

5. Click upload file after choose the file, after load successfully, your file will be showed on the right side

Remote Set

Batch Set

Remote Update

Update Record

Upload File

Upload BMS File

Serial number	Datalog	FW Code	Connect	Action	Standby
1	9192004039	BA18380206	AAAA-1314	Connect	Update
2	8422005103	BA18380145	AAAA-1112	Connect	Update
3	0262004093	BA10070208	AAAA-1517	Connect	Update
4	9252006047	BA19230022	BAAA-0A0A	Connect	Update
5	9262004024	BA19250045	AAAA-1314	Connect	Update
6	8422005114	BA18380121	AAAA-1314	Connect	Update
7	9192001005	BA19170161	AAAA-1212	Connect	Update
8	9192001003	BA19370424	AAAB-080B	Connect	Update
9	9382004006	BA19370292	AAAB-090C	Connect	Update
10	9382004013	BA19370465	AAAB-090C	Connect	Update
11	9382004025	BA19370227	AAAB-080B	Connect	Update
12	9382004029	BA19370249	AAAB-080B	Connect	Update
13	9382004051	BA19310226	AAAB-090C	Connect	Update
14	9382004057	BA19370277	AAAB-080B	Connect	Update
15	9382004063	BA19370274	AAAB-090C	Connect	Update
16	9312004029	BA19170155	AAAA-1213	Connect	Update
17	8422005104	BA18380146	AAAA-1415	Connect	Update

Serial number	Mode	Firmware Ty	Start Time	Update Stat	Rate of Progress	Stop Time	Action
1	APP PCS	AAAA-16xx	202007_4_PCS		2020-09-08 16:11:08		
2	BAAA-xx11	0812 DSP.hex	PCS		2020-09-02 09:42:16		
3	BAAA-11xx	20200812 App.hex	PCS		2020-09-02 09:42:00		
4	AAAB-xx0F	20200721.hex	PCS		2020-08-29 15:16:41		
5	AAAB-xx03	0812 DSP.hex	PCS		2020-08-14 18:18:42		

Current Firmware: AAAA-16xx_20200711.hex - 327

6. Choose the inverter you need to update, and click update, if there are too many inverters, you can use search function to find the inverter you need to update

The screenshot shows the LUXPOWERTEK web interface. The 'Remote Set' tab is active. A search bar is visible with 'Plant' and 'Serial number' filters. A list of inverters is displayed with columns for Serial number, Datalog, FW Code, Connect, Action, and Update. The 'Update' button for the first inverter is highlighted. On the right, there is a table showing the progress of the update for the selected inverter.

Serial number	Datalog	FW Code	Connect	Action	Update
1	9192004039	BA18380206	AAAA-1314	Connect	Update
2	8422005103	BA18380145	AAAA-1112	Connect	Update
3	0262004093	BA10070208	AAAA-1517	Connect	Update
4	9252006047	BA19230022	BAAA-0A0A	Connect	Update
5	9262004024	BA19250045	AAAA-1314	Connect	Update
6	8422005114	BA18380121	AAAA-1314	Connect	Update
7	9192001005	BA19170161	AAAA-1212	Connect	Update
8	9192001003	BA19370424	AAAB-0808	Connect	Update
9	9382004006	BA19370292	AAAB-090C	Connect	Update
10	9382004013	BA19370465	AAAB-090C	Connect	Update
11	9382004025	BA19370227	AAAB-0808	Connect	Update
12	9382004029	BA19370249	AAAB-0808	Connect	Update
13	9382004051	BA19310226	AAAB-090C	Connect	Update
14	9382004057	BA19370277	AAAB-0808	Connect	Update
15	9382004063	BA19370274	AAAB-090C	Connect	Update
16	9312004029	BA19170155	AAAA-1213	Connect	Update
17	8422005104	BA18380146	AAAA-1415	Connect	Update
18	9192004059	BA19170062	AAAA-1212	Connect	Update
19	9432004025	BA19420151	AAAA-1315	Connect	Update

7. After you click update, the progress will be showed on the right side

The screenshot shows the LUXPOWERTEK web interface. The 'Remote Set' tab is active. A search bar is visible with 'Plant' and 'Serial number' filters. A list of inverters is displayed. The 'Update' button for the first inverter is highlighted. On the right, there is a table showing the progress of the update for the selected inverter.

Serial number	Mode	Firmware Ty	Start Time	Update Stat	Rate of Progress	Stop Time	Action
1	9532004158	Normal	2020-09-14 16:07:0	Success	100% - 234 / 234	2020-09-14 16:16:0	Cancel

8. When the system shows 100% and Success, it means the firmware has been download into flash in inverter successfully, then the firmware will flashed to CPU, just keep the inverter there until the inverter restart itself after flash successfully.

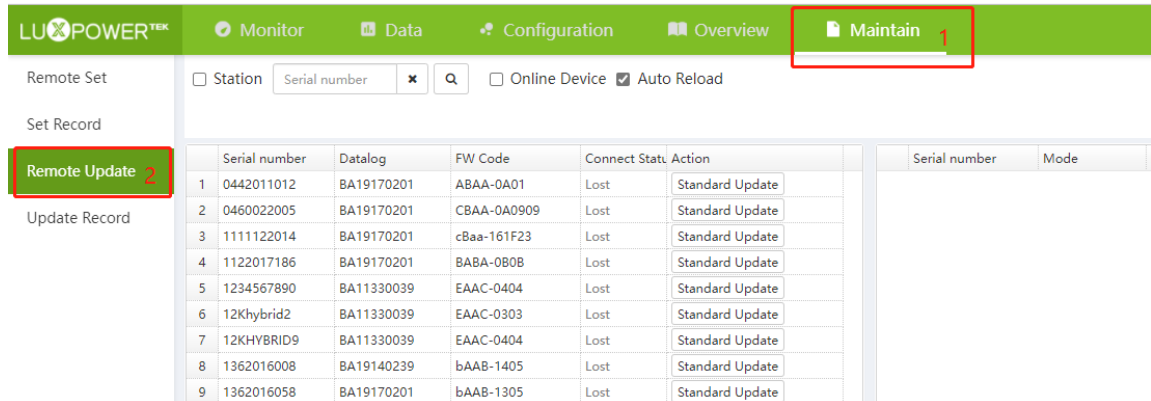
9. Please note normally we need to update 2 firmware for the inverter, after inverter resart, you can update another firmware. For standard update, it will update two firmware automatically. For non-standard update, you can update any of them firstly. If the wifi signal is not good, the update may stopped, you can click update again after failure. The system will continue to download from the interrupted point.

10.If you still have any questions, please contact Lux power team for support. info@luxpowertek.com

3. Firmware remote update by Installer

Installers are now able to update inverter firmware remotely on Luxpower monitoring web page. Procedure is as below,

1. Log into Luxpower monitoring web page on your computer with your installer account, Click the “Maintain” tab, and then select “Remote Update” on the left options,

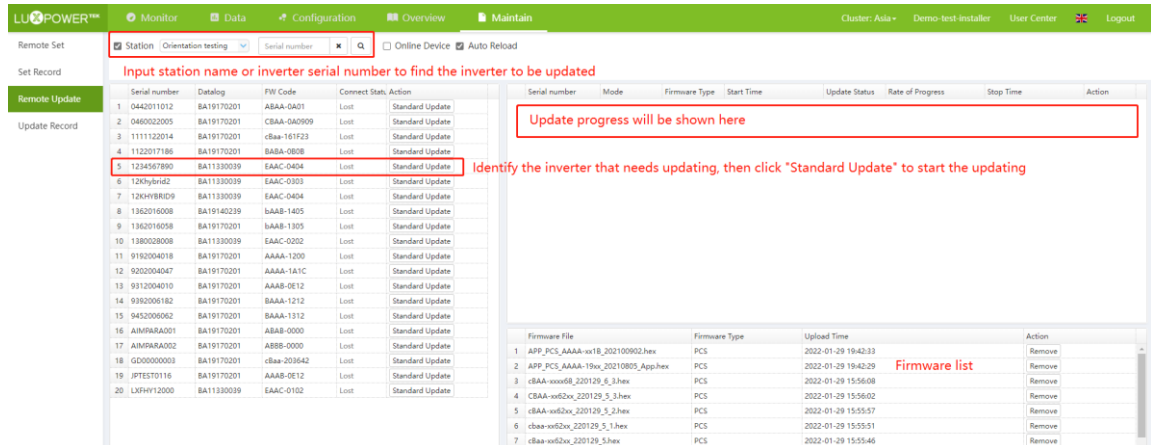


The screenshot shows the Luxpower monitoring web interface. The top navigation bar includes 'Monitor', 'Data', 'Configuration', 'Overview', and 'Maintain'. The 'Maintain' tab is selected and highlighted with a red box. On the left sidebar, the 'Remote Update' option is also highlighted with a red box. The main content area displays a table of inverters with columns for Serial number, Datalog, FW Code, Connect Status, and Action. The 'Action' column contains 'Standard Update' buttons for each inverter.

Serial number	Datalog	FW Code	Connect Status	Action
1 0442011012	BA19170201	ABAA-0A01	Lost	Standard Update
2 0460022005	BA19170201	CBAA-0A0909	Lost	Standard Update
3 1111122014	BA19170201	cBaa-161F23	Lost	Standard Update
4 1122017186	BA19170201	BABA-0B0B	Lost	Standard Update
5 1234567890	BA11330039	EAAC-0404	Lost	Standard Update
6 12Khybrid2	BA11330039	EAAC-0303	Lost	Standard Update
7 12KHYBRID9	BA11330039	EAAC-0404	Lost	Standard Update
8 1362016008	BA19140239	bAAB-1405	Lost	Standard Update
9 1362016058	BA19170201	bAAB-1305	Lost	Standard Update

2. Choose the inverter you need to update and then click ‘standard Update’. The update will start automatically.

The latest firmware version is shown in the bottom right area of monitoring page.

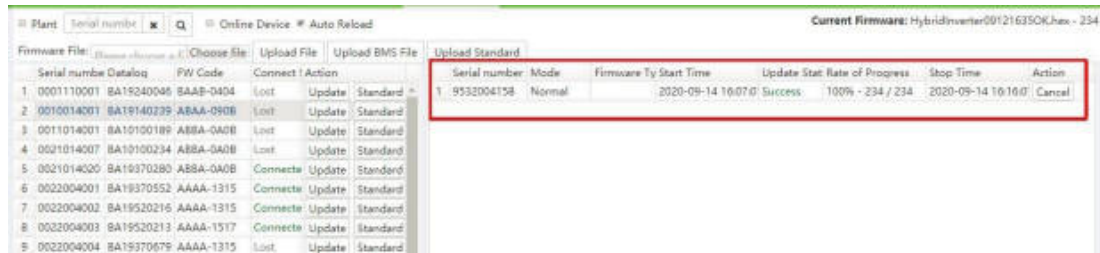


The screenshot shows the 'Remote Update' progress and the 'Firmware list'. The 'Remote Update' option is selected on the left sidebar. The main content area displays a table of inverters with columns for Serial number, Datalog, FW Code, Connect Status, and Action. The 'Action' column contains 'Standard Update' buttons for each inverter. A red box highlights the 'Standard Update' button for the inverter with serial number 5 (1234567890). Below the table, a 'Firmware list' is shown with columns for Firmware File, Firmware Type, Upload Time, and Action. The 'Firmware list' contains 7 entries, each with a 'Remove' button.

Serial number	Datalog	FW Code	Connect Status	Action
1 0442011012	BA19170201	ABAA-0A01	Lost	Standard Update
2 0460022005	BA19170201	CBAA-0A0909	Lost	Standard Update
3 1111122014	BA19170201	cBaa-161F23	Lost	Standard Update
4 1122017186	BA19170201	BABA-0B0B	Lost	Standard Update
5 1234567890	BA11330039	EAAC-0404	Lost	Standard Update
6 12Khybrid2	BA11330039	EAAC-0303	Lost	Standard Update
7 12KHYBRID9	BA11330039	EAAC-0404	Lost	Standard Update
8 1362016008	BA19140239	bAAB-1405	Lost	Standard Update
9 1362016058	BA19170201	bAAB-1305	Lost	Standard Update
10 1380028008	BA11330039	EAAC-0202	Lost	Standard Update
11 9182004018	BA19170201	AAAA-1200	Lost	Standard Update
12 9202004047	BA19170201	AAAA-1A1C	Lost	Standard Update
13 9312004010	BA19170201	AAAA-0E12	Lost	Standard Update
14 9392006182	BA19170201	BAAA-1212	Lost	Standard Update
15 9452006062	BA19170201	BAAA-1312	Lost	Standard Update
16 AAMRA0A001	BA19170201	ABAA-0000	Lost	Standard Update
17 AAMRA0A002	BA19170201	ABBA-0000	Lost	Standard Update
18 C000000003	BA19170201	cBaa-203642	Lost	Standard Update
19 PTES70116	BA19170201	AAAB-0E12	Lost	Standard Update
20 LXFH112000	BA11330039	EAAC-0102	Lost	Standard Update

Firmware File	Firmware Type	Upload Time	Action
1 APP_PCS_AAAA-vx18_202100602.hex	PCS	2022-01-29 19:42:33	Remove
2 APP_PCS_AAAA-19vx_20210805_App.hex	PCS	2022-01-29 19:42:29	Remove
3 cBAA-xxxx68_220129_5_3.hex	PCS	2022-01-29 15:56:08	Remove
4 CBAA-vx12vx_220129_5_3.hex	PCS	2022-01-29 15:56:02	Remove
5 cBAA-vx12vx_220129_5_3.hex	PCS	2022-01-29 15:55:57	Remove
6 cBaa-vx12vx_220129_5_3.hex	PCS	2022-01-29 15:55:51	Remove
7 cBaa-vx12vx_220129_5_3.hex	PCS	2022-01-29 15:55:46	Remove

3. After you click “Standard Update”, the progress will be shown on the right side.



4. When the update progress shows 100% and Success, it just means the firmware has been successfully downloaded into the inverter, then the firmware will be flashed to the corresponding micro chip, just leave the inverter on until the inverter restarts itself after the firmware is updated successfully.

Please note,

For SNA Eco-hybrid inverters, there are 3 chips that needs updating. The 3 micro chips will be updated consecutively one by one automatically. After one chip is updated, it will take around 5 min before the next chip starts updating. Please make sure that you have updated all the 3 chips.

During the firmware update, the update might be interrupted and show failure in the update progress area due to some external reasons, e.g. WiFi signal not good, inverter is shutdown intentionally, etc. If this failure happens, you can click the “Cancel” button in the progress area and then click “Standard Update” again , the update will continue from the interrupted point.

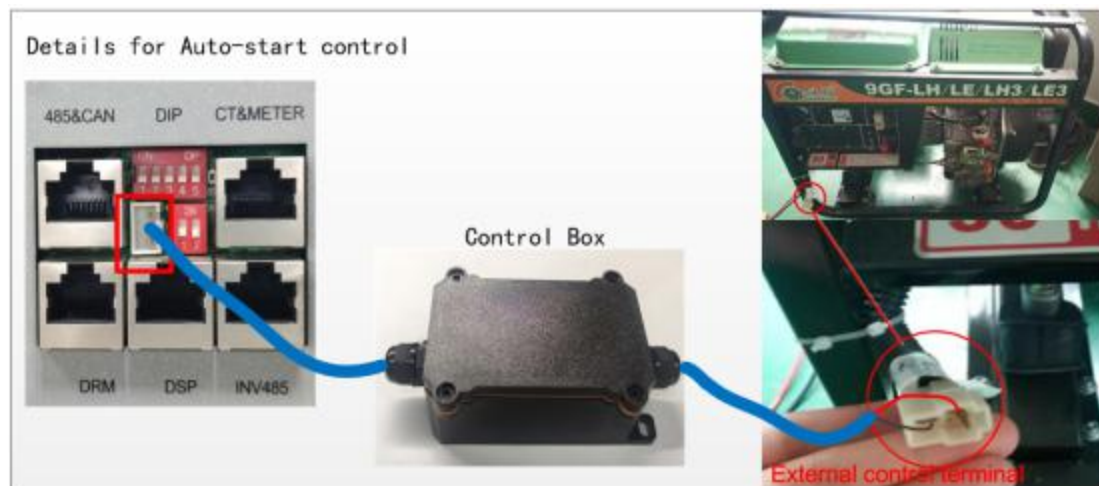
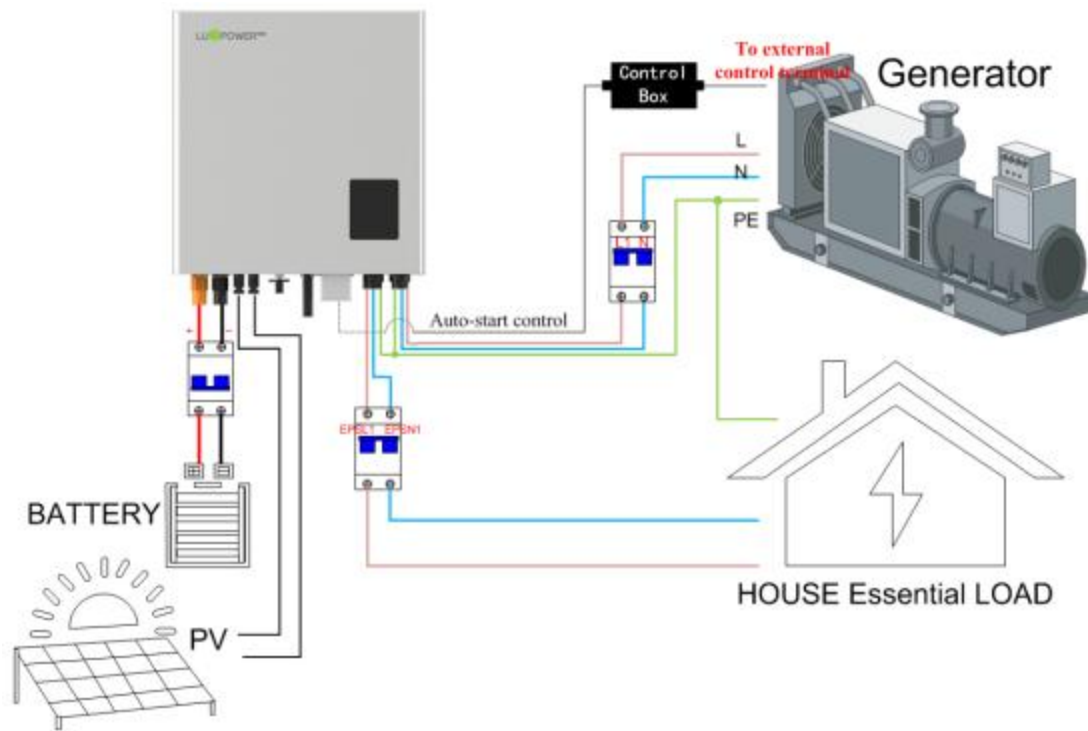
If you have any questions, please contact Luxpower team at info@luxpowertek.com for support.

Work with Generator

Users can connect the generator output to inverter Grid terminal. If you have both grid and generator as AC input, an external ATS is required to switch between grid and generator.

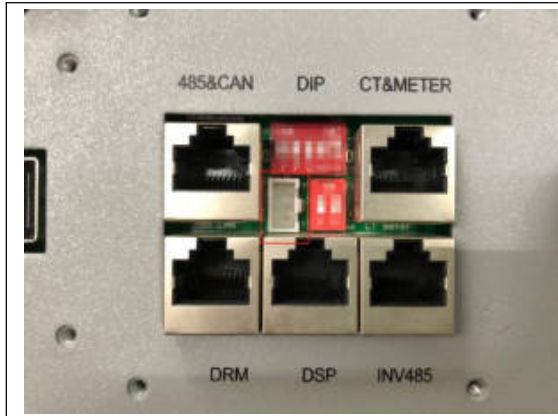
If you need to auto start the generator when battery is lack of energy, please purchase an external control box to remote turn on/off the generator(which support dry contact function).

The generator will be automatically started when battery SOC is lower than the cut-off value or there is charge request from BMS. When voltage is higher than AC charge cut-off value, it will stop the generator



Notice: 1. The Generator itself should support auto-start function which may be named as "remote start" and physical terminal might be the "AUX input" and the "GND" (Read the manual of generator carefully)

2. The output of the control box is an ON/ OFF signal , it can be described as an external switch of generator.



Configuration for auto start function

1. Micro-grid function should be enabled

LUXPOWER^{TEK} Monitor Data Configuration Overview **Maintain**

Remote Set ☒ Select station first

Remote Update
Update Record

Application Setting

Power Backup (?) <input type="button" value="Enable"/> <input type="button" value="Disable"/>	Seamless EPS switching <input type="button" value="Enable"/> <input type="button" value="Disable"/>
Micro-Grid <input type="button" value="Enable"/> <input type="button" value="Disable"/>	PV Grid Off (?) <input type="button" value="Enable"/> <input type="button" value="Disable"/>
Feed-in Grid <input type="button" value="Enable"/> <input type="button" value="Disable"/>	Feed-in Grid Power(%) <input type="text" value="0.100"/> <input type="button" value="Set"/>
Fast Zero Export <input type="button" value="Enable"/> <input type="button" value="Disable"/>	Normal / Standby <input type="button" value="Normal"/> <input type="button" value="Standby"/>
Set System Type (?) <input type="text" value=""/> <input type="button" value="Set"/>	Battery Shared <input type="button" value="Enable"/> <input type="button" value="Disable"/>
Set Composed Phase (?) <input type="text" value=""/> <input type="button" value="Set"/>	
Max. AC Input Power <input type="text" value="0.65500"/> <input type="button" value="Set"/>	

2. Auto start: When the battery SOC is low than Offgrid cut-off value , the generator will be auto started.

Discharge Setting

System Discharge Power Rate(%) (?) <input type="text" value="0.1000"/> <input type="button" value="Set"/>	On-grid Discharge Cut-off (?) <input type="text" value="0.0000"/> <input type="button" value="Set"/>	Off-grid Discharge Cut-off SOC <input type="text" value="0.100"/> <input type="button" value="Set"/>
Forced Discharge		
Forced Discharge Enable <input type="button" value="Enable"/> <input type="button" value="Disable"/>	Forced Discharge Power Rate(%) <input type="text" value="0.1000"/> <input type="button" value="Set"/>	Forced Discharge Battery Level(%) <input type="text" value="0.1000"/> <input type="button" value="Set"/>
Forced Discharge Start Time 1 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>	Forced Discharge Start Time 2 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>	Forced Discharge Start Time 3 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>
Forced Discharge End Time 1 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>	Forced Discharge End Time 2 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>	Forced Discharge End Time 3 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>

3. Auto stop: When the battery SOC reaches AC charge level , the generator will be stopped automatically.

Charge Setting

System Charge Power Rate(%) (?) <input type="text" value="0.1000"/> <input type="button" value="Set"/>	Charge Last <input type="button" value="Enable"/> <input type="button" value="Disable"/>
Equalization Voltage(V) <input type="text" value="0.0000"/> <input type="button" value="Set"/>	Equalization Period(Days) <input type="text" value="0.0000"/> <input type="button" value="Set"/>
Equalization Time(Hours) <input type="text" value="0.0000"/> <input type="button" value="Set"/>	
AC Charge	
AC Charge Enable <input type="button" value="Enable"/> <input type="button" value="Disable"/>	AC Charge Power Rate(%) <input type="text" value="0.1000"/> <input type="button" value="Set"/>
AC Charge Start Time 1 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>	AC Charge Start Time 2 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>
AC Charge End Time 1 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>	AC Battery Charge Level(%) <input type="text" value="0.1000"/> <input type="button" value="Set"/>
	AC Charge Start Time 3 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>
	AC Charge End Time 3 <input type="text" value="0.200"/> : <input type="text" value="0.500"/> <input type="button" value="Set"/>

Typical Application Instruction for LXP 3-6k Hybrid

List

1. Battery configuration..... 1
2. Working modes..... 2

1. Battery configuration

1.1 Lithium Battery

- Step1: Please make sure the battery input voltage is within the operation range:40-60Vdc;
 Step2: You can make sure the Lithium battery can be compatible with LXP 3-6K Hybrid ;
 Step3: Please make sure the PINs layout of both the inverter and battery are correct ;
 Step4: Please make sure the DIP configuration and comm cables among the batteries are correct ;
 Step5: Please select the correct battery brand option via the LCD of Inverter .

Connection between inverter and battery



Pins Layout of inverter side

Pin	Function Description
1	BAT 485 B
2	BAT 485 A
3	BAT CAN L
4	BAT CAN H
5	NC
6	BAT NTC
7	NA
8	GND-S

Note: The original comm cable is for Pylon battery as default ,and if the PINs layout for the battery of other brand, please re-make the cable , just keep the correct PINs and disconnect the unused PINs.

1.2 Lead-acid Battery

- Step1: Please make sure the battery input voltage is within the operation range:40-60Vdc;
 Step2: Please set as Lead-acid battery mode via the LCD of Inverter .
 Step3: Please confirm the charge and discharge parameters via the APP or Webserver
 The default settings show as below ,and you can change it according to the recommended value in the battery manual.

Lead-acid Battery Setting

Charge Voltage for Lead-Acid Battery: 55	Set	Floating Voltage(V): 54	Set
Charge Temperature Low Limit: 0	Set	Charge Temperature High Limit: 40	Set
Charge Current Limit(A): 100	Set		

Lead-acid Battery Setting

Discharge Cut-off Voltage(V) (?)	42	Set	Discharge Current Limit(A) (?)	100	Set
Discharge Temperature Low Limit (?)	-20	Set	Discharge Temperature High Limit (?)	55	Set
On Grid Discharge Derate Vbat	40	Set	Start Discharge P_import	100	Set

2. Working modes

2.1. Self-use mode: Default working mode ,the external CT or meter installation is required, and the PV power will be first used to supply load , and the excess power can be used to charge battery ,

◆ and if PV power > charge power+ load consumption, the excess part can be exported to grid;

◆ and if PV power < load consumption, the battery will discharge the insufficient part to take the load;

◆ and if PV power + battery discharge power < load consumption, the insufficient part will be drawn from grid;

◆ without the charge hours , the inverter will always work in self-use mode .

The default settings are shown as below:

AC Charge disable ,Charge Priority disable, Forced discharge disable;

Select station First: 3phase-12-Parallel V112001200P

Charge Setting

System Charge Power Rate(%) (?)	100	Set	Charge Last	Enable	Disable
Equalization Voltage(V)	0	Set	Equalization Period(Days)	0	Set
Equalization Time(Hours)	0	Set			
AC Charge					
AC Charge Enable	Enable	Disable	AC Charge Power Rate(%)	100	Set
AC Charge Start Time 1	00	1:00	Set	AC Battery Charge Level(%)	100
AC Charge End Time 1	00	1:00	Set	AC Charge Start Time 2	00
				AC Charge End Time 2	00
Charge Priority					
Charge Priority	Enable	Disable	Priority Charge Rate(%)	100	Set
Charge First Start Time 1	00	1:00	Set	Priority Charge Level(%) (?)	100
Charge First End Time 1	00	1:00	Set	Charge First Start Time 3	00
				Charge First End Time 3	00
Lead-acid Battery Setting					
Charge Voltage for Lead-Acid Battery	10.8	Set	Floating Voltage(V)	8	Set
Charge Temperature Low Limit	0	Set	Charge Temperature High Limit	40	Set
Charge Current Limit(A)	1.2	Set			

Discharge Setting

System Discharge Power Rate(%) (?)	100	Set	On-grid Discharge Cut-off SOC (?)	10	Set	Off-grid Discharge Cut-off SOC	0	Set
Forced Discharge								
Forced Discharge Enable	Enable	Disable	Forced Discharge Power Rate(%)	100	Set	Forced Discharge Battery Level(%)	20	Set
Forced Discharge Start Time 1	00	1:00	Set	Forced Discharge Start Time 2	00	1:00	Set	
Forced Discharge End Time 1	00	1:00	Set	Forced Discharge End Time 2	00	1:00	Set	
Lead-acid Battery Setting								
Discharge Cut-off Voltage(V) (?)	10.8	Set	Discharge Current Limit(A) (?)	1.2	Set	Discharge Temperature Low Limit (?)	0	Set
Discharge Temperature Low Limit (?)	0	Set	Discharge Temperature High Limit (?)	55	Set	On Grid Discharge Derate Vbat	0	Set
			Start Discharge P_import	0	Set			

You can also adjust the DOD of the battery by changing “On-grid discharge cut-off SOC”,It is 10% and DOD is 90% as default (DOD=100% - On-grid discharge cut-off SOC) . For example, if you want the DOD to be 80% , you can just set “On-grid discharge cut-off SOC” to 20%

2.2. Charge first mode: If you need to make sure the PV power can be used to charge battery first while the grid power is on ,but you don't want to use grid power to charge the battery , you can set Charge Priority enable

- ◆ and if PV power < Charge power, then the load will draw power from the grid;
- ◆ and if PV power > charge power, but PV power < Charge power + Load consumption , the insufficient part will be drawn from grid;
- ◆ and if PV power > Charge power + Load consumption , the excess part can be exported to grid;
- ◆ within the charge hours , the battery won't discharge power to take loads .

The settings should be like this:

Charge Priority enable, Charge hours , Priority charge rate and Priority charge Level;

That means the PV power will prioritize to charge the battery during the charge hours: 08:00-18:00, and if the battery SOC reaches priority charge level(100%) in advance, the PV power will be used to take loads ,and battery won't discharge power to take loads during the charge hours even though the PV power is insufficient .

2.3. Charge and discharge according to the price at different time period:

If you need to charge the battery when grid electricity price is low , and discharge power when grid electricity price is high

The settings could be like this:

For example , Low price time period: 00:00-04:00, 12:00-16:00, and High price time period: 04:00-12:00, 16:00-19:00

That means the grid power is allowed to charge the battery during time period 00:00-04:00 and 12:00-16:00, and when the PV power is available , the PV power can be used to charge battery first , but the battery won't discharge during the charge hours . And out of the charge hours , the battery will discharge based on the load consumption, but if

you want discharge power to the grid with a certain power , you can enable “ Forced discharge”function

2.4. **Zero export:** If you don't want to export the excess PV power , you can set “ Feed in grid disable”, and if the export power should be 0 W strictly , you can set “Fast zero export enable” .

With this solution , the external CT should be installed .

If you just set “Feed in grid disable” , there may be small export power when the load consumption suddenly changes. And if you enable “Fast zero export “ function ,the export power can be 0Watt strictly , but sometimes there may be small import power when the load changes suddenly.

2.5. **Power back-up:** If the grid power is available but unstable , you can enable Power back function , so there will be EPS output at EPS port when the grid power is out .

The default output voltage is 230Vac , so you can test before connecting the loads to EPS port.

2.6. **Micro-grid mode:** If the grid power is unavailable and it is totally an off-grid system, you can enable “ Power backup” and at the same time please enable “Micro-grid” function , so when the generator is on , the battery will get charged automatically

The screenshot displays the 'Application Setting' interface. Key settings include:

- EPS Frequency Set(Hz): 50
- Power Backup: **Enable** (highlighted with a red box)
- Micro-Grid: **Enable** (highlighted with a red box)
- Feed-In Grid: Enable / Disable
- Fast Zero Export: Enable / Disable
- Set System Type: Subordinates
- Set Composed Phase: Phase R
- Max. AC Input Power: 05535 (highlighted with a red box)
- Seamless EPS switching: Enable / Disable
- PV Grid Off: Enable / Disable
- Feed-In Grid Power(%): 100
- Normal / Standby: Normal / Standby
- Battery Shared: Enable / Disable

If the capacity of the generator is not powerful enough and you need to limit the input power ,then the external CT is needed to connect, or you can also just limit the charge power.

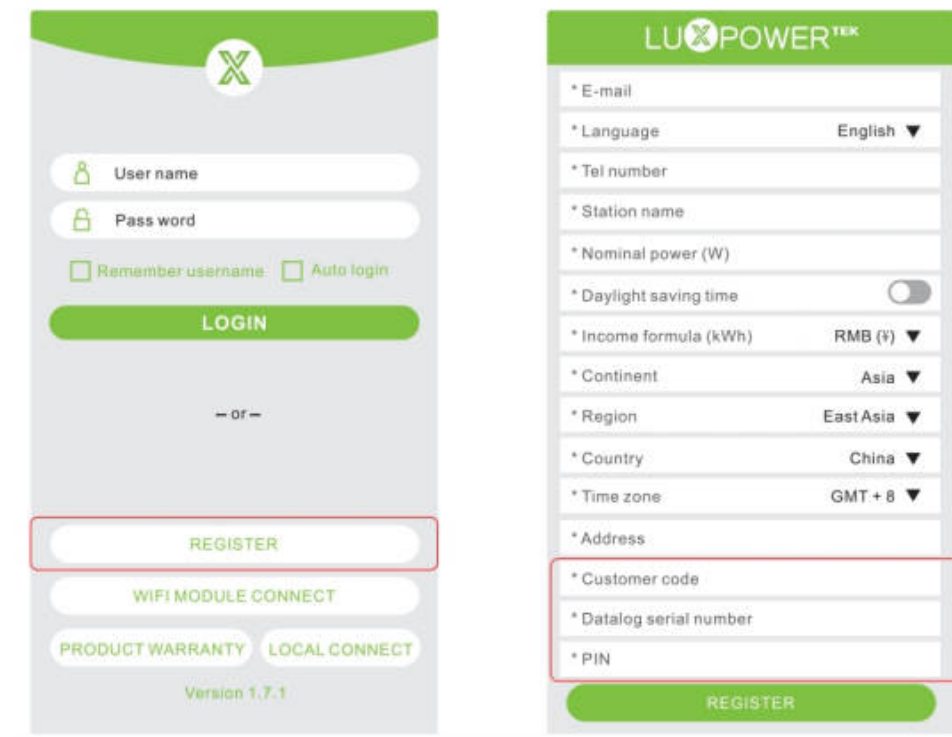
Tips: If you need to read more of Generator Auto-start function ,you can refer to the “ Guidance for Auto Starting Generator”

WiFi dongle connection instruction

WiFi dongle can be configured using mobile phone or a laptop, normally it is suggested to use mobile phone to do the connection, procedures are as below,

1. Sign up an account on the mobile phone APP,

The "customer code" is a code we assigned to your distributor or installer. You can contact your supplier for their code. If they don't know their customer code, you can just use "Grace01" for your account registration.

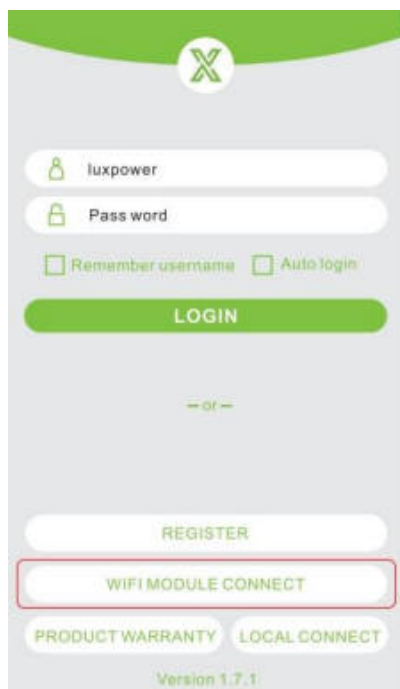


The image displays two screenshots of the LUXPOWER TEK mobile application interface. The left screenshot shows the login screen with fields for Username and Password, a 'LOGIN' button, and a 'REGISTER' button highlighted with a red box. The right screenshot shows the registration form with fields for E-mail, Language, Tel number, Station name, Nominal power (W), Daylight saving time, Income formula (kWh), Continent, Region, Country, Time zone, Address, Customer code, Datalog serial number, and PIN. The 'REGISTER' button at the bottom is also highlighted with a red box.

2 Connect your mobile phone to the "BAxxxxxxx" wireless network where "BAxxxxxxx" is the serial number of the WiFi dongle.



3. Click the "WiFi MODULE CONNECT" button on the APP,



4. Select the home WiFi that the WiFi dongle is to be connected to, enter the WiFi's password. And then click "**TCP Set**".

The WiFi dongle will restart and try to connect to our server automatically.

<
LUXPOWER^{TEK}

Set WIFI password to Inverter WIFI module

SSID:

luxpowertek

C

Password:

Please input password

1

Easylink

Please connect your mobile to the same router which your wifi module need to connect, then input password and click start

TCP Set 2

Please connect your mobile phone to MCHIP_XXXXXX wifi networking first, then input SSID, password and click start.

5. Check the LEDs' status on the WiFi dongle. The middle light should be solid lit when the WiFi dongle connects to our server successfully.



6. Now you can disconnect your mobile phone from the "BAxxxxxxx" wireless network. Login on the LuxPowerView APP with your account, you'll find the inverter information already appears. Now you'll be able to monitor and control the inverter remotely on any smart phone or computer that has Internet connection.



LuxPowerView(APP) user guide

1.Download APP in Google Play or Apple store,



Or scan the QR code

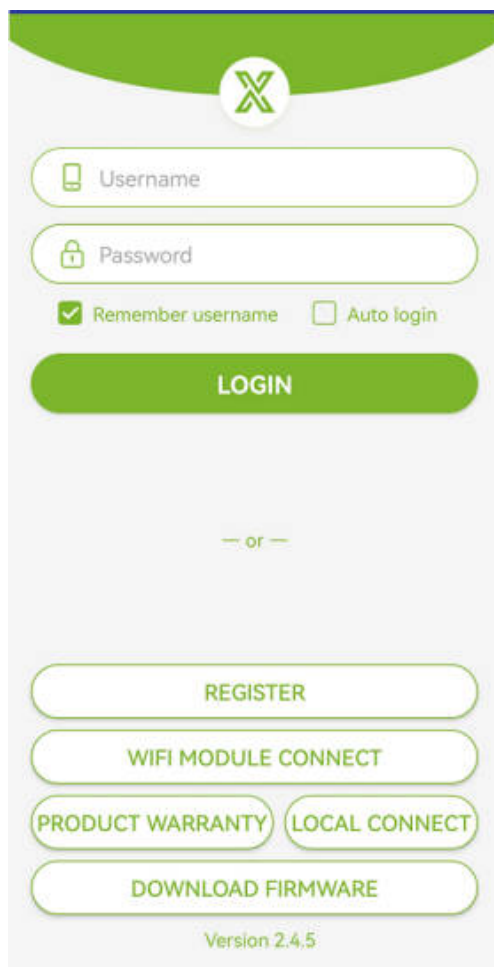


Android APP



IOS APP

Open the APP,you can see the main display



REGISTER:End users can register their account here, see SOP “Account register and WIFI configuration” for details;

WIFI MODULE CONNECT:You can configure to make the wifi dongle connect your homewifi, See SOP “Account register and WIFI configuration” for details;

PRODUCT WARRANTY:N/A

LOCAL CONNECT:If you haven't connected dongle to homewifi and registered your account, you can do system settings in this “local connect” function;

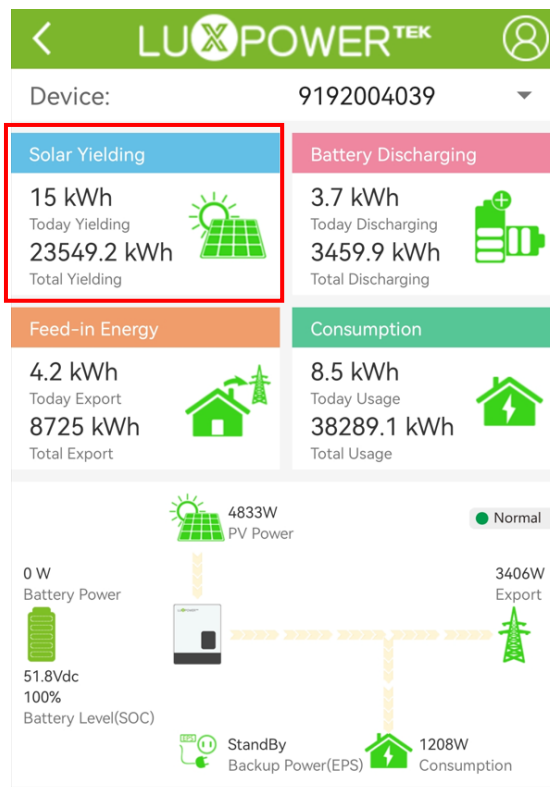
DOWNLOAD FIRMWARE:You can download the latest firmware for different models, and connect dongle's hot spot to update locally.

1.If you have got your account and also connected the homewifi,you can LOGIN to see the monitor .

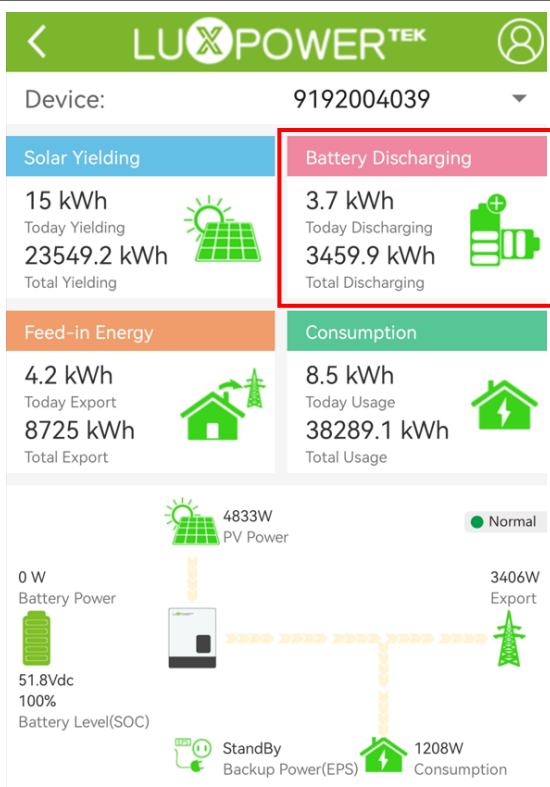
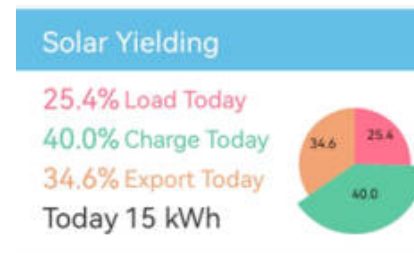
The collage consists of six screenshots from the LUxPOWER™ mobile application, arranged in a grid-like fashion with red arrows pointing to specific features:

- Top Left:** A form for adding a new station. It includes dropdown menus for Continent (Asia), Region (East Asia), Country (China), and Timezone (GMT +8), along with a Daylight saving time toggle and an "ADD STATION" button. Below the form, text says: "You can add new station in your account here".
- Top Middle:** A screenshot of the main station list. A red circle highlights the "Cluster: Asia" and "Cluster: Europe" dropdown menu. Below it, text says: "There are 2 clusters can be chosen,currently most of stations are in Asia cluster,if you can't find the station,you can change to Europe cluster to see.".
- Top Right:** A screenshot of the user profile page showing fields for Username, Real Name, E-mail, Country, Timezone, Tel Number, Address, Manufacturer E-mail, and Manufacturer Tel. It includes "EDIT", "MODIFY PASSWORD", and "LOGOUT" buttons.
- Bottom Left:** A screenshot of the "EDIT STATION" form, similar to the "ADD STATION" form but with an "EDIT STATION" button. Below it, text says: "You can edit the station's information here".
- Bottom Middle:** A screenshot of the main station list with a red box around the "Cluster: Asia" dropdown and a red circle around the "+" icon at the top left. Red arrows point from the text in the other screenshots to these elements.
- Bottom Right:** A screenshot of the "ADD WIFI MODULE" form, which includes fields for "Dongle SN" and "PIN", and an "ADD WIFI MODULE" button. Below it, text says: "You can add wifi dongle for the station,input dongle' s SN and PIN number to add."

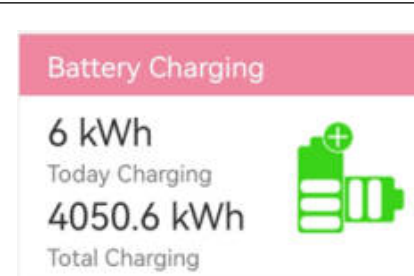
2. Click and enter one station ,you will see some programs as below shows,and do some settings which are same as you do in "LOCAL CONNECT" program.



Click icon to see three kinds of informations showed in **Solar Yielding**

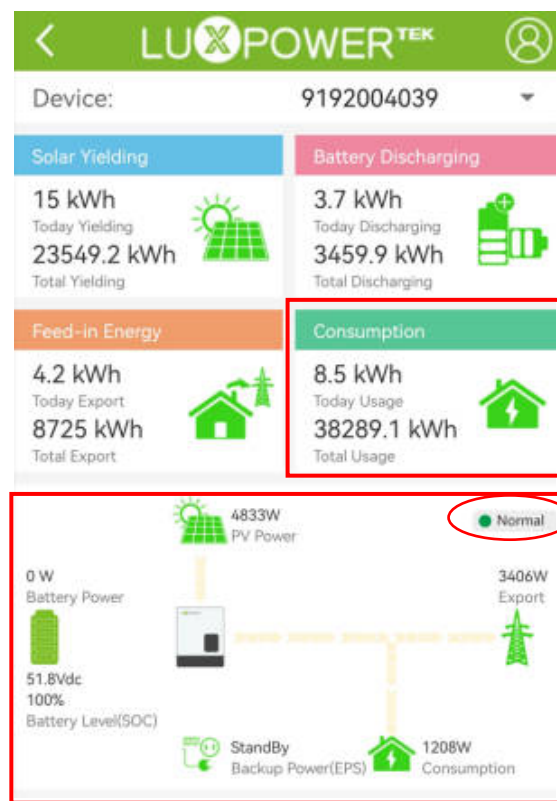


Click icon to see two kinds of informations showed in **Battery Charging&Discharging**





Click icon to see two kinds of informations showed in **Feed-in Energy&Import**



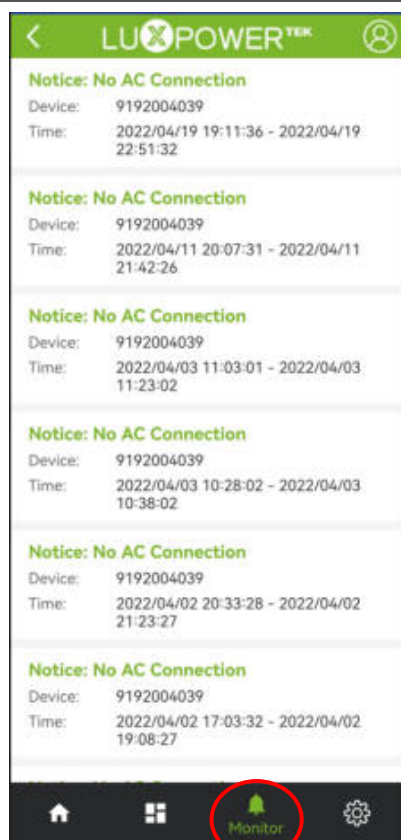
You can see Today Usage and Total Usage in **Consumption**

Here you can see the whole system state of working, if everything is OK and the inverter is online, it will show Normal

Overview display

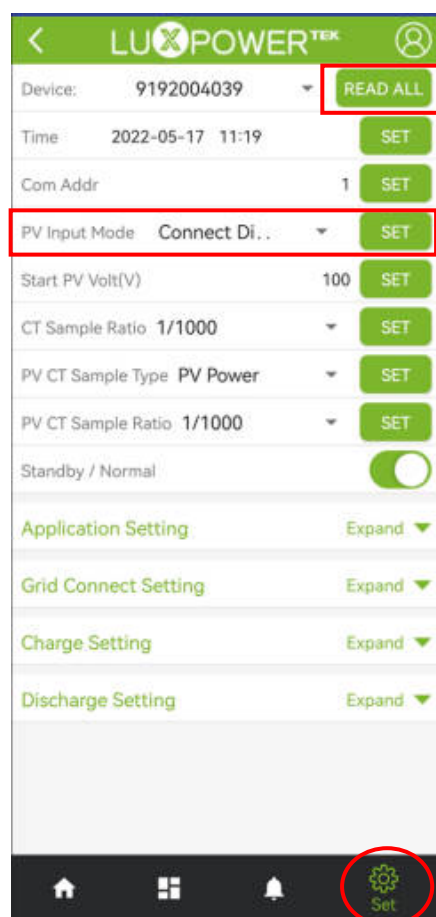


In Data item, you can see the power curve and histogram according to Day, MONTH, YEAR, TOTAL



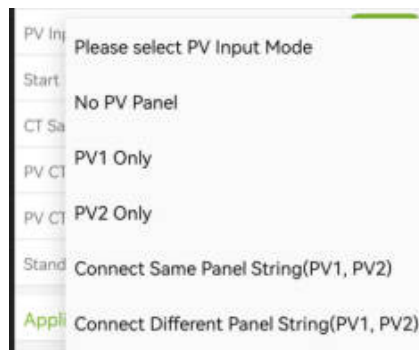
In Monitor item you can see some notifications of the system

Set(same to LOCAL CONNECT item)

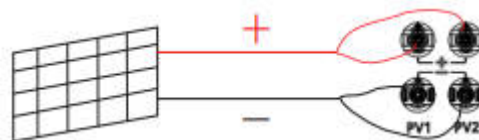


1.You can download the latest version APP ,then wait for about 2~5s,it will read automatically ;If it doesn't read you can click READ ALL

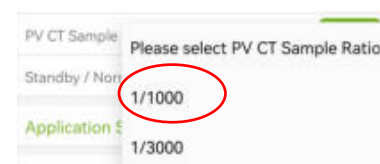
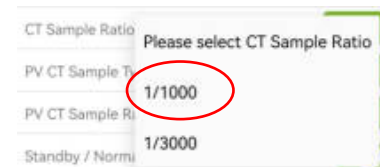
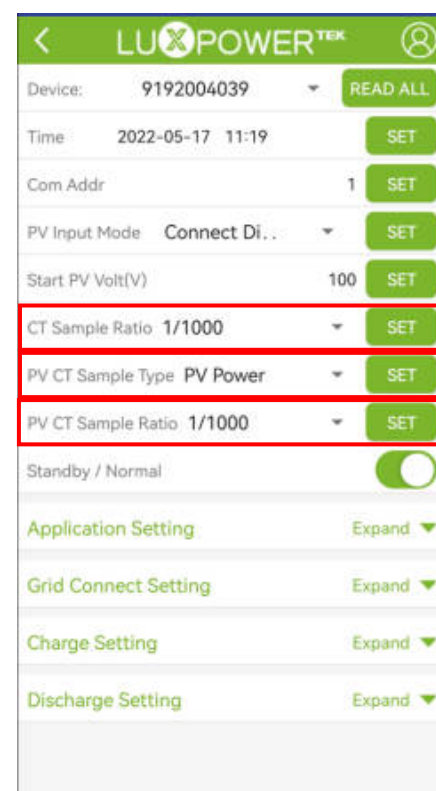
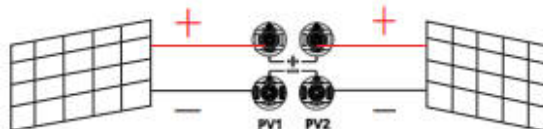
2.PV Input Mode:Choose the correct one



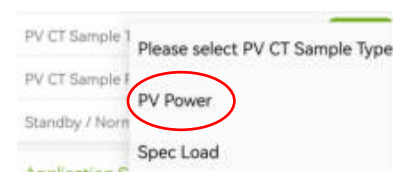
Connect Same Panel String(PV1,PV2)



Connect Different Panel String(PV1,PV2)



CT Ratio:default 1/1000,,please choose correct one



Default
PV Power

Standby/Normal:choose to make inverter be standby state or normal work state,when you want to setup battery or configure meter or enable the off-grid mode,you need to make it standby.

Application Setting:

Power Backup:If you enable it,battery will supply power to EPS side when grid is not available

Fast Zero Export:If you don't want to export the excess PV power strictly , you can set “ **Feed in Grid disable**”, and “**Fast zero export enable**”

PV Grid Off:If you enable it,when the system is off-grid and has no battery available,it still can supply power to EPS output side by PV,but it's not recommended to carry big loads because PV source is not stable.

Feed-in Grid:If you want to export excess PV power you can enable it and set **Feed-in Grid Power Percent(%)**

System Type:When it is [paralleled](#) system,you need to set one of inverters as Primary(Master) and the others as Subordinates(Slaves)

Composed Phase:Select correct Phase for each of inverters

LUXPOWER TEK

PV CT Sample Ratio: 1/1000 SET

Standby / Normal ☒

Application Setting Collapse ▲

Power Backup Enable ☒

Fast Zero Export Enable ☒

PV Grid Off Enable ☐

Feed-in Grid ☒

Feed-in Grid Power Percent(%) 100 SET

System Type Please select Sys. . SET

Composed Phase SET

Micro-Grid Enable ☐

Battery Shared ☐

Max. AC Input Power 0 SET

Grid Connect Setting Expand ▼

Charge Setting Expand ▼

Discharge Setting Expand ▼

Micro-Grid Enable: If it's a completely off grid system, you can **enable Micro-Grid** and **Power Backup**, when the generator is on, the battery will be charged automatically.

Battery Shared: when it is **paralleled** system, we recommend to connect power cables from the whole battery bank to each of inverters, and enable this Battery Shared function.

Max.AC Input Power: you can set it as you want. When it's **paralleled** system, you can set the total AC Input power which you want in the Primary model, Subs(Slaves) no need to set. And if you set it to 0W, AC won't supply power to charge battery, but it still supply the load.

LUXPOWER TEK

Grid Connect Setting Collapse ▲

Connect Time(s) 30 SET

Reconnect Time(s) 30 SET

Grid Volt Connect High(V) 260 SET

Grid Volt Connect Low(V) 192 SET

Grid Freq Connect High(Hz) 65 SET

Grid Freq Connect Low(Hz) 45 SET

Grid Volt Limit1 Low(V) 184 SET

Grid Volt Limit1 High(V) 264.5 SET

Grid Volt Limit2 Low(V) 184 SET

Grid Volt Limit2 High(V) 264.5 SET

Grid Volt Limit3 Low(V) 184 SET

Grid Volt Limit3 High(V) 264.5 SET

Grid Volt Mov Avg High(V) 260 SET

Grid Freq Limit1 Low(Hz) 45 SET

Grid Freq Limit1 High(Hz) 65 SET

Grid Freq Limit2 Low(Hz) 45 SET

Grid Freq Limit2 High(Hz) 65 SET

Grid Freq Limit3 Low(Hz) 45 SET

Grid Freq Limit3 High(Hz) 65 SET

Grid Connect Setting:

Connect&Reconnect Times(s): the time for inverter detects grid connection

All the other Grid Settings:

keep the factory default setting, no need change

Charge Priority	<input type="checkbox"/>	
Priority Charge Rate(%)	100	SET
Priority Charge Level(%)	100	SET
Forced Charge Start Tim	06 : 00	SET
Forced Charge End Time	10 : 00	SET
Forced Charge Start Tim	00 : 00	SET
Forced Charge End Time	00 : 00	SET
Forced Charge Start Tim	00 : 00	SET
Forced Charge End Time	00 : 00	SET
Charge Voltage for Lead-Acid Battery	52.5	SET
Floating Voltage(V)	52.5	SET
Charge Current Limit	60	SET

AC Charge End Time 1/2/3: set to stop AC charge at time

Charge Current Limit: it's up to 80A, but please set it according to battery spec

Discharge Setting

Collapse

System Discharge Power Rate(%)	100	SET
Forced Discharge Enable	<input type="checkbox"/>	
Forced Discharge Power Rate(%)	100	SET
Forced Discharge Battery Level(%)	50	SET
Forced Discharge Start T	15 : 00	SET
Forced Discharge End Ti	15 : 30	SET
Forced Discharge Start T	00 : 00	SET
Forced Discharge End Ti	00 : 00	SET
Forced Discharge Start T	00 : 00	SET
Forced Discharge End Ti	00 : 00	SET
On-grid Discharge Cut-off SOC(%)	40	SET
Off-grid Discharge Cut-off SOC(%)	15	SET
Discharge Cut-off Volt	40	SET
Discharge Current Limit	66	SET

Home

Menu

Notification

Set

Discharge Setting

System Discharge Power Rate(%):it's up to 4000W for battery discharge,0%~100% can be set

Forced Discharge:if you enable it,the battery will be forced discharge

Forced Discharge Power Rate(%):it's up to 4000W for battery discharge,0%~100% can be set

Forced Discharge Battery Level(%):Battery forced discharge cut-off SOC,0%~100% can be set

Force Discharge Start Time: set to start forced discharge battery at time

Force Discharge End Time: set to stop forced discharge battery at time

On-grid Discharge Cut-off SOC(%):0%~100% can be set, follow the lithium battery manual

Off-grid Discharge Cut-off SOC(%):0%~100% can be set, follow the lithium battery manual

Discharge Cut-off Volt:Min.value is to 40V, please follow the battery manual

Discharge Current Limit:it's up to 80A, please follow the battery manual

LuxPowerView(APP) user guide

1.Download APP in Google Play or Apple store,



Or scan the QR code

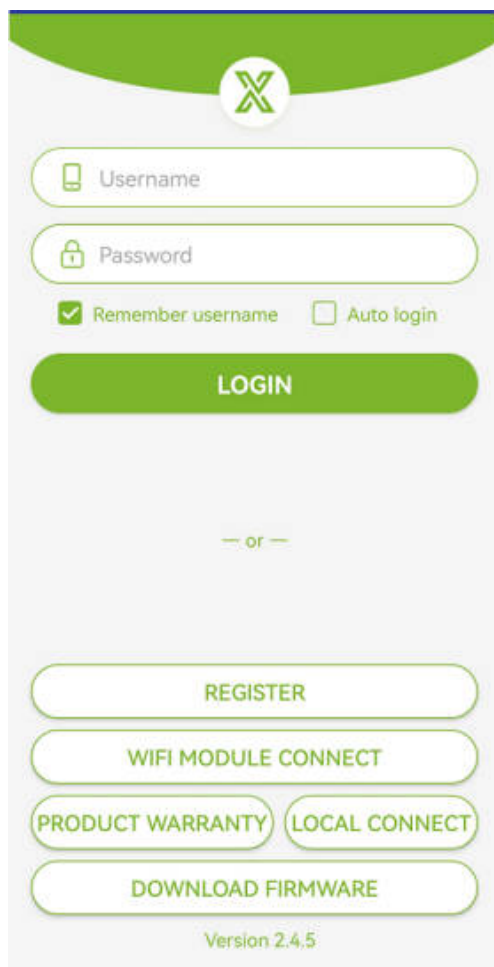


Android APP



IOS APP

Open the APP,you can see the main display



REGISTER:End users can register their account here, see SOP “Account register and WIFI configuration” for details;

WIFI MODULE CONNECT:You can configure to make the wifi dongle connect your homewifi, See SOP “Account register and WIFI configuration” for details;

PRODUCT WARRANTY:N/A

LOCAL CONNECT:If you haven't connected dongle to homewifi and registered your account, you can do system settings in this “local connect” function;

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1.If you have got your account and also connected the homewifi,you can LOGIN to see the monitor .

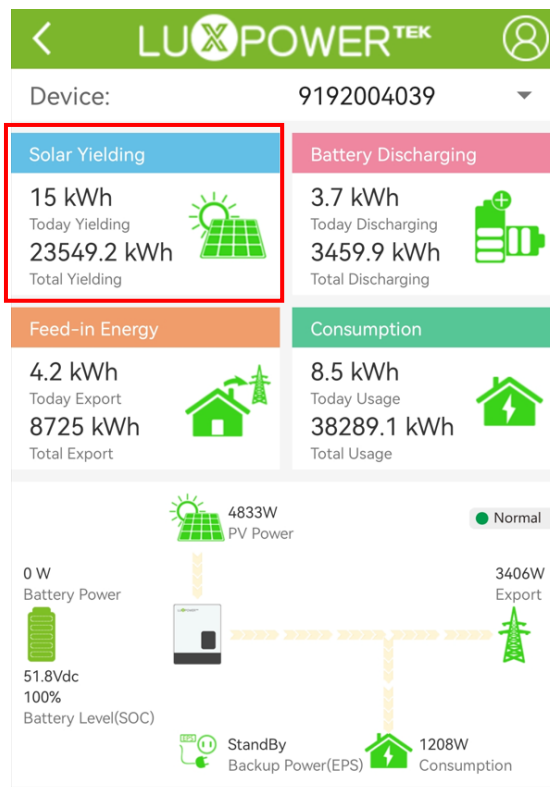
You can add new station in your account here

You can edit your account information and modify the password here

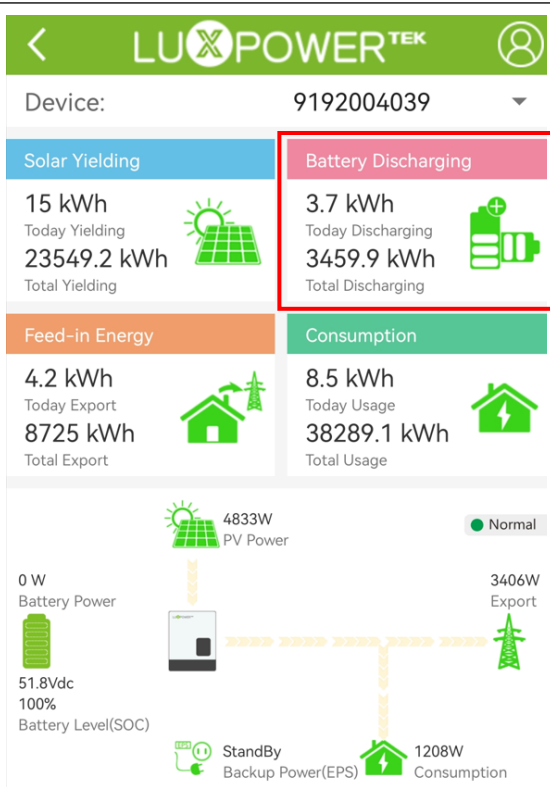
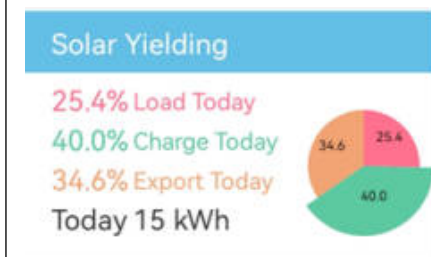
You can edit the station's information here

You can add wifi dongle for the station, input dongle's SN and PIN number to add.

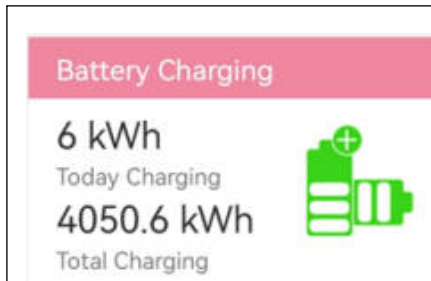
2. Click and enter one station ,you will see some programs as below shows,and do some settings which are same as you do in "LOCAL CONNECT" program.



Click icon to see three kinds of informations showed in **Solar Yielding**

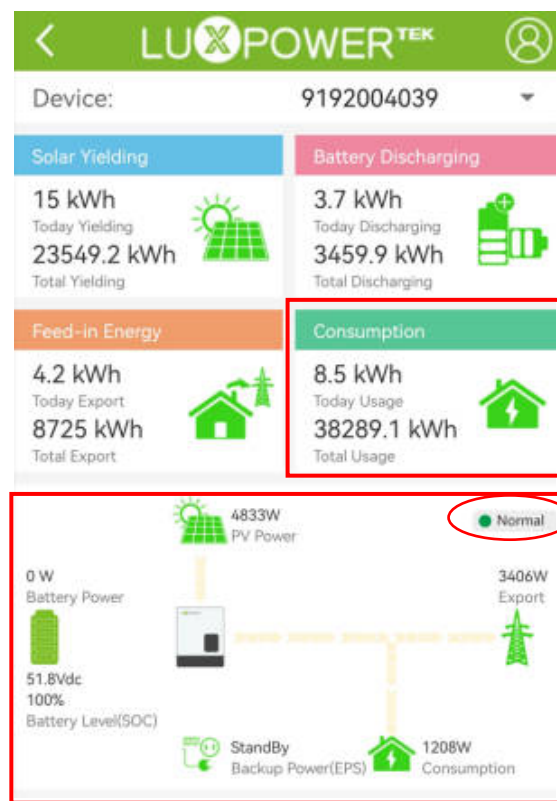


Click icon to see two kinds of informations showed in **Battery Charging&Discharging**





Click icon to see two kinds of informations showed in **Feed-in Energy&Import**



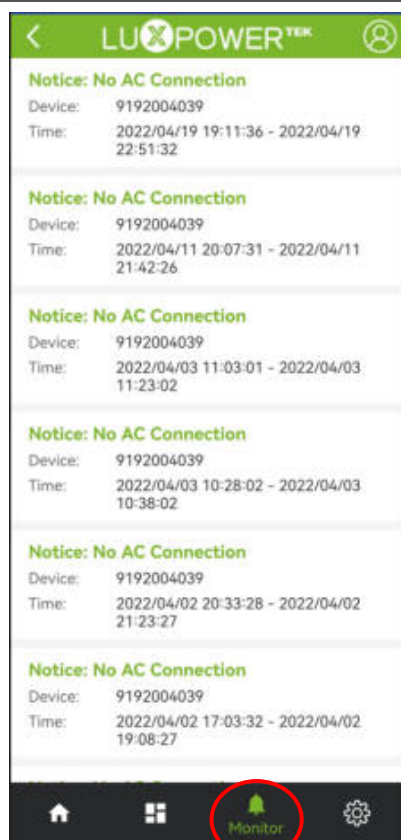
You can see Today Usage and Total Usage in **Consumption**

Here you can see the whole system state of working, if everything is OK and the inverter is online, it will show Normal

Overview display

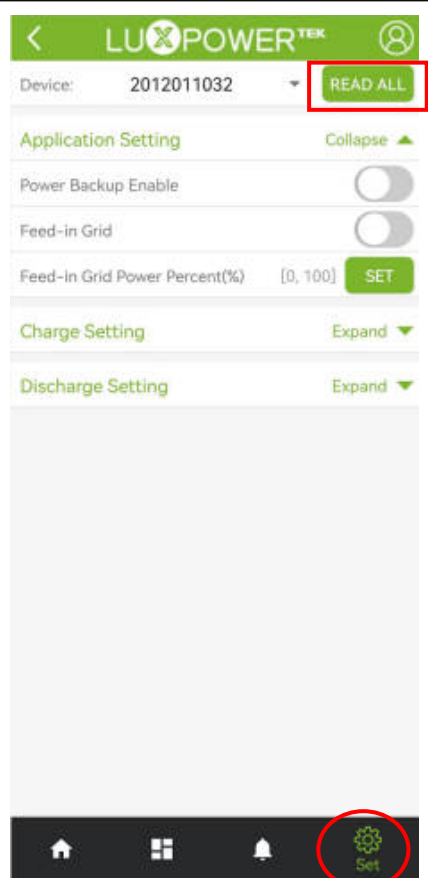


In Data item, you can see the power curve and histogram according to Day, MONTH, YEAR, TOTAL



In Monitor item you can see some notifications of the system

Set(same to LOCAL CONNECT item)

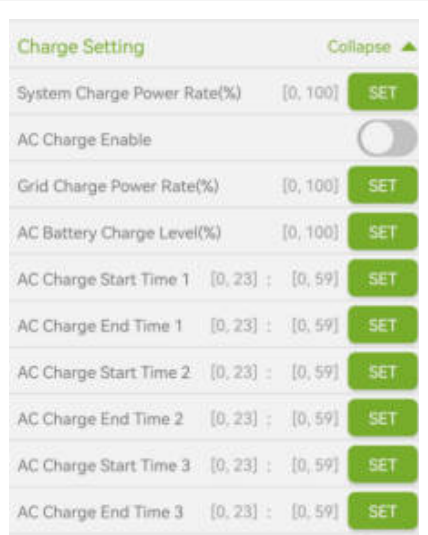


1.You can download the latest version APP ,then wait for about 2~5s,it will read automatically ;If it doesn't read you can click READ ALL

Application Setting:

Power Backup:If you enable it,battery will supply power to EPS side when grid is not available

Feed-in Grid:If you want to export excess PV power you can enable it and set **Feed-in Grid Power Percent(%)**



Charging Setting:

System Charge Power Rate(%):0%~100% can be set

AC Charge:If you enable AC charge,grid will charge the battery in the time,and battery won't discharge until AC is not available

Grid Charge Power Rate(%):Grid charge power is up to 4000W,the rate can be set at 0%~100%

AC Battery Charge Level(%):The end of charge for battery SOC%,0%~100% can be set

AC Charge Start Time 1/2/3:set to start AC charge at time

AC Charge End Time 1/2/3:set to stop AC charge at time

LUPOWER TEK

Charge Priority ☐

Priority Charge Rate(%) [0, 100] SET

Priority Charge Level(%) [0, 100] SET

Forced Charge Start Time [0, 23] : [0, 59] SET

Forced Charge End Time [0, 23] : [0, 59] SET

Forced Charge Start Time [0, 23] : [0, 59] SET

Forced Charge End Time [0, 23] : [0, 59] SET

Forced Charge Start Time [0, 23] : [0, 59] SET

Forced Charge End Time [0, 23] : [0, 59] SET

Charge Voltage for Lead-Acid Battery [50, 56] SET

Floating Voltage(V) [50, 56] SET

Charge Current Limit [0, 140] SET

Charging Setting:

Charge Priority: If you enable it, PV power will charge the battery as priority

Priority Charge Rate(%): PV charge power is up to 4000W, the rate can be set at 0%~100%

Priority Charge Level(%): Battery PV charge cut off SOC, 0%~100% can be set

Forced Charge Start Time: set to start PV charge at time

Forced Charge End Time: set to stop PV charge at time

Charge Voltage for Lead-Acid: please follow the battery's recommendation

Floating Voltage(V): please follow the battery's recommendation

Charge Current Limit: it's up to 80A, but please set it according to battery spec

Discharge Setting Collapse ▲

System Discharge Power Rate(%) [0, 100] SET

Forced Discharge Enable ☐

Forced Discharge Power Rate(%) [0, 100] SET

Forced Discharge Battery Level(%) [0, 100] SET

Forced Discharge Start Time [0, 23] : [0, 59] SET

Forced Discharge End Time [0, 23] : [0, 59] SET

Forced Discharge Start Time [0, 23] : [0, 59] SET

Forced Discharge End Time [0, 23] : [0, 59] SET

Forced Discharge Start Time [0, 23] : [0, 59] SET

Forced Discharge End Time [0, 23] : [0, 59] SET

On-grid Discharge Cut-off SOC(%) [10, 90] SET

Off-grid Discharge Cut-off SOC(%) [0, 90] SET

Discharge Cut-off Volt [40, 50] SET

Discharge Current Limit [0, 140] SET

Discharge Setting

System Discharge Power Rate(%): it's up to 4000W for battery discharge, 0%~100% can be set

Forced Discharge: if you enable it, the battery will be forced discharge

Forced Discharge Power Rate(%): it's up to 4000W for battery discharge, 0%~100% can be set

Forced Discharge Battery Level(%): Battery forced discharge cut-off SOC, 0%~100% can be set

Force Discharge Start Time: set to start forced discharge battery at time

Force Discharge End Time: set to stop forced discharge battery at time

On-grid Discharge Cut-off SOC(%): 0%~100% can be set, follow the lithium battery manual

Off-grid Discharge Cut-off SOC(%): 0%~100% can be set, follow the lithium battery manual

Discharge Cut-off Volt: Min. value is to 40V, please follow the battery manual

Discharge Current Limit: it's up to 80A, please follow the battery manual