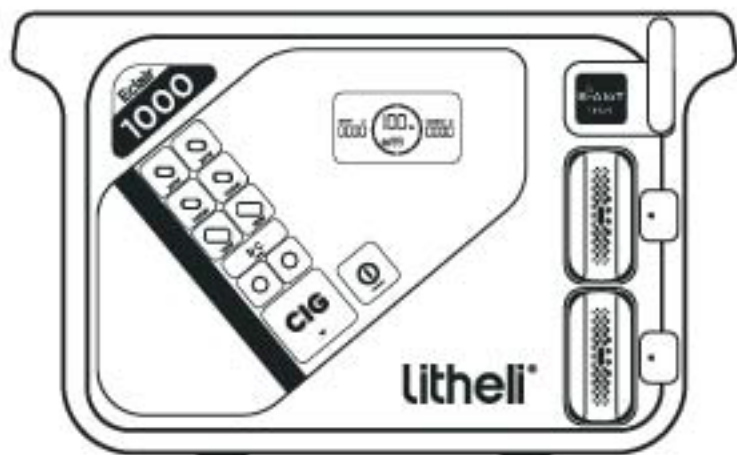


# litheli power

Operating  
Manual

## POWER HUB ECLAIR 1000

Model No.:U20EH17



**WARNING:**

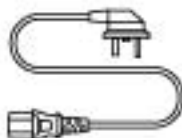
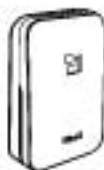
To reduce the risk of injury, the user must read and understand the user manual before using this product. Save this manual for future reference.

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# WHAT'S IN THE BOX

Please kindly check all accessories are complete. If any accessories missing, please feel free to contact us at: [service@litheli.com](mailto:service@litheli.com)



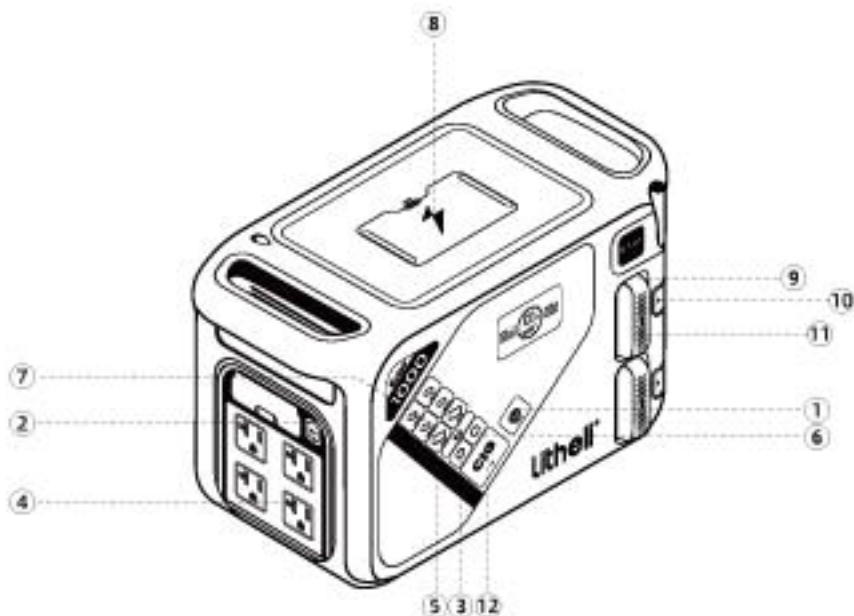
Model No.	U20EH17
Litheli Power Hub Eclair1000	1
U-Battery Plus	2
Type-C Charging Cable for Batteries	2
AC Charging Cable	1
Vehicle Charging Cable	1
Operating Manual&Warranty Card	1

## UNPACKING

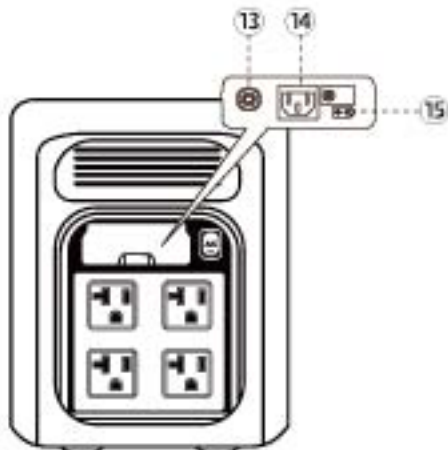
- This product requires no assembly.
- Take out all items. Make sure that all items listed in the parts list are included.
- Inspect the product carefully to make sure that no breakage or damage has occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please return the product to the place of purchase.

**\*Note: Please charge your new Lithell Power Hub Eclair1000 before first use: plug it into a suitable power outlet until it is fully charged.**

## KNOW YOUR Eclair1000



1. Main Power Switch
2. AC Branch Switch
3. DC Power Button
4. AC Output
5. USB-A Charging Port
6. DC5521 Output Port
7. Type-C Charging Port
8. Pogo Pin Charging Area
9. Battery Plus Charging Port
10. Battery Release Button
11. U-Battery Plus
12. Car Outlet
13. Overload Protection Switch
14. AC Input Port
15. XT60 Input (for Solar Panel / Vehicle Charging Input)



No.	Parts	Description
1	Main Power Switch	Press and hold the button for about 2 seconds to switch on/off the device. The button indicator light turns on/off. The U-Battery Plus charging and wireless charging will then be turned on/off.
2	DC Power Button	Controlling the Car Outlet Port and DC5521 output. Press the DC Power Button to start or stop DC output. <b>NOTICE:</b> Remember to unplug your DC electrical appliances and switch off the power button after each use.

Controlling the AC port. Press the AC Power Button to start or stop the AC output. The button indicator light will then turn on/off.

**NOTICE:**

1.The AC output will automatically turn off in 6 hours when no electrical appliance is connected.

2.If there are no electrical appliances connected, press the AC power button to stop the AC output.

3. When the AC output is on, press the AC Power Button twice to switch between the Standby Six-hour Mode and the Normally Open Mode of the AC output.

3 AC Power Button

4 U-Battery Plus

The U-Battery Plus can be inserted in the Eclair1000 for charging and it can be used as an power bank.

5 Overload Protection Switch

The device has overload protection that ensures the switch button pops out when the charging current exceeds a certain level.

Confirm that there is no device fault and press the overload protection switch to resume charging.

6 Type-C Charging Port (100W)

5V/3A,9V/3A,12V/3A,15V/3A,20V/5A,100w(Max)

7 Type-C Charging Port (20W)

5V/3A,9V/2.22A,20W(MAX)

8 USB-A Charging Port (18W)

5V/3A 9V/2A 12V/1.5A 18W (MAX)

9 AC Output 110V (1800W; Peak Power 2700W)

10 Pogo Pin Charging Area  
80W(20V,4A)  
**NOTICE:**  
1.To prevent charging failure, align the Pogo Pin charging connector of U20 Dual Battery Charger exactly with the Pogo Pin charging area of Eclair1000.  
Do not put any metal objects onto the Pogo Pin charging area while it is working.

11 DC5521 Output 12.6V 126W (MAX) Sharing the output with vehicle charging port.

12 XT60 Input 400W, 11-60V, 15A (MAX)

13 AC Input 110-120Vac,16A(MAX)

# CHARGING YOUR ECLAIR1000

Eclair1000 has an AC input port and an XT60 DC input port to charge itself.

You can charge the Eclair1000 by the wall outlet, using a vehicle 12V DC charging outlet, or by connecting it to solar panels.

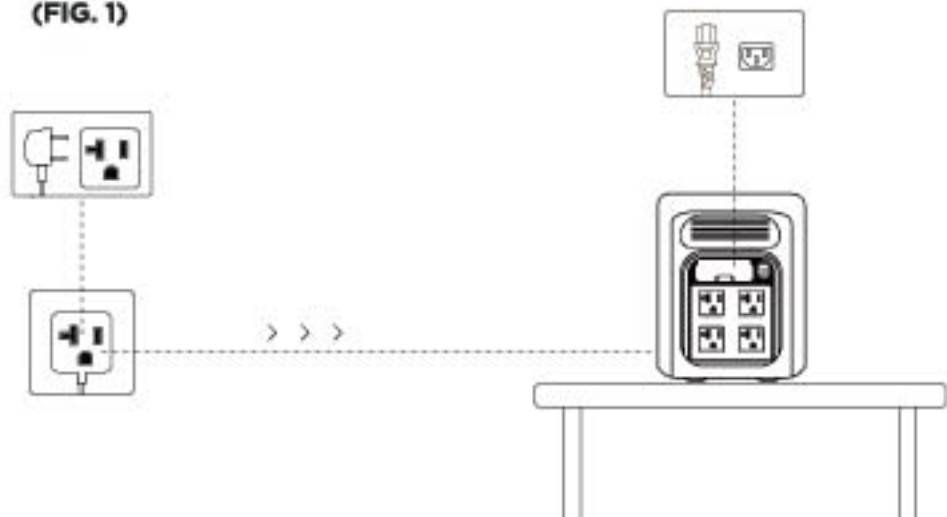
## NOTICE:

- Fully charge your Eclair1000 before using it.
- The Eclair1000 can charge other electrical appliances while charging itself.
- During charging, if the input current continues to exceed 10A, the AC input will trigger overload protection. In this case, the overload protection switch automatically pops up. After confirming that the Eclair1000 is back to normal, press the overload protection switch to resume charging.

## - CHARGING VIA WALL OUTLET (FIG. 1)

An AC charging cable is provided for charging Eclair1000. Open the side cover and connect the Eclair1000 and the wall outlet using the provided charging cable to start the AC charging.

(FIG. 1)





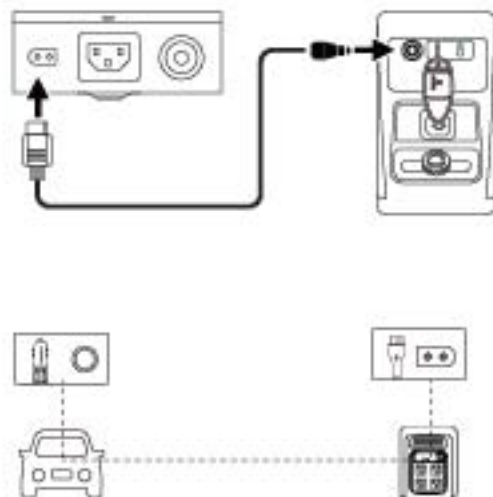
## - CHARGING VIA XT60 INPUT (VEHICLE CHARGING INPUT) (FIG. 2)

**NOTICE:** The power input via the XT60 input port of the Eclair1000 must not exceed 400W. The XT60 input port supports automotive batteries of 11V - 60V, with an electric current of 15A at most.

**⚠ WARNING:** While using the XT60 input port (vehicle charging input) to charge the Eclair1000, make sure the car engine is running, otherwise the automotive battery may be depleted.

Using the provided vehicle charging cable to connect the Eclair1000 to the car to start charging.

(FIG. 2)



## - CHARGING VIA XT60 INPUT (CONNECTING TO SOLAR PANELS)

### NOTICE:

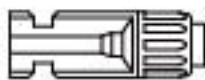
Users who use their universal solar panels with non-MC4 connector to power the equipment, please note:

- The solar panel should be in the voltage and current range.
  - Please confirm the positive and negative direction of your solar panel(as shown in the figure below).
  - Please connect the positive pole of your solar panel to the MC4 Male head and the negative pole to the MC4 Female head(as shown in the figure below).
  - Connecting the wrong MC4 interface may damage the device. Litheli does not guarantee equipment failure caused by improper personal operation.
- ☞ We recommend that you use the Litheli solar panels.

### ① MC4 Part

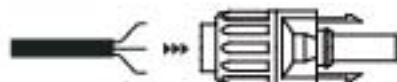


MC4 Male Connector



MC4 Female Connector

- ② Connect the positive pole to the MC4 Male head and the negative pole to the MC4 Female head.

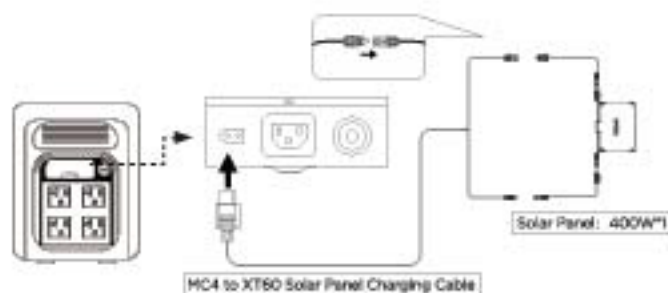
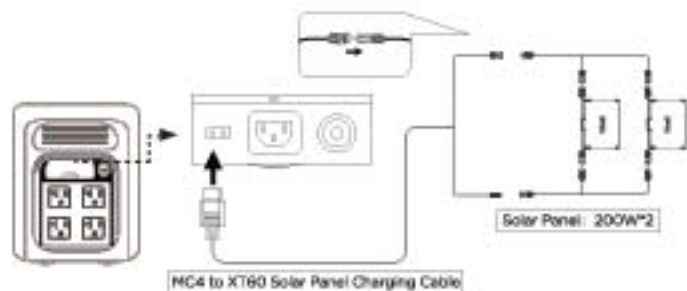


Solar Panel Positive Pole +



Solar Panel Negative Pole -

Before connecting the solar panel, please make sure the positive pole of the solar panel connects to the MC4 Male head and negative pole to the MC4 Female head (as demonstrate in the figure below).



Please refer to the operation manual for Solar Panels for details on using them to charge the Eclair1000. The solar panels should be purchased separately.

**⚠WARNING:**

- The XT60 input port of the Eclair1000 only supports input DC voltages between 11V and 60V. When the input voltage is greater than 60V, it will activate the over voltage protection to avoid damage. Please follow the instructions in the manual.
- Product damage caused by exceeding the number of solar panels that can be connected (< 2) or not following the instructions in the manual is not covered by the warranty.
- Do not connect the solar panels in series while charging.

The Eclair1000 supports all universal solar panels on the market with a standard MC4 port. You can use other solar panels that meet the below specifications to charge the Eclair1000.

Voltage	11V $\overline{\text{=}}$ - 60V $\overline{\text{=}}$
Electrical current	15A at most

## USING YOUR ECLAIR1000

**⚠WARNING:** Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is deemed misuse and could result in a hazardous condition leading to serious injury.

**⚠WARNING:** Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict injury.

**⚠WARNING:** Do not use any attachments or accessories not recommended by the manufacturer of this product. Use of attachments or accessories not recommended can result in serious personal injury.

### SWITCH ON/OFF THE Eclair1000

#### - SWITCHING ON

**a.** Press the main power switch and hold it for 2 seconds or longer, the LCD screen will light up with a beep, displaying icons of current battery percentage, annular battery indicator, and remaining battery time. At the same time, the button indicator light will illuminate to show that the Eclair1000 is now switched on. You can now either charge the Eclair1000 or charge your electrical appliances with the Eclair1000.

**b.** After switching on, press the main power switch once, then the LCD screen will darken, and the button indicator light of the main power switch will slowly flash to show that the Eclair1000 is still working. Any of the action of pressing the main power switch once again, inserting or removing the appliance to or from the Eclair1000, or any button pressing will light up the LCD screen again.

## - SWITCHING OFF

a. To switch off the Eclair1000, press the main power switch and hold it for 2 seconds or longer, the LCD screen will go off with a beep, also the button indicator light will go off.

### NOTICE:

- If the LCD screen is darkened before switching off, after pressing the main power switch, the LCD screen will first light up, then go off.
- If there is no operating action after switching on, then the LCD screen will automatically darken in 3 minutes. Any of the action of pressing the main power switch once again, inserting or removing the appliance to or from the Eclair1000, or any button pressing, will light up the LCD screen again. At the same time, the corresponding icons will appear on the screen.
- After switching on, if there is no operating action on the Eclair1000, and no electrical appliance is connected, then the Eclair1000 will automatically turn off in 6 hours.
- You can set the screen off time and no-load shutdown time through the APP.

## RESET THE WIFI

You need to reset the WiFi before first use or after network environment changes.

- Perform the preceding steps to start the Eclair1000.
- Short press the DC power button to turn on the DC output, then long press the DC power button for 5 seconds until the IoT indicator icon flashes to reset WiFi and Bluetooth.

## APP CONNECTION AND CONTROL

Scan the QR code on the body of Eclair1000 to download Litheli APP.

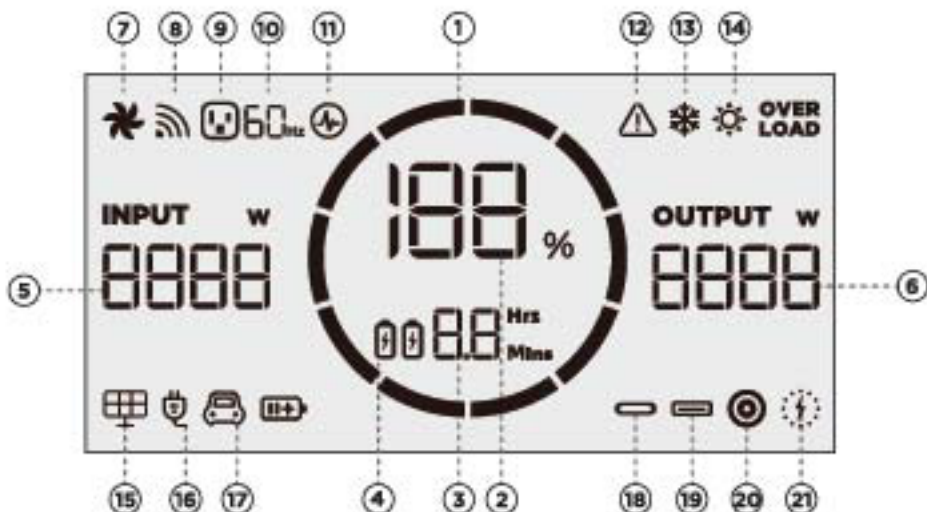
After resetting the WiFi, you can use the APP to search and connect your Eclair1000, and then reconfigure the WiFi through the APP.

For details about the operations and contents, refer to the APP operating manual.

On the Litheli APP, you can check the information and data of the Eclair1000, control the output switch, and set the charging time, standby time and other parameters.



## ICONS PRESENTATION DISPLAYED ON LCD SCREEN





No.	Icon	Title	Description
-----	------	-------	-------------


1










Battery Indicator

10 indicator lights in total. Each indicates 10% power of the battery. When charging, the 10 indicator lights will illuminate successively. The annular indicator light will illuminate to be a complete circle when fully charged.

2		Battery Percentage	<p>Displaying current battery power by percentage from 0% to 100%. When the battery power is lower than 10%, the icons of battery percentage and remaining battery time will flash to warn you of low battery. They will not stop flashing until charging starts, or the Eclair1000 is turned off.</p>
3		Remaining Battery Time / Charging Time	<p>Real-time update of charging time or remaining battery time.</p> <ol style="list-style-type: none"> <li>1. When charging the Eclair1000 itself, charging time will be shown on the LCD screen. It will show 99h if the expected charging time exceeds 99h.</li> <li>2. When discharging (means charging other equipment), remaining battery time will be shown on the LCD screen.</li> <li>3. When charging and discharging is carried out at the same time, if charging power is greater than discharging power, then it shows charging time. Otherwise, it shows remaining battery time.</li> </ol>
4		U-Battery Plus Inserting	<p>Illuminates when U-Battery Plus is inserted into Eclair1000.</p>
5		Power Input	<p>Displaying real charging power.</p>
6		Power Output	<p>Displaying real discharging power.</p>

7		Fan Working	It starts automatically when AC input starts, or the output power of any port is greater than 100W.
8		B-Bluetooth	After DC output starts, press and hold the DC Power Button until the icon blinks, showing it enters the networking state, and the icon stays on after the connection.
9		AC Output On	After AC output starts, it illuminates when an electrical appliance is connected and AC output is in progress.
10		Hertz Icon	Real-time Hertz display Long press the AC switch button to switch between 50Hz and 60Hz with the AC on.
11		AC Normally Open	When the AC output is on, press the AC power button twice to enter "AC Normally Open" mode, and this icon will be displayed on the LCD screen.
12		Alarm	Flashing indicates the alarm.
13		Low Temperature Alarm	Illuminates to warn of a low temperature.



14		High Temperature Alarm	Illuminates to warn of a high temperature.
15		MPPT Access Indication Icon	The MPPT access icon lights up and displays the input power.
16		Charging Through Wall Outlet: On	Illuminated when the Eclair1000 is plugged in wall outlet to start charging.
17		DC Normally Open	When the DC mode is on, the DC normally open mode can be entered by pressing the DC button twice, and this icon will light up at this time. This mode can be turned off by short pressing the DC switch button. You can also turn on or off the DC normally open mode through APP operation.
18		Type-C Charging On	Illuminated when an electrical appliance is connected and Type-C charging is in progress.
19		USB Charging On	Illuminated when an electrical appliance is connected and USB charging is in progress.
20		Vehicle Charging On	After DC output starts, it illuminates when an electrical appliance is connected and vehicle charging is in progress. <b>NOTICE: It will illuminate and stay on when the Eclair1000 enters "DC Normally Open" mode.</b>

**NOTICE:**

**When the Eclair1000 is turned on and the LCD screen lights up, press the main power switch twice, then the LCD screen will keep lighting up. If you no longer need this feature, in the state of screen lighting up, press the main power switch twice to restore factory settings.**

**NOTICE:**

▪ After the Eclair1000 is turned on, the annular battery indicator lights will illuminate and stay on to show the current remaining battery. When charging the Eclair1000, the 10 indicator lights of the annular battery indicator lights will illuminate successively to indicate the charging process.

▪ After the Eclair1000 is turned on, the LCD screen will show the icons of the annular battery indicator, the battery percentage, and remaining battery time. When different operations are carried out (e.g. USB charging, vehicle charging, DC output, or AC output), the corresponding icons will appear on the LCD screen. They will disappear after the electrical appliance is disconnected.

▪ When the battery power is lower than 10%, the icons of battery percentage and remaining battery time will flash to warn you of low battery.

▪ Use the Litheli APP to connect the Eclair1000, the icon blinks when entering the networking state, and the icon stays on after the connection.

## MAINTENANCE AND STORAGE

**⚠ WARNING:** When servicing, use only identical replacement parts. The use of any other parts may create a hazard or cause product damage. To ensure safety and reliability, all repairs should be performed by a qualified service technician.

**⚠ WARNING:** For the user's safety, worn or damaged parts must be replaced. Replace with original replacement parts only.

**⚠ WARNING:** To prevent serious injury from product failure, do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

## CLEANING

- a. Do not attempt to repair this product.
- b. Regularly check the Eclair1000 and clean it. Keep the Eclair1000 clean and free of dust. Wipe the outer covering with a clean, non-abrasive, soft, and dry cloth to keep its appearance clean. Do not use tough cleaning tools such as steel wool to clean.
- c. Never wet or spray water on the Eclair1000. Do not use any lubricants, detergents, solvents, or polishing agents as these could cause irreparable damage. Chemicals can destroy the plastic parts.
- d. If deep cleaning is required, we recommend that you use a cleaner designed for screens of mobile phones and computers.

## DEVICE STORAGE TIPS

1. Examine this product thoroughly for worn, loose, or damaged parts. Should you need to repair or replace a part, contact Lithell Customer Service for assistance.
2. Remove the U-Battery Plus, if any. Allow the Eclair1000 to cool down.
3. Before storage, switch off the Eclair1000. Store the Eclair1000 and its accessories indoors in a locked and dry, well-ventilated place within the recommended temperature range and out of the reach of children to avoid direct contact with water and prevent unauthorized use or damage.

4. To prolong battery life, please charge and discharge the Eclair1000 every 3 months if you need to store it for a long period. First discharge the battery of the Eclair1000 to 30% power, and then charge the battery of the Eclair1000 to 85% power.
5. If the battery is too low after discharging, fully charge the Eclair1000 before storage. If the battery is too low and it has been stored for a long period, then the product will enter sleep mode. Charge the Eclair1000 to wake it up.
6. Do not store or transport this product together with glasses, watches, metal necklaces, hairpins, or other metal objects.
7. Discharge the battery of the product to be lower than 30% before logistics transportation.
8. Make sure the Eclair1000 is fixed well during transportation to avoid vibration and collision.
9. The Eclair1000 cannot be carried on the plane.

## **U-BATTERY PLUS STORAGE TIPS**

1. Do not expose your battery to water, rain or allow it to get wet in any way. This could permanently damage the battery. Do not use oil or solvents to clean or lubricate your battery as the plastic casing can become brittle and crack, causing a risk of injury.
2. Store the battery at room temperature away from moisture. Do not store in damp locations where corrosion of terminals may occur. As with other battery types, a permanent capacity loss could happen if the battery is stored for long periods at high temperatures (over 120°F / 49°C).

## **FOR BATTERY-POWERED TOOLS**

The ambient temperature range for the use and storage of the tool and the battery is 0°C-45°C (32°F-113°F).

The recommended ambient temperature range for the charging system during charging is 10°C-40°C (50°F-104°F). While charging, the battery and charger should be placed in a cool, dry indoor place with good ventilation.

# SAFETY INSTRUCTIONS

**⚠ WARNING:** Only use the accessories that are provided with this product or the accessories approved by Litheli. Using other accessories might increase the risk of injury. Follow the instructions in this manual to properly use the accessories.

**⚠ WARNING:** This product can expose you to chemicals including lead and Di(2-ethylhexyl) phthalate (DEHP) which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**⚠ WARNING:** Before using this product, carefully read all the instructions and cautionary markings in this manual and on the product. Failure to follow the warnings and instructions may result in a risk of fire, electric shock, serious personal injury, or property damage.

**⚠ WARNING:** To reduce the risk of injury, fire, or electric shock, the user must read and understand the operating manual for their USB accessories and AC electrical appliances in addition to this Operating Manual. Ensure compatibility before using this PowerHUB. Do not use this product if any part is damaged or missing.

When using this product, basic precautions should always be followed, including the following:

1. Read all supplied instructions before using the product.
2. NEVER leave the Power Hub on and unattended. Unattended operation of this product could result in personal injury or property damage. Switch off the Power Hub when not in use.
3. To reduce the risk of injury, close supervision is necessary when the product is used near children.
4. Do not put fingers or hands into any port of the product.
5. Use of an attachment not recommended or sold by the Power Hub manufacturer may result in a risk of fire, electric shock, or injury to persons.
6. Do not use this product in an environment with strong static electricity or electromagnetic fields. The protection function of the product may not work, which will lead to product malfunction.
7. To reduce the risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the Power Hub.
8. ALWAYS ensure that the Power Hub charger-in cord is easily accessible during operation to allow for quick disconnection from the mains.

- 9.** Do not operate the Power Hub with a damaged cord or plug, or a damaged output cable.
- 10.** Do not use a Power Hub that is damaged or modified. Damaged or modified products may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.
- 11.** When using the Power Hub, work in a well-ventilated area and do not restrict ventilation in any way. Do not use or store the product in a dusty or unventilated environment.
- 12.** ALWAYS operate the Power Hub in a clean, dry, well-ventilated area. Make sure your hands are dry before touching this product. Do not allow the product to come into contact with any liquid. Never let this product become wet. Water can conduct electricity! Water that comes in contact with electrically charged components can transmit electricity resulting in electrical shock to anyone contacting them.
- 13.** Do not expose the Power Hub to rain or wet conditions. Water entering the Power Hub will increase the risk of electric shock.
- 14.** If this product accidentally falls into water during use, place it in a safe open area after it is picked up. Leave it alone until it is completely dry. Do not use it again. Discard it according to relevant local regulations.
- 15.** If the product catches fire, it is recommended to first cool it down with water or water mist and use fire extinguishing equipment in the following order: sand, fire blanket, dry powder fire extinguishing agent, and carbon dioxide fire extinguisher.
- 16.** Place the Power Hub on a stable, flat surface where it will not fall or tip over. Do not place heavy objects on the product.
- 17.** Do not use the Power Hub to power medical or other critical devices.
- 18.** Use Power Hub only with U-Battery Plus. The use of any other battery packs may create a risk of injury and fire.
- 19.** The Power Hub is not intended for use in a commercial repair facility.
- 20.** Do not disassemble the Power Hub, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in the risk of fire or electric shock.
- 21.** Have your Power Hub serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the Power Hub is maintained.
- 22.** Save these instructions. Refer to them frequently and use them to instruct others who may use this product. If you lend someone this product, lend them these instructions to prevent misuse of the product and possible injury.

- 23.** Use the product at a temperature between 32°F and 113°F (0°C-45°C). Do not use or store it above 113°F (45°C), which may cause the product to explode; or below -20°F (-4°C), which may negatively affect its performance. Ensure the product is at room temperature before operating.
- 24.** Be aware that this Litheli product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or a lack of experience and knowledge unless they have been given supervision or instruction by a responsible person concerning the use of the product to ensure that they can use it safely.
- 25.** Do not allow it to be used as a toy. Close attention is necessary when used by or near children, pets, or plants. Children should be supervised to ensure that they do not play with this product. Cleaning and user maintenance shall not be performed by children.
- 26.** Use only as described in this manual. Use only the manufacturer's recommended attachments. Do not carry out any maintenance other than that is shown in this manual.
- 27.** Contact the service agent when service or repair is required. Do not disassemble the product yourself as incorrect reassembly may result in an electric shock or fire. All repairs should be performed by a qualified service technician. Do not try to alter any part of this product.
- 28.** Do not use near or on the surface of flammable and explosive objects, which may cause fire and explosion.
- 29.** Do not incinerate the product even if it is severely damaged. It can explode in a fire.
- 30.** Do not use the product in an environment full of flammable and explosive gas to avoid fire or explosion.
- 31.** Stop using immediately if the product is not working as it should, including but not limited to: it has received a sharp blow, has been dropped to the ground, dropped into water, been damaged, overheating, making unusual noises or vibrations, and producing unusual odours or leaking electricity. Switch off the product and contact the service agent.
- 32.** Check and clean each port of the product with a clean dry cloth. Stains on the port will cause poor contact with the cable, which can lead to energy loss or inability to charge.
- 33.** Regularly check the product for any damaged parts. If yes, do not switch it on, and contact the service agent.
- 34.** Follow all charging instructions and do not charge the product beyond the temperature range specified in the instructions. Charging improperly or at temperatures beyond the specified range may damage the battery and increase the risk of fire.
- 35.** Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.

- 36.** Fully charge this product before each use.
- 37.** Before charging, make sure the product is not too hot (as the same as room temperature).
- 38.** The product will be warm when charging or discharging. That is normal.
- 39.** Fully discharge the product before discarding it. Discard the product in accordance with the local environmental regulations.
- 40.** The normal ambient temperature for using and storage is from -20°C to 45°C. The optimal ambient temperature for using and storage is from 20°C to 25°C.
- 41.** Try to avoid storing the product without using it for a long time. It will lower the performance.
- 42.** Please charge and discharge the Eclair1000 every 3 months. Follow the steps below: discharge the battery to 30% power, and then charge it to 85% power. It will keep the product performing well.



## **SAFETY WARNINGS FOR BATTERY PACK**

- 1.** Do not modify or attempt to repair the battery pack. Do not dismantle, open or shred the battery pack.
- 2.** Do not expose a battery pack or appliance to fire or excessive temperature. Exposure to fire or temperature above 265°F (130°C) may cause an explosion.
- 3.** Do not short-circuit a battery pack. Do not store battery packs haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects. When the battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or fire.
- 4.** Do not subject the battery pack to mechanical shock.
- 5.** Observe the plus (+) and minus (-) marks on the battery pack and equipment to ensure correct use.
- 6.** Keep the battery pack out of the reach of children.
- 7.** Always purchase the battery pack recommended by the equipment manufacturer of this equipment.
- 8.** Keep the battery pack clean and dry.
- 9.** Wipe the battery pack terminals with a clean and dry cloth if they become dirty.
- 10.** The battery pack needs to be charged before use. Always use the correct charger and refer to the manufacturer's instructions or equipment manual for proper charging instructions.
- 11.** Do not leave a battery pack on prolonged charge when not in use.
- 12.** After extended periods of storage, it may be necessary to charge and discharge the battery pack several times to obtain maximum performance.
- 13.** The battery pack gives its best performance when it is operated at normal room temperatures (20°C-35°C).
- 14.** Use the battery pack only in the applications for which it was intended. Do not use a battery pack or appliance that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.
- 15.** Remove the battery pack from the equipment when not in use.
- 16.** Dispose of it properly.
- 17.** Do not handle the charger, including charger plug, or charger terminals with wet hands.
- 18.** Do not charge the battery pack outdoors, in rain, or in wet locations.

**19.** Recharge only with the charger described in this manual. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

**20.** Use power tools only with specifically designated battery packs. The use of any other battery packs may create a risk of injury and fire.

**21.** Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

**Save these instructions. Refer to them frequently and use them to instruct others who may use this product. If you lend this tool to someone else, lend these instructions to them to prevent misuse of the product and possible injury.**

## **FCC STATEMENT**

**1.** This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference.

2) This device must accept any interference received, including interference that may cause undesired operation.

**2.** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTICE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio

interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

## **IC WARNING**

This device complies with Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- 1) this device may not cause interference, and
- 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) l'appareil ne doit pas produire de brouillage, et
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

### **IC RF Statement:**

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

## **SAFETY SYMBOLS**

The purpose of safety symbols is to attract your attention to possible danger. The safety symbols and the explanations with them deserve your careful attention and understanding. The warning symbols do not, by themselves, eliminate any danger. The instruction and warnings they give are no substitutes for proper accident prevention measures.

Some of the following symbols may be used on this product. Please study them and learn their meanings. Proper interpretation of these symbols will allow you to operate the product in a safer manner.



To reduce the risk of injury, the user must read the instruction manual.



**SAFETY ALERT** - indicates a precaution, a warning, or a danger.



Do not burn the battery pack.



Batteries may enter the water cycle if disposed of improperly, which can be hazardous to the ecosystem. Do not dispose of old batteries as unsorted municipal waste.



Li-Ion



Li-Ion battery. This product has been marked with a symbol relating to "separate collection" for all battery packs and batteries. It will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.



Class II.



Short-circuit-proof safety isolating transformer.



Do not expose to rain.



Direct current - Type or a characteristic of current.



Alternating current.

## U-BOOST AND UPS

### U-Boost:

To prevent operation failures caused by overload protection, the U-Boost function will activate automatically when the total output exceeds the rated output power. This enables the product to provide power for high wattage devices at the rated output power limit.

1. When in bypass mode (recharging state), U-Boost is not usable with the AC output turned on.
2. U-Boost is pre-enabled but can be adjusted through the Litheli App.
3. Note that U-Boost may not work with all electrical appliances, especially those with strict voltage requirements or voltage protection (such as precision instruments). U-Boost works best for heating devices. Please test your devices with U-Boost enabled.

**⚠** Bypass mode: When the product is recharging, it cannot supply power to any other device if the AC power button is turned on. Instead, the devices will use the grid's power.

### UPS (Uninterrupted Power Supply):

The product has a UPS feature. By connecting a grid power source to the AC Input Port via an AC cable, you can power electronic devices using the AC Output Port. The AC power will come from the grid rather than the power station. In case of a sudden blackout, the product can switch automatically to battery power within 10ms.

**⚠** As a standard UPS function, this feature does not support 0ms switching. Therefore, please avoid connecting the product to devices that require 0ms UPS such as data servers and workstations. Before using the product, please test its compatibility with your devices and confirm it.

Please charge only one device at a time to avoid overload protection. Litheli will not be held responsible for any device failures or data losses resulting from improper use of the product.

# FAQS

Q1: Can I recharge the Eclair1000 while charging connected devices?

A: Yes, the Litheli Power Hub Eclair1000 supports pass-through charging, so it can power other devices while recharging itself. But we don't suggest using it this way as it may cause damage to battery life.

Q2: How do I know if my Litheli Power Hub Eclair1000 is charged?

A: To check the charge level of the Litheli Power Hub Eclair1000, refer to the LCD Battery Display.

Q3: What's the max power output of the AC output ports?

A: The AC output ports can deliver a maximum of 1800W to connected devices.

Q4: Why does the Power Hub's battery drain even when no devices are connected?

A: When the AC and car charging button is turned on, even if no devices are being charged, there will still be a certain amount of no-load power consumption. To avoid this, make sure the AC and car charging button is off or turn on the power saving mode when you're not using the Power Hub.

Q5: How to use Power Hub safely?

A: Please use the Eclair1000 in its recommended operating temperature range. Using the out of the recommended operating temperature range may cause the Eclair1000 to exceed safe and effective working limits. The is not waterproof, so DO NOT immerse the Eclair1000 in water.

Otherwise, your warranty will be invalid.

Continuously powering heating electrical appliances with an input power of 2400W for more than half an hour may lead to over-temperature protection. That is normal. Please wait about 1 hour to allow it to cool down before using it again.

Q6: What devices can the Power Hub Eclair1000 power?

A: Please note that the AC output port can only charge/power devices that operate at less than a total of 1800W.

Q7: Can I use it indoors?

A: Yes, the Eclair1000 is safe to use indoors.

## TECHNICAL SPECIFICATIONS

<b>General Specs</b>	
Model No.	U20EH17
Capacity	921.6Wh
Device Weight	32.8lb (14.88kg)
Production Dimension	17.8**8.77**11" (452.2mm*222.8mm*279.3mm)
Operating Temperature Range	-10°C to 45°C (Recommended: 20°C to 30°C)
Cycle Life	After 3000 + cycle times: 80%
Pack Mode	16S4P

<b>Output</b>	
AC Output (×4)	110-120Vac,1800W
USB-A Output (×2)	5V/3A 9V/2A 12V/1.5A, 18W(MAX)
Type-C Output(20W×2)	5V/3A,9V/2.22A 20W×2
Type-C Output(100W×2)	5V/3A, 9V /3A, 12V /3A,15V/3A, 20V/5A 100W×2
Pogo Pin Charging Output (×1)	80W(20V,4A)
Vehicle Charging Output (×1)	12.6V-10A 126W(MAX)
DC5521 Output Port(×2)	12.6V-10A 126W(MAX)Share power with CiG



## Inputs




XT60 Input	400W MAX, 11-60V 15A (MAX)
AC Input	110-120Vac,16A(MAX)

\*The product nameplate and label are available on the bottom of the whole machine.

## TROUBLE SHOOTING

The following table gives checks and actions that you can perform if your device does not operate correctly. If these do not identify/remedy the problem, contact your service agent.

**⚠WARNING:** Switch off the device and remove the batteries before any troubleshooting.

Reminder	Display	Reason	Remedy	Remark
High Temperature Alarm 1		Product High Temperature	Remove all the connected appliances. Shut down the Eclair1000. Put the Eclair1000 to somewhere cool and wait for it to cool down to normal temperature. Then try it again.	Icon flashing
High Temperature Alarm 2	 	Inverter High Temperature	Remove all the connected appliances. Shut down the Eclair1000. Put the Eclair1000 to somewhere cool and wait for it to cool down to normal temperature. Then try it again.	Icon flashing

High  
Temperature  
Alarm 3



BMS High  
Temperature

Remove all the connected appliances. Shut down the Eclair1000. Put the Eclair1000 to somewhere cool and wait for it to cool down to normal temperature. Then try it again.

Icon flashing



High  
Temperature  
Alarm 4



MPPT Inverter  
High  
Temperature

Remove all the connected appliances. Shut down the Eclair1000. Put the Eclair1000 to somewhere cool and wait for it to cool down to normal temperature. Then try it again.

Icon flashing



Low  
Temperature  
Alarm 1



Product Low  
Temperature

Remove all the connected appliances. Shut down the Eclair1000. Put the Eclair1000 somewhere warm and wait for the Eclair1000 to warm up to normal temperature. Then try it again.

Icon flashing

Low  
Temperature  
Alarm 2



Inverter Low  
Temperature

Remove all the connected appliances. Shut down the Eclair1000. Put the B1000 somewhere warm and wait for the B1000 to warm up to normal temperature. Then try it again.

Icon flashing



Low  
Temperature  
Alarm 3.



Battery Low  
Temperature

Remove all the connected appliances. Shut down the Eclair1000. Put the Eclair1000 somewhere warm and wait for the Eclair1000 to warm up to normal temperature. Then try it again.

Icon flashing



Overload  
Alarm 1



Inverter  
Overload

Remove the connected AC equipment. Press the AC Power Button again to start, then the alarm will stop.

Icon flashing

**Overload**

Overload  
Alarm 2.



Type-C  
Charging  
Overload

Remove the connected Type-C charging appliance. Press the main power switch again to start, then the alarm will stop.

Icon flashing

**Overload**

Overload  
Alarm 3



USB  
Charging  
Overload

Remove the connected USB charging appliance. Press the main power switch again to start, then the alarm will stop.

Icon flashing

**Overload**

Overload  
Alarm 4



**Overload**

Vehicle  
Charging  
Overload

Remove the charging appliances connected to DC5521 Output Ports and vehicle charging port. Press the DC Power Button again to start, then the alarm will stop.

Icon flashing

Low Battery



Low Battery  
Indication

Remove all the other charging appliances. Charge the Eclair1000 first.

Icon flashing

Error Alarm 1



Inverter  
Communica-  
tion Error

Try to restart the Eclair1000. If still not working, contact the Litheli service agent.

Icon flashing

Error Alarm 2



Fan Error

Clean up the ventilation slots and make sure there is no blockage around the ventilation slots. If still not working, contact the Litheli service agent.

Icon flashing

Error Alarm 3



B-AIoT  
Communica-  
tion Error

Try to restart the Eclair1000. If still not working, contact the Litheli service agent.

Icon flashing



Error Alarm 4







BMS Error

Try to restart the Eclair1000. If still not working, contact the Litheli service agent.

Icon flashing

Error Alarm 4		BMS Communication Error	Try to restart the Eclair1000. If still not working, contact the Litheli service agent.	Icon flashing
				

Error Alarm 5		Solar Panel Charging Communication Error	Disconnect the Solar Panel and try to restart the Eclair1000. If still not working, contact the Litheli service agent.	Icon flashing
				

Error Alarm 6		U-Battery Plus Charging Port Communication Error	Remove the U-Battery Plus and try to restart the Eclair1000. If still not working, contact the Litheli service agent.	Icon flashing
				

**Tips:**

- 1. Check and operate the product following this manual closely to avoid unnecessary failures.**
- 2. If the product still fails to work, contact the Litheli service agent.**

# WARRANTY

## Litheli WARRANTY POLICY FOR POWER HUB

- For Litheli Power Hub (battery excluded) used for personal and household purposes, 2-year limited standard warranty + 1-year limited extended warranty available upon product registration;
- For Litheli U20 batteries used for personal and household purposes, 1-year limited warranty;

**NOTICE: Litheli offers a Warranty Extension Service for Power Hub (battery excluded). Litheli Power Hub (battery excluded) Warranty Extension is available only upon product registration. Register your Power Hub on Litheli Official website ([www.litheli.com](http://www.litheli.com)) to activate a 1-year limited extended warranty.**

Please contact Litheli customer service at [service@litheli.com](mailto:service@litheli.com) any time you have questions or warranty claims.

## LIMITED WARRANTY SERVICE

FOR THREE (3-year limited extended warranty included) YEARS from the date of original retail purchase, this Litheli product (battery not included) is warranted against defects in material or workmanship. Defective products will receive free repair or will be exchanged.

FOR ONE YEAR from the date of original retail purchase, the Litheli battery is warranted against defects in material or workmanship. Defective products will receive free repair or be exchanged.

1. This warranty only covers Litheli products and batteries used for residential purposes.
2. This warranty does not cover the consumables such as, but not limited to, charging cables.
3. This warranty does not cover the damage resulting from modification, alteration or unauthorized repair.
4. This warranty only covers defects arising under normal usage and does not cover any malfunction, failure or defect resulting from misuse, abuse (including overloading of the

- product beyond capacity and immersion in water or other liquid), accidents, neglect or lack of proper installation, and improper maintenance or storage.
5. This warranty does not cover normal deterioration of the exterior finish including but not limited to scratches, dents, paint chips, or to any corrosion or discoloring by heat, abrasive and chemical cleaners.
  6. This warranty applies only to the original purchaser from an authorized Litheli shop and may not be transferred.
  7. This warranty does not require Litheli to repair or replace a Litheli lithium-ion battery/ies if the battery/ies present/s shortened runtime/working hours, reduced capacity, and/or weakened performance due to normal chemical age.

## PRODUCT REGISTRATION

Please register your Litheli product on **Litheli Official website ([www.litheli.com](http://www.litheli.com))**.

For better warranty services, we recommend that you register the product within 30 days from the date of the original retail purchase.

## WARRANTY CLAIM

For warranty claims, please contact Litheli customer service. You will need to submit a registration document or proof of purchase in the form of a valid receipt that displays the date and place of purchase. Replacement products do not come with a new warranty. The warranty of the products will continue from the date of the original purchase.

# **litheli power**

**FREE YOUR POWER. FREE YOUR LIFE.**



**+1 (800) 323-8991**



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