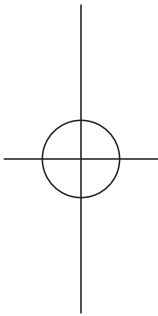


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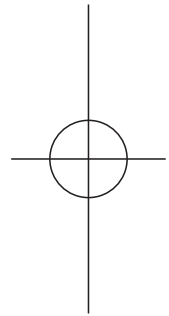
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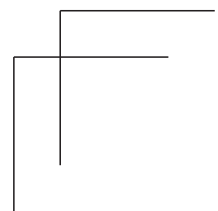
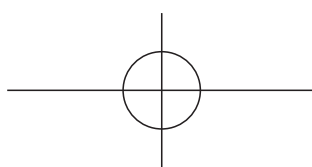
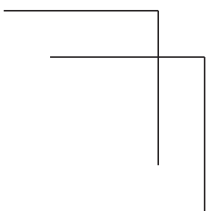
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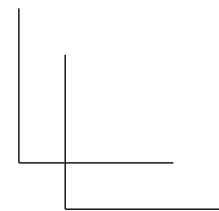
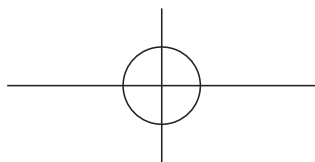
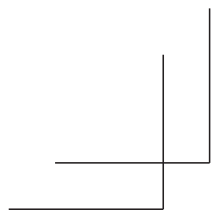
Version	Date	Description
1.0	2022.08.09	Manual revision



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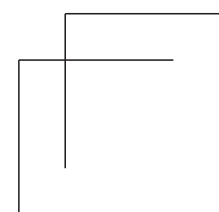
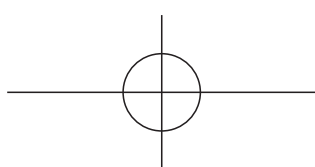
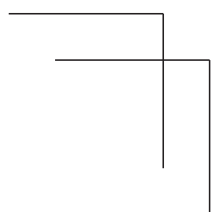
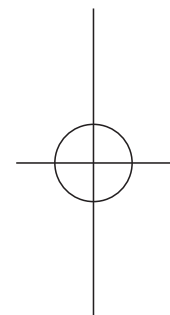
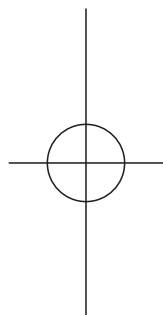
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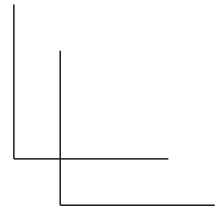
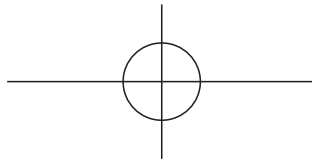
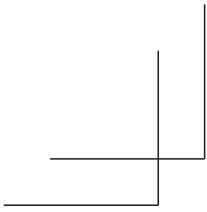




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Preface

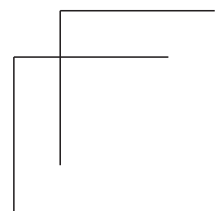
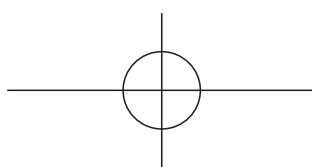
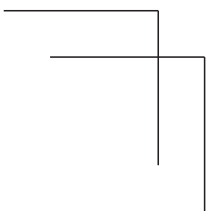
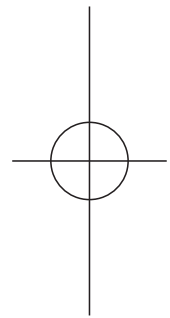
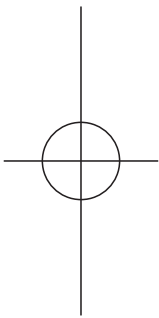
Use of Manual

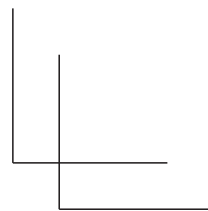
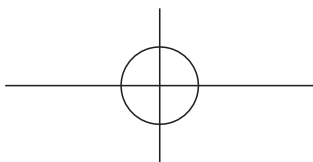
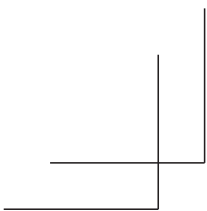
This manual describes how to use FJD-X1 Smart Hybrid Power System in concise, simple, and clear language so that users can master each operation procedure easily, quickly, and accurately.

Technical Support

Starting from the date of purchase, users are provided with the technical support and upgrade services from FJDynamics.

- FJD official website:
<https://www.fjdynamics.com>
- FJD customer service:
service@fjdynamics.com



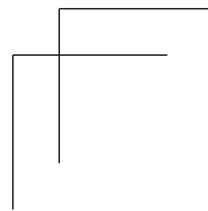
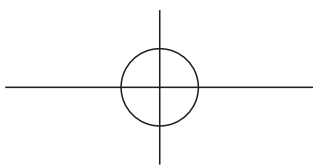
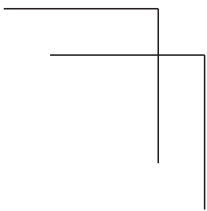
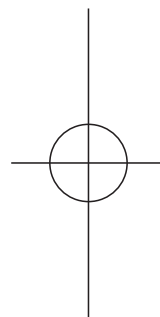
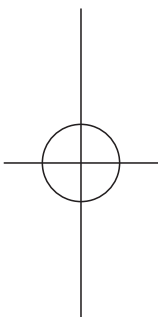


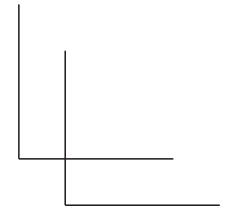
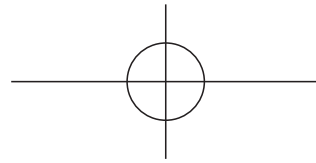
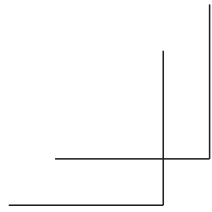
FJD-X1 User Manual

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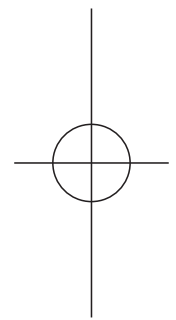
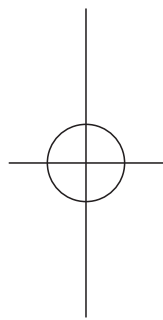


1. Product Introduction

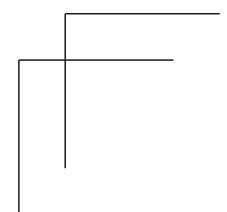
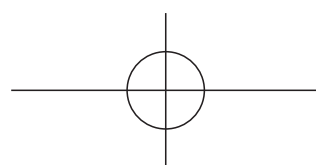
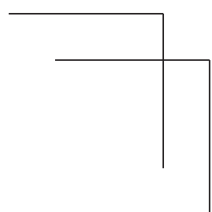
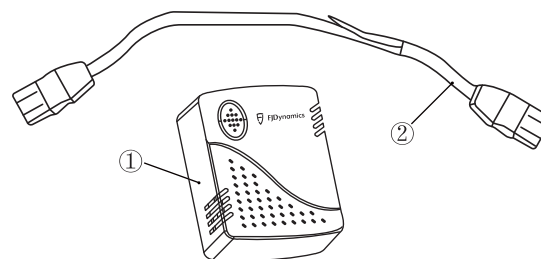
1.1. Overview

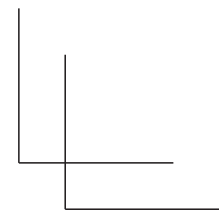
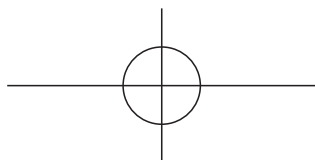
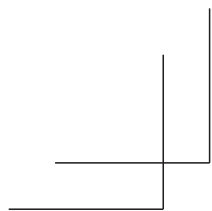
Launched by FJDynamics, FJD-X1 Smart Hybrid Power System supports the integration and remote control of gasoline generators and portable power stations. Besides power generation and storage, this system also provides advanced features such as remote control and automatic power generation and storage. The system features the following advantages:

1. It saves energy, improves efficiency, and reduces costs.
2. By integrating the generator and the power station, it can extend the service life of the generator by avoiding frequent starts and stops.



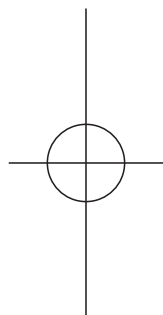
1.2. Main Components





Bluetooth box ① : Provides communication support for FJD-X1 Smart Hybrid Power System. You can use the app on your phone to control the generator and the power station via Bluetooth. There is a PH2.0 port at its bottom and a piece of 3M double-sided tape on its back.

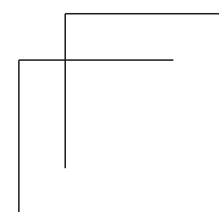
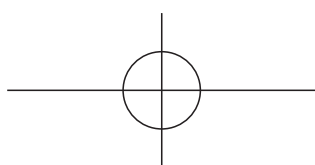
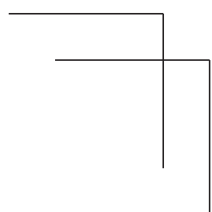
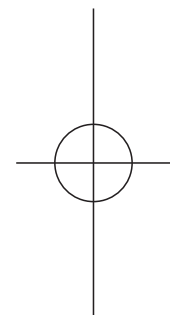
Power adapter ② : Consists of three connectors, two connected to the power station and one connected to the Bluetooth box.

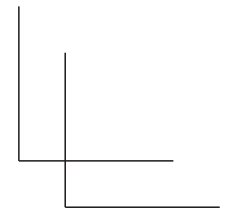
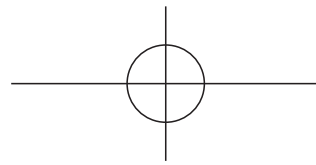
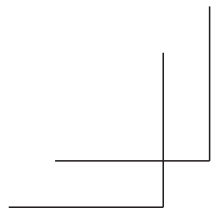


2. Operation Instructions

2.1. Installing the Components Inside the Power Station

1. Open the upper cover of the power station.



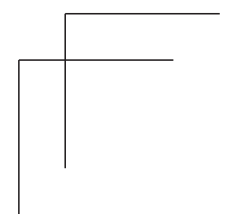
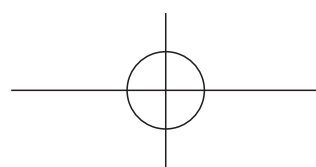
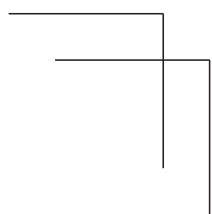
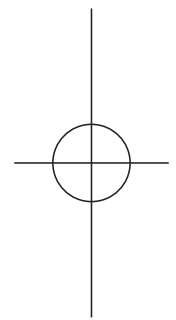
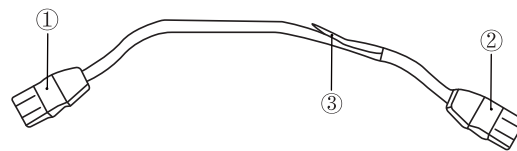
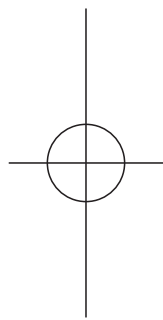


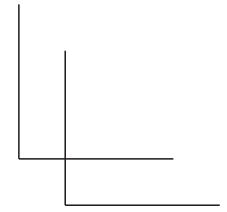
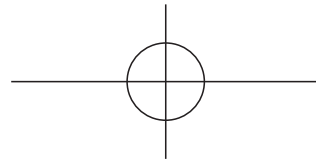
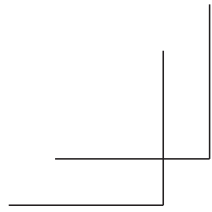
FJD-X1 User Manual

2. Unplug the battery connector from the housing of the power station.



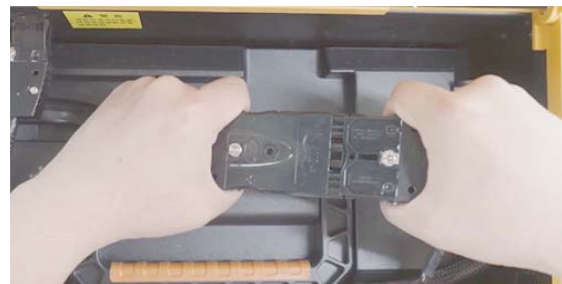
3. Plug the connector 1 (the one farther away from the connector 3) of the power adapter into the housing of the power station.



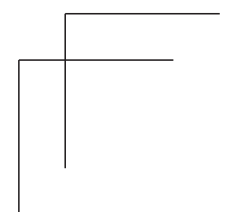
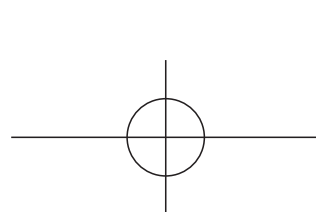
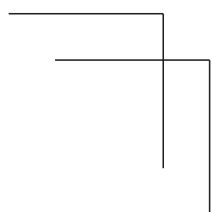


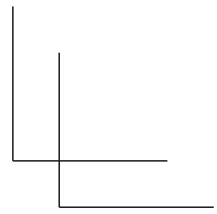
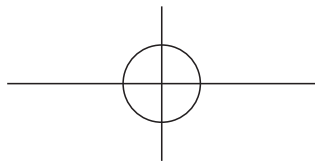
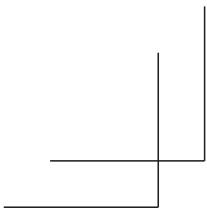
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4. Connect the connector 2 (the one closer to the connector 3) of the power adapter to the battery connector of the power station.



5. Plug the connector 3 of the power adapter into the port at the bottom of the Bluetooth box.

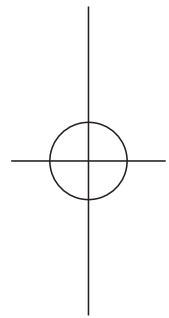
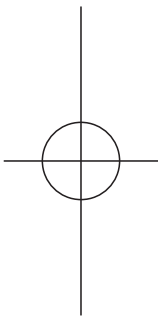




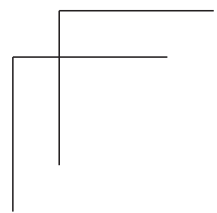
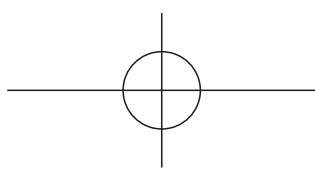
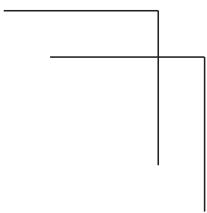
6. Remove the cover of the double-sided tape on the back of the Bluetooth box, and attach the box on the right side of the handle.

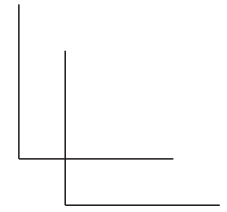
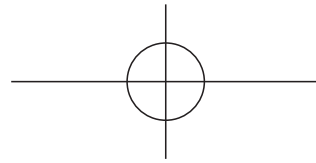
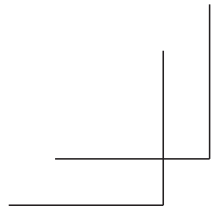


7. Press the power switch on the battery of the power station.



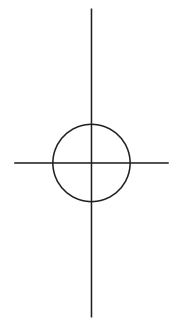
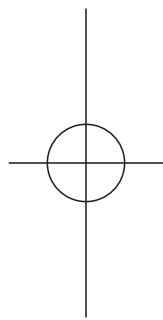
8. Close the upper cover of the power station.



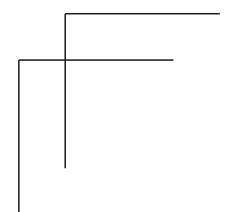
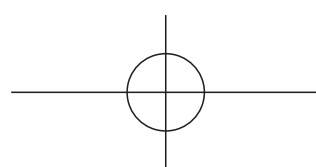
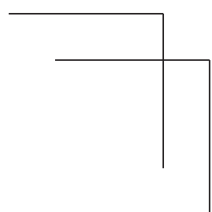


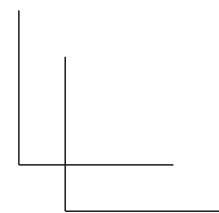
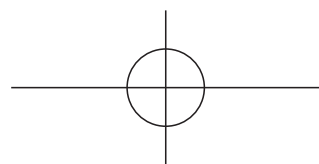
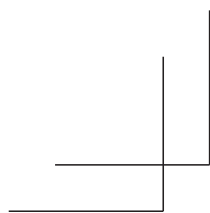
2.2. Connecting the Generator to the Power Station

1. Place the generator on a level ground in an open space, and turn the fuel cap switch from the OFF position to the ON position.

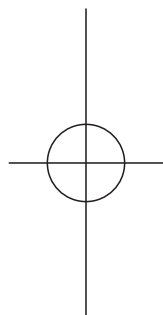


2. Insert one plug of the AC extension cord into the AC output port on the generator control panel.

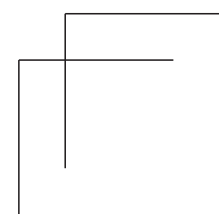
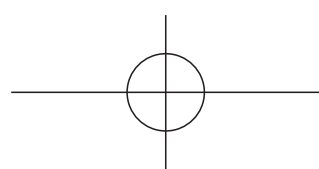
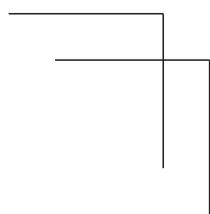
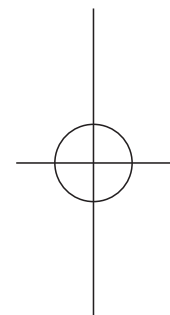


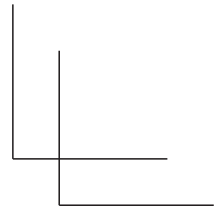
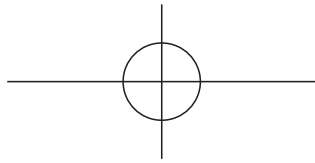
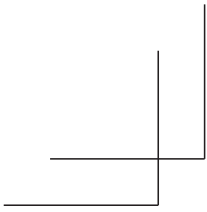


3. Insert the other plug of the AC extension cord into the AC input port on the power station.



4. Turn the generator engine switch from the OFF position to the ON position. The LCD screen will light up. And all parts of the Smart Hybrid Power System are connected.



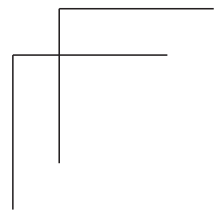
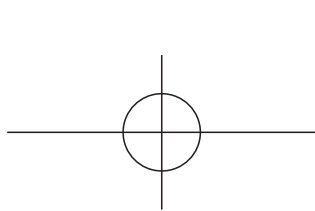
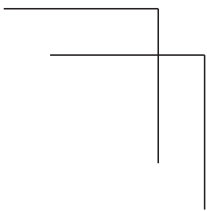


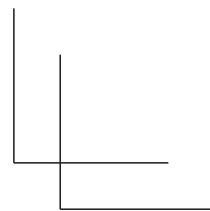
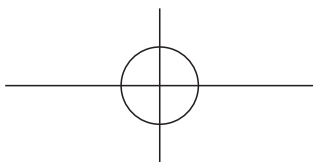
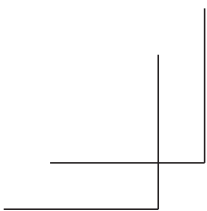
2.3. Remote Control via App

1. Start the Smart Hybrid Power app and search for devices: Start the app, and wait for it to search for available devices. Select the power station and the generator when they are shown on the screen, and tap Enter Control Screen.



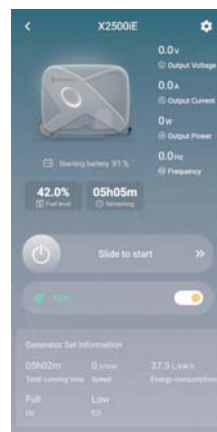
2. Enter the generator control screen: Tap the generator picture to enter its control screen.





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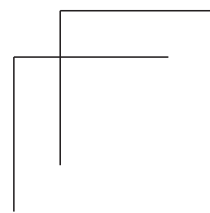
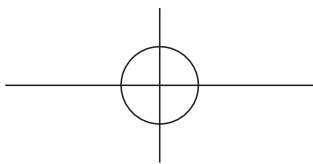
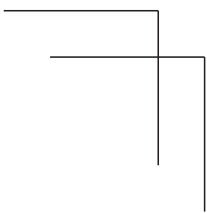
3. Start the generator:
Slide to start the
generator as shown
below.



2.4. Generator Auto Start/Stop

When the remaining power of the power station is lower than the preset threshold, the generator starts automatically to supply power to the power station.

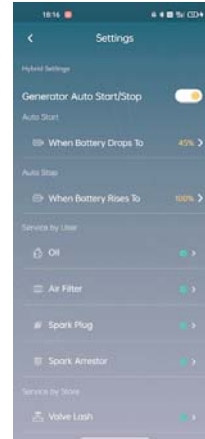
1. Go to Settings:
Tap the settings icon in
the upper right corner.



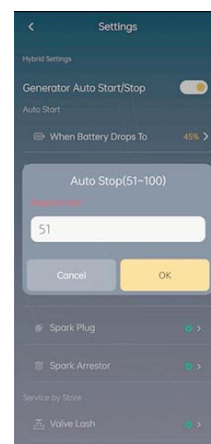
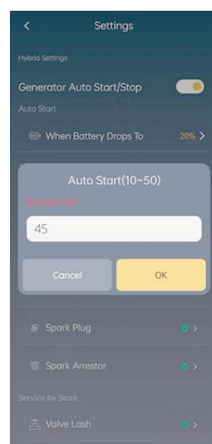


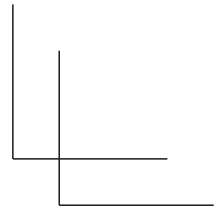
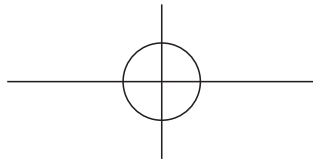
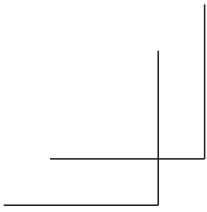
FJD-X1 User Manual

2. Enable Generator Auto Start/Stop:
Set the trigger thresholds to automatically start and stop the generator. You may choose from the integer triggers preset in the system.

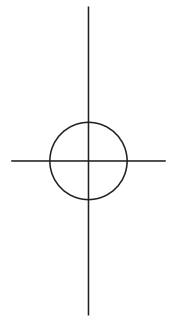
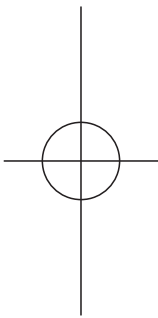


3. Set custom thresholds:
You may also choose User Defined, and set a custom threshold from 10% to 50% for generator auto start and a custom threshold from 51% to 100% for generator auto stop.





4. When the remaining power drops to the preset auto start threshold, the generator starts automatically to power the power station. When the remaining power rises to the preset auto stop threshold, the generator automatically cuts off the power supply to the power station.



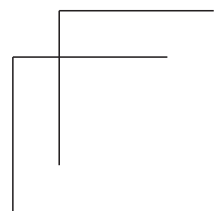
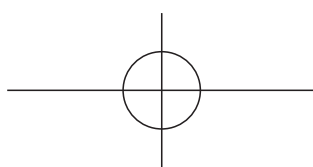
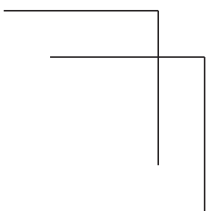
2.5. Other Features

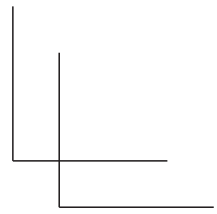
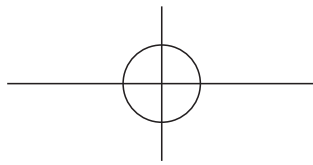
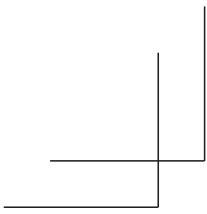
2.5.1. ECO mode

When the generator does not run at full speed, the system enables the ECO mode automatically to reduce the engine speed, noise, and power consumption.



Note: Enable the remote control mode as described in section 2.3 "Remote Control via App".





Tap the toggle switch to enable the ECO mode in the app, and the generator enters the ECO mode. When the ECO mode is enabled successfully, the toggle switch is displayed in yellow.

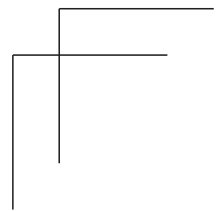
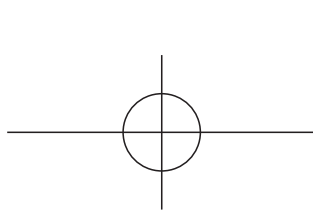
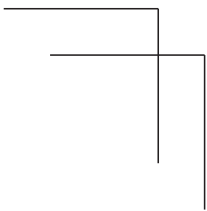


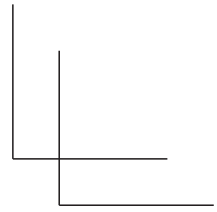
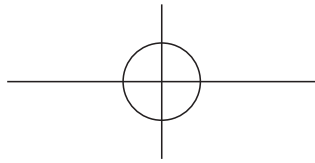
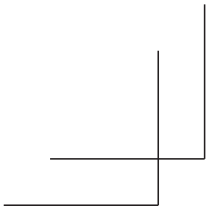
2.5.2. Service Reminders

In the service life of the generator, the app automatically reminds you when service is required.

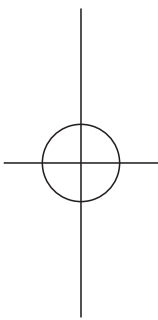
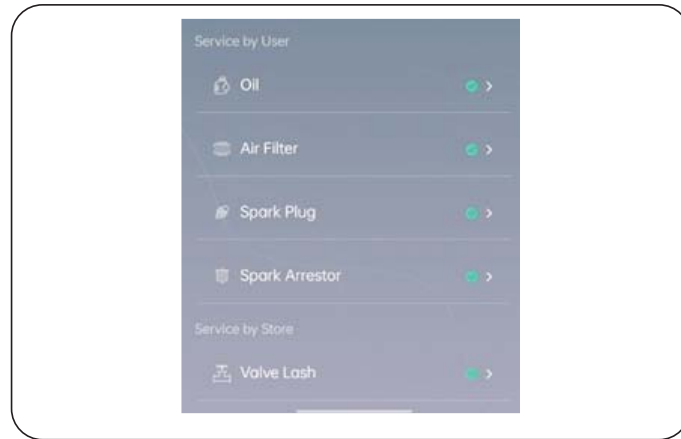


Note: Refer to the app reminders or the user manual for the specific service items, intervals, and service methods.



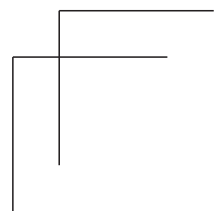
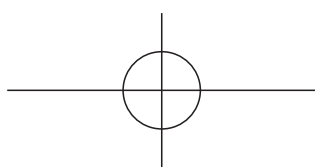
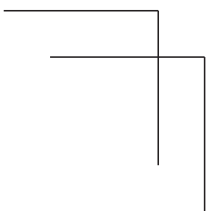
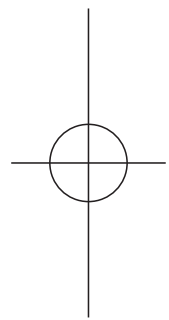


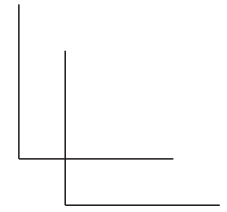
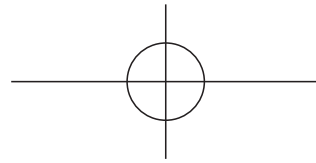
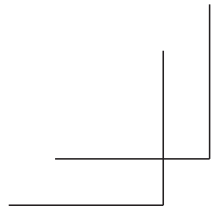
FJD-X1 User Manual



2.5.3. Alarms

When the generator is running, the app gives alarms when any problem occurs, for example, when the AC output is high, the carbon monoxide level is high, the engine speed is abnormal, the starting battery level is low, the fuel level is low, or the engine oil level is low.





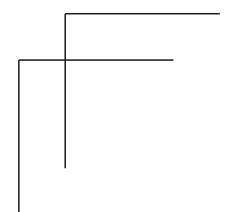
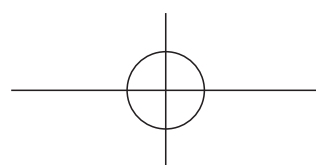
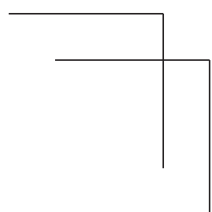
2.6.Moving the Generator

As the Smart Hybrid Power System is applicable to various scenarios, mostly outdoor scenarios, parts are provided to facilitate the movement of the generator.

1.Turn the fuel cap switch to the OFF position before moving the generator.



2.Press the button on the telescopic handle to fully extend the handle and move the generator with the wheels.

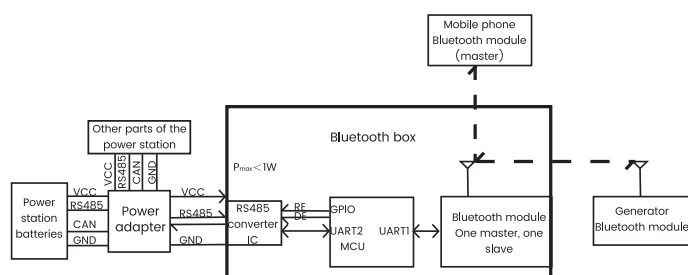


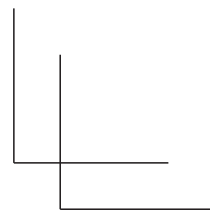
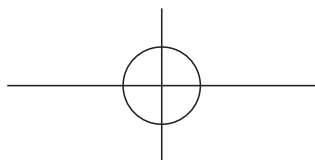
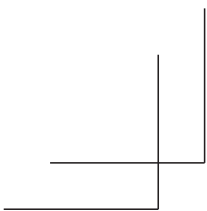
3. Specifications

3.1. Main Components

Power Adapter	
Net weight	240 g±5 g
Length	570 mm±20 mm
Connector	GPS75XFP×2 PCS
Cable	9AWG×2 PCS
Overload capability	DC 48 V@50 A
Bluetooth Box	
Net weight	53 g
Dimensions	76.6×61×27.3 mm
Input voltage	33-50.4 V \approx 0.03 A
Mode	Master-slave integrated

3.2. NHardware Schematics and Specifications

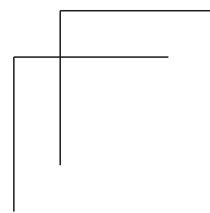
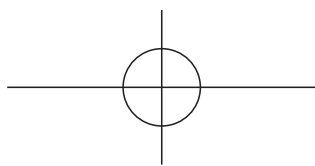
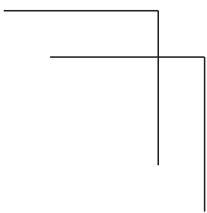


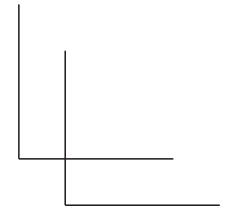
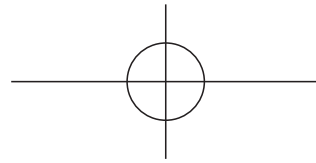
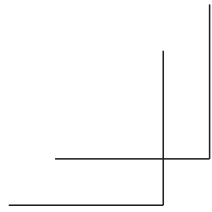


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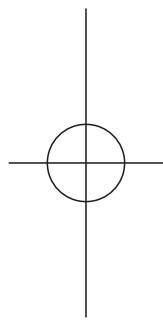
Bluetooth PCBA	
Bluetooth	Frequency range: 2402-2480 MHz
	Max transmit power: 4dBm
	Receiver sensitivity: -96 dBm
	Antenna: ceramic chip antenna
Operating temperature	-40°C to 60°C
Storage temperature	-40°C to 60°C
Operating humidity	5-95% RH (no condensation)
Storage humidity	5-95% RH (no condensation)
Power supply	33-50.4 V \approx 0.03 A
Port	RS485

In the Bluetooth box, the MCU communicates with the Bluetooth module via serial ports. The Bluetooth module can communicate with mobile phones as a slave device and communicate with the Bluetooth





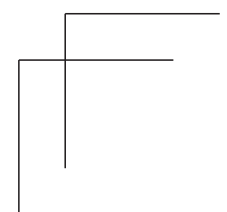
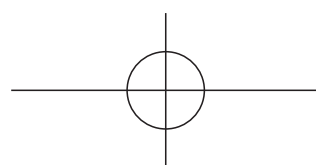
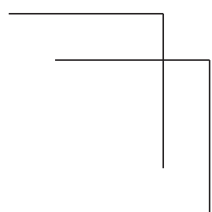
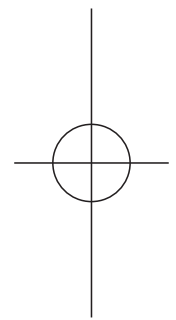
module of the generator as a master device. The Bluetooth box conducts RS485 serial communication with the battery management system through the power adapter to collect battery data such as the battery level. The MCU gives logic controls based on the collected battery data and the generator data. You can set the trigger thresholds for such controls in the Smart Hybrid Power app.

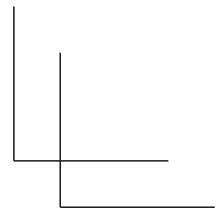
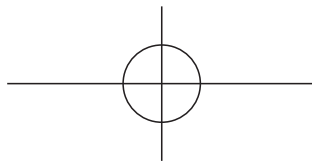
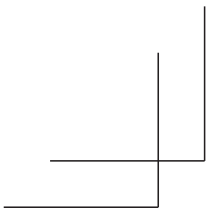


4. Warranty

4.1. Statement

FJD owns the copyright for this document and reserves all rights therein. All trademarks herein are properties of their respective owners. Materials contained in this warranty policy is subject to change without notice. FJD is not liable for errors or omissions in technologies contained herein or compilation thereof. FJD undertakes to the original purchaser that within the warranty period specified in the section





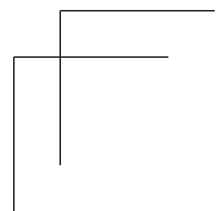
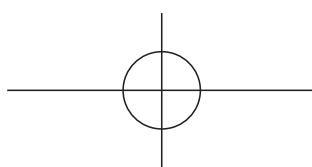
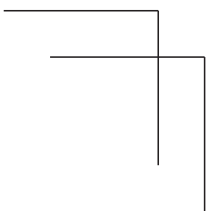
"Warranty Period", there is no defects in the materials and workmanship of the products, subject to those terms specified in section 4.3 "Exemptions". All warranty responsibilities and exemptions of FJD are specified herein. FJD, neither by itself or anyone on behalf thereof, shall not be liable for any other responsibilities associated with the sales of products.

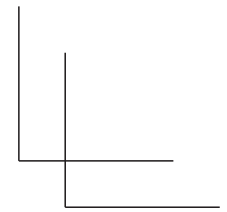
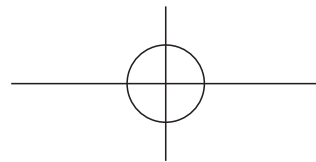
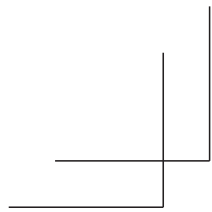
4.2. Warranty Period

The warranty period is 12 months, starting from the date of purchase by the original purchaser. In order to determine the start date of the warranty period, the receipt provided for the original purchaser or other valid certificates are required.

4.3. Service and Repair

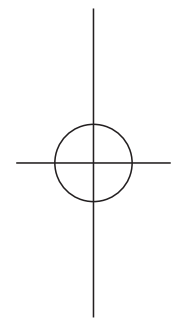
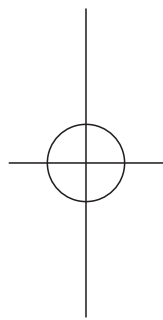
Within the warranty period, FJD shall repair or replace all products that are faulty due to defects in materials or workmanship. If a valid claim for warranty service is submitted within





the warranty period, FJD shall at its discretion:

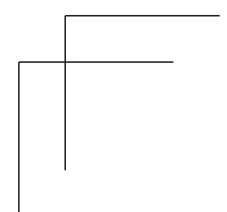
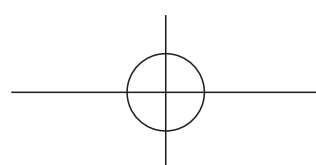
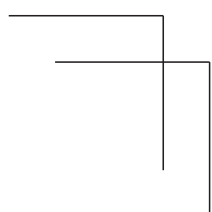
1. Replace the product; or
2. Replace it with a product of equivalent value, in which case, warranty period of the replacement product shall be the remaining warranty period of the original product or 90 days from the date of replacement, whichever is longer. The transportation costs for returning the product shall be borne by the customer.

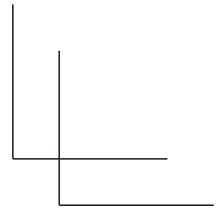
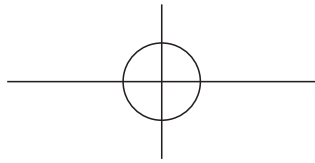
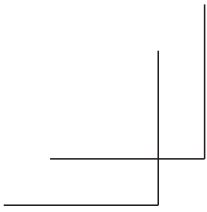


4.4. Exemptions

The following matters are not covered by FJD's warranty:

1. Any alternation, misuse, abuse, or unexpected damages to the product, or use of the product for any purpose other than the normal purposes specified herein;
2. Any products purchased through online bidding. The battery is not covered by warranty, unless you charge the battery within seven days from the date of purchase and at least every three months

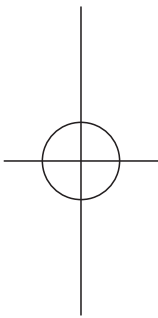




thereafter. See the power station user manual for details.

4.5. After-sales Services

The dealer staff are well trained to answer and solve your questions and problems. If they cannot solve your problems, contact the head of the dealer staff to solve your problems. If you need further help, contact FJD customer service.

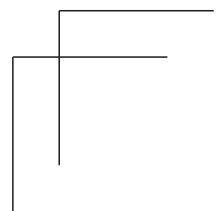
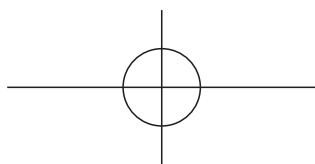
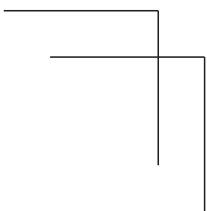
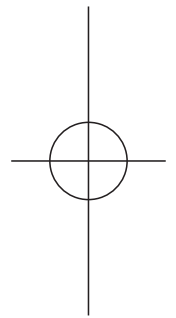


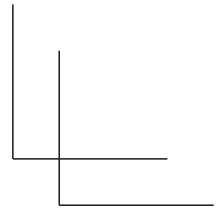
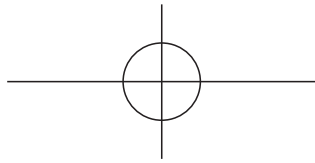
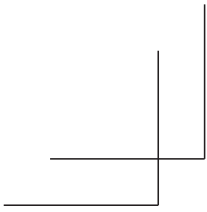
5. Certification Statement

FCC statements:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

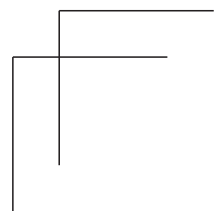
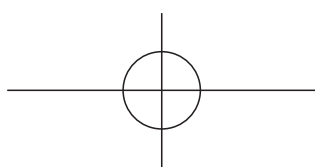
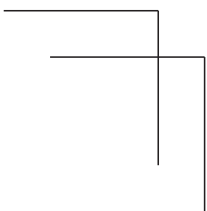
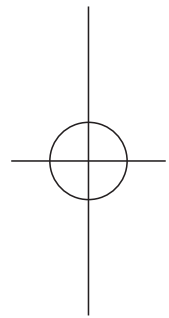
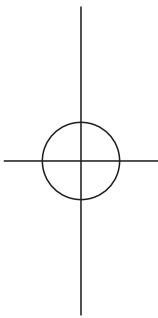
- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

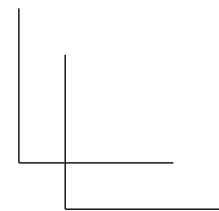
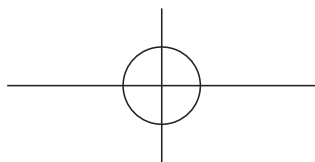
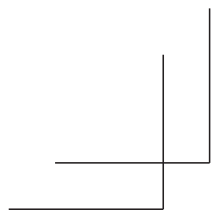




NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: 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 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

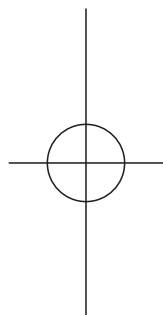




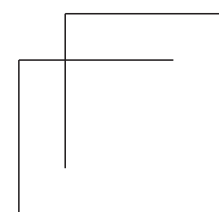
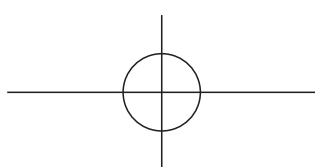
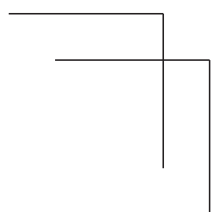
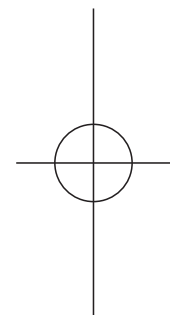
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correct the interference by one or more of the following measures:

- 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.



The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction. Federal Communication Commission (FCC) Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.

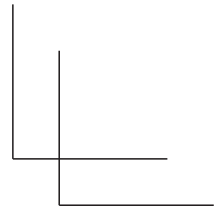
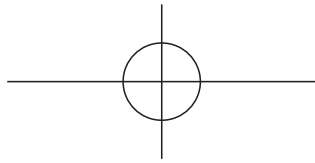
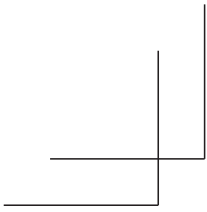




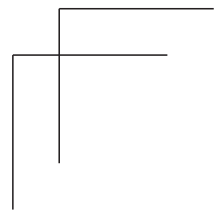
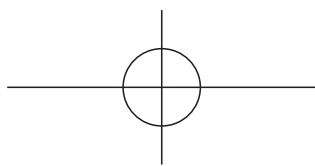
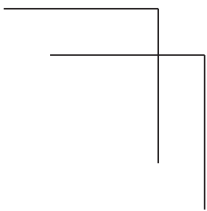
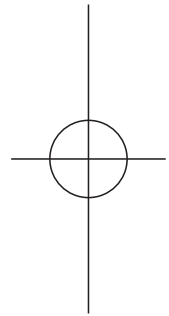
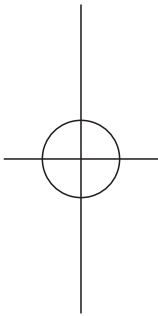
Warranty Certificate

User name		Postal code		Tel	
Address					
Product model		Product ID			
Purchase date		Date of manufacture			
PO No.					
Seller		Tel			
Service provider		Tel			

Service provider (sealed)



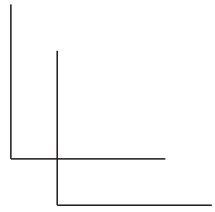
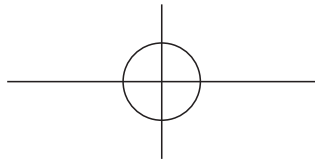
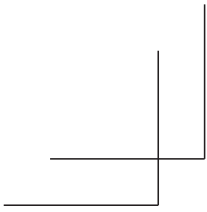
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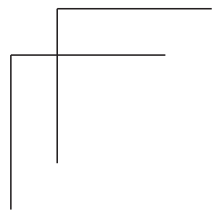
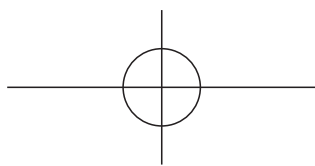
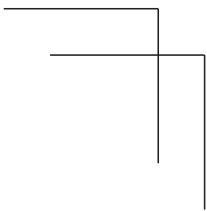
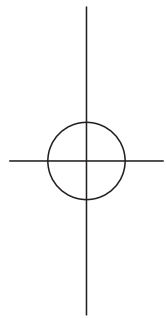
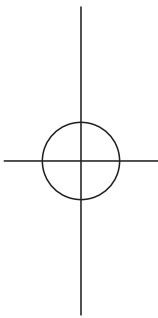


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PO No.					
Seller		Tel			
Service provider		Tel			

Service provider (sealed)



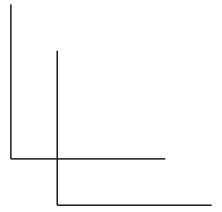
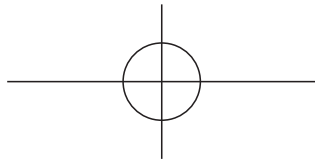
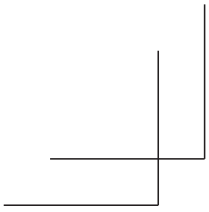
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