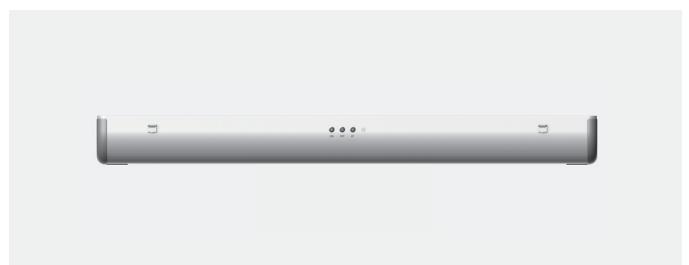
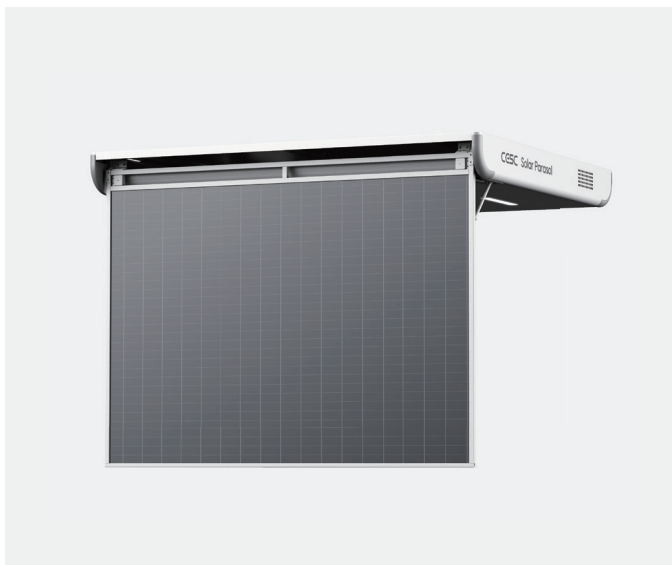


User Manual

Motorized Parasol

Model: Ra-Essential 350



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Important Information

Please read this manual carefully before using the product to ensure safe and proper operation. CESC GmbH reserves the right to make final interpretations of the contents of this manual. Keep this manual and your proof of purchase in a safe place for future reference. For the latest technical updates or software versions, please consult our official website or verified social media channels.

Power from Every Corner

A Letter to Our Users

Hello,

Welcome to a redefined balcony lifestyle.

The **Ra-Essential 350** brings solar innovation into your everyday outdoor moments. Whether it's a quiet morning coffee or a weekend gathering on your balcony, this smart parasol gives you control at your fingertips—effortless extension, clean energy, and timeless design, all in one.

This manual will guide you through installation, setup, and use. It's written for both professionals and first-time users, so you'll find exactly what you need, when you need it.

Need help? We've got you.

•**Hotline: (+49) 611 3605 1868**

•**Mon–Fri, 9:00–17:00**

•**www.cescpower.com**.

Thank you for choosing CESC. The Ra-Essential 350 is part of our vision for energy independence and refined outdoor living—now made real in your hands.

Your CESC Team

01 Introduction

1.1 Liability Disclaimer

1. The manufacturer shall not be held liable for any damage to the product or resulting performance issues caused by:

- Failure to follow the instructions and guidelines provided in this manual during operation or installation
- Use of the product contrary to its intended purpose
- Operation beyond the specified scope of application

Additionally, the manufacturer accepts no responsibility for any indirect or consequential damage to property or persons caused by product failure or malfunction.

2. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

3. This manual must be retained in full and kept accessible throughout the entire lifecycle of the Ra-Essential 350. In the event of transferring the product to a third party, the manual must be handed over simultaneously. If the manual is lost or damaged, a replacement must be requested from the dealer by providing relevant product information and the reason for the request.

The manufacturer reserves the right to update the product or the contents of this manual at any time. Such updates are not required to be made retroactively to previously sold products or earlier versions of this manual.

The copyright of this manual is held by the manufacturer. Reproduction in any form without prior written consent is strictly prohibited.

Technical support is available only through the manufacturer's authorized dealer.

1.2 Applicable Standards

1.2.1 Basis of Preparation

This manual has been prepared in accordance with **EU standard EN 60335** (Risk Assessment Requirements), taking into account the product's real-world usage scenarios.

1.2.2 Scope of Risk Notifications

In addition to the safety labels affixed to the product, this document highlights specific risks for both installers and end users, including:

- Risks of operating beyond design conditions
- Potential hazards in non-standard environments
- Warning of equipment wear outside maintenance intervals



WARNING

Important safety instructions. It is important for the safety of persons to follow these instructions. Save these instructions.

1.2.3 Compliance Declaration

CESC New Energy Technology Co., Ltd. hereby declares that the **Ra-Essential 350 series** complies with:

- **IEC/EN 61215** - Photovoltaic Module Design Qualification
- **IEC/EN 61730** - PV Module Safety Qualification
- **EN 62109** ----- Safety of Power Converters for PV Systems
- **IEC/EN 61000** - Electromagnetic Compatibility (EMC)
- **IC/EN 60335** --- Household & Similar Electrical Appliances Safety
- **EN 300328** ----- Wireless RF Compliance

1.3 Privacy Policy

We attach great importance to the protection of your privacy and strictly comply with relevant laws and regulations. We will only collect necessary registration information, device and usage data, as well as location information for legitimate purposes such as when you have given authorization, for the performance of contracts, ensuring security, and optimizing services. All data will be stored in an encrypted manner, and security measures such as access control and auditing will be implemented. We will promptly delete or anonymize the data once the purposes of processing have been achieved.

We will only share information in situations such as when you have provided consent, when it is necessary for the operation and maintenance by our partners, or when required by law. You have the rights to access, correct, delete, restrict processing, port your data, and withdraw your consent. If we collect information about minors, we will immediately delete it or obtain the consent of the guardians.

These terms will come into effect on May 1st, 2025. For major updates, we will announce them within the App and provide prior notice.

02 Symbols and Safety Signs

This manual uses the following symbols and safety signs to highlight important instructions and precautions for the installation, commissioning, and use of the Ra-Essential 350.

Failure to comply with these warnings may lead to equipment malfunction, performance degradation, or personal injury. Please pay special attention to symbols related to user safety.

**INFO**

Provides practical additional information for installation, assembly or operation.

**CAUTION**

Indicates precautions necessary for proper installation and use. Ignoring these may result in product malfunction, reduced performance, or possible property damage or minor injury.

**WARNING**

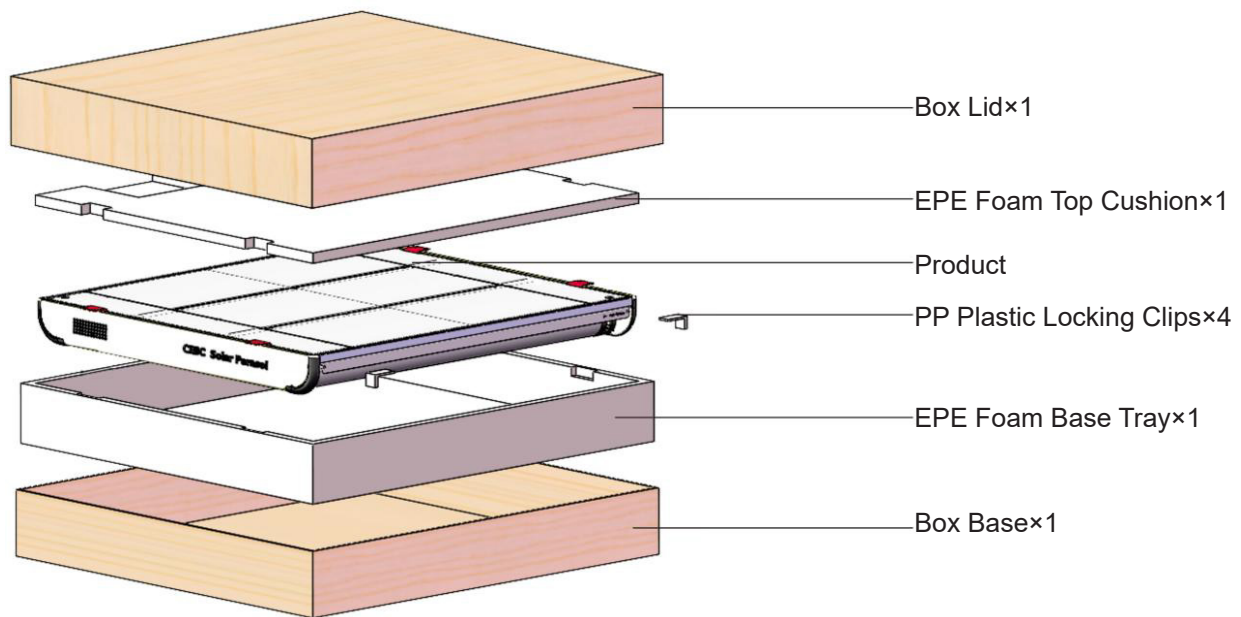
Indicates precautions necessary for proper installation and use. Ignoring these may result in product malfunction, reduced performance, or possible property damage or minor injury.

03 Transportation and Packaging

3.1 Transportation Requirements

The **Ra-Essential 350** must be transported in its **original, undamaged packaging**. Ensure the product is positioned according to the orientation and handling instructions marked on the packaging.

Any damage caused by unpacking, improper handling, or incorrect transport procedures is not covered under the product warranty.



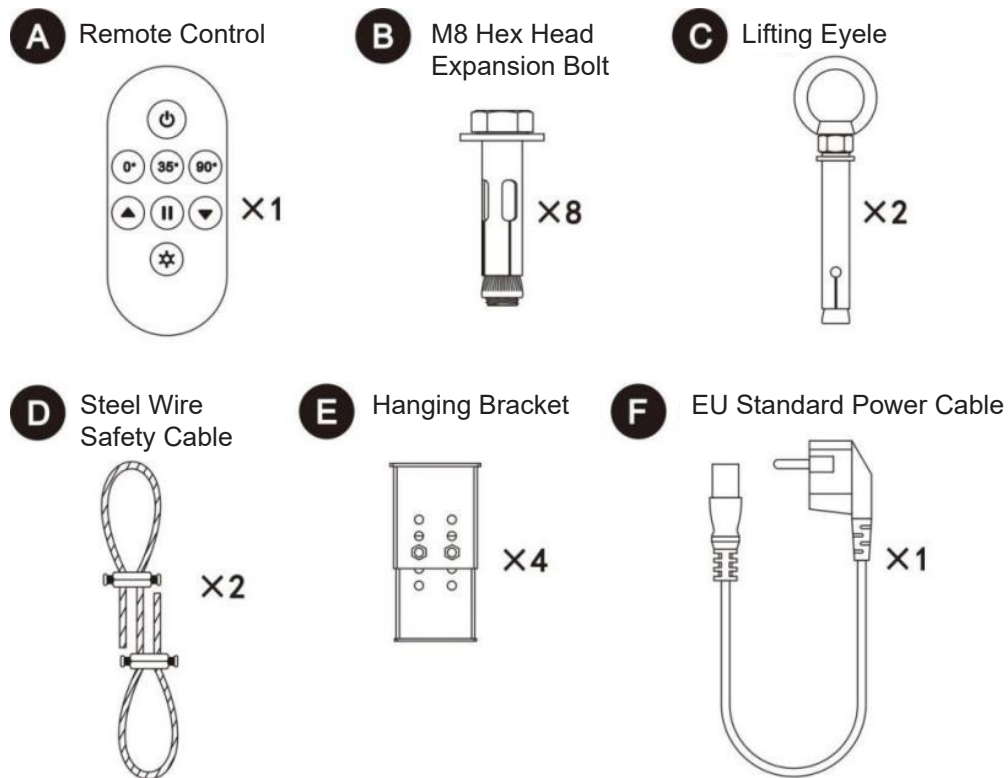
WARNING

Handling Requirements: The product is heavy and must be handled by at least three adults to ensure safe lifting, carrying, and positioning. Improper handling may result in injury or product damage.

Transportation Requirements: During the entire transportation process—including delivery to the customer's location—the product must be handled with care and in accordance with the packaging and orientation markings. Rough handling, dropping, or tilting may cause internal damage and void the warranty.

3.2 Packaging Contents

3.2.1 Package Components



3.2.2 Package Components

Component	Description
A	Remote Control ×1
B	M8 Hex Head Expansion Bolt ×8 (Standard: 6, Spare: 2)
C	Lifting Eyelet ×2
D	Steel Wire Safety Cable ×2 (Ø4 mm, 0.6 m length)
E	Hanging Bracket ×4 (Standard: 4, Optional; with M10 hex head bolt connection)
F	EU Standard Power Cable ×1 (5 m length)



WARNING

The standard M8 external hexagon internal expansion bolts included in the package are suitable for concrete, brick, and stone surfaces.

Before installation, inspect the condition of the installation surface to ensure it meets structural safety requirements. If the base material does not meet safety standards, the installer must select appropriate anchoring materials according to actual site conditions and will be fully responsible for the safety and stability of the installation.



INFO

The installation materials shown in this manual are for reference only. Actual accessories may vary depending on model or production batch. Before installation, please check the packing list to ensure all parts are complete.

3.2.3 Packaging Removal and Disposal

The Ra-Essential 350 is packaged in an eco-friendly cardboard box with EPE foam and PE plastic bags **used for internal cushioning and surface protection**. All packaging materials must be disposed of or recycled according to local national/regional regulations.



WARNING

Be careful when using box cutters or knives as they may damage the product's surface coating.

After unboxing, properly handle all packaging materials: Cardboard boxes, EPE Plastic foam, PE Plastic bags, Adhesive tape, Desiccant packets. These materials may pose safety risks to children. Keep them out of children's reach.

04 Installation Guide

4.1 Safety Guidelines for Installation

The installation of Ra-Essential 350 must be carried out by professionally trained personnel familiar with local building codes and safety standards.

Before installation, the operator must inspect the product to ensure it is undamaged and safe to install. Installers must wear appropriate personal protective equipment (PPE), including gloves, safety goggles, and hard hats. For elevated work, fall protection systems such as safety harnesses are required.

Installation must be performed by at least two persons working in coordination. If any abnormalities or hazards are identified, stop work immediately and address the issue before continuing.



WARNING

Important safety instructions. Follow all instructions since incorrect installation can lead to severe injury.

Do not energize during installation! All work must be performed with power disconnected and all circuits verified de-energized.

Non-authorized personnel must remain outside the installation area at all times.

Minors and persons under the influence of alcohol or drugs are strictly prohibited from participating in any installation, maintenance, or cleaning activities.

The installation guidance provided in this manual does not replace official safety procedures provided by tool manufacturers or local authorities.

The solar panel is motor-driven for extension/retraction and rotation. Prior to product installation and during routine maintenance, operators must inspect and verify that the panel and its drive mechanism remain securely fastened.



CAUTIONS

When the solar panel is in the fully extended position, horizontal distance of at least 0.4m is to be maintained between the solar panel and any permanent object (e.g., building facades, railings).

4.2 Required Tools



WARNING

All tools, equipment, and operating procedures must comply with occupational safety regulations of the country/region where installation occurs.

4.2.1 Recommended Tools

Tool	Description
A	Telescopic lifting platform
B	Pencil or marker
C	Stepladder
D	Tape measure
E	Hex key wrench set
F	Rubber mallet
G	Impact drill (Φ10)



CAUTIONS

Depending on the installation substrate (e.g., concrete, brick, or stone), you may need to change drill bit types. Confirm wall material in advance and select appropriate tools. The installation tools listed in this manual are recommended tools only.

4.3 Installation

4.3.1 Installation on Balconies without Eaves



WARNING

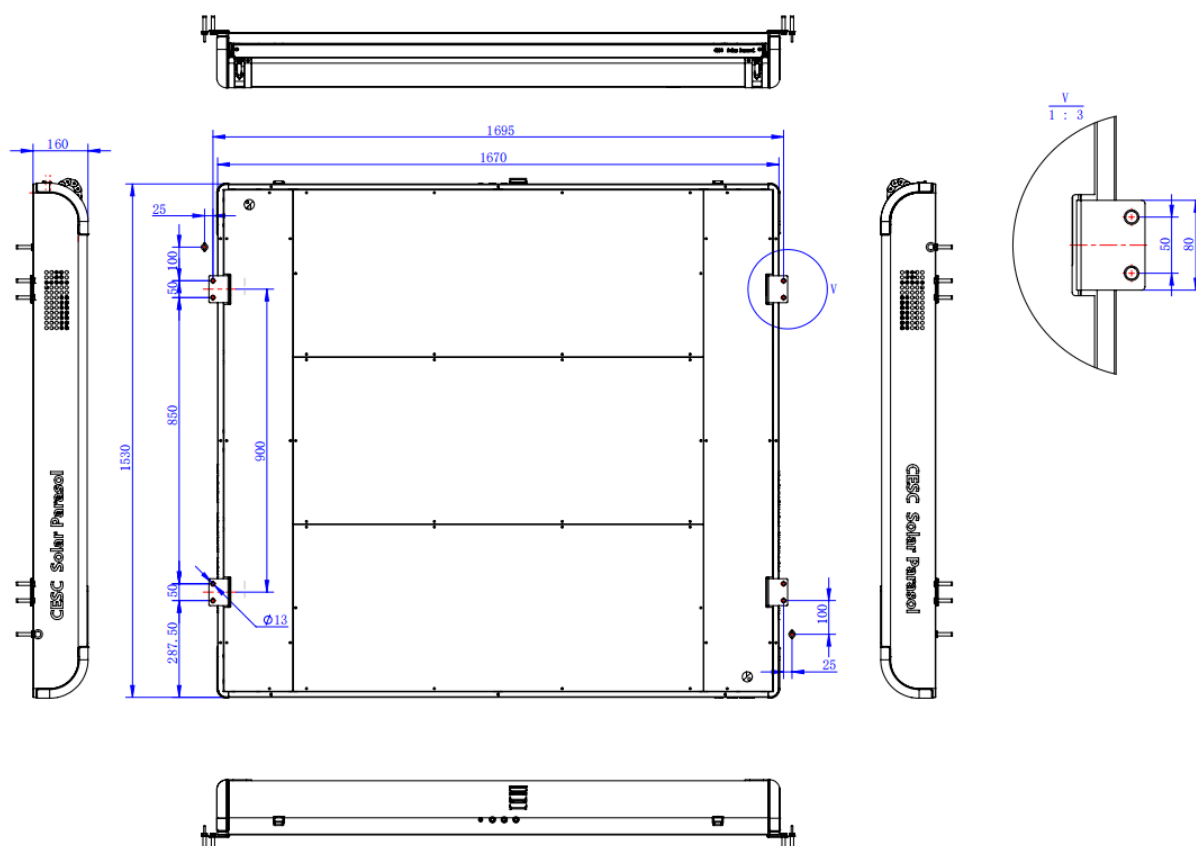
According to IEC/EN 60335 safety regulations, when installed on the ground floor, the lowest point of the photovoltaic panels must maintain a minimum clearance of ≥ 2.5 meters from the ground.

4.3.1.1 Position Determination

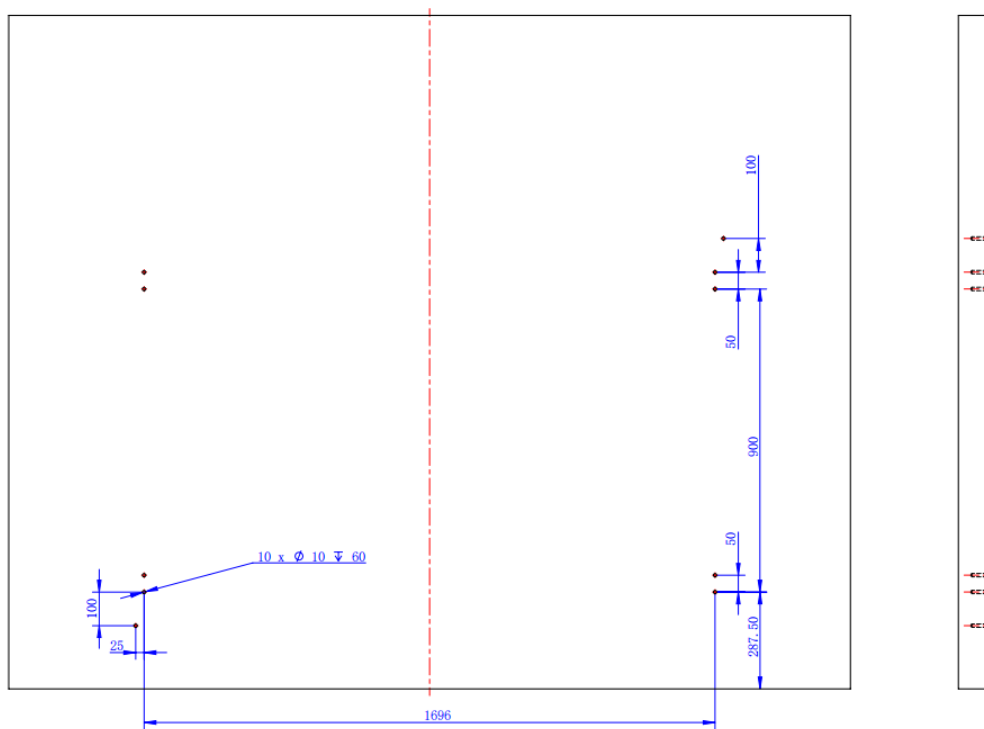
The Ra-Essential 350 is equipped with four mounting brackets, each requiring two expansion bolts for secure fixation.

Recommended Load Capacity: ≥ 100 kg per bolt

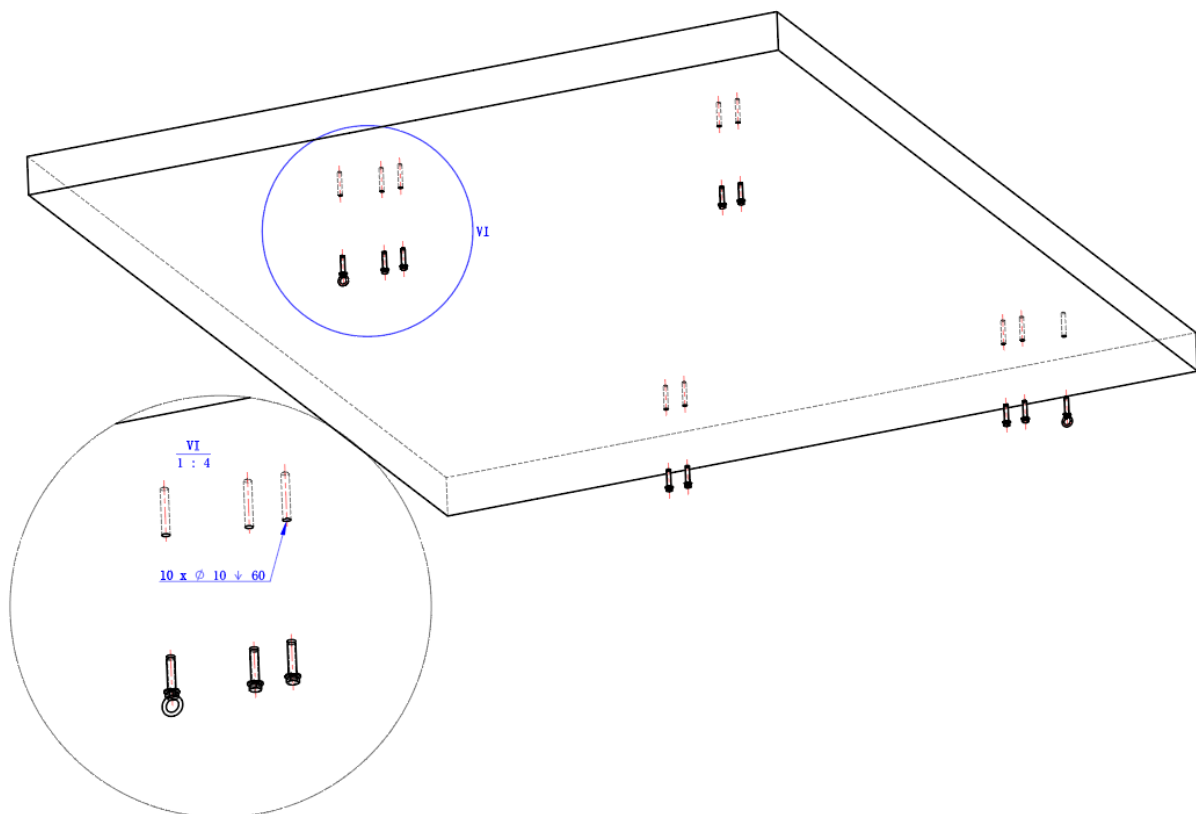
Before installation, determine the exact bracket positions based on your site conditions. Then, pre-drill holes in the wall surface according to the following specifications:



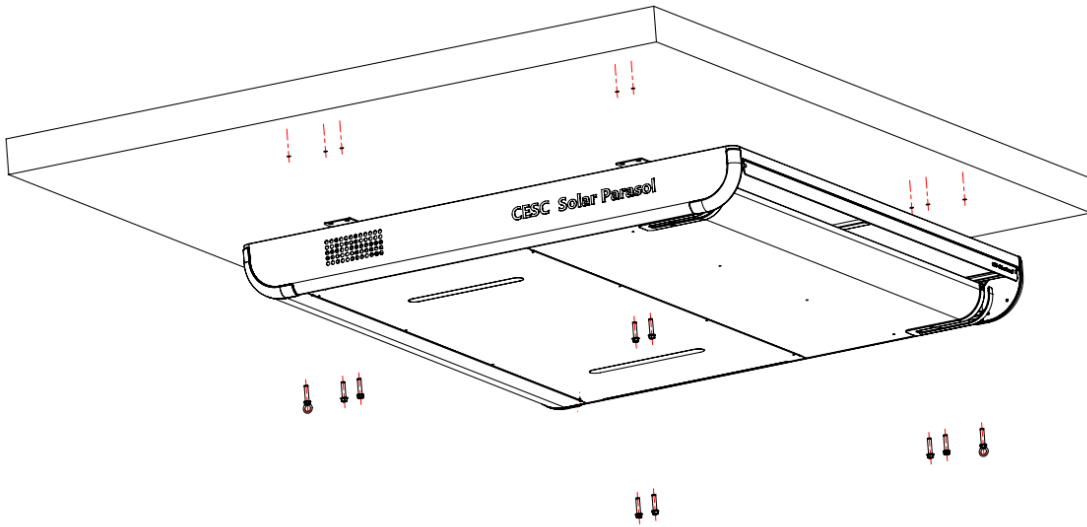
4.3.1.2 Drilling



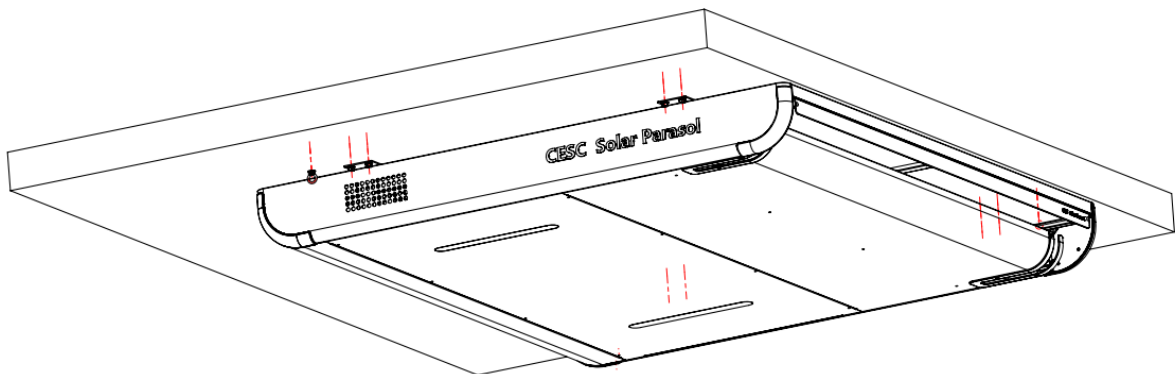
4.3.1.3 Placing Expansion Bolt Nuts



4.3.1.4 Using certified lifting equipment, carefully elevate the product and secure it in a diagonal orientation using safety cables. Gently align and position the unit so that it sits flush against the ceiling surface.



4.3.1.5 Tightening the Expansion Screws



4.3.2 Installation on Balconies with Eaves



INFO

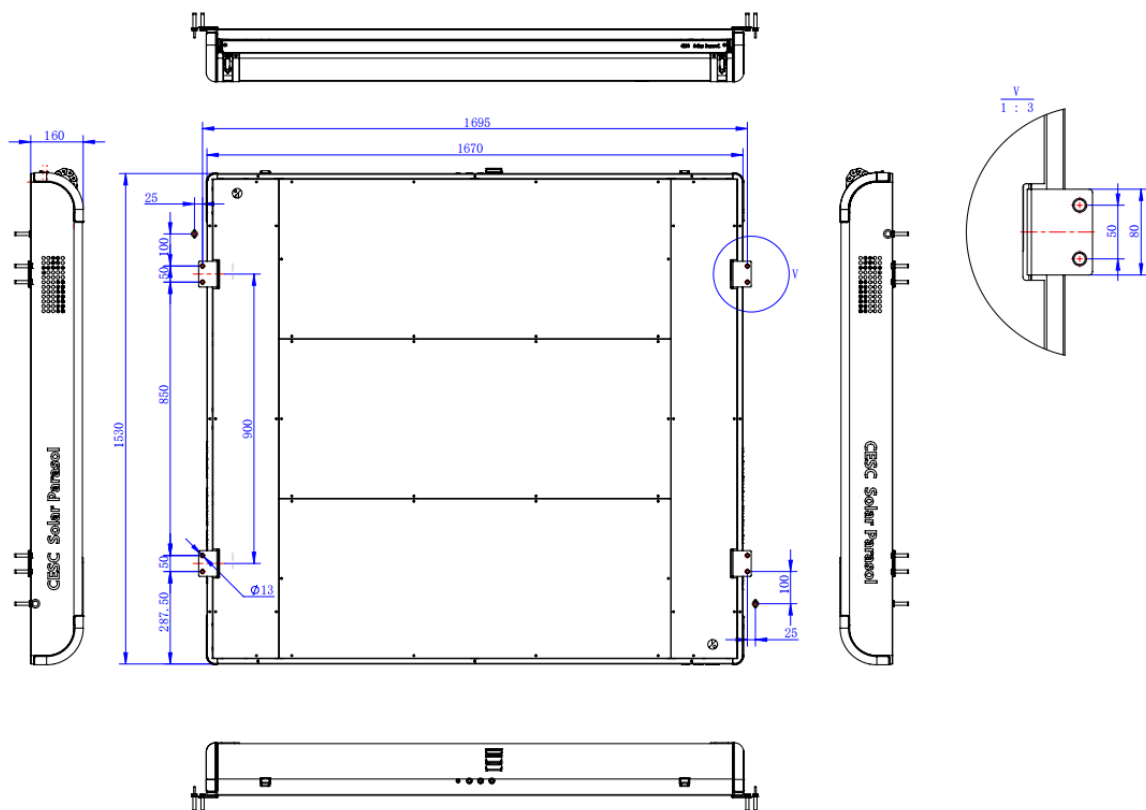
This installation type requires adjustable mounting brackets (adjustment range: 120-220mm). These components are not included in the standard product package. If needed, please request them from your supplier.

4.3.2.1 Position Determination

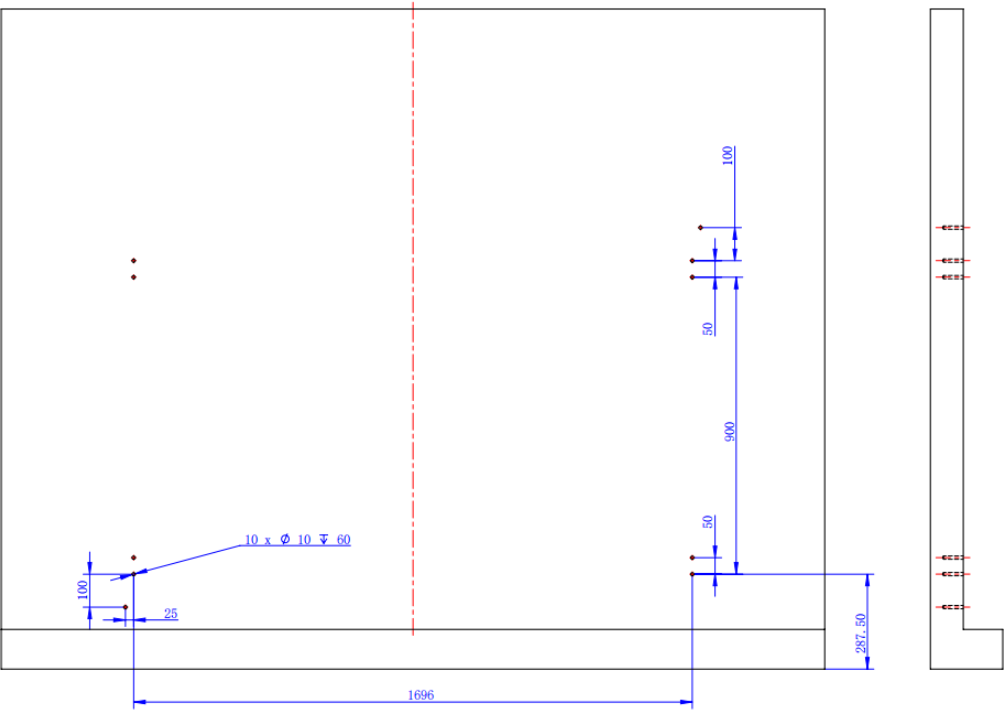
The Ra-Essential 350 is equipped with four mounting brackets, each requiring two expansion bolts for secure fixation.

Recommended Load Capacity: ≥ 100 kg per bolt

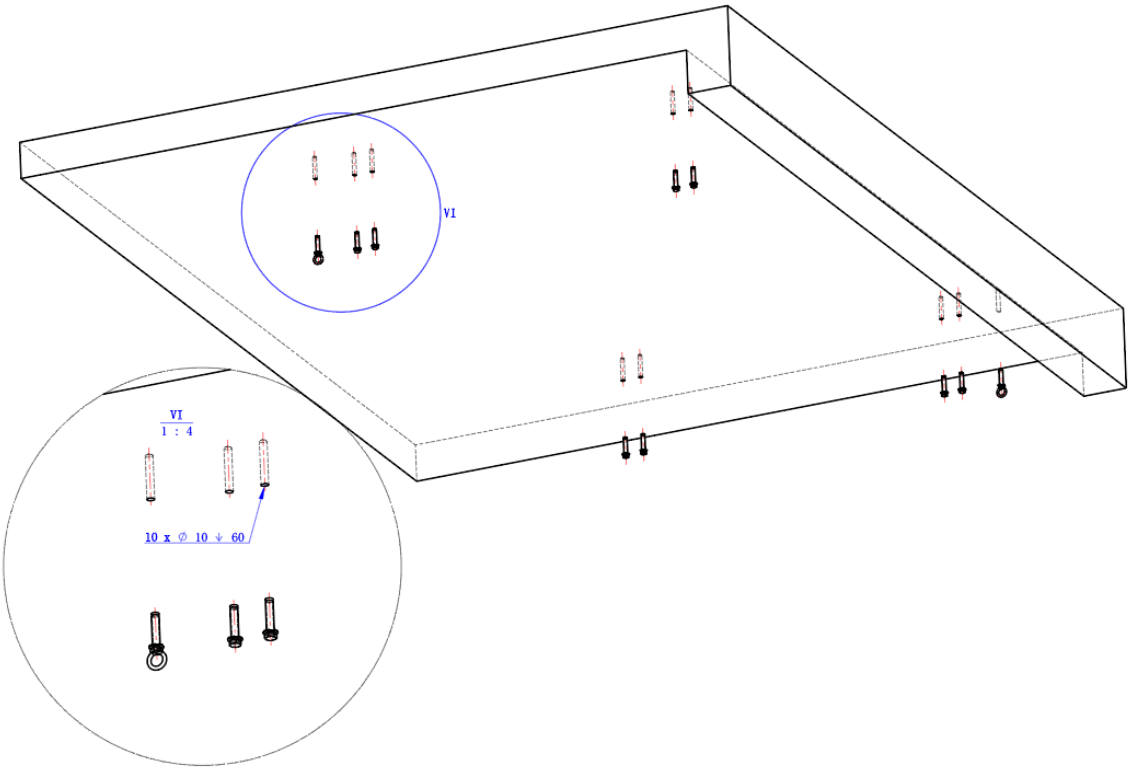
Before installation, determine the exact bracket positions based on your site conditions. Then, pre-drill holes in the wall surface according to the following specifications:



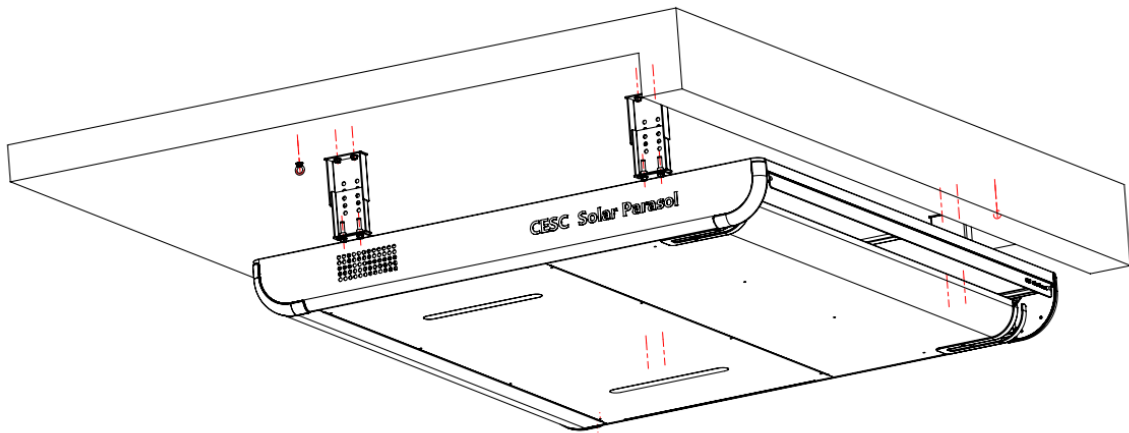
4.3.2.2 Drilling



4.3.2.3 Placing Expansion Bolt Nuts



4.3.2.4 Using appropriate installation tools, carefully lift the product and position it at an angle using safety cables. Once aligned flush with the ceiling surface, secure it in place and fasten all hanging brackets tightly.



4.3.3 Power Connection Instructions



WARNING

- During the installation of Ra-Essential 350, ensure that the power outlet is within reach of the product's power cord. Never disconnect power by pulling the cord.
- For power cord replacement, contact your dealer or installer. Do not excessively bend, pull, coil, bind, or place heavy objects on the power cord.
- The grounding terminal of the power outlet must be properly grounded. The outlet must be certified as compliant in your country/region.
- The user's residence must have appropriate overload protection devices (e.g., fuses of correct rating). The meter, wiring, and outlet must support 4A current.

05 Operation Guide

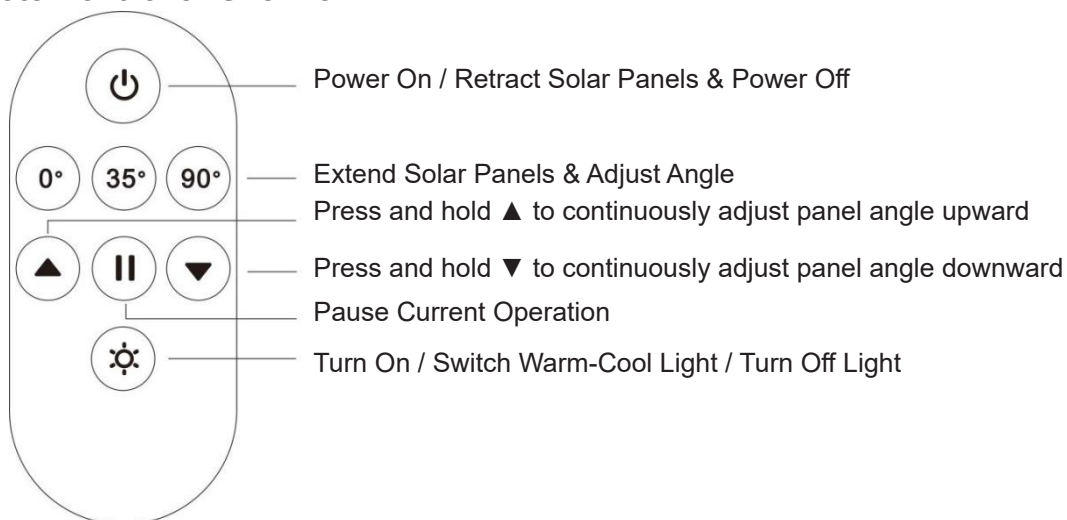


INFO

When operating via remote controller, APP, or emergency control panel:

- Maintain a safe clearance from all moving solar panel trajectories and mechanical drive components.
- Children and pets must be kept under strict supervision.

5.1 Remote Controller Overview

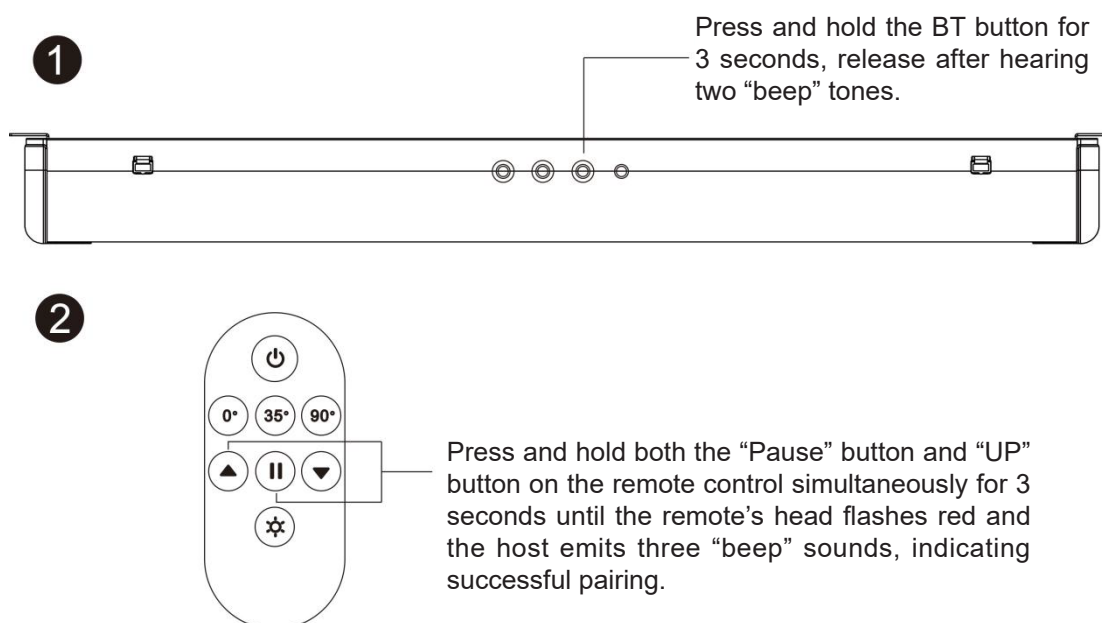


INFO

When extending the photovoltaic panels, ensure they are fully deployed. Any objects obstructing the panel surface will significantly reduce power generation efficiency.

5.1.2 Replacement Remote Control Pairing

In case of accidental loss or damage to the remote control, immediately contact your installer or supplier to obtain a replacement, then follow these pairing steps:



For further assistance, please contact your supplier.

**WARNING**

Always store the remote control out of children's reach to prevent accidental operation and potential hazards.

Operation of the emergency control panel by children is strictly prohibited.

5.2 App Setup

5.2.1 Login and Registration (see Figure 1)

1. New users: Please choose "Register" to create an new account.
2. Existing users: Proceed directly to login page.

5.2.2 Account Registration (see Figure 2)

To register a new account, please follow these steps:

1. Enter your email address.
2. Click "Get verification code", locate the code in your email and enter it
3. Input password and re-enter password to confirm.
4. Click "Register" button to complete the process.

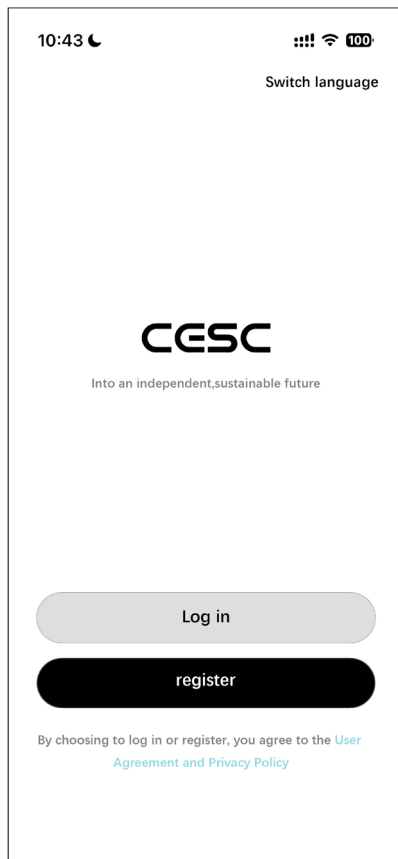


Figure 1

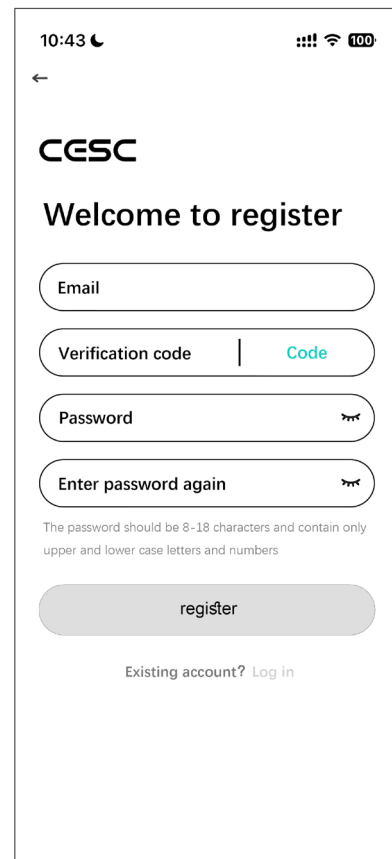


Figure 2

5.2.3 Account Login (see Figure 3)

1. Enter username and password.
2. Log in.

5.2.4 Create/Select Space (see Figure 4)

After successful login, you will enter the APP homepage:

1. Click "My Space" in the upper left corner to create a new space or select an existing one.
2. Click the "+" button in the upper right corner to add products.

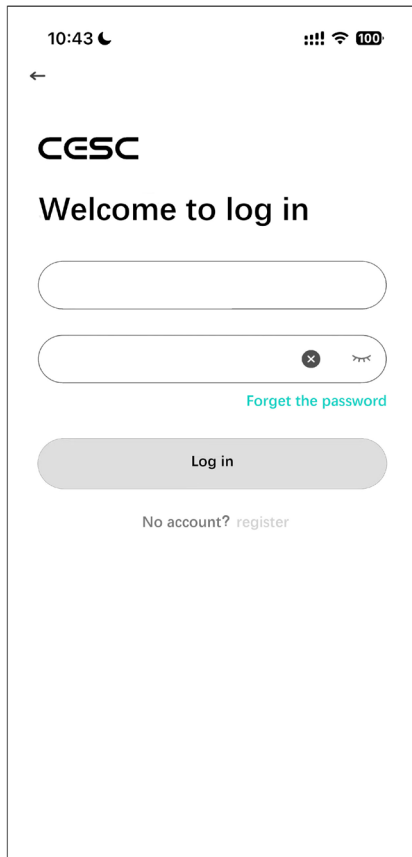


Figure 3



Figure 4

5.2.5 Product Selection (see Figure 5)

1. On the product list page, select and click **"Solar Parasol"**.
2. Choose **"Ra-Essential 350"**.

5.2.6 Enter SN Code (see Figure 6)

1. On the product information page, enter the product's **SN code**, ensuring correct capitalization.
2. Click **"Next"**.



INFO

You may find the product's SN code on the Product Labels on the back of the product.
Location of the SN code on the product labels:

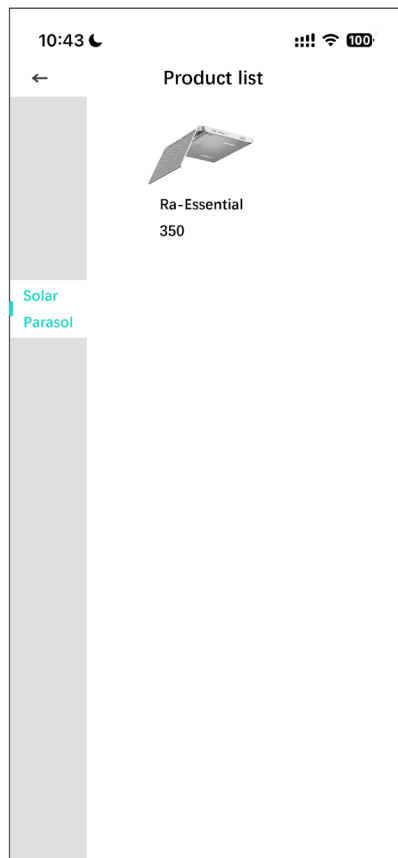


Figure 5

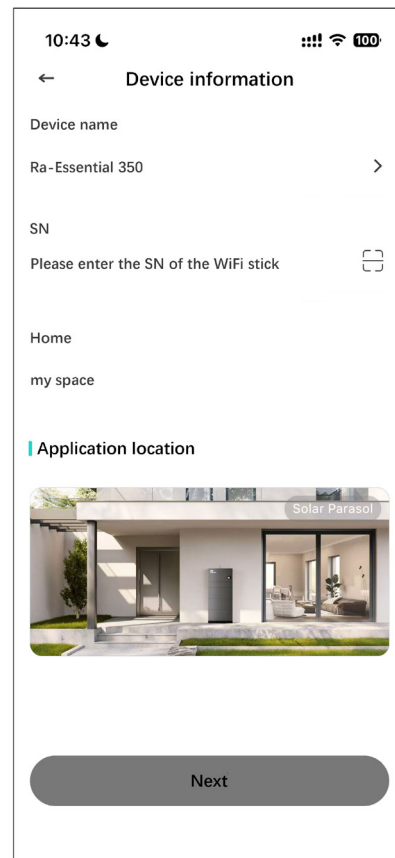


Figure 6

5.2.7 WiFi Configuration (see Figure 7)

1. Enter your **WiFi network name (SSID)** and **WiFi password**.
2. Click "**Next**" to proceed.

**INFO**

This product only supports **2.4 GHz Wi-Fi networks**, 5 GHz networks are not supported. A **stable Wi-Fi connection** and continuous **power supply** are required for proper operation. Any interruption in either may disrupt real-time data transmission and require the device to be manually reconnected to the network

5.2.8 Add Device (see Figure 8)

1. On the Add Device page, wait for the scan to complete and for an available device labeled **CESCxxxxxxxxxx** to appear.
2. Once the available device appears, click the "**Connect**" button.

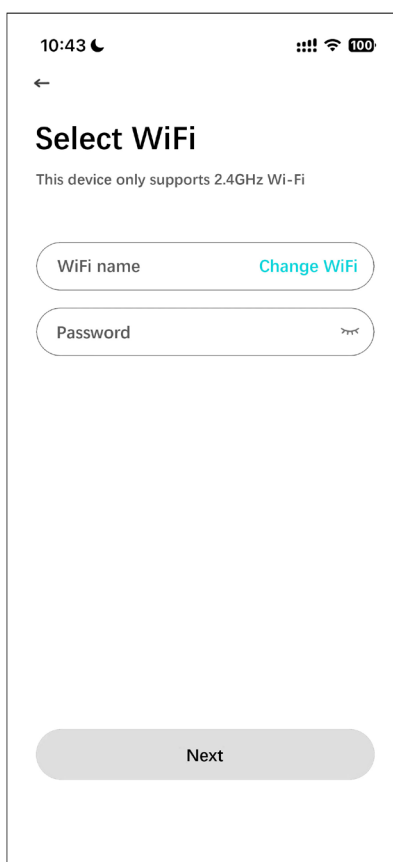


Figure 7

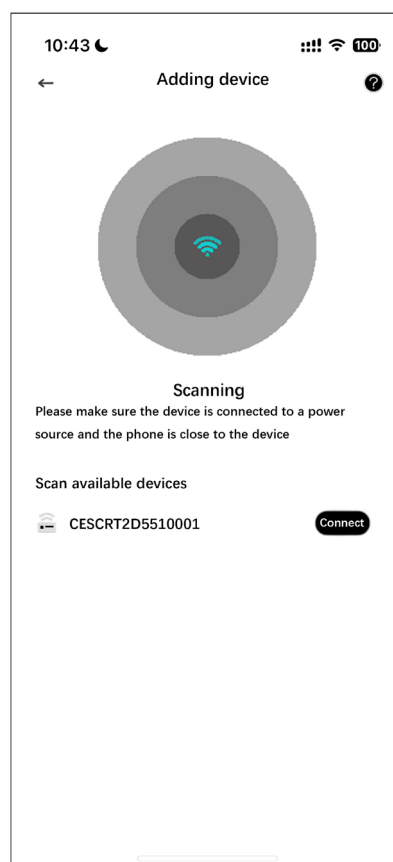


Figure 8

5.2.9 Space Successfully Created (see Figure 9)

- After successful product addition, the solar parasol management interface will appear on your home screen.



INFO

Once linked to an account, the device supports real-time remote control and sharing with multiple users across different locations, but only one active account binding is allowed. Account switching requires unbinding from the current account first.

5.2.10 Operation and Control (see Figure 10)

Access the solar parasol product details page.



Figure 9



Figure 10

Power Turn On / Turn Off

UP Retract the solar panel

STOP Pause the movement

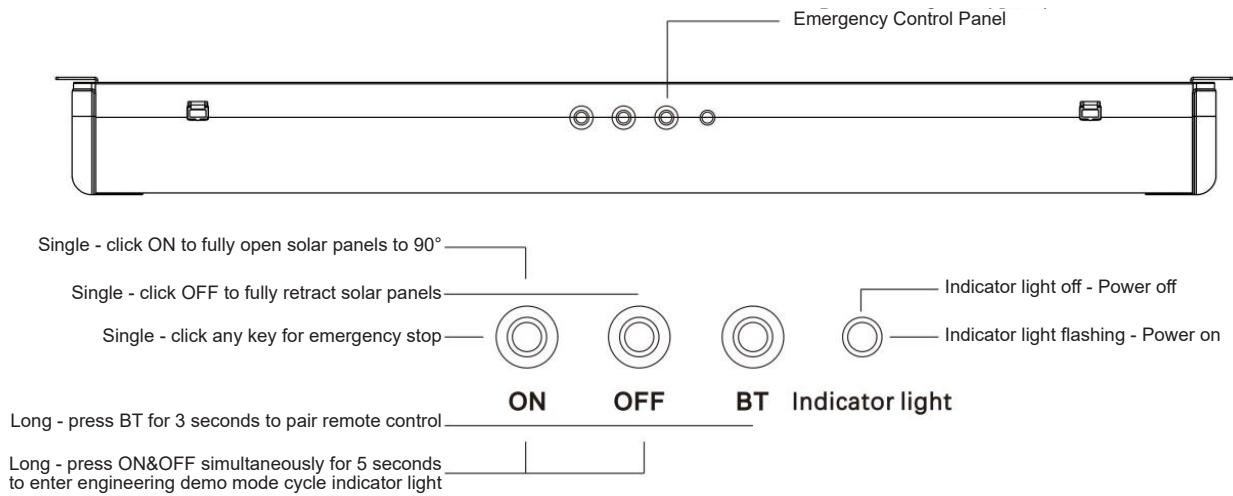
DOWN Lower the solar panel

Angel Display preset angle option (0 / 35 / 90)

Light Turn On/Off the Light
Change the color

5.3 Emergency Control Panel

In the event that both the remote control and app become inoperable, use the emergency control panel located on the rear of the product for operation.



06 Technical Specifications

6.1 Product Parameters

Product Name	Motorized Parasol
Product Model	Ra-Essential 350
Intended Use	Ceiling-mounted, infinitely adjustable photovoltaic awning
Solar Panel Material	Flexible Solar Panels
Solar Panel Power	315W
Micro Inverter Power	350W
WLAN Frequency Band	2402MHz~2484MHz
Maximum Transmit Power in WLAN Frequency Band	<20dBm (including the antenna gain)
LED Lamp Power	9W
LED Color Temperature	2700K and 7000K
Preset Awning Angles	0° / 35°(Best power generation angle)/ 90°(Shading Angle)
Operation temperature	-20°C to 50°C
Dimensions	1670 (length) × 1530(width) × 160(height) (mm)
Packaging Dimensions	1800 (length) × 1655 (width)× 265 (height) mm
Weight	76 kg
Materials & Finish	Shell: Aluminum alloy, powder-coated Frame: Aluminum profile
Main Color	Warm white
Max. Wind Resistance Rating	EN 13561 Class 3 (up to 49 km/h, Beaufort 6)
Certifications	IEC/EN 61215, IEC/EN 61730, EN 62109, IEC/EN 61000, IEC/EN 60335, EN 300328
Warranty	1-year warranty on the entire unit




CAUTIONS

This product is designed for use under normal weather conditions, with a wind resistance rating of **EN 13561 Class 3 (up to 49 km/h, Beaufort 6)**.


- In strong winds, retract the awning immediately for safety.
- Users must assess real-time environmental conditions and operate accordingly.
- Refer to local meteorological alerts when necessary.


6.2 Product Labels


CESC




Product	Motorized Parasol	Contact	www.cescpower.com
Product Model	Ra-Essential 350	Manufacturer	CESC New Energy Technology Co., Ltd. Made in P.R.C.
Rated Voltage	100-240V AC	SN Code	
Rated Frequency	50-60Hz		
Rated Current	2.6A		
Rated Power	200W		
Operation Temperature	-20°C ~50°C		
Max. Wind Resistance	EN 13561 Class 3 (up to 49 km/h, Beaufort 6)		

**WARNING** Installation and maintenance must be performed by professionals only. Do not approach moving parts while the product is in operation.

**CAUTION** Do not hang heavy objects or climb on the product.

**CAUTION** Do not use the product in strong winds, snow, or heavy rain conditions.

**CAUTION** Do not use flammable cleaners, organic solvents, or corrosive liquids to wipe the surface of the electric sunshade and solar panels.

Please keep this label properly for future after-sales inquiries. The user shall bear full responsibility for any consequences arising from unclear or lost labels.

07 Maintenance and Care

7.1 Routine Inspection and Cleaning

Do not disassemble or modify the product or its wiring to avoid electric shock or voiding the warranty.

1. **Product Cleaning:** Use a soft, damp cloth to gently wipe the awning frame and PV panel surface to maintain efficiency, remove dirt/debris carefully to avoid scratching the PV surface.
2. **Parts Repair and Replacement:** Any loose, damaged, or worn parts must be repaired/replaced only by certified technicians.
3. **Water Drainage:** Clear drainage holes regularly, especially after heavy rain.
4. **Extreme Weather Conditions:** Prolonged exposure to extreme temperatures/humidity may cause material degradation or affect system performance.
5. **Electrical Check:** Inspect wiring, sensors, and controllers for faults or overheating.
6. **Lubrication:** Clean mechanical components (e.g., gear tracks) with alcohol-based cleaner, then apply a suitable synthetic grease (e.g., Shell Gadus, Mobilgrease XHP). Recommended frequency: Every 1-2 years (reduce interval in sandy/humid climates).



CAUTIONS

Do not use abrasives, acids, alkalis, flammable or organic solvents, or any corrosive liquids on the product surface.



WARNING

1. **Do not overload:** Never place/hang items on the awning or PV panels.
2. **Severe Weather:** Retract panels during storms (high winds, hail).
3. **Power Off** before maintenance.
4. Use **fall-protection gear** when working at heights.
5. **Only certified professionals** may perform maintenance. Unauthorized repairs void warranty.

7.2 Troubleshooting and Repairs



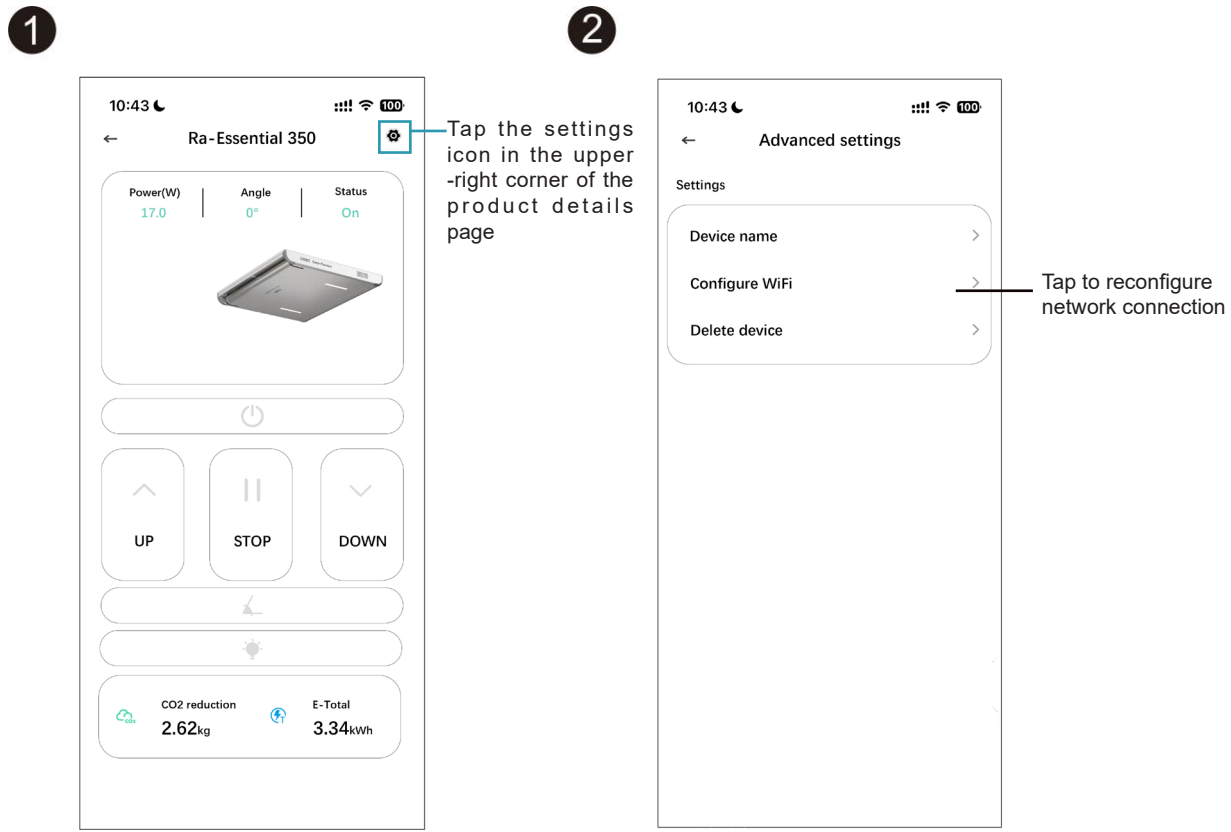
WARNING

1. **Always unplug the device** before inspection or troubleshooting.
2. Contact CESC Support or your authorized local installers for professional repair services.

7.2.1 Basic Troubleshooting Checklist

Before requesting repair services, please verify the following checklist:

- 1. **Loose Power Connection:** There are power supply interfaces on both the left and right sides of the back of the product. Please confirm that the plug is fully inserted.
- 2. **App Offline:** If the application fails to operate normally, please reconfigure the WiFi connection as guided in the figure below.



- 3. **Remote Pairing Failure:** Re-pair the remote.
- 4. **Other Issues:** Refer to the Repair Guide for details.

7.2.2 Repair Guide

Issue	Solution
Asymmetric Panel Movement	Contact installer
Sudden Stop + Alarm	Contact installer
Abnormal Noise	Contact installer
No Response	Contact installer

08 Dispute Resolution

In the event of any disputes or conflicts arising from the services or terms described in this manual, the parties shall, in the first instance, resolve them through written negotiation in accordance with the principle of good faith. The negotiation period shall end within 30 days as of the date of the written notice from one party. If the negotiation fails, either party may apply for arbitration to the Singapore International Arbitration Centre (SIAC), and the arbitration rules in effect at that time shall apply. The place of arbitration shall be Singapore, and the arbitration language shall be English. The arbitration award shall be final and binding on both parties, and may be enforced through application to any court having jurisdiction.

09 EU Declaration of Conformity

Hereby, CESC New Energy Technology Co., Ltd. declares that the radio equipment type [Motorized Parasol] is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

www.cescpower.com

10 After-Sales Service and Warranty

10.1 Warranty Terms

The manufacturer provides a **1-year limited warranty** under normal operating conditions.



INFO

Warranty Exclusions:

1. Damage from improper transport/use.
2. Unauthorized disassembly.
3. Missing/altered invoice.
4. Force majeure (lightning, fires, etc.).
5. Non-compliance with the manual.

This product is designed for household use. For optimal performance in commercial/group use settings, please schedule regular maintenance with CESC Germany After-Sales Service Department to prevent potential operational losses.

10.2 Service Registration and Repair Requests

After-Sales Service Contact Information

For all inquiries related to the Ra-Essential 350, including installation assistance, service registration, or repair requests, please contact our customer support team via our official website:

www.cescpower.de.

The **EU Declaration of Conformity** for our articulated arm awnings, as referenced in the Technical Specifications section (see page 10), is also available for download on our website.

CESC GmbH

Kreuzberger Ring 72

65205 Wiesbaden, Germany

Tel: +49 611 3605 1868

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