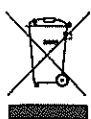
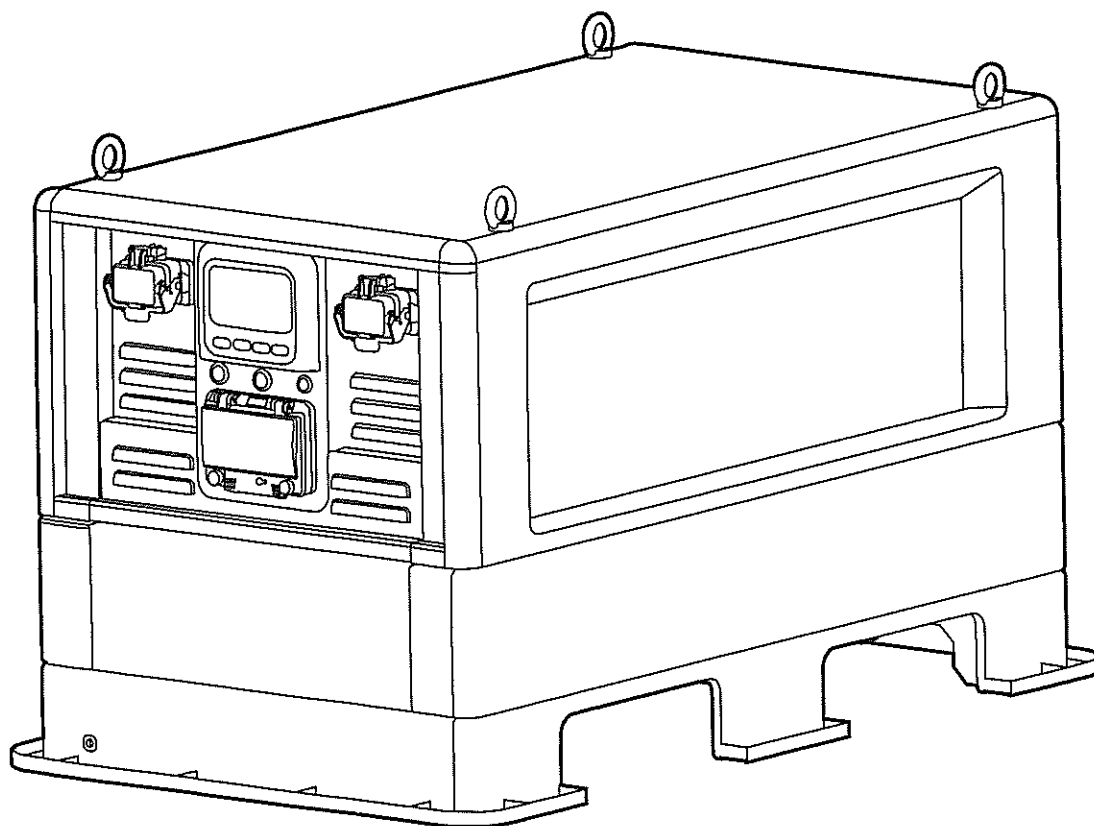


CUBE10HA1/CUBE10HA2 (CUBE10H)

EN | DE | ES | IT | FR | PT | NL | FI | SV | NO | DA |
PL | CS | SK | SL | HR | HU | AR | HE | LT | LV | ET



cramertools.com

DECLARATION OF CONFORMITY (UK)

Name and address of the manufacturer:

Name: Greenworks Tools Europe GmbH
Address: Brunnenweg 17, 64331 Weiterstadt, Germany, Germany

Name and address of the Authorized representative:

Name: GREENWORKS POWER UK LTD
Address: Castle Bromwich Hall Estate, Chester Road, Birmingham , United Kingdom, B36 9DE

Name and address of the person authorised to compile the technical file:

Name: Kevin Xu
Address: Castle Bromwich Hall Estate, Chester Road, Birmingham , United Kingdom, B36 9DE

Herewith we declare that the product

Category: Optimuscube
Model: CUBE10H
Serial number: See product rating label
Year of Construction: See product rating label

is in conformity with the relevant provisions of the Supply of Machinery (Safety) Regulations 2008.

is in conformity with the provisions of the following other UK legislation:

- Electromagnetic Compatibility Regulations 2016
- Radio Equipment Regulations 2017
- Low Voltage Directive 2014/35/EU
- Restriction of the Use of certain Hazardous
- Electrical Equipment (Safety) Regulations 2016
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Furthermore, we declare that the following standards have been used:

- EN 62477-1, EN IEC 62040-1
- EN IEC 61000-6-2, EN 61000-6-4
- EN 301 489-1, EN 301 489-19, EN 301 489-52, EN 301 908-1, EN 301 908-13, EN 303 413, EN 61000-3-3, EN IEC 61000-3-2 , EN IEC 62311
- EN 62321-3-1, EN 62321-4, EN 62321-5, EN 62321-6
- EN 62321-7-1, EN 62321-7-2, EN 62321-8

Place, date: Birmingham, 10.09.2025

Signature: Ted Qu, Quality Director

Ted Qu

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1 INTRODUCTION

1.1 PRODUCT DESCRIPTION

This OPTIMUSCube is a rechargeable energy storage system for charging Cramer equipments.

We are committed to continuously improving our products, and reserve the right to modify the design and appearance without prior notice.

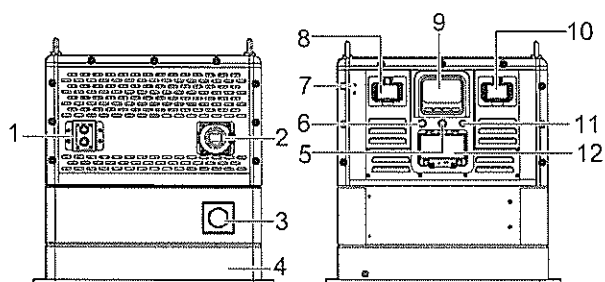
1.2 INTENDED USE

This product is designed to charge the Cramer battery caddy, vehicle or other Cramer power tools.

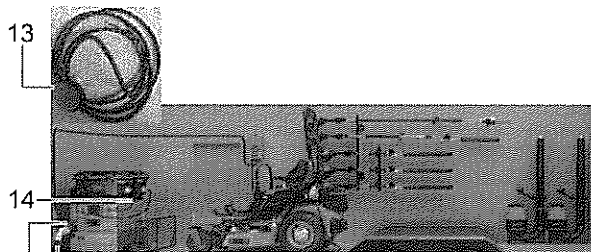
Please note that national or local regulations may regulate the use of the product. It is important to comply with any regulations given.

Always use accessories that are approved by the manufacturer with this product.

1.3 PRODUCT OVERVIEW



- 1 Solar input port
- 2 AC input port
- 3 Pressure relief valve
- 4 Forklift base
- 5 Power OFF button
- 6 Power ON button
- 7 4G + GPS port
- 8 Battery Caddy Output #1
- 9 LCD panel
- 10 Battery Caddy Output #2
- 11 AC On/Off button
- 12 AC output port



- 13 4G+GPS Antenna
- 14 Charging port
- 15 AC Charging cable
- 16 Caddy charging cable

- 15 AC Charging cable
- 16 Caddy charging cable

1.4 SYMBOLS ON THE PRODUCT

Symbol	Explanation
	Precautions that involve your safety.
	Read and understand all instructions before you operate the product, and follow all warnings and safety instructions.
	Electric Shock. Failure to use in dry conditions and to observe safe practices can result in electric shock.
	Protective earth (Ground).
	Do not make changes or modifications on the product.

Note: Other symbols/decals on the product refer to certification requirements.

2 SAFETY

2.1 SAFETY DEFINITIONS

Warnings, cautions, and notes are used to point out especially important parts of the manual.

▲ WARNING

THERE IS A RISK OF INJURY OR DEATH FOR THE OPERATOR OR BYSTANDERS IF THE INSTRUCTIONS IN THE MANUAL ARE NOT OBEYED.

▲ CAUTION

THERE IS A RISK OF DAMAGE TO THE PRODUCT, OTHER MATERIALS, AND THE ADJACENT AREA, IF THE INSTRUCTIONS IN THE MANUAL ARE NOT OBEYED.

Note: Used to give more information that is necessary in a given situation.

2.2 IMPORTANT SAFETY INSTRUCTIONS

▲ WARNING

READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE USING THIS PRODUCT. FAILURE TO FOLLOW ALL INSTRUCTIONS LISTED BELOW MAY RESULT IN ELECTRIC SHOCK, FIRE, AND/OR SERIOUS PERSONAL INJURY.

- **SAVE THESE INSTRUCTIONS** – This manual contains important safety and operating instructions for OPTIMUSCube CUBE10H.
- Before using the product, read all instructions and cautionary markings on the OPTIMUSCube, Battery Caddy, vehicle and batteries.
- This is not a toy - keep away from children. To reduce the risk of injury, close supervision is necessary when the product is used near children.
- This product is not tested for use with medical devices.
- Do not put fingers or hands into the product.
- Using insulated tools, insulated gloves, personal protective equipment, and clothing and other measures for safe installation of the battery system.
- NEVER smoke or allow a spark or flame in vicinity of the product.
- Do not expose the product to fire or excessive temperature. Exposure to fire or temperature above 100 °C (212 °F) may cause an explosion.
- Maintain good ventilation to prevent excessive accumulation of hydrogen. DO NOT install object into air vents.
- **CAUTION** – To reduce risk of injury, charge only Cramer batteries. Other types of batteries may burst causing personal injury and damage.
- Use of an attachment not recommended or sold by Cramer manufacturer may result in a risk of fire, electric shock, or injury to persons.
- Do not use a battery that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Carry out necessary commissioning tests and inspections before putting the product into service.
- Do not operate the product with a damaged cord or connector, or a damaged output cable.
- Do not disassemble the product, take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- **PROPER DISPOSAL OF BATTERIES IS REQUIRED. REFER TO YOUR LOCAL CODES FOR DISPOSAL REQUIREMENTS.**
- **SAVE THESE INSTRUCTIONS — THIS MANUAL CONTAINS IMPORTANT SAFETY INSTRUCTIONS.**

2.3 SERVICE

Servicing requires extreme care and knowledge, and must be performed only by a qualified service technician. Consult your nearest AUTHORIZED SERVICE CENTER for repair. Only use identical

manufacturer's replacement parts and accessories from the AUTHORIZED SERVICE CENTER.

3 ASSEMBLY

This section describes how to assemble and adjust the product.

▲ WARNING

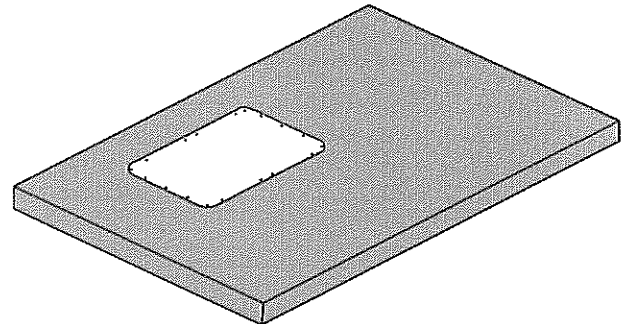
CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND THE ASSEMBLY INSTRUCTIONS BEFORE YOU ASSEMBLE THE PRODUCT.

3.1 INSTALL THE OPTIMUSCUBE

▲ CAUTION

- **USE IN AN ENCLOSED TRAILER.**
- **DO NOT USE IN RAIN.**
- **THIS PRODUCT MUST BE PROTECTED WITH AN ADDITIONAL COVER (SOLD SEPARATELY) IF USED ON AN OPEN TRAILER.**

1. Mark the location for installation.

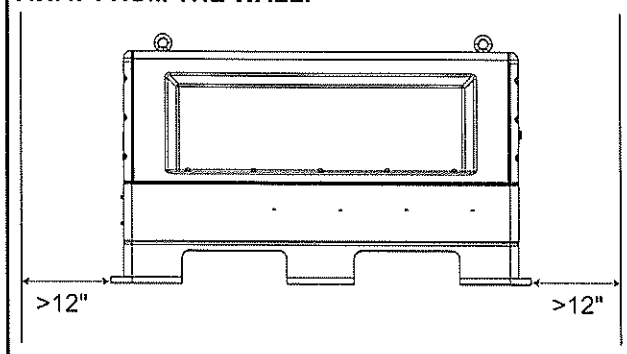


▲ WARNING

DO NOT COVER THE COOLING VENTS.

▲ WARNING

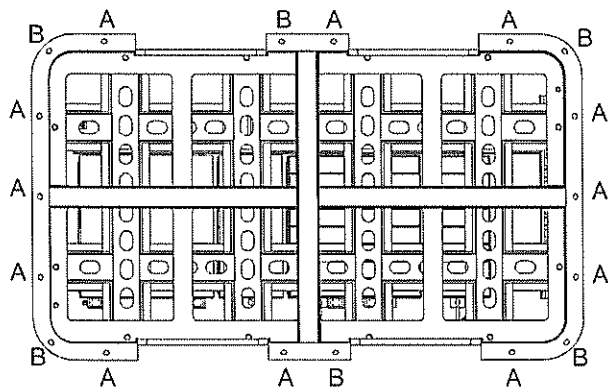
ENSURE THE COOLING VENTS ARE 12" (30 CM) AWAY FROM THE WALL.

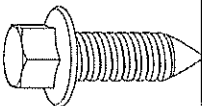
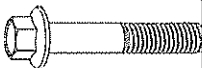


▲ CAUTION

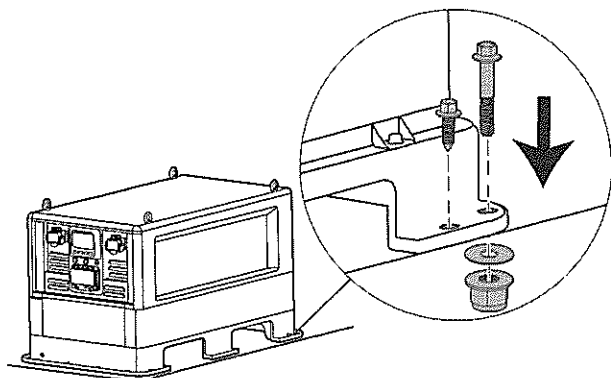
ENSURE THERE ARE NO WIRES OR CABLES UNDER THE SURFACE WHERE YOU WILL BE DRILLING.

- Position the product, drill $\phi 9\text{mm}$ holes for B around its base, and secure using screws, locknuts, washers as pictured.



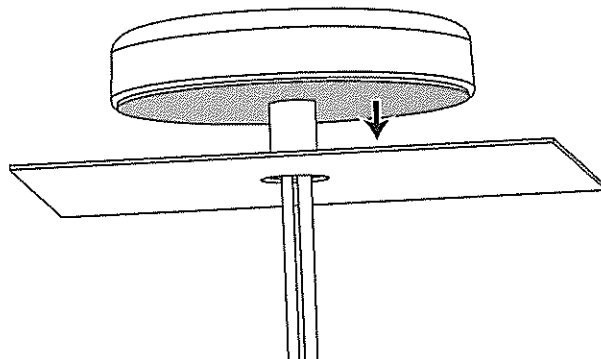
Item	Fastening Hardware	Quantity	Picture
A	ST8*25 Screw	12 PCS.	
B	M8*45 Screw	6 PCS.	
	M8*1.25 Locknut	6 PCS.	
	Ø8 Flat washer	6 PCS.	

Note: The hardware types above are only for wood, they may not fit the material of your trailer floor, please select applicable screws accordingly.

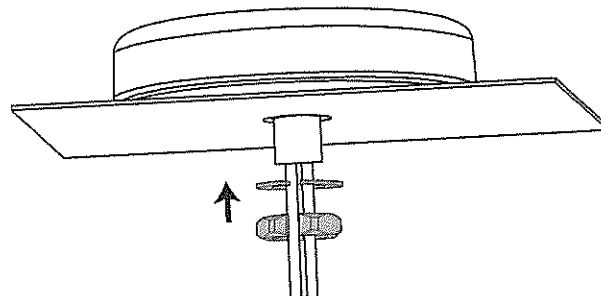


3.2 INSTALL THE ANTENNA

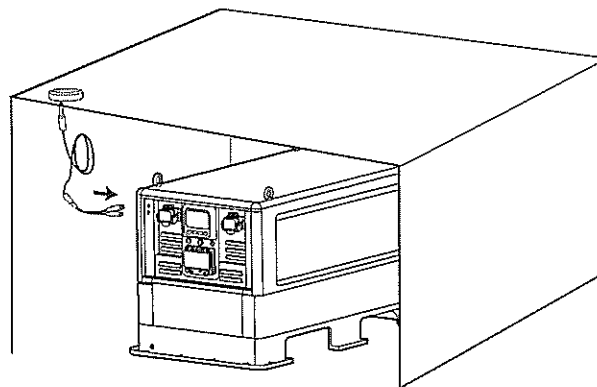
- Position the antenna on the roof directly above the OPTIMUSCube.
- Drill a 1/2-in (13mm) hole and insert the cable through the hole.
- Remove the washer and locknut.
- Tear off the double-sided adhesive release paper and stick the antenna on the roof.



- Install the washer and locknut under the roof, securely tighten the locknut.



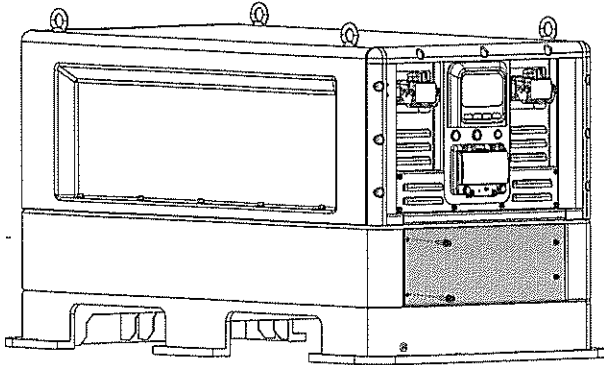
- Connect the plug to the 4G and GPS port.



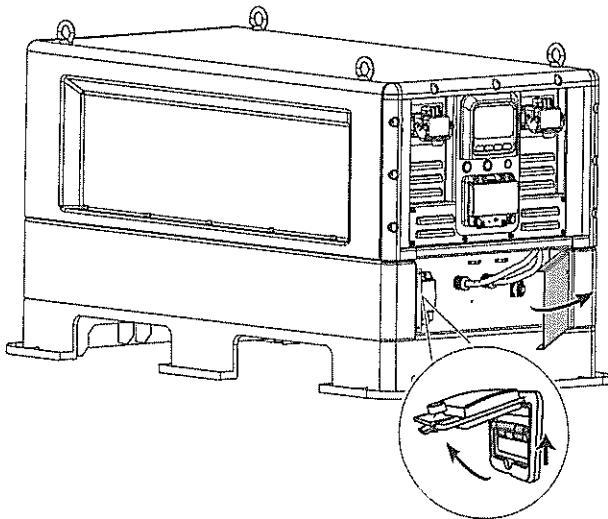
3.3 TURN ON THE CIRCUIT BREAKER

Note: Turn on the circuit breaker after securing the product and before the first use.

- Remove the screws on the front cover.



2. Open the front cover.
3. Loosen the knob and flip up the cover.
4. Push up the circuit breaker to turn it on.



5. Close the cover and securely tighten the knob.
6. Close the front cover and securely tighten the screws.

4 OPERATION

This section describes how to operate the product.

▲ WARNING

CAREFULLY READ AND UNDERSTAND THE SAFETY CHAPTER AND OPERATION INSTRUCTIONS BEFORE YOU OPERATE THE PRODUCT.

4.1 CHARGE THE PRODUCT

▲ CAUTION

PLUG AND SOCKET REQUIREMENT: NEMA 14-50P, 240VAC. ONLY USE Cramer APPROVED CABLES.

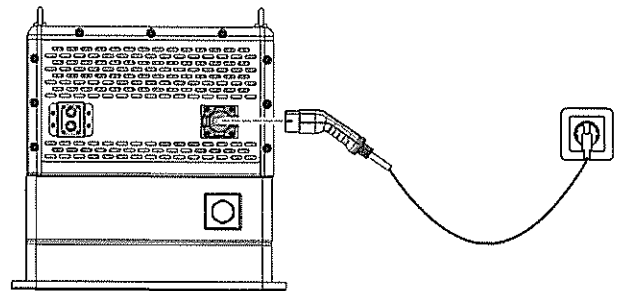
▲ CAUTION

ENSURE THE CIRCUIT BREAKER IS TURNED ON BEFORE CHARGING.

Note: When charging the caddy and the OPTIMUSCube at the same time, OPTIMUSCube will be charged to 15% first, then the caddy will be charged. After the caddy is fully charged, OPTIMUSCube will continue charging.

4.1.1 AC CABLE CHARGING

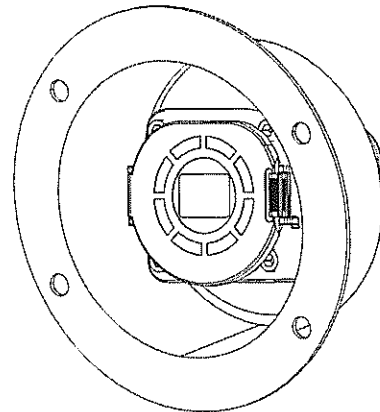
1. Connect the AC charging cable to a wall outlet, then connect the charging plug to the AC input port.



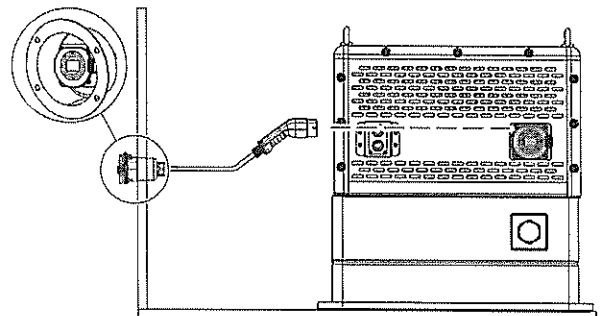
2. Press the Power ON button to start charging.

AC cable charging with extension cable

1. Install the charging port on the wall of the trailer or vehicle with the connection door on the exterior of the trailer.

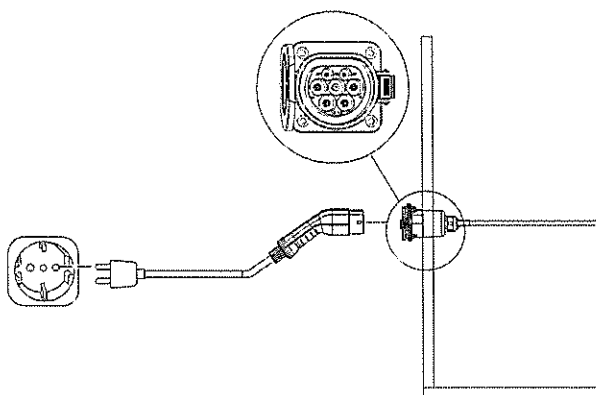


2. Connect the extension cable from the OPTIMUSCube's AC input port to the charging port.

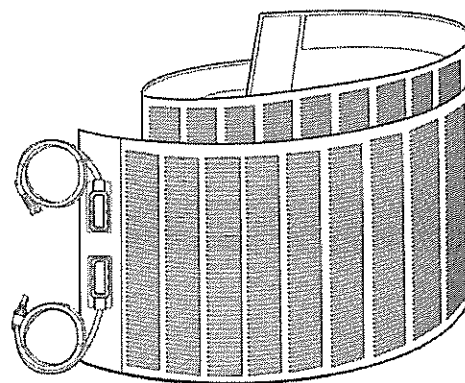
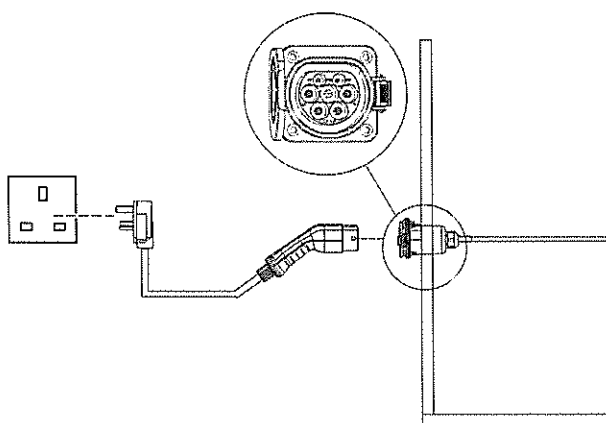


3. Connect the AC charging cable from an AC wall outlet to the charging port.

For CUBE10HA1



For CUBE10HA2

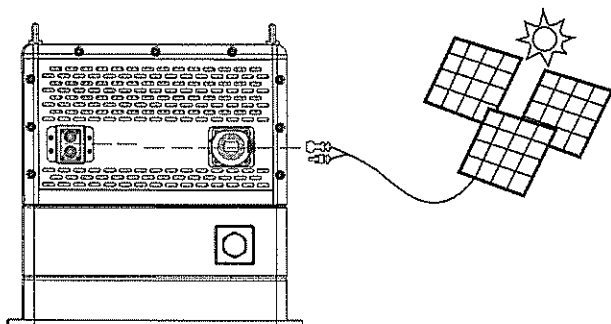


Maximum Power (Pmax)	100W	200W
Solar Cells Efficiency	16%	16%
Max. Power Voltage	25V	25V
Max. Power Current	4.01A	8.02A
Open Circuit Voltage (Voc)	31.5V	31.5V
Short Circuit Current	4.32A	8.64A
Max. System Voltage	1000V DC	1000V DC
Operating Temperature Limits	-40 °C ~ 85 °C (-40°F ~185°F)	
Series Fuse Rating	10A	10A
Temperature Coefficient of Pmax	-0.38%/°C	-0.38%/°C
Temperature Coefficient of Voc	-0.28%/°C	-0.28%/°C
Temperature Coefficient of Isc	-0.008%/°C	-0.008%/°C
Dimensions	13.7*78.7*0.06 Inches	25.4*78.7*0.06 Inches
Weight	4.06 lbs	6.68 lbs

4.1.2 SOLAR POWER CHARGING

Note: PV input parameters: 13-60V 30Amax 1500Wmax.

1. Connect the PV modules (not included) to the solar input port.

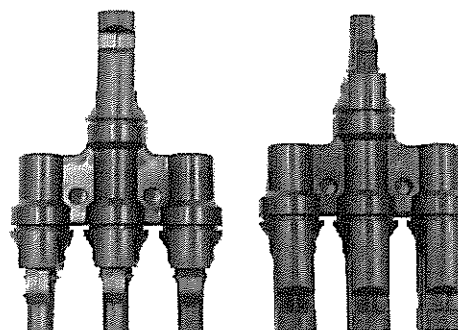


2. Press the Power ON button to start charging.

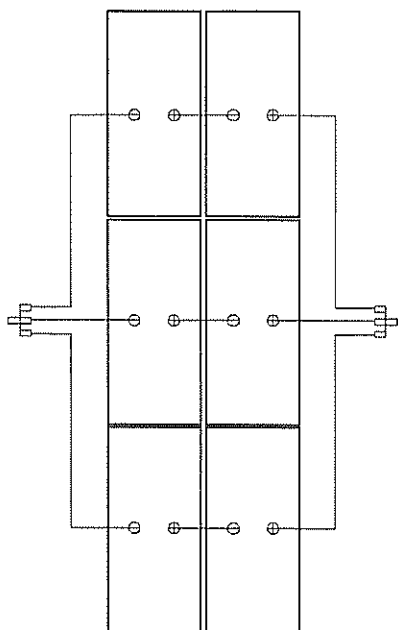
PV module example (not included):

Using 3-in-1 MC4 PV connector to connect two PV modules in series (total voltage under 60V), then connect three PV module series in parallel (total current under 30A).

3-in-1 MC4 PV connector:



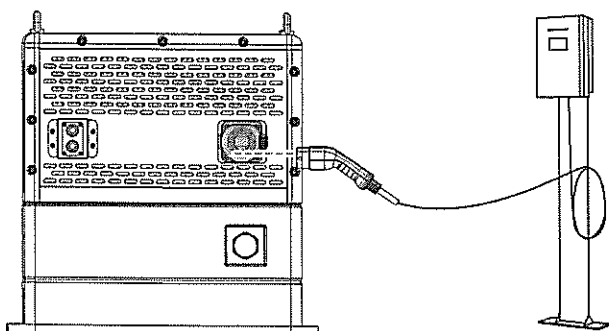
Wiring Diagram:



Battery IC CODE: XXXXXXXX

4.1.3 EV CHARGER CHARGING

1. Connect the EV charging connector to the AC input port.

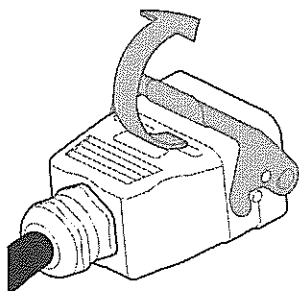


2. Press the Power ON button to start charging.

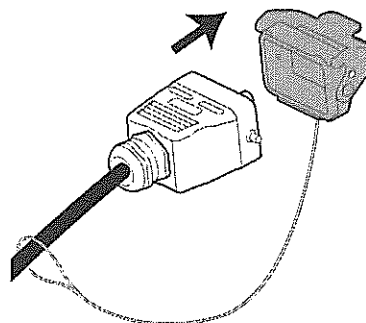
4.2 USE THE CADDY OUTLETS

Note: Connect directly to the OPTIMUSCube or connect to the charging port.

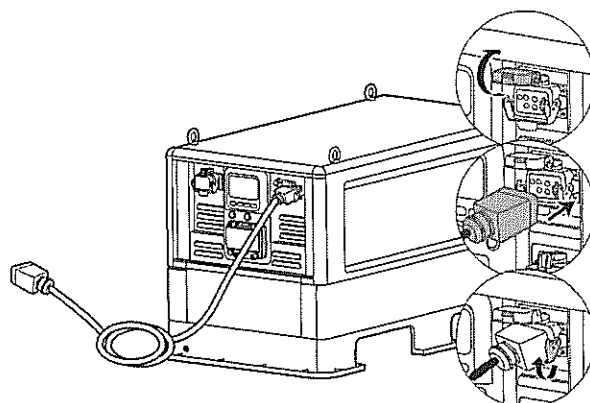
1. Pull the cover lock lever.



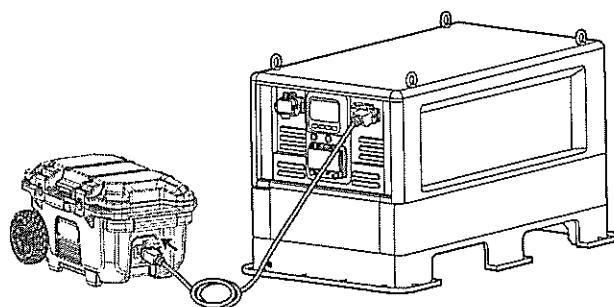
2. Take off the plug cover.



3. Connect the plug to the Battery Caddy Output and secure the locking connection.



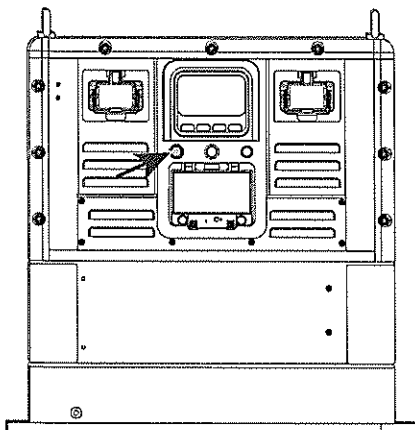
4. Connect the other end of the plug to the battery caddy.



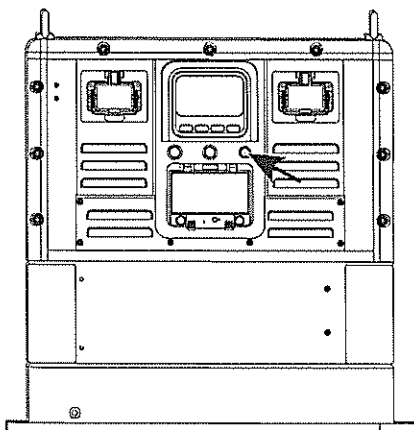
5. Press the Power ON button on the OPTIMUSCube to start charging.

4.3 USE THE AC OUTLETS

1. Press the Power ON button to turn on the product.



2. Press the AC On/Off button.



3. Connect the plug to the outlet.

4.4 APP DOWNLOAD AND CONNECTION

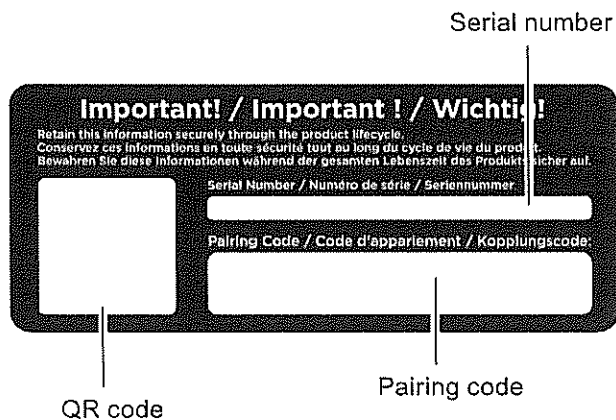
1. Visit Fleet Management's website at cramertools.com.
2. Create an account and log in.
3. Invite other users within your organization.
4. Scan the QR code below to download the app and log in.



Note: Refer to the Cramer App Pairing Page for detailed instructions on connecting your product.

5. Add a device by entering the serial number and pairing code or by scanning the QR code located on the matching label.

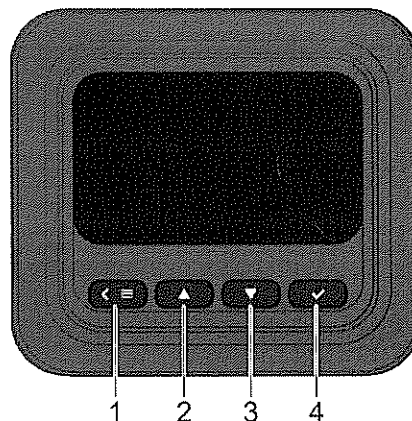
Note: The QR code on the product's matching label in this manual is generated from the serial number and pairing code.



5 ELECTRICAL SYSTEM

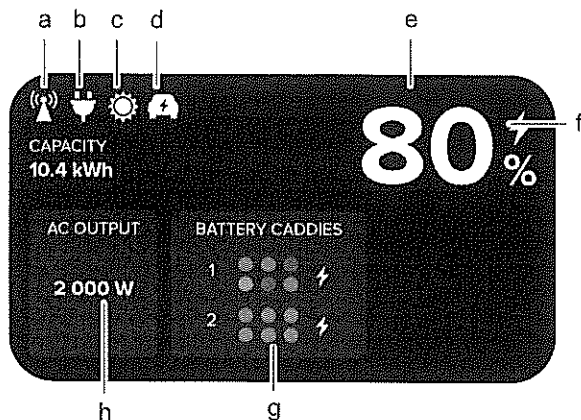
Note: The technical data shown in the image are for reference only; the actual interface displays real-time data.

5.1 CONTROLS AND FEATURES



1. **Menu / Back Button:** Menu / Return to previous page.
2. **Page Up Button:** Menu / Navigate page up.
3. **Page Down Button:** Navigate page down.
4. **Confirm Button:** Press to confirm.

5.2 LCD PANEL



a. **4G connection:** 4G symbol shows if the product is online or not.

b. **AC power / grid:** Charging via AC power.

c. **Solar power:** Charging via solar power.

d. **EV charging:** Charging via EV charger.

e. **Battery percentage:** Battery capacity remaining.

f. **Charging status:** Charging in progress.

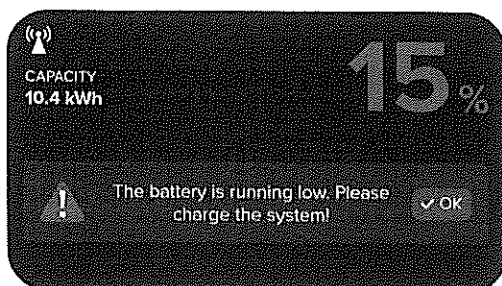
g. **Battery caddy charging status:**

- Green+Lightning: Charging in progress.
- Green: Batteries fully charged.
- Grey: Batteries not inserted or N/A.
- Red: Temperature error or other error.

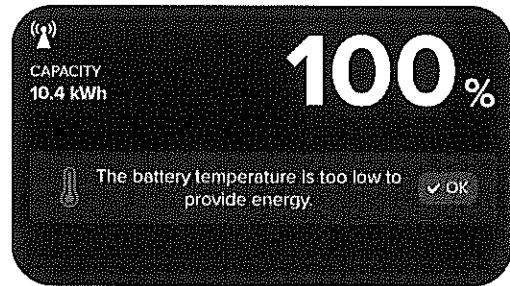
h. **AC output:** The current output of AC outlet.

5.3 WARNING MESSAGES

- Charging status will appear red when battery charge level falls below 15%.
- Warning message appears on the screen for the user. If the user presses the check mark button, the pop-up is closed and the usual information is visible. When the battery charge level goes above 15%, the battery warning message will be closed automatically.

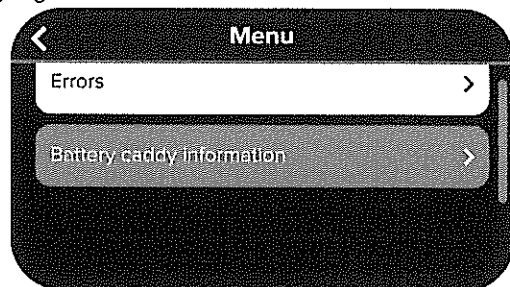


- If the temperature is too low, this message appears on the screen. If the user presses the checkmark button, the message is hidden.



5.4 SETTINGS

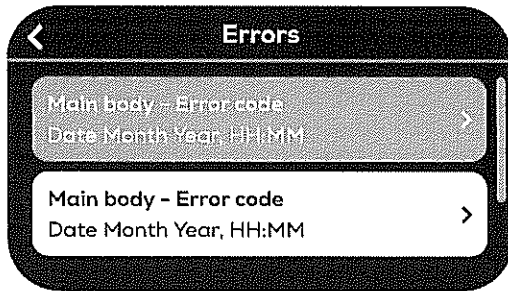
Press the Menu Button on the settings page. You can see 5 items including Errors, Battery Caddy Information, Power Conversion Information, Software Version and Language.



Battery caddy charging icon	Status
	Charging
	Full
	Empty/ N/A
	Error - temperature
	Error (all but temp error)

5.4.1 ERRORS

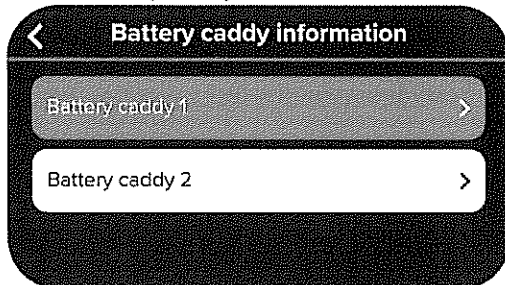
1. Navigate to the Errors page.
2. Select the specific error code to learn more information and see recommended solutions.



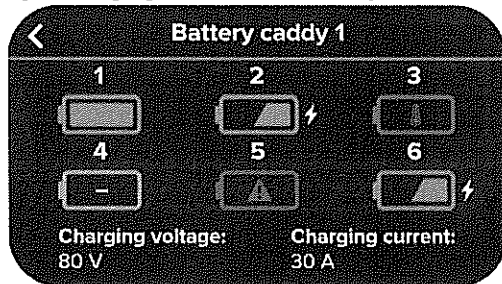
3. Select check mark button to exit.

5.4.2 BATTERY CADDY INFORMATION

1. Navigate to the battery caddy information page.
2. Select the battery caddy.



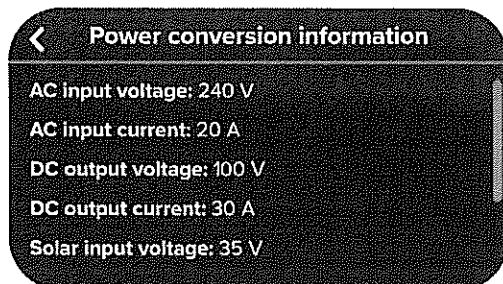
3. This page shows the battery caddy charging voltage, charging current, and battery errors.



4. Select back button to exit.

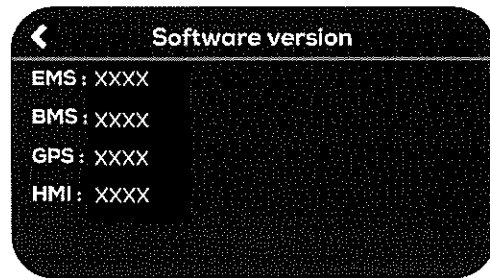
5.4.3 POWER CONVERSION INFORMATION

This page shows voltage and current change during the charging process.



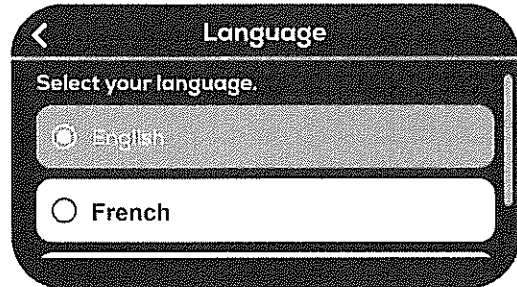
5.4.4 SOFTWARE VERSION

This page shows software version.



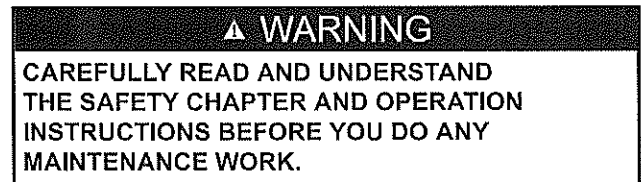
5.4.5 LANGUAGE

This page allows user to select the display language.



6 MAINTENANCE

This section describes how to maintain the product.



Note: Remove the plug from the AC Outlet, turn the product off, and place circuit breaker in the off position before carrying out any adjustments, servicing, or maintenance.

- Keep the socket free of foreign objects, and clean with a soft brush or cloth.
- Never use chemical cleaners to clean the product.
- Do not spray water onto electrical components.
- Do not use pressure washer to clean the product.
- Use a protection cover to cover the product in rainy conditions.
- If any cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. Never try to open the housing cover of the product without the guidance of the dealer.
- Have your product serviced by a qualified repair person using only identical replacement parts.

7 TRANSPORTATION, STORAGE AND DISPOSAL

7.1 TRANSPORTATION

- When transporting the product, keep it upright and secured to prevent movement or damage. For transporting the product in the vehicle, use suitable loading tools to lift up or put down the product and keep it secured in the vehicle.
- To lift the product with a crane or similar lifting devise, use the eyelets and a suitable lifting strap. Guide the product to prevent it from swinging.
- The product is heavy, it is not suggested to lift the product by hand. The base of the product is designed so that the product can be lifted and moved with a fork lift or hand pallet truck.
- The contained batteries are subject to dangerous goods legislation requirements. Transport the product only when the housing is undamaged.

7.2 STORAGE

- Disconnect any products from the OPTIMUSCube before storage.
- Store the product in a dry and secure place that is inaccessible to children and other unauthorized people. Do not place objects on top of the product.
- It is suggested to store the product within a temperature range between 0 °C and 35 °C (32 °F - 95 °F). Keep the storage environment dry and ventilated.
- The OPTIMUSCube is intended for commercial use and is designed to be stored in workshops, warehouses, stores, detached garages, sheds. Under no circumstances should the product be stored within a residential dwelling or other habitable spaces. This includes areas such as bathrooms, toilet rooms, closets, and halls.

7.3 DISPOSAL OF THE BATTERY, BATTERY CHARGER, AND PRODUCT

Symbols on the product or the package of the product mean that the product is not domestic waste. Recycle it at a recycling station for electrical and electronic equipment. This helps to prevent damage to the environment and persons.

Get in touch with your local authorities, domestic waste service, or your dealer for more information about how to recycle your product.

8 ERROR CODE

Error Co- des	Error Con- tents	User's Operation Sugges- tions
A006	AC OUT Charger out- put short cir- cuit	1. Confirm that the load pow- er is $\leq 2.2\text{kW}$; 2. Do not connect motor-type loads; 3. Restart the system; 4. Report for maintenance.
A007	AC OUT Charger out- put overcur- rent	1. Confirm that the load pow- er is $\leq 2.2\text{kW}$; 2. Do not connect motor-type loads; 3. Restart the system; 4. Report for maintenance.

Note: If error codes not in the table pop up, restart the system and contact your nearest dealer.

9 TECHNICAL DATA

AC Input	EU	EVSE	187 V- 264V~ 50Hz, 20.83A, 5000W
		Mains	220 V- 240V~ 50Hz, 15A MAX, 3600W MAX
	UK	EVSE	187 V- 264V~ 50Hz, 20.83A, 5000W
		Mains	220 V- 240V~ 50Hz, 13A MAX, 3120W MAX
PV Input			13V - 60Vd.c., 30A, 1500W MAX
PMU Output			50V-83Vd.c.,35A , 2000W Short-circuit current: 650A MAX, time: 10ms
AC Output			220V-240V ~50Hz. 9.6A, 2200W Max Short-circuit current: 300A MAX, time: 1ms
Operating Temperature			-20°C~50°C (-4°F~122°F)
IP Rating			IP45
Protetive class			I
Dimension			1074 x 614 x 638.1mm
weight (tool only)			182.5kg

10 EC DECLARATION OF CONFORMITY

Weiterstadt,
08.08.2025

Ted Qu

Name and address of the manufacturer:

Name: Greenworks Tools Europe GmbH
Address: Brunnenweg 17, 64331 Weiterstadt

Name and address of the person authorised to compile the technical file:

Name: André Douqué
Address: Brunnenweg 17, 64331 Weiterstadt

Herewith we declare that the product

Category: OPTIMUScube
Model: CUBE10H
Serial number: See product rating label
Year of Construction: See product rating label

is in conformity with the relevant provisions of the Machinery Directive 2006/42/EC.

Is in conformity with the provisions of the following other directives:

- Electromagnetic Compatibility - Directive 2014/30/EU
- Radio equipment - Directive 2014/53/EU
- Low Voltage Directive 2014/35/EU
- Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2011/65/EU & (EU) 2015/863

Furthermore, we declare that the following standards have been used:

- EN 62477-1, EN IEC 62040-1
- EN IEC 61000-6-2, EN 61000-6-4
- EN 301 489-1, EN 301 489-19, EN 301 489-52, EN 301 908-1, EN 301 908-13, EN 303 413, EN 61000-3-3, EN IEC 61000-3-2, EN IEC 62311
- EN 62321-3-1, EN 62321-4, EN 62321-5, EN 62321-6
- EN 62321-7-1, EN 62321-7-2, EN 62321-8



Place, date: Signature: Ted Qu, Quality Director