



# EV PORTABLE CHARGE CABLE MOBI BOX

**Ratio**  
**ELECTRIC**

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Manual

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## IMPORTANT SAFETY INSTRUCTIONS

Carefully read these instructions and the charging instructions in your vehicle owner's handbook before charging your electrical vehicle.

Take special note of all information marked with the following symbols:

**Note:** *This means pay particular attention. Notes contain helpful suggestions.*



**Caution:** *This symbol means be careful. You are capable of doing something that might result in damage to equipment.*



**Warning:** *This symbol means danger. You are in a situation that could cause bodily injury. Before you work on any electrical equipment, be aware of the hazards involved with electrical circuitry and standard practices for preventing accidents.*

### Safety Guidelines

- Use this Charge Cable to charge electric vehicles equipped with a conductive charge port only. See the vehicle's owner's handbook to determine if the vehicle is equipped with a conductive charge port.
- Make certain the Charge Cable's supply cable is positioned so it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- There are no user serviceable parts inside. Refer to the Customer Support section in this manual for service information. Do not attempt to repair or service the Charge Cable yourself.
- Do not operate your Charge Cable if it or the supply cable or housing is visibly damaged. Contact your Service Representative for service immediately. Refer to the Customer Support section in the manual for information on the Service Representative in your area.

## SAFETY INFORMATION



**Warning:** When using electric products, basic precautions should always be followed, including the following:

- Read all the safety warnings and instructions before using the product. Failure to follow the warnings and the instructions may result in electric shock, fire and / or serious injury.
- This device should be supervised when used around children.
- Do not put fingers into the electric vehicle connector.
- Do not use this product if the flexible power cord or EV cable are frayed, have broken insulation, or any other signs of damage.
- Do not use this product if the enclosure or the EV connector are broken, cracked, open, or show any other indication of damage.
- If the plug provided does not fit the outlet, do not modify the plug, arrange for a grounded outlet to be installed by an electrician.
- The charge cord is provided with a grounding conductor and a grounding plug. This plug must be plugged into a properly grounded outlet in compliance with national and local electrical codes.



**Warning:** If, at time, you think the equipment is unsafe, shut off the electricity at the circuit breaker and immediately contact Customer Support for service. Do not use your charge Cable until the problem is identified and corrected.



**Caution:** Children should not be allowed to use this Charge Cable. Do not allow children to play in or around the Charge Cable. Close supervision of children is necessary when the Charge Cable is used.



**Caution:** Do not open the enclosure.

## INSTALLATION

**Note:** This product must be grounded/protective earthed. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into 230V wall socket that is properly installed and grounded in accordance with all local codes and ordinances.



**Warning:** Improper connection of the equipment-grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

**Note:** The charge cord used to charge the vehicle is a high-powered electrical device. During normal operation, the 230V plug of the charge cord may feel warm. The 230V plug must fit tightly into an 230V wall socket that is in good condition.



**Warning:** Using the charge cord with a worn or damaged 230V wall socket may cause burns or start a fire. Periodically, check the wall plug and charge cord while the vehicle is charging. If the wall plug feels hot, unplug the charge cord and have the wall socket replaced by a qualified electrician. Replace the charge cord if the wall plug or cord are damaged. Do not use an wall socket that is worn or damaged.



**Warning:** Extension Cords, Multi Outlet Power Strips, Surge Protectors or similar devices should not be used with the charge cord. Use of an Extension Cords, Multi Outlet Power Strips, Surge Protectors or similar devices may increase the risk of electric shock or other hazards.

## OPERATION

The Ratio Electric Mode 2 Charge Cable offers maximum security when charging your EV from a standard Schuko or CEE outlet.

Just plug the wall plug into the earth-grounded 230V wall socket. Always plug in the wall socket first.

Now the Power LED will light up.

The 6A Ready/Charge LED will start blinking. You can change the charge current by pressing the button. The chosen charge current LED starts blinking.

Plug the vehicle connector firmly into the vehicle's charge port.

After a few seconds Ready/Charge LED stops blinking and will be lighting continuously. Now the cable is charging at the selected current.

During the charging it's not possible to change the charge current anymore.

When disconnecting the charge cable, always remove the vehicle connector first then remove the plug from the wall socket.

**Note:** For charge cables with a Schuko wall plug you can choose between 6A, 10A and 13A.  
For charge cables with a CEE wall plug you can choose between 6A, 10A and 16A.

## ERROR NOTIFICATION

In case of earth failure, the Fault LED lights up red immediately after the wall plug is plugged into the wall socket. To avoid the error the wall socket needs always to be earth-grounded.

The Fault LED can also light up red during the charging.

In this case please remove the vehicle connector from the vehicle and wait a few seconds. Choose the charge current and plug the vehicle connector once more into the charge port of the car.

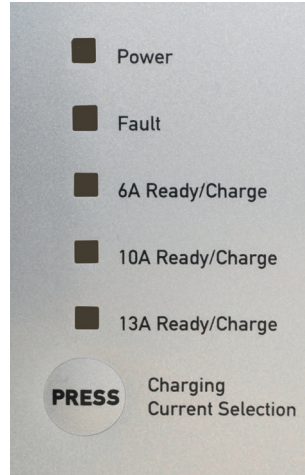
If the Fault LED lights up again remove the vehicle connector and the wall plug.

Try again to connect the Charge Cable correctly and charge the vehicle.

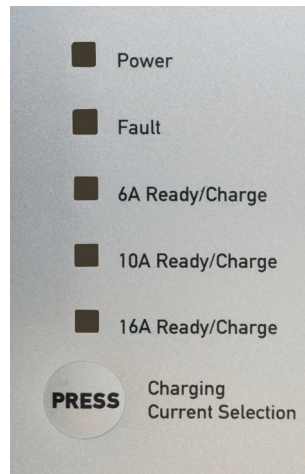
If the Mobi Box continues to display the error during the charging, please contact Ratio Electric for support.

## FRONT PANEL DISPLAY

Mobi Box front panel Schuko version



Mobi Box front panel CEE version



## SPECIFICATIONS

Charging System	IEC 61851 Mode 2
Car Connector	IEC 62196 Type 1 or Type 2 (Female)
Wall Plug	IEC 60309 16A / single phase (blue) or Schuko
Voltage & Wiring	230V AC single-phase, 50Hz
Charge Current	max. 16A (IEC 60309) or 13A (Schuko)
Earth leakage protection	AC 30mA, DC 6mA
Protection	under and overvoltage overcurrent
Grounding safety	earth wire detection
Dimensions	215x110x50 mm
Weight	4 kg (incl. 5m cable)
Operating temperature	-25°C to +40°C
Protection	IP44



## MAINTENANCE

The Charge Cable requires no maintenance other than occasional cleaning.



**Warning:** Unplug your Charge Cable before cleaning the unit.



**Warning:** To reduce the risk of electrical shock or equipment damage, be cautious while cleaning the connectors and case.

Clean the Home Charger using a soft cloth lightly moistened with mild detergent solution. Never use any type of abrasive pad, scouring powder, or flammable solvents such as alcohol or benzene.

## FCC INFORMATION

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.

This product has been designed to protect against Radio Frequency Interference (RFI). However there are some instances where high powered radio signals or nearby RF-producing equipment (such as digital phones, RF communications equipment, etc.) could affect operation.

If interference to your charge station is suspected, we suggest the following steps be taken before consulting your Service Representative for assistance:

1. Reorient or relocate nearby electrical appliances or equipment during charging.
2. Turn off nearby electrical appliances or equipment during charging.



**Caution:** Changes or modifications to this product by other than an authorized service facility may void FCC compliance.

## WARRANTY INFORMATION

Ratio Electric B.V. warrants this product to be free from defects in material, manufacture and design for a period of 3 years after the date of purchase. If this product is defective in materials, manufacture or design during this warranty period, Ratio Electric B.V. will, at its option, repair or replace the product. Repair parts and/or replacement products may be either new or reconditioned at Ratio Electric B.V. discretion.

This limited Carry-In Warranty does not include service to repair damage from improper installation, improper connections with peripherals, external electrical fault, accident, disaster, misuse, vandalism, unauthorized alteration or repair, abuse or modifications to the product not approved in writing by Ratio Electric B.V.

Any evidence of an attempt to disassemble the Charge Cable will void this warranty.

Any service repair outside the scope of this limited warranty shall be at applicable rates and terms then in effect.



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