

Ohme Wall Mounted Charger Product Manual



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Safety Precautions

This document contains important safety information relating to your Ohme Charger. Please retain this document for future reference.

Please read the document fully before using the Ohme Charger. Not following the safety instructions can result in electric shock, fire, serious injury or death.

	The charger should be inspected periodically to check for damage to the cabling and the enclosure. Do not use if the product is defective or appears damaged. Contact the Ohme support centre for advice
	Do not attempt to open, repair, tamper or modify the Ohme Charger in any way. There are no user-serviceable parts
	We strongly recommend that a competent person (e.g. qualified electrician) installs and/or inspects the installation to check for safety and supply adequacy before use
	The overall installation should be in accordance with the IET Wiring Regulations and the IET Code of Practice for Electric Vehicle Charging Equipment
	Handle the Ohme Charger with care. Do not expose any part of the cable to severe forces, impact or sharp objects
	The Ohme Charger is only intended for vehicles that do not require ventilation during charging (NB all mainstream electric vehicles do not require ventilation)
	You may clean the Ohme Charger with a soft damp cloth. Do not use solvents or abrasives

Product Specification

Voltage	220 – 250 V AC
Frequency	50 / 60 Hz
Max Current, Power Output	32A, 7.4kW
Operating Temperature	-25°C to 45°C
Storage Temperature	-40°C to 85°C
Cable length (output to vehicle)	5 metres
Cable length (input, supply)	1 meter
Residual current function	Type A 30mA DC 6mA
Overcurrent protection	Not fitted, overcurrent protection to be fitted separately as part of installation
Ingress protection	IP55 (suitable for use outdoors in all weather)
Data Communication	2G / 3G / 4G
Shipping weight	4kg
Colour	Black

Part Numbers

Connector Type	Ohme Part Number
Type 1	OHME0001GB001
Type 2	OHME0002GB001

Product Description

The Ohme Charger is an Electric Vehicle (EV) charging device, comprising:

- Input cable for connection to a power supply
- Charge controller, including integral residual current protection device
- Tethered charging cable, with both Type 1 and Type 2 variants
- Wall mounting accessories

The Ohme Charger is paired with the Ohme app, available on both the Android and Apple App Store. This allows users to enter Charge Schedules, for example, “On weekdays, charge my car to 80% by 7am”. The Ohme platform can schedule charging demand when electricity is cheapest (if the customer is on a time-of-use tariff) or greenest (i.e. when the carbon content of electricity generation is lower). Ohme can also be set to help preserve battery health.

For those wishing to charge their car immediately, users always have the option to fully charge the car when they plug in.

The Ohme Charger is supplied in various connection formats to make installation and use as easy as possible, including:

- Bare ends, for connection to a junction box, isolation switch or similar
- Commando socket, allowing the electrician to install the wiring before the purchase of the Ohme Charger

All Ohme Chargers are to be used with single phase electricity supplies (most UK houses are single phase).

The product conforms to the latest safety standards including functions to disconnect the power supply if AC or DC current leakage occurs.

The Ohme Charger is a sealed tethered unit. A socketed version is not available.

Vehicle Compatibility

The Ohme charger is compatible with all Mode 3 equipped vehicles that use Type 1 (J1772) or Type 2 (IEC 62196-2) connectors.

The Ohme app connects into vehicle manufacturer API/telematics services to obtain information from the vehicle where these are available. API integrations include Tesla,

Nissan, BMW, Jaguar and Renault. More will be implemented in the app as they become available.

Installation

The Ohme charger is supplied with a one metre fixed input cable/flying lead, requiring termination on site to a suitable junction box, isolation switch or mini-CU. The charger comes complete with wall-fixings and a charging gun holster to retain the holster when not connected.

The overall installation must be compliant with the IET Wiring Regulations and the IET Code of Practice for Electric Vehicle Charging Equipment. Installation should be carried out by a competent electrician with appropriate knowledge of EV chargepoint installations.

Please note: to be compliant with regulation 722.411.1 of BS7671: 2018 Wiring Regulations, it is necessary for the earth connection to be TT, which usually requires the installation of earth rods for outdoor charging locations.

The Ohme Charger is rated at 32A and contains an integral RCD with Type A and DC (6mA) operating characteristic.

The RCD is reset by power cycling the unit. A readily accessible means must therefore be provided to allow the customer to disconnect the charger (e.g. local isolation switch).

No overcurrent protection is provided in the Ohme Charger, separate provision is to be provided as part of the installation.

A mounting kit is provided to securely attach the charger to a wall or post.

Wiring

The Ohme Charger is a single-phase device with three input connections:



NB: following the Wiring Regulations (18th Edition), in most cases it will be required for the Earth connection to be TT as it is not permitted to connect onto the PME.

Instructions for Use

Starting a charge session

Once the Ohme Charger is energised, it will automatically initialise, check for faults and connect to the Ohme cloud service.

Once the charger is connected to the vehicle, charging will begin straight away.

When the charger has connected to the Ohme service and, if available, your vehicle telematics service, a charging profile will be sent to the Ohme Charger based on your requirements and preferences. This often means that charging is paused until, for example, the early hours of the morning.

Stopping a charge session

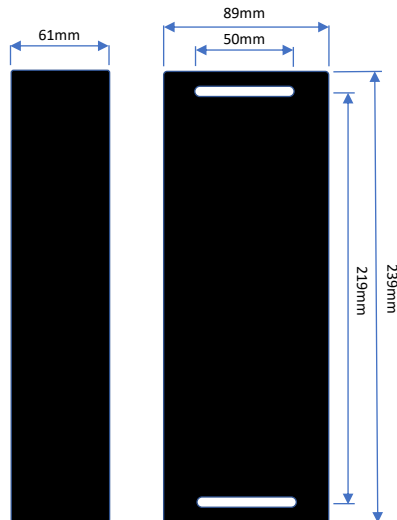
Disconnect the cable from the vehicle first in the normal way. If required, then disconnect from the power supply.

Getting the App

Download the smartphone app by searching for “Ohme” from the Android or Apple App Store. The Ohme service is specifically designed to optimise charging based on cost, grid carbon intensity and battery health.



Unit Dimensions



Grid-sympathetic Charging

The Ohme platform is designed to help reduce power demand in times of stress to the local and regional electricity networks. As the adoption of EVs progresses, these features will become more important to avoid expensive and disruptive upgrades to electricity networks.

To facilitate this, charging demand may be limited in times of extreme stress to the electricity network to prevent power outages. This will always be done in a way to limit the effect on users of the platform. We understand that EV drivers are reliant on their vehicles. If you have any queries or concerns, please contact us for more information.

Indicator Lights

The Ohme Charger has an LCD display and LED charge indicator lights.

	Waiting, ready to connect to the car
	Connected to the car, not charging
	Charging
	Smart charging
	Electrical Fault
	EV Fault

Troubleshooting

Issue	Possible Cause
Ohme Charger does not power up	Check electrical supply to the Ohme Charger. Supply MCB or RCD may have tripped.
Ohme is powered up but vehicle does not charge	Check cable is fully inserted. Possible earth impedance issue as some vehicles do not charge if earth impedance is high. Contact Ohme Support.
No communications to the Ohme Charger	Possible poor mobile phone signal. If persistent, it is possible to use the Ohme Charger with mobile phone signal repeaters. Contact Ohme Support for further information.
Cannot link the Ohme Charger to the app	The charger can be remotely linked to the app. Contact Ohme Support for assistance.
Ohme Charger display is blank, but indicator light is on	Possible firmware update issue. Remove power from the charger and reconnect after 5 seconds.

If there are any queries or issues regarding using the Ohme Charger, please contact Ohme Support via email: help@ohme-ev.com, telephone 0203 375 1586, or send a direct message on Twitter to @OhmeEV.

Cleaning

The Ohme Charger can be cleaned with a soft damp cloth. Avoid the use of cleaning agents and solvents.

Maintenance

The Ohme Charger is maintenance free. If the charger is defective or damaged, please discontinue use and contact the Ohme Support Centre for advice.

Standards Compliance

The product complies with the relevant elements of:

- IEC62752:2016 In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD)
- BS EN BS EN 61851-1:2011 Electric vehicle conductive charging system
- BS EN 61851-22 Electric vehicle conductive charging system – AC electric vehicle charging station
- EN 61543:1995 Residual current-operated protective devices (RCDs) for household and similar use - Electromagnetic compatibility (EMC)
- IEC62196-1 Plugs, socket-outlets, vehicle connectors and vehicle inlets
- IEC60309-2 Plugs, sockets and couplers for industrial purposes
- BS 1363-1 13 A plugs, socket-outlets, adaptors and connection units. Specification for rewireable and non-rewireable 13 A fused plugs

Disposal



Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the product and accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product to designated collection points where it will be accepted free of charge.

Alternatively, in some countries you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

For business users in the European Union:

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union:

This symbol is only valid in the European Union. If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

Further information on disposal and general recycling can be found at www.complydirect.com/the-recycling-room.

Contact Details

Ohme Support can be contacted at:

Address:	Ohme Technologies Ltd. Unit 74, Penrose Wharf, Penrose Quay Cork Ireland T23 HF51
Email:	help@ohme-ev.com
Telephone:	+44 (0) 20 3375 1586

Manufacturer's Warranty

The Ohme Charger is protected by a manufacturer's warranty for 36 months from the date of purchase or delivery, whichever is later.

The warranty covers any defects in materials or workmanship under normal use. During the warranty period, Ohme will refund, repair or replace, at its discretion, at no charge, products or parts of the product which prove defective because of improper materials or workmanship under normal use and maintenance.

Ohme will either repair the product using new or refurbished replacement parts or replace the product with new.

A replacement product assumes the remaining warranty period of the original product or for 180 days from the date of the replacement or repair, whichever is longer.

The warranty does not cover any issues that are caused by conditions, malfunctions, or damage not resulting from defects in materials or workmanship. The warranty does not cover damage or malfunction directly or indirectly caused by normal wear and tear, abuse, misuse, negligence, accident, lack of or improper use, including but not limited to:

- Failure to follow the instructions and warnings provided in the product literature
- The environment or “Acts of God” such as fire, earthquake, flood
- General appearance of the product such as damage to paint, labels, scratches, dents and cracks
- Any repair, alteration or modification to the product other than those authorised by Ohme

You may have other legal rights under local laws in addition to the rights under this manufacturer’s warranty. Contact Ohme in the first instance to discuss your options.

To initiate a service from Ohme under the manufacturer’s warranty, it is necessary to contact Ohme first to assist in determining the most appropriate solution.

Regarding issues with the overall installation, please contact your installer who will be able to assess the problem and contact Ohme on your behalf.

Limitation of Liability

No liability will be accepted for any loss, costs or damage as a consequence of using or misusing the product except, and only to the extent, where this is caused by our negligence.

Terms and Conditions

For Terms and Conditions of the product please visit our website at www.ohme-ev.com.





The intelligent EV charger