XPlug A1
User Manual

www.xplug.co.uk

Powering the EV-Lution....

Version 1.01

Contents

Introduction

About

The A1 charger from Xplug is a single-phase Mode 3 electric vehicle charger capable of delivering up to 32 amps of current to an electric vehicle, Based on the most common UK voltage of 230V, this equates to approximately 7.4kwH. The charger comes complete with a tethered Type 2 (sometimes referred to as Mennekes) connector with a cable length of 7 meters.

In accordance with IEC 61140 the charger is a Class 1 item of electrical equipment and it is designed to be permanently connected to a power supply and installed at a fixed location.

The charger can be operated on 3 modes – Smart, Delay or Instant charging. Each mode is described in more detail under the Charger Operation section within this manual. It can be setup to benefit from off peak charging rates and can be controlled via a smartphone app (terms and conditions apply). It can be setup to be locked programmatically, helping to minimize the chances of unauthorized use

The Xplug A1 has inbuilt loss detection for the Protective Neutral and Earth (PEN) as required by BS7671:2018 Amendment 1:2020 (The Wiring Regulations) and has an inbuilt DC leakage device to allow the use of a Type A RCD / RCBO.

Safety Information

The Xplug A1 is designed to be mounted vertically to a suitable surface such as a wall and is suitable for both indoor and outdoor use. It has been manufactured in accordance to relevant safety standards and is suitable for use with its intended purpose.

Please note incorrect operation or misuse of the device could cause:

- Injury or death to operators or third parties
- Damage to the device
- Damage to property and infrastructure to which the charger is mounted or powered from or the vehicle it is connected to
- An invalidation of the manufacturer’s warranty

Please note, anyone involved in installing or maintaining the device should:

- Be suitably qualied
- Have knowledge of dealing with electrical installations
- Take the necessary precautions to prevent electric shock (such as disconnecting the device from a power supply) before and after removing the cover
- Follow these instructions carefully

Please note, the device should not be used by:

- Children
- People with reduced mental or physical capabilities
- Those with a lack of knowledge and understanding of how such a device should be operated

Regulations

The Xplug A1 complies with the Electric Vehicles (Smart Charge Points) regulations 2021 which are aimed reducing the demand on the grid in the manner people charge their electric vehicles.

To comply with these regulations the Xplug A1:

- Delay mode is preset to charge at off-peak hours between 00:00 and 08:00 (this can be changed)
- Includes a randomized delay of up to 10 minutes when the Delay charge mode is used (this can be overridden). This is intended to prevent a large number of chargers switching on at the same time during the day when off-peak electricity rates become effective.

Important Notices

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The information contained in this manual is provided for informational purposes only and is subject to change without notice.
The company holds no responsibility for any errors or omissions in this manual.

Disposal

To comply with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE), it is important to properly dispose of this product at the end of its useful life. Please ensure that this product is not discarded with regular household waste. Instead, follow the applicable regulations and contact your local authorized collection point or recycling facility for proper disposal instructions. By disposing of this product correctly, you can contribute to the protection of the environment and the prevention of potential negative impacts on human health.

Box Contents

A. Xplug A1 Charger with 7m tethered connector (x1)

B. Mounting Template (x1)

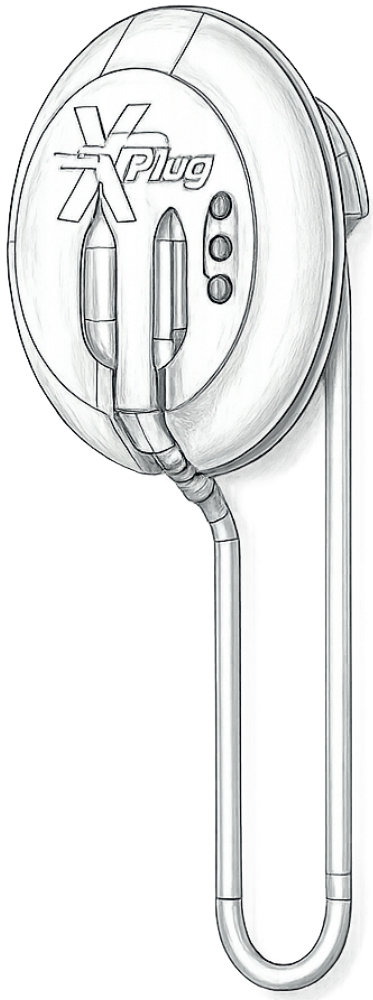
C. Wallplugs (x3)

D. Wall screws (x3)

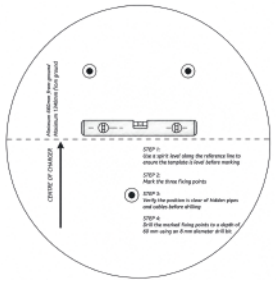
E. Bolts for front cover (x7)

F. Hex Key (x1)

A

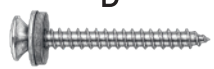


B



C

D



E

F

Charger Components

A. Front Cover

B. Rear Unit

C. Touch Panel

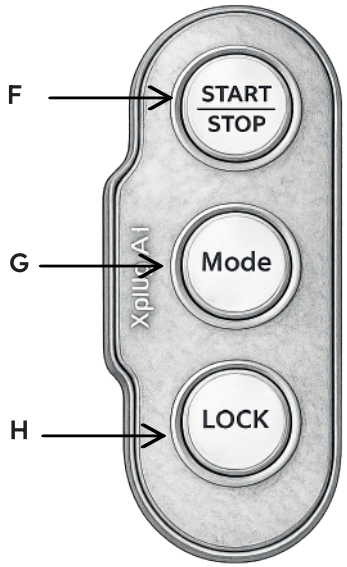
D. Tethered Charging Cable

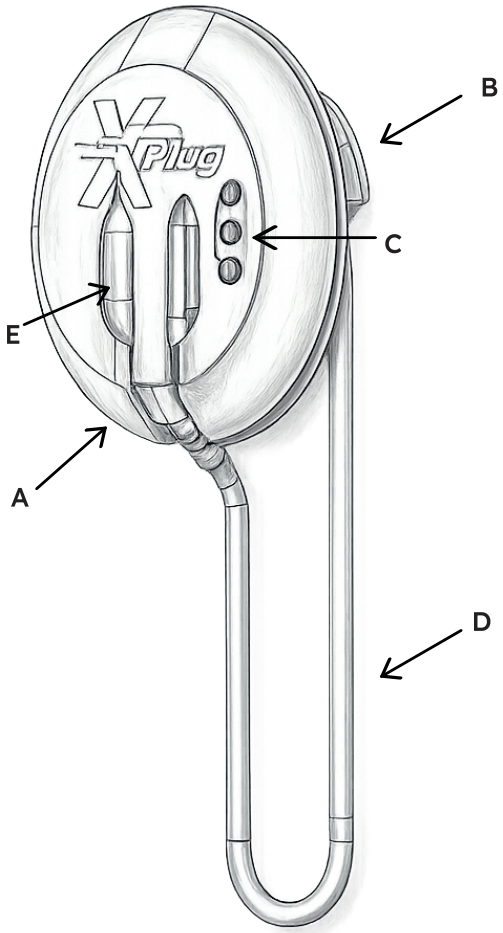
E. Plug Holder

F. START / STOP Button

G. MODE Button

H. LOCK Button





Installation

1. Preparation & Unpacking

Step 01

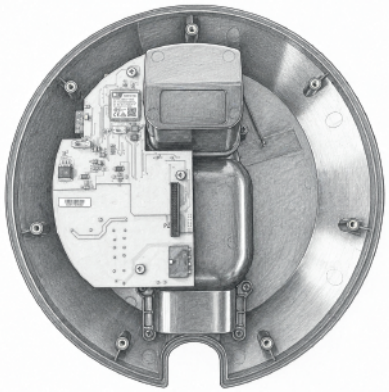
Danger

Isolate main supply

Isolate the electrical supply before starting installation, and confirm the installation complies with local regulations.

(e.g. BS 7671 Section 722)

Step 02



Remove the front cover and place it safely to one side.

Carefully unwrap the charging cable from the rear enclosure, and place the vehicle connector on the floor to avoid dropping the connector during installation.

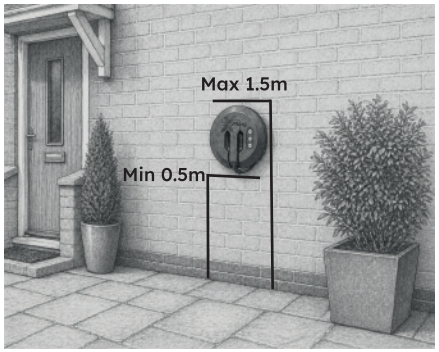
Helpful Tip

Always verify isolation using a suitable tester before touching any internal components.

Installation

2. Positioning

Step 01

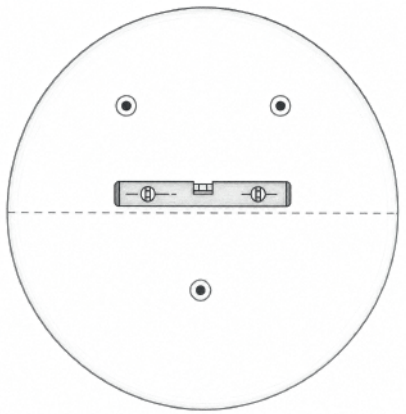


Select a suitable installation location, the charger must be mounted so the:

Bottom of the charger is more than 0.5 m from the ground.

Top of the charger is less than 1.5 m from the ground.

Step 02



Place the mounting template at the intended location.

Use a spirit level to ensure alignment.

Mark all fixing hole positions.

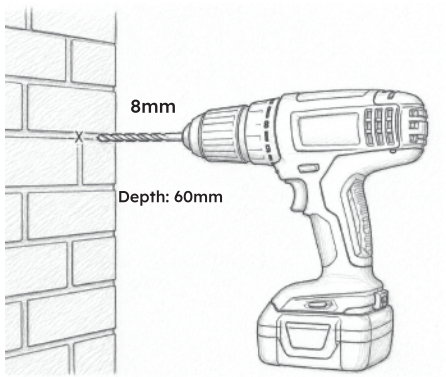
Helpful Tip

Choose a location with adequate clearance and easy cable reach to ensure safe and convenient daily use.

Installation

3. Wall Mounting

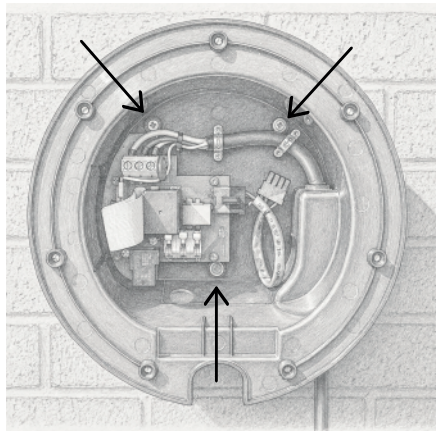
Step 01



Drill fixing holes at the marked positions using an 8 mm diameter drill bit to a depth of 60 mm.

Before mounting the rear enclosure to the wall, check that the pre-drilled supply cable hole is suitable for your cable gland. The hole is sized for a CW20 gland with SWA cable. If a larger gland is required, enlarge the hole using a step drill.

Step 02



Insert wallplugs into the drilled holes and fix the rear enclosure to the wall using the supplied fixing screws.

Ensure the waterproof seals are correctly seated around each fixing screw.

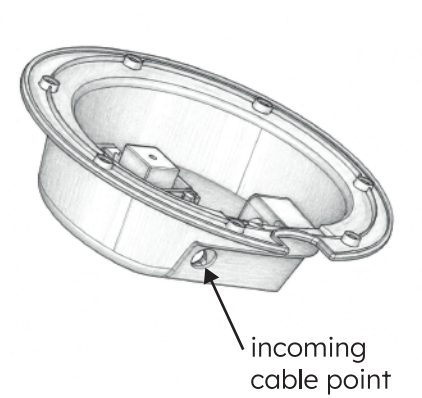
Helpful Tip

Use a step drill instead of a holesaw, to enlarge the cable entry hole (if needed).

Installation

4. Electrical Connection

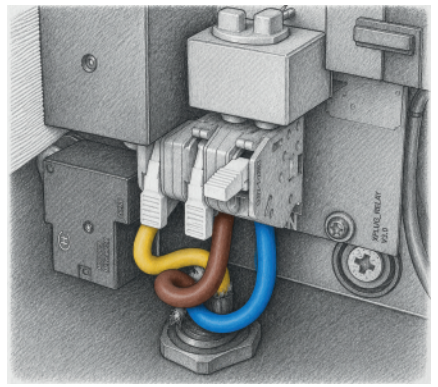
Step 01



Bring the supply cable into the unit and secure it with a suitable gland - ensure it is fully tightened to maintain the IP rating.

Install an appropriately rated RCD on the supply side of the power cable. No earth rod is typically required for TN-C-S installations due to built-in protections.

Step 02



With the supply isolated, strip 15 mm of insulation and connect the Earth (left), Live (centre), and Neutral (right) conductors into the terminal block, ensuring they are fully inserted and securely clamped.

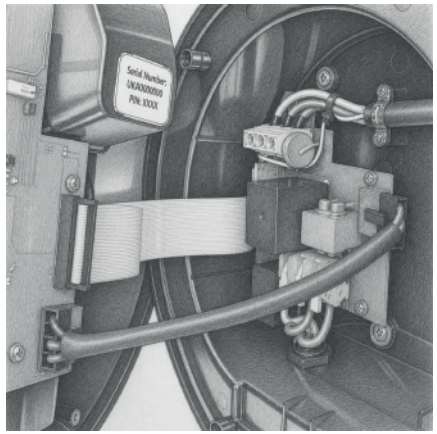
Helpful Tip

As the unit has inbuilt DC detection, a Type A RCD can be used. Recommended: ≤ 30 mA, 40A

Installation

5. Final Assembly

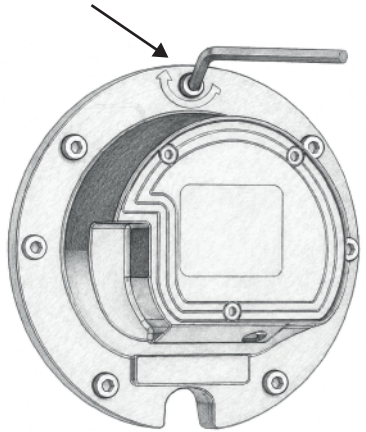
Step 01



Record the charger Serial Number and PIN (also printed on the back page of this manual).

Connect the two internal wiring harnesses, ensuring correct orientation and full engagement.

Step 02



Position the front cover onto the rear enclosure and secure it using the 7 bolts with the hex key provided.

Restore the electrical supply; the charger will initialise and be ready for commissioning.

Helpful Tip

Before restoring power, double-check all connections, seals, and fixings to ensure safe operation and proper enclosure sealing.

Charging Modes

Instant

- Charging starts as soon as you plug in your vehicle.
- Charging stops automatically when the battery is full.
- Start or stop charging anytime
- Only available when the charger is unlocked.

Helpful Tip
Use Instant Mode when you need a quick charge and don't want to wait for a schedule.

Delay

- Charging starts at your chosen start time.
- Charging stops at your chosen end time.
- Your car may not fully charge if the end time is too early.
- Only available when the charger is unlocked.
- Set start and end times via the app.

Quick override:
Press the Start/Stop button to begin charging immediately and ignore the schedule for this pcarticular charge.

Helpful Tip
Use Delay Mode to take advantage of cheaper off-peak electricity rates

Smart

- Charger automatically manages charging.
- This helps:
  - Reduce charging costs
  - Balance demand on the electricity grid
- Charging may stop and restart throughout
- Only available when the charger is unlocked.
- Your vehicle will ready by your set departure time.

Quick override:
Press the Start/Stop button if you want to charge immediately.

Helpful Tip
Plug in as early as possible to give the system enough time to fully charge your vehicle.

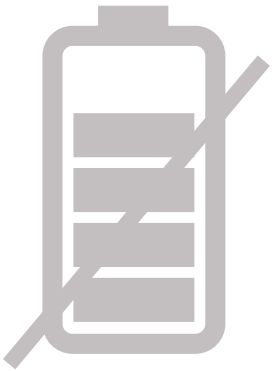
Changing Modes

Please follow the steps outlined below to change the charging mode.
See page 11 for details on the different charging modes:

Helpful Tip

Mode button colour indicates selection:
Blue = Instant, Yellow = Delay, Green = Smart

Step 1

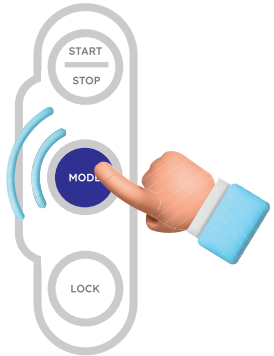


Ensure the charger is not in use.

Step 2

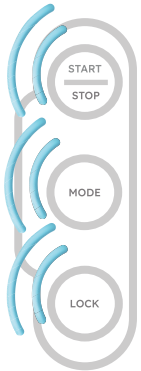
Ensure the Charger is unlocked.

Step 3



Press the mode button to cycle between the 3 modes.
The colour of the mode button shows your selected mode.

Step 4

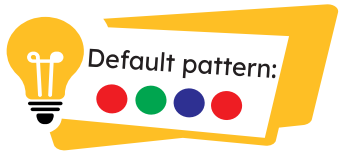


The charger buttons will briefly flash white to confirm the mode has been registered.

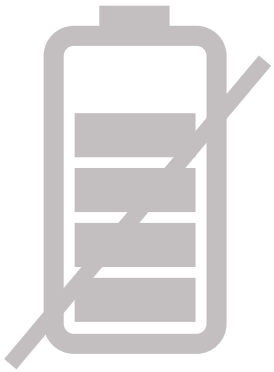
Locking

Locking prevents unauthorised use of the charger. When enabled, charging can only be controlled via the mobile app. It is recommended to activate the lock if the charger is installed in a shared or publicly accessible location.

To lock the charger, follow the steps below:

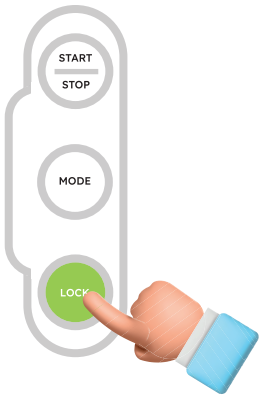


Step 1



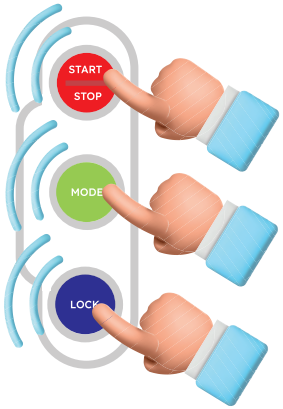
Ensure the charger is not in use.

Step 2



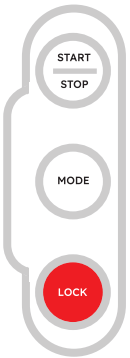
Press the Lock button. The buttons will turn Red, Green and Blue.

Step 3



Enter your pattern by pressing the colours from your lock pattern in sequence. Each button will flash to confirm input.

Step 4



The charger buttons will briefly flash white to confirm your pattern has been accepted. The lock light changes from green to red.

Unlocking

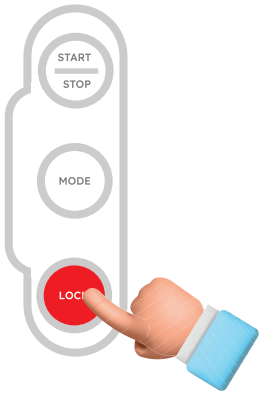
To unlock the charger follow the steps outlined below:

Helpful Tip

If you enter the incorrect lock pattern, all 3 buttons will flash red. Please retry the process and use the correct pattern.

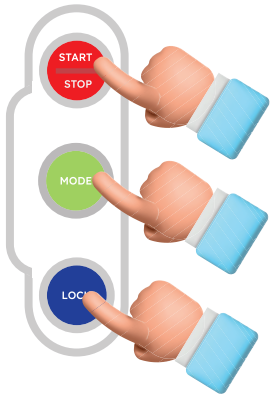
Default pattern:

Step 1



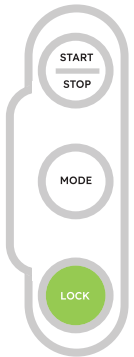
Press the Lock button. The buttons will turn Red, Green and Blue.

Step 2



Enter your pattern by pressing the colours from your lock pattern in sequence. Each button will flash to confirm input.

Step 3



The charger buttons will briefly flash white to confirm your pattern has been accepted The lock light changes from red to green.

Changing Your Lock Pattern

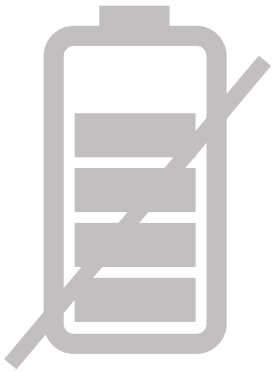
To change your lock pattern from the default pattern set from the factory, follow the steps below:

Helpful Tip

If you enter the incorrect lock pattern, all 3 buttons will flash red. Please retry the process and use the correct pattern.

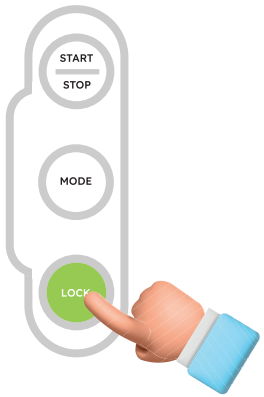
Default pattern:

Step 1



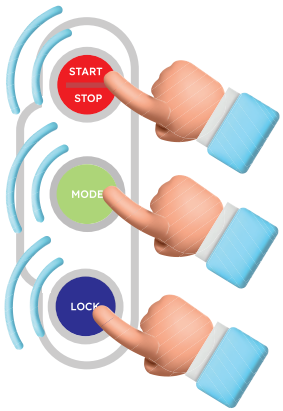
Ensure the charger is not in use.

Step 2



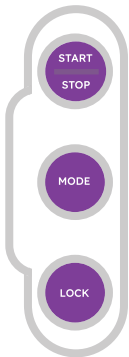
Ensure the charger is unlocked.
Press and hold the lock button for 5 seconds.

Step 3



Enter your current lock pattern.

Step 4



Lights will flash purple to confirm your current pattern has been accepted.

Continued...

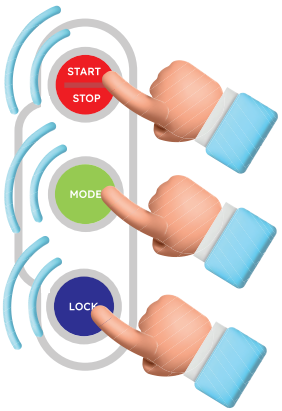
Changing Your Lock Pattern

Continued...

Helpful Tip

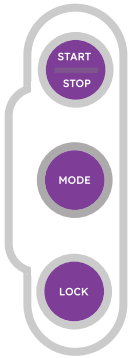
Choose a pattern that's easy for you to remember but hard for others to guess.

Step 5



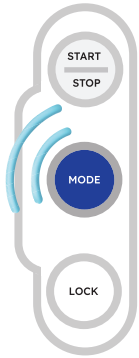
Enter your new 4-colour pattern.

Step 6



Lights will flash purple to confirm your new pattern has been accepted.

Step 7



The charger will now display your chosen pattern back to you, one colour at a time.

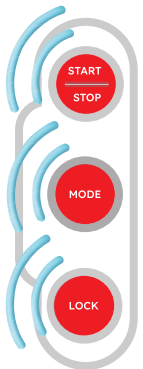
Safety Reset

In the event of the detection of a fault (AC/DC Leakage, Earth Fault etc) the charger will lock and prevent charging. In such an event, the cause of the fault should be fully investigated by a qualified electrician, after which the charger can be reset as follows:

Helpful Tip

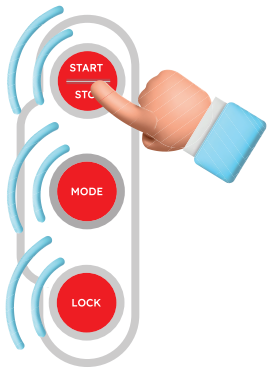
Fully investigate any faults to prevent future damage to your equipment.

Step 1



The charger indicates that a fault has been detected by displaying the buttons in red. See the error state table to identify the exact fault.

Step 2



To reset, press and hold the Start / Stop button for 5 seconds to reset the charger. If the charger buttons returns to red, the fault persists.

Error State	START / STOP	MODE	LOCK
AC / DC Current Leakage	SOLID	SOLID	SOLID
Overcurrent	FLASHING	FLASHING	FLASHING
PEN Fault	SOLID	SOLID	FLASHING
Relay Welded	SOLID	FLASHING	SOLID
CP Error From Vehicle	FLASHING	SOLID	SOLID
Ventilation Required	SOLID	FLASHING	FLASHING

Restart Charger

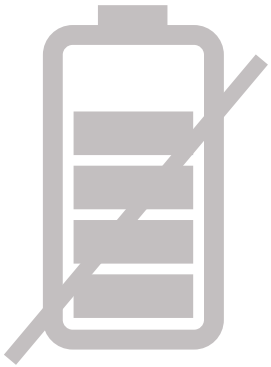
The charger can be restarted if it is behaving in an unusual manner. For instance it is not connecting to the smart phone app or it is not detecting a vehicle has been connected. It can only be restarted when Unlocked.

This can be done as follows:

Helpful Tip

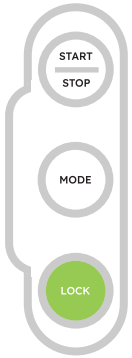
Restarting can fix minor issues, similar to rebooting a phone or computer.

Step 1



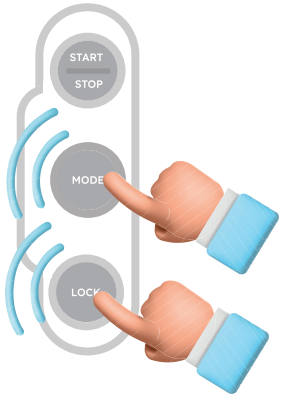
Ensure the charger is not in use.

Step 2



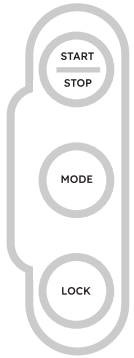
Ensure the charger is unlocked.

Step 3



Press and hold the Lock and Mode buttons simultaneously for 5 seconds. All 3 buttons will flash to confirm.

Step 4



Upon restart the charger will retain all your settings.

Factory Reset

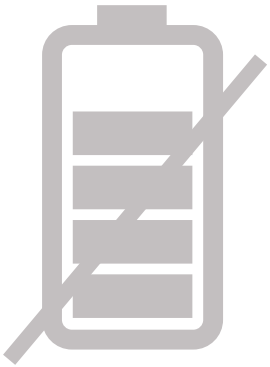
The charger can be reset to its factory condition. Doing this will revert the charger back to its original settings, including the default mode, and lock code. Please note, this can only be done when the charger is not in not locked.

This can be done as follows:

Helpful Tip

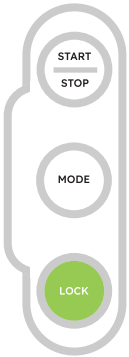
This will erase your settings. Only use it if instructed or as a last resort.

Step 1



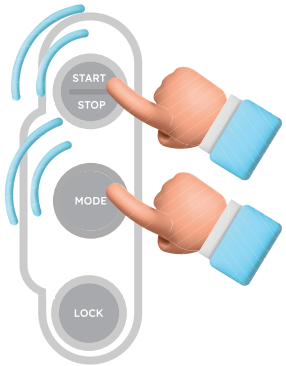
Ensure the charger is not in use.

Step 2



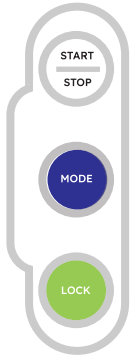
Ensure the charger is unlocked.

Step 3



Press and hold the Start/Stop and Mode buttons simultaneously for 5 seconds. All 3 buttons will flash to confirm.

Step 4



Upon restart the charger will be restored to factory settings.

Hard Reset

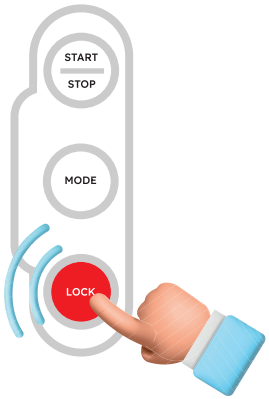
If the charger is locked and you have forgotten your unlock pattern. You can perform a Hard Reset to revert the charger to its factory settings.

Please follow the steps below:

Helpful Tip

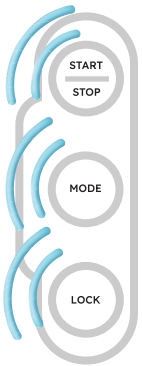
Turn off the charger within 30 seconds after recovery mode is activated; otherwise, the hard reset will be cancelled.

Step 1



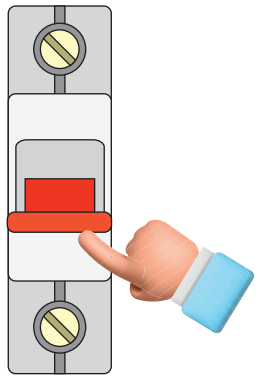
Press and hold the Lock button for 10 seconds.

Step 2



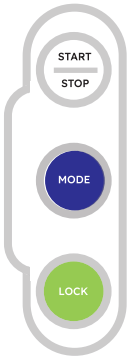
Wait for the white LED to start blinking, indicating recovery mode is activated.

Step 3



Within 30 seconds, turn off the power to the charger from the consumer unit.

Step 4



Wait a few seconds and turn on the power to the charger.
The device will automatically perform a hard reset.

Data Sheet

Performance

Mounting Location	Indoor or Outdoor (permanent)
Charger Weight	4kg
Charging Mode	Mode 3
Display	LED Status Indicators
Charging / Rated Current (InA)	32 Amps
Suitable Users	Ordinary Persons
National Restrictions	This equipment is suitable for use in the United Kingdom and in countries of the European Union. Use outside these regions may be subject to additional national requirements, and compliance must be verified with the local regulatory authority
Dynamic Load Balancing	Able to dynamically Load balance on Smart Charge
Connector Type	Type 2 tethered cable (7m)
Cable Entry	Bottom
Communication	Cellular Connectivity
Charging Profile	3 Charging Modes
Compliance	EN 61851-1:2019, EN 62196-2:2017, UK Pen Loss Test, EN 62311:2008, EN 61851-21-2:2021, EN 301 489-52 V1.2.1, EN 301 489-1 V2.2.3, EN 301 511 v12.5.1, EN 301 908-1 v15.1.1, EN 301 908-13 v13.2.1

Mechanical

Enclosure Dimensions	320mm x 320mm x 105mm
Protection Degree	IP55
Enclosure Material	PC & ABS
Impact Protection	IK08
Operating Temperature	-25°C to +40°C
Operating Relative Humidity	Up to 95% non-condensing
Pollution Degree	PD2

Data Sheet (Continued...)

Electrical

Rated Power	7.4kW
Rated Supply Voltage	230V AC Single Phase
Rated insulation voltage (Ui)	400V
Supply Frequency	50 Hz
Rated impulse withstand voltage (Uimp)	4kV (Overvoltage category III)
Rated peak withstand current (Ipk)	7kA peak
Rated short-time withstand current (Icw)	5kA for 3 second
Conditional short-circuit current (Icc)	5kA (assuming protection by a 6kA RCBO)
Standby Power	3W
Safety Protection	30mA Type A RCD (EN 61008) + 6mA DC protection (EN 62955)
Electromagnetic compatibility (EMC)	Type B
Access Requirements	Unrestricted
Adaptor Use	Adaptors / Convertors not allowed
Extensions	Extensions are not allowed

Installation Requirements

Circuit Breaker	40A Curve B (Type A)
Earthing Arrangement	TN: can be connected to the PME supply. Complies with BS7671:2018-amd1:2020 722.411.4.1 (v) TT : earth resistance< 200 0 according to BS 7671:2018, or< 100 0 for some vehicles

XPlug

Powering the EV-Lution....

Installation Guide

Scan to watch installation video.

Warranty Registration

To activate your 3-year charger warranty, please register your product within 30 days.

You will require your Serial Number and Access PIN:

App Download Guide

Scan to download our app and the app user guide.

Mobile App Access

Take control with our mobile app for a smarter experience, available on Android and iOS.

You must activate your warranty within 30 days of purchase

www.xplug.co.uk/warranty

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