



Operations manual for Benu EcoLite Charge Points



Thank you for purchasing a BENU EV charge point.

This guide is intended to instruct in the proper use of all models of Benu Charging stations.

Installation of this equipment should only be carried out by a fully qualified professional. Benu EV accepts no responsibility for damage caused by improperly installed equipment.

For installation instructions see document "*Guidance to installers*".

Cautions and Dangers

This guide contains several instructions to which the following symbols have been attached. Failure to comply with instruction could result in:



DANGER

Indicates where failure to comply with instructions will cause death or serious injury.



WARNING

Indicates where failure to comply with instructions could lead to death or serious injury.

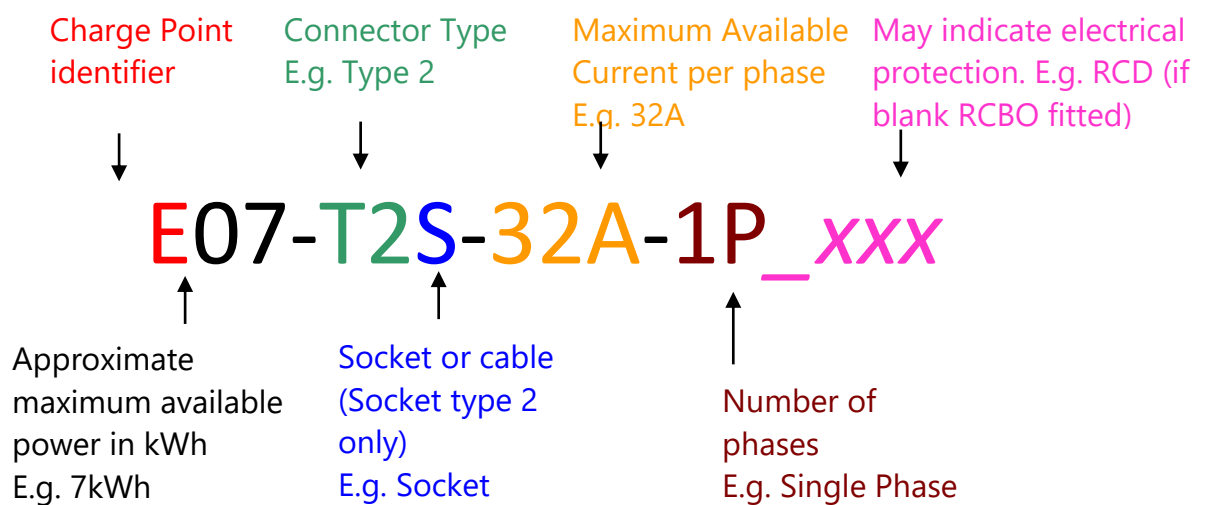


CAUTION

Indicates where failure to comply with instructions could lead to minor or moderate injury.

This document is intended to instruct on the use of and general maintenance of all models of Benu manufactured charging stations (current model numbers at the time of writing listed below). Instructions specific to particular models will be highlighted and clearly marked.

Understanding the model number of your charging station

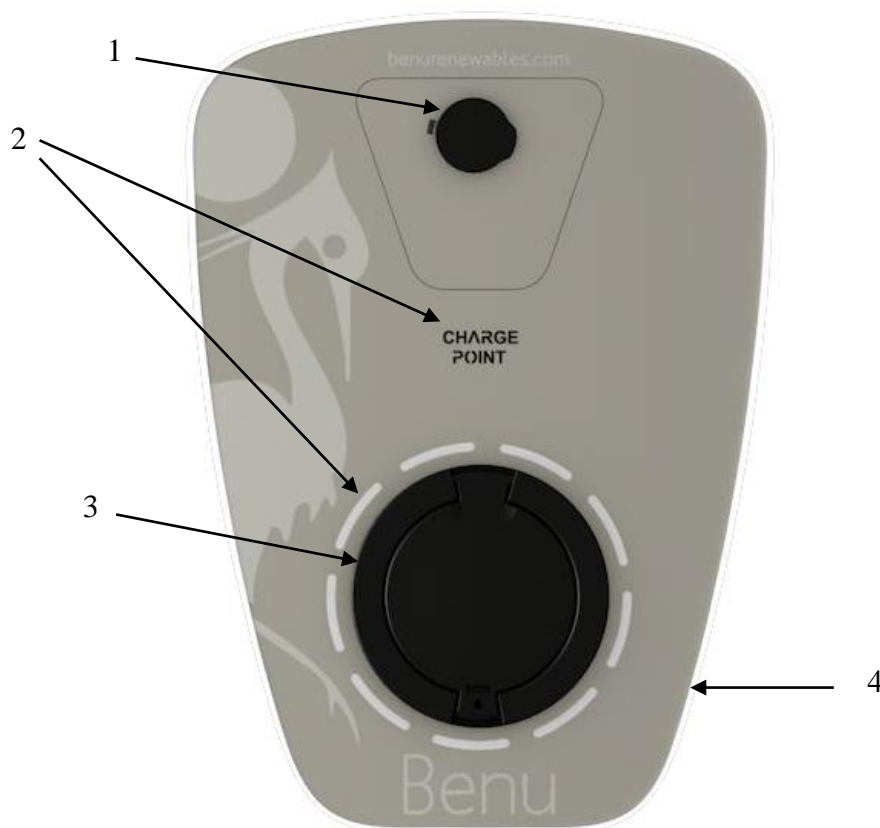


**WARNING**

The charging station is designed for electric vehicle (EV) charging only. It is designed to only allow the flow of electricity once an EV is connected and correct communication is established. Any tampering of the Charging station to allow the flow of electricity at any times other than this will present a risk of electric shock.

**CAUTION**



The Charging station is covered by a manufacturer's parts and labour warranty. Alterations to the charging station that are not permitted will invalidate this warranty.

Charging Station Features

1. Key-locking access panel for resetting electrical protection
2. Status LED arrangement
3. The charging station connects to an EV via a vehicle coupler plugged into the socket outlet. Models fitted with sockets allow the use of a range of approved interconnecting cables.
4. Identification label



Model Number → **Electric Vehicle Charging Station**
E22-T2S-32A-3P

Charging Current → **Input: 230V AC**
50 HZ  

Charging Current: Up to 32A
IP-Code: IP54
No Phases: 3

Serial Number → **S/N: VEV00001-E** **Made in the UK - Mar 2018**
Viridian EV, 42 Elliott Road
Cirencester, GL7 1YS

Status LED arrangement

On the BENU EcoLite charge point, the operating state is communicated to the user via two LED arrangements: An illuminated 'Charge Point' text and an illuminated halo on the front.

LED		Operating State and description
Text	Halo	
OFF	OFF	Charge point is not active, Switched off Possible Cause of issue: <ul style="list-style-type: none"> • No mains power present • Electrical protection switched off • Fault with charge point
WHITE	BLUE	A - Charging station is waiting ready to be connected to an electric vehicle
BLUE	BLUE	B - An electric vehicle is connected but not charging
GREEN	GREEN	C - An electric vehicle is connected and charging
RED	BLUE	D - An electric vehicle is connected but ventilation is required. This mode is not supported by Benu EV charge points so will not charge.
RED (Pulsing)	OFF	Fault detected, charging is not allowed. See troubleshooting or seek technical support.

LED Brightness

The LED brightness is configurable at the point of installation (or after during maintenance). There are 4 settings: MAX, MEDIUM, LOW & HALO OFF. Ask your installer about this if you wish it to be changed.

Connecting / disconnecting your electric vehicle

To begin a charging session

For charging stations equipped with a built in cable:

Open the socket inlet flap on the vehicle and insert the vehicle coupler into the electric vehicle. You may need to apply a small amount of force to ensure that the plug is housed firmly within the socket.

For charging stations equipped with a socket:

Lift the hinged flap of the socket on the charging station and fully insert one end of the vehicle interconnecting cable in to the socket.

Take the other end of the vehicle interconnecting cable and insert it into the vehicle as described above.

To stop the charging session

Once the charging session has finished, first remove the charging cable from the vehicle. Please note that some vehicle models require you to manually disengage the vehicle inlet's locking system to enable you to do this. If this is the case please consult your vehicle's owners manual.

For charging stations equipped with built in cable:

A wall-mounted plug holder or plug holder & cable management system is recommended for cable storage whilst not in use. These are available from Benu EV.

For charging stations equipped with a socket:

It is recommended that you remove the cable from the charging station and safely store it away when not in use.

Please Note:

The cable cannot be removed from the socket on the charging station whilst it is still in a 'connected' state (Blue 'Charge Point' text & Blue Halo or Green 'Charge Point' text and Green Halo). Trying to do so could lead to the cable remaining locked into the charging station when the EV is disconnected.

If the cable should become stuck in the charging station it is recommended to follow the steps below:

- Firmly push the cable into the charging station. In most instances this should be sufficient to release the lock from the connector. You may now attempt to remove the cable from the charging station.
- In the event the above does not release the connector, firmly push the cable into the charging station once again. Disconnect then reconnect the power by switching the RCBO (or other electrical protection) *or* reconnect and then disconnect the electric vehicle.
- The internal locking mechanism should now have released and the cable should have become freed. In the event that this does not occur repeat the above process ensuring you firmly push the cable fully into the charging station socket each time.

BE AWARE in the event of a power outage or switching off of the internal RCBO during charging, the charge will stop.

Resetting the trip switch

Benu EV charge points are, by default, fitted with electrical protection. It is possible if an earthing problem or another fault occurs this protection will trip out. To reset the trip switch and begin charging again use the key provided to remove the small access panel on the front (Feature 1 indicated above) and re-set the switch on the electrical protection.

Service and maintenance



DANGER

Contact with live components can result in serious injuries. There are no user-serviceable items within the charging station.

Any repair work should only be carried out by a suitably qualified individual.

It is recommended that you test the function of the fitted electrical protection once a month by removing the access panel and pressing the test button. If the RCBO or equivalent protection fails its function test you should immediately stop using the charging station and contact your installer for further assistance.

Cleaning

It is recommended that cleaning of the outside of the charging station should be performed using a damp cloth and a mild cleaning solution.

**CAUTION**

Cleaning the charging station with a high-pressure water hose is not permitted and could cause water build up within the charging station.

The charging station should not be opened and cleaned internally.

Warranty

Benu EV provides a 3 year full parts and labour warranty for operational failure of the charging station. This is the same for charging stations installed under the OLEV EVHS & WCS.

In the event of any operational issues with your Benu EV charging station please contact the electrician responsible for the installation of the charging station and a solution will be put into motion.

Installer Information

Installed By:

Address:
... ..
... ..
... ..
... ..
... ..
... ..

Tel:

Trouble Shooting Guide

Problem	Solution		
EV not charging	Check the status LED	- Status LEDs not lit	Check power to the unit <ul style="list-style-type: none"> - Has the main feed from the consumer unit tripped - Has the internal RCBO tripped
		- Text & Halo Blue	Ensure that the cable is fully inserted to both the charging cable station and EV.
		- Text Pulsing Red, Halo not lit	Disconnect and reconnect the car. If the unit continues flashing seek further advice.
Unable to remove charging cable from charging station	Please see - Connecting / disconnecting your electric vehicle		
EV not charging at the expected rate	Charging stations equipped with built in cable:	The charging rate maybe limited by the following	<ul style="list-style-type: none"> - The vehicle may not be capable of receiving the full maximum power that the charging station can deliver. - The power that the battery can take is reduced the higher the state of charge so will draw less current.
	Charging stations equipped with a socket	The charging rate maybe limited by the following	<ul style="list-style-type: none"> - As above - The charging cable may be rated to less than the maximum current available from the charging station and the current will be automatically reduced accordingly.
I can't plug my charging cable into the charging station	Charging stations equipped with built in cable:	The charging station is not designed to be used with a charging cable. The charging station must be plugged directly into the vehicle via the built in vehicle coupler.	
	Charging stations equipped with a socket	Please ensure you are trying to insert the correct end of the charging cable.	You will need to use a 7-pin, Type 2 plug to connect to the charging station. If both plugs are 7-pins use the smaller of the two.
I can't plug my charging cable into the vehicle	There are various approved types of vehicle sockets. Please ensure you have the right charging station or charging lead to allow you to connect to your chosen vehicle.		

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