Charge-M8®

BUILT-IN EARTH PEN PROTECTION

DELTA TWIN 22kw Office & Workplace Fast AC Smart Charger

Installation & Operating Instructions

WARNING: High Voltage Appliance

This unit MUST only be fitted by a qualified installer in compliance with electrical regulations. Units fitted incorrectly and/or by unqualified installers will invalidate the manufacturer's warranty.

Charge-M8®

Statement of Compliance

The Electric Vehicles (Smart Charge Points) Regulations 2021

Charge-m8 Limited hereby declare under our sole responsibility that the following charge point models below comply with the requirements set out under the Regulations. A technical file is available upon request.

Model:	ANACE1-400V/2x32A-T41/C	ANACE1-400V/2x32A-T41/B
SKU:	450-2600	450-2500
Rating(Input):	L1+L2+L3+N+PE 400V±20%Vac 50/60Hz	L1+L2+L3+N+PE 400V±20%Vac 50/60Hz
Rating (Output):	2x22kW 400Vac 2x32A	2x22kW 400Vac 2x32A
Communication:	2/3/4G GSM Wi-Fi 2.4GHz (b/g) RFID	2/3/4G GSM Wi-Fi 2.4GHz (b/g) RFID
Connection Type:	Case C Connection Type 2 EV Tethered Lead Connector x 2	Case B Connection Type 2 EV Socket x 2

This statement of compliance covers all Charge-m8 Delta Twin units sold on or after 29th December 2023, with firmware version: cm8-v2.3.18 or above, and further confirms compliance with Schedule 1 of the Regulations (Security).

Signed on behalf of Charge-m8 Limited:

Name: Iain Hughes

Position: Technical Director Date: 29th December 2023

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Important Notes:

Thank you for purchasing a Charge-m8® Delta Twin EV charger.

Please read the installation and operating instructions carefully, to ensure correct installation and configuration, and a trouble-free user experience.

This charger must be installed in compliance with BS EN 61851, IET Wiring Regulations (BS 7671); the recommendations of the IET Code of Practice for Electric Vehicle Charging Equipment Installations (as amended); Electricity Safety, Quality and Continuity Regulations, Building Regulations Part P and all other applicable standards.

The charger is a complex electrical device, not intended for end-user or installer service or maintenance. The unit should only be opened by a qualified Charge-m8® engineer or approved installer, the opening of the unit by any other person will invalidate the manufacturer's warranty.

This manual is intended as a guide, and all reasonable effort has been made to ensure the accuracy of the information contained herein at the time of publishing. At all times installers should reference their local electrical regulations, in particular guidance on the installation of EV charging equipment and qualifications required.

Installer guidance for specific functions and commissioning are available on request. You must provide your OZEV installer number and proof of qualifications where applicable/required.

Once installed, be sure to register your charger with us, to ensure prompt after-sales service.

If you have any queries regarding Charge-m8® charging equipment, please contact us.

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Contents

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1. Introduction

a. Product Appearance - *Case B ConnectionSocketed Version*

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b. Product Type

The Charge-m8® Delta Twin Office & Workplace EV Charger is designed exclusively for use as a charger for Electric and Hybrid Electric Vehicles and confirms to BS EN 61851 with fjui fs!uwin BS EN 62196 Type 2 sockets!ps!uxjo!CT! FO!732:7!Uzqf!3!ufui fsfe!dpoofdups!qvht.

Any electric (EV) or hybrid (PHEV) vehicle that can accept an AC charge of up to 22kW via a BS EN 62196 Type 2 socket ps!ufui fsfe!dpoofdups can be charged. Socketed versions will require the driver to have a suitable charging cable to connect to the charger.

The Charge-m8® Delta Twin is a Mode 3 Smart twin charger that comes with multiple network connection options, including WIFI, RJ45 Ethernet and GSM Mobile (2/3/4G).

Standard specification includes OCPP 1.6 Web Socket connectivity, pre-configured to the MONTA platform, making it suitable a wide variety of private, semi-public and public applications. Charging data, including duration, current, cost and capacity is available to both the user, and site owners through advanced reporting.

Users can operate the charger with an RFID card or APP. In Semi-Public & Public applications, electricity usage can be charged through the APP and reimbursed to the charging station site owner.

Different groups of drivers can be assigned to different pricing plans, for example a company with publicly accessible car-parking may wish to provide free or subsidised charging to their employees, but also allow the public, guests and visitors access to charge for a fee via credit/debit card charge either through the MONTA APP or by scanning the fast QR Code displayed on the touch screen.

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c. Emergency Stop

If required, the charger unit can be stopped by pressing the emergency stop button on the bottom right-hand side of the unit.

The unit can be reset by rotating the depressed emergency stop button clockwise until it clicks back into its normal position.

d. Technical Details

Rated Voltage	400v/AC ±20% - 3Phase
Maximum Output	22KW 32A x 2
Operating Frequency	50/60HZ
Screen	4.3" Touch Screen
RFID Card	ISO 14443A, MIFARE DESFire EV1
Standby Power Consumption	6W
Communication Modes	WIFI / RJ45 / 2G, 3G, 4G / OCPP 1.6 / RFID / APP
IP Protection Level	IP65
Operating Temperature	-25°c to 55°c
Energy Meter	Twin EU MID approved Energy meters
EMS	EN6100-4-5 ±2KV/±4KV
EMI	CISPR22 / EN 55022 Class B
Standards	CE - EN61851-1 BS EN 62196 Mode3
Dimensions and Weight	350w x 180d x 500h (mm) 12KG

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e. Box Contents

1. Delta AC Twin Socket EV Charger
2. Wall Fixing Bolts
3. RFID Card (x3)
4. Installation & Operating Manual
5. Passwords:
    a. Engineers Master Password - Full Configuration Access:
    Provided on a sticker, installer should attach to their own records.
    DO NOT GIVE TO END USER

    b. Schedule Wizard Password - Off-Peak Charging & Randomised Delay access only:
    Provided on a separate Schedule Wizard Guide
    LEAVE WITH END USER/SITE OWNER

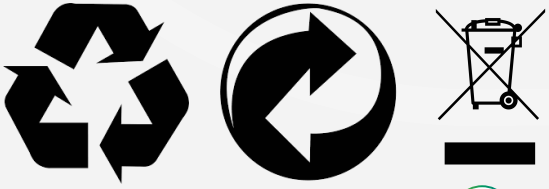
f. Storage, Transportation & Recycling

The Delta charger packaging is designed for transit, however as with any electrical appliance, care should be taken to avoid excessive handling and potential damage to the charger case or internal components.

Care should be taken whilst unpacking the Delta charger to ensure all components are present, and no damage is visible to the unit.

Packaging should be recycled where facilities exist.

End of life chargers should be disposed of in compliance with The Waste Electrical and Electronic Equipment (WEEE) Regulations (2013)



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2. Installation

a. Before You Start

Check the proposed location for the installation complies with Building Regulations Part P, the Delta charger must be installed in compliance with BS EN 61851, IET Wiring Regulations (BS 7671); the recommendations of the IET Code of Practice for Electric Vehicle Charging Equipment Installations (as amended); Electricity Safety, Quality and Continuity Regulations, and all other applicable standards.

If not being installed by a Charge-m8® engineer, the installer must be suitably qualified and hold verifiable certification for the installation of EV charging equipment, and be authorised by Charge-m8 as an approved installer.

The Charge-m8 Delta has built-in Type A 30 mA RCD leak current protection (DC 6 mA).

The unit can be set to Single Phase or Three Phase supply. The recommended supply cable specifications are:

A) Single Phase: 3 x 16mm² B) Three Phase: 5 x 16mm²

Depending upon the supply cable installation parameters, suitable protection of the correct type and model to fit in compliance with the existing electrical supply equipment maybe required to protect the supply cable to the charger (not supplied). The earth must be checked and verified before power on. *(Ref: p.9-c. Earth Protection)*

Ensure that all appropriate tools used during the installation have been insulated/ grounded to prevent accidental short circuit or personal injury. Under no circumstances should the Charge-m8® Delta EV charger be opened, amended or have any parts connected to it without the manufacturers consent. To do so will invalidate the manufacturer's warranty.

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b. Safety Notice

EV charging equipment contains high voltage current, care must be taken to ensure your personal safety. Always follow the manufacturers operating instructions.

Children must not be allowed to use the charger.

Observe the charger status indicators and contact Charge-m8® after-sales support for assistance if the unit displays fault warnings and/or fails to operate correctly.

Avoid unnecessarily disconnecting the power supply when the charger is running normally.

c. Earth Protection

The Charge-m8® Delta EV Charger includes built-in PEN fault sensing that protects against the loss of earthing.

An integrated circuit constantly monitors the earth and neutral and immediately places the charger into its fault mode in the event of a fault/potential fault, disconnecting the Live, Neutral & Earth from the vehicle.

In compliance with Amendment 1:2020 of the 18th Edition, Charge-m8® chargers with integrated earth protection do not require the installation of additional earth rods or transformers and ensure safe operation when connected to common PME (Protective Multiple Earth) systems.

If the system has detected an issue and enters in to its fault mode, the charger must be manually reset through being isolated at source for a minimum 30 seconds and rebooted, upon which it will complete an initialisation and self-check procedure. If the charger immediately re-enters its fault mode once rebooted, the installation will require further investigation to determine the cause of the fault.

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d. Installation Guide

i. Standard Wall Fixing

The Delta Twin Charger should be fixed to a suitable wall, sufficient in strength to support the weight and operational use exerted on the Delta charger, using the fixing bolts provided or other suitable fixings if required.

Care should be taken to site the Delta charger away from excessive rainfall or water sources.

ii. Optional Pedestal Mount

An optional pedestal mount is available where required.

A suitable base must be provided (not supplied)

iii. Supply Connection

The pre-crimped connection lead should not be replaced, and must be connected to the supply using a suitable IP rated junction box (not supplied).

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e. Connection To WiFi (2.4ghz) - Optional

Charge-M8 recommend using the default 4G GSM connection for a reliable service. Wi-Fi settings are password protected in the settings>config menu that can only be accessed with the engineers password.

The unit scans available 2.4ghz Wi-Fi networks, select the required SSID and enter the password if required. The unit is connected to the network when the flashing Wi-Fi icon becomes solid.

f. Connection To Ethernet (RJ45) - Optional

Charge-M8 recommend using the default 4G GSM connection for a reliable service. Ethernet settings are password protected in the settings>config menu that can only be accessed with the engineers password.

The RJ45 port is on the main PCB, within the anti-tamper boundary. Once your cable is connected, a hollow plug symbol will appear on the display. Enter the IP address for the gateway and device in the Ethernet settings and save. The unit is connected to the network when the hollow RJ45 icon becomes solid.

g. Connection To 4G GSM - Default configuration

4G network connectivity is fitted as standard, compatible with most UK 2/3/4G communications bands. The module accepts a standard SIM card.

4G data requires either an active Charge-m8 subscription or suitable SIM card from another provider. If a Charge-m8 subscription is chosen a SIM will be provided and pre-installed within the Delta Charger. Charge-m8 4G SIM connectivity is backwards compatible with 3G & 2G, and uses non-steered SIM technology to automatically lock onto the strongest signal from any of the major UK networks to ensure the best possible connection.

Your Charge-m8® installation engineer will check the 4G connection when commissioning your Delta charging unit.

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h. Connection to OCPP 1.6 Web Socket

Charge-m8® Delta Chargers are supplied pre-configured to connect to the MONTA OCPP platform. Provided you have set-up the charger on the MONTA platform correctly, once your charger has established a network connection it will connect automatically.

When connected to the MONTA network you can take advantage of the following features:

- Connect your charger to public roaming networks and allow others to use your charger for a fee (for example when drive sharing, installations in office car parks or public places).
- Access a pan-European network of charging points using the MONTA APP, and pay for each charge easily with your saved credit/debit card.
- Allows Charge-m8 engineers to remotely update the software on your Delta charger, and where necessary investigate any faults reported quickly, without having to wait for a site visit by an engineer.

Upon expiry of the initial contract period (or if you choose not to use a Charge-M8 subscription), you may elect to utilise alternative OCPP services, contact the Charge-m8 team to discuss your requirements. Whilst Charge-m8 equipment is OCPP compliant, an admin fee may be applied to cover any bespoke configuration/development required for your chosen provider.

Whilst Charge-m8 follow OCPP best practice protocols, we cannot verify compatibility with alternative platforms.

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3. Operation

a. Preparing To Charge

a) Ensure that the Delta charger is on, and the touch screen shows ready to charge (available), Fig3.1. Press the charger icon and select charging socket 'A' or 'B' depending on which port you would like to connect your cable, Fig3.2.

b) Choose charging options (p15) & connect your charging cable to the charger, and then to your vehicle. The LCD display will now show waiting for vehicle.

If your Charge-m8 engineer has configured your Delta charger to allow 'Plug & Charge' capability (for instance on a private car park), ignore 'c)' below and go directly to 'd)'.

c) Use your chosen method of charge activation*:

   a. RFID card – pass your card over the RFID reader to start charging.
   b. APP – open the MONTA APP, connect to the charger and press 'Start'.
   c. QR Code – guests and visitors can scan the QR code to visit the MONTA one page charge screen and follow the instructions.

d) Check that the LCD display and indicator light confirms charging is in progress. It will display the charge duration, power & KWH used.

e) Status Indicator Light:

a.	Standby/Available:	Steady blue
b.	Plug in - ready to charge:	Steady purple
c.	Charging in progress:	Active blue
d.	Charging completed:	Steady green
e.	Alarm/Fault:	Steady red

**not all methods may be enabled on your Delta charge-point*

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Fig3.1

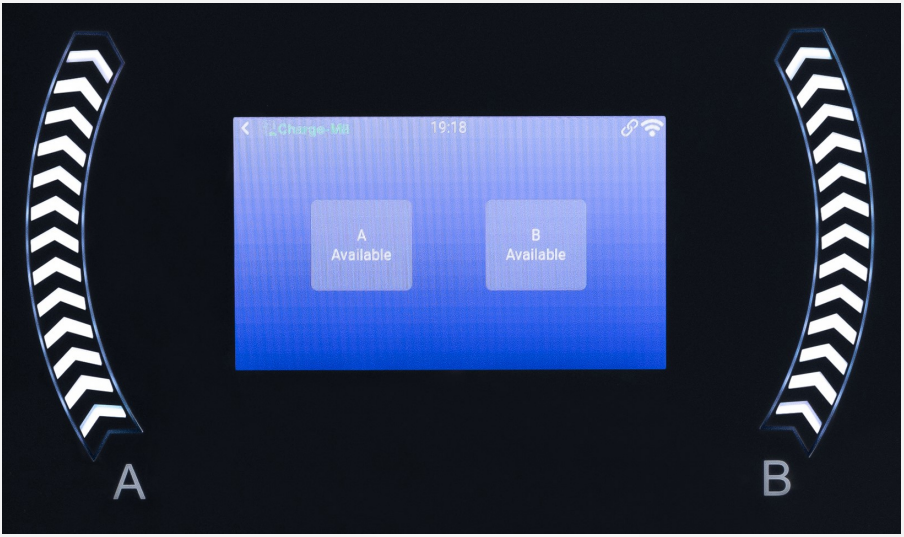

Fig3.2

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b. Charge Options - Press the charger icon to access the menu

a) Full Charge - Default setting, charger will charge until the battery is full.

b) Energy Limit (KWH) - You can select a maximum KWH to use. Once the charger reaches this limit charging will stop.

c) Time Limit (HH:MM) - You can select the exact amount of time in hours and minutes to charge. Once the charger reaches this limit charging will stop.

d) Off-Peak Schedule (HH:MM) - Two off-peak windows can be set, useful if you want to take advantage of cheaper overnight electricity rates. A countdown to charge and/or status message is shown on the touch screen.

c. Charge Completion

a) RFID card – pass your card over the RFID reader to stop charging. Wait for the display to confirm before removing the charge connector from your vehicle.

b) APP – open the APP, connect to the charger and press 'Stop'.

c) The charger will settle the charge transaction and display the charge session data on the screen until the plug is removed from the socket.

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d. Off-Peak Charging Schedules & Randomised Delay Function

a) Two off-peak schedules are provided in compliance with the Electric Vehicle (Smart Charge Point) Regulations. These are pre-set to the default hours required by the regulations - 11:00 - 16:00 & 22:00 - 08:00 hrs.

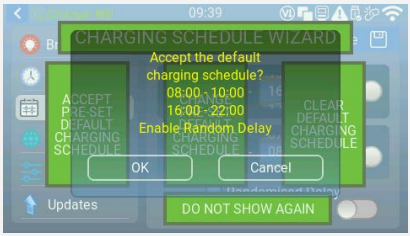
b) On first use, the charger offers the selection menu below, with options:

i) Accept the default off-peak time schedules, or;

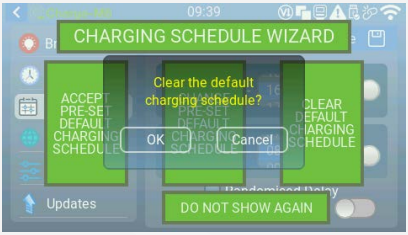
ii) Change the default off-peak schedules, or;

iii) Disable the off-peak schedules

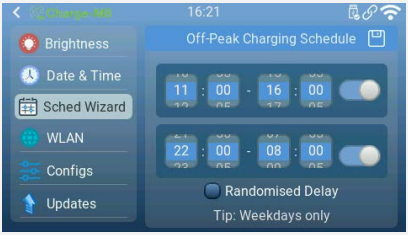
Wizard menu Toggle "DO NOT SHOW AGAIN" to stop Wizard appearing



Press the required choice and click "OK" to confirm



Choosing to change or clear the schedule will open the Schedule Wizard Menu



The scheduled time window highlighted in blue is the time during which the charger will operate. Charging sessions in progress will pause until the next window opens.

The randomised delay of 0-600 seconds can be turned on or off using the radio button below the schedule. Click the disc symbol to save changes, schedule wizard password required (unique to each charge point).

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e. Maintenance

Your Delta charger should be checked regularly for any obvious signs of damage and the residual current protection tested to ensure safe operation.

If you are in any doubt or have cause for concern you should immediately press the emergency stop button and contact Charge-m8® Customer Service for advice.

f. How do I download the MONTA APP?

The MONTA APP is available for download from both the Google Play Store and Apple App Store:

Download on the App Store

GET IT ON Google Play

How do I configure the MONTA APP?

Once you've downloaded and installed the correct APP for your device, just register your account via the APP to use publicly accessible MONTA EV Points. To configure the APP to control your private home charger, just call customer services and we'll set this up for you!

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CHARGER STATUS, ICONS & WARNING GLOSSARY:

Charger information menu accessed by pressing four squares icon

1) Charger system status information
2) Charger help guide - icon glossary
3) Charger information

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CHARGER STATUS, ICONS & WARNING GLOSSARY:

System Status Display

System Information Display

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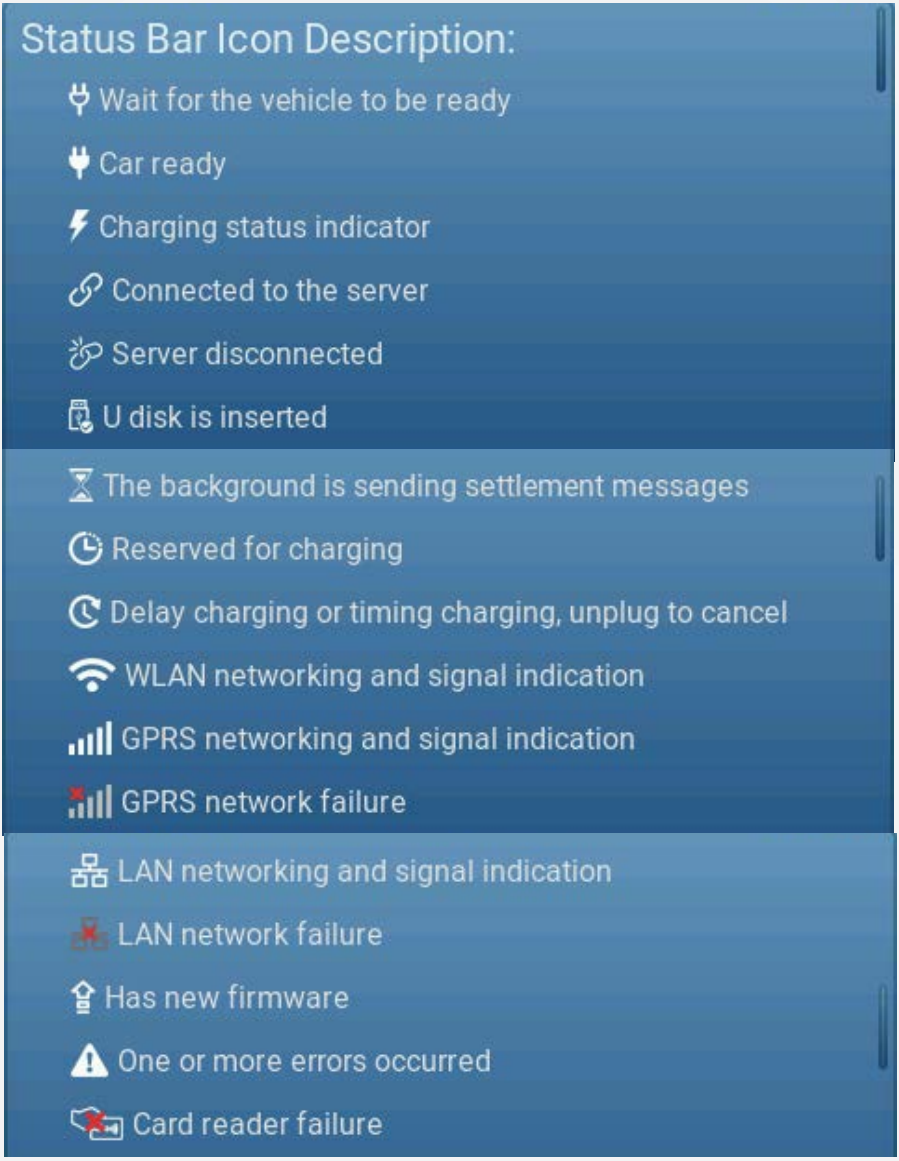

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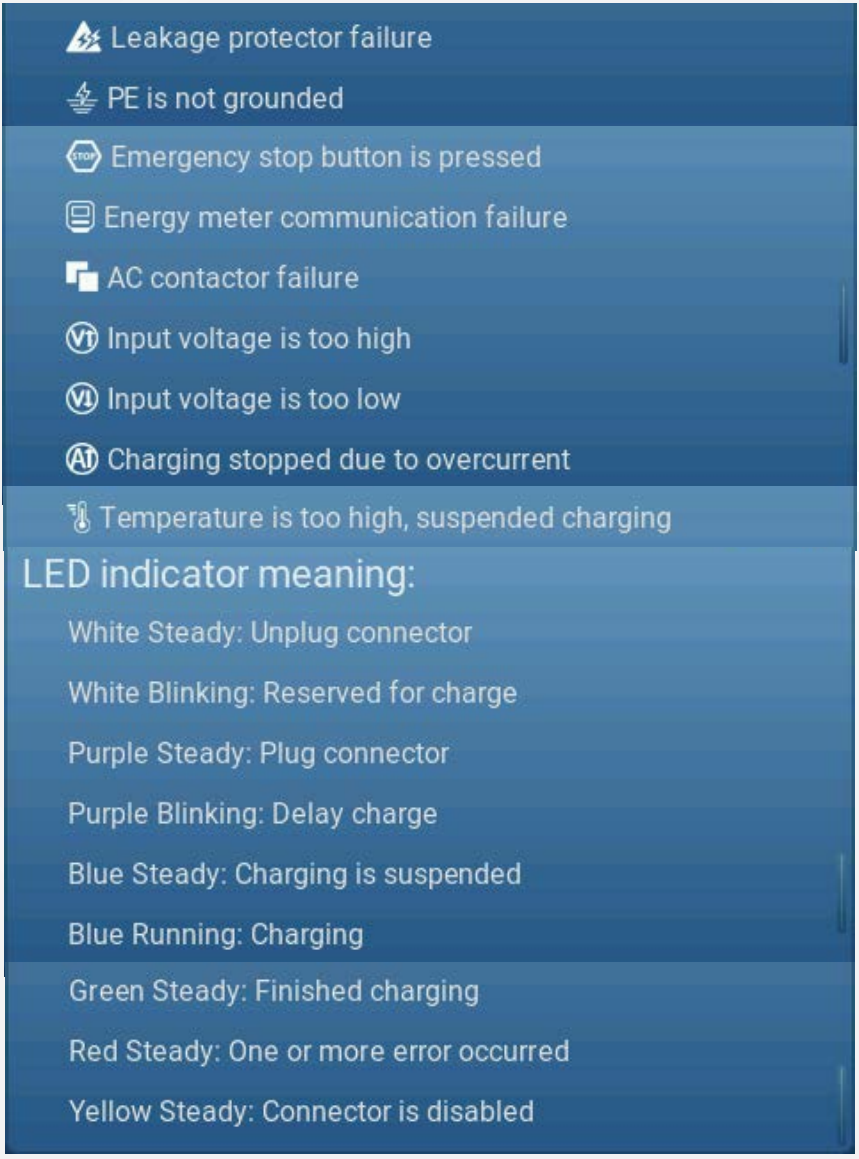

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Installation Record

Installation Date:

Engineer Name:

Serial Number:

Notes:

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