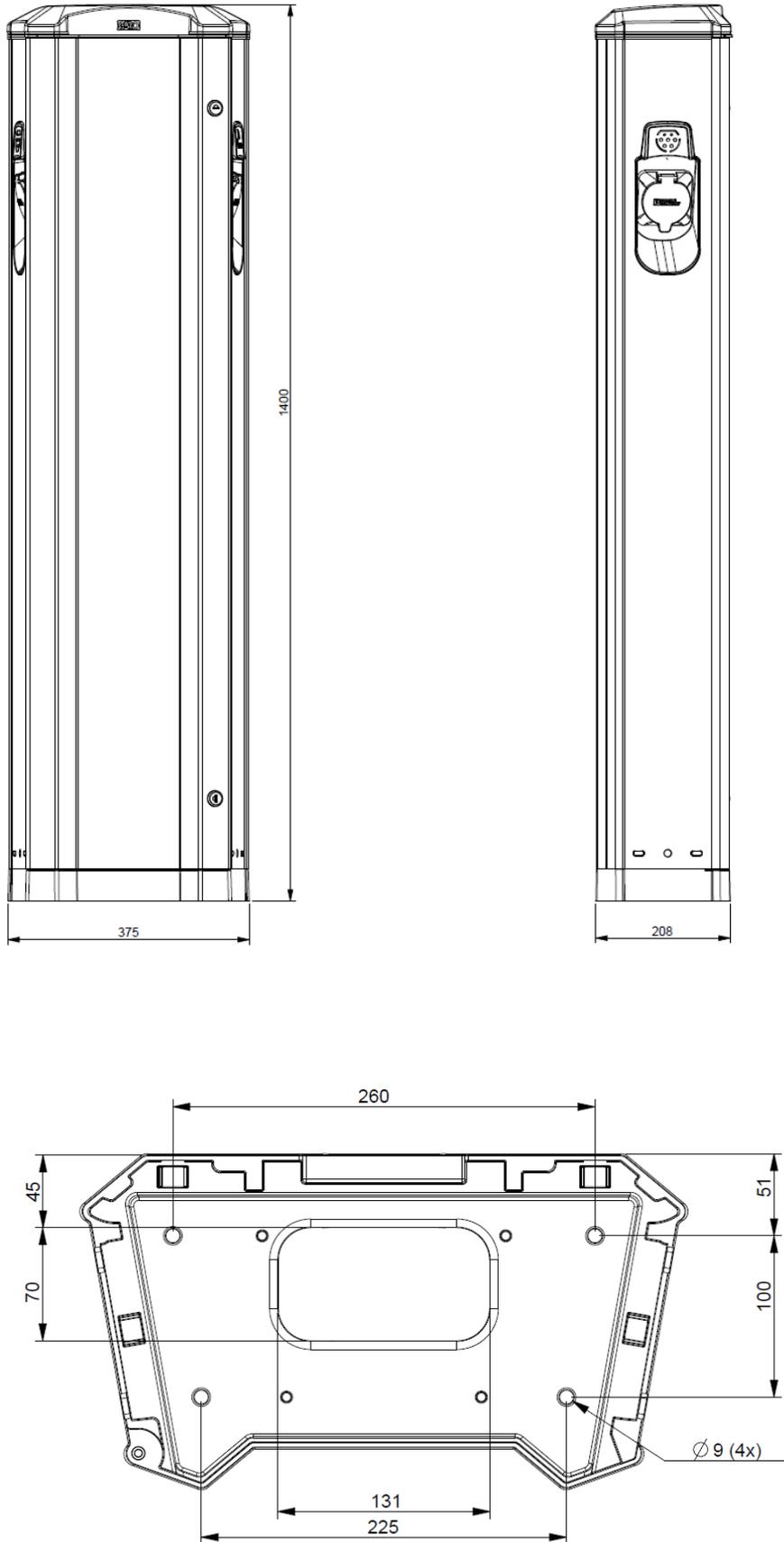




LS4 Charging Station Installation/service manual

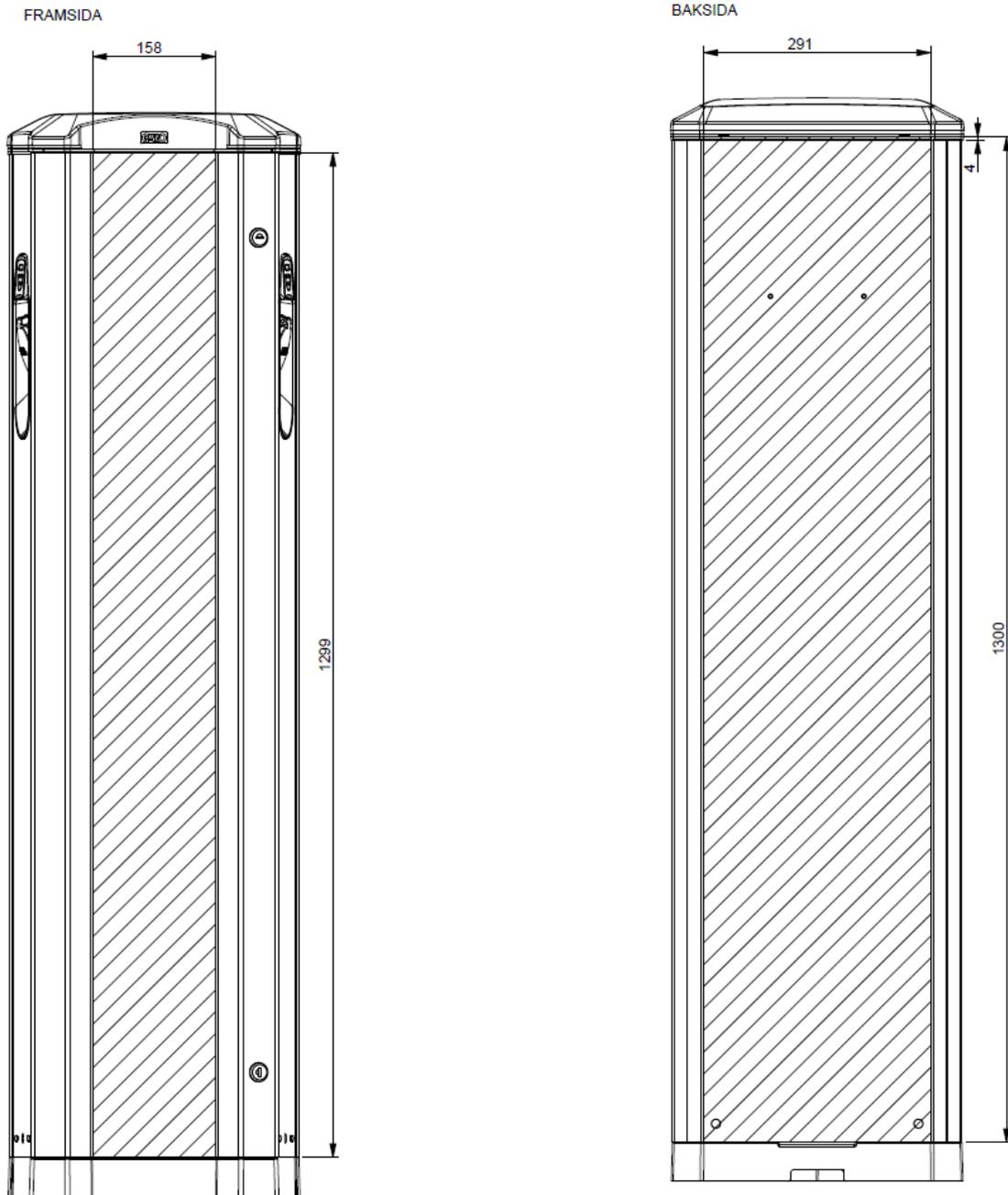
MANUAL CHARGING STATION LS4. Dimensional drawing

LS4 Dimensional drawing



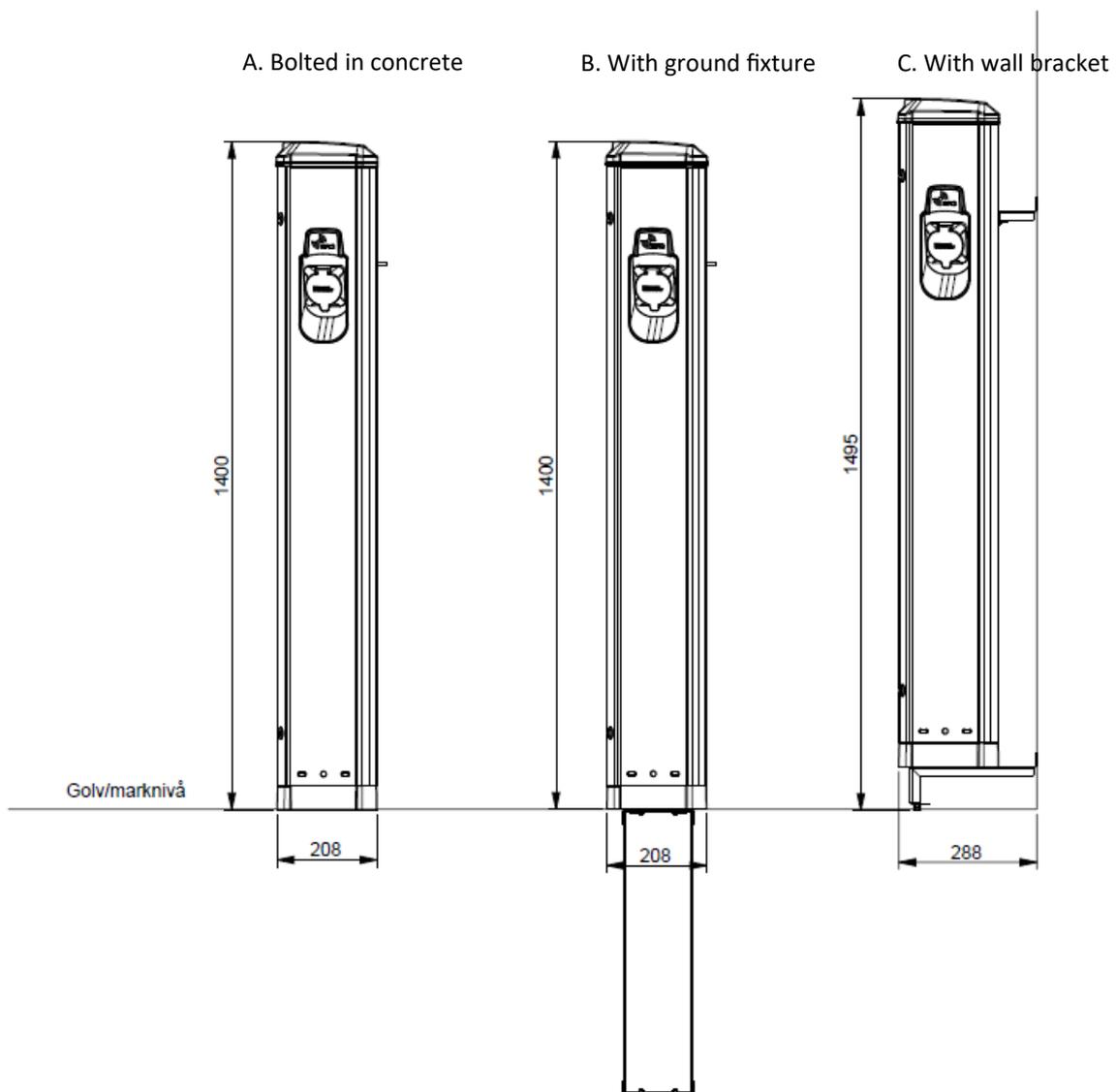
MANUAL CHARGING STATION LS4. Dimensional drawing

LS4 Dimensional drawing Location of individual markings/
 drawing Foiling dimensions



Note:
 On the rear of the LS4, approx. 5 mm of the foiling will be behind the seal

Installation options





The basic version is LS4 Charging Station prepared for bolting into concrete



Charge indication

There is a lighting strip for charge indication at the top of the LS4 Charging Station.

The significance of the colours is described here.

Charging in general

- Solid green light: Ready for charging
- Blue solid light: Charger connected to vehicle.

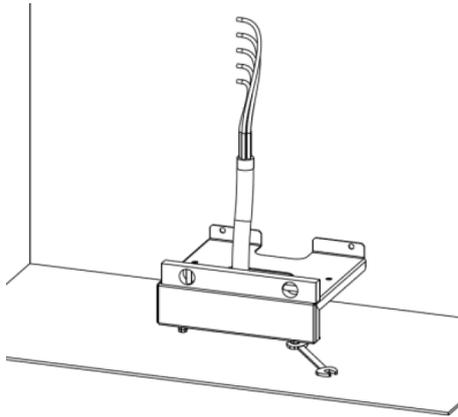
RFID function (certain models)

1. Connect the cable to the vehicle. The green light will flash 2–3 times.
2. Keep the RFID tag in front of the RFID symbol on the side from which you want to charge.
3. Yellow flashing light: the post is reading the RFID tag ID
4. Blue flashes: Charging is starting.
Then solid blue light.

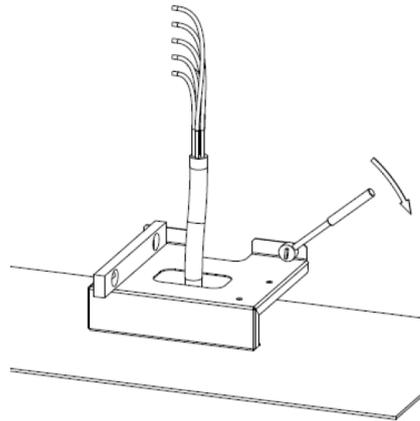
RFID is deactivated on delivery. For commissioning, contact a certified engineer (www.garo.se)
EV outlets are available for use until their RFIDs are activated.

Error codes:

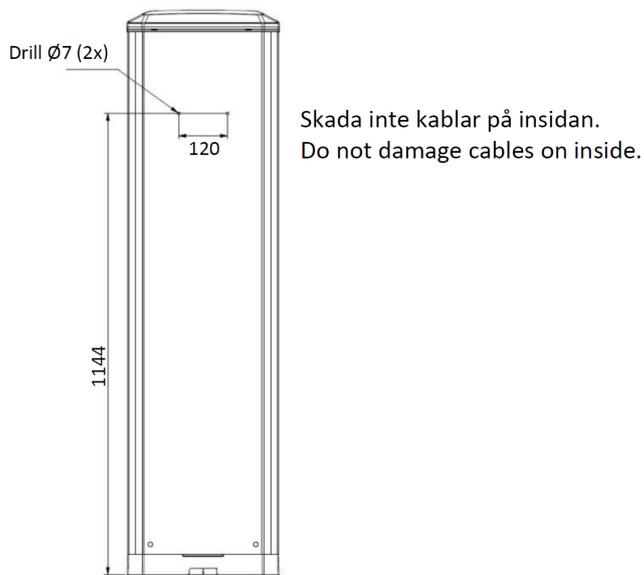
- Solid red light: Error. Reset earth fault breaker/Supply fuse
- Solid yellow light: Reconnect the cable.
- Solid white light: Outlet sockets not activated.
Contact engineer.
- No light at all: Check the control fuse to the control card or supply fuse. If these are switched on, contact a certified engineer. (www.garo.se)
- Red flashing light: RFID not approved.



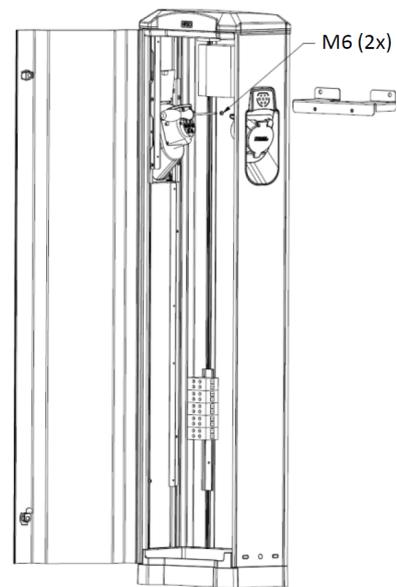
1



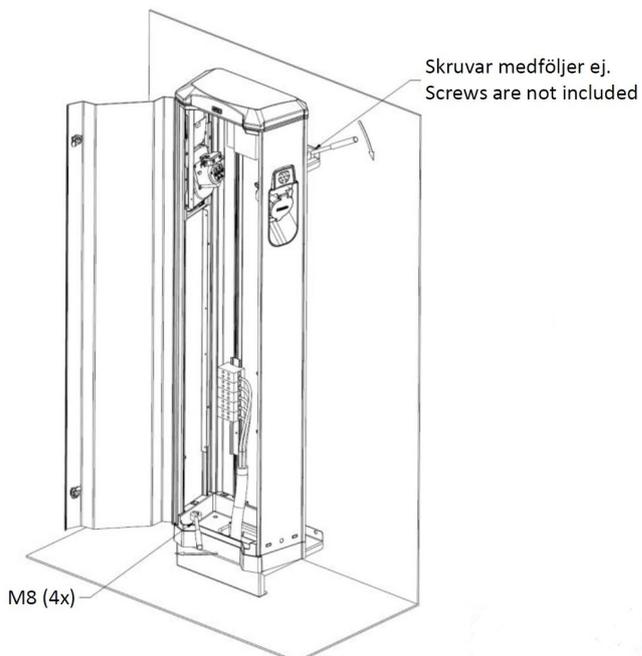
2



3

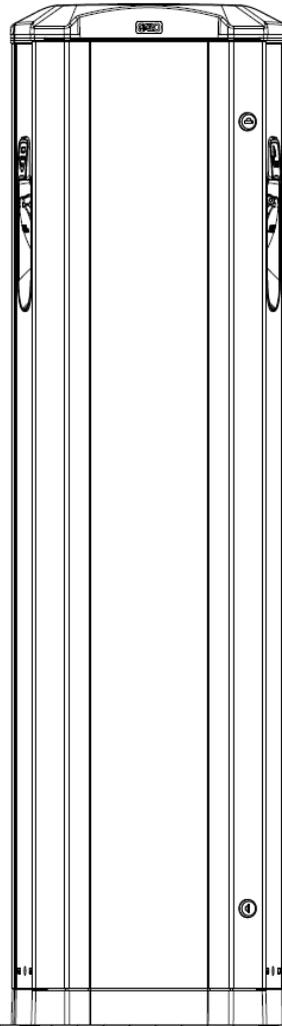
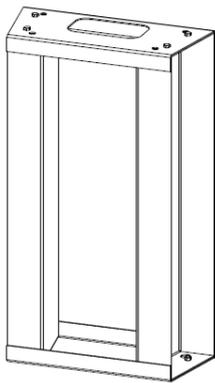


4

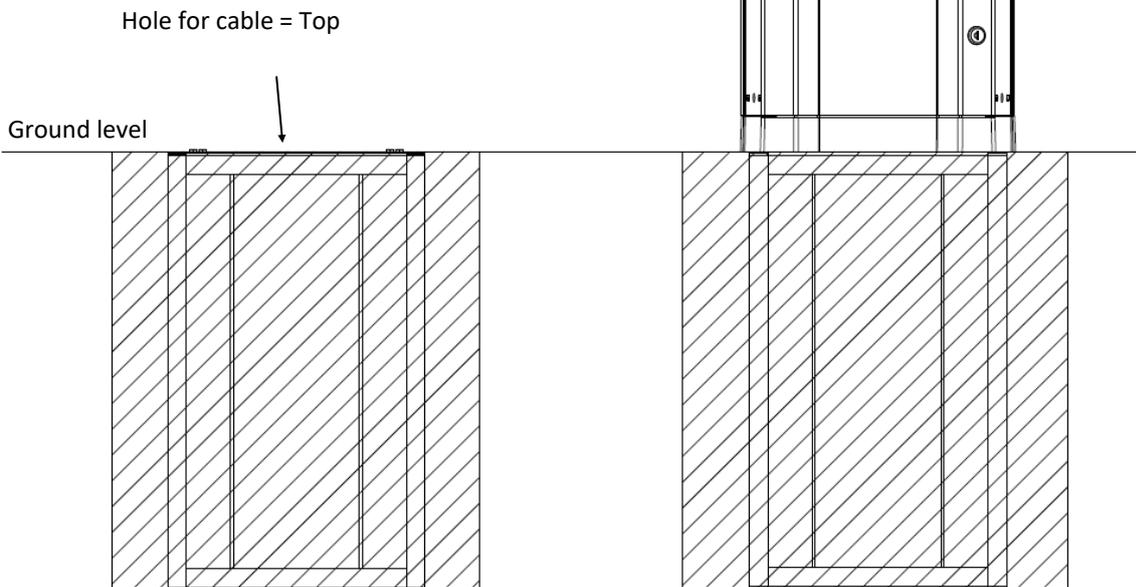


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7

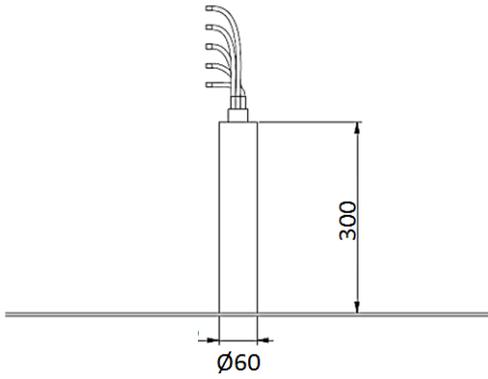


3

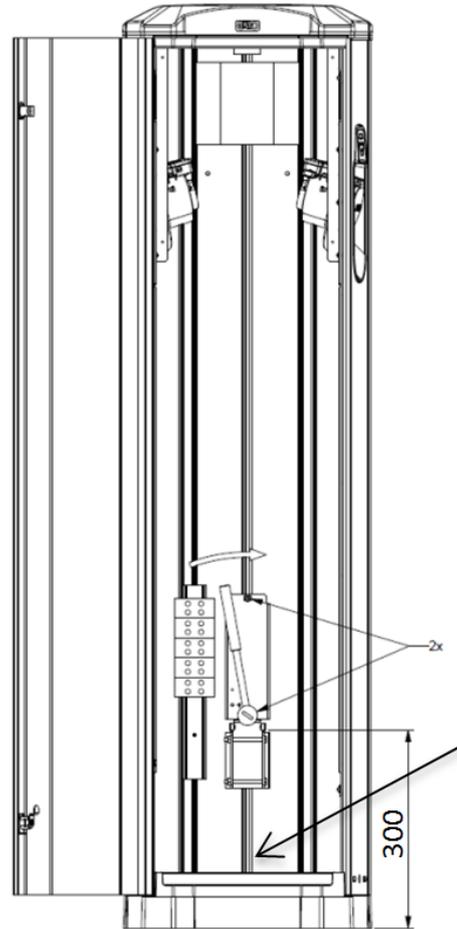


1. Embed the ground fixture, thread a sufficient length of cable through the hole. Check using a spirit level. Fill with pervious material. Pack hard.

2. Place LS4 on the ground fixture and secure with the four screws provided.

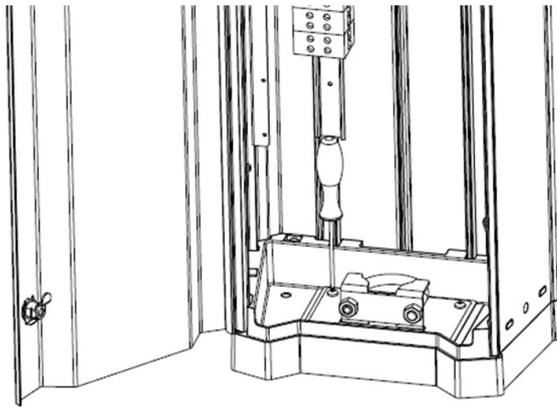


1

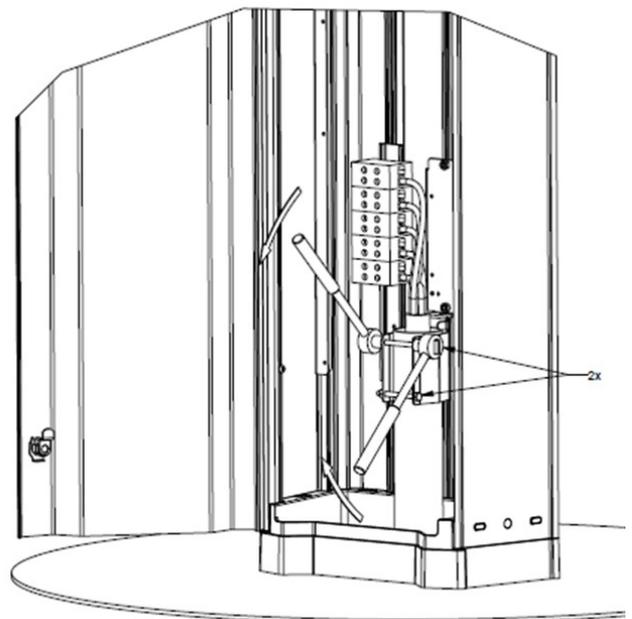


Skrudar ligger i spår nära LS4ans fot.
Screws can be found in rail close to LS4 foot

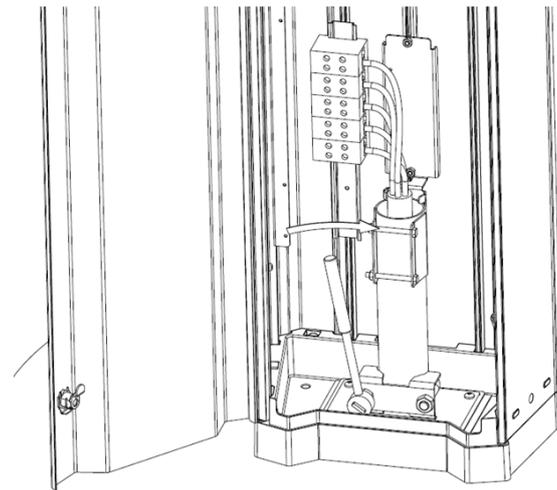
2



3



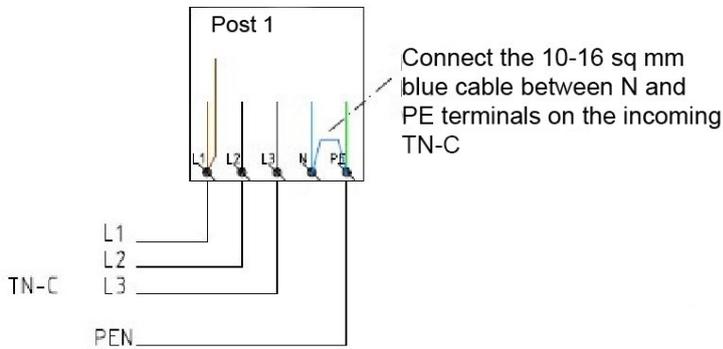
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4

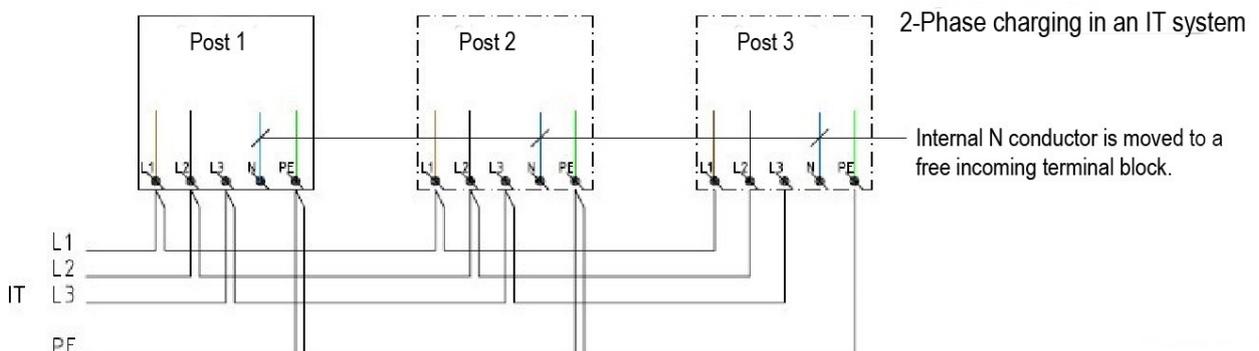
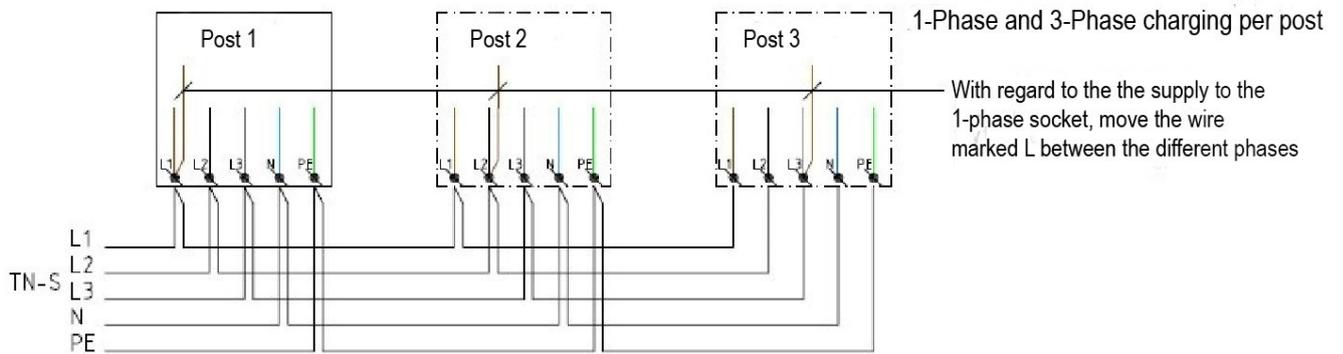
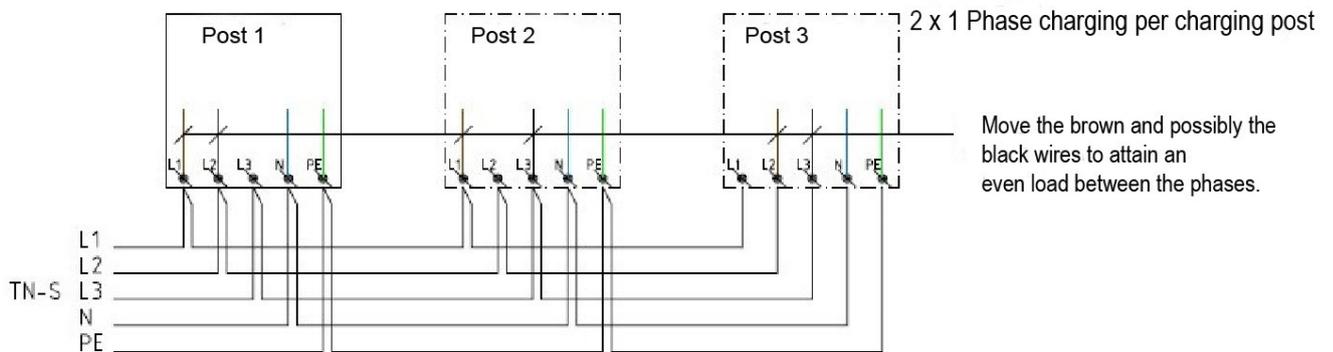
GARRO charging posts are always delivered with incoming TN-S systems, for incoming TN-C systems, see the wiring diagram, below TN-C.

In order to attain an even load from the supply centre when connecting multiple posts, the following wiring on the incoming terminal block (internal wiring) can be used as set out below.



NOTE!

When the charging station is equipped with sockets or plugs (Electric vehicle's connector) according to the standard 62196-series, protection against DC-fault currents must be taken into consideration. Appropriate measures should be the residual current device TYPE B



Care and maintenance GARO charging station LS4

The warranty will only remain valid if service is performed!

Service is performed once a year and must be documented.

General authorisation EL is required to perform service, i.e. only a qualified electrical contractor should perform the service. The service is performed by inspecting the charging station's exterior and interior parts, manipulating components and conducting a functional inspection.

If the charging station is connected to a web portal or otherwise controlled from an external system via a service provider, the service personnel must contact the service provider before a scheduled service. This is to be able to carry out all steps in the service, but also to avoid automatic error reports being sent from the charging station when service starts that may lead to other service personnel being called out at great expense. Normally the instructions for the charging station indicate whether it is connected to a superior service.

If you have questions about service or a need for service, GARO suggests that you contact EV Charge Partner, which specialises in servicing GARO charging stations and has a nationwide service organisation.

EV Charge Partner Sweden AB
Anderstorpsvägen 2
SE-335 33 Gnosjö
support@evchargepartner.se

1. **The following is required to perform service:**

1 pc key to service hatch

1 pc service tag

tools for Torx and PZ2

Test instrument

E42 010 23 if the charging station has type 2 outlets

Tools

Cleaning wipes

2. Service step

1. Check the charging station exterior:
 - a. Ensure that the charge indication is green when the charging station is available.
 - B. Enclosure/Post
 - c. Cables, connectors, contact pins and microswitches for type 1 connectors.
 - d. Outlets and contact pins
 - e. Colour, foiling and instructions
 - f. Antenna (if fitted)
 - g. Ground fixture/wall bracket
2. Clean the charging station exterior
3. Open the hatch, check the lock and striking plate.
4. Create an earth fault by pressing the test button marked "T" on the earth fault breaker. Check that the charge indication changes colour to red for the side whose outlet was tripped.
5. Check the charging station's function using GARO's test equipment. Follow the instructions on the charging station to start charging
 - a. Connect the charging station to the GARO test equipment.
 - b. Check that the power is on by looking at the indication lights on the test equipment.
 - c. RFID reader (if the station is equipped with this), during identification the charge indication will flash two or three times.
 - d. Check that the type 2 connector is firmly locked to the charging station type 2 outlet during charging if the charging station has type 2 outlets.
6. [Disconnect the power supply to the charging station](#)
7. Check seals.
8. Check tightening torque of incoming power supply.
9. Check tightening torque of the charging station's attachment to the ground fixture.
10. Check the tightening torques and connections for contactors, electric meters and DC transformers.
11. Check all plugs and cable connections for the CCU module.
12. Measure the earth resistance in the charger cables/outlets using a multimeter.
13. Clean the charging station interior if necessary.
14. Switch on the power to the charging station.
15. Complete and affix a service label to the inside of the hatch.