



Eve Single Plus



EV Charging Stations

Installation Manual

1.	Safety and usage instructions	3
1.1	Disclaimer	3
1.2	Improper use	3
1.3	Copyright	3
1.4	Trademarks	3
1.5	Languages	3
1.6	Purpose and intended audience	3
1.7	Explanation of text instructions used	3
1.7.1	Safety symbols	4
1.8	General safety	4
1.9	Software and complementary documentation	4
1.10	Environmental conditions and product properties	5
1.11	Using this document	6
2.	Product overview	8
2.1	Scope of delivery	8
2.2	Product overview exterior	10
2.3	Product overview interior	11
2.4	Installation tools and parts	11
3.	Installing and Connecting	13
3.1	Safety warnings and precautions	13
3.2	Electrical installation requirements	13
3.3	Installation prerequisites	14
3.4	Mechanical installation procedure	14
3.4.1	Installing the charging station on a wall	15
3.5	Electrical installation procedure	25
3.6	Additional installation procedure for model with fixed charging cable	27
3.7	Finishing the installation	29
4.	Commissioning	32
4.1	Initial start-up	32
4.2	Testing the charging station	32
5.	Connectivity	33
5.1	Configuration tools	33
5.2	Before using the software	33
5.3	Configuring the charging station	33
5.3.1	Wired network connection	33
5.3.2	Backoffice management systems	33
5.4	Configuring Smart Charging functionalities	33
6.	Maintenance	34
6.1	Display window cleaning procedure	34
6.2	Casing cleaning procedure	34
7.	Disposal	35
7.1	Decommissioning and returning	35
7.2	Waste electrical and electronic equipment (WEEE)	35

1. SAFETY AND USAGE INSTRUCTIONS

1.1 Disclaimer

This document has been subjected to rigorous technical review before being published. It is revised at regular intervals, and any modifications and amendments are included in the subsequent issues. Although Alfen has made its best efforts to keep the document as precise and up-to-date as possible, Alfen does not assume any liability for defects and damage which results from the use of the information contained herein.

NOTE

This manual is subject to updates and changes. Errors and omissions excepted.

Any deviation to the products as assembled by Alfen including, but not limited to,

- customer-specific modifications,
- components to the product specified or, where appropriate, instructed by third parties such as the placement of stickers, SIM cards, grid connection components required by grid operators or the usage of different colors (all referred to as 'Customization')

may affect the final product, its experience, appearance, quality and / or lifespan (the Customized Product). Alfen is not liable for any damage to, or caused by, the Customized Product if this damage is caused by this applied Customization.

In addition, Alfen shall not be liable in any way, for any kind of damage, and the (B2B) warranty for the product and the accessories shall not apply in the following cases:

- Failure to comply with the instructions in this manual in general and with the operating conditions specifically.
- Improper use.
- External damage.
- Installation, commissioning or faulty repair or maintenance by unqualified persons.
- Failures from the grid or the mobile connectivity provider.
- Modification or configuration of the product or accessories without the knowledge of Alfen.
- Use of spare parts not approved or manufactured by Alfen.
- The charging station is used outside the environmental conditions stated in this manual.
- Situations have occurred that are beyond the control of Alfen (force majeure).
- Malfunction of an (Open Charge Point Protocol) back office.
- Damage to the electric vehicle.

1.2 Improper use

Using the charging station is safe when used as intended. Any other use or changes to the charging station are considered improper use and therefore not permitted. The user is responsible for any personal injury or material damage arising from improper use.

1.3 Copyright

The reproduction, distribution and utilization of this document, as well as the communication of its contents to other parties without explicit authorization by Alfen N.V. or one of its affiliates, is strictly prohibited. © Alfen N.V.

1.4 Trademarks

Eve®, ICU®, Alfen® are trademarks by Alfen N.V.. Any unauthorized use of the trademarks is therefore illegal.

1.5 Languages

The English version of this document is the original source. Documents in other languages are translations of this source.

1.6 Purpose and intended audience

This manual applies to the Eve Single Plus (in this document also indicated as "charging station") produced by Alfen ICU B.V., Hefbrugweg 79, 1332 AM Almere, the Netherlands, reg.no. 64998363 ("Alfen"). The Eve Single Plus is intended exclusively for charging electric vehicles and, when installed correctly, may be used by untrained individuals. Follow this manual to install and commission the charging station correctly.

DANGER

Risk of injury and electrocution. Installation, (de)commissioning and maintenance of the charging station may only be performed by an instructed person.

1.7 Explanation of text instructions used

Safety warnings and precautions are indicated in this document as follows:

DANGER

Signal word used to indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Signal word used to indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.

1. SAFETY AND USAGE INSTRUCTIONS

! CAUTION



Signal word used to indicate a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

🔔 NOTE

Signal word used to provide additional information or information on possible product damage.

1.7.1 Safety symbols

The following symbols are attached to (parts of) the charging station:

Pictogram	Description
	Dangerous voltage
	Protective earth

1.8 General safety

Follow the stated safety aspects when operating the charging station:

! DANGER

Risk of injuries, explosion or fire. Do not use the charging station in the vicinity of explosive or highly flammable substances.

! DANGER

Risk of electrocution. Do not use the charging station if it is partially submerged in water.

! DANGER

Risk of injury and electrocution. Do not use the charging station if it is damaged or plugs and cables are defective.

! DANGER

Risk of injury and electrocution. Keep away children or individuals who are not able to assess the risks associated with using this product.

More extensive safety information is available in the relevant sections of this document.

1.9 Software and complementary documentation

The charging station uses firmware version 2.2.0 at the time of publication.

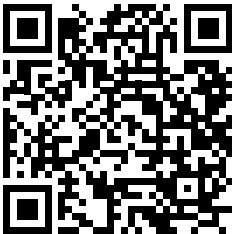
🔔 NOTE

The ACE Service Installer does not notify if a new firmware version is available. You can check this through the menu "Device/Upload new firmware...".

🔔 NOTE

You can request a printed copy of this manual in your language from Alfen at any time. Refer to the contact details on the back page.

Detailed information about the Eve Single Plus charging station can be found through the QR codes and links below.



[Alfen YouTube channel](#)

Provides installation, service and information videos.



[Datasheet - Eve Single Plus](#)

Provides detailed information on models, technical features and equipment.

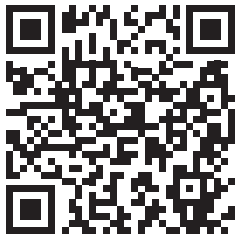


[Knowledge Base](#)

Provides service and procedure instructions.



[Firmware updates, error codes and troubleshooting](#)



[Trainings for Alfen charging stations](#)



[Declaration of Conformity Eve Single Plus](#)



[B2B Warranty](#)



[Declaration of Conformity Eve Single Plus DE](#)

For German market only.



[Verwendungsanlage für Eichrechtkonforme EV Ladestationen](#)

Information for the operator (CPO) and mobility service provider (MSP).

For German market only.



[Baumusterprüfbescheinigung](#)

For German market only.

1.10 Environmental conditions and product properties

Operating temperature -25 °C to +55 °C

Environmental conditions

- Indoor use
- Outdoor use

Electrical safety class Class I

Ingress protection IP55

Impact protection IK10



[Smart Charging Configuration Manual](#)

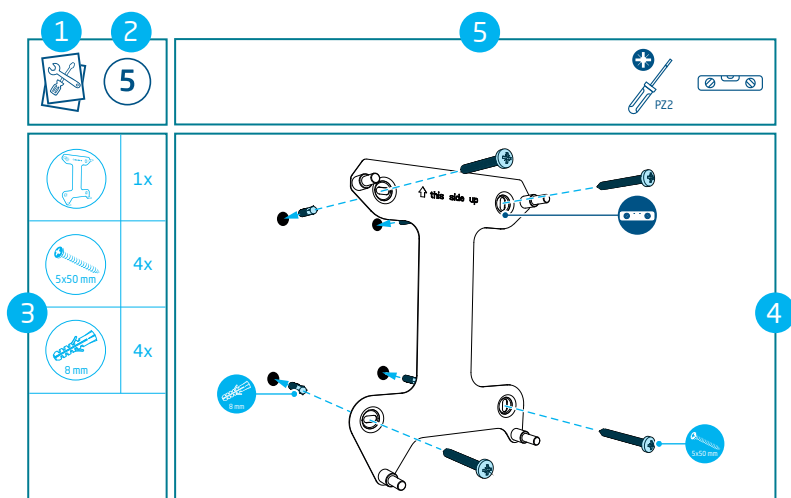
1. SAFETY AND USAGE INSTRUCTIONS

NOTE












- The stated charging performance is solely applicable to the charging station itself. The actual performance depends on the vehicle and the grid connection.
- A front cover in a colour other than RAL9016, and the addition of customizations, can increase the heat transfer from solar radiation transferred to the charging station. This also affects the charging performance.

1.11 Using this document

Below you can find an example illustration and a description of the used symbols.

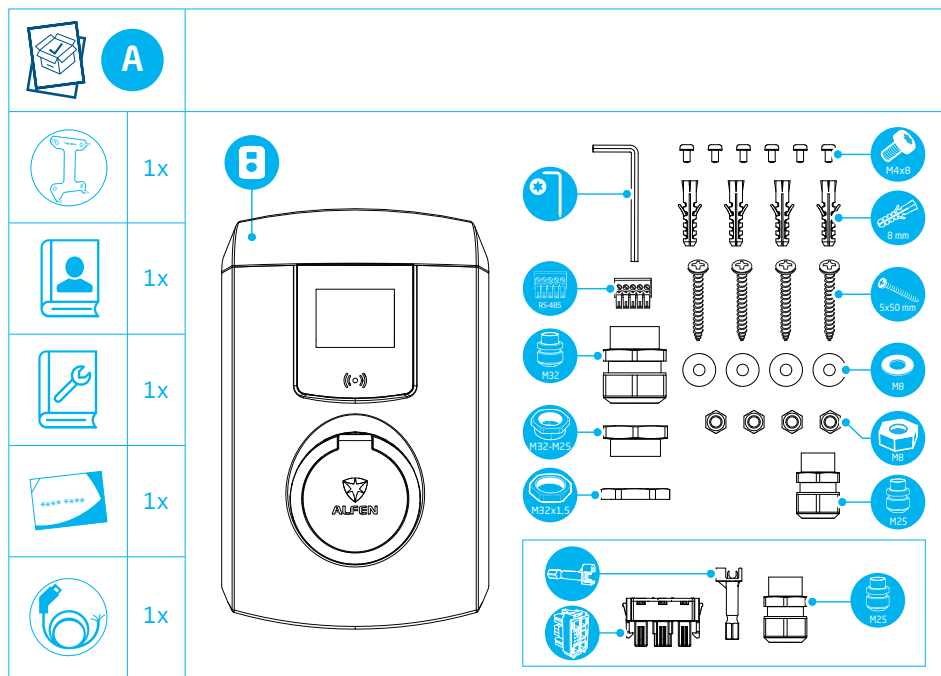












1. SAFETY AND USAGE INSTRUCTIONS






No.	Description	Symbol	Description
1	Chapter symbol of this step		Scope of delivery
			Product overview
			Mechanical installation procedure
			Electrical installation procedure
			Additional installation procedure for model with fixed charging cable
			Finishing the installation
2	Step number		Number in the image corresponds to the number of the step described in the corresponding chapter
3	Parts required for this step		Symbols in dark blue colour identify tools or parts that must be provided by the installer
			Symbols in light blue colour identify tools or parts that are part of the Alfen scope of delivery
4	Visualization of the step		Detailed description can be found in the related chapter
5	Tools required for this step		Symbols in dark blue colour identify tools or parts that must be provided by installer
			Symbols in light blue colour identify tools or parts that are part of the Alfen scope of delivery






2. PRODUCT OVERVIEW

2.1 Scope of delivery



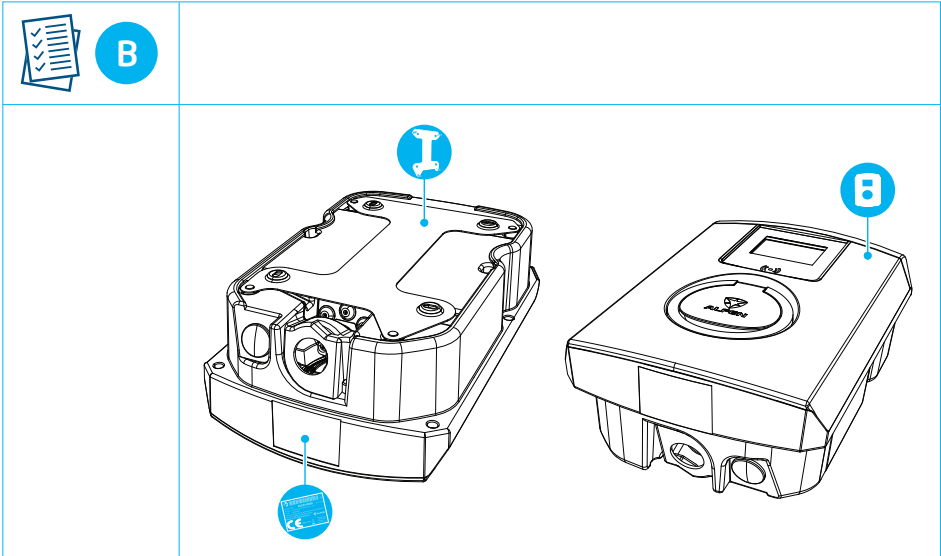
Symbol	Description	QTY	Symbol	Description	QTY
	Charging station	1		M8 washer	4
	Torx T20 key	1		M8 nut	4
	Torx bolt M4x8 mm	6		Cable gland M32x1.5	1
	Wall plug 8 mm	4		Cable gland M25x1.5	1
	Screw 5x50 mm	4		Counter nut	1




Symbol	Description	QTY
 M32-M25	Reduction ring M32-25	1
 RS-485	RS-485 connector including TIC protocol connections (provided with shutter socket variants to connect to a Linky smart meter. If you would like to do smart charging with an external energy meter using Modbus RTU this connector will be included with the meter)	1
	Hybrid connector (Provided with model with fixed charging cable. Delivered separately in charging cable box.)	1
	Removal tool for hybrid connector (Provided with model with fixed charging cable. Delivered separately in charging cable box.)	1
 M25	Cable gland M25x1.5 (Provided with model with fixed charging cable. Delivered separately in charging cable box.)	1

Symbol	Description	QTY
	Wall-mount frame	1
	User Manual (to be handed over to the end user)	1
	Installation Manual	1
	Card with password (recovery) information (to be handed over to the end user)	1
	Fixed charging cable (Provided with model with fixed charging cable. Delivered separately in charging cable box.)	1

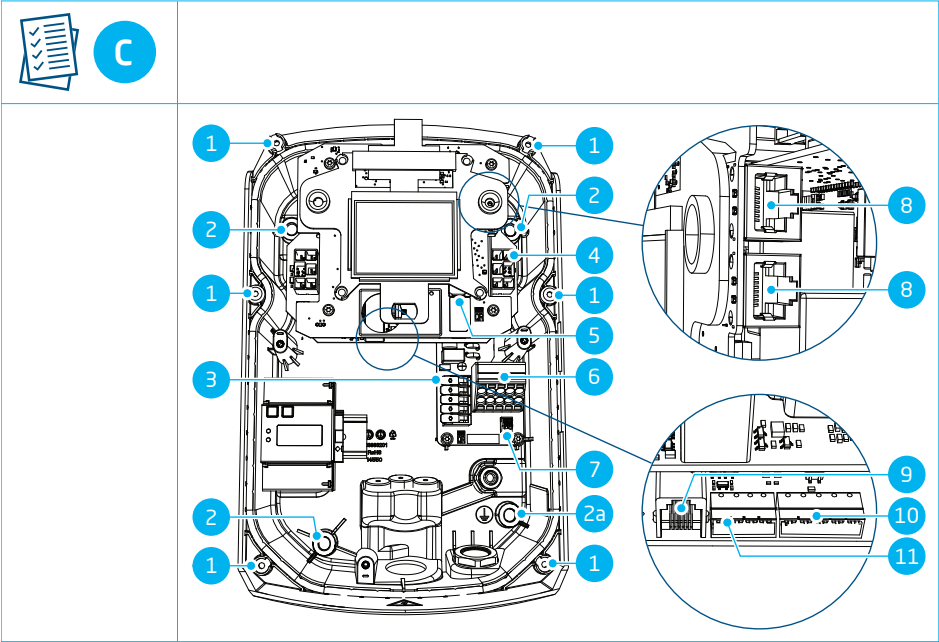
2. PRODUCT OVERVIEW

2.2 Product overview exterior



Symbol	Description	Symbol	Description
	Wall-mount frame		Display
	Identification label		

2.3 Product overview interior






No. Description

- | | |
|----|--|
| 1 | Screws for fastening front cover |
| 2 | Studs for mounting to wall-mount frame |
| 2a | Stud for mounting to wall-mount frame with protective earth connection |
| 3 | Protective earth connection to stud |
| 4 | Female connector for hybrid connector for fixed charging cable |
| 5 | SIM-card holder |
| 6 | Terminal block for power supply |
| 7 | Terminal block for Payment Terminal Accessory |
| 8 | RJ-45 female connector for network connection |
| 9 | RJ-11 female connector for smart meter connection (the Netherlands and Belgium only) |













No. Description



- | | |
|----|---|
| 10 | RS-485 female connector for TIC (France only) or for external meter |
| 11 | Suspend Signal §14a EnWG (Germany only) |

2.4 Installation tools and parts

Symbol	Description
	Tape measure
	Pencil or marker
	Wire stripper

2. PRODUCT OVERVIEW

Symbol	Description
	PZ2 Screwdriver
	Cutting pliers
	Small flathead screwdriver
	Ferrules
	Spirit level
	Hammer drill
	Drill bit 8 mm
	RJ-11 connector
	RJ-45 connector(s)
	Crimping tool
	Voltmeter or digital multimeter
	Ethernet cable(s)

Symbol	Description
	Power supply cable
	Torque wrench 1.5-10 mm (with 13 mm hex bit socket, T20 Torx bit and 34 & 41 mm spanner head)

3.1 Safety warnings and precautions

DANGER

Risk of injury and electrocution. Installing the charging station incorrectly may result in fatal injury! When working with electricity, failure to comply with relevant regulations can lead to dangerous and life-threatening situations.

DANGER

Risk of electrocution. When carrying out installation or maintenance work, always follow the five safety rules:

1. Disconnect from the main switchboard.
2. Secure against reconnection.
3. Verify that the system has no voltage.
4. Carry out earthing and short-circuiting.
5. Provide protection against adjacent live parts.

DANGER

Risk of injury and electrocution. The charging station contains electrical components that still contain a charge after being disconnected from the system. Before performing any installation or maintenance work, always test with correct equipment that there is no residual current.

WARNING

Risk of injuries, explosion or fire. Never install in a potentially explosive atmosphere.

WARNING

Risk of electrocution. Never install in areas prone to flooding without implementing compensatory measures.

WARNING

Risk of injury and electrocution. Do not perform installation work during rain or if the air humidity exceeds 95%.

WARNING

Risk of injury and electrocution. The installation must be performed by an instructed person who has read this manual and will do the installation in accordance with the IEC 60364 (Low-voltage electrical installations) and local standards.

CAUTION

Risk of injury and damage. Mechanical impact and/or collisions might cause damage to the equipment. Products installed in public areas must be protected against mechanical impact.

CAUTION

Risk of injury and damage. When dimensioning the power supply cable and the protection components, diversity factor = 1 must be taken into account.

NOTE

Risk of damage. A charging station must always be installed on a separate power circuit.

NOTE

Risk of damage. The use of (conversion) adapters is not allowed.

3.2 Electrical installation requirements

Power supply cable routing:

- The charging station must be connected to either a single phase power supply (L1-N-PE) or to a three phase power supply (L1/L2/L3-N-PE).
- The charging station, including the power supply cable from the main switchboard, must be protected with:
 - a. Short-circuit protection device: type B or C circuit breaker, or gG type fuses.
 - b. Residual current device (RCD): type B. The RCD must be protected by the short circuit protection device.

Minimum advised cable cross-section of the power supply cable: (based on assumed max. 50 m cable length)

- 1-phase 3.7 kW charging, 16 A per phase: 3 x 4 mm²
- 3-phase 11 kW charging, 16 A per phase: 5 x 4 mm²
- 1-phase 7.4 kW charging, 32 A per phase: 3 x 6 mm²
- 3-phase 22 kW charging, 32 A per phase: 5 x 6 mm²

Recommended Ethernet cable types:

- Cat5, Cat5e, Cat6 or Cat6a

Short-circuit protection *: (mandatory)

- *With circuit breakers:*
 - 1-phase 16 A (3.7 kW): 1 x 20 A, 1-pole, type B or C
 - 3-phase 16 A (11 kW): 1 x 20 A, 3-pole, type B or C
 - 1-phase 32 A (7.4 kW): 1 x 40 A, 1-pole, type B or C
 - 3-phase 32 A (22 kW): 1 x 40 A, 3-pole, type B or C

3. INSTALLING AND CONNECTING

- *With fuses:*
 - 1-phase 16 A (3.7 kW): 1 x 20 A gG
 - 3-phase 16 A (11 kW): 3 x 20 A gG
 - 1-phase 32 A (7.4 kW): 1 x 35 A gG
 - 3-phase 32 A (22 kW): 3 x 35 A gG
- * Please take derating into account to ensure minimum operation of the charging station.

Residual current protection *: (mandatory)

- Residual current device (RCD): 30 mA type B, 2P (single phase) or 4P (three phase)
 - 3.7 kW/11 kW charging: minimum 20 A
 - 7.4 kW/22 kW charging: 40 A

* Please take derating into account to ensure minimum operation of the charging station.

Nominal frequency:

- 50 Hz

Earthing system:

- The charging station is suitable for a power supply from a meter switchboard or low-voltage distributor with the TN or TT system. In both cases, a PE conductor between the charging station and the power supply point is mandatory. In case of a TT system, a separately installed grounding electrode <100 Ohm spreading resistance is required.

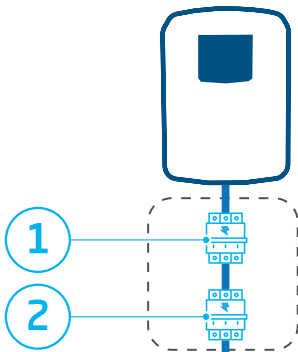


Figure 3.1: Protection scheme

No. Safety components description

- 1 Residual current protection (mandatory)
RCD 30 mA type B, 2P or 4P
depending on installation and local regulations

No. Safety components description

- 2 Short circuit protection * (mandatory)
For 3.7/11 kW: MCB 20 A Type B or C or 20 A gG fuses
For 7.4/22 kW: MCB 40 A Type B or C or 35 A gG fuses

* Please take derating into account to ensure minimum operation of the charging station.

3.3 Installation prerequisites

- Charging stations installed outdoors will be affected by environmental conditions and may discolour. Alfen recommends installing the charging stations in a sheltered environment to optimize the lifetime of the product.
- If the charging station will be installed on a wall instead of on a pole, the wall must be stable and vertical.
- There must be no explosive atmosphere within a radius of 5 m from the location where the charging station is to be placed.
- The power supply cable and the power supply must be prepared and de-energised.
- The charging cable (usually between 5 and 7.5 m) must be able to easily reach the vehicle's charging port without putting tension on the cable.

3.4 Mechanical installation procedure

- Verify that all listed parts are supplied.
- Remove the charging station from the box.
- Put the charging station on a non-scratching surface to prevent damage.

NOTE

This manual only describes the procedure for wall mounting. The charging station can also be mounted on a pole. Installation instructions are supplied with the pole.

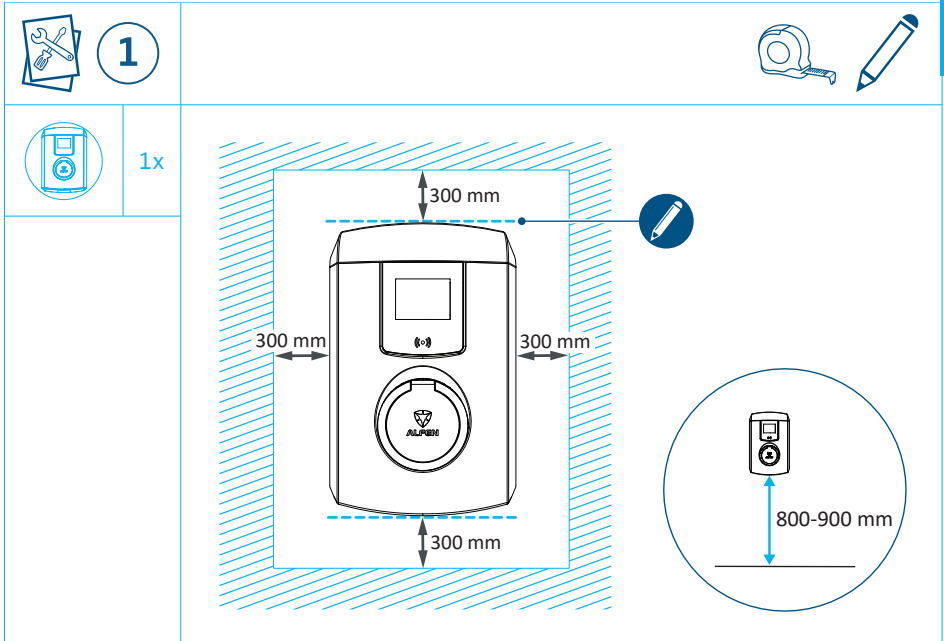
NOTE

Charging stations can be equipped with sockets or fixed charging cables.

3. INSTALLING AND CONNECTING

3.4.1 Installing the charging station on a wall

1. Determine the position for the charging station at the preferred location:
 - a. Choose a location that ensures 300 mm clearance on all sides of the charging station.
 - b. Choose a comfortable height between 800 and 900 mm from the ground to the bottom of the casing.
 - c. Mark the top and bottom of the charging station.



3. INSTALLING AND CONNECTING

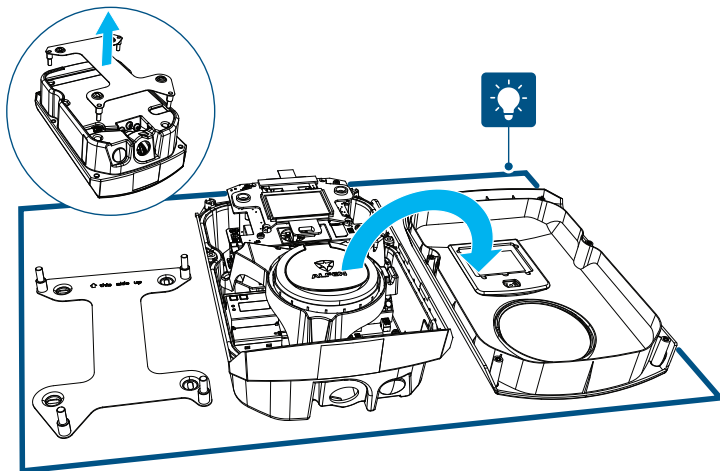
2. Disassemble the charging station.
 - a. Remove the wall-mount frame from the back of the charging station and put aside.
 - b. Remove the front cover from the charging station and put aside.

NOTE

To prevent damage, do not put the charging station on a rough surface. Tip: Use the packaging.

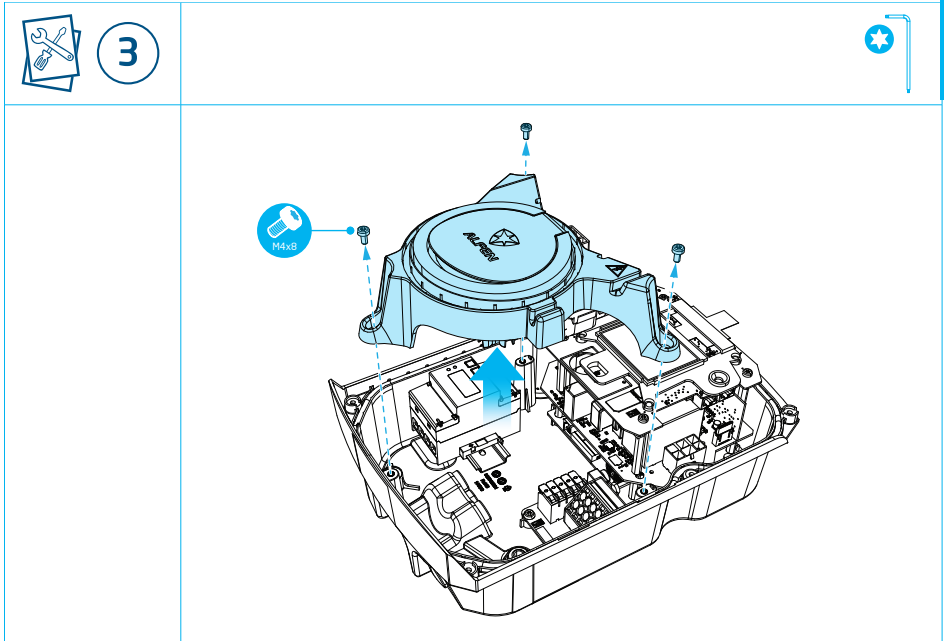


2



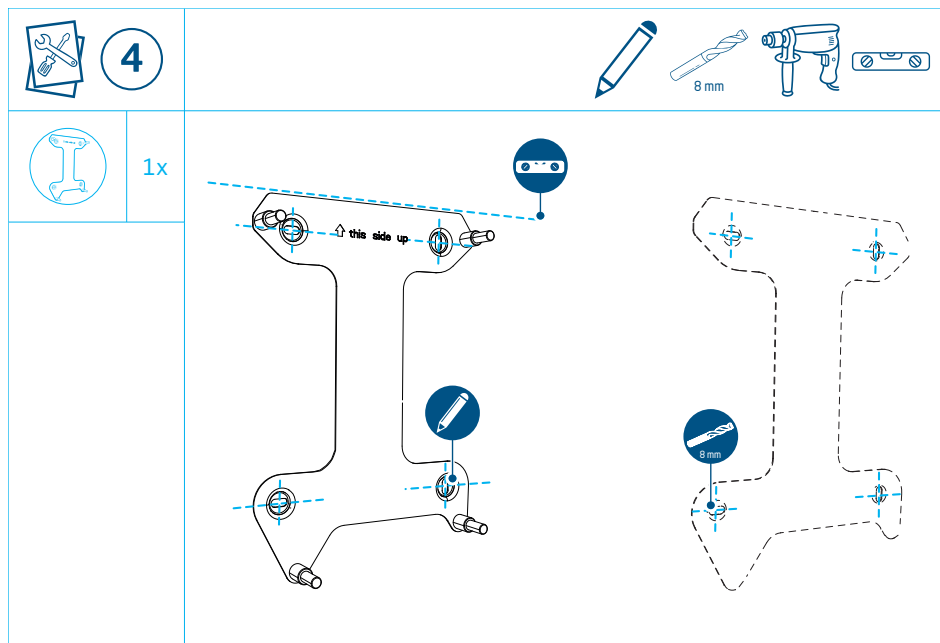
3. INSTALLING AND CONNECTING

3. Remove the transparent sub-frame from the charging station.
 - a. Remove the three M4x8 Torx T20 screws out of the sub-frame and keep them safe.
 - b. Disconnect the sub-frame cables.
 - c. Remove the sub-frame from the charging station.



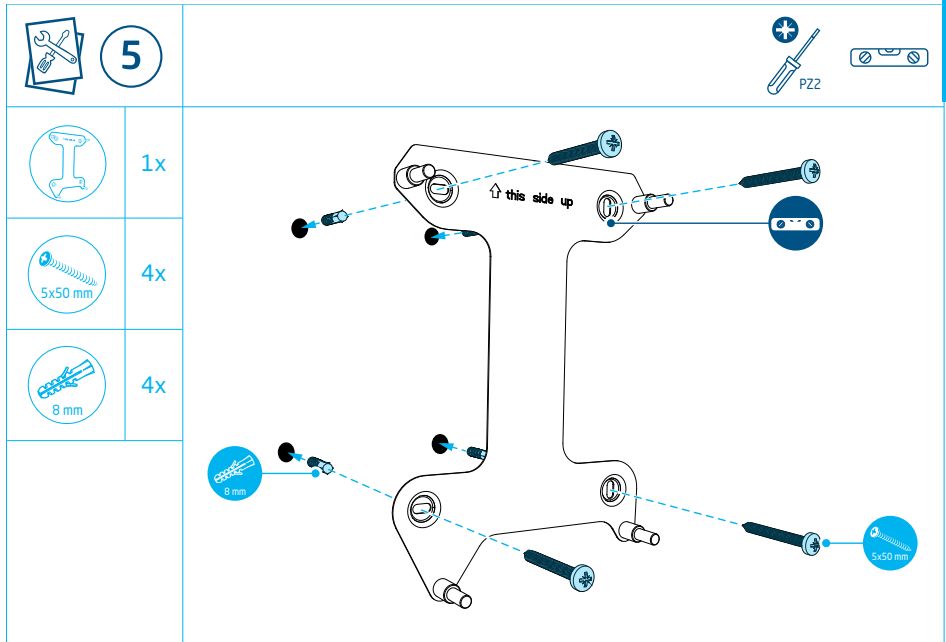
3. INSTALLING AND CONNECTING

4. Use the wall-mount frame as a drilling template.
 - a. Hold the wall-mount frame against the wall and level it with a spirit level.
 - b. Mark the screw holes, then remove the wall-mount frame.
 - c. Use an 8 mm drill bit to drill the four holes 50 mm deep.



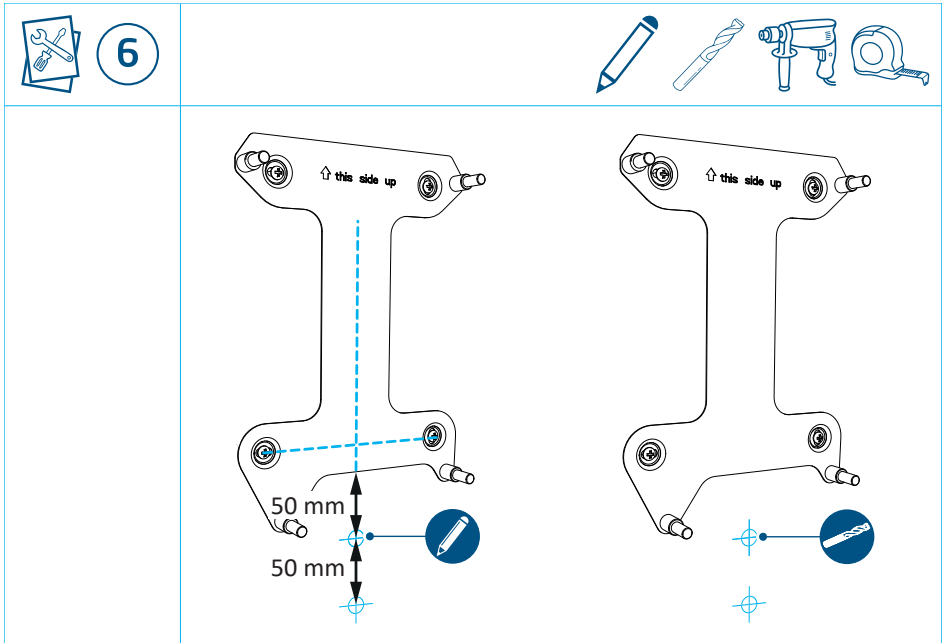
3. INSTALLING AND CONNECTING

5. Install the wall-mount frame.
 - a. Push 8 mm wall plugs into the four drill holes.
 - b. Use four 5x50 mm screws to attach the wall-mount frame to the wall.
 - c. Level the wall-mount frame with a spirit level before fully tightening the screws.



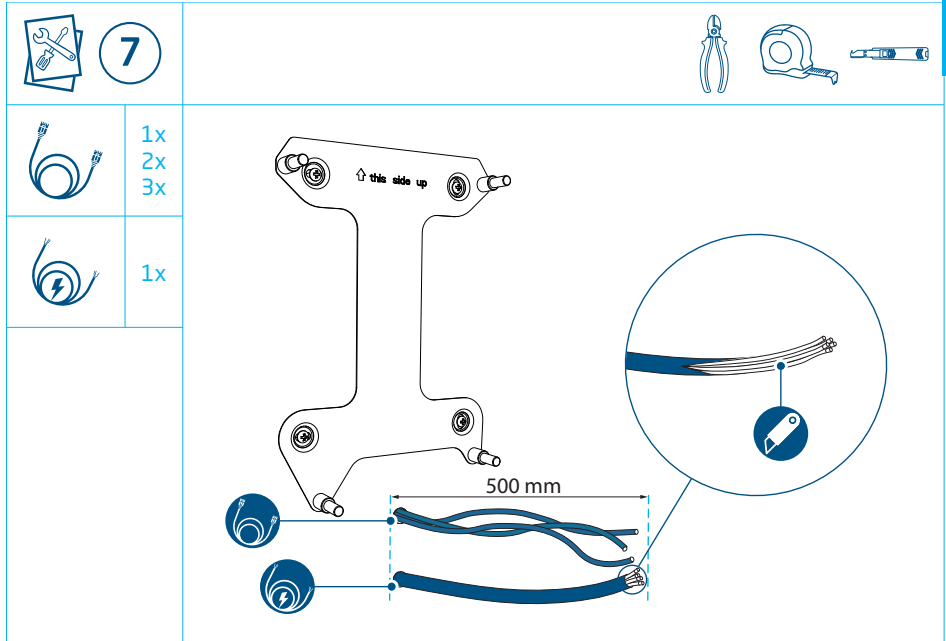
3. INSTALLING AND CONNECTING

6. Choose the best routing for the data and power supply cables. If the cables come through the wall under the charging station, the minimum distance from the wall-mount frame is 50 mm for the data cables and 100 mm for the power supply cable.



3. INSTALLING AND CONNECTING

7. Cut the cables to the right lengths.
 - a. Pull the power supply cable and data cable(s) 500 mm out of the wall.
 - b. Hold the charging station in its installation position to mark where to strip the power supply cable. Make sure the cable can reach the terminal block.
 - c. Strip the required length of the power supply cable.



3. INSTALLING AND CONNECTING

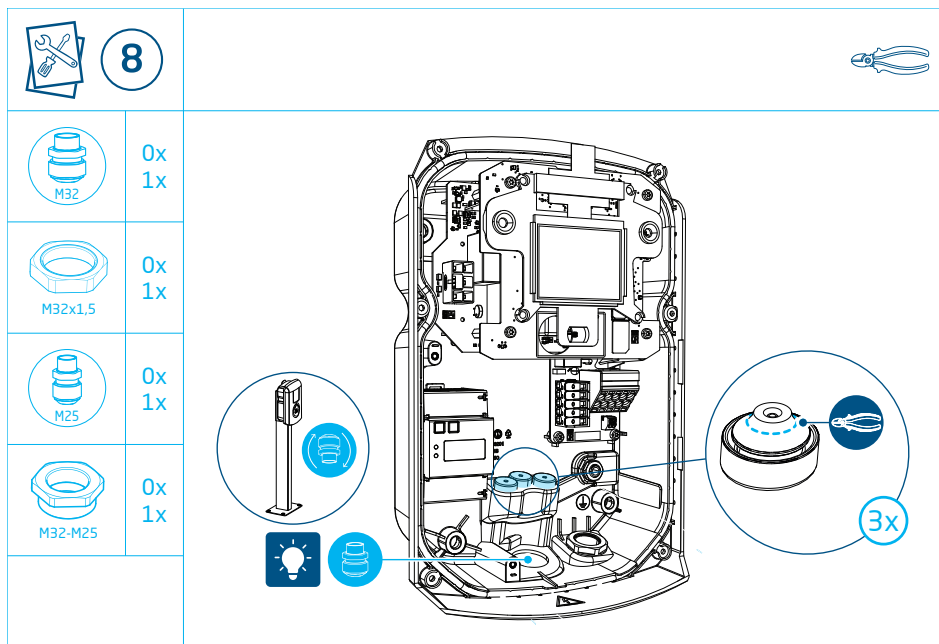
8. Prepare the cable entries as follows:
 - a. Cut the Ethernet cable grommet(s) so that the Ethernet cable(s) can pass through and still be properly sealed.
 - b. Select the M32 or M25 cable gland, depending on which one seals the power supply cable best. Use the reduction ring in combination with the M25 cable gland.
 - c. Tighten the cable gland loosely to the bottom of the charging station.

NOTE

When installing the charging station on a pole the cable gland must be installed in opposite direction on the inside of the charging station.

CAUTION

Only utilize a lock nut to secure the cable glands. The use of any other nonstandard material for locking or filling the gap is not advisable.

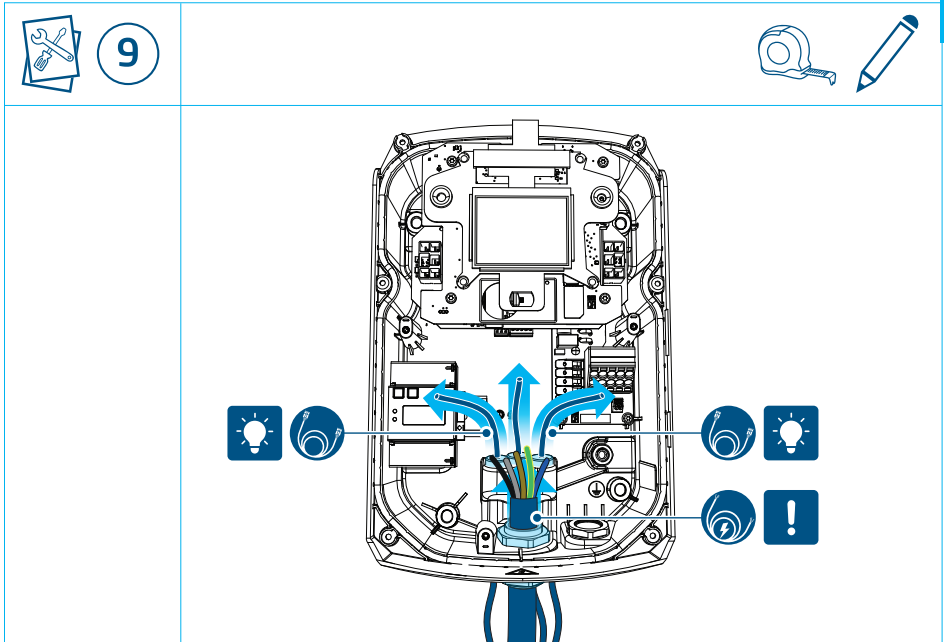


3. INSTALLING AND CONNECTING

- Put the Ethernet cable(s) through the cable grommet(s). Pull the Ethernet cable(s) 400 mm into the charging station. Put the power supply cable through the cable gland and pull it into the charging station.

NOTE

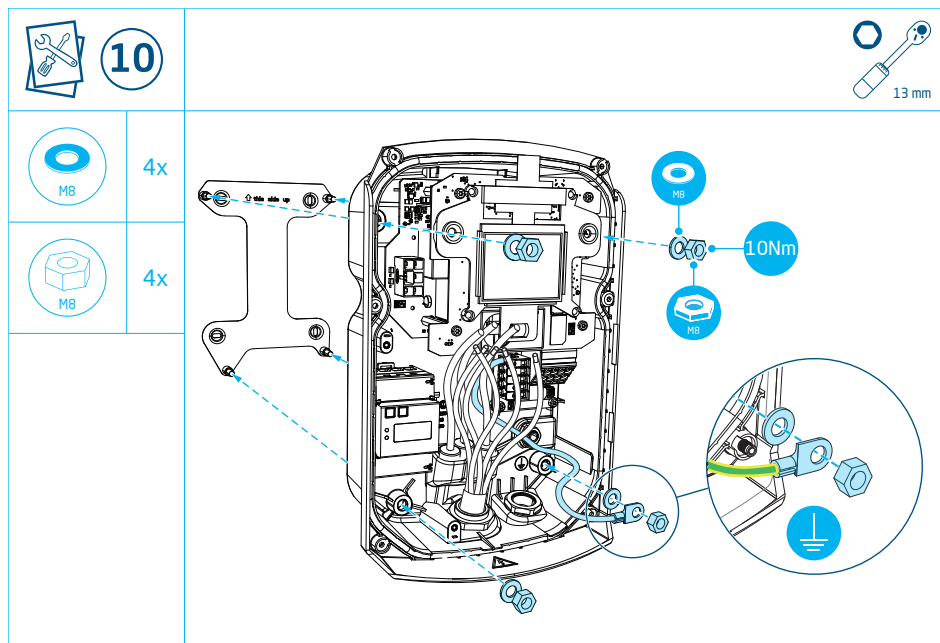
Seal the cable entry(s) carefully with the grommet(s). There must be no gaps.



3. INSTALLING AND CONNECTING

10. Install the charging station to the wall-mount frame.

- Put the charging station onto the studs of the wall-mount frame.
- Attach the earth wire to the bottom right stud of the wall-mount frame.
- Tighten four M8 washers and nuts to the studs of the wall-mount frame. Use a torque of 10 Nm.

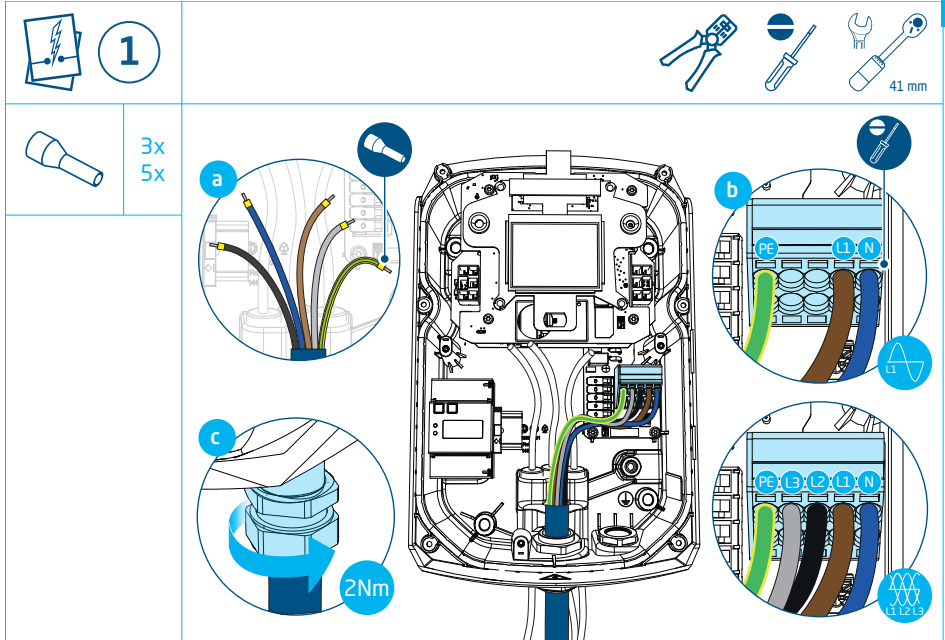


Mechanical installation procedure is finished. Charging station is ready for electrical installation.

3. INSTALLING AND CONNECTING

3.5 Electrical installation procedure

1. Connect the power supply cable. Use the correct illustration for your installation: single-phase or three-phase.
 - a. Cut the wires to the correct length. Make sure the wires can reach the terminal block. Strip the wires with a wire stripper and attach ferrules to the ends.
 - b. Connect the wires to the terminal block.
 - c. Tighten the cable gland to prevent movement in the power supply cable. Use a torque of 2 Nm. A cable gland also functions as a strain relief.



3. INSTALLING AND CONNECTING

2. Connect the Ethernet cable(s). The following connections are possible:

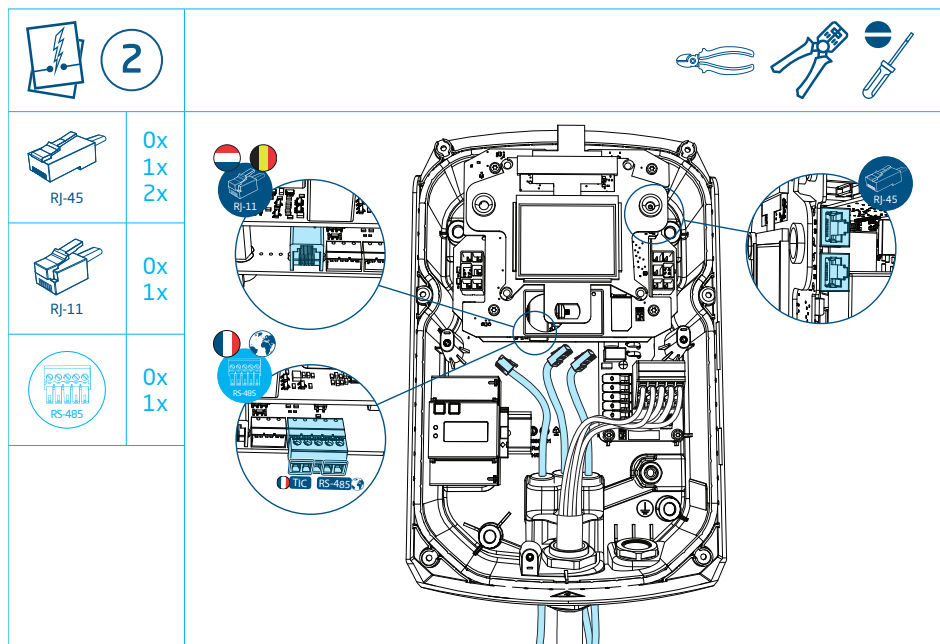
- **Connection to network:**
 - with Wi-Fi.
 - with RJ-45 connector.
- **Connection to a smart meter:**
 - with RJ-11 connector: (D)SMR 4.X or higher (The Netherlands and Belgium only).
 - with RS-485 connector: TIC protocol (France only).
- **Connection to an external energy meter:**
 - with RS-485 connector: Modbus RTU protocol.
 - with RJ-45 connector or Wi-Fi: Modbus TCP/IP protocol.

NOTE

It is possible to daisy chain the charging station by connecting an Ethernet cable to the second RJ-45 female connector.

Prepare the Ethernet cable(s) for smart meter, external energy meter and/or network connection:

- a. Remove 50 mm insulation of the Ethernet cable and untwist the cable pairs. When connecting to smart meter (D)SMR 4.X or higher: remove the green and orange wire pairs.
- b. Put the wires in the correct sequence and cut the pairs to the right length.
- c. Put the wires tightly in the connector ensuring the insulation is also in the connector. Pinch the connector with a crimping tool or tighten the screws to install the wires.
- d. RJ-45/11: Pinch the connector with a crimping tool.
- e. RS-485: Tighten the screws to install the wires.
- f. Connect the connector(s) to the correct female connector(s).



3.6 Additional installation procedure for model with fixed charging cable

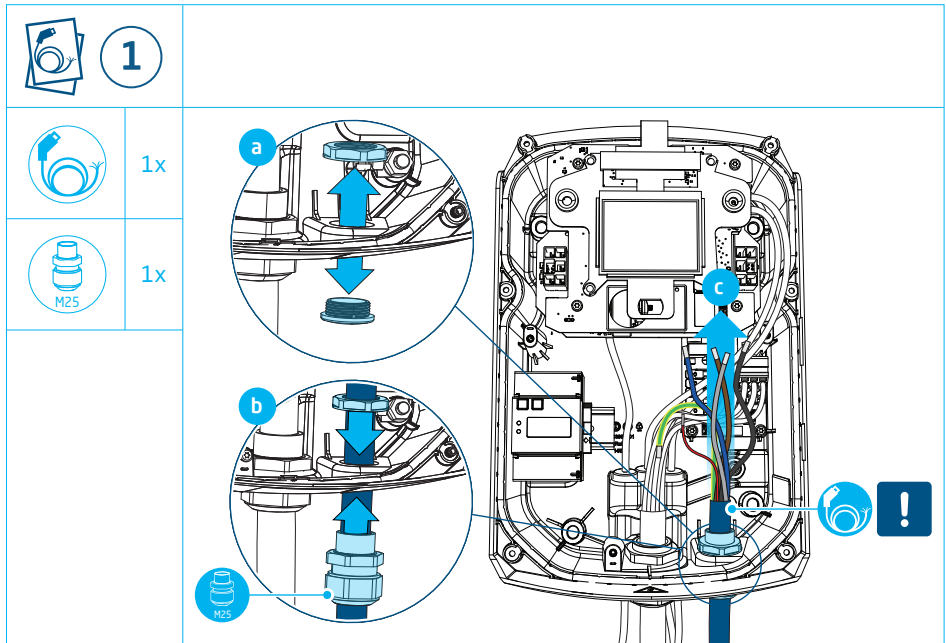
NOTE

This chapter does not apply to DE variants, these charging stations have the fixed charging cables connected to the charging station ex-factory.

1. Install the fixed charging cable.
 - a. Remove the cap from the bottom of the charging station.
 - b. Put the fixed charging cable, with the M25 cable gland attached to it, through the hole into the charging station.
 - c. Hand tighten the cable gland.

CAUTION

Only utilize a lock nut to secure the cable glands. The use of any other nonstandard material for locking or filling the gap is not advisable.

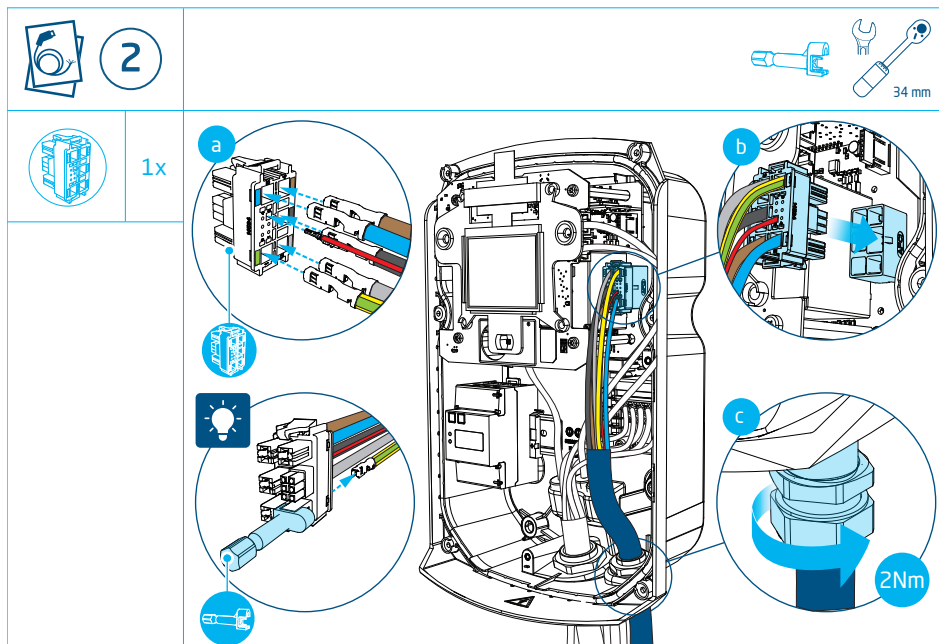


3. INSTALLING AND CONNECTING

2. Connect the fixed charging cable.
 - a. Put the wires into the terminal slots of the hybrid connector. Each wire must go into a terminal slot with the same colour as the wire.
 - b. Put the hybrid connector into the female connector.
 - c. Tighten the cable gland. Use a torque of 2 Nm.

NOTE

If you put a wire into an incorrect terminal slot, use the removal tool to remove the wire. Do not pull the wire out of a terminal slot without the removal tool or with a different tool because this can damage the hybrid connector.

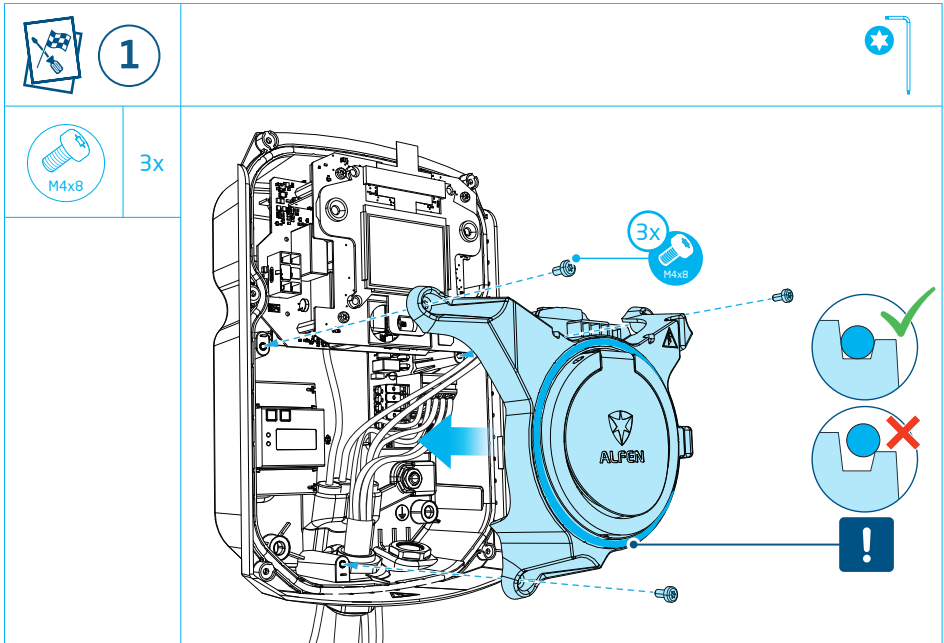


3.7 Finishing the installation

1. Install the transparent sub-frame to the charging station.
 - a. Make sure the sub-frame seal is in the correct position or, if it has fallen out, put it back in position.
 - b. Connect the sub-frame cables.
 - c. Put the sub-frame into the charging station and secure it with three M4x8 Torx 20 screws.

! CAUTION

Make sure that the sub-frame seal remains in its proper position and protrudes evenly out of the seal groove.

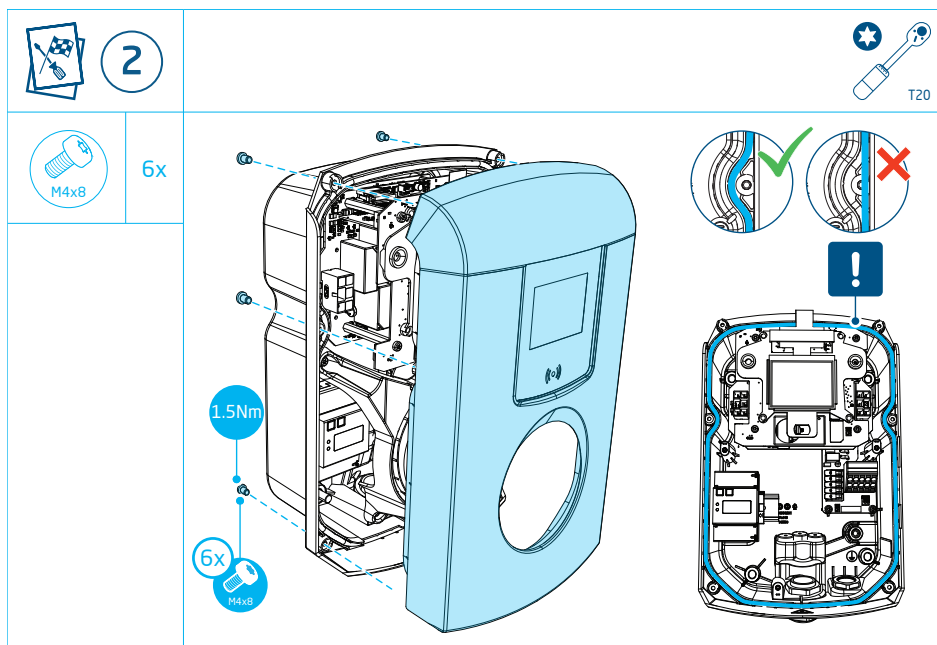


3. INSTALLING AND CONNECTING

2. Install the front cover.
 - a. Make sure the charging station seal is in the correct position or, if it has fallen out, put it back in position.
 - b. Put the front cover onto the charging station.
 - c. Tighten the six M4x8 Torx 20 screws at the back of the charging station.

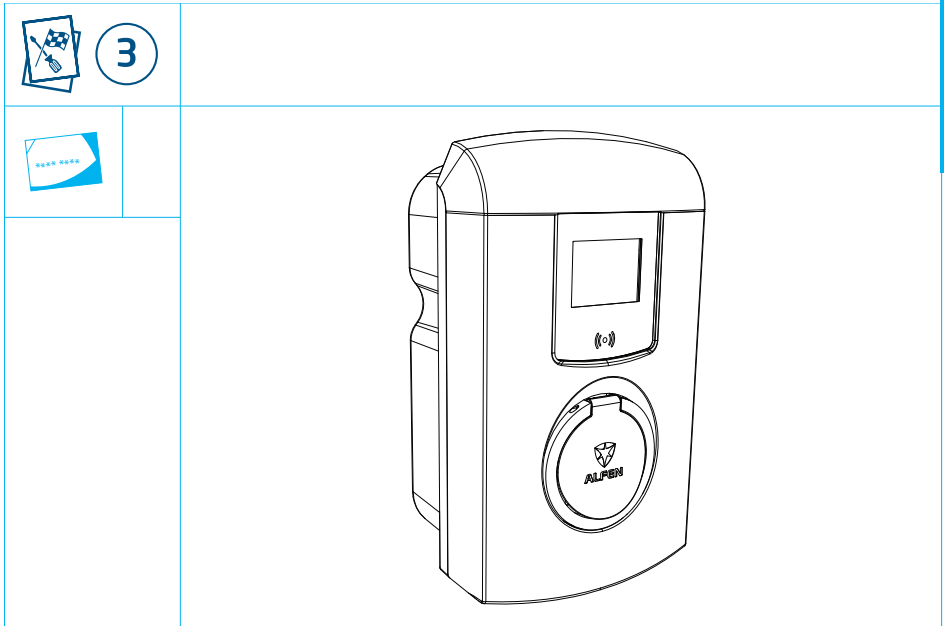
CAUTION

Make sure that the charging station seal remains in its proper position and follows the path of the seal groove.



3. INSTALLING AND CONNECTING

3. Remove the transparent foil from the socket and display window.



The electrical installation is finished. The charging station is ready to be commissioned.

4. COMMISSIONING

4.1 Initial start-up

1. Switch on the power supply at the main switchboard.
After successfully performing self diagnostics the charging station will start up and show the home screen.

4.2 Testing the charging station

Models with sockets can use a test charging cable to simulate charging. Models with fixed charging cables must use the installed charging cable.

1. Plug the (test) charging cable into the socket (not applicable to models with fixed charging cables).
The text 'Please plug cable into vehicle' is shown.
2. Plug the (test) charging cable into the car. When using a test charging cable, an electrical load needs to be connected to simulate the electric vehicle.
3. Charging session starts.
The text 'Charging in progress' is shown.
4. Remove the (test) charging cable from the car and the socket (if applicable).

The charging station is functional and ready to use.

5.1 Configuration tools

The charging station can be accessed and configured using the ACE Service Installer.

5.2 Before using the software

1. Download the ACE Service Installer from the Alfen website to your laptop:
<http://alfen.com/downloads>
2. Request an account at this e-mail address:
ace.aftersales@alfen.com.

NOTE

It may take some days until you receive the login-data.

3. If you have the ACE Service Installer installed, make sure you have the latest version. If updates are available, you will be asked to update when you start the application.
4. Make sure the firewall settings on your device are not blocking the ACE Service Installer.

5.3 Configuring the charging station

5.3.1 Wired network connection

How to establish a wired network connection by connecting the charging station to your laptop using an Ethernet cable:

1. Log into the ACE Service Installer.
2.
 - a. Connect your laptop directly to the charging station with an Ethernet cable.
 - b. Connect your laptop to the same local area network (LAN) the charging station is connected to.
3. Select your charging station from the list in the ACE Service Installer.

NOTE

If the charging station(s) is (are) not detected automatically, the ACE Service Installer might be blocked by the security settings on your laptop. Check the settings of your laptop and try again.

4. Enter the password provided on the password card supplied with the charging station.

The network connection has now been established. In the ACE Service Installer you can configure the settings.

5. After finishing the configuration, hand over the card with password (recovery) information to the end user.

5.3.2 Backoffice management systems

If additional services by a backoffice provider have been purchased, the charging station has been configured ex-factory to connect to the selected backoffice management system.

NOTE

A connection with a backoffice management system can only be established if arrangements with the supplier of this system have been made. The service of third parties is not provided by Alfen.

NOTE

If the charging station is set up to connect to a backoffice management system, it will connect automatically.

NOTE

Manually configuring and connecting to a backoffice management system can be done with the ACE Service Installer. A SIM card needs to be installed during installation. If you do not have a SIM card, please contact your backoffice provider.

NOTE

If a mobile communication (SIM card) Internet connection has been purchased, the charging station is already equipped with a SIM card and will automatically connect, once the charging station is being commissioned.

5.4 Configuring Smart Charging functionalities

If you have purchased Smart Charging functionalities such as Active Load Balancing and Smart Charging Network, these must be configured in the ACE Service Installer. A description of how to configure these functionalities can be found in the Smart Charging Configuration Manual.

6. MAINTENANCE

6.1 Display window cleaning procedure

NOTE

Handle the display window with care to ensure proper drying and prevent damage and colour change. Do not use aggressive cleaning agents, a high-pressure cleaner or abrasive materials.

NOTE

Be cautious with cards, tags, keys, and jewellery to avoid damaging the display window. Do not use a cloth or a squeegee.

1. Make sure the charging station is fully closed before performing any cleaning procedure.
2. Use a gentle stream of air to blow off any dust or sand particles.
3. Rinse the surface with a generous amount of water or a mild detergent solution.
4. If the surface appears to be clean, let the remaining water evaporate.
5. If needed, gently remove any remaining dirt and water:
 - Use a clean, soft brush.
 - Brush from top to bottom.
 - Apply minimal force.
 - Avoid circular motions.

6.2 Casing cleaning procedure

NOTE

The casing of the charging station can be easily damaged. Do not use aggressive cleaning agents, a high-pressure cleaner, scouring pads or other aggressive cleaning supplies.

1. Make sure the charging station is fully closed before performing any cleaning procedure.
2. Annual cleaning:
 - Use water and mild soap to clean the casing of the charging station.

7.1 Decommissioning and returning

WARNING

Risk of injury and electrocution. Installation, (de)commissioning and maintenance of the charging station must only be performed by an instructed person.

For returning charging equipment to Alfen Charging Equipment, create a 'Request for Service' ticket at support.alfen.com.

For further instructions, see [How do I return a charging station to have it repaired in Alfen's manufacturing facility \(Carry-in\)?](#) You will receive all shipping instructions within the ticket.

7.2 Waste electrical and electronic equipment (WEEE)



Electrical and electronic equipment contains materials, components and substances that may be hazardous and present a risk to human health and the environment if not handled correctly.

Equipment marked with the illustrated crossed out wheeled bin is electrical and electronic equipment. The crossed out wheeled bin indicates that this waste must be collected separately and must not be discarded together with household waste.

Refer to your local authority for collection schemes under which residents can dispose waste electrical and electronic equipment at a recycling center or other collection points.

Contact

Alfen ICU B.V.

Hefbrugweg 79
1332 AM Almere
The Netherlands

P.O. box 1042
1300 BA Almere
The Netherlands

Alfen Knowledge Base:

knowledge.alfen.com

Alfen Service Portal:

aftersales.alfen.com

Tel. Service:

+31 (0)36 54 93 402

Website:

alfen.com