

VETON[®] ONE

Manual

NL | EN | FR

For the most recent version of this manual check our website.
Do not discard this manual, it contains your device's serial number.

Version 2.0.0



VETON®

Charging masterpieces.

EN

Foreword.

First of all, thank you for purchasing a Veton® One charging station. We are proud of our craftsmanship and hope you enjoy it just as much.

Please read the operating instructions carefully. It contains, in addition to essential information on installation and use, important safety information, as well as the serial number of the Veton® One charging station.

As our product is an application and assembly of electrical systems, this installation must be carried out by a competent installer. For this reason, it is also strongly discouraged to disassemble the assembly carried out by Veton.

Incorrect installation or (re-)assembly may lead to, among other things, short-circuits, fire and/or smoke, and serious bodily injury. Veton® cannot be held liable for damage to persons, animals and/or objects resulting from non-compliance with the requirements in this manual.

Veton® reserves the right to make any changes to the product (and/or its technical characteristics), and the instructions for use and/or installation, at any time and without prior notice.

If in doubt, always contact a professional or distributor of Veton® products.

1. General provisions

Purpose of the document.

This operating and installation manual is part of the product and contains information for the user to safely operate the Veton® One charging point and for an authorized electrician to safely install it.

Handling this manual.

- Read the operation and installation manual before installing and commissioning the Veton® One charging station.
- Keep this manual within reach.
- Pass this manual on to a subsequent owner or user of the charging station (this document contains the serial number).

Regulatory use.

The Veton® One charging station is suitable for charging electric vehicles in accordance with IEC 61851-1, charging mode 3. In this charging mode, the charging station ensures that:

- The voltage is switched on only when the vehicle is connected correctly;
- The maximum current is adjusted.
- The AC/DC converter is located inside the vehicle.

Use of symbols and highlighting.



Danger.

High-risk hazard which, if not avoided, could result in death or serious injury.



indication.

The indication explains a technical peculiarity or possible damage to the product, if ignored.

Warranty and liability.

Veton® is not liable for defects and damage that can be traced back to non-observance of the operating and installation instructions. This exclusion of liability applies in particular to:

- Improper use.
- Installation and commissioning by an unauthorized electrician.
- Repairs not carried out by a Veton® service center.
- Use of non-original spare parts.
- Conversion of the device without explicit permission from Veton.

2. Safety

General.

The charging station may only be used by persons over 18 years of age.

The Veton® One charging station has been developed, manufactured, tested and documented in accordance with the relevant safety and environmental regulations.

Only operate the device in a technically perfect condition. Faults that adversely affect the safety of persons or the device must be rectified immediately by an authorized electrician in accordance with the nationally applicable regulations. The signaling in the vehicle may differ from this description. For this, the operating instructions of the respective vehicle manufacturer should always be read and observed.

General safety instructions.

- Dangerously high voltages in the device.
- Check the charging station for optical damage before use. Do not use the charging station if it is damaged.
- Installation, electrical connection and commissioning of the charging station may only be carried out by an authorized electrician.
- Do not remove markings, warning symbols or rating plate from the charging station.
- The charging cable should only be replaced by an authorized electrician according to the instructions.
- It is strictly forbidden to connect other devices to the charging station.
- When the charging cable is not in use, store it in the provided holder.
- Ensure that the charging cable and charging plug are protected from being run over, trapped and other mechanical hazards.
- If the charging station, charging cable or charging plug is damaged, notify the service center immediately. Do not use the charging station again.
- No persons should be in the vehicle during the charging process.
- Protect the charging cable and plug from contact with external heat sources, water, dirt and chemicals.
- Do not extend the charging cable with an extension cable or adapter to connect it to the vehicle.
- Remove the charging cable only by pulling the charging plug.
- Never clean the charging station with a pressure washer or similar device.
- Switch off the electric external power supply before cleaning the charging station.
- Ensure that only persons who have read these operating instructions have access to the charging station.

Safety instructions for the installation.

- Installation and connection of the charging station should only be carried out by an authorized electrician.
- Use only the supplied mounting material.
- The Veton® One safety concept is based on an earthing system that must always be guaranteed. The authorized electrician must ensure this during installation.
- Do not install the charging station in an explosive environment (Ex zone).
- Install the charging station so that the charging cable does not block passage.
- Do not install the charging station in environments with ammonia or ammonia-containing air.
- Do not mount the charging station where it could be damaged by falling objects (e.g. cable drums or tyres).
- Do not install the charging station near installations that spray water, e.g. car washes, pressure washers or garden hoses.

- Set up the charging station in such a way as to prevent vehicles from inadvertently driving into it and damaging it. If damage cannot be excluded, take protective measures.
- If the charging station is damaged during installation, it must be taken out of service. It must be replaced.

Safety instructions for the electrical connection. ⚠

- You should take into account local legal requirements for electrical installations, fire protection, safety regulations and escape routes at the planned installation location.
- Ensure that the electrical connections are de-energized before connecting the charging station to electricity.
- When commissioning the charging station for the first time, do not connect a vehicle yet.
- Ensure that the correct connecting cable is used for connection to the mains.
- Do not leave the charging station unattended when the installation cover is open.
- Do not install the charging station without an installation frame.
- Observe any notifications to the grid operator.

Safety instructions for commissioning. ⚠

- Commissioning of the charging station must only be carried out by an authorized electrician.
- The correct connection of the charging station must be checked by the authorized electrician before commissioning.
- Before commissioning the charging station, check the charging cable, charging plug and charging station for optical damage. It is not permitted to commission a damaged charging station or a charging station with a damaged charging cable/connector.

3. Scope of delivery

Charging station packaging contents

- 1 x Veton® One charging station
- 1 x Veton® One/Two ground plate (including 4 x set screw - M8 x 10)
- 2 x concrete anchor - M10 x 200 (if delivered without concrete base)
- 2 x set screw - M8 x 20
- 2 x hexagonal flange nut - M10 (if delivered without concrete base)
- 4 x hexagon socket head cap screw (6 x if delivered with concrete base) – M10 x 12
- 1 x BBC Cellpack EasyCell® gel box

Installation cabinet contents

- 1 x Veton® Components Cabinet (components available separately on request)

4. Technical specifications



Charging controller

Phoenix Contact Charx SEC Series
SEC-3XXX / SEC-1000



Connectivity

Ethernet, MQTT, Modbus TCP/RTU, REST API
Optional 4G/2G connection



Charging specifications

Mode 3 charging capability 3,7 - 13,5kW
3 x 400V+N (16A - 20A per phase)



Overload protection

Dynamic load balancing



Web application

Integrated web app to manage
charging sessions



Charging output

Integrated cable with type 2 plug
20A, effective length of 4 meters



OCPP compatibility

Connect with provider of choice
Optional MID certified monitor required



Energy monitoring (optional)

1 x MID certified energy monitor
Calculation of transaction costs



Authentication

Optional RFID integration



Open platform

For own applications
PLC Next based



Residual Current Detection

Built-in residual current protection
6mA DC / 30mA AC



Dimensions

1152 x 154 x 186 mm
H x W x D



Component housing

Built-in utility closet
450 x 315 x 155 mm



Cable

5G 4mm² + 3 to 7 x 0.34mm² (CAT 7 SFTP)
Between components and charger



Max. cable distance

100 meters
Between components and charger



Ambient lighting

LED courtesy light
Separate control



Charger housing

Powder coated steel & aluminium



Degree of protection

IP65 / IK10

5. Installation

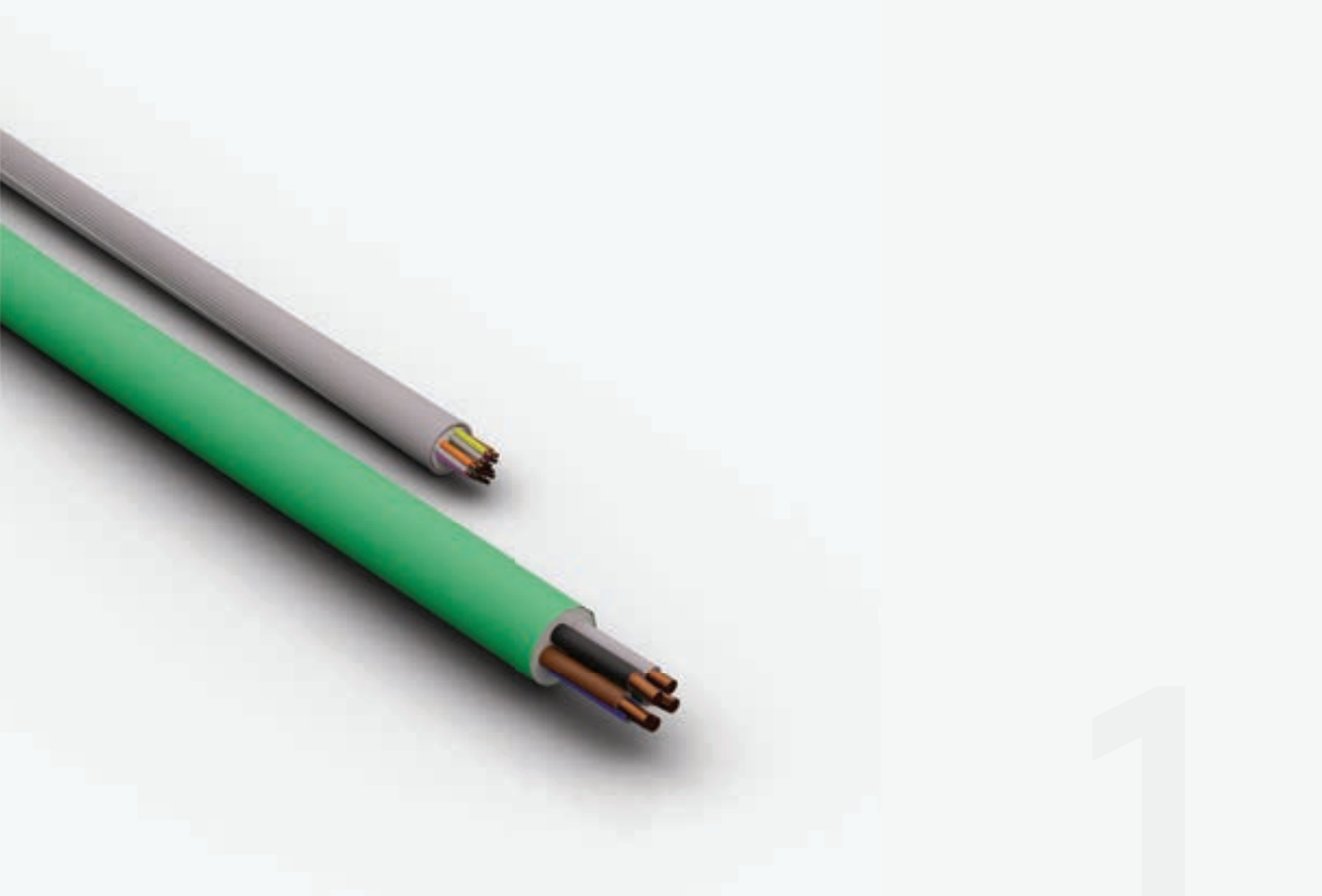
This manual describes the (basic) installation of a Veton® One charging station. For reasons ranging from sustainability to modularity, the actual charging point and the electrical charging components are separated. The charging point is installed within reach of the vehicle(s), the charging components are placed in an installation cabinet, or other DIN-rail compatible cabinet.

The description of the installation in this chapter is limited to the placement of the charging station and the connection to the above-mentioned electrical charging components (cables to be laid prior to installation). The connection of the charging infrastructure to the current electrical installation is possible in several ways, and should be carried out with the professional judgment of an experienced electrician.

Tools and materials needed.

- Rapid concrete* (if delivered without concrete base)
- Socket spanner or open-end spanners
- Socket spanner / socket spanner attachment - 8 mm
- Socket spanner / socket spanner attachment - 15 mm
- Allen spanner - 2.5 mm (included with BBC Cellpack EasyCell® gel box)
- Allen spanner - 3 mm

* The installation described in this manual uses rapid concrete for the installation. Alternative methods are possible.



1. Cabling.

A correctly working charging infrastructure starts with the right cabling. Make sure that the cables described below have been installed before installing the charger.

Overview cabling Veton® One:

Default installation

Power supply

5G 4mm ²	x 1
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Signal

Cores

Control pilot	1
LED lighting	2

Optional extras

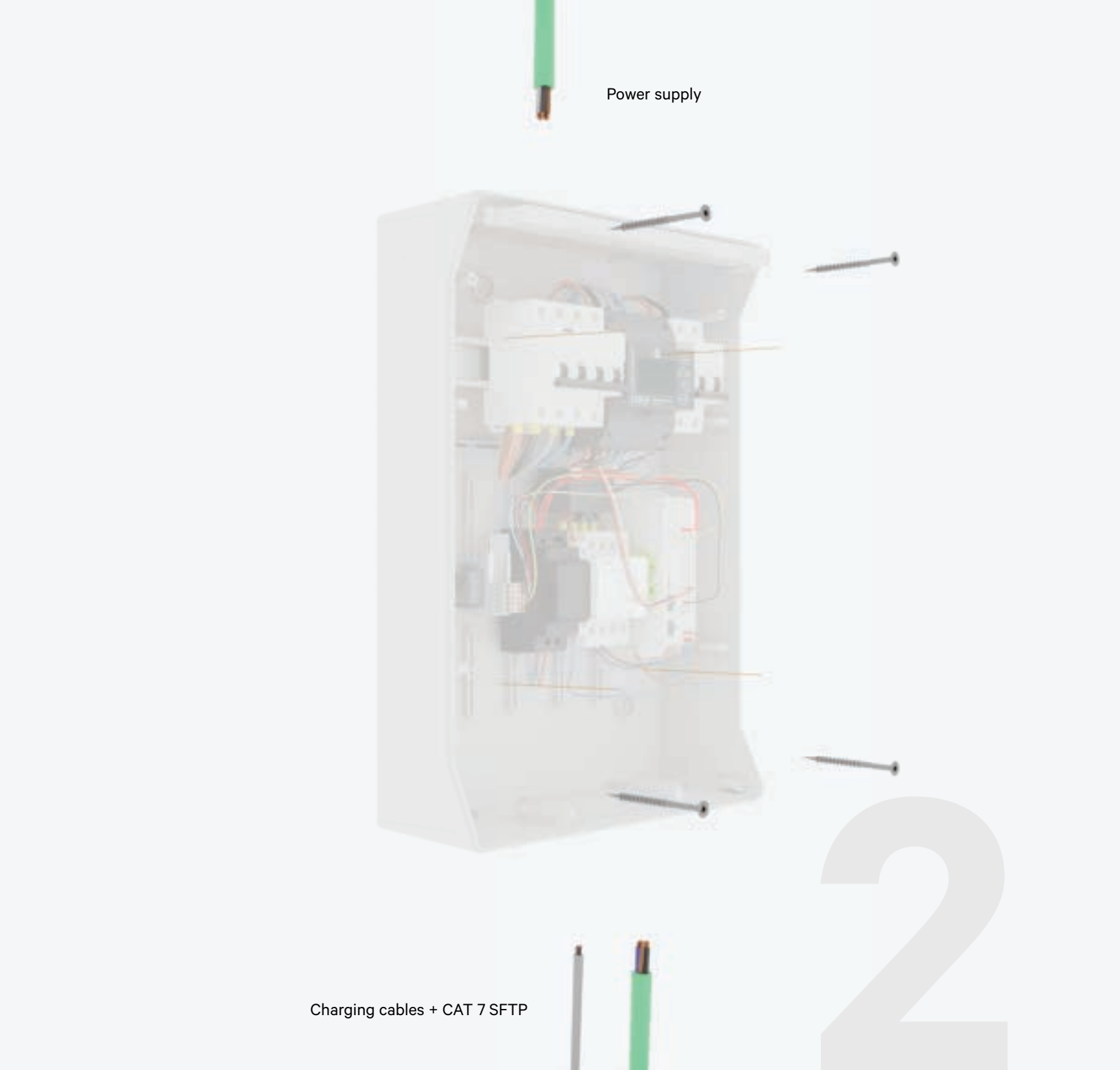
Signal

Cores

RFID reader*	4
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Example: A One incl. RFID reader requires 1 x 5G 4mm² cable and 1 x CAT 7 SFTP cable with (at least) 5 cores.

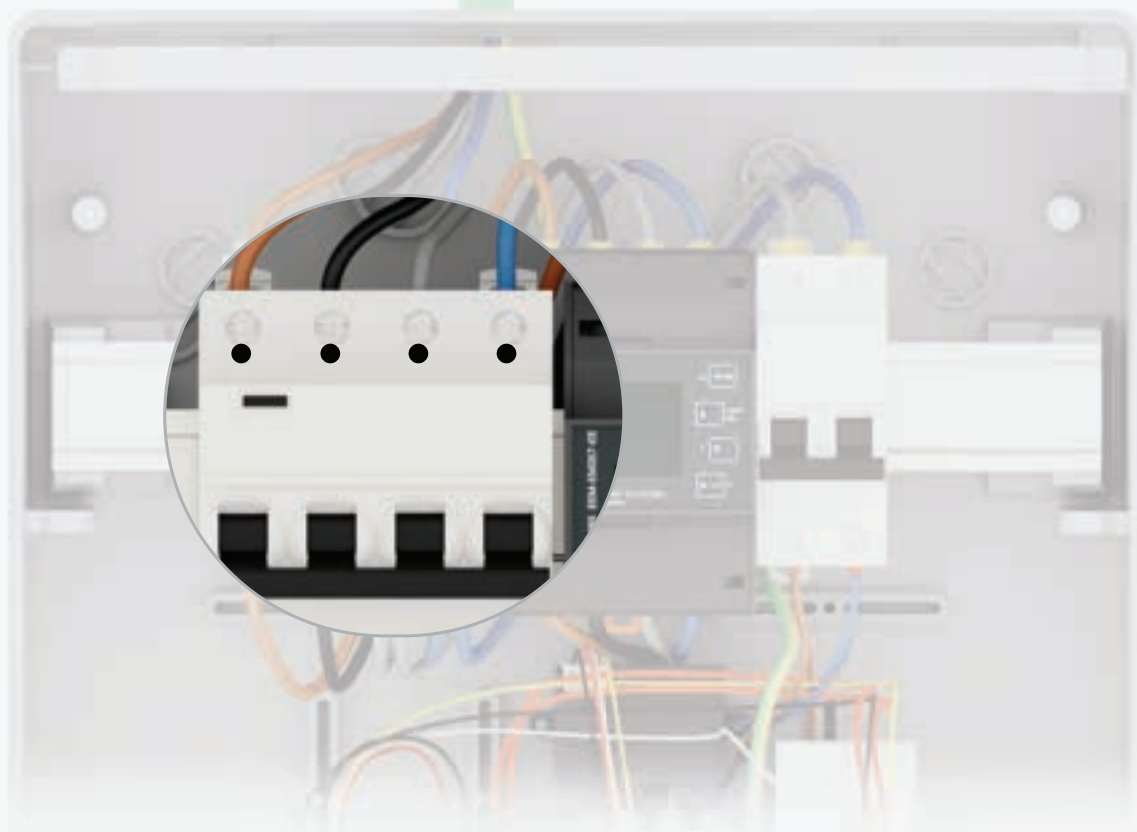
* When connecting an optional RFID reader / Connect package, the + and - cables of the RFID reader can be combined with those of the LED lighting.



2. Hang the electrical cabinet*.

Attach the electrical cabinet supplied with the charging components near the electrical set-up of the property.

This step only applies if your electric charging components were supplied in an installation cabinet.

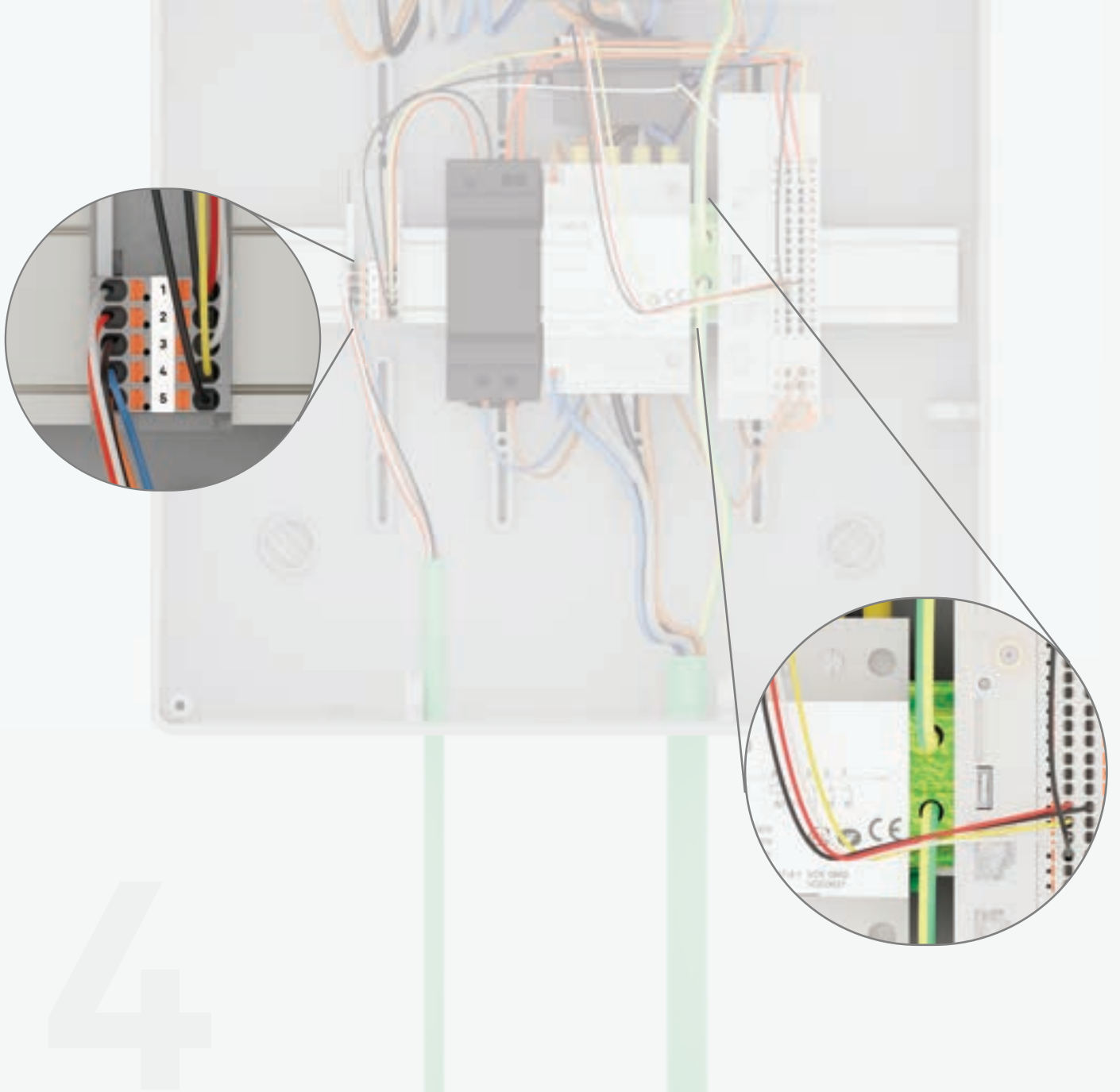


3

3. Power supply.

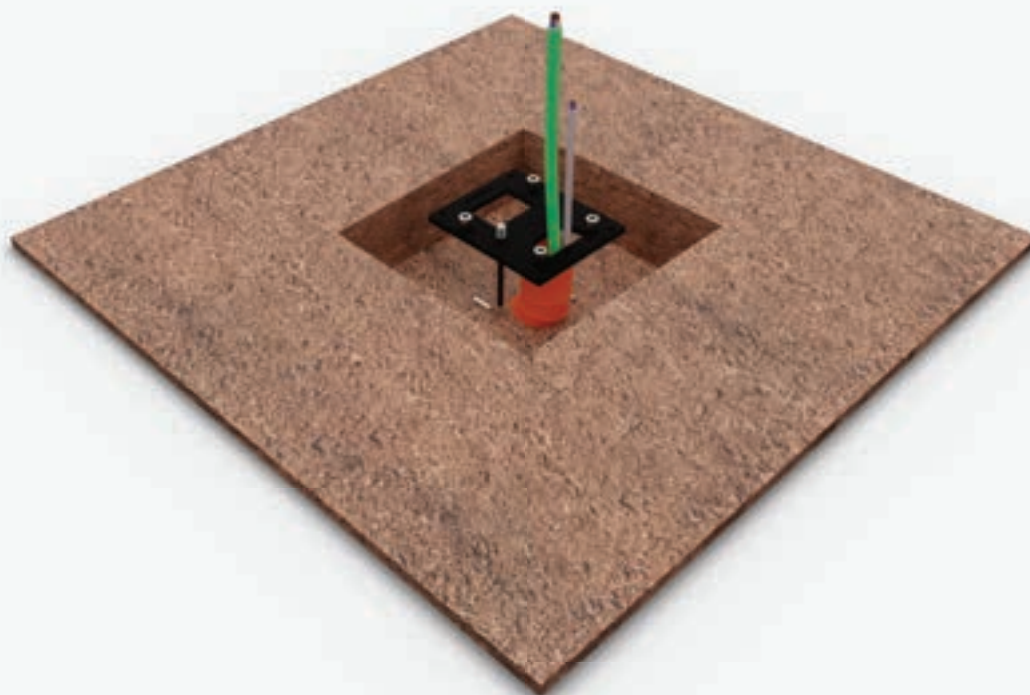
Connect the power supply to the electrical cabinet by connecting the cores to the residual current breaker (use schedule below). Connect the core for grounding to the ground terminal.

Connection type	•	•	•	•
3 x 400 + N	L1	L2	L3	N
3 x 230V			L1	L2
1 x 230V			L1	N



4. Connecting the charging cable and the signal cable.

Connect the grounding cable with the grounding terminal. Subsequently, connect the signal cable by connecting the necessary amount of cores to the provided terminal blocks. Make sure to note the chosen colors, as they will be connected to the charger in the same order.



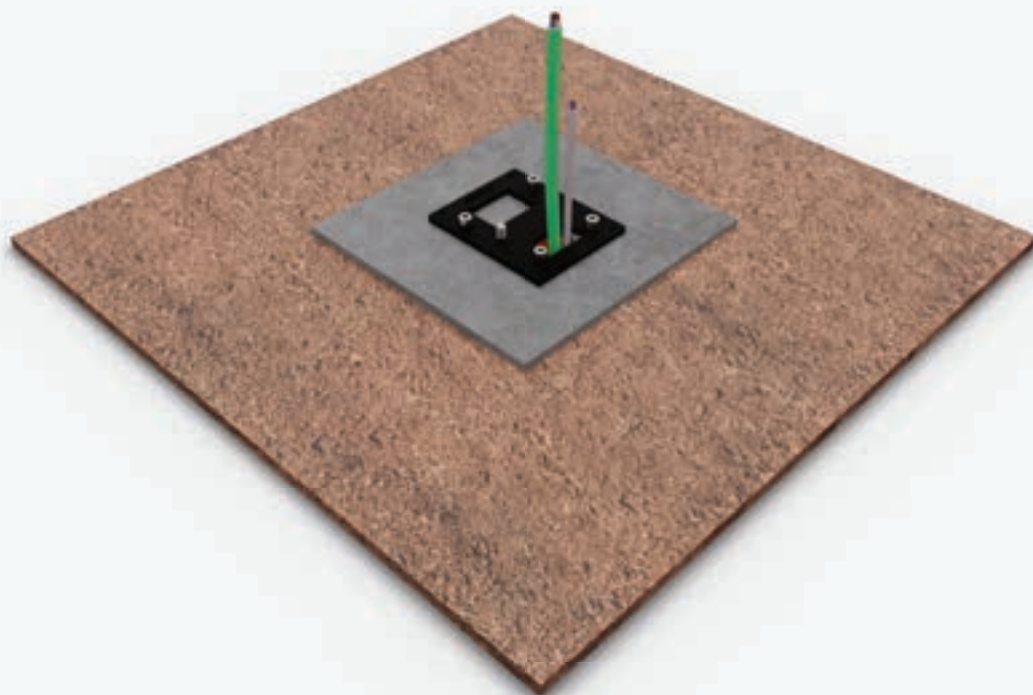
5A

5A. Place the ground plate*.

Place the ground plate with concrete anchors in the excavated pit (within reach of the vehicle(s)). Route the prepared cables through the front opening of the ground plate. Make sure the plate is stable, use additional support if necessary. Make sure the cables are long enough (at least 75 to 100 cm above the ground plate), these cables are later used to make connections.

* Do you have a concrete base? Please proceed to steps 5C and 5D.

* There are several ways to place the ground plate. This method guarantees a secure fixing in the majority of situations. Alternative methods depend on the substrate and materials used when constructing the location where the charging station will be placed.

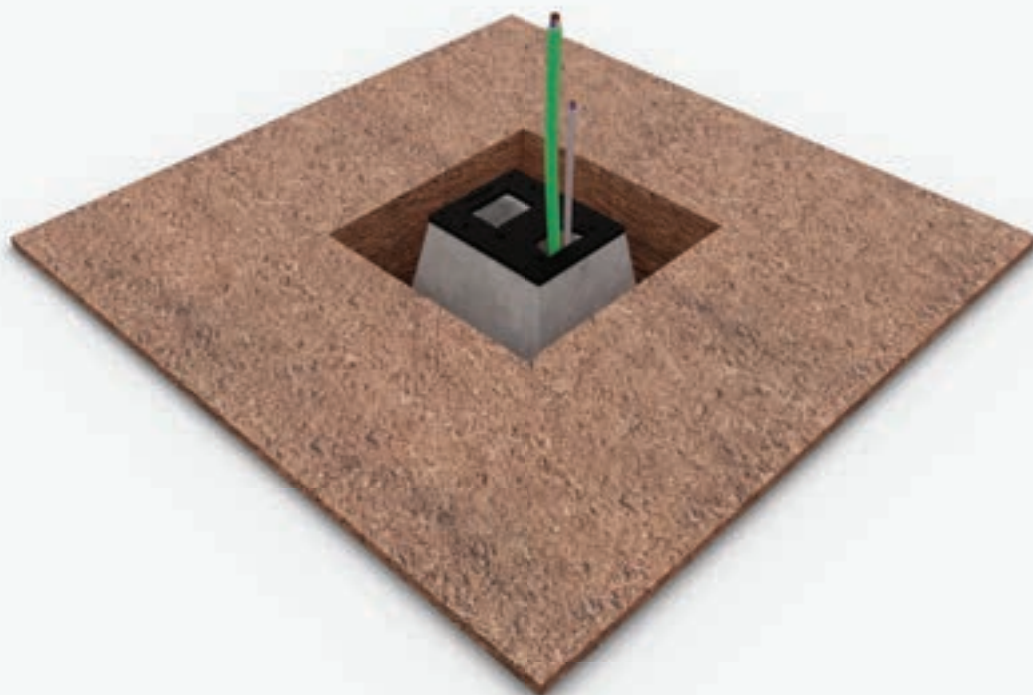


5B

5B. Pour concrete*.

Pour the necessary amount of rapid concrete to fill the excavated pit. Make sure that the concrete layer extends just below the ground plate, and that the concrete anchors extend sufficiently above the cement (20mm - 30mm above the ground plate). This is important because the rest of the charging station will be fixed on this plate. Any further finishes are to be done by yourself.

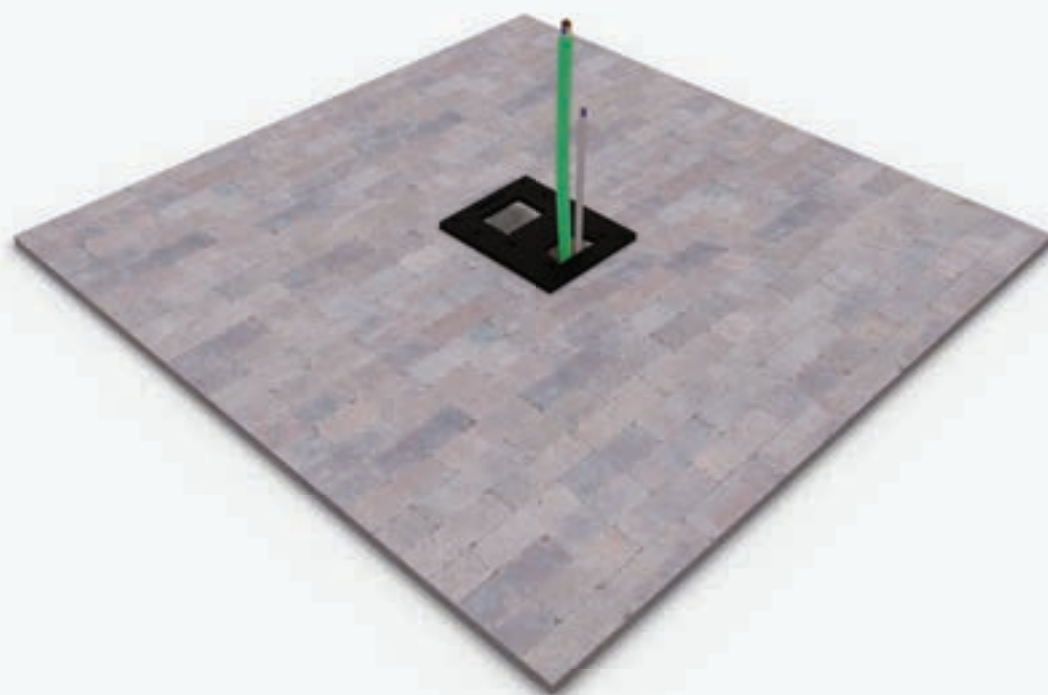
* Do you have a concrete base? Please proceed to steps 5C and 5D.



5C

5C. Place concrete base.

Place the concrete base in the excavated pit (within reach of the vehicle(s)). Pull the prepared cables through the front opening of the concrete base, as well as the ground plate. Make sure the cables are long enough (at least 75 to 100 cm above the ground plate), these cables are later used to make connections.

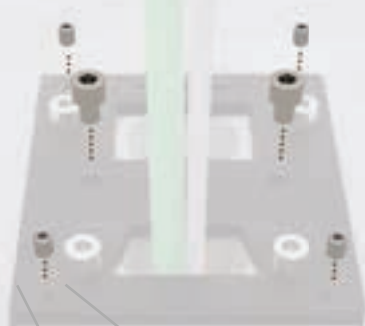


5D

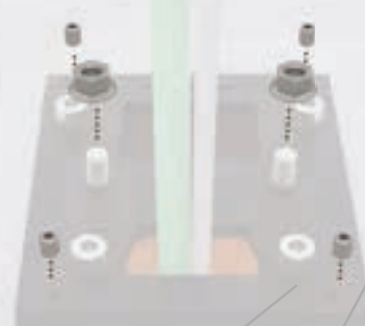
5D. Finishes.

Fill the rest of the excavated pit with soil or rapid concrete. Any further finishes are to be done by yourself. Make sure that the finishing layer extends just below the ground plate.

Concrete base



Alternative method using concrete anchors



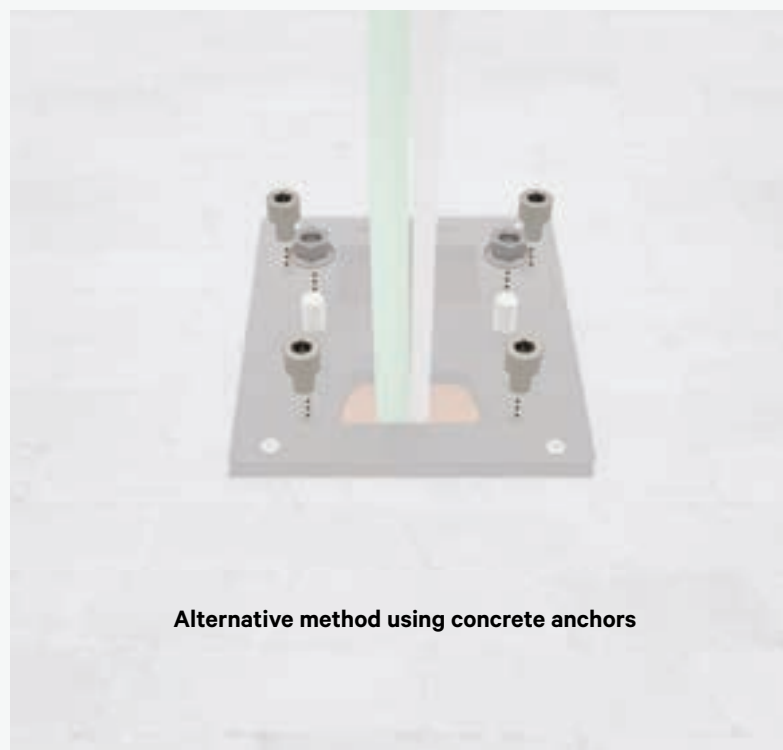
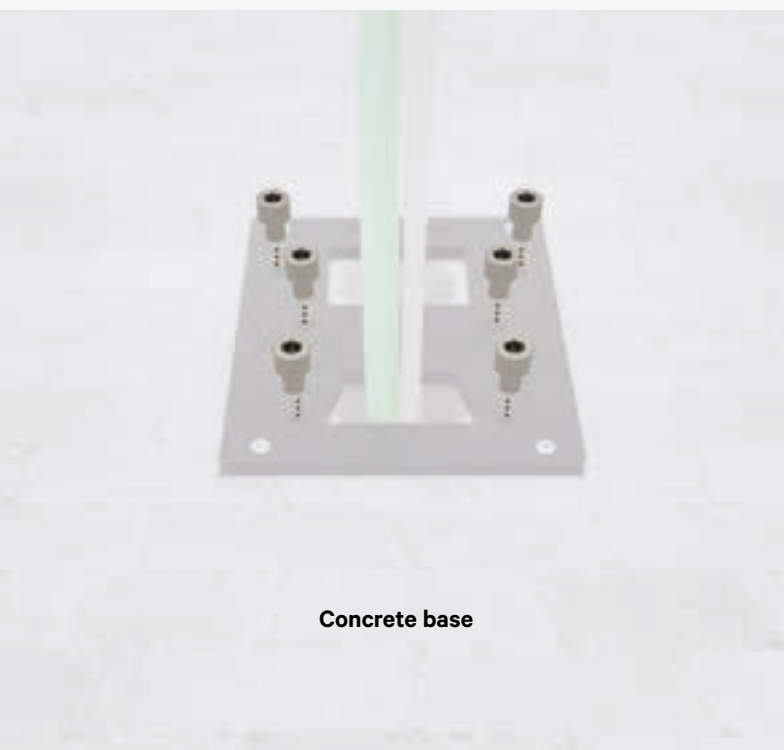
6

6. Attach ground plate and level.

Screw the 2 bolts (or nuts in case of concrete anchors) (M10) into/onto the ground plate to secure it. Adjust the provided adjusting screws* in the ground plate by tightening or loosening them**. Use a level to do this.

* If the set screws already inserted are too short, the ground plate can be further adjusted by replacing them with the supplied longer set screws.

** The adjusting screws are still accessible after mounting the charger by removing the front and back plate.

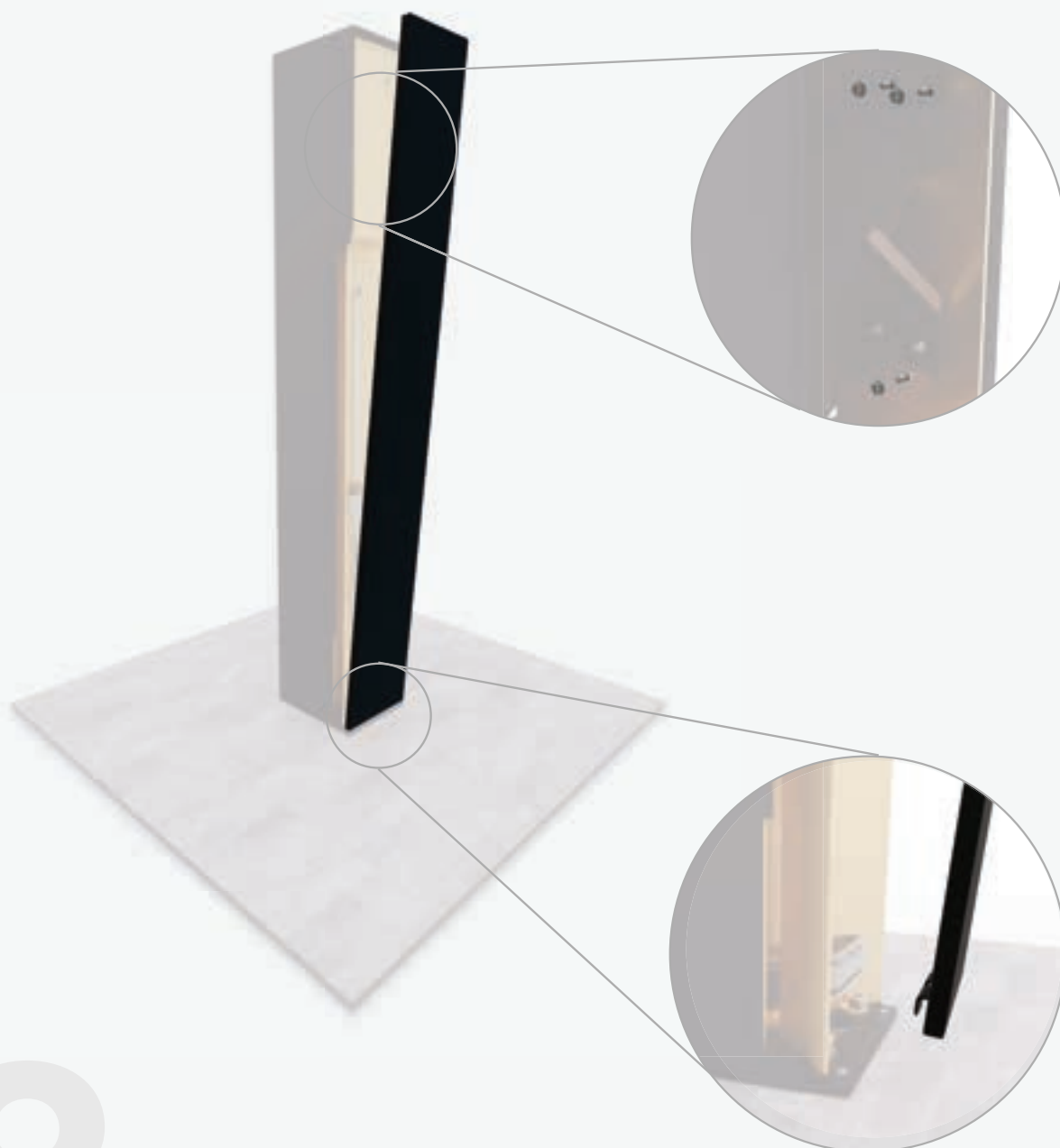


7

7. Remove the M10 nuts and/or screws.

Unscrew the M10 nuts and/or screws from the ground plate, and keep them separate until the next step.

8



8. Remove front plate.

Remove the front plate by unscrewing the 3 nuts (M5) that fix the front plate. These can be found on the inside of the charger, right above and under the plug of the charging cable. Tilt the front plate and remove the hook from the provided cavity at the bottom of the charger. Securely place it aside until further instruction.

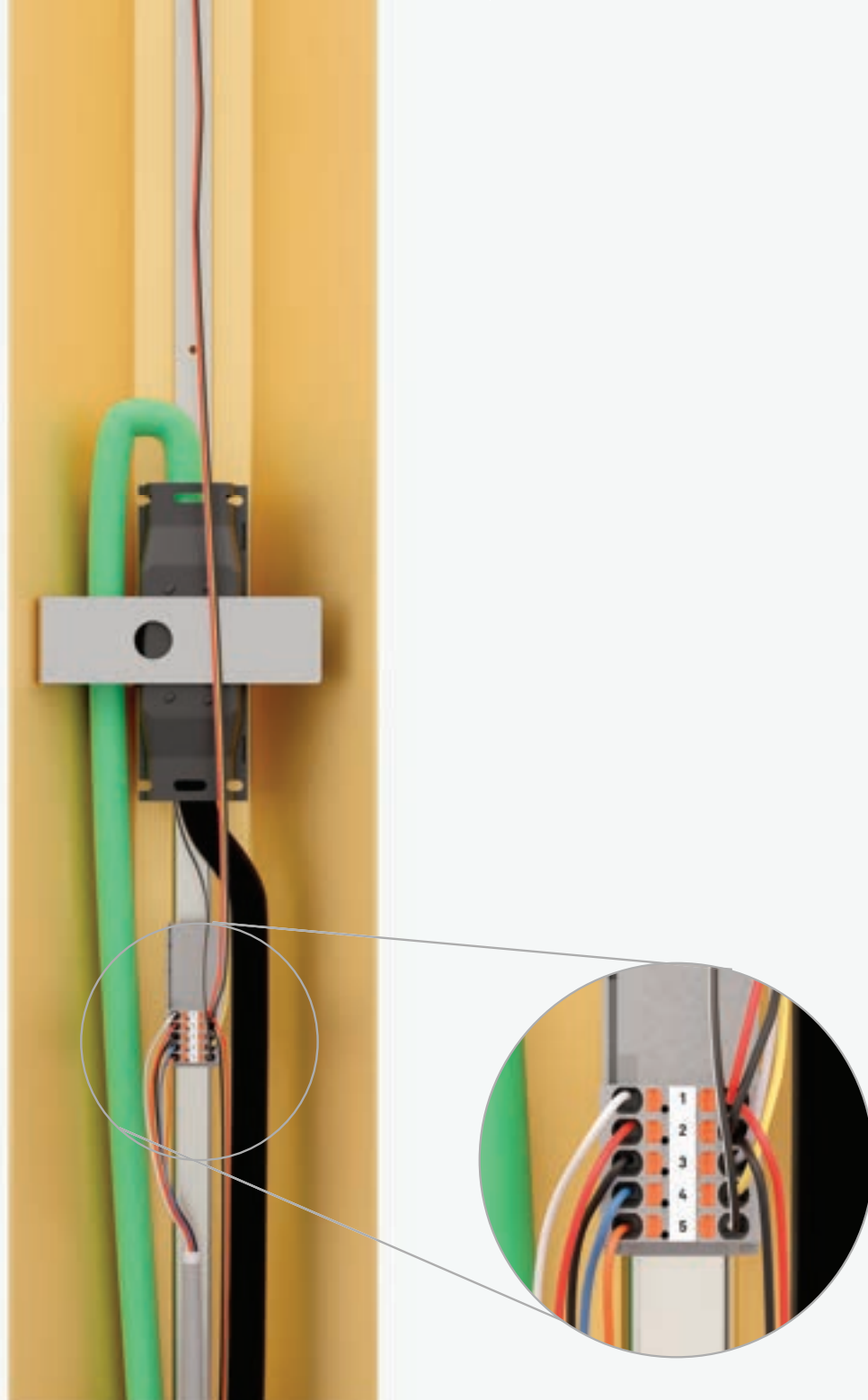
9



9. Place and fix Veton® One.

Place the Veton® One charging station on the ground plate. Reattach the 2 nuts (M10) to the concrete anchors (or 2 x socket head cap screw (M10) in case of a concrete base) to secure the charger. Then further secure the charger by screwing the 4 screws (socket head cap screw - M10) back into the holes provided.

10

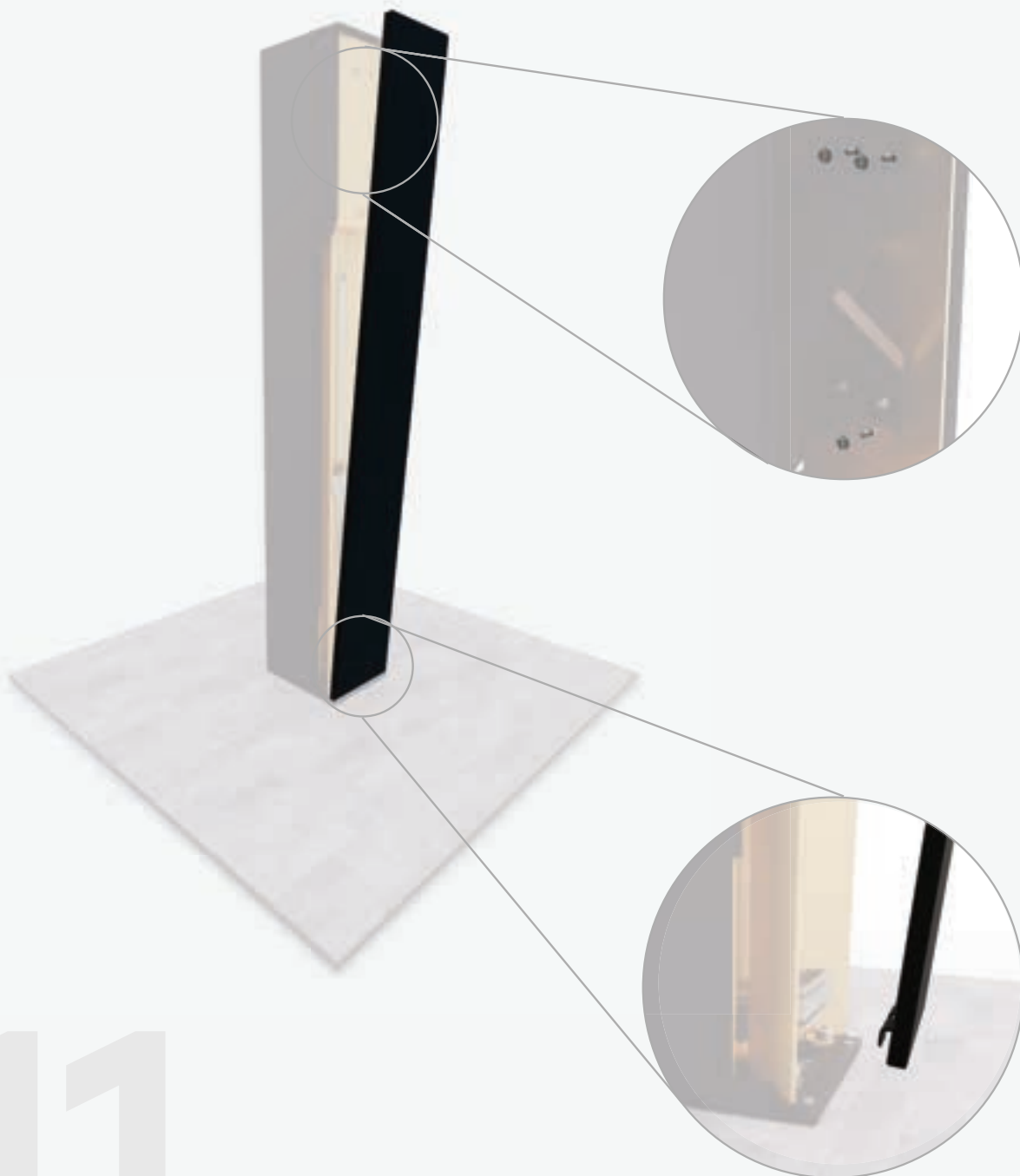


10. Connections.

Connect the power cable from the contactor to the charging cable by screwing the corresponding wires into the terminal block included with the supplied BBC Cellpack EasyCell® gel box.

Place the terminal block with the fastened cables in the provided BBC Cellpack EasyCell® gel box. Then close the box until a distinct clicking sound is heard. If necessary, use the provided straps to close. Subsequently, place the gel box behind the provided brace.

To connect the LED light, Control Pilot and RFID reader (optional), terminal blocks are provided. These are prewired to the right components, both within the charger as within the electrical cabinet. Connect the signal cable's cores with the same colors and in the same order as was done in step 4.

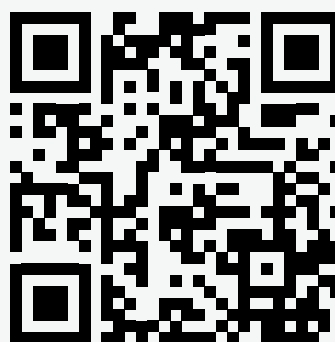


11. Attach front plate.

Place the front plate in front of the post, making sure the hook is at the bottom. Tilt the front plate and place the hook in the cavity provided. Then tilt the top towards the post, making sure the bolts are placed in the corresponding holes. Then secure the plate by tightening the nuts (M5) on these bolts.



12



12. Configuration.

The basic controller settings have already been set up, prior to delivery. Surf to the web interface of the controller by following the steps stated on the next page.

Follow one (or more) of the manuals and/or quick start guides on our website by following the above QR code or by surfing to www.veton.be/downloads. This page provides information about basic configuration of the charging points, OCPP, RFID whitelist, and others.

Diagram of the CHARX SEC-3xxx connector showing pin numbers 1 through 16 and their functions:

- 1: 12V
- 2: 12V A+
- 3: OUT3 12V
- 4: IN1
- 5: IN3 PTC
- 6: 12V A+ Rx/D
- 7: 12V ER1 TST
- 8: CP
- 9: LO
- 10: LO1
- 11: GND
- 12: GND
- 13: GND
- 14: GND
- 15: GND
- 16: GND

Legend:

- Supply: 12V, 12V A+, 12V
- Output: OUT3 12V
- Input: IN1, IN3 PTC, 12V A+ Rx/D
- Meter: 12V
- RCM: ER1 TST
- Socket: CP, LO, LO1
- Connector: C2 / L', C1 / L

CHARX SEC-3xxx

ONE

6. Operation

Your Veton® One charging station has been installed, inspected, and is ready for use. This section of the manual describes how to use the charging station, and what to consider to safely use it.

- Always consider the vehicle requirements before starting vehicle charging.
- Park the vehicle at the charging station in such a way that the charging cable is not tense.

Start charging



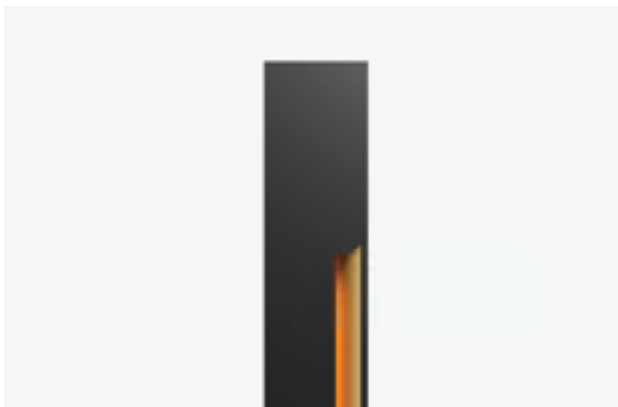
Open the door of the One.



Remove the charging cable from the holder.



Insert the charging plug into the car's charging port
(maximum 4 meters from the One).



Close the door of the One.








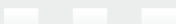







Scan RFID (if applicable).

Status and LED feedback



Veton® One chargers that are equipped with the optional RFID reader can display their status via an LED status light. See below table for the different possible status indications, both for starting up a charging session as well as frequent status and error notifications.

Status	LED indication	Type & duration
Starting a charging session		
Charging point available, no vehicle connected		Continuously on
Vehicle connected, awaiting authentication		Blink (1 sec)
RFID card accepted		On (1 sec)
Authentication request in process		Blink (0.5 sec)
Vehicle connected, charging active		Fade (4 sec)
Other status & error notifications		
Vehicle connected, charging completed		Continuously on
RFID card not accepted		On (1 sec)
Vehicle connected, charging suspended (vehicle)		Fade (3 sec)
Vehicle connected, charging suspended (charging point)		Fade (0.5 sec)
(OCPP) backend online, charging points available		Fade (2 sec)
(OCPP) backend offline, charging points unavailable		Blink (1 sec)
Charging point reserved		Blink (1 sec)
Charging point offline & unavailable (error)		Continuously on

Visit www.veton.be/support to find troubleshooting for common problems and notifications.

Stop charging



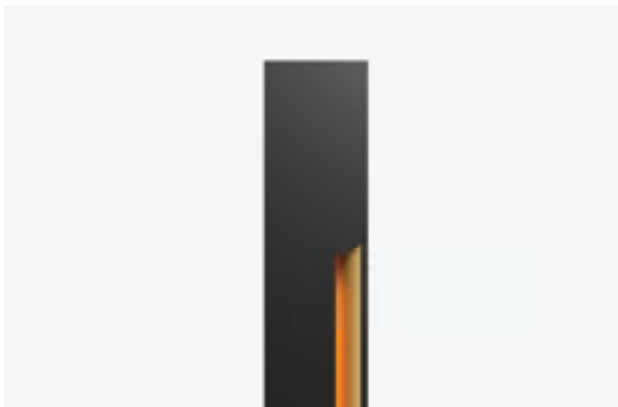
Interrupt the charging process on the vehicle side and remove the plug (this step is vehicle-specific).



Open the door of the One.



Insert the connector into the One's cradle. Make sure the cable is fully inserted into the housing.



Close the door of the One.

7. Declaration of conformity

Manufacturer information

Veton® BV
Boomsesteenweg 78/10
2630 Aartselaar
Belgium

Declares the conformity of the product:

Veton® charging stations type One, Two, Wall and Wall+

In accordance with European directives:

Low voltage directive 2014/35/EU
EMC directive 2014/30/EU



Application (harmonisation of legislation):

- ÖVE/EN 61851-1
- NBN EN 61851-1
- NEN EN IEC 61851-1
- SFS-EN 6185
- NF EN IEC 61851-1
- DIN EN 61851-1
- BS EN 61851-1
- CEI EN 61851-1
- NEK-EN-6185-1

All products listed bear the CE mark.

Duffel, 1 February 2022

A handwritten signature in blue ink, appearing to be 'Brendan Brentjens'.

Brendan Brentjens, business manager

A handwritten signature in blue ink, appearing to be 'Jens Téblick'.

Jens Téblick, business manager

VETON®

Charging masterpieces.

Veton® BV

Boomsesteenweg 78 / unit 10
2630 Aartselaar
Belgium

www.veton.be
info@veton.be
+32 (0)3 375 51 20

Serial number

Serienummer / Numéro de serie

