

# hypercharger

## Mounting cable management instruction

### Hypercharger HYC150 / HYC200 / HYC300 / HYC400 (75kW – 400kW)

### ultra-fast charging system for electric vehicles

for HW-Versions 3.0 and 4.0



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# Mounting cable management instruction

## Version

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English translation of original German version

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This manual contains important instructions that must be followed during installation or maintenance of the device. It is imperative to consider the following points:

## Notice

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### **Warranty claims:**

Failure to perform installation and maintenance properly and in accordance with this manual may lead to loss or limitation of warranty or liability in case of damages on the Product(s) or goods belonging to third parties or injuries to third parties.

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### **Changes to the device:**

If changes are made to the device that are not included in the documentation from the original manufacturer Alpitronic Srl or have not been authorised by Alpitronic Srl, Alpitronic Srl is no longer considered to be the manufacturer of the switchgear assembly, but rather the person who made the changes.

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### **Updates and revisions:**

The information contained in this document is updated regularly and without notice to our customers. To ensure that you have the latest information, we ask you to register on the document platform Hyperdoc using the link below:

<https://account.hypercharger.it/register>

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## 1. Safety instructions

This chapter contains the safety instruction which must be considered at installation, operation and maintenance of the Hypercharger ultra-fast charging system for electric vehicles. Incorrect operation as a result of non-compliance with the operation instructions may lead to severe injuries or damages. This safety operation must be read carefully before the installation, operation and maintenance of the Hypercharger ultra-fast charging system.

### 1.1. Designated use

The Hypercharger ultra-fast charging system for electric vehicles is intended to be used both in indoor and outdoor environments for performing ultra-fast charging for electric vehicles.

#### Attention

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The charging station is designed for a stationary installation in an ambient with pollution degree class 3.

For the connection between the electric vehicle supply equipment (EVSE) and electric vehicle (EV), no additional cables are required besides from the one provided with the Hypercharger. A charging cord should not be altered to extend or divide the cable range.

No adapters may be used which are not approved by the vehicle manufacturer.

Depending on a socket or vehicle coupling the Hypercharger may only charger a single vehicle. Y-cables or similar are not allowed.

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### 1.2. Users

These instructions are intended for persons who are responsible to install, operate, service and maintain the Hypercharger ultra-fast charging system for electric vehicles. These persons should have at least a basic knowledge of electrical high-power systems and electric vehicles. Prior to carrying out any work the operator and the responsible technical personnel must carefully read these instructions.

### 1.3. Safety instructions for installation and maintenance

This warnings and instructions apply to all activities of installation, service and maintenance on the Hypercharger.

#### Attention

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Disregards from these instructions can lead to serious or fatal personal injury, as well as serious damage to property.

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**Attention**

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Installation and maintenance of the Hypercharger ultra-fast charging system for electric vehicles must only be carried out by qualified personnel.

Before putting the system into operation, check the correct state of the installation and all connections.



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**Electrostatic discharge**

The control cabinet contains components and circuit boards that are sensitive to electrostatic discharge. During assembly and maintenance, sufficient ESD measures should be taken to protect the electronic components (for example, wearing a grounding wristband).

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**Warnings**

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**Warning of hazardous electrical voltage**

Installation and maintenance of the Hypercharger must be carried out only when power is removed. Before performing any installation, disassembly, repair or replacement of components, switch off the external group switch and the main switch in the Hypercharger cabinet and do a voltage check to make sure that the electrical power is disconnected from the system.

Inside the Hypercharger cabinet, hazardous electrical voltages are present (up to 1000Vdc) even if all circuit breakers are switched off, do not allow unqualified persons to go near it.

Only Hypercharger certified technicians are permitted to install, disassembly, repair or replace components on the Hypercharger. The Hypercharger cabinet doors has to be locked after installation, service or repair operations.

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**Warning of hot surface**

Some cabinet internal components of the Hypercharger like Power-Stack housings, cooling system, and conductors can remain hot long after the power supply has been disconnected.

Prior to performing disassembly, repair or replacement of components activities make sure that all components have cooled down.

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**Heavy weight**

Please note that the individual components of the device can be very heavy, for example the power-stacks.

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**Crushing**

Please take care when assembling and disassembling components that they do not squeeze a human body or body part.

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## Behavior in case of fire

In the event of a fire, the emergency stop switch of the external power supply – if present - must be actuated immediately (e.g. at filling stations). The instructions must be clearly displayed by the charge point operator. Furthermore, the fire must be immediately reported to the fire brigade. In the event of injured persons, the emergency services must be alarmed immediately.

The emergency numbers must be clearly displayed by the charge point operator. If there is no emergency stop switch available, the charge point operator must immediately disconnect the charging station from the external power supply directly at the mains connection point. It is pointed out that the disconnection at the mains connection point may only be carried out by authorized and appropriately trained personnel.

Persons present at the site of the fire must be immediately removed or asked to move away from the danger zone. Fire protection and firefighting regulations as well as occupational health and safety regulations in force at the place of installation of the charging station may provide that fire-extinguishing activities can only be carried out by trained persons in accordance with the relevant regulations (e.g. in Germany DIN VDE 0132 "Fire fighting in the area of electrical installations").

Corresponding instructions must be clearly displayed by the charge point operator. However, it is recommended even in the absence of a corresponding regulation, that firefighting activities are left exclusively to trained persons. When carrying out firefighting activities, a sufficient safety distance of at least 2 m from the charging station must be maintained in order to minimize the electrical risk.

Only suitable extinguishing agents for electrical equipment may be used (e.g. CO<sub>2</sub> fire-extinguishers, if necessary also water, whereby the distance of the spray jet to the charging station must be at least 2m in order not to be exposed to a dangerous voltage flashover).



## 2. Mounting of cable management

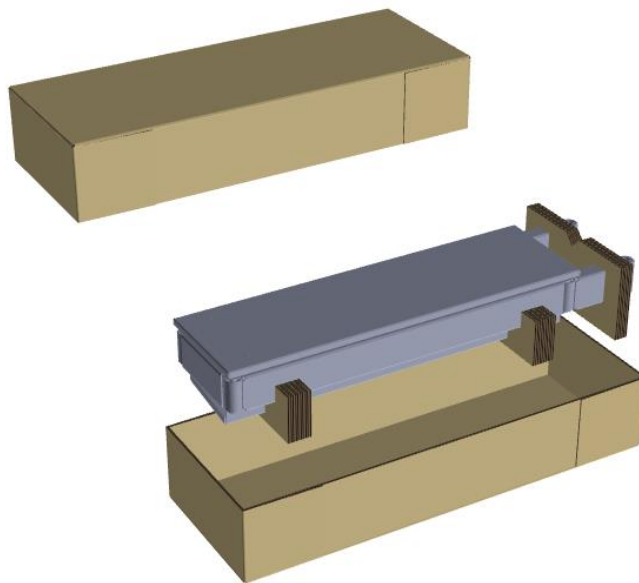
### 2.1. Unpacking

First, unpack the cable management.

#### Remark



The cable holders as well as all screws and washers are included in the packaging.



**Figure 1:** Packaging for HYC150/HYC200

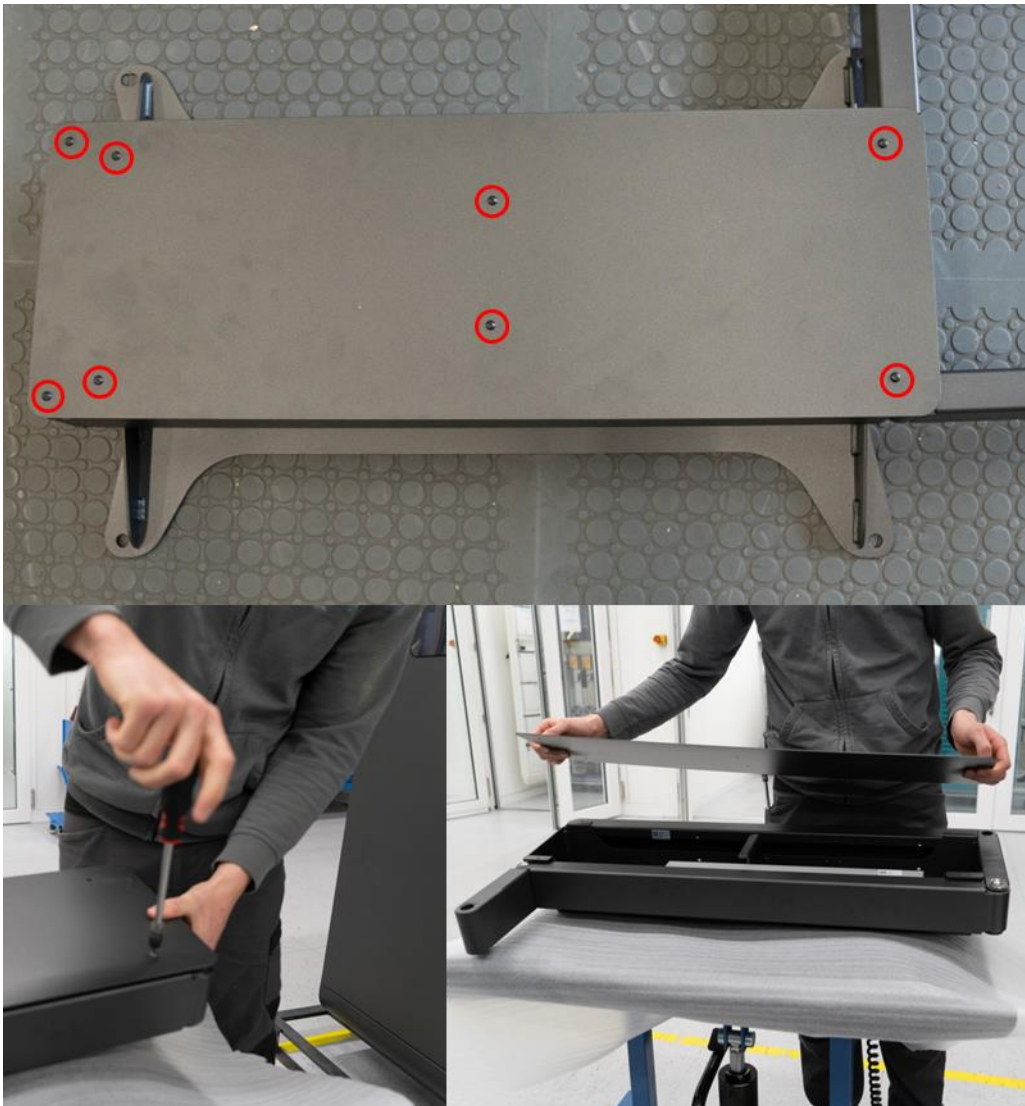


## 2.2. Fixing the cable management

Position the structure including the cable arm(s) on the top of the charging station (see Figure 5 and Figure 6).

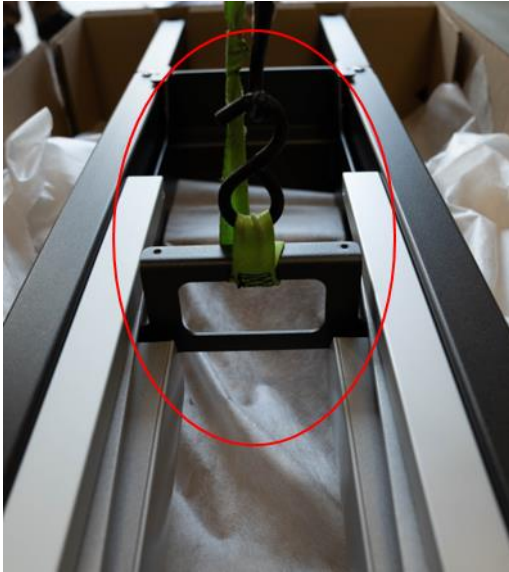
Depending on the configuration, the structure weighs between 25-37 kg and can be lifted onto the top of the Hypercharger by two people.

Alternatively, a crane can be used for lifting. To do this, first remove the cover of the chassis by loosening the 8 fixing screws.



**Figure 2:** Removal of cover

Now the cable management can be attached to the center strut on the crane and positioned on the top of the charging station.



**Figure 3:** Fastening to center strut



**Figure 4:** Positioning by crane

### 2.2.1. HYC150/HYC200

Once the cable management is positioned correctly, fix it in place with the screws provided.



**Figure 5:** Position of screws HYC150/HYC200

#### Remark



2x M12 x 25 hexagon bolts (ISO 4017) must be used for the HYC150/HYC200. The package also includes 2x M12 plastic cover caps (ISO 1587), which are to be attached to the screws.

#### Attention



Screw with a torque wrench (60 Nm).

### 2.2.2. HYC300/HYC400

Once the cable management is positioned correctly, fix it in place with the screws provided.



**Figure 6:** Position of screws HYC300/HYC400

#### Remark



4x M12 x 25 pan-head screws (ISO 7380) must be used with the HYC300/HYC400.

#### Attention



Screw with a torque wrench (60 Nm).



**Figure 7:** HYC300/HYC400 fixation

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## Remark



If the cover of the cable management was removed for crane transport, it must be reattached with 3 Nm after the cable management has been fixed to the Hypercharger.

### 2.3. Attaching the cable holder to the charging cable

The cable holder is an injection moulded part (until 21.02.2022 the components were milled).

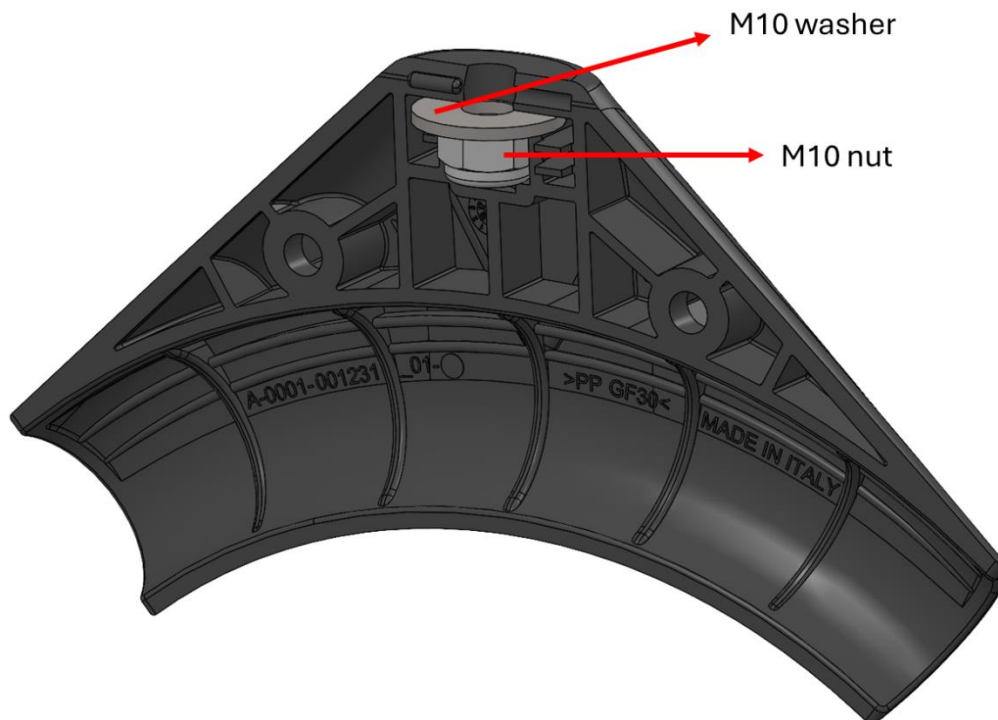
Attach the bracket to the charging cable by positioning it at a charging cable length of 1.4 m (measured from the cable gland) as shown in the following figure.



Figure 8: Position of cable holder



Position the supplied M10 nut and the M10 washer (DIN 902) in the socket of the cable holder.



**Figure 9:** Positioning of nut and washer

#### Attention



Make absolutely sure that the nut and washer are positioned correctly inside the socket of the cable holder as shown in Figure 9! Otherwise there is a risk that the cable holder will be damaged.

Now insert the cable on one half of the cable holder. Then position the second half and fix the cable in the holder.



Figure 10: Attaching the cable holder 1

Remark



Use two M8 x 30 bolts and M8 nuts.

Attention



Screw with a torque wrench (8 Nm).

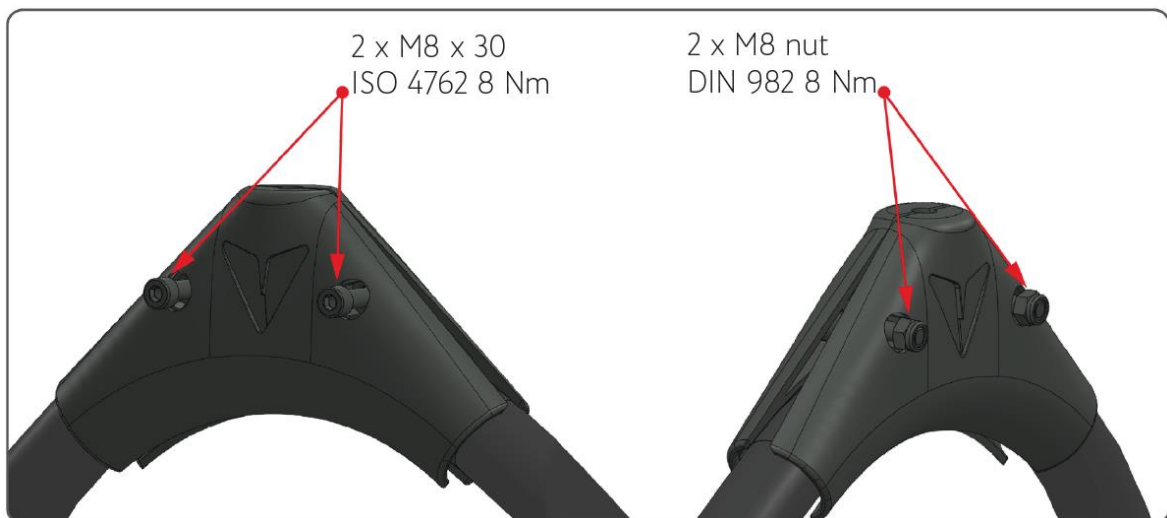


Figure 11: Attaching the cable holder 2

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## 2.4. Fastening the cable holder to the cable management

Finally, attach the cable holder to the respective arm of the cable management.

### Remark



One M10 x 90 bolt (ISO 4762) and one M10 washer (DIN 125) must be used per arm.

### Attention



Screw with a torque wrench (5 Nm).



Figure 12: Used fixings





**Figure 13:** Fastening the cable holder to the cable management arm

## 2.5. Final result



**Figure 14:** Fully installed cable management HYC300

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**Remark**

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The cable management can be upgraded or converted at any time from a single-arm to a two-arm and from a left-arm to a right-arm cable management system.

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If you encounter any problems, please do not hesitate to contact our Hypercharger support team:  
[support@hypercharger.it](mailto:support@hypercharger.it) or +39 0471 1961 333

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