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Instruction manual

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HEIDELBERG

A Instruction manual

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1 Duo column instruction manual

1.1 Safety instructions

1.1.1 General information about this document

This instruction manual belongs to the product and is to be observed for correct installation and safe operation. You must therefore read the instruction manual carefully before installation and operation. The instruction manual must also be kept safely after installation and handed over to the user, also in the event that the product is passed on. All users must have access to this instruction manual and know of its content.

1.1.2 Warranty and liability

No liability is assumed for defects and damage caused by a failure to observe this instruction manual or for the fact that installation was not performed by a suitable specialist. Improper use and modifications to the device are also excluded from all liability. The product may only be used if it is undamaged and in perfect technical condition.

1.1.3 Installation is only to be carried out by qualified specialists.

The installation of the column and the Wallboxes to be mounted to it may only be carried out by suitably qualified specialists. When mounting the Wallboxes, the safety instructions and assembly instructions of the respective Wallbox must be observed. Knowledge and observance of the five safety rules is necessary, in particular when working on electrical systems:

- isolate.
- secure against reactivation.
- check absence of voltage.
- ground and short-circuit.
- cover or block off live parts in the vicinity.

Reactivation is carried out in reverse order.

1.2 Intended use

The Duo column is intended for the free-standing installation of two Wallboxes for indoor or outdoor use if wall mounting is not possible. The installation of just one Wallbox on this column is not permitted!

All installation and cable openings must be closed following installation.

Only installation of the following compatible Wallboxes is permitted:

- Heidelberg Wallbox Home Eco,
- Heidelberg Wallbox Energy Control.

You can find information about other wall-mounted charging stations that may be compatible on the homepage https://wallbox.heidelberg.com.

The applicable national regulations must be observed for the installation.

The column may only be used for the purpose defined in the instruction manual.

Changes such as additions and modifications which are not intended by the manufacturer, or additional loads are not permitted.

It must be ensured that all users who have access to the column know how to use it properly.

In addition to this instruction manual for the column, the safety instructions as well as the installation and operating manuals for the installed Wallboxes must be observed.

1.3 Specifications

Height: 1370 mm

Floor space: 180 mm x 180 mm

Weight of Duo column (without Wallboxes, without cables): 14.4 kg

Total weight of Duo column (without Wallboxes, without cables), including packaging: 17.5 kg

1.4 Requirements at the site

- The Duo column is only approved for installation in private, not public spaces.
- The surrounding conditions and local building regulations must be observed, as they may require installation of suitable anti-collision protection.
- When installing one or more columns, sufficient space must be left between the columns and attention must be given to other local circumstances in order to enable good and safe handling of the mounted Wallboxes.
- The site requirements for the Wallboxes (stated in the installation instructions of the Wallboxes) must be observed.
- A suitable concrete foundation must be provided for installing the column. The site fabricator is responsible for calculating, dimensioning, and fabricating the concrete foundation.
- The column must be installed on a flat, horizontal, load-bearing surface. A concrete foundation is recommended in order to provide secure and permanent anchoring. Frost-resistant base, concrete: C30/37 LP for XC4, XD1, XF4 respectively C25/30 LP for XC4, XD1, XF2.

- During installation, the instructions of the manufacturer of the screw anchors used must be observed.
- Cable routing is only provided for through the foundation. Suitable installation conduits and connecting cables must be used.
- The anchoring in the foundation must withstand maximum pull-out forces of 7500 Nm and maximum shear forces of 2000 Nm on each of the four fastening points.
- The surface must allow drainage of any water that penetrates the pedestal.
- Installation of the column on asphalt is not permissible.
- If the column is installed in a parking area or in an underground car park, suitable anti-collision protection must be provided on site.

1.5 Electrical stipulations

Cable outlet

- Single wires are not permitted to supply power.
- The supply line must be dimensioned for medium to heavy loads. Practical examples:
  - PVC installation cables of type NYM,
  - PVC ground cables of type NYY,
  - H07RN-F heavy rubber cable.
- The diameter of the connecting cable may not be greater than 17 mm (maximum cable diameter of the self-sealing grommet on the Wallboxes).

Double or strengthened insulation

- Only double-insulated cables may be used within the column. The choice of cables must comply with national installation regulations (e.g. VDE 0100-520).
- The national installation regulations must also be observed. Examples: IEC 60364-4-41, VDE 0100-410, IEC 60364-7-722, or VDE 0100-722.

Shutdown in the event of an error

- The cable lines must be fused in line with national installation regulations. Examples: IEC 60364-4-41, VDE 0100-410, IEC 60364-7-722, or VDE 0100-722.
- Basic protection and fault protection of the cable lines is ensured by using double or strengthened insulation. The national installation regulations must also be observed here.

Separation of power and data cables

- Power and data cables must have sufficient insulation capacity for the highest operating voltage that occurs. Data cables include items such

as network cables (ModBus) or switching cables (e.g. from key switches).

- If the data cable has sufficient insulation capacity, no further separation measures from the power cable are necessary.
- If the insulation capacity of the data cable is not guaranteed, other measures must be applied in accordance with national specifications (e.g. additional insulation tube).

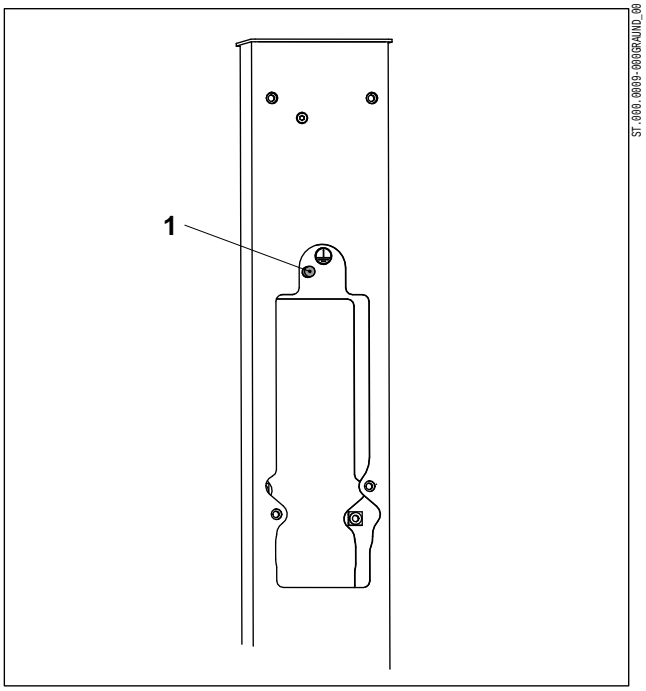

Fig. 1 Protective equipotential bonding connection

Equipotential bonding connection

- The protective equipotential bonding in accordance with national regulations such as IEC 60364-4-41; VDE 0100-410 is established via a labeled connecting point (Fig. 1/1) in the column for a suitable ground conductor. The operator must establish the ground connection in accordance with national regulations.
- Recommended minimum cross-section: 6 mm² for copper and 16 mm² for aluminum.
- The installer/operator must inspect the ground connection following installation in compliance with the inspection guidelines following new installations, for example IEC 60364-6, VDE 0100-600. The resistance must not exceed 1 Ω.

Protection of the cables during installation

- The cables must be installed carefully. The cables must not become damaged. The cables must be protected accordingly during installation if necessary. The installer must inspect the cables for any damage after installation in accordance with the national installation regulations. The operator/installer must in particular observe the inspection regulations after new installations, for example IEC 60364-6, VDE 0100-600.

1.6 Scope of supply/accessories in the separate parts set

The scope of supply must be checked for completeness and damage. If the scope of supply is not complete or parts are damaged, you may not carry out the installation. Please contact the Service Hotline in these cases.

Parts for installation of the column

- one instruction manual,
- one column,

- two adapter plates.
- one separate parts set, consisting of:

  Parts for the ground connection:
  - one contact disk,
  - two washers,
  - one spring ring,
  - one nut.

  Parts for attaching the Wallboxes:
  - eight M6x16 countersunk screws to fasten the adapter plates to the column,
  - six M8 nuts to fasten the Wallboxes to the adapter plates,
  - two cable insertion grommets for the power cables,
  - two cable insertion grommets for the data cables,
  - two capping elements if no data cables are used.

► Note

The fastening materials (screws/dowels) for mounting the column onto the foundation are not included in the scope of supply due to different possible mounting surfaces.

The fastening screws should have a diameter of at least 10 mm. Suitable heavy-duty dowels or similar for the mounting surface must be used.

1.7 Installation of the column

► Note

In addition to the specifications in this instruction manual, the local specifications for installation and operation must also be observed. When mounting the Wallboxes on the column, their safety instructions and installation instructions must also be followed.

Observe the notes listed above regarding the site specifications and the electrical provisions.

Tools for installation

The qualified specialist must ensure correct installation and electrical installation and must also use suitable tools correctly for the respective installation step.

General information

- Cables are routed exclusively via the foundation using conduits or protective hoses.
- If the data cables do not have a sufficient insulation capacity, the power cables and data cables

must be separated from one another when laying the foundation.

- All cables must emerge from the floor in the middle of the concrete foundation within a quadratic area of max. 50 mm x 50 mm.
- The protective hose or conduit must have an excess length of approx. 0.3 m above the foundation.
- The cables need an excess length of approx. 1.7 m for further installation.
- Power cables and data cables must also be sufficiently separated from one another within the column, e.g. by routing the data cables separately in an additional installation conduit or corrugated hose. Installation conduit or corrugated hose material for separate cable routing is not included in the delivery. Standard commercial installation conduits or corrugated hoses for moderate compressive stress with the diameter M 20 can be used.

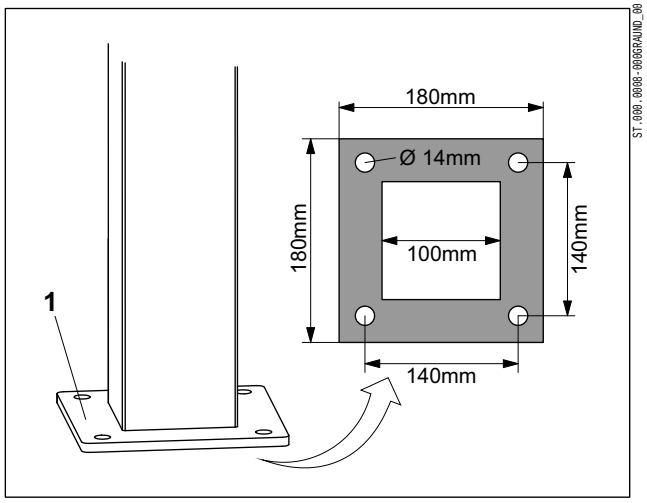

Fig. 2 Base plate of the column

1. Mark the four bore holes on the concrete foundation using the column's base plate (Fig. 2/1) as a template. Alternatively you can take the bore hole dimensions from the adjacent drawing.
2. Drill the four mounting holes (diameter according to the heavy-duty dowels being used).
3. Check whether all required cables for the two Wallboxes come out of the foundation. A separate equipotential bonding cable must be routed to the column for the protective equipotential bonding of the column. When routing the cables in the foundation and laying the cables in the column, always ensure that the data cables (e.g. communication/data cables, cables for the enable/disable device) are separate from the power cables. Choose suitable measures for this, such as conduits and protective hoses.
4. Now insert the cables from the foundation into the column from below and out through the top installation openings. There are two installation openings located opposite each other for the two Wallboxes. It is easier to insert the connecting cables when the column is lying down. Ensure that the cables are correctly allocated to the respective Wallbox.
5. Fasten the column to the foundation using the 4 screws.

1.8 Fastening the adapter plates

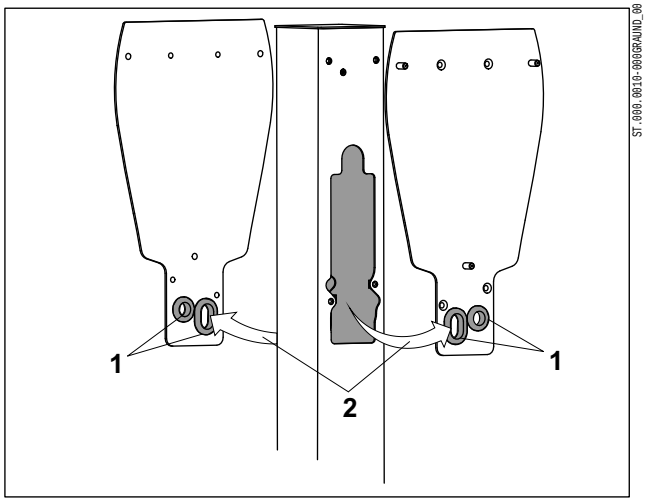

Fig. 3 Cable entry into the adapter plates

1. The adapter plates provided have separate cable feed-throughs for the power cables and the data cables. Fasten the matching cable protecting sleeves (Fig. 3/1) contained in the separate parts set to the cable outlet openings of the adapter plates. If no data cables are used, you must seal the corresponding cable outlet openings with the capping elements provided.
2. Route the cables out of the column (Fig. 3/2) through the corresponding cable openings in the respective adapter plate.

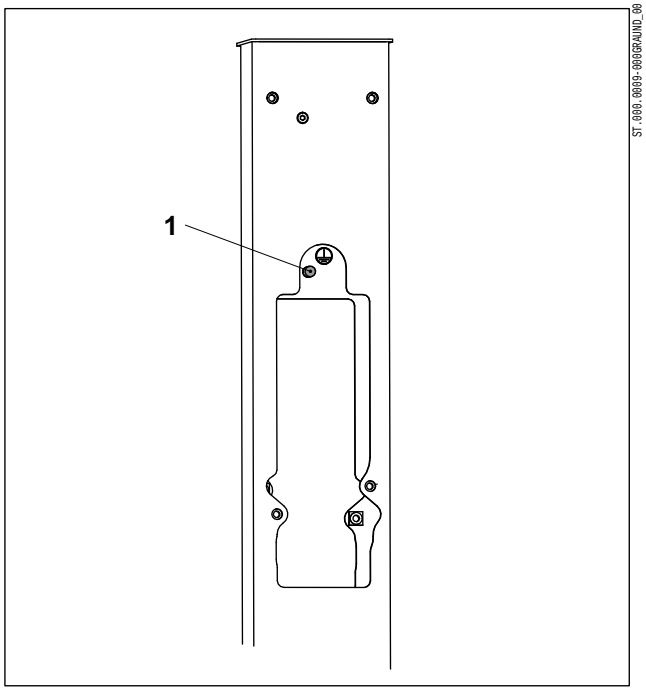

Fig. 4 Protective equipotential bonding connection

3. Connect the protective ground conductor to the grounding pin (Fig. 4/1) (equipotential bonding line) of the column. Sequence: contact disk, washer, cable lug/cable, washer, spring ring, nut. Tightening torque 12 Nm.

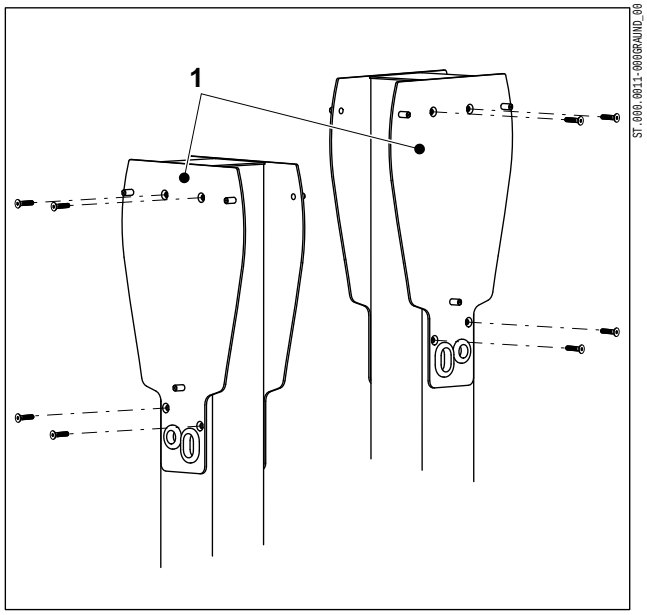

Fig. 5 Fastening the adapter plates to the column

4. Fasten the adapter plates (Fig. 5/1) to the column using the four M6x16 countersunk screws provided for each plate. Tightening torque 7 Nm.

   Start with the adapter plate on the side of the column with the smaller installation opening.

1.9 Mechanical installation and electrical connection of the Wallboxes

The procedure for mechanical installation and electrical connection of the Wallboxes is documented in the installation instructions for the Wallboxes.

1.10 Maintenance and cleaning

- Do not clean the column with a water jet (garden hose, high-pressure cleaner, etc.).
- Clean the stainless steel column with a stainless steel cleaner, as necessary.
- Do not use any aggressive cleaners.

  ► **Note**

  Comply with the instructions for use provided by the manufacturer of the cleaner.

  Always check the compatibility of a cleaner at an inconspicuous place before using it.

- Remove any rust film with an abrasive fleece or similar.

1.11 What to do in the event of damage

In the event of damage, it is not permitted to repair the column. The product must be decommissioned in this case. As with installation, this must be performed by a qualified specialist, in particular when working on electrical systems. The Wallboxes mounted on the column must also be decommissioned by a qualified specialist.

1.12 Contact address/Customer Sales Representative

Hotline: +49 6222 82-2266
E-mail: wallbox@heidelberg.com
Contact language: German and English.
Website: https://wallbox.heidelberg.com/

1.13 Disposal

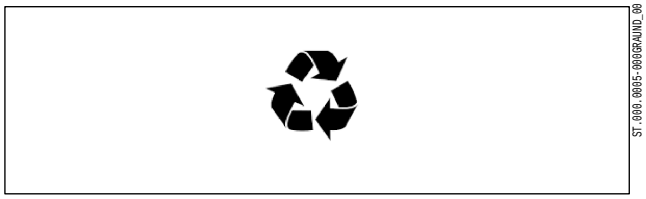

Fig. 6

After the Wallbox has been correctly decommissioned, dispose of the column according to the currently valid disposal regulations.