



Quick Installation Manual for CDW543U

Series Chargers



- Suitable for wall-mounted installation of charging piles of CDW543U-A08、CDW543U-A10.
- Suitable for single hanging and double sides hanging column installation.

A. Safety guidelines

! Warning! Failure to assemble and connect as required may lead to serious accidents such as casualties and property losses. Please read the following warning information carefully before assembly and connection:

- The product must be installed by professionals.
- If the product or accessories are damaged or missing, please do not assemble and connect them. If you need to replace parts, please ask your local dealer, service provider or your logistics provider for help.
- The column is suitable for the wall-mounted and column-mounted installation of charging piles of CDW543U-A08、CDW543U-A10 models. Any use beyond the scope may make you unable to obtain a perfect product experience and even cause serious safety accidents. Therefore, please do not use this product in other fields except for the purpose for which it is designed.
- The cable selection when installing the charging pile must meet the electrical design requirements.

If this manual can't explain your question or

- describe it clearly, please get help from your local dealer or service provider.
- The company will not bear any legal responsibility for the damage or damage caused by the following circumstances: (1) unauthorized modification of products; Out-of-range use; Not installed according to the guidelines or improperly used.

The right to modify and change this manual and products belongs to our company, and the changes involved are without notice.

B. intended use

CDW543U series charging piles are developed, manufactured, tested and recorded according to safety standards and customers' needs. If you strictly abide by the description of its intended use and safety guidelines, this product will be safe enough for use. Please strictly follow the instructions contained in this manual, and the following conditions apply to the intended use:

- The AC charger of models CDW543U-A08、CDW543U-A10 need to be installed on the column with single hanging or double sides hanging (back-to-back).
- The following uses are not considered as expected:
 - Out-of-range installation is under installation conditions not listed in this manual.
 - Installation exceeding the bearing weight of the column or fixing screw.
 - The fixed base surface or wall surface does not have stable installation conditions, such as being located in the risk area of geological disasters and insufficient bearing capacity of the supporting foundation.
 - May cause damage or destruction to personnel, equipment and environment.
 - Installation without construction permit and

owner's approval.

- Installation in violation of local laws and regulations.

C. Part configuration

1. Please choose the appropriate parts for installation according to your actual situation (wall-mounted/column-mounted):

part name	Qty	source
M12x80 Stainless steel expansion bolt	x4	Installation & construction
M4x10 Stainless steel cross pan head	x8	Column fittings
Guard ring	X1	Column fittings
Distribution box assembly [Note 1]	x1	User option
M6×16 countersunk head screw	X4	Column fittings
M4x10 cross countersunk head screw	X2	Column fittings
M4x25 Stainless steel cross pan head	x1	Column fittings
Charging gun holder	x1	Charger part
M4x25 Stainless steel cross pan head	x 2	Charger part
Sealing mud	x1	Charger part
PE rubber plug	x 8	Charger part
M4x32 cross recessed pan head tapping screw	x 4	Charger part
M6×16 countersunk head tapping screw	x 4	Charger part
Wall mount	x1	Charger part

[Note 1] : Power distribution box components need to be purchased and installed by users according to their needs.

CDW543U	A08	A10
Charging pile column	9kg	9kg
Charging pile [Note 2]	<3.5kg	<4.5kg

[Note 2] There are many charging piles, and the weight is for reference only.

Tool name	use
Phillips screwdriver	Used for removing and installing the wiring cover.
A screwdriver	Used for removing and installing the wiring cover.

tape measure	Used for field measurement.
Terminal crimping pliers	Terminal for crimping incoming wires
wire stripper	Used for field cable dialing.
Impact drill (6mm bit)	Used for punching holes in site wall-hanging installation.

2. Before installation, confirm the suitable socket type. The matching plug type of this product is 14-50 plug. Please choose the socket suitable for this plug type for on-site installation.

rated power	peak voltage	Recommended cable	Recommended terminal
7.6kW	AC240V	10AWG	RNB8-5
9.6kW	AC240V	6AWG	RNB14-5

3. If site installation is required, the recommended cables and terminals are as follows:

4. When the user's site environment does not meet the requirements for installing the socket or does not need to install the socket, please remove the power plug that comes with this equipment, and the user needs to connect the power cord to the power input terminal of this equipment according to the requirements of the manual.

5. According to the requirements of local laws and regulations, ensure that the electrical panel supports 240V dedicated circuits and is equipped with new dedicated non-GFCI bipolar circuit breakers.

Note: If local regulations require plug-in installation of GFCI circuit breakers, it is recommended to use hard-wired installation. We do not recommend using GFCI circuit breakers because charging piles are protected by CCID. Using GFCI circuit breakers in charging piles may cause troublesome tripping.

Maximum power	peak voltage	rated current	Recommended specifications for circuit breakers
7.6kW	AC240V	32A	C50A/2P
9.6kW	AC240V	40A	C63A/2P

6. For plug-in installation, NEMA sockets should be located 500~600 mm (20~26 feet) from the ground,

close to the bolts for installing charging piles.

Note: The input power cord is 300mm (12 inches) long (according to the national electric vehicle charger electrical specification). Make sure that the socket is installed close enough to the stud so that the input power cord can be inserted.

7. Comply with all applicable laws and regulations, and obtain permission for electrical construction as required.

8. On-site construction personnel must be special operators who have obtained relevant local qualification certificates.

For the size requirements of circuit breakers and cables, please refer to the applicable relevant specification documents. The rated temperature of the terminal of the equipment is 105°C, and the maximum cable access is 16mm² (6 AWG).

D1. Installation requirements

! Attention! Users should pay attention to the following information when choosing wall-mounted/column-mounted installation of CDW543U series charging piles:

- The technical requirements and precautions in this manual must be observed.
- Authorization and permission of the installation location must be obtained.
- When installed near the parking space, the user must provide necessary anti-collision measures or safety measures to avoid collision.
- The column supports bottom and top wire feeding, and the user can flexibly choose the wire feeding position.

D2. External wiring

! Warning: Risk of electric shock. Disconnect the circuit breaker at the front end of the 208/240V socket. Before the installation is completed, it is forbidden to restore the power supply.

Failure to follow these instructions may lead to electric shock or electric shock.

1. Install socket or field wiring:

- For 32/40A socket installation, connect the cable with 14-50P socket, and the direction of the socket should match the plug.
- For field wiring, please provide a 34.5mm(1-23/54 in) pipe connected to the bottom or back for AC input. Put the supplied power supply plug wire into the box.

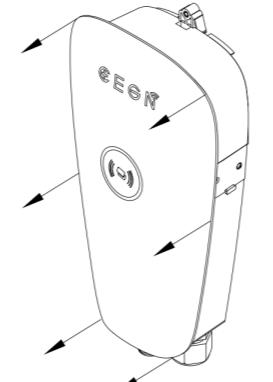
2. Disconnect all circuits before completion.

D3. Communication installation

Note: 1. If the plug-in installation method is used, it is recommended to insert the SIM card into the card slot before installation, and the Ethernet can be connected after the installation of the whole machine;

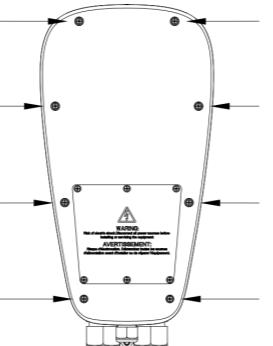
2. In case of on-site installation, Ethernet connection /SIM card connection can be processed synchronously when the whole machine is installed.

- Use tools to pry open the decorative cover at the following positions;

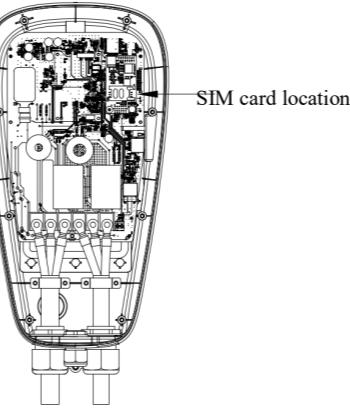


➢ SIM card installation steps

- Use a Phillips screwdriver to remove the corresponding screws of the lower shell and open the face shell;



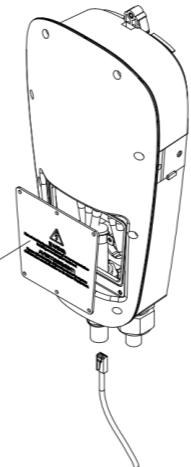
- SIM card installation: find the 4G module corresponding to the motherboard and insert the SIM card;



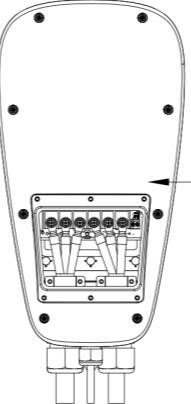
- After the above is completed, restore the face shell and decorative cover.

➢ Ethernet connection installation steps

- Use a Phillips screwdriver to remove the maintenance plate on the lower shell and push the small waterproof plug in the middle from the inside out;



- Insert the network cable from the corresponding hole, plug it into the Ethernet port of the motherboard, and lock the waterproof plug.

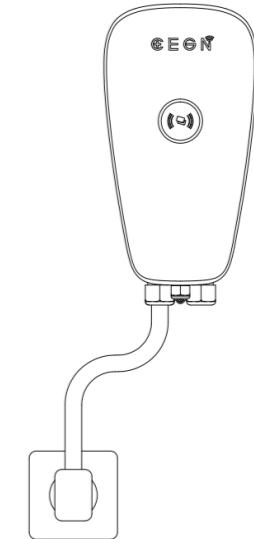


D4. Wiring installation

➢ Plug installation

Tool name	use
Phillips screwdriver *1	For disassembly and installation of
Tape measure *1	Used for field measurement.
Installation template *1	Drill hole for on-site positioning hole
Impact drill (6mm bit) *1	Used for punching holes in site wall-hanging installation.
Wall hanging piece *1	Used for pile installation.
Empty gun holder *1	Used for hanging guns
Self-tapping screw ST6.3x50*4	Used for gun seat fixing.
M4x10 cross countersunk head screw	Fixed wall hanging assembly *2
Expansion screw *4	Fixed pile body

- It is suggested to mark the lowest installation hole position of the pile at the top right of the socket 250~280 mm (9.8~11 inches);



- Insert the input power cord of the charging pile into the socket to confirm whether it is the ideal installation height of the charging pile;

! Danger: When charging, if the status indicator of the charging pile is on, the circuit is not disconnected.

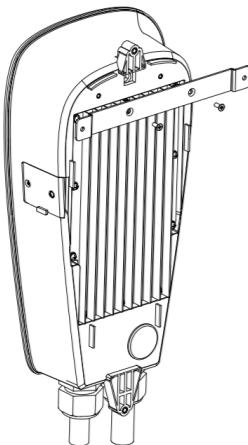
Stop immediately. Unplug the plug of the charging pile and disconnect the power supply of

the socket at the circuit breaker until the installation is completed.

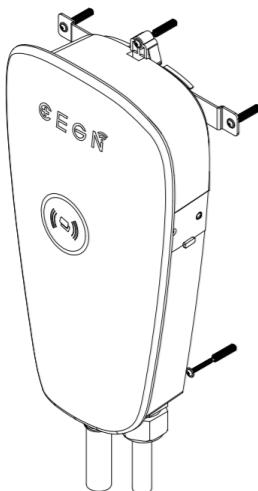
- After confirming the appropriate height, unplug the charging pile;

Note: Make sure that the input power cord has a slight curve, and do not stretch it.

- Correspond the bottommost mounting hole on the mounting template in the packing box with the marks made, and mark the positions of other corresponding mounting holes;
- Remove the installation template from the wall;
- Drill holes in the corresponding marked holes (the depth of wall borehole 6 is 50mm).
- Fix the wall hanging piece and the charging pile together with two M4x10 cross countersunk screws;



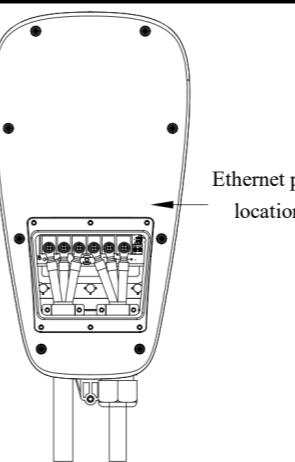
- Insert the expansion tube into the hole, and then fix the charging pile on the wall with self-tapping screws.



➤ Field wiring installation

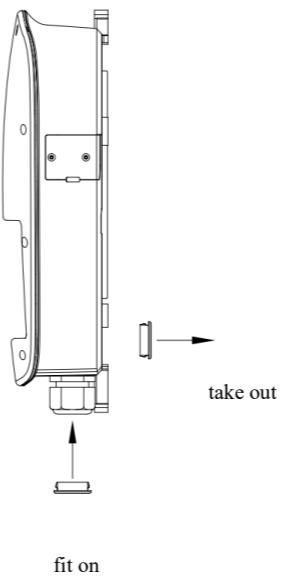
Tool name	use
Phillips screwdriver *1	For disassembly and installation of
Tape measure *1	Used for field measurement.
Installation template *1	Drill hole for on-site positioning hole
Impact drill (6mm bit) *1	Used for punching holes in site wall-hanging installation.
Wall hanging piece *1	Used for pile installation.
M4x10 cross countersunk head screw *2	Fixed wall hanging assembly
Wire stripper *1	Used for field cable dialing.
Terminal crimping pliers *1	Terminal for crimping incoming wires
Expansion screw *4	Fixed pile body

- Select an appropriate height and use the installation template to drill holes (the depth of wall drilling 6 is 50mm).
- Use a Phillips screwdriver to remove the maintenance board on the lower shell. For details, see D3. Communication installation; Remove the plug and waterproof plug of the input line on the pile body;
- Confirm whether the wiring is directly below or behind;
 - Directly below wiring
- Fix the pile on the wall. See the last two steps of plug installation for details.
- Use tools to pry open the decorative cover. See D3. Communication installation for details.
- Thread the power cord from the left side and the Ethernet cable from the middle below, and wire it according to the bottom at a suitable position; After the wiring is completed, use the U-shaped wire pressing bridge to fix the gun wire and lock the mounting screws.

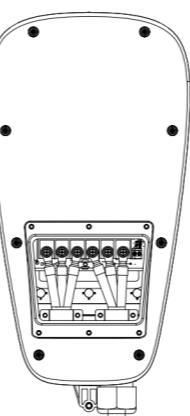


➤ Back wiring

- Push the knock-out cover on the back outward and install the knock-out cover on the lower left hole;



- Thread the wire through the back hole and connect it with the main board;

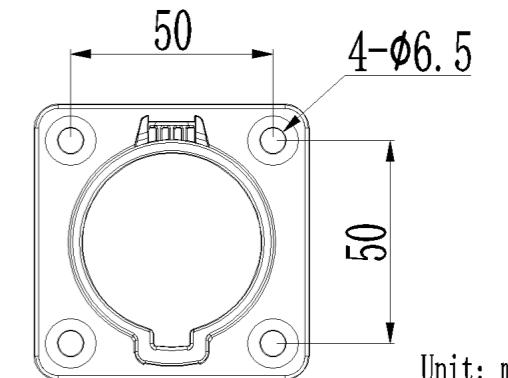


- After the above wiring is completed, restore the maintenance board and decorative cover.

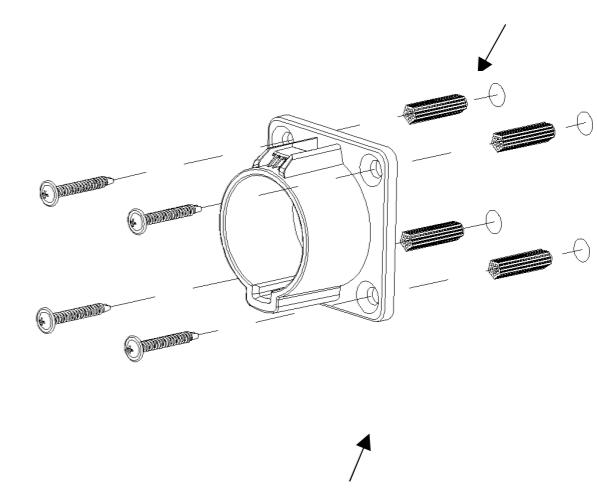
D5. Mounting of gun holder

- Install the plug socket on the wall. First, drill holes in the wall according to the following

dimensions, then insert four plastic expansion pipes into the holes, and finally fix the plug seat on the wall with four screws.



expansion pipe



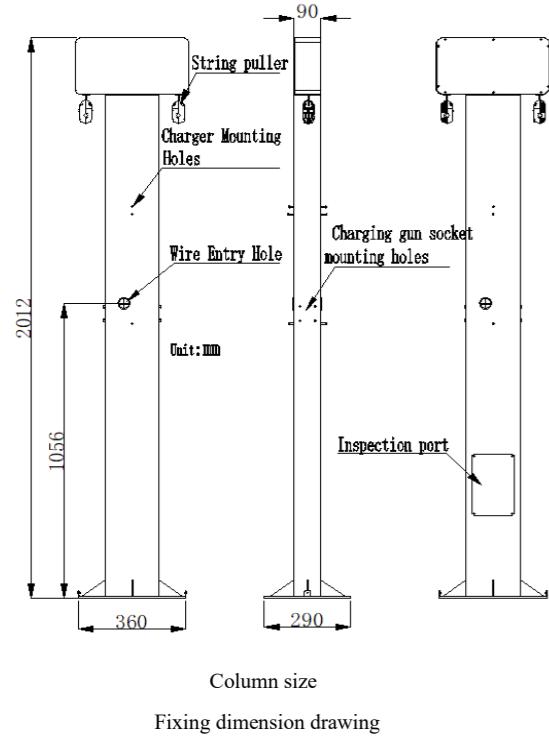
tapping screw

D6. Column size

Construction personnel can make a targeted construction plan with reference to this installation manual through on-site investigation and calculation of the construction site, and the principle shall not be lower than the requirements of this manual.

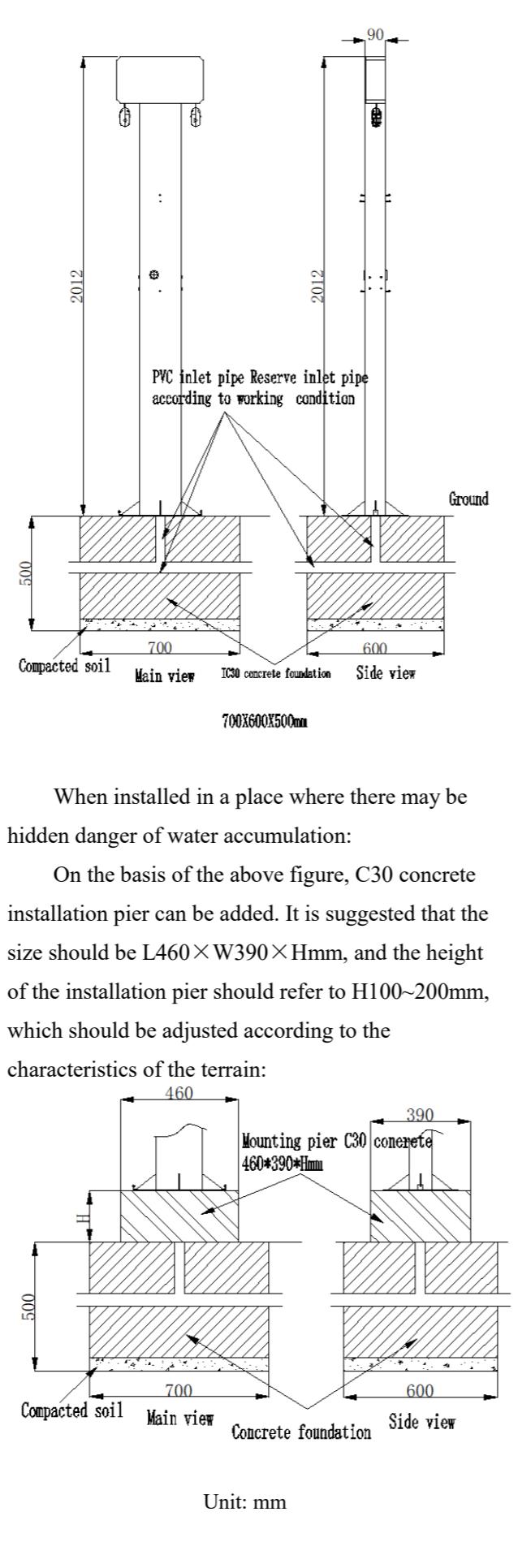
In order to ensure reliable fixation, the column must be installed on a horizontal, solid and reliable foundation surface.

Column dimension drawing:

**D6. Installation foundation**

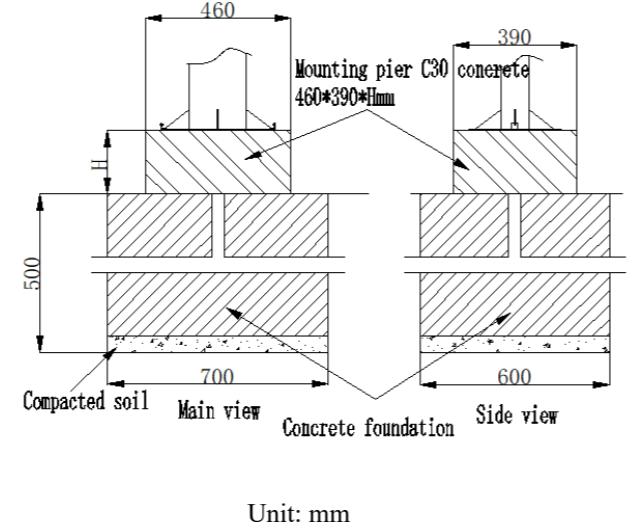
When installed in a place where no accumulated water will be generated:

- When excavating the foundation pit, it is necessary to tamp with plain soil, and reinforce the foundation with wet, loose, scattered and miscellaneous whiskers.
- The installation foundation is made of C30 concrete, and the load on the bottom of the foundation shall not be less than 1000kg/m². It is recommended that the installation foundation be not less than L700×W600×H500mm.
- The foundation surface should be leveled to ensure the level.
- When selecting the bottom feed line, it is necessary to reserve a suitable feed line according to the working conditions, and the feed line is generally reserved in the center of the installation foundation.



When installed in a place where there may be hidden danger of water accumulation:

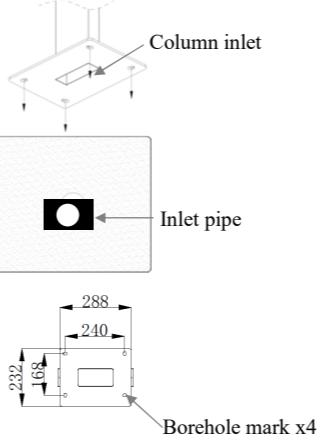
On the basis of the above figure, C30 concrete installation pier can be added. It is suggested that the size should be L460×W390×Hmm, and the height of the installation pier should refer to H100~200mm, which should be adjusted according to the characteristics of the terrain:

**E1. Drilling requirements**

Four sets of M12×80 stainless steel expansion bolts are used for column fixation. Refer to the following table for drilling technical requirements (columns are not equipped with bolts):

E2. Drilling preparation

You can use the column base as a drilling template, align the wire inlet at the bottom of the column with the wire inlet pipe of the installation foundation, lay the column base flat on the installation foundation, and mark four drilling positions with a marker pen according to Figure L240mm×W168mm, and prepare a suitable drill for drilling:

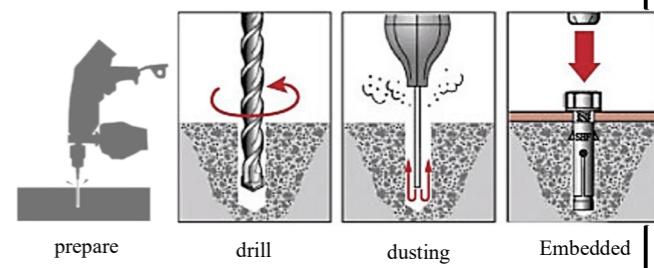
**E3. Drilling implementation**

Attention! Failure to carry out drilling operations as required may lead to serious hidden dangers of casualties and fastening failure. Please read the following precautions carefully before drilling:

- Construction permits must be obtained.
- Construction personnel have the construction qualification.
- If the incoming cable is pre-laid, it is necessary to ensure that the incoming cable is not charged.
- Don't unscrew the nut when embedding to prevent it from falling into the hole.

It is recommended that the diameter of the drill bit is 14mm and the drilling depth is 80 mm. Refer to the following steps to complete drilling:

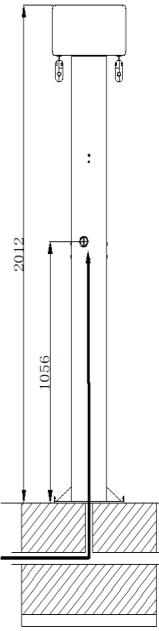
drill	C30 concrete foundation	M12×80
Foundation bearing load	No cracking and loosening under the condition of fixed tension	4 zu
Suggested borehole diameter		16mm
Suggested drilling depth		60mm
Recommended locking torque		20N.M

**E4. Cable threading**

When the incoming cable is selected to be threaded from the installation foundation, the AC incoming cable should be threaded from the bottom of the column before fixing the column, and the outgoing position of the cable in the column should be selected according to the product configuration:



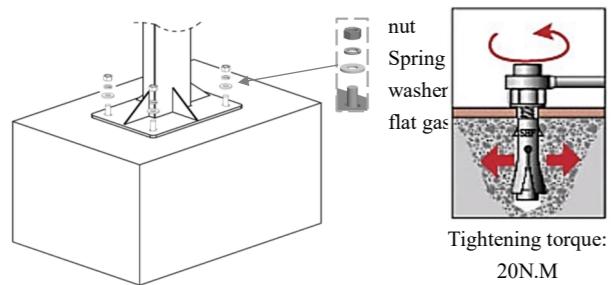
The column grommet needs a blade to make a "ten" opening.



E5. Column fixing

Attention! It may be limited by the pouring quality of concrete foundation, and the locking torque can be implemented with reference to the recommended value. Please don't knock on the column when fixing, to prevent the service life and appearance from being affected by the damaged surface spraying.

Remove the flat pad, spring pad and nut of the expansion bolt, put the mounting hole of the column on the expansion bolt, and tighten the nuts in sequence:

**F. Column charging pile fixing**

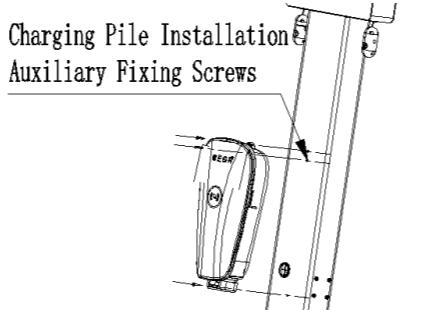
Tool name	use
Phillips screwdriver *1	For disassembly and installation of
M4x25 combination screw *2	Used for pile body fixation
M6x16 countersunk head screw *4	Gun hold for charging
Wire stripper *1	Used for field cable dialing.
Terminal crimping pliers *1	Terminal for crimping incoming wires

Note: CDW543U series columns are suitable for installation of AC charging piles of CDW543U-A08 and CDW543U-A10 models.

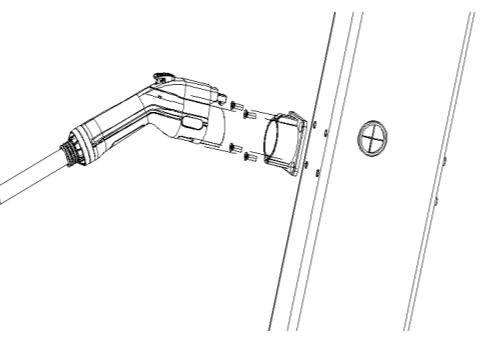
Note before fixing the charging pile:

- Before fixing, make sure that the cable is not electrified.

- When fixing, do not drop or hit the AC charging pile.
- After fixing, do not shake the column forcibly.
- The column is installed on the pile body, and two M4x25 combination screws are screwed on.



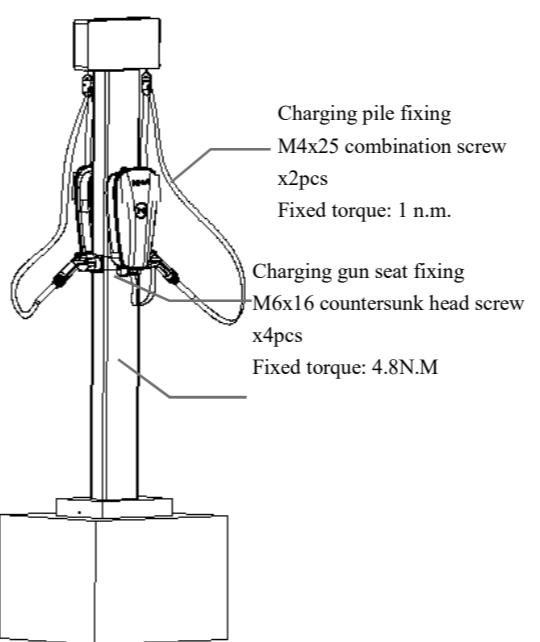
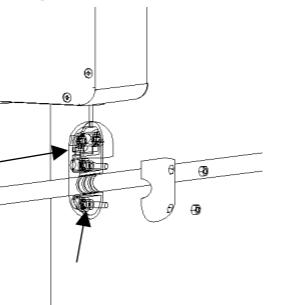
- Install the gun holder on the column, and fix the charging gun holder of the charging pile with four M6X16 countersunk screws.



- The gun wire is connected and installed with the tension balancer.

Before installation, unscrew two M5X25 screws for fixing the cable ball cover.

Place the proper position of the gun line in the slot of the pull ball, and tighten 2 screws.



[Note 3]: The distribution box is an optional part, so the installation method of the distribution box should be selected according to the product configuration, and the wiring should be electrically connected according to the charging pile manual.

G. post-installation inspection

- According to the requirements of design and protection level, the junction between the bottom of pile and foundation must be sealed with sealing mud to prevent insects or dirt from entering the pile.
- Properly handle all transportation and packaging materials according to local regulations.
- Clean up the sundries in and around the pile body, such as small cables, binding tapes, screw nuts, etc., and do not leave installation tools at the site or in the pile body (record the types and quantity of tools to prevent omission).
- Wipe the insulation with antistatic cloth, and do not use any corrosive solvent.
- Check whether the base is fixed and sealed.
- Check whether the internal devices of the equipment are fastened and reliable.
- Check whether the electrical connection and wiring are correct and complete, whether the connection is firm and whether the grounding is

reliable.

- Check whether the protection level of the equipment meets the requirements, especially at the cable entrance at the bottom of the pile.
- Check the appearance, marking, completeness and cleanliness.

H. About us

ShenZhen CEGN Co., Ltd.. is mainly engaged in the research and development of charging equipment for new energy vehicles, the construction, operation and maintenance of charging networks and related value-added services.

The Power Grid adheres to the concept of innovation-driven research and development, and is committed to providing customers with smarter, more energy-saving and more economical charging solutions.

By participating in the standards, it leads the industrial development and leads the technology in the field of charging pile product research and development. The first charging pile manufacturer who completed the on-board test in extremely cold and hot areas of the country actively participated in the commercial optical storage and charging commercial project, and the earliest large-scale commercial rack charging project with super charging power in China.

Through independent research and development of platforms such as charging cloud, vehicle cloud, energy storage cloud, energy consumption cloud, electricity sales cloud, etc., we can connect the government supervision platform upwards, horizontally complete interconnection operation, backwards compatibility parking, advertising media and other application scenarios, and perfect C-end and B-end applications can provide customers with intelligent and efficient operation and management platforms.

Through the standardized construction process of

the charging station, we have accumulated rich experience in the construction of the station, providing customers with the planning, design, construction and later operation and management services of the station.

As a comprehensive service provider of new energy, the car power grid uses green energy to make life better!

I. Contact us

ShenZhen CEGN Co., Ltd.

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