

Waypole

Installation Manual

ENGLISH



enel  way

Sommario

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CAUTION: The safety of the equipment is only guaranteed if the instructions below are used correctly. It is therefore necessary to keep them. Only qualified personnel can carry out installation or any other work on stations in operation, and only in accordance with the safety requirements in force.

1. Purpose

The purpose of this document is to describe how to install the equipment named “Enel X Way Waypole™”.

2. Field of application

It is used to document installation activities for such equipment as part of an Electric Vehicle Charging System.

PI	INSTALLATION REQUIREMENTS (This document)
RCCB	RESIDUAL CURRENT CIRCUIT BREAKER
TMCB	THERMAL-MAGNETIC CIRCUIT BREAKER

4. Equipment

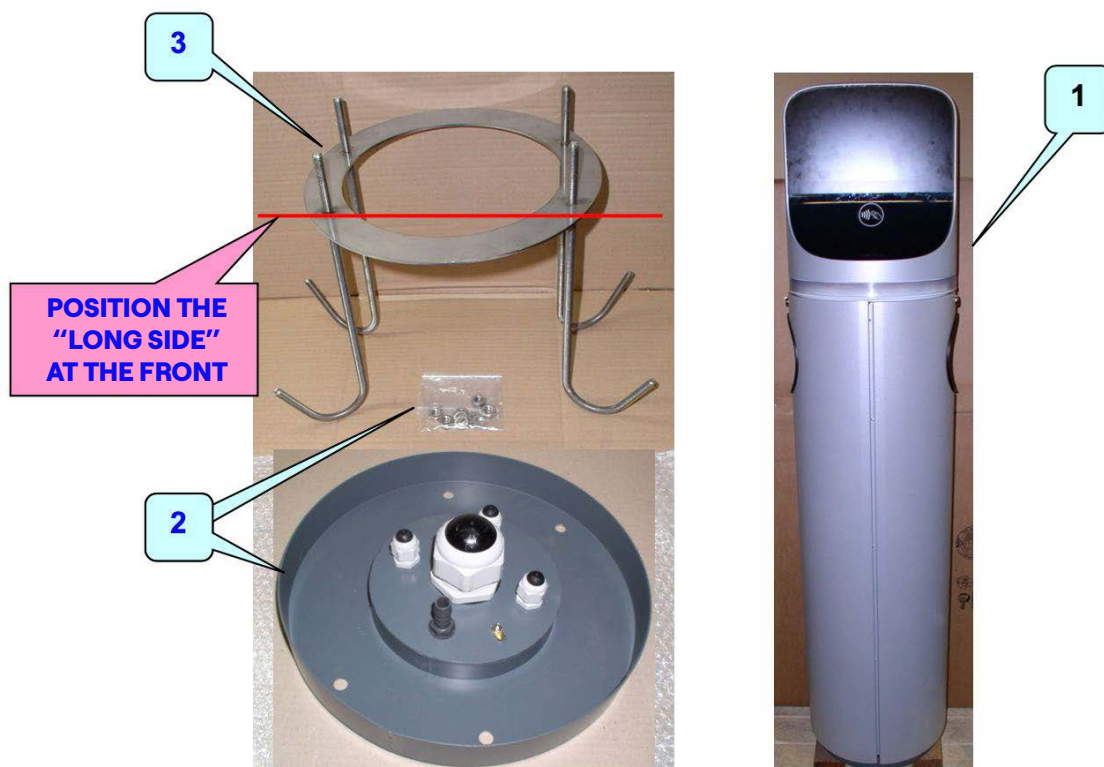
Anyone who secures the pole to the ground and connects it electrically to the mains power must have at least the following tools:

TOOL	SIZE	USE
Long socket wrench for hexagon head screws	13 mm	Power terminals, 400 Vac + PE
Socket wrench for hexagon head screws	17 mm	Nuts for securing anchors
Hexagon key	3 mm	Doors
Hexagon key	4 mm	Lexan guard
Hexagon key	5 mm	Fastening metal cable clamp
Open-end wrench	22 mm	Small cable glands
Open-end wrench	55 mm	Large cable glands

5. Material supplied by the manufacturer

The table below lists the materials that the manufacturer supplies for each Waypole to be used for installation.

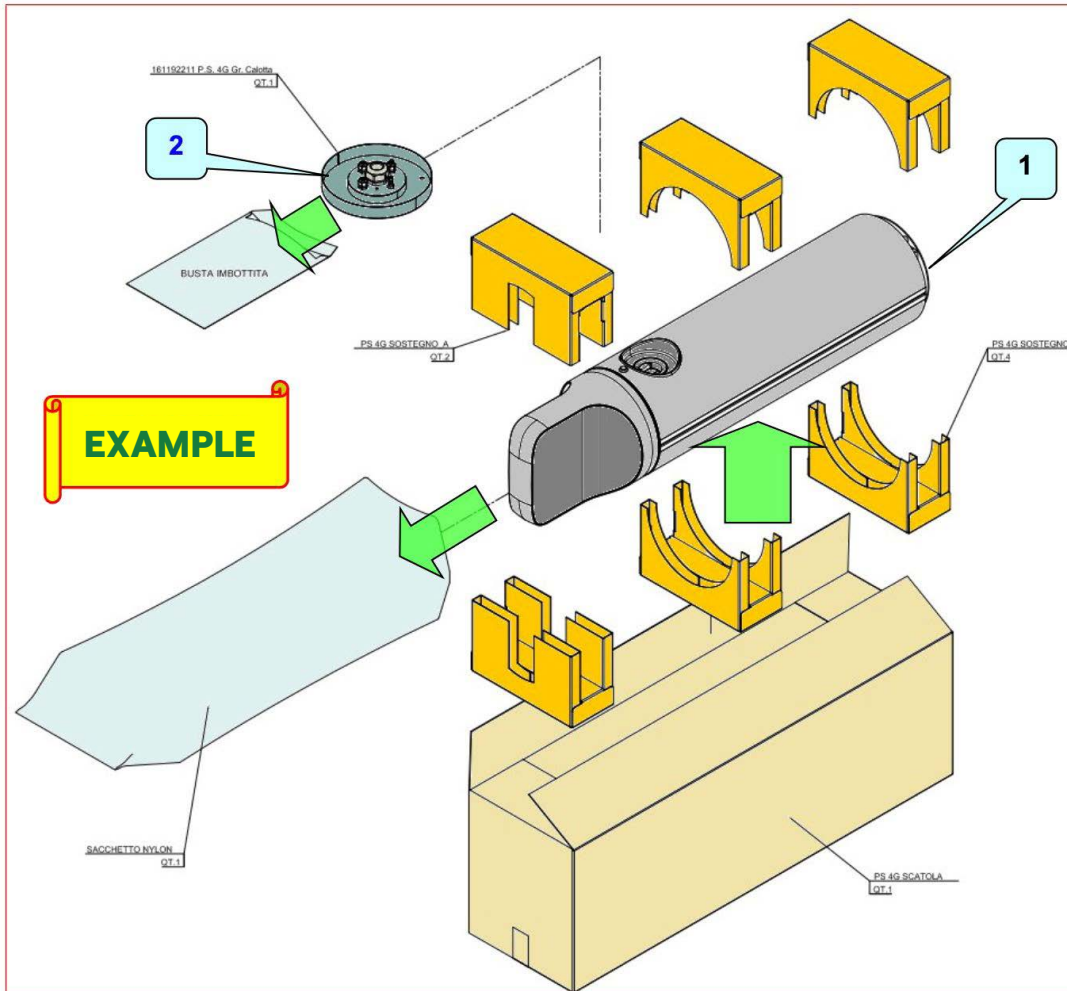
REF.	CODE	DESCRIPTION	QTY.
1	467015221	P. S. 4G Enel Three-phase Three-phase	1
	467015231	P. S. 4G Enel Single-phase Three-phase	1
	467015371	P. S. 4G Enel Three-phase Three-phase Siemens	1
	467015381	P. S. 4G Enel Single-phase Three-phase Siemens	1
	467015391	P. S. 4G Enel Single-phase Single-phase Siemens	1
	467015401	P. S. 4G Enel Single-phase Three-phase	1
2	161192211	P. S. 4G Cap Unit	1
3	161107391	Plate with anchors	1



6. Unpacking

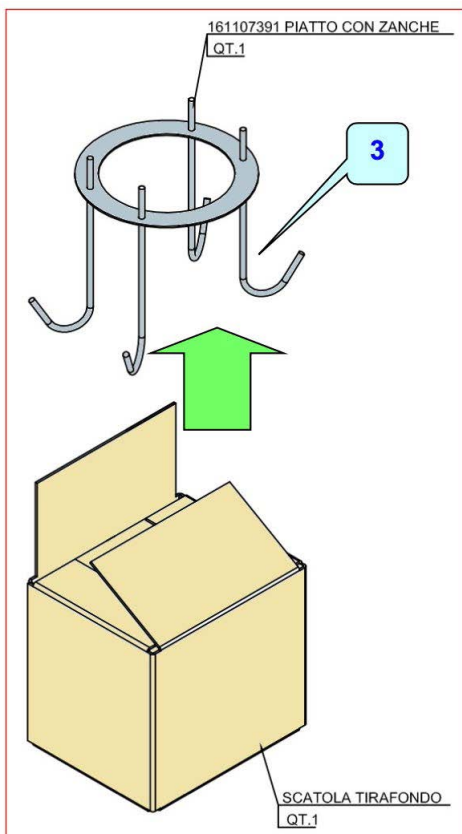
Remove the pole from its packaging (cardboard box) by sliding out the cardboard protection pieces, and then place it vertically on the paving, taking care not to damage it.

Also take out the accessory material need to install the pole, and keep it carefully on-site until it is used.



Main package

Take the plate with anchors out of the packaging.

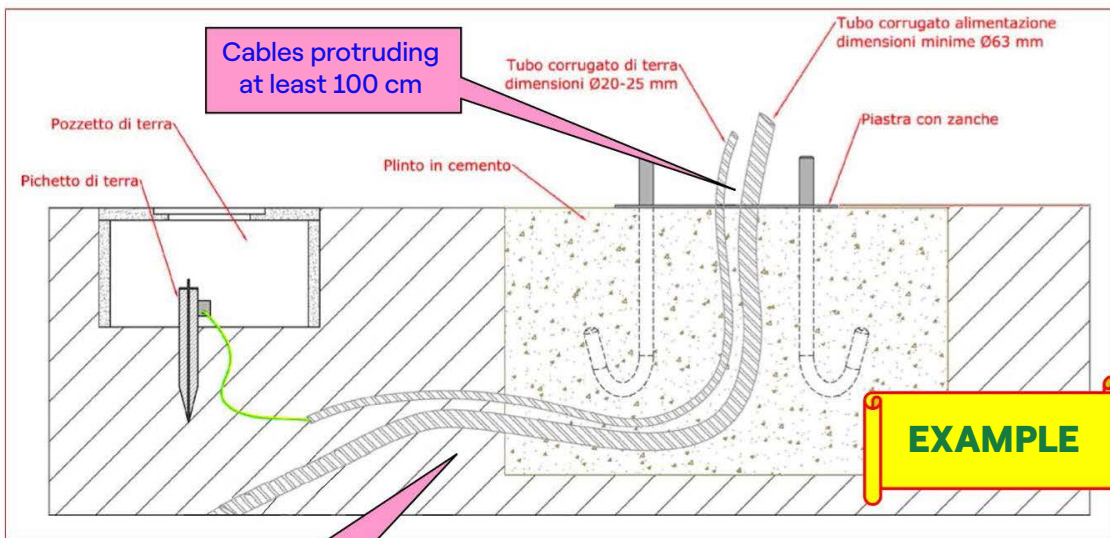


The plate with anchors



NOTE: Obviously, this will be done a reasonably long time before unpacking the Waypole, when the civil works are carried out.

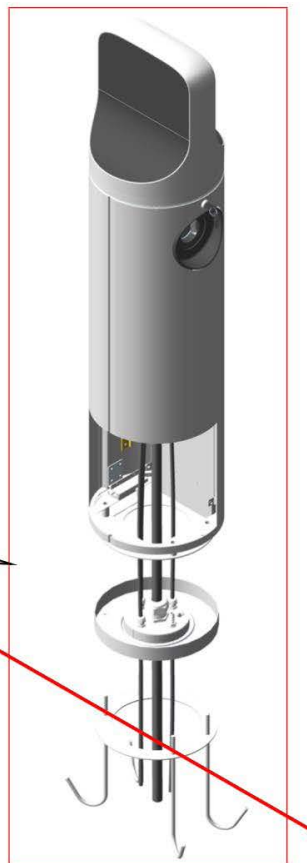
7. The Plinth



Section of the plinth area

Position the plinth where it ensures at least one metre from walls and obstacles to the sides of the pole (sides with the sockets on them).

Place the pole on the anchors with the "long side" towards the front




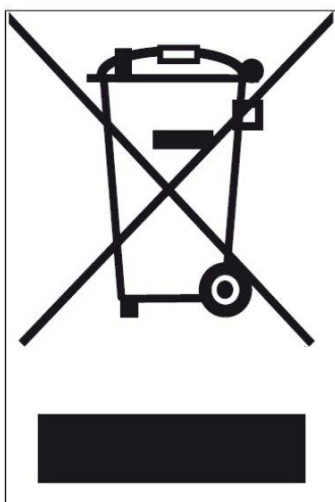
NOTE: See also Appendix A.

8. Installation

8.1. Warnings

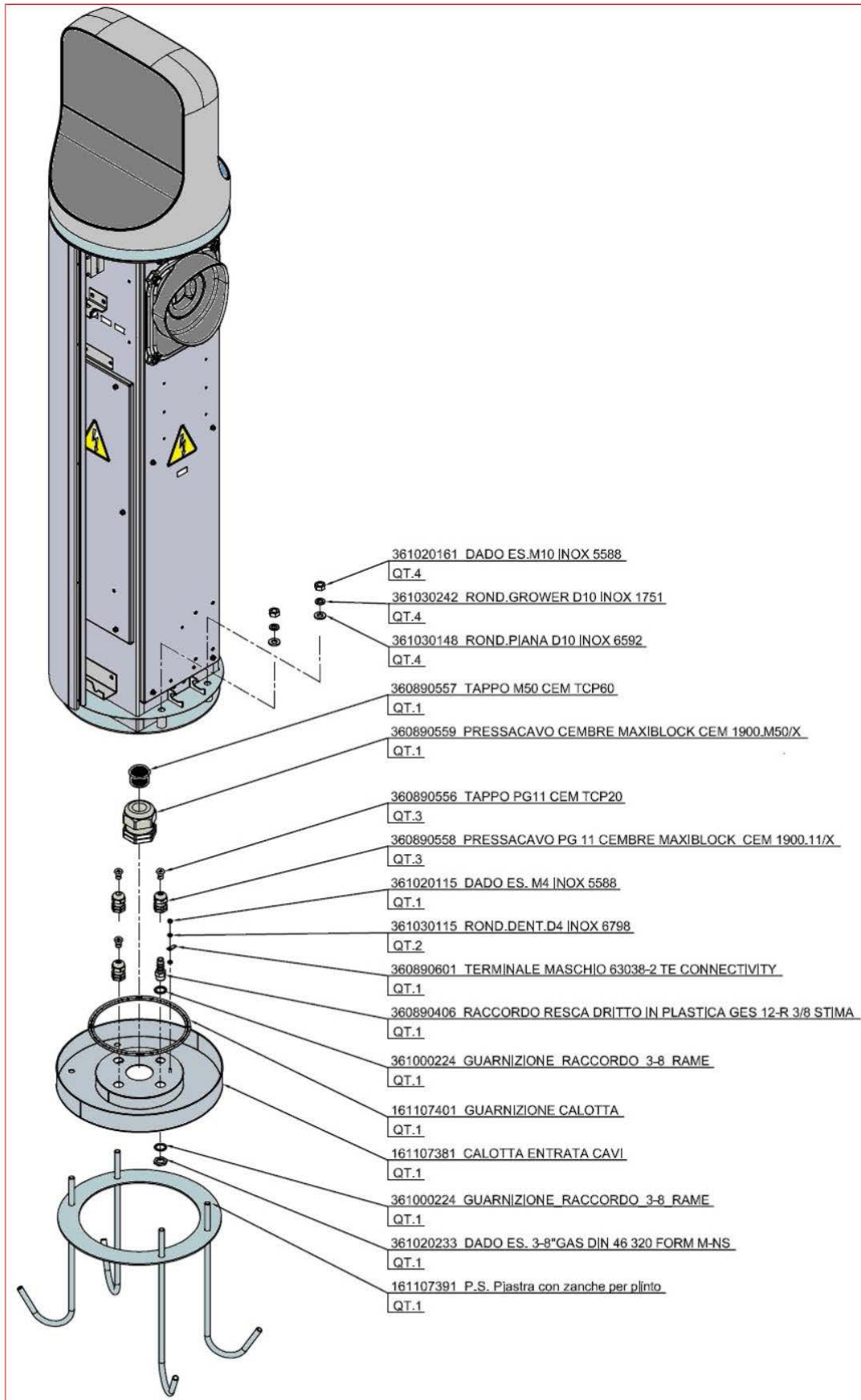


 **CAUTION:** All of the activities described in this manual must be carried out with no power connected, which must be verified in accordance with the procedures set out in the regulations in force.



8.2. Exploded diagram

Below there is an exploded diagram of the installation.

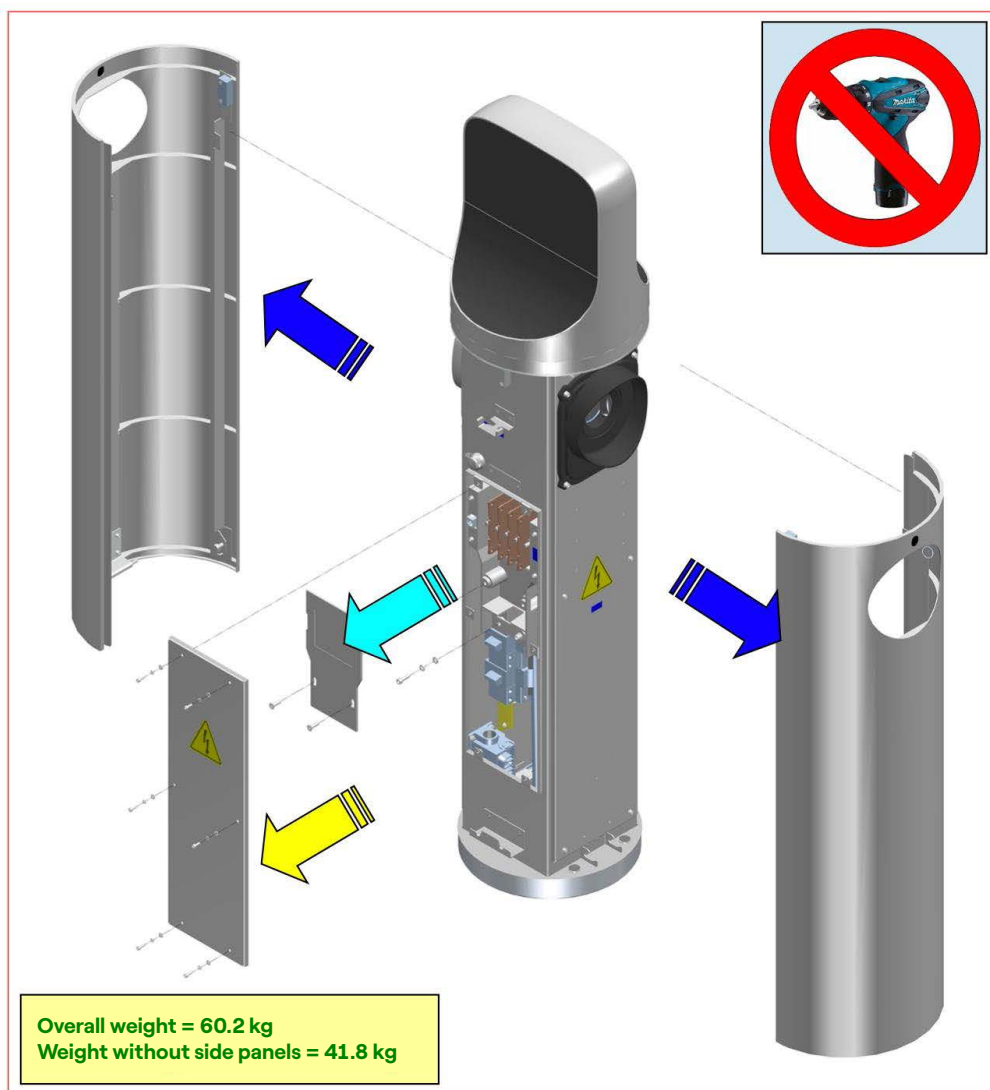


8.3. Preparing the Waypole

Once you have removed the pole from its packaging and placed it vertically on the paving, it is necessary to prepare it for installation, while taking care not to damage it.

Remove the protective transparent film from the stickers on the front and rear of the head.

Remove the two side panels (blue arrows) by opening the locks with the key, then unscrew the lower panel (yellow arrow) and finally unscrew the Lexan guard (light blue arrow).

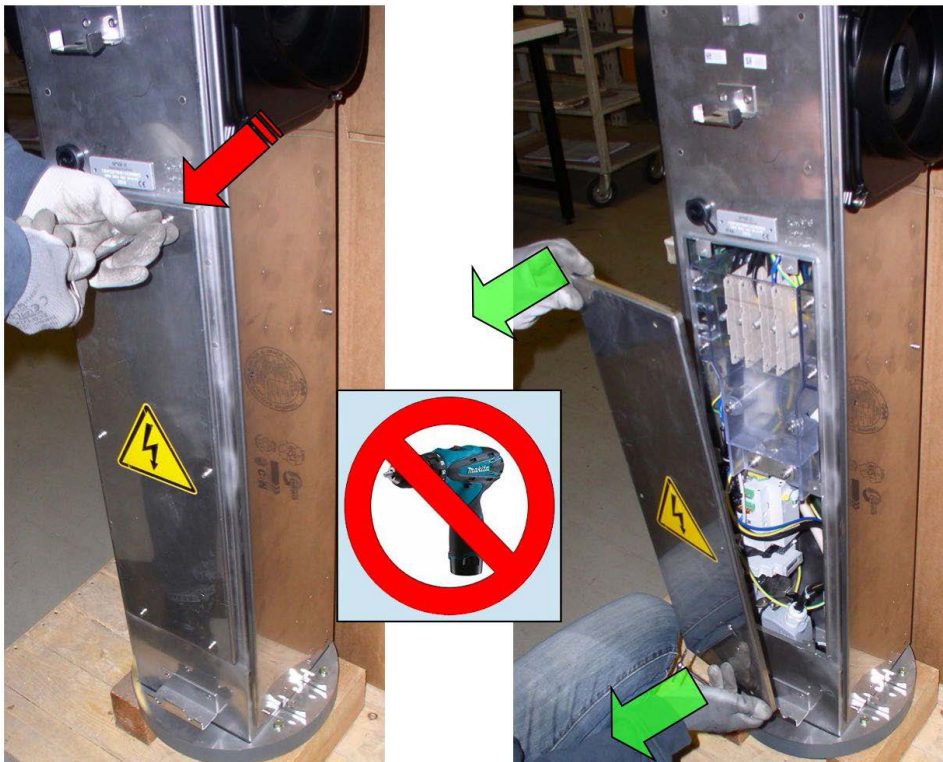


NOTE: The specified sequence is illustrated in the pictures below, which show an example of the activities carried out in the factory.

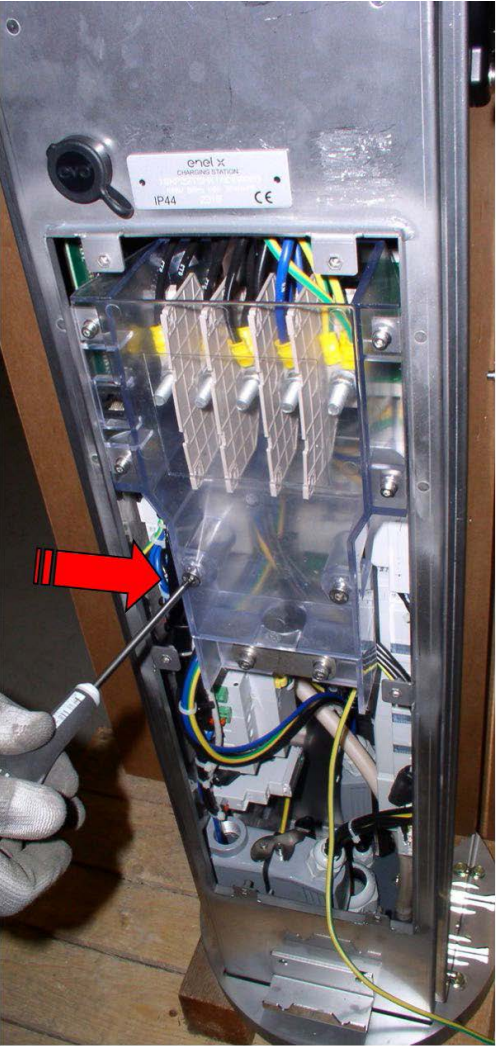
Use the key to open the two side panels, and temporarily place them vertically on a suitable surface in a stable manner.



Unscrew the 6 screws holding the front panel (without a power screwdriver), and place it to one side.



Unscrew the Lexan guard from the terminal block and put it in a safe place together with the screws.



8.4. Placing the Waypole in position

EXAMPLE

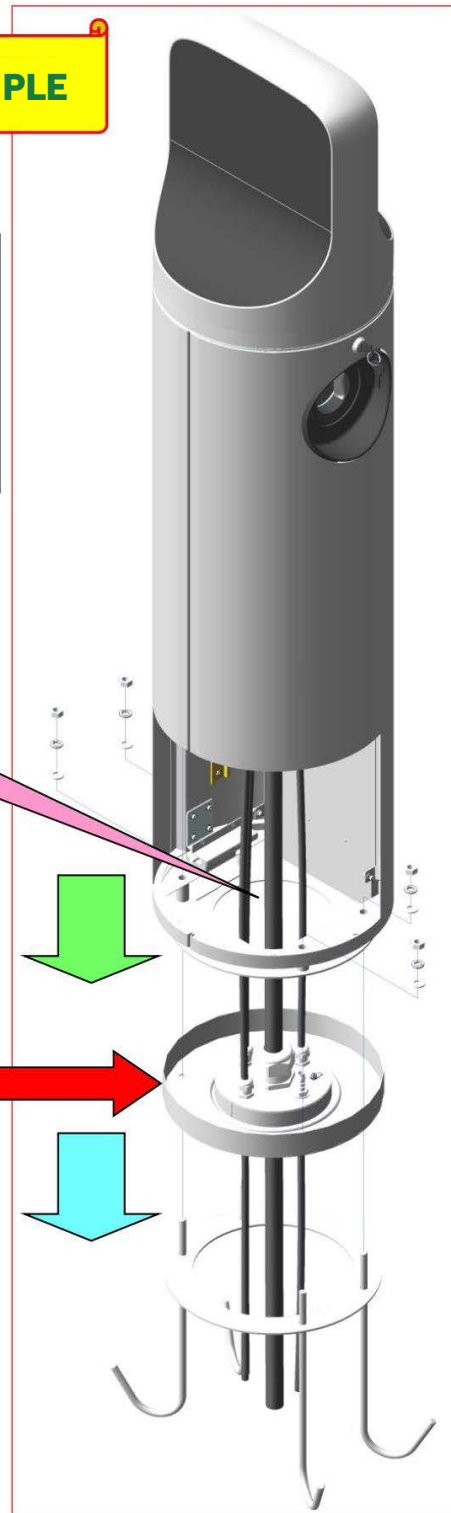
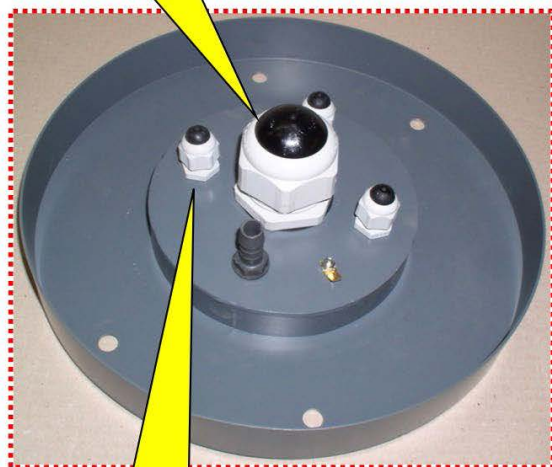
Place the "cap unit" on the "plate with anchors" (in the direction shown), centring the 4 holes on the 4 studs (light blue arrow).

Place the pole on the "plate with anchors" with the "cap unit" on top (in the direction shown), centring the 4 holes on the 4 studs (green arrow).

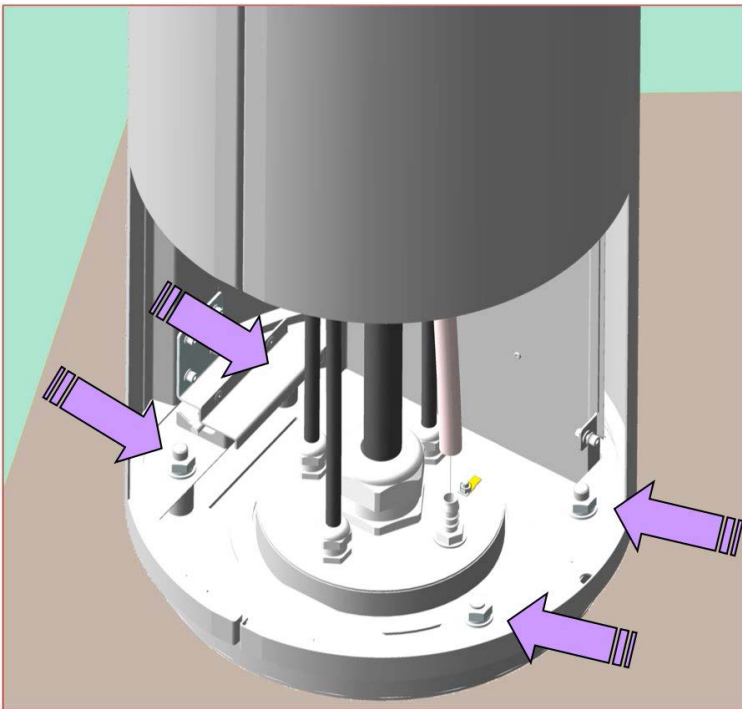
Take care to insert the sections of cable.

Where the power cable passes from outside

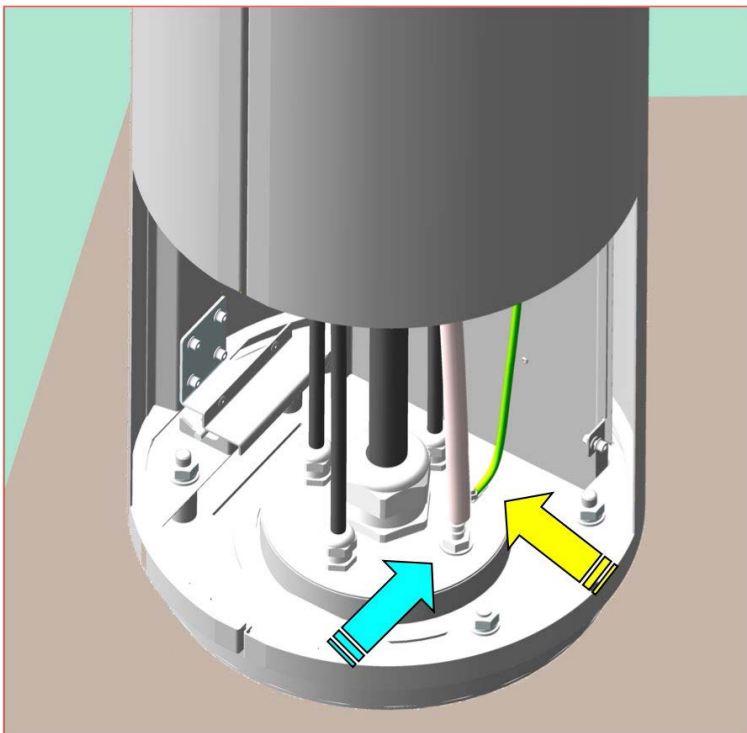
Where the earth cable passes from outside



Fasten it to the ground with washers and nuts (x 4) (violet arrows).

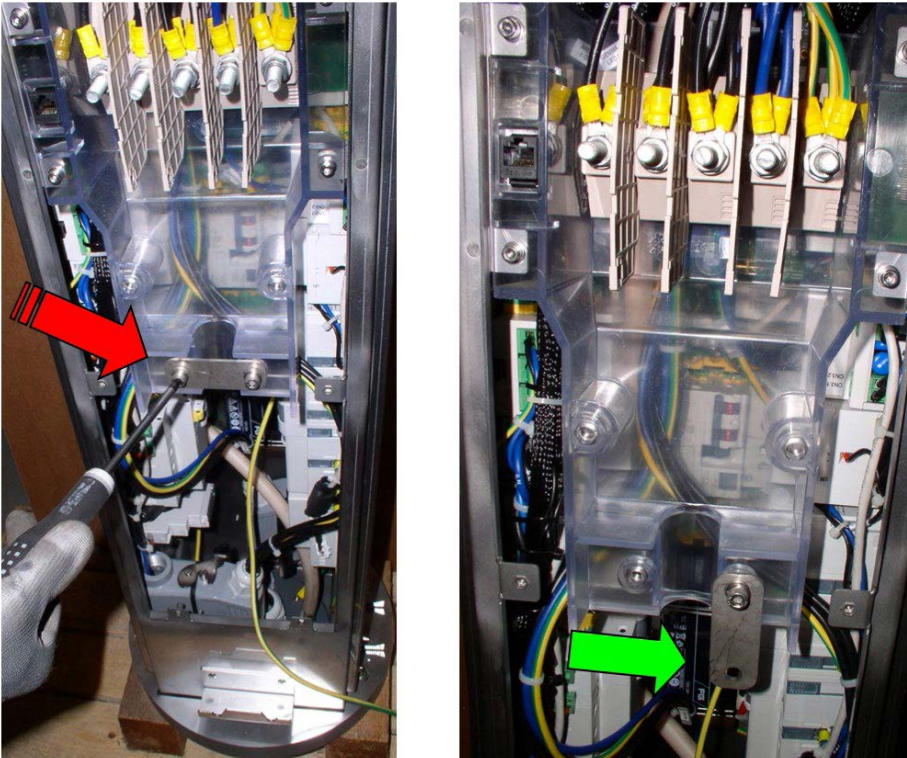


Finally, insert the drain hose into the straight hose tail (light blue arrow) and insert the loose end of the earth into the "Faston" terminal provided (yellow arrow).

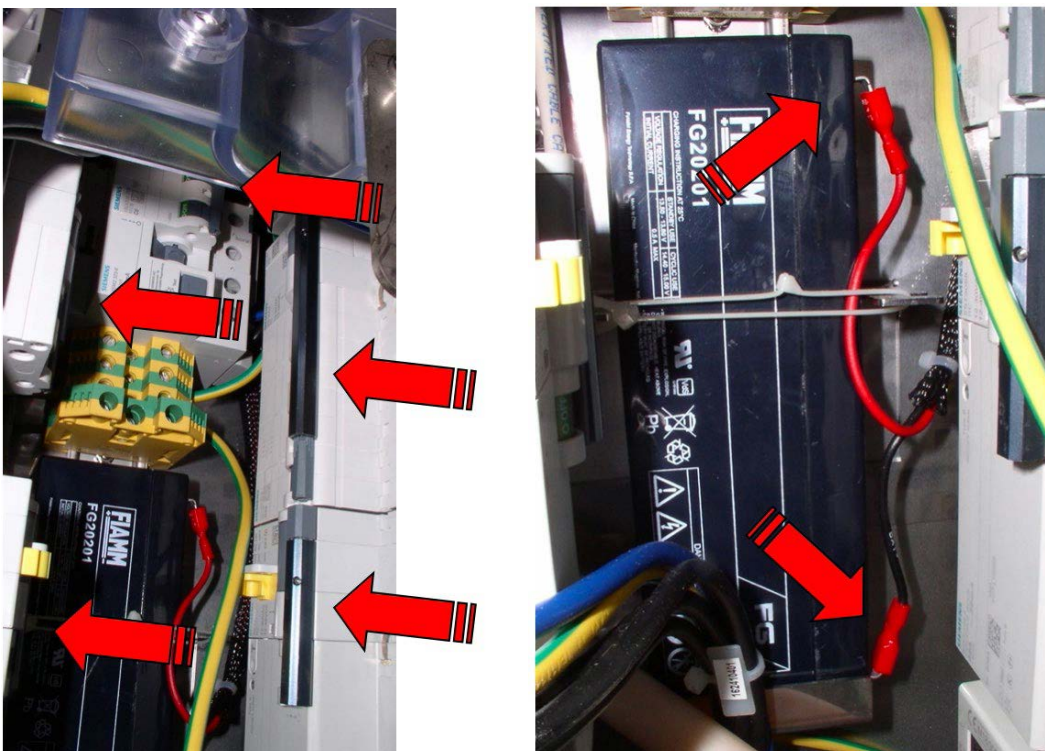


8.5 Wiring the power supply and earth

Unscrew the metal cable clamp at one end only.

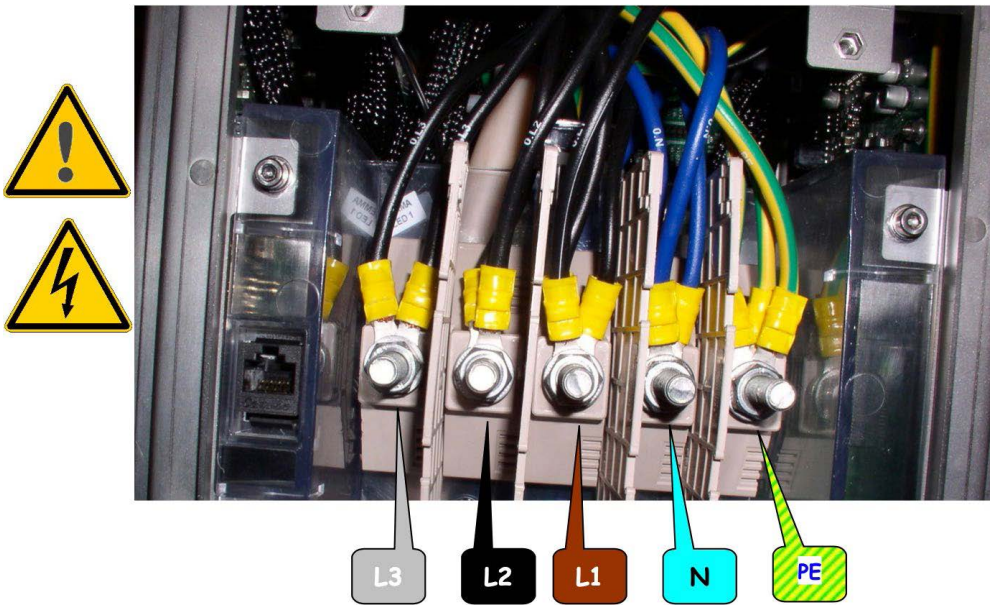


Arm the 6 circuit breakers (thermal-magnetic and residual current) and connect the battery terminal.

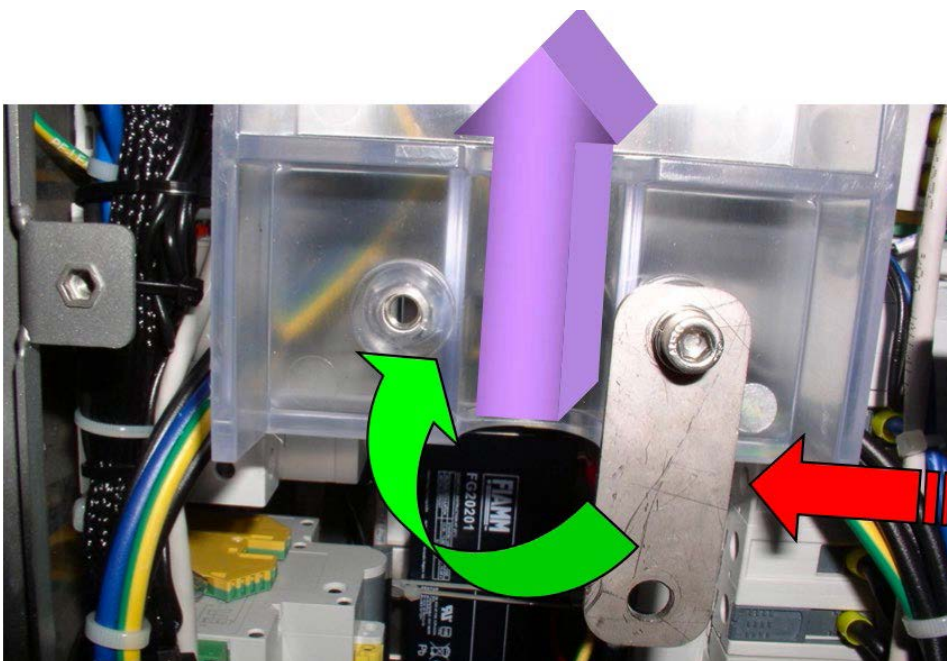


CAUTION: All the activities described in this manual must be carried out with no power connected, which must be verified in accordance with procedures set out in the regulations.

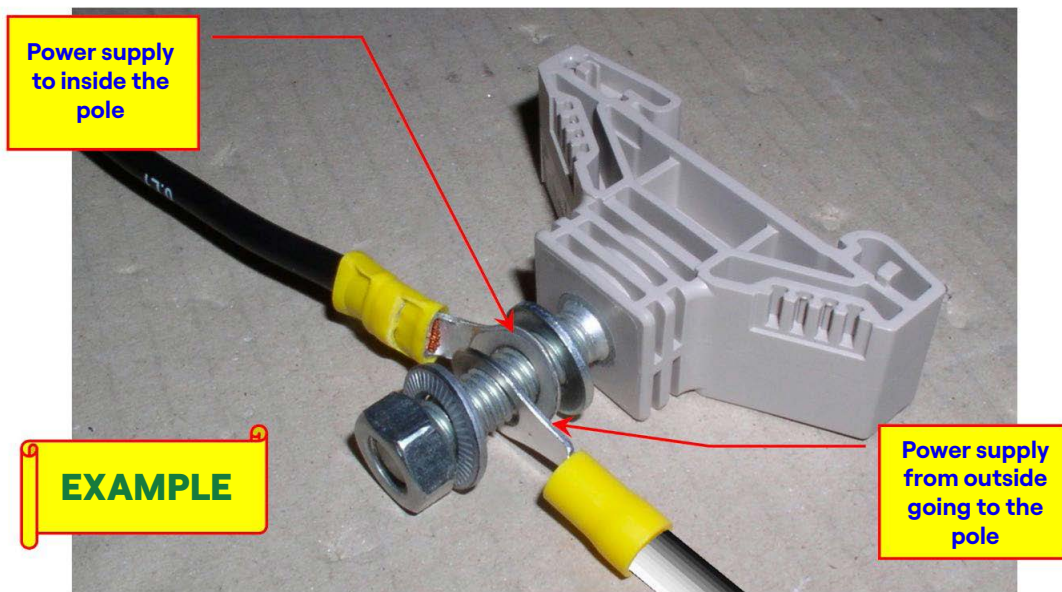
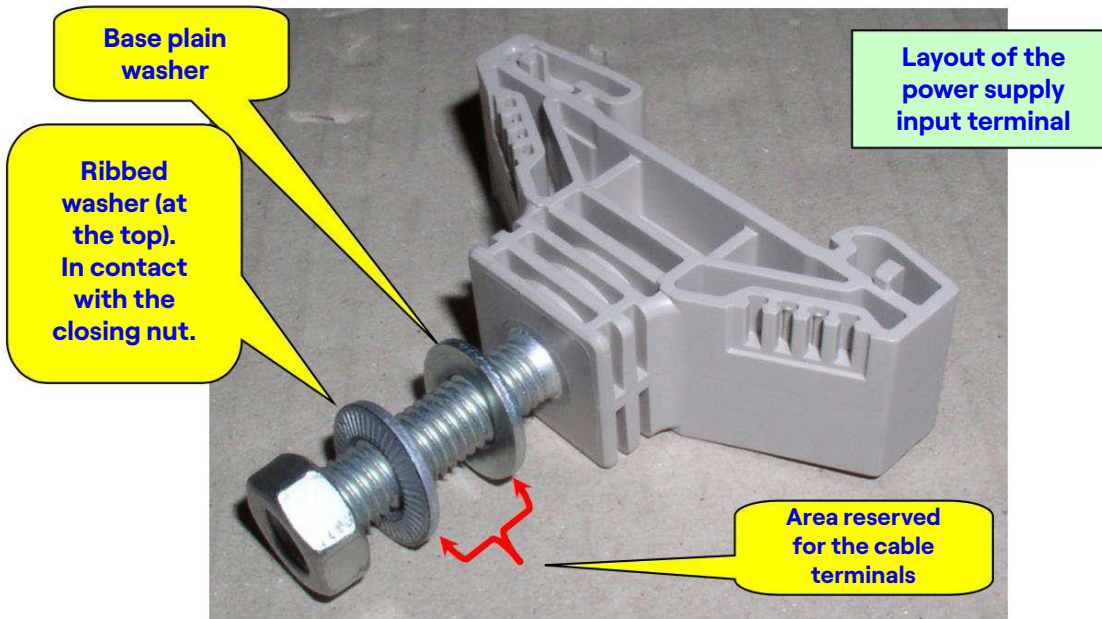
Prepare the power supply cable (see Appendix B) and the main earth (with ring terminals for M8 screws) and then connect them to the terminal block.



The cable must pass where shown by the violet arrow to be held by the metal cable clamp (red arrow).



Each terminal must be connected as shown in the figure below.

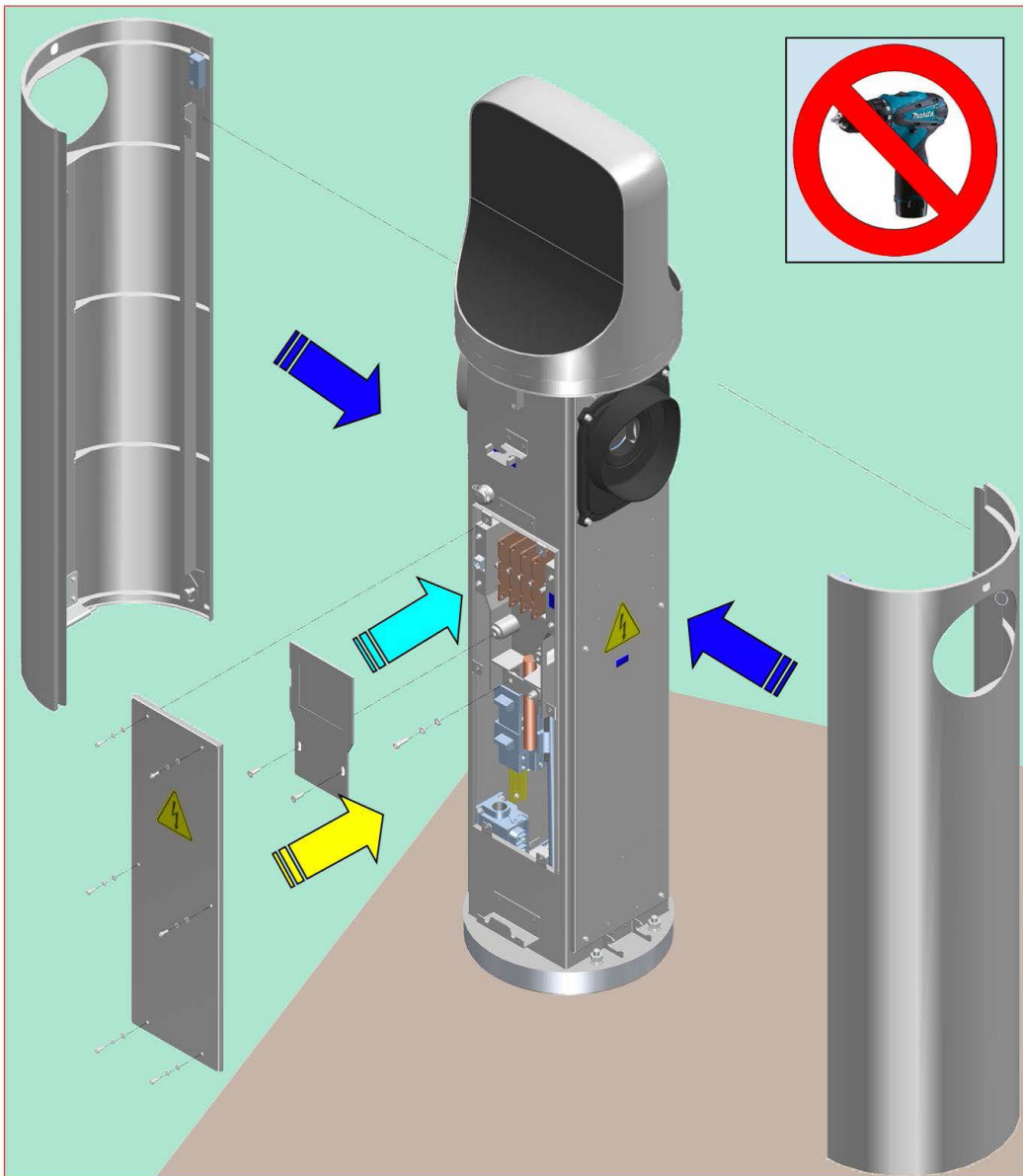


Use a long socket wrench to tighten the nuts properly, applying a minimum torque of 6 Nm.



8.6. Concluding steps

- > Refit the transparent Lexan guards (light blue arrow)
- > Screw the front panel back on, being careful of the earth cable (yellow arrow)
- > Refit the side panels in position and lock them with the key (blue arrow).
- > Keep the key in accordance with the established procedures.



The pole after closing.



9. Final steps

When all the steps have been completed:

- > check that the equipment has been anchored and closed correctly;
- > check that the equipment is in a "working state";
- > retrieve all tools and put them away carefully;
- > retrieve any rubbish produced;
- > leave the "environment" as you found it.

10. Waypole specifications

POWER SUPPLY

VOLTAGE	400 Vac Three-phase
FREQUENCY	50 Hz

CHARGING DATA

SINGLE-PHASE CHARGING	Type 3a socket - 4 contacts	L, N, PE + CP
	Maximum power	3,7 kW
	Maximum current	16 A
	Thermal-magnetic protection	$I_n = 16 \text{ A}$
		$I_{cn} = 10 \text{ kA}$
		Type "D"
Residual Current Protection	Current = 0.03 A	
	Protection type B	
THREE-PHASE CHARGING	Type 2 socket - 7 contacts	L1, L2, L3, N, PE + CP + PP
	Maximum power	22kW
	Maximum current	32A
	Thermal-magnetic protection	$I_n = 40 \text{ A}$
		$I_{cn} = 10 \text{ kA}$
		Type "D"
Residual Current Protection	Current = 0.03 A	
	Protection type B	

GENERAL

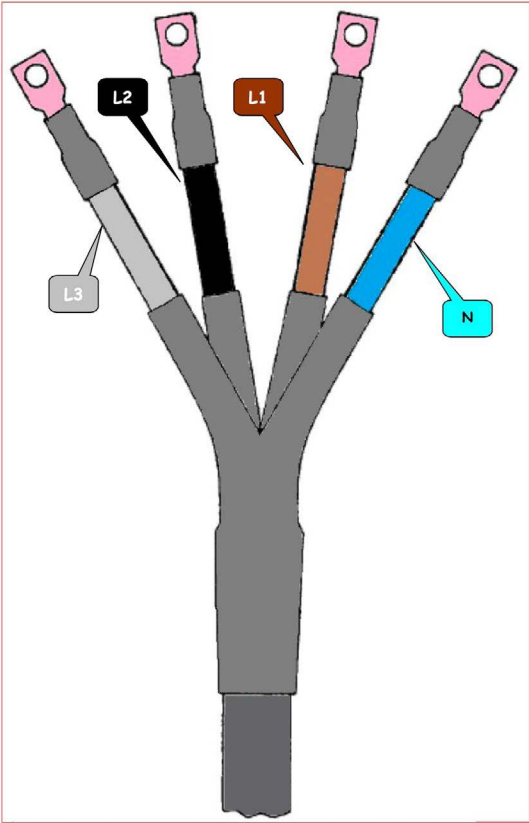
AMBIENT TEMPERATURE	-25°C to +50°C
RELATIVE HUMIDITY	5% to 95%
ATMOSPHERIC PRESSURE	860hPa to 1060 hPa
PROTECTION LEVEL	IP54

STANDARDS

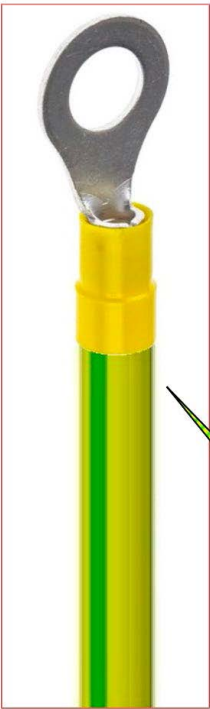
- > EN61851-1
- > EN61851-22
- > EN62196-1

Appendix B

Four-pole Cable Terminations



Earth Cable Termination



Appendix C

Lock programming procedure for Waypole installed in public places

REPROGRAMMING THE LOCK

Insert the brass-plated nickel silver key (MASTER B) into the lock

- > **A)** Turn the lock to the neutral position (45° anticlockwise) using the brass-plated nickel silver key (MASTER B) with which it was originally programmed in the factory, and remove it.
- > **B)** Insert a brass-plated nickel silver programming key (MASTER A) with another combination, and turn it 45° clockwise. The lock is now programmed with the new combination.
- > **C)** Insert the operational nickel silver key (SLAVE A) with the new combination to use the lock.

