Installation Manual

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1. Safety Information

Important safety instructions: this document contains important instructions and warnings that must be followed when installing and maintaining the EV Charger.

⚠ Warning

- Read this entire mandatory document before installing or using the EV charger.
- This device should be supervised when used around children.
- The BCP series EV Charger must be grounded through a permanent wiring system or an equipment grounding conductor.
- Do not install or use the EV Charger near flammable, explosive, harsh, or combustible materials, chemicals, or vapors.
- Use the EV Charger only within the specified operating parameters.
- Never spray water or any other liquid directly at the wall mounted EV Charger. Never spray any liquid onto the charger handle or submerge the charger handle in liquid. Store the charger handle above the ground to prevent unnecessary exposure to contamination or moisture.
- Stop using and do not use the EV Charger if it is defective, appears cracked, frayed, broken, or otherwise damaged, or fails to operate, or continue operation.
- Do not attempt to disassemble, repair, tamper with, or modify the EV Charger. The EV Charger is not user serviceable,contact us for any repairs or modification.
- Please take care while transporting the EV Charger. Do not subject it to strong force or impact or pull, twist, tangle, drag, or step on the EV Charger, to prevent damage to it or any components.
- Do not touch the EV Charger’s end terminals with sharp metallic objects, such as wire, tools, or needles.
- Do not forcefully fold or apply pressure to any part of the EV Charger or damage it with sharp objects.
- Do not insert foreign objects into any part of the EV Charger.
- Use of the EV Charger may affect or impair the operation of any medical or implantable electronic devices, such as an implantable cardiac pacemaker or an implantable cardioverter defibrillator. Check with your electronic device manufacturer concerning the effects that charging may have on such electronic devices before using the EV Charger.

Cautions

- Do not use private power generators as a power source for charging.
- Incorrect installation and testing of the EV Charger could potentially damage either the vehicle's Battery and/or the EV Charger itself. Any resulting damage is excluded from New Vehicle Limited Warranty and the EV Charger Limited Warranty.
- Do not operate the EV Charger in temperatures outside its operating range of -25°C to +50°C.
- The cord extension sets are not allowed to be used.

Notes

- Ensure that the EV Charger's charging cable is positioned so it will not be stepped on, driven over, tripped on, or subjected to damage or stress.
- Do not use cleaning solvents to clean any of the EV Charger's components.The outside of the EV Charger, the charging cable, and the connector end of the charging cable should be periodically wiped with a clean dry cloth to remove accumulation of dirt and dust.
- Be careful when removing the power supply, do not damage the circuit board.

2. Product Introduction

2.1. Product Appearance

1	Logo
2	Emergency Button Switch (When the button is pressed, the EV Charger will stop, then rotate the button pop-up reset.)
3	LCD Screen
4	Electric leakage test button (For WPS connection,and leakage test.)
5	RFID
6	Type 2 socket
7	LED light

2. Product Introduction

2.2. Parameter table

Wallbox Models	BCPC-B2N-P	BCPC-BT2N-P	BCPC-D2N-P	BCPC-DT2N-P
				
Maximum Power	7.4KW	22KW	2x7.4KW	2x22KW
Input voltage/Output voltage	AC230 1-Phase	AC400 3-Phase	AC230 3-Phase	AC400 3-Phase
Input frequency	50Hz/60Hz			
Tethered/Socket	Socket		2xSocket	
Meter	MID Meter		2xMID Meter	
Display	LCD Screen + LED Lights			
Frequency	50Hz/60Hz			
Rate Charging Current	6-32A			
Standby Power Consumption	4G：<8W　Wi-Fi:<6W			
Operating Temperature	-25℃～50℃			
Storage temperature	-40℃-85℃			
Operating Humidity	5%-95%			
IP Protection	IP55			
Safety Protection	Leakage Protection、Over Current Protection、Ground Protection、Over Voltage Protection、Under Voltage Protection、Contactor Adhesion Protection、Neutral and Live Wire Reverse Connection Protection、Over Temperature Protection、CP Signal Abnormal Protection、Lightning Protection			
Operating Altitude	<2000M			
Charger Dimension	Height：470mm Width：225.3mm Depth：177.3mm			
Gross Weight	9.8KG			
Leakage Detection	TYPE A+DC6mA leakage sensor built-in			

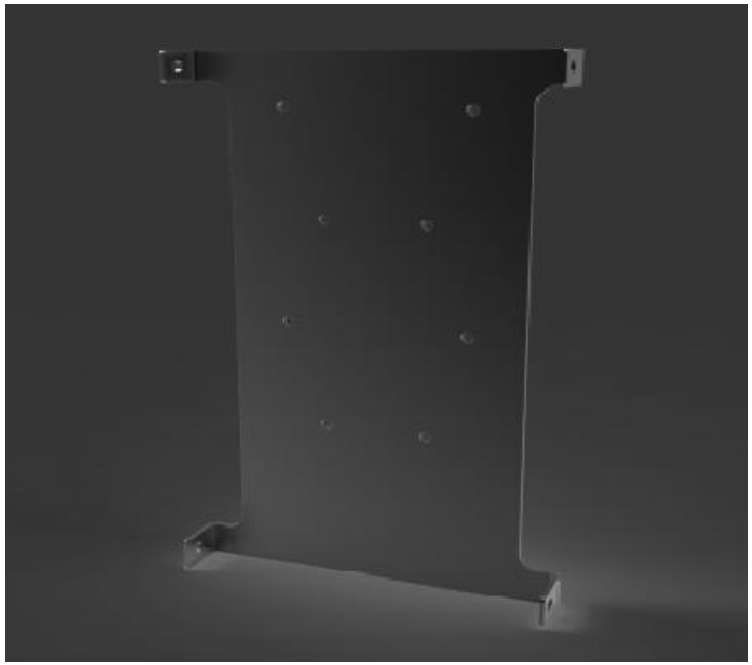
2.3. Product Features

- Cover opened detection: if the cover is opened, the Charger will alarm in red ligh and stop the work.
- LCD Screen: The data of the Charger can be seen more directly and clear.
- Built-in MID meter: to monitor the voltage and current more precisely, to measure the degree.
- Human Indution: when the person is close to the Charger, the LCD screen will light up, this can reduce the consumption and longer the service life.
- Double socket: reduce the cost, which can charge for 2 cars at the meantime.
- APP: Control the Charger remotely, and can view the historic electricity consumption.
- Various protection function: to protect efficiently the device and personal safety.
- IP55: high degree of water-proof, to protect the device well.
- Leakage Protection: built-in TYPE A + DC6mA leakage sensor.
- Temperature Monitoring: monitor the operating temperature anytime, once detecting the over temperature, the Charger stop the work immediately.
- WPS wifi connection: to achieve fast wifi connection.
- Backup power: If the power is cut-off by accident while charging, the backup power could unlock the charging cable of the Charger.

2.4. Protection Functions

With full protection to avoid all kinds of charging safety hazards, it will automatic power off after the vehicle is fully charged, to protect the car battery and prolong the working life.

3. Installation Instructions



⚠ Warning

⚠ Normally, the earth wire should be properly connected, otherwise the EV charger will not work.

⚠ For situation where there is no earth connection, in order to enable the EV Charger to operate, it can be set via APP to turn off the earth detection and it will work, but it will reduce to the leakage protection safety level.

⚠ This BCP series AC EV charger must be grounded via a permanent electrical system or equipment grounding conductor.

⚠ Before installing an AC EV charger, please confirm the type of grid connection available. If you are unsure of the type of connection available on the service panel, please consult an electrician or contact ZJBENY for assistance.

⚠ Note:Please consult your local electrician or refer to your local code in order to choose the proper wire for the AC EV charger current.

3. Installation Instructions

3.1. Installation Considerations

- Note: Throughout the manual, "conduit" is used as the standard term for the protective tubing that houses the service wiring. In regions where conduit is not used (Europe for example), a cable comprised of service wiring enclosed in a protective jacket may be substituted for conduit if allowed by local regulations.
- Here are some additional guidelines
- Conduit needs to be metal and flame retardant.
- Use an appropriate circuit breaker.
- To keep the housing weatherproof,use cable glands.
- The ev charger doesn't come with the battery for safety shipping, we advise the users to buy the CR1220 battery or same size battery if need the history record function.

3.2. SIM Card Installation

- Note: If you need to use 4G mode, please install a Micro SIM card

3.3. Minimum Installation Requirements

Installation of the wall charger requires that you:

- Calculate the existing electrical load to determine the maximum operating current.
- Calculate the distance to ensure minimal voltage drop.
- Obtain any necessary permits from the local authority that has jurisdiction and confirm that the follow-up inspection has been scheduled by an electrician after the installation is complete.
- Use only copper conductors.
- Use copper wire that meets the specifications of local wiring regulations. The selected cable must be capable of withstanding continuous oads of up to 40A at all times. The selected circuit protection device must incorporate an appropriate wall-mounted residual current device (RCD) and corresponding electrical load over current protection.

3.4. Installation Position

- Ensure that the parking position is within range of the charging cable.
- There is enough clearance for the charging cable to wrap around and the charging handle can be comfortably positioned on the side of base.
- If installed in an enclosed garage, choose to install on the side of the EV charger slot.
- For outdoor installations, waterproof protection is recommended but not mandatory.
- Install in a well-ventilated space. Avoid installation in enclosed boxes or close to high power appliances.

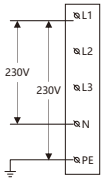
3.5. Installation Height

- Maximum height (indoor and outdoor): 60 inches (1.5 m)
- Recommended height: 47 in (~1.2 m)
- Minimum outdoor height: 24 in (0.6 m)
- Minimum interior height: 18 inches (0.45 m)

3.6. Power Supply

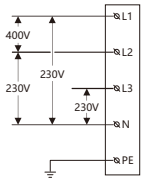
230V single-phase power supply

- For 3-phase EV charger, connect the single phase wire (L1), the neutral wire and the earth wire do not connect the other phase wires (L2 or L3). The phase voltage between the line and neutral wires should be 230V.



400V three-phase power supply with neutral line

- If three phases are applied, all three phases (L1, L2 and L3) and the neutral line should be connected to each other and the voltage of each phase to the neutral line should be 230V.



3. Installation Instructions

3.7. Accessories List

① 

EV charger

X1

② 

Position template

X1

③ 

Mounting braket

X1

④ 

RFID card (optional)

X2

⑤ 

M32*1.5 cable gland

X1

⑥ 

M6*8 screws

X4

⑦ 

8*40 socket head screws and anchorings

X8

⑧ 

Plastic lifter

X1

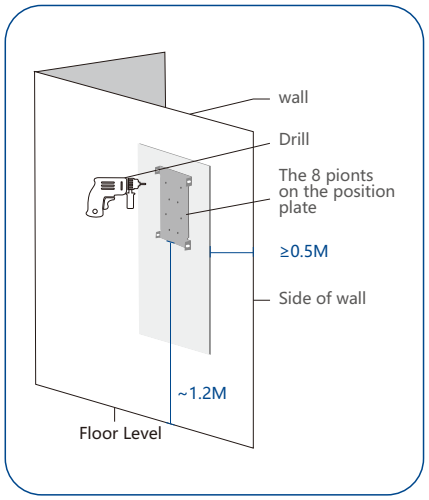
⑨ 

Water-proof cover

X1

3.8. Installation Step

3.8.1. Step-by-step Installation Instructions (bottom entry wiring)



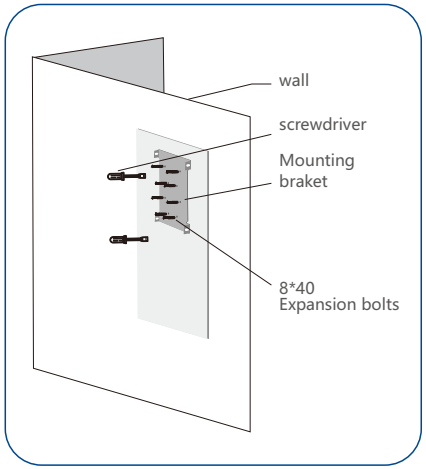
Step 1

Position

The bottom of the ⑨positioning plate is 1.2 m away (recommended), if the EV charger is installed close to the edge of the wall, the positioning plate should be more than 0.5 m away from the edge of the wall.

Drilling pilot holes

Drilling the holes according to the instruction on the Position template for different installation and wiring ways.



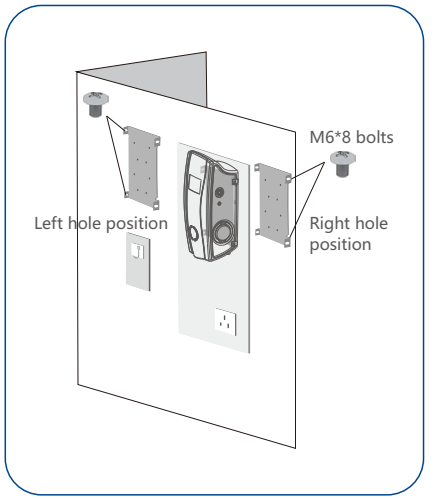
Step 2

Install the Mounting braket

Put the 8*40 Socket head screws' anchoring into the holes, and use the screw driver make the 8pcs 8*40 Socket head screws to fix the Mounting braket on the wall .

3. Installation Instructions

3.8.1. Step-by-step Installation Instructions (bottom entry wiring)



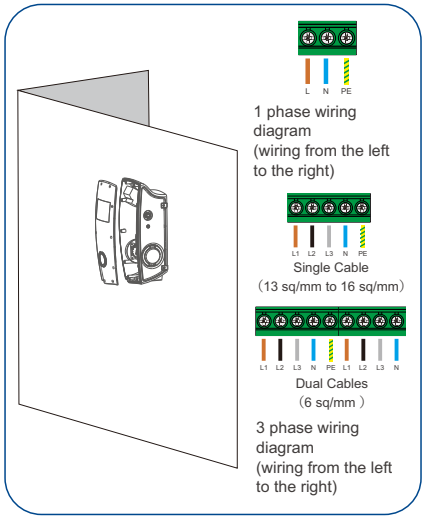
Step 3

Install the EV Charger to the mounting plate

Align the side hole of EV charger to the panel's side holes.

Installation

Use the 4pcs M6*8 screws to fix the EV charger to the mounting plate as picture shows (Screws torque 1.5NM-2.0NM).



Step 4

Wiring

Note: Consult with your local electrician or refer to your local code for proper wire sizing appropriate for the currents in your EV Charger.

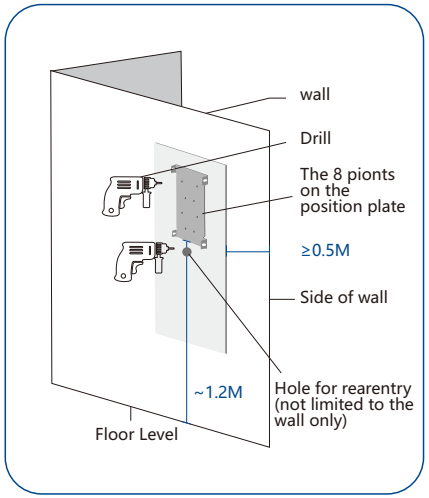
Note: It is the installer's responsibility to identify whether additional grounding is required to ensure that local regulations are met.Grounding must be installed at the power source and not at the cable entry to the EV Charger.

As the picture at left shows, use the screwdriver loosing the screws on the EV charger cover. Wire the cable to the according terminal.

Note: The torque applied to the screws should be 1.8N-m to 2.2N-m

3. Installation Instructions

3.8.2. Step-by-step Installation Instructions (rear entry wiring)

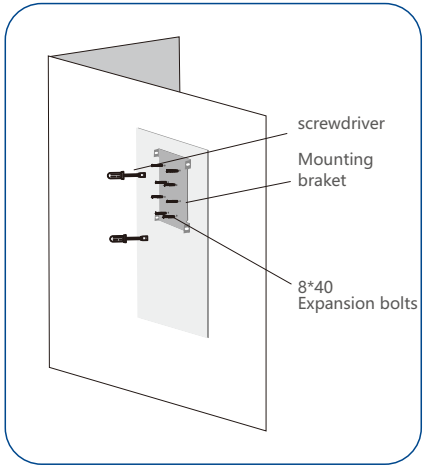


Step 1

Position
The bottom of the ⑨positioning plate is 1.2 m away (recommended), if the EV charger is installed close to the edge of the wall, the positioning plate should be more than 0.5 m away from the edge of the wall.

Drilling pilot holes

Drilling the holes according to the instruction on the Position template for different installation and wiring ways.



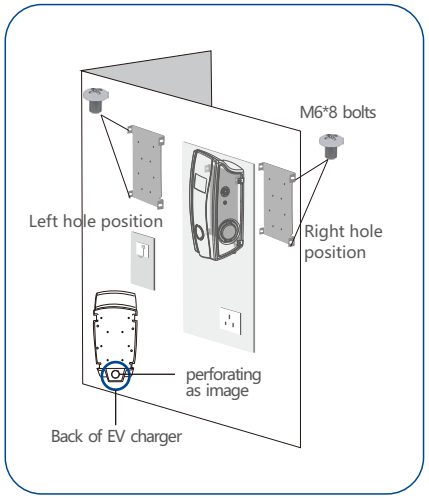
Step 2

Install the Mounting braket.

Put the 8*40 socket head screws' anchoring into the holes, and use the screw driver make the 8pcs 8*40 Socket head screws to fix the mounting braket on the wall .

3. Installation Instructions

3.8.2. Step-by-step Installation Instructions (rear entry wiring)

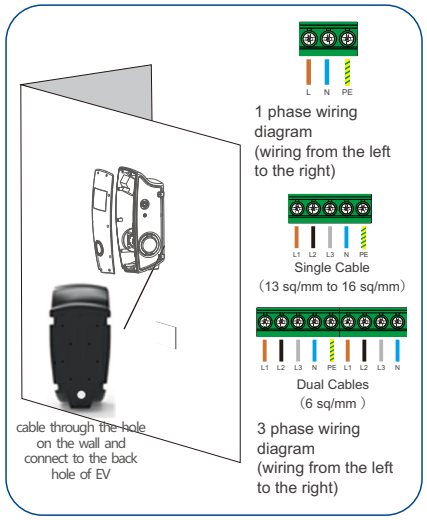


Step 3

Install the EV Charger to the mounting plate.

Find the hole for cut out on the back of EV charger.

Use the 4pcs M6*8 screws to fix the EV charger to the mounting plate as picture shows (Screws torque 1.5NM-2.0NM).



Step 4

Wiring

Note: Consult with your local electrician or refer to your local code for proper wire sizing appropriate for the currents in your EV Charger.

Note: It is the installer's responsibility to identify whether additional grounding is required to ensure that local regulations are met.Grounding must be installed at the power sourceand not at the cable entry to the EV Charger.

As the picture at left shows, use the screwdriver loosing the screws on the EV charger cover. Wire the cable to the according terminal.

Note: The torque applied to the screws should be 1.8N-m to 2.2N-m

⚠ Note:

- Do not do wiring without guiding of professional person.
- Do not make installation without reading the installation manual.
- Do not remove the EV Charger by yourself in any situation,it may damage the precision parts inside, and which will make you can not enjoy after sale service.

4.1. Button Usage

- Electric Leakage Test Button

short press	light up the LCD screen
	Choose which charging gun to use. (When the screen is on)
Press the emergency stop reset button, and then press the leakage test button.	leakage test
hold down	WPS paring (need to be without network, and under the WPS mode)

Note: The charging gun cannot be inserted into the car during the leakage test.

- Emergency Button Switch

press	emergency stop
press and rotate	reset

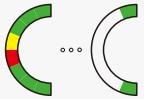
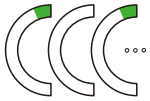
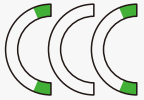
- Press the emergency buttoon and hold down the reset button for 20 seconds,to restore factory setting.
- Hold down the reset button for 5 seconds,to restore default password.
- Hold down the reset button to power up the Charger,to be in firmware update mode by Z-BOX
- Hold down the leakage test button and emergency button to power up the Charger,to be in WEB configuration mode.

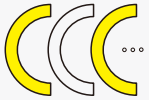
4. Operating instructions

4.2. Buzzer

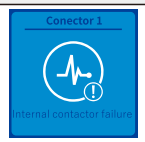
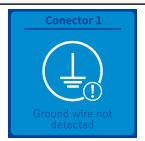
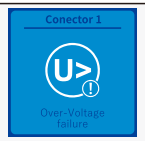
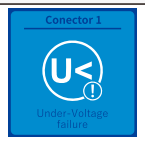
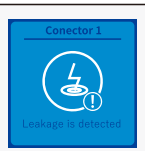
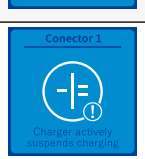
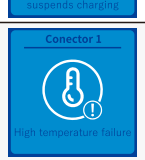
enter into WEB configuration mode successfully	Long buzzing once
WEB configured successfully	Long buzzing once
WEB configured failed	Long buzzing twice
RFID card/remote authentication failed	Short buzzing 5 times
RFID card/remote authentication start	Short buzzing once
RFID card/remote authentication stop	Short buzzing twice
Start the leakaeg test	Long buzzing once
Restore the password successfully	Long buzzing once
Restore the factory setting	Long buzzing once

4.3. LED Lights Display

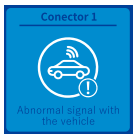
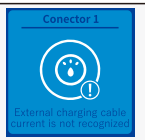
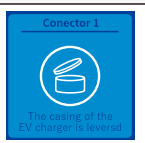
Normal Status				
LED Behavior	LED Status	Status Description	Potential Cause	Solution
	Lights OFF	No power supply	No power	Check the power source
	All lights ON, Yellow and Green lights are blinking till green lights breathing magenta.	Charger Power ON self test		
	The first green light fast blinking (ON for 0.25 seconds, OFF for 0.25 seconds)	Enter WPS configuration	In WPS configuration status	Recheck the configuration
	The first green light slow blinking (ON for 1 second, OFF for 1 second)	Network is not connected	WIFI connection failure or wrong password	1.5G or WPA 2_ Enterprise is not available for charger 2.Ensure password is correct 3.Restart the APP
	All green light breathing magenta	Standby		
	The 1-5 green lights slow blinking (ON for 1 second, OFF for 1 second)	The charger is reserved		
	The 1-5 green lights ON, brightness decreases from top to bottom	Charger authorized, waiting for the Charging Connector plug in		

Normal Status				
LED Behavior	LED Status	Status Description	Potential Cause	Solution
	Green lights up and down	The Charging Connector is plugged in, waiting for RFID card authentication		
	Green lights end in the middle	Waiting for the car start to charge		
	Green lights extend from the middle to the ends	Charging		
	All green lights ON	Charging finished		
	No. 1 and No. 2 green lights flash alternately	Waiting for updating the firmware		
	No. 1-5 green lights are moving and flashing	In upating the firmware		
	Yellow lights flashing	Charger is remotely disabled or not registered	Charger is not configured	Configure the charger

4. Operating instructions

Fault Status				
LED Behavior	LCD Screen/LED Light	Status Description	Potential Cause	Solution
		Contactor failure	Contactor adhesion or tripping	Check whether the vehicle charging module is normal
		Emergency stop protection	Emergency stop button is pressed	Rotate the emergency stop button Pop-up reset
		Grounding abnormality	The ground wire is not wired or the neutral wire is reversed	Check whether the grid connection and charger wiring is correct
		Over Voltage	Power supply has short circuit or unstable	1.Check the power supply 2.Check the wire of power supply
		Under Voltage	Power supply voltage is insufficient	1.Check the power supply 2.Check the wire of power supply
		Leakage fault	Leakage happens	1.Reset with emergency stop button 2.Check the charger connector or vehicle for leakage
		Over current	Short circuit may happen	Call for professional repair
		Over temperature alarm	High temperature	1.Wait for charger cooling 2.Ensure the wiring of charger terminal is not loosing

4. Operating instructions

Fault Status				
LED Behavior	LCD Screen/LED Light	Status Description	Potential Cause	Solution
		Abnormal CP signal	The connection between the charger and the vehicle is loose	1.Check if the connector is with water leakage in 2.Ensure the connector is matched with EV
		Abnormal CC signal	The connection between the charger and the vehicle is loose	Check whether the charger connector is firmly inserted
		Open fault	The cover is opened or not fastened	Check if the cover is opened and fasten the cover
	Yellow light ON triple	LED board is offline	LED board is fault or loosing	Open the charger cover and check whether the light board cable is connected correctly and firmly
	Yellow light flash 4 times	RFID off-line		
	Yellow light flash 3 times	Meter off-line		
	Red light flash 4 times	The car is over temprature, stop charging		
	Yellow light light up for 5 seconds	Firmware update fialed		