AH29

USER GUIDE

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www.dez-energy.com

IMPORTANT!

READ THE ENTIRE DOCUMENT BEFORE INSTALLING OR USING THE CHARGER.
FAILURE TO DO SO OR TO FOLLOW ANY OF THE INSTRUCTIONS AND WARNINGS IN THIS DOCUMENT CAN RESULT IN FIRE, ELECTRICAL SHOCK, SERIOUS INJURY OR DEATH.
THE CHARGER MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN.

PRODUCT FEATURES

SELF-MONITORING AND RECOVERY

The charger will automatically resume charging after a minor fault such as OVP, UVP, OTP or OCP, with no user intervention required. Resetting of RCD or PE faults is configured to manual by default.

OCPP 1.6J and OCPP 2.0.1 FULL PROFILES & SMART CHARGING SUPPORT

The charger supports OCPP 1.6J & OCPP 2.0.1 full profiles, including the latest smart charging to balance the load of charging stations with limited power supply.

MAINTENANCE AND REPAIR

Regularly inspect the Charger components for damage. If damage is found, contact Dez Energy Solutions.

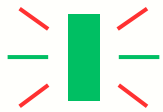
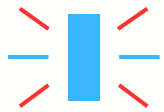
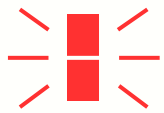
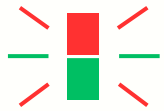
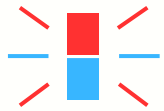
The Electric Vehicle Charger contains no user-serviceable components. If the unit is not operating correctly, contact Dez Energy Solutions.

Wipe the outside of the Charger regularly with a clean damp cloth to remove any accumulation of dust and dirt.

TROUBLESHOOTING

Situations	Actions
Status indicator is not blue after the charger is powered on.	1) Make sure the AC power input is connected correctly.
	2) Turn the charger OFF and then back ON.
	3) If the problem persists, contact Dez Energy for Technical Support.
Status indicator does not flash blue when the charger is connected to the EV.	1) Unplug the charging plug and reconnect it fully to the receptacle on the EV.
	2) Inspect the cable and plug for damage.
	3) Inspect the EV and its receptacle for damage.
	4) If the problem persists, contact Dez Energy for Technical Support.
Status indicator flashes red while charging.	1) There is a temporary error.
	2) Wait until the temporary error is resolved and the charger returns to normal condition. It usually takes less than 10 seconds.
	3) If the status indicator doesn't return to blue, turn the charger OFF and then back ON.
	4) If the problem persists, contact Dez Energy for Technical Support.
Status indicator is solid red.	1) There is a critical error.
	2) Unplug the charging plug from the EV immediately.
	3) Turn the charger OFF and then back ON.
	4) If the problem persists, contact Dez Energy for Technical Support.

LED FAULT

LED	Status	Fault
	Solid red	CP/CC fault
	Alternately flashing red and green	Over current, over voltage or under voltage
	Alternately flashing red and blue	E-locker or relay fault
	Group A and B, red and red flashing alternately	PE fault
	Group A and B, red and green flashing alternately	RCD fault
	Group A and B, red and blue flashing alternately	PME fault
	Flashing red	Other fault, need charger log files for further diagnosis

WHAT'S INCLUDED

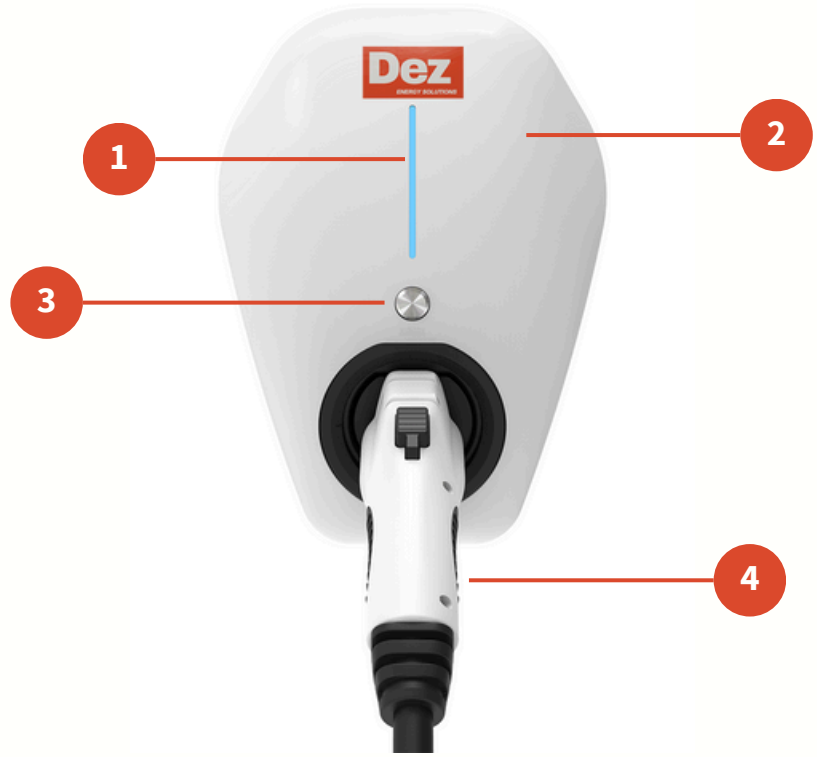


Diagram 1 : Full product display

1.	LED Indicator	3.	Physical Button
2.	RFID Reader	4.	SAE J1772 5m Cable

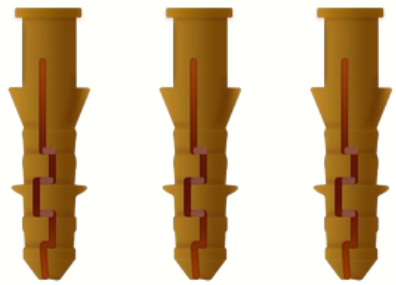
WHAT'S INCLUDED

EV Charger

User Manual

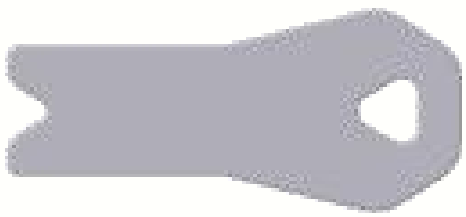
Terminal Krimps X2

Terminal Krimps X3

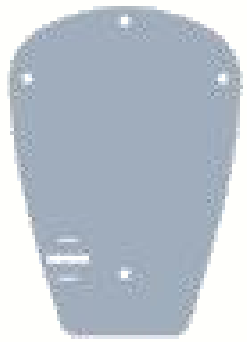


Expansion Screws X3

M5 x 40 Screws x 3



Opening Tool



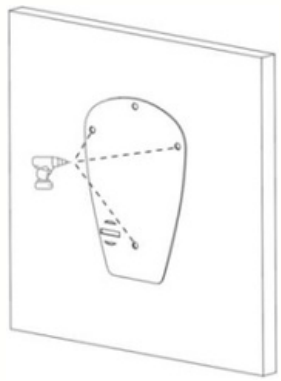
Template x 1

NOTES BEFORE INSTALLATION:

The charger should be protected with an certified extra Residual Current Device (RCD) to be installed in the upstream circuit which complied with the following:

- Rated residual operating current not exceeding 20mA
- Type-A

HOW TO INSTALL



1

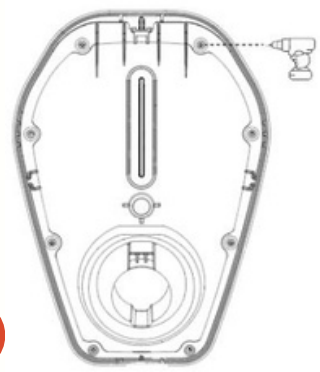
Using the enclosed template on the wall and mark all the mounting holes required.

2

Drill holes where the fixing points are marked and then install the expansion screws.

3

Using opening tool remove the first cover.

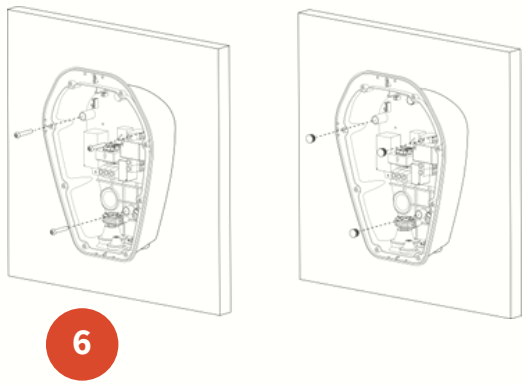


4

Unscrew the second gray cover.

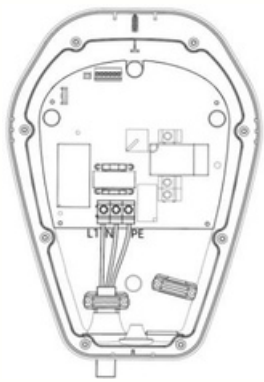
5

Unclip the communication cable and set the cover aside to protect the cover during installation.



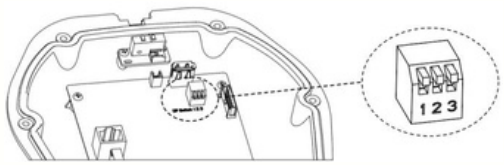
6

Fix the device on the wall with M5x40 screws. Tighten the screws with a torque of 0.2-0.5 Nm. Do not over-tighten.



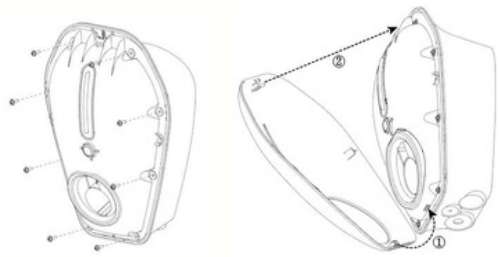
7

Connect the cable through the bottom of the junction box. For cable clamp, tighten the screws with a torque of 0.5-0.7 Nm. The bottom cable clamp is removable if required.



8

DIP switch (See pg. 8)

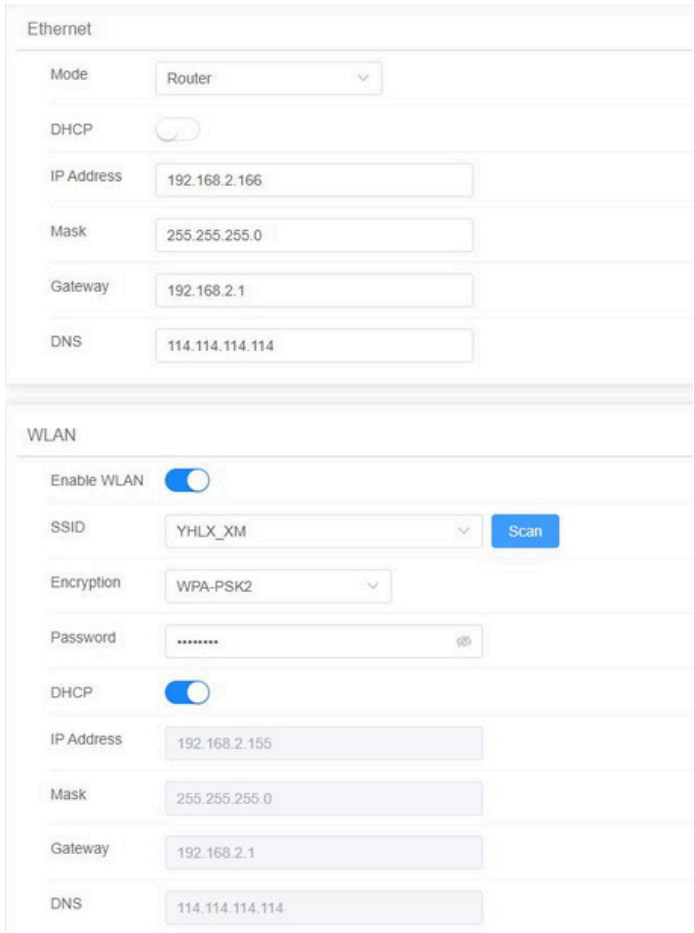


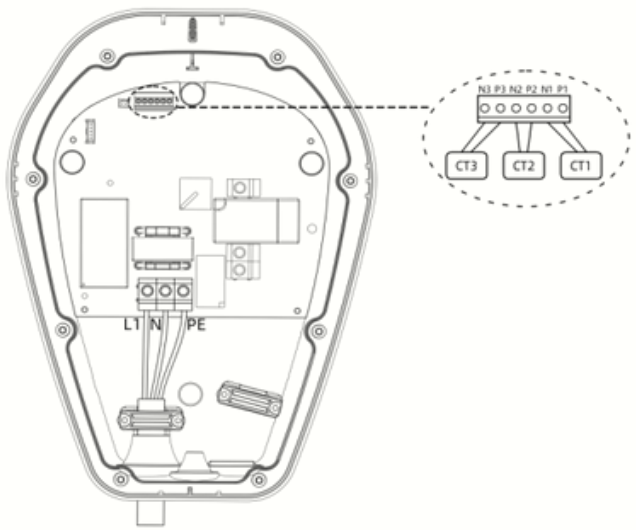
9

Clip the communication cable and secure the two covers. Tighten the screws with a torque of 0.2-0.5 Nm. Do not over-tighten.

HOW TO INSTALL CONT.

10





WI-FI

- Connect your device to the charger Wi-Fi SSID ‘IOC-XXXXXX’, and enter default password ‘IOC12345’.
- Open web-based setup page by entering the default IP Address ‘192.168.10.1’, and enter Username ‘install’ and Password ‘installer123’ then click ‘ok’.

1. Ethernet supporting DHCP or static IP.
2. Scan the Wi-Fi to select the SSID to be connected.

ETHERNET

Connect internet cable to WAN port for Ethernet connection

BLUETOOTH

1. Turn on your smartphone’s Bluetooth, the BLE range is less than 10m. Please stay inside the range.
2. Open the ChargeFast mobile app then click ‘Standalone’ button to start Bluetooth connection.
3. Add your charger by clicking on the“+” button on the homepage then connect to charger Bluetooth SSID ‘IOC-XXXXXX’

CT WIRING DIAGRAM

Connect CT clamps to the terminal for read current value of other loads like MainSwitch, Solar, Splitter etc.

1. Install CTs with the arrow or label“THIS SIDE TOWARD SOURCE” facing towards the current source.
2. Connect the CT leads to the corresponding CT input terminals, no polarity restrictions of each pair of terminals.
3. If the default 5m CT lead wires need to be longer, they can be extended.

HOW TO INSTALL CONT.

11

VERIFY THE INSTALLATION

1. Verify the power cables are wired properly.
2. Close the upstream RDC to power on the charger unit, and you should see the LED lights sequentially illuminate blue.
3. If the LED light illuminates or flashes red, refer to the troubleshooting table on page 2.
4. Check on the screen display whether the internet is available and back office is connected, refer to page 8.
5. Test the live charging process with simulation or electric vehicle if the installation is completely verified.

DIP CHART

DIP 1	DIP 2	DIP 3	Current
ON	OFF	ON	40A
OFF	OFF	OFF	32A
OFF	OFF	ON	25A
OFF	ON	OFF	20A
OFF	ON	ON	16A
ON	OFF	OFF	10A

⚠ SAFETY INSTRUCTIONS ⚠

This manual contains important instructions for Models AH28-32, AH28-40 and AH28-50 that shall be followed during installation operation and maintenance of the charger.

WARNINGS:

To avoid a risk of fire or electric shock, do not use this device with an extension cord .

This device is intended only for charging vehicles not requiring ventilation during charging.

This device should be supervised when used around children.

Do not put fingers into the electric vehicle connector.

Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or any other signs of damage.

Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.

Turn off input power at the circuit breaker before installation or maintenance.

Do not touch the charger plugs with sharp metal objects, such as wires, tools or needles.

Grounding Instructions
The charger must be connected to a grounded, metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the product.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

CAUTIONS:

To reduce the risk of electric shock, connect only to properly grounded outlets.

Do not use this product if there is any damage to the unit.

Risk of Electric Shock ⚠
Do not remove cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel.

To reduce the risk of electric shock and fire - Do not connect to a circuit operating at more than 150 volts to ground.

To reduce the risk of fire, connect only to a circuit provided with 40-50 amperes maximum branch circuit over-current protection. Please see below list:
AH29-32: 40A
AH29-40: 50A

Do not operate the charger in temperatures outside its operating range of -30°C to +50°C.

The charger should be installed only by a qualified approved technician.

Make sure that the materials used and the installation procedures follow local building codes and safety standards.

Incorrect installation and testing of the charger could potentially damage either the vehicle’s Battery and/or the charger itself. Any resulting damage is excluded from the warranty for both the vehicle and the charger.

The charger can be used indoors and outdoors, and meet the Type 3R Raintight requirement.

⚠ SAFETY INSTRUCTIONS ⚠

This manual contains important instructions for Models AH28-32, AH28-40 and AH28-50 that shall be followed during installation operation and maintenance of the charger.

WARNINGS:

Improper Connection of the Equipment
Grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded.

Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This device complies with Part 15 of the FCC Rules / Industry Canada licence- exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

MPE Requirements To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTIONS:

Ensure that the EV charging cable is positioned properly to the charging sockets.

Do not use cleaning solvents to clean any of the charger's components.

Transportation and Storage
Ensure that the wall connector is within storage temperature when moving, transporting, or storing.

Branch Circuit Conductors and Ground Wire

- If installing for less than maximum power, refer to local electrical code to select correct conductors and ground wire size that are suitable for the chosen circuit breaker.
- If installing for maximum power, use minimum 6 AWG, 90°C-rated copper wire for conductors.
- Use Copper Conductors Only

NOTE: Up size conductors if necessary.

Wall Connectors

- For sites with multiple wall connectors, each wall connector must have its own branch circuit with L1, L2/N, and Ground.
- **COPPER WIRE TERMINATIONS ONLY** for landing in wall connector wire box terminals. Conductors can be stranded or solid.
- For outdoor installations, use watertight fittings when securing feeder wires to the charger.

The charger shall be mounted at a sufficient height from grade such that the height of the storage means for the coupling device is located between 600 mm (24 inches) and 1.2m (4 feet) from grade.

TECHNICAL SPECIFICATIONS

Model	**AH29-32**	**AH29-40**
Voltage and Wiring	200-240V AC Single Phase	
Current and Power	Maximum 32A and 7.7kW	Maximum 40A and 9.6kW
Frequency	50/60 Hz	
Internal RDC	Integrated, 20mA CCID	
Data Protocol	OCPP 1.6J, OCPP 2.0.1	
Charging Connector	Type-1 SAE J1772 Cable	
Buttons	1 x Physical Button	
RFID	ISO 14443 A/B	
Network Connectivity	Ethernet, Wi-Fi, Bluetooth	
Working Temperature	-22°F to 122°F -30°C to 50°C	
Storage Temperature	-40°F to 158°F -40°C to 70°C	
Working Humidity	5% - 95% without condensation	
Enclosure	288 x 208 x 128 mm	
Shipping Dimensions	398 x 285 x 226 mm	
Shipping Weight	5.7 kg	6.5 kg
Weight Enclosure	Type 3R	
Rating Certifications	UL 2594:2022, UL 2231, CSA C22.2 No. 280-22	
Certificates	cETLus, Energy Star, FCC	

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