

AH28

USER GUIDE



5017 50St, Olds, Alberta
T4H 1E3

Call 403 - 438 - 0889
E-mail:
dez.business@dez-energy.com

For more information, please contact us via our social media or visit our official website:



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.

THE ENTIRE INSTALLATION MUST COMPLY WITH THE LATEST BS 7671 REGULATIONS.

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 can be configured to manual or automatic.

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

The charger supports OCPP 1.6J 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.

WHAT'S INCLUDED



Diagram 1 : Full product display

1.	LED Indicator	4.	RFID Reader
2.	2.8" LCD Screen	5.	Physical Button
3.	Status Indicator: Fault, Online, Charging	6.	SAE J1772 Cable

WHAT'S INCLUDED



EV Charger with Backplate



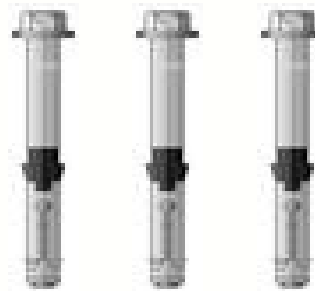
User Manual



Terminal Krimps X4



Terminal Krimps X3



Expansion Screws X3

TOOLS REQUIRED



Philips #2 Screwdriver



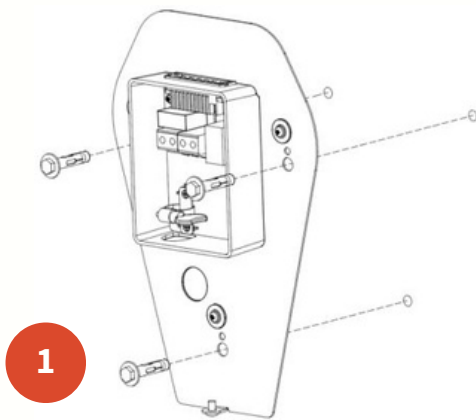
Electric Drill

NOTES BEFORE INSTALLATION:

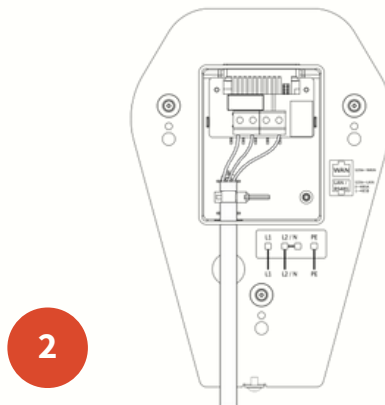
The charger should be protected with an certified extra Residual Current Device (RCD) to be installed in the upstream circuit which complied with the following:

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

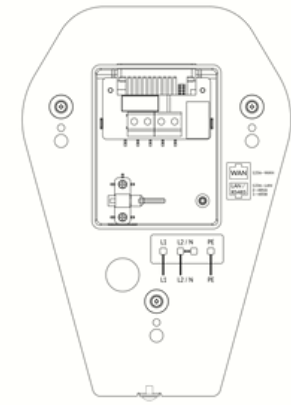
HOW TO INSTALL



Remove the backplate from the charge and mount the backplate to the wall.



Connect the cable through the bottom of the junction box.

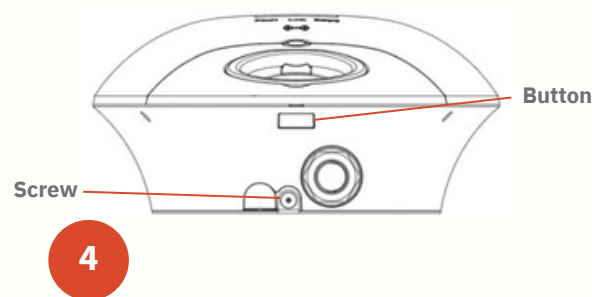


Electrical Connection

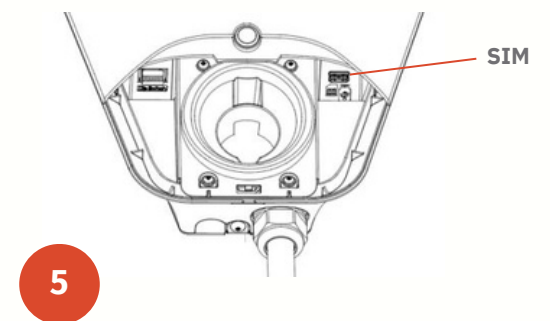
Please connect power cables according to the connection mode which is shown on the backplate.



Install the charger to the backplate.



Fix the charger and backplate with screw.



Cellular & Ethernet

- Insert SIM card to the card slot for cellular connection.
- Connect internet cable to backplate for Ethernet connection

Note:

1. Make sure the backplate and charger is well fastened with the screw.
2. Do not remove the upper case of the charger

HOW TO INSTALL CONT.

5

The screenshot displays the configuration page for the device, divided into two sections: Ethernet and WLAN.

Ethernet Section:

- Mode: Router (dropdown menu)
- DHCP: Disabled (toggle switch)
- IP Address: 192.168.2.166
- Mask: 255.255.255.0
- Gateway: 192.168.2.1
- DNS: 114.114.114.114

WLAN Section:

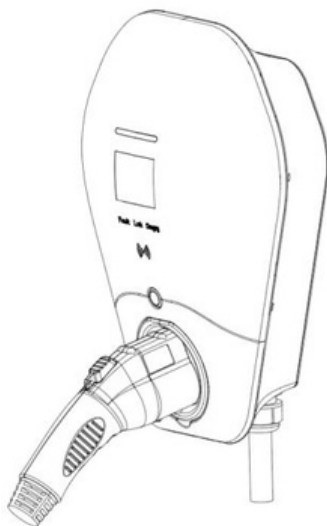
- Enable WLAN: Enabled (toggle switch)
- SSID: YHLX_XM (dropdown menu) with a Scan button
- Encryption: WPA-PSK2 (dropdown menu)
- Password: [Redacted]
- DHCP: Enabled (toggle switch)
- IP Address: 192.168.2.155
- Mask: 255.255.255.0
- Gateway: 192.168.2.1
- DNS: 114.114.114.114

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. Change the value to 'true' to active the offline mode.
2. Ethernet supporting DHCP or static IP.
3. Scan the Wi-Fi to select the SSID to be connected.
4. Ask Dez Energy Solutions for further details on charger connection via SIM card as this will be provided with the initial subscription. Any data SIM can be used if connecting to other 3rd party back end.

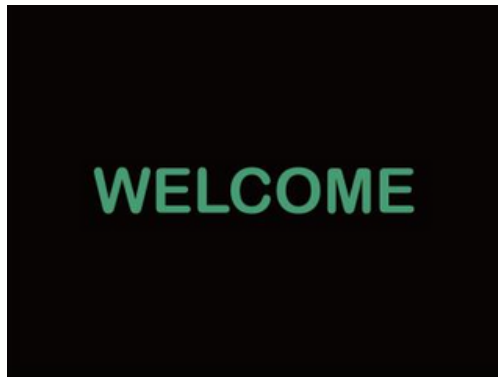
6



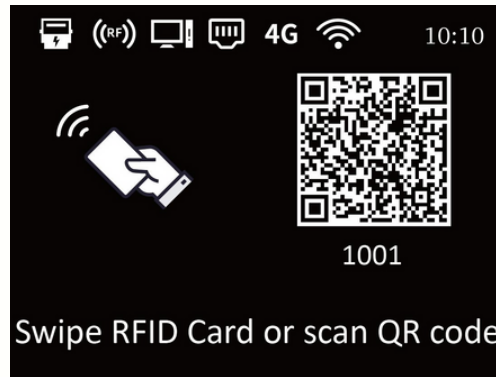
VERIFY THE INSTALLATION

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.

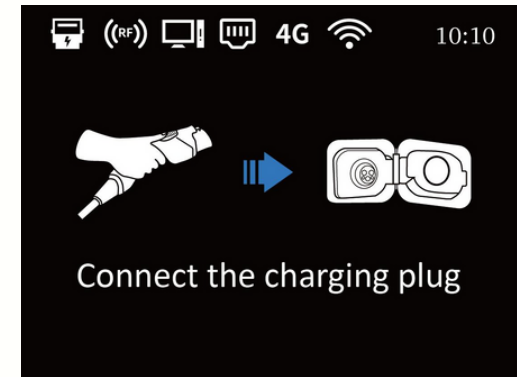
LCD SCREEN DISPLAY DETAILS



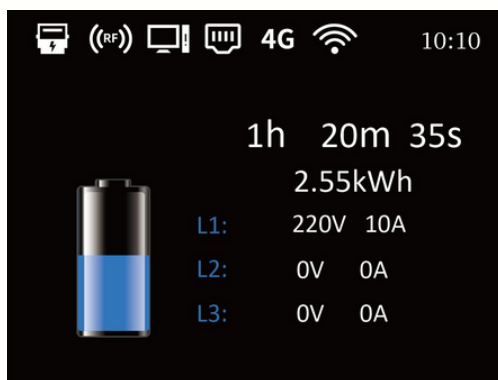
Welcome Screen



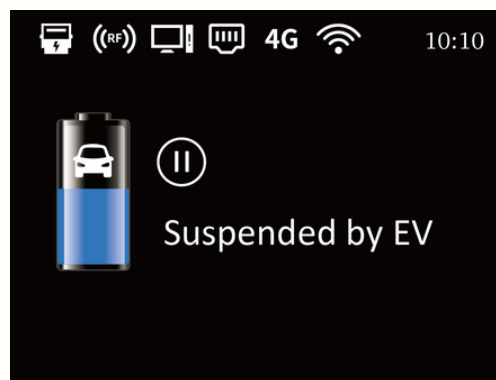
Scan the QR code or swipe the RFID card to start charging



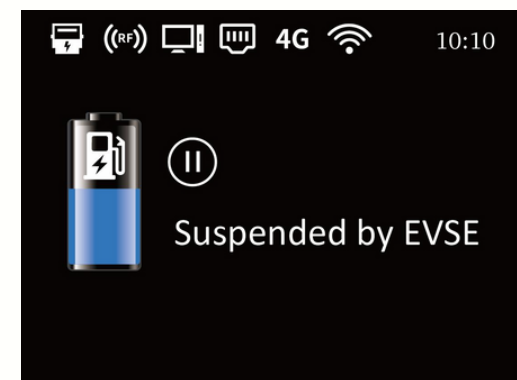
Connect the charging plug



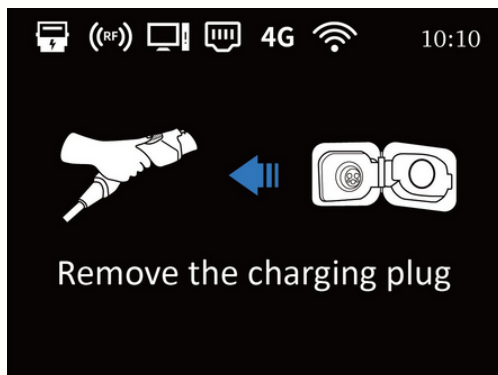
Charging in process



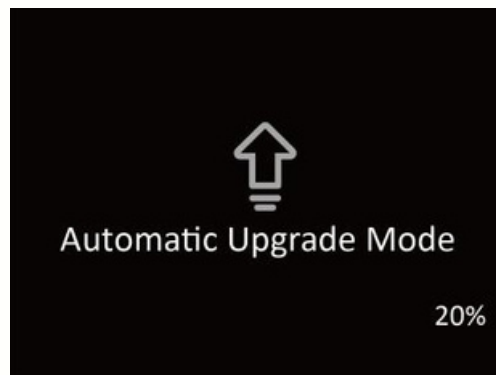
Suspended by EV



Suspended by EVSE



Remove the charging plug



Automatic upgrade mode activated

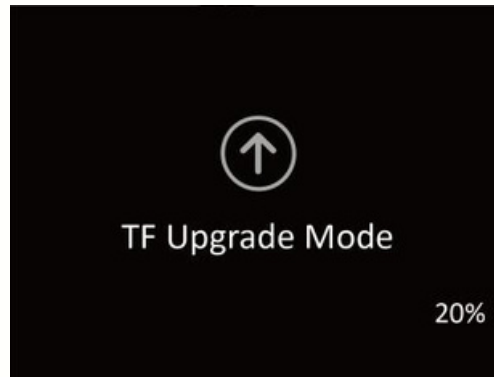


Software downloading and upgrading automatically

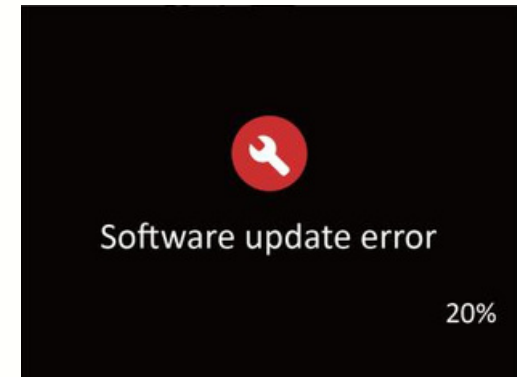
LCD SCREEN DISPLAY DETAILS



Network upgrade mode



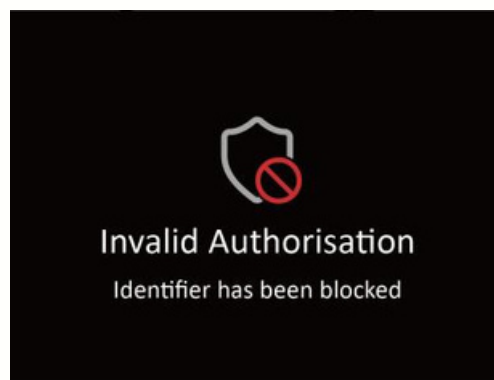
Micro SD card upgrade mode



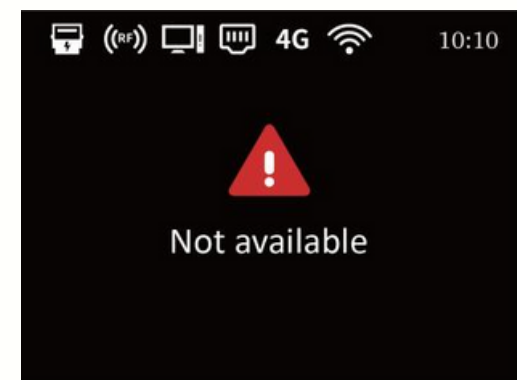
Software update error



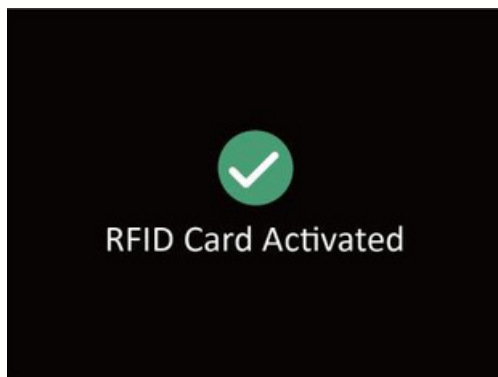
Factory reset



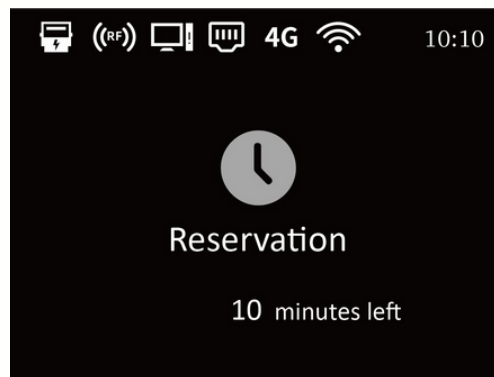
Invalid authorization



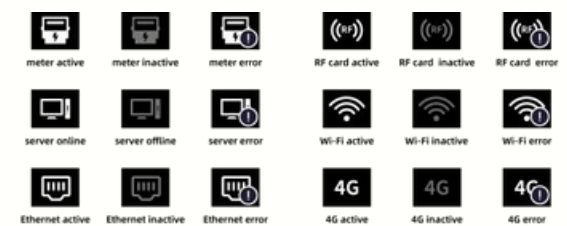
Service not available



RFID activated



Reserved mode



Explanation of icons



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:

Do not install or use the charger near flammable, explosive, harsh, or combustible materials, chemicals, or vapors.

Turn off input power at the circuit breaker before installing or maintaining.

Do not use or stop using the charger if it is defective, appears cracked, frayed, broken or otherwise damaged, or fails to operate.

Do not attempt to open, disassemble, repair, tamper with, or modify the charger. The charger is not user serviceable. Contact Dez Energy or authorized service provider for any repairs.

Do not touch the charger sockets with sharp metallic objects, such as wire, tools or needles.

Do not put fingers into the electric vehicle connector.

Do not use this charger if the flexible power cord or EV charging cable is frayed, has broken insulation, or displays any other indication of damage.

To reduce the risk of fire, connect only to a circuit provided with 40-60 amperes maximum branch circuit over-current protection. Please see below list:

AH28-32: 40A

AH28-40: 50A

AH28-50: 63A

The charger is intended only for charging vehicles not requiring ventilation during charging.

The charger should be supervised when used around children.

CAUTIONS:

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.

Do not operate the charger in temperatures outside its operating range of -30°C to +45°C.

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

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.

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.

Risk of Explosion

The charger has arcing or sparking parts that should not be exposed to flammable vapours. This charger should be located at least 460 mm (18 inches) above the floor.



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.

CAUTIONS:

The charger should be provided with single-pole circuit breakers in the input circuit. To reduce the risk of electric shock and fire - Do not connect to a circuit operating at more than 150 volts to ground.

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.

CAUTIONS:

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.

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.

Minimum installation height of arcing and sparking parts from the ground:

The United States: 475mm (18 inches)

Mexico: 475mm (18 inches)

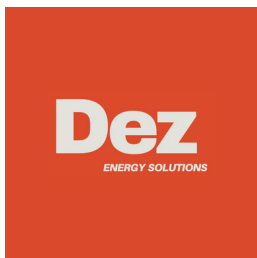
Canada: 50mm (2 inches)

Transporting and Storage

Ensure that Wall Connector is within storage temperature when moving, transporting, or storing.

TECHNICAL SPECIFICATIONS

Model	AH28-32	AH28-40	AH28-50
Voltage and Wiring	200-240V AC Single Phase		
Current and Power	Maximum 32A and 7.7kW	Maximum 40A and 9.6kW	Maximum 50A and 12kW
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		
Display	2.8" LCD		
Network Connectivity	Ethernet, WLAN, Cellular		
Working Temperature	-86°F to 113°F -30°C to 45°C		
Storage Temperature	-104°F to 158°F -40°C to 70°C		
Working Humidity	5% - 95% without condensation		
Enclosure	380 x 288 x 141 mm		
Shipping Dimensions	500 x 383 x 243 mm		
Shipping Weight	7.5 Kg	8.3 Kg	9 Kg
Weight Enclosure	Type 3R		
Rating Certifications	UL 2594:2016, UL 2231, CSA C22.2 No. 280-16		
Certificates	cTUVus		



**5017 50St, Olds, Alberta
T4H 1E3**

Call 403 - 438 - 0889
E-mail:
dez.business@dez-energy.com

**For more information, please contact us via
our social media or visit our official website:**



www.dez-energy.com