



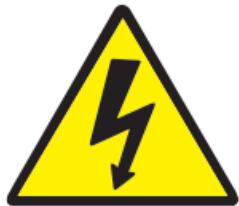
Smart EV Charger 2.0

User Manual



## Important Safety Information

This manual contains important guidelines for the installation, operation, and maintenance of the Smart EV Charger by EVAR Inc. Therefore, we urge you to keep this user manual and review all warnings and cautions.



**Electrical Hazard:** Disconnect the circuit breaker until all installations are completed.

- Electrical Hazard: Check the surrounding environment of the installation site. Do not install near flammable, combustible, explosive materials, chemicals, or steam.

## Warning and Cautions

- This user manual contains important instructions for the installation, operation, and maintenance of EVAR Inc's Smart EV Charger. Therefore, we strongly recommend that you keep this user manual for future reference related to the installation, operation, and maintenance of the charger.
- Before installing and using the product, please read this user manual and follow the instructions provided.
- The installation of the charger should only be carried out by qualified and certified technicians who have received training in electrical system operations.
- The charger must be grounded through permanent wiring according to national and local electrical safety regulations. Improper grounding installation may cause electric shock. Verify the grounding status through a qualified technician.
- Do not disassemble or modify the charger, as there is a risk of electric shock or fire. Users are not allowed to inspect or repair the charger. Contact the manufacturer if repair or modification is needed.
- Do not use the charger if the connector or vehicle inlet is defective, cracked, worn, damaged, or inoperable.
- Do not pour water or other liquids on the charger. Do not immerse or drop the charger connector into water or other liquids. Store the charging cable on the holder to avoid unnecessary contamination or exposure to moisture, and do not use it in a damp state.

- Be careful not to let any object with electricity or a sharp object touch the terminals (metal parts) of the charger connector.
- Prohibited usage: Do not use in the following cases:
  - When there is moisture on the charger connector and the vehicle inlet
  - When the charger power is off (user forced to charge prohibited)
- Always use the designated electric vehicle-only battery according to the specifications of the slow charger and do not use it for other purposes.
- Be careful to prevent collisions between the charger and the vehicle during movement, and if the charger is impacted, immediately stop operation and contact the manufacturer.
- Do not use the charger in locations where the temperature is higher or lower than the usage temperature specified in the charger specifications, and if unavoidable, install appropriate supplementary devices such as heaters or cooling devices.
- Do not disassemble or subject the charger to impacts, and do not operate the vehicle while it is charging.
- Do not disassemble or assemble the charger unless it is done by a certified inspection technician.
- Do not damage the product, and if damage occurs, do not use it and replace everything with new ones before use.
- There may be a risk of electric shock, so do not touch any part that is not insulated.
- If the vehicle's inlet or charger connector is wet, do not use it as there is a risk of electric shock. Before disassembling or assembling the charger, turn off all power to prevent electric shock and death.
- Perform appropriate grounding work according to national and regional electrical safety regulations.
- The charger connector must be firmly plugged in and aligned with the inlet when disconnecting. Use both hands to align and disconnect with caution.
- If children are present during charging, they should be supervised and cautions should be taken.
- The electric vehicle and the charger must be disconnected before inspection. Even if the charger's power is turned off, there may still be a risk of electric shock at the connection

point with the electric vehicle.

- Make sure that no liquids or foreign substances enter the charger.
- Do not place flammable materials near the charger.
- Users must follow the national electrical safety regulations and standards in the jurisdiction where the charger is installed.
- Do not disconnect the connector during charging as it may cause damage to the connector or charger.
- Do not operate the charger when it is in an abnormal state.
- If you discover any fatal impact or other damage, do not operate the charger and contact the service manager or the charger manufacturer.
- Dusty environments require frequent maintenance and management.
- Even if the electricity entering the charger is blocked, do not disassemble or inspect the charger within 5 minutes after blocking.
- When inspecting and maintaining the charger, be sure to turn off the charger's power.
- Do not forcefully disconnect the plug and socket while charging. If you wish to end the charging, press the cancel button and then disconnect the plug and socket.
- Do not perform vehicle maintenance such as washing or repair during charging. We recommend avoiding charging during peak hours, which are 13:00-17:00 in the summer and 11:00-12:00 and 18:00-19:00 in the winter, in consideration of the stability of power demand.
- This charging station is designed for electric vehicle charging only. Do not use it for other purposes. We will not compensate or take responsibility for accidents caused by non-authorized use. In addition, if assembly or disassembly is required, please make sure to hire a certified electrician who can work in accordance with electrical safety regulations.

## **FCC Information to User**

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. 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.

### **Caution**

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC Compliance Information :** This device complies with Part 15 of the FCC Rules. 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.

### **IMPORTANT NOTE:**

#### **FCC RF Radiation Exposure Statement:**

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be

installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be colocated or operating in conjunction with any other antenna or transmitter.

#### French Canadian Compliance Statements

"Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil n'edoit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

"This Class B digital apparatus complies with Canadian ICES-003."

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

"This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body"

Cet équipement doit être installé et utilisé à une distance minimale de 20cm entre le radiateur et votre corps.

## **Product Inspection Upon Receipt**

After receiving the product, unpack it and check for any damage that may have occurred during shipping. If any damage caused by shipping is found, record it with a video or photo and contact the shipping company.

To ensure that the charger is received correctly, compare the packing list of the product you received with the purchase order. If there are any discrepancies, please contact us within 1 month of purchase.

## **Storage Environment and Method**

When storing the product, be sure to store it in a clean and dry environment with a temperature range of -40°F to 149°F (-40°C to 65°C). When loading the product for transportation, it must be stored and transported in an upright box to protect it from scratches.

## **Specification**

<b>Model Number</b>	<b>ELA007C03</b>
<b>Operating condition</b>	<b>Outdoors</b>
<b>Charging status</b>	<b>Mode 3 (IEC 61851-1)</b>
<b>AC inlet voltage</b>	<b>240 VAC 1 Phase/32A/60Hz</b>
<b>AC outlet current</b>	<b>6A ~ 32A (according to dynamic load balancing)</b>
<b>Indication</b>	<b>E-ink Display / RGB LED</b>
<b>Type of connector</b>	<b>SAE J1772 (IEC 62196 Type 1)</b>
<b>Functional Safety</b>	<b>- Over current protection - Ground continuity check - Relay fault detection - Control by internal temperature of Charger</b>
<b>Leakage current protection</b>	<b>Integrated, no additional required (CCID20)</b>
<b>Radio Frequency</b>	<b>Wi-fi: 2.4 GHz, 802.11b/g/n / Smart EV Charger User Manual 5 NFC: 13.5607 MHz / Bluetooth LE: 2.4 GHz /</b>
<b>IP protection</b>	<b>IP 55</b>
<b>Size of charger</b>	<b>306 mm x 395 mm x 116 m (W x H x D)</b>
<b>Operating Temp.</b>	<b>-30°C~50°C (-22°F~122°F)</b>
<b>Storage Temp.</b>	<b>-40°C~65°C (-40°F~149°F)</b>

## Labels

Model No. : ELA007C03	Manufacturer : EVAR Inc.
Rated Input and Output Voltage : 240Vac	Operating Temperature Range : -30~+50°C
Max Input and Output Current : 32A	Enclosure Type Rating : Type 3R
Maximum Output Power : 7.7kW	Production Date : 23-04
Nominal Frequency : 60Hz	For use with Electric Vehicles.
Serial No. : EV-SCA-000003	Ventilation Not Required.
<b>WARNING</b> Do not install on or over combustible surfaces.	Use Copper Conductors Only.
<b>AVERTISSEMENT</b> Ne pas installer sur ou au-dessus de surfaces combustibles.	
Contains FCC ID : 2AC7Z-ESP32WROOM32E, SH6MDBT50Q	FCC ID : 2BBSQ-EV7NU
Contains IC : 21098-ESPWROOM32E, 8017A-MDBT50Q	IC : 31227-EV7NU
	HVIN : ELA007C03

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<p><b>Caution</b> 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.</p> <p><b>WARNING</b> This device is intended only for charging vehicles not re- quiring ventilation during charging. This device provides an automatic reset feature.</p> <p><b>PRÉCAUTION</b> N'utilisez pas ce produit si l'appareil est endommagé. Risque de choc électrique. Ne retirez pas le couvercle et n'essayez pas d'ouvrir le boîtier. Aucune pièce réparable par l'utilisateur à l'intérieur. Confiez l'entretien à du personnel d'entretien qualifié.</p> <p><b>AVERTISSEMENT</b> Cet appareil est destiné uniquement à la charge de véhicules ne nécessitant pas de ventilation pendant la charge. Cet appareil offre une fonction de réinitialisation automatique.</p>		
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## Contains

1	Smart Charger
2	Cable Rest
3	J1772 cable
4	Key
5	Screw Anchor & Anchor Bolt
6	Insulated Ring Terminal (M6)
7	Guidebook for Installation
8	Guide Paper



## Guidebook for Installation

\* Please send an email for any question on the book – contact@evar.co.kr



### Name of Section

- ① Smart Charger
- ② Cable Rest
- ③ J1772 Cable

### Parts

KEY



X 1ea

Screw Anchor



X 7ea

Anchor Bolt



X 7ea

Insulated Ring Terminal (M6)



X 3ea

Guide Paper



X 1ea

\* Be sure to use the parts provided when assembling.

## Installation

### [Required Tools]

<b>1</b>	<b>Hand Drill</b>
<b>2</b>	<b>Wire Stripper</b>
<b>3</b>	<b>Ruler</b>

### Installtion instruction

1. When installing the charger or connecting the power input line, be sure to turn off the power and ensure that the product's IP rating is maintained.
2. Install the charger in a location where the charging connector can easily reach the vehicle inlet.
3. The charger requires wireless internet communication. Obstacles such as drywall, plastic, wood, metal, mirrors, brick, concrete, etc. can interfere with wireless signal transmission. Check the radio reception status at the installation location. If a mobile device can connect to mobile communication services (3G, LTE, etc.) or Wi-Fi at the location, the charger can also be connected.
4. When wiring the power input line to the charger, check the voltage wire (L), neutral wire (N), and ground wire (G), and confirm that the voltage between the voltage wire and neutral wire is single-phase power (220 VAC). A common mistake is wiring three-phase power (380 VAC). In this case, the charger's fuse may be damaged.

## Install Guide

### Smart EV Charger

### Guidebook for Installation

※ Please make sure the circuit breaker of the AC power is off before starting.

#### Guide Paper

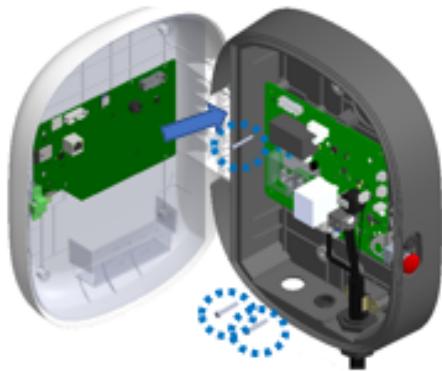


Screw Anchor  
& Anchor Bolt



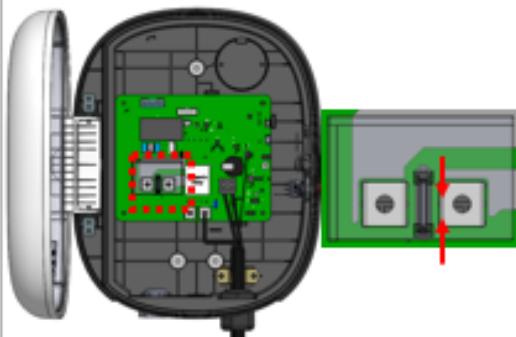
**1** Keep the guide paper attached to the wall and assemble the screw anchor through the wall with a 0.24in drill.

(Recommend: Position the bottom end of the guide paper above 55.1in from the floor.)



**2** After opening the Charger, use the accompanying anchor bolt to secure it to the wall through a white rubber cap. (The white rubber cap is easily perforated with the screw.)

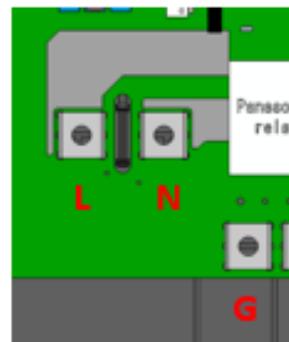
※ Do not remove the white rubber cap. The cap stands still through the whole step.



**3** Remove the plastic terminal base cover.

(When the hooks are gathered inwards, the terminal base cover will be removed.)

※ Be careful not to break the hook.



**4** Please connect the power line with the enclosed Insulated Ring Terminal (M6) after checking the L/N/G with adequate torque level. (1.84lbf.ft)

Assemble the removed terminal base cover.

※ Before connecting the power source to Insulated Ring Terminal, make sure to insulate it to prevent short circuits.

※ This document may not be released by any means, including photographs, without written approval from EVAR Inc.





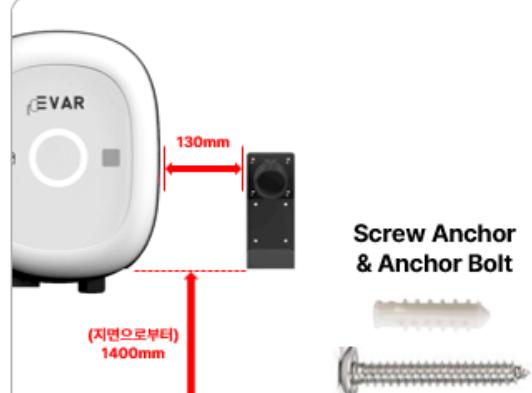
## Guidebook for Installation

※ Please make sure **the circuit breaker of the AC power is off** before starting.



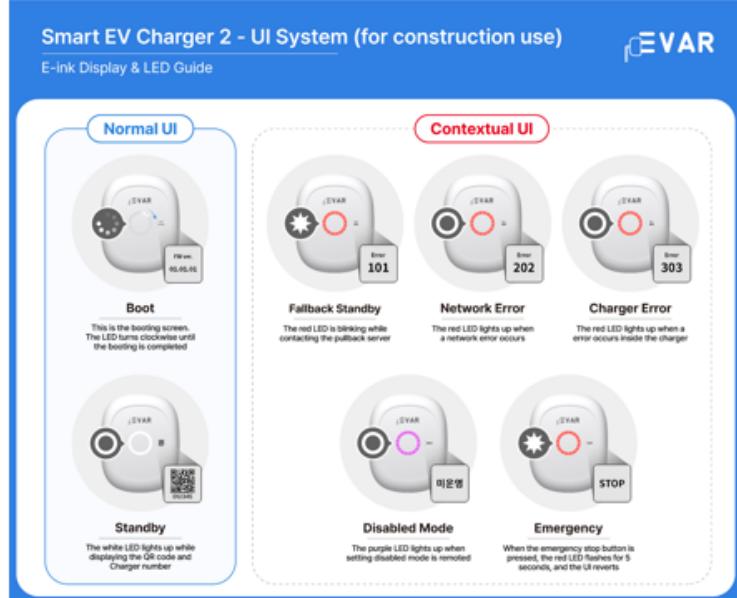
**5** Insert the enclosed KEY in the center of the right side of the Charger and turn it CCW to lock.

※ When you lock the Charger, please make sure that **it is locked properly**.



**6** After installation of the cable rest, please set up the wires and J1772 Cable ready to use.

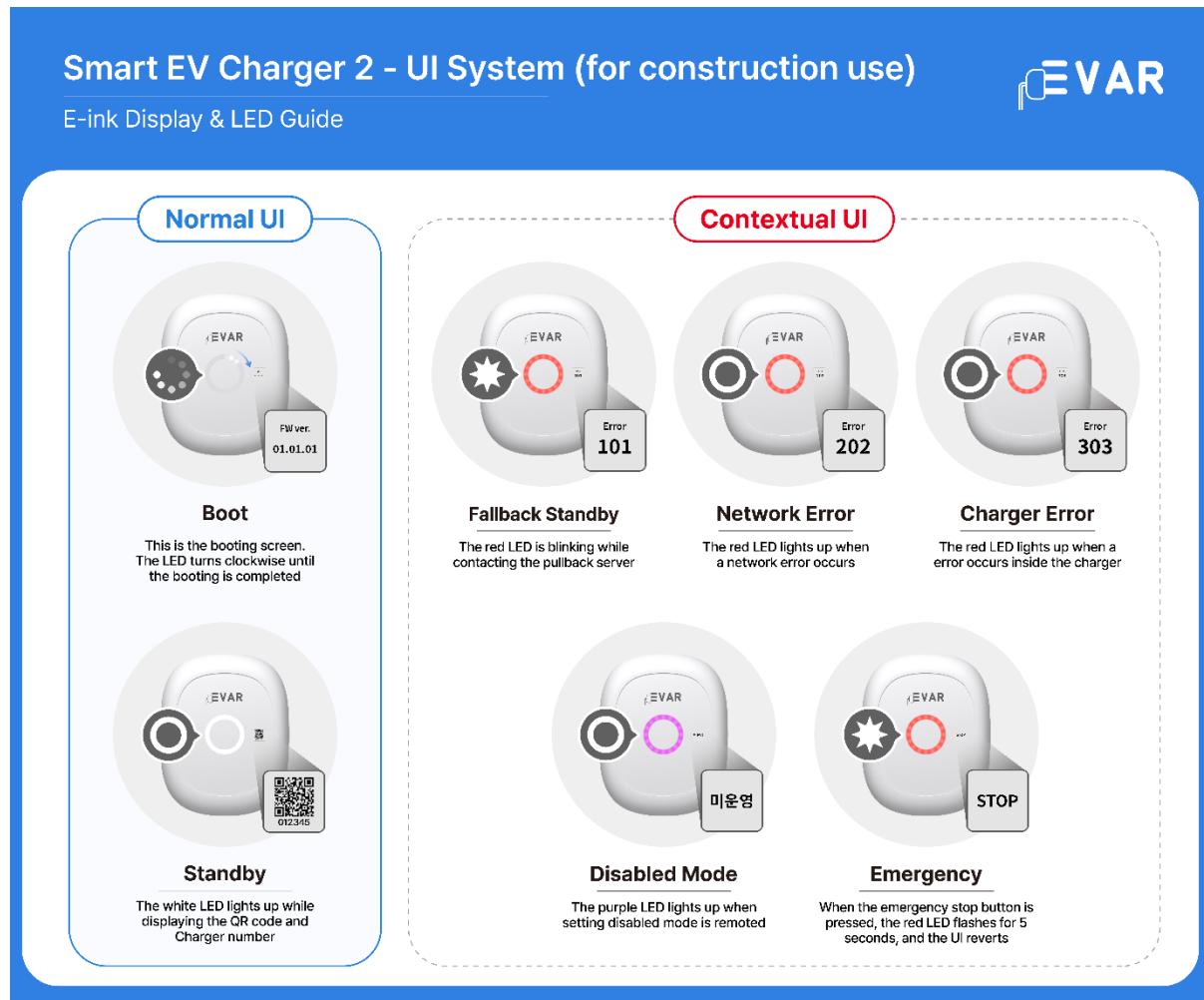
### 7 Indicator



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## Status and Indication of LEDs



## Warranty

EVAR guarantees charging equipment for 2 years from the manufacturing date against product malfunctions caused by material or manufacturing defects, or technical flaws, subject to normal use.

If a product malfunction occurs within the 2-year warranty period, we will replace it at no charge.

However, the customer must notify the malfunction within 1 month of discovering it by contacting EVAR's customer center via phone or email.

We will confirm the issue and replace the product free of charge if the defect is confirmed. If the product malfunction is due to the user's negligence, we will repair it at the actual cost of the customer.

In this case, the customer must notify EVAR's customer center of the malfunction within 1 month of its occurrence or discovery and send the product to EVAR's headquarters at the sender's expense.