



User Manual

# Electric Vehicle Charger

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Read the "Safety Precautions" before use to ensure safe operation.  
After reading the user manual, store it in an accessible place for easy reference.

EVW011SK-SN

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This offer is valid to anyone in receipt of this information for a period of three years after our last shipment of this product.

# PRE-CHECK INFORMATION

- The information provided in this document includes general descriptions or technical characteristics of the included product.
- This document is not intended to be used or replaced for specific users who wish to determine the suitability or reliability of this product.
- Users or those responsible for this product need to know correct usage and perform risk assessment in advance, and evaluation and testing related to specific applications or use of the product are required.
- Please inform us if there are errors or modifications needed in this document.
- To install and use this product, safety regulations of the relevant country and region must be strictly complied with.
- For safety reasons and compliance with documented system data, only the manufacturer is obliged to repair parts. Proper training is necessary to use the product in accordance with technical safety requirements.
- Failure to use the software of our hardware products accurately can lead to injuries, damage, or operational errors.

## SIGNS ON THE EVSE

- Please read the manual carefully before installation, operation, and maintenance of the product. The following messages will appear throughout the document to warn of potential dangers or provide information for explaining procedures.

	<p>This is a safety prevention symbol.</p> <p><b>Caution: If these safety precautions are not followed, injuries or damage can occur.</b></p>
	<p>Hazard signs relate to high voltage matters.</p> <p><b>If the safety rules and instructions in this manual are not adhered to, death or serious injury could occur due to electric shock and burns.</b></p>

# IMPORTANT SAFETY INSTRUCTIONS

## WARNING

This manual contains important instructions for Models EVW007SK-SN that shall be followed during installation, operation and maintenance of the unit.

- 1 Read all the instructions before using this product.
- 2 This device should be supervised when used around children.
- 3 Do not put fingers into the electric vehicle connector.
- 4 Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or any other signs of damage
- 5 Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- 6 **First, read this:** This document includes important safety information. Before repairing or performing any maintenance in case of malfunction, read the entire manual first.
- 7 **Qualified personnel:** The charger must be installed, disassembled, or inspected by an electrician in accordance with the electrical regulations of the relevant area. The information in this manual does not alleviate the reader's responsibility for local safety regulations and standard regulations.
- 8 **Electric shock accident:** There can be a potential risk of fatal electric shock accidents. Inspection of the product's interior must be performed exclusively by a certified electrician.
- 9 **Do not modify.:** Do not arbitrarily modify the charger. Doing so will void the warranty period and could result in a fatal electric shock or fire.

## INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK

- To prevent the risk of fire or electric shock accidents, please read and follow these safety precautions and operating procedures carefully.
- There is a risk of electric shock. Do not connect the electric vehicle and the charger before the inspection. Just turning off the charger does not reduce the risk.
- Do not touch the non-insulated parts of the output connector. There could be a serious risk of electric shock.
- Do not use a connector with exposed damaged wires or a damaged connector. Replace all damaged parts with new ones before operation.
- Do not disassemble the charger. Have it inspected by a certified technician. Incorrect assembly can cause an explosion, electric shock, or fire.
- Never use the charger if the vehicle's inlet or charger connector is wet.
- Do not install or operate with wet hands. There is a risk of electric shock.
- Disconnect the input power before opening the charger case. Contact with electrically live parts of the charger can lead to electric shock accidents, serious injuries, or even death.
- Perform grounding work according to national electrical safety standards and local electrical safety standards. Not grounding properly can lead to fatal electric shock accidents.

 **CAUTION**

- Ensure the charger connector is free from water, humidity, or foreign substances.
- Do not place the charger near flammable materials during use. Keep it away from carpets and cluttered workspaces.
- Educate children to prevent them from playing with the device.
- Users are responsible for adhering to national and local electrical safety standards in the area where the device is installed.
- Do not connect or disconnect the connector while charging. Doing so damages the connector, and may damage the charger or cause the battery to explode.
- Do not operate the charger with the panel removed or the door open.
- If the charger is dropped, suffered a severe shock or any other type of damage, do not operate it. Call a service manager.
- In dusty environments, more frequent maintenance is required for maximum device lifespan and optimal performance.
- Do not use the charger during heavy rain or lightning.
- **Electric shock accident:** There is a risk of electric shock. Hazardous electrical energy is stored in the capacitor. Even if the electric supply to the charger is cut off, do not open the charger case for at least 5 minutes after disconnection.
- Ensure that the power supply to the charger is off before proceeding with charger maintenance procedures.
- To reduce the risk of fire, connect only to a circuit provided with 60 amperes maximum branch circuit overcurrent protection in accordance with the applicable National Installation Codes in Annex A, Ref. 1 .
- Do not use this product if there is any damage to the unit.
- **GROUNDING INSTRUCTIONS :** This product 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
- **SAVE THESE INSTRUCTIONS**

# MOVING AND STORAGE INSTRUCTIONS

## EVW011SK-SN

For maximum performance, please read the following instructions.

### Apply

This charger is designed to be used only as an electric vehicle charging device.

Do not use it to charge other types of batteries.

### Storage

Before installing and powering the charger, ensure that the product is stored in a clean and dry environment at a temperature of -40 °C to 70 °C (-40 °F to 158 °F). The charger must always be stored upright in a box during cargo loading. This protects the charger from dust and scratches. The charger must be stored in a protected location to avoid damage. Do not stack other items on top of it. The device is not to be lifted or carried by either the flexible cord or the EV cable.

### Transportation and Delivery

Check the product box for any damage.

After opening the box, confirm there are no damage or abnormalities in the product's appearance.

When transporting the product, keep the cover locked. Causing shocks or dropping the product during transportation can result in product damage.

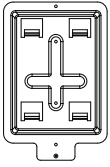
# CHARGER SPECIFICATIONS

Model		EVW011SK-SN
Size (Width x Height x Depth)		226 mm x 503.2 mm x 165 mm (8.89 inches x 19.8 inches x 6.49 inches)
Weight		7.1 kg (15.6 lbs)
AC Input	Voltage	Single Phase (208 / 240 V $\pm$ 10 %)
	Frequency	60 Hz
AC Output	Voltage	Single Phase (240V $\pm$ 10%)
	Current	48 A
	Capacity	11.5 kW
IP Rating		IP 55
Operating Temperature		-35 °C ~ 50 °C (-31 °F to 122 °F)
Operating Humidity		< Rh95 % (Non-condensing conditions)
Storage Temperature		-40 °C ~ 70 °C(-40 °F to 158 °F)
Storage Humidity		< Rh95 % (Non-condensing conditions)
Protection Features		Overcurrent/Overvoltage Protection, Circuit Breaker in case of Leakage/Ground Fault Detection
User Authentication		RFID Card Reader
Display Device	7dit 14Segmet	Charged Amount / Elapsed Time / Fault Details / Charge Status
	Charge Status Indicator LED	Standby: Blue / Charging: Green Dimming / Fully Charged: Green / Error: Red
Charge Type	Format	UL2594 / Type : C
	Connector	SAE J1772 (5 PIN)
Voice Guidance	Speaker	Audio output (5 W)
Certification		UL Certified, Bluetooth SIG Certified
Wireless LAN		IEEE 802.11a/b/g/n/ac
Bluetooth Low Energy		5.3
Recommended Mobile Monthly Data Usage		A minimum of 140 MB or more <sup>1)</sup>

## ! NOTE

- <sup>1)</sup>Subject to changes depending on the operating company's environment and policy.

## ACCESSORIES



Wall Mount  
1 piece



Wall Mount Fixing Anchor  
2 piece



Wall Mount Fixing Screw  
2 piece



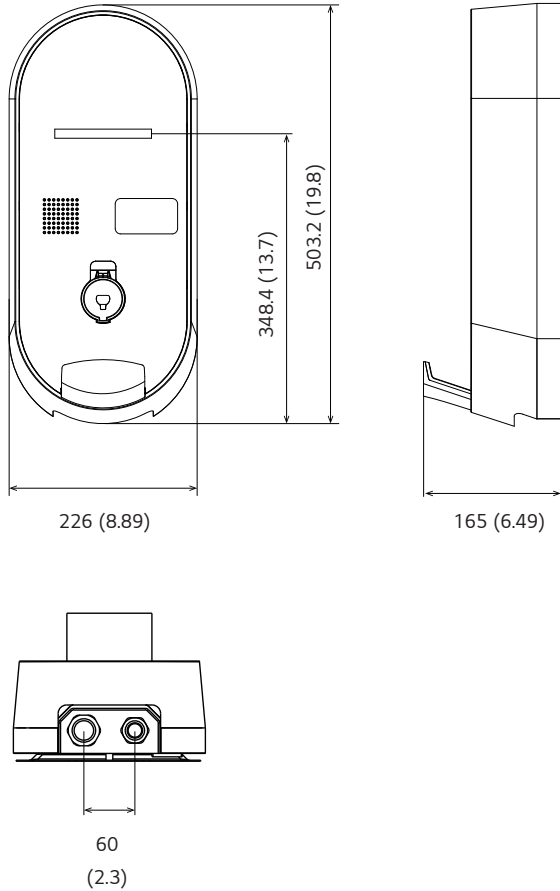
M4 O-ring Screw  
1 piece



# MECHANICAL CHARACTERISTICS

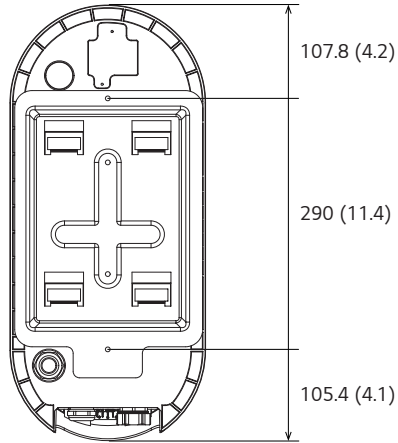
## Charger Size

[Unit : mm (inches)]

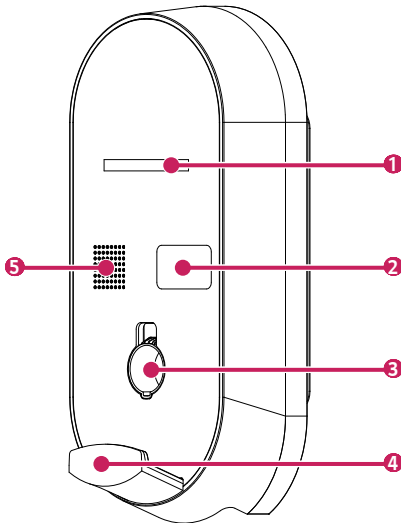


## Charger Size

[Unit : mm (inches)]



## Charger Appearance



- ❶ 7dit 14Segment
- ❷ RFID Card Reader
- ❸ Connector (AC 5-pin) Holder
- ❹ Cable Holder
- ❺ Speaker

# INSTALLATION INSTRUCTIONS

**Caution!**

- Do not expose the charger to rain, high temperatures, dust, corrosive gases, flammable substances, or explosive gases.

## Installation Location

- For optimal performance and maximum lifespan, choose your installation location carefully. Operational lifespan and performance are affected by the location of the charger.
- Choose a dry area with good ventilation.
- To reduce the risk of fire, install the charger on a non-combustible surface made of concrete, stone, brick, or iron.
- Do not block the front of the charger.
- When not using the car connector, install the charger at a height of 0.6 to 1.2 m (1.9 - 3.9 feet) above the ground.
- Install in a location equipped with an earth leakage circuit breaker.
- Do not expose the charger to rain, high temperatures, dust, corrosive gases, flammable substances, or explosive gases.
- Install a certain distance from the parking space to prevent damage from parked vehicles.
- This device 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 1.2 m (4 feet) from grade.

## Installation Process\_Charger

### WARNING

Risk of explosion. This equipment has arcing or sparking parts that should not be exposed to flammable vapors. This equipment should be located at least 460 mm (18 inches) above the floor.

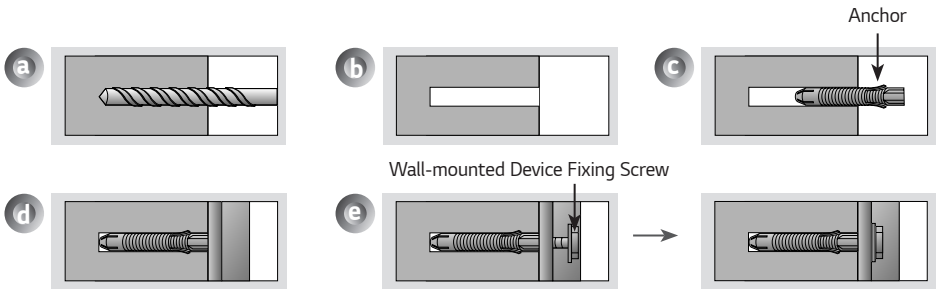
1) When the device installed outdoor

This device 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 1.2 m (4 feet) from grade.

2) When the device installed indoor

This device shall be mounted at a sufficient height from grade such that the height of the storage means for the coupling device is located between 450 mm (18 inches) and 1.2 m (4 feet) from grade.

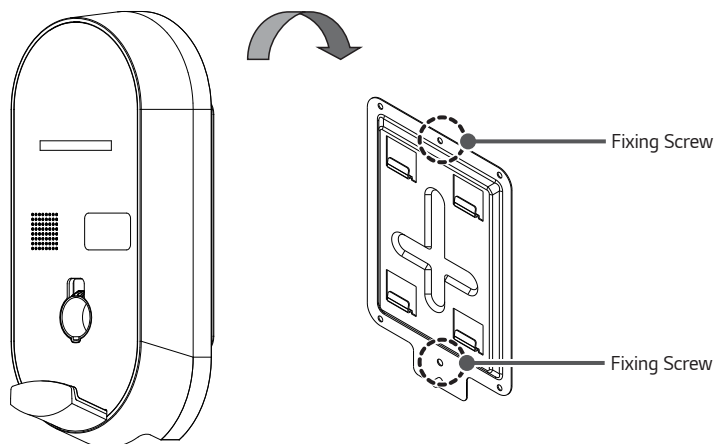
- 1 Use the enclosed fixing anchors and screws to hang the wall mount on the wall.
  - Check the wall material and thickness of the finishing materials.
  - The enclosed anchors and screws can be used when the wall material is non-cracking concrete, lightweight concrete, strong natural stone, soft natural stone, brick, and hollow block.
  - Never install on walls made of plasterboard or material made by compressing paper/wood dust (MDF). If you must install, anchor screws must be fixed into the retaining wall (concrete) within the finishing materials. If there is no retaining wall, an additional hanger must be installed before fixing the anchor screws.
  - If installing on other unspecified wall materials, ensure the material can withstand a pull-out load of 70 kgf (686 N) and a shearing load of 100 kgf (980 N) per anchor point.



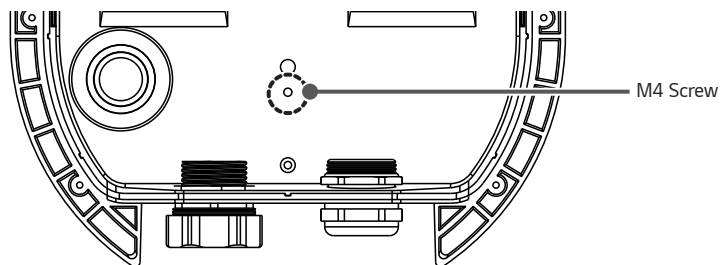
- Use a  $\varnothing 8$  mm drill bit for concrete and a hammer (impact) drill.

- a. Use a drill bit of  $\varnothing 8$  mm to drill holes to a depth of 80 mm - 100 mm (3.1 - 3.9 inches) at the anchor positions.
- b. Clean the drilled holes.
- c. Insert the enclosed anchor into the hole (use a hammer when inserting the anchor).
- d. Press the wall mount against the wall in alignment with the hole positions. Ensure the angle adjustment part faces upward.
- e. Align the wall mount fixing screws with the holes and fasten them. At this point, tighten the screws to a torque of 45 kgf/cm - 60 kgf/cm (441 - 588 N) or more.

- 2 Align the charger with the base frame and secure the charger to the base frame with 4 x M10 nuts and washers.

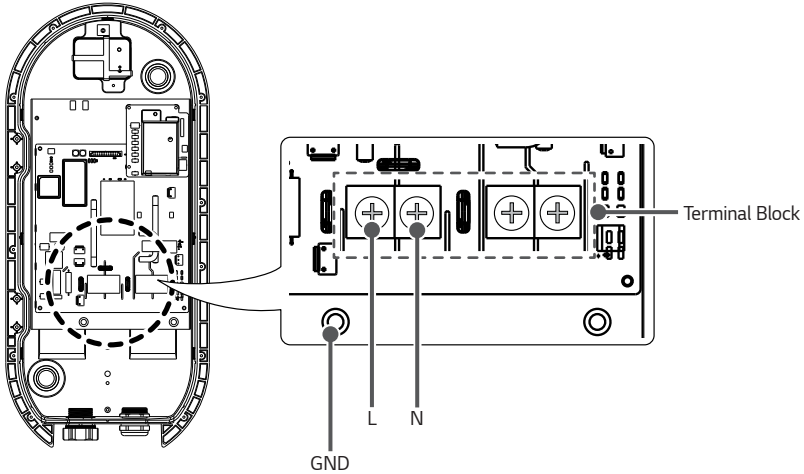


- 3 Open the main body of the charger and use the enclosed M4 screws to secure the body to the wall mount.



## Wiring and Grounding

- 1 Check that the breaker on the distribution panel is turned off.
- 2 Detach the plastic cover on the terminal block.
- 3 Insert the AC 240 V input cable through the power cable input at the bottom.
- 4 Connect the AC 240 V input cable to the left power connection terminal and the internal panel GND terminal on the terminal block.
- 5 Reattach the plastic cover on the terminal block.



### ! NOTE

- The AC input power cable is not included with the charger.
- The cable specifications should be determined based on the distance between the distribution panel and the charger, according to the conditions of the installation work.
- The disconnect switch should be installed inside the distribution panel of the installation location.
- The cross-sectional area of the input line/ground line should be at least 6 mm<sup>2</sup>.
- Field Wiring Terminal : Use Copper Conductors Only.
- Pressure terminal Connector.

Parameter	Specifications
Wire Size for the terminal block plug	6 AWG
Stud Size for the terminal block plug	6 mm (0.2 inches)
Material	Oxygen Free Copper
Shape	R-Shape
Required Torque	1.2 Nm

## Electrical Network type

### Available Electrical network type

Electrical network type	Voltage	Picture
Split Phase	216 Vac ~ 264 Vac	
WYE Network	187 Vac ~ 228 Vac	
Delta Network	216 Vac ~ 264 Vac	

# OPERATION INSTRUCTIONS



**Caution!**

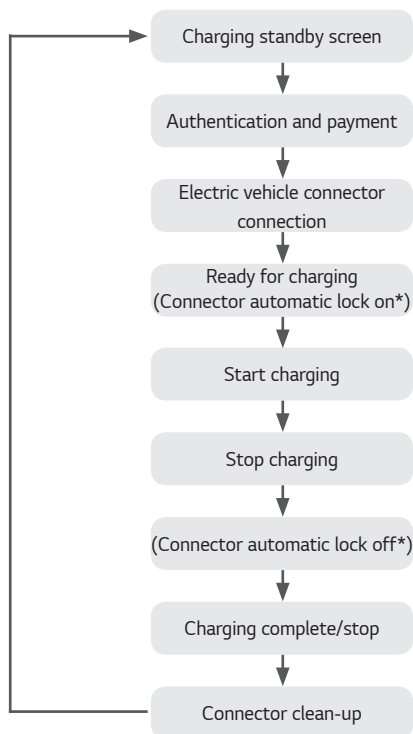
To prevent electric shock, do not touch uninsulated parts of the connector or the internal terminals of the charger. Do not use the connector if there are damaged or corroded parts. Using a damaged or defective connector can lead to overheating or the risk of electric shock.

## Charging Precautions

Please check that installation has been completed in the order specified in this manual. Failure to do so can result in personal injury or damage to the charger.



## Charging Operation Procedure

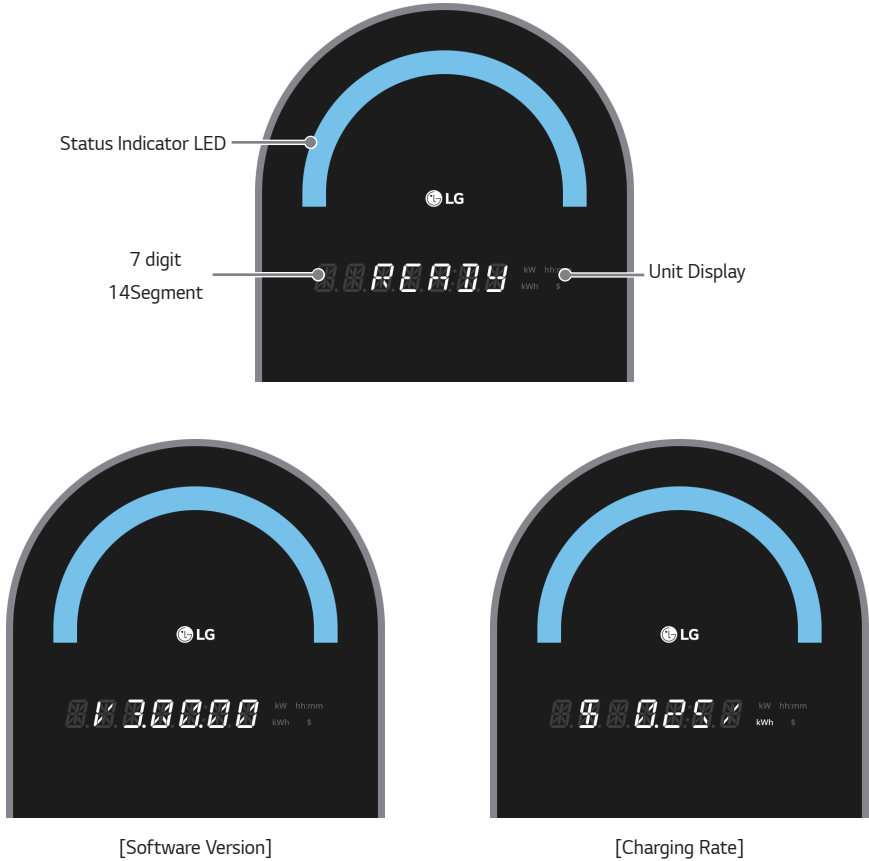


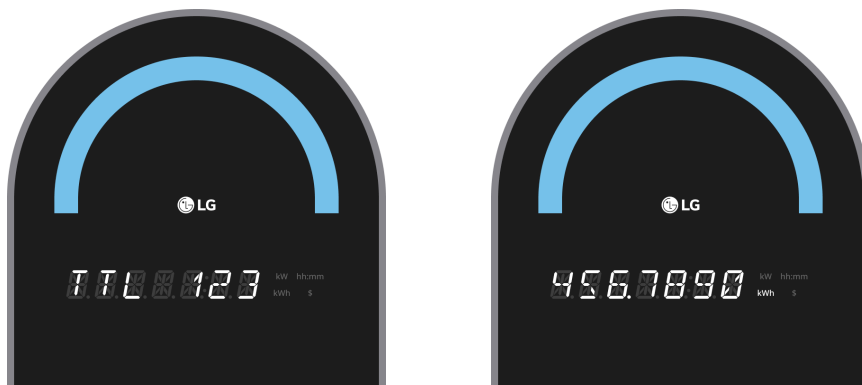
- \*: The automatic lock/release of the connector is controlled by the vehicle (whether this is supported varies depending on the model of the vehicle)
- The charging speed may vary depending on the characteristics of the vehicle model and the condition of the battery.
- For safety, refer to **"IMPORTANT SAFETY INSTRUCTIONS"**.

## Common Screen Configuration

In the default standby screen, READY, software versions<sup>1)</sup>, charging rates, and total charging power<sup>2)</sup> are displayed at 5-second intervals.

(The total charging power is displayed in kWh up to four decimal places over two screen displays. It can display up to 999999.9999 kWh. If the value is exceeded, it is reset to 0 and displayed.)





[Total Charging Power]

- The current status of the charger is displayed through the status indicator LED and the strings displayed on 7-digit 14Segment.
- The status indicator LED displays colors like blue/green/red, and effects like blinking/flowing can be added for display.
- The 7-digit 14Segment displays strings like READY/WAIT/PLUG IN/START/STOP/ERROR and information like charged amount/charging speed/charging time/charging fee.
- On the right of the 7-digit 14Segment, units like kWh/kW/hh:mm/\$ are displayed to represent the charged amount/charging speed/charging time/charging fee.
- For detailed indications depending on the charger's state, see the screen descriptions by status on the following pages.

### ! NOTE

- <sup>1)</sup>The software version may change depending on the product's performance enhancement or function improvement in the future.
- <sup>2)</sup>Total charging power may change as the product is used.

## Charging Process

- 1 To charge, proceed with authentication and connector connection.

### If you connect the connector after authentication

- a) Tag the membership card (RFID card).



- b) Connect the connector.

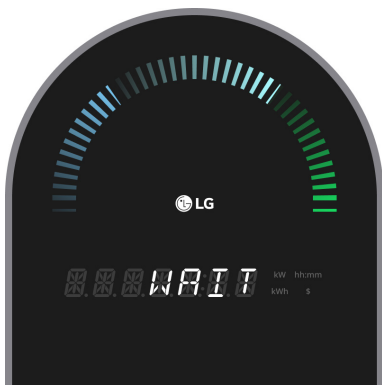


**If you authenticate after connecting the connector**

a) If you connect the connector on the standby screen, the screen switches to the membership card tag screen.



b) If you tag a membership card (RFID card), the authentication process proceeds.



2 Proceed with charging.

- During charging, the charged amount, charging speed, charging time, and charging fee are changed and displayed sequentially at 5-second intervals.
- During charging, you can stop charging at any time by tagging your membership card.



[Start charging]



[Charged amount]



[Charging speed]



[Charging time]

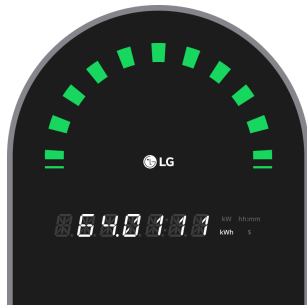


[Charging fee]

- 3 Charging ends upon a stop charging request, when fully charged, or after a predetermined time (14 hours) has elapsed.
- After STOP is displayed for 5 seconds, charging information (charged amount, charging time, charging fee at 5-second intervals) and connector return guidance (PLUG, RETURN at 3-second intervals) are repeatedly displayed.
  - The charging information and connector return guidance are displayed two more times after the connector is detached from the vehicle. (However, once the connector return is completed, it immediately switches to the standby screen.)



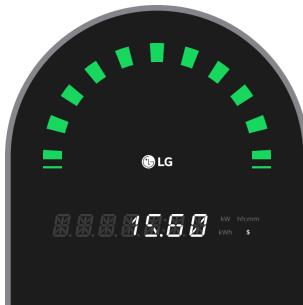
[Charging ended]



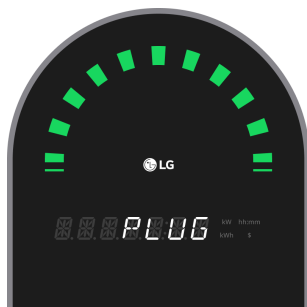
[Charged amount]



[Charging time]



[Charging fee]



[Connector return guidance]

- 4 If the connector return is not completed when the charging information and connector return guidance are displayed after charging ends, the connector return guidance (PLUG, RETURN at 3-second intervals) is displayed for 18 seconds, and then it switches to the standby screen. (However, once the connector return is completed, it will immediately switch to the standby screen.)





## Error Screen

When a failure occurs during charging, during charging preparation, or in the standby state, the details of the failure are displayed and the charger attempts to recover automatically.

(However, recovery is not attempted in a collision occurrence (error code 6701) situation.)



## Error Recovery Screen

After displaying the error content, the automatic recovery screen is displayed for 15 seconds. If recovery is not completed, the error content is displayed again.



## Operation Stop (Availability Change) Screen

This is the screen displayed during a temporary stop in operation due to operation policy. Operation stop and resumption are possible through remote control of the charging control.



## Firmware Download Screen

This is the screen displayed during firmware download via the firmware update command from the charging control. (This is only displayed under certain statuses, such as "charging possible" status.)



### ! NOTE

- Do NOT turn off the power while the firmware update is in progress.

## Setting Screen

This is the screen displayed when the charger settings app is connected to the charger.

(The method to connect the charger settings app to the charger is shown in the settings guide document.)




# FAULT CODES

## WARNING

This device provide an automatic reset feature.

Error Codes	Description	Solution
1101	Input Overvoltage Detection	Charger manufacturer confirmation needed
1102	Input Undervoltage Detection	Charger manufacturer confirmation needed
1201	Input Overcurrent Detection	Charger manufacturer confirmation needed
1203	AC Leakage Current Error	Charger manufacturer confirmation needed
1204	DC Leakage Current Error	Charger manufacturer confirmation needed
1301	Ground Connection Abnormality	Charger manufacturer confirmation needed
2401/2402	Output Relay Abnormality	Charger manufacturer confirmation needed
5114	I2C Communication Abnormality (dry sensor)	Charger manufacturer confirmation needed
5201	Electricity Meter Communication Error	Charger manufacturer confirmation needed
6102	Control Pilot Abnormality	Try charging again after disconnecting and reconnecting the connector
6109	Leakage Detection Module Defect	Charger manufacturer confirmation needed
6701	Collision Occurrence	Charger manufacturer confirmation needed
8101	Charger Internal1 Overheating	Charger manufacturer confirmation needed
9201	Other Abnormalities	-
10000	RFID Communication Error	Charger manufacturer confirmation needed
10002	Control Board Communication Error	Charger manufacturer confirmation needed
10003	CPO Communication Error (Network Error)	Verify connection status between control server and charger

# CERTIFICATION

CERTIFICATION	Description
FCC	<p>This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:</p> <ol style="list-style-type: none"> <li>(1) This device may not cause harmful interference, and</li> <li>(2) This device must accept any interference received, including interference that may cause undesired operation.</li> </ol>
ENERGY STAR	 <p>This product qualifies for ENERGY STAR®.</p> <p>Changing the factory default configuration and settings or enabling certain optional features and functionalities may increase energy consumption beyond the limits required for ENERGY STAR® certification.</p> <p>Refer to <a href="http://ENERGYSTAR.gov">ENERGYSTAR.gov</a> for more information on the ENERGY STAR® program.</p>



The model and serial number of the product are located on the back and on one side of the product. Record them below in case you ever need service.

MODEL \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

**Supplier's Declaration of Conformity**

Trade Name	LG
Responsible Party	LG Electronics USA, Inc.
Address	111 Sylvan Avenue, North Building, Englewood Cliffs, NJ 07632
E-mail	lg.environmental@lge.com

Temporary noise is normal when powering ON or OFF this device.