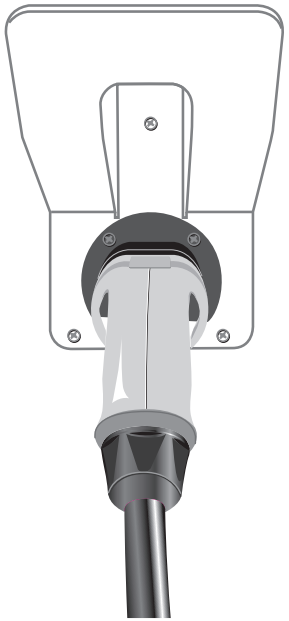

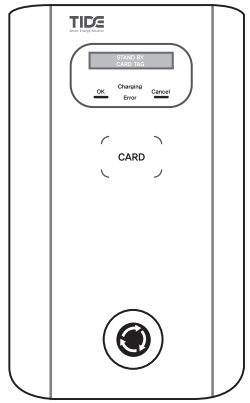

TEVS10-K07
Product Manual

TIDE
Smart Energy Solution

'Safety Precautions' are to protect user safety and prevent property damage. Be sure to read and use it correctly.
The pictures in the user manual are drawn for explanation purposes and may differ in part from the actual shape.

TIDE
Smart Energy Solution

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20F, 128, Gasan digital 1-ro, Geumcheon-gu, Seoul, Republic of Korea
Designed by TIDE

What to Know Before Reading the Manual

Model Name : **TEVS10-K07(Slow Charger)**

- To help us quickly solve your issue, please provide the following information when reporting a problem: the product's model name, the type of failure, and your personal details (such as phone number and address)

- Please, send pictures of product failure for faster service when reporting a fault.

- Please, read the entire manual before installing and operating your EV charger.

Index

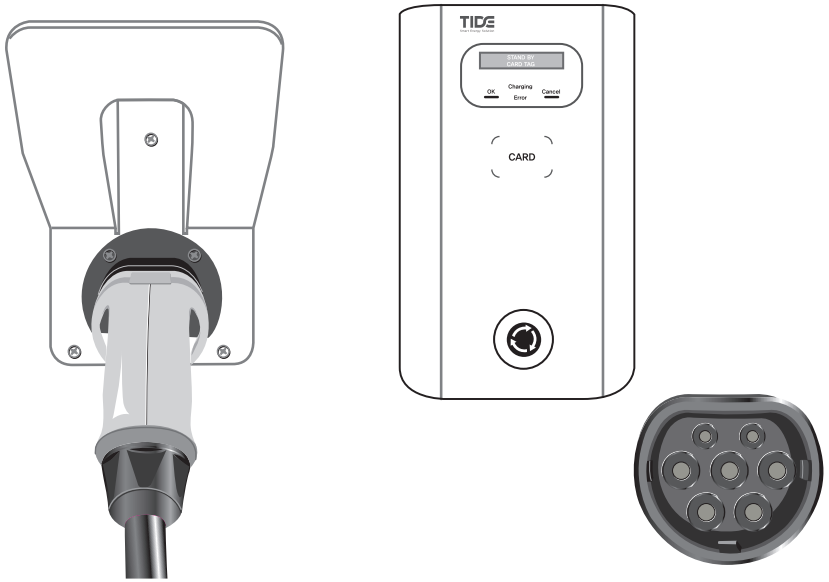
Index

- Be sure to read 'Precautions for safe use' before use EV Charger.
- After reading, please keep the product manual in a place where anyone can see it.

※ Appearance is subject to change without notice for quality improvement.

Product Overview

Product Design and Specifications

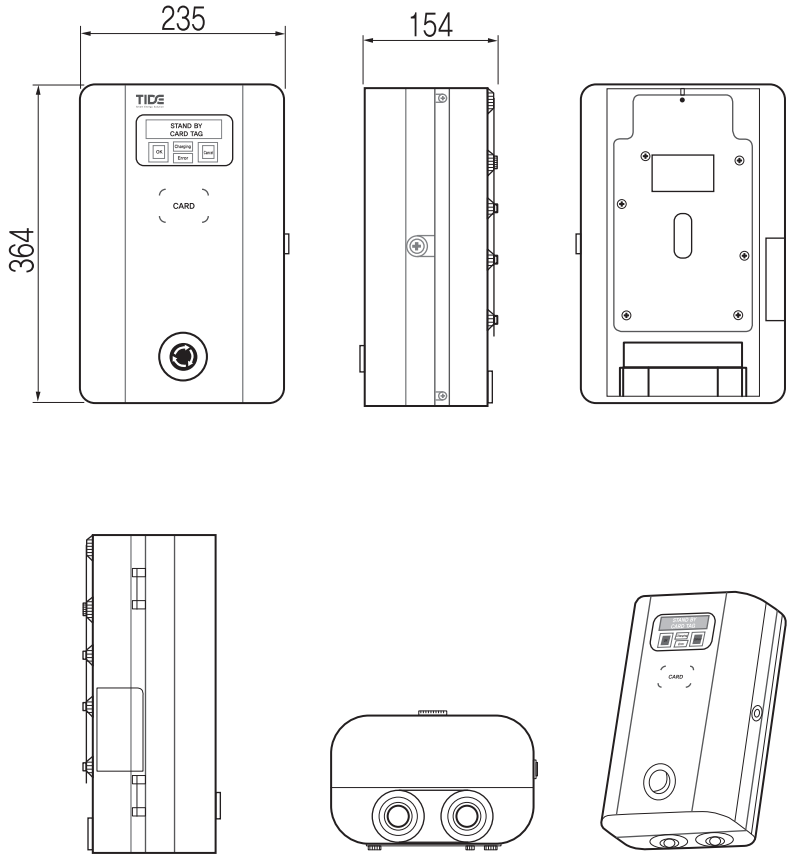


Index	Description
Model Name	TEVS10-K07
Touch Type	Touch Button
Display Type	OLED
Input Voltage / Frequency	Single-Phase AC230V / 50Hz
Output Voltage / Frequency	Single-Phase AC230V / 50Hz
Output Power (Max) / Frequency	7kW(32A) / 50Hz
Charing Processor	OCPP 1.6
Protection	Surge Protection Circuit, Earth Leakage Breaker
IP Level	IP55
Constant	1000 Pulse/kWh
Maximum Tolerance	±1%
Charing Connector	AC 7 Pin Type 2 IEC/EN 62196.1-2014, IEC/EN 62196.2-2017
Earth Leakage Breaker	AC 230V, 40A / A Type
Dimension	235(W)mm x 364(H)mm x 154(D)mm
Warranty	Within one year after purchasing

* Appearance may change without notice for quality improvement

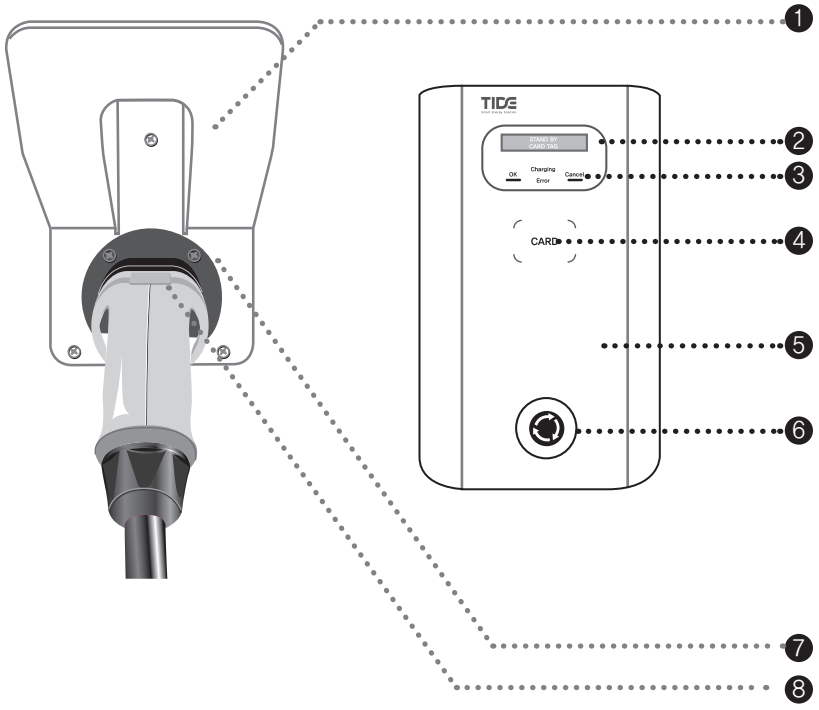
Product Overview

Product Dimensions and Size



Product Overview

Component Names and Functions

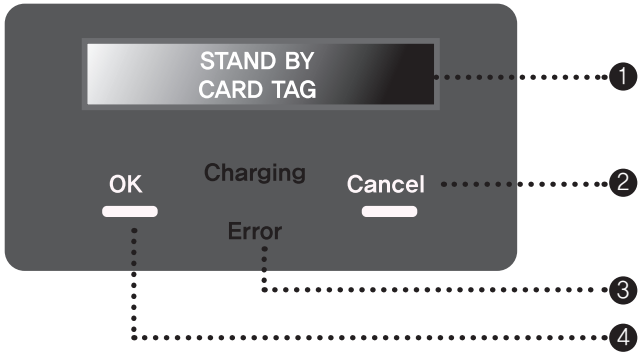


No	Name
1	Connector Cradle
2	Display(OLED)
3	Touch Pad(OK, Cancel)
4	NFC Pad
5	EV Charger Body
6	Emergency Button
7	Wall Bracket
8	Charging Connector

Product Overview

Product Overview

Component Names and Functions



No. / Name	Description
1.OLED Display	Charging status, charging time, charging amount (kW), error message, etc.
2. Cancel Touch	Button for Cancel
3. Charging or Error(LED)	Display of the status for charging or error
4. OK Touch	Button for OK

Name	Description
NFC Pad	Tag the authentication/ registration completed card to start charging or stop charging

Name	Description
QR Code	Open the app and Scan QR code to start charging

Precautions Prior to EV Charger Installation

Important information before installation and use

The following is to prevent user safety and property damage in advance, so please read it carefully and follow it.

- Please read this manual carefully and check the product before installing, operating or maintaining the charger.
- After reading the manual, keep it in a place where the user can see it at any time.
- In order to use the product's functions safely, fully familiarize yourself with the manual in advance.
- When using the EV charger, there is a risk of electric shock or explosion due to the high voltage and current.
- However, in normal operation, it is designed to be sufficiently safe so that there is no danger to the user.
- This charger may have different internal systems depending on the country of installation. Be sure to check the country and environment when installing.
- If this manual is damaged or lost, you can download it from our homepage.

Expertise Requirements for Product Installation

The installation work and initial operation check of the charger should be carried out only by engineers who have completed installation training from the manufacturer

- When installing the product, the engineer must have the necessary safety equipment, including insulated gloves, a safety helmet, safety goggles or face shield, safety clothing, and any required tools.
- Required that the installer has received education and training in first aid in case of an emergency.
- Please note that physical damage caused by unqualified installers will be charged, even if it occurs within the warranty or A/S period.

Precautions when installing EV Charger

Safety Precautions for Use

- During trial operation, you must perform trial operation according to the basic operation sequence.
- Use it according to the instructions displayed on the screen, and in case of an abnormality, stop using it immediately and contact the service center.
- Excessive manipulation of the charger and improper use of the charger may cause damage to the product.
- It is prohibited to arbitrarily change the location of the charger from the place where it was originally installed.
- Relocation of the charger location can be requested through A/S.
- Please use a dry towel when cleaning to keep the charger clean. (Never spray water or use a wet towel. There is a risk of electric shock and damage to internal components.)
- If there is moisture inside the charging connector, be sure to remove the moisture before use.
- Be careful not to let foreign substances enter the charger in case of a risk for fire.
- When not using the charger, be sure to store the charging cable and charging connector as described in the manual.
- When opening the front panel of the EV charger or the back cover of the stand, be sure to use the key provided.
- When installing the charger, the lowest point of the charging connector must be installed within 0.5~1.5M from the ground.

Precautions when opening the door of EV charger for maintenance

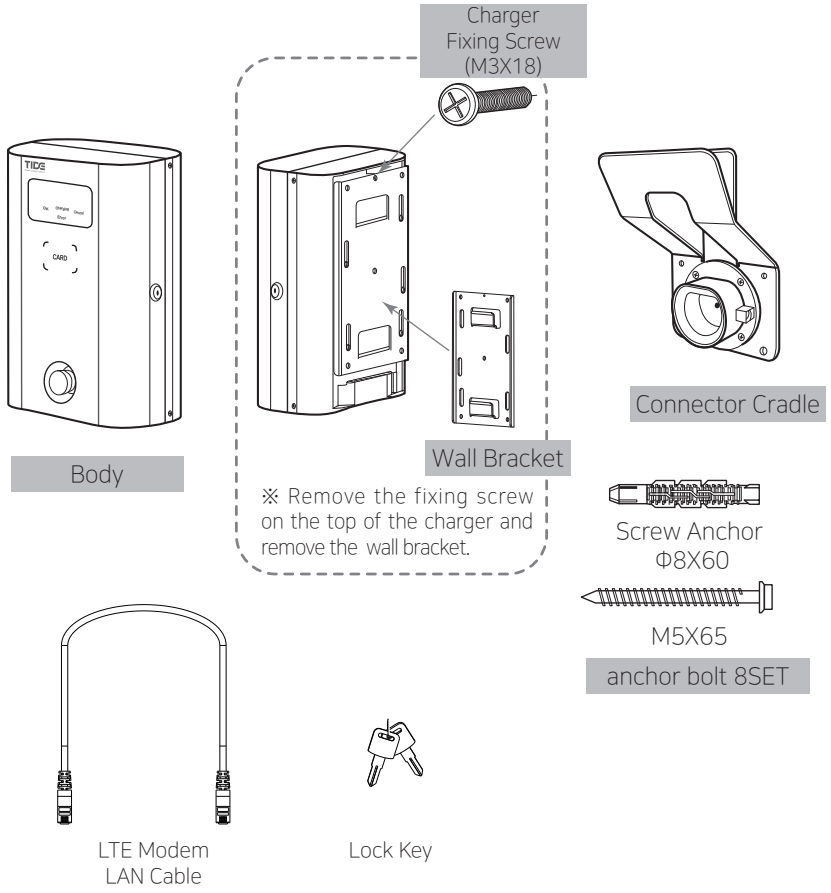
- Be sure to turn off the circuit breaker of the distribution panel before opening the EV charger.
- Be careful with handling the internal circuits and parts.
(There is a risk of electric shock due to the circuit where AC 230V voltage flows.)
- Please, open after contacting the service center.
- Be sure to close the EV charger tightly after opening and closing it.

Preparation of equipment and parts for installation

Product appearance and specifications

After receiving the product, check the box packaging condition, remove the packaging, and check if there is any damage during transportation. In case of damage, immediately contact the service center.

· Preparations for installation vary slightly depending on the installation environment, so prepare other parts and tools for wiring work.
· Before installation, in the charger installation site, check the power wiring. And check whether you need to install the power distribution panel for the charger or not.

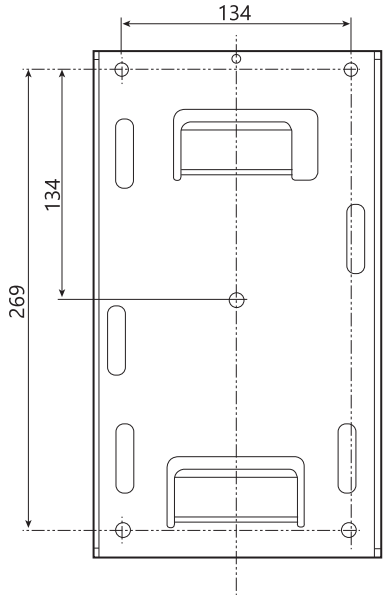


* Appearance may change without notice for quality improvement

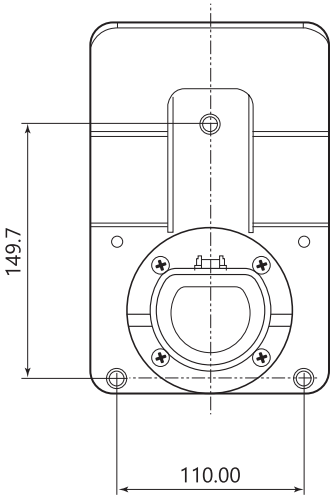
How to Drill Holes for EV Charger & Connector Cradle

Product Dimension

Refer to the drilling guide below and drill a hole according to the size of the screw anchor on the wall where the cradle will be installed.
Screw Anchor Size : 8mm X 60mm



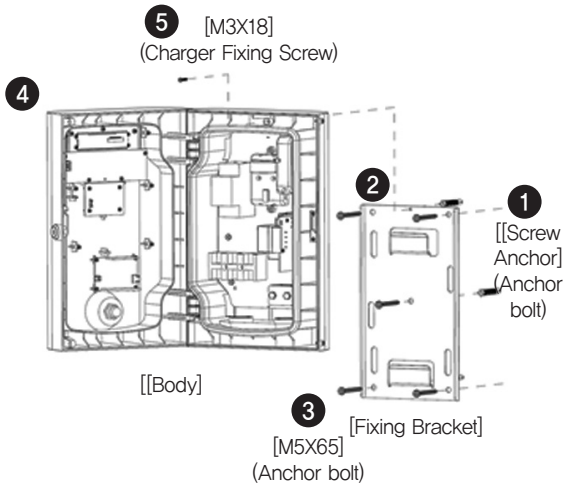
Drilling Guide for Charger Cradle



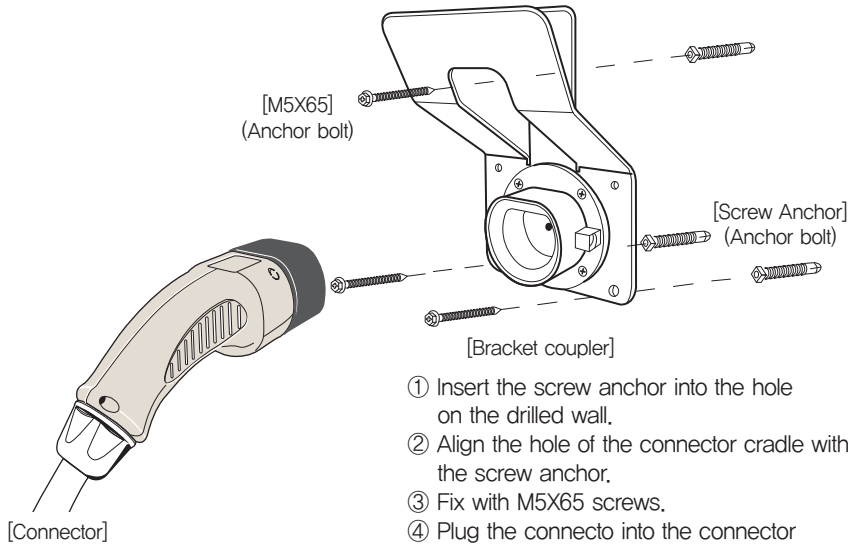
Drilling Guide for
Connector Cradle

How to Install EV Charger and Connector Cradle

Install the cradle in the order below.



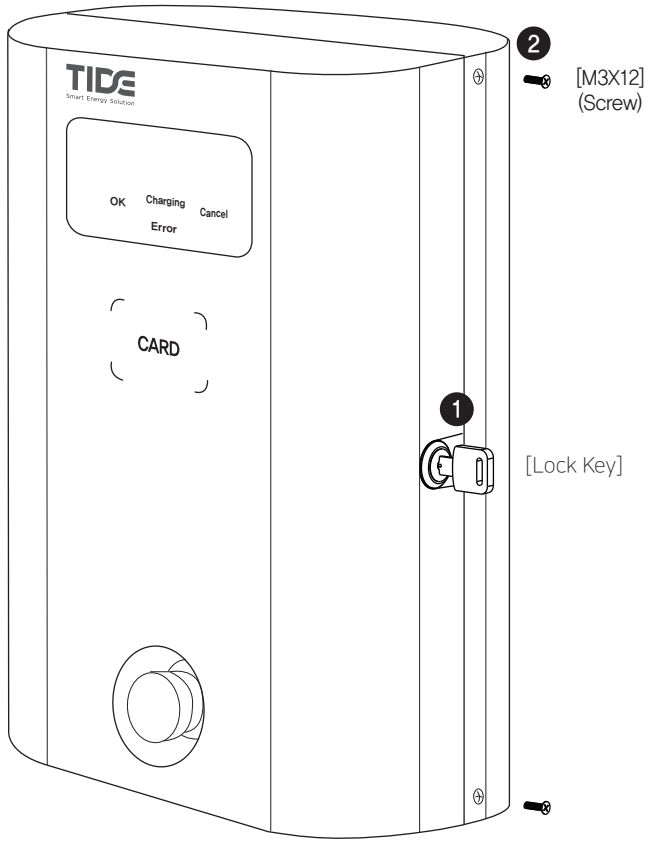
① Insert the screw anchor into the hole in the perforated wall.
② Align the hole of the fixing bracket with the screw anchor.
③ Fix with M5X65 screws.
④ Hang the charger body on the bracket and lower it vertically to fix it.
⑤ Secure with a M3X18 screw to the hole at the top center of the charger.



① Insert the screw anchor into the hole on the drilled wall.
② Align the hole of the connector cradle with the screw anchor.
③ Fix with M5X65 screws.
④ Plug the connecto into the connector socket and store it.

Wiring & Connections

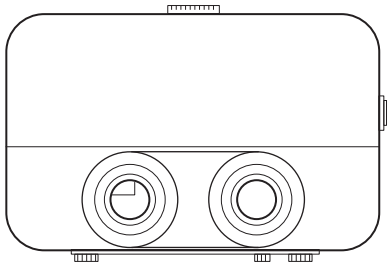
Open the door of EV Charger



① Unlock the EV charger with the enclosed key.
② Remove the M3X12 screws on the top and bottom of the side.

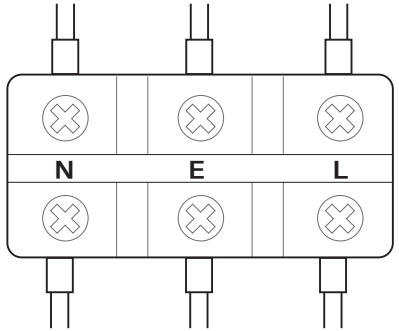
Wiring & Connections

Connect the cables in the following order.



Preparation before connecting the power cable

① There are two holes on the bottom of the charger. Insert the power cable into the left hole.
② After inserting the power cable, close the hole by using a cable gland (PG21), etc.
③ Use a flexible tube to close the power cable so that it is not exposed.



Connection for the power cable

① Input power must be connected to the power grid. Connect the cables according to Neutral, Earth, and Live wires. (Input wire, ground wire cross section: 6mm² or more)
② Terminate each cable by using a ring-type crimp terminal.
③ Cover the cables with insulating tape so that they are not exposed. After connecting the wiring, turn on the circuit breaker inside the charger. And turn on the switch of the board attached to the lid of the body.

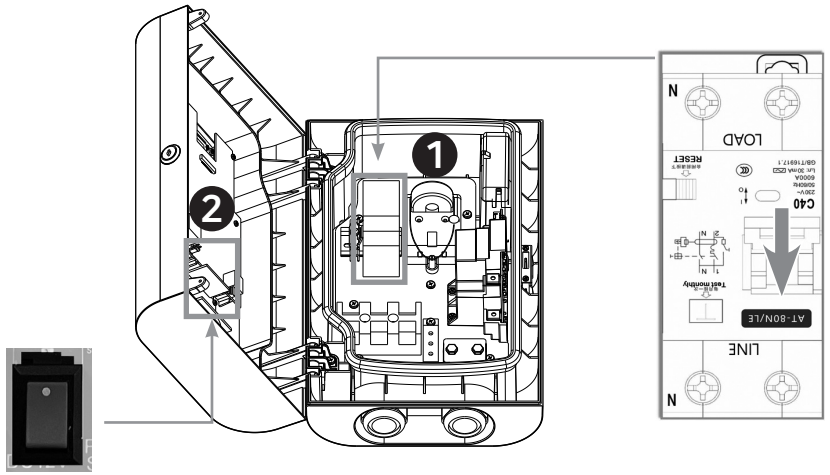
⚠ Caution

When connecting cables, be sure to turn off the circuit breaker.
Wire debris generated when connecting cables can cause abnormalities, breakdowns, and malfunctions. So, clean up the area after work. And be sure to connect N, E, L separately.

Wiring & Connections

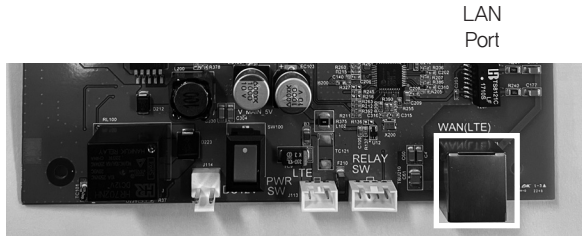
Power on the EV Charger

① Turn on the circuit breaker inside the charger.
② Turn on the switch of the board attached to the front cover of the body.



Connection for LAN Cable

① Connect the LAN cable to the communication input port according to the installation environment.

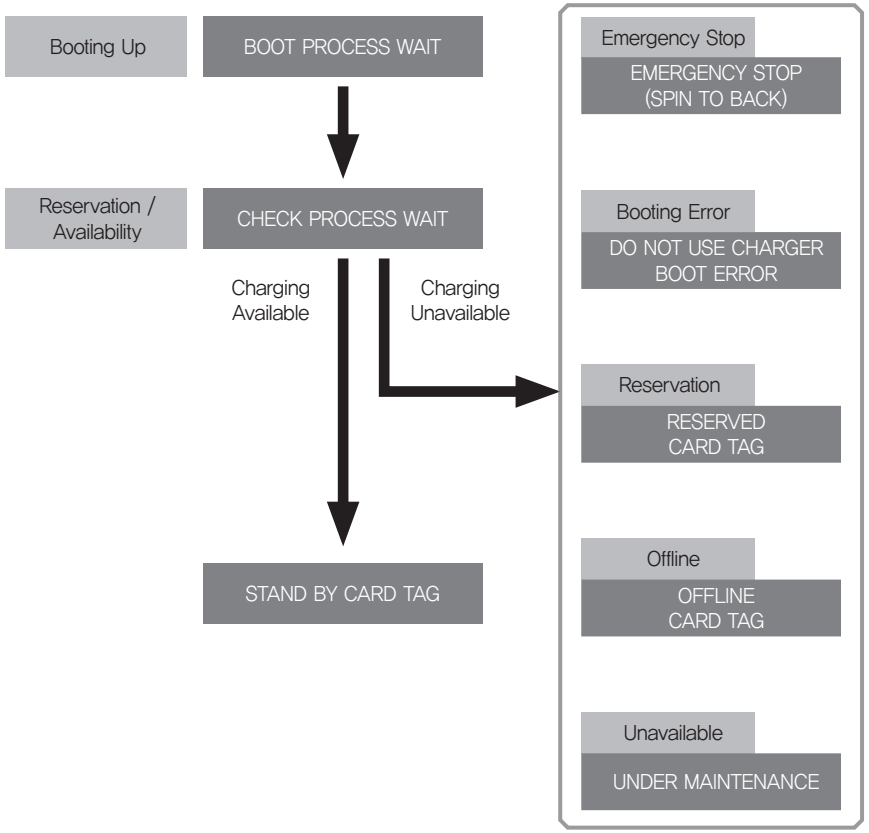


Operation

This EV charger is a product with high voltage and current.Incorrect operation may cause device failure, and in serious cases, fire or personal injury may occur. When using the product, follow the procedure below.
Through the OLED window, you can check the progress of each step of the charger and operation errors.

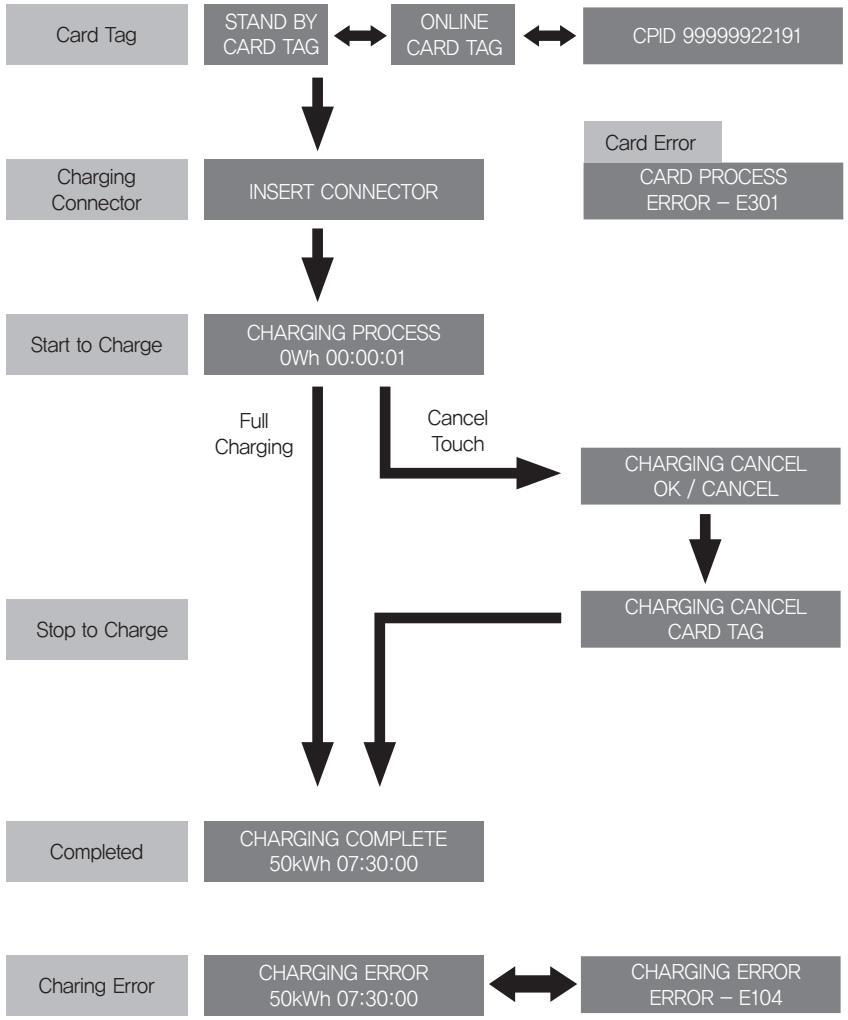
The OLED screen displays each boot step

When the power is turned on, the charger will boot up and the OLED screen will display the status of the charger.
When 'STAND BY CARD TAG' is displayed on the OLED screen, the charger has completed booting up and is in a normal standby state ready for charging.



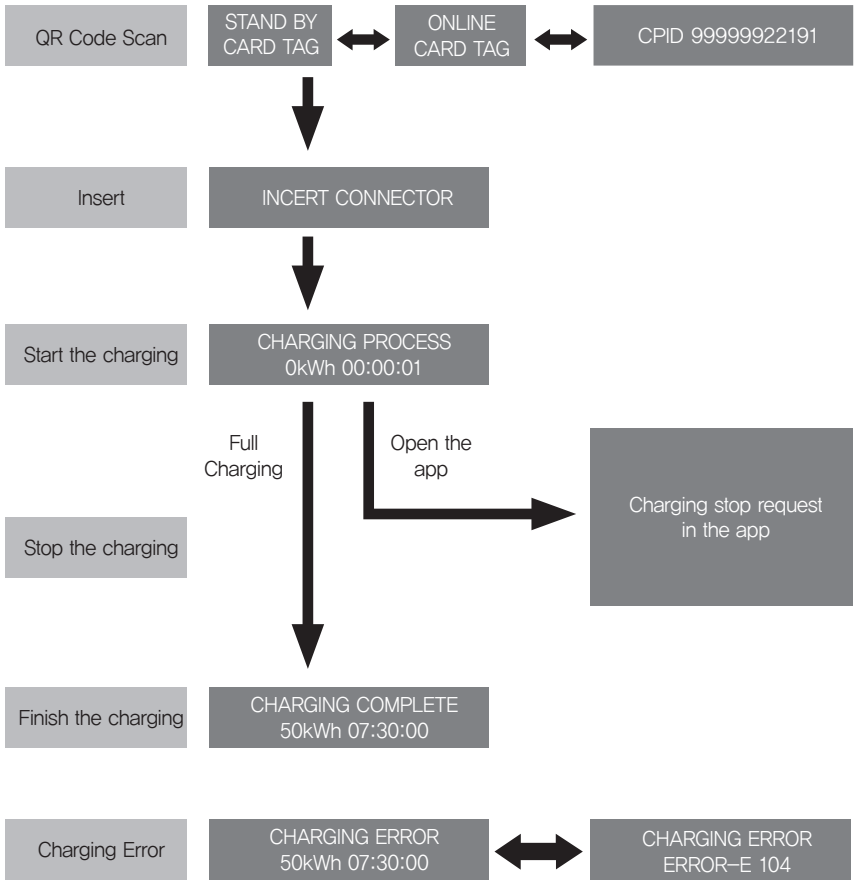
Operation

The OLED screen displays each step of the charging process



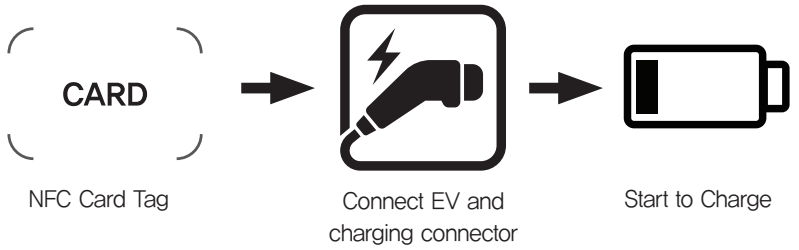
Operation(QR Code Scan)

The OLED screen displays each step of the charging process



Operation (Card Tag)

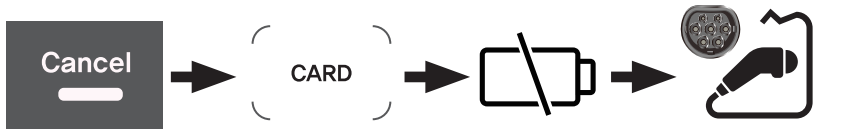
Start to Charge



NFC Card Tag | Connect EV and charging connector | Start to Charge

1. Authenticate the user using the NFC card. Tag the NFC card in the tagging area.
2. Connect the connector of the charging cable to the EV.
   If there is moisture in the charging connector, remove it before connecting.
3. When charging starts normally, the charging time is measured on the OLED window as soon as the charging starts, and the amount of charge (kWh) is also displayed, and the unit is displayed in units of 0.01 kWh.

충전 정지



Touch Cancel Button | NFC Card Tag | Stop to Charge | Disconnect EV and charging connector

1. Users can stop charging at any time during charging.
2. When charging stops, touch the cancel button.
3. Tag an NFC card.
4. Charging stops, and disconnect the charging connector connected to the EV.
5. Charging stops automatically even when the vehicle's battery is 100% charged.

Operation (QR Code Scan)

Start to Charge

Run the app | QR Code Scan | Connect EV and charging connector | Start to Charge

1. Run the charger app.
   For how to install the charger app, refer to the charger app description.
2. Scan the QR code to start charging.
   For how to use the charger app, refer to the charger app description.
3. Connect the connector of the charging cable to the EV.
   If there is moisture in the charging connector, remove it before connecting.
4. When charging starts normally, the charging time is measured on the OLED window as soon as the charging starts, and the amount of charge (kWh) is also displayed, and the unit is displayed in units of 0.01 kWh.

Start to Charge

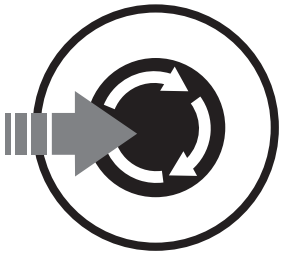
Stop charging in app | Stop to Charge | Disconnect EV and charging connector

1. Users can stop charging at any time during charging.
2. Stop charging using the charger app.
3. Charging stops, and disconnect the charging connector connected to the EV.
4. For how to stop charging in the charger app, refer to the charger app description.

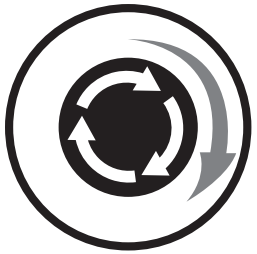
Operation

Emergency stop

–When charging, if you press the emergency stop button on the front, the charging will immediately stop.
–The emergency stop button must be used only in an emergency.
–Incorrect use may cause product operation problems.



Press the emergency stop button



Release the emergency stop button by turning it to the right.

Error Code

If you encounter any issues while using the product, please check the following items first. If the issue persists, please contact either our service center or head office for further assistance.

Error Code of Charger

	Code	Description		Code	Description
Error Code	E103	Emergency Stop button	Failure Code	E201	Stop chsrging on sever
	E104	Disconnection for the charging connector		E202	Damage on charger
	E105	EV Charger Reset		E203	Storage Capacity Excess
	E106	EV Charing Fail		E204	CP Signal Abnormality
	E107	Authentication Failure		E208	Overcurrent
	E108	Authorization timeout		E209	Overvoltage
	E109	Timeout for maximum charging time		E210	Damage on Electricity Meter
	E110	CP Signal Abnormality		E211	Damage on Relay
	E112	Charger Ground fault		E212	Damage on Card Reader
	E114	Overcurrent Detection		E214	Low Voltage
	E115	Overvoltage Detection		E216	Network Abnormality
	E116	Electricity Meter Error		E240	Others
	E117	Relay Error			
	E118	Card Reader Error			
	E120	Low Voltage Detection			
	E140	Others			

Error Code of Card

Code	failure description
E301	Unregistered Card
E302	Expired Card
E303	Abnormal Card
E304	Currently Being Used Card
E305	Mismatched Card
E306	Offline Authentication Failure
E309	Others

If the product is not operating normally, please contact our A/S center or manufacturer for repair assistance. To expedite the process, please have the model name, serial number, and year of purchase ready when you call our main phone number.

Other Troubleshooting Methods to Try

When encountering issues during product use, please first check the following items. If the problem persists, please contact the service center or our headquarters for further assistance.

Problem	Probable Cause	Corrective Measures
The power is being supplied to EV charger, but EV charger is not turning on	Is the system power OFF?	Please, turn on the circuit breaker switch inside the charger
		Please, turn on the main board power switch inside the charger
	Is the circuit breaker in the distribution panel turned OFF?	Please, turn on the circuit breaker in the distribution panel inside the charger.
User authentication can not be identified.	Is it the registered card?	User authentication can only be performed with registered, authorized cards
	Is the card used to stop charging the same as the card used to start charging?	To stop charging, the user must tag the same card used to start the charging session for authentication.
Charging can not be unable to proceed.	Does the OLED screen display error messages, and is there an Error LED on the charger body?	Please, check "Error Code of Charger"
	Have you connected the charging connector to the EV and tagged the product body with an NFC to start charging	Please, get your NFC tag to start charging.
Charging ends shortly after starting to charge	Is the EV battery fully charged?	If the EV battery is fully charged, charging will end automatically
	Is the EV unable to charge?	Please, check the EV status. If there are any problems, please contact the manufacturer.
Charging stops repeatedly during charging.	Does the function of stop charging repeatedly happen?	Please, check the condition of the EV.
	Do you find it difficult to determine the cause of the issue?	To request service, please contact either the A/S center or the manufacturer
The charging connector cannot be connected to the EV.	Is there a problem with the EV charging connector?	Please, check the EV charging connector socket. The charging connector locking device may be engaged.

Product Warranty

TIDE guarantees the product as follows in accordance with the Consumer Damage Compensation Regulations.
This product has passed strict quality control and inspection, and in case of failure, it is guaranteed according to the contents of this warranty. For repairs, present the warranty to the place where you purchased this product or to the installation company and ask for repairs.

Information on Free Services For EV Charger

If a product malfunctions due to a defect in the product under normal use within the warranty period from the date of purchase, it will be repaired free of charge within one year from the date of purchase.

Information on Paid Services for EV Charger

The cases that free A/S is not provided even within the warranty period are as follows. Thus, customers should be aware of the following.

- In case of malfunction due to customer's negligence or careless handling, or deformation or malfunction due to arbitrary modification
- In case of failure due to abnormal power supply
- In case of failure due to defective connection device
- In case of compatibility issues with other systems and hardware, not with Tide products
- Relocation installation request (customer requesting installation to a location other than the installation location initially delivered by Tide) or customer's random relocation installation and a defect occurs during installation
- In case of product failure due to the use of parts or consumables not specified by Tide Co., Ltd.
- If the product is repaired or modified by a third party other than an engineer who has completed installation training from the manufacturer, any resulting failures will not be covered by the product warranty.

Category	Item	Customer	
Product	EV Charger	Name	
Warranty	1 Year Warranty from Date of Purchase	Date of Purchase	

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