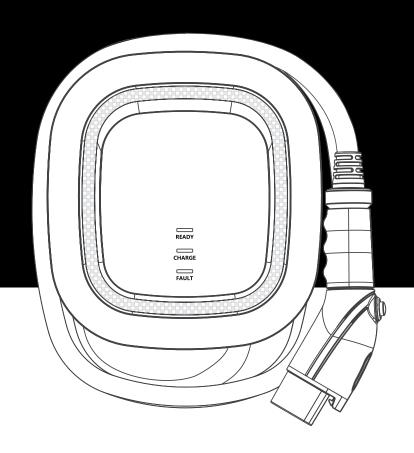
# Electric Vehicle AC Charger

**Ezra Installation Manual** 





version. W84A99900086-HB3

# **Important Safety Instructions**

Please read these Important Safety Instructions and the charging instructions in your vehicle owner's manual before charging your electric vehicle. Failure to do so can result in death or serious injury. Save this user manual for future reference. There are many safety features built into the charger. Read all the safety information and warnings in this manual to be aware of any hazards and risks associated with using this charger.



# Warning

When using electric products, basic precautions should always be followed. This manual contains important instructions, including the following, that must be followed during installation, operation and maintenance.

- Do not install or use the charger near flammable, explosive, corrosive, or combustible materials, chemicals, or vapors.
- Turn off the input power of the charger before maintaining the charger.
- The device is designed only for vehicles that are compatible with the SAE J1772 Level 2 charging standard.
- Do not use the charger if it is defective, appears cracked, frayed, broken or damaged.
- Do not attempt to open, disassemble, repair, tamper with, or modify the charger. Contact our Customer Service for any requirement of repair.
- Do not use the charger when you are, the vehicle is, or the charger is exposed to severe rain, snow, or other severe weather.
- When transporting the charger, handle with care and do not drag or step on the device.
- Do not touch the charging connector terminal with sharp metallic objects for preventing damage.
- Do not forcefully pull the charging cable, damage it with sharp objects, put fingers, or insert foreign objects into any part of the charging connector.
- Risk of explosion. This device has arcing or sparking parts that should not be exposed to flammable vapors.

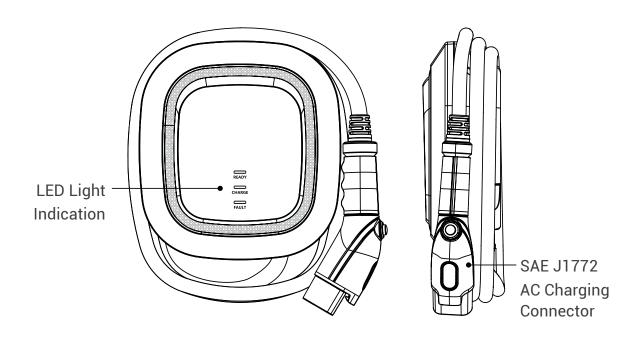
 Risk of electric shock. Do not remove cover or attempt to open the enclosure of the device. No user serviceable parts inside. Refer servicing to qualified service personnel.

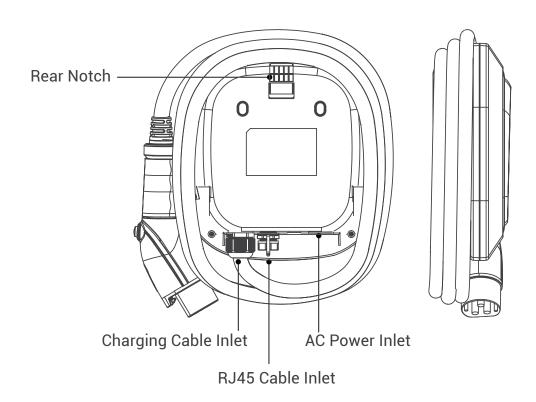
To reduce the risk of fire, connect only to a circuit provided with 40 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.1.



# **Warning**

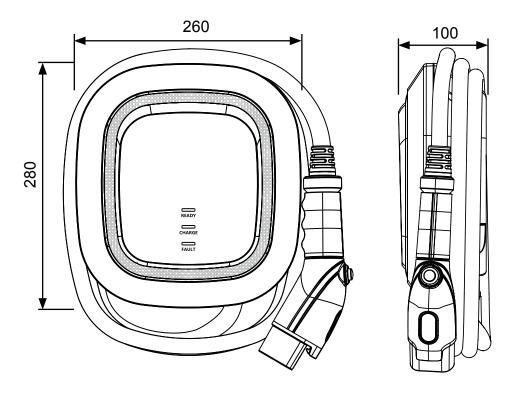
- To reduce the risk of serious injury or death and damage to the charge, this
  device should be installed, adjusted, and serviced by qualified electrical
  personnel familiar with the construction and operation of this type of
  charger and the danger involved. Failure to observe this precaution could
  result in death or severe injury.
- Incorrect installation and testing of the charger could potentially damage either the vehicle's battery and/or the device itself. Any resulting damage is excluded from the warranty for the device.
- Ensure that the charging cable is well positioned during charging so it will not be stepped on, tripped over, or subjected to damage or stress.
- Do not use this charger with a frayed charging cable that has damaged insulation or any other sign of damage.
- According to the local electrical requirements, confirm the wire diameter and wire type corresponding to the current rating and the temperature rating must meet the requirements.
- Before starting the installation, turn off all power.



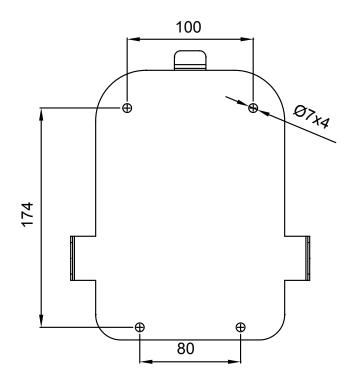


# **Dimensions (unit:mm)**

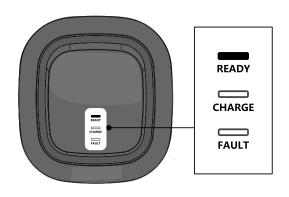
# **Main Size of Charger**



# **Wall-Mounted Bracket**

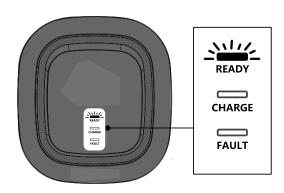


# Status Description of the Charger Indication Light



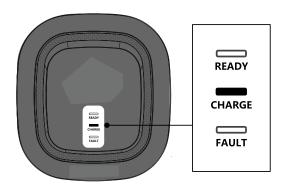
#### **Standby - Green Light**

The **READY** light stays steady in standby mode.



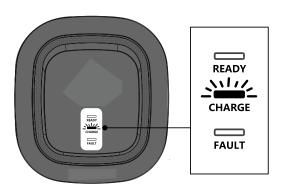
# RFID Authorization (Internet Edition)- Green Light Flashing

Green light is flashing after the RFID is authorized.



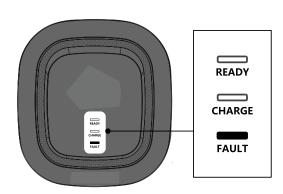
# **Waiting for Charging - Blue Light**

After the vehicle connector is connected to the vehicle inlet, the **CHARGE** light is constantly lit.



# **Charging - Blue Light Flashing**

The **CHARGE** light flashes while charging.



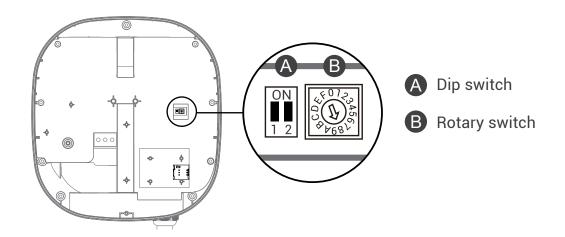
# Fault - Red Light

The red light is lit while fault. Please refer to "8.4 Error and Warning Messages" for detailed information.

# **Installation Instructions**

#### **Safety Requirements**

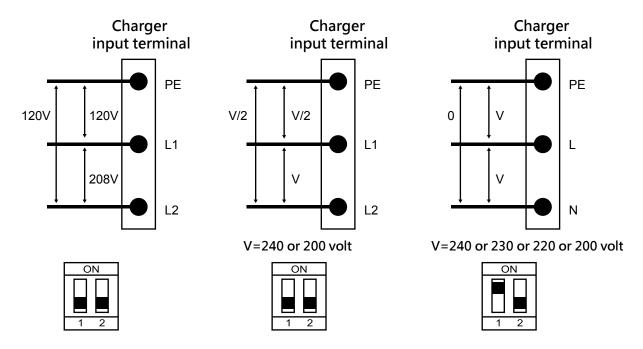
- Be sure to preview the user manual and ensure local building and electrical codes are reviewed before installing the AC charger.
- The AC charger should be installed by a qualified technician according to the user manual and local safety regulations.
- Use appropriate protection when connecting to the main power distribution cable.
- Type B, C or D breaker with the rating current 40Amp should be installed in the upstream AC distribution box.
- Disconnect switch for each ungrounded conductor of AC input shall be provided by others in accordance with the National Electric Code, ANSI/ NFPA 70.



#### **Power Grid Connection and Grounding Type**

- The AC charger supports different power grid connection and grounding type through setting dip switch. Setting methods are shown below.
- Before setting the dip switch, make sure the input power is turned OFF.
- Use a non-conductive object to set the dip switch.

	Switch 1 (Power Grid Type)	Switch 2 (Grounding System)			
ON	LN	IT			
OFF	LL	TT-TN			

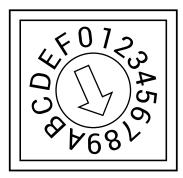


- \* Note 1: The default value in North America and Japan is (LL / TT-TN).
- \* Note 2: The default value for other regions is (LN / TT-TN).
- \* Note 3: If it is not the above standard grid type, please contact our technical staff for assistance and confirmation.

## **Maximum Output Current**

The AC charger can support different maximum output current through setting rotary switch. Setting methods are shown below

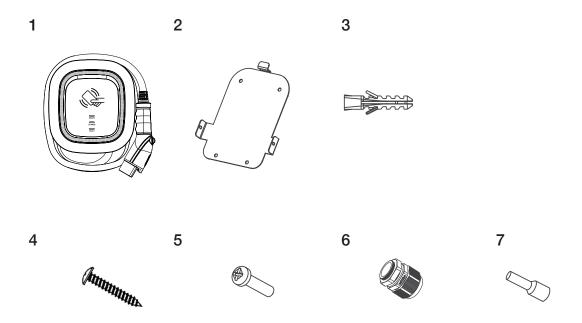
- Before setting the rotary switch, make sure the input power is turned OFF.
- Use a non-conductive object to set the rotary switch.



Switch Setting Number	0	1	2	3	4	5	6	7	8,9	А	B∼E	F
Maximum Output Current	Test Mode	6A	8A	10A	13A	16A	20A	25A	32A	30A	Invalid Setting	Slave Mode

- \* Note 4: The default value for Japan is 30A.
- \* Note 5: The default value in other countries is 32A.

# **Specification**



No.	Product Name	Quantity	Note
1	AC Charger (With Charging Cable)	1	
2	Wall-Mounted Bracket	1	
3	Expansion Screw	4	
4	M6 Self-Tapping Screws	4	
5	M4 Screw	2	
6	M25 Cable Gland	1	
7	Needle Terminal	3	

# **Tools and Materials Required**

Tools required before installing the Wall-Mounted charger, gather the following tools:

- · Wire stripper
- Crimpers for European terminals
- Phillips screwdriver for M4 ~ M6
- Slotted screwdriver for 4~5.5MM
- Voltmeter or digital multimeter (for measuring AC voltage at the installation site)
- The inserting cable should meet the best waterproof performance. It is recommended to use 3 core / 8AWG or 10mm<sup>2</sup> cable (XLPE or equivalent cable) to pull the cable from the distribution box, the maximum outer diameter of the cable should be 13mm ~ 18mm.
- Level ruler
- Pencil or marker
- Machine drill

# Wall-Mounted Bracket Installation Requirements

Before installing the wall-mounted bracket, you should confirm that the loading capacity of the wall can reach a weight of 36 kg. When installing on a cement wall, you can use the included expansion screw to install the bracket and use a cement drill to drill holes on the cement wall (Ø8mm) with the hole spacing in accordance with 3.2 wall-mounted bracket.

When installing on a wooden wall, you can directly use the included M6 self-tapping screws to install the wall-mounted bracket, and you can use the back-mounted backplane to directly lock and install on the wall.

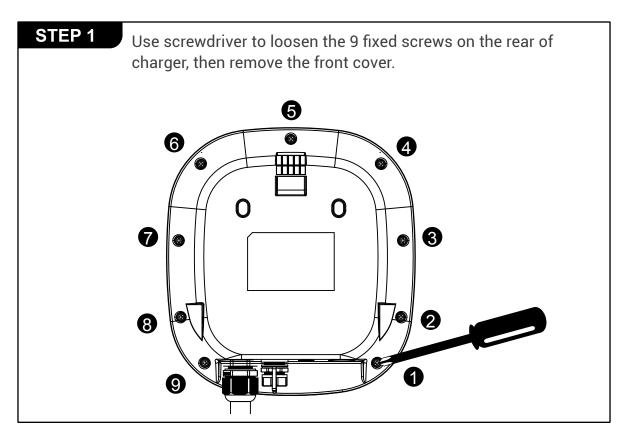
## **Ezra Installation Requirements**

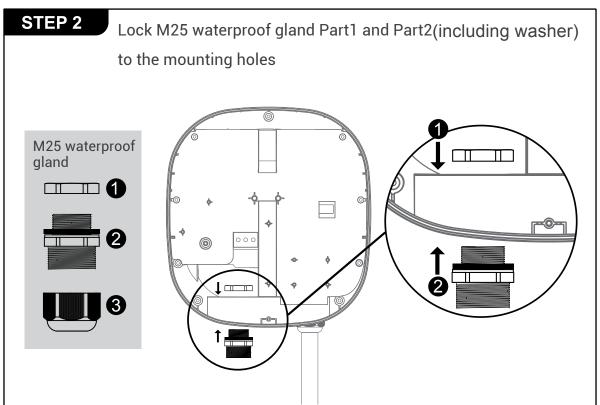
To select and locate the best position of the wall-mounted component, you need to determine the parking position of the vehicle first to ensure that the charging connector can be inserted into the vehicle charging inlet.

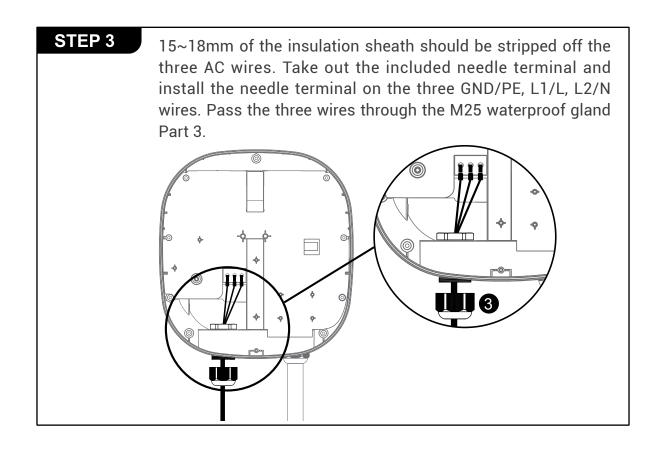
Wall-mounted components should be located:

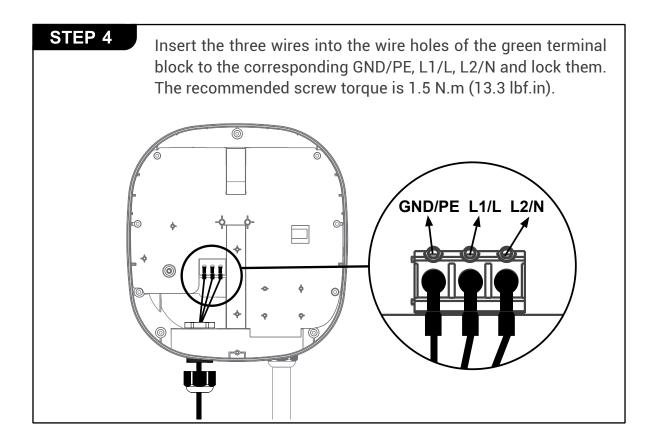
- In a enclosed garage, it is usually on the side of vehicle charging inlet.
- In a well-ventilated area. Avoid installing in closed boxes or near the exothermic chargers.
- 1.2 meters or 4 feet above the floor.
- 250mm (10inches) from any obstacles to allow cables to loop around the wires and related maintenance.

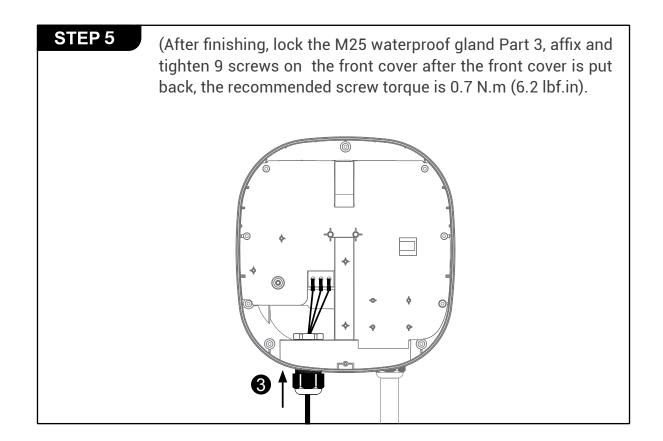
# **Installation Steps**



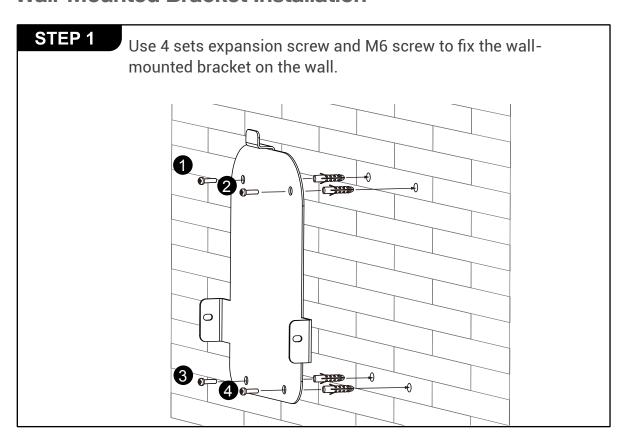


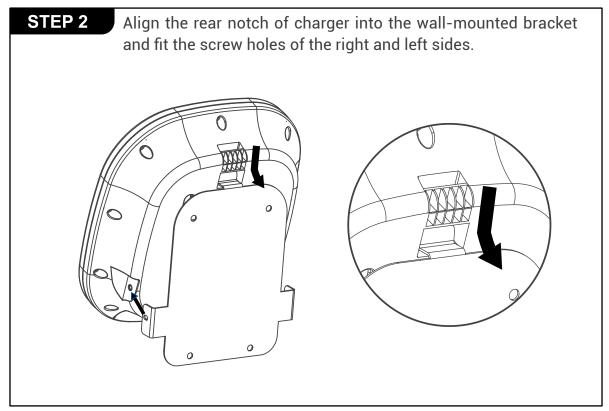


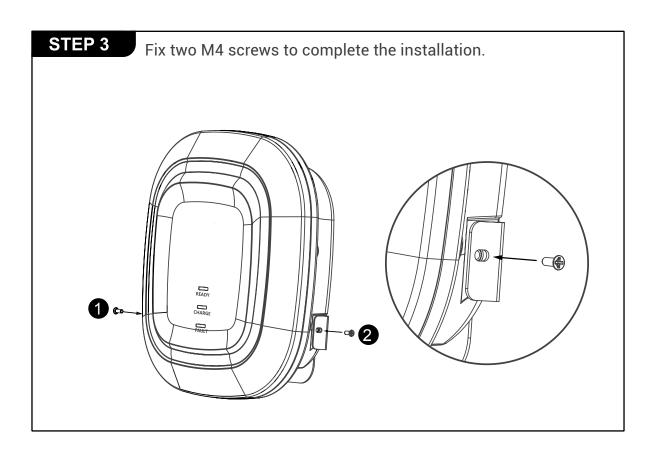




# **Wall-Mounted Bracket Installation**

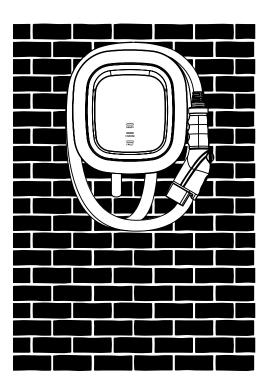




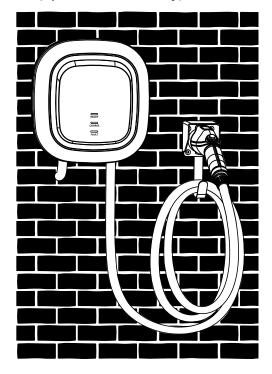


# Overall outlook picture after installation:

• Wall-mounted cable winding



 Optional cable hanging (optional accessory)

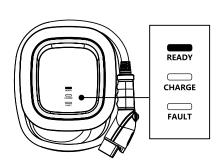


# **Operating Instructions**

# **Operating Procedures**

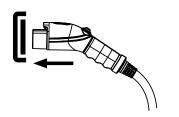
- User authorization (Only for Internet Edition)
- Connect to Vehicle Charging Inlet
- Charging Message
- · Charging completed

# Operating Steps — Basic Edition



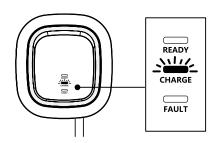
#### STEP1 / Standby Mode

After power-on, green(READY), blue(CHARGE) and red light (FAULT) all lit. Enter standby mode and the green light (READY) is steady on. The time from power on to the green light on is 7 seconds.



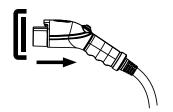
#### **STEP2 / Connection to Vehicle Inlet**

Plug the charging cable into the vehicle charging inlet. The blue light (CHARGE) is constantly lit.



### STEP3 / Charging

The blue light (CHARGE) turns to flash automatically, charging is in process.



#### STEP4 / Charging Finished

When the charging is finished, the blue light (CHARGE) is constantly lit, press the button to stop charging.

# **Error and Warning Message**

Status	Blue	Green	Red	Remark		
Input OVP	Input OVP -		1 flashes followed by 3 sec pause	Auto Recover		
Input UVP	-	-	2 flashes followed by 3 sec pause	Auto Recover		
Output OCP	-	-	3 flashes followed by 3 sec pause	Auto Recover		
ОТР	-	-	4 flashes followed by 3 sec pause	Auto Recover		
RCD Abnormal	-	-	5 flashes followed by 3 sec pause	Auto Recover		
Ground Fault	-	-	6 flashes followed by 3 sec pause	Auto Recover		
Control Pilot Fault	-	-	Flicker	Auto Recover		
MCU Self-Test Fail	-	-	Constantly Bright	Contact Customer Service		
RCD Self-Test Fail	-	-	Constantly Bright	Contact Customer Service		
Relay Self-Test Fail	-	-	Constantly Bright	Contact Customer Service		
RCD Abnormal Stop Charging* <sup>1</sup>	-	Constantly Bright	Constantly Bright	Contact Customer Service*2		
Output OCP Stop Charging* <sup>1</sup>	Constantly Bright	-	Constantly Bright	Contact Customer Service*2		
OTP Stop Charging	Flicker	Flicker	Constantly Bright	Contact Customer Service		

- \*1 Withdraw and re-plug the charging gun can exit this stop charging mode.
- \*2 If this stop charging mode is frequently triggered, pleasw contact customer service for technical solutions.

# Federal Communication Commission Interference Statement

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.

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

#### **Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

# **Industry Canada Statement**

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

#### **Radiation Exposure Statement:**

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body.

#### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20 cm entre le radiateur et votre corps.

# This device is intended only for OEM integrators under the following conditions: (For module device use)

- 1) The antenna must be installed and operated with greater than 20cm between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.

As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

# Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

- 1) L'antenne doit être installé et exploité avec plus de 20 cm entre l'antenne et les utilisateurs, et
- 2) Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou

antenne.

Tant que les 2 conditions ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé

#### **IMPORTANT NOTE:**

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the Canada authorization is no longer considered valid and the IC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate Canada authorization.

#### **NOTE IMPORTANTE:**

Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines colocalisation avec un autre émetteur), l'autorisation du Canada n'est plus considéré comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

# **Maintenance and Repair**

# **Daily Maintenance**

Please keep the charger clean and keep the chager in a clean area with low humidity. Do not install it in an environment near the sea, with high oil, high humidity or high dust.

- Avoid moisture or water in the charger. If there is water or moisture ingress into the charger, it is necessary to immediately power off to avoid immediate danger, and notify the professional personnel to carry out maintenance before next use.
- If there is any damage or dirt on the vehicle connector, charging cable, or vehicle connector holder, please contact the maintenance personnel immediately.
- Please use the charger properly. Do not hit or press hard on the case. If the case is damaged, please contact a professional technician.
- Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.
- Do not place external objects or heavy objects on the charger to avoid danger.

# EVTTPASS PORT

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