

EV Charger

User Manual



Important Safety Instructions Related To Risk of Fire or Electric Shock

WARNING: When working with electrical products, basic precautions should always be followed. This manual contains important instructions for MES-EV-LH-SG80, MES-EV-LH-DG80, MES-EV-LH-DG40.models, needs to be observed during installing, operating and maintaining.

- 1.Please read all instructions before using this product.
- 2.Use of this device around children should be done under supervision.
- 3.Do not stick your fingers into the EV connector.
- 4.Do not use this product if the flexible power cord or scooter cable is frayed, has torn insulation, or has any other damage.
- 5.Do not use this product if the housing or EV connector is broken, cracked, open, or otherwise damaged.
- 6.Indicate the ambient temperature grade: -30°C to 50°C.
- 7.Note the following or something similar: "To reduce the risk of fire, connect to a circuit providing the following function". @ampere's maximum branch circuit overcurrent protection shall be in accordance with the National Electrical Code ANSI/NFPA 70, and Canadian Electrical Code Part 1 C22.1.
- 8.Disconnecting Means. For equipment rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. The disconnect-ing means shall be lockable open in accordance with 110.25.

Instructions de sécurité importantes relatives au risque d'incendie ou de choc électrique

AVERTISSEMENT : Lors de l'utilisation de produits électriques, des précautions de base doivent toujours être prises. Ce manuel contient des instructions importantes pour les modèles MES-EV-LH-SG80, MES-EV-LH-DG80, MES-EV-LH-DG40, qui doivent être respectées lors de l'installation, de l'utilisation et de l'entretien.

- 1) Veuillez lire toutes les instructions avant d'utiliser ce produit.
2. l'utilisation de cet appareil en présence d'enfants doit se faire sous surveillance.
- 3 Ne mettez pas vos doigts dans le connecteur EV.
4. n'utilisez pas ce produit si le cordon d'alimentation flexible ou le câble du scooter est effiloché, si l'isolation est déchirée ou s'il est endommagé de quelque manière que ce soit.
5. n'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert ou autrement endommagé.
- 6 Indiquer la température ambiante : -30°C à 50°C.
7. notez la mention suivante ou une mention similaire : "Pour réduire le risque d'incendie, branchez l'appareil sur un circuit assurant la fonction suivante". La protection maximale contre les surintensités du circuit de dérivation de @ampere doit être conforme au Code national de l'électricité ANSI/NFPA 70 et au Code canadien de l'électricité, partie 1 C22.1.NFPA 70, and Canadian Electrical Code Part 1 C22.1.
- 8.moyens de déconnexion. Pour les appareils de plus de 60 ampères ou de plus de 150 volts à la terre, le dispositif de déconnexion doit être fourni et installé dans un endroit facilement accessible. Le dispositif de déconnexion
-Le dispositif de déconnexion doit être verrouillable et ouvert conformément à l'article 110.25.

SAVE THESE INSTRUCTIONS

CONSERVER CES INSTRUCTIONS

Instrucciones de seguridad importantes relacionadas con el riesgo de incendio o descarga eléctrica

ADVERTENCIA: Al trabajar con productos eléctricos, deben seguirse siempre las precauciones básicas. Este manual contiene instrucciones importantes para los modelos MES-EV-LH-SG80, MES-EV-LH-DG80, MES-EV-LH-DG40, que deben observarse durante la instalación, el funcionamiento y el mantenimiento.

1. Lea todas las instrucciones antes de utilizar este producto.

2. El uso de este aparato cerca de niños debe hacerse bajo supervisión.

3. No introduzca los dedos en el conector EV.

4. No utilice este producto si el cable de alimentación flexible o el cable del scooter están deshilachados, tienen el aislamiento roto o presentan cualquier otro daño.

5. No utilice este producto si la carcasa o el conector EV están rotos, agrietados, abiertos o presentan cualquier otro daño.

6. Indique el grado de temperatura ambiente: -30°C a 50°C.

7. Anote lo siguiente o algo similar: "Para reducir el riesgo de incendio, conecte a un circuito que cumpla la siguiente función". La protección máxima contra sobretensiones del circuito derivado de @ampere deberá ser conforme al Código Eléctrico Nacional ANSI/NFPA 70, y al Código Eléctrico Canadiense Parte 1 C22.1.

8. Medios de desconexión. Para equipos de más de 60 amperios o más de 150 voltios a tierra, los medios de desconexión se proporcionarán e instalarán en un lugar de fácil acceso. Los medios de desconexión

-Los medios de desconexión deberán poder abrirse con llave de acuerdo con 110.25.

GUARDE ESTAS INSTRUCCIONES

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Abbreviations

S/N	Abbreviations	Description
1	EV/PHEV	Electric vehicles, either BEV (battery electric vehicles) or PHEV (plug-in hybrid electric vehicles)
2	EVSE	Electric vehicle supply equipment
3	KW	Kilowatt
4	A	Ampere (unit of current)
5	V	Volts (unit of voltage)
6	Hz	Hertz (unit of frequency)
7	RFID	Radio frequency identification

Safety Instructions

In this manual, the following warning labels and precautions are used on AC EV Chargers:

WARNING

For use with Electric Vehicles.

Ventilation Not Required.

To avoid a risk of fire or electric shock, do not use this device with an extension cord.

This device is intended only for charging vehicles not requiring ventilation during charging.

THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE, PART I

CAUTION

To reduce the risk of electric shock, connect only to properly grounded outlets. 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.



AVERTISSEMENT

Pour utilisation avec des véhicules électriques
Aucune ventilation requise

Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge avec cet appareil

Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement

LA PERTINENCE DE

L'UTILISATION DE CORDONS FLEXIBLES

SELON LE CODE CE, PREMIERE PARTIE.

ATTENTION

Pour réduire le risque de choc électrique, brancher sur une prise correctement mise à la terre

Ne pas utiliser ce produit si l'appareil est endommagé

Risque de choc électrique. Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier. Aucune pièce interne réparable par l'utilisateur. Confier tout travail d'entretien ou de réparation à un technicien qualifié.



ADVERTENCIA

Para uso con vehículos eléctricos

No requiere ventilación

Para evitar un riesgo de incendio o choque eléctrico, no utilice este aparato con una extensión

Este dispositivo se destina únicamente para cargar vehículos que no requieren ventilación durante la carga

PRECAUCIÓN

Para reducir el riesgo de choque eléctrico, conectar únicamente a salidas puestas a tierra correctamente

No utilizar este producto si existe algún daño en la unidad

Riesgo de choque eléctrico. No quitar la cubierta ni intentar abrir el envoltente. En el interior existen partes que no pueden repararse por el usuario. Referirse a personal de mantenimiento calificado



Standard

► Safety Standard

Complies with UL 2594 UL 2231 UL 1998 UL991

► Radio Frequency Standard

47CFR Part 15(2023)

ANSI C63.10(2020)

RSS-210 Issue 11

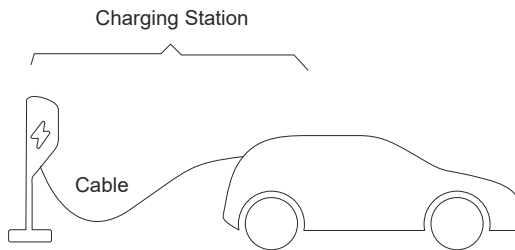
► Energy Star Standard

ENERGY STAR® Program Requirements for Electric Vehicle Supply Equipment (EVSE) Version

1.0, 1.1 and 1.2

► Charging Connection

The Connections for Charging are Shown Below



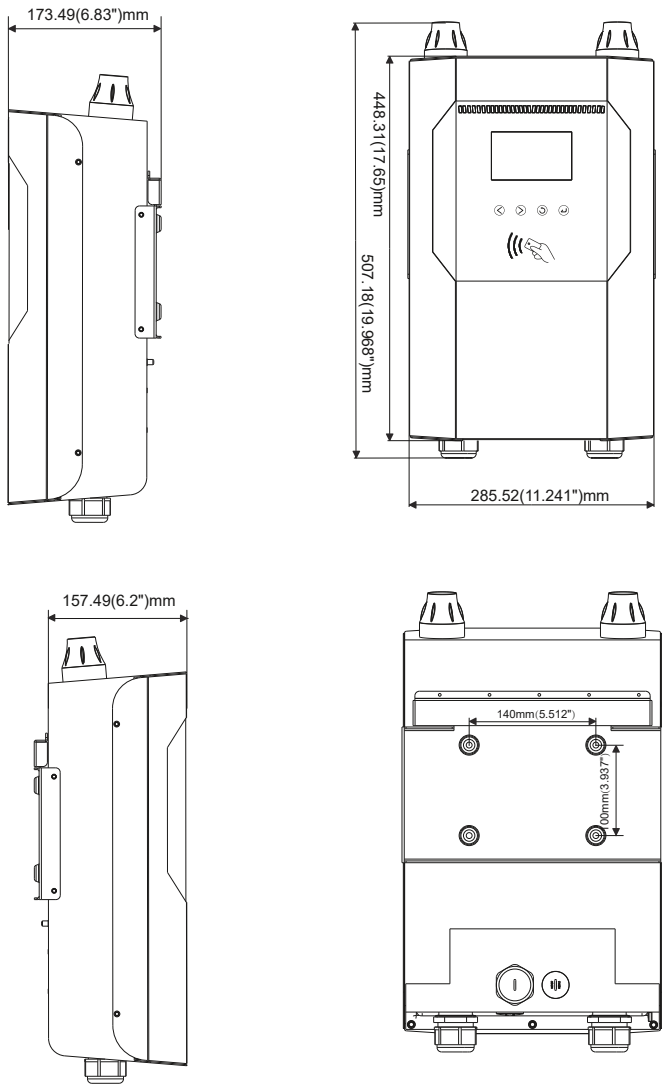
1 Product Information

1.1 Type

Welcome to our AC EVSE

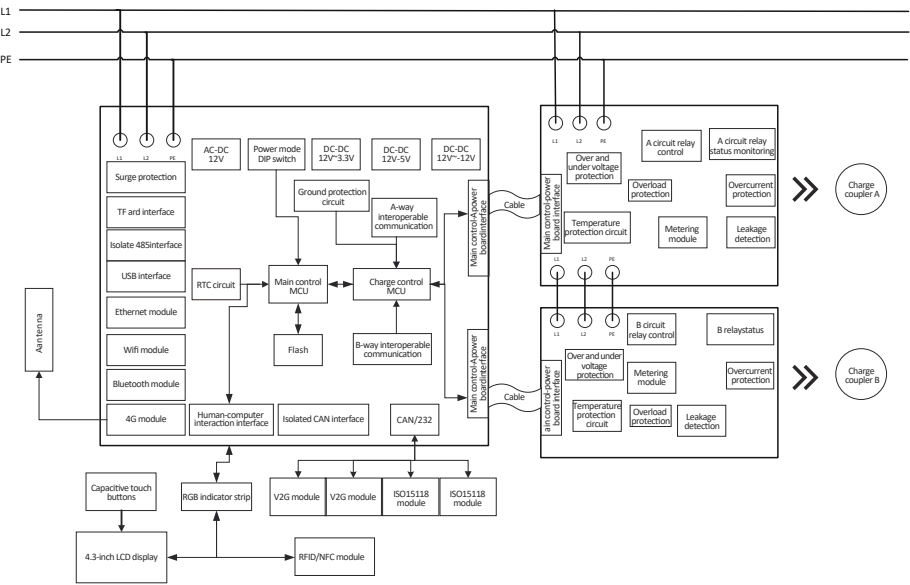
1.1.1 Shape and Size

The shape and size of the AC EVSE is shown in the figure below:



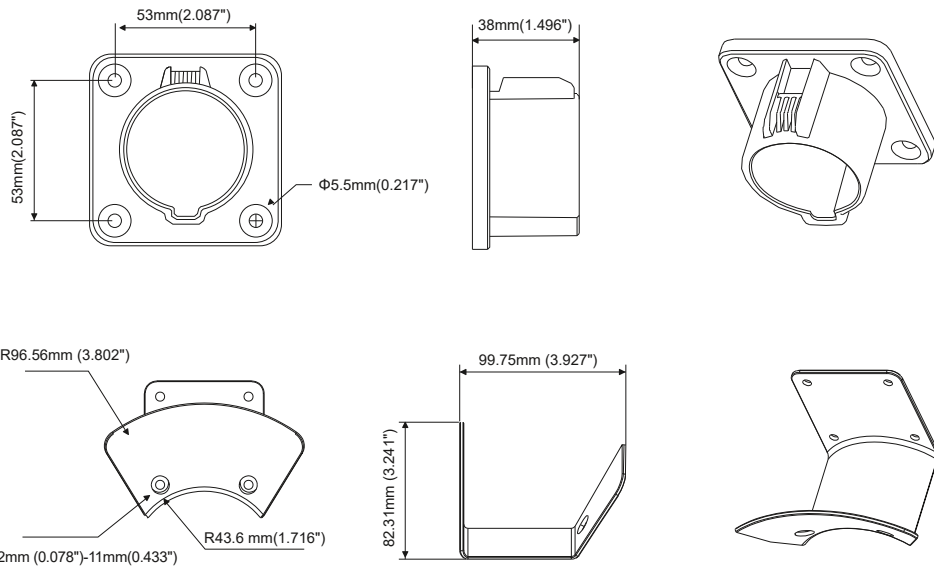
1.1.2 Block Diagram

The block diagram of EVSE is as follows:.



1.2 Cable Holder and Hook

AC EVSE is equipped with an American standard car-side charging connector. When the EVSE is in standby mode, insert the car end charging connector into an empty seat to protect the car end charging connector. Use the mounting screws to fix this empty socket in place next to the EVSE.



1.3 Specification

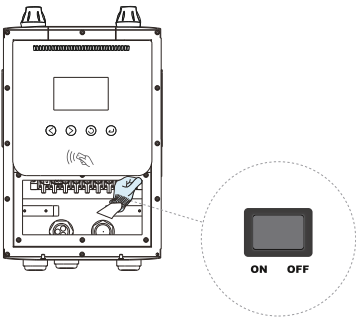
American Standard AC EV Charger Series							
Category	Specifications & Parameters						Option
	Model	Rated input/output voltage	Rated input current	Rated output current	Max power	Charge Coupler	
Power Specification	MES-EV-LH-SG80	Level 2, 208/240VAC 50/60Hz	80A	80A	19.2kW	SAE J1772 TYPE1 /80A	Optional
	MES-EV-LH-DG40	Level 2, 208/240VAC. 50/60Hz	80A	2*40A	2*9.6kW	SAE J1772 TYPE1 /40A	Optional
	MES-EV-LH-DG80	Level 2, 208/240VAC 50/60Hz	80A	1*80A/2*40A Load Balancing	19.2kW	SAE J1772 TYPE1 /80A	Optional
Power Wiring	Hardwired via pigtail : L1/L2/GND						
Communication	LAN (RJ-45)						
	USB (type A)						
	4G cat. 4						
	WiFi 2.4G						
	BLE 5.0						
	RS-232						
	RS-485						
OCPP Version	CAN						
	OCPP 1.6J						
User Interface & Control	LCD Screen Size:4.3-inch;/pixels resolution:800*480/262K colors/Brightness:900nit / No touch function						
	RGB LED light bar						
	Capacitive touch buttons						
	Power option switch						
User Authentication	RFID						
	QR Code /APP						Optional
	ISO 15118 (Plug & Play)						Optional
Meter	On-board power meter Measurement error accuracy less than 1%						
Power Management	V2G						Optional
	Load balancing:single device						Optional
	Load balancing:operating stations						Optional

Memory	Flash rom (128M)	
	TF card memory expansion	
Real Time Clock	Supercapacitor	
Protection Function	CCID20	
	Over voltage protection	
	Under voltage protection	
	Over-current protection	
	Over load protection	
	Short circuit protection	
	Ground protection	
	Over-temp protection	
	Surge protection 6 kV @ 3,000A	
Protection Function	Fault self-test	
Environmental	Enclosure Protection: Type 4, IK08	
	Operating Temperature: -30 ~ 50 C	
	Storage Temperature: -40 ~ 75 C	
	Humidity: Up to 95%, non-condensing	
	Altitude: <2000m	
	Cooling Method: Natural Cooling	
Mechanical	Net Weight: MES-EV-LH-SG80(14.7kg) MES-EV-LH-DG40(16kg) MES-EV-LH-DG80(21kg) [Weight based on 18ft cable length]	
	Product Outline Size:285.5*468.4*173.5mm	
	Cable Length:18ft or Customization	
Regulation	Safety Regulations:ETL (UL2231 UL2594 UL1998 UL991)	
	Metering & Billing:CTEP	
	Energy Efficiency:Energy Star	
	Wireless Certificate:FCC/IC	
Warranty	2 year Or Other	

2 Operations

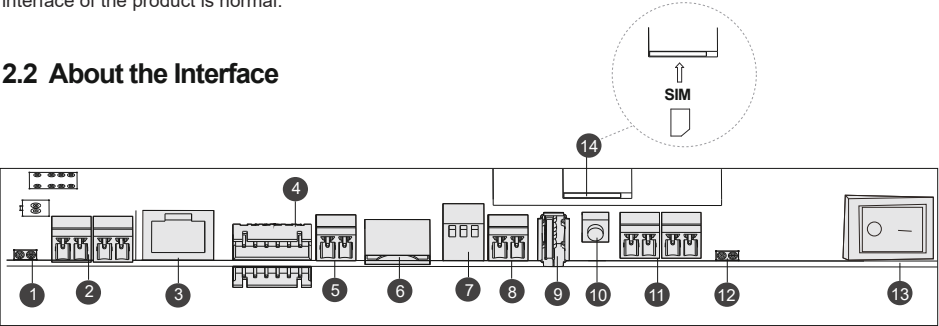
2.1 Power Switch

1. Check and make sure the mainboard power switch is off and that the fuse is there and installed. As shown below.



2. Turn off the power of this product, turn on the power switch of the mainboard; observe whether the boot interface of the product is normal.

2.2 About the Interface



NO.	Name	Function	Specification
1	Charge coupler A meter PF pulse output port.	Power pulse signal output interface	
2	Charge coupler A line Interface	CP signal, temperature signal, CC signal and power supply	
3	Ethernet Interface	10/100M ethernet network	
4	Download Interface	Debug port	Firmware burn-in port
5	485 Interface	M-bus protocol	
6	TF Interface	TF card interface	Micro SD
7	Power mode selection	Refer power mode setup instructions	
8	CAN Interface		
9	USB Interface	USB 2.0	
10	Reset button	Press the button for 5 seconds to clear WiFi SSID and Press the button for 10 seconds for factory recovery	
11	Charge coupler B line Interface	CP signal, temperature signal, CC signal and power supply	
12	Charge coupler A meter PF pulse output port	Power pulse signal output interface	
13	Power switch	Charging pile control power switch	
14	SIM card interface	Internet connection	4G Nano SIM

Charging with single pot version MES-EV-LH-DG80/MES-EV-LH-DG40 updates the rated current according to the DIP switch status, no reboot required

MES-EV-LH-DG80	16A+16A	24A+24A	32A+32A	40A+40A	1*80A/2*40A			
MES-EV-LH-DG40					40A+40A			

Charging with dual pot version MES-EV-LH-SG80 updates the rated current according to the DIP switch status, no reboot required

MES-EV-LH-SG80	16A	24A	32A	40A	48A	60A	80A	80A

Upstream Wiring Charging stations are considered continuous load devices (EVs draw maximum load for long durations); therefore, electrical branch circuits must be sized at 125% of the load for North American installations, in accordance with National Electric Code (NEC) requirements. (For other regions, refer to local code.) This means that for a maximum 48 A load at 208/240 V output to an electric vehicle, 60 A breakers are required.

Circuit breaker (amps)	Max output (amps)	Power output at 240 volts (kW)
100	80	19.2
75	60	14.4
60	48	11.5
50	40	9.6
40	32	7.6
30	24	5.7
20	16	3.8

3 Function Introduction

3.1 User Interface & Control



1. The electrical parameters are displayed in the upper left corner of the status bar. The order from left to right is: charging power, voltage level, and rated current.

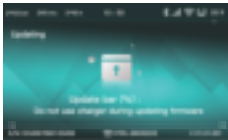
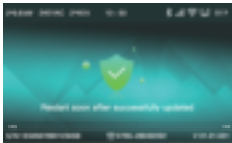
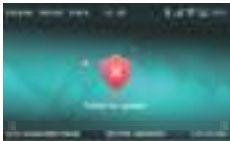
Charging power is calculated by multiplying the grid voltage and the rated current. The voltage level is automatically detected as "208VAC " or "240VAC" when turned on. The rated current can be set by dial switch. For details on dial settings, please refer to the interface introduction and instructions.

2. The upper right corner of the status bar displays network communication parameters. From left to right, there are Bluetooth, 4G, WIFI, Ethernet, and Fahrenheit icons in the charger. The Bluetooth icon only appears when the Bluetooth module is installed. If the 4G module is not installed, it will be a gray low-light icon. If the 4G module is installed normally, it will be a white high-light icon. If there is no connection, WIFI is a gray low-light icon. When WIFI is correctly set up and successfully connected, WIFI is a white high-light icon. If communication with the router is not established, Ethernet is a gray low-light icon, and when successfully established, a white high-light icon appears. The temperature inside the pile has a white highlight icon, it is dynamic, and it is displayed in degrees Fahrenheit.
3. This language switching prompt is unique to the "Ready" interface. When you touch the button below, you can switch between English and Spanish. Currently, these are the only two languages available.
4. Status prompts vary as per different language and different status.
5. The operation status of charge coupler A is displayed on the left, and the operation status of charge coupler B is displayed on the right. After swiping the card, the user can choose which charge coupler to activate for operation through the touch button at the bottom of the screen.
6. The main interface displays different content under each status.
7. Charging pile SN code - a unique code assigned at the time of shipment. The client can modify it through the server, and the uniqueness after modification is not guaranteed.
8. After-sales service phone number.
9. Software Version No.

Status	LED Description		Current Status Interactive Functions
Power On	After the red, green and blue colors flash once, yellow slow flash twice		No operation is recommended.
Available	Green always on		1. Enter to the available page after the bootup finished; 2. Touch the left and right keys to switch A and B cable languages respectively; 3. If there is no operation, the screen brightness will drop to 50% after 3 minutes; 4. There is cable insertion, card tapping platform interactive action screen and press any key brightness is 100%.
Charge Coupler Selection (Unplugged)	Green flash		1. If you tap the card in standby mode without plugging the cable, you will enter the cable selection (unplugged) interface; 2. Touch the left and right buttons to select A and B cables respectively, and enter the cable insertion interface after selection.
Charge Coupler Selection (Plugged)	Green flash		1. If you tap the card in standby mode with plugging the cable, you will enter the cable selection (plugged) interface; 2. Touch the left and right buttons to select A and B cables respectively, and enter the vehicle not ready interface after selection.

Connect the Charge Coupler to the Vehicle	Green flash		1. When a cable is not plugged in the standby state, and the user selects the cable for charging by tapping the card, APP activation, platform activation, etc. it jumps to the page that prompts the cable to be plugged; 2. The interface will stay for 1 minute, if the user does not insert the plug within 1 minute, it will return to the standby mode.
Vehicle not Ready	Blue slow flash		1. After inserting the coupler and charging, the S2 switch inside the car is not closed, and it is not ready for charging, will jumps to the car not ready page; 2. Enter the charging page when the car is ready; 3. If you unplug the charging cable at this time, the screen will return to the standby page.
Charging	Blue is always on		1. Enter the charging settlement page after successfully starting charging; 2. You'll be prompted to select a cable after the card is tapped; 3. Enter the charging completion interface after APP or platform stops charging; 4. Return to standby page with plugging out the cable.
Charging (Busy Electric Piles)	Blue is always on		1. After the charging is completed normally, enter the charging completion settlement page; 2. Unplug the charging cable or wait 1 minute to return to the standby page.
Complete	Purple is always on		1. After the charging is completed normally, enter the charging completion settlement page; 2. Unplug the charging cable to return to the standby page.
Fault Causes Charging to Stop	Unrecoverable fault: red is always on Recoverable fault: slow flashing red		1. If an abnormality occurs in the charging state, jump to the fault prompt page; 2. Return to standby page after unplugging charging cable.

Charge Coupler Disconnected	Purple slow flash		1. The plug is abnormally loose in the charging state, jumping to abnormal settlement page; 2. Hold for 1 minute and return to the standby page.
Reserved	Green slow flash		1. The user selects the electric pile in the APP, and enters the reserved page after operating the scheduled charging; 2. Only reserved users can start charging; 3. When non-reserved users start charging, it will prompt that the electric pile has been reserved; 4. After the scheduled time is exceeded, if the customer is not present for use, it will automatically return to the standby page.
Reminder to be Reserved	Green slow flash		1. Plugging in the cable in the booked state will prompt the device number have been booked; 2. The prompt disappears after unplugging the cable.
Charge Coupler Failure	Unrecoverable fault: red is always on Recoverable fault: slow flashing red		1. Pile body abnormality occurs in charging pile in non-charging state, jumping to the system fault interface; 2. Return to the standby page after the fault is resolved.
Out of Service	Yellow always on		1. In the standby state, will enter to out of service state when receive "stop use" command from the server; 2. Return to the standby state when receive "recover to use" command from server.

System Update	Yellow slow flash		1. Perform remote OTA in standby state, it will enter the upgrade page; 2. When the download is complete and the verification is successful, it will enter the upgrade success state; 3. During the download process, if the network is disconnected or the verification fails after the download is complete, it will enter to upgrade failure state; 4. After the upgrade is complete, the firmware version number in the bottom right corner will be updated.
System Update Succeeded	Yellow slow flash		1. After the update is successful, jump to the upgrade success page; 2. Wait for the device to reboot automatically, do not reboot manually.
System Update Failed	Red slow flash		1. If the upgrade fails, enter the upgrade failure prompt page; 2. Wait for 10 seconds and return to the state before the firmware upgrade.
System Fault	Unrecoverable fault: steady red Recoverable fault: slow flashing red		1. Pile body abnormality occurs in charging pile in non-charging state, jumping to the system fault interface; 2. Return to the standby page after the fault is resolved.

3.2 Configure WIFI Network

Internet configuration via WIFI and OCPP Authpass.

Take the laptop configuration charger parameters as an example, the introduction is as follows. (The method of setting parameters with a mobile phone is similar and will not be repeated)

Step 1: Connect to WIFI Hotspot

Keep your laptop in a state where it can connect to a WIFI hotspot. Turn on the charger, find the hotspot- named "ECA-NH", and connect to it without a password. (If you do not find a hotspot named "ECA-NH", please restart the power of the charging station).

Step 2: Log in to Settings

Open a web browser, preferably Google Chrome or Microsoft Edge, and fill in the - IP address "192.168.4.1" in the browser's address bar. Press the Enter key to enter the page of EVSE CONFIGURATION LOGIN. (Note: Microsoft IE browser cannot visit)

Step 3: Configure Your EV Charger

Fill in the default password from(PIN Code) the label on the panel charger. When you log in to this page for the first time, please change to a new login password,The new password can only be a 4-digit number.

Fill in the name of the hotspot and the password of your WIFI router on the web page, click the "SAVE" button to save the settings, and click the "RESTART" button to restart the charging pile to make the settings take effect.

Once it takes effect, the charging pile can be accessed through your WIFI router the Internet.

3.3 Operation Guide

1. Charging Preparation:

A. Find the available charging pile: Product, park the car, turn off the vehicle, and make the electric car in a chargeable state.



B. If choose to use APP: You can download the APP according to the prompts, and register an account according to the prompts.



C. If choose to use an RFID card: Contact the operator to obtain an RFID card; the private pile is equipped with an RFID card in the box.



2. To Connect The Charging Connector

Open the cover of the car charging socket, and connect the charging cable to the car socket stably. Make sure the connection is successful.



3. Start Charging

A. Plug and charge

The charging mode is configured as plug and charge, when step 2 is completed, the car is ready to start charging.



B. Tap card to start

Put the RFID card close to the card-tapping. Select the charging cable to be activated according to the prompts to start charging, after the charging process taps the card again, selecting the corresponding charging cable will end the charging.



C. APP start and stop

Use the APP to scan the QR code, select the charging cable number according to APP prompts, start charging, and after charging, click to stop charging according to the APP prompts.



4. Charging:

During the charging process, the charging pile screen will display the charging voltage, charging current, charging time.

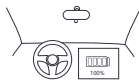


5. End Charging:

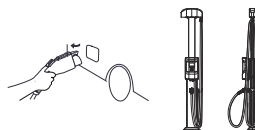
A. Through charging, the car owner can take initiative to end the charging, plug-and-play charging situation can be stopped through the car terminal; To start by tapping the card, you can stop by selecting the corresponding charging charge coupler after tapping the card; APP startup can be controlled and stopped in APP.



B. After the car is fully charged and the charging current is less than 1A for 15 minutes, the pile will automatically stop charging.



C. After the charging is completed, please pull out the charging coupler and put it back to the empty coupler-holder and hang the cables back on the hook.



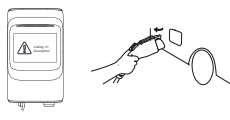
6. Order Settlement:

After the charging is completed, the display screen will display the charging power and charging cost. The order settlement will be completed on the APP or plat form.



7. Abnormal Situation:

In any state, if there is abnormal prompt on the screen and the light bar, please stop charging and disconnect the charging cable from the socket on the car.



3.4 Troubleshooting

When a fault occurs, the charger will automatically protect. The fault information and processing methods are as follows.

Fault Code	Handling Method
20 Flash Fault	The memory chip is damaged, you need to contact the after-sales service.
21 EEPROM Fault	The memory chip is damaged, you need to contact the after-sales service.
22 Emergency Stop Failure	Check that the emergency stop button is not pressed. Resolve the fault after restoring the emergency stop button.
23 Power Failure	Check whether there is any problem with the input power supply. Resolve the fault after restoring the power supply.
24 Ground Fault	The charging pile is not grounded, so the circuit needs to be tested.
25 Motherboard Over Temperature Alarm	The equipment temperature is too high. Resolve the fault after the temperature drops.
30/40 A/B Cable Meter Communication Fault	Internal communication line failure, need to contact the after-sales service.
31/41 A/B A/B Cable Input Undervoltage Alarm	Check whether the input cable is connected correctly; whether the grid voltage is abnormal.
32/42 A/B Cable Input Overcurrent Alarm	Check that the charging adapter is properly connected to the car and that the car charger is working properly.
33/43 A/B Cable Input Overvoltage Alarm	Check whether the input cable is connected correctly; whether the grid voltage is abnormal.
34/44 A/B Cable L1 On RLY Closure Fault	Damaged relay, need to contact after-sales service.
35/45 A/B Cable L2 On RLY Closure Fault	Damaged relay, need to contact after-sales service.
36/46 A/B Cable L1 On RLY Normal Opening Fault	Damaged relay, need to contact after-sales service.
37/47 A/B Cable L2 On RLY Normal Opening Fault	Damaged relay, need to contact after-sales service.
38/48 A/B Cable Relay NTC Alarm	The temperature measuring element is damaged, need to contact the after-sales service.
39/49 A/B Cable L1L2 NTC Alarm	Temperature measuring element is damaged, need to contact the after-sales service.
3A/4AA/B Cable Relay Over-Temperature Alarm	The relay temperature is too high. The fault will be resolved after the temperature drops.
3B/4B A/B Cable L1L2 Over-Temperature Alarm	L1L2 line temperature is too high. The fault will be resolved after the temperature drops.
3C/4C A/B Cable Leakage Current Fault	Check the charging adapter and its cable for damaged or wet. Recovery after fault. removal.
3D/4D A/B Cable Leakage Current Device Self-test Fault	Leakage detection equipment is damaged, need to contact the after-sales service.
3E/4EA/B Cable Input Overload Alarm	Check whether the charging adapter is correctly connected to the car and check whether the car charger is normal.

4 Installation

4.1 Labels

WARNING

For use with Electric Vehicles.
Ventilation Not Required.
To avoid a risk of fire or electric shock, do not use this device with an extension cord.
This device is intended only for charging vehicles not requiring ventilation during charging.

THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE, PART I.

CAUTION

To reduce the risk of electric shock, connect only to properly grounded outlets. 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.

AVERTISSEMENT

Pour utilisation avec des véhicules électriques.
Aucune ventilation requise.
Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge avec cet appareil.
Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement.

LA PERTINENCE DE L'UTILISATION D'UN CORDON FLEXIBLE, SELON LE CODE CE, PREMIERE PARTIE.

ATTENTION

Pour réduire le risque de choc électrique, brancher sur une prise correctement mise à la terre.

Ne pas utiliser ce produit si l'appareil est endommagé.

Risque de choc électrique. Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier. Aucune pièce interne réparable par l'utilisateur. Contier tout travail d'entretien ou de réparation à un technicien qualifié.

ADVERTENCIA

Para uso con vehículos eléctricos.
No requiere ventilación.
Para evitar un riesgo de incendio o choque eléctrico, no utilice este aparato con una extensión.
Este dispositivo se destina únicamente para cargar vehículos que no requieren ventilación durante la carga.

PRECAUCIÓN

Para reducir el riesgo de choque eléctrico, conectar únicamente a salidas puestas a tierra correctamente.

No utilizar este producto si existe algún daño en la unidad.

Riesgo de choque eléctrico. No quitar la cubierta ni intentar abrir el envoltorio. En el interior existen partes que no pueden repararse por el usuario. Referirse a personal de mantenimiento calificado.



EV Charger

Model: MES-EV-LH-SG80

Input/Output: 208/240VAC

50/60Hz

Max 80A

Max 19.2kW

MMQ: 0.5kWh

Enclosure Type: TYPE 4

Operating Temp: -30~50°C

-22~122°F

Storage Temp: -40~75°C

-40~167°F



SN:2888535269720090

Date Code:

ECA2315RD030001

FOR USE WITH ELECTRIC VEHICLES.
FOR INDOOR OR OUTDOOR USE.



Intertek

5014466

Conforms to UL Std.2594

Certified to CSA Std.C22.2#280

CAN ICES(A)/NMB(A)

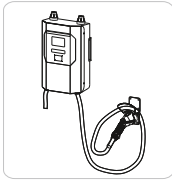
FCC ID: 2BMUW-DG80

Contains FCC ID: 2AFOS-WT32C3-SX

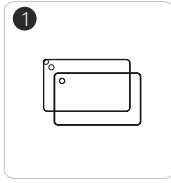
Contains FCC ID:

XMR202008EC25AFXD

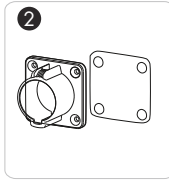
4.2 Packing List



AC charger



RFID card
(2pcs)



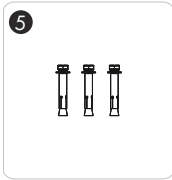
Coupler holder
(1pcs)



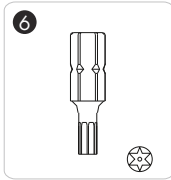
Cord holder
(1pcs)



Torx self-tapping
screws (8pcs)
Rubber Plug Expansion
Tube (8pcs)



Expansion screw
(3pcs)



Electric drill bit
(1pcs)



3-hole waterproof
connector
BN-M32-25 (1pcs)



3-hole waterproof
connector
BN-M25-18 (1pcs)

4.3 Check and Confirm

When unpacking, please carefully confirm the following points:

- ▶ According to the packaging list, whether the accessories are missing.
- ▶ Whether there is any damage during transportation.
- ▶ Whether the model and specification on the name plate of the machine are consistent with the order requirements.
- ▶ If any damaged or missing parts are found, do not start the machine and contact the supplier as soon as possible.
- ▶ Please keep the box and packaging materials for 1 month for future disposal. Paper packaging is recyclable.

4.4 Preparation

In order to ensure long-term stable operation of the product, it is recommended to avoid the following installation problems:

- ▶ This product is an electrical device. Handle with care and avoid severe vibration and shock.
- ▶ EVSE cannot be transported by dragging the charging connector and charging cable.
- ▶ EVSE cannot be used in extreme weather, especially when the ambient temperature is too low or too high, which will affect the use of EVSE.

It is recommended to install EVSE in a ventilated and cool place away from direct sunlight and rain. To ensure good ventilation, you should install the EVSE vertically with enough space. Installation tools before installing AC EVSE, you should prepare at least the following tools:



Multimeter



Electric Impact
Drill(D8mm+D6mm)



Wrench (10mm)



AWG23-7
Tube Terminal
Crimping Pliers



Phillips Screwdriver
(D5mm)



Electric Batch
(With plum blossom
hole T20.T25 bit)



Utility Knife



Anti-static bracelet



Heat Coupler



Wire Strippers



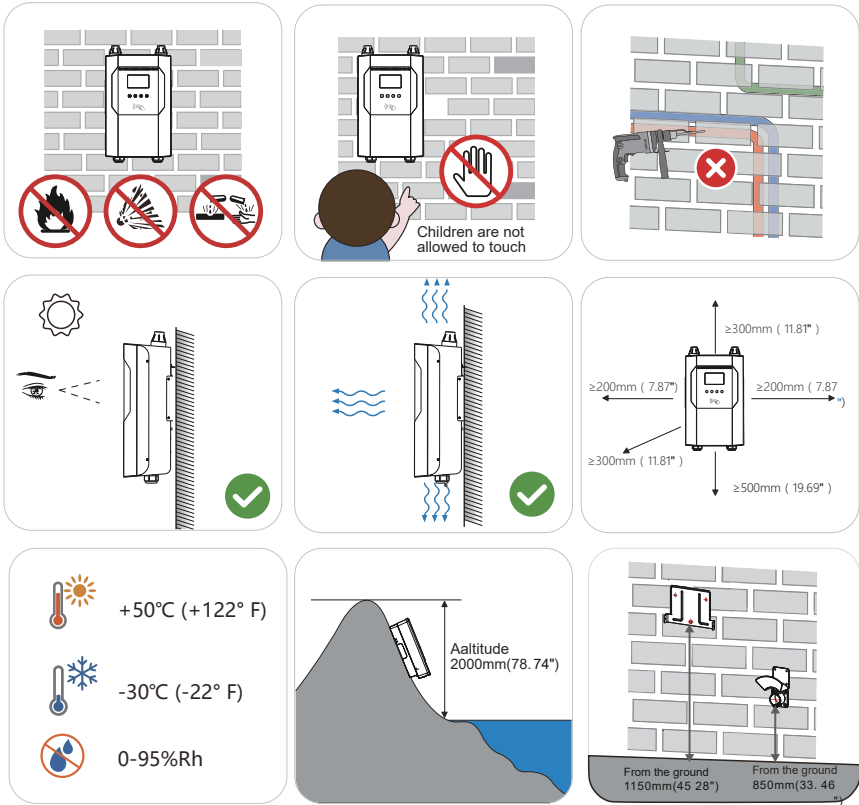
Marker Pen



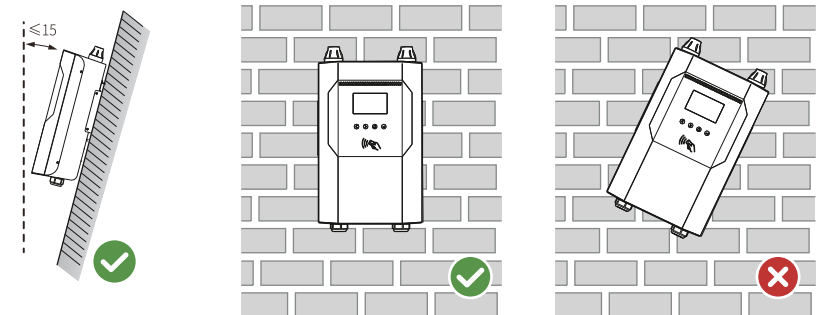
Rubber Hammer

4.5 Wall Mount Installation

Location Requirements

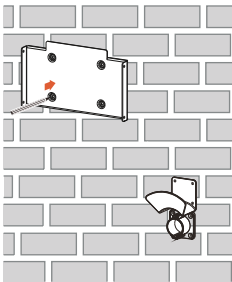


Angle Requirements

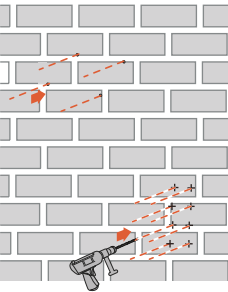


Angle Requirements

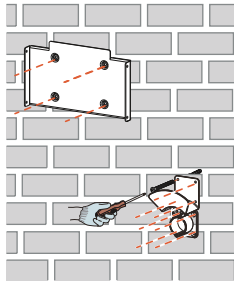
- 1** Install the wall-mounted version and trace holes on the wall



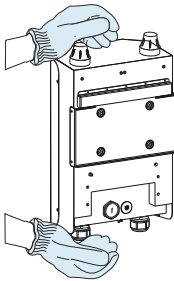
- 2** Punch holes in the wall



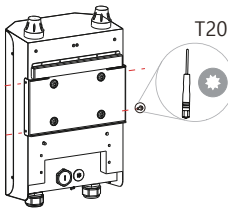
- 3** Install wall mounts, hanging plates and empty blocks



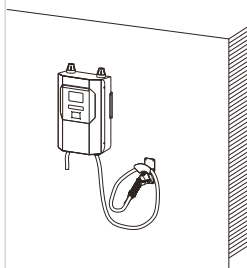
- 4** Install the pile body on the mounting plate



- 5** Set screw

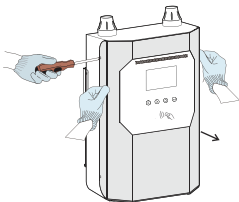


- 6** Installation pile completion diagram

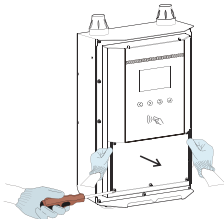


Bottom Wiring

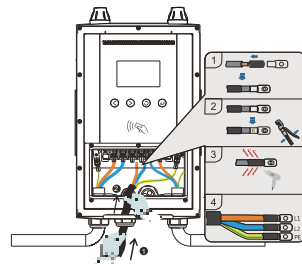
- 1** Remove decorative cover



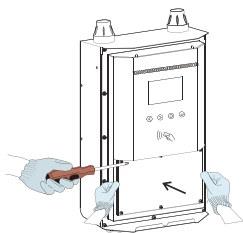
- 2** Remove wiring cover



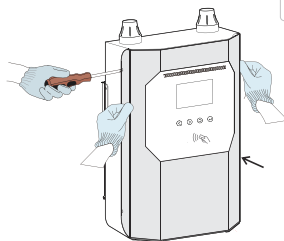
- 3** Input wire



4 Installing decorative cover

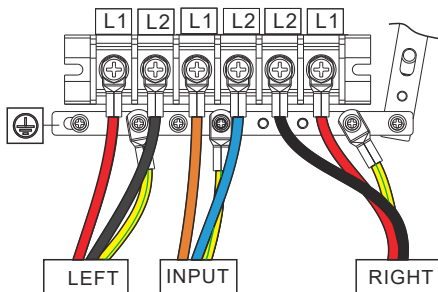


6 Installing wiring cover

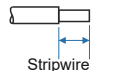


Copper cable cross-section: 3*4 AWG

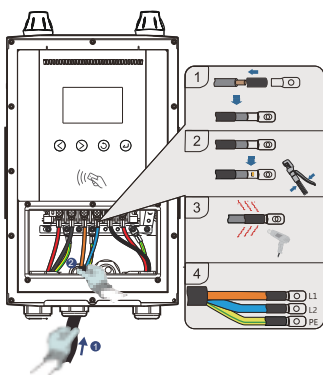
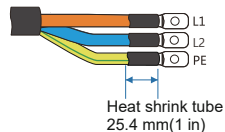
Step 1 push up the back cover plate with hand.



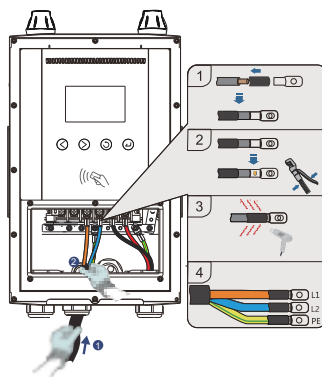
**Input terminal wire size:
4 AWG stranded**



Live Wire L1: Brown
L1=105mm(4.2 in)
Neutral Wire L2: Blue
L2=105mm(4.2 in)
Earth Wire PE: Yellow and Green
PE=105mm(4.2 in)



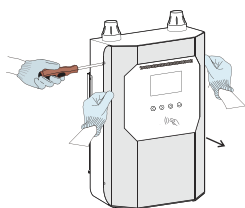
Dual Charge Coupler Input Wiring



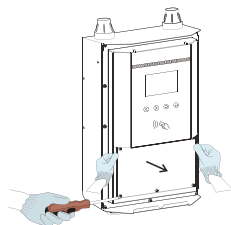
Single Charge Coupler Input Wiring

Back Wiring

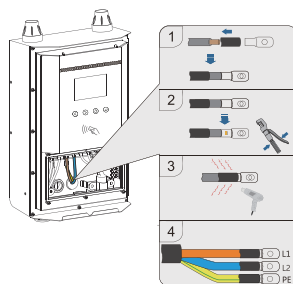
1 Remove decorative cover



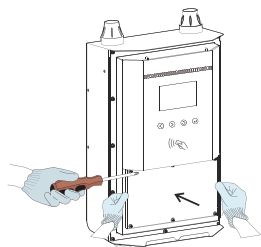
2 Remove wiring cover



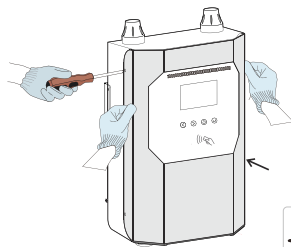
3 Input wire



4 Installing decorative cover



5 Installing wiring cover



Color	Terminal
Brown	L1
Blue	L2
Yellow-green	PE

⚠ DANGER

If L1, L2, PE are connected incorrectly, it will not only damage the machine, but also create a potential shock hazard.

⚠ DANGER

In the TT, TN-C and TN-S system, make sure that the ground cable is connected reliably. Otherwise, it may cause electric shock.

4.6 Maintenance

To ensure the long-term stable operation of the equipment, please perform regular (usually monthly) maintenance on the device according to the operating environment.

- a) Equipment is maintained by professionals.
- b) Check whether the equipment is well grounded and safe.
- c) Check whether there are safety hazards around the charging pile, such as whether there are high temperatures, corrosion or flammable and explosive items near the charger.
- d) Check whether the connection points of the input terminals are in good contact and whether there is any abnormality. Check other wiring points for looseness.

Warranty Agreement

- 1.The scope of the warranty refers to the product itself.
- 2.The warranty period is 24 months. During the warranty period, if the product fails or is damaged under normal use
(determined by the company's technicians), the company will repair it free of charge.
- 3.The starting time of the warranty period is the production date of the product.
- 4.Even within the warranty period, if the following conditions occur, a certain maintenance fee will be charged.
 - Equipment failure caused by failure to operate according to the user manual.
 - Equipment damage caused by fire, flood, abnormal voltage, etc.
 - Equipment damage caused by the entry of foreign objects.
 - Equipment damage caused by other human-made external factors.
- 5.Service fees shall be calculated based on actual costs. If there is any other contract, this contract shall prevail.
- 6.During the warranty period, be sure to keep this card and show it to the maintenance personnel.
- 7.If you have any questions, please contact the agent or our after-sales service center directly.



For Both FCC & IC application:

This device complies with Part 15 of the FCC Rules / Industrie Canada licence-exempt RSS standard(s). 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'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit 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.

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

This equipment has been tested and found to comply with the limits for a Class A 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 part 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.

MPE Requirements

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse pas être exposé à moins de la position centrale de l'antenne.

La FCC des États-Unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son fonctionnement.