

USER MANUAL

SAE J1772 AC LEVEL 2 EVSE Protobal EV Charger

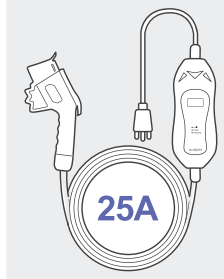
CUSTOMER SERVICE

For any product issue, you may contact our customer service at cs@mustartpower.com

⚠ Warnings


- Do not touch the charger end terminals with sharp metallic objects.
- Do not forcefully pull the charge cable or damage it with sharp objects.
- Do not insert foreign objects into any part of the Charging vehicle connector.
- Do not install or use the charger near flammable, explosive, harsh, or combustible materials, chemicals, or vapors.
- Do not operate the charger in temperatures outside its operating range of -22°F (-30°C) to 122°F (50°C).
- Do not use the charger when either you, the vehicle, or the charger is exposed to severe rain, snow, electrical storm or other severe weather.
- Do not use the charger if it is defective, appears cracked, frayed, broken or otherwise damaged, or fails to operate.
- Do not use this product if the EV cable is frayed, has damaged insulation, or any other sign of damage.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- Do not attempt to open, disassemble, repair, tamper with, or modify the charger.
- The charger is not user serviceable. Contact Mustart for any repairs.
- The charger is designed only for vehicles that are compatible with the SAEJ1772 AC Level 2 charging standard.
- Never allow children to play with the charger cable.
- To avoid risk of fire or electric shock, do not use this device with an extension cord.
- Using with a worn or damaged AC outlet may cause burns or start a fire.
- Risk of explosion. This equipment 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 charger unit. No user serviceable parts inside. Refer servicing to qualified service personnel.
- This equipment should be installed, adjusted, and serviced by qualified electrical personnel familiar with the construction and operation of this type of equipment and the hazards 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 charger itself. Any resulting damage is excluded of the warranty for the charger.
- Lock out all electrical source circuit feeding the charging unit in the open position before beginning wiring or terminations. Failure to follow the instructions could result in server bodily injury or death.
- Confirm with the local electrical requirements for the gauge, temperature rating, and type of wire material used for the over current rating.
- If the plug provided does not fit the outlet, do not modify the plug, arrange for a qualified electrician to inspect the outlet.
- Use the charger only within the specified operating parameters.
- Turn off input power at the circuit breaker before cleaning the charger.
- This device is intended only for charging vehicles not requiring ventilation during charging.
- If the AC wall plug feels hot while charging, unplug the unit and replace the AC outlet.
- Unit will attempt to reset in fault conditions.
- Handle with care when transporting the charger.
- Ensure that the charge cable is positioned so it will not be stepped on, tripped over, or subjected to damage or stress.

Product Specifications (25A)



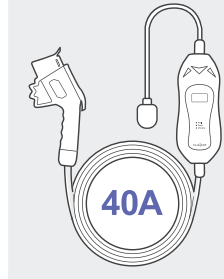
Plug	NEMA TT-30
Voltage and Current	120V, 25Amps (max)
Maximum Output Power	3 KW
Frequency	50Hz±5%
Circuit Breaker Requirements	30A Circuit Breaker
Weight (including wirebox)	10 lbs
Cable Length	24.6 ft (7.5m)
Plug Wire Specification	10AWG
Meets Standards	SAE J1772
Operating Temperature	-22°F to 122°F (-30°C to 50°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
EV Control Box	IP 65
IP Class for SAE J 1772 Connector	IP 67

Product Specifications (25A)



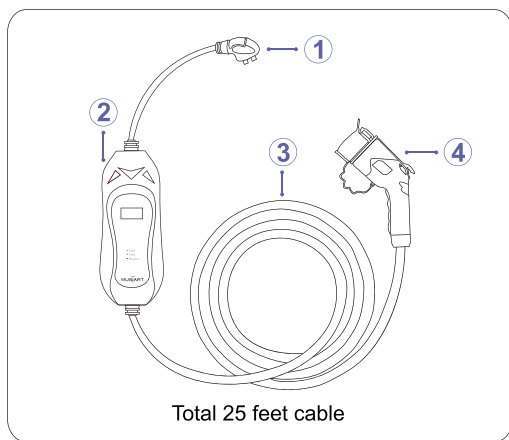
Plug	NEMA 10-30/NEMA 14-30
Voltage and Current	240V, 25Amps (max)
Maximum Output Power	6 KW
Frequency	50Hz±5%
Circuit Breaker Requirements	30A Circuit Breaker
Weight (including wirebox)	12 lbs
Cable Length	24.6 ft (7.5m)
Plug Wire Specification	10AWG
Meets Standards	SAE J1772
Operating Temperature	-22°F to 122°F (-30°C to 50°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
EV Control Box	IP 65
IP Class for SAE J 1772 Connector	IP 67

Product Specifications (40A)



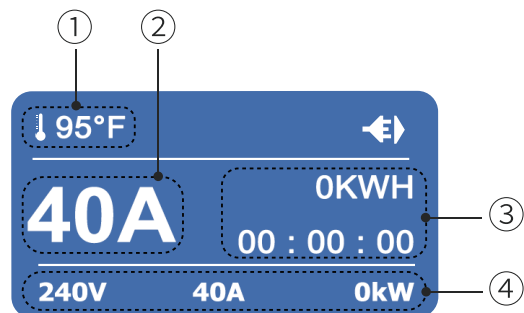
Plug	NEMA 6-50/NEMA 10-50/NEMA 14-50
Voltage and Current	240V, 40Amps (max)
Maximum Output Power	9.6 KW
Frequency	50Hz±5%
Circuit Breaker Requirements	50A Circuit Breaker
Weight (including wirebox)	15 lbs
Cable Length	24.6 ft (7.5m)
Plug Wire Specification	8AWG
Meets Standards	SAE J1772
Operating Temperature	-22°F to 122°F (-30°C to 50°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
EV Control Box	IP 65
IP Class for SAE J 1772 Connector	IP 67

PRODUCT DESCRIPTION

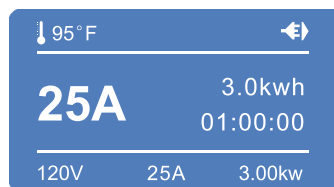


- ① Optional Plug
N10-30 / N14-30 / TT-30
N6-50 / N14-50 / N10-50
- ② Control Box
- ③ Charging Cable
- ④ SAE J1772 Connector

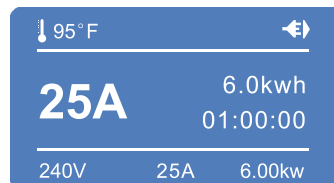
CONTROL BOX LCD DISPLAY



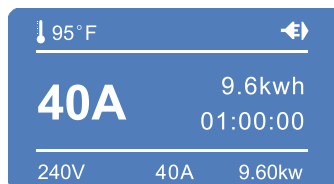
- ① Operating Temperature
- ② Maxing AC Charging Current
- ③ Electricity Consumption and Charging Time
- ④ Actual AC Charging Voltage & Current & Output Power



MT-25A-TT30



MT-25A-N1030 / MT-25A-N1430



MT-40A-N0650 / MT-40A-N1050 / MT-40A-N1450

Control Box LED Light Display Status

LED State	Fault (Yellow)	Power (Green)	Charging (Red)
Ready	●	●	●
EV connected	●	●	●
PC Error	●	●	●
Charging	●	●	●
Charge Complete	●	●	●
Fault	●	●	●

● Flash ● Slow Flash ● Fast Flash ● Pulsing

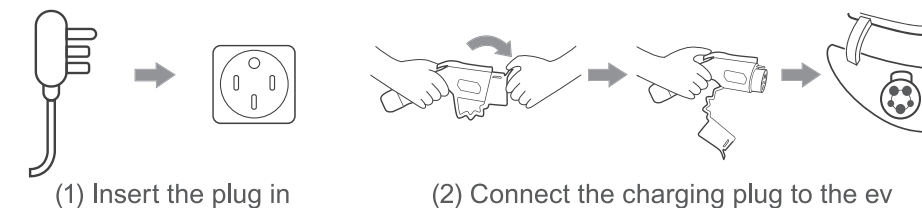
Troubleshooting

Diagnostic	Problem	Solutions
'PC ERROR' The LCD screen shows 'PC ERROR', while the green light fast blinking.	The charger is not linking well with the vehicle.	Check the car side whether it is connected. If it is still not working, which might have some problem with the control box, please contact our support service.
ONLY RED LIGHT ON A solid RED light without GREEN and YELLOW lights.	The charger is working while the signal from vehicle is not linking.	Check the car sided whether it is connected. To restart, please un-plug and re-plug the charger. If it is still not working, which might have some problem with the control box, please contact our support service.
ONLY GREEN LIGHT BLINKING A blinking GREEN light without Red and Yellow lights.	Limited Charging	Check whether your car charging setting is set for a specific time period to charge. If so, Please cancel this schedule setting on your car and try it again. To restart, please un-plug and re-plug the charger and it will work again. If it is still not working, which might have some problem with the control box, please contact our support service.
A. The LCD screen shows ' LD ERROR ' B. The LCD screen shows ' GY ERROR ' C. The LCD screen shows ' QY ERROR '	A. Leakage B. Over voltage C. Under voltage	Check the corresponding circuit for related problems. To restart, please un-plug and re-plug the charger and it will work again. If it is still not working, which might have some problem with the control box, please contact our support service.

! Please Note Before Start Charging:

- Make sure that the charger is free from any abnormal conditions, such as laceration, rust, rupture breakage of charging ports, cables, control boxes, wires, and plug surfaces.
- Please do not use this charger if the socket is damaged, rusted, cracked or loosely connected. Do not start using if the plug is dirty or wet.
- Wipe with a clean and dry cloth to make sure it is dry and free of dirt.
- Make sure that the plug at the power supply end is consistent with the power supply socket before charging.

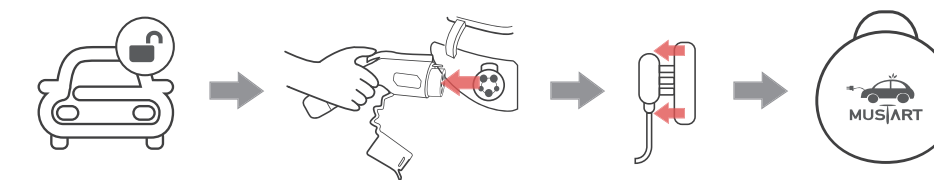
How to start charging



1. Firmly insert the power plug into the outlet.
2. Take off the cap and then insert the charger connector into your vehicle.

How to stop charging

When charging has completed, unplug the power plug.



1. Unlock the vehicle.
2. Press the button and pull the charger connector out of your vehicle.
3. Pull the plug out.
4. Put the charger into the carry case.

Read all instructions before using this product. Save these instructions. This manual contains important instructions for the MUSTART Portable EV Charger that shall be followed during installation, operation, and maintenance. Please review all warnings and cautions before installing and using the Portable EV Charger.