



Mobile Connector Users Manual

TESLA ROADSTER



Table of Contents

Safety and regulatory information	1
Overview of the Mobile Connector	2
General information	2
How long does it take to charge?	3
For more information	3
Using the Mobile Connector	4
Connecting the Mobile Connector	4
Disconnecting the Mobile Connector	4
Stopping the charge process	4
Charging port light	5
Maintenance and care	6
Labels	7

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS

This manual contains important instructions that must be followed when using a Tesla Motors Mobile Connector.

Warnings and cautions

 Warning: Do not use the Mobile Connector near flammable, explosive, or combustible materials.▲

 Warning: Do not use the Mobile Connector in wet environments.▲

 WARNING: Always ensure that the Mobile Connector is located in a clean and dry area during use.▲

 WARNING: Never use an extension cord with the Mobile Connector. Using an extension cord can result in fire.▲

 WARNING: Ensure that the charging cable does not obstruct pedestrians or other vehicles.▲

 WARNING: Do not attempt to use or modify an adapter for a different electrical outlet than designed. Incorrect use can result in a fire, serious injury or even death.▲

 WARNING: Do not use cleaning solvents to clean the Mobile Connector.▲

 WARNING: The Mobile Connector has no user serviceable components within it. If the unit is not operating correctly, contact Tesla Motors.▲

 Caution: Do not operate the Mobile Connector in temperatures outside its operating range of -22°F to 122°F (-30°C to +50°C).

 Caution: Store the Mobile Connector in temperatures between -40°F and +185°F (-40°C and +85°C) to protect it from damages that may be caused by storing it at temperatures outside of this range.

Communications regulations

Radio and television interference

The equipment described in this manual can generate and radiate radio-frequency energy. If it is not installed and used properly - that is, in strict accordance with Tesla Motors' instructions - it may cause interference with radio and television reception.

Copyright

©2009 TESLA MOTORS INC. All rights reserved. This material may not be reproduced or copied, in whole or in part, without the written permission of Tesla Motors, Inc.

Overview of the Mobile Connector

General information

The Mobile Connector is designed to charge your vehicle when you are away from home. Its small size means it is easily portable and can be carried in the Roadster's trunk.

The Mobile Connector is available in two models:

- MC120 - plugs into any standard 120V 5-15 or 5-20 electrical outlet and supplies up to 15 amps of power
- MC240 - plugs into any 240V 14-50 outlet and supplies up to 30 amps of power

Keep in mind that you may need to change the amperage if a lower rated breaker is being used. If the electrical outlet is unable to provide the current demanded by the Mobile Connector, the circuit breaker protecting the electrical outlet may trip. If this happens, you'll need to reduce the maximum current limit using the Touch Screen. For information about using the Touch Screen, refer to the Touch Screen Users Manual provided in your owners package.

Note: The Mobile Connector is not designed for outdoor use.

Mobile Connector 120V (MC120)



	
120 Volts (5-15)	120 Volts (5-20)
15 Amps	20 Amps
Vehicle draws a maximum of 12 amps	Vehicle draws a maximum of 15 amps

Mobile Connector 240V (MC240)




240 Volts (14-50)
50 Amps
Vehicle draws a maximum of 30 amps

How long does it take to charge?

Note: It takes longer to charge the vehicle using the Mobile Connector than when using the High Power Connector. Always check the vehicle's charge level before driving and plan your drive and charging requirements accordingly.

The amount of time it takes to fully charge the vehicle will vary depending on the amount of current provided by the outlet, and the state of charge remaining in the battery. Charge time is also impacted by both the ambient temperature and the vehicle's Battery temperature—if out of the optimal range, the HVAC system starts up and diverts a portion of the energy. It also depends on the charge setting you are using. For example, a full charge at Range or Performance takes approximately 15% longer.

Use these values as a guideline when estimating how long it will take to charge your vehicle:

- MC240 at 30 amps - 8 hours
- MC120 at 15 amps - 37 hours
- MC120 at 12 amps - 48 hours

These values assume you are charging a fully depleted Battery to a full charge using the Standard charge setting. Charge times are estimates only.

Note: The charge process slows down as the Battery approaches a full charge. Therefore, reaching a high level of charge is much quicker than reaching a full charge.

For more information

For general information on charging and the various charge settings, refer to the Owners Manual. For information on how to use the Touch Screen to change charge settings, refer to the Touch Screen Users Manual. These documents can be found in your vehicle's owners package.

On an ongoing basis, Tesla also publishes charging data based on owner experiences and ongoing testing. This information can be found at www.teslamotors.com.

Using the Mobile Connector

Connecting the Mobile Connector

1. Position the vehicle so that the Mobile Connector easily extends from the power outlet to the vehicle's charging port without straining the Mobile Connector's cable.
2. If you are not using the Standard charge setting or would like to adjust the current limit to accommodate a specific breaker rating, use the Touch Screen to change these settings.
For information on the charge settings, refer to the Owners Manual. For information on using the Touch Screen, refer to the Touch Screen Users Manual. These manuals are provided in your owner's package.
3. Remove the key from the starter switch. If the key is in the starter switch, the vehicle will not charge until the key is removed.
4. Plug the Mobile Connector into the electrical outlet.
If you are using the MC120, the indicator light illuminates green to indicate that the unit is operating correctly. If using the MC240, the indicator light will not turn green until it is plugged into the vehicle. If the indicator light on the Mobile Connector flashes RED, a ground fault has been detected. A fault may occur if you've plugged into a faulty outlet, or if the adapter is not inserted correctly.

Unplug and visually inspect the outlet and the adapter ensuring that both are clean and dry.

5. Open the charging port door on the drivers side of the vehicle.
Within a few seconds, the ring around the charging port illuminates white.
Note: If the charging port door is left open for a period of time before connecting the charge cable, the charging port light will eventually extinguish. The door will need to be closed and opened again to re-initiate the charge process.
6. Align the Mobile Connector's cable to the charging port and insert fully.



Caution: The connector on the Mobile Connector is slightly heavy and can damage the vehicle's paint if dropped when connecting or disconnecting.

7. Push the Mobile Connector's cable forward while rotating it clockwise to secure the connector to the charging port.
8. Push the tab on the connector forward to lock it into place.
If you are using the MC240, the indicator light illuminates green to indicate that the unit is operating correctly.

The ring around the charging port illuminates blue to indicate that the vehicle is communicating with the charging equipment. After a small delay, the ring around the charging port will pulse amber,

which indicates that the vehicle is charging. The frequency at which this ring pulses will slow down as the charge level approaches full.

Note: If the vehicle's doors are locked, the light around the charging port will not illuminate during the charging process.

Depending on the temperature of the Battery, heating or cooling may be required before it can be charged. This is activated automatically but may result in a delay before charging begins.



While the vehicle is charging, the charge indicator on the instrument panel will flash.

When charging is complete, the ring around the charging port stops pulsing and illuminates green.

If the ring around the charging port illuminates red while charging, a fault has been detected. Check the Touch Screen for an error message that describes the fault.

Disconnecting the Mobile Connector

When the ring around the charging port stops pulsing and illuminates green, charging is complete.

To disconnect the Mobile Connector from the vehicle:

1. Pull back the tab on the connector to unlock it.
2. Unplug the Mobile Connector from the vehicle's charging port.

3. Unplug the Mobile Connector from the power outlet.
4. Close the charging port door.
5. Coil the Mobile Connector and return it to its storage location (in the vehicle's trunk).

Stopping the charge process

The charging process can be stopped at any time using the Touch Screen. For details, refer to the Touch Screen Users Manual provided in your owners package.

Charging port light

Color	Charging state
White	Charging port door is open and charge mode is initiated.
Blue	The vehicle is successfully connected to the charging system.
Blue (flashing)	The battery is being warmed and you will experience a delay before charging begins. Charging will resume automatically when the battery reaches the appropriate temperature.
Amber (pulsing)	Charging is in progress. The rate of pulsing decreases as charging progresses.
Green	Charging is complete.
Red (flashing)	A fault is detected and charging has stopped.

Maintenance and care

Cleaning the Mobile Connector



WARNING: Do not use cleaning solvents to clean the Mobile Connector.▲

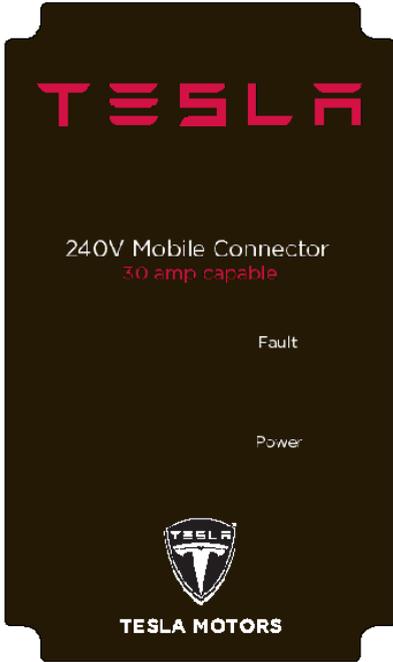


WARNING: The Mobile Connector has no user serviceable components within it. If the unit is not operating correctly, contact Tesla Motors.▲

Regularly inspect the Mobile Connector for signs of damage. If any damage is found, contact Tesla Motors.

Always ensure that after charging, the Mobile Connector is returned to its storage location.

The outside of the Mobile Connector should be regularly wiped with a clean dry or slightly damp cloth to remove any accumulation of dust and dirt.



 TESLA MOTORS	
TESLA MOTORS SAN CARLOS, CA 94070	
MODEL:	MC240 - 1
P/N:	06-002190-00
RATING:	
INPUT	208-240 V~, 1 Ø, 60 HZ, 30 A
OUTPUT	208-240 V~, 1 Ø, 60 HZ, 30 A
	
⚠ WARNING - READ OWNERS MANUAL BEFORE OPERATING. FAILURE TO DO SO MAY RESULT IN INJURY OR DEATH.	
⚠ WARNING - DO NOT EXPOSE TO RAIN OR OTHER MOISTURE.	
⚠ WARNING - DO NOT OPERATE OUTDOORS.	
⚠ WARNING - IF UNIT IS DEFECTIVE OR DAMAGED, IMMEDIATELY SEND TO TESLA FACILITY.	
⚠ WARNING - ONLY FOR USE WITH TESLA MOTORS VEHICLES.	
⚠ WARNING - DO NOT USE WITH EXTENSION CORD(S).	
⚠ WARNING - DO NOT OPEN; SERVICE BY TESLA MOTORS AUTHORIZED PERSONNEL ONLY.	



TESLA

