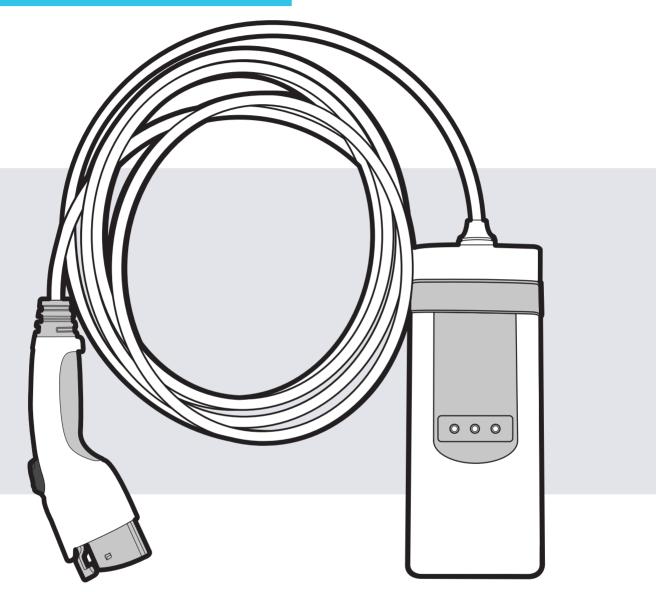
# DUAL LEVEL CHARGE CORD



# The Charge Cord is a portable version of an AC Charge Station.

When used correctly, the Charge Cord will provide a safe connection between a standard wall receptacle and your vehicle's on-board charger.

#### Save these Instructions





Improper setup and/ or usage of the Charge Cord may cause:

- Fire
- Smoke
- Burns
- Electrical Shock
- Damage to a building's electrical system
- Damage to the Charge Cord

Read all directions and notices inside.

# STATUS INDICATOR KEY

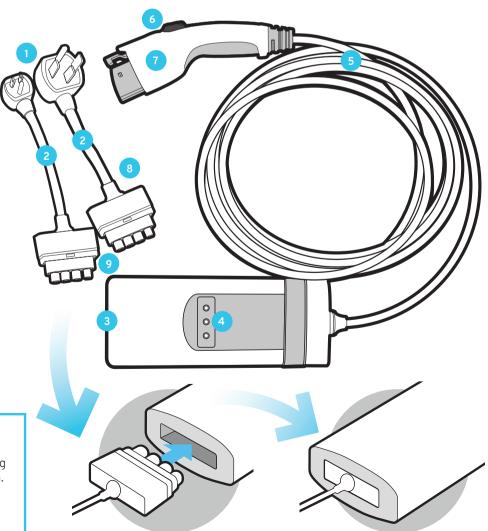
AMBER	BLUE	RED	MESSAGE
	Solid		Power On
	Blink		Charging
		Solid	Refer to Service Personnel
		Blink	GFCI / Shock Detection Interrupt Active
Solid			Problem external to Charge Cord, check wall receptacle and vehicle
Solid	Solid	Solid	Rebooting Due to Error

# CHARGE CORD ANATOMY

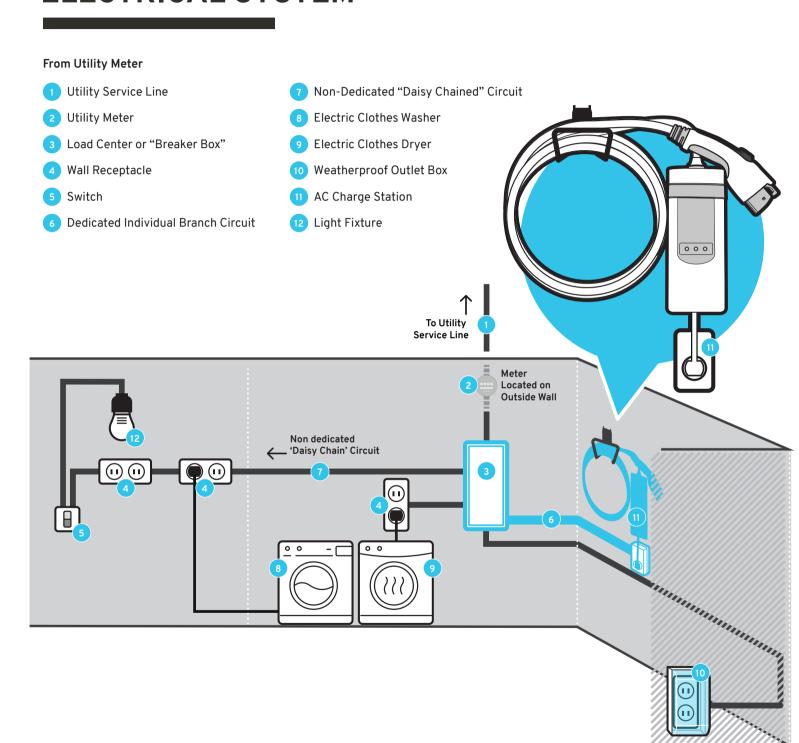
- 1 Attachment Plug
- 2 AC Cable
- 3 Control Box
- 4 Status Indicators
- 5 EV Cable
- 6 Latch Release Button
- 7 Vehicle Connector
- 8 Swappable Assembly
- 9 Swappable Coupler

**CAUTION:** Never assume the electrical circuit connected to a wall receptacle is suitable for EV charging without verification by a qualified electrician.

Review the following sections of this manual before using the Charge Cord.



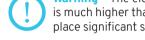
## BUILDING ELECTRICAL SYSTEM



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### **IMPORTANT SAFETY INSTRUCTIONS**

#### INSTRUCTIONS TO PREVENT FIRE OR ELECTRIC SHOCK



Warning - The electrical load of charging an electric vehicle is much higher than typical household appliances and can place significant stress on the electrical circuit used.



Danger - If any component or section of your electrical system/circuit is not suitable for EV charging, overheating may occur at that component or section, resulting in fire, melting, or emission of smoke.



Caution - Before using a Charge Cord to charge your electric vehicle, have a qualified electrician inspect and verify the entire electrical system/circuit is suitable for the heavy-duty, continuous load of EV charging.



Info – It is GM's recommendation that the Charge Cord be used exclusively with a dedicated individual branch circuit meeting all local and national electrical codes and regulations for use with EV Charging.



Warning - Wall receptacles may wear out with normal usage or become damaged over time, making them unsuitable for electric vehicle charging.



Info - Review the Attachment Plug and Wall Receptacles section of this manual before usage of the Charge Cord.



Warning – Use only GM approved adaptors designed specifically for use with your Charge Cord.



**Danger -** Discontinue charging immediately if any part of the Charge Cord is too hot to hold, melting, or emitting smoke or flames.



Caution - Ensure all Charge Cord connectors are firmly connected and fully seated before use.



Caution - When used outdoors with an exterior outlet, use only outlets that protect the wall receptacle and attachment plug during use with a suitable weatherproof box.



Caution - Mount the Control Box in a suitable location to prevent physical stress (tugging, hanging, etc.) on the wall receptacle and Charge Cord components.



Caution - Do not place Charge Cord in a position where it can be submerged in water or in an orientation that allows water travel and collect at any electrical connection.



Caution - Do not use the Charge Cord in severe weather conditions.



Caution - If possible, provide shade from direct sunlight for the Charge Cord and vehicle while charging to prevent reduced charging power or thermal shutdown.



Warning - Do not attempt to modify or repair any part of the Charge Cord.



Warning - Do not attempt to force together an attachment plug or wall receptacle or modify them to fit.



Caution - The Charge Cord is intended for use with a properly grounded wall receptacle and electrical circuit. Use with ungrounded circuits may increase risk of electric shock or prevent operation of the Charge Cord.



Warning - The Charge Cord will attempt to automatically resume charging should certain recoverable events cause interruption of charging.



Warning - Handle electrical cables with care; do not sharply bend, pull, or crush cables.



Caution - Do not attempt to use the Charge Cord with non-utility supplied electrical power sources such as backup generating equipment.



**Caution –** Disconnect the Charge Cord from the vehicle before disconnecting the attachment plug from the wall.



Caution - Do not disconnect the attachment plug while charging is in progress.



#### **UL 2594 - 2016 Warnings** DANGER/WARNING



- Read all instructions before using this product.
- This device should be supervised when used around children.
- Do not put fingers into the electric vehicle connector
- Do not use this product if the flexible power cord or EV cable is fraved, has broken insulation, or any other signs
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- The Charge Cord has an operational temperature range beyond 25°C, defined on the Charge Cord rear label.



#### **UL 2231-2 - 2016 Warnings** WARNING

• Automatic CCID reset provided - Charge Cord will attempt to resume charging after Ground Fault Circuit Interruption trip.



#### IEC 61851-1 - 2016 Warnings

- Automatic CCID reset provided Charge Cord will attempt to resume charging after Ground Fault Circuit Interruption trip.
- IEC 61851-1 2016 Warnings.
- Use only GM approved adaptors designed specifically for use with your Charge Cord.
- Do not use with an extension cord.
- National restrictions apply to usage of the Charge Cord and can vary between countries.



### IEC 62752 - 2018 Information

- Automatic self test feature present.
- If Charge Cord fails to operate correctly according to provided instructions contact your dealership or a qualified electrician.



Warning - Storage or use outside of specified ambient temperatures, altitudes, relative humidity, external magnetic fields, power frequency or power sinusoidal wave distortion, or misuse such as dropping or submerging the Charge Cord may result in damage or destruction of the Charge Cord.

- Use only GM approved adaptors designed specifically for use with your Charge Cord.
- Do not use with an extension cord.
- See Status Indicator Key for error indicator reference.
- Do not disconnect the attachment plug from the wall receptacle or Control Box while Charge Cord is connected to vehicle.
- Review this document and the vehicle owner's manual for all operating instructions and proper storage.
- Have your intended charging circuit checked by a qualified electrician.
- Review this document and the vehicle owner's manual for all information about pluggable components allowed to be used in combination with Charge Cord.

Dual Level Charge Cord

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# INSTALLATION AND OPERATING INSTRUCTIONS

- For Dual Level Charge Cords, snap the desired Swappable Assembly in to the Control Box before making any other connections.
- Mount the Control Box directly to the wall or stud near a suitable wall receptacle. The retention eyelets on the Control Box are optimized for use with #2 drywall screws.
- Connect the Attachment Plug to the wall receptacle
- Insert the Vehicle Connector in to the vehicle's Charging Inlet to initiate charging.
- To disconnect Charge Cord press and hold the Latch Release button on the Vehicle Connector while pulling. Once disconnected from the vehicle, the Charge Cord can be unplugged from the wall and stored.
- Consult the vehicle owner's manual to identify specific vehicle behavior related to charging. Consult the "Troubleshooting" section below if Charge Cord indicators identify a fault condition.

### **CHARGING RATE SELECTION**

The Charge Cord limits charging current/power from exceeding the maximum continuous load rating of the equipped Attachment Plug. The vehicle may further limit this rating to reduce stress on building electrical circuits that are not suitable for electric vehicle charging.

See vehicle owner's manual for vehicle specific details.

#### WARNING

Using a charge level that exceeds the electrical circuit or wall receptacle capacity may start a fire or damage the electrical circuit. If the electrical circuit is a non-dedicated branch circuit such a failure may occur at any other wall receptacle, switch, fixture, junction box, or other discontinuity.

Use the lowest charge level until a qualified electrician inspects the electrical circuit capacity. Use the lowest charge level if the electrical circuit or electrical outlet capacity is not known.

Dual Level Charge Cords will auto set the maximum charging rate to the lower of the Charge Cord Main Assembly's or an attached Swappable Assembly's current rating.

### ATTACHMENT PLUG AND WALL RECEPTACLES

- Where allowed by regulation, Charge Cord Attachment Plugs contain thermal sensors intended to reduce the likelihood of overtemperature conditions at the plug.
- Ensure that the Charge Cord is securely mounted before connecting the Attachment Plug to the wall receptacle, as a typical wall receptacle is not designed to support the weight of the Charge Cord or support pulling on the cable.
- Select a mounting location and orientation relative to the wall receptacle that minimizes bending of the AC Cable.
- Grasp the Attachment Plug by its body to insert or remove the plug from a wall receptacle. Do not pull on the AC Cable to remove the Attachment Plug from a wall receptacle.
- Wall receptacles may wear with usage. A wall receptacle in good condition will firmly grasp the attachment plug and provide resistance to disconnection. A wall receptacle that only loosely retains the plug may be too worn for high power EV charging.
   Signs of severe heat such as discoloration, melting, or burning indicate that a wall receptacle has become dangerous for EV charging.

#### **EV CABLE**

The EV Cable should be protected from physical abuse. Failure to do so may render the Charge Cord inoperable or lead to conditions that may cause a fire, smoke, or burns.

- Avoid using excessive force when handling the EV Cable
- Avoid coiling or allowing any section of the EV Cable to form a circle smaller than 12 inches (300 mm).
- Do not store the Charge Cord in a location where the EV Cable may be crushed or forced in to a space that makes it form a circle smaller than 12 inches (300 mm)
- Avoid closing EV Cable in or under vehicle doors, lift gates, trunk lids, frunk lids, windows or garage doors.
- Allow the EV Cable to coil naturally when wrapping for storage.
   Do not restrict cable rotation or apply excessive pulling force while wrapping.
- Do not wrap around the EV Cable around any structure or object that allows it to form a circle smaller than 12 inches (300 mm).
   Do not wrap the EV Cable around the housing of the In-Cable Control Box.
- Discontinue using Charge Cord if EV Cable is damaged.

#### **VEHICLE CONNECTOR**

- Avoid hitting or pulling on the Vehicle Connector while connected to the vehicle.
- Periodically check the Vehicle Connector's terminals for signs of damage or obstruction.
   GM recommends this same practice with any non-GM EVSE.
- Prevent exposure of Vehicle Connector terminals to non-silver safe cleaners or contaminants that react with silver.
- Do not allow Vehicle Connector to be exposed to pressure washing.
- Avoid dropping or throwing Vehicle Connector.

#### STORAGE AND MAINTENANCE

- The Charge Cord and its components are non-serviceable and must be replaced if damaged or non-functional.
- Clean cordset with a damp cloth and avoid contact with any terminals.
- Store the Charge Cord per the directions in this manual and the vehicle owner's manual.

#### TROUBLESHOOTING

If the Charge Cord indicators highlight a fault condition or troubleshooting has identified the Charge Cord as the issue, please review the following:

- The first step in any fault event is to disconnect the Charge Cord from the vehicle and manually reboot the Charge Cord by unplugging and re-plugging the Attachment Plug in to the Wall Receptacle. Should the same fault reoccur, test the Charge Cord with a different wall receptacle.
- The Charge Cord monitors the quality of the Protective Earth Ground connection at the wall receptacle to ensure shock protection (where permitted by regulation). A poor connection will set a recoverable fault condition visible on the Status Indicators. Poor connections are caused either an issue within the building's wiring or by damaged or contaminated plug terminals. Test the Charge Cord with a known good wall receptacle and confirm if fault condition returns. If the fault condition returns, have your Charge Cord inspected by your dealership. If the fault does not return, stop using the suspected circuit and have a qualified electrician inspect and repair the issue.
- The Charge Cord monitors temperature at several locations and may reduce charging power or interrupt charging if temperatures become too high. The Charge Cord indicators will illuminate and identify this fault. Disconnect the Charge Cord from the vehicle and confirm the Attachment Plug is not too hot to grasp before removing. Remove the Attachment Plug from the wall receptacle and inspect for signs of melting or scorching. If there are no signs of damage, evaluate the firmness of fit of the plug. If the plug easily pulls free of the wall receptacle test the plug on a known good wall receptacle. If the fault condition returns, have your Charge Cord inspected by your dealership. If the fault does not return, stop using the suspected circuit and have a qualified electrician inspect and repair the issue.
- The Charge Cord monitors temperature at several locations and may reduce charging power or interrupt charging if temperatures become too high. In exceptionally warm climates provide shade from direct sunlight and move Charge Cord away from hot surfaces such as asphalt paving.