SPARK

(Electric Vehicle Supply Equipment, Revision 6.2)

About *SPARK*

We at Charge-Amps are confident that you will appreciate how the ***SPARK*** facilitates charging of your car. The cable weighs just 1.6 kg, is extremely light and flexible and easy to store in your car. With ***SPARK,*** you can choose whether you want to charge with 6, 10 or 16 amps and the cable is therefore very smooth.

You can charge with ***SPARK*** in any electrical outlet. Carheaters are almost always 6 Amps. Just make sure you know how many amps the outlet can handle, 6, 10 or 16 amps. At 16 amps, you can charge up to 40% faster than at 10 amps but this also places greater demands on the electrical installation.

SPARK is currently the only charging cable that has a PIN-code, this means that unauthorized persons can not charge with ***SPARK*** if it is locked. Read more about this in the section Security. If you charge during the dark hours, there is an LED light in the handle which works nicely as a guiding light when you insert the cable into the car.

SPARK is not affected by high or low temperatures, but works equally well at 30 degrees below zero as at 40 plus degrees. ***SPARK*** is resistant to moisture and dirt. However, you should bear in mind that ***SPARK*** like all other charging cables should not be laid on the ground outdoors, or immersed in liquids.

Our skilled technicians have managed to gather all control to the cable handle (the so-called glove) which makes the cable very user friendly. If you want to know more about the technology in the glove you can find the technical specification below.


Lock-button
CHARGE AMPS
Protective-cover


SELECT-button
SELECT
16A
10A
6A
FAULT
SECURITY CODE

To begin charging

1. If you charge from an AC outlet you have not used before (not your usual parking space or garage), first find out of how many amps electrical outlet handles and set ***SPARK*** with the SELECT button at the same or next below, amps, 6, 10 or 16 amps.

2. Do NOT set ***SPARK*** at more amps than the electrical outlet rating and note that a household outlet can usually handle charging at 10 amps.

3. Make sure the cord is not coiled.

4. Connect ***SPARK*** to the selected electrical outlet and choose amps on the glove.

5. ***SPARK*** starts and glove shows the selected amp with a blue LED light.

6. Remove the protective cover.

7. Connect ***SPARK*** to the car. Charging will start automatically (you will hear a click sound). The LED for the selected amperage starts blinking when charging starts and then blinks during the entire charging process.

8. You charge as long as you wish. The higher the amperage strength you use the faster the battery is charged. When the battery is fully charged to 100% shines a constant blue LED light.

To stop charging

1. DO NOT cancel the charging by pulling out ***SPARK*** from the outlet. Start by first pressing down the orange lock button on the glove and gently pull the plug out of the car.

2. Put the protective cap back on that protects the ***SPARK*** from dirt and moisture.

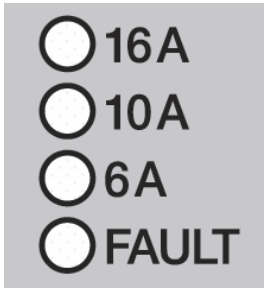
3. Pull the plug out of the socket.

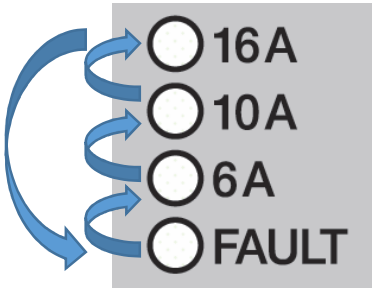
4. Roll up the cord and put it on the storage location in the car or garage.

Security

The PIN must be activated to prevent unauthorized use of the cable. Unauthorized can see information about it in the glove: / Security code /.
When the PIN is enabled and **SPARK** connected to the car if you do not disable the code lock when charging is complete, you MUST enter the PIN-code when **SPARK** is being used next time.
SPARK comes with the security code 4444 if you have not selected a personal code. How you enter the digits you will see in the picture.

4 = LED –light for 16A
3 = LED –light for 10A
2 = LED-light for 6A
1 = LED –light for FAULT





Activate the PIN

When ***SPARK*** is plugged in, hold the SELECT button for about 4 seconds or until it quickly starts to flash blue. It is important that the light flashes when you connect the glove to the car. When ***SPARK*** is connected to the car, the PIN is activated. Next time ***SPARK*** is connected, you will need to enter the PIN code for the charging to start.

If you accidentally activate the PIN code, you can cancel the activation before you connect ***SPARK*** to the car either by pressing the SELECT button and change the amp or simply unplug it from the electrical outlet.

Starting with activated PIN

When ***SPARK*** starts with the PIN enabled (see above), a light sequence is repeated until the delay time is over: all lights come on every second and are switched off in order, FAULT, 6A,10A and 16A.

When the delay is over, you should enter the PIN code. The selected security code flashes rapidly and if it is properly inserted ***SPARK*** will start to charge.

If you enter the wrong code:
If the security code is entered incorrectly the FAULT button flashes red and you have to pull the plug out and plug back in to try again. Each incorrect attempt will prolong the delay time before you can try and reenter the PIN.
After eight failed attempts the unit will be locked and you must contact Charge Amps at support@charge-amps.com for instructions on how to unlock the ***SPARK***. Data from your proof of purchase will be required.

Changing the security code

Press and hold the SELECT button for two seconds while inserting it into the wall socket. When you release the button, press the current security code. After that you will enter the new security code twice. If the current code is registered properly, as well as the new code twice, ***SPARK*** continues to charge in the usual way as if the plug is inserted without code change.

Safety precautions

WARNING

Due to mishandling a dangerous condition might occur such as electric shock or fire

- Before you connect the SPARK make sure the correct charging current is selected.
- You must ensure that the outlet and circuit has enough current capacity to charge your vehicle safely. The outlet and circuit must be earthed and protected by a dedicated circuit breaker(max 16A)or fuse(max 16A). If in any doubt, consult a qualified electrician. Overloading an outlet may result in fire or in best case a blown fuse.
- Do not use an extension or adapter
- Always connect the SPARK to a ground fault current interrupter (GFCI) protected outlet. The SPARK is equipped with a GFCI to protect the J1772 connector from ground faults but always use a GFCI protected outlet for your personal safety.
- Do not disassemble or try to repair Contact vendor if service is required.
- Stop using the SPARKif a failure or abnormality occurs or the cable is damaged.
- Stop using the SPARK if the fault LED is illuminated or flashing.
- Stop using the SPARK if it gets very hot. The SPARK will get warm during charging, this is normal.
- Keep the plug dry and take appropriate care when operating in wet conditions.
- Do not touch the electric terminals of the SPARK.
- Do not use the SPARK if any parts are broken, worn, cracked, open or show any indication of damage.
- Contact vendor if you are uncertain if it is safe to use your SPARK.
- Not for use by children.
- Maximum ambient temperature is 40 degrees Celsius.
- Ensure the electrical supply is 100-240V 50/60Hz.
- Handle the SPARK with care; do not drop and do not pull the cable strongly.
- Ensure that the SPARK is placed to avoid submersion in water.
- Do not hang the SPARK in the cable.

CAUTION

Parts could be damaged due to mishandling

- Prevent foreign matter from getting into the terminal parts of the SPARK.

- Place the protective cap over the terminals of the SPARKwhen not connected to an EV.
- Avoid stepping on, folding, driving over, or putting tight kinks in the cable.
- Avoid using the SPARK during electrical storms.
- Do not place heavy objects on the SPARK.
- When charging, make sure the SPARK is not covered by objects preventing cooling of the SPARK.
- Do not drop the SPARK.

Frequently Asked Questions

The LED-lights does not light when I insert the plug.
Check the socket. Stop charging and contact Charge Amps.

FAULT LED flashes at intervals.
This indicates a problem. If it flashes the following intervals:
0.5 seconds - (EV-related problem, check the socket for dirt)
1 second - Your car needs ventilation when charging and this is not supported by SPARK. (Contact Charge Amps)
2 seconds - Ground fault is detected (EV problems, check the connector for dirt)

FAULT light is constant.
You have entered the wrong code and SPARK is locked. Disconnect and try again after a waiting period.

FAULT LED is flashing rapidly. (5 times / sec)
SPARK awaits the entry of a PIN.

LEDs will not flash to indicate that charging has started.
Charging has not started. Make sure that the car is ready to be charged, that is, the car is turned off.

SPARK becomes warm during charging.
If you charge with 16 amps. SPARK becomes lukewarm. This is normal. If your outlet gets very hot; stop charging immediately. This may be due to faulty wiring.

All the lights are lit every second and disappear in a certain sequence.
This is the delay period before you can enter your PIN. The delay time is longer for each incorrect PIN code entry. If a problem occurs that is not listed above, contact Charge Amps at support@chargeamps.com so we can help.

Recycling

SPARK is an electronic devices and must therefore be recycled as such. Contact your municipality for information about recycling of electronics. You can also send back ***SPARK*** to Charge Amps, we will be happy to take care of this for you.
Contact us at support@charge-amps.com