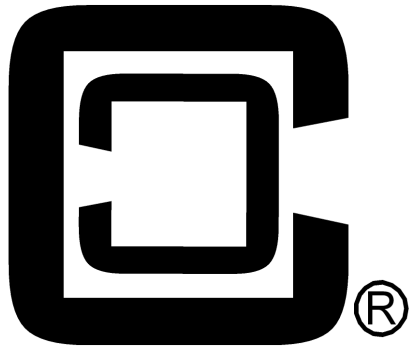
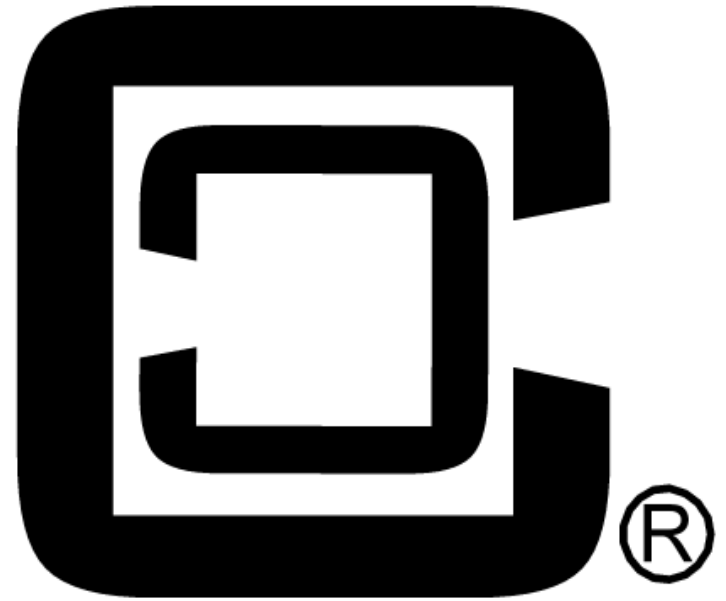


CLIPPERCREEK, INC.  
INNOVATIVE INFRASTRUCTURE FOR  
ELECTRIC AND HYBRID VEHICLES



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# User's Manual



Model PCS-15

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## WARRANTY INFORMATION

ClipperCreek, Inc. warrants this product to be free from defects in material, manufacture and design for a period of one year after the date of purchase. If this product is defective in materials, manufacture or design during this warranty period, ClipperCreek, Inc. will, at its option, repair or replace the product. Repair parts and /or replacement products may be either new or reconditioned at ClipperCreek's discretion. This limited warranty does not include service to repair damage from improper installation, improper connections with peripherals, external electrical fault, accident, disaster, misuse, abuse or modifications to the product not approved in writing by ClipperCreek, Inc. Any service repair outside the scope of this limited warranty shall be at applicable rates and terms then in effect.

All other express and implied warranties for this product including the warranties of merchantability and fitness for a particular purpose, are hereby disclaimed. Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

If this product is not as warranted above, your sole and exclusive remedy shall be repair or replacement as provided above. In no event will ClipperCreek, Inc., any of its authorized sales and service representatives, or its parent company be liable to the customer or any third party for any damages in excess of the purchase price of the product. This limitation applies to damages of any kind including any direct or indirect damages, lost profits, lost saving or other special, incidental, exemplary or consequential damages whether for breach of contract, tort or otherwise or whether arising out of the use of or inability to use the product, even if ClipperCreek, Inc. or an authorized ClipperCreek, Inc. representative or dealer has been advised of the possibility of such damages or of any claim by any other party. Some states do not allow the exclusion or limitation of incidental damages for some products, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

## PLEASE NOTE

This user's manual includes the latest information at the time of printing. ClipperCreek, Inc. reserves the right to make changes to this product without further notice. Changes or modifications to this product by other than an authorized service facility could void the product warranty.

If you have questions about the use of this product, contact your customer service representative. Refer to the Customer Support section located in this guide.

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# SPECIFICATIONS

## Input Power

Voltage & Wiring	120V AC single-phase
Current	12 amps, max
Frequency	50/60 Hz

## Dimensions

Height	280 mm (11 in)
Width	100 mm (4 in)
Depth	80 mm (3 in)

**Weight**                      **3 kg (7 lbs)**

## Environment

Operating Temperature	-30°C (-22°F) to +50°C (+122°F)
Enclosure Rating	NEMA 4 - watertight

# MAINTENANCE

The PCS-15 requires no maintenance other than occasional cleaning.



**Warning** To reduce the risk of electrical shock or equipment damage, be cautious while cleaning the connectors and case.

Clean the PCS-15 using a soft cloth lightly moistened with mild detergent solution. Never use any type of abrasive pad, scouring powder, or flammable solvents such as alcohol or benzene.

# CUSTOMER SUPPORT

Call your ClipperCreek, Inc. Service Representative at any time, 24 hours a day, at the number below. If your call is made after business hours or on weekends, please leave your name, telephone number, and a brief description of the problem. A Field Service Representative will call back at the earliest opportunity.

**Distributor Service  
Number Here**

## FRONT PANEL

The front panel on the PCS-15 has 4 indicator lights:

**Power** (yellow), indicates that power is available.

**Charging** (green), indicates power has been applied to the vehicle.

**Power Fault** (red), indicates that the wall socket is not wired correctly. The problem can be a wall socket that has no ground. The wall socket wiring should be examined by a qualified electrician.

**Charging Fault** (red), indicates that the PCS-15 is unable to communicate with the vehicle correctly.

Table 1. Panel LED Information

#	Amber Power LED	Green Charging LED	Red Power Fault LED	Red Charging Fault LED	Condition
1	off	off	off	off	Not plugged in to wall socket or No power from wall socket
2	ON	off	off	off	Not plugged into EV or EV not ready to charge
3	ON	ON	off	off	Charging enabled Power is applied to vehicle
4	ON	off	ON - not blinking	off	No ground in wall socket
5	ON	off	off	ON – not blinking	Problem with EV communications Disconnect and restart
6	ON	off	off	blinking	EV ground fault trip Check vehicle connection
7	ON	off	blinking	blinking	Internal fault Call for service

## IMPORTANT SAFETY INSTRUCTIONS

Carefully read these instructions and the charging instructions in your vehicle owner's handbook before charging your electric vehicle.

The following symbols may be found in your handbook or on labels affixed to your conductive charge station:

**Note** *This means pay particular attention.* Notes contain helpful suggestions.



**Caution** *This symbol means be careful.* You are capable of doing something that might result in damage to equipment.



**Warning** *This symbol means danger.* You are in a situation that could cause bodily injury. Before you work on any electrical equipment, be aware of the hazards involved with electrical circuitry and standard practices for preventing accidents.

### Safety Guidelines

- Use this portable charge station to charge electric vehicles equipped with a *conductive charge port only*. See the vehicle's owner's handbook to determine if the vehicle is equipped with a conductive charge port.
- Make certain the charge station's supply cable is positioned so it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- There are no user serviceable parts inside. Refer to the Customer Support section in this manual for service information. Do not attempt to repair or service the charge station yourself.
- Do not operate your charge stations if it or the supply cable is visibly damaged. Contact your Service Representative for service immediately. Refer to the Customer Support section in this manual for information on the Service Representative in your area.

## SAFETY INFORMATION



**Warning:** Unplug your PCS before cleaning the unit.

**Note** VENTILATION: Some electric vehicles require an external ventilation system to prevent the accumulation of hazardous or explosive gases when charging indoors. Check the vehicle's owner's handbook to determine if your vehicle requires ventilation during indoor charging.

**Note** Those vehicles which follow the SAE-J1772™ standard for communication with the charging station can inform the PCS-15 that they require an exhaust fan. The PCS-15 is not equipped to control exhaust fans. Do not charge your vehicle with the PCS-15 if ventilation is required by your vehicle.



**Caution: DO NOT** charge your vehicle indoors if it requires ventilation. Contact your Service Representative for information.

## FCC INFORMATION

This device complies with Part 15 of the FCC rules. 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.

This product has been designed to protect against Radio Frequency Interference (RFI). However there are some instances where high powered radio signals or nearby RF-producing equipment (such as digital phones, RF communications equipment, etc.) could affect operation.

If interference to your charge station is suspected, we suggest the following steps be taken before consulting your ClipperCreek Sales and Service Representative for assistance:

1. Reorient or relocate nearby electrical appliances or equipment during charging.
2. Turn off nearby electrical appliances or equipment during charging.

**Caution** Changes or modifications to this product by other than an authorized service facility may void FCC compliance.

## OPERATION

The PCS-15 is a Portable Charging Station that provides the Plug-in Hybrid or Battery Electric Vehicle (together Plug-In Electric Vehicles or PEV) user with a safe and manageable link between the power grid and the PEV.

*Figure 1. The PCS-15 Front Panel*



The PCS-15 is very easy to use. Just unwrap the charging cable, plug the wall plug into any grounded 120V wall socket, and plug the vehicle connector firmly into the vehicle's charge port. Always plug the PCS into the wall socket first.

Normally, the vehicle will immediately request a charge using a special communication line in the cable and within a few seconds the green Charging light will come on and charging will begin. After an average driving day, it will require several hours to recharge completely. Charging overnight is the most convenient way to maintain healthy batteries and ensure the vehicle's full range will be available for the next day.

When disconnecting the PCS-15, always remove the vehicle connector first then remove the plug from the wall socket. When not in use, the cord may be re-wrapped around the PCS-15 and the entire assembly secured with the nylon straps.

If charging always takes place in the same location, such as the home garage at night, the PCS-15 may be left plugged into the wall socket without damage.