ClipperCreek, Inc.

Innovative Infrastructure for Electric and Hybrid Vehicles

User Manual

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Model HCS

PLEASE NOTE

This user 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 may void the product warranty.

Contact a Customer Service Representative with any questions about the use of this product. (877) 694-4194

WARNING: This product can expose you to chemicals, including Carbon Black, which is known to the State of California to cause cancer. For more information go to: www.P65Warnings.ca.gov

AVERTISSEMENT: Ce produit peut vous exposer à des agents chimiques, y compris Noir Carbone, identifiés par l'État de Californie comme pouvant causer le cancer. Pour de plus amples informations, prière de consulter: www.P65Warnings.ca.gov

ADVERTENCIA: Este producto puede exponerte a químicos, incluso Negro Carbón, que se conocido por el Estado de California como causante de cáncer. Para más información visite: www.P65Warnings.ca.gov

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HCS User Manual, Version 17, June 2020

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CONTENTS

ILLUSTRATIONS

Figures

Tables

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 this manual or on labels affixed to the Electric Vehicle Supply Equipment (EVSE):

NOTE: *This means pay particular attention.* Notes contain helpful suggestions.

REMARQUE: *Cela signifie accorder une attention particulière.* Les remarques contiennent des suggestions utiles.

NOTA: Esto significa que debe prestar especial atención. Las notas contienen sugerencias útiles.

CAUTION: *This symbol means be careful.* There is potential to do something that may result in damage to the equipment.

ATTENTION: *Ce symbole signifie être prudent.* Vous êtes capable de faire quelque chose qui pourrait causer des dommages à l'équipement.

ATENCIÓN: *Este símbolo significa tener cuidado.* Usted es capaz de hacer algo que puede resultar en daños al equipo.

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.

AVERTISSEMENT: *Ce symbole signifie un danger.* Vous êtes dans une situation qui pourrait causer des blessures corporelles. Avant de travailler sur un équipement électrique, être conscient des dangers présentés par les circuits électriques et les pratiques courantes de prévention des accidents.

ADVERTENCIA: *Este símbolo significa peligro.* Está en una situación que podría lesionarse. Antes de trabajar en cualquier equipo eléctrico, debe estar consciente de los riesgos relacionados con los circuitos eléctricos y practicas estándares de prevención de accidentes.

Instructions Pertaining to a Risk of Fire or Electric Shock

When using the HCS, basic electrical safety precautions should be followed:

- Use this EVSE to charge electric vehicles equipped with an *SAE J1772™ charge port only*. Consult the vehicle's owner manual to determine if the vehicle is equipped with the correct charge port.
- Make certain the EVSE SAE J1772 charge cable is positioned so it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- This product contains no user serviceable parts. Consult the Customer Support section in this manual for service information. Do not attempt to repair or service the EVSE yourself.
- Do not operate your EVSE if it or the SAE J1772 charge cable is physically open, cracked, frayed, or otherwise visibly damaged. Contact a Service Representative for service immediately. Consult the Customer Support section in this manual for information on the Service Representative in your area.
- Not for use in commercial garages where a COMMERCIAL GARAGE is defined as a facility (or portion thereof) used for the repair of internal combustion vehicles in which the area may be classified due to flammable vapors being present (such as from gasoline).

- Do not place fingers inside of the coupler end of the SAE J1772 charge cable.
- Do not allow children to operate this device. Adult supervision is mandatory when children are in proximity to an EVSE that is in use.

Additional Instructions for Plug-In HCS Configurations

- 240V plugs are specifically designed for **occasional** relocation, such as moving from one home to another home.
- For personal safety, the circuit breaker MUST be turned off prior to plugging in AND/OR unplugging 240V appliances (including this EVSE).
- A dedicated NEMA outlet (receptacle) is **highly recommended.** NEMA outlets wear out over time particularly when repeated insertion and removal of NEMA plugs occur. Check the receptacle to be sure it is not worn. A worn receptacle can cause the plug connection to overheat and become a fire hazard. Do not use a plug that gets excessively hot. It is recommended that plug-in EVSE remain plugged in.
- Have an electrician verify all wiring to the outlet is correct and in compliance with local code requirements before connecting the EVSE.
- **Do Not** use this EVSE with an extension cord or wall plug adapter. Plug this EVSE directly into the receptacle.
- Ensure that the EVSE is mounted to the wall or placed on a support so it does not hang from the receptacle. Receptacles are not designed to support the weight of the EVSE.

Instructions se Rapportant à un Risque d'Incendie ou de Choc Électrique

Lorsque l'utilisation de la HCS, précautions fondamentale de sécurité électrique doivent être suivies:

- Utilisez cette station de recharge pour charger les véhicules électriques équipés d'un *SAE J1772™ port de recharge seulement*. Consultez le manuel du propriétaire du véhicule afin de déterminer si le véhicule est équipé d'un correcte port de recharge.
- Assurez-vous que le SAE J1772 câble de recharge sur la station de recharge est positionné de telle sorte qu'il ne sera pas piétiné, accroché plus de, ou autrement endommagé ou de subir le stress.
- Ce produit ne contient aucune pièce réparable par l'utilisateur. Consultez la section Support à la Clientèle dans ce manuel pour obtenir des informations de service. N'essayez pas de réparer ou d'entretenir la station de recharge vous-même.
- Ne faites pas fonctionner votre station ou le câble de recharge si elles sont physiquement ouverte, fissuré, effiloché, ou autrement visiblement endommagé. Contactez votre représentant du service pour service immédiatement. Consultez la section Support à la clientèle dans ce manuel pour obtenir des informations sur le représentant du service dans votre région.
- Ne pas utiliser dans les garages commerciaux où un garage commercial est défini comme une installation (ou une partie) utilisé pour la réparation de véhicules à combustion interne dans lequel la zone peut être classée en raison de vapeurs inflammables étant présents (Tels que de l'essence.)
- Ne posez pas les doigts à l'intérieur de l'extrémité du SAE J1772 coupleur du câble de recharge.

- Ne pas laisser les enfants utiliser cet appareil. Supervision d'un adulte est obligatoire lorsque des enfants sont à proximité d'une station de recharge qui est en cours d'utilisation.

Instructions supplémentaires pour les configurations HCS enfichables

- Les prises de 240V sont spécialement conçues pour les relocalisations **occasionnelles**, tel que le déménagement d'une maison à une autre.
- Pour des raisons de sécurité, le disjoncteur DOIT être désactivé avant de brancher ET/OU débrancher les appareils de 240V (dont cet EVSE).
- Une sortie (réceptacle) NEMA dédiée est **fortement recommandée**. Les réceptacle NEMA s'usent avec le temps, en particulier lorsque l'insertion et le retrait des prises NEMA sont répétés. Vérifiez le réceptacle pour vous assurer qu'elle n'est pas usée. Une réceptacle usée peut provoquer une surchauffe du connecteur de raccordement et constituer un risque d'incendie. Ne pas utiliser de prise qui deviendrait excessivement chaude. Il est recommandé que la prise de l'EVSE reste branchée.
- Faites vérifier par un électricien que tout le câblage de réceptacle soit correctement effectué et conforme aux exigences de la réglementation locale avant de raccorder l'EVSE.
- **Ne pas** utiliser cet EVSE avec une rallonge ou adaptateur de prise murale. Branchez cet EVSE directement dans le réceptacle.
- S'assurer que l'EVSE est fixé au mur ou placé sur un support afin qu'il ne soit pas suspendu à l'installation électrique. Le réceptacle n'est pas conçue pour supporter le poids de l'EVSE.

Instrucciones relacionadas con un riesgo de incendio o descarga eléctrica

Al utilizar el HCS, se deben seguir las siguientes precauciones básicas de seguridad eléctrica:

- Utilice este EVSE para cargar vehículos eléctricos equipados con un *puerto de carga SAE J1772™ únicamente*. Consulte el manual del propietario del vehículo para determinar si el vehículo está equipado con el puerto de carga correcto.
- Asegúrese de que el cable de carga del EVSE SAE J1772 esté colocado de manera que no sea pisado, ni cause tropiezos, ni se someta a daños o tensiones.
- Este producto no contiene partes reparables por el usuario. Consulte la sección de Atención al Cliente en este manual para obtener información de servicio. No intente reparar o reparar el EVSE usted mismo.
- No opere su EVSE si éste o el cable de carga SAE J1772 están físicamente abiertos, agrietados, deshilachados o dañados de otra manera. Póngase en contacto con un Representante de Servicio Técnico para su reparación. Consulte la sección de Atención al Cliente en este manual para obtener información sobre el Representante de Servicio Técnico en su área.
- Este dispositivo no es para uso en garajes comerciales, en el que un GARAJE COMERCIAL se define como una instalación (o parte de la misma) utilizada para la reparación de vehículos de combustión interna, en los que el área puede ser clasificada debido a la presencia de vapores inflamables (como los de la gasolina).
- No coloque los dedos dentro del extremo del acoplador del cable de carga SAE J1772.
- No permita que los niños operen este dispositivo. La supervisión de un adulto es obligatoria cuando haya niños que estén cerca de un EVSE que está en uso.

Instrucciones adicionales para configuraciones de HCS enchufables

- Los tomacorrientes de 240V están específicamente diseñados para reubicaciones **ocasionales**, como la mudanza de una casa a otra.
- Por su seguridad personal, el interruptor de circuito DEBE estar apagado antes de enchufar Y/O desenchufar dispositivos de 240V (incluyendo este dispositivo EVSE).
- Se **recomienda encarecidamente** una salida (receptáculo) NEMA dedicada. El receptáculo NEMA se desgastan con el tiempo, especialmente cuando se produce una conexión y desconexión repetidas de los enchufes NEMA. Verifique el receptáculo para asegurarse de que no esté desgastada. Un receptáculo desgastado puede causar que la conexión del enchufe se sobrecaliente y sea riesgo de incendio. No use un enchufe que se caliente demasiado. Se recomienda que el EVSE enchufable permanezca enchufado.
- Haga que un electricista verifique que todo el cableado del tomacorriente sea correcto y que cumpla con los requisitos del código local antes de conectar el EVSE.
- **No Use** este EVSE con un cable de extensión o adaptador de enchufe de pared. Conecte este EVSE directamente a la toma el receptáculo.
- Asegúrese de que el EVSE esté montado en la pared o colocado sobre un soporte para que no cuelgue del receptáculo. Los enchufes no están diseñados para soportar el peso del EVSE.

Additional Safety Instructions

WARNING: Turn off power to the EVSE at the circuit breaker panel before moving, servicing or cleaning the unit.

AVERTISSEMENT: Couper l'alimentation de l'EVSE au niveau du panneau de disjoncteurs avant de déplacer, d'effectuer la maintenance ou de nettoyer l'appareil.

ADVERTENCIA: Desconecte la alimentación del EVSE en el panel del interruptor automático antes de mover, reparar o limpiar la unidad.

WARNING: Always turn off input power to the EVSE at the circuit breaker panel prior to plugging into or unplugging from a wall socket.

AVERTISSEMENT: Toujours éteindre la puissance d'entrée du EVSE sur le panneau du disjoncteur avant de brancher ou de débrancher un socket mur.

ADVERTENCIA: Apague siempre la alimentación de entrada al EVSE en el panel del interruptor de circuito, antes de enchufarlo o desenchufarlo de un tomacorriente.

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

REMARQUE: VENTILATION - Certains véhicules électriques nécessitent un système de ventilation externe pour éviter l'accumulation de gaz explosifs ou dangereux lors de la charge à l'intérieur. Consultez le manuel du propriétaire du véhicule pour déterminer si votre véhicule nécessite une ventilation quand le recharge en salle.

NOTA: VENTILACIÓN - Algunos vehículos eléctricos requieren un sistema de ventilación externo para evitar la acumulación de gases peligrosos o explosivos, al ser

cargados en interiores. Consulte el manual del propietario del vehículo para determinar si su vehículo requiere ventilación durante la carga en interiores.

NOTE: Vehicles which conform to the SAE J1772 standard for communication can inform the charge station that they require an exhaust fan. The HCS is not equipped to control ventilation fans. Do not charge the vehicle with the HCS if ventilation is required.

REMARQUE: Véhicules qui sont conformes à la norme SAE J1772 de communication peuvent informer la station de recharge qu'ils nécessitent un ventilateur d'extraction. Le HCS n'est pas équipé pour contrôler les ventilateurs. Ne chargez pas le véhicule avec les HCS si la ventilation est nécessaire.

NOTA: Los vehículos que cumplan con el estándar de comunicación SAE J1772 pueden informar que su EVSE requieren un extractor de aire. El HCS no está equipado para controlar ventiladores. No cargue el vehículo con el HCS si se requiere ventilación.

CAUTION: DO NOT CHARGE a vehicle indoors if it requires ventilation. Contact a Service Representative for information.

ATTENTION: NE PAS RECHARGER un véhicule à l'intérieur si il nécessite une ventilation. Contactez votre représentant de service pour plus d'informations.

ATENCIÓN: NO RECARGUE un vehículo en interiores si requiere ventilación. Póngase en contacto con su Representante de Servicio Técnico para obtener más información.

Save these instructions for future reference.

Conservez ces instructions pour référence future.

Guarde estas instrucciones para referencias futuras.

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 the EVSE is suspected, the following steps should be taken before consulting a ClipperCreek® Sales or 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.

ATTENTION: Modifications apportées à ce produit par qui conque autre qu'un centre de service autorisé peut annuler la conformité FCC.

ATENCIÓN: Cambios o modificaciones a este product por otros que no sean un centro de servicio autorizado pueden anular el cumplimiento con la FCC.

OPERATION

The HCS EVSE is a compact wall or pedestal-mounted EVSE 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. Both hardwired HCS and plug-in HCS versions are available.

Simply unwrap the SAE J1772 charge cable and plug the connector firmly into the vehicle’s charge port.

Normally, the vehicle will immediately request a charge using a special communication line in the cable. Within a few seconds the Green “Charging” light on the face of the HCS will turn on and the charging cycle will begin. After an average driving day the vehicle battery pack 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 the vehicle has stopped charging the Green “Charging” light on the HCS will turn off. To remove the connector head once a charge cycle has completed (or to interrupt a charge in progress) press and hold down the latch release lever on the connector handle then unplug the connector from the vehicle charge port.

The HCS Front Panel

The front panel on the HCS has four indicator lights, as shown in **Figure 1.**

POWER (Amber), indicates that power is available to the HCS.

CHARGING (Green), indicates that the vehicle is requesting a charge and AC power is currently applied to the vehicle.

POWER FAULT (Red), indicates that the HCS is not wired correctly. The problem can be due to improper grounding or a missing Earth Ground. The wiring should be examined by a qualified electrician.

CHARGING FAULT (Red), indicates that the HCS is unable to communicate with the vehicle correctly, or a safety fault condition has been detected by the unit.

Figure 1: HCS Front Panel

Table 1: Front Panel LED Information

#	Amber Power LED	Green Charging LED	Red Power Fault LED	Red Charging Fault LED	Fault Condition
1	off	off	off	off	No power to EVSE. Check circuit breaker.
2	ON	off	off	off	Not plugged into the EV or the EV is not ready to charge.
3	ON	ON	off	off	Charging enabled, power is applied to the vehicle.
4	ON	off	ON - not blinking	off	Improper grounding or ground is not present.
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 EVSE fault. Call for service.

INSTALLATION - SERVICE CONNECTIONS

CAUTION: To reduce the risk of fire, connect only to a circuit provided with the appropriate maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70 (US) or the Canadian Electric Code C22.2 NO. 280-13 (Canada).

ATTENTION: Pour réduire le risque d'incendie, de se connecter uniquement à un circuit fourni avec le approprié circuit de dérivation protection maximale contre les surintensités, en conformité avec le Code National électrique ANSI/NFPA 70 (US) ou Code Canadien de l'électricité C22.2 NO. 280-13 (Canada).

ATENCIÓN: Para reducir el riesgo de incendio, conecte sólo a un circuito proporcionado con la máxima protección adecuada contra sobre corriente del circuito derivado de acuerdo con el Código Eléctrico Nacional, ANSI/NFPA 70 (EE.UU) o el Código Eléctrico Canadiense C22.2 NO. 280-13 (Canadá).

Table 2: Service Connections for Standard & Ruggedized HCS

HCS Model	Connection/Receptacle Type	Circuit Breaker Rating
HCS-15	Hardwired	15A
HCS-20	Hardwired	20A
HCS-20R (Ruggedized)	Hardwired	20A
HCS-25	Hardwired	25A
HCS-30	Hardwired	30A
HCS-30R (Ruggedized)	Hardwired	30A
HCS-40	Hardwired	40A
HCS-40P	NEMA 6-50R	40A/50A
HCS-40P	NEMA 14-50R	40A/50A
HCS-40R (Ruggedized)	Hardwired	40A
HCS-40PR (Ruggedized)	NEMA 6-50R	40A/50A
HCS-40PR (Ruggedized)	NEMA 14-50R	40A/50A
HCS-50	Hardwired	50A
HCS-50P	NEMA 6-50R	50A
HCS-50P	NEMA 14-50R	50A
HCS-60	Hardwired	60A
HCS-60R (Ruggedized)	Hardwired	60A
HCS-80	Hardwired	80A
HCS-80R (Ruggedized)	Hardwired	80A

CAUTION: <u>This is a single-phase device. Do not connect all three phases of a 3-phase feed!</u> You may use any two phases of a three phase wye-transformer feed. The centerpoint of the three phases (usually used as Neutral) must be grounded somewhere in the system. A Neutral connection is not required by the HCS. Only Line 1, Line 2, and Ground are required, as shown in **Figure 3.**

ATTENTION: <u>Il s'agit d'un appareil monophasé. Ne pas relier tous les trois phases d'une alimentation triphasée!</u> Vous pouvez utiliser les deux phases d'un triphasé en étoile transformateur alimentation. Le point central des triphasé (généralement utilisé comme Neutre) doit être mis à la terre quelque part dans le système. Une connexion Neutre n'est pas exigée par la HCS. Seulement ligne 1, ligne 2, et Mise à la Terre sont nécessaires, comme le montre **la Figure 3**.

ATENCIÓN: <u>Este es un dispositivo de una sola fase. ¡No conecte las tres fases de una alimentación trifásica!</u> Puede utilizar cualquiera dos fases de un transformador trifásico de alimentación "Y". El punto central de las tres fases (generalmente utilizado como Neutro) debe estar conectado a tierra en algún punto del sistema. Una conexión Neutra no es requerida por la HCS. Sólo la Línea 1, Línea 2, y la Conexión a Tierra son necesarias, tal y como se muestra en **la Figura 3.**

CAUTION: The two phases used must each measure 120V to Neutral. Earth Ground must be connected to Neutral at only one point, usually at the service entry breaker panel.

ATTENTION: Les deux phases utilisées doivent mesurer chaque 120V à Neutre. Mise à la terre doit être connecté au Neutre en un seul point, généralement à l'entrée panneau de disjoncteurs de service.

ATENCIÓN: Las dos fases utilizadas deben cuantificar 120V a punto Neutro. La Conexión a Tierra debe conectarse al punto Neutro en un solo punto, general-mente en la entrada de servicio del panel de interruptores automáticos.

CAUTION: If a 240V 3-phase feed is from a Delta-connected secondary, the leg used must have a center-tap. That tap must be Grounded. Only the two phases on either side of the center-tapped leg can be used. See **Figure 4**.

ATTENTION: Si une alimentation à triphasé 240V provient d'un triangle connecté secondaire, la bornes utilisée doit avoir un centretap. Que la tap doit être Mise à la Terre. Seuls les deux phases l'une ou l'autre côté du centre tapped brancher peut être utilisé. Voir la **Figure 4** ci-dessous.

ATENCIÓN: Si una alimentación trifásica de 240V es de conexión secundaria Delta, la pierna utilizada debe tener una derivación central. Esa derivación debe Conectar a Tierra. Sólo las dos fases en cualquier lado de la pierna de derivación central pueden ser utilizadas. Consulte **la Figure 4.**

CAUTION: Warranty is void if this unit is not wired properly.

ATTENTION: La garantie est annulée si cette unité n'est pas correctement câblé.

ATENCIÓN: La garantía se anula si esta unidad no está cableada correctamente.

WARNING: Only a qualified electrician should perform the installation. The installation must be performed in accordance with all local electrical codes and ordinances.

AVERTISSEMENT: Seul un électricien qualifié doit effectuer l'installation. L'installation doit être effectuée conformément à tous les codes électriques locaux et des ordonnances.

ADVERTENCIA: Sólo un electricista capacitado debe realizar la instalación. La instalación debe realizarse conforme a todos los códigos y ordenanzas locales.

Only 3 wires are connected, but care must be taken that the service transformer secondary connection is definitely known, and the 3 wires from the main circuit breaker panel are connected and labeled correctly. **Figures 2**, **3**, and **4** show the most common service transformer secondary wiring formats.

Notice that L1, L2, & Ground are labeled on each diagram. Those transformer outputs correspond to the same inputs on the HCS. Also, each of the two 3-phase diagrams shows an L3 output, which is not used. Do not connect all three phases of a 3-phase secondary to the HCS. This is a single-phase device.

The Neutral at the service panel *must* be connected to Earth Ground *somewhere* in the system on *any* of the three connection arrangements. Ground-fault protection is not possible unless the Neutral (center-tap on the service transformer) is connected to an Earth Ground. If no Ground is provided by the electrical service, a grounding stake must be driven into the Ground nearby, following local electrical codes. The grounding stake must be connected to the ground bar in the main breaker panel, and Neutral connected to Ground at that point.

WARNING: Local electrical codes must always be followed when installing the grounding stake.

AVERTISSEMENT: Les codes électriques locaux doivent toujours être respectées lors de l'installation du piquet de mise à la terre.

ADVERTENCIA: Siempre se deben seguir los códigos eléctricos locales al instalar la estaca de conexión a tierra.

The following diagrams illustrate the three service transformer secondary connections most common in North America.

Figure 2: 220/240V Single Phase

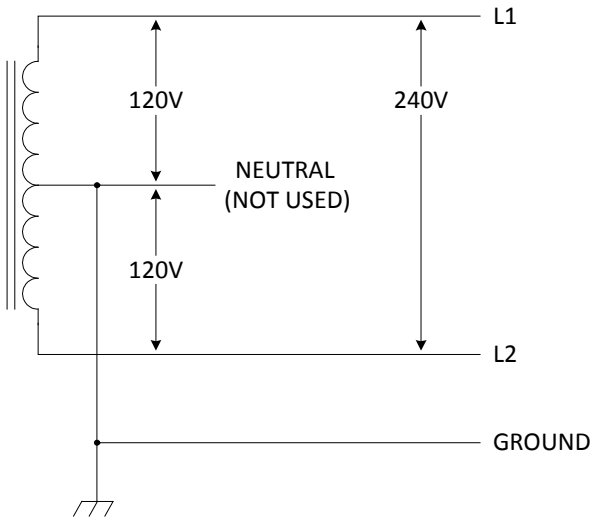
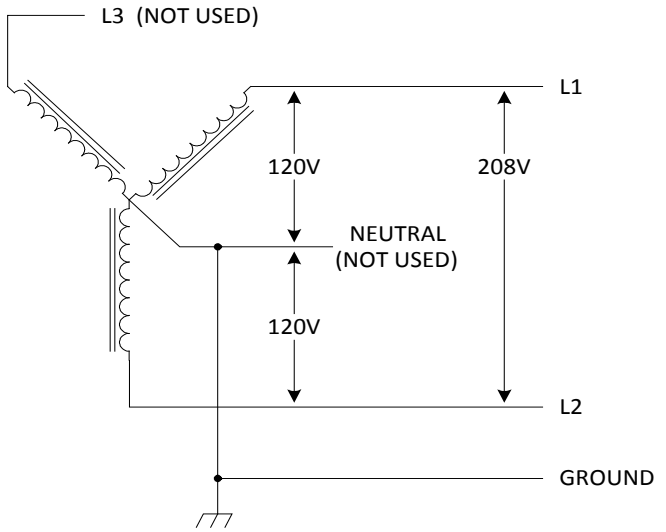


Figure 3: 208V 3-Phase, Wye-Connected

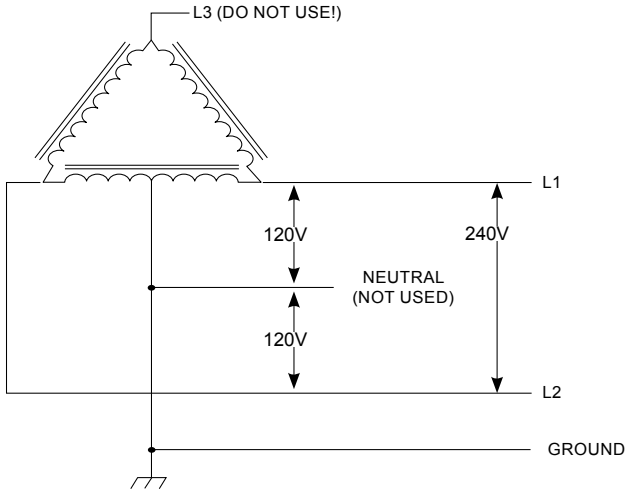


NOTE: With a wye-connected secondary, any two of the legs can be used to provide 208V to the HCS. For example, L1 & L2, or L1 & L3, or L2 & L3. Leave the unused leg open. Do not connect it to a Neutral bar, or to Ground. Be sure the center point is grounded to Earth somewhere in the system.

REMARQUE: Avec un transformateur étoile-connecté secondaire, deux des lignes peut être utilisé pour fournir 208V à la HCS. Par exemple, L1 & L2, ou L1 & L3, ou L2 & L3. Laissez la borne inutilisée ouverte. Ne le connectez pas à un bar Neutre, ou à la Mise à la Terre. Assurez-vous que le point central est Mis à la Terre quelque part dans le système.

NOTA: Con un secundario conectado en "Y", cualquiera de las dos piernas puede ser utilizada para proporcionar 208V a la HCS. Por ejemplo, L1 y L2, o L1 y L3, o L2 y L3. Deje la pierna no inutilizada abierta. No la conecte a la Barra Neutro, o a Tierra. Asegúrese de que el punto central está conectado a Tierra en algún punto del sistema.

Figure 4: 240V 3-Phase, Delta-Connected, with Center-Tap on One Leg



CAUTION: With the delta connection, one leg *must* be center-tapped. *Only* the two phases on either side of the center tap can be used. The two phases must *both* measure 120V to Neutral. The third line (L3) of the delta is 208V, with respect to Neutral, and is sometimes referred to as a "stinger." ***Do not use this third line!*** Consult the transformer manufacturer's literature to be sure the single leg can supply the required power.

ATTENTION: Avec la connexion triangle, une borne *doit* être centretapped, et *seulement* les deux phases d'un côté ou de l'autre du centre tap peut être utilisé. Les deux phases *doivent* mesurer 120 V à Neutre. Ta troisième ligne (L3) du delta est 208 V, par rapport à la position Neutre, et il est parfois désigné comme un "stinger." ***Ne pas utiliser ce troisième ligne!*** Consultez la documentation du transformateur fabricant pour être sûr du borne unique peut fournir la puissance requise.

ATENCIÓN: Con la conexión Delta, una pierna *debe ser* de derivación central. *Sólo* las dos fases en cualquier lado de la derivación central puede ser utilizada. Las dos fases, *ambas* deben cuantificar 120V a punto Neutro. La tercera línea (L3) del delta es de 208V, con respecto al punto Neutro, y se refiere a veces como un "stinger." ***¡No utilice esta tercera línea!*** Consulte la documentación del fabricante del transformador para estar seguro de que la pierna única puede suministrar la potencia necesaria.

CAUTION: A 3-phase delta-connected transformer secondary without a center-tap on one leg *cannot be used with the HCS*. No "Neutral" point is available to be connected to ground for ground-fault protection. The HCS will not allow the contactor to close if it does not sense the presence of a Ground wire connected to a "Neutral" point on the transformer secondary.

ATTENTION: Un triphasé triangle-connecté transformateur secondaire sans centre-tap sur le terminal *ne peut pas être utilisé avec la HCS*. Aucun point “Neutre” est disponible pour être connecté à Mise à la Terre pour protection de défaut à la terre. Le HCS ne permettra pas le contacteur de fermer si elle ne détecte pas la présence d’un fil de Masse connecté à un point “Neutre” sur le secondaire du transformateur.

ATENCIÓN: Un transformador trifásico secundario de conexión delta sin derivación central en una pierna *no puede ser utilizado la HCS*. Ningún punto “Neutro” está disponible para ser conectado a tierra para protección contra falla de tierra. La EVSE no permitirá que el contactor cierre si no detecta la presencia de un cable de Tierra conectado a un punto “Neutro” en el secundario del transformador.

MOUNTING PROCEDURES

Determine the wall mounting position of the EVSE:

- On the hardwired HCS, the three service conductors are shielded by 3' (1 m) of flexible conduit at the bottom of the unit. The HCS must be positioned such that this conduit can reach a nearby junction box.
- On the plug-in HCS, the NEMA plug head is connected by 12" (30.5 cm) of cable (including the plug head) to the bottom side of the HCS. The plug-in HCS must be positioned such that this plug can safely be inserted into a wall-mounted NEMA socket.
- Position the bottom of the EVSE at a comfortable height and at least 18" (45.7 cm) above the ground for indoor installations and 24” (61 cm) off the ground for outdoor installations. Ensure that the LEDs on the front panel of the EVSE can clearly be seen by the user of the device.
- The HCS has two vertically aligned mounting holes spaced 17” (43.2 cm) apart, one each on the enclosure top and bottom. Use a ruler or template to mark hole locations on the mounting surface.

WARNING: For safety, always turn off input power to the EVSE at the circuit breaker panel prior to plugging it in or wiring it to the service lines. Likewise, turn off the circuit breaker prior to unplugging it or disconnecting the unit from the service lines.

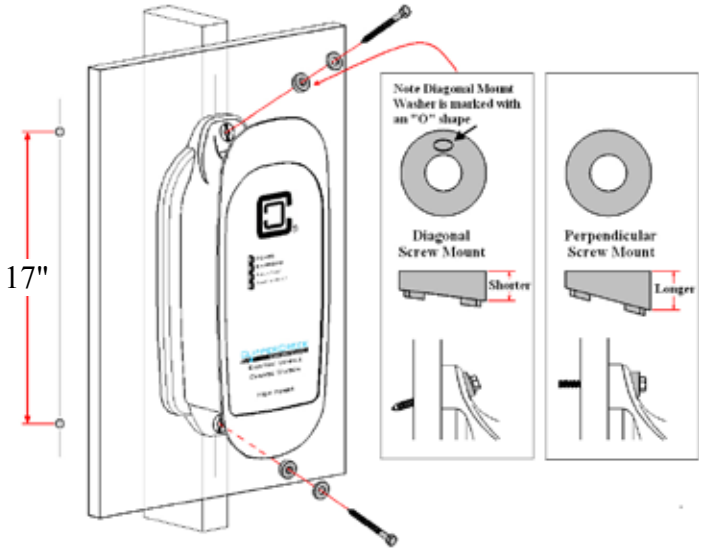
AVERTISSEMENT: Pour sécurité, toujours désactiver le courant d’entrée de la station de recharge au niveau du disjoncteur du panneau avant de le brancher ou de câblage à les lignes de service. De même, coupez le disjoncteur avant de le débrancher ou déconnecter l’unité à partir des lignes de services.

ADVERTENCIA: Por razones de seguridad, siempre apague la alimentación de entrada a la estación de carga en el panel de interruptores automáticos de circuito antes de enchufarlo o cablearlo a las líneas de servicio. Igualmente, apague el interruptor automático de circuito antes de desenchufarlo o desconectar la unidad de las líneas de servicio.

HCS EVSE Mounting for Hollow-Wall Construction

- Place the unit such that both mounting holes can take advantage of solid structural framing inside of the wall or a strong wall surface such as plywood.
- Size ¼”- 20 lag screws are recommended for mounting the HCS to a wooden structure. Pre-drill appropriately sized pilot holes to allow the lag screw to grip the wooden structure while preventing the wood from cracking or splintering while the screw is fastened.
- The included plastic angle washers can be oriented to allow the lag screws to be fastened at an angle while still providing a solid flat backing to the screw head.
- If the screw head is smaller than the ⅜” (1 cm) washer aperture, an additional flat washer will need to be placed between the plastic angle washer and the head of the lag screw.
- If either mounting hole does not have a solid mounting structure (such as drywall without a solid backing) it will be necessary to use proper anchoring hardware such as drywall toggles or molly bolts.

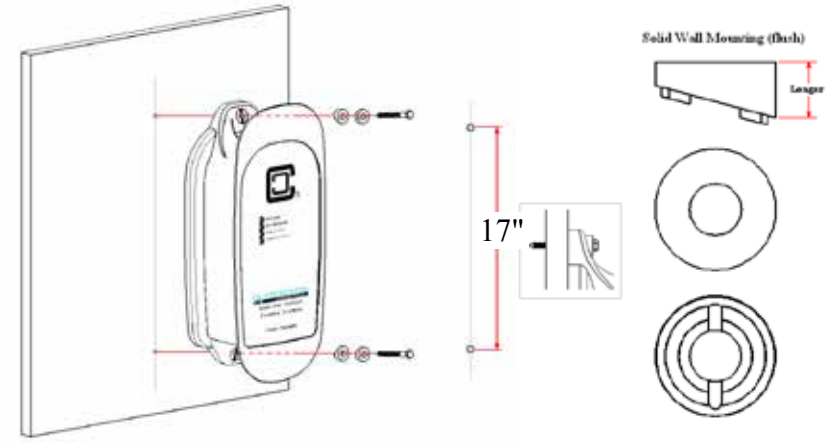
Figure 5: Mounting the HCS to a Hollow-Wall



HCS EVSE Mounting for Solid-Wall Construction

- To secure the unit in concrete, pre-drill appropriately sized holes and use multi-set or wedge anchor hardware at both mounting points.
- To secure the unit in brick or stone, pre-drill appropriately sized holes and use sleeve anchors at both mounting points.
- The included plastic angle washers can be oriented to allow bolts to be fastened either at an angle or perpendicular to the mounting surface.
- **NOTE** there are two different sets of plastic angle washers included. Select those washers that best accommodate the mounting hardware "angle of attack" and orient them accordingly.
- **NOTE** that if the head of the mounting hardware is smaller than the ⅜" (1 cm) plastic angle washer aperture, an additional flat washer will need to be placed between the plastic angle washer and the mounting hardware.
- Machine screw size ¼"- 20 hardware is recommended for mounting the HCS. Screw shafts of at least 2" (5.1 cm) are recommended. The HCS plastic angle washer hole size is ⅜" (1 cm) in diameter, ensure the screw heads are of a larger diameter. Place appropriately sized washers between the screw heads and the HCS enclosure mounting flanges.

Figure 6: Mounting the HCS to a Solid-Wall

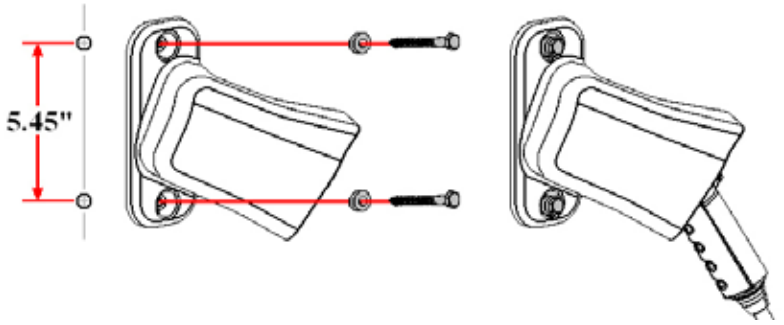


MOUNTING THE SAE J1772 CONNECTOR HOLSTER

The SAE J1772 connector holster is included to provide a convenient protective housing for the SAE J1772 connector head when it is not in use.

- The SAE J1772 connector holster should be placed so that users have easy and safe access to the SAE J1772 connector.
- For indoor installation, mount the SAE J1772 connector holster between 18” (45.7 cm) and 48” (122 cm) above the ground or grade.
- For outdoor installation, mount the SAE J1772 connector holster between 24” (61 cm) and 48” (122 cm) above the ground or grade.
- The SAE J1772 connector holster has two vertically aligned mounting holes spaced 5.45” (13.8 cm) apart, one each on the enclosure top and bottom. Use a ruler or template to mark hole locations on the mounting surface.
- The vertical alignment of the HCS and SAE J1772 connector holster mounting holes allows for the convenient mounting of both components onto the same post or wall structure. For example, the holster may be mounted directly above the HCS.
- Place the SAE J1772 connector holster such that both mounting holes can take advantage of solid structural framing inside of the wall or a strong wall surface such as plywood.
- A set of exterior wood screws and stainless steel washers are included for the purposes of mounting the SAE J1772 connector holster to a wooden surface.
- For mounting to a solid surface such as concrete, brick, or stone, alternate hardware may need to be procured. Examples of solid-wall mounting hardware include multi-sets, wedge anchors and sleeve anchors. Use the type of mounting hardware most appropriate for the supporting structure.

Figure 7: Mounting the SAE J1772 Connector Holster Using the Exterior Wood Screws and Washers

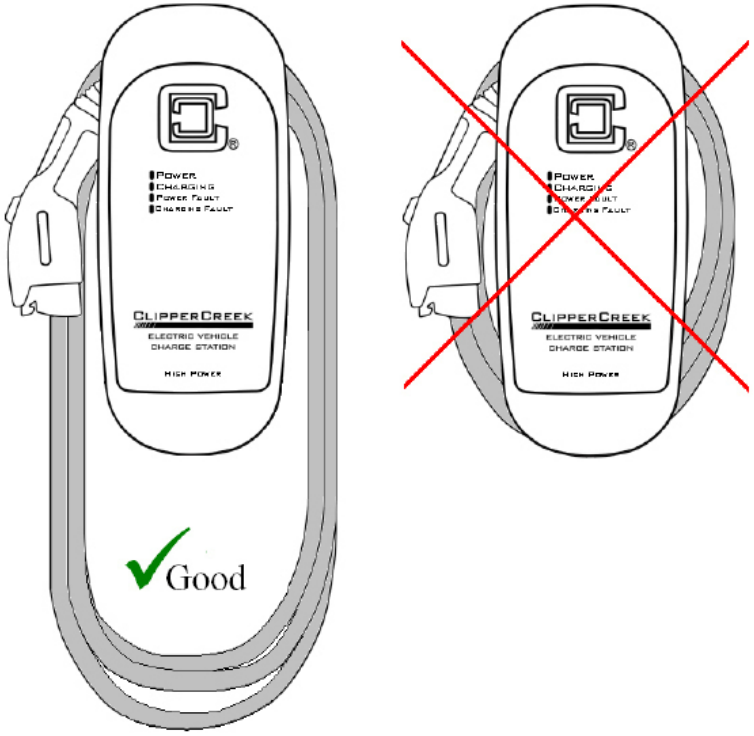


CHARGE CABLE WRAP GUIDELINES

The HCS enclosure body is sculpted to allow the charge cable to be wrapped around it for convenient storage as well as to keep the bulk of the cable off of the ground and out of the way. As the charge cable is comprised of a number of wires, coiling the charge cable too tightly around the HCS enclosure will result in the charge cable feeling warmer to the touch than would ordinarily be the case.

To minimize this effect, it is recommended that the charge cable be loosely draped around the HCS enclosure body with larger loops. This will also permit greater convenience in “pulling off” additional loops if a longer charge cable reach is desired.

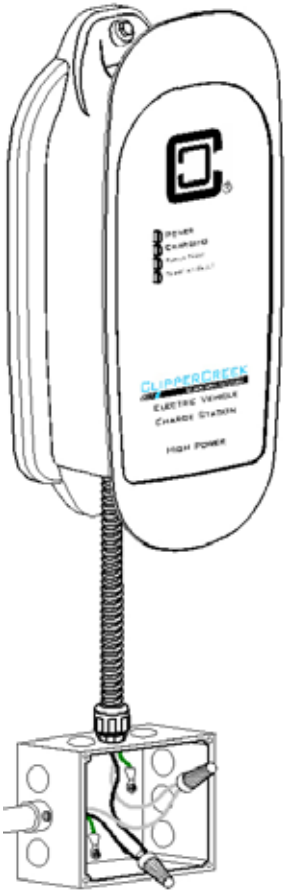
Figure 8: Drape the Charge Cable Loosely Around the HCS Enclosure



WIRING INSTRUCTIONS (Hardwired HCS)

Route the HCS conduit to a nearby junction box. Use the included ½" trade size watertight conduit fitting and sealing washer to provide a moisture-resistant seal between the conduit fitting and the junction box. If necessary, drill a ⅞" diameter hole to accommodate the conduit fitting. For outdoor installations, ensure the junction box is fully sealed using appropriate electrical grade silicone sealant.

Figure 9: Wiring the HCS in a Junction Box



Before connecting the HCS service conductors, please carefully read the section of this manual titled **Installation - Service Connections**. If unsure of the type of power provided at the service panel, please consult with the local utility or call a Service Representative for assistance.

The three supplied HCS-15, 20, 25, 30 or 40 service conductors use stranded 10 AWG 90ºC copper wire. The three supplied HCS-50, HCS-60, and HCS-80 service conductors use stranded 8 AWG, 90ºC copper wire.

The insulation of each conductor is color coded for standard 240V AC installation:

Green:	Ground
Black:	Line 1 (120V AC to Ground)
Red:	Line 2 (120V AC to Ground)

Les trois HCS-15, 20, 25, 30 un HCS-40 service conducteurs fournis utilisent bloqués câble en cuivre 10 AWG 90ºC.

Les trois conducteurs de service HCS-50, HCS-60 et HCS-80 fournis utilisent des câbles toronnés de calibre 8 AWG, 90ºC fil de cuivre.

L'isolation de chaque conducteur est un code couleur pour l'installation de 240V AC norme:

Vert: Mise à la Terre
Noir: Ligne 1 (120V AC à Mise à la Terre)
Rouge: Ligne 2 (120V AC à Mise à la Terre)

Los tres conductores de servicio HCS-15, 20, 25, 30 o 40 suministrados utilizan un cable de cobre trenzado de 10 AWG 90ºC. Los tres conductores de servicio HCS-50, HCS-60 y HCS-80 suministrados utilizan cable de cobre trenzado de 8 AWG, 90ºC.

El aislamiento de cada conductor tiene un código de color para la instalación estándar de 240V CA:

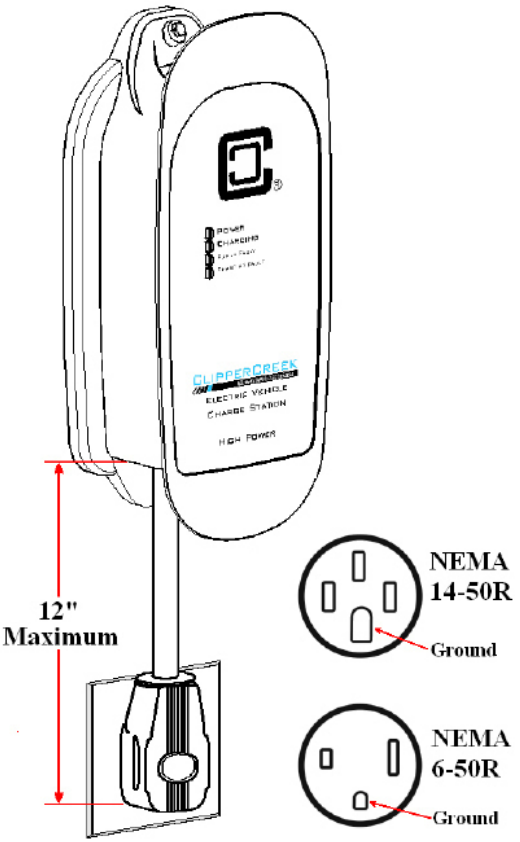
Verde: Tierra
Negro: Línea 1 (120V CA a Tierra)
Rojo: Línea 2 (120V CA a Tierra)

RECEPTACLE INSTRUCTIONS (Plug-In HCS)

The plug-in HCS is fitted with either a NEMA 14-50 or 6-50 plug extending from the bottom of the HCS enclosure. Regulations limit this plug to a maximum of 12 inches (30.5 cm) in length, including the plug head. For this reason, the plug-in HCS must be mounted above the NEMA receptacle and must also be located within 12" (30.5 cm) of it.

In both NEMA 14-50P and 6-50P configurations, the ground pin is located at the furthest point on the plug. It is recommended that a NEMA 14-50R or 6-50R receptacle be oriented accordingly, such that the ground socket is at the lowest point.

Figure 10: Preferred Orientation of the NEMA Receptacles Below the Plug-in HCS



GROUNDING INSTRUCTIONS

This product must be grounded. If this product should malfunction, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

HCS Hardwired EVSE Grounding
The hardwired HCS is equipped with three service conductors shielded by three feet of flexible conduit. This product must be connected to a grounded, metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the ground lead on the product.

HCS Plug-in EVSE Grounding
The plug-in HCS is equipped with a supply cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate receptacle that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: Improper connection of the equipment grounding conductor may result in a risk of electric shock. Check with a qualified electrician if doubt exists as to whether the product is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

AVERTISSEMENT: Une mauvaise connexion du conducteur de terre peut entraîner un risque de choc électrique. Vérifier avec un électricien qualifié si il existe un doute quant à savoir si le produit est correctement mis à la terre. Ne pas modifier la fiche fournie avec le produit – si elle n'entre pas dans la prise, faites installer une prise adéquate par un électricien qualifié.

ADVERTENCIA: La conexión incorrecta del conductor de equipo a tierra puede resultar en un riesgo de descarga eléctrica. Consulte con un electricista calificado si existe la duda de si el producto está correctamente conectado a tierra. No modifique el enchufe suministrado con el producto – si no entra en el receptáculo, tenga un receptáculo adecuado instalado por un electricista cualificado.

USING THE PADLOCK

A padlock with three keys is included with ClipperCreek EVSE when the connector style includes a lock hole. This rust-proof, solid brass padlock is provided to secure the charge connector to prevent the vehicle's charge from being interrupted via removal.

Figure 11: Locking the SAE J1772 Connector with Padlock Included

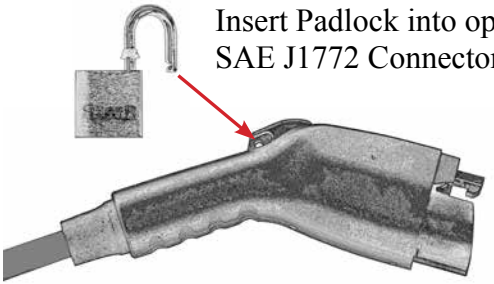


Figure 12: Charge Connector Secured with Padlock which Cannot be Removed from Vehicle without Key

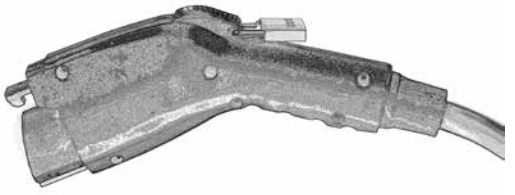


Figure 13: Padlock Used in Combination with Connector Holster After Charging

NOTE: This padlock can also be used in combination with the provided connector holster as a low cost access control solution. Refer to **Figure 13**.

MOVING & STORAGE INSTRUCTIONS

> **NOTE:** Both the hardwired HCS and the plug-in HCS are intended for fixed installations. For mounting requirements, consult the **Mounting Procedures** section of the **Installation Instructions** in this manual.

Always turn off input power to the EVSE at the circuit breaker panel prior to hard-wiring an HCS to or disconnecting an HCS from the service lines. Likewise, always turn off input power to the EVSE at the circuit breaker panel prior to plugging an HCS into or unplugging an HCS from a NEMA socket.

When transporting the EVSE, do not lift or carry the entire unit by the charge cable. Likewise, do not lift or carry the entire unit by the flexible conduit and input conductors (HCS) or the NEMA plug from the plug-in HCS.

The EVSE has a non-operational storage temperature range of -40°C to +80°C (-40°F to +176°F).

OPTIONAL FEATURES

If the HCS unit being installed is equipped with an optional feature such as COSMOS, Share2, or ChargeGuard use the provided HCS Optional Features User Manual.

A digital copy of the HCS Optional Configurations User Manual can be found at:

clippercreek.com/installation-manuals

MAINTENANCE

The HCS requires no periodic maintenance other than occasional cleaning.

WARNING: To reduce the risk of electrical shock or equipment damage, exercise caution while cleaning the EVSE and the EV charge connector cable.

1. Turn off the EVSE at the circuit breaker.
2. Unplug the EVSE from the receptacle.
3. Clean the EVSE 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.

AVERTISSEMENT: Pour réduire le risque de choc électrique ou des dommages équipement, user de prudence lors du nettoyage de l'appareil et le câble du connecteur de charge EV.

1. Eteignez la équipement au disjoncteur avant de le nettoyer.
2. Débranchez l'EVSE du recopérable.
3. Nettoyez l'équipement à l'aide d'un chiffon doux légèrement humidifié avec une solution de détergent doux. Ne jamais utiliser de tampons abrasifs, de poudre à récurer ou de solvants inflammables tels que l 'alcool ou le benzène.

ADVERTENCIA: Para reducir el riesgo de descarga eléctrica o daños al equipo, debe tener cuidado durante la limpieza de la unidad y el cable del conector de carga EV.

1. Apague la estación de carga en el interruptor automático de circuito antes de la limpiar.
2. Desenchufe el EVSE del receptáculo.
3. Limpie la estación de carga con un paño suave ligeramente humedecido con una solución de detergente suave. Nunca utilice ningún tipo de estropajo abrasivo, polvo limpiador o disolventes inflamables tales como alcohol o bencina.

CUSTOMER SUPPORT

Call a ClipperCreek, Inc. Service Representative at any time, 24 hours a day, at the number below. **PLEASE HAVE THE MODEL NUMBER AND SERIAL NUMBER AVAILABLE WHEN CALLING.** This information is printed on the label on the side of the HCS enclosure. If a call is made after business hours or on weekends, please leave a name, telephone number, the unit serial number, and a brief description of the problem. A Service Representative will call back at the earliest opportunity.

Distributor Service Number Here

TO CONTACT CLIPPERCREEK, INC. DIRECTLY FOR SERVICE, CALL (877) 694-4194 MONDAY THROUGH FRIDAY BETWEEN 8:00AM AND 5:00PM PACIFIC TIME.

SPECIFICATIONS

Line Input Power Voltage & Wiring:

240V AC single-phase - L1, L2, and Safety Ground.
208V AC 3-phase wye-connected - Any two phases and Safety Ground.
240V AC 3-phase, delta-connected. With center-tap on one leg, must use only the two phases on either side of the center-tap. The two phases must both measure 120V AC to ground. **Do not use the third leg (208V "Stinger").**

Supplied Input Conductors:

Pre-installed supplied input conductors of the HCS-15, 20, 25, 30 or 40: L1, L2 and Ground use 3 feet of 10AWG, 90ºC copper wire.
Pre-installed supplied input conductors of the HCS-50, HCS-60, and HCS-80: L1, L2 and Ground use 3 feet of 8AWG, 90ºC copper wire.

Voltage Range:

185V AC to 264V AC

Frequency:

60 Hz

CCID:

20mA

Current & Output Power: (at 240V AC)

HCS Model Number	Circuit Breaker	Max Current	Output Power	Cable Length
HCS-15 (hardwired)	15A	12A	2.9 kW	25 ft (7.6m)
HCS-20 (hardwired)	20A	16A	3.8 kW	25 ft (7.6m)
HCS-20R (hardwired)	20A	16A	3.8 kW	25 ft (7.6m)
HCS-25 (hardwired)	25A	20A	4.8 kW	25 ft (7.6m)
HCS-30 (hardwired)	30A	24A	5.8 kW	25 ft (7.6m)
HCS-30R (hardwired)	30A	24A	5.8 kW	25 ft (7.6m)
HCS-40 (hardwired)	40A	32A	7.7 kW	25 ft (7.6m)
HCS-40P + 6-50P	40A/50A	32A	7.7 kW	25 ft (7.6m)
HCS-40P + 14-50P	40A/50A	32A	7.7 kW	25 ft (7.6m)
HCS-40R (hardwired)	40A	32A	7.7kW	25 ft (7.6m)
HCS-40PR + 6-50P	40A/50A	32A	7.7 kW	25 ft (7.6m)
HCS-40PR + 14-50P	40A/50A	32A	7.7 kW	25 ft (7.6m)
HCS-50 (hardwired)	50A	40A	9.6 kW	25 ft (7.6m)
HCS-50P + 6-50P	50A	40A	9.6 kW	25 ft (7.6m)
HCS-50P+14-50P	50A	40A	9.6 kW	25 ft (7.6m)
HCS-60 (hardwired)	60A	48A	11.5 kW	25 ft (7.6m)
HCS-60R (hardwired)	60A	48A	11.5 kW	25 ft (7.6m)
HCS-80 (hardwired)	80A	64A	15.4 kW	25 ft (7.6m)
HCS-80R (hardwired)	80A	64A	15.4 kW	25 ft (7.6m)

NOTE: The maximum current for the vehicle is set by the duty cycle of the Pilot waveform. Output power is variable depending upon the HCS model and vehicle demand.

Plugs:

An attached NEMA 6-50P or NEMA 14-50P plug is available on the HCS-40P and HCS-50P.

Dimensions:

Dimensions are for the enclosure only:

Height:	19.7 inches	(50 cm)
Width:	8.9 inches	(22.6 cm)
Depth:	5.3 inches	(13.5 cm)

Weight:	HCS-15, 20, 25, 30, 40 or HCS-40P with 40A SAE J1772 connector and 25' length of cable: 6.1kg (13.5 lbs)
	HCS-20R, HCS-30R, or HCS-40R with 32A SAE J1772 connector and 25' length of cable: 6.1kg (13.5 lbs)
	HCS-50 or HCS-50P with 40A SAE J1772 connector and 25' length of cable: 6.3kg (14 lbs)
	HCS-60 with 48A SAE J1772 connector and 25' length of cable: 9.0 kg (21 lbs)
	HCS-60R with 48A SAE J1772 connector and 25' length of cable: 8.1 kg (17.8 lbs)
	HCS-80 with 64A SAE J1772 connector and 25' length of cable: 9.0 kg (21 lbs)
	HCS-80R with 64A SAE J1772 connector and 25' length of cable: 8.1 kg (17.8 lbs)
Environment:	Operating Temperature: -22°F to +122°F (-30°C to +50°C) Storage Temperature: -40°F to +176°F (-40°C to +80°C) Enclosure Rating: NEMA 4 - watertight
Agency Approvals:	ETL Listed, FCC Part 15 Class B

WARRANTY INFORMATION FOR STANDARD HCS MODELS

LIMITED WARRANTY
ELECTRIC VEHICLE SUPPLY EQUIPMENT and ACCESSORIES

ClipperCreek, Inc.
11850 Kemper Road
Auburn, California 95603
Phone: (877) 694-4194
Email: information@clippercreek.net

ClipperCreek shall provide the following warranty with respect to the Products to Representative, its Sub-Representatives and their customers:

Product 3-year parts, 3-year factory labor:
ClipperCreek, Inc. warrants this product to be free from defects in material and workmanship. The warranty period shall commence on the date of installation date (first use). The product installation date must be evidenced and communicated to ClipperCreek by way of the warranty registration card (or its equivalent). The warranty registration card must be filled out completely and accurately, and returned to ClipperCreek within 30 days after installation, and the product installation date shall be within 6 months after the purchase date. If a Product installation date is not communicated to ClipperCreek as described above, the product purchase date shall serve as the warranty commencement date.

If this product is defective in materials or workmanship during the warranty period, ClipperCreek 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 cover service or parts to repair damage due to improper installation or use, including but not limited to improper connections with peripherals, external electrical faults, accident, disaster, misuse, abuse or modifications to the product not approved in writing by ClipperCreek. Any service repair outside the scope of this limited warranty shall be at applicable rates and terms then in effect. This warranty covers factory parts and factory labor only; it does not cover field service or removal and replacement of the product or any other costs.

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, your sole and exclusive remedy shall be repair or replace as provided above. In no event will ClipperCreek, any of its authorized sales and service representatives, or its parent company be liable to 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 or an authorized ClipperCreek 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.

To obtain warranty service:
Call your nearest authorized Service Representative or ClipperCreek at the above number. You will receive information as to how service for the product will be provided. If you mail or ship the product in for service, you must insure the product, prepay all shipping charges, and properly pack it for shipment in its original shipping container or its equivalent. You are responsible for all loss or damage that may occur in transit. You must provide proof of purchase of the product and the purchase date before any warranty service can be performed.

WARRANTY INFORMATION FOR RUGGEDIZED HCS MODELS

LIMITED WARRANTY
RUGGEDIZED ELECTRIC VEHICLE SUPPLY EQUIPMENT

ClipperCreek, Inc.
11850 Kemper Road
Auburn, California 95603
Phone: (877) 694-4194
Email: information@clippercreek.net

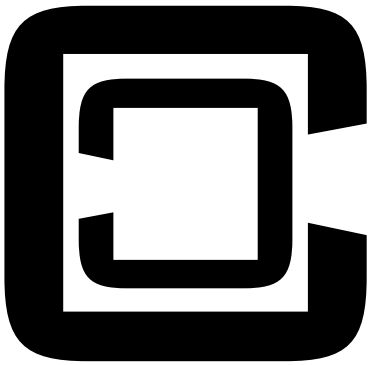
ClipperCreek shall provide the following warranty with respect to the Products to Representative, its Sub-Representatives and their customers:

Product 5-year parts, 5-year factory labor:
ClipperCreek, Inc. warrants this product to be free from defects in material and workmanship. The warranty period shall commence on the date of installation date (first use). The product installation date must be evidenced and communicated to ClipperCreek by way of the warranty registration card (or its equivalent). The warranty registration card must be filled out completely and accurately, and returned to ClipperCreek within 30 days after installation, and the product installation date shall be within 6 months after the purchase date. If a Product installation date is not communicated to ClipperCreek as described above, the product purchase date shall serve as the warranty commencement date.

If this product is defective in materials or workmanship during the warranty period, ClipperCreek 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 cover service or parts to repair damage due to improper installation or use, including but not limited to improper connections with peripherals, external electrical faults, accident, disaster, misuse, abuse or modifications to the product not approved in writing by ClipperCreek. Any service repair outside the scope of this limited warranty shall be at applicable rates and terms then in effect. This warranty covers factory parts and factory labor only; it does not cover field service or removal and replacement of the product or any other costs.

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, any of its authorized sales and service representatives, or its parent company be liable to 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 or an authorized ClipperCreek 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.

To obtain warranty service:
Call your nearest authorized Service Representative or ClipperCreek at the above number. You will receive information as to how service for the product will be provided. If you mail or ship the product in for service, you must insure the product, prepay all shipping charges, and properly pack it for shipment in its original shipping container or its equivalent. You are responsible for all loss or damage that may occur in transit. You must provide proof of purchase of the product and the purchase date before any warranty service can be performed.



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