



SUN COUNTRY
HIGHWAY

GREENING THE WORLD'S HIGHWAYS

User's Manual

EV40



PLEASE NOTE

This user's manual includes the latest information at the time of printing. Sun Country Highway, 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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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.

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



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

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



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

Instructions Pertaining to Risk of Fire or Electric Shock

When using the EV40, basic electrical safety precautions should be followed:

- Use this charge station to charge electric vehicles equipped with a *SAE-J1772™ 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 *SAE-J1772™ charge* 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 station or the *SAE-J1772™ charge* cable are physically open, cracked, frayed or otherwise 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.

- Not for use in commercial garages where a COMMERCIAL GARAGE is defined as a facility (or portion thereof) used for repair of internal combustion vehicles in which the areaway be classified due to flammable vapours 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 a charge station that is in use.

Instructions concernant des risques d' incendie ou de choc électrique

Lorsque vous utilisation de la EV40, précautions fondamentale sécurité électrique doivent être suivies:

- Utilisez cette station de charge 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 du, ou autrement endommagé ou de subir la 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 charge si elles sont physiquement ouverte, fissuré, effiloché, ou autrement visiblement endommagé . Contactez votre représentant de 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 présent (comme l'essence)
- Ne posez pas vos doigts dans de 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 charge qui est en cours d'utilisation .

ADDITIONAL SAFETY INFORMATION



Warning: Turn off input power to your charge station at the circuit breaker panel before servicing or cleaning the unit.

Attention: Couper l'alimentation d'entrée à votre station de recharge sur la panneau de disjoncteurs avant de nettoyer ou de réparer l'appareil.

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.

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.

Note Vehicles which conform to the *SAE J1772™* standard for communication with the charging station can inform the charge station that they require an exhaust fan. The EV40 Charger is not equipped to control ventilation fans. Do not charge the vehicle with the EV40 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 EV40 n'est pas équipé pour contrôler les ventilateurs. Ne chargez pas le véhicule avec le EV40 si la ventilation est nécessaire.



Caution: DO NOT charge your vehicle indoors if it requires ventilation. Contact your 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.

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 Sun Country Highway 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 could void FCC compliance.

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

OPERATION

The EV40 Electric Vehicle Charging station is a compact wall or pedestal-mounted 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. Both hardwired (EV40) and NEMA plugin equipped (EV40P) versions are available.

The EV40 is very easy to use Just unwrap the SAE J1772™ charge cable and plug the charge coupler 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 EV40 will turn on and the charge cycle will begin. After an average driving day the vehicle battery will require a few hours to recharge completely. Charging overnight is the most convenient way to maintain healthy batteries and ensure you vehicle's full range will be available for the next day.

When the vehicle has stopped charging, the green 'Charging' light on the EV40 will turn off. To remove the charge coupler once the charge cycle has competed (or to interrupt a charge in progress) press and hold down the latch release lever on the charge coupler handle then un-plug the charge coupler from the vehicle charge port.

THE EV40 FRONT PANEL

The front panel on the EV40 has four indicator lights:

Figure 1. The EV40 Front Panel

POWER: (yellow) indicates that power is available to the EV40.

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 EV40 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 EV40 is unable to communicate with the vehicle correctly, or a safety fault condition has been detected by the unit.



Table 1. Front Panel LED Information

Amber Power LED	Green Charging LED	Red Power Fault LED	Red Charging Fault LED	Fault Condition
off	off	off	off	No power to EVSE. Check circuit breaker
ON	off	off	off	Not plugged into EV or EV is not ready to charge
ON	ON	off	off	Charging enabled, power is applied to the vehicle
ON	off	ON - not blinking	off	Improper grounding or ground is not present
ON	off	off	ON - not blinking	Problem with EV communications. Disconnect and restart.
ON	off	off	Blinking	EV ground fault trip. Check vehicle connection.
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 over-current protection in accordance with the National Electrical Code. ANSI/NFPA 70 (US) or the Canadian Electric Code: C22.3 NO. 280-13 (Canada)

Attention: Pour réduire les risques 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: C22.3 NO. 280-13 (Canada)

EV40 Model HCE Modele	Circuit Breaker Rating Calibre de Disjoncteur	Receptacle Type Prise Electrique
EV40 (Hardwired)	40A	n/a
EV40P (NEMA 14-50 plug)	50A	NEMA 14-50R



Caution: This is a single-phase device. Do not connect all 3

phases of a 3-phase feed !!! You may use any two phases of a 3- phase wye-connected feed. The center-point of the 3 phases (usually used as Neutral) must be grounded somewhere in the system. A Neutral connection is not required by the EV40 Charger. Only Line 1, Line 2, and Ground are required, as shown in Fig 3.

Attention: Il s'agit d'un appareil monophasé. Ne pas relier tous les 3 phases d'un alimentation triphasée! 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 le EV40. Seulement ligne 1, ligne 2, et Mise a la Terre sont nécessaires, comme le montre la Figure 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 mesure chaque 120V à Neutre. Mise a la terre doit être connecté à Neutre en un seul point, généralement à l'entrée panneau de disjoncteurs de service.



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 either side of the center-tapped leg can be used. See Fig. 4 below.

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



Caution: Warranty is void if this unit is wired improperly

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



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 conformité à tous les codes électriques locaux et des ordonnances.

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 below 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 EV40 Charger. 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 EV40 Charger. 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.

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

Figure 2. 220/240V Single Phase

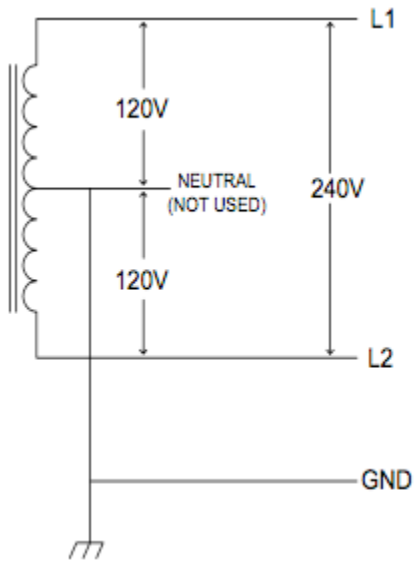
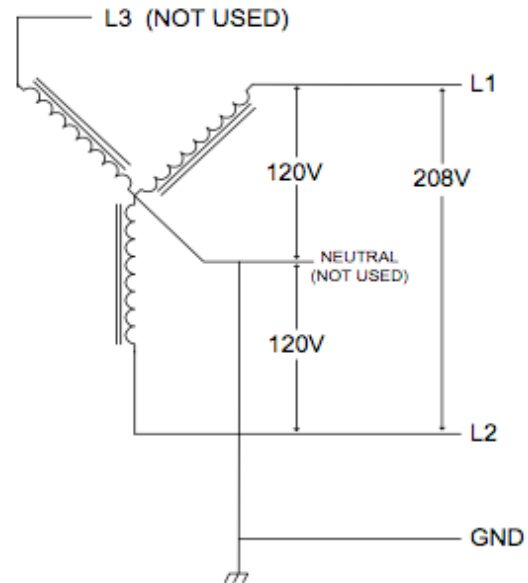


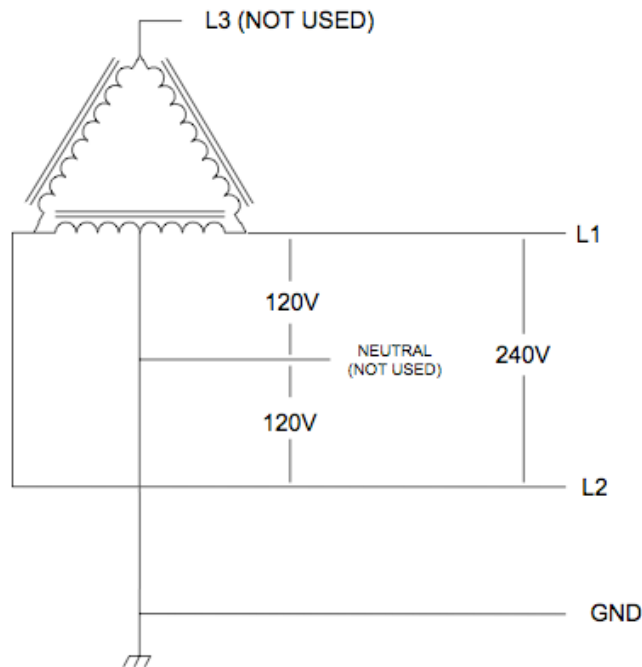
Figure 3. 208V 3-Phase, Wye-Connected



Note: With a wye-connected secondary, any two of the legs can be used to provide 208V to the EV40 Charger. 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 jambes lignes peut être utilisé pour fournir 208V à la EV40. Par exemple, L1 & L2, ou L1 & L3, L2 & L3. Laisser la borne inutilisée ouverte. Ne le connectez pas à un bar Neutre, ou à la terre. Assurez-vous que le point central est mis à la terre quelque part dans le système.

Figure 4. 240V 3-Phase, Delta-Connected, with center-tap on one leg.



Caution: With the delta connection, one leg *must* be center-tapped, and *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 en triangle, une borne doit être centre-tapped, et seulement les deux phases d’un côté ou de l’autre de centre tap peut être utilisée. Les deux phases doivent mesurer 120V à Neutre. La troisième ligne (L3) du delta est 208V, 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 de bome unique peut fournir la puissance requise.



Caution: A 3-phase delta-connected transformer secondary without a center-tap on one leg *cannot be used with the EV40*. No “neutral” point is available to be connected to ground for ground-fault protection. The EV40 Charger 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 EV40*. Aucun point "neutre" est disponible pour être Mise à la terre pour protection de défaut à la terre. Le EV40 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.

MOUNTING PROCEDURES

Locate the wall mounting position of the EVSE:

- On the hardwired EV40 the three service conductors are shielded by three feet for flexible conduit. The EV40 must be positioned such that the conduit can reach a nearby service panel or junction box
- On the plug-in EV40P, the NEMA plug head is connected by one foot of cable to the bottom side of the EV40P. The charger must be positioned such that the plug can safely be inserted into a wall mounted NEMA socket.
- The plug-in EV40P is intended for indoor use only. Currently the NEMA 14-50 and 6-50 plugs, and receptacles are not outdoor rated.
- Position the bottom of the charge station at a comfortable height and at least 18 inches above the ground. Ensure that the LEDs on the front panel of the EV40 can clearly be seen by anyone who will be operating the device.
- The EV40 has two vertically aligned mounting holes spaced 17” apart, one each on the enclosure top and bottom. Use a ruler or template to mark hole locations on the mounting surface.



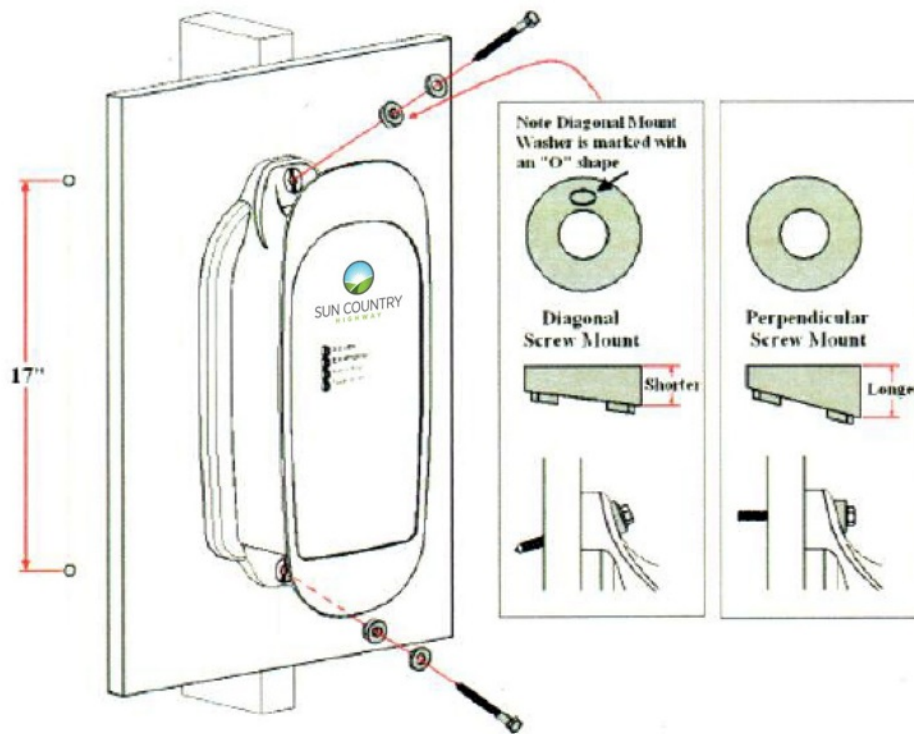
Warning: For safety, always turn off input power to the charge station at the circuit breaker panel prior to plugging it in or wiring it to the service lines. Like-wise, turn off the circuit breaker prior to unplugging it or disconnecting the unit from the service lines.

Attention: Pour sécurité, toujours désactiver le courant d'entrée de la station de recharge au niveau de disjoncteurs de panneau avant de brancher ou de câblage à les lignes de services. Comme sage, éteindre le disjoncteur avant de le débrancher ou déconnecter l'unité à partir des lignes de services.

For Hollow-Wall Construction

- Place the unit such that both mounting holes can take advantage of solid structural framing of the outside wall or a strong wall surface, such as plywood.
- Size 1/4-20 lag screws are recommended for mounting the EV40 to a wooden structure. Pre-drill approximately sized pilot holes to allow the lag screws 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 the screw head is smaller than the 3/8" 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 a drywall without a solid backing) it will be necessary to use proper anchoring hardware such as drywall toggles or molly bolts.

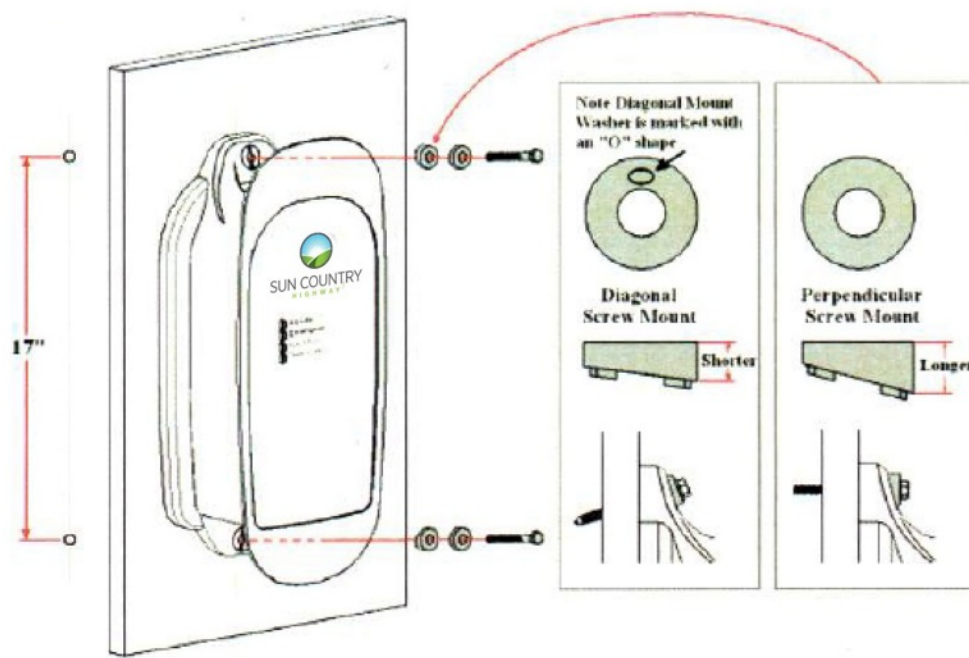
Figure 5. Mounting the EV40 to a hollow wall



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 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.
- If the head of the mounting hardware is smaller than the 3/8” plastic angle washer aperture, an additional flat washer will need to be placed between the plastic angle washer and the head of the mounting hardware.
- Machine screws size 1/4-20 hardware is recommended for mounting the EV40. Screw shafts of at least 2” are recommended. The EV40 plastic angle washer hole size is 3/8” in diameter, so ensure that the screw heads are of a larger diameter. Place appropriately sized washers between the screw heads and the EV40 enclosure mounting flanges.

Figure 6. Mounting the EV40 to a solid wall

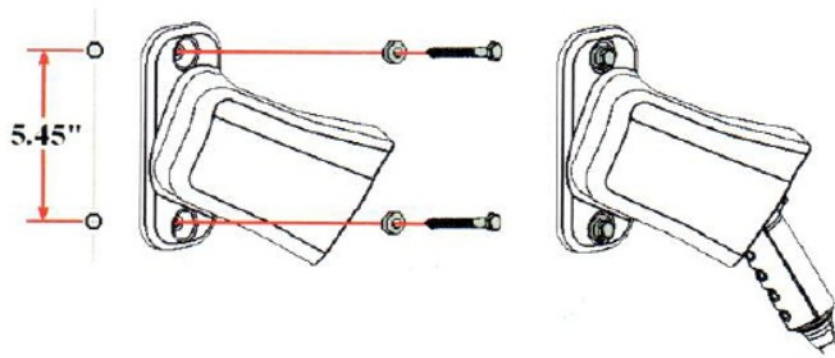


Mounting the SAE J1772™ Connector Holster

The SAE J1772™ connector holster is an available option 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 and 48 inches above the ground or grade.
- For outdoor installation, mount the SAE J1772™ connector holster between 24 and 48 inches above the ground or grade.
- The SAE J1772™ connector holster has two vertically aligned mounting holes spaced 5.45" apart, one each on the enclosure top and bottom. Use a ruler or template to mark the hole locations on the mounting surface.
- The vertical alignment of the EV40 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 EV40.
- Place the SAE J1772™ connector holster such that both mounting holes take advantage of solid structural framing inside the wall or a strong wall surface such as plywood.
- A set of exterior wood screws and stainless steel washers are included for the purpose 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.

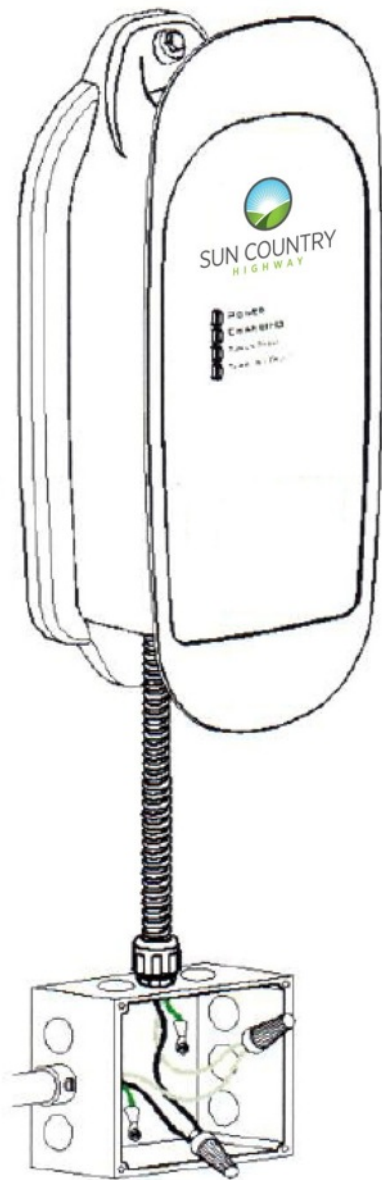
Figure 7. Mounting the holster using the exterior wood screws and washers



WIRING INSTRUCTIONS (Hardwired)

Route the EV40 conduit to a nearby service panel or junction box. Use the included 1/2" trade sized watertight fitting and sealing washer to provide a moisture-resistant seal with the service panel or junction box. If necessary, drill a 7/8" diameter hole to accommodate the liquid tight fitting.

Figure 8. Wiring the EV40 in a junction box



Note: Before connecting the EV40 service conductors, please carefully read the section of the manual titled 'Service Connections' on page 6. If you are unsure of the type of power provided at the service panel, please consult with you local utility or call your service representative for assistance.

Note: The three EV40 service conductors use standard 10AWG, 75°C copper wire. The insulation of each conductor is colour coded for standard 240VAC installation.

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

Les trois conducteurs service la EV40 utilisent multibrins 10AWG, 75°C fil de cuivre. L'isolation de chaque conducteur est un codé couleur pour une installation standard de 240VAC:

Vert: Mise a la Terre
 Noir: Ligne 1 (120 VAC à Mise à la terre)
 Rouge: Ligne 2 (120VAC à Mise à la terre)

GROUNDING INSTRUCTIONS

The product must be grounded. If this product should malfunction or break down, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock.

For the hardwired EV40:

The hardwired EV40 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.

For the Plug-in EV40P

The plug-in EV40P is equipped with a cord having an equipment grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet 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 in the outlet, have a proper outlet installed.

Attention: 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.

MOVING AND STORING

Note that both the hardwired EV40 and the plug-in EV40P are intended for fixed installations. For mounting requirements, consult 'Mounting Procedures' section of the 'Installation Instructions' in the manual.

Always turn off input power to the charge station at the circuit breaker panel prior to hardwiring an EV40, or to disconnect an EV40 from the service lines. Likewise, always turn off the input power to the charge station at the circuit breaker panel before plugging in or unplugging a EV40P from a NEMA socket.

When transporting the charge station, do not lift or carry the entire unit by the SAE J1772™ charge cord. Likewise, do not lift or carry the entire unit by the flexible conduit and input connectors (EV40) or the NEMA plug (EV40P)

The Charge station has a non-operational storage temperature of -40°C to +80°C (-40°F to +176°F)

MAINTENANCE

The EV40 Charger requires no periodic maintenance other than occasional cleaning.



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

1. Turn off your charge station at the circuit breaker before cleaning.
2. Clean your charge station 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. Nettoyez votre équipement à l'aide d'un chiffon doux légèrement humidifié avec une solution de détergent doux. Ne jamais utiliser de tampon abrasif, de poudre à récurer ou de solvants inflammables tels que l'alcool ou le benzène.

CUSTOMER SUPPORT

Call your Service Representative at any time, 24 hours a day, at the number below. **PLEASE HAVE THE MODEL NUMBER AND SERIAL NUMBER AVAILABLE WHEN YOU CALL.** These can be found on the side of the enclosure. If your call is made after business hours or on weekends, please leave your name, telephone number, the unit's serial number, and a brief description of the problem. A Service Representative will call back at the earliest opportunity.

Please visit Sun Country Highway's Website @ www.suncountryhighway.ca

SPECIFICATIONS

Line Input Power - Service Entrance

Voltage & Wiring	240V AC single-phase - L1, L2, and Safety Ground
	208V AC 3-phase, wye-connected - Any 2 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”).
Service Conductors	EV40 and EV40P L1, L2, and Safety Ground use 8AWG, 75°C copper wire.
Voltage Range	185V AC to 264V AC
Frequency	60 Hz

Current & Output Power (at 240VAC)

EV40 Model	Circuit Breaker	Maximum Current	Output Power
EV40 Hardwired	40A	30A	7.2KW
EV40P 14-50 plug	50A	30A	7.2KW

Not that the maximum current for the vehicle is set by the duty cycle of the Pilot waveform.

Output power is variable depending on the EV40 model and vehicle demand.

Plugs Attached NEMA 14-50P plugs is available on the EV40P

Dimensions

Height	500 mm (19.7 in)
Width	225 mm (8.9 in)
Depth	135 mm (5.3 in)

Weight 6.0kg (13lbs)

Cable Length 25 feet

Environment

Operating Temperatures: -30°C to +50°C (-22°F to +122°F)
 Storage Temperatures: -40°C to +80°C (-40°F to +176°F)
 Enclosure Rating: NEMA 4 - watertight

Agency Approvals ETL listed, FCC Part Class B

WARRANTY INFORMATION

LIMITED WARRANTY – ELECTRIC VEHICLE SUPPLY EQUIPMENT

MODEL: EV40

Sun Country Highway Ltd.
306 Saskatchewan Crescent
Saskatoon, SK S7N 0K6
1 866 467-1371

Sun Country Highway 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,

Sun Country Highway, Inc. warrants this product to be free from defects in material and workmanship. The warrantee period shall commence on the date of installation date (first use). The product installation date must be evidenced and communicated to Sun Country Highway by way of the warrantee registration card (or its equivalent). The warrantee registration card must be filled out completely and accurately, and returned to Sun Country Highway 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 Sun Country Highway 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, Sun Country Highway will, at its option, repair or replace the product. Repair parts and /or replacement products may be either new or reconditioned at Sun Country Highway'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 Sun Country Highway. Any service repair outside the scope of this limited warranty shall be at applicable rates and terms then in effect. The warranty covers factory parts and labour 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 Sun Country Highway, 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 Sun Country Highway or an authorized Sun Country Highway 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 Sun Country Highway 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. 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 Sun Country Highway or an authorized Sun Country Highway 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.



SUN COUNTRY
H I G H W A Y

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306 Saskatchewan Crescent
Saskatoon, SK S7N 0K6
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info@suncountryhighway.ca