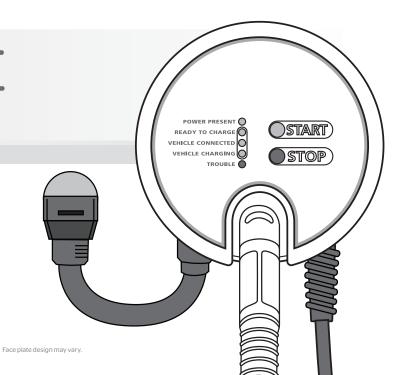
$NOTICE\ TO\ ELECTRICIAN: Leave\ this\ User\ Guide\ with\ the\ EVSE-RS\ customer\ for\ future\ reference.$ Model EVSE-RS\ Plug-in\ not\ for\ outdoor\ installation

USER GUIDE

Charging Station Model EVSE-RS Plug-in



© 2012 AeroVironment, Inc. All rights reserved.

AeroVironment, EVSE-RS, EV Solutions, and the AeroVironment logo are trademarks of AeroVironment, Inc.

Corporate names, trademarks, registered trademarks, service marks, symbols, and logos stated herein are property of their respective companies.

Specifications are subject to change without notice. Images of the Charging Station Model EVSE-RS Plug-in are representative; production models may vary.

No portion of these materials may be duplicated, used or disclosed without prior written permission from AeroVironment, Inc.

Disclaimer: This user guide includes the latest information available at the time of printing. AeroVironment, Inc. reserves the right to make changes to this user guide and/or product without further notice. Changes or modifications to this product not completed by an authorized service provider could void the product warranty.

CORPORATE HEADQUARTERS

Aero Vironment, Inc.

EV Solutions™

181 W. Huntington Drive, Suite 202 Monrovia, CA 91016

Phone: 626-357-9983 or 888-833-2148

Fax: 626-359-9628

Email: ev@avinc.com

Website: www.evsolutions.com

OWNER'S RECORD

MODEL:

EVSE-RS Plug-in

SERIAL NUMBER (S/N):

On label on underside of **Charging Station** enclosure/housing

PURCHASE DATE:

CUSTOMER SUPPORT

Before contacting Customer Support, write down the Serial Number of the Charging Station. As you stand facing the Charging Station, look for the Serial Number on the left underside of the enclosure.

Customer Support Phone: 1-888-833-2148

 $Customer\,Support\,email:\,evscs@avinc.com$

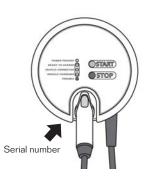


TABLE OF CONTENTS

GETTINGSTARTED	1
Introduction	2
Electric vehicle compatibility	3
Features	3
Important safety instructions	4
Symbol Usage	5
High Voltage Warning	6
FCC Information	10
Safety Features	11
OPERATION	15
Overview	16
Key Features	17
Charging your vehicle	18
Check indicator lights	18
Disengage the connector	19
Connect to vehicle	20
Automatic charge starts	21

Charge complete	2
Interrupt a charging cycle	
Remove and return connector to Charging Station	2
Auto-restart	2
Power Outage Recovery	2
Care and Maintenance	2
rime of Use Metering	2
TROUBLESHOOTING	2
NSTALLATION	3
APPENDIX	4
SPECIFICATIONS	4
NARRANTY	4
NDEX	4

CHAPTER 1

GETTING STARTED

INTRODUCTION

Thank you for purchasing the AeroVironment Charging Station Model EVSE-RS Plug-in for use with your plug-in electric vehicle. This user guide shows how to use the Charging Station. Installation instructions in separate document.

AeroVironment recommends that your Charging Station be installed by a licensed, qualified electrician. To avoid serious injury or death, installation must be in accordance with the manufacturer's installation instructions and must comply with the provisions of the National Electric Code (NEC) and all local codes for U.S. or must comply with Canadian Electric Code for Canada. In cases of conflict between local codes and the NEC, local codes shall take precedence.

This unit is for indoor use ONLY. It is recommended that the unit be wall mounted.



ELECTRIC VEHICLE COMPATIBILITY

The charging station is designed to charge SAE J1772[™] compliant plug-in vehicles. SAE J1772 is an electric vehicles charging standard that has been developed by the Society of Automotive Engineers.

The Charging Station requires either a 240 VAC split phase and neutral grounded circuit or a 208 VAC 2 phases and neutral grounded circuit. This circuit must be routed directly from the power distribution panel to the Charging Station location.

FEATURES

- SAE J1772 Compliant
- Auto-restart in event of power outage or ground fault
- Integrated cable stowage with cable hanger
- Underwriters Laboratory (UL) and cUL listed and CSA compliant
- Breakaway safety cable
- Quick read status indicators
- Missing ground detection

IMPORTANT SAFETY INSTRUCTIONS

Please read these important safety instructions and the charging instructions in your vehicle owner's manual before charging your electric vehicle. Failure to do so can result in death or serious injury. Save this user guide for future reference.

There are many safety features built into the Charging Station. Read all the safety information and warnings in this guide to be aware of any hazards and risks associated with installing and using the Charging Station.

NOTE any missing parts and contact AeroVironment Customer Support for assistance with obtaining replacement parts.



DANGER



WARNING



NOTE



SYMBOL USAGE

Take special note of all information marked with the following symbols:

DANGER indicates information about safety practices which, if not followed, may result in serious injury or death.

WARNING indicates information about safety practices which, if not followed, could result in personal injury or are necessary to prevent fire or equipment overheating.

NOTE indicates helpful information for installation or usage, but does not contain personal injury or equipment safety related information.

These symbols may also be found on labels affixed to your Charging Station.

G

HIGH VOLTAGE WARNING

AeroVironment recommends that your Charging Station be installed by a licensed, qualified electrician. To avoid serious injury or death, installation must be in accordance with the manufacturer's installation instructions and must comply with the provisions of the National Electric Code (NEC) and all local codes for the U.S. or must comply with Canadian Electric Code for Canada. In cases of conflict between local codes and the NEC, local codes shall take precedence.

Turn off power at the circuit panel before plugging or unplugging the Charging Station.

Verify that the Power Cord Plug is completely inserted into the receptacle. There is a potential shock hazard if Plug only partially inserted into the receptacle.

To clean the Charging Station, wipe the Charging Station with a clean cloth dampened with water or a mild detergent solution suitable for use on automobile paint. Turn off power at the circuit panel before cleaning. Do not use chemicals or solvents. Do not submerge the Charging Station.





DANGER



DANGER



Do not operate your Charging Station with a visibly damaged output cable or module housing. Visually inspect the output cable (including the connector) and module housing for damage before each use. If you detect any damage, stop using the Charging Station and contact Customer Support for service.

If, at any time, you think the equipment is unsafe, shut off the electricity at the circuit breaker or disconnect switch (if applicable) and immediately contact Customer Support for service. DO NOT use your Charging Station until the problem is identified and corrected.

CAUTION: To reduce the risk of electric shock, connect only to properly grounded outlets. ALWAYS position the Charging Station output cable so that it will not be driven over, stepped on, tripped over, or otherwise damaged or stressed while in use. To prevent personal injury and damage to the Charging Station and cable, ALWAYS stow the output cable after use. STRANGULATION HAZARD. Small children could become entangled in the output cable and be strangled. Keep small children away from the Charging Station, and ALWAYS stow the output cable after use. Children should be supervised when in the vicinity of the EVSE.





WARNING



WARNING



WARNING



WARNING !

Use this Charging Station to supply power to Electric Vehicles equipped with a compatible vehicle receptacle only. For more information, see the vehicle owner's manual.

For U.S. Installation: State of California Proposition 65 Warnings:

- This product contains a chemical known to the State of California to cause cancer.
- This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

FCC INFORMATION

For U.S. installation: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions. This Class B digital apparatus complies with Canadian ICES-003:

- 1. This device may not cause harmful interference.
- 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 (i.e. digital phones, RF communications equipment, etc) could affect operation.

If you suspect your Charging Station is receiving interference, take the following steps before contacting Customer Support for service:

- 1. Relocate nearby electrical appliances or equipment during charging.
- 2. Turn off nearby electrical appliances or equipment during charging.

Important! Changes or modifications to this product by anyone other than an authorized service provider will void FCC compliance.

SAFETY FEATURES

The Charging Station is designed with your safety as the highest priority and includes the following convenient safety features to protect against the risk of electric shock:

- The Charging Station constantly checks for the presence of a service ground connection. If the service ground ever fails, the Charging Station TROUBLE light turns ON and shuts power OFF to the vehicle.
- The Charging Station is equipped with a Ground Fault Circuit Interruption (GFCI)
 reaction system to protect against electric shock. If the module detects an output
 ground fault, it will shut off power to the output cable and illuminate the TROUBLE light.
- The Charging Station connector and EV receptacle are designed to minimize unintentional disconnection and to prevent exposing the user to live power if an unintentional disconnection occurs.

- Always place the vehicle in Park and Turn Off the vehicle prior to plugging in.
- When the Charging Station connector is properly connected to the vehicle receptacle, the vehicle drive system is disabled. The output cable has a safety break-away feature in case the vehicle is moved or unintentionally rolls away from the parking location with the cable connected to the vehicle. The safety break-away feature will allow output cable separation from the Charging Station if the output cable is yanked or pulled with excessive force.
- The Charging Station cable should be coiled up on the hanger when not in use to minimize potential cable damage and to eliminate the possibility of tripping over the cable.

If the cable becomes separated from the Charging Station. DO NOT attempt to repair or service the Charging Station and cable assembly yourself. There are no user serviceable components inside. Contact Customer Support for service.



NOTE |

Only a service technician authorized by AeroVironment can perform repair or service on the Charging Station or the Charging Station Warranty may be invalidated. Contact Customer Support for service.

CHAPTER 2

OPERATION

OVFRVIFW

All the lights on the front panel are green when they turn on except the TROUBLE light which is red.

POWER PRESENT

Light turns on when power from your local utility is at the Charging Station. This light should always be ON if the circuit breaker is ON. (Disconnect switch may be required by local permitting authority but may not always be present.)

VEHICLE CONNECTED

This light turns on when the Charging Station is communicating with your vehicle and the connection was made properly.

TROUBLE

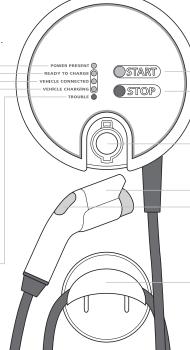
This light turns on when Charging Station has detected a problem and requires you to take action. See the Troubleshooting chapter on page 29.

READY TO CHARGE

This light turns on when the Charging Station is ready to be connected to your vehicle.

VEHICLE CHARGING

This light turns on when power from the utility company is being provided to your vehicle. The light may stay on solid in the early stage of the charging cycle (if vehicle battery is low), then blinks later in the charging cycle, then finally goes out when charging is complete.



STOP (PAUSE)

Interrupts the charging cycle at any time. If vehicle is connected to the Charging Station, press START to resume charging.

CONNECTOR

Communicates between Charging Station and vehicle and delivers power to vehicle.

CABLE HANGER

When cable is not being used, coil the cable over the cable hanger.

START (RESUME)

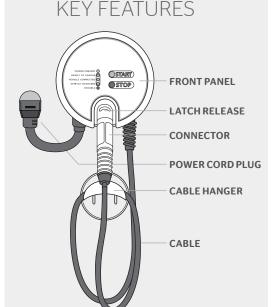
To resume charging after the STOP button was pressed. Also, to override a random time delay after a utility power outage.

STORAGE

Connector inserts into Charging Station here and stays in place for storage when not in use.

LATCH RELEASE

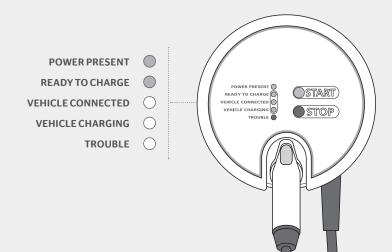
Press to release connector. Then remove connector from Charging Station. Also, when connector is plugged into vehicle, press latch release to stop power flowing to vehicle. Then, remove connector from vehicle. The connector will not disengage unless you depress the latch.



CHARGING YOUR VFHICLE

1. CHECK INDICATOR LIGHTS

First, make sure the POWER PRESENT and READY TO CHARGE lights are ON as shown below. This means that the Charging Station is ready to charge your vehicle.



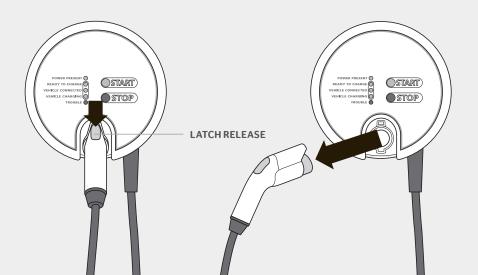


NOTE

If the POWER PRESENT and READY TO CHARGE lights are not ON, please see the Troubleshooting chapter for possible solutions on page 29.

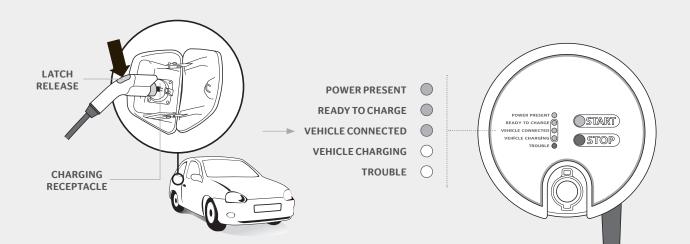
2. DISENGAGE THE CONNECTOR

Press the latch release and remove the connector from the Charging Station.



3. CONNECT TO VEHICLE

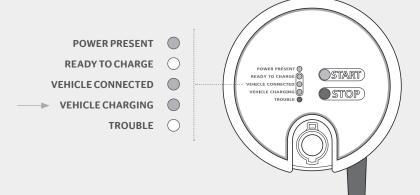
Plug the connector into your vehicle's charging receptacle. The latch release will click to indicate proper connection. The connector should not disconnect without pressing the latch release. The VEHICLE CONNECTED light turns ON when a proper connection is made.



4. AUTOMATIC CHARGE STARTS

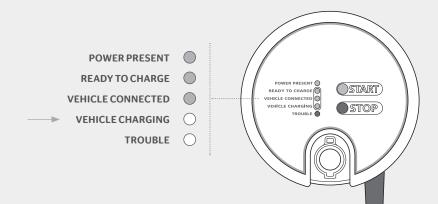
The vehicle will either start charging immediately or at a later time if the driver has set a vehicle charging timer for scheduled charging.

- POWER PRESENT, VEHICLE CONNECTED, and the VEHICLE CHARGING lights stay on when charging.
- VEHICLE CHARGING light blinks when the vehicle is approaching the end of the charging cycle.
- VEHICLE CHARGING light goes out when vehicle is finished charging.



5. CHARGE COMPLETE

When the vehicle has completed charging, the VEHICLE CHARGING light turns OFF, the POWER PRESENT, READY TO CHARGE, and VEHICLE CONNECTED lights turn ON as shown below.



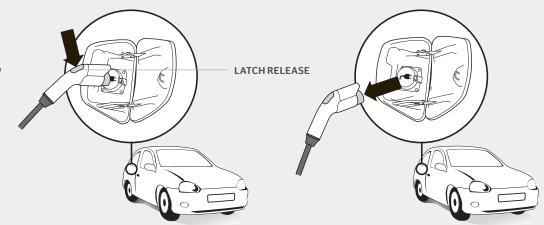
6. INTERRUPT A CHARGE CYCLE

You can interrupt charging at any time using one of the two following methods:

- If you want to temporarily stop charging and restart later without having to remove the coupler, then the buttons are the preferred method (METHOD 1)
- If you are going the interrupt the charge cycle in order to drive your car, the preferred method is to disconnect the coupler (METHOD 2)

METHOD 1 (Preferred)

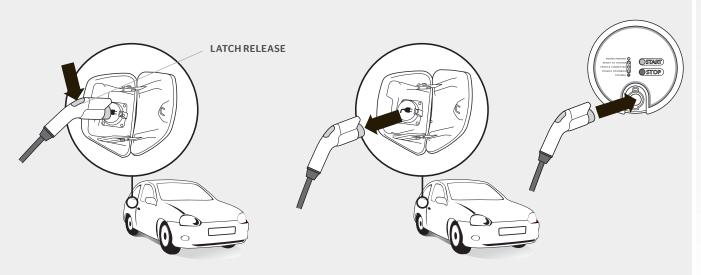
Press the latch release on the connector to stop the flow of electricity and remove from the vehicle as shown below.



METHOD 2 Press the STOP button to pause charging. Press the START button to resume charging. STOP (PAUSE) **START** (RESUME) OSTART) READY TO CHARGE **POWER PRESENT** VEHICLE CHARGING STOP TROUBLE READY TO CHARGE BLINKING **VEHICLE CONNECTED** OFF -**VEHICLE CHARGING TROUBLE**

7. REMOVE AND RETURN CONNECTOR TO CHARGING STATION

When the charge cycle is complete, press the latch release and remove the connector from the vehicle. Return the connector to the Charging Station.

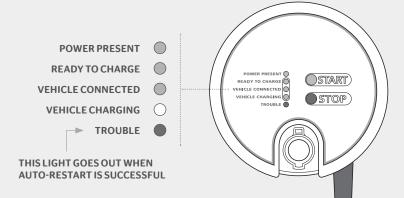


AUTO-RESTART

Auto-Restart feature helps ensure that your vehicle will be charged and ready for use when needed. If a charge is interrupted due to a temporary error condition, the Charging Station automatically clears any error codes when the cause of the temporary error condition returns to normal and then attempts to restart the charge. The TROUBLE light remains lit while the cause of the temporary error condition is active or awaiting a time-out delay.

The exception to immediate Auto-Restart is when the interrupt is due to a GFCl event. To allow charging after GFCl events caused by line surges or other disturbances, the

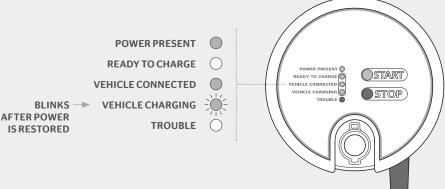
Charging Station will restart 15 minutes after a GFCI event if the event did not occur immediately upon connecting power to the vehicle. The Charging Station is limited to four automatic restarts after a GFCI event during a charge cycle. After the fourth attempt, the Charging Station will shut down and the TROUBLE light will be ON.



POWER OUTAGE RECOVERY

If there is a power outage, the utility grid might experience a large surge from multiple Charging Stations in your area attempting to resume charging simultaneously when power is restored. This would cause additional stress to the utility grid. The "Power Outage Recovery" feature avoids this scenario by resuming charge with an automatic delay after restoration of power. Power Outage Recovery ensures that Charging Station users in your area will resume charging in a staggered fashion to avoid stressing the grid. If a utility power outage occurs while your vehicle is being charged, the charging Station will automatically resume charging once power is returned. The VEHICLE

CHARGING light blinks and charging will re-start automatically after a randomly assigned time ranging from 0 to 20 seconds.



CARE AND MAINTENANCE

To clean the Charging Station module, wipe the Charging Station with a clean cloth dampened with water or a mild detergent solution suitable for use on automobile paint. Do not use chemicals or solvents. Do not submerge the Charging Station.

TIME OF USE METERING

Many electric utilities have been actively promoting the use of EVs and have developed specific utility rates to promote off-peak charging of these vehicles. This allows the utility to charge rates on a 'Time of Use" (TOU) basis, typically providing savings for overnight (off peak) charging and penalties for daytime (on peak) charging. Consult your local electric utility to determine Time of Use availability and cost.

CHAPTER 3

TROUBLESHOOTING

If you experience difficulty with your Charging Station or your vehicle battery does not charge properly, please read this Troubleshooting section for possible solutions before contacting Customer Support for service.

Do not attempt to repair or service the Charging Station yourself. There are no user serviceable parts inside.

Only a service technician authorized by AeroVironment can perform repair or service on the Charging Station or the Charging Station Warranty may be invalidated. Contact Customer Support for service.



NOTE



POWER PRESENT LIGHT DOES NOT TURN ON

- 1. Make sure the AC power cord on the Charging Station is connected to Power Outlet.
- 2. Turn the circuit breaker in your power distribution panel OFF and then back ON.
- 3. If the problem persists, contact Customer Support for service.

READY TO CHARGE, VEHICLE CHARGING, AND TROUBLE LIGHTS DO NOT TURN ON

- 1. Turn the circuit breaker in your power distribution panel OFF and then back ON.
- 2. If the problem persists, contact Customer Support for service.

VEHICLE CONNECTED LIGHT DOES NOT TURN ON WHEN THE CHARGING STATION IS CONNECTED TO THE VEHICLE

- 1. Unplug the Charging Station connector and reinsert it fully into the electric vehicle receptacle. Make sure the connector latch engages in the receptacle and clicks.
- Inspect the Charging Station cable and connector terminals for damage. If damaged, turn off power at the panel and discontinue using immediately and contact Customer Support for service.
- 3. Inspect vehicle receptacle for damage. If damaged, discontinue using immediately and report the problem to your nearest service dealership.

VEHICLE CHARGING LIGHT DOES NOT TURN ON

- 1. If this occurs when the vehicle is connected and is charging, contact Customer Support for service.
- 2. If this occurs when the vehicle is connected but is not charging:
 - » Attempt to charge using the Portable Cord Set that came with the vehicle.
 - » If a charge cycle starts, contact Customer Support for service.
 - » If a charge cycle does not start, report the problem to your nearest vehicle service dealership.

TROUBLE LIGHT IS ON SOLID

The Charging Station is one part of the Electric Vehicle's charging system. A charger on-board the vehicle is the other part. TROUBLE light may be triggered by several sources including the Charging Station, the utility service, the vehicle, or temperature extremes. See Troubleshooting tips below.

The TROUBLE light turns on when the Charging Station detects a problem whether the vehicle is connected or not. With the Trouble light on, the Charging Station will not deliver power to the vehicle. The problem must be corrected before charging starts or resumes. There are two scenarios for a solid TROUBLE light.



- 1. Turn power OFF, then ON at circuit breaker or disconnect switch (if applicable).
- 2. If the fault persists, DO NOT USE the Charging Station. Contact Customer Support for service.

TROUBLE LIGHT BLINKS TWO TIMES AND REPEATS

- 1. Caused by an error having to do with your electric vehicle.
- Turn the circuit breaker and the disconnect switch (if installed) OFF then ON.
- 3. If the fault persists, contact Customer Support for service.

TROUBLE LIGHT BLINKS THREE TIMES AND REPEATS

- 1. Caused by a utility problem.
- 2. Turn the circuit breaker or the disconnect switch (if installed) OFF then ON.
- 3. If the fault persists, report issue to utility company.

TROUBLE LIGHT BLINKS FOUR TIMES AND REPEATS

- 1. Caused by the Charging Station mounted near an external heat source (furnace, water heater, etc.) or in direct sunlight.
- 2. Mount the charging station away from the heat source.
- 3. Provide shade from direct sunlight.
- 4. If the fault persists, contact Customer Support for service.

TROUBLE LIGHT IS RAPIDLY BLINKING

Press STOP.

A. TROUBLE LIGHT GOES OFF

- 1. Press START.
- 2. TROUBLE light OFF Charging Resumes.
- 3. If TROUBLE light turns ON
 - a. Turn power OFF at circuit breaker.
 - b. Disconnect connector from vehicle.
 - c. Contact Customer Support for service.

B. TROUBLE LIGHT STAYS ON

- 1. Turn power OFF at the circuit breaker.
- 2. Disconnect cable from vehicle.
- 3. Contact Customer Support for service.

CHAPTER 4

INSTALLATION

MODEL EVSE-RS PLUG-IN IS NOT FOR OUTDOOR INSTALLATION

Installation guide provided with Charging Station as a separate document.

AeroVironment recommends that your Charging Station be installed by a licensed, qualified electrician. To avoid serious injury or death, installation must be in accordance with the manufacturer's installation instructions and must comply with the provisions of the National Electric Code (NEC) and all local codes for the U.S. or must comply with Canadian Electric Code for Canada.

DANGER DANGER

Charging Station must be installed using:

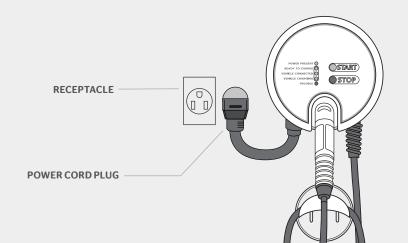
- 1. 40 amp circuit breaker
 - » 40 amp circuit breaker must be installed in the power distribution panel

In order to avoid shock hazard from exposed power conductors, turn off the circuit breaker for the dedicated 6-50 power outlet at the power distribution panel before plugging or un-plugging the charging dock.





Use Charging Station ONLY with a dedicated Receptacle DO NOT tamper with Charging Station power cord DO NOT use an extension cord



CHAPTER 5

APPENDIX

SPECIFICATIONS

Model	EVSE-RS Plug-in
Connector	SAE J1772 compliant
Car Charging Station communication protocol	SAE J1772 compliant
Dimensions	12" H x 12" W x 8" D approximately
Voltage	either 240 VAC split phase and neutral grounded or 208 VAC 2 phases and neutral grounded
Current output power	30 Amp Maximum
Circuit breaker rating	40 Amp. Do NOT use a Class A circuit breaker with the EVSE-RS Plug-in Charging Station
Frequency	50Hz / 60Hz
Power draw at idle	Less than 5 Watts
Weight with 25 ft. cable	19.2 lbs (8.71Kg)
Temperature-Operating	-22°F to +122°F (-30°C to +50°C)
Temperature-Storing & Transporting	-40°F to 140°F (-40°C to +60°C)
Humidity	Up to 90% non-condensing
Environmental rating	Type 3R enclosure, Raintight with mounting plate
Regulatory compliance	UL and cUL listed and CSA compliant. U.S. installs, FCC part 15, subpart B. Canadian installs must comply with the Electric Code for Canada. FCC part 15, subpart B

Specifications are subject to change without notice.

WARRANTY

The AV Home Charging Station Model EVSE-RS Plug-in ("Charging Station") is warranted to the original purchaser to be free of defects in material and workmanship for a period of thirty-six (36) months from the date of shipment. THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY AV WITH RESPECT TO THE CHARGING Station. AV UNDERTAKES NO RESPONSIBILITY FOR THE QUALITY OF THE CHARGING Station EXCEPT AS OTHERWISE PROVIDED IN THE AGREEMENT AND THIS WARRANTY. OTHER THAN EXPRESS AND/OR IMPLIED WARRANTIES REQUIRED BY APPLICABLE LAWS OR WHICH ARE REQUIRED TO EXTEND FOR A LONGER PERIOD, THERE ARE NO WARRANTIES THAT EXTEND BEYOND THIS LIMITED WARRANTY AND ANY REQUIRED WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD.

To the extent permitted by applicable laws: (a) AV's total warranty expense with respect to any Charging Station is limited to a maximum of the original purchase price of that Charging Station as applicable to a warranty claim; (b) AV's liability under this warranty shall be limited to the repair or replacement, at AV's option, of defective Charging Stations or defective component parts; and (c) AV will not be liable for repair, replacement, service call, de-installation or installation costs for Charging Stations not covered by this warranty, which shall be the responsibility of the Buyer. Coverage under the terms of this limited warranty is not transferable to any other party.

This limited warranty does not cover service calls to correct the installation of your Charging Station, instruction to you on how to use your Charging Station, costs associated with de-installing the Charging Station, shipment of the Charging Station to AV for repair or replacement and shipment of the repaired or replaced Charging Station back to your home, or re-installation of the repaired or replaced Charging Station.

This warranty shall be voided by damage or excessive wear to the Charging Station caused by abnormal operating or environmental conditions (including exposure to acid, chemical fumes, metallic dust or extreme temperatures), accident, abuse, damage, misuse, vandalism, unauthorized alteration or repair, utility surges, or if the Charging Station was not installed, operated, serviced or maintained in strict compliance with the Home Charging Station Model EVSE-RS Plug-in User's Manual and other printed instructions provided by AV. No installation services warranty applies under these Terms. Any evidence of an attempt to disassemble or reverse engineer the Charging Station will void this warranty

INDEX

A		G		R		
AeroVironment, Inc	i	ground fault circuit	11	regulatory com	regulatory compliance 44	
appendix	43			repair	12, 13, 30	
auto-restart	26	I				
		installing	6, 39	S		
С				SAE J1772 com	pliant 3, 44	
cable hanger	17	L		serial number	ii	
cleaning	6, 28	latch release 17, 19, 20	latch release 17, 19, 20, 25 specification		44	
connector 11, 12, 17, 19, 44				START / RESU	ME 17	
customer support	ii	M		storage, conne	ctor 17	
		model	ii			
D				T		
document number	ii	N		temperature	44	
		NEMA Type 3R	44	tripping	12	
E				trouble light	11, 16, 34	
electric shock	11	0				
environmental rating	44	owner's record	ii	W		
				warranty	i, 13, 30, 45	
F		Р		weight	44	
features	3, 17	power outage recovery	27			
front panel / cover	16					

NOTES	