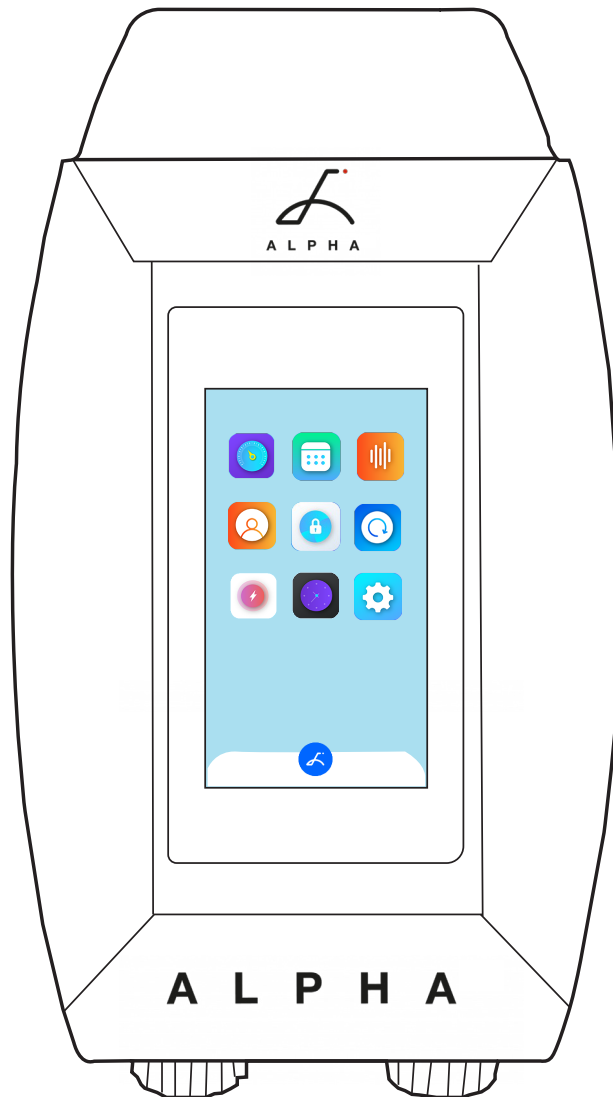




# Alpha<sup>TM</sup>

## Level 2 Multimedia Home EV Charging Station



### Printable PDF User Manual and Installation Guide



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## Introduction

### Alpha Multimedia EV Charging Station

Alpha is the first Interactive Multimedia EV charger in this solar system. The complete solution for your Smart Home.

Alpha features a 7-inch touch screen display for Smart Charging and more. The 25ft (7.62M) output cable is compatible with all J1772 Electric Vehicles. Alpha provides up to 10 KW of power to your vehicle and can be adjusted for 16A-40A Maximum Current Output.

This User Guide contains instructions and warnings that must be followed when installing and using the Alpha Electric Vehicle Supply Equipment (EVSE). Before installing or using the EVSE, read this document including any **WARNING** and **CAUTION** markers.

This document provides instructions for the charging station and should not be used for any other product. Consult with a licensed contractor, licensed electrician, or trained installation expert to ensure compliance with local building codes and safety standards.



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## Product Specifications

Model Number	A1-14-24-P A1-6-24-P
EVSE Level	Level 2
Maximum Output Rating	40Amps
Alternate Adjustable Output Ratings	16A-40A
Charge Cable Length	25ft (7.62m)
Electrical Circuit / Input Power Requirements	Circuit Requirement: Dedicated Single Phase 208-240VAC, 50/60 Hz. Branch Breaker: Double pole. Circuit Conductors: Line 1, Line 2, Earth / Ground.
Input Power Connection	Standard: Plug-in NEMA 6-50 or NEMA 14-50 Plug. Plug is removable for Hardwire Connection.
Installation Rating:	NEMA 3, Indoor Rated.
Operational Ratings: Temperature:	-22°F to 122°F (-30°C to 50°C); Humidity: 95% RH noncondensing
Mounting:	Wall Mounted
Overall Dimensions	EVSE: 10.25 x 6.25 x 3.75 inches (26.0 x 16.0 x 9.3 cm)
Display and Indicators	7-inch touch screen interactive display



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## **Important Safety Instructions**

- Read all the instructions before using this product.
- Before installation or use of this product consult with a licensed electrician to ensure compliance with local building codes and safety standards.
- Children should not use this device.
- Do not put fingers into the EV connector.  
Do not touch live electrical parts.
- Do not use this product if the flexible power cord or EV cable is ragged, has broken insulation, or any other signs of damage.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- Disconnect the power supply to before installing, adjusting, or repairing the charging station.

## **Repair and Maintenance Clause**

- The Alpha EVSE does not require regular maintenance. Inspect the unit periodically to ensure that all parts remain in good working order and no damage exists.
- Do not attempt to disassemble, repair, tamper with, or modify any components inside the device. Contact United Chargers for any repairs.

## **FCC Declaration of Conformity**

This charging station complies with part 15 of the FCC Rules. Changes or modifications the charging station not expressly approved by the manufacturer could void FCC compliance. Operation is subject to the following two conditions:

This charging station may not cause harmful interference. This device must accept any interference received, including interference that may cause undesired operation.



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## Installation

### Service Wiring Requirements

Prior to mounting, consult a certified electrician about an electrical source that can support the following:

The Circuit must be a DEDICATED CIRCUIT 208-240 VAC, 50-60 Hz, Single Phase. Requirements govern that only 80% of the circuit rated load may be utilized. Use the following Maximum Amperage Settings depending on the circuit breaker rating:

Circuit Rating	Maximum Charging Station Output
50A	40A
40A	32A
30A	24A
20A	16A

- A Double Pole Circuit Breaker of the circuit rating must be used.
- The Charging Stations can connect a Standard NEMA 6-50 or 14-50 Receptacle, or the unit can be hardwired.
- A cable with a dedicated grounding conductor connected to the equipment ground terminal block must be used.

**CAUTION:** The service wiring in this section are specific to North America only. Before installing the Charging Station, identify the type of utility service connection onsite. If unsure about the type of connection available at the service panel, contact your utility service provider.



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## Install Charging Station

Prior to mounting, determine the location of an acceptable mounting support:

- The charging station must be anchored into a mounting support such as a 2" x 4" stud or a solid concrete wall. **DO NOT** mount this unit directly to a stucco/drywall/wall board.
- Mount the unit between 24 inches (0.6 m) and 48 inches (1.2 m) from the ground. The NEMA outlet should be located no less than 20~26" from the ground or as defined by applicable, local electrical safety codes and standards.

Mounting Screw Recommendations:

- For finished walls supported by wood studs, use #14 or M6 tapping screws. (Included).
- For masonry walls, use M6 mechanical screws. (Commercially available)

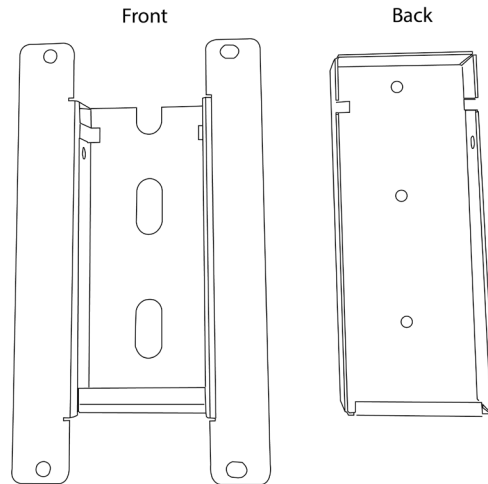
Parts and Tools required for installation:

Part	Size	Source
Mounting Bracket	255 x148 x 36 mm	Included with product
Robertson-Head Screw (x2)	#14	Included with product
Socket cap screw (x4)	5/16"	Included with product
Side Bracket		Included with product
Side Cover Screws	40mm	Included with product
Allen Key	3/16"	Commercially Available
Robertson Head Screwdriver	#14	Commercially Available

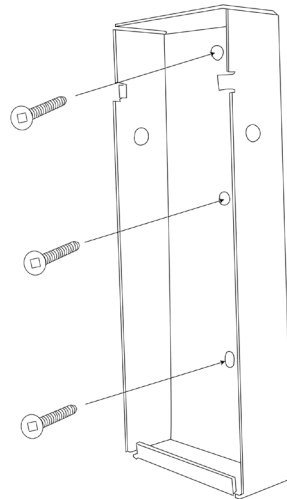


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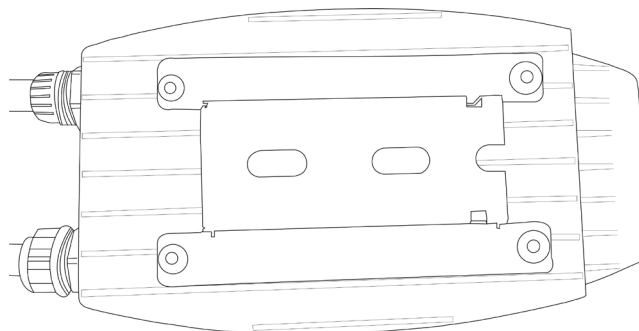
1. Separate the front and back pieces of the mounting bracket by pushing down on the notch.



2. Secure the back piece of the mounting bracket to the wall or other suitable structure using the Robertson-head screws.



3. Attach the front piece of the mounting bracket to the back of the charging station using the Socket-cap screws and washers. Ensure the top of the mounting bracket is matched with the top of the charging station.

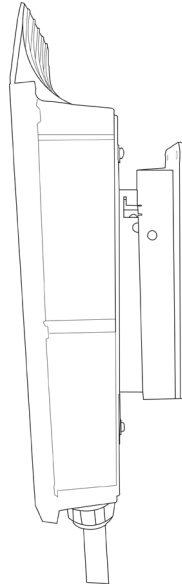




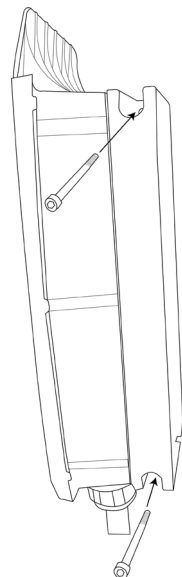


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4. Mount the charger on the wall by securing the front piece of the mounting bracket to the back piece. Align the notches and press down to secure the charger.



5. Position the Side Cover over the mounting bracket. Use the Side Cover screws to secure the two pieces together.



6. Plug in the power cord to the NEMA 14-50 or NEMA 6-50 Wall Outlet/Receptacle.



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## Optional Hardwire Connection

**CAUTION:** Do Not attempt to hardwire the Alpha unless you are qualified to do so. If you are not qualified, contact a licensed electrician.

1. Choose a copper wire conduit in accordance with all applicable, local, and electrical safety codes and standards.
2. Choose a terminal ring with the following characteristics:
  - Recommended Wire Strip length: 8mm (0.32")
  - Width of the terminal block opening: 10.2mm (0.41")
3. Using the appropriate tool, clamp the wire terminal to the copper wire. For non-insulated terminals, use a heat shrink tube to cover the non-insulated portion of the terminal.
4. Remove the plastic protective cover from the front of Alpha.
5. Use a Phillips Head screwdriver to remove the 6 screws on the front of alpha. Carefully place the front cover to the side without damaging the communication cable.
6. With the front cover placed to the side, use a Philips Head screwdriver to release terminal screws of the 6-50 or 14-50 Plug cable. Loosen the Strain Relief Fitting and remove the Plug. Remove the Strain Relief connector.
7. Insert the wire end passing through the conduit and insert them into the input wiring hole. (Use Red wire for L1, Black wire for L2, Green wire for G). Attach the copper wire on the corresponding terminal block. Use the following wire and torque force when connecting to input terminal block:

Terminal	Conductor	Screw	Rating	Torque
L1	8 AWG	M4	90C copper wire	max 1.8Nm   16 LBF.IN
L2	8 AWG	M4	90c copper wire	max 1.8Nm   16 LBF.IN
G	8-10 AWG	M4	90c copper wire	max 1.8Nm   16 LBF.IN



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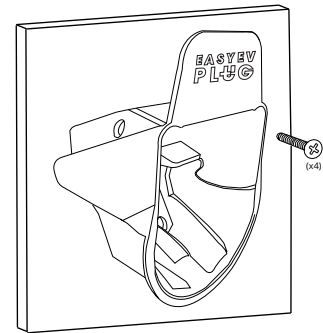
## Install EasyEVPlug

The EasyEVPlug™ Holster or Tesla EasyEVPlug™ Holster is the new innovative method to protect your plug and manage your cord. It has the following features:

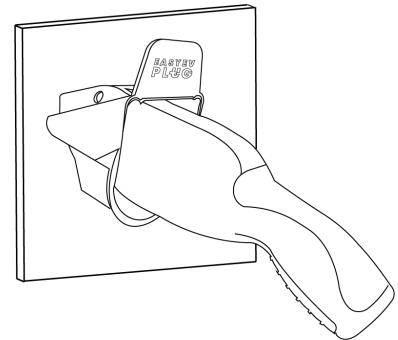
- No need to aim – flawless plug even in the dark.
- Your EV holster will always be in a convenient location.
- Saves space – special angle for less wall clearance.
- Integrated cable management – holds up to 25 feet of cable.

The EasyEvPlug holster can be installed at any location near the charging station.

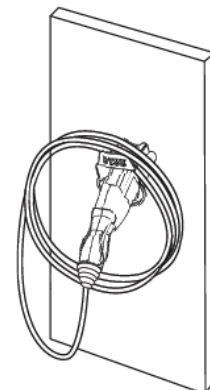
1. Hold back of holster against the mounting surface. Fasten Phillips head screws through back holes. Use anchors if attaching directly to drywall.



2. Insert charging connector into holster.



3. Wrap cable on top of EasyEvPlug.





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## Charger Set Up

### Set Maximum Amperage

- The Charging Station Default Factory Maximum Current Output Setting is 40A (9.6 kW) for use with a 50A Circuit Rating.
- The Circuit must be a DEDICATED CIRCUIT 208-240 VAC, 50-60 Hz, Single Phase.
- Requirements govern that only 80% of the circuit rated load may be utilized, hence the higher Circuit Ratings Requirement relative to maximum Charging Station output:

Circuit Rating	Maximum Charging Station Output
50A	40A
40A	32A
30A	24A
20A	16A

To set the Maximum Output Current:

1. Select the **Amperage** icon from the home screen.
2. Set the Max Amperage using the + and - buttons. Set the Maximum Output Current to be no more than 80% of the circuit breaker rating.
3. Select the **Set** button.
4. Press the **Home** button to go back to the home screen. Your settings will be saved.

### Set Voltage

1. Select the **Amperage** icon from the home screen.
2. Set the Voltage to either:
  - 240V - Home
  - 208V - Commercial

If you are unsure of your voltage rating, consult a licensed electrician.

3. Press the **Home** button to go back to the home screen. Your settings will be saved.



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## Add User

1. Select the **User** Icon from the main menu.
2. Enter User Name, Password, Full Name, Street, City, Postal Code, Country, Email, Phone.
3. Press the **Home** button. Your settings will be saved.

## Connect to Wi-Fi

Feature to be implemented at a later date.

## Add Ethernet Connection

Feature to be implemented at a later date.

## Set PIN Code

1. Select the **Settings Icon** from the main menu
2. Select **Delete Users and Reset** from the Settings screen.
3. Select **Change PIN** from the Delete Users and Reset Screen.
4. Enter a new PIN code.
5. Select **Set**.
6. Select the **Home** Button to back to the main menu. Your settings will be saved.

## Set Date and Time

1. Select the **Date | Time** icon from the main menu.
2. Set the hour and minute to the appropriate value. Select AM or PM.
3. Set the Date, Month, Year, and Weekday to the appropriate values.
4. Select the **Set** button.
5. Select the **Home** button to go back to the main menu. Your settings will be saved.



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## Set Charging Schedule

1. Select the **Schedule** icon from the home screen.
2. Use the arrows to adjust the hour and minute of the Start Time. Select AM or PM. Charging will start at the specified time and continue until completion or the plug is removed.
3. Set the **On/Off** toggle to ON.
4. Press the **Set** button. Note: Set the schedule in both weekdays and weekends to use both.
5. Select the **Home** button to go back to the main menu. Your settings will be saved.

## Toggle Charging Schedule

To charge at times not specified on the charging schedule set the **On/Off** toggle to OFF.



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## Charger Use

### USB Firmware Update

Warning: To update the Alpha via USB you will need a blank USB device. Ensure there are no saved files on your device before proceeding.

1. Save the following files to your USB drive:
  - cpuvvvv.bfw
  - fwupd.dfw
  - gfxvvvv.bfwv is the version number
2. Select the **Settings** icon from the main menu.
3. Select **USB Firmware Update** from the settings screen.
4. Insert USB drive into Alpha's USB port. Alpha will automatically display the Current Firmware Version and the Update Firmware and validate the file.
5. Once validation is complete select the **Start Update** button.
6. Wait for the update to complete. Do not unplug Alpha during while updating. When the update is complete Alpha will reboot.
7. Power cycle the Alpha by unplugging and plugging back in.
8. Remove the USB drive.

### Meter

1. Select the **Energy Meter** icon from the main menu.
2. The Energy Meter screen will display the Power Consumption statistics from the last charging session. If a charging session is in progress, it will display real-time Power Consumption statistics.

### Reports

1. Select the **Report Icon** from the main screen.
2. Enter the number of last sessions using the + and - buttons.
3. Select the **Set** button.
4. The report screen will display the total session time and Total kWh used from that session.



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## General Product Care and Use Information

### Product Care

The exterior of the charging station is designed for indoor use (NEMA 3 Indoor Rated). Ensure that the Alpha is mounted in a sheltered location and not exposed to rain, snow, or temperatures below -30C(-22F).

To ensure proper maintenance of the charging station, follow these guidelines:

- Periodic cleaning may be required, depending on conditions. To avoid damaging the finish of the products, only use an automotive grade soft cleaning cloth with soap and water to remove accumulated dirt and dust. Do not use cleaning solvents to clean any of the product components.
- Directing a stream of water at the unit is not recommended.
- Ensure the charging connector is put back in the holster after charging to avoid damage.
- Ensure the power cable is stored on the charging station after use to avoid damage.
- If the power cable or the charging connector is damaged, turn off the charging station supply circuit breaker, do not use the charging station, and Contact United Chargers Customer Support for replacement parts.
- When moving or lifting the unit, always grasp and carry by the charging station body. Never attempt to lift, move, or carry the unit by any of the electrical cables. Improper handling may cause damage to the unit.





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## Warranty

### Warranty Terms and Conditions

Alpha comes with a 5-year or 5MWH distributed power full replacement warranty. This warranty is extended by United Chargers Inc. to original purchasers of Alpha EV Charging Stations for residential use only.

United Chargers warrants that this product is free from defects in materials and workmanship under normal non-commercial use for the warranty specified 5-year period or 5MWH use from the date of purchase - whichever comes first. No agent, employee, or representative of United Chargers has any authority to affirm, represent or warrant anything concerning Alpha™ EV Charging Stations, except for the affirmation and representation which is specifically included within this warranty.

This warranty will not apply if the product has been misused, abused, or altered. Warranty for the cable does not include normal tear and wear. Plugs that have been exposed to snow or water for a prolonged period of time are not covered by this warranty. The warranty will apply only if the product is defective. United Chargers assumes no liability for any dismantling, removal, installation, re-installation, or labor costs or any consequential damages associated with this warranty. United Chargers is not responsible or liable for any costs associated with faulty installations. United Chargers shall make the final decision, in fairness to all concerned, as to the legitimacy of any such claim on this warranty.

Upon discovery of any defective Alpha™, please contact our Customer Service Department for further instructions as to how to repair or replace the defective unit or submit a support ticket.

### Check Warranty Info

To check the current warranty status of the charger:

1. Select the **Settings** icon from the home screen
2. Select **Warranty Info** from the Settings screen.
3. The Warranty Screen will display the total Power Consumption (kWh) and date of first activation.

For customer service inquiries or technical support please contact our Customer Service Department or submit a Technical Support Form at [alphaevcharger.com](http://alphaevcharger.com).

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