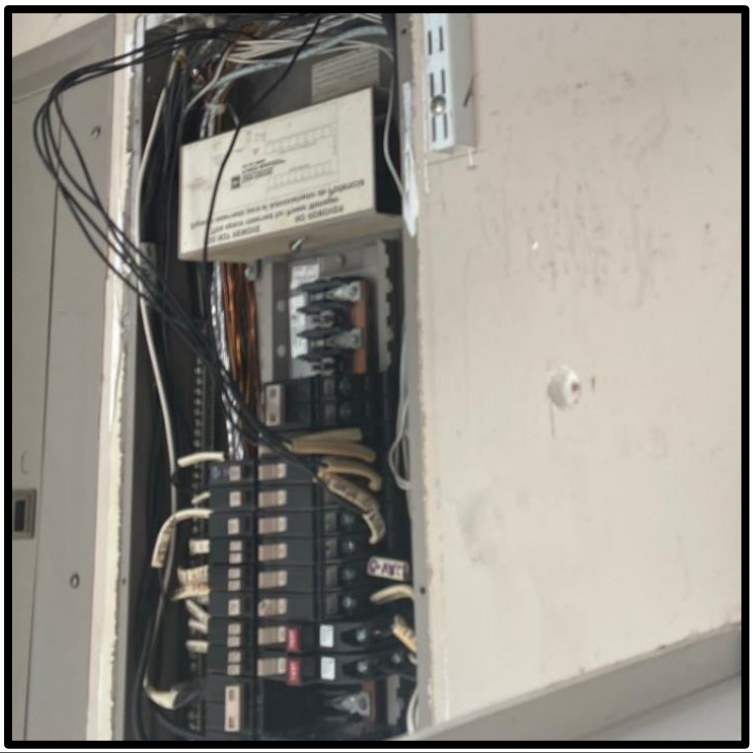
General Installation – 5 Steps
Overhead Automated EV Charger with Wireless Controls
EV Power Charger, Inc. www.powercharger.com

The installation steps below provide general guidance on how the Overhead Automated EV Charger with wireless controls is installed. Electrical codes applicable to the installation location must be followed which may differ from what is shown in the general steps below. Installation professional may implement alternate methods that meet local codes. Each installation has certain customer requirements and site-specific conditions that impact how the Overhead Automated EV Charger is installed, which should be discussed between the Customer and Installer beforehand. EV Power Charger, Inc.is available to assist with installation questions.

STEP #1 – Install Dedicated Circuit Breaker

Install a 50-amp, 240 volt dedicated circuit breaker in the existing electric panel, unless it already has this dedicated breaker in place. The 50-amp dedicated breaker allows for delivery of 40-amp power to the Charger, which provides the fastest EV charging time. In cases where the existing electrical panel cannot accommodate a dedicated 50-amp breaker, the Charger can be adjusted downward to accept 25-amps, 240-volt power (this requires only a 35+ amp dedicated breaker in the electric panel); or further adjusted the Charger downward to accept 15-amp, 240-volt power (requires only a 20-amp dedicated breaker). Adjusting the Charger downward to accommodate a smaller dedicated breaker will increase the charging time duration.

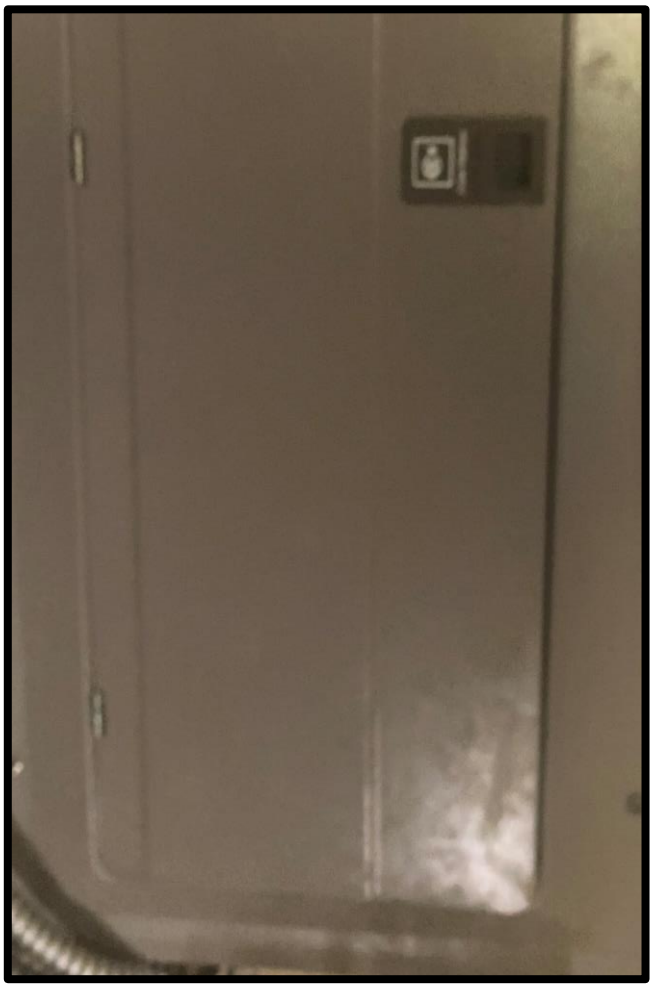
STEP #2 – Connect Power Supply Cable and Breaker



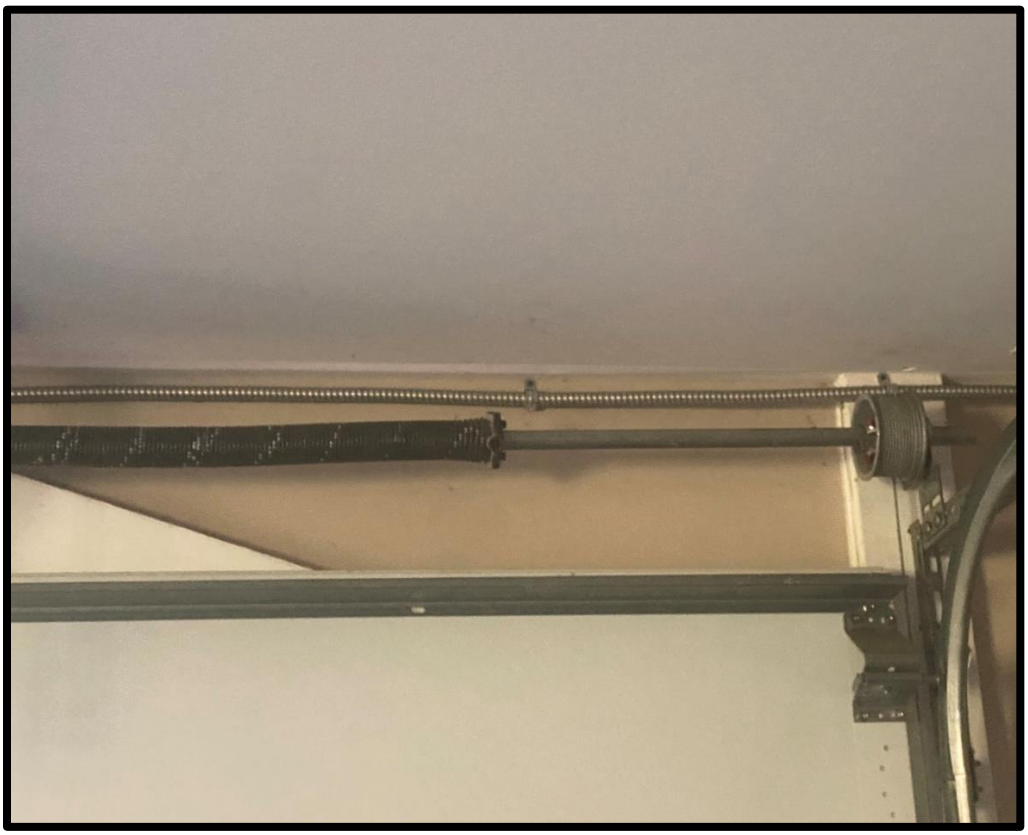
Power Supply Cable

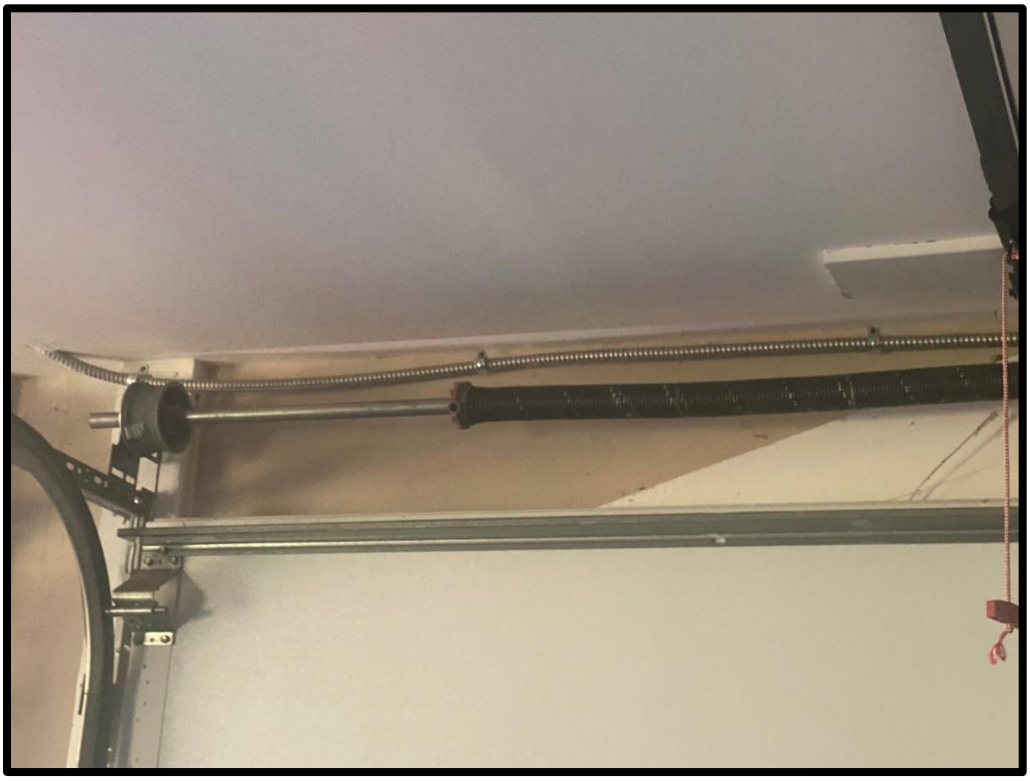
Continuous Length, 6/2 Type 6 AWG 2 Conductors, one 6 AWG Green Insulated Ground, Stranded Copper Wire, METAL CLAD Cable with Aluminum Armor, 600 Volt, About 0.75” diameter

Remove the electrical panel cover and connect the Continuous Power Supply Cable to the dedicated breaker. When the electrical panel cover is re-hung, the Continuous Power Supply Cable extends out of the electrical panel from any side. The Power Supply Cable can remain concealed behind the drywall or run on the outside of the drywall (see right-side photo). *As an alternative, a 14-50R 250-volt outlet can be installed next to the electrical panel (see photo below), and the Continuous Power Supply Cable is fitted with a 14-50P 250-volt plug at the end. Here, the Power Supply Cable can be plugged in and unplugged from the outlet.*



STEP #3 – Run the Continuous Power Supply Cable



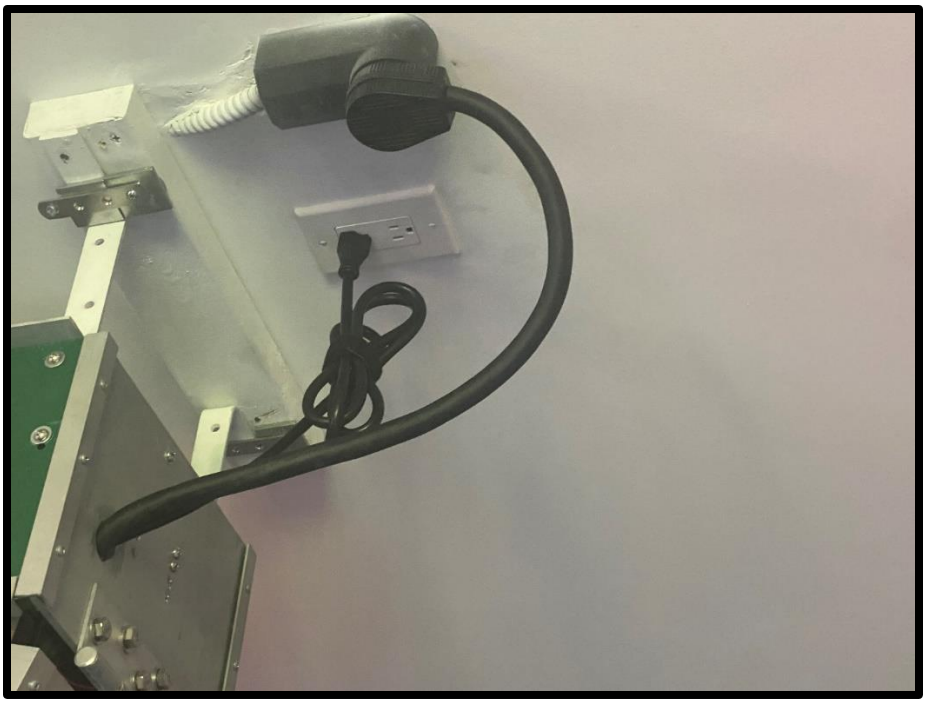


Run the continuous Power Supply Cable in a path that best conceals the cable and terminates at the ceiling just behind the EV Charger enclosure location where a 14-50R 250-volt outlet is connected (see step 4 photo below). The continuous cable path can be installed vertically at corner walls, horizontally along a wall-ceiling interface, on the outside of drywall using common clamps, or concealed inside of the drywall. The continuous Power Supply Cable path should be reviewed with the Customer beforehand. The maximum continuous length of the Power Supply Cable should be limited to 100 feet. A common 120-volt, 15-amp outlet is needed in the ceiling area near the rear of the EV Charger enclosure. Typically, existing garage door ceiling motors already have a 120-volt 15-amp outlet in the ceiling that is reachable using an extension cord. If not, a common 120-volt outlet is installed which powers the system components.

STEP #4 – Fasten Ceiling Hanging Brackets

The ceiling location of the EV charging enclosure is selected so that multiple EV's and their charging ports are central and reachable by the retracted spiral charging cable. The EV charging enclosure is installed between EV parking spaces while keeping in mind that the lid is only 9" wide when lowered. In front of the ceiling outlets, install two (2) common 2x4s where the EV enclosure will be mounted. The 2X4s are fastened into the ceiling joists using screws provided. If the ceiling joists were running "front to back" versus "left to right" like in the above photo, the 2x4's would be rotated 90 degrees and fastened into the ceiling joists. Four (4) ceiling slide-in brackets and screws provided are fastened to the 2x4's in a "front to back" orientation, where the open end of the brackets faces the EV's garage door entrance.

STEP #5 – Install Overhead Automated EV Charger



The enclosure side panels have four (4) hanging brackets attached. Two (2) persons using ladders lift the enclosure and slide the enclosures' hanging brackets into the ceiling slide-in brackets. The enclosure's total weight is about 72 lbs. (33.6 Kg). The power cords extending from the rear of the enclosure are plugged into the ceiling outlets.

The Overhead Automated EV Charger with Wireless Controls is ready to operate.

Completed Installation