SWTCH

EVSE Spec Sheet & Installation Guide

LITE-ON 32A

Level 2 EV Charger

LITEON

Level 2 EV Charging Station

208 / 240VAC - 32A

reddot award 2018
winner

Key Features

OCPP Compliant
Integrates easily with most back-office platforms

Local Load Management
Adjusts charger output without a network connection

Four Models Available
Competitive options from basic to fully networked

Stylish and Durable Case
Promote your brand with custom graphics

Benefits

- Fast Time-To-Market
- Low Development Costs
- Best in Class Reliability
- Comprehensive Product Support

Applications

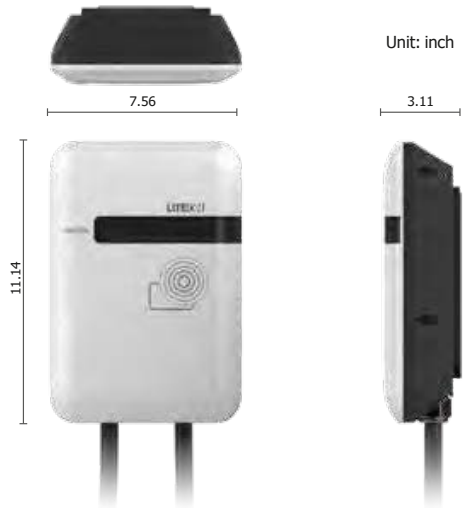
Residential | Commercial | Fleet | Parking

Specifications

Specifications are subject to change without notice.

Model/PN	Basic (BC3)	Smart (SC3)	Intelligent (IC3)
Application	Residential/Commercial		Commercial
Voltage (Vac)	208 / 240 Vac ± 10%, 1-phase		
Frequency (Hz)	60 Hz ± 10%		
Current (rms)	32A		
Charging Connector	SAE J1772 Type 1		
Charging Cable Length	18 ft. (25 ft. optional)		
Metering Accuracy	N/A	Embedded, ± 1%	
Real Time Clock	N/A	Yes (min. 7 days)	
Indications	LED x1 with multiple colors (RGB) ● STEADY GREEN – standby SLOW FLASH GREEN - EV connected FAST FLASH GREEN - authenticating ● SLOW FLASH BLUE - charging ● SLOW FLASH RED - recoverable fault STEADY RED - unrecoverable fault		
Wi-Fi	N/A	802.11 b/g/n	
4G	N/A		LTE Cat.1 (AT&T or Verizon)
RFID	N/A		ISO 14443 A/B - ISO 15693
Display	N/A	Dot-matrix (2 lines)	
Data Protocol	N/A	OCPP 1.6J (OCPP 1.5J optional)	
Operation Temp.	-30 °C ~ 50 °C / -22 °F ~ 122 °F		
Storage Temp.	-40 °C ~ 70 °C / -40 °F ~ 158 °F		
Mounting Type	Wall (default) / Pole		
Installation Type	NEMA 6-50		Hardwired
IP Performance	NEMA 4		
Impact Resistance	IK10		
Dimension (H x W x D, inch)	11.14 x 7.56 x 3.11		
Web Portal Management	N/A	Yes	
Console Management	Yes		
Certification	UL 2231/2594 - FCC Part 15B		

Dimension Details



For more product information and sales inquiries:

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Visit us

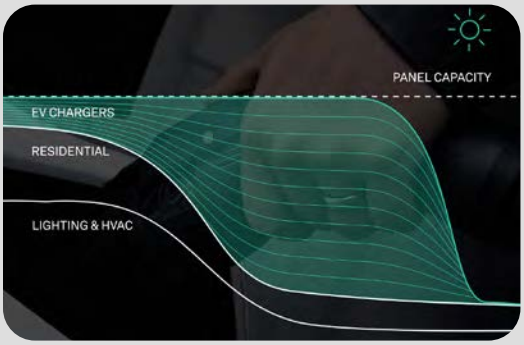
V 2.0

EV Charging for Busy Buildings

SWTCH

SWTCH's EV charging management platform is designed specifically for multi-tenant buildings

By leveraging state-of-the-art software technology, SWTCH OS™ enables unit owners and building management to successfully deploy and manage a cost-effective EV charging system that works for your EV charging system today, and in the future.



SWTCH's Intelligent load manager can manage up to 10x more chargers on your existing capacity

SWTCH Control™ intelligently distributes energy to the chargers based on the real-time capacity available on the circuit, panel and/or building, allowing buildings to safely install up to 10 times the number of chargers on your existing electrical infrastructure.

A first-class charging experience - complete with 24/7/365 driver support

Our flexible charging experience ensures EV drivers can get the charge they need, when and how they want it:

- iPhone & Android app
- No download required via SWTCH's in-browser app
- Tap-and-go charging with our complimentary RFID card

Our team of live customer support agents are available via phone and email around the clock to ensure your chargers are working well and drivers have a delightful charging experience, every time.

SWTCH

Installation Guide

LITE-ON 32A

Level 2 EV Charger

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General Safety Guidelines

Please review this document in its entirety prior to proceeding with installation of SWTCH electric vehicle charging stations, hereafter referred to as electric vehicle supply equipment (EVSE). This document applies to SWTCH's Platinum EVSE (32 A, 240 V) and contains important safety and installation instructions that must be followed during installation, including the following:

- → Handle all parts with care. Some items may require lifting assistance. Always use proper lifting techniques and wear safety boots during installation.
- → Always use safety glasses and gloves while unpacking and installing.
- → Communicate with a certified electrician to ensure the installation of the products meets local building codes, electrical safety regulations, and local security standards.
- → Installation procedures may vary by location, but it is the responsibility of the electrician to ensure products are installed and deemed safe for use prior to their commissioning.
- → In no way does the information provided in this manual exempt the responsible contractor from following all applicable codes and safety standards.
- → At any point, if the safety of the onsite personnel is in question, do not hesitant to contact the local property manager and project manager for assistance.
- → Disconnect all power before repair or maintenance of EVSE.

USEFUL LINKS

Pedestal and Cable Management Setup

SWTCH Control Load Management Setup

Communication Hardware Layouts

Visit swtchenergy.com/install for more, including essential onboarding forms.

⚠ WARNING: RISK OF ELECTRIC SHOCK

Basic precautions should always be followed when using electrical products, including the following:

- → Read all the instructions before using this product.
- → This device should be supervised when used around children.
- → Do not put fingers into the EV connector.
- → Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or has other signs of damage.
- → Do not use this product if the outer case or the EV connector is broken, cracked, open, or shows any other indication of damage.

Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded.

- → Do not touch live electrical parts.
- → Incorrect connections may cause electric shock.

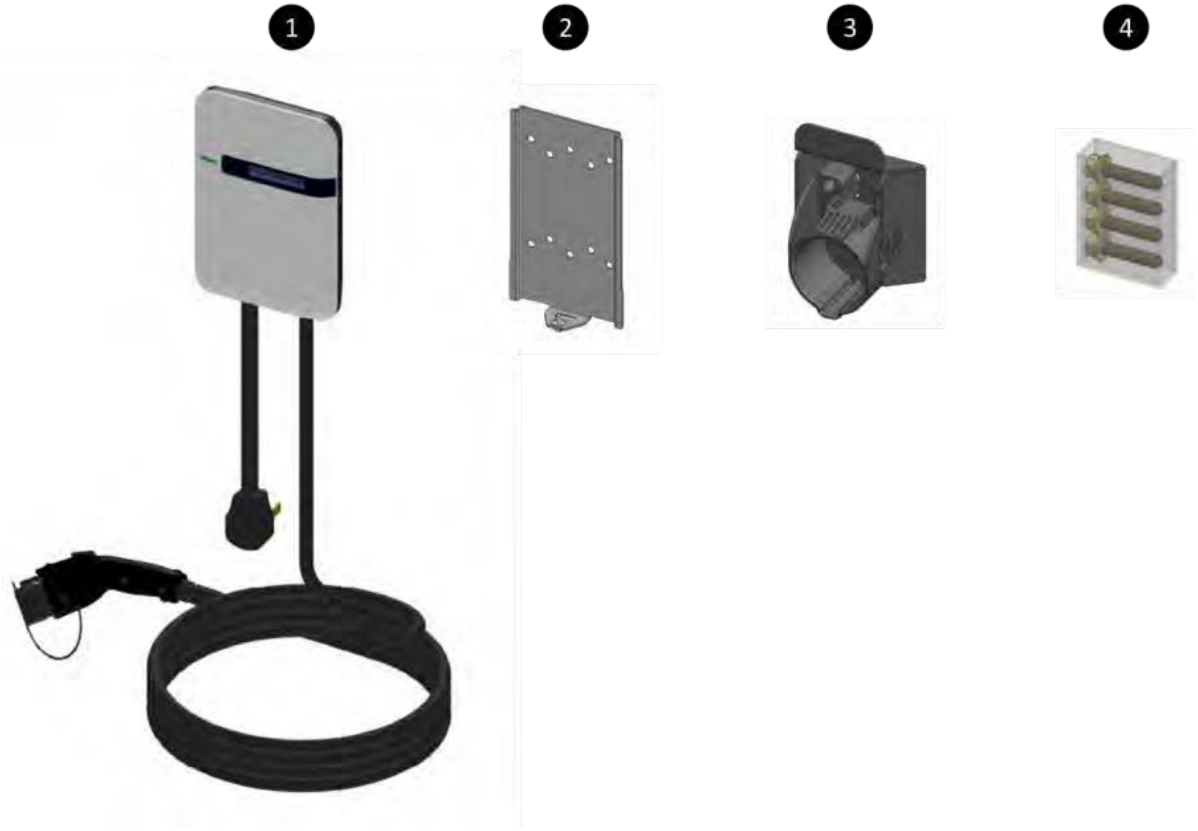
This equipment is intended only for charging vehicles that do not require ventilation during charging. Please refer to your vehicle's owner's manual to determine ventilation requirements.

Do not use extender cables to increase the length of the charging cable. Maximum length is limited to 25 feet as regulated by the National Fire Protection Agency.

Do not drag the EVSE by the input power cord.

Overview of EVSE Components

DESCRIPTION	QTY	NOTES
#1 Platinum EVSE (Hardwired)	1	May include charging plug and input power cord
#2 Mounting Bracket	1	Attached to back of unit with 1x M4 L12 screws, 1x screw washer
#3 Cable and Plug Holster	1	With 2x M4 L15 tapping screws
#4 Screw Bag	1	With 4x #12 L50 tapping screw



EVSE Installation

CAUTION: Disconnect the power supply before installing or repairing the EVSE. Failure to do so may result in physical injury or damage to the power supply system and the EVSE.

The EVSE must be installed only by a licensed electrician in accordance with the provisions of the local electrical industry construction and should comply with national electrical codes and standards.

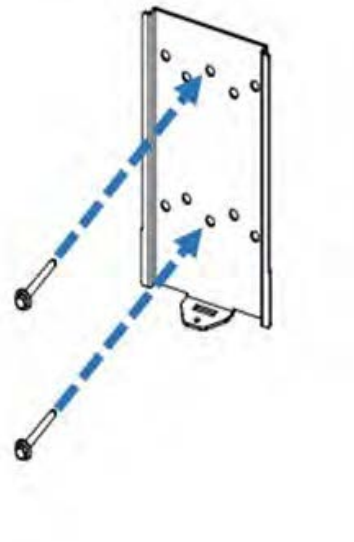
Before installing the EVSE, make sure you have read all these instructions in this manual and fully understand its contents. Appropriate protection is required when connecting to a main switchboard.

Grounding Instructions

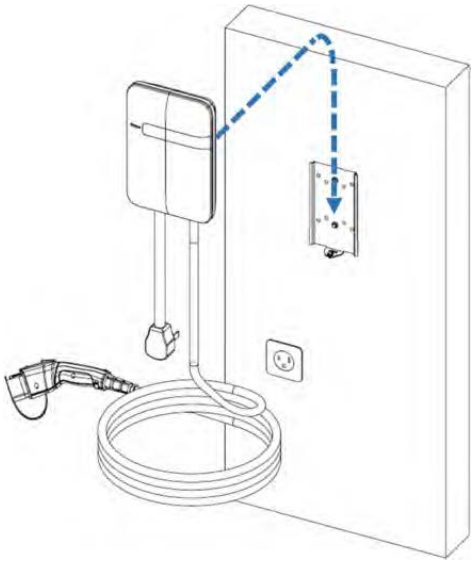
The EVSE must be implemented through a permanent wiring system or an equipment grounding conductor. Use a wire with a dedicated grounding wire and a ring terminal and connected to the equipment ground terminal block for grounding.

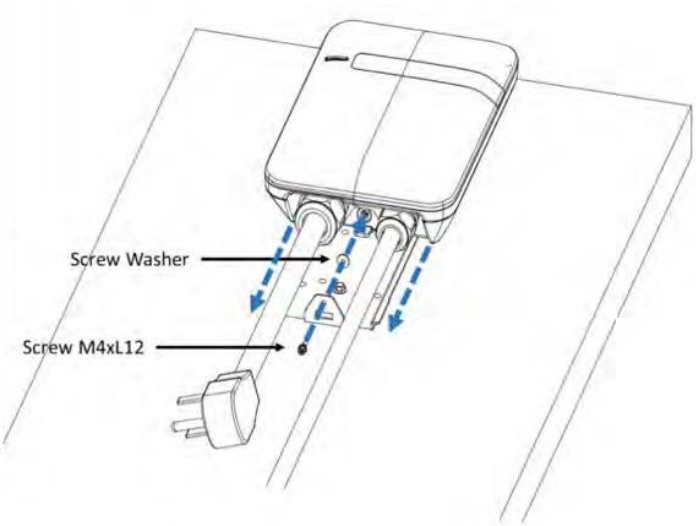
Wall Mounting

1. **Secure the main body mounting bracket to the wall with appropriate screws.**



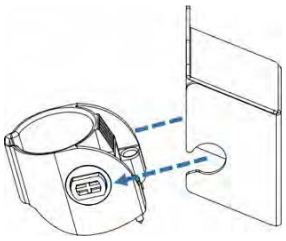
→ For masonry walls, use M6 mechanical screws (commercially available).
→ For finished walls supported by wood studs, use #12 or M6 tapping screws (commercially available).
→ Wall-mounted chargers should be installed 3-4 ft. above ground, with cable retractors installed 3-4 above the charger.





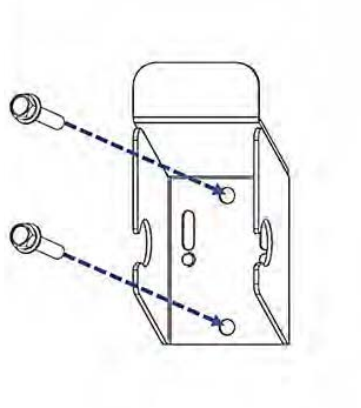
2. Separate the holster from the hook.

→ The charging port holster should be installed beside or underneath the charger.

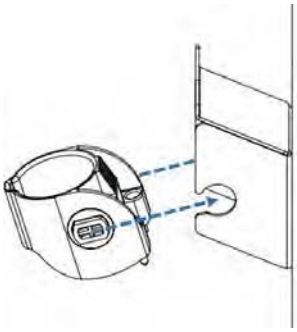


3. Secure the hook to the wall with appropriate screws.

→ Use #12 or M6 tapping crews.



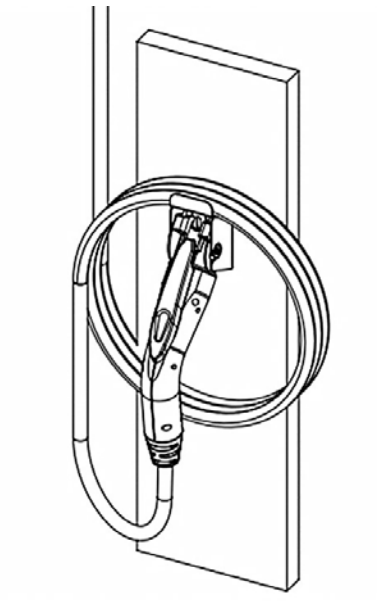
4. Place the holster face up and insert into the hook.



5. Rotate the holster down completely.

6. Keep the holster in this position and lock screws completely.

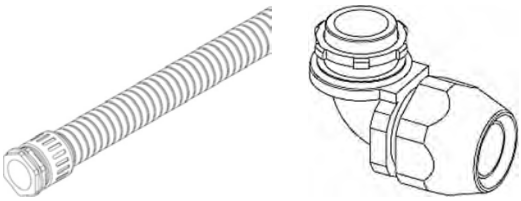
→ The screws make the combination secure.



7. Place EV charging plug on the holster.

Electrical Service Connection

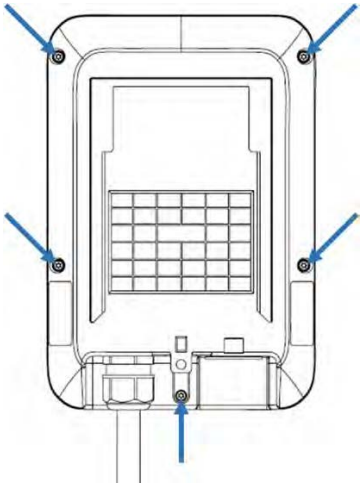
1. Choose the appropriate conduit in accordance with all applicable local, state/provincial, and national electrical codes and standards.

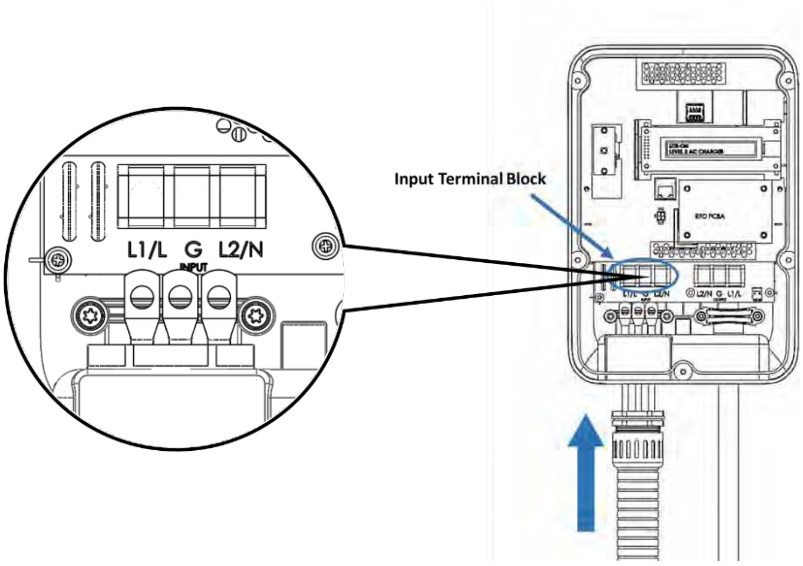


2. Clamp copper terminal and copper wire. Then bind heat shrink tube on the contact point.

3. Connect the electrical wiring to the EVSE.
4. Remove the plug cover and use Philips screwdriver to release terminal screws.
5. Fold the wire end passing through the conduit and insert them into the input hole. (Red wire for L1, Black wire for L2, Green-yellow wire for G)

MODEL	TERMINAL	CONDUCTOR	SCREW	RATING	TORQUE	
Platinum	L1, L2, G	8 AWG	M4	90C, copper	16 kfg.cm	13.88 lb/in





CAUTION: To reduce the risk of fire, connect only to a circuit provided with 40 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.1.

6. Reassemble the charge station. Fix the conduit at suitable position.

7. Reassemble top cover.

Pedestal Installation
(For diagrams refer to Page 3)

1. This pedestal is designed to be mounted on the ground, with a solid non- combustible surface. Use appropriate anchors for mounting surface, such as Power-Stud+ SD1 anchors (DeWalt catalog number: 7423SD1-PWR; anchor size: ½" x 4-½"; thread length: 2-¾").
2. Ensure the location of the pedestal is not overhead of any potential hazards such as pipelines, electrical equipment, or uneven ground.
3. Ensure the pedestal is grounded as per electrical safety regulations and certified by a licensed electrician.
4. Pedestal and associated electrical equipment must be installed in a manner that complies with local building code, regulations, and security standards.
5. The pedestal should be installed with consideration of year-round weather conditions (e.g., snow, flooding, heat exposure, etc.).
6. Handle pedestal with care. It is heavy and should be always handled by two or more persons.
7. If the pedestal is altered (e.g., by drilling or cutting), sharp edges may occur, therefore protective safety gloves must be worn while handling.
8. Any alterations to the pedestal must be sealed with an outdoor grade sealant to prevent rust damage.

Pedestal Wiring Options

- → Pedestals may be mounted with a single or dual EVSE. If dual EVSE, power input must be supplied to each EVSE.
- → For each EVSE to operate at full output of 32A, EVSE require dedicated 40A circuits.
- → In situations where there is only a single 40A circuit available, EVSE may be configured to dynamically load-share the available 32A. This requirement should be communicated to a SWTCH representative, as the EVSE must pre-programmed by SWTCH's technical team prior to shipment.
- → A junction box may be mounted on the pedestal to deliver the circuits and distribute each to its respective EVSE via conduit.

Cable Retractor Installation (For diagrams refer to page 3)

Cable retractors are designed to aid the user in handling the charging cable and prevent damage to the cable by keeping the cord off the ground. Cable retractors may be pedestal or wall mounted.

The cable retractors should be installed such that the cable length from the body of the charger to the cable retractor ring (which attaches the retractor to the wall) is 7 ft. maximum and from the ring to the charging port 11 ft. minimum.

1. **Pedestal-Mounted Option**

   To install cable retractors on the charging pedestal, simply open the top cap of the pedestal and screw in the 3/8” screws to fasten the cable retractor.

2. **Wall-Mounted Option**

   First, determine the mounting hardware required, such as concrete anchors, Unistrut, threaded rod, etc. Each cable retractor must be secure enough to repeatedly hold a 50lb force in vertical and lateral directions to be deemed safe for operation. Wall-mounted chargers should be installed 3-4 ft. above ground, with cable retractors installed 3-4 ft. above the charger.

   Once the cable retractor has been secured to the wall, the clamp can be fastened to the charging hose. The position of the clamp should be such that the charging cable does not touch the ground when in the holster position.

   Please note that a rubber stopper is included with the cable retractor package. Ensure that the rubber stopper is placed between the retractor ring and cable to prevent the cable from sliding through the ring once the appropriate length has been established.