

CONNECTDER EV METER SOCKET ADAPTER V1.0 INSTALLATION INSTRUCTIONS



WARNING – The ConnectDER EV Meter Socket Adapter (EV MSA) contains live parts capable of causing death, injury, or damage to property. Wear appropriate PPE and follow your employer’s safety procedures. Do NOT connect critical loads to the EV MSA.



CAUTION – The EV MSA is only intended for installation on the supply side of the service disconnecting means. The EV MSA must be installed only with the junction box at the top and the whole-house MAIN circuit breaker at the bottom. Do not install the EV MSA in any other orientation. The installer must furnish an electrical insulation blanket and hot jaw safety cover mentioned in the installation steps below. Installation and servicing of the EV MSA, associated wiring and interconnections must be performed only by qualified personnel.

The EV MSA is for use with 240v, single-phase DER branch circuit loads/sources such as EVSE and/or Listed uni- or bi-directional interactive equipment, **maximum 32 amps continuous recommended**. If using interactive EVSE with a power export function that serves as a bidirectional power feed, it:

- shall be listed and marked as suitable for that purpose,
- must comply with Article 705 of the NEC,
- may be used only as an interactive, grid-tied system (vehicle-to-grid, or V2G), and
- shall not be used for backup power to the premises via the EV MSA.



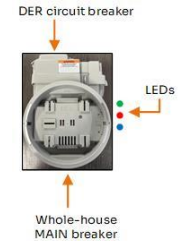
Comply with national and local codes for rules governing backfeeding power. Follow the serving electric utility’s meter removal and installation rules. The installer must furnish and use 3/4” trade size liquid-tight flexible conduit complying with the Standard for Liquid-Tight Flexible Metal Conduit, UL 360, or the Standard for Liquid-Tight Flexible Nonmetallic Conduit, UL 1660, and fittings complying with UL 514B. The MSA has no Wi-Fi or other communications capability; it provides a power connection for external equipment.

The EV MSA contains no ground fault circuit interrupter (GFCI) protection and must be hardwired only to Electric Vehicle Supply Equipment (EVSE). The EV MSA may connect other types of loads, or a combination of sources and loads.

NOTE – For the full installation manual with greater detail and images, scan the QR code above.

RING-TYPE INSTALLATION INSTRUCTIONS (see reverse side for ringless and lever bypass instructions)

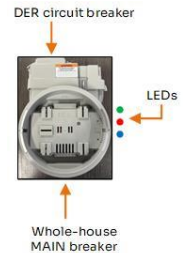
- 1) Put on the appropriate PPE.
- 2) Lock out alternate sources of energy, if any, and turn OFF the premises main service disconnect.
- 3) Turn OFF the DER branch circuit breaker (top of the junction box, 40 or 60 amp).
- 4) Turn OFF the whole-house MAIN breaker (bottom of the housing, 100 or 125 amp).
- 5) Cut and remove the utility tamper-prevention seals and remove the locking ring.
- 6) Using a “Meter Grabber™” or similar tool, remove the electric meter and store it safely.
- 7) Inspect meter socket enclosure, jaws, and interior wiring. Only proceed if they are in good condition.
- 8) Install a temporary electrical insulation blanket over energized parts within the meter socket.
- 9) Remove the junction box from the top of the EV MSA.
- 10) Strip and terminate the white neutral pigtail furnished with the unit to a spare terminal inside the meter socket. If no spare accessory position is available, terminate the neutral pigtail using an approved wiring termination method suitable for use in meter sockets acceptable to the utility and the authority having jurisdiction (AHJ).
- 11) Remove the temporary electrical insulation blanket protection from the meter socket.
- 12) Reinstall the meter socket cover while routing the neutral pigtail through the cover opening.
- 13) Strip and terminate the other end of the pigtail to the rear of the EV MSA and torque to 45 in-lbs.
- 14) Insert a hot jaw safety cover into the EV MSA line side jaws to avoid contacting live meter socket jaws of the adapter.
- 15) With the junction box contacts at the top, insert the EV MSA into the meter socket, ensuring it is securely seated.
- 16) Confirm the whole-house MAIN circuit breaker cover at the bottom of the EV MSA opens freely.
- 17) Install a locking ring to secure the EV MSA to the meter socket cover with the thicker/wider flange facing the meter socket.
- 18) Remove the EV MSA hot jaw safety cover and reinstall the utility meter.
- 19) Install a lock ring to secure the utility meter to the EV MSA with the thicker/wider flange facing the meter socket.
- 20) Disassemble the junction box and cover using a 7/64” Allen key and flip open the EV MSA clasps.
- 21) Confirm the power interface at the top of the EV MSA is clear of debris and insert the junction box base into the EV MSA.
- 22) Turn ON the whole house MAIN circuit breaker on the EV MSA.
- 23) Wait at least 30 seconds for the LEDs on the side to turn solid **BLUE** (power on) and solid **GREEN** (normal operation).
- 24) Turn ON the DER branch circuit breaker.
- 25) Use a voltmeter to confirm the expected voltage is present on the circuit breaker and N/G terminals.
- 26) Turn OFF both the DER branch circuit breaker and the whole house MAIN breaker on the EV MSA.
- 27) Remove and reassemble the junction box, torquing the screws to 8 in-lbs.
- 28) Insert the junction box into the EV MSA housing and seal the conduit entry hole.
- 29) Secure the junction box with the locking clasps.
- 30) Install tamper-prevention seals on the lock rings, the meter socket cover, and the two junction box clasps.
- 31) Turn ON the whole-house MAIN circuit breaker on the EV MSA.
- 32) If there are alternate sources of energy, ensure they are ready for utility power restoration.
- 33) Turn ON the premises service disconnect to restore utility power.
- 34) Return alternate sources of energy to normal operation.
- 35) The EV MSA installation is complete. SEE REVERSE SIDE for instructions to hardwire EVSE.
- 36) Provide the USER manual furnished with the unit to the customer, also available using the QR code to the right.



NEED HELP? 1. Review FAQ: www.connectder.com/ev-support
2. Email: support@connectder.com

RINGLESS AND LEVER BYPASS INSTALLATION INSTRUCTIONS

- 1) Put on the appropriate PPE.
- 2) Lock out alternate sources of energy, if any, and turn OFF the premises main service disconnect.
- 3) Turn OFF DER branch circuit breaker (top of the junction box, 40 or 60 amp).
- 4) Turn OFF the whole-house MAIN breaker (bottom of the housing, 100 or 125 amp).
- 5) Cut and remove the utility tamper-prevention seal and remove the meter socket cover.
- 6) For lever bypass meter sockets, actuate the lever to permit meter removal.
- 7) Using a “Meter Grabber™” or similar tool, remove the electric meter and store it safely.
- 8) For lever bypass sockets, position the lever bypass to deenergize the load-side meter socket jaws.
- 9) Inspect meter socket enclosure, jaws, and interior wiring. Only proceed if they are in good condition.
- 10) Install a temporary electrical insulation blanket over energized parts within the meter socket.
- 11) Remove the junction box from the top of the EV MSA.
- 12) Strip and terminate the white neutral pigtail furnished with the unit to a spare terminal inside the meter socket. If no spare accessory position is available, terminate the neutral pigtail using an approved wiring termination method suitable for use in meter sockets acceptable to the utility and the authority having jurisdiction (AHJ).
- 13) Strip and terminate the other end of the pigtail to the rear of the EV MSA and torque to 45 in-lbs.
- 14) Insert a hot jaw safety cover into the EV MSA line side jaws to avoid contacting live meter socket jaws of the adapter.
- 15) Remove the temporary insulation blanket protection from the meter socket.
- 16) With the junction box contacts at the top, insert the EV MSA into the meter socket, ensuring it is securely seated.
- 17) For lever bypass meter sockets, return the lever to the normal position.
- 18) Reinstall the meter socket cover over the EV MSA.
- 19) Confirm the whole-house MAIN circuit breaker cover opens freely.
- 20) Remove the EV MSA hot jaw safety cover and reinstall the utility meter.
- 21) Install a lock ring to secure the utility meter to the EV MSA with the thicker/wider flange facing the meter socket.
- 22) Disassemble the junction box and cover using a 7/64” Allen key and flip open the EV MSA clasps.
- 23) Confirm the power interface at the top of the EV MSA is clear of debris and insert the junction box base into the EV MSA.
- 24) Turn ON the whole house MAIN circuit breaker on the EV MSA.
- 25) Wait at least 30 seconds for the LEDs on the side to turn solid **BLUE** (power on) and solid **GREEN** (normal operation).
- 26) Turn ON the DER branch circuit breaker.
- 27) Use a voltmeter to confirm the expected voltage is present on the circuit breaker and N/G terminals.
- 28) Turn OFF both the DER branch circuit breaker and the whole house MAIN breaker on the EV MSA.
- 29) Remove and reassemble the junction box, torquing the screws to 8 in-lbs.
- 30) Insert the junction box into the EV MSA housing and seal the conduit entry hole.
- 31) Secure the junction box with the locking clasps.
- 32) Install tamper-prevention seals on the lock rings, the meter socket cover, and the two junction box clasps.
- 33) Turn ON the whole-house MAIN circuit breaker on the EV MSA.
- 34) If there are alternate sources of energy, ensure they are ready for utility power restoration.
- 35) Turn ON the premises service disconnect to restore utility power.
- 36) The EV MSA installation is complete. SEE BELOW for instructions to hardwire EVSE.
- 37) Provide the USER guide furnished with the unit to the customer, also available using the QR code to the right.



HARDWIRE THE EVSE (Maximum 32 amps continuous recommended. Comply with all applicable codes.)

- 1) Turn OFF the DER branch circuit breaker (top of the junction box, 40 or 60 amp).
- 2) Turn OFF the whole-house MAIN breaker (bottom of the housing, 100 or 125 amp).
- 3) Remove tamper-prevention seals from the junction box clasps.
- 4) Open the junction box clasps and remove the junction box from the top of the EV MSA.
- 5) Disassemble the junction box and cover using a 7/64” Allen key.
- 6) Install a liquid-tight connector onto the junction box.
- 7) Insert the field wiring through the connector and terminate the conductors to the circuit breaker and N/G terminals.
- 8) Torque the terminations to the values shown on the junction box labels.
- 9) Slide the liquid-tight raceway over the field wiring and tighten the connector.
- 10) Reassemble the junction box and cover. Torque the screws to 8 in-lbs.
- 11) Insert the junction box into the top of the EV MSA housing.
- 12) Secure the junction box with the locking clasps and install new tamper-prevention seals onto the clasps.
- 13) Follow applicable codes to complete the raceway and wiring. Support the liquid-tight raceway within 12” of the EV MSA.
- 14) Hardwire the EVSE per the manufacturer’s instructions and set the charging load to 32 amps maximum.
- 15) Turn ON the whole-house MAIN breaker at the bottom of the EV MSA housing.
- 16) Wait at least 30 seconds for the LEDs on the side to turn solid **BLUE** (power on) and solid **GREEN** (normal operation).
- 17) Turn ON the DER branch circuit breaker and commission the EVSE per the manufacturer’s instructions.



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.



WARNING: This product can expose you to chemicals including acrylonitrile, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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