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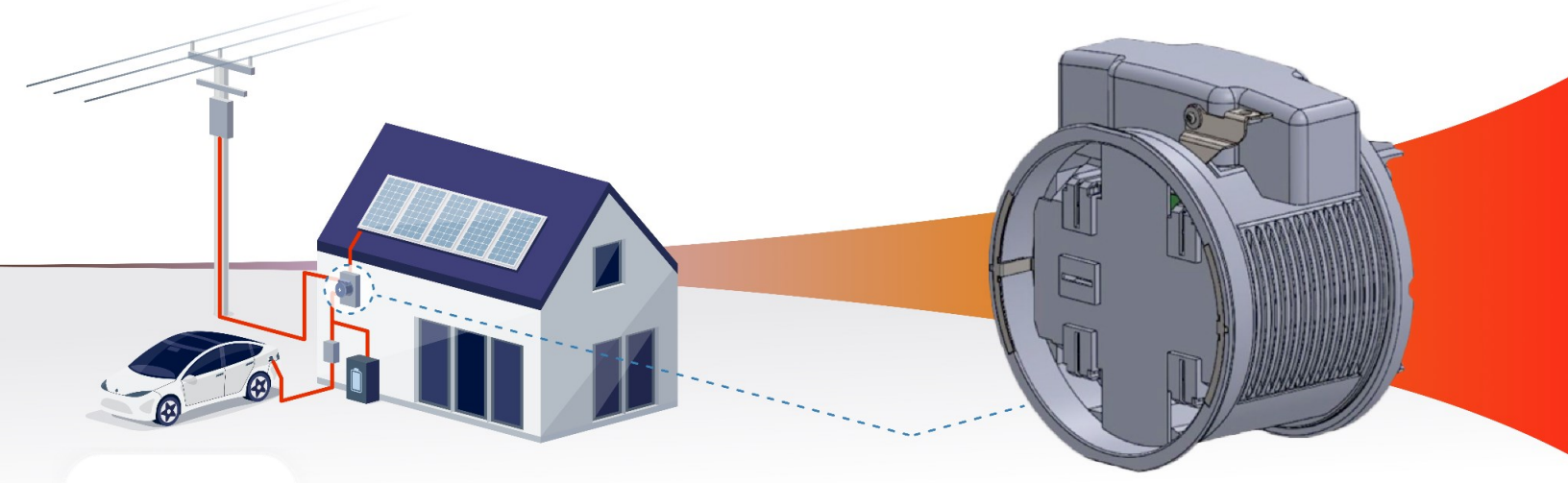
ConnectDER

Installation Manual

IslandDER METER SOCKET ADAPTER V1



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ABBREVIATIONS

ANSI	American National Standards Institute
BESS	Battery Energy Storage System
Comms	Communications Data connection to 3rd party DER controller (Analog/Digital)
CT	Current Transformer
DER	Distributed Energy Resource
ETL	Electrical Testing Laboratories (also known as Intertek)
EV	Electric Vehicle
EVPE	Electric Vehicle Power Export Equipment
EVSE	Electric Vehicle Supply Equipment
IOU	Investor Owned Utility
LED	Light Emitting Diode
MID	Microgrid Interconnect Device
MDP	Main Distribution Panel
MSA	Meter Socket Adapter
NRTL	Nationally Recognized Testing Laboratory
RMA	Return Merchandise Authorization
PPE	Personal Protective Equipment
PV	Photovoltaic
QR Code	Quick Response Code
SPD	Surge Protective Device
UL	Underwriters Laboratories

SYMBOLS USED IN THIS MANUAL

WARNING	Designates information highlighting the risk of death, serious injury, or damage to property.
NOTE	Designates helpful information.

IMPORTANT SAFETY INFORMATION

WARNING – The ConnectDER IslandDER Meter Socket Adapter (MSA) must be installed by a licensed electrician or other qualified personnel. Unqualified persons attempting to install or service IslandDER MSA could result in damage, serious injury, or death. Use only with approved 3rd party DER systems.

Always follow company and local safety/PPE requirements related to OSHA and NFPA 70E.

Installers must be intimately aware of local and company safety/PPE requirements. If safety/PPE requirements are unknown, STOP work. DO NOT proceed further. Installers must ensure all PPE has the minimum appropriate rating for the application.

CAUTION: Only use the IslandDER MSA with approved 3rd party equipment listed for use as a complete system.

The governing electric utility may require a power outage to deenergize the meter socket to install the IslandDER MSA. Please follow the prescribed process for work in meter sockets by the governing utility.

The installer assumes all responsibility and risk associated with the safe and intended use of the IslandDER MSA as expressed in the current installation document. Any deviation from the methods or applications in this manual will violate the product's NRTL listing, NEC Article 110.3(B), and void the product warranty.

Contact ConnectDER, Inc. at support@connectder.com for technical support with installing, replacing, and/or servicing the IslandDER MSA. Always follow the requirements of the serving electric utility and Authority Having Jurisdiction (AHJ).

Please read these instructions in their entirety before installing an IslandDER MSA.

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INTRODUCTION

It is the responsibility of the party installing, replacing, and/or servicing the IslandDER MSA ("the installer") to obtain and follow the most current installation document, found here:

LINK: https://connectder.com/installers/

QR CODE

The IslandDER V1 MSA (IslandDER MSA) is a Listed device that enables rapid interconnection of interactive distributed energy resources (DERs), while avoiding service upgrades and other expensive electrical work for means of utility isolation. It provides current and voltage sensing and a microgrid interconnect device (MID) for whole-house isolation ("Islanding") from the utility to a connected 3rd party system listed to:

- UL 1741 (Inverters, Converters, Controllers and Interconnection System Equipment for use with Distributed Energy Resources).
    - Including applicable supplements such as SA, SB, and PCS-CRD.

The 3rd party system may also be listed to other standards such as:

- UL 9741 (Electric Vehicle Power Export Equipment (EVPE)
- UL 3141 (A future standard scheduled for release in 2025 or 2026 for Power Control Systems, or PCS).

Intertek grants its "ETL Listed Mark" after verifying that products meet a high level of safety and quality, and conform to numerous codes and standards. This includes the 2023 edition of the National Electrical Code (NEC) – the latest available at the time the IslandDER was developed . The IslandDER MSA conforms to UL standard 414 (including supplements A, B, and C) and is suitable for use as service equipment.

The IslandDER MSA simplifies whole- and partial-house backup power behind the meter. It must be installed in conjunction with a 3rd party vendor who has integrated IslandDER MSA into a listed system to support Solar PV, battery energy storage systems (BESS), uni/bidirectional EV charging, and other applications.

PATENTS PENDING. See https://connectder.com/patents.

CAUTION - The IslandDER MSA must be installed only with the pluggable Connection Module at the top. Do not install the IslandDER MSA in any other orientation. Installation and servicing of the IslandDER MSA, associated wiring and interconnections must be performed only by qualified personnel.

The IslandDER MSA provides two-way data communication for a 3rd party system to open or close the MID, and optimize sources and loads for on-grid and off-grid operations. It has no wireless communications or power connection for external equipment. The IslandDER MSA provides wired data communications and MID control capability only.

Turn off the power supply and all other potential electricity sources before installing or servicing the IslandDER MSA. The graphics in this document depict deenergized equipment.

Comply with local codes for rules governing backfeeding power. Follow the serving electric utility's meter removal and installation rules.

Use a calibrated voltmeter to confirm conductive parts are deenergized before touching. Install the IslandDER MSA using factory-insulated tools.

Do not alter the IslandDER MSA or any other equipment or conductor in a manner that would void its listing or warranty. There are no serviceable parts. ConnectDER recommends practicing the installation of the IslandDER MSA using deenergized equipment before proceeding with live field installations.

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IslandDER V1 MSA FEATURES

- 15-minute installations of MID integration for Solar PV, EV, BESS, Vehicle-to-Home, and more.
- 200 amp MID relay to safely isolate ("Island") the home for bidirectional applications.
- Manual MID override switch to provide fail-safe reclose function preventing extended outages if the 3rd party system fails.
- NRTL listed to UL 414 SA, SB, SC, for use with systems listed to UL 1741 and others such as UL 9741 and UL 3141.
- Provides easy access to whole-house voltage and current data.
- Utility meter technicians can safely remove the Connection Module for inspection and servicing.
- Compatible with ringless, ring-type, and horn or lever bypass meter sockets ANSI form 2S, 120/240v, ANSI form 12S, 120/208v, single phase, 200 amps maximum.
- 200 amp continuous rating with no fan or moving components.
- Quick-connect and quick-release weatherproof Connection Module available with:
    - Integrated data cable for analog communications or
    - Weatherproof RJ-45 connector for digital communications via a field-furnished ethernet cable to the 3rd party system.

  The Communications Module is reversible. This permits both communications cable options to be routed from the left side or the right side of the meter socket to the 3rd party system.
- Internal surge protective device (SPD) for MSA internal component protection only, not to protect services and feeders as required by 2023 NEC 230.67.

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IslandDER MSA OPERATIONAL OVERVIEW

The IslandDER MSA must be paired with/connected to a listed 3rd party system.

Supported applications include:

- Utility-interactive solar PV systems.
- Solar + storage systems.
- EV charging (level 2 uni- or bidirectional EVSE).
- Vehicle-to-Home/Grid (V2X).
- Whole-house backup power.
- Partial-home backup power.
- Grid-support functions.
- Retail arbitrage, self-consumption.
- Virtual power plants (VPP).

The IslandDER MSA integrated MID safely isolates (“islands”) the home from the utility, allowing for microgrid operations via alternate power source(s) to the home.

The IslandDER provides voltage and current sensing to a 3rd party system. The MID is operated via 3rd party control signals.

IslandDER MSA KEY COMPONENTS

The key components of the IslandDER MSA are shown in Figure 1.

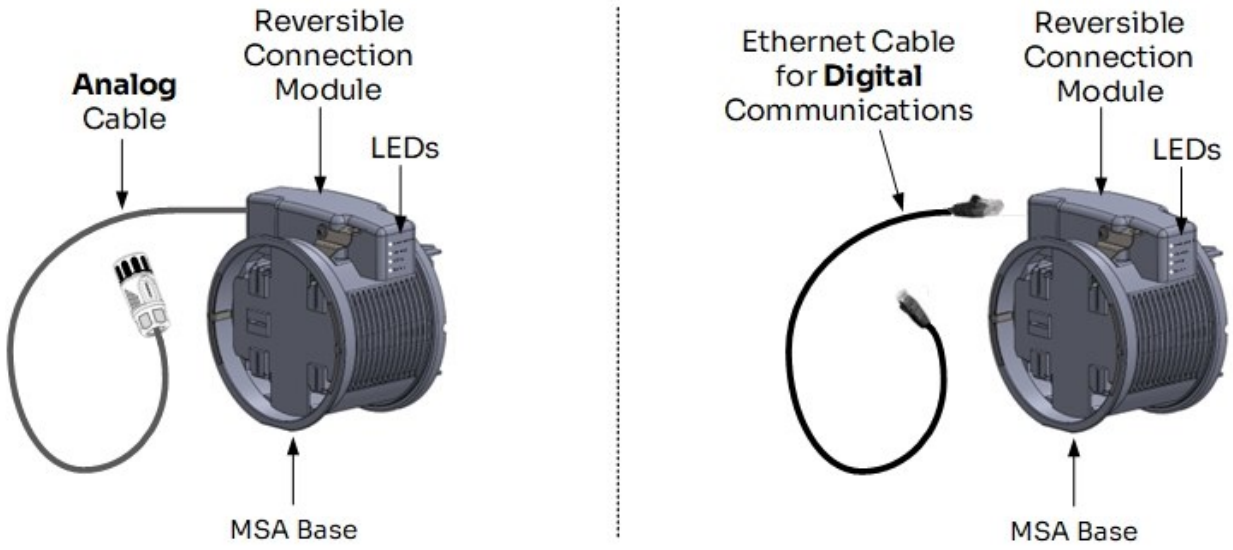

Figure 1 – IslandDER MSA Key Components.

For Analog communications, *(left)* the Connection Module is permanently wired with a factory-integrated data cable and plug to connect to the 3rd party system.

For Digital communications, *(right)* the Connection Module is equipped with a weatherproof RJ-45 connection port for an ethernet cable (furnished by the installer) to the 3rd party system.

The IslandDER MSA Base accommodates either an Analog Connection Module or Digital Connection Module. See Figure 2.

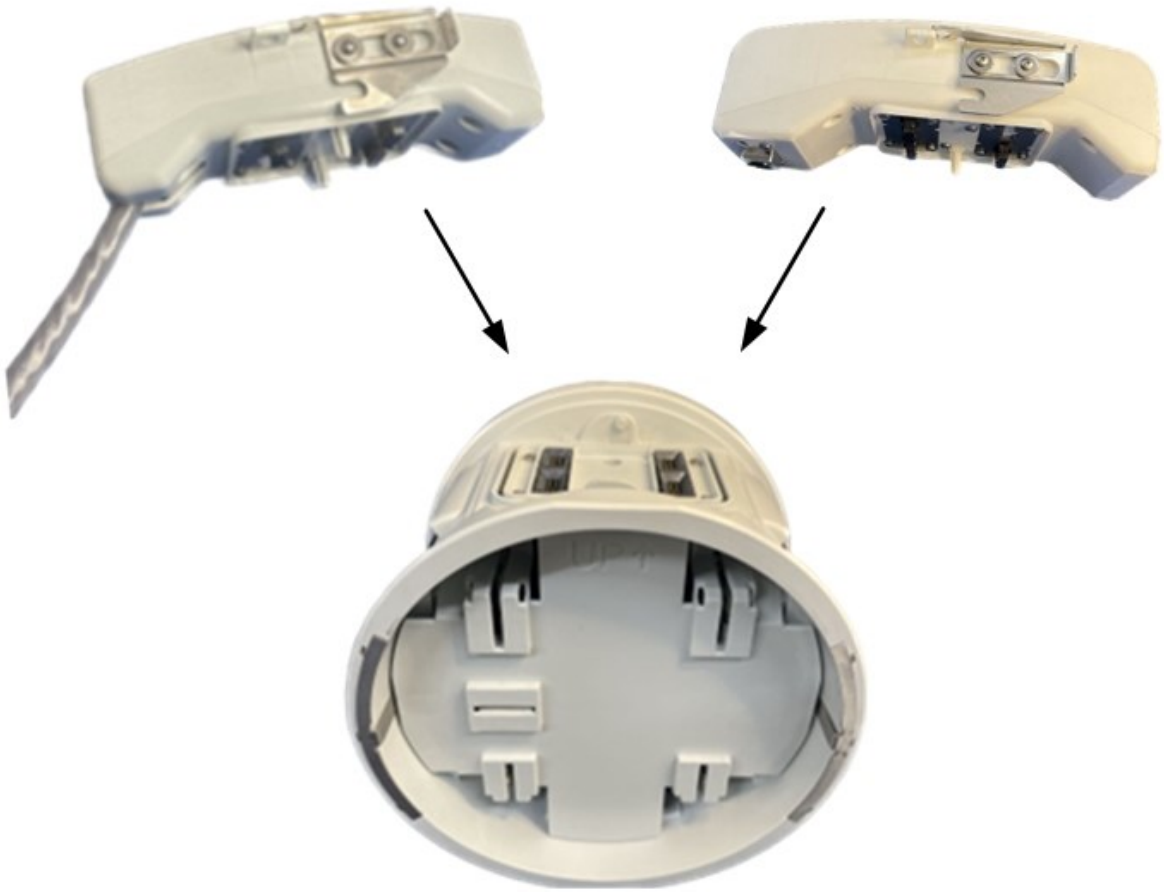

Figure 2 – IslandDER MSA Base for Either Analog (Left) or Digital (Right) Connection Module.

The IslandDER Analog MSA is comprised of:

- one MSA Base and
- one Analog Connection Module.

The Analog Connection Module is integrated with a 6 ft. communications cable. Custom lengths from 2 ft. to 25 ft. are available by special order. See Figure 3.

Figure 3 – IslandDER MSA Base with Analog Connection Module

The Analog Connection Module has no serviceable parts, and the communications cable is not field-replaceable.

The IslandDER Digital MSA is comprised of:

- one MSA Base and
- one Digital Connection Module.

The Digital Connection Module is equipped with a weatherproof RJ-45 connection port for an ethernet cable (furnished by the installer) to the 3rd party system. See Figure 4.

Figure 4 – IslandDER MSA Base with Digital Connection Module

Use an ethernet cable specified by the 3rd party vendor. A weatherproof 'boot' is furnished to terminate the ethernet cable to the Reversible Connection Module. Follow the 3rd party manufacturer's instructions to properly terminate the other end of the cable to their system.

WARNING – Follow the installation instructions for the 3rd party system before connecting either type of Communications Cable. The Communications Cable plug has touch-safe potential for communication signals on its sleeves when the Connection Module is connected to the MSA Base in a live meter socket.

IslandDER SYSTEM DIAGRAMS

WHOLE HOUSE BACKUP: IslandDER INSTALLED ON THE UTILITY METER SOCKET

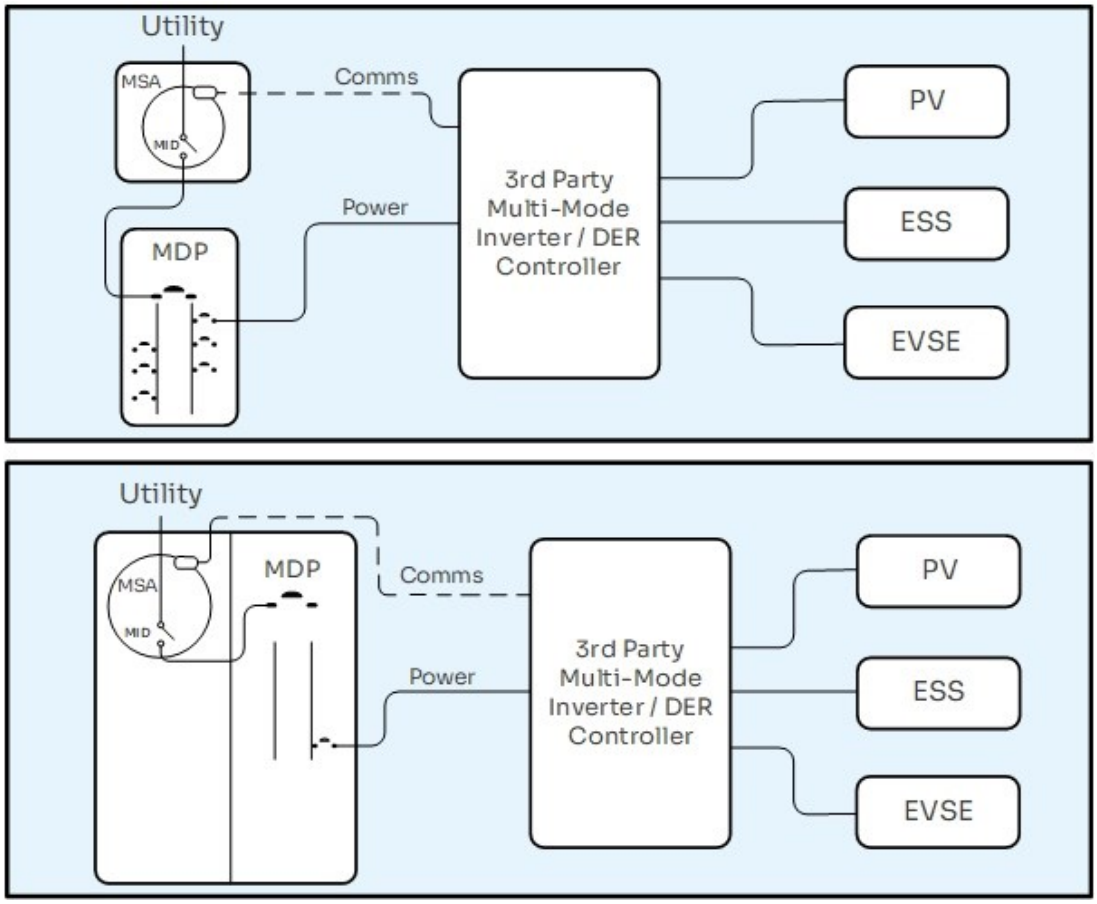

Figure 5 – IslandDER on a Utility Standalone Meter Socket (Top) and Utility Meter/Main Combination Panel (Bottom).

NOTE –These configurations require permission from the serving electric utility.

The IslandDER MSA provides data to (and receives control signals from) the 3rd party system, shown above as the Multi-Mode Inverter / DER Controller.

Power wiring to the Main Distribution Panel (MDP), Electric Vehicle Supply Equipment (EVSE), Energy Storage System (ESS), and Solar Photovoltaic (PV) components is installed by others as part of the 3rd party system.

WHOLE HOUSE BACKUP: IslandDER INSTALLED ON A CUSTOMER-OWNED METER SOCKET

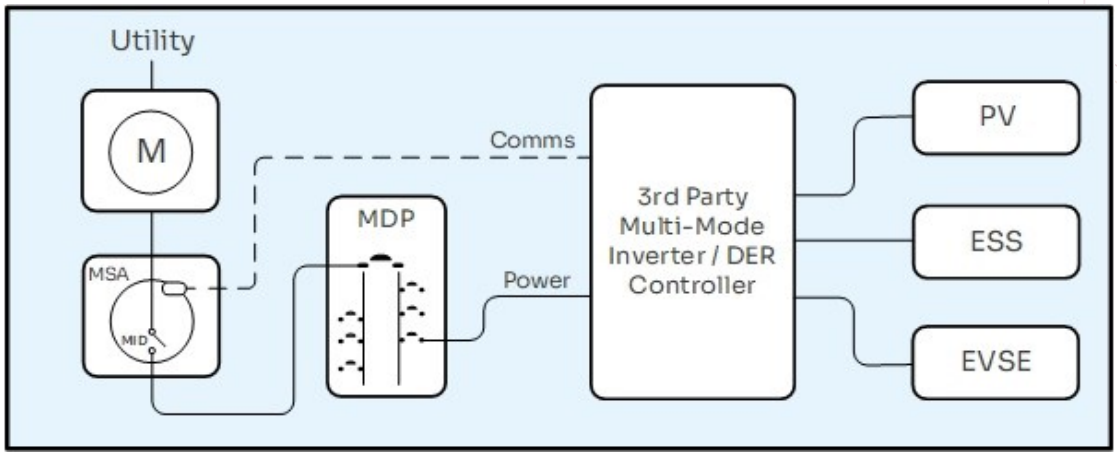

Figure 6 – IslandDER on a Customer-Owned Meter Socket

(Between a Standalone Utility Meter and Main Distribution Panel).

NOTE –This configuration requires installing a new 2S or 12S meter socket between the existing utility meter and main distribution panel.

The IslandDER MSA provides data to (and receives control signals from) the 3rd party system, shown above as the Multi-Mode Inverter / DER Controller.

Power wiring to the Main Distribution Panel (MDP), Electric Vehicle Supply Equipment (EVSE), Energy Storage System (ESS), and Solar Photovoltaic (PV) components is installed by others as part of the 3rd party system.

PARTIAL HOME BACKUP: IslandDER INSTALLED ON A CUSTOMER-OWNED METER SOCKET

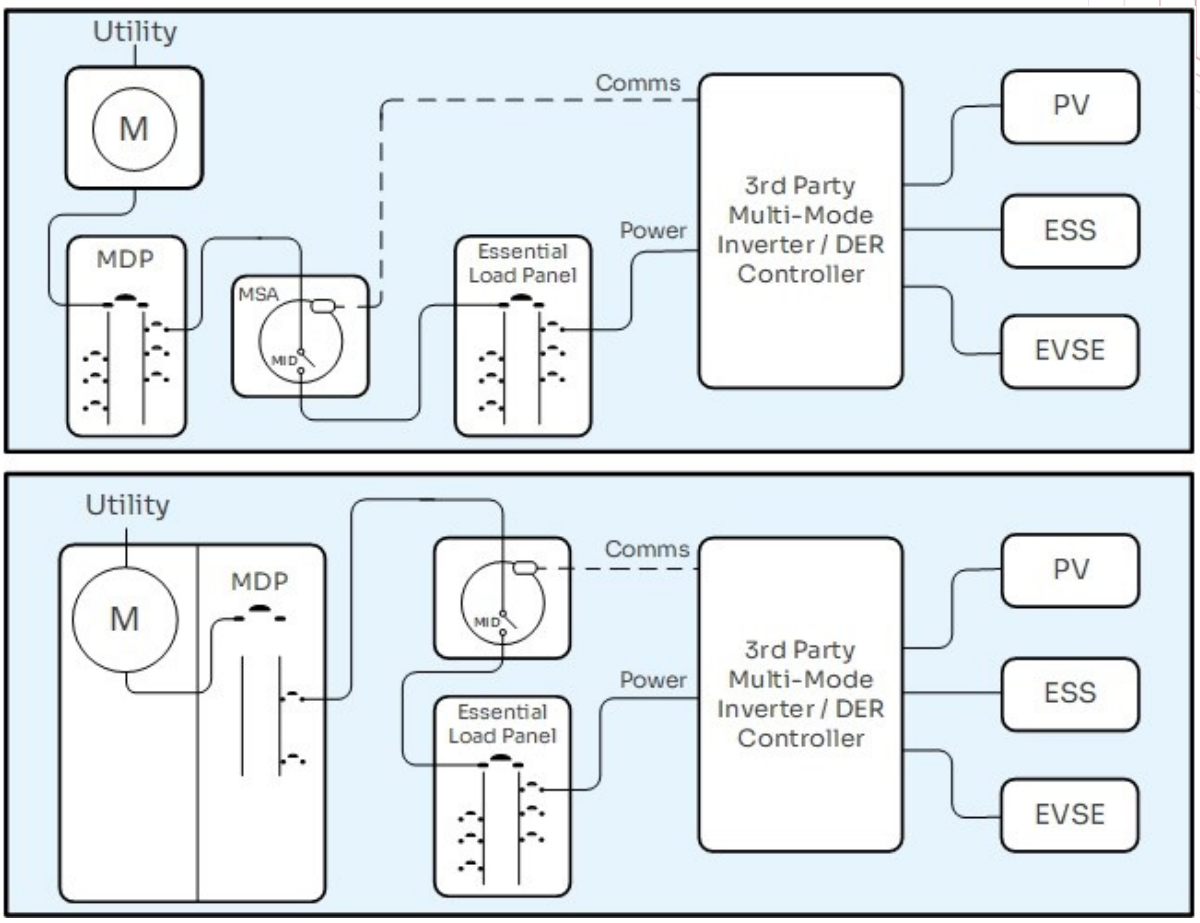

Figure 7 – IslandDER on a Customer-Owned Meter Socket Between the Standalone MDP (top) or Meter/Main MDP (bottom) and the Essential Load Panel.

NOTE –This configuration requires installing a new 2S or 12S meter socket between the MDP and Essential Load Panel.

The IslandDER MSA provides data to (and receives control signals from) the 3rd party system, shown above as the Multi-Mode Inverter / DER Controller.

Power wiring to the Main Distribution Panel (MDP), Electric Vehicle Supply Equipment (EVSE), Energy Storage System (ESS), and Solar Photovoltaic (PV) components is installed by others as part of the 3rd party system.

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BOX CONTENTS

The package contains the following items:

Qty.	Item
1	IslandDER MSA Base.
1	Quick-connect and quick-release Connection Module Analog: with a permanently wired factory-integrated data cable (6 feet long, standard) and plug. Custom lengths from 2 to 25 feet are available by special order. Digital: a weatherproof RJ-45 connection port for an ethernet cable (furnished by others) to the 3rd party system.
1	Locking ring for attaching the meter to the MSA.
1	Accessory bag with installation reminders & QR code link to IslandDER MSA documentation.
5	Tamper-resistant seals.
1	5th stab kit for 12S meter sockets.
1	Installation Instructions for the electrician (1-page printed front and back).
1	User Manual for the homeowner (1-page printed front and back).
1	Digital only: weatherproof boot assembly for ethernet cable.

Verify the contents are complete before proceeding with installation. For missing or damaged items, contact rma@connectder.com.

INSTALLATION PREPARATION

SITE INSPECTION

There are several types of residential meter sockets suitable for IslandDER MSA installation.

Some common types, namely single gang/standalone, multi-gang, and combination meter socket/load centers are covered here. All three are available in ringless and ring type configurations.

1. Begin assessing the suitability of a meter socket by ruling out all meter sockets with signs of damage, excessive rust, evidence of loose or damaged service conductors, and enclosures loosely secured to the structure.

2. Confirm if the serving electric utility is restricting IslandDER MSA usage to ringless (Figure 8) or ring type (Figure 9) meter sockets. The IslandDER MSA supports both configurations.

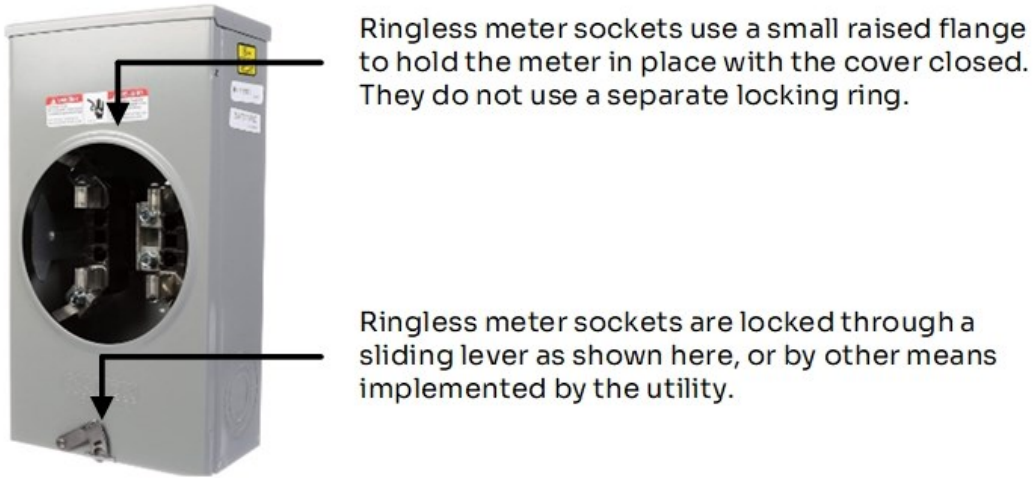

Figure 8 – Single Gang/Standalone Ringless Meter Socket.

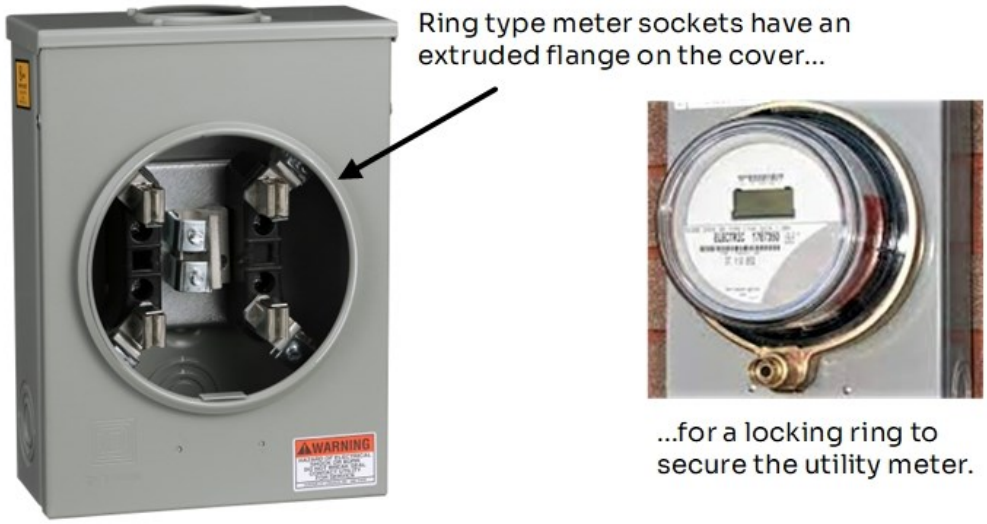

Figure 9 – Single Gang/Standalone Ring Type Meter Socket.

3. Confirm if multi-gang meter sockets (Figure 10) are on the utility's approved equipment list. They may present neutral wiring and service access issues over single gang meter sockets. ConnectDER recommends researching the manufacturer's documentation for potential compatibility.

   IslandDER MSA compatibility with multi-gang meter sockets may be permitted by the utility on a case-by-case basis. Care must be taken to ensure that the IslandDER MSA Connection Module can be inserted and disconnected (lifted up a minimum of 1").

   Multi-gang meter sockets may accommodate only the top socket, or left & right sockets, or possibly none at all.

Figure 10 – Multi-Gang Meter Sockets.

4. Confirm that meter socket/load centers (Figure 11) are on the utility's approved equipment list. They may present neutral wiring and service access issues over single gang meter sockets. ConnectDER recommends researching the manufacturer's documentation for potential compatibility.

Figure 11 – Combination Meter Socket/Load Centers.

WARNING – Do not alter the IslandDER MSA or any other equipment in a manner that voids its listing or warranty.

5. An IslandDER MSA shall not be installed on meter sockets already equipped with another socket adapter as shown in Figure 12.

Figure 12 – Existing Meter and Meter Socket Adapter.

6. Account for other considerations:

   a. Check with the utility for other potential IslandDER MSA prohibited installations. Do not install an IslandDER MSA where it is subject to physical damage.

   b. Verify the IslandDER MSA model number(s) approved for use in the utility's service area.

   c. Verify the IslandDER MSA would be accessible after the installation with adequate working clearance. The IslandDER MSA extends the billing meter approximately 5 inches forward from the meter socket.

   d. Check with the utility and AHJ before installing an IslandDER MSA indoors. For example, the AHJ may not permit the IslandDER MSA in bathrooms, or over the steps of a stairway.

   e. Verify the existing meter indicates the service is ANSI form 2S, 120/240v, ANSI form 12S, 120/208v, single phase, 3-wire, 200 amps maximum. Some utilities require 12S/5-jaw meter sockets but are installing 2S/4-jaw meters. The IslandDER MSA is furnished with a 5th stab kit to support 12/5-jaw meter sockets with the 5th jaw at the 9 o'clock position.

7. Additional examples of meter sockets NOT suitable for a Solar MSA installation:
    a. Meter socket enclosures with damage, excessive rust, or are poorly mounted. See Figure 13.

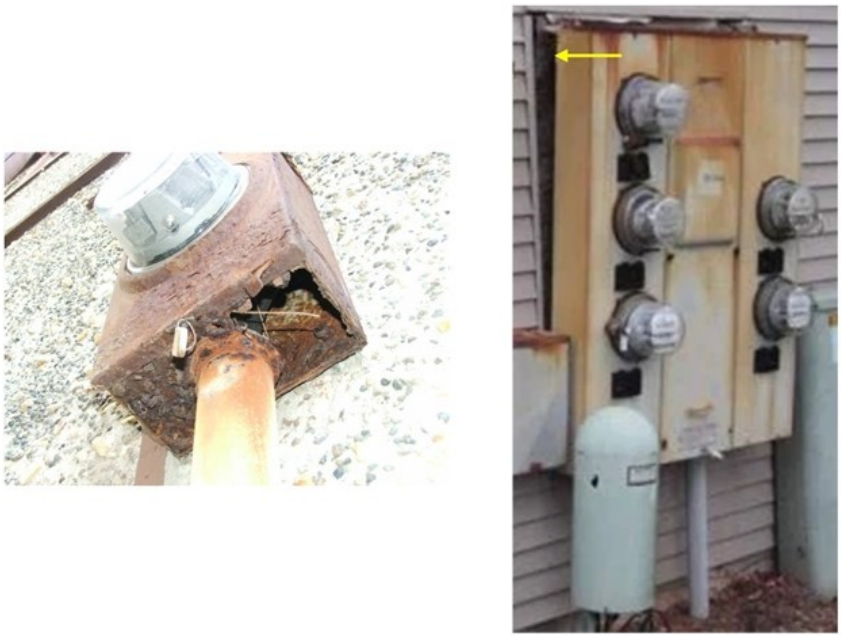

Figure 13 – Rusty, Damaged, Poorly-Mounted Meter Sockets.

    b. Meter sockets with signs of corrosion or overheating as shown in Figure 14.

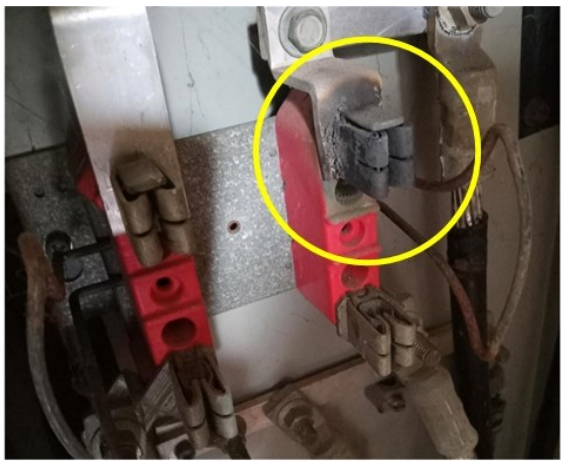

Figure 14 – Corroded Jaw.

8. Confirm the existing utility meter is either form 2S or 12S, 3-wire, 200 amps maximum. See Figure 15.

Figure 15 – Meter Form 2S and 12S.

NOTE – A 2S meter has 4 stabs. It fits into (and operates properly) in meter sockets with either 4 or 5 jaws. A 2S meter does not operate properly when a 5-jaw socket is used with a 120/208V system.

If the utility meter is form 12S, (5 stabs), OR if the existing meter socket has 5 jaws (even if a form 2S/4-jaw meter is installed), follow the steps in the INSTALLATION PROCEDURE to install the 5th stab that is furnished with every unit.

9. A meter socket in good condition should have (1) tight conductor connection with no corrosion, (2) insulation blocks not cracked or broken, (3) jaws that tightly grip the meter stabs with no gaps, pits, or corrosion, and (4) conductor insulation intact and not frayed or cracked. See Figure 16.

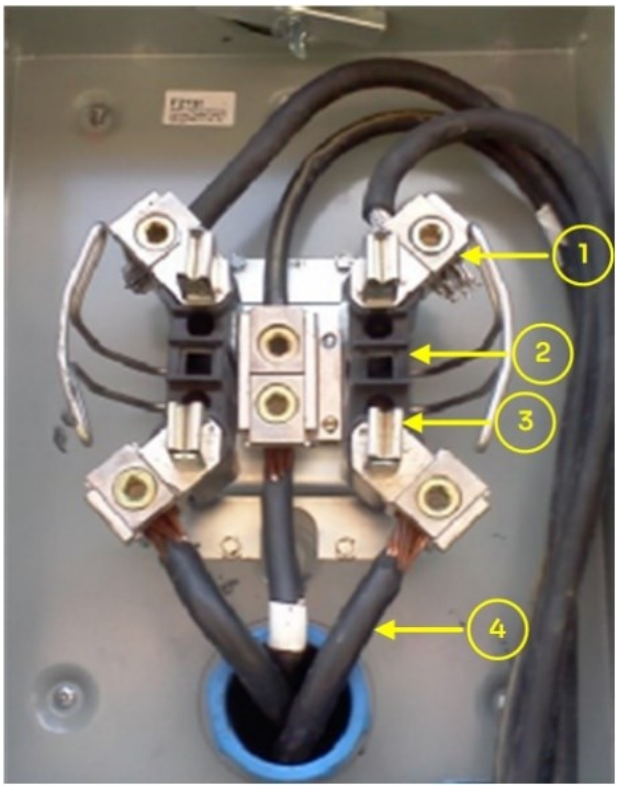

Figure 16 – Existing meter socket in good condition.

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PACKAGE INSPECTION

Inspect the box and verify the contents are complete and in good condition. Take photos and contact ConnectDER at RMA@connectder.com in case of damaged or missing items.

ITEMS REQUIRED FOR IslandDER MSA INSTALLATION

NOTE – The following items must be provided by the installer to install an IslandDER MSA into a meter socket. Use factory-insulated tools wherever possible. Communications wiring installation is covered later in this document.

Qty.	Item
1	Wire cutter, e.g., diagonal pliers.
1	"Meter Grabber™" or equivalent tool to safely remove and reinstall the electric meter.
1	Calibrated digital volt-ohmmeter or other suitable metering equipment.
1	Small plastic bag and 1 roll of electrical tape for cable plug protection (Analog).

The following items are only required for meter sockets w/5th jaw at the 6 o'clock position:

1	Wire stripper.
1	Approved wiring connector (if needed) and tools to terminate a #10 AWG stranded copper conductor (furnished by others) inside the meter socket.
1	5/32" hex key.
1	5/32" hex bit for use with a torque driver.
1 lot	Electrical insulation blanket.
1	Calibrated torque driver, minimum setting 35 in. lbs.

NOTE – In most cases, a neutral wire will not be installed.

Only meter sockets with the 5th jaw at the 6 o'clock position will require a neutral wire (requires replacing the meter itself with its 5th jaw at the 9 o'clock position). Please refer to the INSTALLATION PROCEDURE section later in this document.

SAFETY EQUIPMENT

Always follow company and local safety/PPE requirements related to OSHA and NFPA 70E.

Installers must be intimately aware of local and company safety/PPE requirements. If safety/PPE requirements are unknown, STOP work. DO NOT proceed further. Installers must ensure all PPE has the minimum appropriate rating for the application.

Examples of common PPE and other protective devices are listed below:

Qty.	Item
1	Safety glasses.
1	Full-face arc flash shield.
1	Leather/rubber insulated electrical glove kit.
1 lot	Calorie rated clothing for the site's arc flash rating.
1 pair	Safety footwear.

Prior to installing a #10 AWG neutral wire to accommodate a meter socket with its 5th jaw at the 6 o'clock position, ConnectDER recommends insulating energized parts within the meter socket. Use an appropriately rated electrical insulation blanket that can be cut to size and temporarily applied. See Figure 17.

Figure 17 – Protection From Energized Parts.

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INSTALLATION PROCEDURE

WARNING – IslandDER MSA installation must be performed by qualified personnel only. Electric shock, arc flash hazards, serious injury or death may result if power is not removed prior to the IslandDER MSA installation.

NOTE – In some service territories, the meter must be removed by the utility. An increasing number of utilities are permitting qualified personnel to remove the meter and install the IslandDER MSA.

The governing electric utility may require a power outage to deenergize the meter socket. Please follow the prescribed process for work in meter sockets by the governing utility.

For meter sockets with a 5th jaw at the 9 o'clock position, install the 5th stab kit as directed below in the "IslandDER MSA INSTALLATION INSTRUCTIONS".

For meter sockets with a 5th jaw at the 6 o'clock position, coordinate with the utility in advance to change the billing meter to form 12S with the 5th stab at the 9 o'clock position. A #10 AWG neutral wire will need to be installed to one of the neutral terminals on the rear of the MSA if performing a form conversion here.

Follow the instructions below in the "IslandDER MSA INSTALLATION INSTRUCTIONS" to install the 5th stab at the 9 o'clock position, AND install a #10 AWG copper neutral wire.

INSTALLATION PLANNING INSTRUCTIONS

1. The Analog IslandDER MSA has an integrated data cable for Analog communications.

   The Digital IslandDER MSA has an RJ-45 connection port for Digital communications. The installer must furnish an ethernet cable to the 3rd party system and use the ethernet boot kit included with the MSA to keep the RJ-45 port weatherproof.

   Use an ethernet cable specified by the 3rd party vendor and suitable its environment.

2. Plan to route and support the Communications Cable from the IslandDER MSA to the 3rd party system in a professional and skillful manner.

3. Determine the desired orientation of the Connection Module. The Communications Cable may exit to the left or to the right.

4. Confirm the IslandDER MSA Communications Cable has the required length to reach the 3rd party system. The Analog cable is 6 feet long and factory-assembled with the Connection Module. The cable itself is not field-replaceable. (Other lengths are available from 2 to 25 feet by special order. Contact your distributor if a longer cable length is required.)

5. Comply with working clearances and access to equipment as required by the utility and authority having jurisdiction (AHJ).

6. If the IslandDER MSA is installed prior to the 3rd party system:

   a. Analog: The Communications Cable will have low voltage on its plug connector sleeves. Ensure the connector dust cap is installed and cover it with a plastic bag fastened with electrical tape. Coil and temporarily support the Communications Cable to prevent physical damage until it is ready to connect to the 3rd party system.

   b. Digital: Keep the dust cap secured over the RJ-45 port.

NOTE - Some electric utilities are installing the IslandDER MSA and require the balance of the DER system to be installed first. Please refer to the “CALIFORNIA IOU MSA PROCESS GUIDELINES” section later in this document.

1. Open the box and remove all the contents.

2. For a form 12S meter socket with a 5th jaw at the 9 o'clock position, locate the 5th stab kit (Figure 18).

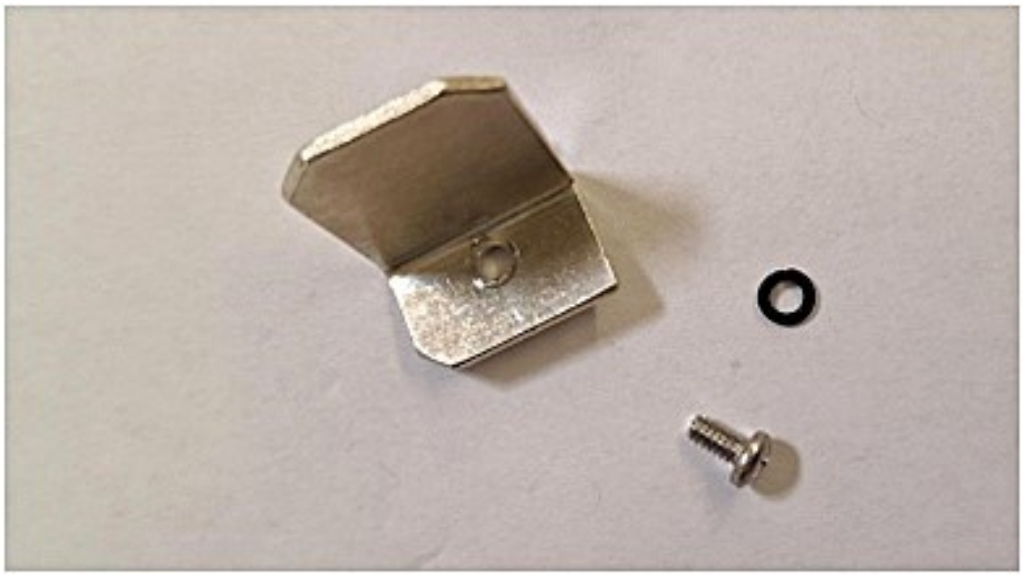


Figure 18 – 5th Stab Kit.

3. Attach the 5th stab to the rear of the MSA Base at the 9 o'clock position (Figure 19) using a #0 or #1 Philips screwdriver until the screw is fully seated. Torque to 5 in. lbs.

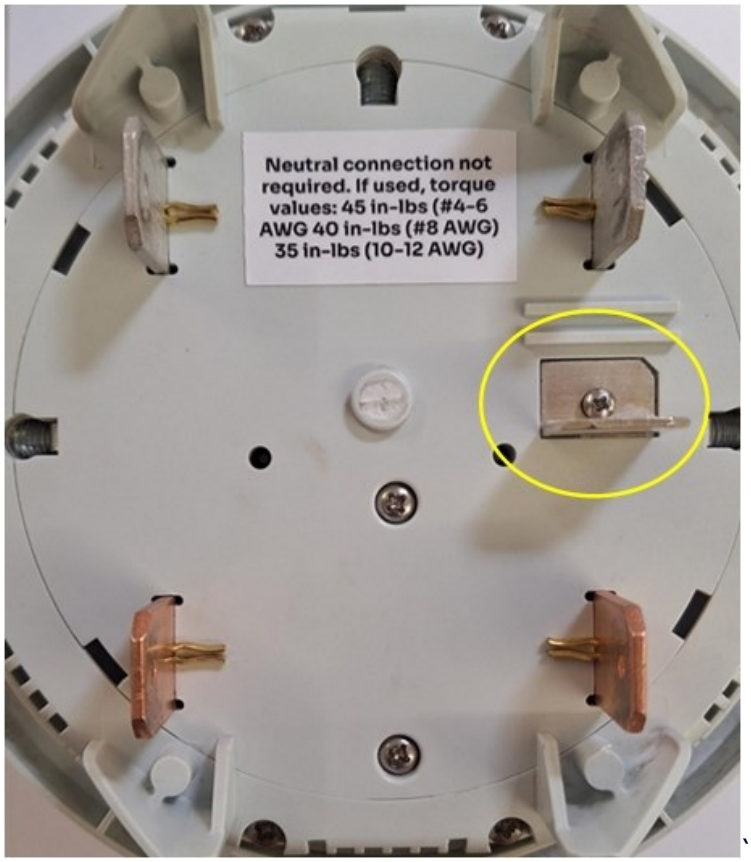


Figure 19 – 5th Stab Kit with 5th jaw at 9 o'clock.

4. Remove all jewelry, put on the appropriate PPE, and follow your employer's safety procedures.

5. Notify the homeowner that power will be interrupted.

6. Turn OFF the premises main service disconnect.

7. Cut and remove the utility tamper-prevention seals and remove the locking ring (and socket cover if ringless).

8. For lever bypass meter sockets, acuate the lever to permit meter removal.
9. Using a “Meter Grabber™” or similar tool, remove the utility meter and store it safely.
10. Inspect the meter socket terminals for loose or broken wires, damaged jaws, and other signs of damage. Confirm the meter socket and service entrance conductors are in good condition before proceeding.
11. Actuate the lever bypass, if any, to deenergize the load side jaws.
12. For meter sockets with a 5th jaw at the 6 o’clock position, cover the line side jaws with an electrical insulation blanket. See Figure 20.

Figure 20 – Meter socket with 5th jaw at 6 o’clock.

13. Install a #10 AWG copper stranded neutral wire from the meter socket interior to the MSA neutral terminal at its 3, 9, or 12 o'clock position. Torque to 35 in-lbs. using a 5/32" hex bit. See Figure 21.

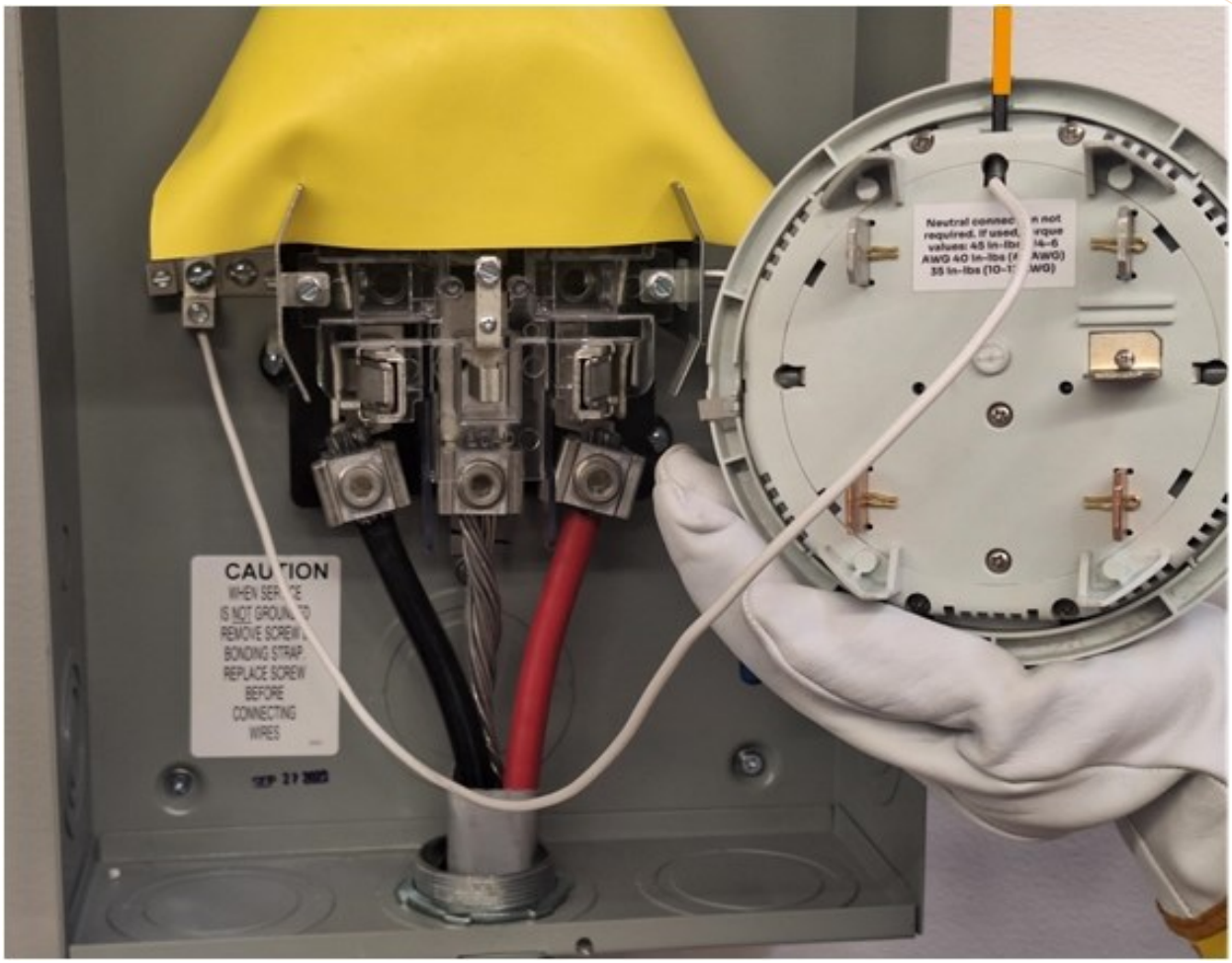


Figure 21 – Field-Supplied Neutral Connection for Meter Sockets w/5th Jaw at 6 o'clock.

14. Remove the electrical insulation blanket, if used.

15. For ringed meter sockets, reinstall the meter socket cover. For lever bypass sockets, actuate the lever to permit meter base installation.

16. Insert the MSA Base into the meter socket with the Connection Module contacts at the top. Ensure it is fully and securely seated. See Figure 22.

Figure 22 – MSA Base Inserted.

17. For lever bypass meter sockets, return the lever to the normal position.

18. For ringless meter sockets, reinstall the meter socket cover over the MSA Base. Proceed with caution as the MSA line side jaws are now energized.

19. For ringed meter sockets, install a lock ring to secure the MSA base to the meter socket cover with the thicker/wider flange facing the meter socket. If the lock ring says “Front” on it, install it with the arrow facing away from the meter socket as shown in Figure 23.

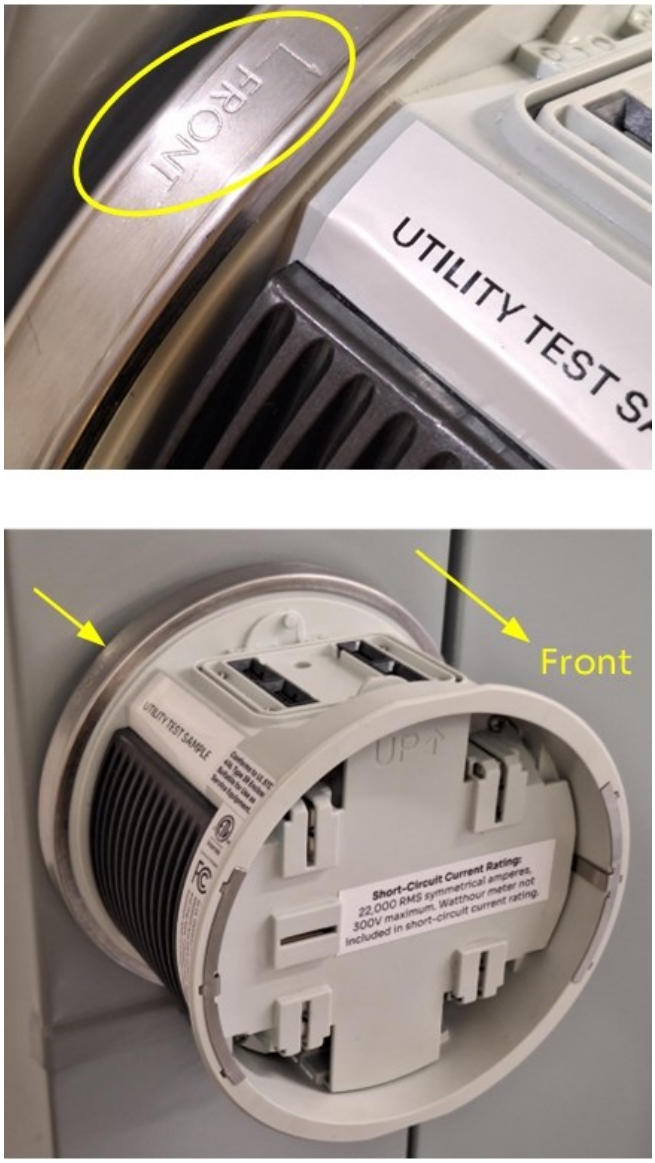


Figure 23 – MSA Base with Lock Ring Installed.

20. Using a “Meter Grabber™” or similar tool, reinstall the utility meter, or install the new replacement utility meter .

21. Install a lock ring to secure the utility meter to the MSA Base with the thicker/wider flange facing the meter socket. If the ring says “Front” on it, install it with the arrow facing away from the meter socket. See Figure 24.

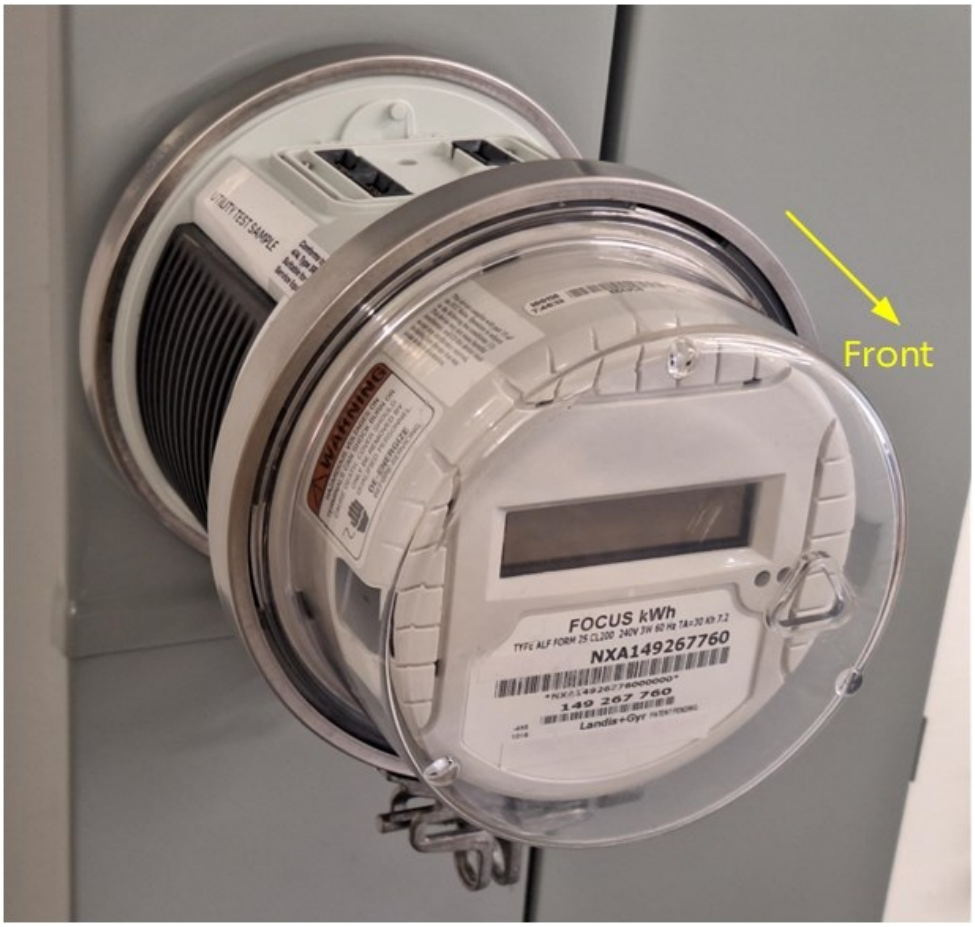


Figure 24 – MSA Base with Utility Meter Installed.

22. Note the guide pins on the bottom of the Connection Module. See Figure 25. Slide the front and rear latches to the open position.

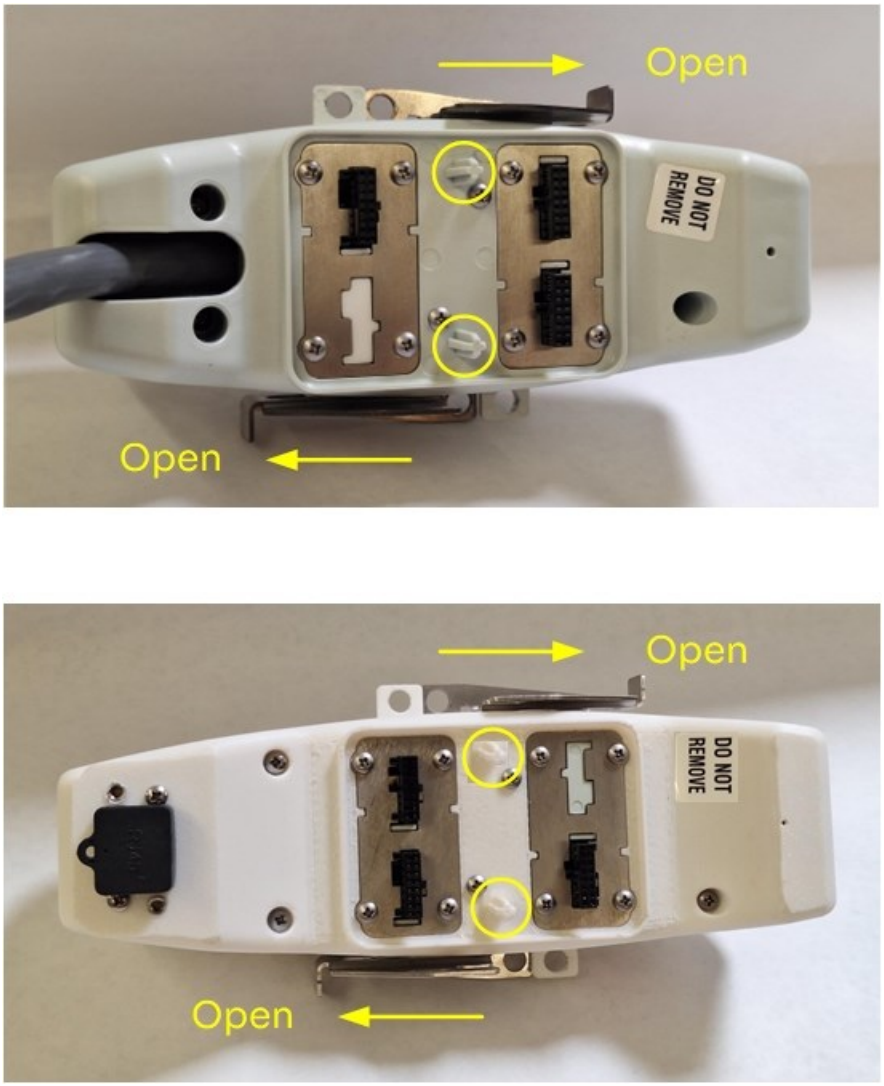


Figure 25 – Connection Module Guide Pins and Latches. Analog (Top) & Digital (Bottom).

23. Confirm the Connection Module contacts at the top of the MSA Base are clear of any debris. Position the Connection Module above the MSA Base with the Analog Cable or ethernet port exiting toward the desired direction.

WARNING

The pins in the MSA base are fragile. Proceed with caution to avoid bending or damaging the pins.

24. Align the Connection Module guide pins with the holes in the MSA Base. See Figure 26.

    Level the connection module and carefully insert it into the top of the MSA Base.

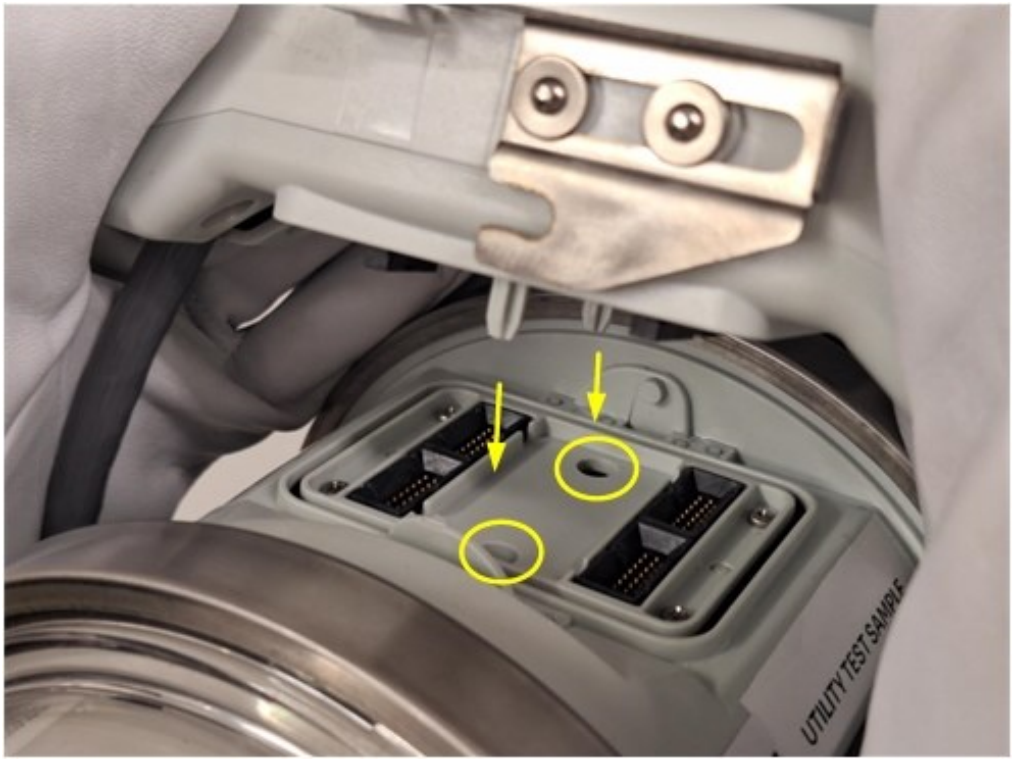


Figure 26 – Insert the Connection Module.

25. Slide the front and rear latches to secure the Connection Module to the MSA Base as shown in Figure 27.

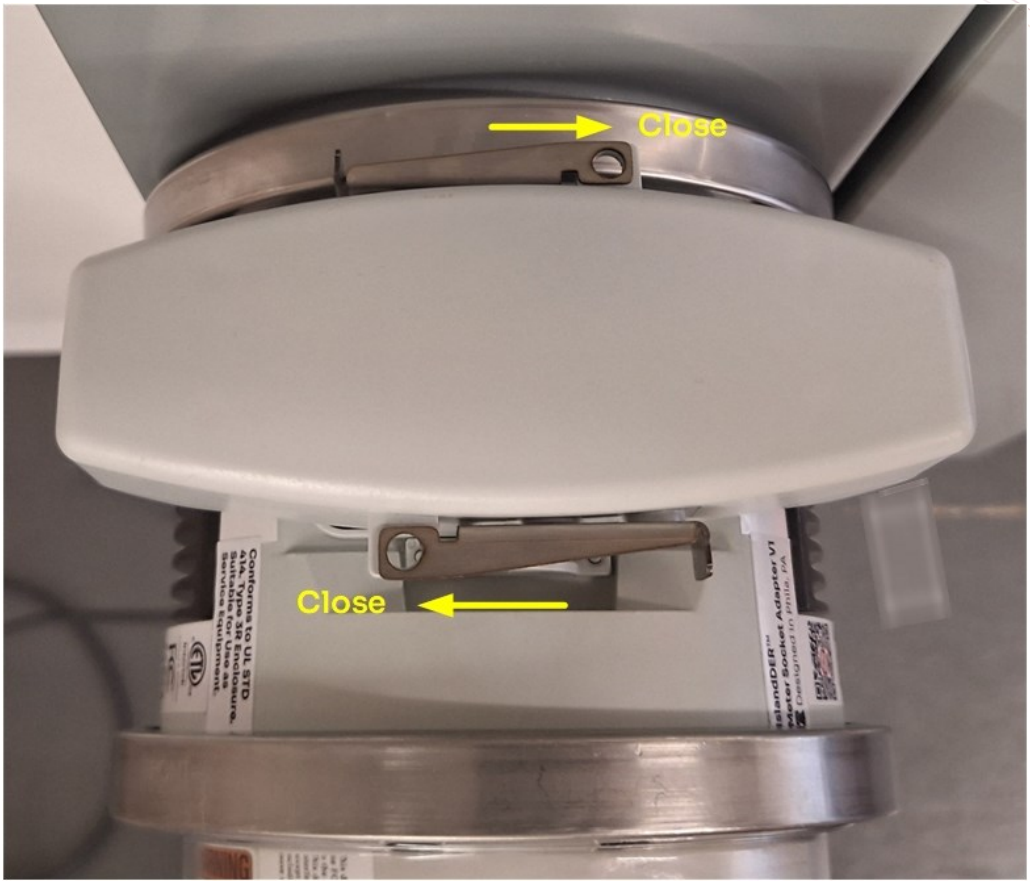
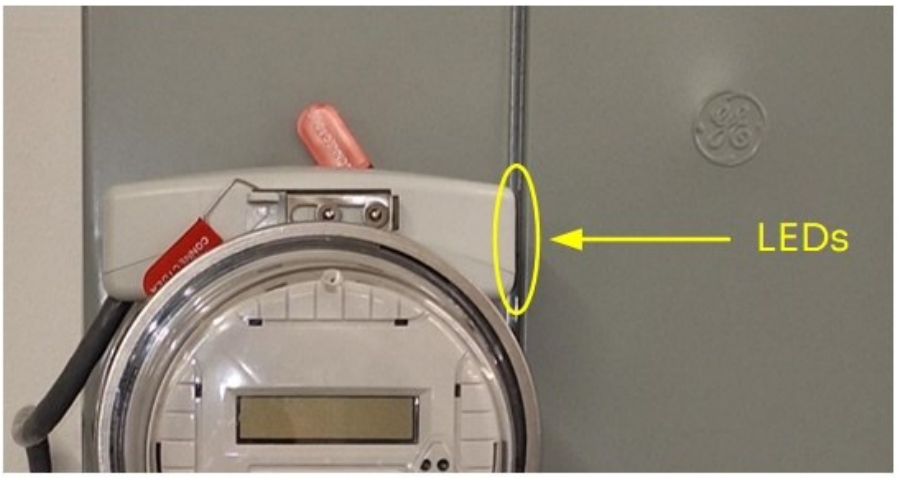


Figure 27 – Slide the latches closed.

26. Turn ON the premises main service disconnect to restore utility power.

27. Install tamper-prevention seals on the lock rings, the meter socket cover, and the two Connection Module latches.

28. Check the LED status on opposite end of the Connection Module from the communications cable (analog) or RJ-45 port (digital). Confirm the 'Utility Connected' white light is on, and the 'Status' LED is solid green after blinking a few minutes. See Figure 28.



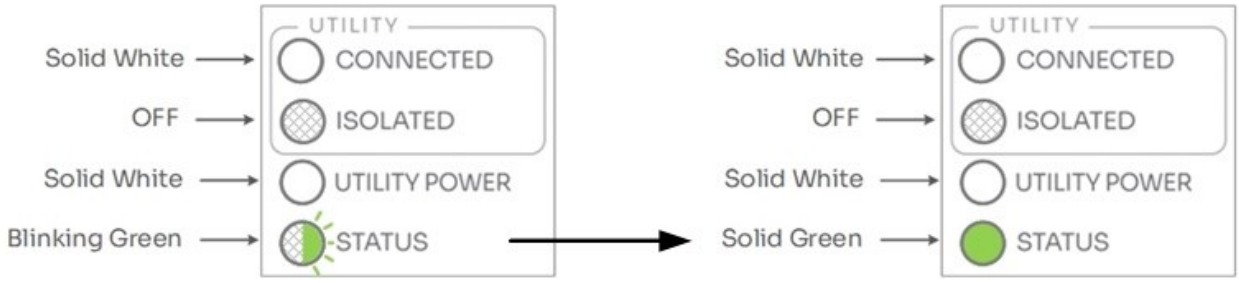


Figure 28 – Normal Startup LED Status.

29. Analog: Verify the Analog Cable is secured and the plug is capped off and protected from physical damage, debris, etc. Tape a plastic bag around the plug connector (circled) to protect it further. See Figure 29.

Figure 29 – IslandDER Analog Installed and Ready for 3rd Party Integration.

Analog Installation Task Checklist:

- ✓ IslandDER MSA Base and Connection Module installed.
- ✓ Lock rings installed.
- ✓ Tamper-preventive seals installed on Connection Module latches, lock rings, and meter socket cover.
- ✓ LEDs indicating normal status.
- ✓ Analog cable supported in a professional and skillful manner.
- ✓ Analog plug connector bagged and taped.

30. Digital: Verify the ethernet RJ-45 port is capped off to prevent entry of moisture, debris, etc. as shown in Figure 30.

Figure 30 – Ethernet RJ-45 Port Capped Off.

Digital Installation Task Checklist:

- ✓ IslandDER MSA Base and Connection Module installed.
- ✓ Lock rings installed.
- ✓ Tamper-preventive seals installed on Connection Module latches, lock rings, and meter socket cover.
- ✓ LEDs indicating normal status.
- ✓ Digital RJ-45 port capped off.

31. The IslandDER V1 MSA installation is complete. Refer to the instructions below to connect the Communications Cable to the 3rd party system.

CONNECT COMMUNICATIONS CABLE TO 3RD PARTY SYSTEM

ITEMS REQUIRED TO CONNECT COMMUNICATIONS CABLE TO 3RD PARTY SYSTEM

NOTE – The following items (provided by the installer) are required to connect the IslandDER MSA Communications Cable to the 3rd party system.

Qty.	Item
1	Wire cutter, e.g., diagonal pliers.
1	Calibrated digital volt-ohmmeter or other suitable metering equipment, and/or other tools required to commission the 3rd party system according to the manufacturer's instructions.
1 lot	Tools and materials to route and support the Communications Cable from the IslandDER MSA to the 3rd party system in a professional and skillful manner, and protect the cable from physical damage.
1 lot	Insulation blanket material to temporarily protect the IslandDER Connection Module contacts if it is removed (and deenergized) from the MSA Base. This allows the Analog Cable to be safely connected to the 3rd party system.
1 roll	Electrical tape.
1 lot	Additional tamper-prevention seals. Five are furnished with each unit to secure the Connection Module hasps, meter socket rings and cover.

Additionally, for Digital Communications Cable:

1	A calibrated torque driver with a minimum range of 2 in. lbs.
1	#0 or #1 Philips screwdriver, or 5/32" flat blade screwdriver.
1	#0 or #1 Philips tip for a torque driver, or 5/32" flat blade tip for a torque driver.

WARNING – IslandDER MSA installation must be performed by qualified personnel only. Follow your employer's requirements for personal protective equipment (PPE) and procedures.

CONNECT THE COMMUNICATIONS CABLE TO THE 3RD PARTY SYSTEM

NOTE – Follow the installation instructions provided with the 3rd party system. Confirm the 3rd party system is ready for the Analog Cable to be connected before proceeding.

ANALOG:

1. Remove temporary supports from the IslandDER Analog cable, if any. Keep the Analog plug connector capped off and bagged. It has low voltage on its sleeves unless the Connection Module is removed from the MSA Base.

2. Route and support the IslandDER Analog Cable toward the 3rd party system in a professional and skillful manner that protects the cable from physical damage. The Analog Cable is NOT approved for direct burial.

3. Provide a drip loop to prevent water entering the 3rd party system and the Connection Module. Do not connect to the 3rd party system yet.

4. Confirm that working clearances and equipment access comply with utility and AHJ requirements.

5. If the 3rd party system requires the Analog Cable to be deenergized before connecting:

    a. Cut and remove the tamper-prevention seals from the Connection Module latches.

    b. Slide the latches open and remove the Connection Module from the top of the MSA Base. This removes the low voltage on the Analog Cable.

c. Gently relocate the Connection Module to a resting position off of the MSA Base. Add additional support such as electrical tape, cable ties, etc. as needed to prevent damage to any components. Place an electrical insulation blanket on top of the MSA Base to protect the fragile electrical pins and cover the guide pin holes. See Figure 31.

Figure 31 - Analog Connection Module Temporarily Supported, Communications Cable Deenergized, MSA Base Protected.

6. Remove the temporary protective bag from the plug connector. Remove and store the Analog Cable dust cap while keeping the plug connector clean and dry.

7. Align the Analog Cable plug's master keyway with the master keyway in the circular connector receptacle at the 3rd party system. See Figure 32.

Figure 32 – Master Keyway.

8. Insert the Analog Cable plug into the circular connector receptacle. Tighten it securely (approximately 1/4 turn until it stops) to establish a weatherproof connection. See Figure 33.

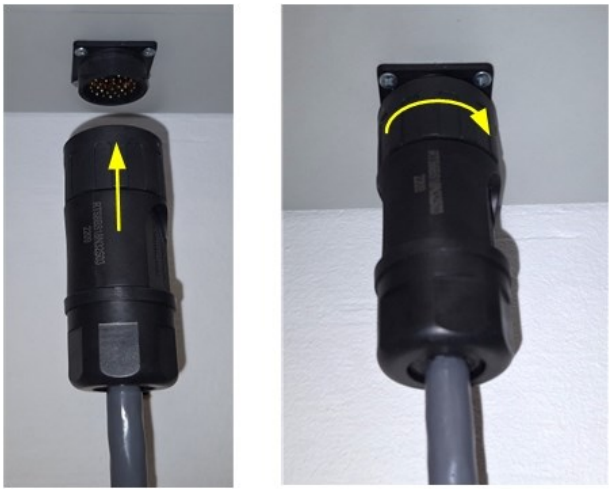


Figure 33 – Analog Cable Connection to 3rd Party System.

9. Remove the electrical insulation blanket from the MSA Base. Confirm the contacts at the top of the MSA Base are clear of any debris.

10. Confirm the 3rd party system is ready for the Analog Cable to be energized.

11. Note the guide pins on the bottom of the Analog Connection Module. See Figure 34. Slide the front and rear latches to the open position.

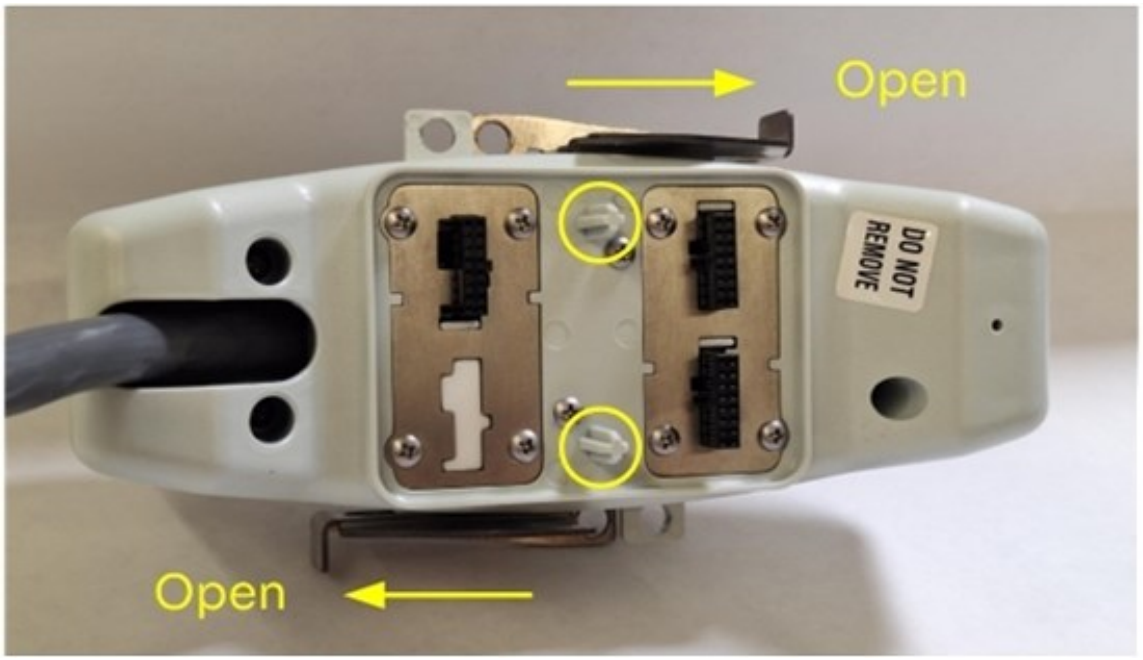


Figure 34 – Analog Connection Module Guide Pins and Latches.

12. Position the Connection Module above the MSA Base with the Analog Cable or ethernet port exiting toward the desired direction.

WARNING

The pins in the MSA base are fragile. Proceed with caution to avoid bending or damaging the pins.

13. Align the Connection Module guide pins with the holes in the MSA Base. See Figure 35.

    Level the connection module and carefully insert it into place.

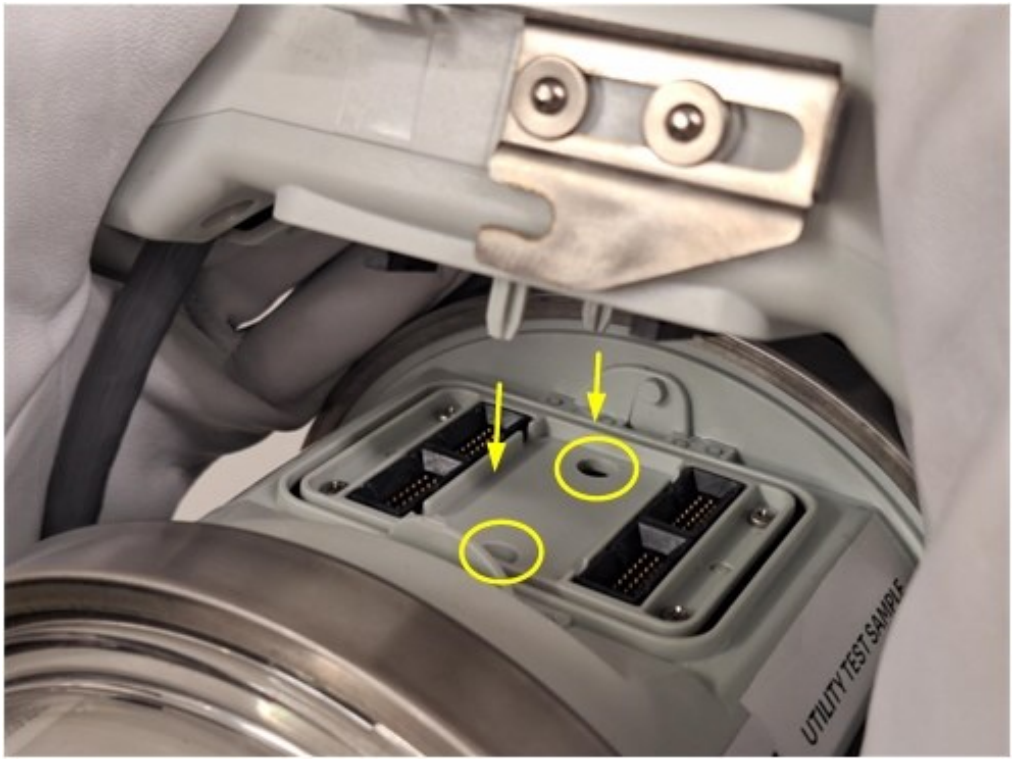


Figure 35 – Insert the Analog Connection Module.

14. Slide the front and rear latches to secure the Connection Module to the MSA Base as shown in Figure 36.

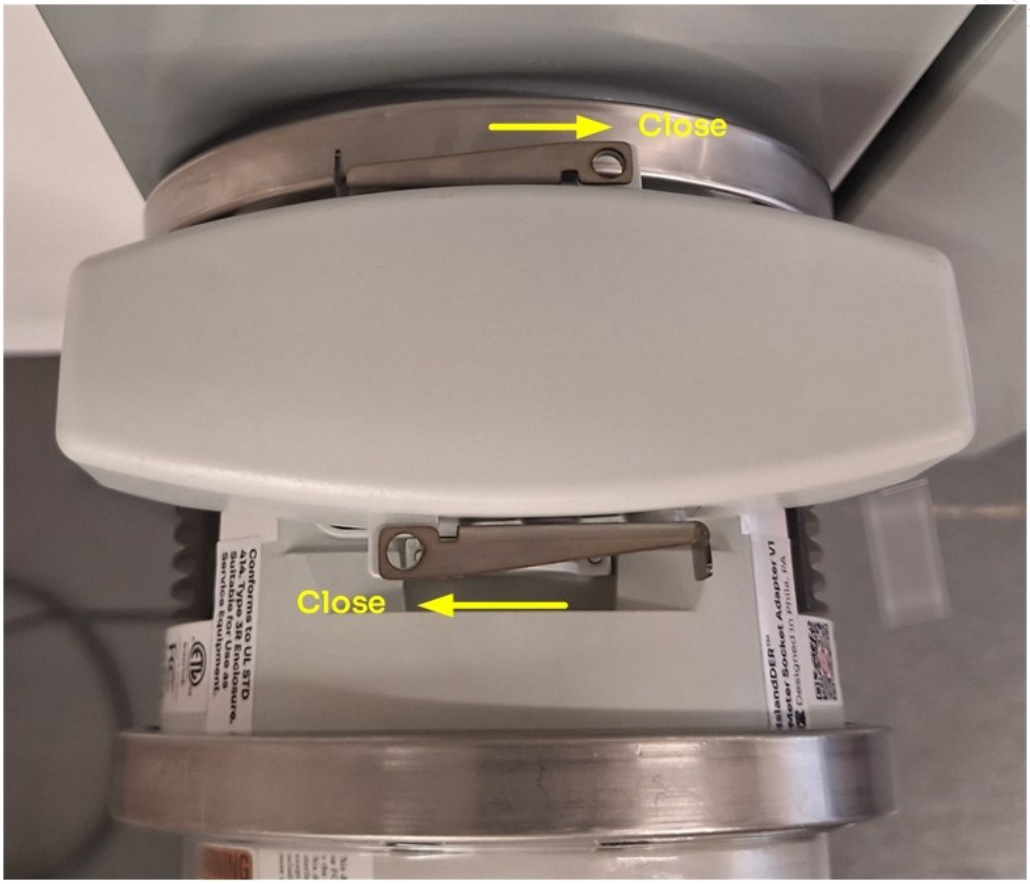
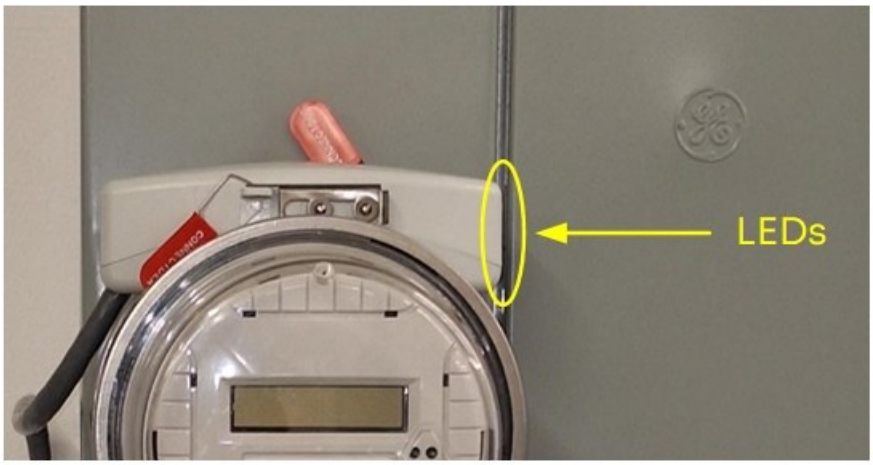


Figure 36 – Latches Closed.

15. Check the LED status on opposite end of the Connection Module from the communications cable (analog) or RJ-45 port (digital). Confirm the 'Utility Connected' white light is on, and the 'Status' LED is solid green after blinking a few minutes. See Figure 37.



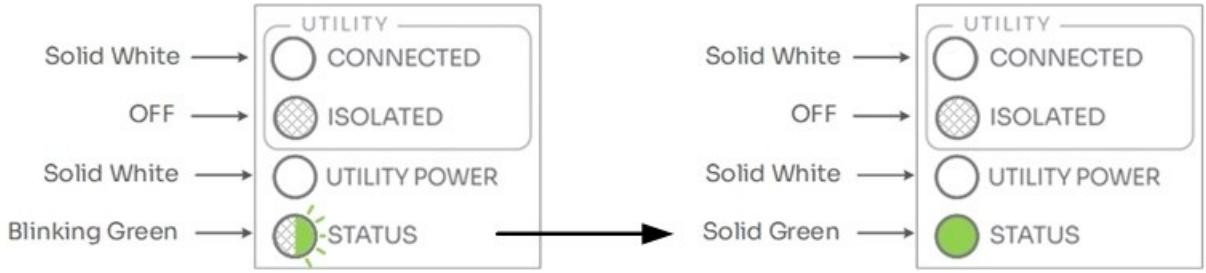


Figure 37 – Normal Startup LED Status.

16. Install new tamper-prevention seals on the two Connection Module latches. A generic weatherproof enclosure is shown representing the termination means for the 3rd party system. See Figure 38.

Figure 38 – IslandDER Analog MSA Complete to 3rd Party System.

17. Commission the 3rd party system according to the manufacturer's instructions.

DIGITAL:

1. Use an ethernet cable specified by the 3rd party manufacturer. Ensure it is suitable for the environment to be installed, e.g., weatherproof, sunlight resistant, etc. A black CAT6 cable suitable for indoor use is depicted in this document.

2. A generic weatherproof enclosure is shown representing the termination means for the 3rd party system. Following the manufacturer's instructions to connect one end of the ethernet cable into the 3rd party system enclosure (shown here entering the enclosure with a weatherproof cord connector).

3. Route and support the ethernet cable toward the IslandDER MSA in a professional and skillful manner that protects the cable from physical damage. Provide slack for a drip loop to prevent water from entering the 3rd party system and the Connection Module. See Figure 39.

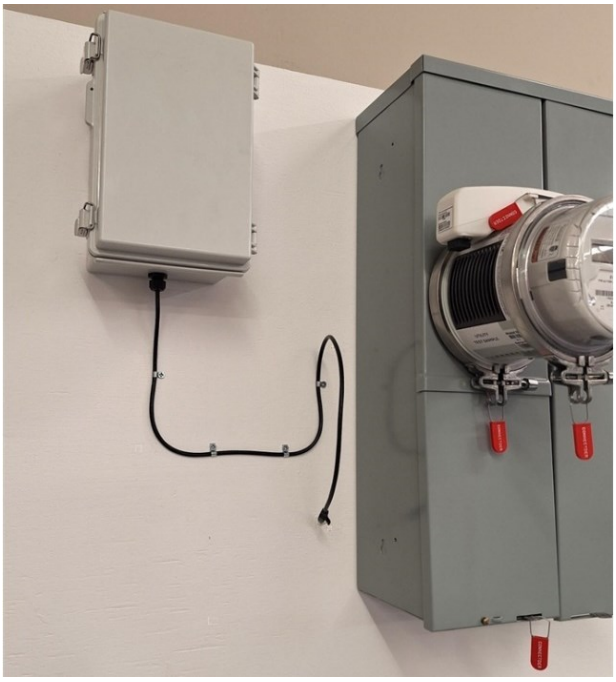


Figure 39 – Ethernet Cable in 3rd Party Enclosure.

4. Confirm that working clearances and equipment access comply with utility and AHJ requirements.

5. Unpack the ethernet boot furnished with the MSA. Two split grommets are furnished to fit a variety of ethernet cable diameters. See Figure 40.

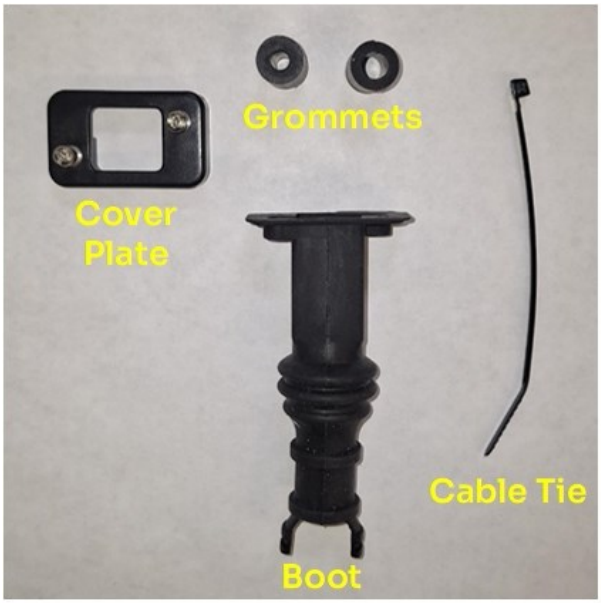


Figure 40 – Ethernet Boot Kit Components

6. Pull the boot through the cover plate as shown in Figure 41.

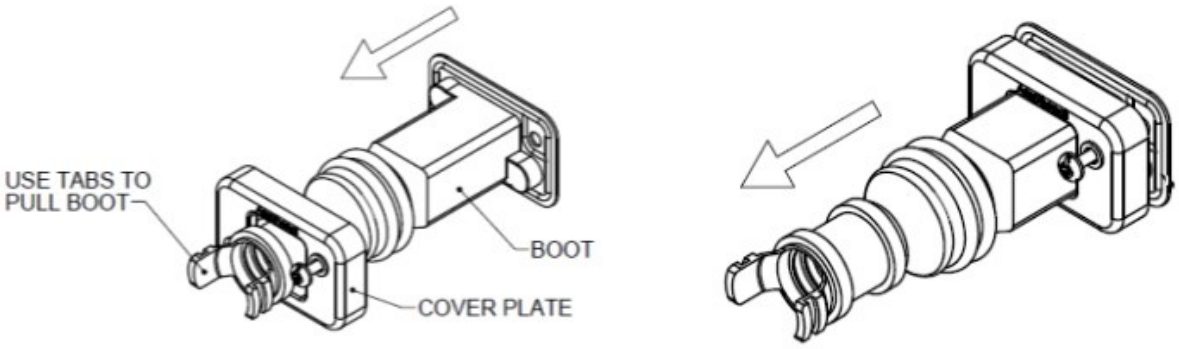


Figure 41 – Pull Boot Through Cover Plate.

7. Insert the MSA end of the ethernet cable through the boot and cover plate assembly. See Figure 42.

Figure 42 – Ethernet Cable Through Boot and Cover Plate.

8. Remove the dust cap on the Connection Module RJ-45 port. See Figure 43.

Figure 43 – Ethernet RJ-45 Port Capped Off.

9. Confirm the 3rd party system is ready for the ethernet cable to plug into the Connection Module RJ-45 port.

10. Mate the plug into the RJ-45 port on the Connection Module. See Figure 44.

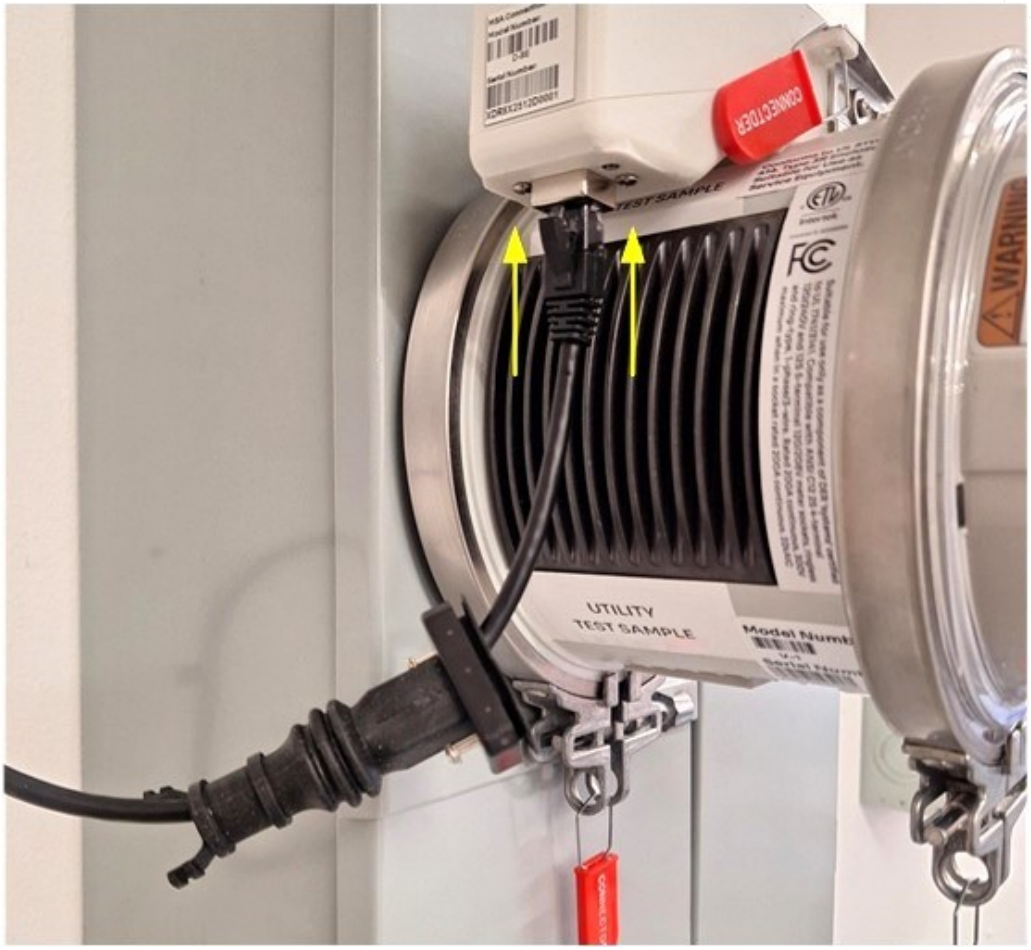


Figure 44 – Mate the Ethernet Cable to the Communications Module RJ-45 Port.

11. Slide the boot assembly against the Connection Module RJ-45 port. Carefully use either a #0 Philips, #1 Philips, or 5/32" flat blade driver to secure the cover plate screws to the Connection Module, taking care not to overtighten. Torque to 2 in. lbs. See Figure 45.

Figure 45 – Torque Boot Assembly Screws to 2 in. lbs.

12. Select the grommet that best fits the ethernet cable diameter. Open the grommet along the split line and place it around the cable and slide it into position between the boot ribs. See Figure 46.

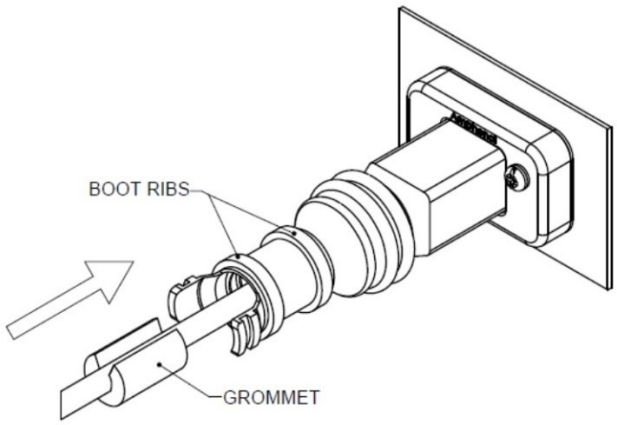


Figure 46 – Insert Grommet Around Ethernet Cable and Slide Into Place.

13. Secure the cable tie around the middle of the boot ribs and tighten the boot around the grommet. See Figure 47.

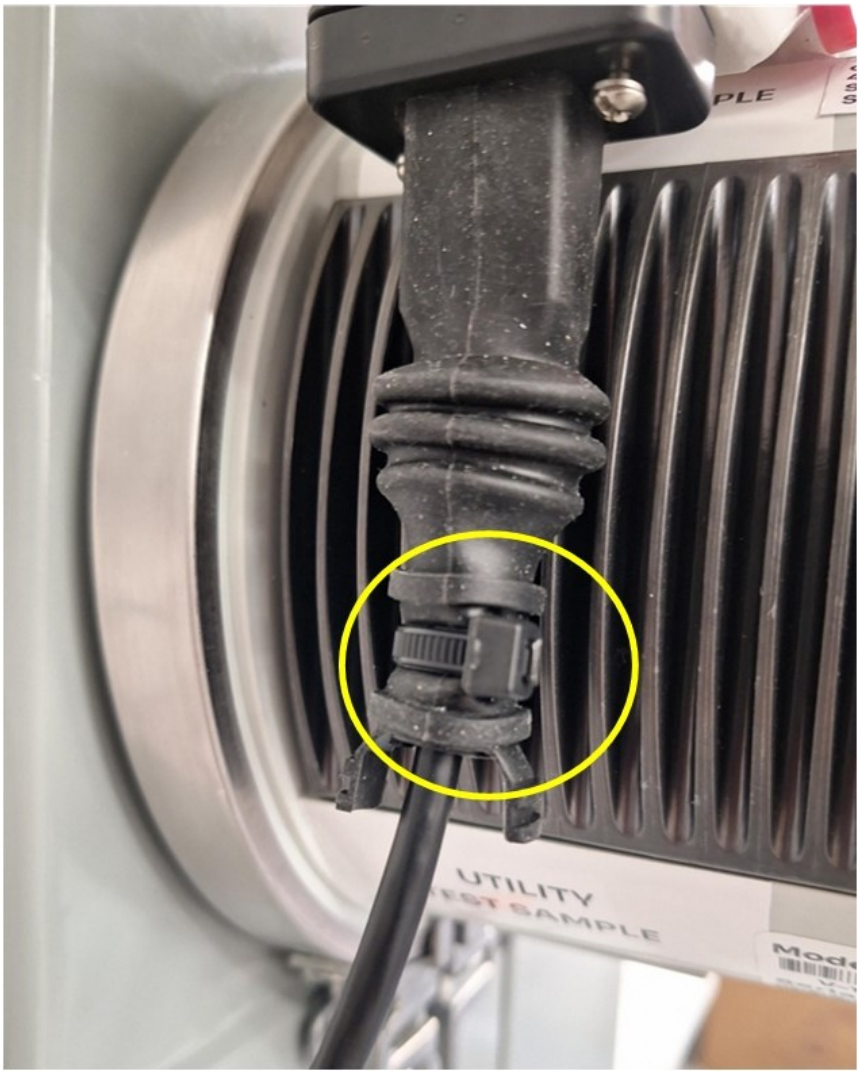
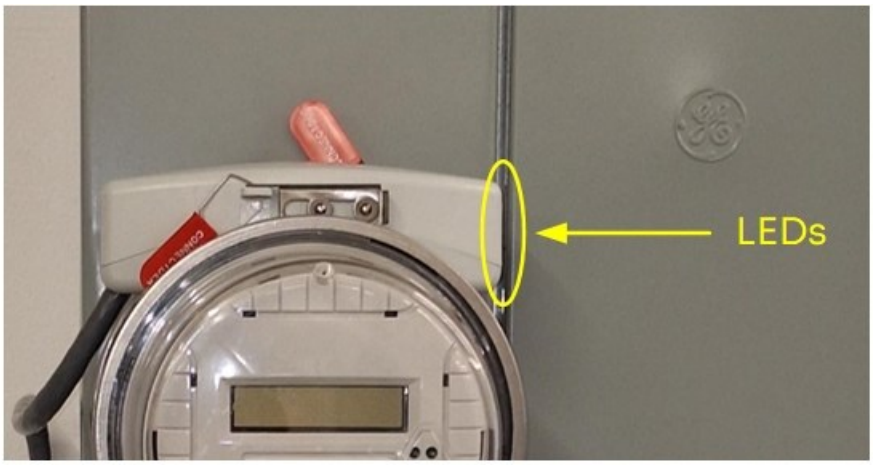


Figure 47 – Cable Tie Around Boot and Grommet.

14. Check the LED status on opposite end of the Connection Module from the communications cable (analog) or RJ-45 port (digital). Confirm the 'Utility Connected' white light is on, and the 'Status' LED is solid green after blinking a few minutes. See Figure 48.



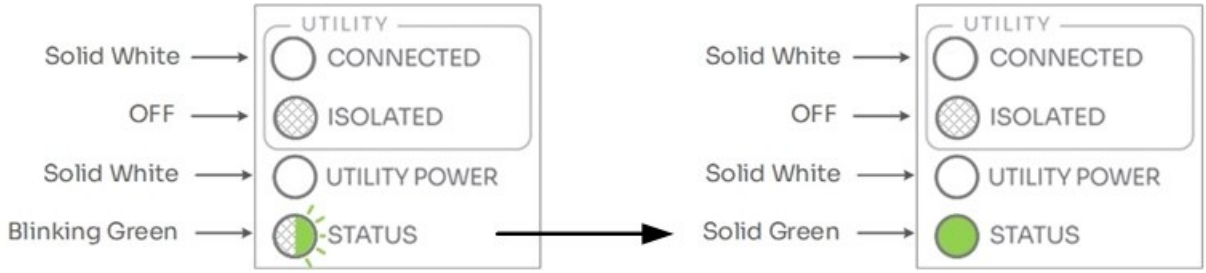


Figure 48 – Normal Startup LED Status.

15. Confirm the ethernet cable is routed and supported in a professional and skillful manner with drip loops to prevent water entry in the 3rd party enclosure and Connection Module. See Figure 49.

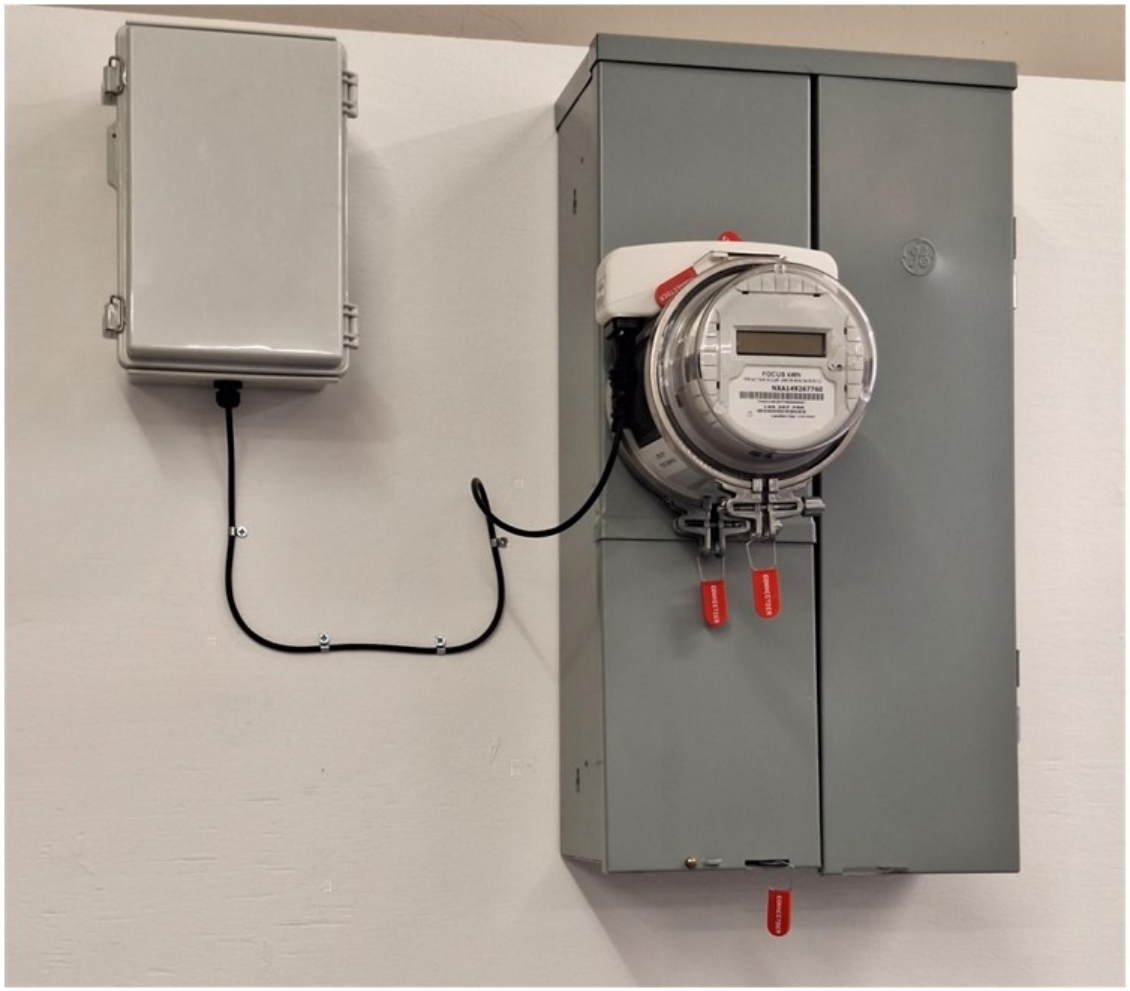
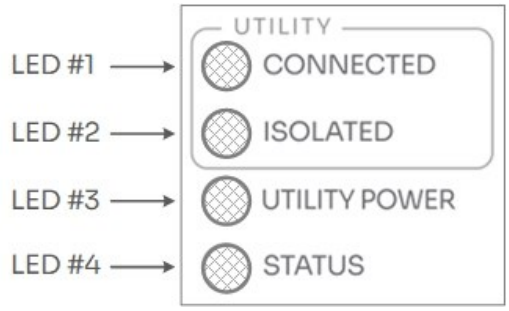


Figure 49 – IslandDER Digital MSA Complete to 3rd Party System.

16. Commission the 3rd party system according to the manufacturer's instructions.

LED STATUS LIGHTS & TROUBLESHOOTING



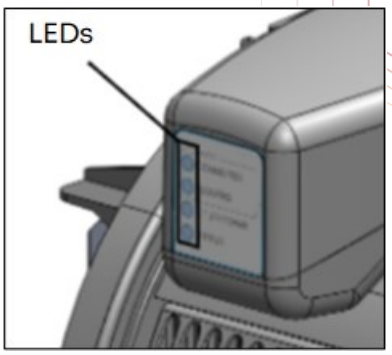


Table 1 – Individual LED status indicators for both Analog and Digital communications.

LED#	COLOR	LABEL	FUNCTION
1	Solid White	UTILITY CONNECTED	MID Closed.
2	Solid Blue	UTILITY ISOLATED	MID Open.
3	Solid White	UTILITY POWER	Utility power is present.
4	Blinking Green	STATUS	MID relay is not ready to operate. (Charging in progress.)
	Solid Green		MID relay is ready to operate, no MSA faults, MID Override Cover is in place.
	Blinking Red		E-stop loop is open. (MID Override Switch Access Tool at the bottom is removed or 5V 'E_stop_in' signal is absent.)
	Solid Red		MSA fault.

Table 1 – IslandDER MSA LED Behavior.

Table 2 - Grouped LED status indicators for both Analog and Digital communications.

NOTE –This is for the MSA only. It does not verify the status of the 3rd party DER system.

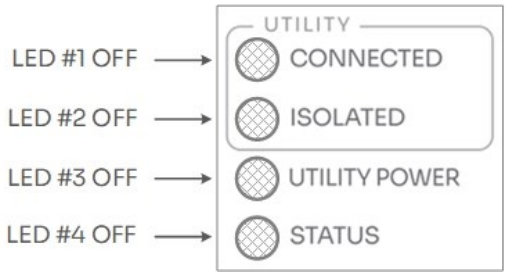
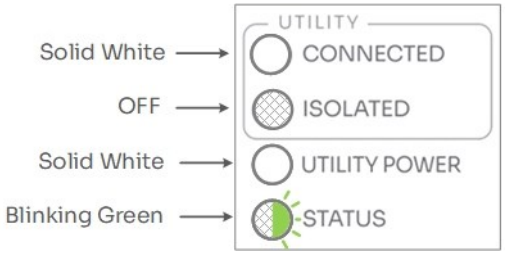
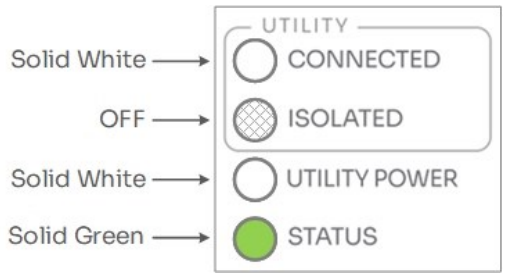
LED ARRAY	MSA STATUS & CORRECTIVE ACTION, IF ANY
	No power from the utility, AND No power from alternate source(s). Verify 3rd party system is operating properly.
	MID relay is closed. Utility power present. MID relay is not ready to operate (charging in progress). Normal behavior upon initial startup. Wait up to 2 minutes until the MID capacitors are charged; blinking green will change to solid green. If green LED fails to turn solid, contact 3rd party system support.
	MID relay is closed. Utility power present. MID relay is ready to actuate if necessary. Indicates normal on-grid system operation.

Table 2 – Interpreting LED Status & Troubleshooting the IslandDER MSA.

Table 2 - Grouped LED status indicators for both Analog and Digital communications.

NOTE –This is for the MSA only. It does not verify the status of the 3rd party DER system.

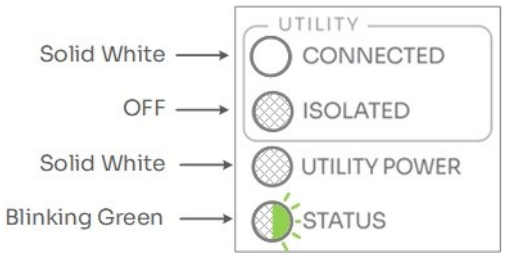
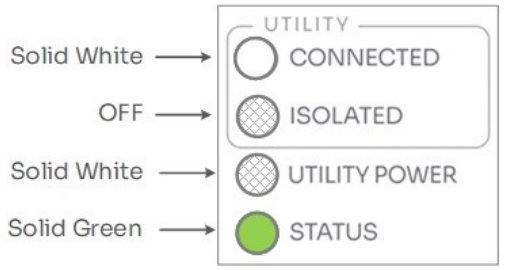
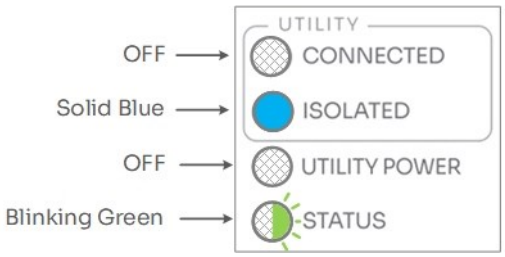
LED ARRAY	MSA STATUS & CORRECTIVE ACTION, IF ANY
	MID relay is closed. Utility power is not present. MID relay is not ready to operate (charging in progress). Wait up to 2 minutes until the MID capacitors are charged; blinking green will change to solid green. If green LED fails to turn solid, contact 3rd party system support.
	MID relay is closed. Utility power is not present. MID relay is ready to actuate if necessary. 3rd party system may command the MID to open (isolate from the utility) and connect a backup power source at its discretion.
	MID relay is open. Utility power is not present. MID relay is not ready to operate (charging in progress). Wait up to 2 minutes until the MID capacitors are charged; blinking green will change to solid green. If green LED fails to turn solid, verify the communications cable is clear of faults.

Table 2, CONTINUED – Interpreting LED Status & Troubleshooting the IslandDER MSA.

Table 2 - Grouped LED status indicators for both Analog and Digital communications.

NOTE –This is for the MSA only. It does not verify the status of the 3rd party DER system.

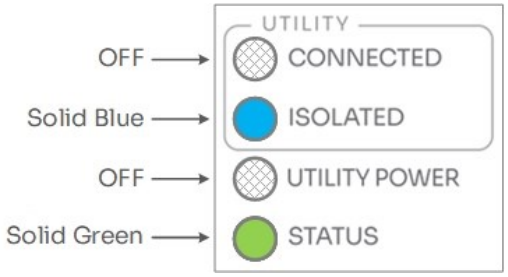
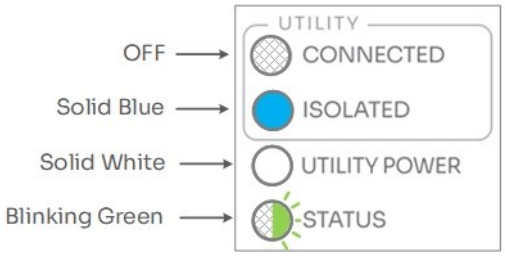
LED ARRAY	MSA STATUS & CORRECTIVE ACTION, IF ANY
	MID relay is open. Utility power is not present. MID relay is ready to actuate if necessary. Indicates off-grid system operation. Wait for utility power to be restored. The 3rd party system will determine when to close the MID after utility power is restored.
	MID relay is open. Utility power present. MID relay is not ready to operate (charging in progress). Typical after a prolonged utility outage. The 3rd party system is preparing the MID for readiness to transfer to utility power. Wait up to 2 minutes until the MID capacitors are charged; blinking green will change to solid green. If green LED fails to turn solid, verify the communications cable is clear of faults.

Table 2, CONTINUED – Interpreting LED Status & Troubleshooting the IslandDER MSA.

Table 2 - Grouped LED status indicators for both Analog and Digital communications.

NOTE –This is for the MSA only. It does not verify the status of the 3rd party DER system.

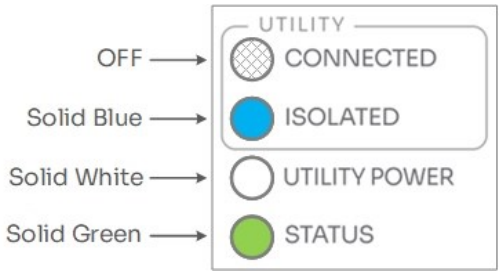
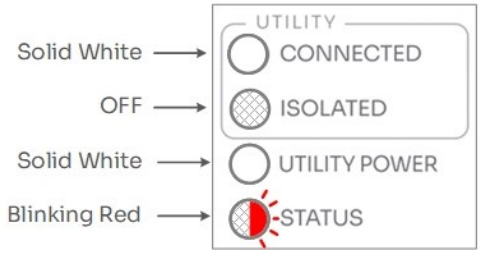
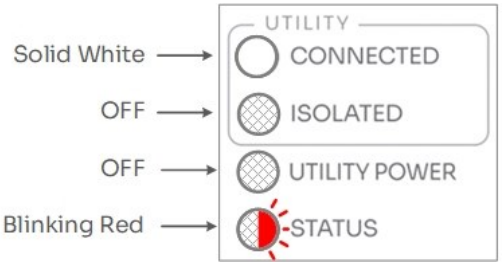
LED ARRAY	MSA STATUS & CORRECTIVE ACTION, IF ANY
	MID relay is open. Utility power present. MSA OK. MID relay is ready to actuate if necessary. E-stop loop is closed. Indicates off-grid system operation. Utility power, if lost, has been restored. The 3rd party will command the MID to close at its discretion in order to reconnect to the utility.
	MID relay is closed. Utility power is present. E-stop loop is open. (MID Override Switch Access Tool at the bottom is removed or 5V 'E_stop_in' signal is absent.) Notify the installer the red light is blinking. Only qualified personnel should service the MSA.
	MID relay is closed. Utility power is not present. E-stop loop is open. (MID Override Switch Access Tool at the bottom is removed or 5V 'E_stop_in' signal is absent.) Notify the installer the red light is blinking. Only qualified personnel should service the MSA.

Table 2, CONTINUED – Interpreting LED Status & Troubleshooting the IslandDER MSA.

Table 2, cont'd - Grouped LED status indicators for both Analog and Digital communications.

NOTE –This is for the MSA only. It does not verify the status of the 3rd party DER system.

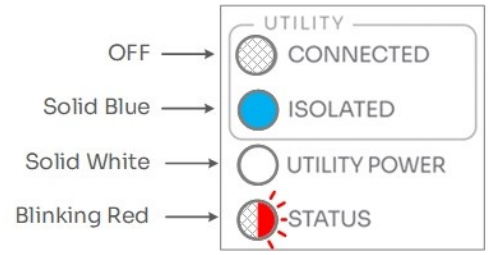
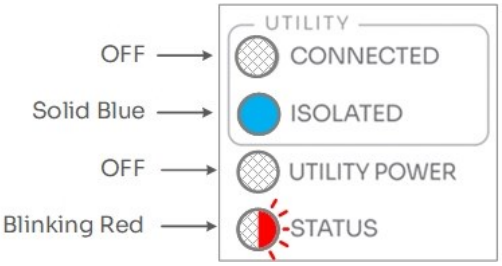
LED ARRAY	MSA STATUS & CORRECTIVE ACTION, IF ANY
	MID relay is open. Utility power is present. E-stop loop is open. (MID Override Switch Access Tool at the bottom is removed or 5V 'E_stop_in' signal is absent.) Notify the installer the red light is blinking. Only qualified personnel should service the MSA.
	Mid relay is open. Utility power is not present. E-stop loop is open. (MID Override Switch Access Tool at the bottom is removed or 5V 'E_stop_in' signal is absent.) Notify the installer the red light is blinking. Only qualified personnel should service the MSA.

Table 2, CONTINUED – Interpreting LED Status & Troubleshooting the IslandDER MSA.

Table 2, cont'd - Grouped LED status indicators for both Analog and Digital communications.

NOTE –This is for the MSA only. It does not verify the status of the 3rd party DER system.

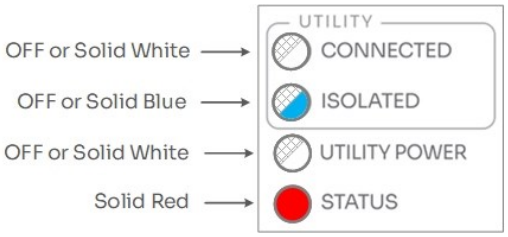
LED ARRAY	MSA STATUS & CORRECTIVE ACTION, IF ANY
	Any LED status combination with a solid red light. Non-recoverable fault. The MSA must be replaced. RMA the unit.

Table 2, CONTINUED – Interpreting LED Status & Troubleshooting the IslandDER MSA.

For more information, contact support@connectder.com.

MANUAL MID OVERRIDE PROCEDURE

WARNING – IslandDER MSA installation must be performed by qualified personnel only. Follow your employer's requirements for personal protective equipment (PPE) and procedures.

When utility power is lost, the 3rd party DER system commands the IslandDER MSA to open the MID. Opening the MID isolates ("islands") the premises from the utility to safely accommodate backup power from a 3rd party system. The 3rd party system can provide power to the premises for as long as its alternate source is available. If utility power is lost for an extended period of time and the 3rd party system is depleted (unable to supply 12V power to the IslandDER MSA), the entire system including the premises is powered off.

When utility power is restored, the IslandDER MSA powers on and updates its status to the 3rd party system. In the unlikely event the 3rd party system fails to signal the IslandDER to re-close the MID, the IslandDER MSA is equipped with a tool to manually close the MID, restoring utility power to the premises.

MANUALLY CLOSE THE MID

WARNING – Follow the 3rd Party system manufacturer's instructions before proceeding to manually close the MID.

Ensure all alternative energy sources are deenergized. Refer to the service procedures of the respective alternative energy source.

1. Disconnect all alternative energy sources.

2. The Manual MID Override Switch Tool Access Cover is attached to the bottom of the IslandDER MSA Base. It is the T-shaped device circled in Figure 50 below. Please note its orientation since it must be re-attached in the same position.

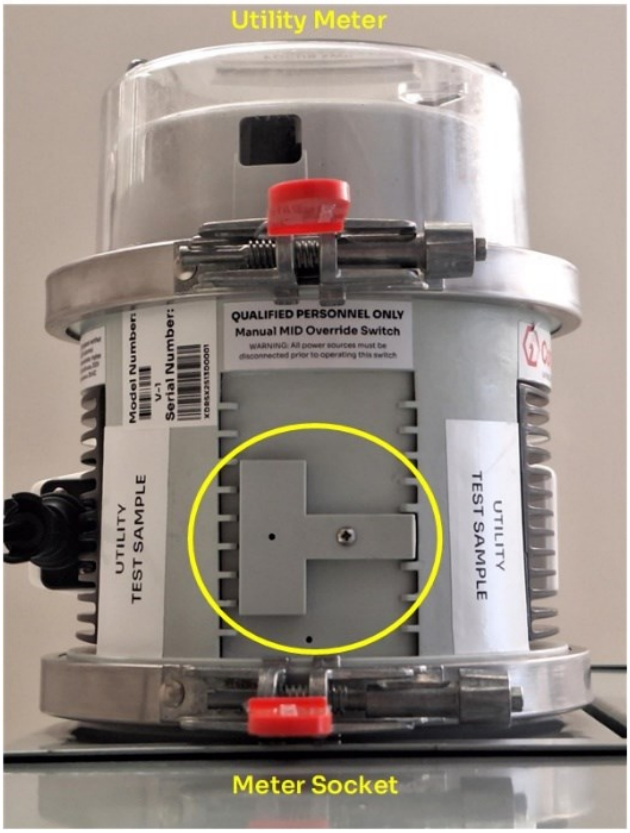


Figure 50 – Manual MID Override Switch Tool Access Cover – Bottom View of IslandDER MSA.

3. Remove the Tool Access Cover using a #0 or #1 Philips screwdriver to reveal the square port with Manual MID Override Switch. See Figure 51.

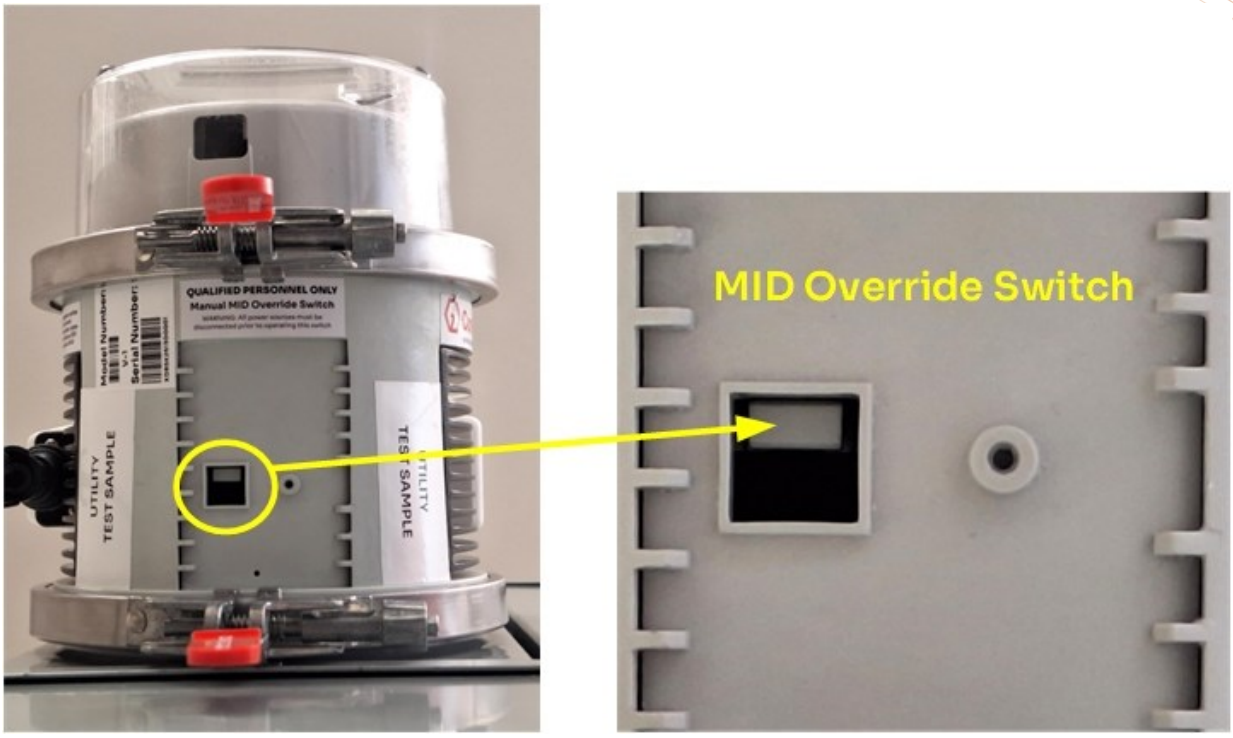


Figure 51 – Manual MID Override Switch.

4. Confirm the Status LED on the Connection Module is OFF or Blinking Red. If the LED is green after removing the Manual MID Override Cover it would indicate a failure of the MSA, and the MSA should be replaced.

5. Turn over the Tool Access Cover and note its features as shown in Figure 52 below.

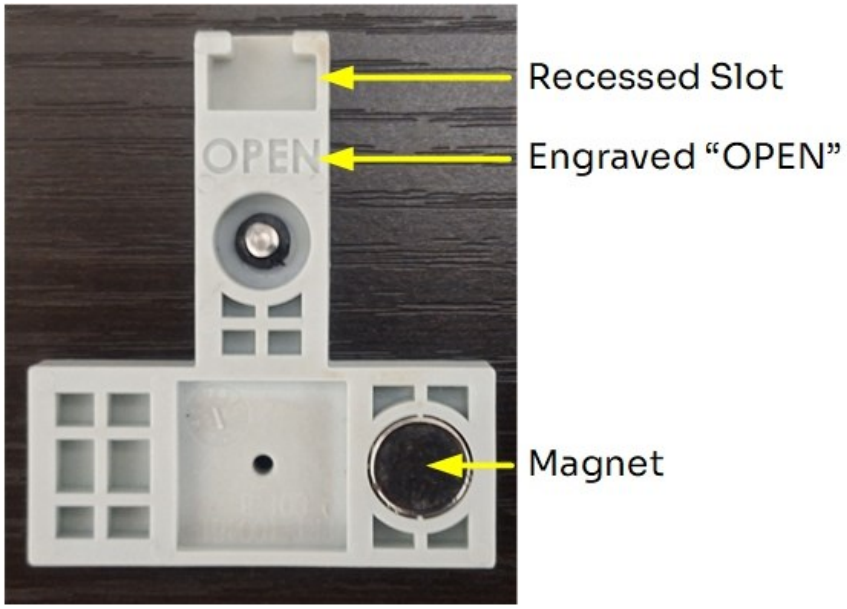


Figure 52 – Manual MID Override Switch Tool Access Cover Features.

6. Refer to Figure 53 below.
    a. Position the tool (with its recessed slot facing forward) toward the rear of the square opening (toward the meter socket).
    b. Move the tool upward aligning the bottom of the slot with the MID Override Switch.
    c. Move the tool forward until it latches onto the MID Override Switch.
    d. Push tool upward again to close the MID Override Switch. The engraved "OPEN" will disappear from view.

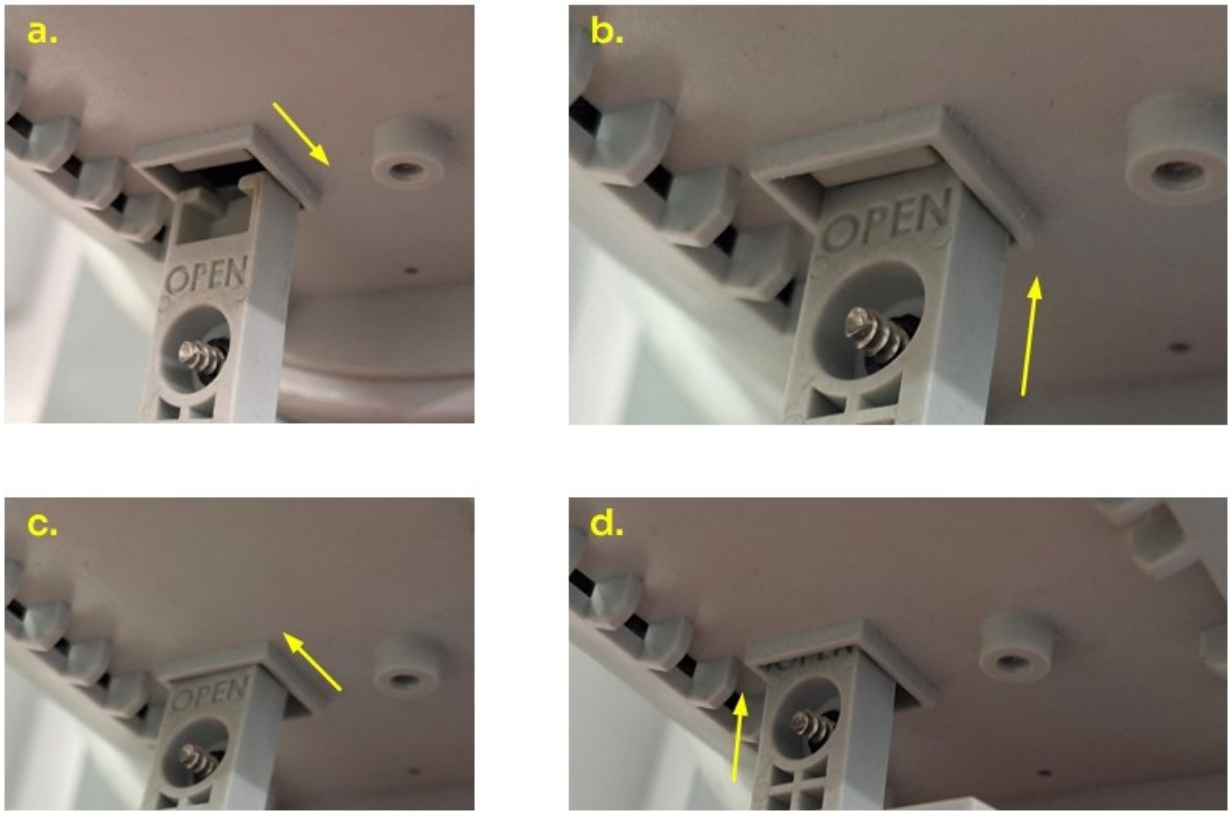


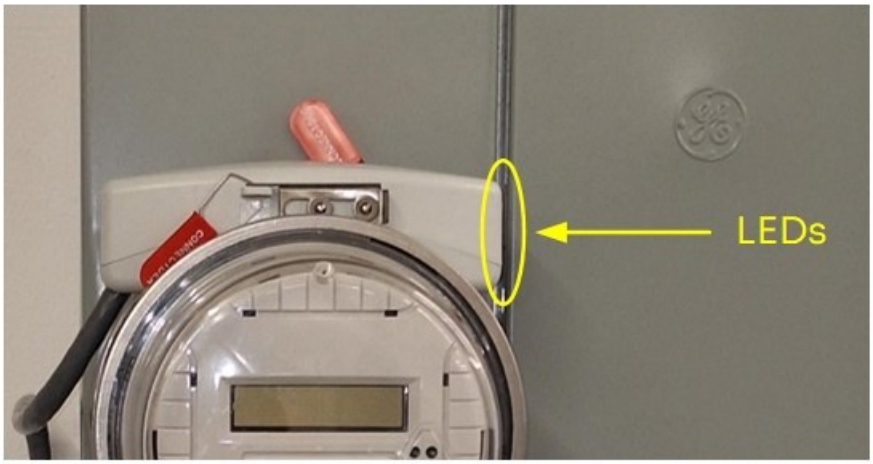
Figure 53 – Manual MID Override Switch Closure Procedure.

7. Utility power is now restored to the premises. If the MID needs to be manually opened, pull the tool downward until the word "OPEN" appears.

8. Remove the Manual MID Override Tool Access Cover from the MID Override Switch.

9. Re-attach the Manual MID Override Tool Access Cover to its original position using a #0 or #1 Philips screwdriver. Be careful not to overtighten. Torque to 5 in-lbs.

10. Check the LED status on opposite end of the Connection Module from the communications cable (analog) or RJ-45 port (digital). Confirm the 'Utility Connected' white light is on, and the 'Status' LED is solid green after blinking a few minutes. See Figure 54.



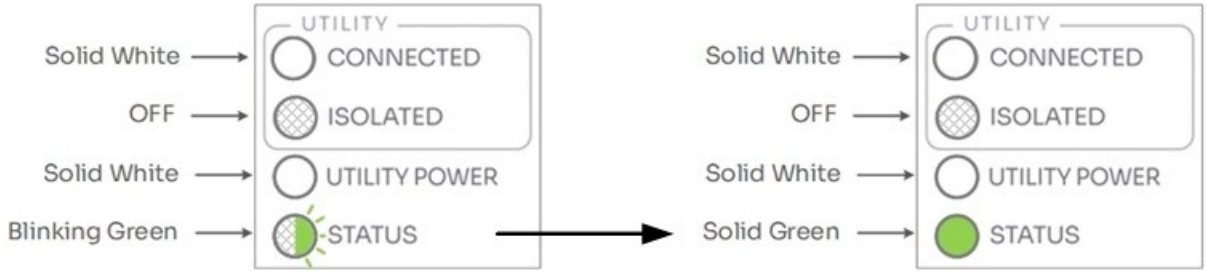


Figure 54 – Normal Startup LED Status.

11. Follow the manufacturer's instructions to safely restore the 3rd party system to normal operational status.

CALIFORNIA IOU MSA PROCESS GUIDELINES

Investor-owned utilities in California and other states install meter socket adapters and require the installation contractor and homeowner to follow strict guidelines. Check in advance for their specific process to avoid delays and payments for multiple truck rolls.

The utility may require the balance of the DER (solar, battery, EVSE, etc.) system to be completed first. Adhere to applicable utility clearance requirements from gas meters, etc.

The contractor then submits a request for the MSA to be installed via the utility's project portal and pays a fee. There is normally a 10-day or similar work window for the utility to complete the request.

The MSA must be left onsite and sealed in a high visibility, weatherproof bag near the existing meter with the communications cable connected. Tie the bag securely to a nearby conduit or other means suitable to the utility. See Figure 55.

NOTE – IF THIS PROCESS IS NOT FOLLOWED PROPERLY, THE UTILITY MAY REJECT THE MSA INSTALLATION AND CHARGE ANOTHER TRUCK ROLL FEE TO RETURN.

Figure 55 – DER System Completed, Ready for MSA Installation

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APPENDIX

Reference 1 – IslandDER MSA Model Numbers

Form 2S, 12S METER TYPES			
IslandDER Product	MSA Base Model #	MSA Connection Module Model #	Combined Model Number (listed on the package)
V1, Analog, 6 ft. cable	V-1	A-6	V-1-A-6
V1, Analog, Special Order Cable Length	V-1	A-#	V-1-A-# (# denotes length up to 25 ft.)
V1, Digital, SolarEdge Suffix	V-1	D-SE	V-1-D-SE
V1, Digital, Partner Suffix	V-1	D-**	V-1-D-** (** denotes partner suffix)

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Reference 2 – IslandDER MSA Specifications

MECHANICAL SPECIFICATIONS		COMMUNICATIONS	
ENCLOSURE RATING	NEMA 3R	TYPE	Analog, Digital, 12V DC Power
ENCLOSURE TYPE	Injection molded polycarbonate, UL 94 V0 flame rating	CABLE	Pre-Assembled, Multi-Conductor, Outdoor Rated
THERMAL MANAGEMENT	Passive Cooling, Heat Sinks	CONNECTION	Connection Module, Watertight, Reversible at Top of MSA
DIMENSIONS (H X W X D)	6.6 x 6.9 x 6.2 in	CURRENT	Whole House, ANSI 0.2 Accuracy Class CTs for Revenue Grade Sensing
WEIGHT	Approx. 5.6 lbs. (2.5kg) –6 ft. Analog. Less for Digital.	COMMUNICATIONS CABLE TERMINATION	Analog: 32-Pin Plug Connector Digital: RJ-45 Ethernet
SHIPPING WEIGHT	Approx. 7.0 lbs. (3.2kg) – 6 ft. Analog. Less for Digital	VOLTAGE	Line and Load of MID - .4% accuracy at ambient, 1% across temperature range
MOUNTING SYSTEM	Blade interface with 4-jaw or 5-jaw meter socket	MID STATUS	Digital Signal
ELECTRIC METER COMPATIBILITY	Type 2S, type 12S	ELECTRONIC POWER SOURCE	12V DC Utility-Side, 12V DC Bus to/from 3rd Party
METER SOCKET COMPATIBILITY	Ringless, Ring-type, Lever, Horn Bypass	MSA INTERNAL TEMPERATURE	Built-in Temperature Probe (Analog), -50 to 150C
MANUAL MID OVERRIDE	Externally Accessible Switch, Protected by Interlocked Tool-Access Cover	MID OVERRIDE E-STOP	Dry Contact Interlock
OPTIONAL NEUTRAL CONNECTION	Wired to Meter Socket or 5th Stab Options		
RATINGS			
VOLTAGE	208V, 240V	APPLICABLE SAFETY STANDARDS	UL 414, SA, SB, SC – Meter Sockets UL 1741 / UL 3141 / UL 9741 System Ready
MAX CONTINUOUS CURRENT	200A	ETL FILE NUMBER (STANDARDS)	5028888
SHORT CIRCUIT RIDETHROUGH	22K AIC	AMBIENT AIR OPERATING TEMPERATURE RANGE	-22°F to 149°F (-30°C TO 65°C)
MID RATED CYCLES	10,000	AMBIENT AIR STORAGE TEMPERATURE RANGE	-40°F to 176°F (-40°C TO 80°C)
WARRANTY	12 Years		

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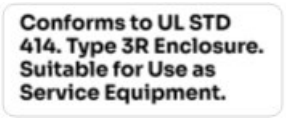
Reference 3 – IslandDER V1 MSA Product Labels

IslandDER Product ID Label

1.5” x 0.6”

IslandDER UL Standard Label

1.5” x 0.6”

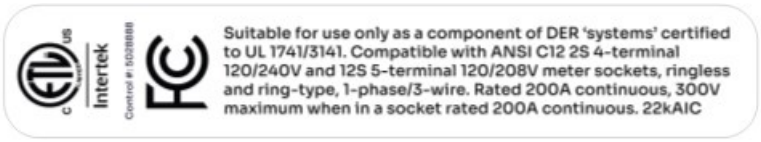


IslandDER ConnectDER Logo Label

4” x 0.7”

IslandDER Intertek Label

4” x 0.7”



IslandDER Base Serial Number Label

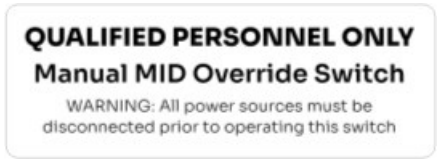
1.5” x 1.5”

IslandDER Partner Logo Label

2” x 0.75”

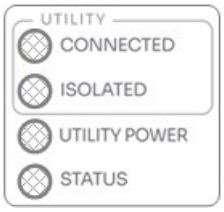
IslandDER MID Override Switch Label

2.25” x 0.8”



IslandDER Connection Module Status Label

1.06” x 1.13”

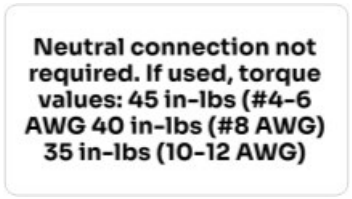


IslandDER Short-Circuit Current Rating Label

3.5” x 1”

Optional Neutral Lug Label

1.8” x 1”



IslandDER Connection Module Model & Serial Number Label

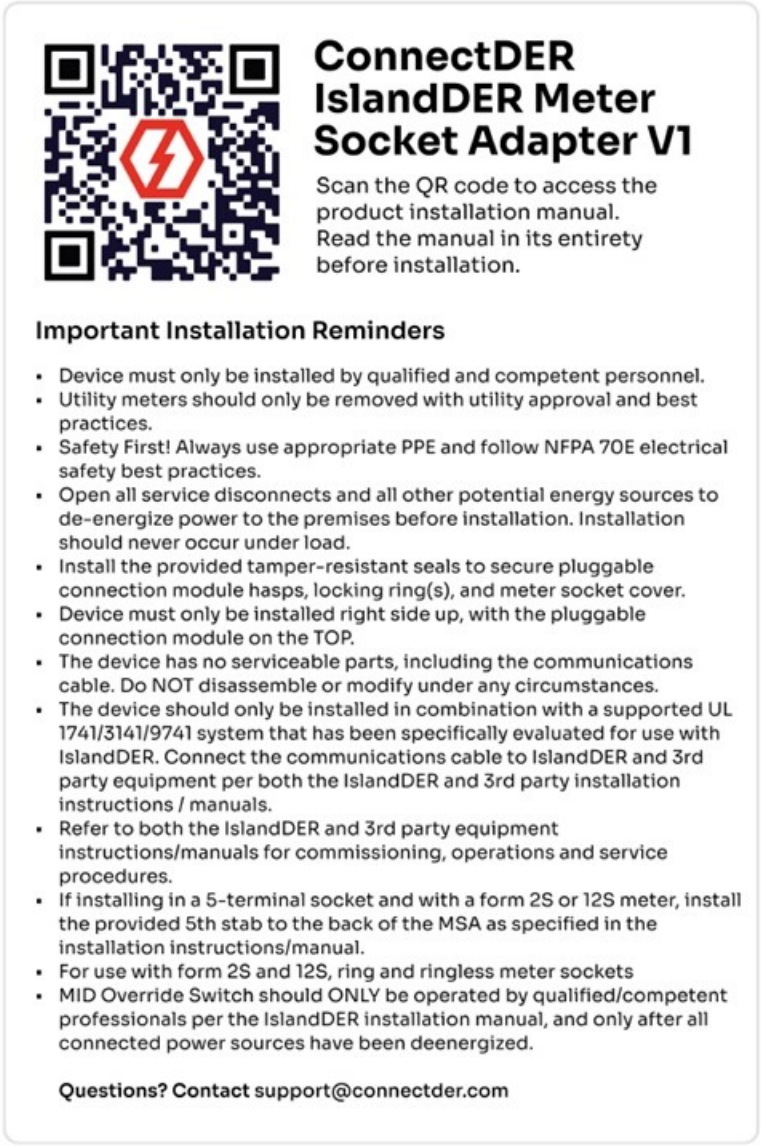
1” x 1”

Shipping Box Model Number Label

4” x 2”

IslandDER Accessory Bag Label

4” x 6”



FCC REGULATORY STATEMENT

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.

CALIFORNIA PROP 65 WARNING

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

DISCLAIMER

The information presented in this document represents ConnectDER's understanding of standards / test procedures and is provided for informational purposes. ConnectDER makes no representation as to the accuracy, completeness, suitability, or validity of the information. ConnectDER will not be liable for any errors, omissions, losses, injuries, or damages arising from the use of this information.

For the official views of Intertek, consult the appropriate standard, or contact Intertek directly regarding the ConnectDER IslandDER MSA, Intertek ETL File Number 5028888.