

Work Instructions for Service Disconnection and Meter Removal

1.0 SCOPE *

This work instruction is for use by Service Providers when disconnecting a domestic customer's maximum up to 200 Amp 120/240-volt service *at the weather head located on a building only*, the removal of an S-Base meter from the service, the removal of an A-Base meter, 30amp to 200 Amp, 120/240 volt, self-contained, 4 jaw meters. The removal of a 5 Jaw Network Meter, 120/208v, self-contained. This is specifically for service upgrades, service changes, panel changes and upgrades, or emergency service repairs.

2.0 GENERAL

In order for an electrical contractor/electrician to be accredited as a service provider: The electrical contractor/ electrician must successfully complete an NSPI sponsored training program and be individually approved. NSPI reserves the right to refuse or revoke the approval for an electrical contractor /electrician to become a service provider when not in compliance with NSPI requirements.

3.0 DEFINITIONS \star

<u>Self-contained</u>: where the entire load current passes through the meter. These meters have current ratings up to 200 amps.

<u>Socket Connected (S-Base)</u>: This is a plug-in style meter. The S-Base meter has blades which plug into the meter socket jaws to complete the circuit. The socket remains affixed to the structure with permanent service wiring connected to lugs inside this meter socket. This is the standard installation for all new and upgraded services.

Bottom Connected (A-Base): This style of meter involves open wiring to a terminal block on the bottom of the meter. This type of connection has been discontinued for new services.

<u>Network Meter</u>: This is a plug-in style meter for a 120/208v, meter socket; typically found in an apartment building meter center. The network meter has a horizontal fifth jaw or blade located at the 9'oclock position when looking at the face of the meter. This 5th jaw is for the neutral connection. The blades plug into the meter socket jaws to complete the circuit.

4.0 EQUIPMENT

| Multi-meter | Meter removal tool | Hard Hat |
|--|---------------------------------|-------------------|
| Work Gloves | Safety Glasses | Meter storage box |
| Insulated ladder | Fall Arrest system (if required | l)Pie plates |
| Таре | Hand Tools (Linesman Pliers) |) |
| Arc Flash PPE: Face Shield, Full Body Clothing (Example Coveralls, Jacket and Long | | |
| Pants Etc.), Gloves | | |
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4.1 Insulated Rubber Gloves

- 4.1.1 Workers shall wear appropriately rated insulating gloves when making Personal Contact (see definition).
 - 4.1.1.1 Class 0, 1 or 3 rubber gloves shall be worn when making Personal Contact (hands-on rubber glove work).
- 4.1.2 High voltage rubber gloves shall be carried in approved containers. They shall not be folded or stored in locations where the temperature exceeds 32°C (90°F) and, if wet, the gloves shall be dried before storing.
- 4.1.3 High voltage rubber gloves shall not be worn inside out or without proper sized leather protectors. They shall be replaced any time they become damaged, or doubt exists regarding their condition.
- 4.1.4 High voltage rubber gloves shall be inspected, visually and air tested, before each use as follows:
 - 4.1.4.1 Remove leather cover.
 - 4.1.4.2 Visually inspect the rubber glove for signs of:
 - 4.1.4.2.1 Cracking
 - 4.1.4.2.2 Splits
 - 4.1.4.2.3 Cuts
 - 4.1.4.2.4 Holes
 - 4.1.4.2.5 Abrasive grooves from friction or heat
 - 4.1.4.2.6 Creases from folds
 - 4.1.4.2.7 Electrical puncture
 - 4.1.4.2.8 Damage from chemical or oils
 - 4.1.4.3 Perform manual inflation field test:
 - 4.1.4.3.1 Stretch the opening with 2 hands to form a seal at the cuff
 - 4.1.4.3.2 Press and roll the cuff toward the fingertips to to entrap the air inside the glove.
 - 4.1.4.3.3 Hold close to ear squeeze the trapped air in the glove. Listen and feel for pin hole air leaks.
 - 4.1.4.3.4 Visually inspect again for incipient cuts. (Rubber gloves are 2 colors, an incipient cut may show the inside color.)
- 4.1.5 Rubber glove protectors shall be worn only with the rubber gloves, and not used for any other purpose.
- 4.1.6 All rubber gloves shall be re-tested (minimum) every four (4) months. More frequent testing may be required based on findings from pre-use inspections or other conditions noted in this safe work practice.

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5.0 **PROCEDURE**

5.1 Risk Assessment Form

5.1.1 Complete the Risk Assessment form (page 5) of this procedure prior to completing the remainder of this procedure. A Risk Assessment is a tool to be used by the contractor to identify safety hazards. Contractor responsible to maintain Risk Assessment forms. Risk Assessment are to be submitted to Service Provider Program manager within 5 days of completion of work. Risk assessments must also be available when requested by NSPI.

5.2 Disconnecting Service at Weather Head (On buildings only) **★**

- 5.2.1 Wear safety glasses, hard hat, arc flash full body clothing (Example coveralls, jacket and long pants, Etc.), arc flash gloves, fall arrest system if required.
- 5.2.2 All loads should be removed where possible, before cutting any energized conductor. This may be achieved by placing the main service disconnects in the open or off position. Do not disconnect if under significant load, wait for load to lessen before disconnecting (Determined by speed of rotation of meter).
- 5.2.3 If it is necessary to disconnect the service cable and leave it energized, the phase conductors shall be cut one at a time ensuring that they are kept under control and the cutters do not touch the neutral conductor, other phases or grounded equipment. Cut the neutral conductor on the load side of the point of attachment.
- 5.2.4 As each phase conductor is cut, hold it clear of equipment, neutral, and other phases. Tape the ends so that the tape will not remove easily. The conductor shall be cut tight to the line side of the insu-link termination.
- 5.2.5 Ensure NSPI had been contacted and scheduled to inspect and reconnect the service.

EMERGENCY

IN CASE OF EMERGENCY (Injury, Arc Flash or Shock, Broken Lug etc.), CALL 911 (If necessary), CALL YOUR SUPERVISOR TO REPORT THE INCIDENT, CALLWIRING PERMITS CENTER TO UPDATE ON SITUATION, CALL SPP MANAGER TO REPORT INCIDENT.

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Wiring Permits: 902-464-1520

SPP Manager: 782-641-1047

5.3 Removing an S-Base Meter

- 5.3.1 Wear arc flash face shield, arc flash fully body clothing (example coveralls, jacket and long pants) and arc flash gloves.
- 5.3.2 Visually inspect the meter socket. An improperly fitting cover plate or signs of severe rust or other physical damage signal the need for extra caution.
- 5.3.3 Whenever possible, open the customer's main switch before removing the meter.
- 5.3.4 Remove the old padlock seal (seal on meter ring) and meter sealing ring. Pull the meter out and down thereby removing the top legs first. *A meter removal tool must be used if the glass is broken or cracked or if the meter cannot be freed from the socket by hand.*
- 5.3.5 Install a pie plate and meter ring.
- 5.3.6 Package the meter in the meter storage box in a manner which will prevent damage and store in a clean, dry and secure area that will prevent theft or abuse of the meter.
- 5.3.7 Ensure NSPI had been contacted and scheduled to inspect and reconnect the service.

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Wiring Permits: 902-464-1520

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5.4 Removing an A-Base Meter

- 5.4.1 Wear arc flash face shield, arc flash fully body clothing (example coveralls, jacket and long pants) and arc flash gloves.
- 5.4.2 Disconnect the power at the weather head or main switch. Open the disconnect switch to inspect wiring for unmetered circuits and to ensure that the switch has in fact opened, verify that the disc has stopped turning.
- 5.4.3 Remove the meters bottom terminal block cover and check to ensure no voltage is present. Disconnect the bottom connected wires and remove meter from the service.
- 5.4.4 Package the meter in the meter storage box in a manner which will prevent damage and store in a clean, dry and secure area that will prevent theft or abuse of the meter.
- 5.4.5 Ensure NSPI had been contacted and scheduled to inspect and reconnect the service.

Note:

NSPI will not re-install an A-Base meter, the service must be upgraded to an S-Base style.

Note:

An Isolated Neutral Kit will be required to be installed in the meter base when it is upgraded from an A base to an S Base style.

EMERGENCY

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5.5 Removing a Network Meter ★

- 5.5.1 Visually inspect the meter socket. An improperly fitting cover plate or signs of severe rust or other physical damage signal the need for extra caution.
- 5.5.2 Open the customer's main breaker or main disconnect switch before removing the meter.
- 5.5.3a If the main switch is open and power has been disconnected, wear safety glasses and work gloves when removing the meter.
- 5.5.3b If the main switch does not open, wear arc flash face shield, arc flash fully body clothing (example coveralls, jacket and long pants) and arc flash gloves, when removing the meter.
- 5.5.5 Remove the old padlock seal (seal on meter ring) and meter sealing ring. Pull the meter straight out thereby removing all legs of the meter at the same time. *A meter removal tool must be used when removing the meter. Any downward motion could result in either damaging or breaking the horizontal 5th jaw, or neutral lug.*
- 5.5.5 Package the meter in the meter storage box in a manner which will prevent damage and store in a clean, dry and secure area that will prevent theft or abuse of the meter.
- 5.5.6 Continue with repairs. Ensure the neutral is connected to the neutral bar at the back of the meter socket. In older meter centers with mechanical meters, the neutral connection was not necessary in order for the meter to function. In order for new electronic meters to work, the neutral lug must be connected.
- 5.5.7 Ensure NSPI had been contacted and scheduled to inspect and reconnect the service.

EMERGENCY

IN CASE OF EMERGENCY (Injury, Arc Flash or Shock, Broken Lug etc.), CALL 911 (If necessary), CALL YOUR SUPERVISOR TO REPORT THE INCIDENT, CALLWIRING PERMITS CENTER TO UPDATE ON SITUATION, CALL SPP MANAGER TO REPORT INCIDENT.

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5.6 Unauthorized Secondary Service Provider Procedures for Gener-Link★

- 5.6.1 Procedures for new Gener-Link device installations requires an appointment through the Permit Centre for both a line truck and a wiring inspector for disconnection and reconnection. At no point may a Service Provider disconnect service at a weather head or remove the residential meter for the purpose of installing a new Gener-Link Device.
- 5.6.2 All other procedures not outlined within this document SP-WI-001 are prohibited from being performed under the Secondary Service Provider Program and may result up to and including removal from the Secondary Service Provider Program.

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SSP Risk Assessment Form

| SP-WI-001 | | | |
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| Information | Date: | | |
| Permit #: WO #: | | | |
| Service Provider: SSP #: | | | |
| Company: | | | |
| Site Address: | | | |
| | | | |

Scope of Work

Service Change/Upgrade/Repair (Cut Off):_____

Panel Change(Meter Pull):_____

Hazards

| Live Service | Terrain | People | Vegeta | tion |
|------------------|---------------|----------------------|---------|---------|
| Live Meter base | Accessibility | Animals/Pets | Weathe | er |
| Live Panel | Lighting | Vehicles | Hot | |
| Ladders | Lines Down | Equipment | Cold | |
| Extension Ladder | Service Down | Deterioration (Rust) | Older S | Service |
| Hand Tools | Lightning | Meter Damage | PPE Da | amage |

Additional Comments:

Controls

| SWP Disc. Service at Weather head | Hard Hat |
|-----------------------------------|---|
| SWP Removal of S-Base Meter | Safety Glasses |
| SWP Removal of A-Base Meter | Safety Boots |
| Multi-Meter | Arc Flash Equip. (jacket, Gloves, Shield) |
| Meter Puller | Fall Arrest Harness (if required) |
| Meter Storage Box/Secure Area | Traffic Vest |
| SWP Insulated Rubber Glove Test | Weather Specific Clothing |

Additional Comments:

Employee Signatures:

Glove Certification Expiry Date:

Required Glove Inflation Test Performed _____

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