

ION7550 / ION7650 Communications Card

This document describes how to install a communications card (“Comm Card”) into a PowerLogic® ION7550 / ION7650 meter.

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Additional Information

- ◆ *ION7550 / ION7650 User's Guide*
- ◆ *ION7550 / ION7650 Installation Guide*
- ◆ *ION Reference*

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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Communications Options

The ION7550 / ION7650 meter's standard Comm Card has a selectable RS-232/RS-485 port on COM 1, and a dedicated RS-485 port on COM 2. At the time of this document's publication, the following additional communications options were available for the Comm Card:

- ◆ 10BASE-T Ethernet
- ◆ 33.6 kbps Internal Modem
- ◆ 33.6 kbps Internal Modem and 10BASE-T Ethernet
- ◆ 10BASE-FL Ethernet and 10Base-T Ethernet
- ◆ 33.6 kbps Internal Modem and 10BASE-FL Ethernet and 10Base-T Ethernet

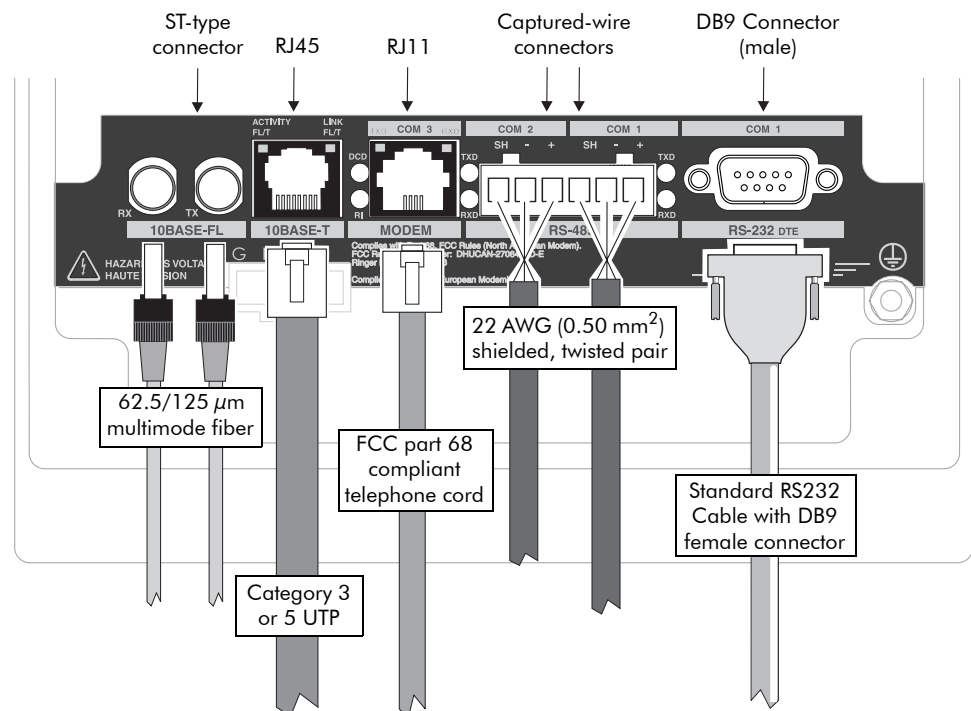
NOTE

The internal modem complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules, and is compatible with the telephone systems of most countries in the world, with the exception of Australia and New Zealand. Use in some countries may require modification of the internal modem's initialization strings. If you experience problems using the modem on your phone system, please contact Technical Support.

Visit the Schneider Electric web site at www.powerlogic.com for the latest ordering information.

Wiring Specifications

The following illustration shows all the possible connections to the Comm Card.



The optical communications port (COM 4) is located on the front of the unit.

Preparing the Meter

DANGER

During normal operation of the meter, hazardous voltages are present which can cause severe injury or death. These voltages are present on the terminal strips of the device and throughout the connected potential transformer (PT), current transformer (CT), status input, relay, and control power circuits. Only qualified, properly trained personnel should perform installation and servicing.

CAUTION

The components inside the meter are extremely sensitive to electrostatic discharge. To prevent damage to the unit, wear an anti-static wrist strap at all times when working inside the unit. Failure to use proper equipment during servicing will void the meter's warranty.

The following steps should be taken before inserting a Comm Card into an ION7550 / ION7650 meter:

1. Turn off all power to the meter.
2. Open all PT fuses (or direct voltage input fuses). Close all CT shorting blocks.
3. Disconnect the Line and Neutral (or DC power) wires from the Control Power inputs of the unit.
4. Disconnect all other wiring (or power off all other circuits) which may present potentially hazardous voltage levels to the unit, such as connections to the relay outputs, status inputs, etc.
5. Ensure that all cables still connected to the meter are **NOT** live.

Removing the Existing Comm Card

The Comm Card of the ION7550 / ION7650 meter can be removed while the unit is still mounted in its switchgear panel (or other mounting location).

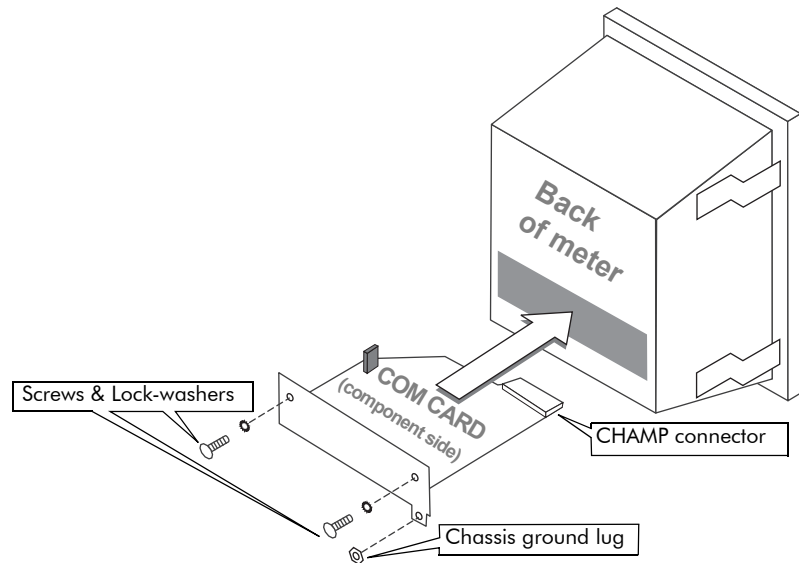
1. Remove the two screws and lockwashers on the Comm Card's backplate (refer to the diagram on the next page).
2. Remove the nut from the chassis ground lug.
3. Grasp the Comm Card by the sides of its backplate and pull it out of the socket, away from the chassis.
4. Place the Comm Card in an anti-static wrapping.

Installing the New Card

The Comm Card consists of a circuit board with an attached polarized CHAMP connector on the component side. Install the Comm Card as follows:

1. Hold the Comm Card by the sides and slide it into the base unit with the component side facing up.

2. Slide the edge of the circuit board down the slots along each side of the chassis.
3. Align the CHAMP connector with the socket and press the Comm Card firmly into place. The socket and the connector are polarized, so the pins in the connector will not fit into the socket if the card is not oriented correctly. The Comm Card is securely inserted into the socket when the backplate of the Comm Card meets the chassis of the meter.



Final Steps

1. Ensure the backplate meets the chassis of the base unit.
2. Use a Phillips screwdriver to replace the two backplate screws (as well as the nut on the chassis ground lug) with their lock-washers. They must be tightened firmly to preserve transient immunity.
3. Reinstall the Line and Neutral (or DC power) wiring to the Control Power inputs of the unit.
4. Reconnect all other wiring (or re-enable all other circuits). Close the PT fuses (or direct voltage input fuses), and open the CT shorting blocks.
5. Turn on power to the meter and verify the correct operation of the unit.