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## 9500 / 9600 Communications Card Retrofit Installation Instructions

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### Introduction

This document describes how to install a new communications card (“Comm Card”) into the 9500 and 9600. Additional sources of information are listed on page 2.

### Communications Options

The 9500 and 9600’s standard Comm Card has a selectable RS-232/RS-485 port on COM 1, a dedicated RS-485 port on COM 2, and an optical (infrared port) on COM 3. At the time of this document’s publication, the following communications additional options are available with the standard Comm Card:

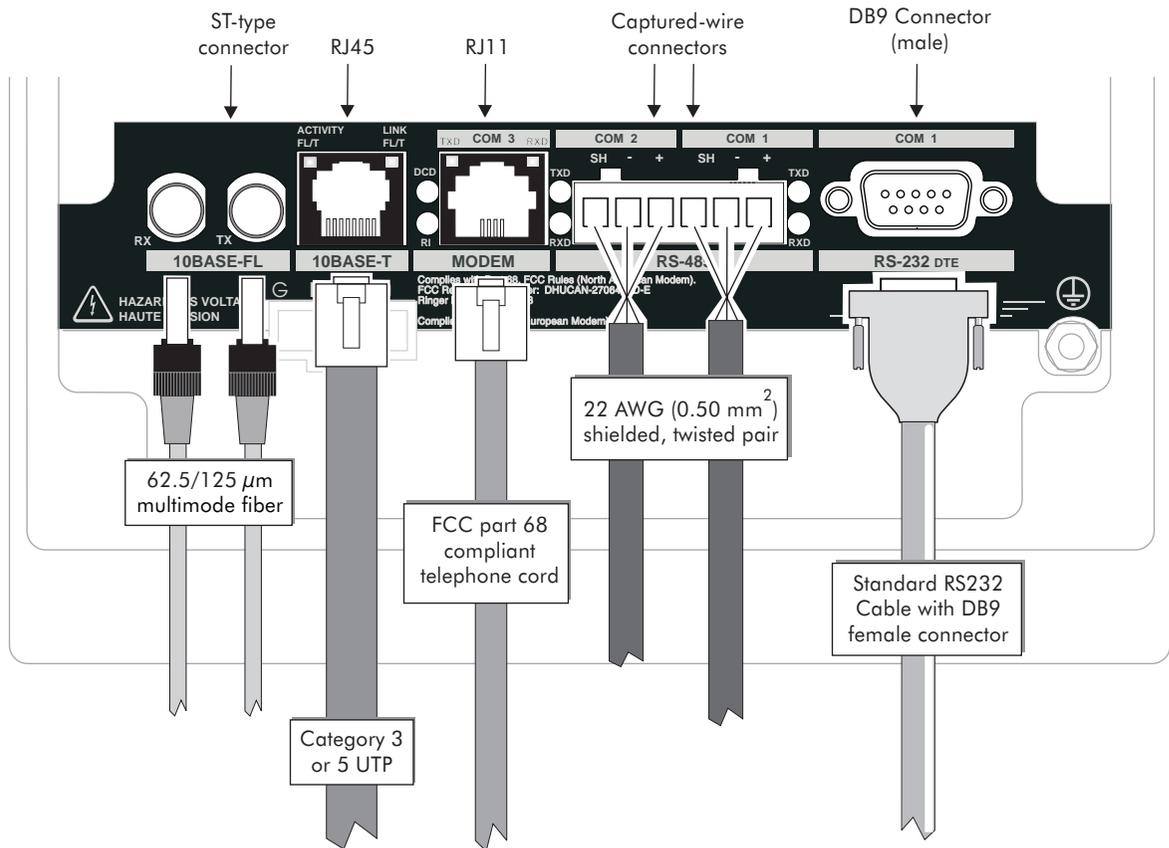
- ◆ 10BASE-T Ethernet
- ◆ 33.6 kbps Internal Modem
- ◆ 33.6 kbps Internal Modem and 10BASE-T Ethernet
- ◆ 10BASE-FL Ethernet and 10Base-T Ethernet
- ◆ 33.6 kbps Internal Modem and 10BASE-FL Ethernet and 10Base-T Ethernet

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 Siemens Customer Service.

Visit the Siemens web site at [www.siemens.com](http://www.siemens.com) for the latest ordering information.

# Wiring Specifications

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



The optical (infrared) communications port, is located on the front of the unit. It shares COM 3 with the internal modem order option.

## Getting More Information

### *Installation & Basic Setup Instructions*

This guide is shipped with each 9500 and 9600. It provides instructions on mounting and wiring the meter to the power system, wiring the COM ports, configuring the meter’s basic settings from the front panel, and verifying operation.

### *User’s Guide*

This manual can be ordered from Siemens. It describes 9500 and 9600 operation and usage details including: displaying data, making configuration changes, customizing operation with PEGASYS software, using the inputs/outputs, using advanced communications features, technical specifications, revenue metering details, and more.

Softcopies can be downloaded at Siemens’s website at [www.siemens.com](http://www.siemens.com).

## 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 9500 and 9600's warranty.

The following steps should be taken before inserting a Comm Card into the 9500 and 9600:

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

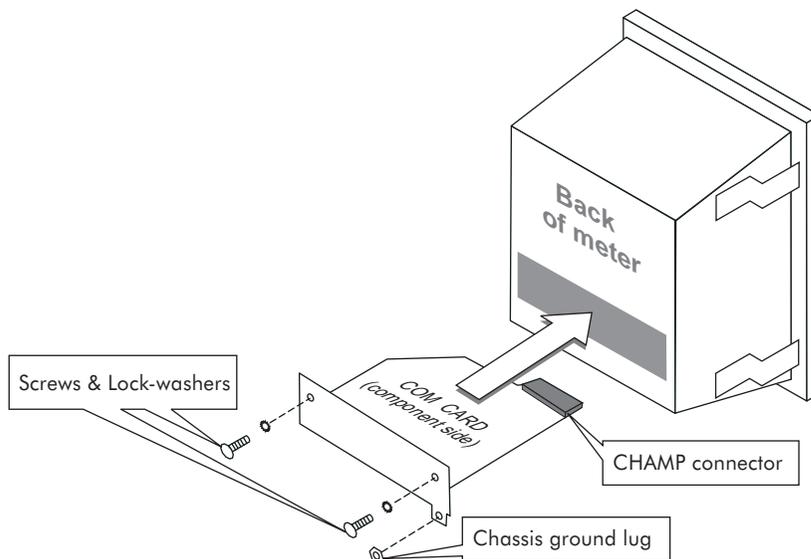
The Comm Card of the 9500 and 9600 can be removed while the unit is still mounted in its switchgear panel (or other mounting location).

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 cover meets the chassis of the base unit.
2. Use the 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 installed 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.