

945U-E wireless Ethernet modem installation guide



NOTE

This equipment is suitable for use in Class I Division 2 groups A, B, C and D hazardous locations, or nonhazardous locations only.

WARNING EXPLOSION HAZARD

Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations. Substitution of any component may impair suitability for Class I Division 2.

Statutory requirements

FCC: Unlicensed operation limits the radio power. High gain aerials may only be used to compensate for cable losses.

Installation steps

This guide provides installation drawings and instructions appropriate for most applications. For more information, refer to the user manual.

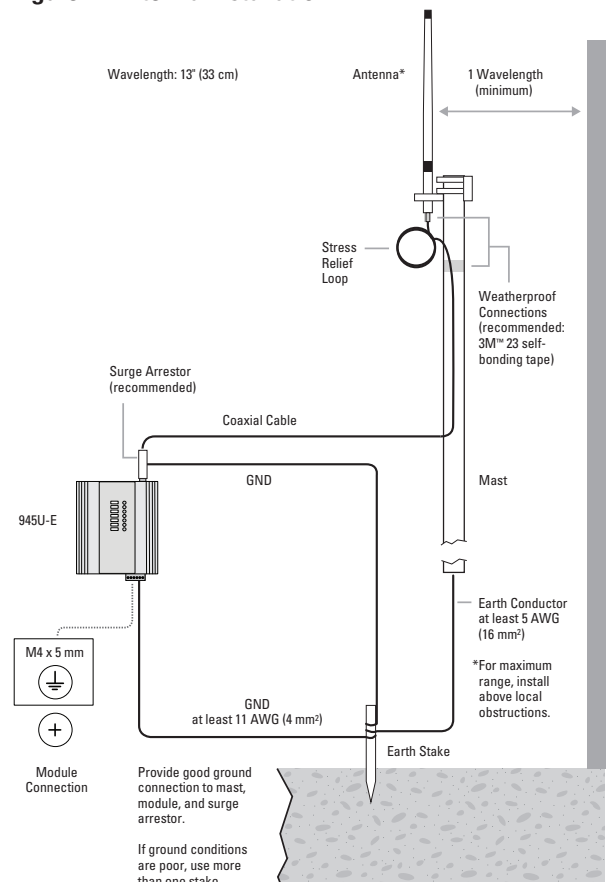
1. Connect the GND terminal on the back of the 945U-E to earth/ground.
2. Install the antenna.
3. Connect the 945U-E to a DC power supply and power on.
4. Connect the 945U-E to your computer via Ethernet and configure the 945U-E. Refer to the user manual for configuration details.

Antenna installation

When selecting an antenna, consider radio proximity. For short distance paths, check the receive signal level. If it exceeds -40 dBm, a 20 dBm you must fit an attenuator in-line with the coaxial cable. Do not use demonstration antennas for the final installation.

Use Figure 1 as a guide for installing an antenna and attaching it to the 945U-E.

Figure 1. Antenna Installation



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NOTE

All connections must be SELV <50 Vac and <120 Vdc.

If the wireless Ethernet modem is installed as Category 3 equipment, it must be installed in an enclosure that maintains an ingress protection rating of IP54 and meets the enclosure requirements of EN 50014 or EN 60079-0.

If the wireless Ethernet modem is installed in a hazardous environment, coaxial cable must be installed in a metallic conduit, per NEC requirements.

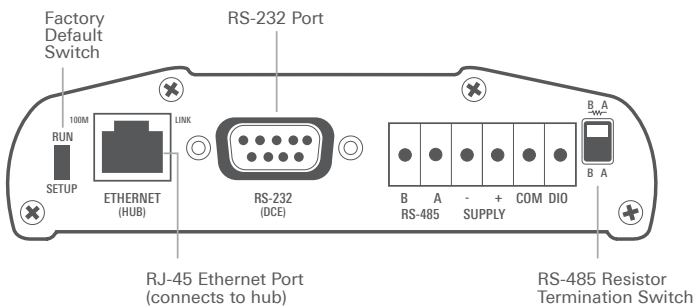
Digital Output will activate for approximately 5 seconds during the device power up sequence.

WARNING

The wireless Ethernet modem enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. This must be taken into account during installation.

The non-metallic cover of the wireless Ethernet modem constitutes an electrostatic discharge hazard. Clean only with a damp cloth.

The following illustration shows the ports and switches on the 945U-E. The Ethernet port is wired for a hub or switch.

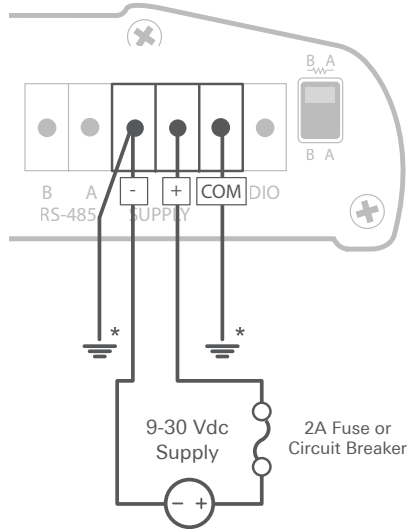


Power supply wiring

The device power supply -Ve terminal is not isolated from earth/ground.

- * Connect the negative (-) supply terminal and the GND screw (located on the rear of the module) to earth/ground as close to the device as possible.

Do not connect the positive (+) supply terminal to earth/ground.



CAUTION! Avoid ground loops.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's wireless business
www.eaton.com/wireless

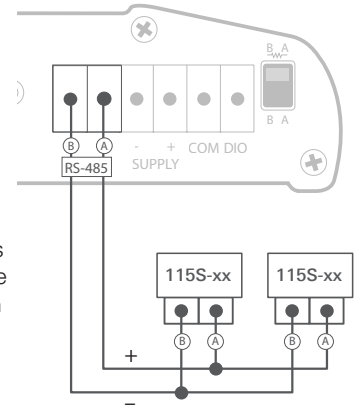


RS-485 connections

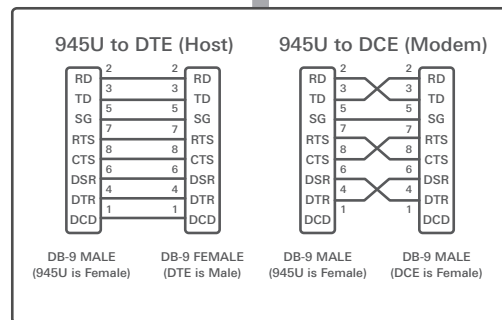
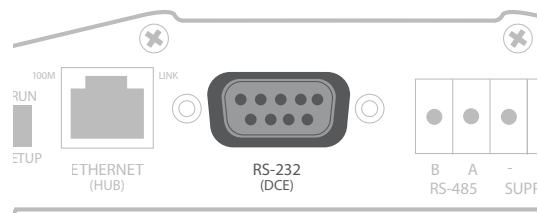
Use shielded twisted pair cable to interconnect modules to reduce potential RFI.

Maintain the polarity of the two RS-485 wires.

Terminate each end of the network with a 120-ohm resistor. An on-board terminating resistor is provided in the modem and can be engaged by setting the DIP switch on the end plate to ON.

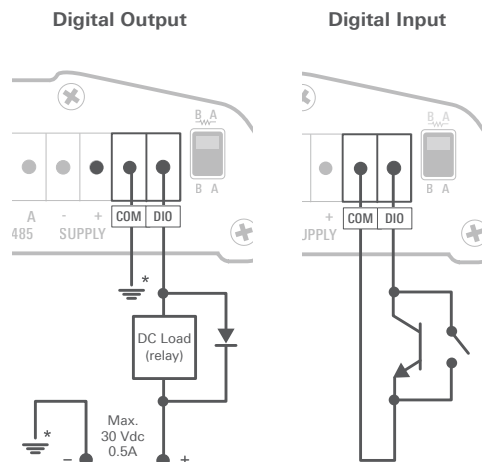


RS-232 connections



Digital input and output wiring

The digital input/output (DIO) channel can be wired as either input or output.



* Connect to Ground as close to the module as possible

Voltage-Free Contact or Transistor Device