LON Option Module

Installation Guide

LON Option Module

Figure 1:   LON Option module

Product Description

FTT-10A LON (LonWorks) adapter with a 2-position removable screw-terminal connector plug for the EC-BOS-8 and EC-BOS-9.

Module Combinations

The EC-BOS supports a maximum total of four option modules across all option types. If two Dual RS485 modules are used, only one additional non-RS485 module may be added for a maximum total of three modules.

COM Port Assignments

If only one LON option is used, it operates as LON1, regardless of its position.

If multiple LON option modules are used, the module closest to the controller base operates as LON1, the next closest as LON2, and so on. So, if 4 LON options are installed, the module furthest from the controller base operates as LON4.

In the EC-Net™ 4 station hosted by the controller, use a separate LonNetwork for each installed LON option. Specify LON port on a network's property sheet (Lon Comm Config, Device Name = LON*n*).

Related topics such as the mounting and wiring of the controller or other option modules, installation of Niagara 4 software, and usage of the Niagara 4 Lonworks driver are in other documents. See "Related Documentation [pg. 2]."

Included in this Package

Included in this package:

☐   A LON option module, with a 2-position terminal plug, for wiring to an FTT-10A LonWorks network.

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Materials and Tools Required

Suitable tools and fasteners for mounting the unit, attaching it to an already mounted EC-BOS-8. DIN-rail mounting of the EC-BOS and all its option modules is recommended.

A small flat-blade screwdriver is required to make wiring connections to the FTT-10A LONWORKS network.

Related Documentation

For more information on installing, configuring, and using the EC-BOS with LON option module, refer to the following documents:

☐ *EC-BOS-8 or EC-BOS-9 Mounting and Wiring Guide*
☐ *EC-BOS-8 or EC-BOS-9 Quick Start Guide*
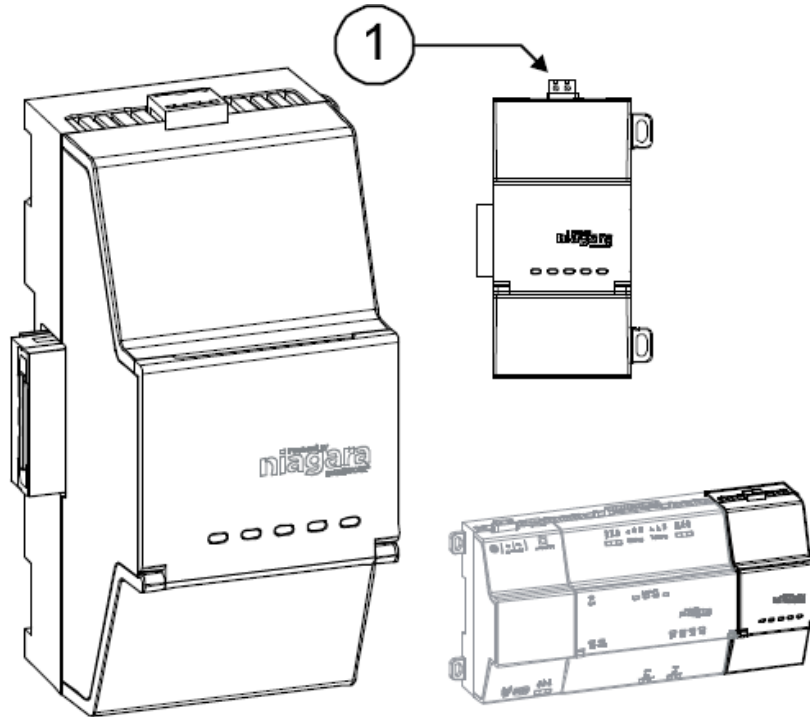☐ *EC-BOS EC-Net 4 Install and Startup Guide*
☐ *EC-Net Drivers Guide*

Figure 2:   LON Option module with the EC-BOS

This document covers the mounting and wiring of a LON option module for an EC-BOS.

1	FTT-10A LONWORKS port (polarity insensitive) with 2-position removable screw terminal connector plug.

Precautions

The following are warnings relating to the installation of the EC-BOS option module.

⚠

☐ **Remove all power to the EC-BOS before attaching (plug in) or detaching (unplug) any option module**, to prevent possible equipment damage.

☐ **Removal of the EC-BOS's cover is not required**. No configurable or user-serviceable items (such as jumpers or a battery) are inside the option module.

Static Discharge Precautions

Static charges produce voltages high enough to damage electronic components. The microprocessors and associated circuitry within the devices are sensitive to static discharge.

⚠

☐ Work in a static-free area.

☐ Discharge any static electricity you may have accumulated. Discharge static electricity by touching a known, securely grounded object.

Mounting

Mounting the EC-BOS and all option modules on a 35mm wide DIN rail is recommended. Mounting on a DIN rail ensures accurate alignment of connectors between all modules. Tabs on the EC-BOS or module can be used for panel mounting as an alternate to DIN rail mounting.
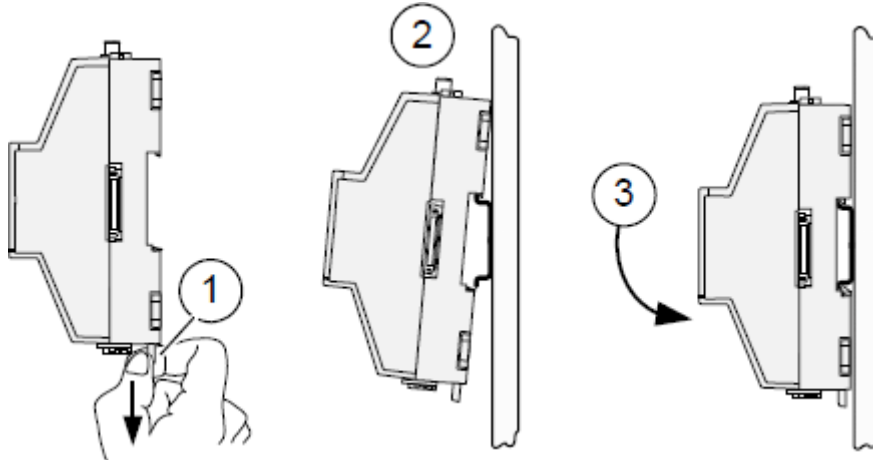
⚠️ ☐ **Remove all power to the EC-BOS** before installing or removing option modules. See "Precautions [pg. 2]," page 2.
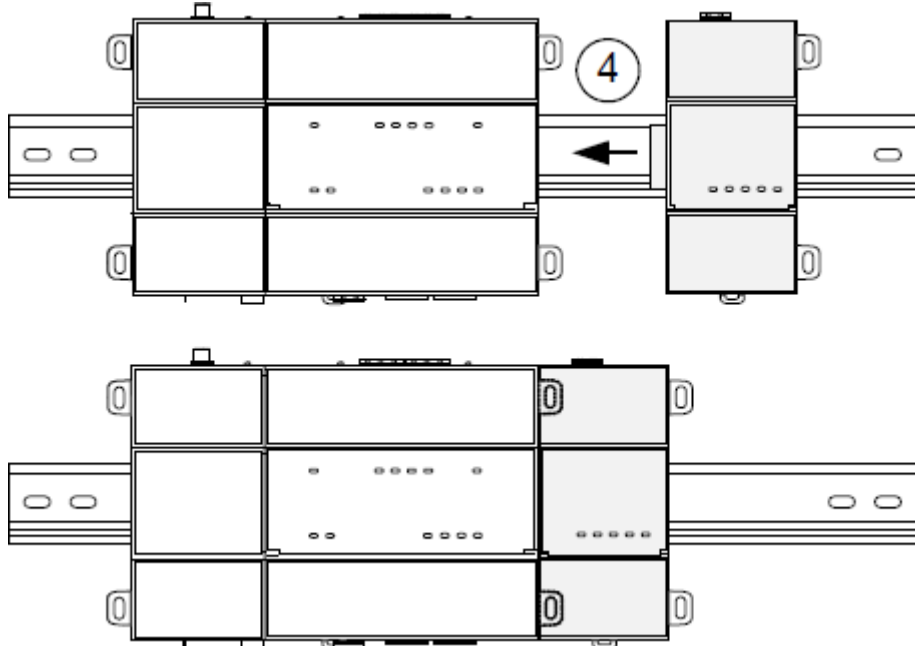
Mounting on DIN Rail

Prerequisite: The EC-BOS is securely mounted on a 35mm DIN rail, with adequate room left to mount the module.
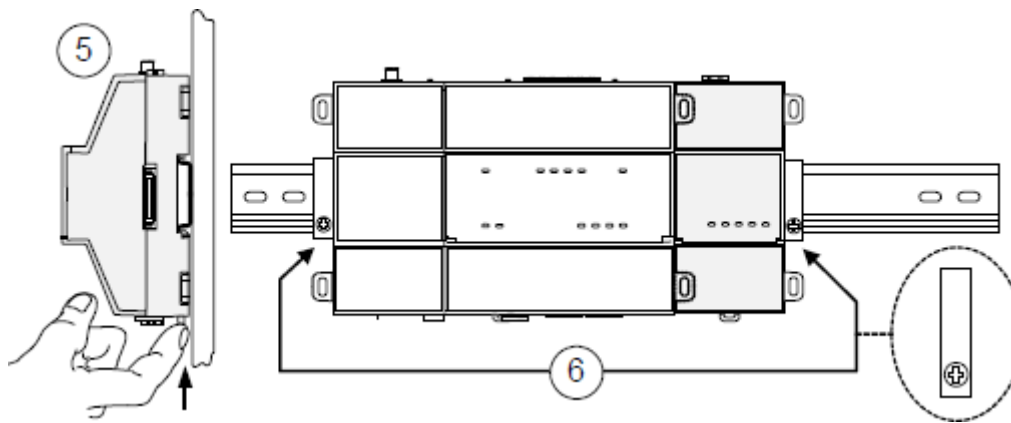
1. Pull the option module's locking clip down.

2. Tilt the module to hook over the DIN rail.
3. Push down and in on the unit, fastening to the rail.
4. Slide the module firmly into the EC-BOS's connector (or existing option module) to seat. Repeat for other modules as needed (4 maximum).

5. Push up the locking clip on all modules.

6. Carefully secure both ends of the final assembly with DIN rail end-clips provided by the DIN rail vendor.

To remove a unit from the DIN rail, pull down its locking clip. Slide the unit away from other devices, then swing the bottom out and lift away from the rail.

Wiring

Connect LonWorks FTT-10A communications wiring to the 2-position connector of the LON option module. Polarity is not a factor in FTT-10A wiring. The connector accepts wire sizes from 26-12AWG.

Refer to the *LonWorks FTT-10A Free Topology Transceiver User's Guide* (078-0156-01F) for technical guidelines associated with free topology restrictions, and the *Junction Box and Wiring Guidelines for Twisted Pair LonWorks Networks* (005-0023-01) for more detailed information on wiring. These documents are available on Echelon's web site (www.echelon.com).

LEDs

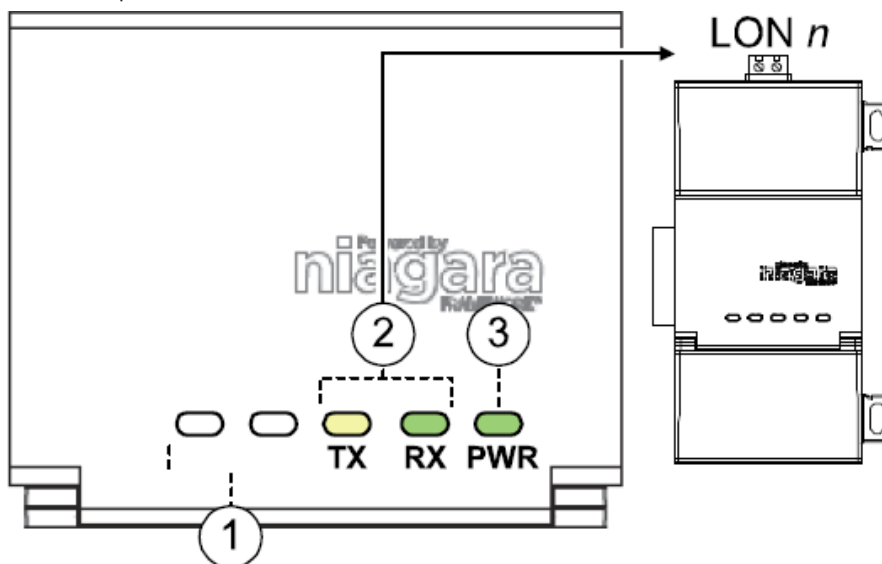Three LEDs are on the front of the LON option module.

Figure 3:   LEDs on LON option module

1	Unused.
2	TX (Transmit) and RX (Receive).
3	PWR — Green, remains lit while EC-BOS is powered.

The LED pair TX and RX operates as follows:

☐   TX (yellow) — Transmit, flashes when the EC-BOS is sending data to a device on the LON trunk.

☐   RX (green) — Receive, Receive, flashing indicates that another LONWORKS device is transmitting a message.

LEDs are also visible when the front access door is opened.