MM-100/1000 & MS-100/1000

10/100/1000 MEDIA CONVERTERS w/PoE Option

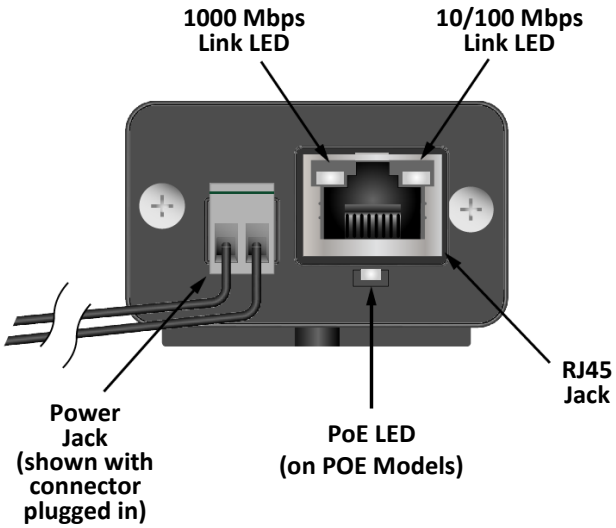
Installation and Operation Manual

Introduction

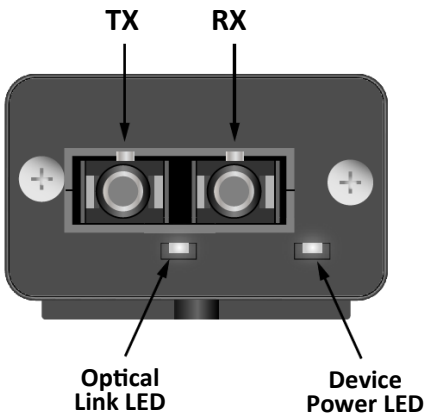
This manual applies to the following media converters.

MM-100:	Multi-Mode SC, 10/100 Mbps	MS-100:	Single-Mode SC, 10/100 Mbps
MM-1000:	Multi-Mode SC, 10/100/1000 Mbps	MS-1000:	Single-Mode SC, 10/100/1000 Mbps
MM-100-POE:	Multi-Mode SC, 10/100 Mbps, 30W PoE	MS-100-POE:	Single-Mode SC, 10/100 Mbps, 30W PoE

RJ45 Side



Optical Side



LED FUNCTIONS

LED	OFF	GREEN	ORANGE	BLINK
DEVICE POWER	NO POWER	POWER	N/A	N/A
OPTICAL LINK	NO LINK	LINKED	N/A	N/A
10/100 Mbps LINK	NO LINK	100 Mbps LINK	10 Mbps LINK	ACTIVE LINK
1000 Mbps LINK	NO LINK	1000 Mbps LINK	N/A	ACTIVE LINK
PoE	PoE OFF	PoE ON	N/A	PoE FAULT

POWER JACK OPTIONS

MODELS	DC INPUT*	AC INPUT
Non-PoE	6-16V	6-12V
PoE	48-56V	N/A

***POLARITY NOT IMPORTANT DUE TO INTERNAL BRIDGE**

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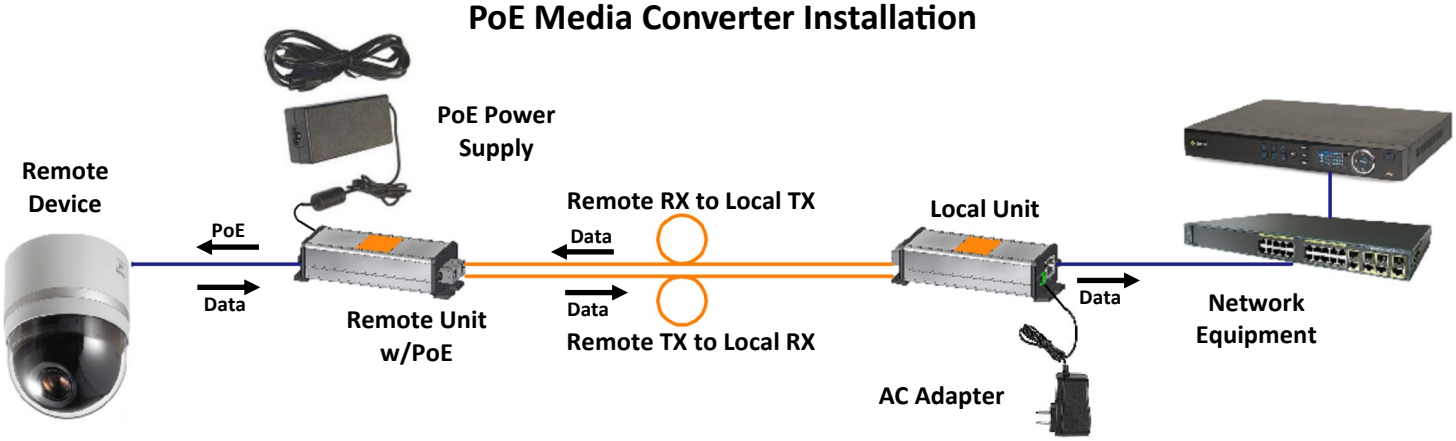
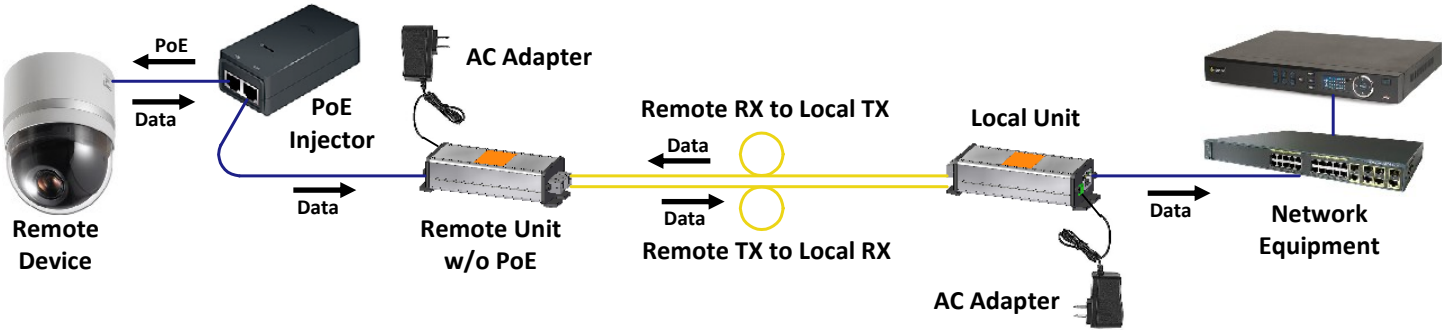
PoE Media Converter Installation



Non-PoE Media Converter Installation



Installing the MM-100/1000 & MS-100/1000 Series Media Converters

Refer to the diagrams above when installing. Use best industry practices and follow all local building codes.

1. Connect the provided AC adapter to the power jack of the local unit and confirm that its device power LED turns on.
2. Connect a network cable from the network equipment to the RJ45 jack of the local unit and confirm that a link LED on its RJ45 jack turns on.
3. Connect appropriate optical cables (see note below) to the TX and RX ports of the local unit.
4. Connect the provided AC adapter or PoE power supply to the power jack of the remote unit and confirm that the device power LED turns on.
5. Connect the other ends of the optical cables from step 4 to the TX and RX ports of the remote unit.
6. If the remote optical link LED doesn't light, swap the cables between the TX and RX ports and confirm that it lights.
7. If the remote device will be powered by its own supply, connect that power supply as specified by its documentation and skip to step 10.
8. If the remote media converter is a non-PoE model and PoE is required:
   A. Connect the RJ45 jack of the remote media converter to the Data In jack of the PoE injector.
   B. Connect the PoE & Data Out jack of the PoE injector to the remote device and skip to step 10.
9. If the remote media converter will provide PoE, connect the RJ45 jack of the remote unit to the remote device and confirm that the PoE LED lights.
10. Confirm that the remote device is powered and that a link LED on the RJ45 jack of the remote unit turns on.
11. If the remote device is active, confirm that a link LED is blinking on the RJ45 jack of the remote unit.
12. Confirm that the optical link LED lights on the local unit and verify data connectivity via the network equipment.

NOTE:
MM models require multi-mode SC-terminated fiber cables, which are orange.
MS models require single-mode SC-terminated fiber cables, which are yellow.

Troubleshooting Guide

Trouble	Possible Cause	Solution
Remote device isn't powered.	Non-PoE remote device power is not connected.	Make sure remote device's power adapter is plugged into device and AC outlet.
	Remote device is connected to PoE from remote unit and to AC adapter.	Cut a pair in the cable to the device used for PoE. Typically, the brown pair can be cut.
	PoE injector is not plugged in to AC power.	Make sure PoE injector is plugged in to AC Outlet.
	PoE injector is not connected properly.	Make sure remote device is connected to PoE & Data Out port of injector (step 8 above).
Link LEDs light, but don't blink.	Remote device is not active.	Access the remote device through the network equipment. For instances, view the video output of an IP camera.
No lights on local or remote unit.	Unit is not powered up.	Make sure AC adapter or PoE supply is plugged in to unit and AC outlet.
Optical link LED doesn't turn on.	Optical cables not connected properly.	Swap RX and TX connections at local or remote unit.
	Optical fibers are dirty.	Clean fiber faces using cotton swab dipped in isopropyl alcohol. Dust off fiber face & barrel of optical module with canned duster.
	Wrong optical cables were used.	Use orange cables with MM units and yellow cables with MS units.

Call 800-528-4343 or 847-259-8900 for Nitek Tech Support