comnet
Communication Networks

INSTALLATION AND OPERATION MANUAL

CN-OB(M,S)
INDUSTRIAL 2-PORT OPTICAL BYPASS SWITCH
WITH 4 × LC DUPLEX CONNECTORS

This manual serves the following ComNet Model Numbers:

CN-OBM

CN-OBS

The ComNet CN-OB(M,S) is an external Bypass switch for 100M/1G/10G fiber optic networks. This fiber optic bypass switch protects from network failures and Network maintenance by ensuring network integrity during power loss. This fiber optic bypass switch includes Network ports and Monitor ports. The Network ports are used to connect to main-network connections and provide protection mechanism and the Monitor ports are used for down-link local networking device. When the power is on,the mode of the Bypass switch is in Normal operation mode and the local networking device is connected with main-network. When on the power failure state, the Bypass switch is set to bypass mode to isolate the main-network from the local networking device.

CN-OB(M,S) PHYSICAL DESCRIPTION
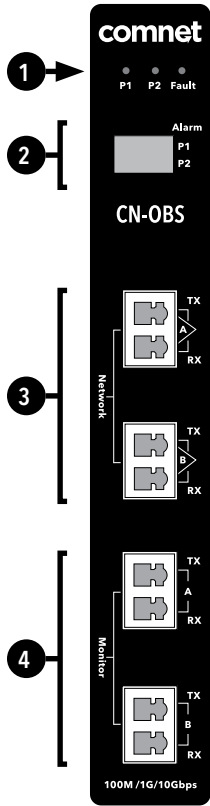
Figure 1 – Physical Features of CN-OB(M,S)

Table 1 – Physical Feature Descriptions

Call-out	Description	Manual Reference
1	Indicating LEDs	See Table 2 - Indicator LEDs
2	DIP Switch Select for Power Alarm Relay Output	See Table 3 - DIP Switch Operation
3	Network Fiber Ports	See Figure 5 – Operation
4	Monitoring Fiber Ports	See Figure 5 – Operation

Table 2 – Indicator LEDs

LED	Description	Color Indicator
P1	Power 1	Solid Green for Normal Operation
P2	Power 2	Solid Green for Normal Operation
Fault	Fault Indicator	Solid Amber for Power Failure

MOUNTING INSTRUCTIONS

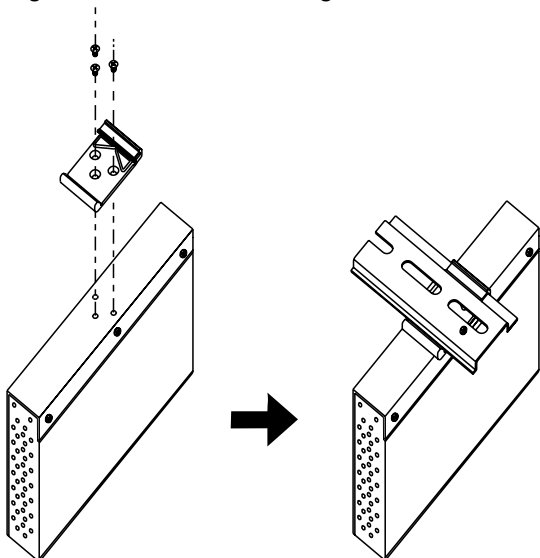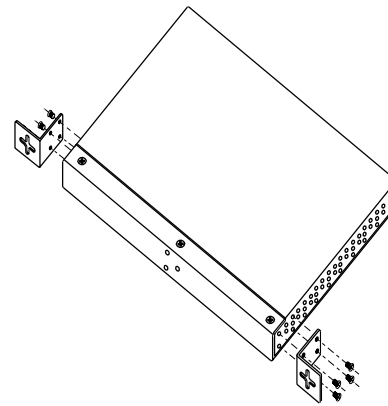**Figure 2 – DIN Rail Mounting Kit Installation**

Figure 3 – Wall Mount Bracket Installation

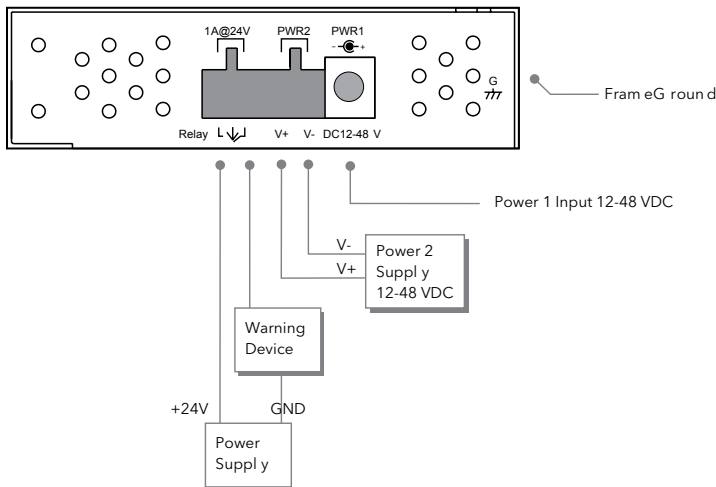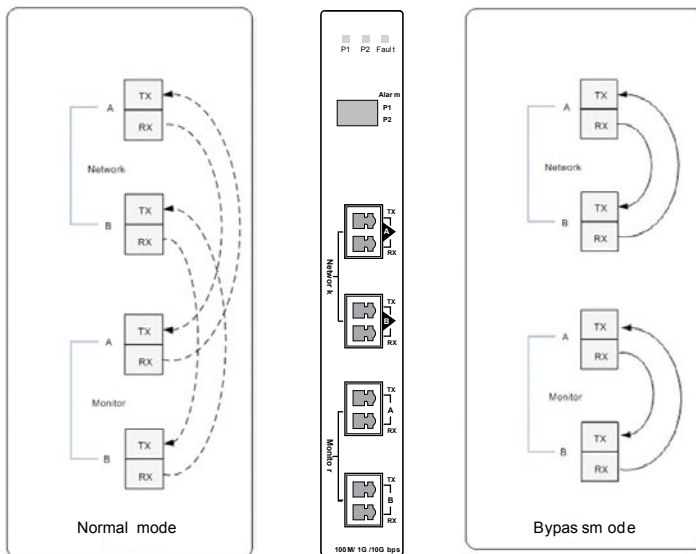## OPERATION INSTRUCTIONS

Figure 4 – Power Connections

Figure 5 – Operation

Normal Operation

The Bypass switch delivers the data between the Network ports and the Monitor (local) ports

Bypass Mode

Network data traffic is routed directly to the other Network port. Monitor data traffic is routed directly to the other Monitor port.

Table 3 – DIP Switch Settings

DIP Switch		
1	2	Setting Effect
OFF	OFF	Power Failure Relay Alarm Disabled
ON	OFF	Power 1 Failure Relay Alarm Enabled
OFF	ON	Power 2 Failure Relay Alarm Enabled
ON	ON	Power 1 & Power 2 Failure Relay Alarms Enabled

INSTALLATION CONSIDERATIONS

These units are supplied as Standalone/DIN Rail mounted modules. Units should be installed in dry locations protected from extremes of temperature and humidity.

WARNING: Unit is to be used with a Listed Class 2 power supply.

IMPORTANT SAFEGUARDS:

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.