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MEDIA INTERFACE BOARD (MIB)

Manual

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NOTES

Media Interface Board

1 General

The Media Interface Board (MIB) provides a means for connecting the AM2020/AFP1010 Fire Alarm Control Panel, the Intelligent Network Annunciator (INA), the Network Reporting Terminal (NRT), and nodes to **NOTI•FIRE•NET™**. There are three types of MIBs available: the MIB-W, MIB-F, and MIB-WF. The MIB-W is used to connect nodes with twisted-pair wire. The MIB-F is used to connect nodes with fiber-optic cable. The MIB-WF is used to connect twisted-pair wire to fiber or fiber to twisted-pair wire at any node in the network.

2 Related Documentation

To obtain a complete understanding of the MIB features and related products or to become familiar with functions in general, make use of the documentation noted in Table 1. The NOTIFIER document (DOC-NOT) chart provides the current document revision.

Title	Number	Title	Number
AM2020/AFP1010 Fire Alarm Control Panel	15088	Annunciator Control System	15842
Liquid Crystal Display (LCD-80)	15037	Lamp Driver Modules (LDM)	15885
Network Reporting Terminal (NRT)	15090	Voice Alarm Multiplex	15889
Intelligent Network Annunciator (INA)	15092	The XP Series Transponder System	15888
Universal Zone Coder Installation (UZC-256)	15216	Network Adaptor Module (NAM-232)	50038
Product Installation Document (CCM-1)	15328	The UDACT Universal Digital Alarm Communicator/Transmitter	50050
Product Installation Document (MPS-TR)	15331	FCPS-24/FCPS-24E Field Charger/Power Supply Installation, Operation and Application Manual	50059
AM2020/AFP1010 Operator Instructions	15337	Video Graphics Annunciator System (VGAS) Installation Manual	50251
Notifier Device Compatibility Document	15378	Media Interface Board (MIB)	50255
Analog Fire Panel (AFP-200)	15511	Repeater (RPT)	50256
Canadian Requirements for the AM2020/AFP1010	15631	NOTI•FIRE•NET	50257
Network Interface Board (NIB-96)	15666	Telephone/Panel Interface (TPI-232)	50372
Smoke Control Manual	15712	Media Evaluation Tool (MET-1)	50480
Analog Fire Panel (AFP-300/AFP-400)	50253 50259 50260	Automatic Fire Alarm Warden Station Series Product Installation Drawing	50705
NR45-24 Charger	15760	MMX-2 Installation Instructions	M500-03-00
APS-6R Auxiliary Power Supply	50702	CHG-120 Battery Charger	50641

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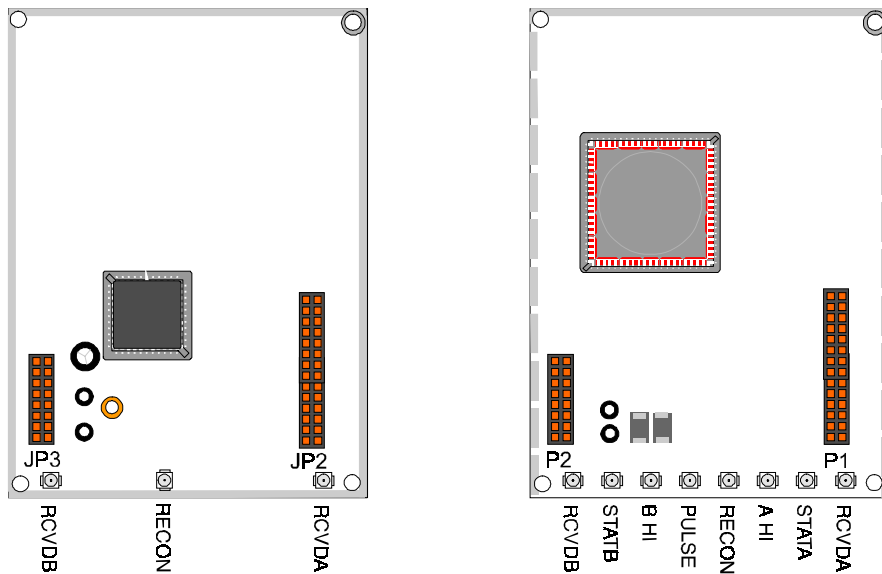
Table 1 Related Documentation

3 Diagnostic Indicators

The MIB has diagnostic indicators which aid in troubleshooting and assist the installer in connecting the system. Refer to Table 2 for a list of diagnostic indicators and their descriptions. Refer to Figures 1-a and 1-b for the two possible configurations of diagnostic indicators.

LED		
Indicator	Color	Description
RCVDA	Green	Illuminates when the MIB is receiving data from NOTI•FIRE•NET on Port A.
STATA*	Yellow	Illuminates when the MIB has not received valid data from NOTI•FIRE•NET on Port A.
A HI*	Green	Illuminates to indicate the MIB-W Port A is set for high threshold (N/A on MIB-F, MIB-WF).
RECON	Yellow	Illuminates when a reconfiguration on NOTI•FIRE•NET is in progress.
PULSE*	Green	Illuminates when the MIB is transmitting data to NOTI•FIRE•NET.
B HI*	Green	Illuminates to indicate the MIB-W Port B is set for high threshold (N/A on MIB-F, MIB-WF).
STATB*	Yellow	Illuminates when the MIB has not received valid data from NOTI•FIRE•NET on Port B.
RCVDB	Green	Illuminates when the MIB is receiving data from NOTI•FIRE•NET on Port B.
* Not on all MIB revisions		

Table 2 Identifying Indicators



1-a

1-b

MIBINDIC.

Figure 1 Diagnostic Indicator Locations

4 Installing the MIB

To install the MIB board on the SIB within an AM2020/AFP1010 system, place the MIB over the SIB-NET and connect P1 on the MIB to P2 on the SIB. Connect P2 on the MIB to J6 on the SIB. Using the four standoffs and screws supplied, secure the MIB to the SIB-NET as shown in Figure 2.

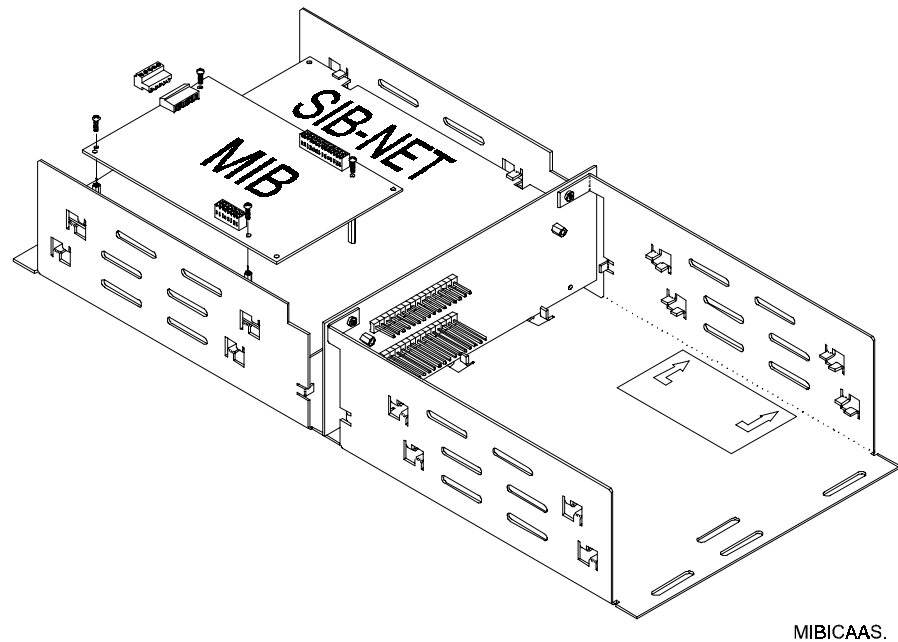


Figure 2 Installing the MIB on the SIB

To install the MIB board on the INA, place the MIB over the INA and connect P1 on the MIB to J1 on the INA. Connect P2 on the MIB to J2 on the INA. Using the four standoffs and screws supplied, secure the MIB to the INA as shown in Figure 3.

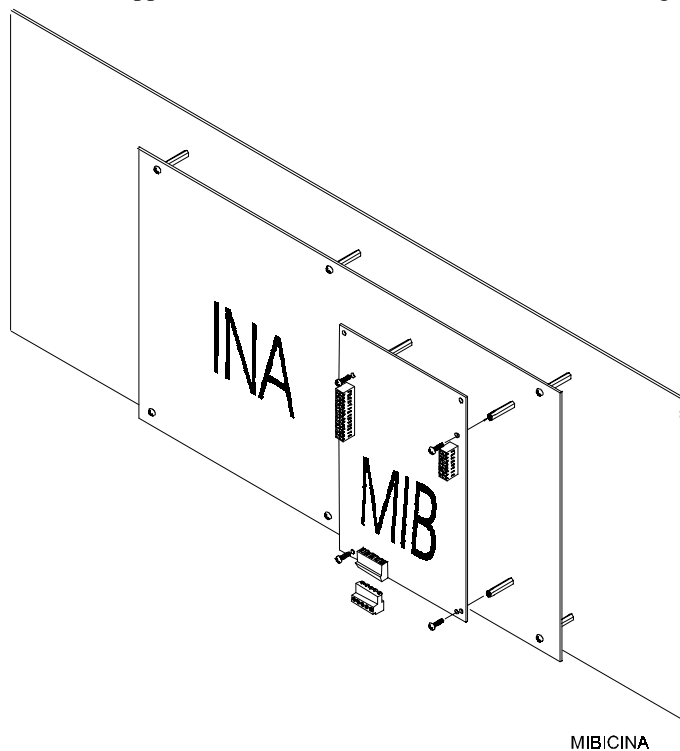


Figure 3 Installing the MIB on the INA

Note: The Network Reporting Terminal (NRT) is shipped with a MIB installed.

5 The Media Interface Board for Wire (MIB-W)

- Supports twisted-pair wire medium.
- Two programmable data thresholds.
Refer to the **NOTI•FIRE•NET™** manual for wiring length and threshold information.
- Transformer coupling provides electrical isolation between nodes.
- 312.5 Kbaud transmission rate.
- NFPA Style 4 (Class B) operation or NFPA Style 7 (Class A) operation.
- Pluggable terminal wiring with strain relief.
- Pluggable service connector (feeds signal directly through) in the event that power must be removed from a node.
- Data is regenerated at each node.

Interconnecting the MIB-W

When wiring consecutive MIB-W boards, note that wiring may enter or exit at Port A or Port B as shown in Figure 4. MIB-W port-to-port wiring is not polarity sensitive. The use of Port A or Port B is arbitrary. A MIB-W may be connected to any of the following devices:

- MIB-WF
- NAM-W*
- RPT-W*
- RPT-WF*
- Another MIB-W

* For information regarding these devices, refer to the NAM-232 and Repeater manuals listed in the Related Documentation Table of this manual.

Note: Wiring from the MIB-W that is installed outside the building:

- Cannot exceed 1000m (3280 ft.).
- Must be in conduit.
- Cannot cross any power lines.

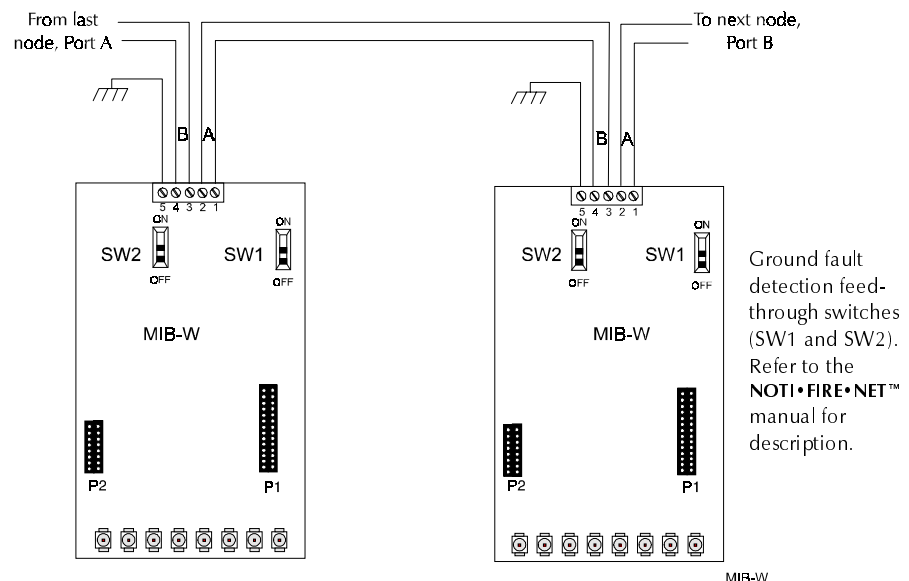


Figure 4 The MIB-W

6 The Media Interface Board for Fiber (MIB-F)

- 312.5 Kbaud transmission rate.
- Supports fiber-optic medium.
- Data is regenerated at each node.
- Data is immune to all environmental noise.
- Optical isolation prevents ground loops.
- NFPA Style 4 (Class B) or Style 7 (Class A) operation.
- **NOTI•FIRE•NET™** fiber optic medium.
- Fiber type: 62.5/125 micrometers (multimode).
- Wavelength (1): 820 nanometers. (Use standard 850 nm fiber.)
- Connectors: ST® Style (ST® is a registered trademark of AT&T).

Interconnecting the MIB-F

When connecting consecutive nodes/repeaters, note that fiber cable must exit one board on transmit (TX) and enter the next node/repeater on receive (RX). Also, note that the fiber-optic pair (RX, TX) from port A of one Node/Repeater may be connected to either Port A or Port B of another node/repeater (refer to Figure 5). A MIB-F may be connected to any of the following devices:

- MIB-WF
- NAM-232F*
- RPT-F*
- RPT-WF*
- Another MIB-F*

* For information regarding these devices, refer to the NAM-232 and Repeater manuals listed in the Related Documentation Table of this manual.

Note: Fiber-optic cable attenuation not to exceed 10 dB at 820 nanometers for each fiber (refer to the **NOTI•FIRE•NET™** Manual, Section 1.5, for an example of determining the maximum cable length for an attenuation of 10 dB).

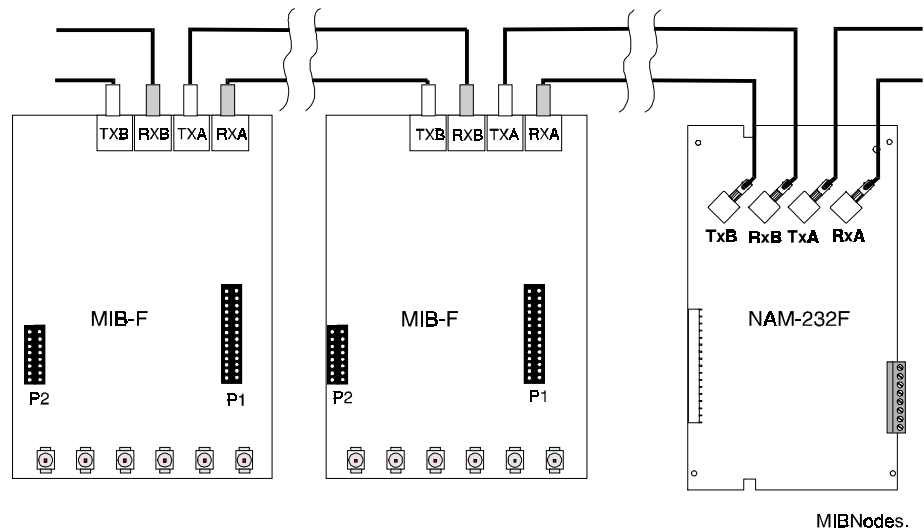


Figure 5 MIB-F Connection

7 The Media Interface Board for Wire and Fiber (MIB-WF)

- 312.5 KBaud transmission rate.
- One twisted-pair wire medium port.
- One fiber-optic cable medium port.
- Permits hybrid (mixed media) networks.
- Internode isolation.
- NFPA Style 4 (Class B) or NFPA Style 7 (Class A) operation.
- Fiber type: 62.5/125 micrometers (multimode).
- Wavelength (1): 820 nanometers. (Use standard 850 nm fiber.)
- Connectors: ST® Style (ST® is a registered trademark of AT&T).

Interconnecting the MIB-WF

The MIB-WF can be used as an interface between wire and fiber when connecting the NAM-232F to the NAM-232W (refer to Figure 6). The MIB-WF may be connected to any of the following devices:

- MIB-F
- MIB-W
- NAM-232F*
- NAM-232W*
- RPT-F*
- RPT-WF*
- Another MIB-WF

Note: See Section 6 of this manual for requirements and restrictions on the use of fiber-optic cable.

* For information regarding these devices, refer to the NAM-232 and Repeater manuals listed in the Related Documentation Table of this manual.

Note: Wiring from the MIB-WF (wire side) that is installed outside the building:

- Cannot exceed 1000m (3280 ft.).
- Must be in conduit.
- Cannot cross any power lines.

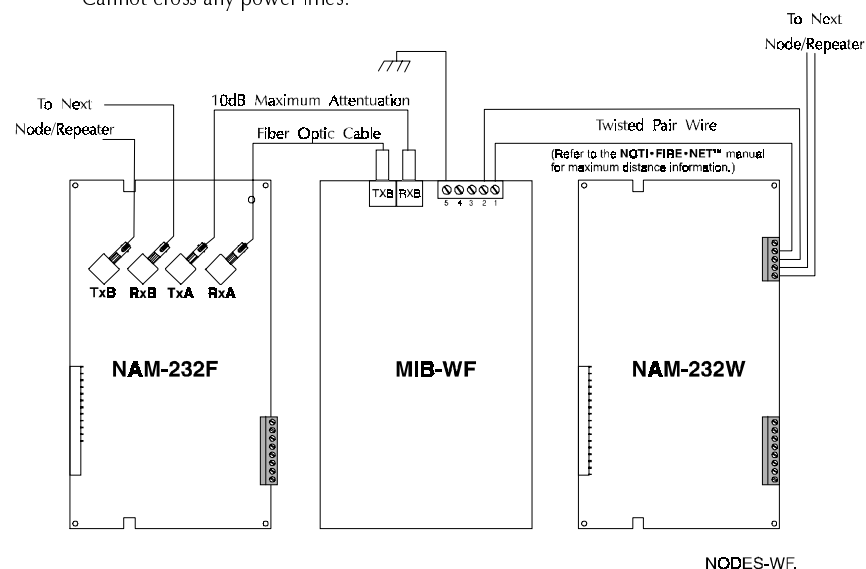


Figure 6 The MIB-WF

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