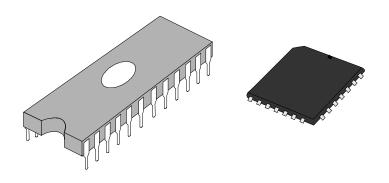


12 Clintonville Road, Northford, CT 06472-1610 USA 203-484-7161 FAX: 203-484-7118 www.notifier.com

**NOTIFIER** is a **Honeywell** company

# **Field Change Procedure**

for the Notifier
AM2020/AFP-1010, AFP-200, and AFP-300/400
Fire Alarm Control Panels,
NOTI•FIRE•NET™ and Peripherals



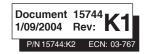
# Software (ROM) Upgrade

This procedure outlines the mechanical installation steps required to install AROM(n), NROM(n)-MET, ROM(n)-SCS, ROM(n)-TPI, NROM(n), VROM-(n), VRAM-1 and XRAM-1 chips in AM2020, AFP1010, AFP-200, AFP-300/400, TPI-232, MET-1, NAM-232, RFX, **NOTI•FIRE•NET™** and XP Transponder system boards.

#### **CAUTION**

**System Reacceptance Testing after Software Changes** - To insure proper system operation, this product must be tested in accordance with NFPA-72 requirements.

The requirements for "Changes to all control units connected or controlled by the system executive software" include a 10-percent functional test of the system, which includes a test of at least one device on each input and output circuit to verify critical system functions such as notification appliances, control functions, and off-premises reporting.

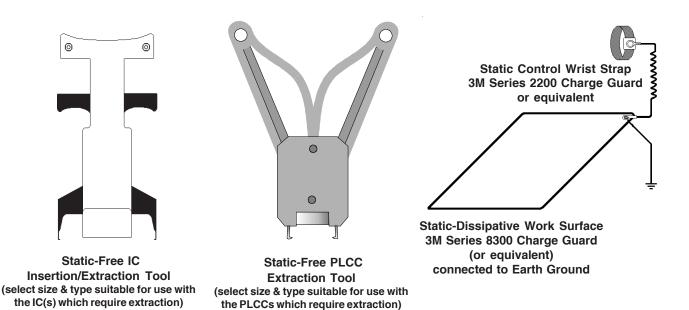


# **Installation Guidelines**

#### **Handling Precautions for Integrated Circuits**

#### Static electricity can destroy Integrated Circuits (ICs)!

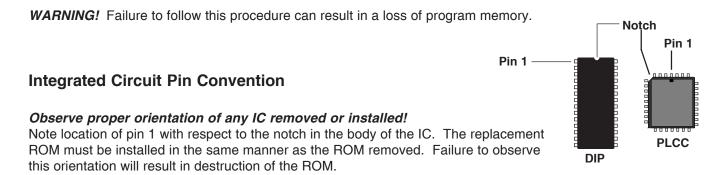
To prevent damage to the ROMs being changed in this procedure, a wrist strap and a static-free IC insertion/extraction tool is highly recommended. Notifier cannot be responsible for damage to ROMs or other integrated circuitry in the system as a result of improper handling techniques. Always keep ROMs on a static-free mat or surface.



#### **System Power Sources**

#### Always remove primary and secondary power before working on the system!

- 1) Disconnect battery backup power first by removing the Battery Interconnect Cable.
- 2) Proceed by disconnecting AC power to the panel at the main service circuit breaker (not the circuit breaker at the fire alarm control panel's power supply).
- 3) Wait 60 seconds to allow for capacitive discharge before touching any of the system's components.
- 4) Reverse the procedure for powering up the system AC first, then batteries.



# AM2020/AFP1010 ROM Replacement

#### **Compatibility Warning**

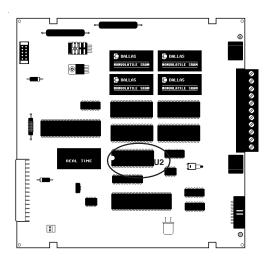
To ensure complete compatibility between AM2020, AFP1010 boards and **NOTI•FIRE•NET™** system boards, all ROMs in the system(s) must be changed at the same time. The control panel will not function properly with a mix of ROMs from different software levels. In addition, all ROMs from the same software level are not necessarily compatible. They must comprise a valid software combination. Consult the factory to determine whether or not your particular software part numbers will function as a group. The affected ROMs are listed in the table below.

| ROM(n)         |   |
|----------------|---|
| ROM            | Board(s)  |
| A1ROM(n)-CPU   | CPU-2 Central Processor Unit  |
| A1ROM(n)-DIA   | DIA-2 Display Interface Assembly  |
| A1ROM(n)-DIA   | DIA-1010 Display Interface Assembly   |
| AROM(n)-AMG    | AMG-1 Audio Message Generator   |
| AROM(n)-AMGX4  | AMG-1 Audio Message Generator   |
| AROM(n)-AMGZC  | AMG-1 Audio Message Generator   |
| AROM(n)-AMGZCF | AMG-1 Audio Message Generator   |
| AROM(n)-CPU    | CPU-2020 Central Processor Unit   |
| AROM(n)-DIA    | DIA-1 Display Interface Assembly  |
| AROM(n)-DIA    | DIA-2020 Display Interface Assembly   |
| AROM(n)-LCD    | LCD-80 Liquid Crystal Display   |
| AROM(n)-LIB    | LIB-200 Loop Interface Board  |
| AROM(n)-LIB2   | LIB-400/LIB-200A Loop Interface Board   |
| AROM(n)-NIB    | NIB-96 Network Interface Board  |
| AROM(n)-SIB    | SIB-2048/SIB-2048A/SIB-NET Serial Interface Board (not the SIB-64 or SIB-232) |
| AROM(n)-TPI    | TPI-232 Telephone Panel Interface   |
| AROM(n)-UZC    | UZC-256 Universal Zone Coder  |
| AROM(n)-XPP    | XPP-1 Transponder Processor Module  |
| N1ROM-(n)      | DIA-1010, CPU-2 and SIB-NET for <b>NOTI•FIRE•NET™</b>                         |
| NROM-(n)       | DIA-2020, CPU-2020 and SIB-NET for <b>NOTI•FIRE•NET</b> ™                     |
| NROM-INA(n)    | INA Intelligent Network Annunciator for NOTI•FIRE•NET™                        |
| NROM(n)-MET    | MET-1 Media Evaluation Tool for <b>NOTI•FIRE•NET™</b>                         |
| NROM-NAM(n)    | AFP-200 FACP and NAM-232 Network Adapter Module                               |
| NROMC-NAM(n)   | AFP-200 FACP and NAM-232 Network Adapter Module                               |
| ROM(n)-NCM     | NCM and NCS-NCM   |
| ROM(n)-RFX     | RFX Wireless Interface  |
| ROM(n)-SCS     | SCS-8/SCS-8L Smoke Control Station  |

**Note:** The (n) corresponds to a specific revision level of software. For example, AROM6-CPU is a CPU-2020 ROM containing Revision Level 6 software.

#### **ROM Installation**

- 1) Disconnect secondary (DC) power.
- 2) Disconnect primary (AC) power. CAUTION! Remove AC power at the main service circuit breaker (not the circuit on the Main Power Supply) or all the programming information may be lost!
- 3) Replace each ROM as outlined in the respective sections.
- 4) Connect primary (AC) power.
- 5) Connect secondary (DC) power.
- 6) After all replacement ROMs have been installed, the entire system must be completely tested. **Note:** With the exception of new features, replacing the ROMs does not usually require re-entry of the system application program.
- 7) Please place all ROMs removed from the system into the static-protected boxes (provided with the replacement ROMs) and return them to the following address: ATTN: Software Engineering, Notifier, 12 Clintonville Road, Northford, Connecticut 06472-1653.

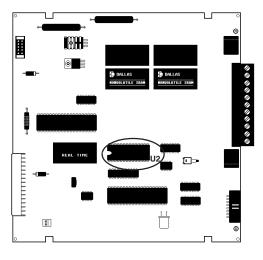


**CPU-2020 Central Processing Unit** 

#### AROM(n)-CPU / NROM (n) for CPU-2020

- · Open the Display Interface Assembly (DIA) door.
- Using an IC insertion/extraction tool, carefully remove ROM U2 from the CPU-2020 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U2 on the CPU-2020.
- · Close the DIA door.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

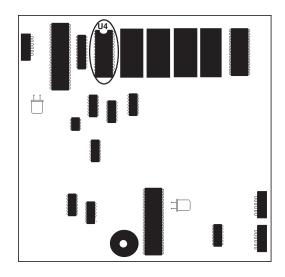


**CPU-2 Central Processing Unit** 

#### A1ROM(n)-CPU / N1ROM-(n) for CPU-2

- Open the Display Interface Assembly (DIA) door.
- Using an IC insertion/extraction tool, carefully remove ROM U2 from the CPU-2 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U2 on the CPU-2.
- · Close the DIA door.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.



**DIA-1 Display Interface Assembly** 

#### AROM(n)-DIA for DIA-1

- Open the Display Interface Assembly (DIA-1) door. Disconnect all cables to the DIA-1.
- Remove the five screws that fasten the circuit board to the door. Remove the DIA-1 board and place it on an antistatic surface.
- Using an IC insertion/extraction tool, carefully remove ROM U4 from the board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the replacement ROM into the socket for U4 on the DIA-1.
- Install the circuit board on the DIA-1 door. Connect the cables from the CPU-2020 (and a SIB if installed) to the DIA-1.
- Close the DIA-1 door.

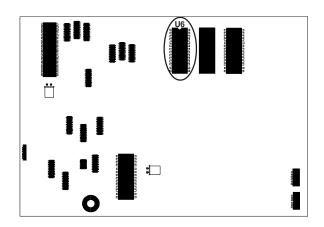




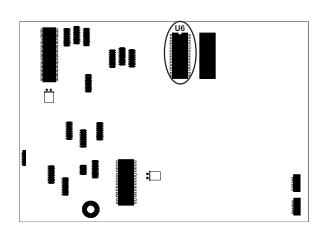
Honeywell



#### **DIA-2 Display Interface Assembly**



**DIA-2020 Display Interface Assembly** 



**DIA-1010 Display Interface Assembly** 

#### A1ROM(n)-DIA for DIA-2

- Open the Display Interface Assembly (DIA-2) door. Disconnect all cables to the DIA-2.
- Remove the five screws that fasten the circuit board to the door. Remove the DIA-2 board and place it on an antistatic surface.
- Using an IC insertion/extraction tool, carefully remove ROM
   U4 from the board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U4 on the DIA-2.
- Install the circuit board on the DIA-2 door. Connect the cables from the CPU-2 (and a SIB if installed) to the DIA-2.
- Close the DIA-2 door.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

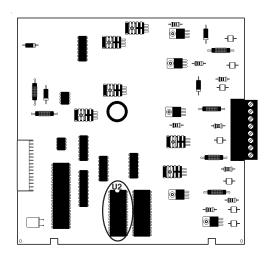
#### AROM(n)-DIA / NROM-(n) for DIA-2020

- Open the Display Interface Assembly (DIA-2020) door. Disconnect all cables to the DIA-2020.
- Remove the six screws that fasten the circuit board to the door.
   Remove the DIA-2020 board and place it on an antistatic surface.
- Using an IC insertion/extraction tool, carefully remove ROM U6 from the board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U6 on the DIA-2020.
- Install the circuit board on the DIA-2020 door. Connect the cables from the CPU-2020 (and a SIB if installed) to the DIA-2020.
- Close the DIA-2020 door.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

## A1ROM(n)-DIA / N1ROM-(n) for DIA-1010

- Open the Display Interface Assembly (DIA-1010) door. Disconnect all cables to the DIA-1010.
- Remove the six screws that fasten the circuit board to the door.
   Remove the DIA-1010 board and place it on an antistatic surface.
- Using an IC insertion/extraction tool, carefully remove ROM U6 from the board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U6 on the DIA-1010.
- Install the circuit board on the DIA-1010 door. Connect the cables from the CPU-2 (and a SIB if installed) to the DIA-1010.
- Close the DIA-1010 door.

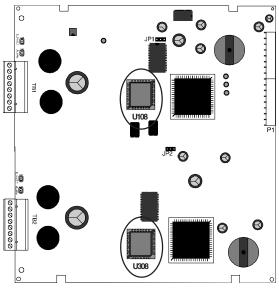


LIB-200 Loop Interface Board

# AROM(n)-LIB / NROM-(n) / N1ROM-(n) for LIB-200

- Remove a LIB-200 from the system and place it on an antistatic surface.
- Using an IC insertion/extraction tool, carefully remove ROM U2 from the LIB-200 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U2 on the LIB-200.
- · Install the LIB-200 in the system.
- Repeat steps for each LIB-200 in the system.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

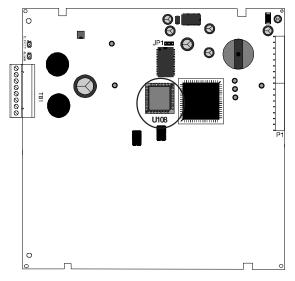


LIB-400 Loop Interface Board

## AROM(n)-LIB2 for LIB-400

- Remove the LIB-400 from the system and place it on an antistatic surface.
- Using a Plastic Leaded Chip Carrier (PLCC) extraction tool, carefully remove ROM U108 and U308 from the LIB and place them on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROMs into the sockets for U108 and U308 on the LIB.
- · Install the LIB in the system.
- Repeat steps for each LIB-400 in the system.

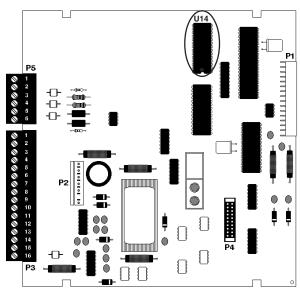
**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.



LIB-200A Loop Interface Board

## AROM(n)-LIB2 for LIB-200A

- Remove the LIB-200A from the system and place it on an antistatic surface.
- Using a Plastic Leaded Chip Carrier (PLCC) extraction tool, carefully remove ROM U108 from the LIB and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U108 on the LIB.
- Install the LIB in the system.
- Repeat steps for each LIB-200A in the system.

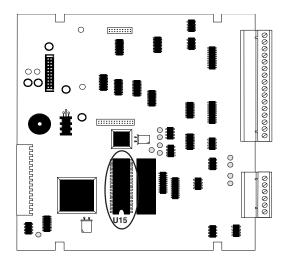


SIB-2048 Serial Interface Board

## AROM(n)-SIB for SIB-2048

- Open the Display Interface Assembly (DIA) door.
- Using an IC insertion/extraction tool, carefully remove ROM U14 from the SIB-2048 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U14 on the SIB-2048.
- · Close the DIA door.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

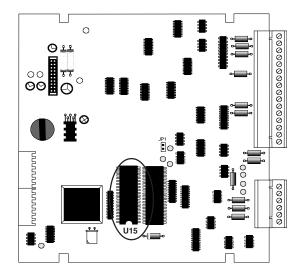


SIB-NET Serial Interface Board

#### NROM-(n) / AROM(n)-SIB for SIB-NET

- Open the Display Interface Assembly (DIA) door.
- Using an IC insertion/extraction tool, carefully remove ROM U15 from the SIB-NET and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U15 on the SIB-NET.
- · Close the DIA door.

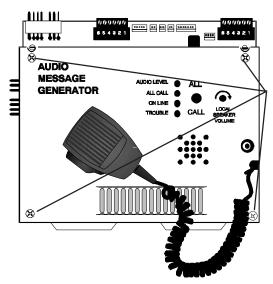
**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.



SIB-2048A Serial Interface Board

## AROM(n)-SIB for SIB-2048A

- Open the Display Interface Assembly (DIA) door.
- Using an IC insertion/extraction tool, carefully remove ROM U15 from the SIB-2048A and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U15 on the SIB-2048A.
- Close the DIA door.

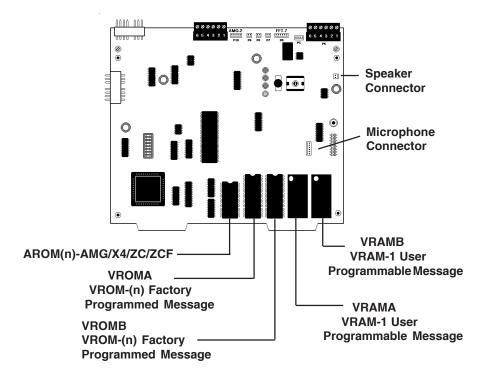


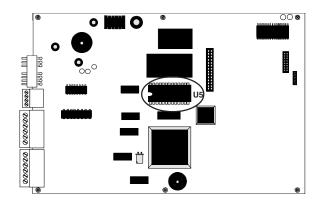
**AMG-1 Audio Message Generator** 

# AROM(n)-AMG/X4/ZC/ZCF, VROM-(n) and VRAM-1 for AMG-1

- Remove dress panel covering the AMG-1.
- Remove the four screws that affix the AMG-1's dress plate to the component board as illustrated at left. Remove the dress plate and disconnect the microphone and speaker connectors.
- If replacing ROMs, carefully remove affected chips from the AMG-1 using an IC insertion/extraction tool and place them on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Install the new AROM(n)-AMG/X4/ZC/ZCF, VROM-(n) or VRAM-1 chips in their respective positions as illustrated below.
- · Assembly of the AMG-1 is the reverse of removal.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

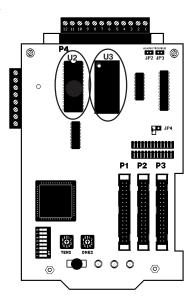




**INA Intelligent Network Annunciator** 

## NROM-INA(n) for INA

- Open the Intelligent Network Annunciator (INA) door.
- Using an IC insertion/extraction tool, carefully remove ROM
   U5 from the INA and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U5 on the INA.
- · Close the INA door.



XPP-1 Transponder Processor Module

#### XRAM-1 for XPP-1

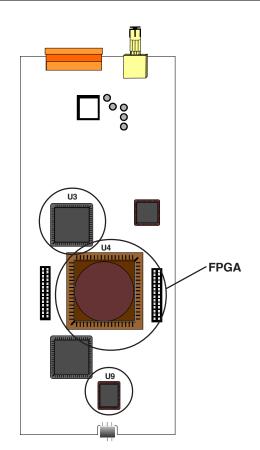
- Remove the XP Transponder Dress Panel.
- Using an IC insertion/extraction tool, carefully remove RAM
   U3 from the XPP-1 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied XRAM-1 into the socket for U3 on the XPP-1.
- · Replace the XP Transponder Dress Panel.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

#### AROM(n)-XPP for XPP-1

- Remove the XP Transponder Dress Panel.
- Using an IC insertion/extraction tool, carefully remove ROM
   U2 from the XPP-1 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U2 on the XPP-1.
- Replace the XP Transponder Dress Panel.

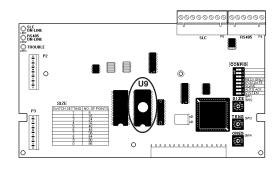
**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.



MET-1LBPCA (Lower Board)

#### NROM(n)-MET for MET-1

- Disassemble the MET-1 by removing the cover. For the MEDIA(n)-KIT, remove the MET-1 UBPCA upper board also.
- With the power switch in the "Off" position, remove BT1 battery connector.
- Using a PLCC extraction tool, carefully remove IC U9, U3 and U4 from the MET-1LBPC and place them on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement NROM(n)-MET into their correct sockets on the MET-1LBPCA.
- Reassemble the MET-1.

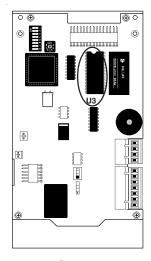


NIB-96 Network Interface Board

#### AROM(n)-NIB for NIB-96

- · Locate and gain access to the NIB-96 in the cabinet.
- Using an IC insertion/extraction tool, carefully remove ROM U9 from the NIB-96 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U9 on the NIB-96.
- · Reassemble the control panel.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

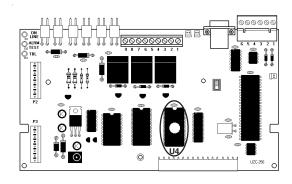


LCD-80 Liquid Crystal Display

# AROM(n)-LCD for LCD-80

- · Locate and gain access to the LCD-80 in the cabinet.
- Using an IC insertion/extraction tool, carefully remove ROM U3 from the LCD-80 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent.
   Insert the supplied replacement ROM into the socket for U3 on the LCD-80.
- · Reassemble the control panel.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.

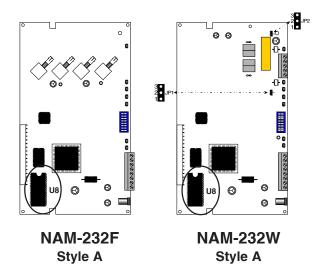


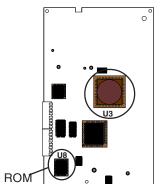
**UZC-256 Universal Zone Coder** 

## AROM(n)-UZC for UZC-256

- · Locate and gain access to the UZC-256 in the cabinet.
- Using an IC insertion/extraction tool, carefully remove ROM U4 from the UZC-256 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U4 on the UZC-256.
- · Reassemble the control panel.







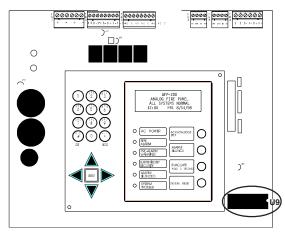
NAM-232W/F Style C

**NAM-232 Network Adapter Modules** 

# NROM-NAM(n) for NAM-232F, NAM-232W and NAM-232W/F

- Locate and gain access to the NAM-232 in the cabinet.
- Using an IC insertion/extraction tool for Style A or a PLCC extraction tool for Style C, carefully remove ROM U8 from the NAM-232 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U8 on the NAM-232.
- · Reassemble the control panel.

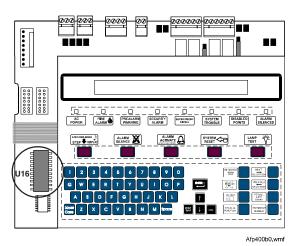
**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.



**AFP-200 Analog Fire Panel** 

## AFP-200 IC for use with NAM-232

- Locate and gain access to the AFP-200 in the cabinet.
- Using an IC insertion/extraction tool, carefully remove **ROM U9** from the AFP-200 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U9 on the AFP-200.
- · Reassemble the control panel.

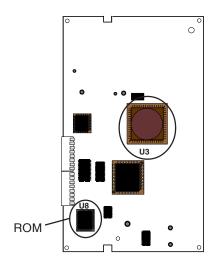


AFP-300/400 Analog Fire Panel

#### AFP-300/400 IC for use with NAM-232

- Locate and gain access to the AFP-300/400 in the cabinet.
- Using an IC insertion/extraction tool, carefully remove **ROM U16** from the AFP-300/400 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are bent. Insert the supplied replacement ROM into the socket for U16 on the AFP-300/400.
- · Reassemble the control panel.

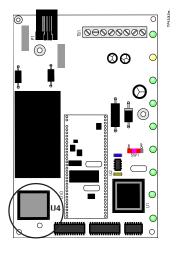
**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.



**NAM-232W/F** 

#### MEDIA(n)-KIT for NAM-232W/F

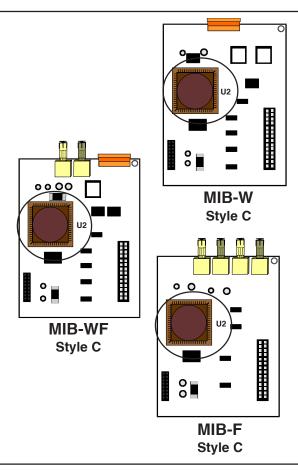
- Locate and gain access to the NAM-232 in the cabinet.
- Using a PLCC extraction tool, carefully remove FPGA U3 from the NAM-232 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement FPGA into the socket for U3 on the NAM-232.
- · Reassemble the control panel.



**TPI-232** 

# ROM(n)-TPI for TPI-232

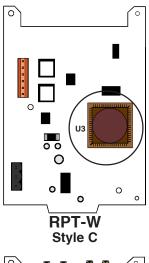
- Locate and gain access to the TPI-232.
- Using a PLCC extraction tool, carefully remove **ROM U4** from the TPI-232 and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement ROM into the socket for U4 on the TPI-252.
- Reassemble TPI-232 setup.

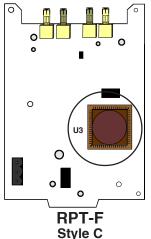


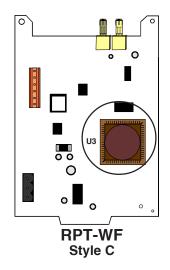
#### MEDIA(n)-KIT for MIB-W/WF/F

- · Locate and gain access to the MIB-W/WF/F.
- Using a PLCC extraction tool, carefully remove FPGA U2 from the MIB and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement FPGA into the socket for U2 on the MIB-W/WF/F.
- · Reassemble the MIB.

**WARNING:** Software must be compatible system-wide. When not completely sure about compatibility, consult the factory before changing ROMs.







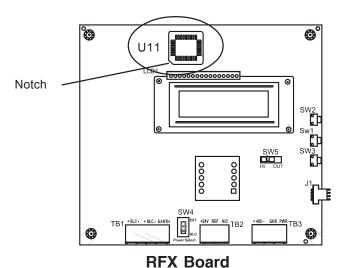
#### MEDIA(n)-KIT for RPT-W/WF/F

- · Locate and gain access to the RPT-W/WF/F.
- Using a PLCC extraction tool, carefully remove FPGA U3 from the RPT and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement FPGA into the socket for U3 on the RPT-W/WF/F.
- · Reassemble the RPT.

# NCS-NCW or NCM-W or NCM-F

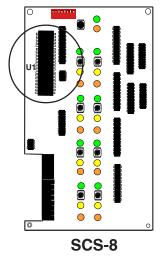
# ROM(n)-NCM for NCM-W, NCM-F, NCS-NCW, and NCS-NCF

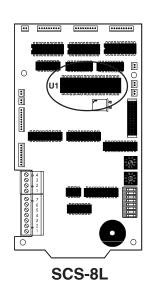
- Locate and gain access to the network card. Open the NCS computer for NCS network cards.
- Using a PLCC extraction tool, carefully remove U4 (NCS) or U5 (NCM) from the board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement ROM(n)-NCM into the socket for U4 or U5.



## ROM(n)-RFX for RFX

- Locate and gain access to the RFX. Open the RFX cabinet.
- Using a PLCC extraction tool, carefully remove IC U11 from the RFX board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied replacement ROM(n)-RFX into the socket for U11 on the RFX.





#### ROM(n)-SCS for SCS-8 and SCS-8L

- Locate and gain access to the SCS-8/SCS-8L. To gain access to the SCS-8 remove the cover first.
- Using a IC insertion/extraction tool, carefully remove IC U1 from the SCS-8/SCS-8L board and place it on an antistatic surface.
- Observe proper orientation and ensure that none of the pins are misaligned. Insert the supplied **replacement ROM(n)-SCS** into the socket for **U1** on the SCS.
- Reassemble the SCS.

