NOTIFIER® by Honeywell

Safety Bulletin

SB 06-07-01

To: All NOTIFIER Engineered Systems Distributors

From: Technical Support Services

Date: July 28, 2006

Re: AFP-1010/AM2020 - Required Firmware Upgrade – Version 3.0 or later

Second Notification of this important Safety Bulletin

ISSUE SUMMARY

A small number, less than 0.5%, of AFP-1010/AM2020 Version 3.xx systems have reported memory corruption problems. Memory corruption can alter CBE programming in the panel and result in a non-responsive system. Despite thorough testing and on-site inspections, we have been unable to duplicate or identify a cause for these occurrences.

Our new version of firmware, Version 4.3, incorporates an enhanced memory checking routine, which will identify and initiate a trouble condition when memory corruption is detected.

PRODUCTS AFFECTED

All AM2020 and AFP-1010 systems operating firmware Version 3.0 (released Dec. 1999) or later are covered by this Bulletin.

REQUIRED ACTION - UPGRADE OF AFP-1010/AM2020

Since this memory corruption issue could result in a potential life safety risk, all AM2020 and AFP-1010 operating firmware Version 3.0 or later, REQUIRE immediate upgrade of system firmware to Version 4.3. This upgrade of the executive level firmware will ensure that a memory corruption event is identified and annunciated.

VERSION 4.3 UPGRADE INFORMATION

Following are installation precautions and recommendations for version 4.3 firmware upgrades. Please review this entire bulletin prior to performing any upgrades.

1. Before installing version 4.3 firmware upgrades into an AFP-1010/AM2020, a known valid database for the system should be available. If a known valid database for the system is not available, the database should be uploaded and saved using VERIFIRE-1020, then checked for any errors.
2. If performing an upgrade of a panel used on Noti-Fire-Net with an NCS, perform any NCS upgrades prior to upgrading the panel firmware. Then upgrade one panel at a time.
3. For network systems not using an NCS, upgrade one panel at a time.

4. Please refer to the Field Change Procedure document (P/N 15744) provided with the firmware for proper installation procedures and firmware locations. The firmware chips are referred to as AROM's (AM2020's) and A1ROM's (AFP-1010's) in document 15744.
5. As this firmware is executive level, the system requires testing in accordance with section 10.4.1.2.2 of NFPA 72 (2002 edition). After performing the upgrade, a 10% functional test of the system is required.
6. All removed AROM's shall be destroyed and discarded.

VERSION 4.3 ERROR CODE INFORMATION:

Version 4.3 firmware includes 8 error code messages pertaining to system memory functions and storage. This new error checking provides increased assurance of system memory integrity and identifies any memory corruption event. If a version 4.3 AFP-1010/AM2020 panel experiences a memory corruption, one of the following error codes will be displayed:

'Trouble Type ID Modified.	Service Required.	T24'
'Trouble Type ID Modified.	Service Required.	T25'
'Trouble Program Change Detected.	Service Required.	T26'
'Trouble Memory Pattern Fault.	Service Required.	T27'
'Trouble Memory Pattern Fault.	Service Required.	TDC'
'Trouble DIA Prog. Change Det.	Service Required.	TDD'
'Trouble SIB Prog. Change Det.	Service Required.	TFA'
'Trouble Memory Pattern Fault.	Service Required.	TFC'

If a newly installed or upgraded AFP-1010/AM2020 panel displays any of these error codes, the following procedure should be followed. Note that it is critical to perform the steps in the described order so that information regarding the source of the problem can be saved and evaluated.

1. While the panel is displaying one of the above error codes, indicating a system memory problem, the system database should be uploaded using VeriFire 1020 UP/DL and saved. We recommend that the file is saved as a different file name (for example "…- corrupt") to prevent overwriting a valid database.
2. Erase system memory via programming. To enter system Programming,
   - select "1" for Partial System Programming
   - select "0" for CONT
   - select "3"for CNM (Clear all Nonvol Memory).

   Confirm that a known valid version of the database is available before erasing. The display will prompt the user to erase all nonvol (non-volatile) memory and the entire database. **This will clear ALL programming information in the panel.**
3. A version of the system database that is known to be valid should be downloaded into the system.
4. A determination should be made by a qualified technician that the system is operating properly, and as intended.

5. Contact Notifier Technical Services. Copies of both databases, the one uploaded with the error code ("…-corrupt") and the valid one should be sent to the Technical Service Manager.

NOTE:

- If uploading a version 4.3 panel with VERIFIRE-1020 version 4.0 or from a NCS version 4.5, the following error message will be displayed, "Error: Uploaded CCBE image failed checksum test". Disregard this error message, as the method of uploading CCBE data has changed in version 4.3. The data will upload correctly.
- For stand-alone panel applications upgraded to version 4.3, VERIFIRE-1020 version 4.2 should be used for upload/download after the upgrade, which will not display this error message.

Please refer to the AFP-1010/AM2020 Manual Supplement, document 15088SUP, for a more detailed description of the error codes, and procedure for erasing the Nonvol memory.

VERSION 4.3 FIRMWARE REQUIREMENTS:

AM2020 CPU	version: #CPUM4.3
AM2020 DIA	version: #DIA2M4.3
AFP-1010 CPU	version: #CPU1M4.3
AFP-1010 DIA	version: #DIA1M4.3
LIB-200	version: #LIBM3.8
LIB-200A	version: #LIB4M3.8
LIB-400	version: #LIB4M3.8
SIB-2048A	version: #SIBM5.81
SIB-NET (NFN ver. 3)	version: #SIBM3.81
SIB-NET (NFN ver. 4)	N/A – not supported, must upgrade to NFN version 5.0
SIB-NET (NFN ver. 5)	version: #SIBM5.81

VERSION 4.3 ORDERING INFORMATION:

For ordering convenience kits have been created that include the latest firmware for the panel. Kits include firmware for the CPU, DIA, LIB and SIB, and are available with SIB firmware that supports both 3.0 and 5.0 Noti-Fire-Net networks.

The AM2020 and AFP-1010 panels support the LIB-200, LIB-200A and LIB-400 Loop Interface Boards. The kits referenced below include the latest firmware for the LIB-200A/400. **If using LIB-200's the firmware must be ordered separately.** For AM2020 systems these kits include LIB-200A/400 firmware to support a four-loop panel, if more than four LIB-200A/400 chips are needed order FW-LIB200A-BP which includes four additional LIB-200A/400 chips.

- Stand-alone or direct panel programming requires VERIFIRE-1020 version 4.2 for Upload/Download
- Programming from NCS version 4.5 requires VERIFIRE-1020 version 4.0 for Upload/Download

INA's used on version 3.0 Noti-Fire-Net must be version 3.03. Version 5.0 Noti-Fire-Net does not support the INA.

FIRMWARE KIT PART NUMBERS:

FW-1010-3: Includes AFP-1010 firmware for the CPU, DIA, SIB for a version 3.0 Noti-Fire-Net and four LIB-200A/400 chips to cover a four-loop panel.

FW-1010- 5: Includes AFP-1010 firmware for the CPU, DIA, SIB for a version 5.0 Noti-Fire-Net and four LIB-200A/400 chips to cover a four-loop panel.

FW-2020- 3: Includes AM2020 firmware for the CPU, DIA, SIB for a version 3.0 Noti-Fire-Net and four LIB-200A/400 chips to cover a four-loop panel.

FW-2020- 5: Includes AM2020 firmware for the CPU, DIA, SIB for a version 5.0 Noti-Fire-Net and four LIB-200A/400 chips to cover a four-loop panel.

NOTE:

- If using LIB-200's the chips must be ordered separately using P/N FW-LIB200-BP.
- If more than four LIB-200A/400 chips are needed order FW-LIB200A-BP for four additional LIB chips.

FW-LIB200A-BP: Includes four LIB-200A/400 chips to cover four loops. Order required quantity.

FW-LIB200-BP: Includes two LIB-200 chips to cover two loops. Order required quantity.

NROM-INA3.0M: Includes latest INA firmware. Order required quantity.

VERIFIREUG-1020: Version 4.2 Upload/Download software upgrade for stand-alone or direct panel programming.

NOTE: Use version 4.0 if Uploading/Downloading from NCS V4.5 , use version 4.2 if Uploading/Downloading from NCS V5.5 (bundled with NCS V5.5). Both versions are available for download from Magni-Fire.com.

In cases where a single firmware chip is required for the CPU, DIA or SIB the following can be ordered:

AROM4M-CPU	(Firmware upgrade for 2020 CPU, version 4.3)
AROM4M-DIA	(Firmware upgrade for 2020 DIA, version 4.3)
A1ROM4M-CPU	(Firmware upgrade for 1010 CPU, version 4.3)
A1ROM4M-DIA	(Firmware upgrade for 1010 DIA, version 4.3)
AROM3M-SIB*	(Firmware upgrade for SIB-NET or SIB-2048A, version 3.81)
AROM5M-SIB**	(Firmware upgrade for SIB-NET or SIB-2048A, version 5.81)

* For use on Noti-Fire-Net version 3.0
** For use on Noti-Fire-Net version 5.0

There is no charge for version 4.3 firmware upgrades or VERIFIREUG-1020.

SUMMARY OF REQUIREMENTS FOR VERSION 4.3 SYSTEMS:

- If used on Noti-Fire-Net version 3.0 networks the SIB must be version 3.81 or higher. For Noti-Fire-Net version 5.0 networks the SIB must be version 5.81 or higher. Any NCS must be version 4.5 or higher. NOTE: NCS version 4.5 or higher supports a 3.0 network or a 5.0 network.
- If a version 4.3 AFP-1010/AM2020 panel will be used on a Noti-Fire-Net network, all AFP-1010/AM2020 panels on the network must be version 4.3 and any NCS on the network must be version 4.5 or higher.
- If a version 4.3 AFP-1010/AM2020 will be used on an existing version 3.0 Noti-Fire-Net network, with a version 1.0 NCS, the NCS must be upgraded to version 4.5 or higher which would require an NCSKIT-NCW/F and an NCSCDUG-US-4.
- If a version 4.3 AFP-1010/AM2020 will be used on an existing version 5.0 Noti-Fire-Net network, with a version 3.0 or higher NCS, the NCS must be upgraded to version 4.5 or higher, which requires an NCSCDUG-US-4.
- VeriFire 1020 must be version 4.2 for direct panel programming or for programming from NCS version 5.5, and version 4.0 for programming from NCS version 4.5.
- INA's used on version 3.0 Noti-Fire-Net must be version 3.03. Noti-Fire-Net version 5.0 does not support the INA.
- Please consult with Notifier prior to upgrading an AFP-1010 or AM2020 presently running custom software.

For Technical questions regarding this bulletin please contact NOTIFIER Technical Service at (800) 289-3473 or notifier.tech@honeywell.com . For ordering information please contact your NOTIFIER Customer Service Representative at (203) 484-7161.

This Safety Bulletin is intended for use by recipient only.
Do not distribute this Safety Bulletin.

NOTIFICATION OF COMPLIANCE

Upon completion of the firmware upgrade, complete and return the attached Notification of Compliance (NoC) for each panel. Upon receipt of a fully completed NoC, a credit in the amount of $300.00 per panel will be posted to your account.

We reserve the right to deny reimbursement if upgrades are not performed in a timely manner.

Notification of Compliance

NOTIFIER® AFP-1010 and AM2020 panels using versions 3.0 or higher firmware, upgraded to version 4.3 firmware

I hereby confirm that the NOTIFIER® AFP-1010 or AM2020 identified below has been upgraded to revision 4.3 firmware in accordance with the NOTIFIER Safety Bulletin number SB06-07-01. All work has been performed; the system has been tested by a trained service professional and has been placed back into service.

Panel Information:

Panel Type	Qty		Date
(Check one)		AM2020	
		AFP-1010	

End User Information:

(End User Company Name)	(Contact Name)
	(Phone Number)
(Address)	Date Work Performed

Distributor Information:

(Company Name)	(Print Name)
	(Title)
(Address)	(Signature)

Notification of Compliance must be completed, signed by an individual duly authorized and faxed to NOTIFIER at 203 484-5379.