



## Safety Advisory

### FL4000H and MSIR Flame Detectors

August 1st, 2017

**MSA Corporate Center**  
1000 Cranberry Woods Drive  
Cranberry Township, PA 16066  
800.MSA.2222  
www.MSAafety.com

**Dear MSA Flame Detection Customer,**

The safety of your personnel and facilities is our top priority. As such, we would like to make you aware of a potential safety issue regarding FL4000H and MSIR Flame Detectors. Although rare in occurrence both in actual field use and during in-house testing, MSA has become aware of the following firmware issue involving the FL4000H and MSIR Flame Detectors using HART or Modbus communications protocols. If this issue triggers, the flame detector will show a local fault by a flashing green LED on the face of the detector. **When in this state, the detector can still detect the presence of a flame;** however, the output will be reported in the form of a fault condition rather than an alarm condition. After visual inspection, if the detector is exhibiting this behavior, a power cycle will reset the detector allowing it to function in normal operating mode. We have a corrective action in place through a firmware upgrade provided through our service and repair centers.

*It is important to note the following:*

- Only units that were manufactured between 2008 and 2016 marked as firmware versions “J” through “M” (indicated on the flame detector label) could potentially be affected.

*For potentially affected units:*

- Based on internal testing, units using analog signal **only** (with or without HART enabled) have never exhibited this behavior.
- Based on internal testing, units using onboard relays to communicate to a control system have never exhibited this behavior.
- If you utilize the HART protocol in conjunction with a HART Field Communicator to interrogate the flame detector this situation can occur.
- If you are continuously polling the flame detector via your control system over the HART or Modbus communication protocol this situation can occur.

As a reminder and in accordance with the best practices of use and care of a flame detector, it is important that you perform periodic visual inspections of the detector and use the test lamp to check the integrity of the system. If the detector is in the above state when using the test lamp, the detector will communicate a fault condition. The detector can be reset through a power cycle, which temporarily clears the issue, and the flame detector will function in normal operating mode.

Units that could potentially exhibit this condition include FL4000H and MSIR Flame Detectors (both General Monitors and MSA brands) containing firmware versions “J” through “M” as indicated on the flame detector label. These detectors were manufactured between 2008 and 2016. Flame detectors with firmware version “N” or later include upgraded firmware that will prevent the occurrence of this condition. Figure 1 shows an example of the year of manufacture located on the detector. Figure 2 shows an example of the firmware revision label located on the detector.

Figure 1



Figure 2





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### **Firmware Upgrade:**

We recognize this is an inconvenience and in an effort to minimize this disruption, we pledge to make this upgrade process as expeditious as possible.

If you are in possession of a flame detector that is exhibiting this behavior, please complete the enclosed Upgrade Service Request Form and email it to Service and Repair at the appropriate email address below. We will then send you shipping instructions and a shipping label to use when returning your affected detector to MSA for the firmware upgrade.

Upon receipt, MSA will update the flame detector with the newest firmware. The upgrade service and shipping is free of charge.

If you have multiple affected units, you may stage the returns to maintain appropriate coverage. If you need a loaner unit while your unit is being upgraded, please contact MSA Service and Repair to make those arrangements.

### **MSA Contact Information:**

If you have any questions regarding this *Safety Advisory*, please contact MSA Service and Repair or your local representative.

- U.S., Canada, or U.S. Territories: (949) 268-9557 or by e-mail at: [service.gm@msasafety.com](mailto:service.gm@msasafety.com)
- Outside the U.S., Canada, and U.S. Territories: +353 91 751175 or by e-mail at: [alan.armstrong@MSAafety.com](mailto:alan.armstrong@MSAafety.com)

Best regards,

A handwritten signature in cursive script that reads "R. Anne Herman".

Anne Herman  
Vice President, Global Operational Excellence and Chief Customer Officer

Enclosure  
PS16049-0



**FL4000H and MSIR Flame Detectors  
Upgrade Service Form**

Please complete this form and email it to the appropriate MSA Service address below:

**MSA Corporate Center**  
1000 Cranberry Woods Drive  
Cranberry Township, PA 16066  
800.MSA.2222  
www.MSAafety.com

- U.S., Canada, or U.S. Territories: [service.gm@msasafety.com](mailto:service.gm@msasafety.com)
- Outside the U.S., Canada, and U.S. Territories: [alan.armstrong@MSAafety.com](mailto:alan.armstrong@MSAafety.com)

Multiple orders can be placed by submitting additional copies of this form.

Name: \_\_\_\_\_

Shipping Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Please indicate below the serial number and year of manufacture (as marked on the side label) of affected FL4000H and MSIR Flame Detectors that need to be updated:

| <u>Serial Number</u> | <u>Year of Manufacture</u> |
|----------------------|----------------------------|
| _____                | _____                      |
| _____                | _____                      |
| _____                | _____                      |
| _____                | _____                      |
| _____                | _____                      |