

ATTN : _____Date: Mar 12 2010
Ref No. : 0-3500-1040-01**Subject: AT9000 Advanced transmitter (Model: GTX)**
Field anomaly notice & retrofit notice

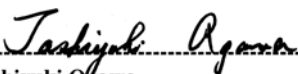
Dear valued customers,

Per this letter, Yamatake Corporation would like to notify our customers of a field anomaly of AT9000 Advanced transmitter (Model GTX). At the same time, we would like to explain the actions necessary to correct the anomaly.

Please refer to the following pages for the details.

We would highly appreciate your kind understanding and cooperation for remediation. We must apologize for any inconvenience caused by this situation.

Sincerely yours,



Toshiyuki Ogawa
Director, IS Quality Assurance Department
Advanced Automation Company

Yamatake Corporation

AT9000 Advanced transmitter (Model: GTX)
Field anomaly notice

1. AFFECTED HARDWARE PRODUCT :

AT9000 Differential Pressure Transmitters and Pressure Transmitters (MODEL : GTX)

Product Name: AT9000

Model Number :

GTX□□D, GTX□□G, GTX□□A, GTX□□F, GTX□□R, GTX□□U, GTX□□S

2. SUBJECT:

ERROR01 (*1) alarm is activated even though Analog to Digital Converter (ADC) is healthy.

NOTE: (*1) ERROR01 should be activated only on ADC faults.

3. PROBABILITY OF OCCURRENCE:

0.18%

(Number of anomaly reported divided by total number of GTX in the field as of Mar 10 2010)

4. ANOMALY SUMMARY & OBSERVABLE SYMPTOMS:

AT9000 (Model GTX) has a self-diagnostics program that checks AD converter malfunction. When this program determines that AD converter is in fault state, it drives the transmitter's output beyond the normal 4 to 20mA range (under 4mA or over 20mA, according to the customer's choice), and shows "Err.01" on the LCD display.

With this anomaly ERROR01 (Err.01) alarm is activated even though Analog to Digital Converter (ADC) is in a healthy state.

5. AFFECTED CUSTOMER & CAUSE OF ANOMALY:

In principle, all AT9000 (Model GTX) users.

From the field anomaly reports (*2) we have received so far, this self-diagnostic program fault occurs when the following conditions are present;

- Where a sudden increase (or decrease) of pressure (or differential pressure for DP sensors) occurring in a specific periodic pattern (i.e. pulsation due to pressure fluctuation),

The above process conditions (*2) would result in the program mistakenly identifying this as an ADC malfunction.

NOTE: (*2)

The field reports show this fault occurs on the following cases that a large pressure fluctuation presents continuously.

- Process in transition state like start-up

- Process in commissioning phase
- Pump circulation
- Large waver of liquid level near full state in closed tank

No field report that the fault occurs when the process is in steady state have been received.

6. **CAUTION:**

Due to the wide variety of process control equipment configurations and site-specific control strategies, ***it is necessary to assess the potential impact of this anomaly.***

Example;-

- AT9000 (Model GTX) is used in the critical control loop -> Check control configuration to determine if the control algorithm moves to the safe state (like setting control mode to manual and hold output) in response to the process variable from a transmitter that has gone into alarm state (becomes either higher than 100% or lower than 0%).
- AT9000 (Model GTX) is used in the interlock loop -> Check control configuration to determine how the interlock reacts in response to the process variable from a transmitter that has gone into alarm state (becomes either higher than 100% or lower than 0%).
- AT9000 (Model GTX) is used in the safety loop -> Check control configuration if the safety program is implemented with transmitter faults taken into account.

7. **ACTIONS:**

We will take the following action to AT9000 (Model GTX) delivered to the field.

- Load the update the firmware software (*3) of AT9000 (Model GTX).

NOTE: (*3)

The robustness of self-diagnostic program is improved (so as not to mistake the continuous pulsation for the AD Converter malfunction).

Software Update Procedure:

Update the software by directly accessing to the electronic board of the AT9000.

The updating procedure is;-

- Shut down the power supply to the transmitter,
- Remove the LCD display board from the transmitter (if equipped),
- Update the software using a PC and a special downloading tool,
- Return the LCD display board to the transmitter, and
- Confirm the operation of the transmitter.

It will take for around 10 minute per one AT9000 to update the software.

Should you have any questions concerning this notice, please contact your local AZBIL support center or Yamatake Support Center.

***Approved & Issued By Quality Assurance Dept. AAC Yamatake
Mar 12 2010***