



TOTALFLOW

Technical Bulletin 160

# **BTU-8000/8100 Analog Controller Module (ACM) Extended Warranty**

Totalflow Technical Bulletin

Version 1.0, Revision AA (20 March 2008)



## Purpose

To describe an issue with the Analog Controller Module (ACM) fuse (F1) and potentially the thermal fuse could open up under normal operating conditions. The ACM can be identified by looking for part number 2015640-xxx.

## Description

There are two primary protection circuits designed into the ACM. One is a thermal fuse which detects a heater runaway condition and shuts down the power to the heater to protect hardware on the BTU-8000/8100. The second is a 1 amp fuse that protects electrical components from an over current condition from mis-wiring or fault condition.

A change in manufacturing components can cause either the thermal and/or primary F1 fuse to open up during normal operations.

Question: Why is this issue just now occurring with a product that has been in production for more than 12 years?

Answer: Discrete electrical components (primarily capacitors) have changed electrical characteristics slightly over the years due to component manufactures merging and changing manufacturing processes. These slight component variations are causing circuit variations that now require minor hardware modifications to meet the original design criteria. This is now being accomplished by adding a component and changing the value of another in the form of an engineering change notice (ECN).

### Symptoms:

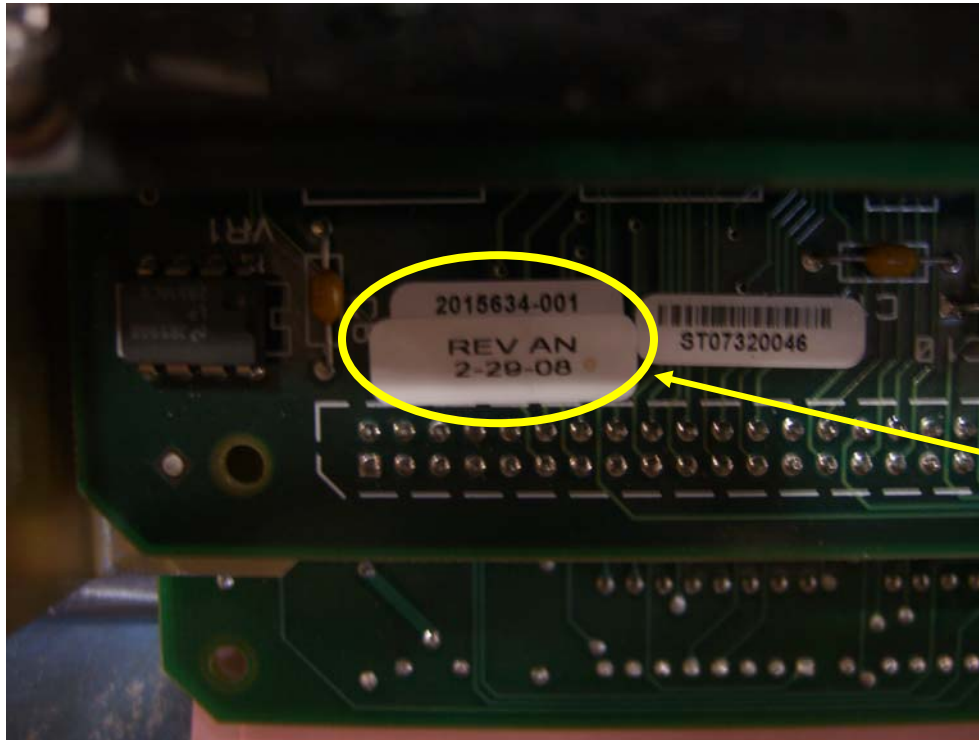
A blown thermal fuse will result in a heater that will not turn on. You should be able to remove the thermal flask around the column spool and detect the absence of heat. A blown F1 fuse will result in no power to the electronics 5.6 volt circuits and thus loss of communications to the device when using BTU MMI configuration software.

There are normal protection modes that will cause either the thermal or F1 fuse to open up. These over current modes could be caused by mis-wiring, external surge or a critical component failure. These protection modes are still in place and could open up even with the latest revision changes described below. **These types of over current conditions would not be covered under this extended warranty.** External surges can sometimes be eliminated by inserting a UPS between the public utility power and the BTU-8000/8100. Contact ABB customer service for details.

### ACM Identification:

ACM part number 2105640-xxx is a combined digital electronics, analog electronics and barrier board. This part should be replaced as a combined unit. There should be a white sticker containing the part number and revision level on the assembly. The

bulletin describes a potential issue with all revision levels “AM” or earlier (see drawing below for revised revision level number). These fuse issues have been resolved with revision level “AN” or later.



Revision level “AN” or later includes all updates described in this bulletin

### Conclusion

ABB is providing a volunteer recall for any ACM with revision level “AM” or earlier. ABB will update or exchange any ACM with revision level “AM” or earlier through December 31<sup>st</sup> 2009. This recall time extension is designed to allow you to replace the ACM during a normal preventive maintenance trip instead of an unscheduled site visit. We apologize for any inconvenience this may cause you and your company! The repaired or exchanged ACM per this document will be warranted for 12 months from date of repair or exchange. Please contact Order Entry at (800) 442-3097 option 1 and refer to “technical bulletin 160” for your ACM repair or exchange.