



# **TOTALFLOW**

## ***Technical Bulletin 137***

### **Save and Restore Utility and Potential Calibration Issues**

#### **Totalflow Technical Bulletin**

Version 1.1, Revision AB (12 June 2006)

---

#### **ABB Inc.**

ABB Inc.  
7051 Industrial Blvd  
Bartlesville, Oklahoma  
74006 USA

Telephone  
Domestic 800 442-3097  
International (918) 338-  
4880  
Telefax (918) 338-4607

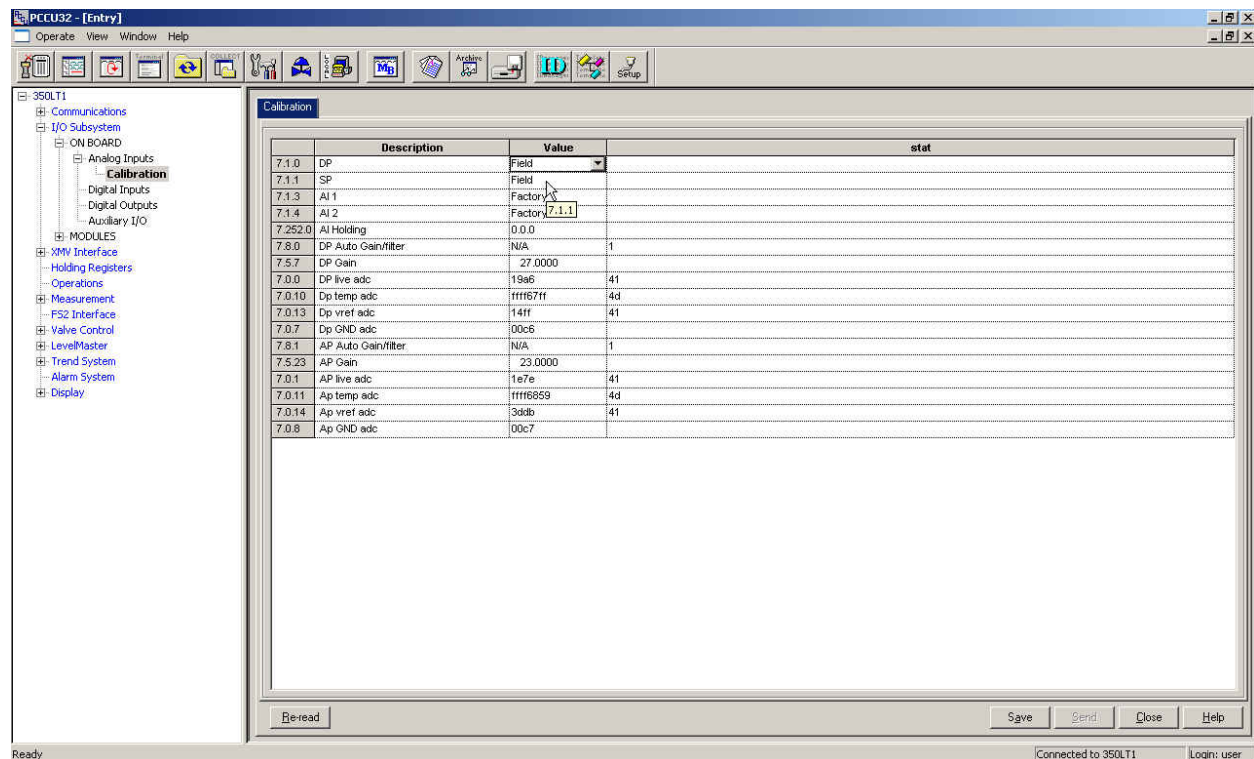
Internet  
[www.abb.com/totalflow](http://www.abb.com/totalflow)

## 1. Purpose

To inform customers about the procedure for fixing corrupted calibration files on Xseries devices and microFlo devices. This tech bulletin should be used only in extreme cases when repeated calibration attempts have failed. This also assumes that the manifold and equipment have been checked for leaks.

## 2. Description

It has come to our attention that some people may be having problems calibrating meters. This can be due to corrupt calibration files. First before calibrating perform your pressure checks on the meter. Then attempt a field calibration. If this calibration does not appear to be in good order then switch the totalflow back to the factory calibration.



As you can see from the screen shot above you must go into entry mode to reset the factory calibration. Click on the "+", next to IO subsystem, then ON BOARD Analog Inputs and then highlight "calibration". On the right hand side change the DP and SP field values back to factory and hit send. At this point it should be possible to recalibrate the unit. Perform necessary pressure checks and complete the calibration. At the end of the calibration perform the as left pressure checks. It is important to note that numbers showing in the Totalflow may not be accurate during the calibration. Complete the calibration and conduct pressure checks. If checks are good then the unit is finished. If the unit does not give accurate pressure checks at the completion of the calibration then it may be necessary to take further action.

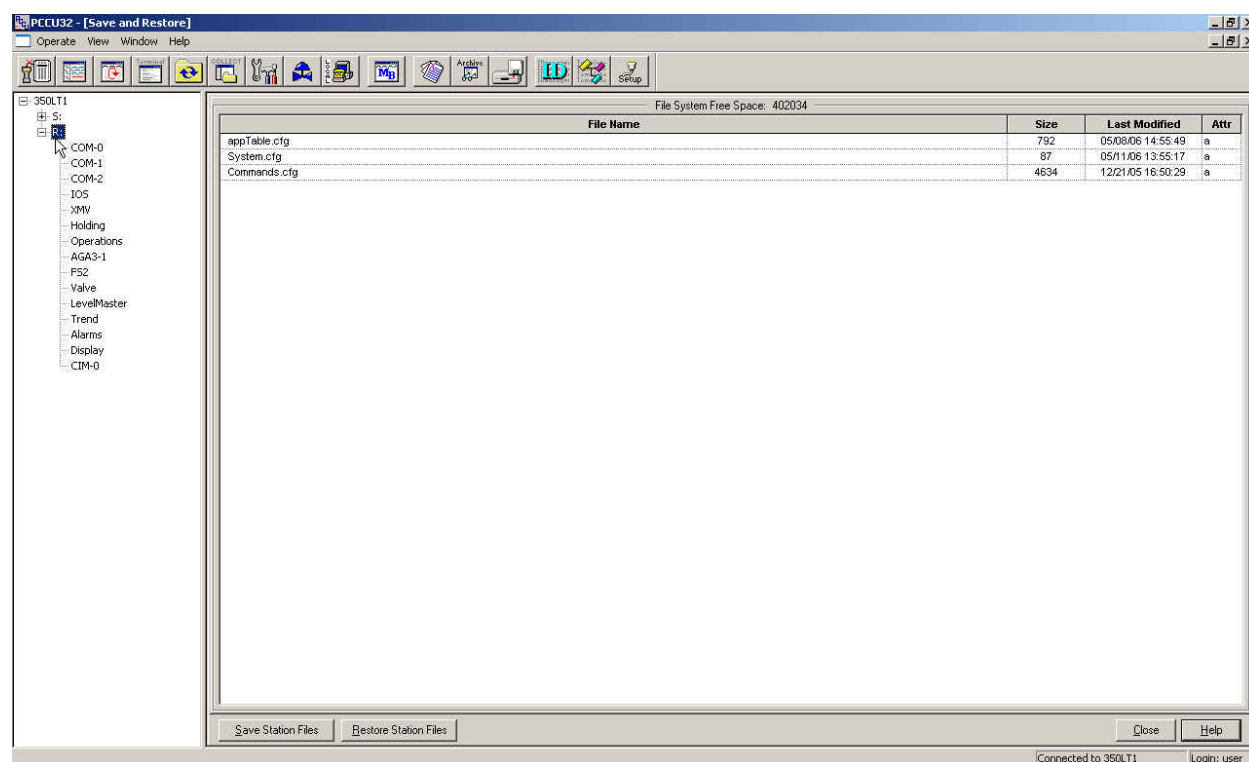
If you are still unable to calibrate the unit you can manually delete the calibration files that are in the Flow Computer. It is important to note, however, that this method may require a COLD boot (erasing all flow history within the Flow Computer) to the unit. So make sure to collect all your data before continuing.

If you are calibrating a meter and it doesn't seem to take the calibration or you can't calibrate your differential and/or static pressure above a specific point then the following steps should alleviate the problem.

First connect to the meter and collect your data. Once you have collected all data go to the save and restore utility shown below.



Once you are in save and restore utility make sure you can view the contents of the "R" drive. The screen should look like this:



Once the R drive is expanded click on the "IOS". This is the IO subsystem from the save and restore section of PCCU. Once IOS is highlighted a subfolder will appear below it called "AMU", highlight AMU. (Note: this subfolder will not appear on the microFlo 6213, simply highlight IOS). Once AMU is highlighted you will see the files listed for the AMU. Highlight the top file as shown:

File System Free Space: 401986

File Name	Size	Last Modified	Attr
AI00000.cal	79	02/10/06 14:48:32	a
AI00001.cal	79	02/10/06 14:46:30	a
AI1Factory	79	04/25/06 09:28:26	
AI2Factory	79	04/25/06 09:28:26	
Factory	350	04/25/06 09:28:26	

Then right click on the file and choose “delete” from the menu.

File System Free Space: 401986

File Name	Size	Last Modified	Attr
AI00000.cal	79	02/10/06 14:48:32	a
AI00001.cal	79	02/10/06 14:46:30	a
AI1Factory	79	04/25/06 09:28:26	
AI2Factory	79	04/25/06 09:28:26	
Factory	350	04/25/06 09:28:26	

Create

**Delete**

Rename

Upload File

Upload Folder

Download File

Download Folder

Save Station Files

Restore Station Files

Repeat this procedure making sure to delete all the files under “AMU”. Again if this is a uFlo then delete the files under “IOS”. Once you have completed this process on the R

drive do the same process for the S drive. Once you have deleted the files cold boot the flow computer. This process eliminates the corrupt files and will cause the flow computer to pull new files from the AMU/Transducer. At this point you can then do a new field calibration and it should take the calibration with no problems.

### 3. **Conclusion**

The calibration process is quick and straight forward. However, sometimes problems do arise and in many cases it is due to corrupt cal files. Either the files have become corrupt from bad calibration data or an inappropriate file was loaded through the Save and Restore utility. Following the procedure above should eliminate any calibration file problems associated with an X series or uFlo meter.