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## ac-s Repair Summary

Date 7/15/2015 Customer U of Maine - Jim Loftin  
S/N # ACS007 Technician Cad/JGM

RO # 026614  
Cal # 14

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### Incoming Status/Noted Problems with ac Meter

- Meter very hard to communicate with (customer comment)
- All three pressure windows scratched
- Needs internal thermistor upgrade
- Needs 'a' reference detector upgrade
- Blue linear variable filter damaged
- Two zinc anodes had poor electrical connection
- Quartz tube (inside 'a' flow tube) scratched
- AC bearing worn out
- Meter startup slower than normal

### Standard Service

- Replaced pressure housing seals
- Checked all internal components for wear and damage
- Replaced 'a' & 'c' lamps
- Cleaned all optical components
- Focused and aligned optics
- Checked filter wheel motor registration
- Performed stability and noise tests
- Replaced desiccant, performed vacuum purge
- Performed shake and pressure tests
- Performed temperature, air, and water calibrations
- Updated meter's calibration information
- Compiled customer CD with calibration, device file, and air tracking file

### Additional Repairs

- Replaced power board to restore communication
- Replaced all three pressure windows and modified flow tubes to reduce future scratching
- Installed internal thermistor upgrade for signal quality
- Replaced 'a' reference detector for reliability
- Replaced both linear variable filters for signal quality
- Repaired electrical connection of two zinc anodes for reliability
- Replaced quartz tube (inside 'a' flow tube) for signal quality
- Replaced AC bearing for reliability
- Replaced motor to restore normal startup time and for reliability
- Upgraded optics to latest version for reliability.

### Comments

- The internal thermistor upgrade more accurately measures internal temperature. You may notice a difference.