

R-Series Actuator EEPROM Memory Corruption Issue

Issue

Woodward has identified a potential issue with certain R-Series actuators that could result in data loss and/or non-volatile memory errors.

Information provided in this Service Bulletin is intended to proactively communicate this potential product issue and to reduce the potential risks to Woodward customers by providing corrective action alternatives.

Please note that to date, none of the product performance issues identified in this communication have been reported to have occurred in customer test bench or engine mounted units.

Description

The R-Series actuator utilizes electrically erasable programmable read-only memory (EEPROM) technology to store and modify various device and system level control parameters. Multiple EEPROM devices within the R-Series are accessed with multiple read/write cycles during control start-up, operation and shutdown actions.

Woodward has recently identified potential risks of data loss and/or non-volatile memory corruption that could occur if the R-Series is powered down without the key switch function use or if the EEPROM exceeds the maximum lifetime number of write cycles.

While either scenario is unlikely to occur, and to date, have not been reported in field units, potential failure mode effects include degraded performance resulting from power down without using the key switch or device inoperability resulting from exceeding the maximum lifetime number of write cycles.

Affected Units

Affected units are limited to Item Number/Serial Numbers listed in the table below:

Woodward Part Number	Serial Number			
8410-001	19706770	19706773	19710408	20028134
	19706771	19710406	20028132	20028135
	19706772	19710407	20028133	
8410-002	19253317	19722002	19762546	19881823
	19714041	19724272	19821037	20072521
	19722000	19724273	19881822	
8410-010	19847304	19847305	19847306	
8410-011	19982140			
FX112620-014	19010717			
FX112620-015	18910067			
FX112620-016	19022505			
FX112620-018	19164043	19808101		
FX112620-021	19408766	19408767		
FX112620-023	19808102			

Affected Units continued:

Woodward Part Number	Serial Number			
FX112620-033	19740739	19740740	19856674	
FX112620-033.EXP	19740741	19740742	19856676	19856677
FX112620-037	19810012	19810013	19810014	
FX112620-047	19925765			
FX112620-049	19933801			

Corrective Action

Field Correction: Woodward has updated and validated all base level control software versions. A field unit software update is available to correct this issue in Affected Units. See Customer Action section below for additional information.

Permanent Corrective Actions: All new R-Series units will ship with the updated software.

Customer Action

Woodward recommends that Affected Units be updated with the corrected base level control software.

Customers with affected units should select one of the following options:

- Affected units can be updated to firmware item number 5418-6986 Revision NEW or later by a qualified technician using R-Series software tools, following instructions found in R-Series Product Manual 26845, Chapter 7, section titled "How to Update Firmware on an R-Series Actuator".
- Return affected units to Woodward for update. If choosing this option, please contact your Woodward Customer Service Representative for a return authorization number (RAN).
- If a product return or a field software update is not feasible, please contact your Woodward customer service representative to discuss the availability of replacement/exchange unit(s).

Please refer to this service bulletin number when requesting information or scheduling your return.

Service bulletin actions will be performed at no charge within the product warranty period.

Reference 04-1544



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Complete address / phone / fax / email information for all locations is available on our website.