



Solution Partner Service Bulletin 40 Update 2

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Author: Ryan Schlotfeldt, Product Management and Jon A. Elling, Technical Support

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Subject: Raptor Controller Quality Improvement

Problem:

Some Universal I/O Raptor Controllers (587-656) may potentially stop sending and receiving updates on the LON network or analog inputs points may read -459 until power is cycled. There are currently three issues that we have seen in the field:

1. Raptor Controllers stop updating points and have to be re-commissioned in order to correct the issue.
2. Raptor Controllers may stop updating points and the maxSendTime and minSendTime are at a value of 0 or you cannot communicate to the Raptor. Re-commissioning the unit may alleviate the issue but in some cases the maxSendTime and minSendTime cannot be changed from 0 and the unit must be replaced. This issue should only occur on Universal I/O Raptors.
3. All points will display -459 until the power is cycled to the Raptor Controller.

We have discovered a potential component supplier issue with the Universal I/O Raptor controllers. While a thorough test of each unit is routinely performed this failure is often not diagnosed because memory degradation may occur over time.

Specifically, after several months/years of successful operation, the affected units may stop receiving updates on the LON network. Investigations have revealed a higher than acceptable return rate for Raptor controllers. After further investigation, the quality and longevity of the SRAM chips used in production have been identified as suspect, and replacing them an opportunity to improve quality and help prevent the above described issues. Enhanced firmware has been developed with better memory handling to resolve these issues and advanced diagnostics will further improve the product quality.

Solution and Field Action Required:

As of Aug 31st, all new Raptor units have premium and more reliable SRAM chips installed as well as updated firmware to help prevent these issues from occurring. The

updated firmware also has a new diagnostics report built in so that technical support can clearly diagnose when/if memory failures occur.

The following is what is currently recommended if you see the any of the issues listed above.

If you are experiencing issue number 1:

It is recommended to upgrade the firmware in the Raptor. Only units with build number 33 or higher should be upgraded to build 36 and only units with build 33 and higher can be upgraded to the new firmware. Do not attempt to upgrade units previous to build 33 with this tool and firmware that will be supplied.

If you are experiencing issue number 2:

This issue is related to the bad SRAM chips. If this occurs the unit must be replaced. It is recommended to order a new Raptor and return your current Raptor using the standard RMA process and reference this service bulletin on the RMA in order to receive credit. Please make sure to leave the battery installed in the unit and place a piece of tape over it so it does not fall out during shipment. This issue should only occur on units with build 34 which was created for Universal I/O Raptors. Only Universal I/O Raptors will be accepted for returns because of this issue. After the unit is returned it will be checked to verify the SRAM is bad and if this is the reason for the failure a credit will be given.

If you are experiencing issue number 3:

We are still investigating this issue and more information will be issued at a later date.

If you need to upgrade firmware please contact Technical Support and we will supply you with a tool to perform the firmware upgrade. The build number of the Raptor can be found on the Raptor Controller Manger View window using the Raptor Block Programmer tool. We would recommend that as you are going out to service jobs that you upgrade the Raptors at that time to prevent multiple trips to the site.

While absolute zero memory failure is impossible to guarantee, the actions taken thus far will bring us closer to our goals for return/failure rates.

Due to part obsolescence of another memory chip (Flash RAM); the Raptor Controller will enter retirement in October 2013 and should no longer be sold for new jobs.

Replacement units will be available for up to 7 years after retirement for repair and replacement needs.

The standard 2 year warranty has been extended to a 4 year warranty on all U-I/O Raptor Controllers sold to date. Non Universal I/O Raptor Controllers sold prior to 2007 do not utilize the RAM chips in question and should not be impacted.

We make every effort to provide quality products and apologize for the inconvenience this may cause you and your customer.

If you have any questions please contact Technical Support.