Product Bulletin [188]

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Bulletin Reference	PMI-1638
Title	Scalar i7 RAPTOR Firmware 141 Required Before Installing the 9-08265-04 Service Tray CRU
Affected Product	Scalar i7 RAPTOR tape library — robot / Service Tray CRU (9-08265-xx)
Affected Versions	Scalar i7 RAPTOR library firmware prior to 141
Fixed In	Scalar i7 RAPTOR library firmware 141 (141Q)
Severity	Mandatory update. Library firmware 141 or later must be installed before a 9-08265-04 revision or higher Service Tray CRU is installed. This update also improves robot vision and sensor margin on all systems.

Summary

Scalar i7 RAPTOR library firmware 141 is a proactive firmware release that makes the robot more tolerant of normal component variation. The hardware functions correctly; however, earlier firmware was tuned for a narrower range and applied tighter limits of component specification.

Firmware 141 adjusts sensor limits and adds a per-picker camera correction so that every robot operates at peak performance. Firmware 141 or later is required before installing a -04 revision Service Tray CRU.

Conditions That Trigger This Issue

This bulletin applies when either of the following is true:

- Installing a -04 revision Service Tray CRU in a Scalar i7 RAPTOR library running firmware earlier than 141.
- Suspected component mistuning leading to incorrect report of failure – specifically camera and/or hall sensor.

Customer Impact

On firmware earlier than 141, a robot built with in-specification components may not calibrate or operate with full margin. A stronger hall sensor signal can be misinterpreted as a failed sensor, and camera lens variation can cause the calibration target to be located inaccurately. These conditions can result in marginal robot operation or a Service Tray CRU replacement that is not necessary or does not complete successfully.

No action is needed on the installed hardware itself. The components are within specification and do not need to be replaced.

Resolution in Firmware 141

Scalar i7 RAPTOR firmware 141 addresses this in two parts:

1. The firmware now recognizes the stronger signal from higher-sensitivity hall sensors and locates the center of the signal correctly, instead of reporting a bad sensor.
2. Per-picker camera correction: A new camera offset routine measures each picker camera's lens variation against known reference distances and applies individual X and Y scaling factors, so the vision system reports calibration target positions more accurately.

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Together, these changes improve vision system accuracy and reduce marginal robot conditions across all Scalar i7 RAPTOR libraries.

Recommended Action

- Upgrade to firmware 141 at the earliest opportunity.
- Before installing a -9-08265-04 Service Tray CRU, verify that the library is running firmware 141 or later. If it is not, upgrade the library firmware first, then install the CRU.
- Refer to the Release Notes for firmware 141 and the Service Tray CRU replacement guide for upgrade and installation instructions.

References

- Scalar i7 RAPTOR Firmware 141 Release Notes
- Scalar i7 RAPTOR Service Tray CRU Replacement Guide
- Firmware 141 is available for download from the Quantum support website.

Internal tracking: PMI-1638.

If needed, contact Quantum Technical Support for assistance with the firmware upgrade or CRU installation.

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