

	Doc or ECO #:	ECO-70191-003	Date:	3/9/2020	Author:	Aeg
	Rev. #:	A				
Engineering Change Order (ECO)	Engineering Approval:	Aeg	Date:	3/9/2020	Quality Approval:	SL

P/N #:	70191, 71006, 70809	Effective Date:	March 9, 2020
Title:	Firmware Update for improved reliability		

1.0 Purpose / Summary:

In certain instances, the comms hub firmware could hang, this required a power on reset of the ROV to clear. The firmware was modified to eliminate these hangs and automatically recover in the case of a hang.

The new firmware is v1.3.1

Note that this firmware is used on the comms hub, pro5 combo module, and the gps module

2.0 Parts Affected:

Part Number	Notes	Removed	Added	New	Modified	REV
70191	M5 Communication Module	☐	☐	☐	☒	C
71006	PRO5 POWER AND COMMS BOX	☐	☐	☐	☒	D
70890	MSS GPS Antenna	☐	☐	☐	☒	C

3.0 Detail:

- Improved tcp/ip state reset
- Added additional bounds checking
- Added COP watchdog timer to reset system on hangs

4.0 Disposition of Material:

- Update all stock on hand and systems on the production floor.
- Update systems as they are returned for repair.
- Custom support can update fielded systems on a case by case basis

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5.0 Action Items:

Action	Department	Acknowledgement Initials
Update firmware on provisioning machine	Eng	AEG
Update revision on QC sheets	Eng	AEG
Ensure all outgoing modules have been updated	Production	KK

6.0 Modified / Referenced Documents:

Document	Current Revision
QC-70191-MSS Communication Module Checklist	B
QC-70809	D

7.0 Revision History

Date Revised (mm-dd-yyyy)	Location of Change (section, paragraph no., step no., etc.)	Description of Change Made	Name of Person making the Change
3/9/2020	Initial Release	Initial Release	SL