

	Doc or ECO #:	ECO-72061-001	Date:	7/19/19	Author:	AEG
	Rev. #:	A				
Engineering Change Order (ECO)	Engineering Approval:	aeg	Date:	07/19/19	Quality Approval	DO

P/N #:	72061	Effective Date:	May 31, 2019
Title:	Up armor of termination block whip		

1.0 Purpose / Summary

ROV whips have been breaking with increasing frequency. No direct root cause was attributable to the supplier and no good existent specs or drawings were available.

The current revision termination block has been strengthened with an external braid.

2.0 Parts Affected (revisions current as of 6/29/2020)

Part Number	Notes	Removed	Added	Modified	REV
72061	New improved assembly	☐	☒	☐	C
VR-PRO4-10-0001	TB-001M replaced with 72061	☐	☐	☒	B
TB-001M	Added to subassembly of new p/n	☐	☐	☒	A
TB-001M-ASSM	TB-001M replaced with 72061	☐	☐	☒	B
72081	Stainless Steel Cable Tie Solid Locking, Standard, 8" Long	☐	☒	☐	A
72082	3/4" diameter Adhesive Lined Shrink Tubing, Marine Grade	☐	☒	☐	A
72083	1" diameter Adhesive Lined Shrink Tubing, Marine Grade	☐	☒	☐	A

3.0 Detail

The termination block whips have been breaking with an increased frequency.

The termination block previously was molded by BIRNs using 8 pin whips from subcon. Moving forward BIRNS will sole source the assembly [TB-001M] using their own whips. Note that this part was revved from 3.00.00 to REV A with the passing FAI 5/24/2019.

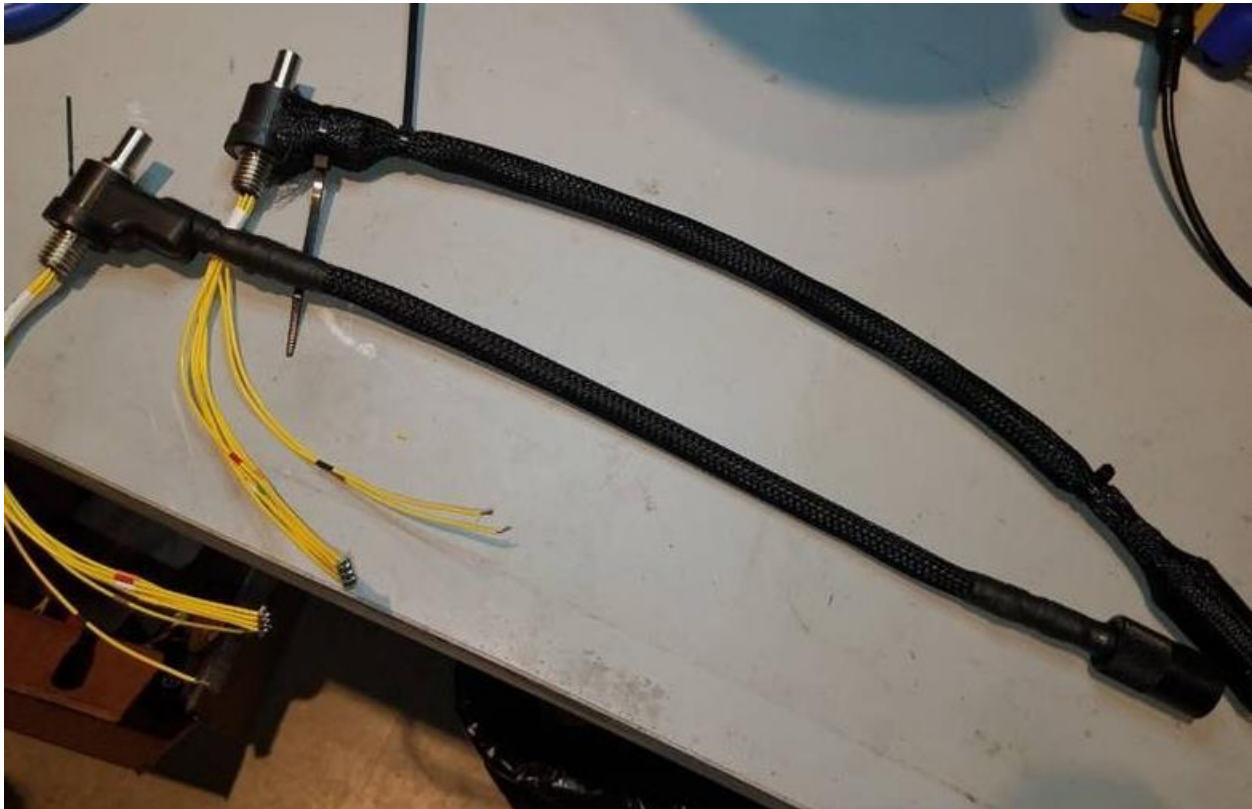
However, it was still deemed prudent to move to an enhanced strength mechanism for the termination block whip.

TB-001M is to be replaced in with a new assembly [72061] which includes an external nylon strain relief braid. This braid can be added to TB-001M either before or after installation on the ROV.

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It is possible to perform this upgrade in the field.

There may be fitment issues on most ROV systems with the older float blocks. It is recommended that these systems do get this enhancement, but this requires upgrading to the pro4 float block and skid. As those products are EOL this is being left to the discretion of operations staff on a case by case basis. Note that no epicor or other documentation changes have been made to the EOL systems.



New strengthened term block assembly prior to installation.

4.0 Disposition of Material

ALL systems with PRO4 floats should receive this upgrade.

This include current stock, new produciton, and repairs.

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Systems without a PRO4 float are at the discretion of operations, but engineering recommends these systems receive the upgrade.

5.0 Action Items

Action	Department	Acknowledgement Initials
Update Epicor	Engineering	RN
Update ALL in-stock and repair ROVs to use the modified term block	Production	KK
Provide PPI with all required information. BOM and procedure for installation.	Purchasing	NS

6.0 Modified / Referenced Documents:

Document	Current Revision
WI-72061	A

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
7/19/2019	-	Initial Release	AEG
6/29/2020	2.0	Update to refactor up-armor	aeg