

	Doc or ECO #:	ECO-70160-005	Date:	10/31/2022	Author:	JK
	Rev. #:	A				
Engineering Change Order (ECO)	Engineering Approval:	aeg	Date:	10/31/2022	Quality Approval	aeg

P/N #:	70160	Effective Date:	November 7, 2022
Title:	Switch to new Bulkhead connector		

1.0 Purpose / Summary

Failure rates of the adhesive attached overmold connector were too high. We are switching to a bulkhead connector and a gender changing locking sleeve for backwards compatibility with fielded tethers.

2.0 Parts Affected

Part Number	Notes	Removed	Added	Modified	REV
70160	Top level	☐	☐	☒	H
70155	PCB shape was changed to allow for bulkhead nut	☐	☐	☒	C
70159	Housing	☐	☐	☒	D
70161	Heat sink insulator	☐	☐	☒	B
70162	Heat sink	☐	☐	☒	B
73686	8 pin bulkhead connector	☐	☒	☐	A
71481	Locking sleeve adaptor	☐	☒	☐	A
72909	Locking sleeve	☒	☐	☐	A
CT8-001M	Connector	☒	☐	☐	A
70450	Connector retention sleeve	☒	☐	☐	A

3.0 Detail

The older overmold connector, retention sleeve, and locking sleeve have been removed.

An 8-pin male bulkhead connector and locking sleeve coupler were added to the assembly.

The PCB was modified with a notch to allow for space for the nut for the bulkhead connector. No changes were done to the schematic of the power module board.

The heat sink features were modified for the new hole spacing used on the PCB.

The PCB had previously been rolled into production as it is fully backwards compatible.

Older stock housings and heat sink material had been modified for compatibility with the new revision.

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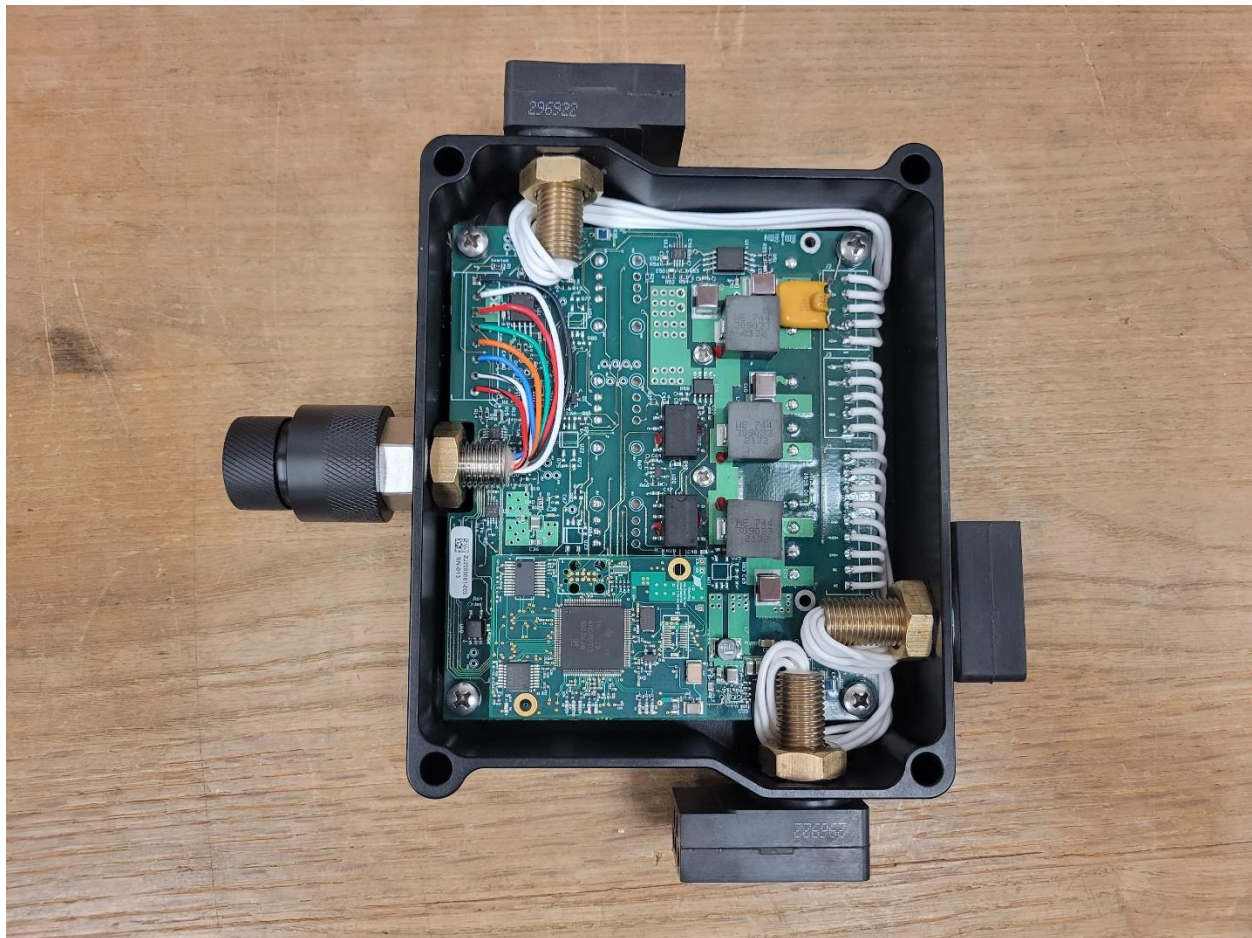


Figure 1. Power Module with new PCB, 8-pin bulkhead connector, and locking sleeve adapter

Quality control inspection procedures are identical to previous versions.

In system usage is almost identical to previous revisions except for a gender changing coupler is required to mate the male threaded bulkhead to locking sleeve historically used on the tether and 8-pin extension whips. As a note it is possible to change the locking sleeve on the 8-pin extension or tethers to be directly compatible with the bulkhead connector.

4.0 Disposition of Material

Old stock will be used to exhaustion except for Navy MESR 20.1 order.

Change should be implemented on all new production runs.

RMAs can be replaced with new version.

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5.0 Action Items

Action	Department	Acknowledgement Initials
Update Drawings	ENG	JK
Update BOM in EPICOR	ENG	JK
Requisition and Place PO's for new material	PUR	RM/SL
Update WI	ENG	JK (IN PROCESS)
Begin full rate production	OPS	KK

6.0 Modified / Referenced Documents:

Document	Current Revision
WI-70160	C (IN PROCESS)

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
11/7/2022		Init	aeg