

Engineering Department

Engineering Change Order (ECO)

ECO #: ECO- SUB-PRO4-N -001

Effective Date: March 23, 2017

Title: Pro4 Submersible Assembly Thread Locker and Strain Relief Screw Change

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Date: March 23, 2017

Engineering Approval: aeg

Date: April 1, 2017

Operations Approval: aeg

Date: April 1, 2017

Summary:

Two minor changes were made to the Pro4 Submersible assembly. (1) Loctite 242 blue (91458A14) was replaced with Permatex 24010 blue (7445A12). (2) Strain relief screw length was changed from 8-32x1/2 (91772A194) to 8-32x7/16 (91772A192).

Parts Affected:

Part Number	Notes	Removed	Added	Modified
SUB-PRO4-N	Submersible Assembly (Pro 4) (NTSC)	☐	☐	☒
91458A14	Glue/Potting Loctite 242 Threadlocker Adhesive,.34 oz, Blue	☒	☐	☐
7445A12	Glue/Potting Permatex Threadlock 24010 Blue Medium	☐	☒	☐
91772A194	Screw #8-32 x 1/2" Pan Head Phillips SS	☒	☐	☐
52328	Screw #8-32 x 7/16" Pan Head Phillips SS	☐	☒	☐

Detail:

Two minor changes were made to the Pro4 Submersible assembly.

(1) Loctite 242 blue (91458A14) was replaced with Permatex 24010 blue (7445A12) to match consistency between PPI (subvendor) and Videoray assemblies.

(2) Strain relief screw length was changed from 8-32x1/2 (91772A194) to 8-32x7/16 (91772A192) to avoid damaging the hull when the screw is inserted all the way.

These changes will not require any further modification the assembly.

Action Item:

Action	Department	Acknowledgement Initials
Notify Pro4 ROV assemblers of the assembly change. Provide ECO documentation and revised assembly Pro4 subcontractors.	Purchasing	NS
Make sure Technicians are using the correct thread locker and strain relief screws as indicated in the ECO. Provide updated copy of the Pro4 submersible assembly addendum to technicians as required.	Production	KK

Modified / Referenced Documents:

Document	Current Revision
Pro4 ROV Assembly Procedure Addendum-001	G

-- END OF ORDER --