	SONARtrac® Rework Instruction	
	Subject: Procedure for Replacing Sensor Cover Pre-Amplifier Module	R100002 Rev. 02 Page 1 of 3

Purpose:

The purpose of this document is to establish a procedure for the replacement of the sensor cover pre-amplifier module. Read the entire procedure before replacement of the module.


If there are any questions, please contact CiDRA Technical Support.

Materials for Replacing Module:

<u>Part Number</u>	<u>Description</u>
S-20622-TAB	Spare, Pre-amp Module – ISS0006
---	5/16 inch socket
---	Loctite 243
---	Brush, soft metal bristle or scotch-brite cleaning cloth
---	Torque wrench capable of 11 inch-pound setting
---	Volt-ohm meter

Procedure

1. Verify the contents of the replacement kit are complete.
2. Remove cover from process pipe per R10005 Procedure for Removal of Sensor Head (also found in Installation Manual).
3. Wipe cover to remove surface dirt.

	<p>CAUTION</p> <p>Upper cover contains electronic board. Do not put cover in dip tank or allow board to get wet.</p>
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4. Move the cover assembly to a workshop area.
5. Unclip and remove the pre-amplifier to NEMA 4x wire harness connector from the pre-amp board.



Figure 1 Pre-amplifier Module Installed In Sensor Cover

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6. Remove the four P/N 50036-6 #6-32 UNC-2B 18-8 SST Nuts that hold the pre-amp module in place using a 5/16" nut driver or socket.
7. Remove the four P/N 58089-07 0.375 OD x 0.149 ID x 0.031 THK 18-8 SST Washers from under the nuts removed in step 6.
8. Remove the Pre-amp Assembly.
9. Remove the four P/N 52009-01 0.250 Shoulder Dia, 0.055 Shoulder Lg, 0.156 Hole Dia Teflon Shoulder Washers from the mounting holes on the pre-amp chassis.
10. Remove the P/N 20140-01 Kapton gasket from under the pre-amp module.
11. Clean the #6 studs to remove loose residual threadlocker.
 - a. If necessary, use a soft metal bristle brush or scotch brite pad to remove dried threadlocker from the four #6 studs.
12. Remove threadlocker particles from inside the cover.
13. Install the new pre-amp on the #6 studs.
14. Install a P/N 52009-01 Teflon shoulder washer (0.250 shoulder diameter sits inside of the pre-amp plate) on each of the four #6 studs.
15. Install a P/N 58089-07 SST washer on each of the four #6 studs.
16. Place a drop on the Threadlocker, Loctite 243 on each of the four #6 studs.
17. Install a P/N 50036-6 nut on each of the four #6 studs.
18. Torque all four nuts to 11 inch-pounds using the torque wrench and 5/16" socket.
19. Use an ohmmeter to verify the pre-amp board is isolated from the cover back plane.
 - a. Touch one lead to the pre-amp module cover and one lead to the cover chassis.
 - b. An acceptable reading is "open circuit".
20. Re-install the wire harness connector on the pre-amp. Make sure both of the locking clips are fully engaged.
21. Replace sensor cover gaskets on fiberglass covers as necessary.
22. Replace flange gaskets on stainless steel covers as necessary.
23. Re-install sensor cover per the SONARtrac® Installation Manual.

MSDS Information:

The Material Safety Data Sheet for Loctite 243 can be found at the following website:

<http://sds.loctite.com>

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Document Change History

Date	Revision	Changed By	PCO #	Description of Change
03/17/05	01	B. Markoja	P04-0112	Initial Release
06/30/06	02	B. Markoja	E06-0060	Delete call for new P/N 20140 Add Loctite 243 to Materials List