

	SONARtrac® Rework Instruction		
	Subject: Procedure for Replacing Sensor Cover Connector Base Assembly	R100004	Rev. 03
Page 1 of 6			

Purpose:

The purpose of this document is to establish a procedure for the replacement of the sensor cover connector base assembly. Read the entire procedure before replacement of the connector base assembly.

Note: This rework cannot be performed on Zone 2 rated sensor heads. Zone 2 rated sensor heads **MUST BE RETURNED TO FACTORY.**

	CAUTION This rework cannot be performed on Zone 2 rated sensor heads. Zone 2 rated sensor heads MUST BE RETURNED TO FACTORY.
---	---

Materials for Replacing Connector Base Assembly:

<u>Part Number</u>	<u>Description</u>
S-20812-01	Spare, Connector Base Assembly – ISS0006 (with Viton Gasket FOR USE WITH GEN-2 FIBERGLASS COVERS WITH COVER HALVES EQUIPPED WITH LATCHES)
S-20110-03	Spare, Connector Base Assembly – ISS0006 (with Santoprene Gasket FOR USE WITH FIBERGLASS COVERS WITH COVER HALVES EQUIPPED WITH BOLTED FLANGES and STAINLESS STEEL COVERS)
---	Phillips Screw Driver
---	Socket, 5/16 inch
---	Torque Wrench capable of 11.0 inch-pound and 14.0 inch-pound setting

Procedure “A” FOR USE WITH S-20812-01

1. Remove cover from process pipe per R10005 Procedure for Removal of Sensor Head (also found in Installation Manual).
2. Wipe cover to remove surface dirt.

	CAUTION Upper cover contains electronic board. Do not put cover in dip tank or allow board to get wet.
---	--

3. Move the cover assembly to a workshop area.

CiDRA Corporate Services	50 Barnes Park North	Wallingford, CT 06492
Tel. 203-265-0035	Fax. 203-294-4211	www.cidra.com

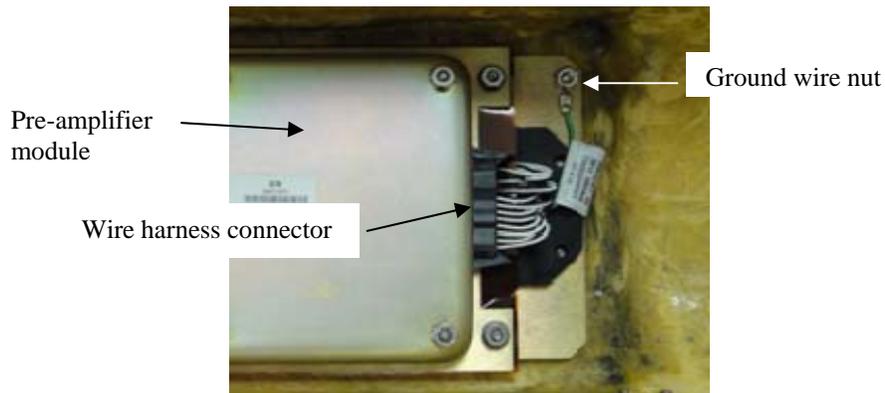


Figure 1 Connector Base Assy Gen-2 Cover (Inside Cover View)



Figure 2 Connector Base Assy Gen-2 Cover (Outside Cover View)

4. Unclip and remove the pre-amplifier to NEMA 4x wire harness connector from the pre-amp board (reference figure 1).
5. Remove the ground wire nut (reference figure 1).
6. Note the position of the connector latch and cover label for reference (reference figure 2).
7. Remove the 4 P/N 52461-09 screws from the connector base (reference figure 2).
8. Remove the connector base assy and gasket.
9. Thoroughly clean the cover where the base will be installed.
10. Inspect the new connector base.
 - a. Lightly tug each wire to ensure they are tight within their connectors.
11. Install the connector base.
 - a. Install base connector gasket.
 - b. Apply Loctite 515 to base connector screws threads (P/N 52461-09 with o-rings)
 - c. Place base connector onto gasket (**note orientation of connector**) and insert screws.
 - d. Torque base screws to 14.0 in-lbs.
 - e. Clean any excess Loctite 515.

	SONARtrac® Rework Instruction	
	Subject: Procedure for Replacing Sensor Cover Connector Base Assembly	R100004 Rev. 03
		Page 3 of 6

12. Inspect the gasket to ensure it is aligned evenly under the connector base and sticks out only about 1/32" along the edges of the connector.
13. Apply Loctite 515 to ground screw threads. Reinstall the nut and torque to 11.0 in-lbs using a 5/16" socket and the torque wrench.
14. Re-install the NEMA-4x wire harness connector on the pre-amp. Make sure both of the locking clips are fully engaged. **Note:** the key on the connector faces the cover body.
15. Re-install sensor cover per the SONARtrac™ Installation Manual.

MSDS Information:

The Material Safety Data Sheet for Loctite 515 can be found at the following website:
<http://sds.loctite.com>

CiDRA Corporate Services	50 Barnes Park North	Wallingford, CT 06492
Tel. 203-265-0035	Fax. 203-294-4211	www.cidra.com

Procedure B FOR USE WITH S-20110-03

1. Remove cover from process pipe per R10005 Procedure for Removal of Sensor Head (also found in Installation Manual).
2. Wipe cover to remove surface dirt.

	CAUTION
Upper cover contains electronic board. Do not put cover in dip tank or allow board to get wet.	

3. Move the cover assembly to a workshop area.

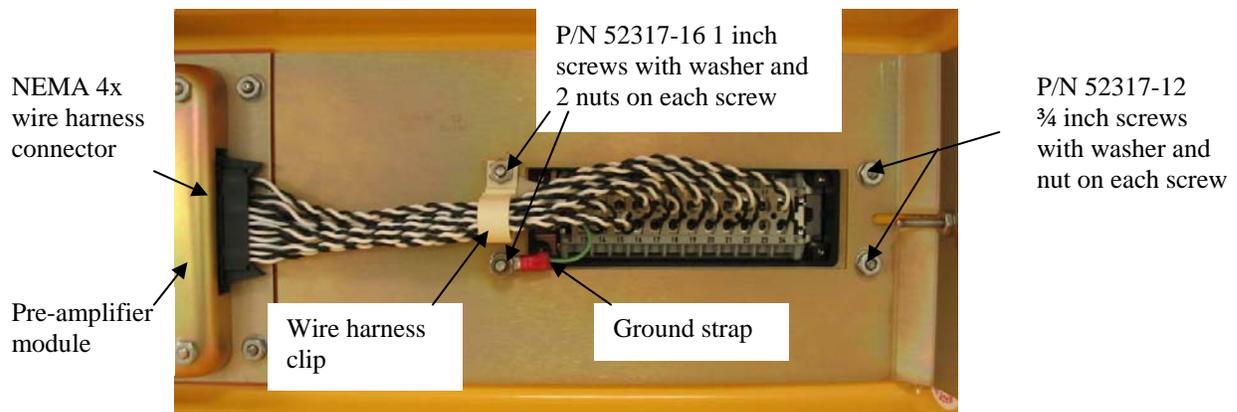


Figure 3 Connector Base Assy (Inside Cover View)

4. Unclip and remove the pre-amplifier to NEMA 4x wire harness connector from the pre-amp board.
5. Remove the nuts used to retain the wire harness clip and ground strap.
6. Remove the 4 nuts and washers used to retain the connector base assy.
7. Remove the connector base assy.
8. Thoroughly clean the cover where the base will be installed.
9. Inspect the new connector base. Lightly tug each wire to ensure they are tight within their connectors.
10. Install the connector gasket on the connector base.
 - a. Remove the adhesive covering from the connector gasket.
 - b. Align the adhesive covered side of the gasket to the connector base and screw holes.
 - c. Press the gasket in place.
11. Install 2ea of the P/N 52317-16 Screw, Self Sealing, Viton O-Ring, PH Phillips, 18-8 SST, 6-32 Thd x 1" Lg, through the top of the connector base in the end where the ground wire is installed.

	SONARtrac® Rework Instruction		
	Subject: Procedure for Replacing Sensor Cover Connector Base Assembly	R100004	Rev. 03
Page 5 of 6			

12. Install 2ea of the P/N 52317-12 Screw, Self Sealing, Viton O-Ring, PH Phillips, 18-8 SST, 6-32 Thd x 3/4 Lg screws, through the top of the connector base in the end of the base opposite the ground wire.
13. Install the connector assembly on the cover.
 - a. Make sure the ground strap end of the connector base is closest to the pre-amplifier module.
14. Install a P/N 51089-07 Washer, Flat, .375 OD x .149 ID x .031 Thk, 18-8 SST on each of the screws.
15. Apply a drop of the Loctite 243 to each screw thread.
16. Install a P/N 50036-6 Nut, Machine Screw, #6-32, 5/16" Wd, 7/64" Ht, 18-8 SST on each screw.
17. Torque to 11.0 in-lbs using a 5/16" socket and the torque wrench.
18. Inspect the gasket to ensure it is aligned under the connector base and sticks out only about 1/32" along the edges of the connector.
19. Attach the ground strap to the P/N 52317-16 screw closest to the ground strap.
 - a. Apply a drop of Loctite 243 to the screw and install a P/N 50036-6 Nut.
 - b. Torque nut to 11.0 in-lbs.
20. Install the P/N 52123-02 Clip, Extruded Wire Harness, .50 Holding Dia, PVC, Off White to the remaining P/N 52317-16 screw.
 - a. Apply a drop of Loctite 243 to the screw and install a P/N 50036-6 Nut.
 - b. Torque nut to 11.0 in-lbs.
21. Re-install the NEMA-4x wire harness connector on the pre-amp. Make sure both of the locking clips are fully engaged.
22. Replace sensor cover gaskets on fiberglass covers as necessary.
23. Replace flange gaskets on stainless steel covers as necessary.
24. 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>

CiDRA Corporate Services	50 Barnes Park North	Wallingford, CT 06492
Tel. 203-265-0035	Fax. 203-294-4211	www.cidra.com



SONARtrac® Rework Instruction

**Subject: Procedure for Replacing
Sensor Cover Connector Base
Assembly**

R100004

Rev. 03

Page 6 of 6

Document Change History

Date	Revision	Changed By	ECO #	Description of Change
03/17/05	01	B. Markoja	P04-0112	Initial Release
10/26/10	02	B. Markoja	E10-0068	Revised to include Gen-2 latch style covers
11/16/10	03	B. Markoja	E10-0075	Revised to document change in gasket material