

Purpose:

The purpose of this document is to establish a procedure for the removal of the sensor head. The sensor head should be re-installed per the Installation Manual.

Procedure:

1. Specific details regarding the removal of the SONARtrac[®] sensor should be discussed with a CiDRA representative prior to removal.
2. Obtain Hot Work Permit if required.
3. Turn off electrical power to the system. Follow lock-out / tag-out procedures as required.
4. Open the transmitter door using a screwdriver and remove the sensor band shorting plug (stored in the transmitter) if there is one.
5. Unlatch and disconnect the sensor to transmitter cable connector from the sensor cover. Close cable connector cover on sensor head cover.
6. Protect cable connector from dirt, water, etc. (example, wrap it in a protective plastic bag).
7. Remove the rain seal(s) or boot gasket fenders (stainless steel covers) from the sensor head (if equipped).
8. Open the sensor cable access panel located on the cover by loosening the six screws (they should not be fully removed from the cover as they are captive screws).
9. Under the access panel removed above, disconnect the sensor band to cover electrical connector by unlatching the connector locks and sliding the connector back as shown below.

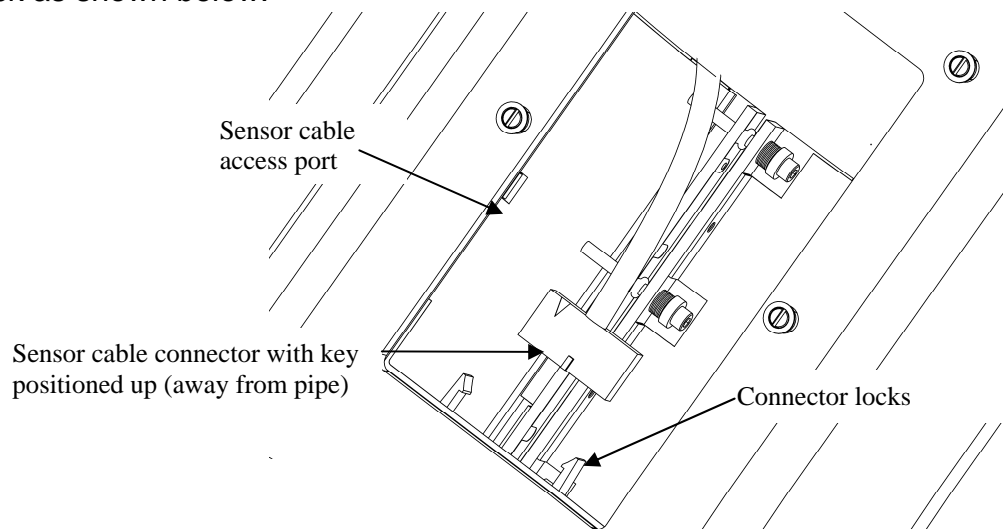


Figure 1 Sensor Cable Connector Removal

10. Install a sensor band shorting plug on the sensor band cable. Note: Sensor bands with an "R" in the Part Number suffix (e.g. Part #: 20686-26-R) do not require a shorting plug.



WARNING

Potential electrical discharge. Always install a sensor band shorting plug (see item 10 above) on the sensor band connector whenever the sensor band connector is not installed in a mating connector.

11. For covers with bolts on the cover flanges, install spring clamps on both sides of the cover flanges to keep it from sliding or separating while removing the cover bolts.
12. Remove the boot gasket band if removing a fiberglass Gen-2 cover (identified by latches used to secure the cover halves) or stainless steel cover.
13. Un-latch the cover latches on Gen-2 covers or remove the sensor cover bolts, nuts, and washers on covers equipped with bolted flanges, and then remove the cover from pipe. Replace sensor cable access cover.
15. Remove the sensor band thermal insulator (if so equipped).
16. If the sensor band is to be removed, use a 5/32" or 7/64" (as required) hex driver or Allen wrench to unscrew the nine sensor screws that hold the two rails of the sensor together. Unscrew each screw a couple of turns until they are loosened. While the screw threads are still engaged in the attachment rails a few turns, spread the sensor rails apart and then continue to loosen the screws until they are no longer engaged in the threads. (By doing this, the o-ring that keeps the screws from coming out of the rails will stay in place.) Use care to keep the fastener assembly intact. If the spacers or Bellville washers do come off the screw refer to the sensor band screw figure in the Sensor Installation section of the Installation and Startup Manual for proper stack-up of components. **Note: If any parts are lost during sensor band removal, (Bellville washers or screws) do not attempt to re-install the sensor band without these parts. The sensor band will be damaged. Contact Customer Support for replacement parts.**



CAUTION

Don not re-install sensor band or cover if any parts (screws, nuts, Bellville Washers) are missing. This may result in damage to affected assemblies. Contact Customer support for assistance.

17. Remove the sensor band assembly from the pipe.
18. Slide the screw and washer assembly o-ring down the screw to retain the screws in their holes.



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19. The original packaging as described in Section 6.1 of the Manual should be used when storing/transporting the system. If not available, lay the sensor band in the bottom of the cover and move it to an area where it will not be damaged.
20. Remove the compliant sheet from the pipe (if so equipped).
21. Inspect / replace as necessary sensor band screws prior to re-installation of sensor band.
22. Inspect and replace fiberglass cover gaskets on the bolted flange sensor head covers as required.
23. Inspect and replace stainless steel cover flange gaskets as required.
24. Re-install sensor head per Installation & Startup Manual.

Contact Customer Support with any questions.



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Document Change History

Date	Revision	Changed By	ECO #	Description of Change
03/17/05	01	B. Markoja	P04-0112	Initial Release
06/30/06	02	B. Markoja	E06-0060	Revisions to reflect current practices.
10-26/10	03	B. Markoja	E10-0068	Revised to include Gen-2 latch style covers