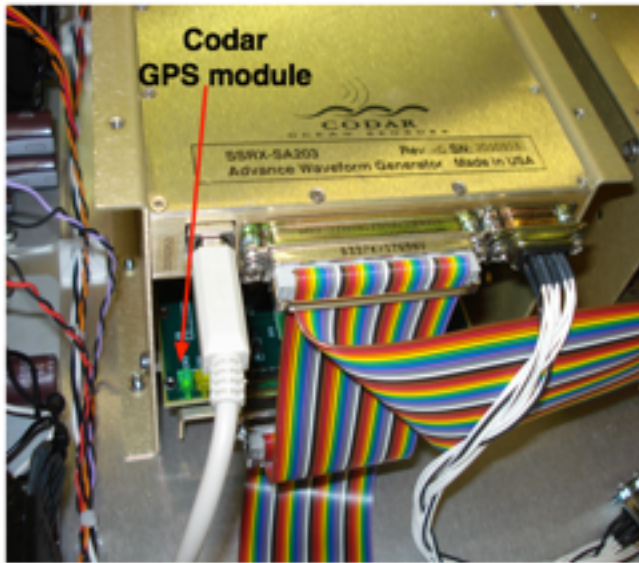


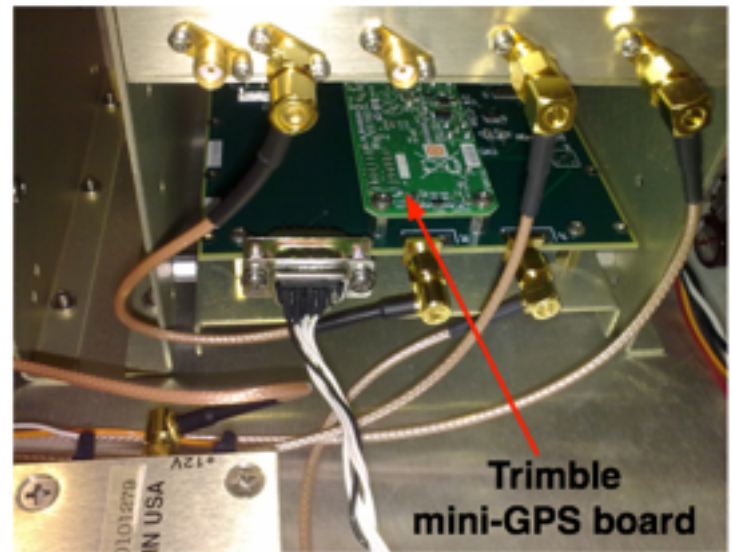
How to Replace Trimble mini GPS board in a SeaSonde Receiver

This document explains steps on how to replace the Trimble mini GPS module in the field in a SeaSonde Receiver.

- Picture 1 shows the location of the CODAR GPS module. It is located below the Advanced Waveform Generator (AWG) module.
- Picture 2 shows the Trimble mini GPS board.

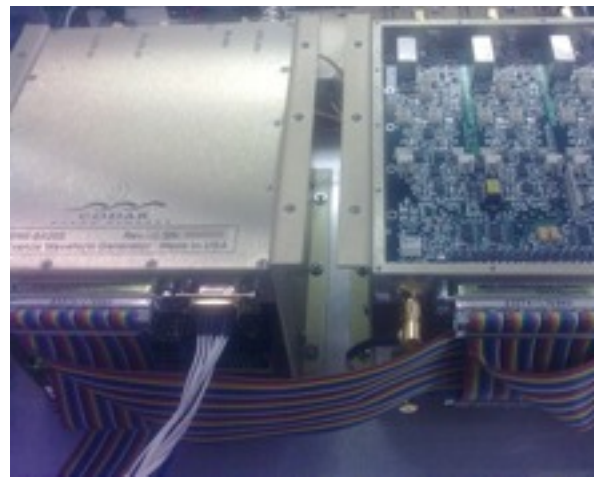


Picture 1: CODAR GPS module (Front view)



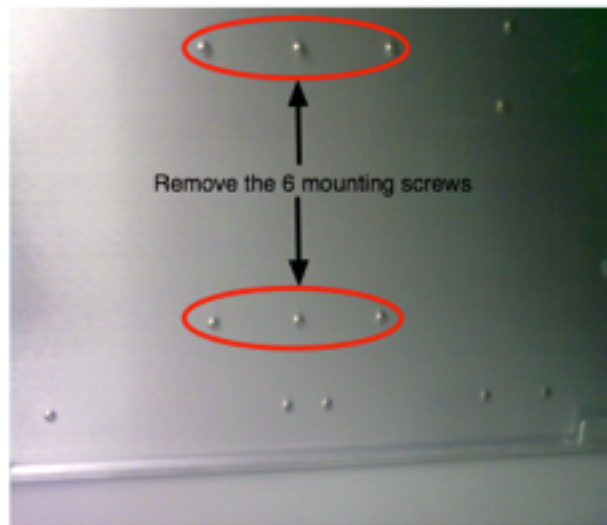
Picture 2: Back view

- Locate the six mounting screws on the bottom, 3 each on left and right side of the mounting plates.



Picture 3: Bottom Mounting screws (left and right side)

- Next, remove these mounting screws from the bottom of the chassis. You will need to tilt the receiver on one side to remove these screws from bottom.



Picture 4: Remove the mounting screws

- Disconnect the multi-colored ribbon cable from the GPS module from the front and the serial cable and sma cables from the back of the module. Make sure to remember the correct connection of the cables from GPS module to other modules so that there is no error while reconnecting them back later.
- The cable from center J8 connector of GPS module is connected to the “REF IN” connector of the AWG module. Similarly the J7 connector of GPS module is connected to the GPS BNC connector at the back, inside the chassis
- Next, disconnect the 4 side mounting screws(2 on each side) holding the GPS module, from the each side of the mounting plate.



Picture 5: Remove side mounting screws

- Now pull out the GPS module from the mounting plate.
- As seen in the picture below, the mini GPS board is snapped onto the GPS module via the golden SMA connectors and the black inline connector.



Picture 6: mini GPS board snapped onto the GPS module

- Now remove the mounting screws from the mini GPS board.



Picture 7: Remove the GPS board mounting screws

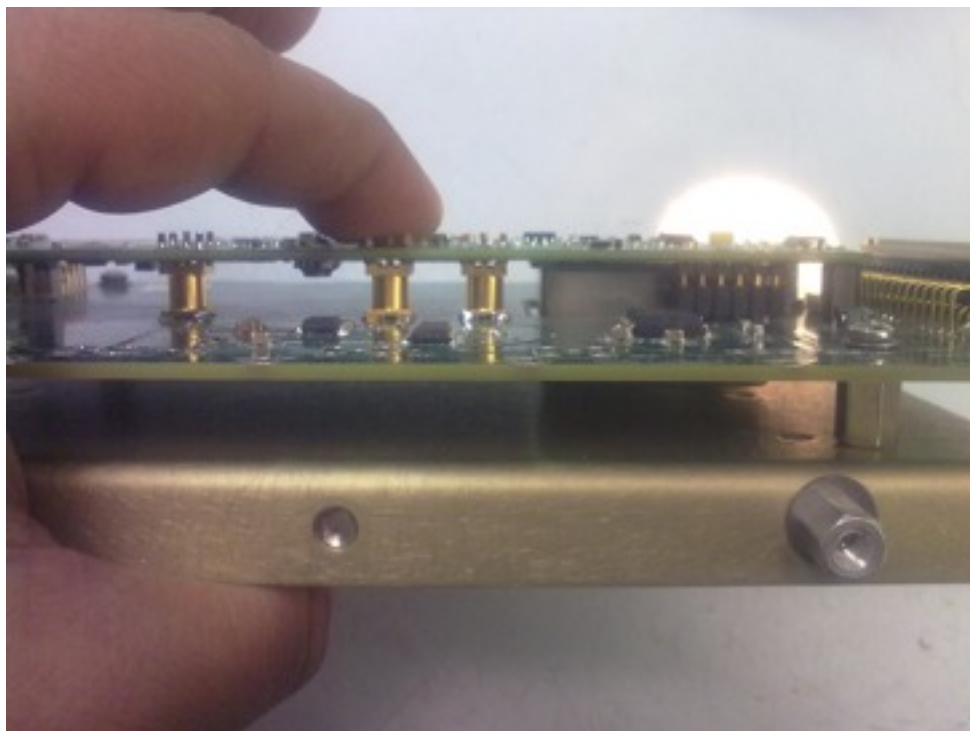
- Gently pull out the connectors of the mini GPS board from the GPS module. Do not apply excessive pressure else it can bend the board and/or break the connector pins.

- Now, first align the new replacement mini GPS board on top of the connectors on the GPS module, so that all the connectors are aligned with each other.



Picture 8: Align the mini GPS board connectors to the GPS module connectors.

- Gently push the mini GPS board from the center SMA connector, so that all the top connectors snap onto the bottom connector. The inline connector pins will be slightly visible in the final snap-on position. They will not fit completely inside the bottom connector.



Picture 9: Final Snap-On Position

- Slide the GPS module set back into the mounting plates and secure them with the side mounting screws and then secure the mounting plates to the chassis with the bottom mounting screws.
- **Be careful, that any cables do not get yanked when re-mounting the plates.**
- Finally, connect the ribbon cable and serial and SMA connectors as per the original connections.
- The cable from center J8 connector of GPS module is connected to the “REF IN” connector of the AWG module. Similarly the J7 connector of GPS module is connected to the GPS BNC connector at the back, inside the chassis
- Contact CODAR support if you have any doubts.