

## Chip and Board Replacement RF

This Service Procedure helps facilitate the easily replacement of a circuit board and/or chip in an RF1 or RF5 module when the circuit board or chip is suspect or failing.

1. To replace the circuit board and/or RF chip, you should have received a replacement circuit board, part #7007, and/or a RF chip part #7013. Reference Figure 1.

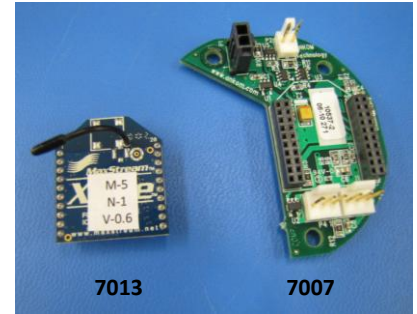


Figure 1

2. Open the RF1 or RF5 module by removing the red lid, followed by the removal of the battery to allow for easy access to the other components. To remove the circuit board or the circuit board and chip, continue onto step 3. To remove the chip, skip to step 9.

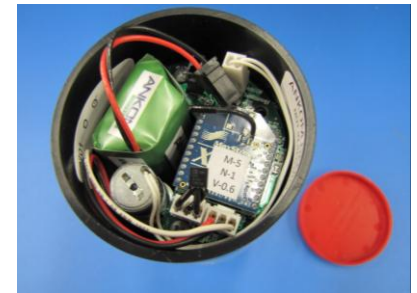


Figure 2

3. As depicted in Figure 3, remove the temperature sensor from the circuit board. Note: if your module is not equipped with a temperature sensor, skip this step.

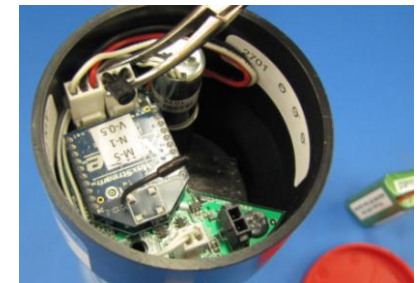


Figure 3

4. Disconnect the three-wire pressure sensor connector from the circuit board as shown in Figure 4.

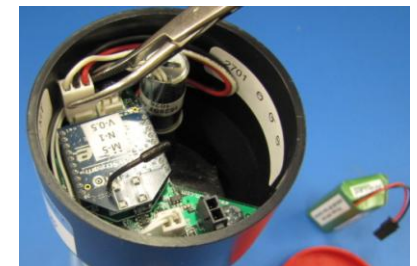


Figure 4

5. For RF1 Modules disconnect the two-wire solenoid connector from the circuit board. Note: RF5 Zero modules will not have this connector, so this step may be skipped if the circuit board and chip are being replaced on an RF5 Zero module. Refer to Figure 5.

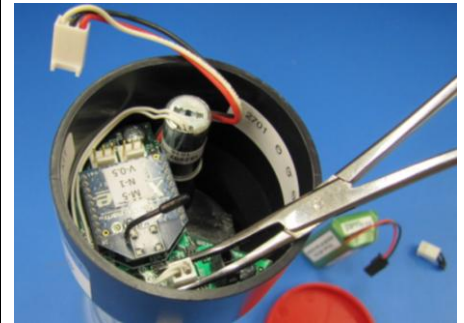


Figure 5

6. With all the connectors removed from the circuit board remove the two screws holding the circuit board in the housing, as shown in Figure 6.



Figure 6

7. As depicted in Figure 7, remove the old circuit board and chip and install the replacement components.

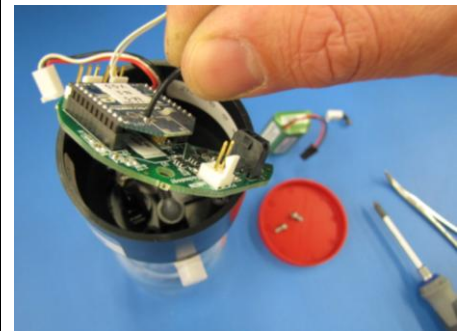


Figure 7

8. Repeat steps 6 through 3, in reverse order, screwing the circuit board back in place, reconnecting the two-wire solenoid connector, the three-wire pressure sensor connector and the temperature sensor. Set the battery back in place, but do not plug in until ready for use. Reassembled module should appear as shown in Figure 8. Module is now ready to be tested per Service Procedure 171 (SP-171) which can be found at: <http://www.ankom.com/service-procedures-rf.aspx>.

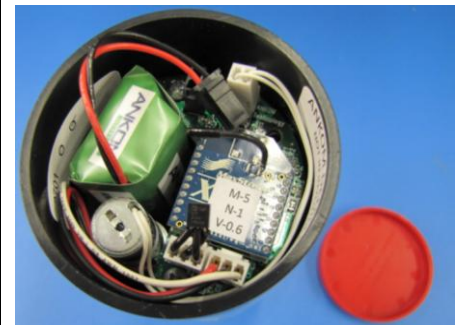


Figure 8

9. As depicted in Figure 9, lift gently on the underside of the front edge of the chip near the antenna until the front edge lifts slightly from the circuit board.

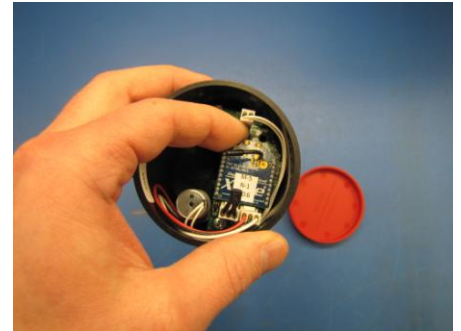


Figure 9

10. Lift gently on the bottom left corner of the chip until the corner lifts slightly from the circuit board.

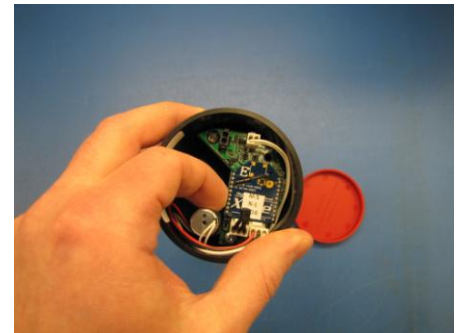


Figure 10

11. At this point, the chip should be dislodged enough from the circuit board that you should be able to lift the chip from the circuit board by lifting gently on the antenna. If the chip is still snug in the circuit board, repeat steps 9 and 10, and try lifting up on other sides of the chip. Note: Pulling too hard may break the antenna from the chip.

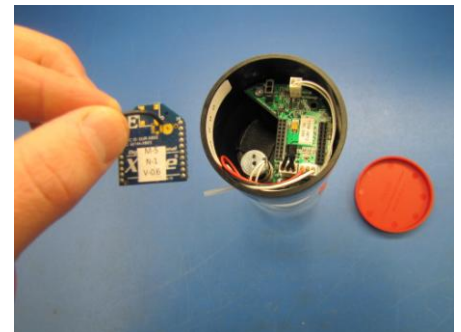


Figure 11

12. Insert new chip on circuit board so both rows of pins on the back of the chip connect into the outer rows of holes in the two rows of black sockets on the circuit board. Be sure that each pin has a hole to mate with, and that the bottom edge of the board is nearly flush with the white Temperature Sensor connector. Press firmly on top of both rows of pins as shown in Figure 12 to make sure the chip seats in the circuit board properly.

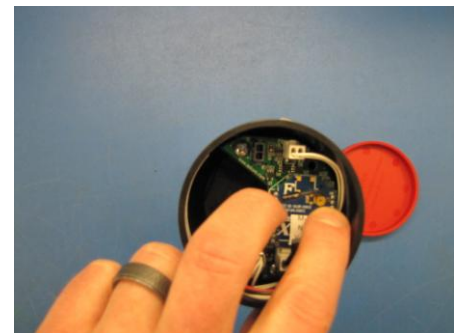


Figure 12

13. Reassembled module should appear as shown in Figure 13. Module is now ready to be tested per Service Procedure 171 (SP-171) which can be found at: <http://www.ankom.com/service-procedures-rf.aspx>.

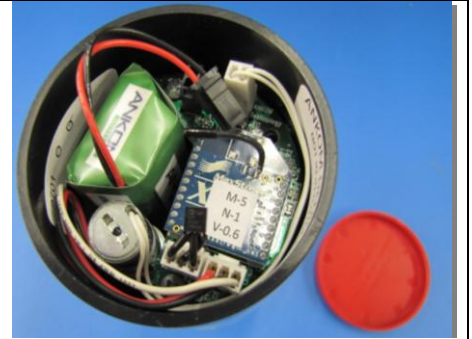


Figure 13