

Technical Bulletin

Bulletin No.

015 Rev. F

Subject:

**Field Radio Communication Failure Checklist for
E.F. Johnson Radios**

Page 1 of 4

Product Applicability:

Evolution and Dx2 Controllers

Engineering Release:

R. A. Olson

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APPROVED FOR GENERAL RELEASE

Controller with E.F. Johnson Radio

Evolution or DX2 Controllers

- 1) Is Submaster power on? _____.
- 2) Re-enter Submaster address and radio communication mode. The keys to press are shown below for Evolution and Evolution DX2 Controllers.
 - A) = Pressing QUIT key will ensure you are starting at the base screen.
 - B) = Main Menu
 - C) = Set Up
 - D) = Controller
 - E) = Configuration
 - F) = Acts As Submaster
 - G) You must now select the appropriate "Submaster Communication Type" for your Satellite, = Radio/Wire, = Phone, = Trunk. _____.
 - H) You must now enter the appropriate "Address" for your Satellite. Enter an address in the range of (0-255) and then press . The base screen will be displayed. _____.

- 3) Verify ALL component connections.
- A) Antenna to radio, items (1- 4) on attached drawing DXRAD20B (figure 1 of this document). _____.
- B) 12 Volt DC transformer (EV-PS), items (5- 6) on attached drawing DXRAD20B (figure 1 of this document). _____.
Do you measure +12VDC at the COMM Board J2 connector? Item #6 of DXRAD20B (figure 1 of this document). _____.
- C) Radio connections, items (7– 13) on attached drawing DXRAD20B (figure 1 of this document). _____.
- D) Does your COMM Board have a fuse? _____.
- With Satellite power off, perform a continuity check on the fuse. Does the fuse check OK? _____.
 - With Satellite power off, does the fuse seat properly in the holder? _____.
 - Be sure to turn Satellite power on when finished. _____.
- 4) Monitor DX-RF Board LED activity indicators per Figure 2 of this document.
- From the Rain Master Central PC, “Blue Panel operation”, select the Satellite you wish to test.
 - Press the “down arrow” key.
 - Does the Controller Base Screen appear? _____.
Does an Error Code message appear? _____.
 - Repeat several times. Does it consistently communicate? _____.
Does it consistently fail? _____. Make note of the Error Code Message.
 - IF YOU ARE STILL UNABLE TO COMMUNICATION WITH THE SATELLITE, STOP. PLEASE CONTACT RAIN MASTER TECHNICAL SUPPORT AT (800) 777-1477.

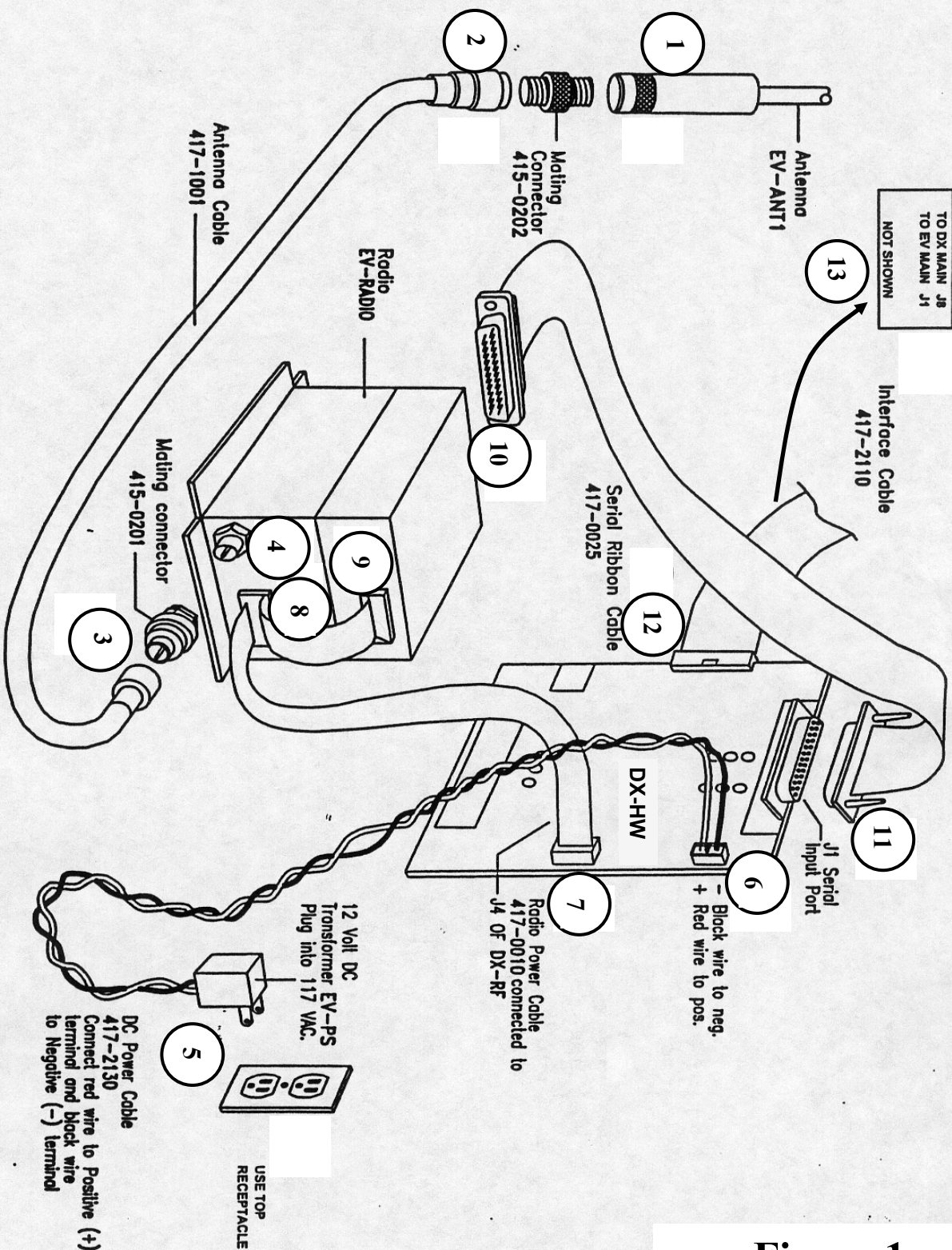


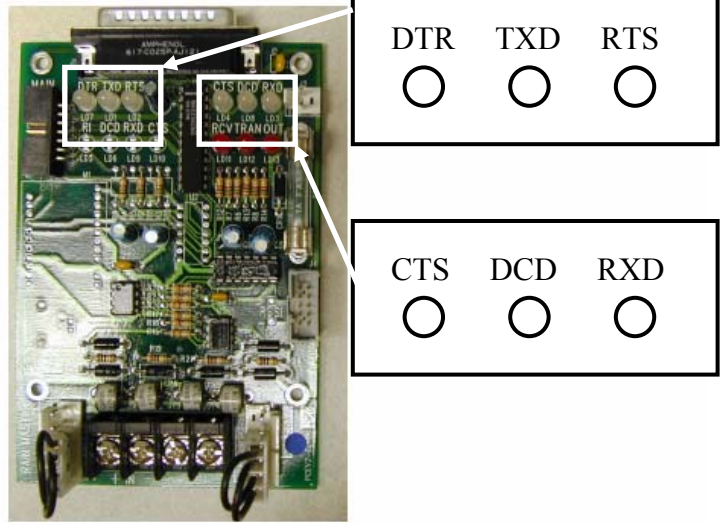
Figure 1

DWG DXRAD208

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PCDX2-COMR
 Communications Board
 for E.F. Johnson Radios

**LED
 CONDITIONS**



LED conditions with NO RADIO and/or NO EV-PS connected:

<u>SIGNAL</u>	<u>CONDITION</u>
DTR*	GREEN
TXD	RED
RTS	RED
CTS	WHITE
DCD	WHITE
RXD	WHITE

LED conditions with radio connected:

<u>SIGNAL</u>	<u>CONDITION</u>
DTR*	GREEN
TXD	RED
RTS	RED
CTS	RED
DCD	RED
RXD	RED

When communications are in process, the sequence is as follows:

<u>SIGNAL</u>	<u>FROM</u>	<u>TO</u>	<u>THEN</u>
DTR*	GREEN	GREEN	GREEN
TXD	RED	GREEN	RED
RTS	RED	GREEN	RED
CTS	RED	GREEN	RED
DCD	RED	GREEN	RED
RXD	RED	GREEN	RED

* DTR (Data Terminal Ready) is always asserted - GREEN

Figure 2