

Model Numbers: FDJ85020D7-1C, -2C, -3C, -NC, -S

PACKAGE CONTENTS

Please find the following products inside the box:

- (1) Twin Diplexer
- Mounting Kit
- Installation Instructions

RECOMMENDED TOOLS

The following tools are needed for proper installation:

- 8 mm Socket or Wrench for clamp tightening
- 10 mm Socket or Wrench for ground nuts
- T25 Torx Driver for M5 bracket screws
- Torque Wrench

DIPLEXER POLE MOUNT

1. Assemble the bracket to the diplexer with 4Nm (3ft-lbs) torque for the M5 screws.
2. Disconnect RF signals and DC power.
3. Attach the ground cable onto the assembled grounding hardware and tighten the grounding nuts with 4 Nm (3 ft-lbs) torque. **(Figure 1)**
4. Slide the two stainless clamps through the holes of the bracket **(Figure 1)**.
5. Fix the clamps/bracket to the pole with 10 Nm (7.5 ft-lbs) torque **(Figure 1)**.
6. Adjust the length of the ground cable and fix it onto the tower ground connection **(Figure 1)**.
7. Connect the diplexer to the system by means of jumpers.
8. When attaching the jumper cable 7-16 connector coupling nut to the diplexer 7-16 female connector it is mandatory that the jumper cable meet the 7-16 female connector of the diplexer straight in line **(Figure 2)**.
9. Press the inner part of the jumper cable connector into the diplexer connector and maintain this pressure when turning the jumper coupling nut. Once aligned, the jumper coupling nut will fit the thread of the female connector correctly and it will turn smoothly. Tighten the jumper coupling nut by hand.
10. Use a torque wrench to tighten the connector assembly with 25 Nm (18.4 ft-lbs) torque. The torque wrench must be perpendicular to the diplexer connector flange and jumper cable connector coupling nut when tightening. **Note: No angular torque from the jumper cable is allowed at any time.**
11. For additional protection against harsh environmental conditions, insulate all connector connections. **See the Connector Insulation Section.**
12. Reconnect RF signals and DC power.

DIPLEXER WALL MOUNT

1. Disconnect RF signals and DC power.
2. Mount the diplexer onto the wall using the holes provided in the brackets (See Mechanical dimensions in the drawing section of these instructions). Hardware is NOT included for wall mounting. Use mounting hardware appropriate to the material being mounted to and appropriate to the weight of the diplexer.
3. Follow the installation procedure for Pole Mounting (Steps 6-12) described above.

RECOMMENDED MOUNTING POSITIONS

- Upright
- Upside Down

IMPORTANT SAFEGUARDS

IMPORTANT: All national safety rules and regulations must be followed during installation and while maintaining the diplexer.

- ! It is important that no RF and DC power is floating in the associated RF feeder cables and, in general, that no power is radiated from the tower or site during the installation of the Diplexer.
- ! RFS recommends using the shortest jumper cables from the Diplexer to the Antenna in order to optimize system performance.
- ! RFS recommends using RFS accessories and cables to ensure the best installation.

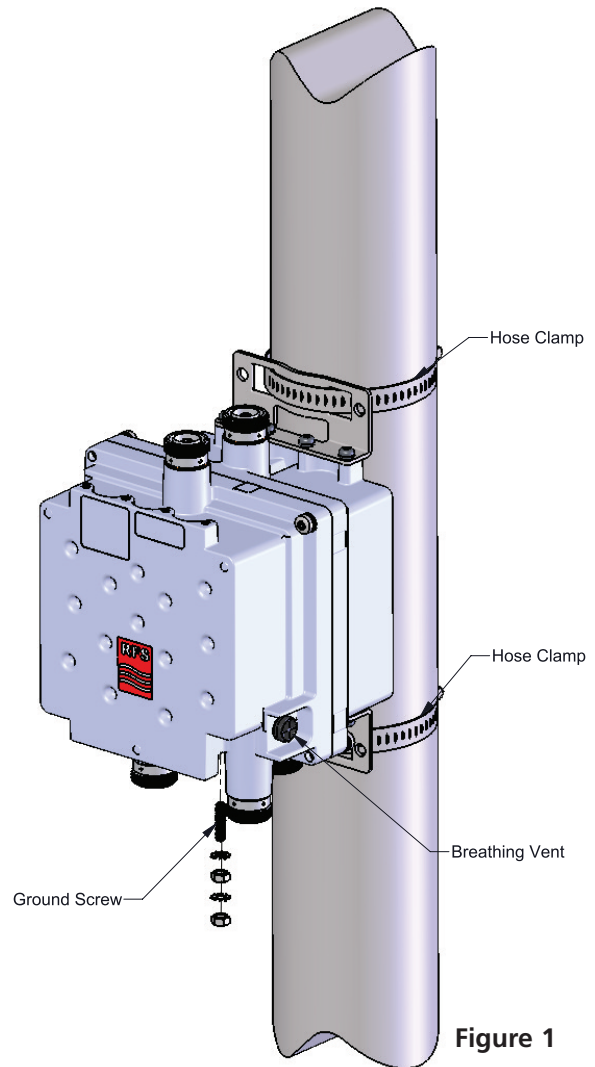


Figure 1

WARNING: Do NOT cover or paint breathing vent. Painting over breathing vents may result in water ingress and filter failure.

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JUMPER CONNECTION DETAIL

The torque wrench must be perpendicular to the diplexer connector flange and jumper cable connector coupling nut when tightening.

Note: No angular torque from the jumper cable is allowed at any time. Fluctuation between the diplexer and the jumper axes $< \pm 2.5^\circ$ (Figure 2).

CONNECTOR INSULATION

For additional protection against harsh environmental conditions, connector connections may be insulated using weather sealant. This insulation is performed after all 7-16 connector coupling nuts (from Antenna-to-Jumper, Jumper-to-Diplexer, Diplexer-to-Jumper and Jumper-to-Feeder Cable) have been tightened as specified in the instructions.

RFS offers a variety of solutions that can withstand extreme weather temperatures and conditions, offer UV protection and are available in a variety of colors for easy tower-top cable identification. Contact a sales representative for ordering information.

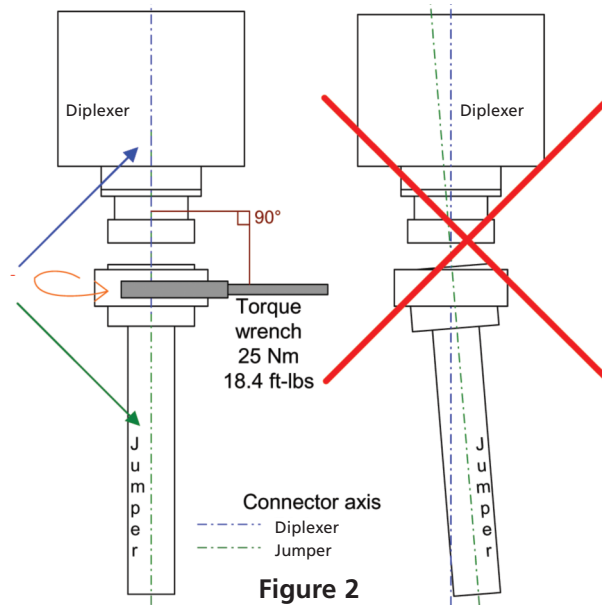
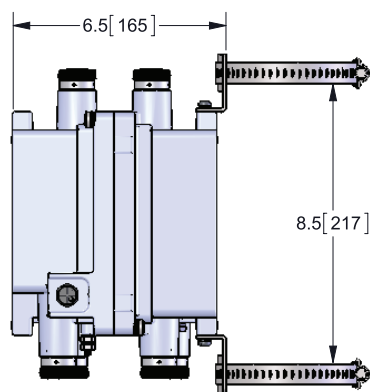
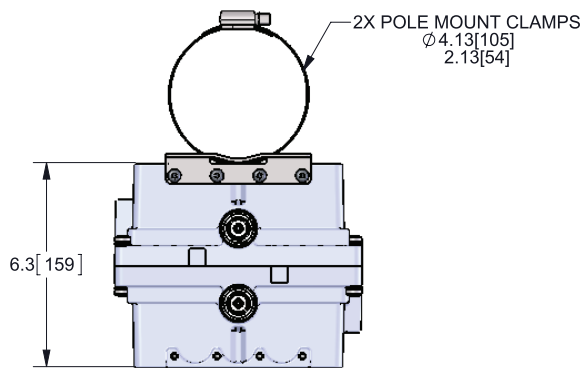


Figure 2

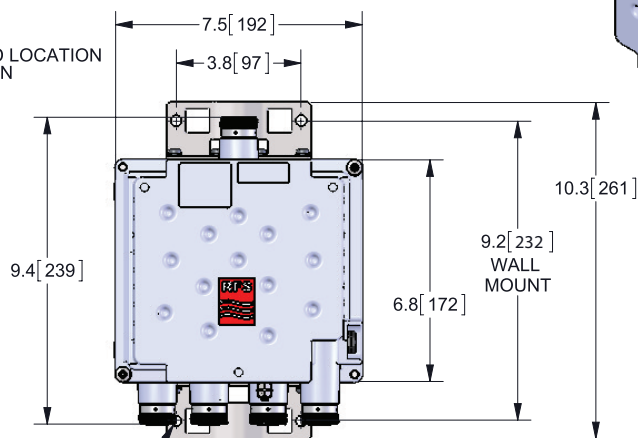
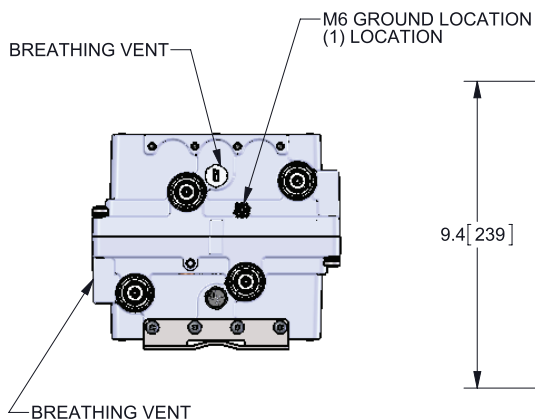
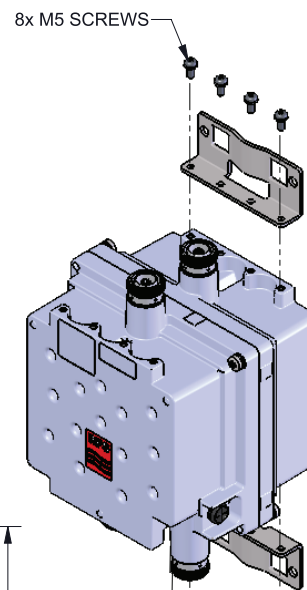
DRAWINGS



Side View



Top View



Front View

GROUNDING HARDWARE