

095539-000 Revision D, April 2023

Mounting Kit For ADFD and CTSDG Style Antennas DB380-9

GENERAL INFORMATION

DB380-9 is a galvanized pipe clamp kit designed for mounting ADFD and CTSDG style Andrew base station antennas to pipes with diameters up to 8" OD.

This kit can be used with Andrew's DB5083 downtilt kit to provide mechanical downtilt to these style of antennas.

DB380-9 INSTALLATION INSTRUCTIONS

1. Remove the antenna and hardware from the shipping box. Ensure all parts enclosed and that there is no physical damage.
2. Ensure that the antenna feed connector mates with the transmission line.
3. Verify that the frequency range shown on the label on the back of the antenna matches the frequency range of the station equipment.

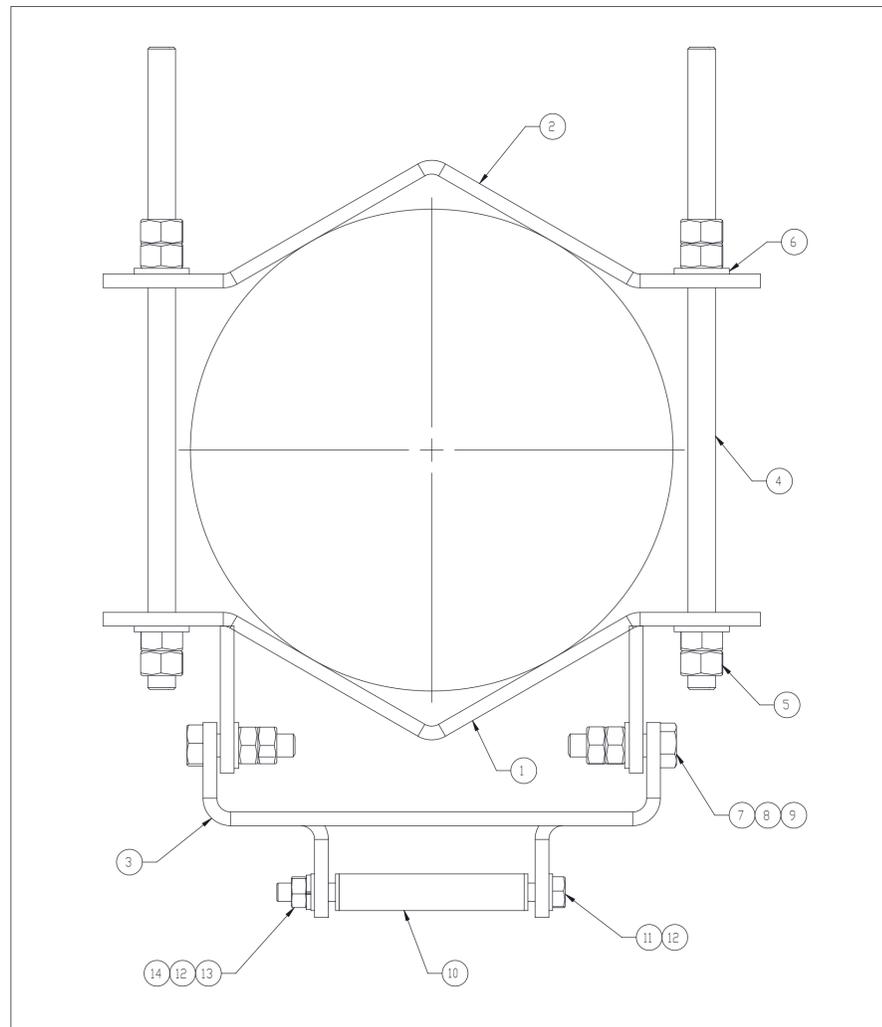


Figure 1. DB380-9 Pipe Mounting Kit.

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Qty.	Item	P/N	DESCRIPTION
2	1	016420-001	Pipe Bracket With Tabs
2	2	016179-002	Pipe Bracket Without Tabs
2	3	646173	Adapter Bracket
4	4	646317	M12 x 1.75 x 280 Thread Rod
16	5	100526-45	NUT,HEX,M12,STL,GALV
8	6	100521-47	WSHR,FLT,M12,13X24X2.5,STL,GALV
4	7	100534-405	SCR,HCS,HEX,M10X40,STL,GALV
4	8	100521-39	WSHR,FLT,M10,10.5X20X2,STL,GALV
8	9	100526-39	NUT,HEX,M10,STL,GALV
2	10	600679-3	Spacer Tube
2	11	600419-49	M8 x 1.25 x 120 mm SST Hex HD Bolt
8	12	204002-17	M8 SST Flat Washer
2	13	008009-042	M8 x 1.25 SS Hex Nut
2	14	204003-8	M8 SST Helical Split Lock Washer
1	15	095539-000	Installation Instruction Sheet

Table 1. DB380-9 Parts List.

SAFETY NOTICE

The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. CommScope installation instructions are written for such installation personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

CommScope disclaims any liability or responsibility for the results of improper or unsafe installation practices.

It is recommended that transmit power be turned off when the field installation is performed. Follow all applicable safety precautions as shown on this page.



Do not install near power lines. Power lines, telephone lines, and guy wires look the same. Assume any wire or line can electrocute you.



Do not install on a wet or windy day or when lightning or thunder is in the area. Do not use metal ladder.



Wear shoes with rubber soles and heels. Wear protective clothing including a long-sleeved shirt and rubber gloves.

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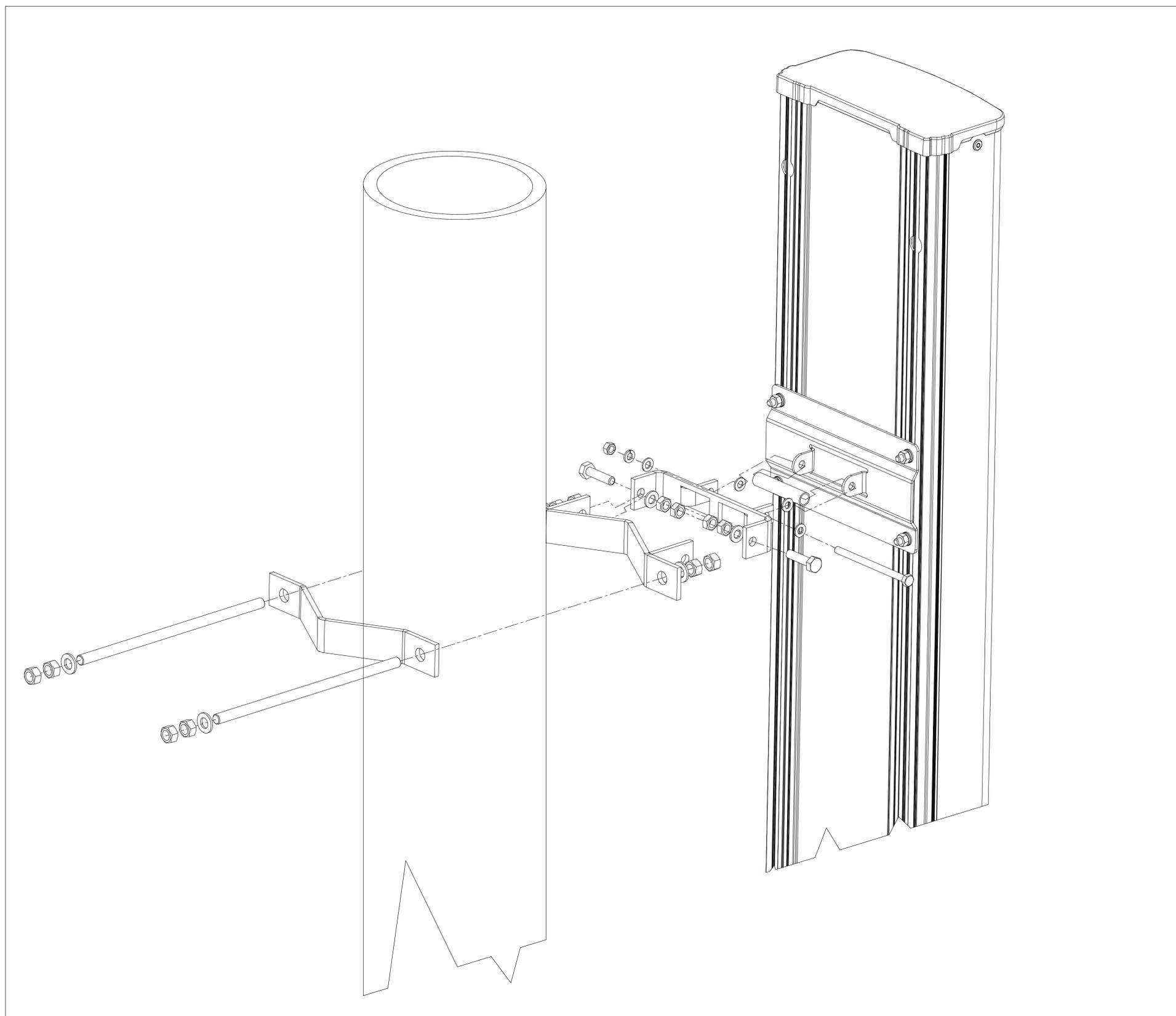


Figure 2. Mounting Antenna to Mast Using DB380-9 Pipe Mount Kit

4. Attach the adapter brackets (Item 3 in Table 1 and Figure 1) to the top and bottom brackets on the back of the antenna using the spacer and the M8 hardware (Items 10 through 14, Table 1, Figures 1 and 2).
5. Insert the M12 bolts into the pipe brackets with tabs (Item 1 in Table 1 and Figure 1) and attach using 2 M12 nuts (Item 5, Table 1, Figure 1) as shown in Figure 2.

Once the pipe bracket is attached to the antenna, there will not be enough room between the pipe bracket and the back of the antenna to feed the M12 bolts into the pipe brackets.

6. Using the M10 bolts, flat washers, and nuts (Items 7 through 9, Table 1, Figure 1), attach the pipe brackets with tabs to the antenna's adapter brackets (Figure 2).

One end of the antenna is labeled with an "up" arrow. This end should point upward when the antenna is mounted; this will allow the antenna's drain hole to point downward.

7. Bring the antenna into position on the tower. From the other side of the tower, feed the pipe brackets without tabs (Item 2, Table 1, Figure 1) onto the M12 bolts and secure with M12 flat washers and nuts. See Figure 2.
To avoid twisting the antenna, ensure that all the mounting clamps are aligned with each other (Figure 3). Securely tighten all hardware.
8. A check of the antenna VSWR as measured at the antenna is recommended at this point. Note this measurement carefully and record it for future reference.

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9. After the VSWR is checked, connect the station transmission line (not supplied) to the antenna. Make the connection snug, but do not apply heavy force with pliers.
10. To avoid moisture problems, carefully weatherproof all connections, covering all cracks and the outer jacket of the transmission line. Failure to waterproof the connection will result in improper operation of your antenna.
11. Secure the transmission line to the tower in the best position to avoid physical damage to the cable.
12. After the antenna and transmission line have been installed, a careful visual check should be made to ensure that:

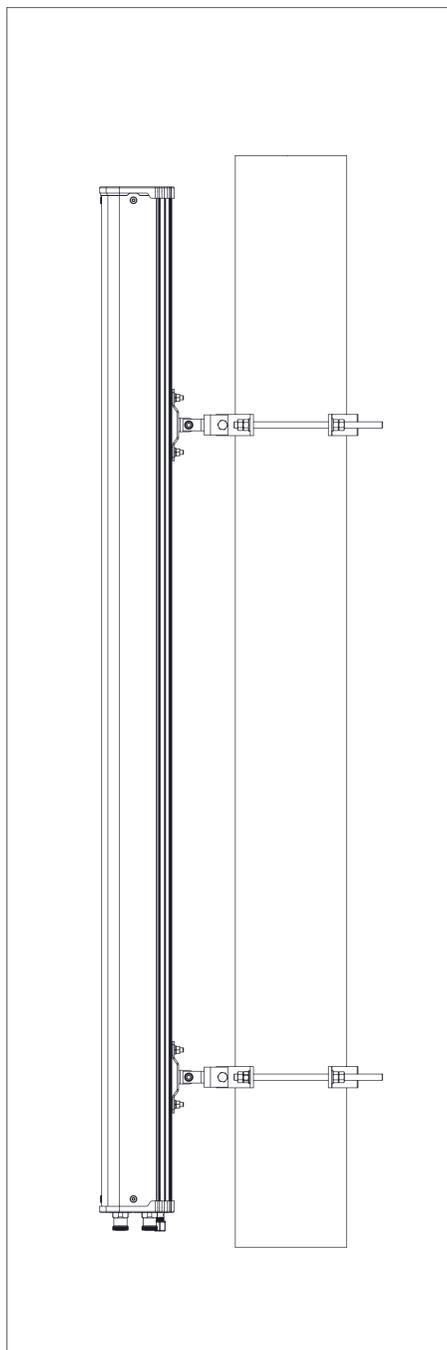


Figure 3. Aligning Mounting Clamps on Mast.

- All mechanical connections have been made and the antenna is mounted with sufficient physical clearance.
- The "up" arrow is pointing upward and the drain holes in the end cap are oriented downward.
- All connections have been carefully wrapped to prevent moisture problems.

MOUNTING MULTIPLE ANTENNAS

Up to three antennas can be mounted on a single mast; however, several factors must be considered to determine the proper mounting method. When two or three antennas are mounted on the same mast, the isolation is typically 45 dB or greater. The degree of offset around the mast combined with the diameter of the mast must also be considered.

When two or three antennas are mounted on a single mast, the mounting brackets prevent the antennas from being aligned on the same horizontal plane. As a result, the antennas must be "stagger-mounted" (i.e. each antenna should be mounted approximately 2 inches lower than the one above it on the mast). See Figure 4.

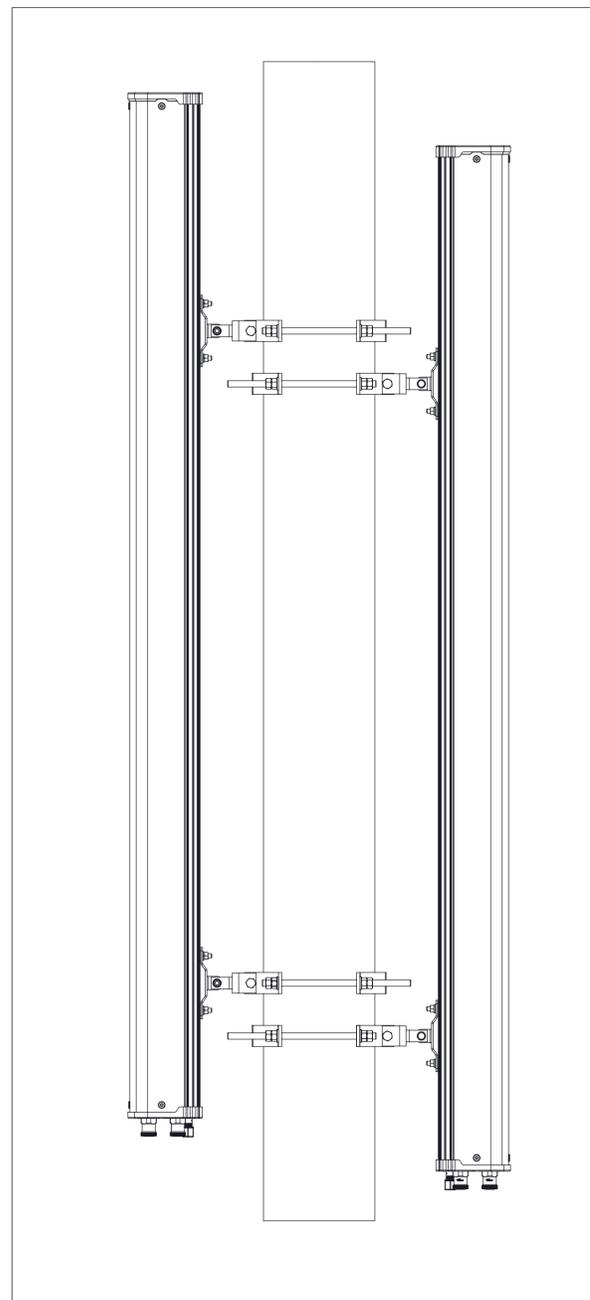


Figure 4. Two antennas "Stagger Mounted."

USING DB5083 DOWNTILT KIT WITH DB380-9 MOUNT

1. Follow the instructions included with the DB5083 downtilt kit to assemble the downtilt bracket.
2. Attach the adapter brackets to the antenna bracket as described in Step 4 of the DB390-9 Installation Instructions.
3. Attach the DB5083 bracket to the antenna's top adapter bracket using the M10 hardware provided with the DB380-9 kit (Figure 5).
4. Insert the M12 bolts into the pipe brackets with tabs as described in Step 5 of the DB390-9 Installation Instructions (Figure 5).
5. Attach one of the pipe bracket assemblies to the DB5083 bracket using hardware included with the DB5083 kit. Attach the other pipe bracket assembly to the antenna's bottom adapter bracket using the M10 hardware included with the DB380-9 kit (Figure 5).
6. With the downtilt links fully collapsed, follow step 7 of the DB380-9 Installation Instructions, leaving hardware loose enough to make downtilt adjustments.
7. Follow the instructions included with the DB5083 downtilt kit to set the downtilt angle.
8. Securely tighten all hardware.

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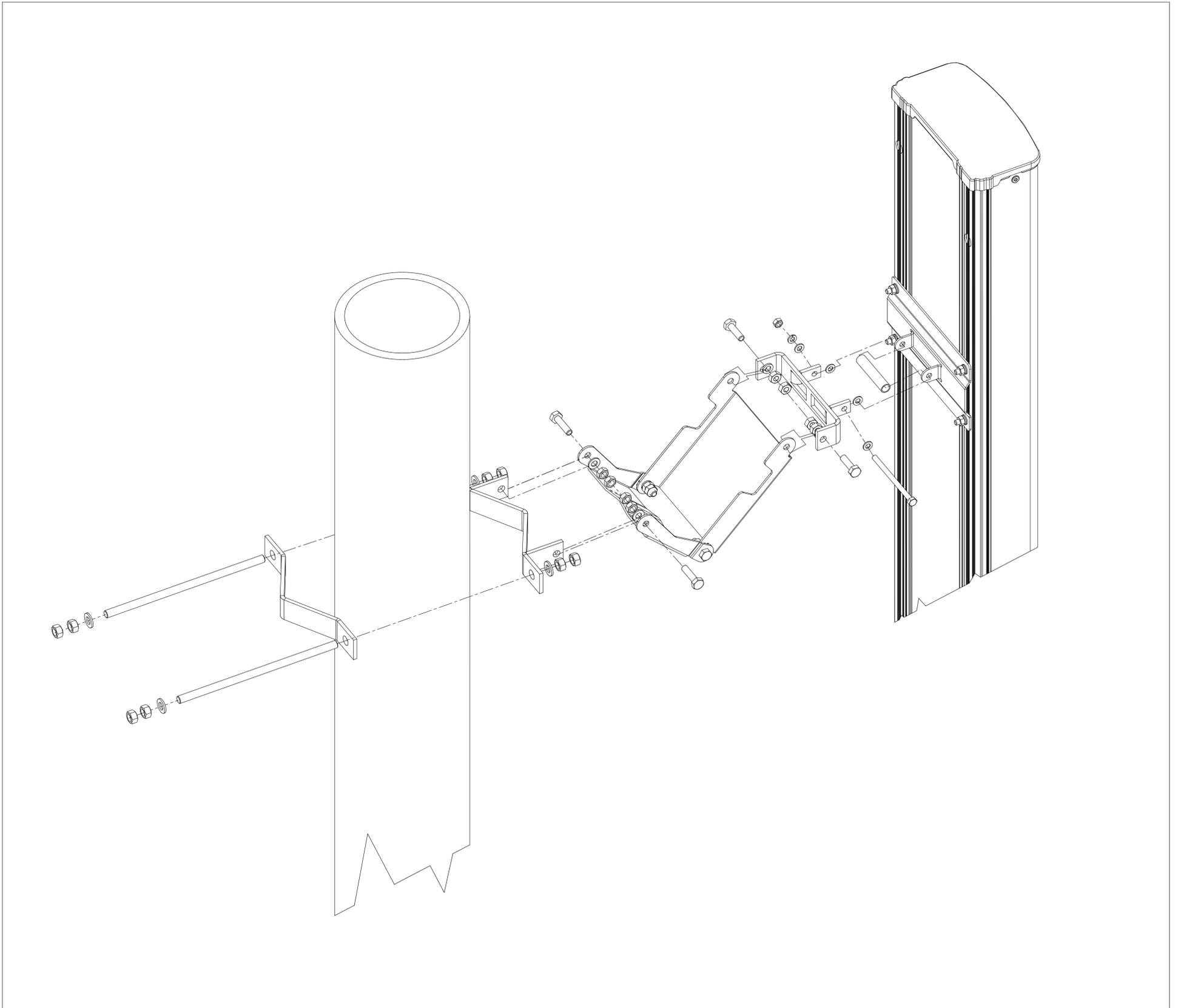


Figure 5. Downtilt Mounting Using DB380-9 Pipe Mount Kit with DB5083 Downtilt Kit.