



A TriPoint Global Company

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Revision C
Assembly Manual

3.8M C-BAND CIRCULAR POL Rx/Tx FEED SYSTEM

PRODELIN CORPORATION
1700 NE CABLE DRIVE
CONOVER, NC 28613-0368

3.8M C-BAND CIRC POL Rx/Tx FEED SYSTEM

C	Revised Hardware Table and Figure 1	2/26/99	<i>ROH</i>
B	Added WR137 to Figure 1 for clarity	12/15/97	PGW
A	Added note on page 1 for clarity	01-18-96	RF
	ORIGINAL RELEASE	11/28/95	R Frye
REV.	DESCRIPTION	DATE	APPROVED

Follow the instructions supplied with the antenna system to the point of feed support assembly and then refer to the instructions below for installation of the circular polarized feed assembly.

C-BAND CIRCULAR POLARIZED FEED INSTALLATION

Prodelin's 3.8m Rx/Tx antenna system is available in Left Hand or Right Hand Circular Polarized feed assemblies with type "N" or "WR137" transmit ports.

Note that the sense of polarization is relative to the transmit band of the feed assembly and not the antenna system. For instance, a left hand circular polarized feed assembly will transmit a left hand polarized signal which will strike the reflector and be reversed to a right hand uplink to the satellite. The feed is factory assembled for testing purposes but can be switched from left hand to right hand or vice versa in the field if necessary. To switch, remove the eight screws holding the OMT to the polarizer, rotate the OMT 90° so that the arrow on the OMT flange aligns with the correct marking on the polarizer flange (LHCP or RHCP), and replace the eight screws. Tighten securely.

Refer to figure 3.1-1 and the parts list for this section. Follow the instructions in the listed sequence. Do not tighten any hardware until instructed.

1. Place Feed Mounting Bracket (Item #2) on feed support and attach with 5/16-18 x 1.00 bolts, flatwashers, lockwashers, and hex nuts (item #5,6,7, 8). Tighten securely. Note that the smaller opening (2.75" dia) is for the feed horn and should be pointed toward the reflector.
2. Place the feed assembly (item #1) into the cradle of the feed mounting bracket and secure it by placing the feed horn top clamp (item #3) in position and attach it with (2) 1/4-20 x 2.50" bolts and lockwashers (item 10,11) . Then attach the circular polarizer top clamp (item #4) in position with (2) 1/4-20 x 3.50" bolts and lockwashers (item 9,10). Tighten securely. The antenna system is now ready to be aligned to the satellite.

C-BAND CIRCULAR POLARIZED FEED PARTS LIST

ITEM #	PART #	DESCRIPTION	QTY
1	0183-383	FEED ASSEMBLY, TYPE "N" CONNECTOR, L.H.	1
	0183-384	FEED ASSEMBLY, TYPE "N" CONNECTOR, R.H.	
	0183-385	FEED ASSEMBLY, "WR137" CONNECTOR, L.H.	
	0183-386	FEED ASSEMBLY, "WR137" CONNECTOR, R.H.	
2	0181-805	FEED MOUNTING BRACKET	1
3	0188-172	FEED HORN TOP CLAMP	1
4	0188-174	CIRCULAR POL TOP CLAMP	1
5	8031-008	5/16-18 X 1.00 BOLT	2
6	8202-041	5/16" LOCKWASHER	2
7	8101-009	5/16-18 HEX NUT	2
8	8201-041	5/16 FLATWASHER	4
9	8030-028	1/4-20 X 3.50 BOLT	2
10	8202-040	1/4" LOCKWASHER	4
11	8030-020	1/4-20 X 2.50 bolt	2

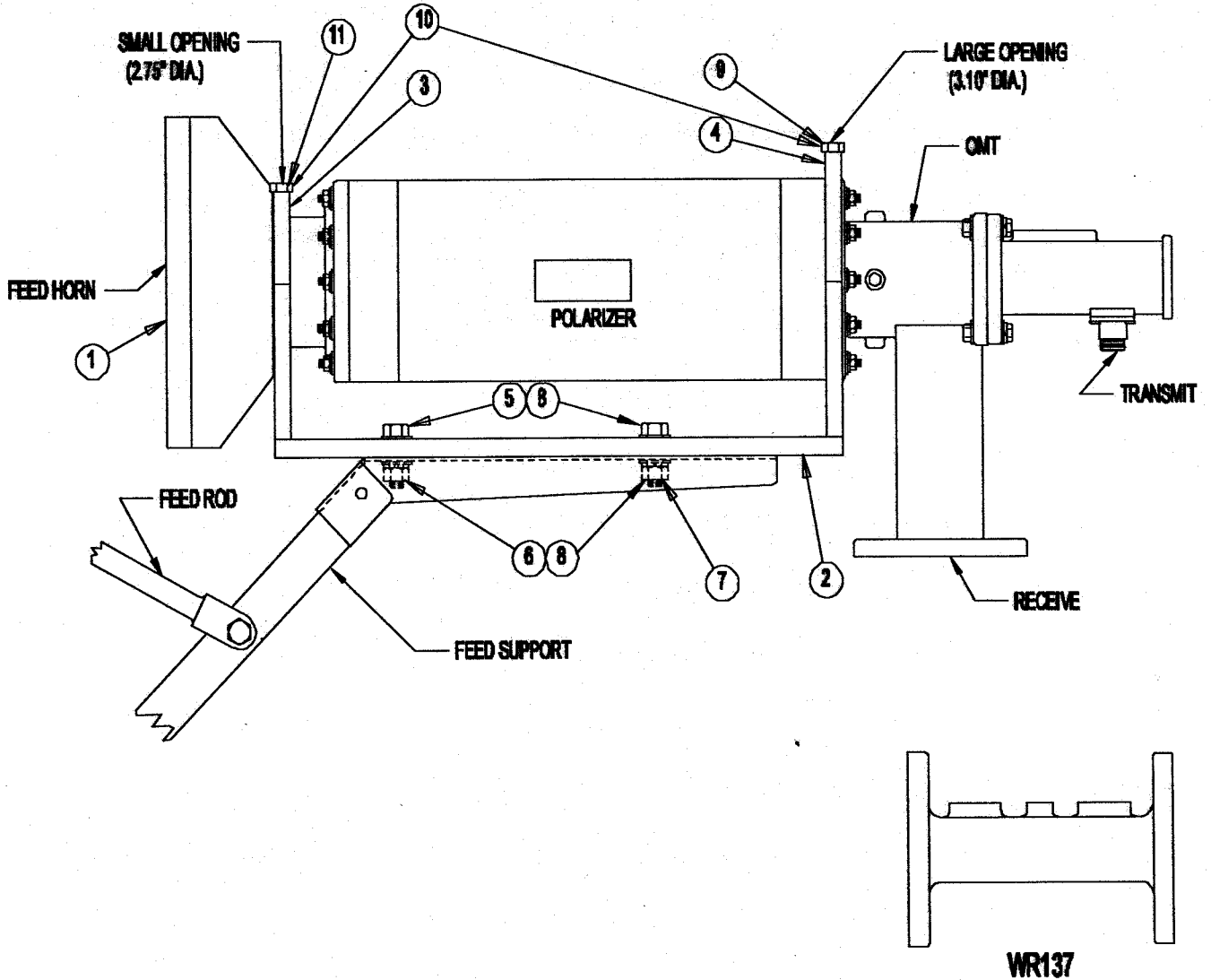


FIGURE 1

C-BAND LNB/LNA ATTACHMENT

1. Apply silicone grease to gasket (item#1) and place gasket in groove in flange of LNA/LNB (customer supplied), as shown below in figure 2.
2. Attach LNA/LNB to side port (Rx) flange of OMT with (10) 1/4-20 x 1.00" bolts, (10) 1/4" flatwashers, (10) 1/4" lockwashers, and (10) 1/4-20 hex nuts (items# 2,3,4,5).
3. Tighten 1/4" hardware securely.

PARTS LIST - C-BAND LNB/LNA ATTACHMENT			
ITEM #	PART #	DESCRIPTION	QTY
1	0171-073	GASKET, CPR WR2296 FLANGE HALF-THICK	1
2	8023-008	BOLT, 1/4-20 X 1.00" TYPE 304 S.S. STD.	10
3	8201-036	FLATWASHER, 1/4" S.S. STD.	10
4	8202-031	LOCKWASHER, 1/4" S.S. STD.	10
5	8100-005	NUT, HEX, 1/4-20 S.S. STD.	10

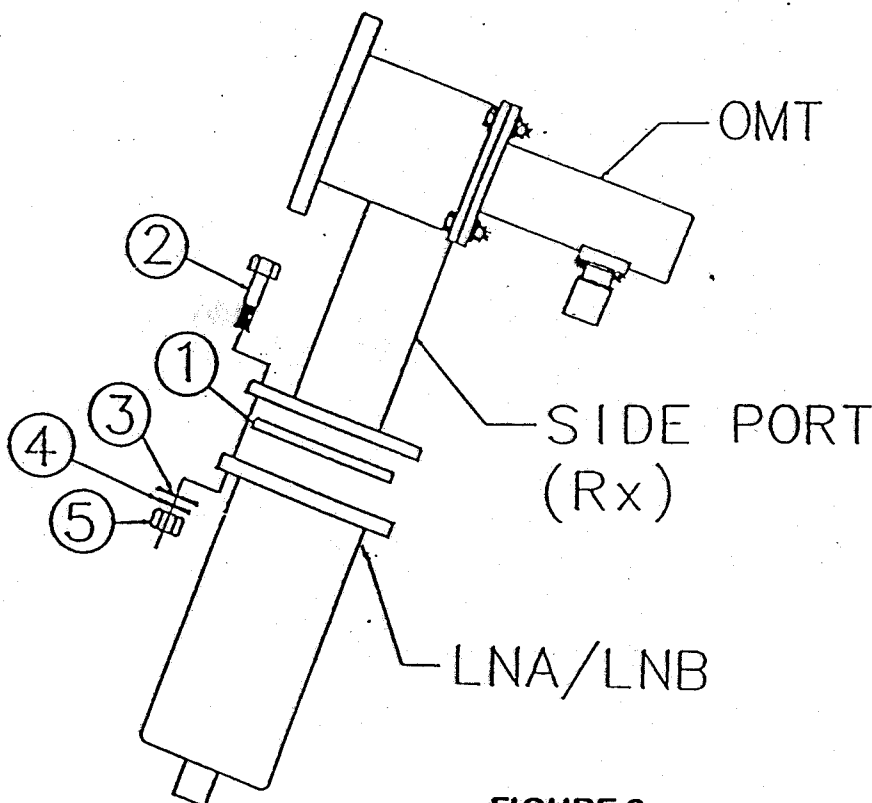


FIGURE 2