

# ***Progressive Concepts PCP Antenna Manual***

## **NOTICE:**

Please unpack the antenna VERY CAREFULLY. It has been precision tuned to your frequency at the factory. Carefully remove the antenna from the box being careful to not exert any undue force on the ring section and/or gamma section of the antenna. Follow Mounting Instructions below.

*NOTE: All PC series FM broadcast antennas are shipped by DIMENSIONAL Weight; actual weight of a single bay is 8 pounds. **Wind load of antenna is 23 pounds (0.86 square feet) per bay.** Specify your operating frequency when ordering as each antenna is factory adjusted to 1.1:1 SWR at your frequency FREE OF CHARGE. Input connector is N-Type.*

### **Mounting the antenna to a mast or tower**

You will notice two black lines on the antenna. Attach the two enclosed stubs to the antenna so that each stub is just touching the black line. The stub with a drain hole in it should be facing downward to let water drain out. The RF connector should be positioned on the bottom of the boom arm for correct orientation. The stub with a solid cap should be facing upwards. Lock both stubs in position by tightening the two Allen screws in each stub.

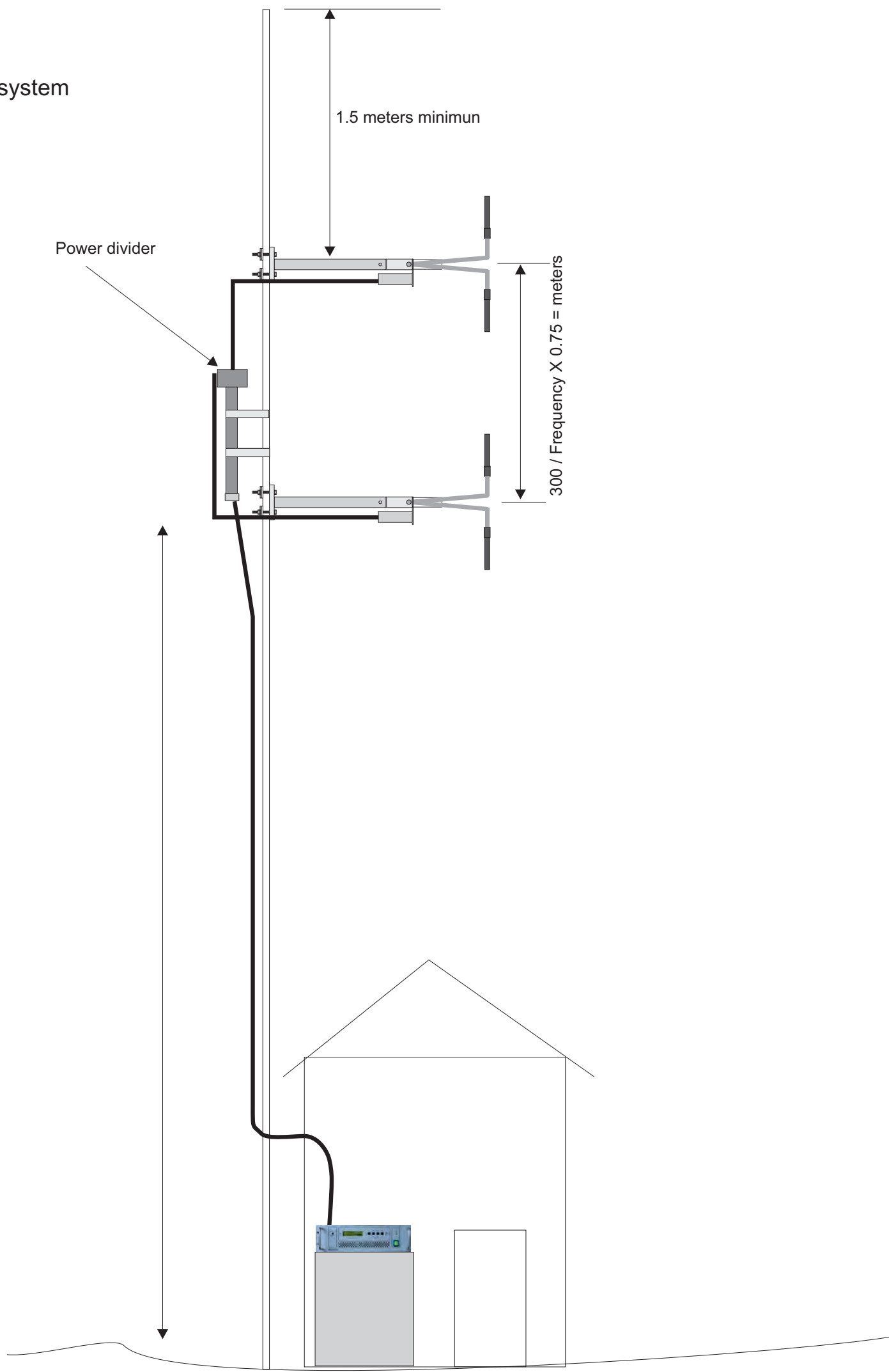
*Note: DO NOT MAKE ANY ADJUSTMENTS TO THE GAMMA MATCH, as this is factory set to your frequency. The gamma match is the flat strip of metal that is attached from the RF connector to the upper antenna element.*

Next, Bolt the antenna to a vertical section of a mast or tower using the enclosed hardware so that the stub of the ring antenna that has a sealed plastic cap on it is facing upward and the cap with a hole (drain) in it is facing towards the ground. Mast clamp fits 1" to 3" tower legs.

Gently unscrew the PVC shield from the N-Type RF connector and slide the PVC shield over the end of the coaxial cable. Attach the coaxial cable to the antenna connector and replace the PVC shield over the connector.

The antenna is now ready to be used.

2 elements system



Power divider

1.5 meters minimum

$300 / \text{Frequency} \times 0.75 = \text{meters}$

**FM**  
88-108 Mhz

## FM 88-108 MHz CIRCULAR POLARIZATION 800 W

*Narrow FM antenna. This antenna is design specifically for omni-directional low power applications. The antenna is Stainless steel made. The PCP has very good penetration. The antenna is demountable for shipping costs. Has a PVC protection for the connector. Stainless Steel, Brass teflon.*

# PCP-1

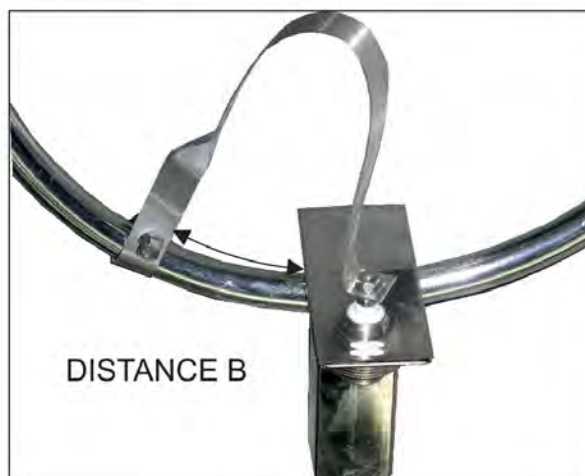


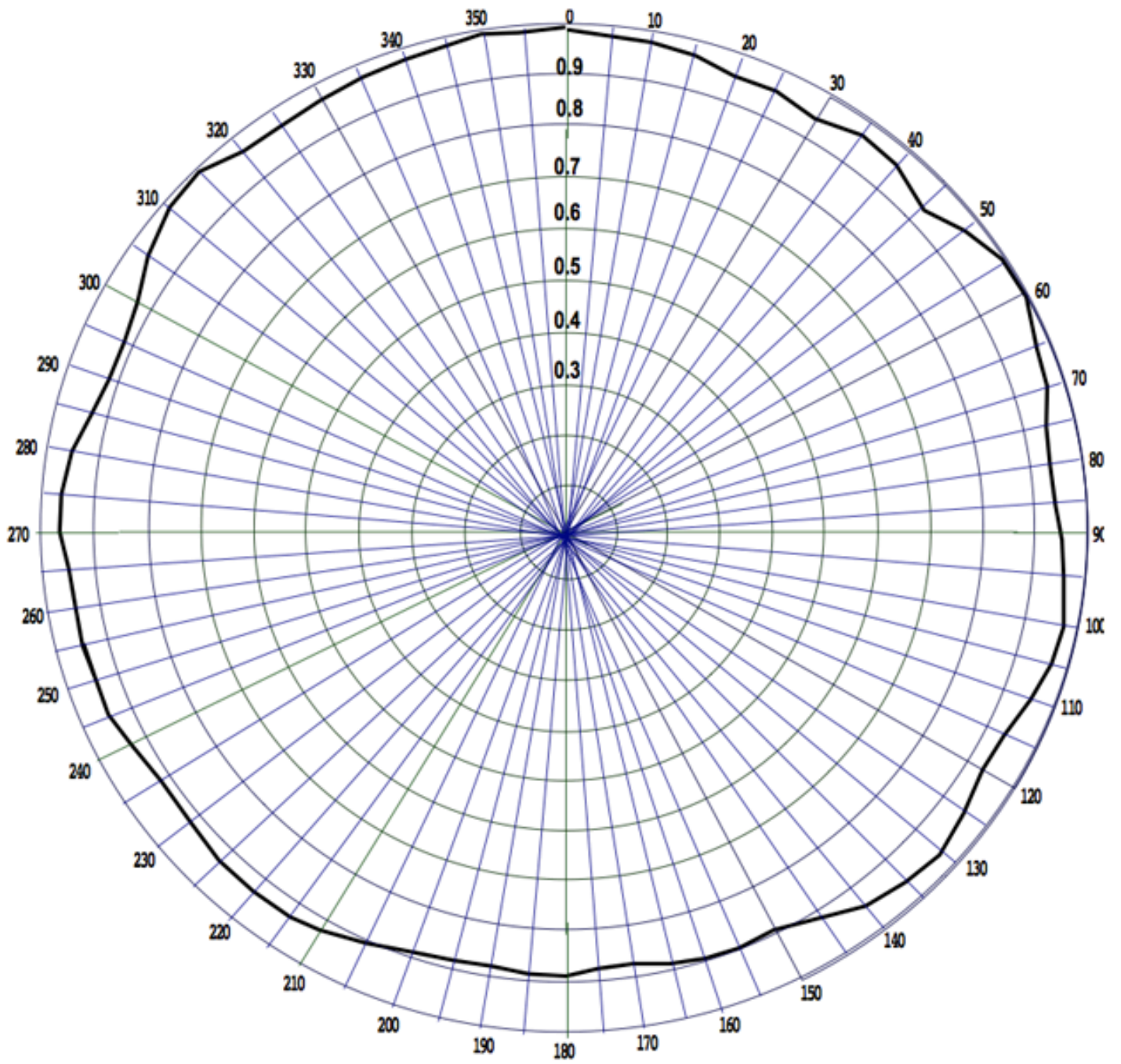
Model	# Bays	Gain	Max Power	Distance
PCP-1	1	-3 dBd	600w	-----
PCP-2	2	0 dBd	800w 1200w*	2,30 meters
PCP-3	3	1,6 dBd	800w 1800w*	4,60 meters
PCP-4	4	3,3 dBd	800w 2400w*	6,90 meters

Frequency range	87.5-108 Mhz Adjustable
Impedance	50 Ohms
Connector	N Female Or 7/16 Female
Mounting Brackets	30 mm a 90mm
Gain	-3dB
Material	Stainless steel, Brass, teflon
Wind Max Speed	170 Km -h
Polarization	180°H -3dB 90°V -3dB Circular Omni
Max Power Input	800 W (1500W 7/16 version)
V.S.W.R	1.5 or better: 1
Weight	3.5 Kg
Dimensions	900 X 290 X 400 a 900 mm
Lightning protection	Grounded

Column 1	Column 2	Column 3	Column 4
Mhz	STUBS 275 mm	STUBS 180 mm	Gamma
	MEASURE A	MEASURE A	MEASURE B
88	150mm		150mm
89	145mm		150mm
90	130mm		150mm
91	120mm		150mm
92	100mm		130mm
93	90mm		125mm
94	75mm		110mm
95	60mm		100mm
96	50mm		100mm
97	40mm		95mm
98	30mm		95mm
99	20mm		90mm
100		110mm	90mm
101		100mm	85mm
102		90mm	85mm
103		80mm	80mm
104		70mm	75mm
105		60mm	75mm
106		50mm	70mm
107		40mm	65mm
108		35mm	60mm

Measurements are approximate and may vary  
Tune and check the antenna prior to installation





**HORIZONTAL RADIATION PATTERN OF PCP1 (SINGLE) ANTENNA**