

230WB BOOMER AND 230VPK STACKING KIT



951296 (11/8)

SPECIFICATIONS 230WB

Forward Gain	18.5 dBd
Front to Back Ratio	24 dB
E-Plane Beamwidth	2 x 17°
H-Plane Beamwidth	2 x 9°
Side Lobe Attenuation	greater than 60 dB
SWR Less Than	1.2:1 typical
Impedance	50 ohms
Recommended Stacking Distance (boom to boom)	H-Plane 10'10" (3.3m)
Weight	22 lb. (10 kg)
Length	15 ft. (4.6m)
Turning Radius	10 ft. (3m)
Wind Survival	100 + MPH (160 + km/h)
Wind Surface Area	4.0 sq. ft. (.8 sq. m)

The 215VPK contains stacking boom and cables for two 215WB FM Boomers.

Your 230WB antenna contains tubing and hardware for two complete 215WB antennas, tubing and hardware for a 230VPK, plus a 230WB and 215WB instruction manual. When checking the parts for the 215WB with the instructional manual, you should double the quantities listed in the manual. The two antennas should be assembled first. The stacking boom can then be assembled and the antennas mounted to it as described in this manual.

STACKING BOOM PARTS LIST

Part No.	Description	Quantity
BD	48" x 1 3/4" (122 x 4.4 cm) .058 wall tubing	1
BE	48" x 1 5/8" (122 x 4.1 cm) .058 wall tubing	2
PD-2	Power Divider	1
	9 ft. (2.75 m) RG 8U Harness With Connectors	2

PARTS PACKAGE

Key No.	Part No.	Description	Quantity
63	170063	2" Vee Blocks	4
41	050041	1 5/8" (4.13 cm) Plastic Cap (Black)	2
115	050115	Connector Boot	1
116	240116	Silicone Package	5
118	010118	5/16" (.79 cm) Stainless Steel Hex Nut	8
119	010119	5/16" (.79 cm) Stainless Steel Lock Washer	8
404	010404	2 1/8" x 3" (5.5 x 2.6 cm) Stainless Steel U-Bolt	4
130	190130	6" x 6" (15.2 x 15.2 cm) Mounting Plate	1
414	010414	Large Stainless Steel Worm Clamp	2

WARNING: THIS ANTENNA IS AN ELECTRICAL CONDUCTOR, CONTACT WITH POWER LINES CAN RESULT IN DEATH, OR SERIOUS INJURY. DO NOT INSTALL THIS ANTENNA WHERE THERE IS ANY POSSIBILITY OF CONTACT WITH, OR HIGH VOLTAGE ARC-OVER FROM, POWER CABLES OR SERVICE DROPS TO BUILDINGS. THE ANTENNA, SUPPORTING MAST AND/OR TOWER MUST NOT BE CLOSE TO ANY POWER LINES DURING INSTALLATION, REMOVAL, OR IN THE EVENT PART OF THE SYSTEM SHOULD ACCIDENTALLY FALL. FOLLOW THE GUIDELINES FOR ANTENNA INSTALLATION RECOMMENDED BY THE U.S. CONSUMER PRODUCT SAFETY COMMISSION AND LISTED IN THE ENCLOSED PAMPHLET.

Assembly Instructions, 230WB and 230VPK

Assemble the two 215WBs following their instructions carefully. Be sure the clamps are very tight. Then assemble the 230WB stacking boom, figure 10. Mount the antennas on the ends of the boom with both T-Match assemblies on the same side of the 215WB booms. Be sure to follow the instructions given for the vinyl boots. Follow the same procedure for your 50 ohm feed cable and be sure to slide the vinyl boot over the cable before attaching the PL259 connector. Firmly tape the cables to the frame and tower.

FOUR STACKED FM BOOMERS SPECIFICATIONS

Forward Gain	21.5 dBd
Front to Back Ratio	24 dB
E-Plane Beamwidth	2 x 8 1/2°
H-Plane Beamwidth	2 x 9°
Side Lobe Attenuation	greater than 60 dB
SWR Less Than	1.2 x 1 typical
Impedance	50 ohm
Weight	44 lb. (20 Kg)
Length	15 ft. (4.6 m)
Turning Radius	10 ft. (3 m)
Wind Survival	100+ MPH (160+ km/h)
Wind Surface Area	8.4 sq. ft. (.90 sq. m)

Two 230WB, FM Boomers can be combined to form a four antenna array. Two 230WB Boomer Power Packs, and one model 22SK stacking kit are necessary. 22SK stacking kit consists of a PD-2 power divider and two 9 ft. (2.75 m) coax harnesses.

ASSEMBLY

Assemble both 230WBs following the above instructions. Mount the two 230WB booms one above the other spaced 10'10" apart. See figure 11. Mount the power divider from the 22SK in the center of your support mast. The feed cables in the 22SK should be connected between the PD-2 power divider and the feedpoints of the 230WB power divider. The 22SK feed cables should be coiled to take up excess cable. Firmly tape all cables securely to the frame and masts. Connect your 50 ohm feed cable. Be sure to use the vinyl weather protecting boots.

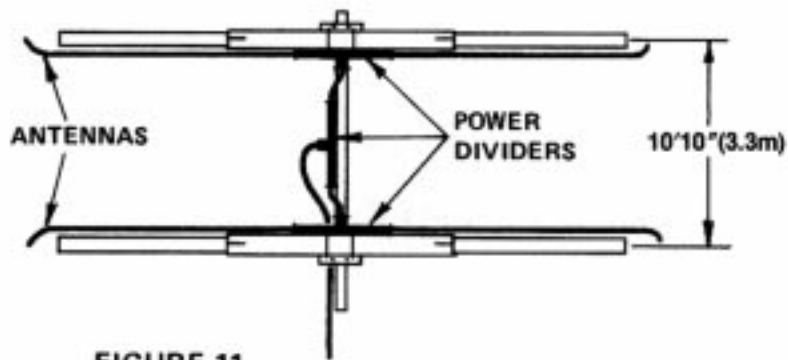


FIGURE 11

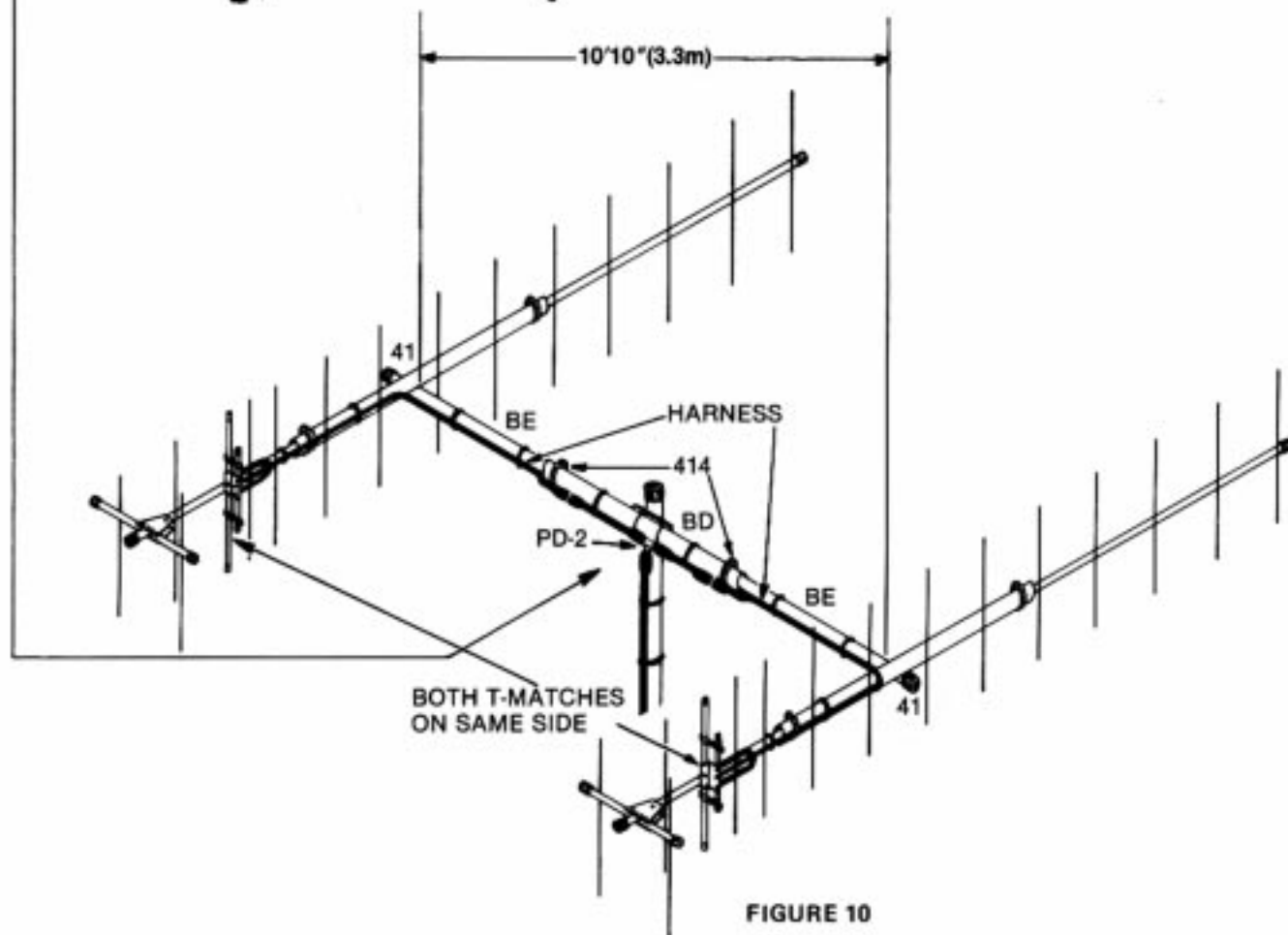
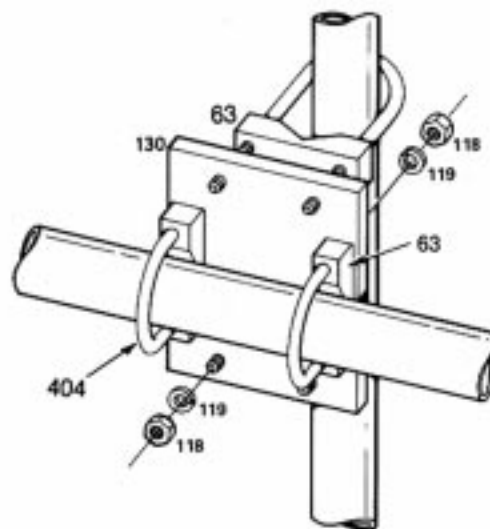
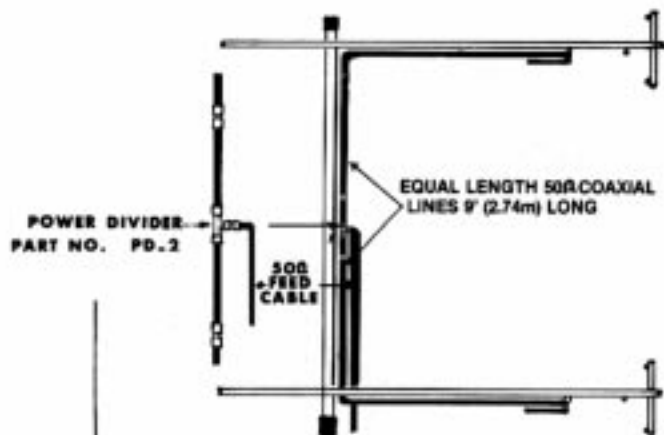


FIGURE 10

LIMITED WARRANTY

CUSHCRAFT CORPORATION, P.O. BOX 4680, MANCHESTER, NEW HAMPSHIRE 03108, WARRANTS TO THE ORIGINAL CONSUMER PURCHASER FOR ONE YEAR FROM DATE OF PURCHASE THAT EACH CUSHCRAFT ANTENNA IS FREE OF DEFECTS IN MATERIAL OR WORKMANSHIP. IF, IN THE JUDGEMENT OF CUSHCRAFT, ANY SUCH ANTENNA IS DEFECTIVE, THEN CUSHCRAFT CORPORATION WILL, AT ITS OPTION, REPAIR OR REPLACE THE ANTENNA AT ITS EXPENSE WITHIN THIRTY DAYS OF THE DATE OF THE ANTENNA IS RETURNED (AT PURCHASER'S EXPENSE) TO CUSHCRAFT OR ONE OF ITS AUTHORIZED REPRESENTATIVES. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES, ANY IMPLIED WARRANTY IS LIMITED IN DURATION TO ONE YEAR. CUSHCRAFT CORPORATION SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM A DEFECT. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSIONS OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. THIS WARRANTY DOES NOT EXTEND TO ANY PRODUCTS WHICH HAVE BEEN SUBJECT TO MISUSE, NEGLIGENCE, ACCIDENT OR IMPROPER INSTALLATION. ANY REPAIRS OR ALTERATIONS OUTSIDE OF THE CUSHCRAFT FACTORY WILL NULIFY THIS WARRANTY.



P.O. BOX 4680, MANCHESTER, N.H. 03108

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE