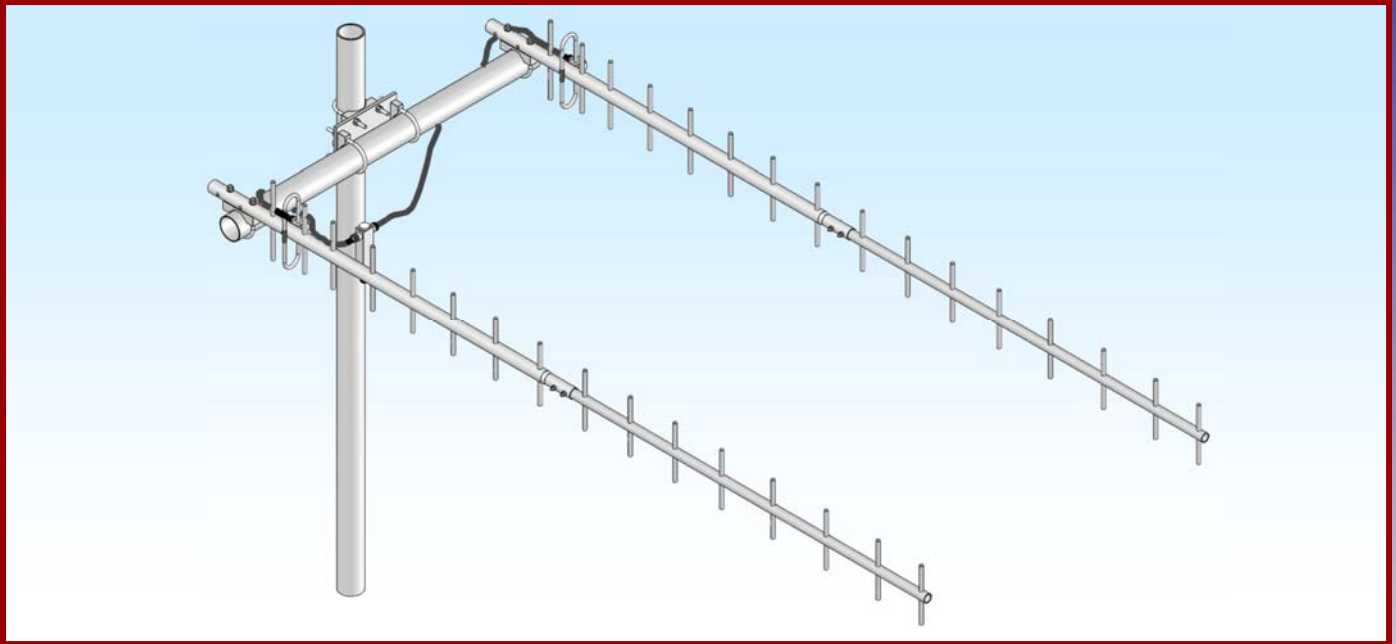




M2 Antenna Systems, Inc.

Model No: 900 ISP STACK KIT



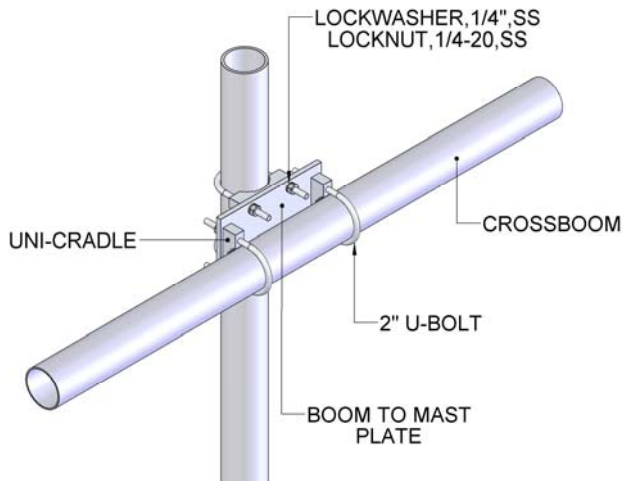
DESCRIPTION:

The **900 ISP Stack Kit** is a 2-Way Combiner for stacking two of the **915ISP** or **917ISP** antennas. When stacked at 22" for the **915ISP** and 27" for the **917ISP** apart in a vertical polarization, the stacking kit will increase the forward gain by 3.0 dB. Note— the beam width is about 1/2 the width of a single **915ISP** or **917ISP**. When using the kit, pointing accuracy becomes very important for best usage.

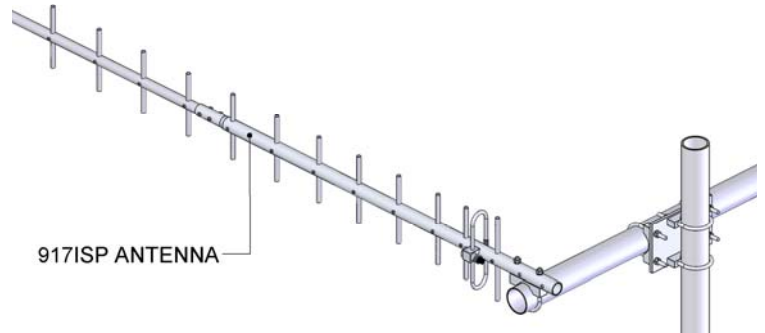
This kit also can be used for vertical stacking when Horizontal Polarization is desired. When Vertically stacked the Azimuth beam width is the same as one **915ISP15** or **917ISP**. It is very important to use the same polarization at each antenna point.

900 ISP STACK KIT ASSEMBLY MANUAL

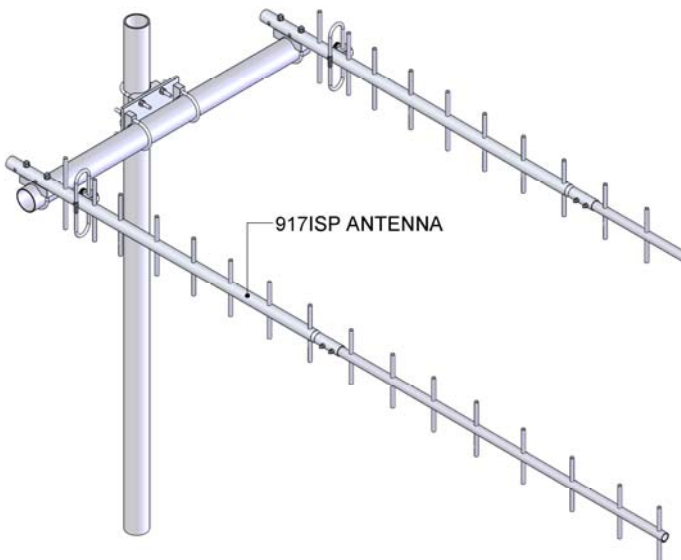
Tools needed for the assembly: 7/16 socket or wrench



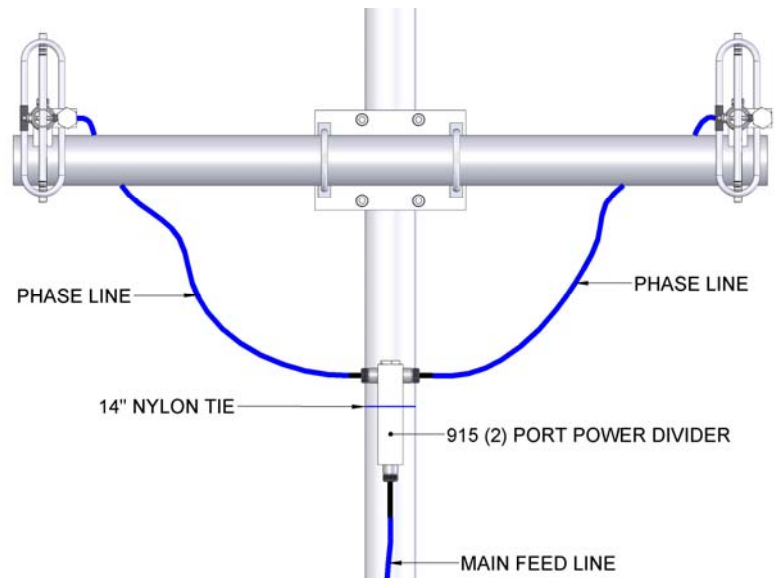
Attach the mounting plate to your vertical mast using U-bolts, Uni-Cradles, nuts and lock washers. Attach the 30" crossboom to the mounting plate using the same hardware. Make sure to center the boom. The total distance between the two antennas will be 27".



Attach your pre-assembled 917-ISP antenna to the left side of the 30" crossboom. Attach a phasing cable to the antenna and route over the crossboom and underneath.



Attach the other pre-assembled 917-ISP to the right side of the 30" crossboom. Now attach the other phasing cable to the antenna and route to the right of the crossboom and underneath. Note— Both dipoles must be on the same side of the boom for proper phasing. **DO NOT MIRROR.**



Attach the 915 (2) port power divider to the vertical mast using the supplied 14" nylon tie. Route each phasing line to the power divider and weather proof as needed. Now attach your main feed line to the power divider.

M² ANTENNA SYSTEMS, INC.

4402 N. SELAND AVE.

FRESNO, CA 93722

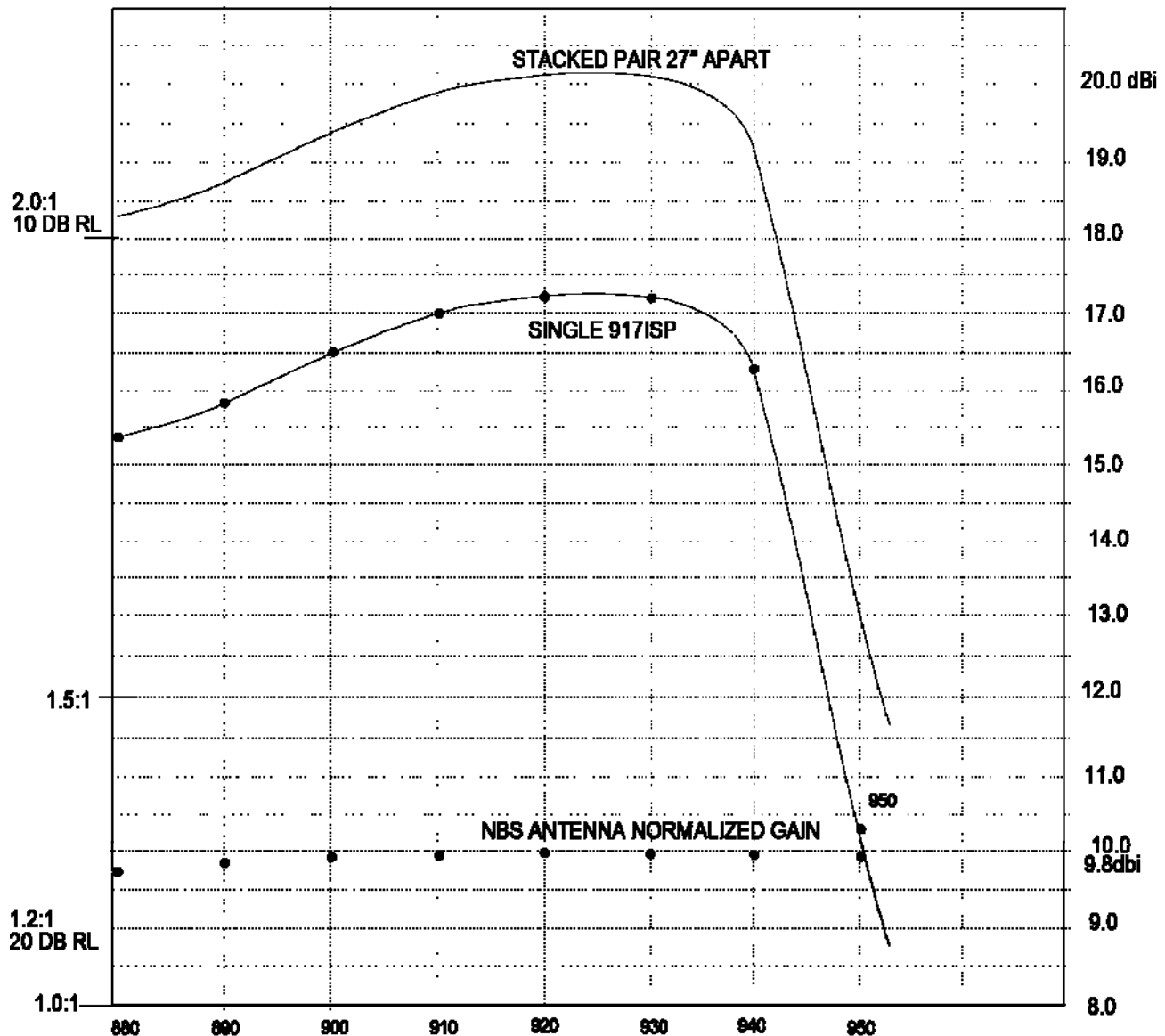
(559) 432-8873 FAX: 432-3059

www.m2inc.com Email: sales@m2inc.com

900 ISP STACK KIT GAIN CURVE SPECS

ANTENNA RANGE VSWR / GAIN PLOT

DATE: MAR. 13-2004
 ANTENNA UNDER TEST: 917ISP
 EQUIPMENT USED:
 WAVETEK SWEEPER, MODEL #2001
 WAVETEK 15" OSCILLOSCOPE
 HP 415E SWR METER.
 TELONIC RHOECTOR AND TELONIC CALIBRATED MISMATCHES
 WEINCHEL AND HP 50 OHM TERMINATIONS AND PADS.
 REFERENCE ANTENNAS NBS REFERENCE STANDARD GAIN DUAL DIPOLES OVER A
 1 LAMBDA REFLECTOR (NOMINAL 7.7 DBD*) DBI = DBD + 2.14 DB.



These are the actual gain curves taken using a pair of identical NBS reference standard antennas which were built to to NBS dimensions for use at 840-950 MHz.
 The curve above shows the normalized curve of one NBS as the source and one as the AJT (Antenna Under Test). Normalized means the gain curve is just 1/2 of the actual difference between the two standars as measured on the range.
 The nominal gain of the NBS reference standard is 9.84 dBi but actually peaks above 9.84 dBi by a few tenths of a dB.

900 ISP STACK KIT PARTS & HARDWARE

DESCRIPTION	QTY
CROSSBOOM 2" X .065 X 30" ALUM TUBE	1
U-BOLT, 2", SS	4
UNI-CRADLE	4
BOOM TO MAST PLATE, 4" X 6"	1
915 (2) PORT POWER DIVIDER	1
UHF-50 PHASING CABLE	2
HARDWARE:	
LOCKWASHER, 1/4, SS	8
NUT, 1/4-20, SS	8
NYLON TIE, 14"	2

M² ANTENNA SYSTEMS, INC.
4402 N. SELLAND AVE.
FRESNO, CA 93722
(559) 432-8873 FAX: 432-3059
www.m2inc.com Email: sales@m2inc.com