



177 DIXON RD.
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1421 MHz (HYDROGEN LINE) Loop Yagi, Model 2145LY

SPECIFICATIONS

Frequency Range:	1.40-1.44 GHz
Number of elements:	45
Boom Length:	132 inches
Boom diameter:	.75 inch
Mast diameter:	1 1/2 inch maximum
Weight:	3 pounds
Connector:	Type N female
Gain:	≈20.0 dBi
3 dB Beamwidth (E Plane) :	=16 °
F/B ratio:	>20 dB
Maximum Power:	400 W. average
Stacking distance:	22 inches vertical 24 inches horizontal

ASSEMBLY INSTRUCTIONS

- 1) Unpack antenna and locate the hardware package. Antennas are shipped in two sections, between directors 24 & 25. Remove D 25 from the front boom section and slide the two boom pieces together. Align the elements; replace D 25 and retighten. (D 25 is the element approximately 3" from the end of the boom section; it will only fit together one way.)
- 2) Attach the boom-to-mast "L" bracket to the swivel bracket with the hardware provided. (See diagram on opposite page. Polarization may be easily adjusted by loosening two worm clamps. Hydrogen line radiation is mostly randomly polarized.)
- 3) Attach the feed line and tape it to the bottom of the boom. The connector should be sealed with electronic grade RTV or equivalent. Don't forget to seal the area where the .141" semi rigid coaxial cable extends into the rear of the antenna connector.
- 4) Straighten any mis aligned elements and tighten hardware if necessary.
- 5) The antenna SWR has been adjusted for less than 1.5:1 at the factory. Additional tweaking can be accomplished by adjusting the distance between the driven element and R1 and D1, or by slightly adjusting the shape of the driven element.
- 6) If antennas are to be stacked, see "Instructions For Stacking Loop Yagis"



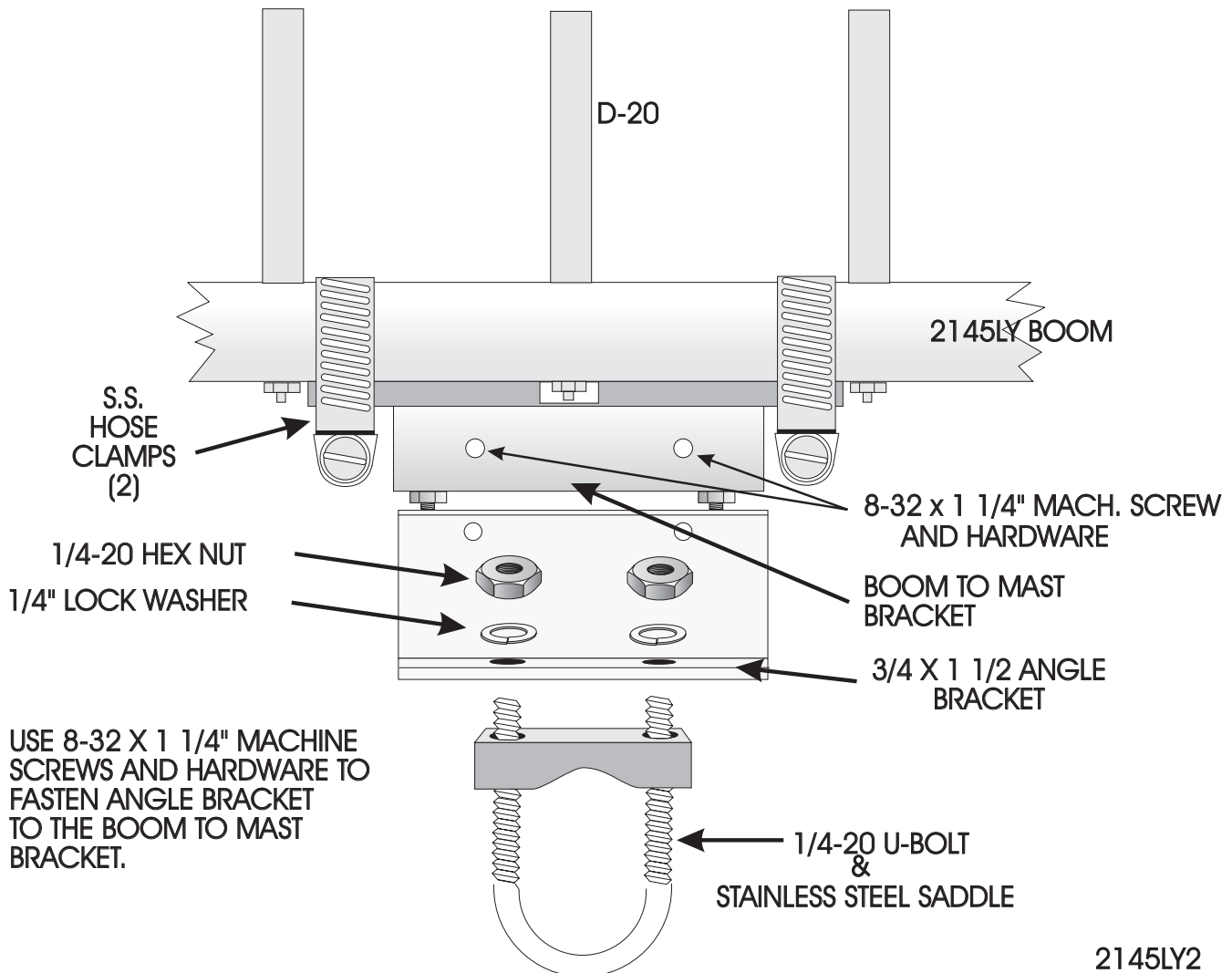
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1421 MHz Loop Yagi Model 2145LY MOUNTING

The 2145LY loop yagi (1421 MHz HYDROGEN LINE) is fitted with a special adjustable polarization mount so that your antenna polarization can be adjusted for best results. The mounting center for the antenna is at DIRECTOR 20. The 2145LY is provided with two stainless steel hose clamps that hold the boom to the Boom to Mast Bracket. The boom fits into a saddle on the bracket, and by loosening the clamps, the boom can be rotated nearly 90 degrees clockwise or counter clockwise. In this manner, the polarization of the antenna can be set to match that of the incoming signal for maximum reception. When max signal strength has been realized, tighten the two hose clamps to prevent further movement.

The mounting bracket allows elevation control when mounted on a horizontal support mast of up to 1 1/2 inches in diameter. See diagram below.



2145LY2