

Directive Systems & Engineering

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1691 MHz (OXYGEN LINE) Loop Yagi, Model DSE1844LY

SPECIFICATIONS

| | |
|---------------------------|--|
| Frequency Range: | 1.65-1.71 GHz |
| Number of elements: | 44 |
| Boom Length: | 108 inches |
| Boom diameter: | .75 inch |
| Mast diameter: | 2-inch maximum |
| Weight (Shipping) | 4 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: | 18 inches Vertical 20 inches Horizontal |

PARTS

Note: All hardware is Stainless Steel unless otherwise noted.

| | |
|---|-----------------------|
| 1 | Swivel Mount Assembly |
| 2 | 1" Hose Clamp |
| 1 | 1 ½" U-Bolt |
| 1 | Saddle |
| 2 | ¼-20 Hex Nuts |
| 2 | ¼" Lock Washer |
| 1 | Anti-Seize Compound |

Anti-Seize Compound - Apply a small amount of the supplied Anti-Seize Compound to the aluminum joints and to the threads of the U-Bolts to prevent galling.

BEFORE INSTALLING YOUR NEW ANTENNA, PLEASE BE SURE TO READ THE ENCLOSED WARNING PAMPHLET.

CAUTION: *While we strive to remove all burrs from all machined parts, there is always the possibility of sharp edges. We strongly suggest checking the edges and use a fine file, or 400 grit sandpaper, to remove any burrs that may have been left.*

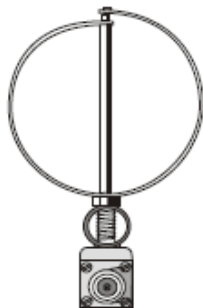


ASSEMBLY INSTRUCTIONS

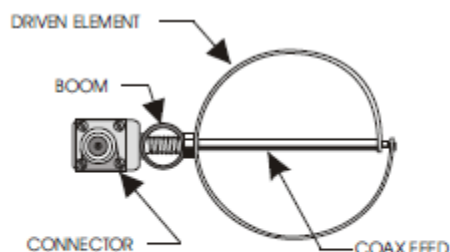
- 1) Unpack antenna and locate the hardware package. Antennas are shipped in three sections - the booms connect between directors 15 and 16 as well as 28 and 29. Remove D15 from the rear boom section, slide the boom pieces together, replace the D15 element, align and retighten; likewise, remove D28 from the middle boom section, slide the boom pieces together, replace the D28 element, align and retighten. Note the boom markings for correct assembly order.

2) Straighten any misaligned elements and tighten hardware if necessary. **But do not touch R1, DE or D1, as these are factory set.**

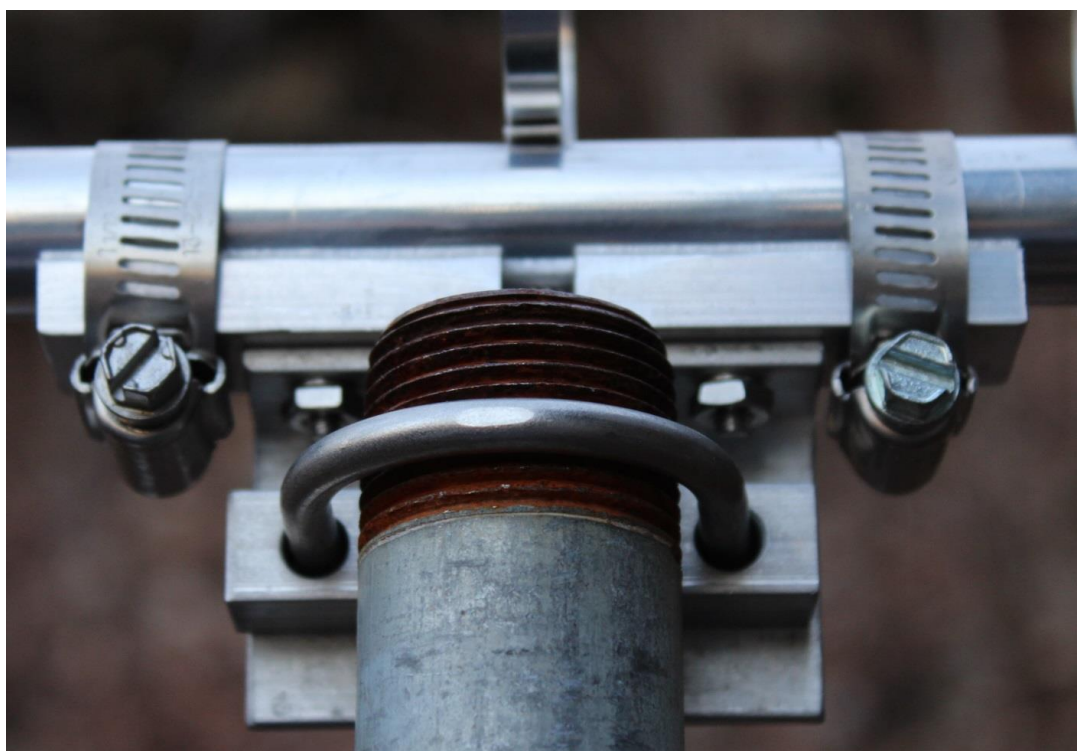
3) If the boom-to-mast "L" bracket isn't already attached to the swivel bracket, do so now with the hardware provided. (See diagram on opposite page. Polarization may be easily adjusted by loosening the two hose clamps. Hydrogen line radiation is mostly randomly polarized.)



**HORIZONTAL
POLARIZATION**
(Can be up or down)



**VERTICAL
POLARIZATION**
(Can be left or right)



4) Attach the feed line and tape it to the bottom of the boom. The connector should be sealed with electronic grade RTV or equivalent.

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. **NOTE: Do not attempt this adjustment unless the proper equipment and qualified personnel are available.**

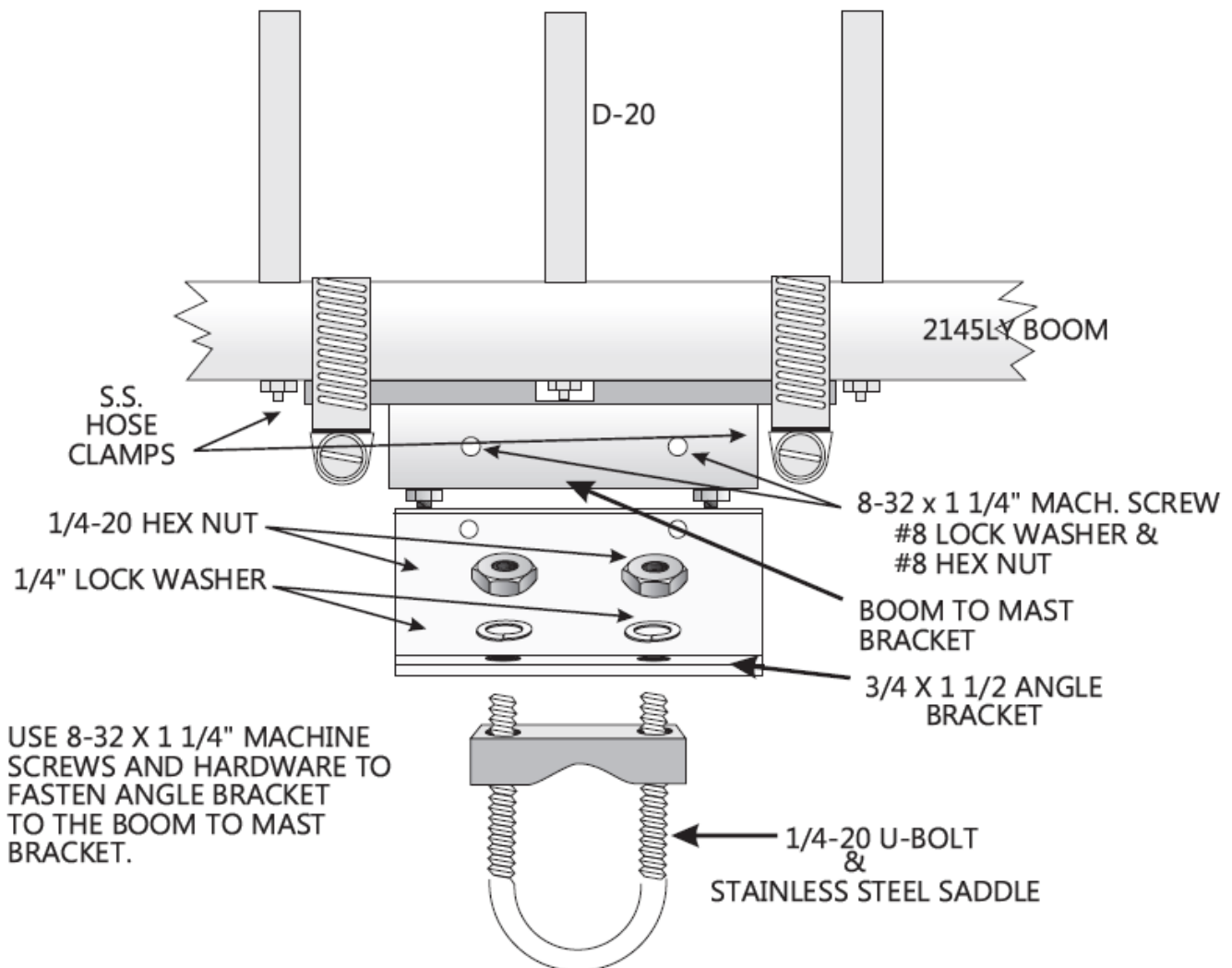
6) If antennas are to be stacked, see "Instructions for Stacking Loop Yagis"

DO NOT, UNDER ANY CIRCUMSTANCES, APPLY ANY TYPE OF SEALANT OR COATING TO THE DRIVEN ELEMENT, T-ARMS OR CONNECTOR ASSEMBLY, OTHER THAN KRYLON® CLEAR COAT. ANY OTHER COATING WILL ADVERSELY AFFECT THE SWR AND VOID YOUR WARRANTY.

1691 MHz Loop Yagi Model DSE1844LY Mounting

The DSE1844LY loop yagi (1691 MHz WEATHER LOOP YAGI) 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 and 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 performance.

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.



Directive Systems Warranty Policy

All Directive Systems antennas are built with the finest materials available. We take great pride in building a quality product that will give years of good service and performance. If there is a defect in materials or workmanship within 90 days of purchase, Directive Systems will repair or replace the defective part, free of charge, to the original purchaser. **DO NOT RETURN ANYTHING WITHOUT PRIOR AUTHORIZATION FROM DIRECTIVE SYSTEMS.** Please contact us either by phone or email describing the problem and we will work to resolve it.

If, after examining a new antenna you received, you are not satisfied, contact us immediately for return authorization and refund. **ANY ANTENNA THAT HAS BEEN MODIFIED WILL BE SUBJECT TO A RESTOCKING CHARGE. IF AN ANTENNA IS SO MODIFIED AS TO MAKE IT UNUSABLE, DIRECTIVE SYSTEMS RESERVES THE RIGHT TO REFUSE TO ACCEPT THE ANTENNA FOR RETURN.**