



DIRECTIVE SYSTEMS

177 DIXON RD.
LEBANON, ME. 04027
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903 MHz Loop Yagi, Model 3347LY

SPECIFICATIONS

Frequency Range:	880-920 MHz	Gain:	20.5 dBi
Number of elements:	47	3 dB Beamwidth:	
Boom Length:	216 inches	(E Plane:)	14.4°
Boom diameter:	1 inch	F/B ratio:	>20 dB
Mast diameter:	2 inch max.	Maximum Power:	550 W. average
Weight:	13 pounds	Stacking distance:	38 inches vertical
Connector:	Type N female		41 inches horizontal

PARTS LIST

<i>Quantity</i>	<i>Description</i>
3	Boom sections with elements attached
1	Hardware package
2	Sub boom splice shells 6 3/4 X 1"
2	sub boom sections 53" X 3/4" square
1	boom to mast plate for 2" U-bolts
2	Sub boom plates 3" x 4"
2	2" U-bolts with hardware & saddles

ASSEMBLY INSTRUCTIONS

- 1) The antenna is shipped in three boom sections. There are alignment marks to assure proper assembly. The mid boom has a long rectangular bracket attached. This is the midpoint of the antenna at D21. The front and rear sections have shorter 3 3/4" brackets attached at D13 & D33. Please assemble the three sections together so that the alignment marks match. You will have to remove D 17 and D-31 and insert the boom sections into one another, then re install the two loops and re tighten the 4-40 hardware. A 1/4" nut driver is required for this.
- 2) Locate the two 53" sub boom pieces, and note that the rear 53" section has six holes, and the front section has only four. Check Figure 1 for the correct assembly layout, and lay out the parts in order. Note that the clamshell brackets have alignment marks to assure proper assembly.
- 3.) At this time assemble the two piece 3/4" sub boom using the supplied 1 1/4" hardware and clamshell brackets, and do not tighten just yet. Attach the two 3" x 4" sub boom plates (small ones, with no u-bolt holes) to the sub boom ends, and the short BM brackets on the main boom at D13 & 33, using the 8-32 X 1 1/4" screws provided. Do not make them tight yet. Position the 3.5" x 4" boom to mast plate with u-bolt holes, at D21 and the large BM Bracket. fasten the plate with four 4-40 X 1 1/4" machine screws, nuts and lockwashers. This is the balance point of the antenna. Attach the two 2" stainless U-bolts in the boom to mast plate now.
- 4.) Support the 3347LY on it's support mast, with the 2" u-bolts and adjust the main boom until the boom sag is minimized. Tighten the hardware to lock the sub boom plates in place. There should be hardly any sag in the boom when this is accomplished. Attach the feedline and tape it to the bottom of the boom. Seal all coax connections with butyl rubber, silicone RTV or equivalent. Coat the back of the female N connector on the antenna as well.
- 5) The SWR should be 1.3:1 or better. Additional tweaking can be accomplished by adjusting the distance between the driven element and R1 or by adjusting the shape of the driven element.



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ASSEMBLY OF 903 MHz LOOP YAGI, MODEL 3347LY

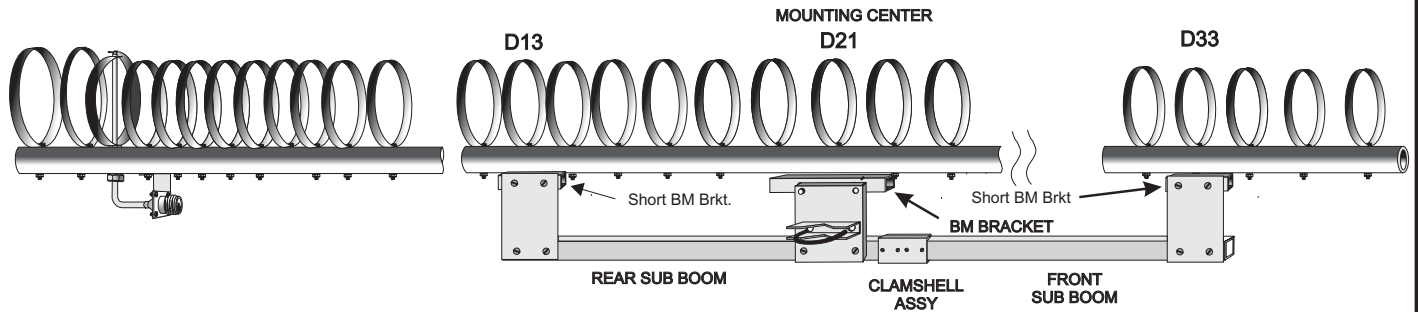


FIGURE 1.

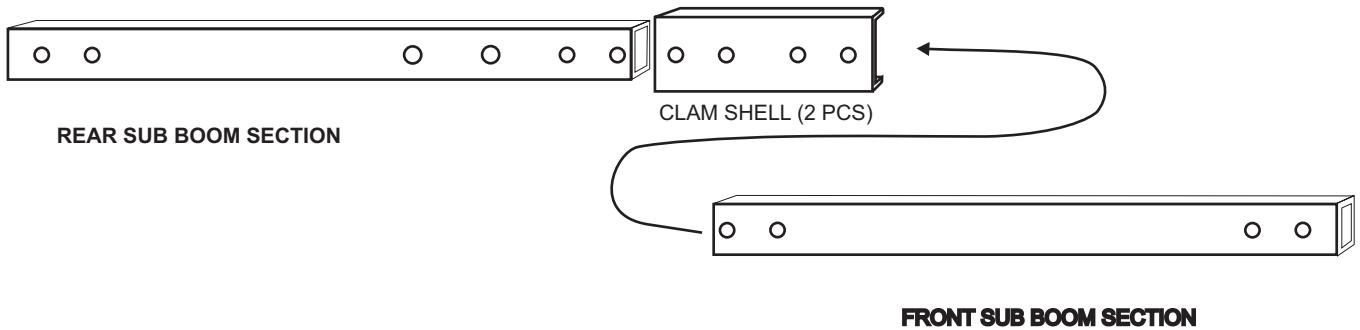


FIGURE 2.

The sub booms have alignment marks where they attach to the clamshell brackets. This ensures that the bracket and sub boom holes will line up properly. Note that the holes on the back end of the rear piece, and the front end of the front piece are about 1" in from the end of the sub boom. The hole on the clamshell side will be about 1/2" in from that end. Be careful when assembling so that the sub boom is assembled properly. Refer to figure 2, while assembling the sub boom. When completed, it will attach to the two sub boom plates at D13 & D33. When the sub boom has been installed and the boom aligned to eliminate droop, you may then tighten all of the 8-32 hardware to lock the pieces in position.

PARTS BAG CONTENTS

QUANTITY	DESCRIPTION
16	8-32 X 1 1/4" stainless steel machine screw
16	8-32 stainless steel hex nut
16	#8 Stainless steel split lockwasher