



DIRECTIVE SYSTEMS

177 DIXON RD.
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1296 MHz Loop Yagi Kit, Model 2355LYK

SPECIFICATIONS

Frequency range:	1.25-1.30 GHz	Gain:	21 dBi.
Number of elements:	55	3 dB Beamwidth	
Boom Length:	180"	(E Plane)	14°
Boom Diameter:	1 Inch	F/B ratio:	≥20 dB
Mast diameter:	1 1/2 inches max	Maximum power:	550 watt average
Weight:	6Lbs. Assembled	Stacking Distance:	27" vertical
Connector:	Type N female		30" horizontal

PARTS LIST

<i>Quantity</i>	<i>Description</i>	<i>Quantity</i>	<i>Description</i>
3 pcs.	drilled boom 1" dia.	12	directors 24-35
1	reflector 1 1/4" wide	7	directors 36-42
1	reflector 2 3/8" wide	10	directors 43-52
1	driven element	1 pkg	4-40 & 8-32 stainless steel hardware
4	directors 1 - 4 (1/4" wide)	1	boom to mast bracket
7	directors 5-11 (3/8" wide)	1	boom to mast plate
6	directors 12-17	1	U-bolt with nuts, washers & saddle
6	directors 18-23	1	cable assembly with connector

ASSEMBLY INSTRUCTIONS

1. Attach loops to the boom with 4-40 screws nuts & lockwashers in proper sequence. Loops go on the side of the boom marked with an "X" or "top". The three piece boom is spliced between D22 & D23 and D42 & D43. The boom is fastened together by the mounting screws for these elements. When tightening the nuts on the parasitic directors, be careful not to torque them too tightly. Snug down the nuts, align the elements and use a screwdriver for final tightening. A 1/4" nutdriver is almost mandatory for this job! Attach the brass driven element with the 5/16" nut provided. If only a single antenna is being built, it does not matter which way the loop is oriented. If antennas are to be stacked, see "INSTRUCTIONS FOR STACKING LOOP YAGIS" sheet.

2. Attach the boom to mast plate and BM bracket.(square tubing piece.) Use 8-32 X 2" hardware for BM bracket, and 8-32 X 1 1/4" hardware to attach mast plate to BM bracket. The mounting center is D24 on the middle boom piece. Install U-Bolt so that the mast comes up directly under the boom.

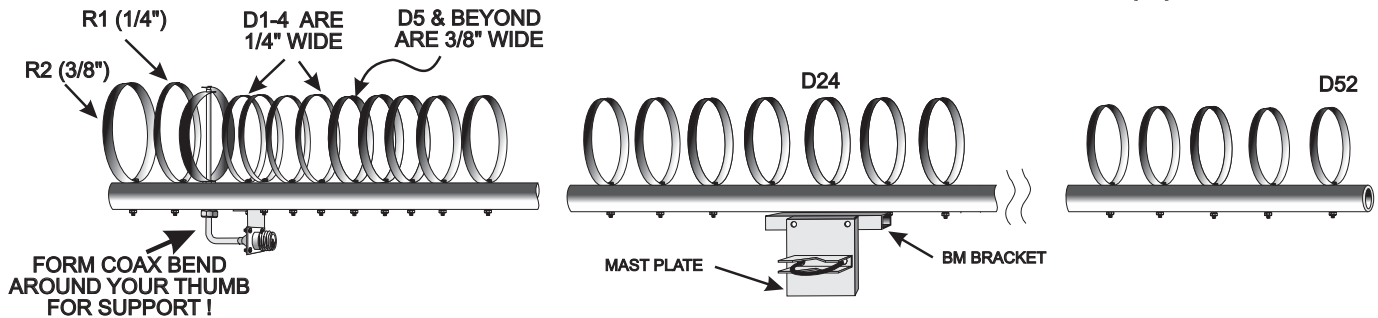
3. Install the cable assembly thru the driven element mounting bolt and solder the loop ends to the coax. Allow a 0.250" gap. Solder the inner conductor first. Bend the connector assy forward using your thumb as a support guide to prevent the coax from crimping as you bend it. Secure the connector bracket assy to the boom.(The bracket is secured by the nut & screw for D-1.) Attach the feedline and tape it to the bottom of the boom. Seal all connections with silicone RTV or equivalent.



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DIMENSIONS OF 1296 MHz LOOP YAGI, MODEL 2355LY(K)



Element	Spacing From end of boom	Circumference	Element	Spacing from end of boom	Circumference	Element	Spacing from end of boom	Circumference
R2	0.00	9.794	D16	48.72	8.102	D34	112.80	7.740
R1	3.10	9.850	D17	52.28	8.102	D35	116.36	7.740
DE	4.05	9.386	D18	55.84	7.841	D36	119.92	7.640
D1	5.17	8.405	D19	59.40	7.841	D37	123.48	7.640
D2	6.00	8.405	D20	62.96	7.841	D38	127.04	7.640
D3	7.78	8.405	D21	66.52	7.841	D39	130.60	7.640
D4	9.56	8.405	D22	70.08	7.841	D40	134.16	7.640
D5	10.81	8.356	D23	73.64	7.841	D41	137.72	7.640
D6	13.12	8.356	D24	77.20	7.740	D42	141.28	7.640
D7	16.68	8.356	D25	80.76	7.740	D43	144.84	7.540
D8	20.24	8.356	D26	84.32	7.740	D44	148.40	7.540
D9	23.80	8.356	D27	87.88	7.740	D45	151.96	7.540
D10	27.36	8.356	D28	91.44	7.740	D46	155.52	7.540
D11	30.92	8.356	D29	95.00	7.740	D47	159.08	7.540
D12	34.48	8.102	D30	98.56	7.740	D48	162.64	7.540
D13	38.04	8.102	D31	102.12	7.740	D49	166.20	7.540
D14	41.60	8.102	D32	105.68	7.740	D50	169.76	7.540
D15	45.16	8.102	D33	109.24	7.740	D51	173.32	7.540
						D52	176.88	7.540

Note: All dimensions are in inches

The boom diameter is 1 inch, and it is drilled for 4-40 hardware (no. 33 drill bit). The driven element hole is 5/16 inch dia. All elements are 0.032 inch thick and 0.375 inch wide except R1 & D1 thru 4 which are 0.250" wide. Note that the element spacing from D7 on is 3.560 inches. The driven element is installed in the 5/16" hole in the boom. The feed coaxial cable (0.141 inch semi rigid) goes through the mounting bolt and is formed in a 90 degree bend so that the connector bracket can be bolted to the boom at Director #1 using the D1 hardware. The connector end is soldered to the open ends of the brass element. Allow a 1/4" gap at the feedpoint. For best match, the driven element should be approximately 2 3/4 inches high; this makes it wider than it is tall. This shape

