

## Type RLA000-18 Universal Spring Hanger for ERI Rigid Transmission Line Combiners

### Description

ERI Type RLA000-18 Universal Spring Hanger is designed for supporting tower-mounted combiners and similar components attached to ERI rigid transmission line. It allows for up to  $\pm 3$  inches of vertical movement of the load due to thermal expansion of the line. One hanger will support a load between 50 and 125 pounds. For loads greater than 125 pounds, additional hangers may be used in parallel.

Attachment eye-bolts provide up to 8 inches vertical adjustment of spring extension.

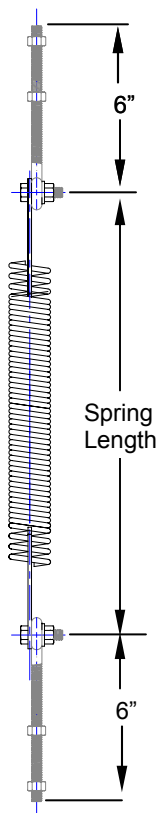


Figure 1. RLA000-18 Hanger

### Notice

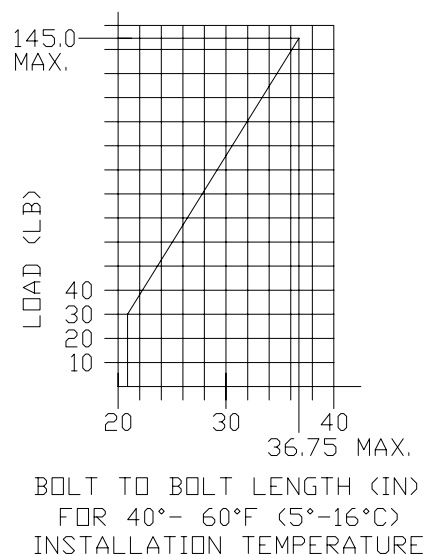
The installation, maintenance, or removal of antenna and transmission line systems requires qualified, experienced personnel. ERI installation instructions have been written for such personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

ERI disclaims any liability or responsibility for the results of improper or unsafe installation practices.

**Note:** If no holes are available for hanger attachment, contact the tower manufacturer for applicable safety regulations regarding the drilling of any holes in tower sections.

### Spring Length Setting Procedure

1. Determine the load to be placed on each hanger. This information is normally provided by the equipment supplier.
2. Use the Graph below to find the bolt-to-bolt length of the spring for this load. Alternatively, calculate the length by taking four times the load, divide by 29, then add on  $16 \frac{3}{4}$ ". As a typical example, for a 75 pound load, the bolt to bolt length would be  $4 \times 75 / 29 + 16 \frac{3}{4} = 10.34 + 16 \frac{3}{4} = 27 \frac{1}{8}$ ".
3. The distance between the attachment point on the load and the overhead steel-work should be about 6" more than this length.
4. If the hanger is to be installed and adjusted outside the temperature range 40-60 F, use the chart below to add on (or subtract for low temperatures) the specified amount to the bolt-to-bolt length to allow for the tower height and the installation temperature.
5. Attach the hanger then adjust the nuts at either or both ends to set the bolt-to-bolt length to the value determined in step 4. above. Tighten the nuts to 21 lbf-ft.



Graph 1

**Spring Length Correction - inches (mm)**

Line Height Ft. (m)	Ambient Temperature, °F (°C)				
	0 to 20 (-18 to -7)	20 to 40 (-7 to 4)	40 to 60 (4 to 16)	60 to 80 (16 to 27)	80 to 100 (27 to 38)
0-200 (0-61)	0	0	0	0	0
200-400 (61-122)	-¼ -10	-¼ -5	0	¼ 5	¼ 10
400-600 (122-183)	-½ -15	-¼ -10	0	¼ 10	½ 15
600-800 (183-244)	-¾ -20	-½ -10	0	½ 10	-¾ 20
800-1000 (244-305)	-1 -30	-½ -15	0	½ 15	1 30
1000-1200 (305-366)	-1¼ -35	-¾ -15	0	¾ 15	1¼ 35
1200-1400 (366-427)	-1½ -40	-¾ -20	0	¾ 20	1½ 40
1400-1600 (427-488)	-1¾ -45	-1 -25	0	1 25	-¾ -45
1600-1800 (488-549)	-2 -50	-1 -25	0	1 25	2 50
1800-2000 (549-610)	-2¼ -60	-1¼ -30	0	1¼ 30	2¼ 60

Inches are rounded to the nearest ¼; mm to the nearest 5.