Installing a Spring Hanger on 4-1/16" Coax Line

The Shively Labs spring hanger assembly for 4-1/16" coax is made in three pieces, plus the hardware to assemble them. The spring hanger bolts firmly to the tower or other support member and loosely encircles the line. The hose clamp support clamps to the line. The Spring connects the two and allow them to move relative to each other.

Before you can begin installation, you must prepare the tower by drilling holes for the spring hanger bolts. Figure 1 shows the "footprint" of each spring hanger. Spring hanger should be located approximately ten feet apart vertically, so that each ten feet of line will be supported by a spring hanger assembly.

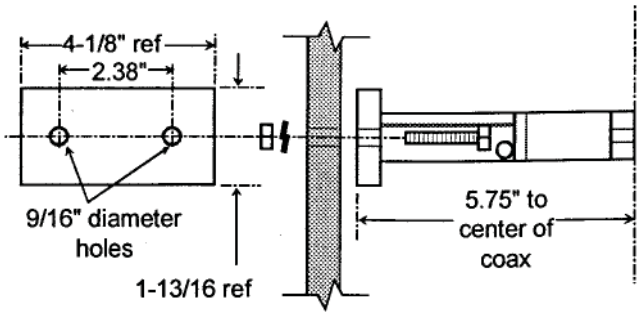

Figure 1. Footprint and Dimensions

NOTE

If there are no tower members at the correct location, you will have to add your own support members.

Once the mounting locations have been prepared, install coax spring hanger assemblies as follows:

1. As each transmission line section is put in place, install spring hangers and secure them tightly to the tower or other support member. Place the loop of the spring hanger around the transmission line and fasten it in place. It will fit loosely.
2. Attach a spring and a hose clamp support to the spring hanger as shown in figure 2. Place the hose clamp support against the transmission line and install a hose clamp. Before tightening the hose clamp, slide the hose clamp support down the line until the "L" dimension between the bottom of the spring hanger and the top of the hose clamp support is as shown in table 1 on the reverse. Make sure the worm gear portion of the hose clamp is against the saddle, not against the transmission line itself. Then tighten the hose clamp.

NOTE

"L" dimensions vary with ambient temperature and overall vertical length of the transmission line.

3. Repeat for the other transmission line sections, adjusting each spring hanger assembly according to the table's "L" values. The weight of the transmission line should now be supported entirely by the spring hanger assemblies.

NOTE

The topmost section of transmission line should be supported by fixed hangers: one hanger for each 300 vertical feet of line.

CAUTION

If you need to replace a lost or broken spring, obtain the part from Shively Labs. A spring not made to the correct tension specification will not support the transmission line properly, and may cause damage to the line.

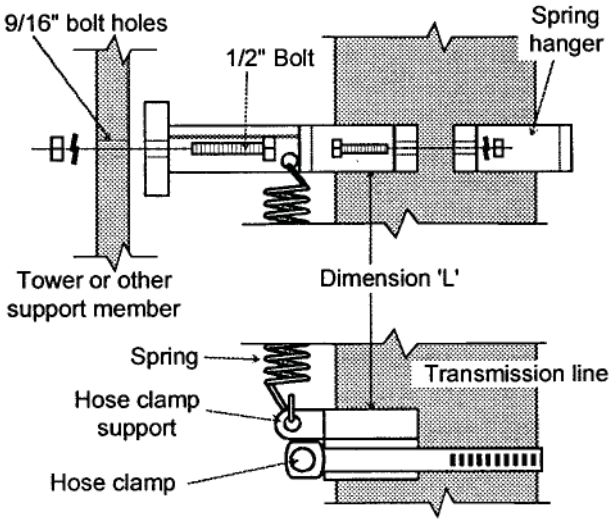

Figure 2. Spring Hanger Assembly Installation

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Table 1 Spring Hanger Loaded "L" Dimensions

Overall Transmission Line Length, ft	Ambient Temperature, ° F, at Time of Installation "L" Loaded Setting, in inches				
from - to	0° F - 20° F	20° F - 40° F	40° F- 60° F	60° F - 80° F	80° F - 100° F
0 - 200	19-3/16"	19-5/16"	19-7/16"	19-7/16"	19-9/16"
200 - 400	18-15/16"	19-3/16"	19-71/6"	19-9/16"	19-13/16"
400 - 600	18-11/16"	19-1/16"	19-7/16"	19-11/16"	20-1/16"
600 - 800	18-7/16"	18-15/16"	19-7/16"	19-13/16"	20-5/16"
800 - 1000	18-5/16"	18-13/16"	19-7/16"	19-15/16"	20-9/16"
1000 - 1200	18-1/16"	18-11/16"	19-7/16"	19-15/16"	20-9/16"
1200 - 1400	17-15/16"	18-11/16"	19-7/16"	20-1/16"	20-13/16"
1400 - 1600	17-15/16"	18-11/16"	19-7/16"	20-3/16"	20-15/16"
1600 - 1800	17-13/16"	18-9/16"	19-7/16"	20-3/16"	21-1/16"
1800 - 2000	17-11/16"	18-7/16"	19-7/16"	20-5/16"	21-1/16"