

# **WCARC**

## **2 Meter Slim Jim PVC Pipe J-Pole Antenna Project**



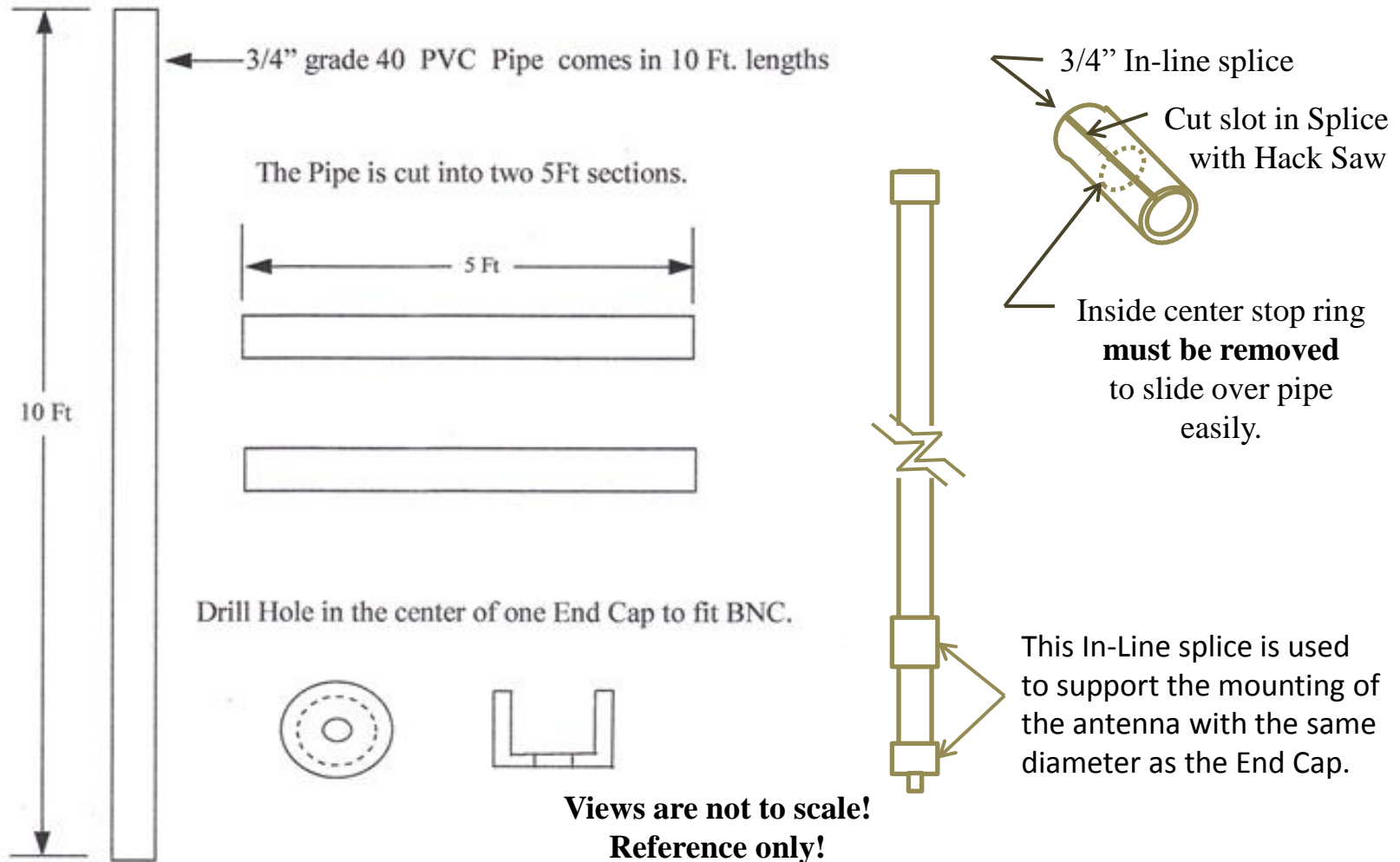
# 300 Ohm Feed Line Slim Jim J-Pole Antenna

## Materials:

<u>QTY</u>	<u>Description</u>
1	12" Nylon Kite String
1	3/4" Schd 40 PVC Pipe (Thin Wall 5 FT long)
2	3/4" Square Ended PVC End Caps
1	3/4" PVC In-Line Splice
1	60" 300 Ohm Feed Line
1	3/8" dia., 1/2" long Heat Shrink tubing)
1	3-1/2" piece of RG-58 Coax
1	BNC Female Connector 1/2" Thread w/ground

# 300 Ohm Feed Line Slim Jim J-Pole Antenna

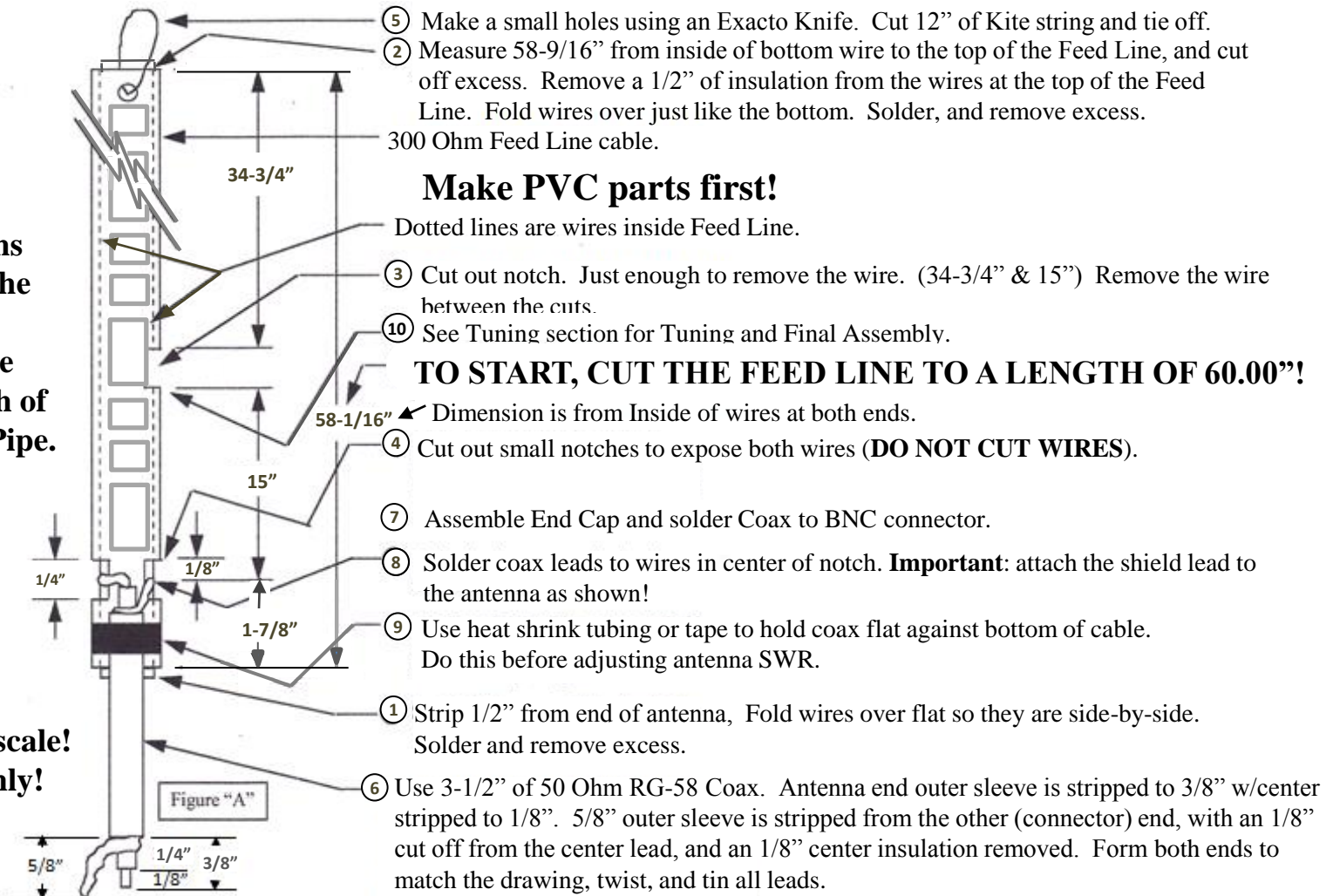
**PVC Pipe Preparation: Make PVC Parts first.**



# 300 Ohm Feed Line Slim Jim J-Pole Antenna

The dimensions are based on the antenna being mounted in the five foot length of Sch. 40 PVC Pipe.

View is not to scale!  
Reference only!

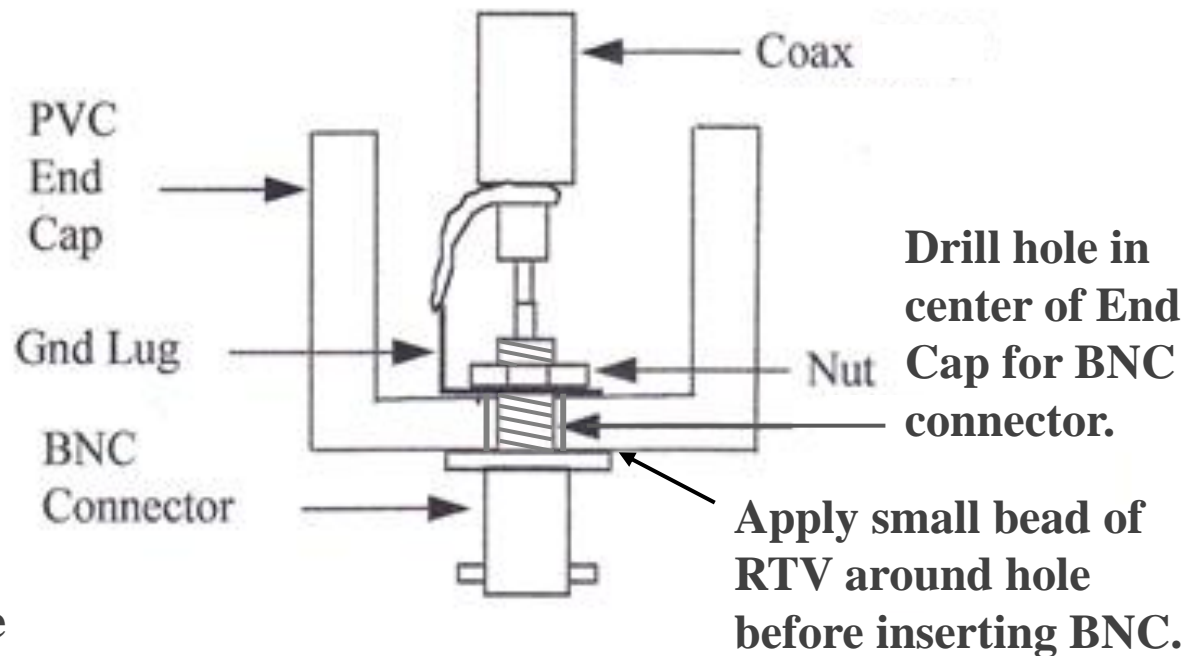


# 300 Ohm Feed Line Slim Jim J-Pole Antenna

Step ⑦

**View is not to scale!  
Reference only!**

**NOTE:**  
Tin both Leads on the  
BNC connector prior to  
assembling to End Cap.



**End Cap Connector assembly**

Use Square End Caps

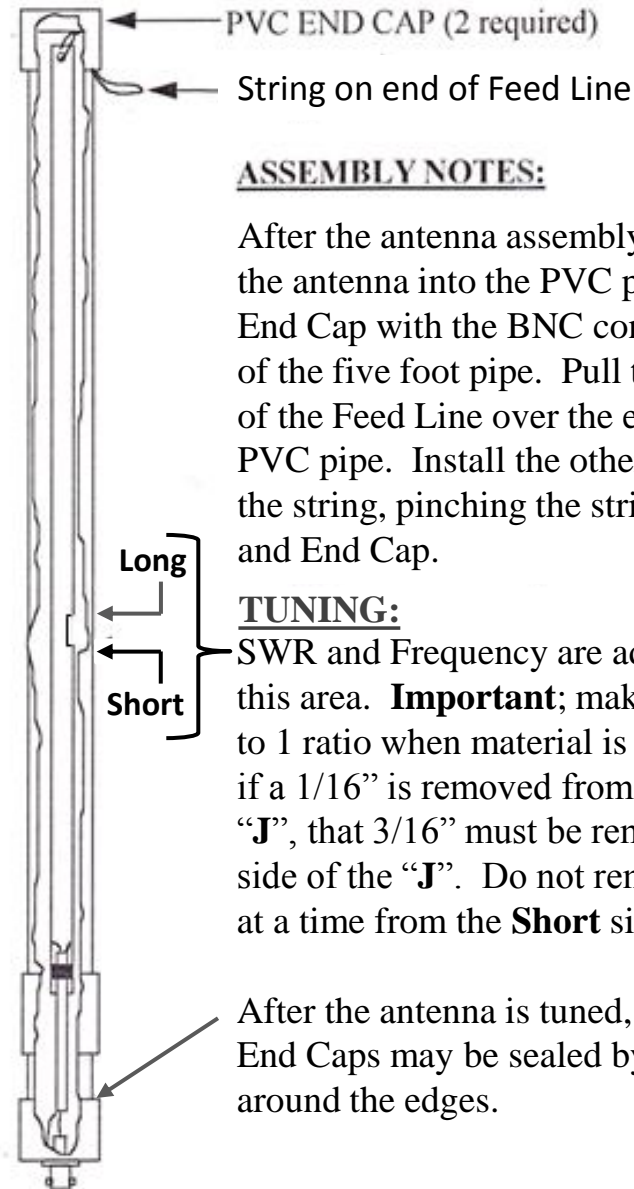
# 300 Ohm Feed Line Slim Jim J-Pole Antenna

## Step 10

### Testing:

Trim antenna to read best SWR at 146.000MHz +/- 100 KHz.

**View is not to scale!  
Reference only!**



### ASSEMBLY NOTES:

After the antenna assembly is completed, install the antenna into the PVC pipe and secure the End Cap with the BNC connector to the bottom of the five foot pipe. Pull the string on the end of the Feed Line over the edge of the top of the PVC pipe. Install the other PVC End Cap over the string, pinching the string between the pipe and End Cap.

### TUNING:

SWR and Frequency are adjusted by trimming at this area. **Important;** make adjustment using a 3 to 1 ratio when material is removed. This means if a 1/16" is removed from the **Short** side of the "J", that 3/16" must be removed from the **Long** side of the "J". Do not remove more than 1/18" at a time from the **Short** side.

After the antenna is tuned, the Top and Bottom End Caps may be sealed by using Clear RTV around the edges.

# Alternative Mount for the Water Pipe J-Pole Project

## PVC Antenna Mount

Connects an inexpensive painters pole to a J-pole ladder line antenna

Access online at: <https://goo.gl/5lqExb>

Mount design by  
Bill Ducat W2CAT

