

DIY Build Instructions

Dual Band 2m-70cm J-Pole "Roll-up" Antenna Retail Kit Build Coastal and SLV ARES Amateur Radio Emergency Service

Antenna DIY Builders,

Welcome to the third antenna build of this DIY Antenna project. The selected antenna is a Dual Band 2m- 70cm J-Pole "Roll-up" Antenna.

This is Dual Band 2m-70cm J-Pole Antenna that can be "Rolled Up" and conveniently transported in you Go Kit and un-rolled when on site. At you station at home the antenna can be mounted vertically in your attic of framed and displayed on a wall in your home as "Functional Radio art".

Brief Background of the J Antenna

This antenna was designed for in 1909 for use on Zeppelin Airships. The antenna was deployed behind the airship and consisted single element, one half wavelength long radiator with a quarter wave parallel feedline tuning stub. Today the J antenna is more commonly known as J-pole antenna.

Antenna construction characteristics are an end-fed omnidirectional half-wave antenna that is matched to the feedline by a quarter wave parallel transmission line stub. As illustrated in Figure 1.

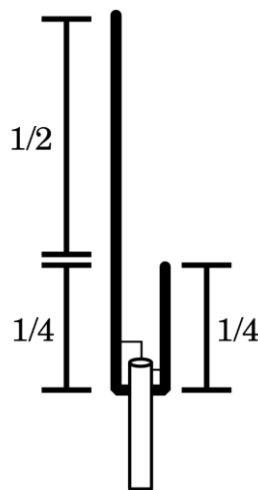


Figure 1

There are several variations that are 300-ohm twin lead / Coax wire as well as Copper tubing and PCV tubing providing structure to the antenna shape.

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Dual Band 2m- 70cm J-Pole Antenna Kit

This kit can be purchased from Amateur Radio Supplies for \$21.99

Link: <https://www.amateurradiosupplies.com/product-p/11498.htm>



The J-Pole is 52" Long and features the following: Antenna Illustration Figure 2

- Written Instructions
- 2 dB of gain on 2 meters; 1 dB on 440
- Includes 10 feet of flexible, high quality RG8X coax
- Coax termination includes male PL-259 connector (convert to BNC with optional adapter)
- Convert to SMA with Adapter
- Easy conversion to work with Chinese HTs SMA connector using strain relief cable and optional BNC adapter
- Can handle up to 50w output
- Fully weatherized and UV resistant
- Strong electrical connections
- 300 ohm 18 AWG stranded copper weld twin lead wire (Black Polyethylene)
- SWR < 1.5:1 across entire band - cut to center of bands
- Can be used as a base antenna, portable antenna or great em-com or event antenna.

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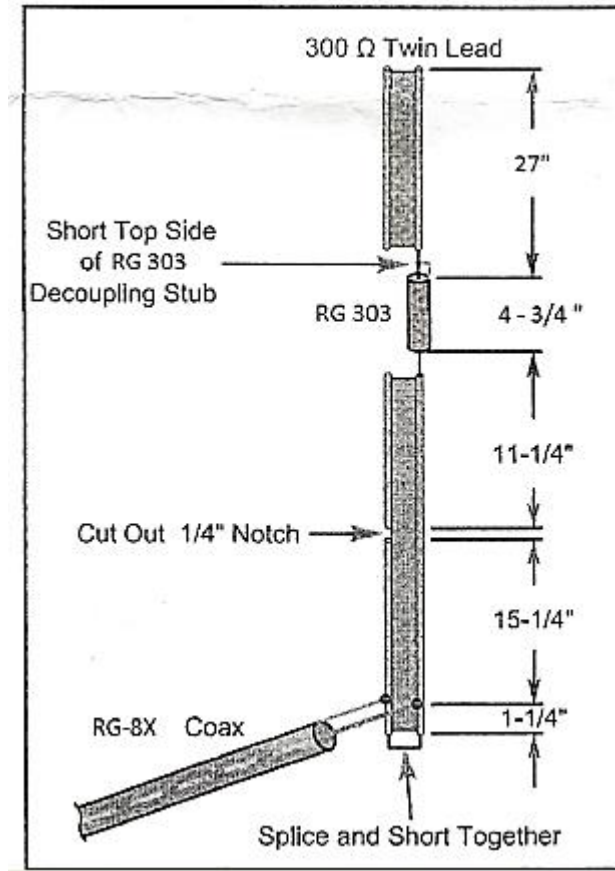


Figure 2

DIY Build Instructions

Dual Band 2m-70cm J-Pole "Roll-up" Antenna Retail Kit Build Coastal and SLV ARES Amateur Radio Emergency Service

Tools and Consumables

Tools	
Tool Description	Quantity
Scissors	1 each
Electrical Tape	1 each
Needle Nose pliers	1 each
X-Acto knife (or similar bladed tool)	1 each
Side cutting pliers	1 each
Needle nose pliers	1 each
Soldering Kit	1 each
Heat shrink gun (hair dryer is a good option)	1 each

Consumables	
Consumables Description	Quantity
Solder (Rosin Core)	AR
Electrical Tape	AR

Specific Dual Band 2m- 70cm J-Pole Antenna YouTube build instructions

Dave Casler, KE0OG in his You Tube Series "Ask Dave #42". Has recorded build instructions for the Amateur Radio Supplies 2m/70cm Dual Band J-pole kit is the subject. This video takes you through the entire build process including testing.

How to build a J-pole with twin lead: Ask Dave #42 -By Dave Casler, KE0OG

Link: <https://www.youtube.com/watch?v=oZD55UvC7mY>

Specific Dual Band 2m- 70cm J-Pole Antenna Theory

The link below is a posted YouTube video by Fiori Films Presents Ham Radio TV: How Does a J-Pole Antenna Work by Dr. Ed Fong

Ed Fong WB6IQN gives Vaca Valley Radio Club a presentation via Skype. He teaches the principles and construction of a good working J-Pole antennas.

How Does a J-Pole Antenna Work - By Dr. Ed Fong

Link: https://www.youtube.com/watch?v=E_IBni6vvMc