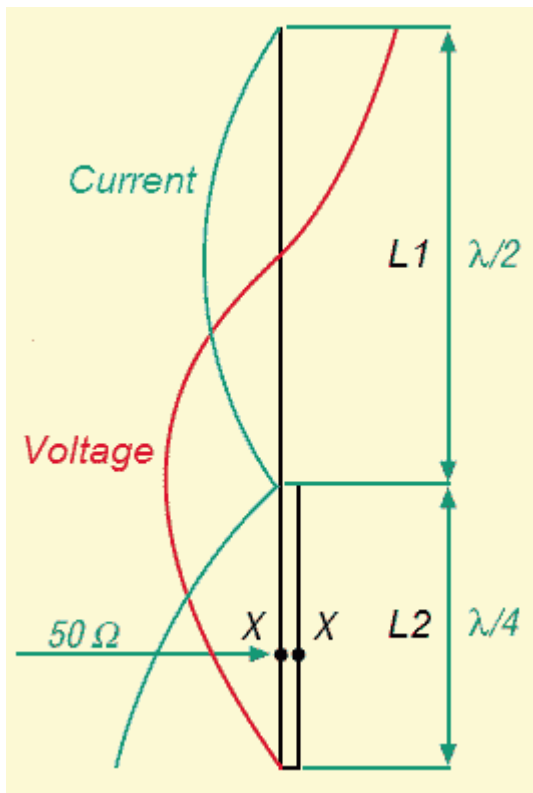
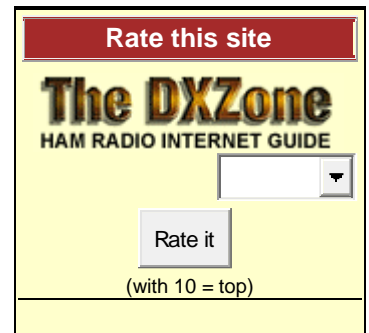


# J-Pole antennas for 2m-40m with Wireman-cable (DK7ZB)

(a J-Pole with 300-Ohm-Twinlead for 145MHz see down)



The picture shows the scheme of a J-Pole antenna. The high impedance feeding point of a  $\lambda/2$ -wire (**L1**) is matched from some KOhms to a low impedance with a  $\lambda/4$ -matching sector (**L2**).

The point XX has an impedance of 50 Ohm for direct feed with a coax cable. XX is symmetrical, a choke or balun could be useful to avoid sleeve waves on the screen of the coax.

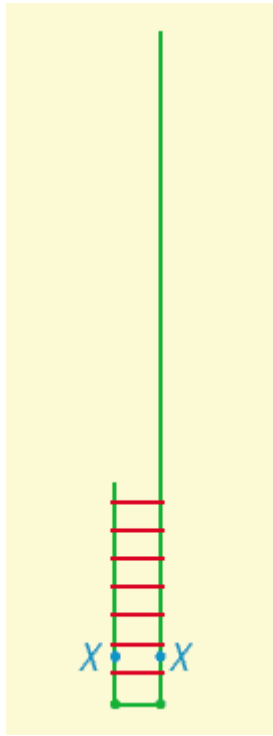
A very simple method for the  $\lambda/4$ -part is to use a 450-Ohm-Wireman cable.

I have built up the antenna for 2 m, 6 m, 12 m and 30 m. The table gives the values for experimenting with the other bands.

**L1=0,471 lambda (Halfwave-Radiator) L2=0,223 lambda (Wireman-cable)**

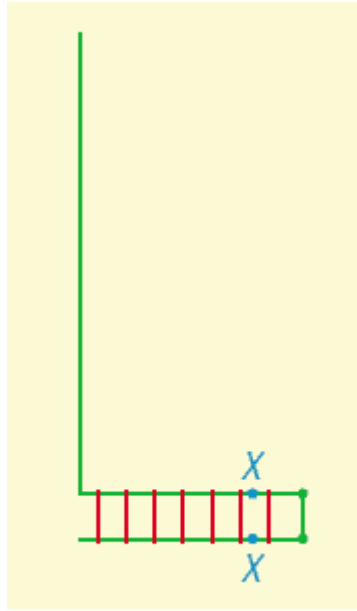
Solder the braid of the 50-Ohm-coax at the right X, the inner conductor to the left X. XX about 5-10% of L2.

The antenna can be mounted in several ways:



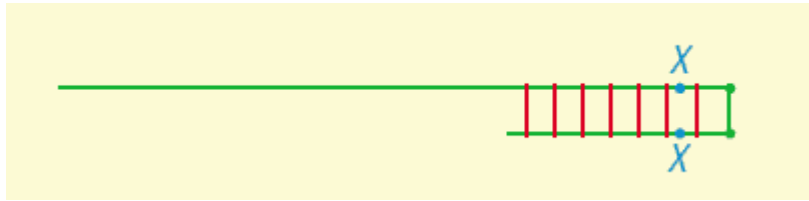
The classic J-Pole with both sections mounted vertically.

Length 3/4-lambda, only for the higher bands.

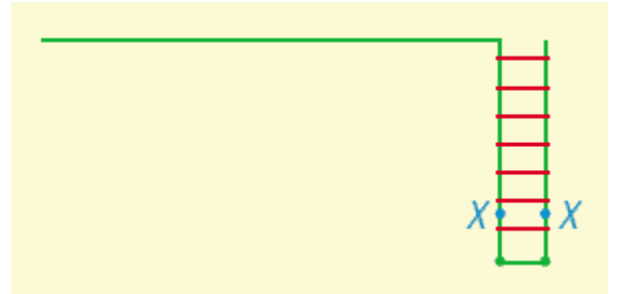


It is no difference in the radiating conditions, if the lambda/4-part is vertical or horizontal.

The pattern is identical with a vertical dipole.



Both parts horizontally mounted



The "Zepp"-configuration

The antennas were tested on 2 m, 6 m, 12 m and 30 m. The lengths for the bands marked with "\*" have not been tested, try with the given dimensions. For other frequencies use the following formula for insulated 2-mm-wires for L1. Not-insulated wires need a longer L1-section.

The points X-X are 5-10% from the shorted part of the Wireman-cable (look for best SWR).

For the 50MHz-J-Pole look on the special page: [50MHz-Halfwave-Verticals](#)

Band	$\lambda/2$ -Wire (insulated)	$\lambda/4$ -Wireman V=0,905	XX	F <sub>0</sub> MHz	SWR	Bandwidth SWR<1,5
40m*	20,02 m	9,46 m	73,0 cm	7,05	-	100 KHz
30m	13,96 m	6,61 m	58,5 cm	10,12	1,1	150 KHz
20m*	9,98 m	4,73 m	35,0 cm	14,15	-	200 KHz
17m*	7,80 m	3,70 m	26,5 cm	18,1	-	250 KHz
15m*	6,66 m	3,15 m	22,5 cm	21,2	-	300 KHz
12m	5,67 m	2,67 m	18,5 cm	24,91	1,0	350 KHz

10m*	4,96 m	2,45 m	15,5 cm	28,5	-	500 KHz
6m	2,815 m	1,33 m	6,5 cm	50,15	1,1	1000KHz
2m	97,5 cm	47 cm	3,5 cm	145,2	1,0	1500 KHz



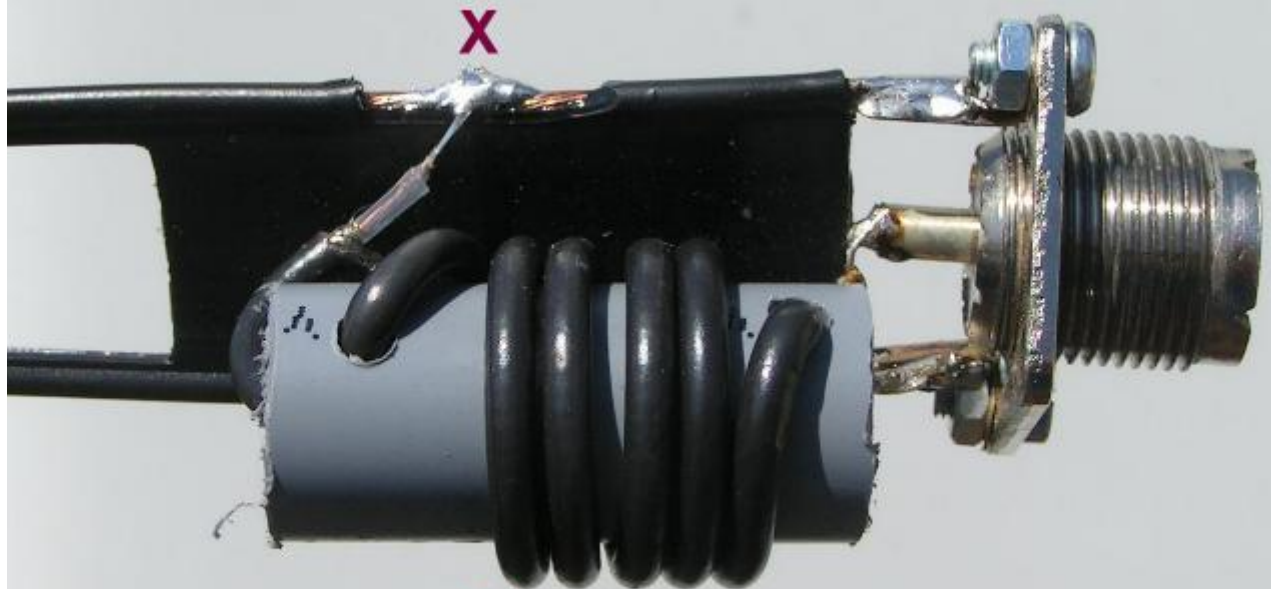
The Wireman-J-Pole during the DXpedition of  
Tom, **DL2RUM** as **FS/DL2RUM**



The result of 10 Minutes work with the 12-m-J-Pole, mounted on a fishing rod:

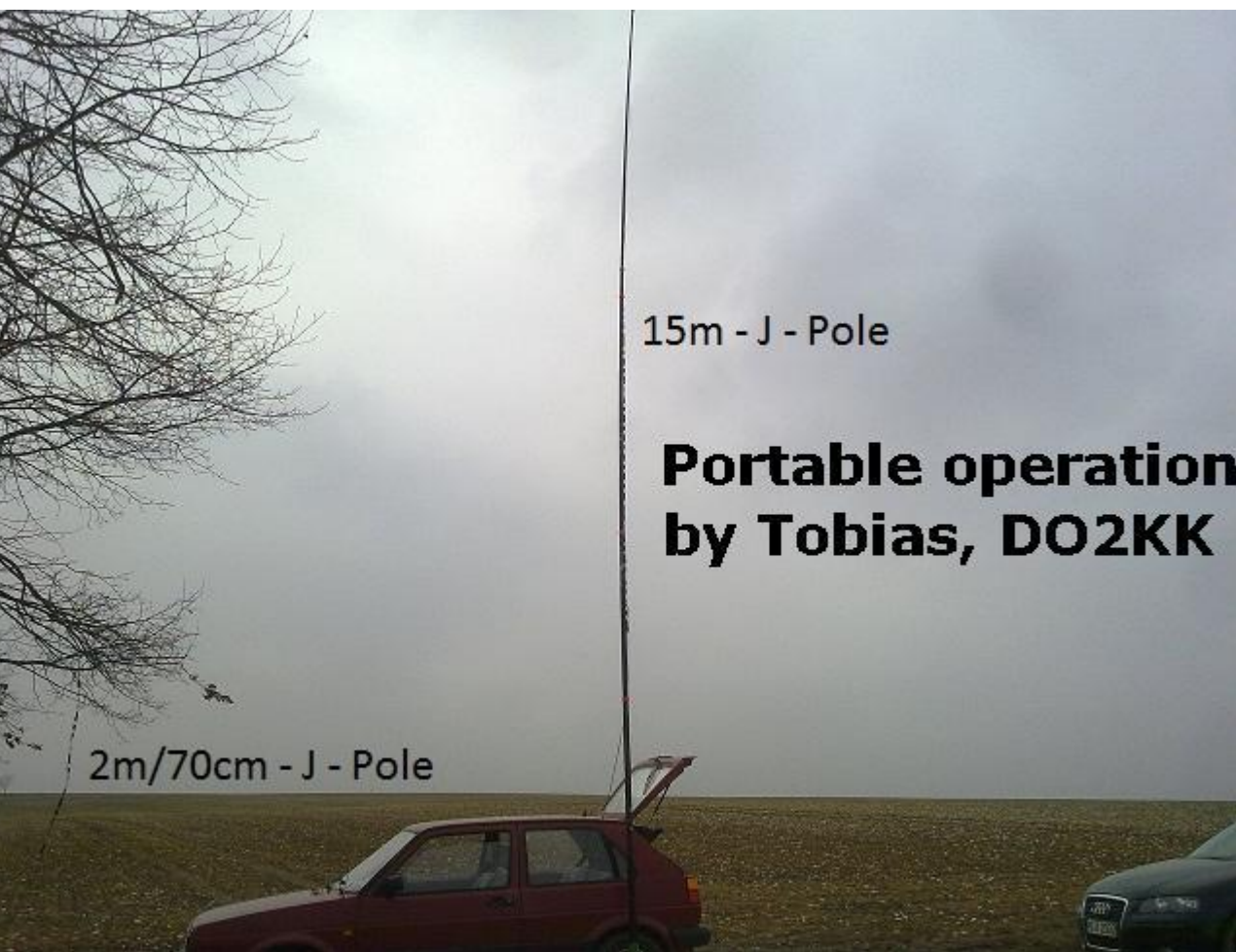


The 2m-J-Pole with a quarterwave-choke





The 12m-J-Pole



15m - J - Pole

**Portable operation  
by Tobias, DO2KK**

2m/70cm - J - Pole

SWR > 1,3

21,1-21,3 MHz



The 50-MHz-J-Pole

see:

[50-MHz-Verticals](#)

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**J-Pole with 300-Ohm-Twinlead for 145MHz**

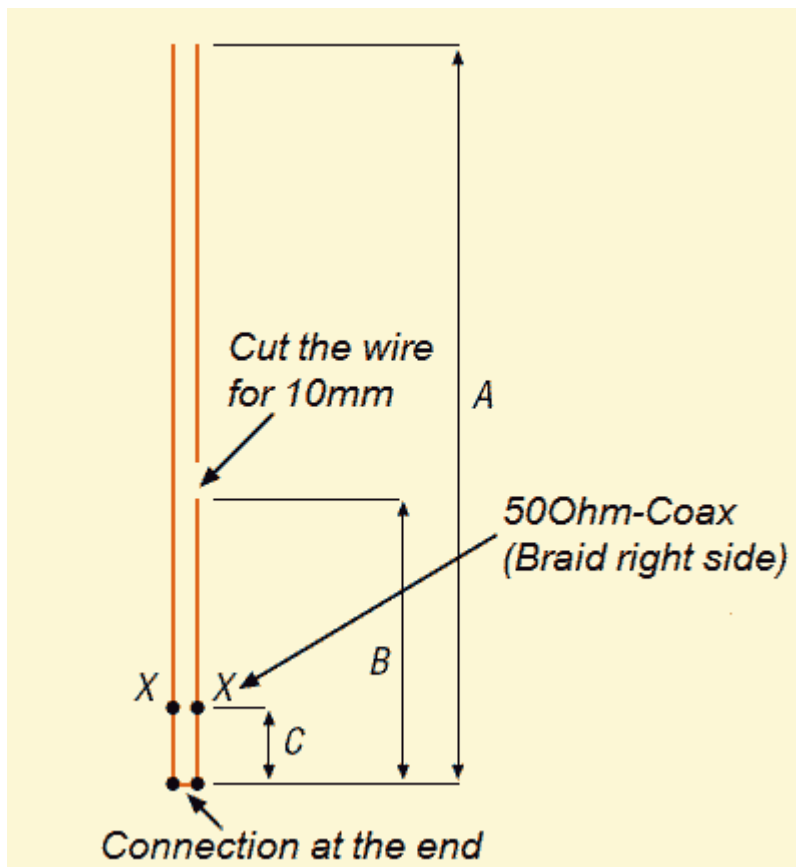
The J-Pole  
for VHF and  
UHF  
constructed  
with 240-  
Ohm- or  
300-Ohm-  
Twinlead

The lengths  
are for 145  
MHz and  
435 MHz.  
The 2-m-J-  
Pole can be  
used on  
70cm, too  
with an  
SWR <1,6.

SWR 145-  
146 MHz  
<1,5

SWR 430-  
440 MHz  
<1,6

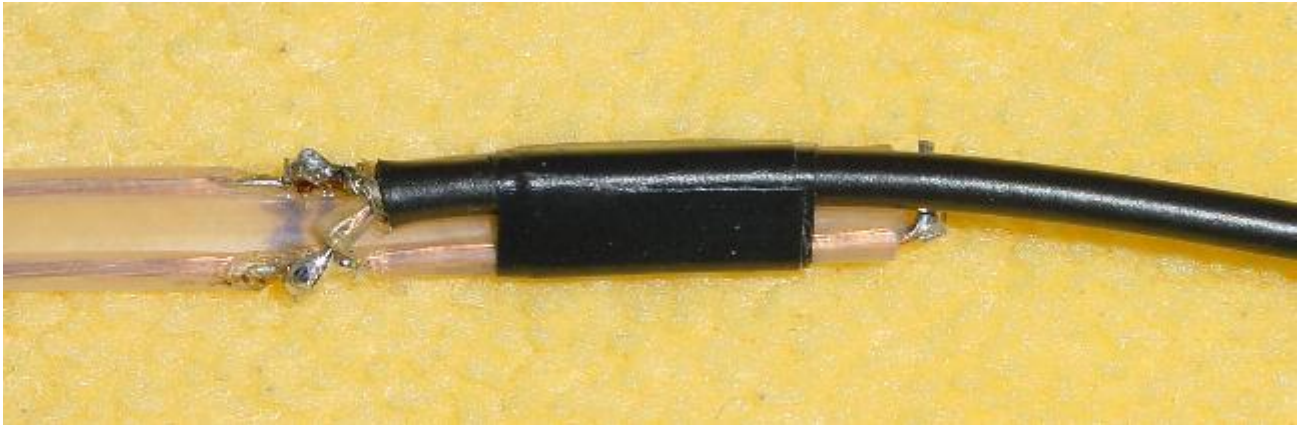
The  
dimensions  
of A, B and  
C are in the  
table below



**Attention:**  
The  
mounting in  
a plastic  
pipe or with  
tape on a  
fishing rod  
will detune  
the antenna  
to lower  
frequencies  
and needs  
a little bit of  
correction!

## Lengths for the bands 2m and 70cm

Band	A	B	C
145 MHz	137cm	42cm	30mm
435 MHz	45,7cm	14cm	20mm



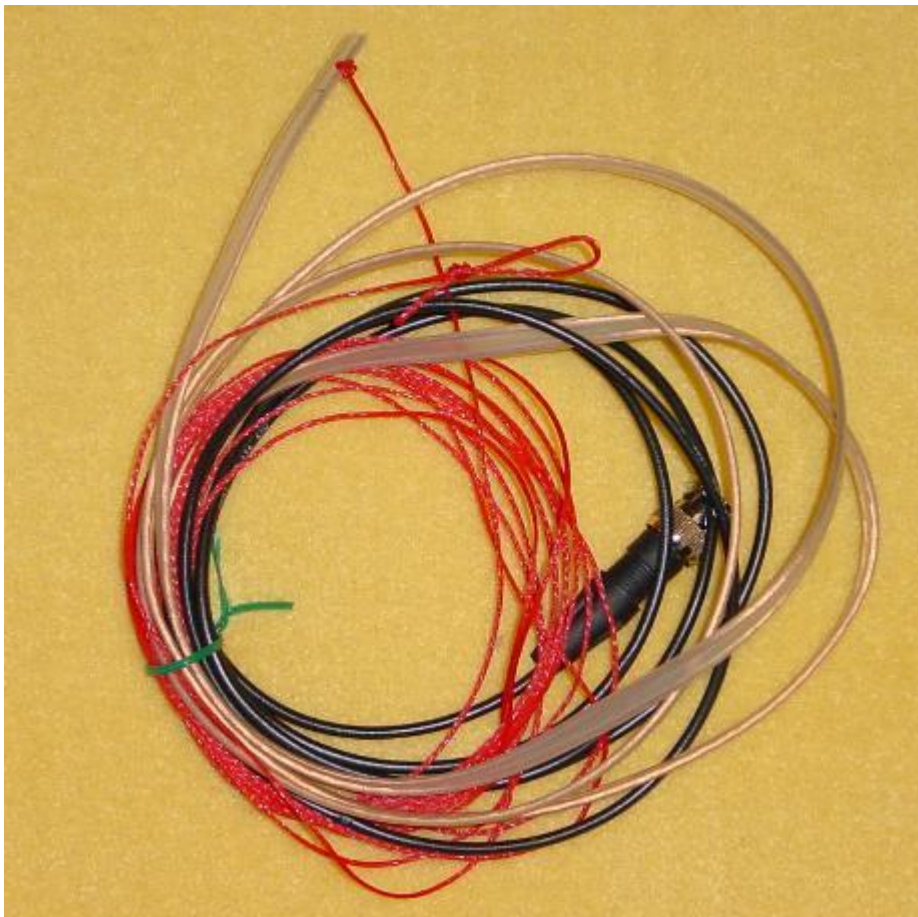
The connection of the RG-178 coax cable, here 240-Ohm-TV-wire



The same construction with 300-Ohm-wire. The cable is available at [DX-Wire](#)



**The cut piece of wire between the parts A and B at the right side of the J-Pole**



**The 2-m-J-Pole ready for use**

**At the top is a hole for a rope. The antenna can be mounted in a tree or any other support.**