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**r/amateurradio** 8 mo. ago  
beelzebong666



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## Trying to DIY an arrow antenna, but the "official" dimensions seem off...

General

Hi,

I am trying to make my own arrow antenna (the split boom 2m/70cm combined model) but I hit a snag. The manufacturer provides quite detailed assembly instructions which even seem to contain all dimensions of all the element lengths and spacing. But those dimensions seem to be inaccurate, as they don't match photographs of the antenna found on the web.

So I was hoping that someone here who owns an original one might be so kind and provide me with some measurements of the actual dimensions of the antenna.

I'd love to just buy one, but I blew all my disposable income on radios and SDRs, and to make matters worse, I live in Germany and with all the shipping, taxes and customs fees, an original arrow antenna costs almost twice as much here compared to the US.

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**HerpieMcDerpie** • 8mo ago  
FN10

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- 3/4" square aluminum tube from Lowes.
- Easton Jazz arrow shafts size 1816 from local archery store
- Easton Jazz arrow threaded arrow inserts from same store
- 8-32 threaded rod from Lowes
- Super glue with brush applicator
- Powdered graphite from Lowes

Note that the Jazz arrows are powder coated on the inside so you'll need to sand it away where the insert makes contact to get conductivity between the insert and shaft. To glue, I applied super glue to the distal part of the insert and sprinkled with graphite powder used for lubing locks up juuuust incase I needed something conductive. Test with a multimeter and bingo. I'm going to 3D print some caps for the open shaft ends.


7 ...

 beelzebong666 OP • 8mo ago

If you need detailed measurements of any elements, lemme know.

Yes please! All of them, if possible!

2 ...

 HerpieMcDerpie • 8mo ago • Edited 8mo ago  
FN10

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(70cm element length one side only)

- 124.5mm
- 124.5mm
- 124.5mm
- 127.5mm
- 134mm
- 152.5mm (driven element)
- 166 (reflector)

Holes from end of boom

- 30.5mm
- 157mm
- 281mm
- 407mm
- 534mm
- 658mm driven element
- 808mm reflector

(2m elements. One side only)

- 433mm director
- 485mm driven element
- 513mm reflector

Holes from end of boom

- 17.5mm director
- 395mm driven element
- 797mm reflector

Measurements include any bit of the insert that sticks out.



4



beelzebong666 **OP** • 8mo ago

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...the really interesting new year measurements match the drawings in the assembly instructions (as well as every other one of these antennas I have seen in pictures or on yt), but not the numbers (see link for reference).

Can you tell when this was made? The spacing between the driven and the first director of the 70cm elements suggests this is one of the earlier models. It would be interesting to find someone with an updated one, so we can compare. Who knows, maybe the updated one does indeed match the dimensions in the instructions.

I'll probably end up building both variants, as the parts are dirt cheap compared to the manufactured antennas, and I'm curious what the actual difference in performance is, if any.

[https://www.arrowantennas.com/inst/146437-10\\_All%20Suffixes\\_Instruction\\_Sheet.pdf](https://www.arrowantennas.com/inst/146437-10_All%20Suffixes_Instruction_Sheet.pdf)

2 ...

More replies

**HerpieMcDerpie** • 8mo ago  
FN10

Can do! I can handle it this evening.

2 ...

**A-Goose-on-the-loose** • 7mo ago  
MI [E]

How are you isolating the elements from the aluminum tube?

1 ...

**HerpieMcDerpie** • 7mo ago  
FN10

The Arrow brand of antennas does not isolate elements from the boom.

1 ...

**A-Goose-on-the-loose** • 7mo ago  
MI [E]

How are you making the gamma matches and the duplexer?

1 ...

More replies

**Jaif\_** • 8mo ago  
SA [CEPT/HAREC]

Not an answer to your question, but in case you aren't aware, you can buy Arrow antennas in Europe.

<https://www.passion-radio.com/sat-antennas/146-437-1703.html>

4 ...

**beelzebong666** OP • 8mo ago



1



Jaif\_ • 8mo ago  
SA [CEPT/HAREC]

Ok, good. Just wanted to make sure since you mentioned taxes and custom fees. US prices are usually also without sales tax so direct comparisons are usually not totally fair.

Making your own antennas are fun and rewarding so I get what you mean.

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