## $\alpha$ ALPHA ANTENNA ${ }^{\circledR}$

## Model - HexTenna ${ }^{\text {TM }}$

## User Guide, Version 3.2, July 23, 2019

## Operation

The HexTenna ${ }^{\text {TM }}$ by Alpha Antenna ${ }^{\circledR}$ is a portable full-sized legal limit antenna, which is deployable as a UHF/VHF/HF Vertical/Dipole antenna or a 2-20 meter Yagi if purchased.

## Excess RF Exposure Warning

In the United States, the Federal Communications Commission has established guidelines for human exposure to Radio Frequency (RF) electromagnetic fields. The commission's requirements are detailed in parts $1 \& 2$ of the FCC's rules and regulations \{47 CFR, 1.1307(b), 1.1310, 22.1091, 2.1093\}. It is the responsibility of the owner/operator of this device to follow all applicable warnings and precautions regarding human exposure to RF fields. Additional references: http://www.arrl.org/rf-exposure

## Yagi Assembly, if purchased

|  |  |
| :---: | :---: |
| 1-Install the 'Hub' on the optional HD-Tripod or the included 'Top of Mast Mount'. <br> 4-Refer to Post Assembly Instructions | Vertical Assembly  <br> 1-Install the 'Hub' on 3-Install <br> the optional HD-Tripod  <br> or the included 'Top of  <br> Mast Mount'. 'Vertical <br> Element'  <br> 4-Refer to Post Assembly Instructions |

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Post Assembly Instructions

| Step | HexTenna Assembly |
| :---: | :--- |
| 1 | Attach your coax to the built in SO-239 on the Alpha Match hub. |
| 2 | Use a measuring tape to adjust the length of the whip(s) to closely match the lengths on the charts below. |
| 3 | Make any final adjustments to the whip(s) until the lowest SWR is achieved. |

## Tune by adjusting the following lengths on each element.

## Yagi and Dipole element lengths

| Approximate element lengths of each Yagi \& Dipole element |  |  |
| :---: | :---: | :---: |
| Band | Yagi ‘Driven Element' and ‘Dipole Element' | Yagi 'Reflector Elements' |
| 40 | 17 feet 9 inches, and install the clip-on wire element $*$ | Not supported |
| 30 | 10 feet 4 inches, and install the clip-on wire element * | Not supported |
| 20 | 16 feet 11.5 inches | 17 feet $3 / 4$ inch |
| 17 | 13 feet $3 / 4$ inch | 13 feet $51 / 2$ inches |
| 15 | 10 feet $111 / 2$ inches | 11 feet $73 / 4$ inches |
| 12 | 9 feet 6 inches | 9 feet $101 / 4$ inches |
| 10 | 8 feet $31 / 2$ inches | 8 feet $61 / 3$ inches |
| 6 | 4 feet 8 inches | 5 feet 1 inch |
| 2 | 4 feet $71 / 2$ inches | 4 feet 9 inches |


#### Abstract

* As a Yagi, Alpha Antenna does not support 30 or 40 meters on the HexTenna ${ }^{\text {TM }}$. When deployed as a Dipole, tuning on 30/40 meters is achieved on the Dipole after the wire elements are installed, by equally retracting each element till resonance is achieved. The wire add-on elements are attached to the tip of each telescopic element with the clips, and deployed to form an M-Shaped dipole. The wire element can be held straight by pushing the included stake into the ground or removing the stake and tying off either end with the included green insulators to a tree or other support. IMPORANT - Do not allow wire elements to lay on the ground.


## Vertical/Counterpoise element lengths

| Vertical Element \& Counterpoise approximate lengths (Roll out the single counterpoise for minimum SWR) |  |  |  |
| :---: | :---: | :---: | :---: |
| Band | Approximate length of <br> Vertical Element | Approximate Length of 4 <br> user provided Counterpoise <br> Elements** | $* *$ Lengths of the Vertical Element \& Counterpoise may vary <br> based upon coax, environment, \& variables unique to the user <br> site and/or equipment. Enter installation specific notes here. |
| 20 | 13 feet 2 inches | 18 feet 2 inches |  |
| 17 | 9 feet 8 inches | 14 feet $23 / 8$ inches |  |
| 15 | 8 feet $73 / 4$ inches | 12 feet $11 / 2$ inches |  |
| 12 | 7 feet 1 inches | 10 feet 4 inches |  |
| 10 | 6 feet | 9 feet |  |


| Approximate length of Vertical Element with No Counterpoise |  |  |
| :---: | :---: | :---: |
| 440 Mhz | 2 feet 2 inches | No counterpoise recommended |
| 220 MHz | 3 feet 4.75 inches | No counterpoise recommended |

## Support

Email: support@alphaantenna.com - WEB: www.alphaantenna.com > Community > F.A.Q.s

