



REP Design LLC

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INSTALLATION INSTRUCTIONS:

INSUL KIT-01: Heavy Duty Antenna Insulation Kit

Thank you for your purchase! We appreciate your business and would like to hear from you about your installation – comments, suggestions and photos! Also let us know if you have ideas for new products!

These instructions describe how to install Insulation Kit #01 on “ANY BRAND” motorized /screwdriver antenna. This is the same kit that is included with our former UHAM-100 and current UHAM-150 universal antenna mounts. It has also been used by our customers on other brands of mounts, such as Tarheel, as it is thicker and stronger than what some other mounts provide.

The most current version of these instructions is on our web site “Downloads” page, and may be more recent than hard copy instructions provided with our products. Color versions of the black and white photos provided in hard copy instructions are available with the download version of these instructions. The instruction version date is on the footer of each page of our instructions.

Description of the UHAM:

The kit includes 18 inches of 2 inches wide x 3/16 inch thick EDPM rubber insulation and five (5) tie strips that fasten the insulation around ANY BRAND of screwdriver / motorized HF antenna. The EDPM rubber is very flexible, abrasion resistant, water proof, and UV resistant. The tie strips are water proof and UV resistant. The provided rubber should be more than enough for two or more layers wrapped around a 2 inch diameter antenna (this is the diameter near the base of the antenna – the loading coil diameter does not matter). The rubber is very easy to work with and easy to install around your antenna.

The purpose of the insulation is to insulate an antenna from antenna mounts that have a second point of attachment that “clamps” around the antenna several inches above the base of the antenna. The kit was developed for our UHAM line of universal mounts and has also been used by a customer on a Tarheel mount.

This kit has been tested by one of our customers to withstand 500 watts on HF frequencies (test results on our web site: <http://www.repdesign.us/Test%20Results.html>). The test was performed with a Hi Q Antennas 5/160 RT antenna mounted on a modified Tarheel mount. This customer purchased the INSUL KIT-01 as the insulation provided from the manufacturer was thin and tended to wear out sooner than desired. This customer has since purchase a UHAM-150 mount to replace his Tarheel mount.

What you need to install the UHAM-150 Mount:

No special tools are required.

Installation Instructions

1. Attach the provided rubber insulation with four (4) of the provided UV-resistant tie strips (five are included with the UHAM – 1 extra). **Figure 2** shows the completed insulation - be sure to follow the next steps to accomplish this. The rubber and strips are UV resistant and water proof.
 - 1.1. First decide where you will install the insulation. You must have an area on your antenna that is void of obstructions for a distance of 2 inches (the width of the insulation). Also the insulation should be approximately centered on the second point of attachment on your mount that will “clamp” around the insulation and your antenna.
 - 1.2. Wind 1-3 layers of insulation around the antenna fairly tightly; the number of layers depends on the base diameter of your antenna (generally we recommend two layers whenever possible); keep it just loose enough so you can



rotate the insulation and move it up and down on your antenna to “fine tune” the location of the insulation after installed (but not so loose that it slips down your antenna):

- 1.2.1. antennas with a base diameter of approximately 1.5” (most screwdriver antennas) – use 2 layers
- 1.2.2. larger antennas approx. 2” in diameter – use 1 layer
- 1.2.3. smaller antennas approx. 1” diameter – use 3 layers
- 1.2.4. This is not very critical. For “typical” antennas (e.g. High Sierra, Tarheel, Hi-Q Antennas 5/160, etc.) use two layers - antennas 1.5-1.6” in diameter at the base. The size of the coil does not matter – it is the diameter within 9” of the base of the antenna that matters.
- 1.3. Cut the insulation with a standard scissors (very easy to do!) so that the end of the last layer is just above the start of the first layer. If you use one layer, both ends should just be touching. See **Figure 2**.
- 1.4. Attach the insulation around your antenna with four provided tie strips (1 extra is provided). Wrap the first tie strip about ½” from the top of the insulation and tighten it snug enough to hold the insulation yet just loose enough to barely move the insulation up and down on the antenna. Install the second tie strip about ½” from the bottom of the insulation, tightening the same as the first. Install the last two tie strips closer to the top and bottom edges of the insulation. You need to leave a 7/8 to 1” wide area in the center of the insulation, between the two middle ties strips, to clear the V-clamp (UHAM series of mounts) or, on other brands of mounts, the bracket that goes around your antenna. Tighten all 4 tie strips so that you can just barely move the rubber insulation up and down on the antenna if necessary to align it against the V-clamp cast aluminum base (or other mount bracket). Once you have the ties trips tightened properly, cut off the excess ends. See **Figure 2**.
- 1.5. Rotate the insulation to position the tie strip “ends” to clear the V-clamp base (or other brand of mount bracket / clamp). This serves two purposes: (a) keeps tie strip ends from getting between the antenna insulation and V-clamp base; and (b) if you use a ¼ turn quick disconnect the tie strip ends will rotate clear of the V-clamp base for easy antenna removal. To position the tie strips, simply twist the insulation/tie strips around your antenna so that the tie strips are rotated clockwise or counter clockwise (depending on your quick disconnect if one is used) to near but not quite touching the V-clamp cast aluminum base when the antenna is fully installed on the quick disconnect. If using a quick disconnect, when rotating the antenna to remove it from the quick disconnect, the tie strips should rotate clear of the V-clamp base. Adjust the position of the tie strips accordingly. Once you start to gain experience using the antenna with the UHAM you can re-adjust the tie strips by rotating the insulation on your antenna to enable the smoothest removal and installation of your antenna.

(1) Maintenance.

The insulation requires essentially not maintenance. Occasionally hose it down to remove dirt and road salt.

Spare parts, accessories, downloads and related products.

Let us know if you need spare parts or are interested in our other products. For a current description of our products, photos, videos and prices please visit our web site: www.repDesign.us/. If you don't see something you're looking for, related to mobile or portable radio operation, please let us know – your idea could become a new product! As a specialty company, we are looking for unique ideas to serve the amateur radio community.

For a listing of our current products, with links to detailed information and to order, go to our “Products” web page: <http://www.repdesign.us/Products%20%26%20Ordering.html>

You can find the current versions of product instruction manuals on our “Downloads” page: <http://www.repdesign.us/Download.html>

Warranty Summary:

All products include a two (2) week "return for any reason" and six (6) month manufacturing defects limited warranty. If you should need to return your product please contact us IN ADVANCE to obtain a return authorization number. Please refer to the complete warranty terms that are enclosed with your order; this is also included on our web site.

INSUL KIT-01 Illustrations:

Figure 1 : What you get: The EDPM rubber with 5 tie strips.



Figure 2: Insulation installed on a motorized 160 to 10 meter antenna. The antenna is a Hi Q Antennas model 5/160 RT, which has a base diameter of 1.6 inches and a 5 inch diameter loading coil. This is a HEAVY antenna but works VERY WELL with this insulation and on our UHAM series of mounts. The UHAM provides a secure base.



Figure 3: Examples of insulation installed on two mounts. The left photo is our UHAM-150 universal mount (bare aluminum version, also available powder coated paint). The right photo shows the insulation on a Tarheel mount.

