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INSTALLATION INSTRUCTIONS:

AMB-GND-1, 8, 5 & 8W[®] Ground Counterpoise Ring Brackets for Whips with 3/8x24 Stud

Thank you for your purchase; we appreciate your business and interest in our products.

These instructions describe how to use the three models of the AMB-GND (“GND”) counterpoise ring brackets for installing whip antennas to form a horizontal counterpoise that is self supporting. The whips that can be used must have the standard 3/8x24 threaded stud on the bottom, and include the following: telescoping whips (available up to 12 feet long), “CB” whip antennas and “tuned” antennas such as “ham stick”, “wonder lead” and Buddipole™ types.

The ring brackets are designed as a simple and quick bolt-on option for several of our antenna mounts or you can use them for your own custom mounting application. A list of our compatible mounts is included on **page 2**.

The following photos show our three GND ring brackets. The GND-1 and GND-8 are the same size (3.0 inches) and only differ in the number of whips that can be attached. The GND-5 is slightly larger (3.5 inches) in diameter with spaces for up to 5 whips. The GND-8W is the same as the GND-8, except that it is larger in diameter to fit wider mounts (5 inches vs. 3 inches).



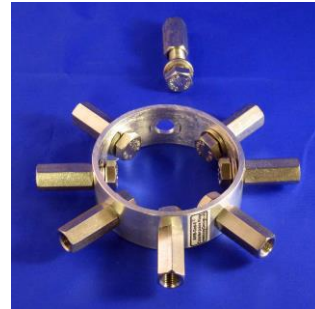
AMB-Gnd-1



AMB-Gnd-5



AMB-Gnd-8



AMB-Gnd-8W

Specifications

- Material of construction: hand buffed 6061 aluminum “rings” 1/8 inch thick x 1 inch wide.
- Hardware: 18-8 stainless steel , 3/8x24 bolts, lock washers and antenna couplers.
- Diameter: Models 1 & 8 are 3.0 inches, Model 5 is 3.5 inches, and model 8W is 5 inches.
- Mounting: fits mounts with panel thickness up to 1/2 inch (thicker with longer mounting bolt)
- Counterpoise whips: Model 1 holds 1-4 whips, Model 5 1-5 whips & Models 8/ 8W hold 1-8 whips (3/8x24 standard threads).

CURRENT VERSION UPDATE: These instructions now describe how to install all three of our counterpoise “ring” brackets, with additional photos of various mounts that they fit.

Refer to the additional **Figures** in these instructions for installation examples.

The latest version of these instructions with color photos can be found on our **DOWNLOADS** web page, as a PDF file.

Safety First!

*Use caution if you are installing your antenna on a ladder, balcony or other location where the antenna could fall on someone or cause damage if it were to fall. If so, you might want to install an insulated “safety line” in case your antenna/mount comes loose. As with any antenna installation, be careful around thunderstorms and lightning, and you may want to remove your antenna or disconnect the coax **BEFORE** a storm appears - remember that if you can hear thunder you can be struck by lightning. Be sure that the ends of your horizontal counterpoise whips are out of the way of people and animals so they do not run into the whips. Be sure that your counterpoise whips are not near, above or below power wires. **SAFETY FIRST!***

Tools Needed to Install the GND

No special tools are required. A wrench is needed to tighten the bolts/couplers.

Compatible Mounts

Our counterpoise rings will fit our mounts listed below, and your custom made mount if it is compatible with the specifications on **page 1**. Additional and larger photos are shown on **pages 3-4** below.

(a) AMB-Gnd Models 1 & 8 are compatible with the following mounts and brackets:

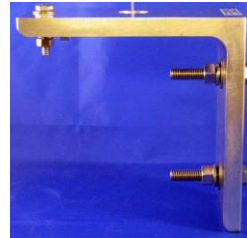
- **CLAMP-150:** "clamp to anything" portable mount for HF/V/UHF mobile antennas.



- **AMB-BKT-2:** "dual L" bracket for bolting to horizontal surface, with tilting feature. Available with a variety of antenna bases (3/8x24 stud, NMO with and without groundplane radials, SO239).



(b) AMB-Gnd-5 was designed for the new **CLAMP-250** clamp or bolt on heavy-duty, tilting, fixed base and RV ladder antenna/mast base, and **AMB-BKT-3T** heavy-duty "L" antenna mount (photo on the right).



(c) AMB-Gnd-8W is compatible with the following mount:

- **AMB-Bkt-Mast-D2.0:** super heavy-duty "L" bracket with three stainless steel u-bolts for mounting antennas to the top of masts with diameters up to 2 inches. With one or two of our AMB-Arm2 brackets you can fit TWO or THREE antennas on one "Mast-D2.0" mount!



(LARGER IMAGE ON PAGE 4)

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Installation

All of our counterpoise “ring” brackets bolt to one of the 3/8 inch holes on our compatible mounts and you may be able to mount them to your own custom made antenna mount. They can be bolted to a panel thickness up to ½ inch with the included mounting bolt – or thicker mounts with a longer 3/8x24 bolt. See the installation photos in these instructions to illustrate how the “rings” are installed.

All models mount “horizontally” so the counterpoise whips extend horizontally away from your antenna to form an effective counterpoise that can be left installed on a long term basis or temporarily while traveling, etc. The ends of your counterpoise whips do NOT have to be supported, unlike when using wires as a counterpoise. Generally, your counterpoise should be at least five feet (higher if people can walk near your antenna) above the ground, but the higher the better.

Consider safety when mounting the “ring” and your mount! Be sure the counterpoise whips cannot injure someone or an animal – mount them high enough and out of the way of people and animals. Also keep your antenna and counterpoise away from any power wires. Refer to the **Safety First** section on **page 1**.

Spare parts, accessories, downloads and related products.

Let us know if you need spare parts or are looking for something that we do not yet provide – your idea could become a new product! As a specialty company, we are looking for unique ideas to serve the amateur and two-way radio community.

For a listing of our current products visit our Home Page or download our PRODUCTS GUIDE.

Warranty Summary

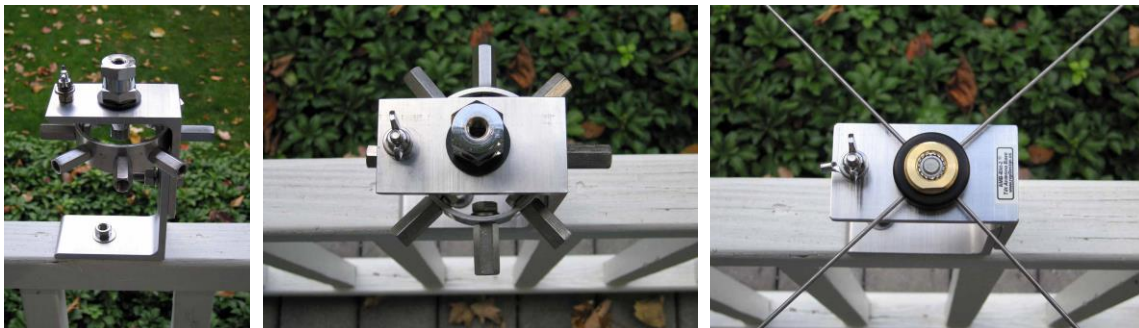
All products include a two (2) week "return for any reason" and six (6) month manufacturing defects limited warranty. If you should need to return your product please contact us **IN ADVANCE to obtain a return authorization number. Please refer to the complete warranty terms that are enclosed with your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

Product Illustrations & Installation Examples

AMB-GND-1 ring on our AMB-BKT-2 "dual L" tilting mount. Note that the bottom “L” is behind the GND in this photo to illustrate the “tilting” feature of this mount, for mobile and fixed base use. GND-8 also fits.



AMB-GND-1 & 8 ring (GND-1 also fits) on our AMB-BKT-2 “dual L” tilting mount for fixed base (shown) and mobile applications. The left and middle photos show the GND-8 with our 3/8x24 stud base, and the right photo shows our NMO base with groundplane radials for 135-512 MHz. GND-1 and GND-8 rings can be used with any of our antenna bases.



AMB-GND-5 ring on our horizontally mounted super heavy-duty **CLAMP-250** clamp-on or bolt-on mount for railings, fences, posts & RV ladders. The middle antenna is a large Hi Q Antennas 5/160 RT motorized HF antenna (160-10m) which is easily supported by the CLAMP. The CLAMP can also be mounted horizontally and tilted (right photo) up to 17°.



AMB-GND-8W ring on our super heavy-duty **AMB-Bkt-Mast-D2.0** top of mast mount. The left photo shows how the AMB-GND-8W bolts to the “Mast D2.0”. The right photo shows the “Mast D2.0” with one AMB-Arm2 second antenna bracket (two Arms will fit) and our SHUNT-100 HF load inductor – while not shown the GND-8W will also fit with these options. *ONLY the AMB-GND-8W will fit due to the extra width of the “Mast D2.0”.*

AMB-Gnd-8W Counterpoise Ring: Mounting on AMB-Bkt-MastD2.0
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NOTE: ONLY the AMB-GND-8W fits the “MastD2.0” L bracket

- (1) Insert the LONGEST 3/8x24 bolt with lock washer into one of the eight holes from the INSIDE of the “GND”.
- (2) Insert the GND “ring” with bolt/lock washer into the upper middle 3/8 inch hole on the AMB-BKT-MastD2.0, super heavy-duty antenna mount for top of masts with a diameter up to 2 inches.
- (3) On the other side of the “MastD2.0” screw on one of the 3/8x24 coupling nuts – this has to be just above the top of the mast. The counterpoise whips screw into the couplers.



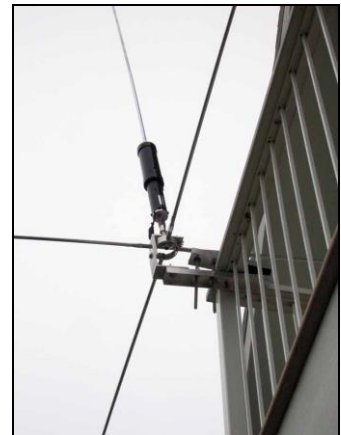
AMB-GND-1 ring on our **CLAMP-150** “clamp to anything” mount. The CLAMP150 will attach to horizontal, vertical and slanted surfaces up to nine (yes 9) inches thick! GND-8 also fits.

CLAMP-150®
SHUNT-100 Option

REP Design
REP Design LLC

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SHUNT-100 (option)
HF load inductor
160 – 10m
Simple bolt to CLAMP-150



Thank you for purchasing our products or viewing our instructions. HAPPY DX!