

# *Pro Audio Engineering*

## AM1 Portable Antenna Mount System



### Owner's Manual

Rev 2.0  
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**Thank you** for purchasing the PAE-AM1 portable antenna mount. We designed the AM1 to quickly enable mounting portable whip antennas to various surfaces both horizontal and vertical. It is supplied with a BNC feedthrough connector for antennas such as the Elecraft AX1 or AX2 or others.

For full information on its specifications, design and performance capabilities, please visit:  
<https://proaudioeng.com/products/AM1-portable-antenna-mount/>

Additional accessories for the AM1 are available at the above link.

We welcome any and all comments regarding the design, operation or performance sent to: [info@proaudioeng.com](mailto:info@proaudioeng.com)

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IMPORTANT NOTES:

- \*\*Ensure the antenna will never come close to high-voltage power lines when mounting the AM1 !!\*\***
- \*\* Damage caused by placing a handle extender and over-torquing the clamp will void warranty\*\***

## **Operation:**

### **AM1 + SmallRig Clamp:**

The AM1 bracket in conjunction with the supplied SmallRig clamp is small and light, perfect for backpacking. The SmallRig can clamp to any flat or round surface up to 2" thick quickly and securely.

To mount the SmallRig clamp, open the clamp jaws by turning the handle counterclockwise viewed from the handle.

Tighten the handle securely as tight as you need to to make a solid mount.

**\*\*DO NOT PLACE A HANDLE EXTENDER OVER THE HANDLE TO INCREASE TIGHTENING TORQUE, THIS CAN DAMAGE THE CLAMP AND WILL VOID THE WARRANTY\*\***

### **AM1 + AM1-B6A Bessey 6" Clamp:**

The AM1 bracket in conjunction with the AM1-B6A can accommodate any surface up to 6" thick and apply over 1000 pounds clamping force. This clamp is recommended for very heavy or long whips for lower frequency bands. It also gives an extra margin of stability in locations where high winds frequently occur. It is recommended to be cautious when using the AM1-B6A on rounded surfaces as slippage may occur, allowing the antenna to fall.

### **Changing the AM1 Orientation:**

To change orientation, loosen the large knurled knob counterclockwise, then rotate the AM1 bracket to vertical or 90° to the left or right as needed. Tighten the knurled 3/8" bolt to secure the bracket to the clamp. Check to ensure the clamp is still tightly secured to the mounting point.

Counterpoise wires can be secured under the thumbscrew on the AM1 bracket which will either accommodate lugs or bare wire. The washer is held captive so it will not fall off the thumbscrew, which makes attaching counterpoise wires with a ring terminal safe and easy.



**NOTE:** In some cases slight dimensional variation of the SmallRig clamps in conjunction with longer whip antennas may show some free-play between the AM1 bracket and clamp, even with the knurled knob very tight. This can be eliminated by taking a small slip of business card stock or equivalent thickness card stock like the sample included with the PL-259 to 3/8-24 stud mount adapter and insert it between the clamp and AM1 bracket, and then tightening the knurled 3/8" bolt. The AM1 bracket will cut off any excess thickness of shim as it tightens.

## **Maintenance:**

The AM1 leadscrew comes pre-lubricated with a PTFE based dry-lubricant. Since this clamp will be used outside, we discourage the use of a grease or liquid oil, as dust and dirt will tend to stick to them. When these abrasive particles are then run into the nuts they can permanently scar the leadscrew thread surfaces, making tightening difficult. If additional lubricant is needed, apply spray dry PTFE lubricant sparingly on the lead screw and work the screw throughout it's extent to distribute the PTFE.

Acceptable dry lubricants are DuPont Non-Stick Aerosol, CRC Dry PTFE Lube, 3-IN-ONE Dry Lube or others.

Dry graphite or moly lube can be used if the risk of making a mess in your to-go kit bag is acceptable, these lubes will spread and stain surfaces.

## Accessories:

### Right-Angle BNC to BNC Cables



#### 3 foot RA BNC to BNC

P/N: RA-BNC-3

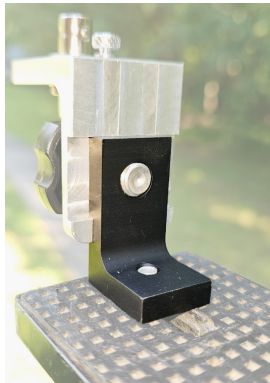
#### 6 foot RA BNC to BNC

P/N: RA-BNC-6

US-made with the correct right-angle BNCs for the rig end to reduce the leverage on the rig's BNC jack, coupled with low-loss PTFE RG-316 to a BNC for connecting to the AM1 with the BNC-BNC feedthrough .

### AT1 Tripod Adapter

P/N: AM1-TA



The AM1-TA (shown with a silver AM1 for clarity) adapts the AM1 bracket for tripod mounting on any standard camera tripod which has a 1/4-20 threaded stud mount. Machined from billet 6061 aluminum, it is a full 1/4" thick for rigidity and full thread engagement for both the AM1 knurled bolt and tripod threaded stud.

### **SO-239 to BNC Flange Mount Adapter Kit**

P/N: SO-239-BNC FM Kit



This adapter allows the use of PL-259 terminated antennas with the AM1. To install, first remove the BNC to BNC adapter using a 14 mm or 9/16" deep socket or nutdriver. Mount the SO-239 to BNC adapter using a #1 Philips screwdriver and the four #4-40 x 1/4" screws provided.

### **PL-259 to 3/8-24 Stud Mount Adapter**

P/N: 38-24-PL-259



Mount your 3/8-24 stud whip antenna to the AM1 using this adapter in conjunction with the SO-239 to BNC Flange Mount kit.

### **AM1-Bessey 6" Clamp**

P/N: AM1-B6A

The AM1-B6A is a high-quality 6" Bessey bar clamp with an adapter (shown in silver for clarity) allowing it to tightly mate with the AM1 bracket system retaining the ability to rotate 90° in either direction. The combination will tightly grab surfaces up to 6" thick to stabilize heavy whip antennas, or give a secure mount in locations where high winds are expected.



## **Specifications:**

### **PAE-AM1 Bracket:**

**Dimensions:** 1-3/4" x 1-3/4" x 1-1/4" (45 x 45 x 32 mm)

**Weight:** 2.4 oz. (9.2 g)

### **SmallRig Clamp:**

#### **Clamping Range:**

0.4" (10 mm) to 2" (50 mm) diameter round members.

0.0" (0 mm) to 2" (50 mm) thick flat members.

**Dimensions:** 4" (101 mm) High

3-1/2" (89 mm) Wide

1-1/4" (32 mm) Thick

**Weight:** 4.7 oz. (132g)

### **Bessey Clamp:**

#### **Clamping Range:**

0.0" (0 mm) to 6" (50 mm) thick flat members.

**Dimensions:** 10" (254 mm) Long

4-1/2" (115 mm) Wide

1-1/4" (32 mm) Thick

**Weight:** 16 oz. (454g)

**Warranty:**

1 year from date of purchase, limited to defects in manufacture.

Pro Audio Engineering reserves the right to make changes to product specifications which preserve or improve performance and do not affect suitability for the intended use supporting lightweight whip antennas weighing less than 1 pound.