USING THE T-MOUNT

For Sunsight AAT and AAT Mini Models

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Safety

The AAT should be handled using the following considerations:

⚠ There are no user-serviceable parts within the AAT. All internal repairs must be performed by Sunsight Instruments.

⚠ Use only the Sunsight supplied smart charger to recharge the LiFePO4 battery pack. Use of a non-approved battery charger will void the battery warranty and can damage the battery pack.

⚠ Never attempt to recharge the batteries outdoors in inclement conditions.

⚠ Never short the battery terminals, attempt to disassemble the battery pack, or dispose of the pack in a fire. Any exhausted battery packs must be disposed of properly. CONTACT SUNSIGHT INSTRUMENTS IF YOU ARE UNSURE OF HOW TO PROPERLY DISPOSE OF THE BATTERY.

⚠ The AAT is water resistant, but not waterproof. Do not submerge or leave the unit in standing water. All sealing caps and doors must be secured while in use, particularly during inclement weather.

⚠ Avoid impacting, dropping or rough handling of the AAT. The AAT contains sensitive electronic components. Rough handling may result in internal component damage.

⚠ Care should be taken to avoid impact to the black GPS antennas on the top of the AAT.

If you suspect the AAT is operating incorrectly, contact Sunsight Instruments or an authorized Sunsight Instruments distributor for support.

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This document will cover the correct usage of the T-mount for the Sunsight AAT and AAT Mini alignment products.

Before attempting to use the T-mount or any accessories, please review all training materials and familiarize yourself with the AAT/AAT Mini/AAT Max Quick Start Guide. The document is also available at www.sunsight.com under the Support tab.

This document assumes that the user has read and understands all AAT training and safety materials. **Always use applicable safety standards and good practices.**

This document assumes that the AAT and T-mount have been prepared and maintained.

For the remainder of this document, the term "AAT" will mean both the AAT and AAT Mini alignment systems.

Overview

The T-mount is used for mounting the AAT on various structures that are constructed of round or square section materials (ex. round or square tubing).

For round or square section materials, the mount is compatible with various diameters or cross sections. The T-mount is supplied with multiple clamps to support different sizes of materials (round or square section). Users can also supply their own clamps to support other materials.

When used on round materials, the T-mount Is limited in that it can only be used to collect azimuth (yaw) data as there is no reference for tilt (pitch) and/or roll. Tilt and roll could be taken for square section material if the mount has a good reference (ex. Flat vertical surface).

The T-mount can also be used as a versatile method for attaching the AAT to flat surfaces that can accept fasteners to hold the mount securely. Be sure to use surfaces that provide good reference to the device being aligned.

When the mount is attached to a flat surface correctly, azimuth (yaw/compass heading), tilt (pitch) and roll can be measured successfully.

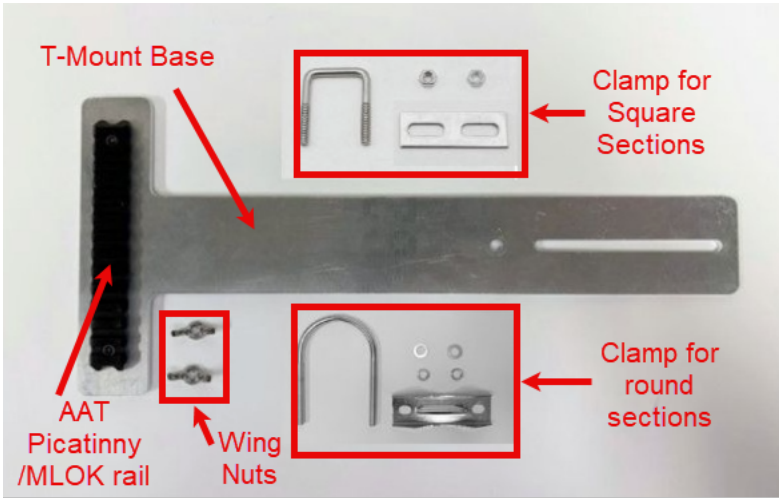
Note that the T-mount can be temporarily clamped to the device being aligned using user supplied clamping methods. However, the user takes full responsibility for the clamp and its applicability and safety to use with the T-mount, the AAT and the device being aligned.

Be sure the clamp is adequate in strength and clamping force to assure the T-mount and AAT will be held securely and safely.

AAT T-mount

***Example T-mount Installation on* Round Section Materials**
(with and without AAT)

***Example T-mount Installation* on Flat Reference Surface**



T-mount Part Identification

1) Securing the T-mount to the Device Being Aligned

a) Instructions for Attaching to Round or Square Section Materials

i) Determine a location to use for the T-Mount that will accurately reference the device to be aligned. Make sure the AAT will be mounted in such a way that it will have a clear sky view to allow reception of GNSS signals.

- The location must be compatible with the T-Mount clamps

- The mounting location should be sturdy enough to support the AAT and not be subject to flex that might affect alignment or safety.
- The T-Mount must be mounted vertically

ii) Select the proper U or square clamp for your application and place around the mounting location.

iii) Insert the U or square clamp through the hole and slot of the T-Mount. Secure with the included washers and wing nuts.

- Make sure the AAT mounting rail (black picatinny/MLOK rail) faces the direction over the clamps. This position provides the most balanced installation.

b) Instructions for Attaching the T-mount to Flat Reference Surfaces

i) Determine a location to use for the T-Mount that will reference the device to be aligned. Use edges (sides, back, corners) to square the mount to the device being aligned

ii) Make sure there will be enough clearance for the AAT once secured to the T-mount and that the mounted AAT will have a clear view of the sky such that it can receive GNSS signals.

iii) Using the appropriate fasteners or user provided clamp(s), secure the mount to the device being aligned. See steps above for installing using included clamps

2. Installing the AAT on the T-Mount

1) <u>Verify the security of the mount before attaching the AAT</u>

2) When the T-Mount is used on round sections, make sure the T-Mount is mounted vertically

3) Attach the AAT to the T-Mount mounting rail using the grip plate on the back of the AAT. User should feel AAT “click” into position. Tighten the AAT thumbscrews to secure AAT.

4) Secure AAT and T-Mount to stable structure using safety lanyard to prevent potential falling hazard.

3. Measuring, Capturing and Reporting Alignment Data

1) Connect to the AAT in the standard way by powering on the AAT and connecting using WiFi or USB-C cable (see Quick Start Guide for detailed instructions). The connection can be made using the Android App (preferred) or by using WiFi and a browser.

2) Select Orientation

    a) Select the AAT orientation that matches the mounted position. The AAT orientation can be front/back/right/left.

3) Perform antenna adjustments to match desired alignment and save results.