

Instructions for Updating Firmware for the AntennAlign Alignment Tool (AAT)

Firmware Update (General)

Introduction:

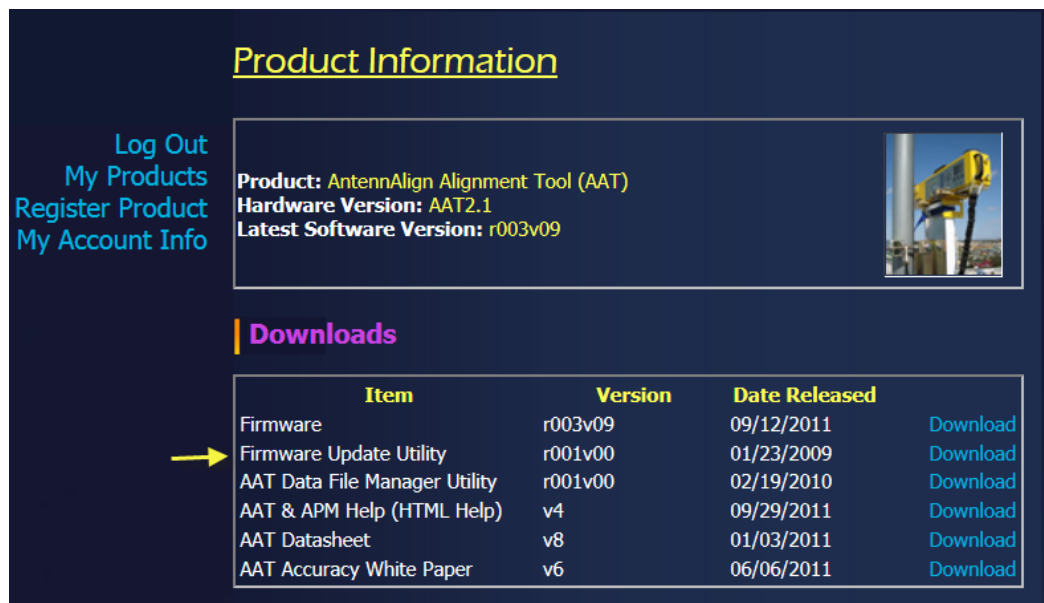
From time to time, SunSight Instruments will issue new firmware releases for the AAT. These releases will typically contain new features, enhancements and fixes. Software releases are available through www.sunsight.com for registered products. Any customer registered on the website will be notified of new firmware releases as they are made available. Documents describing the operational changes for the AAT are on the website as well. Be sure to carefully read the release document, as occasionally some features may require the equipment to be returned to SunSight Instruments for update.

Requirements for Firmware Update of the AAT

The following items are required to perform the update of firmware in the AAT:

- 1) Download the Firmware Update Utility (**AntennAlign AutoUpdate**) from www.sunsight.com (under the Support tab) to a windows based PC and install (setup.exe). Note that a program will be added to the PC under SunSight Instruments group called **AntennAlign AutoUpdate**.

From the website:



The screenshot shows the SunSight Instruments website interface. On the left, there is a navigation menu with links: "Log Out", "My Products", "Register Product", and "My Account Info". The main content area is titled "Product Information" and displays details for the "AntennAlign Alignment Tool (AAT)". It lists the "Hardware Version" as "AAT2.1" and the "Latest Software Version" as "r003v09". To the right of this text is a small image of the AAT equipment. Below the product information, there is a section titled "Downloads" which contains a table listing various software utilities and their download links. A yellow arrow points to the "Firmware Update Utility" row in the table.

Item	Version	Date Released	
Firmware	r003v09	09/12/2011	Download
Firmware Update Utility	r001v00	01/23/2009	Download
AAT Data File Manager Utility	r001v00	02/19/2010	Download
AAT & APM Help (HTML Help)	v4	09/29/2011	Download
AAT Datasheet	v8	01/03/2011	Download
AAT Accuracy White Paper	v6	06/06/2011	Download

- 2) The new AAT firmware load must be downloaded, unzipped, and saved on the PC to a known location (firmware is available at www.sunsight.com to registered owners of Sunsign Instruments products)
- 3) Download the firmware release document that matches the firmware load. Be sure to carefully review the document.
- 4) Download the latest help file for the AntennAlign from the website for reference.
- 5) Establish connectivity to the AAT either 1) with a CAT5 cable (Ethernet) between the PC and the AAT or 2) over the wireless link between the PC and the AAT. See help document for instructions on how to set up connectivity to the AAT if unsure.

Steps for Firmware Update of the AAT

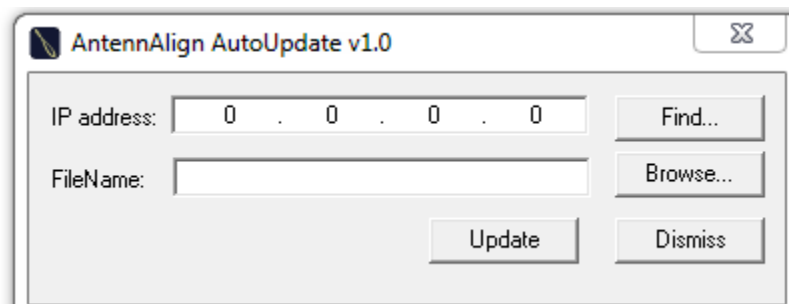
Before proceeding with the update, please make sure the AAT has sufficient battery charge to run for a minimum of 2 hours or is connected to the battery charger originally supplied with the tool to avoid unexpected shutdown during updating. Connect the Ethernet cable originally supplied with the AAT between the host computer and the AAT. Turn off the computer's on-board Wi-Fi.

For firmware updates from r003v16 and greater, execute steps 1-7 below to complete the update process.

*** Special procedure for updating from r003v15 or earlier ***

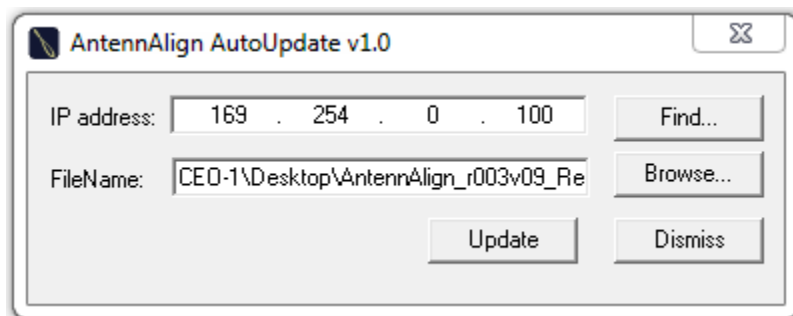
When updating from AAT release r003v15 or earlier to the latest production firmware release, a two-step process is required. The AAT is updated with a temporary firmware file named **AnntenAlign_r003v16_Released_PART1_APP.s19** (available on the support page at www.sunsight.com) and then updated with the appropriate production firmware.

- Execute steps 1-7 below using the AnntenAlign_r003v16_Released_PART1_APP.s19.
 - Turn off the AAT for approximately 10 seconds, then restart.
 - Repeat steps 1-7 with the appropriate production firmware.
- 1) Review the firmware release document to ensure that the new firmware is compatible with the AAT to be updated. This is typically identified in the release document by the ranges of the AAT serial numbers and the current firmware revision on the AAT to be updated.
 - 2) Connect the PC to the AAT using the standard process (CAT5 cable or wireless). Refer to help document for instructions if unsure.
 - 3) Start the AntennAlign AutoUpdate Program by going to the program group for Sunsign Instruments and clicking the AntennAlign AutoUpdate program. **BE SURE NOT TO START MULTIPLE INSTANCES OF THE PROGRAM.** The following should be displayed:



Note: Do not attempt to use the “Find” button. It does not operate for this application.

- 4) Enter the IP address displayed on the front of the AAT connected to the PC. This is typically 169.254.0.100.
- 5) Click “Browse” and navigate to the location of the new firmware file and click on the file and select “Open.” The AntennAlign AutoUpdate display should look similar to this:



- 6) Click “Update” and the firmware will download and install onto the AAT. This can be verified by noting progress on the progress bar. Note that the progress bar will disappear for several seconds before the AutoUpdate program will indicate success or failure of the update, please wait for the indication. **If there is a failure, it is likely that 1) multiple instances of the AutoUpdate program are open or the PC and AAT are not connected together over the CAT5 cable or the wireless link correctly. Please refer to the help document for instructions on connecting to the AAT.**
- 7) Once the AutoUpdate program displays successful completion of the update, the process is complete and the AAT will reboot and should now display the new firmware release number on the main left-hand display. This is the successful completion of the firmware update process. (if you are updating from R003v15 or earlier, you must repeat Steps 1-7 using the appropriate production firmware).