

MATS

ADVANCED TELEMETRY SYSTEMS



Light Activation Box User Guide

Technical specifications

Size L x W x H (mm): 130 x 66 x 33

Power requirements: 5VDC, 250mA

Power + External connection: USB-C (cable included)

UI description

- **Screen:** High-contrast OLED which informs users of current operation being performed or selected tag type
- **Reflective Chamber:** Hinged chamber in which the tag is placed during operation. Do not look directly at the LED as it is flashing.
- **Activate Button:** When pressed, the LED blinks in a sequence to activate the selected tag.
- **Deactivate Button:** When pressed, the LED blinks in a sequence to deactivate the selected tag.
- **Mode Button:** When pressed, cycles the selected tag type. Selected tag type is displayed on screen.

Operation instructions

Activation/Deactivation

- Open hinged lid to reflective LED chamber and place one tag inside
- Shut lid to chamber (Do not leave chamber open, as UV light from LED may be harmful if looked at directly)
- Press the “Mode” button until the correct tag type is shown on the screen
- Press the button that corresponds to the action that you would like to perform
- Open the chamber and remove the tag
- Confirm via receiver that tag’s state is as expected. E.g., place an ELAT tag into the ATS Pinger Dish to confirm that it is on/off, or check a T15 with any VHF Receiver

Locking tags ON

- Light-activated tags consume a small amount of power to “listen for” commands, and this functionality can be disabled when activating a tag just before a study. This maximizes life, but please note that this makes the tag impossible to deactivate afterwards.
- To lock a tag ON, press and hold the Activate and Mode buttons for 2 seconds. Once the progress bar on the screen is complete, the lock activation sequence will turn the tag permanently on. Release the buttons before the 2 second period completes to abort the sequence and not lock the tag.

ELAT Instructions

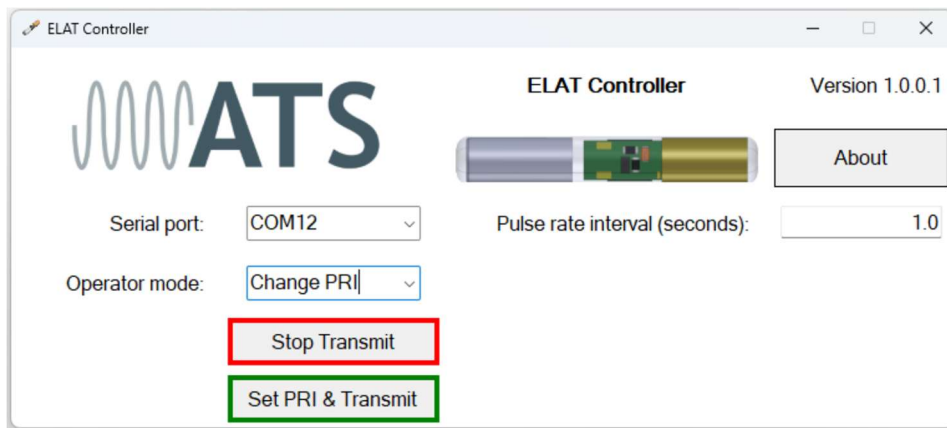


Figure 1: ELAT Controller example UI screen

- More complex instructions past basic ON/OFF/LOCK commands may be performed by the LAB by using the ELAT Controller (shown above) program from ATS. The steps to get set up with ELAT Controller are shown below: Download and install ELAT Controller on any Windows PC (Windows 10 and up) from the ATS Customer Support Webpage
 - Connect the LAB to a PC with a USB-C cable
 - Open ELAT Controller and select the COM port of the LAB (Drop down by Serial Port label). An easy way to find which COM port corresponds to the LAB is to open Device Manager, plug/unplug the device, and observe which port changes as you do so.
 - Place a tag within the LAB's reflective chamber
 - Select the settings that you would like within ELAT Controller and press the relevant button to send settings. The LAB will flash its LED in accordance with any settings sent over by the PC.
- Operator mode may be changed by selecting the drop down by the "Operator Mode" label. This gives access to different pages of settings, detailed below:
 - Operator Mode: Change PRI: The pulse rate interval of the tag may be changed by entering the time between pulses, and then pressing the "Set PRI & Transmit" button.
 - Operator Mode: Activate: The Transmit / Stop Transmit buttons behave the same as the physical buttons on the LAB, starting and stopping the tag. The "Transmit & Lock" button places the tag in a state which keeps it on permanently, saving battery life by disabling the light sensor. This is the recommended state for tags in studies, as it maximizes lifetime.

Revision History

1.0	2-Feb-2026	Initial Release
1.1	23-March-2026	Added tag lock instructions