

Setup, Care & Servicing

Keeping an acoustic monitor recording reliably through a season outdoors.

Maintaining your acoustic gear is vital to ensure it continues to work year after year in tough conditions. Monitors hang outside for months in wet and humid conditions. Almost every field failure comes back to moisture, a flat RTC battery, or a card formatting problem. This guide aims to help you keep your monitors in top condition for the long term.

1 Maintenance

BEFORE

Deployment

1. **Format the SD card.** Doing this on the device is recommended. On a computer use FAT32 or exFAT. Up to 2 TB; SanDisk Ultra recommended.
2. **Fit 4 × AA** as a matched set. NiMH recommended.
3. **Add a fresh silica gel pack.** Either 0.5 or 1.0 g.
4. **Configure it in the Alato Configurator app,** tapping the phone to the NFC point under the SD card. Save settings as a template to configure multiple devices easily.
5. **Check the date and time.** Wrong or reset may mean a flat RTC battery.
6. **Run the Hardware Test** and confirm everything passes (page 2).

AFTER

Retrieval

1. **Take the AA batteries out.**
2. **Save the data and check everything recorded as expected.** Review the log file if there are any issues.
3. **Air-dry the unit indoors with the tube off** for at least a day.
4. **Inspect for damage.** Case, threads, locking ring, screen, buttons and microphone foam.
5. **Clean with isopropyl** on a lint-free cloth or cotton bud. Clear any debris or insect nests from the foam.
6. **Store with the tube unlocked,** somewhere cool, dry and stable. Sealed storage traps damp air and takes a permanent set out of the O-ring.

YEARLY

Off-season service

About 30 minutes a unit

1. **Replace the RTC battery (CR1220)** — on schedule, not on failure. Small clip at the top left of the LCD.
2. **Replace the O-ring,** or sooner for cracks, flat spots, a chalky surface or grit. Clean the ring and groove, and use silicone grease only.
3. **Clear any corrosion** — white or green powder on the AA terminals, clip, card slot or threads. Isopropyl on a cotton bud, dry fully.
4. **Re-waterproof the microphone foam.** When completely dry, spray it in place with Alato waterproofing spray from about 20 cm — several light passes, never one heavy coat.
5. **Update the firmware,** then run all four tests on page 2.

2 Testing

From firmware v1.73 the device tests its own hardware. Run the Hardware Test before every deployment; the other three before the season and after any service.

Hardware Test

From the main menu, with the card and batteries fitted and the unit configured — test the setup you are actually deploying.

TEST	WHAT IT CHECKS
Data EEPROM	The memory holding your protocol settings
DSP EEPROM	The memory holding the DSP code
RTC	The connection to the clock hardware
Alarm	Whether the unit will wake at the start time in the next protocol
Battery	Brand new alkalines read about 6 V. Never deploy if below 4.5 V.
DSP comms	The connection to the audio processing hardware
SD card	That the card can be written to, and is formatted correctly
Test switch	Press each button in turn to confirm it works
Audio test low / high	The connections to the audio ADCs

A failure is a stop. Update to v1.74 and run the test again before you assume a hardware fault — but do not deploy a unit that failed.

Bat Test

Bat mode is triggered by ultrasound, so clapping will not test it. Use **Bat Test** from the main menu with the **DOC – Bat Recorder Tester** app from Tussock Innovation, which plays ultrasonic clicks that imitate a bat.

- The screen shows **Bat Detected** the moment a call is picked up, before anything is written to the card.
- The LED flashes while the unit writes to the SD card.
- The app is Android only. On an iPhone, borrow an Android phone, or jingle a bunch of keys right next to the microphone — keys throw out plenty of broadband ultrasound and will trigger a healthy unit.

GPS

Test it outside, in the open. Allow up to 5 minutes for a cold fix and then let the fix stabilise.

Audio quality

The hardware tests confirm the microphone is connected; only listening tells you it works well. Record a minute or two, then play the files back off the card, ideally alongside a unit you know is good. Faint, distorted or silent recordings are a fault — send the unit in.

3 Common faults

SYMPTOM	WHAT IT MEANS	WHAT TO DO
Date and time wrong, or reset to a default	The RTC battery is flat	Replace it. Do not deploy until the time holds through a two-minute battery pull.
Nothing on the card, and no folders created	The unit never woke to record	Check the date and time, then the start time and duration in the app. Reformat the card on the device. Update to v1.74, which fixes a fault where the clock failed to wake the unit.
Bat mode: folders created but empty	The unit woke and ran on schedule, so the bat microphone has failed	Send it in. Folders mean the clock and the card are working and the microphone did not trigger as it is faulty.
Card full or batteries flat far too early	Constant false triggering	Almost always moving water, rustling vegetation, or a branch touching the case. Move the unit well away from riffles, rapids and small falls. Check debug logging is off.
Water inside the tube	Failed seal, the unit was closed damp, or the unit was on the ground	Dry it out fully, open, over a few days. Replace the O-ring, clean any corrosion, then test everything.
Hardware Test fails on Battery	Cells low, old or mismatched	Fit a fresh matched set and run the test again.

4 Sending a unit in for repair

Some faults need to be investigated. We service AR4 units as well as AR5. Send one in for anything marked send it in above, and also if:

- Recordings are faint, distorted or silent
- There is no GPS fix after five minutes in the open
- Corrosion has reached the circuit board or the microphone
- The case, threads, locking ring or screen are damaged
- A Hardware Test still fails after a clean and a firmware update

BOOK A SERVICE

alato.co.nz/book-a-service

Tell us the unit ID, the firmware version and what you have already tried.

HELP CENTRE

alato.help.center

FIRMWARE

alato.co.nz/firmware

SUPPORT

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