

Product safety



IMPORTANT, PLEASE READ BEFORE USING TBR 800:

Our users' safety and the equipment's proper operation are important to us at Thelma Biotel. This user manual section describes essential safety information and guidelines to ensure a safe and reliable experience when handling our equipment.

By following these recommendations, you will increase the user's safety and improve the performance and durability of your TBR 800 receivers. Whether you are experienced or new in the acoustic telemetry field, following these safety instructions will allow you to operate our equipment more safely and confidently.

Battery Safety

Information collected from: [Tadiran Batteries, Lithium Battery Information Sheet](#) [1]

The Lithium Thionyl chloride batteries used to power the TBR 800 contain chemicals that, if not handled correctly, could represent a health hazard.

Thelma Biotel uses Lithium Thionyl chloride batteries of the type SL-2790 / TL-5937 (these are the same batteries with names for different markets - Worldwide / America). The battery must always be handled carefully to avoid mechanical, electrical, or thermal damage. The battery must never be subject to short circuit, recharging, puncture, incineration, crush, immersion in water, force discharge, or be exposed to temperatures beyond the temperature range of the battery cell (–55 °C ... +85 °C).

More information about the battery safety can be found in the accompanying battery manufacturer manuals “[Lithium Battery Information Sheet](#)” [1] and “[Technical Brochure LTC-Batteries](#)” [2].

Receiver battery damage

If your receiver displays any signs of internal or external damage, the battery could be compromised, and the unit should be treated cautiously. Proper protective equipment must be used when investigating the unit to avoid inhalation of gases or contact with a chemical spill.



Signs of receiver damage

- The LED light lens has popped out of its port (internal pressure relieved)
- Any signs of water inside of the receiver
 - Additional weight over normal receiver weight
 - Water sloshing inside the receiver
- Premature non-responsive receiver. No LED indicator light long before the estimated battery lifetime is up.
- Visible physical damage, cracks, or leaks

Possible pressure inside of the TBR 800 receiver

A damaged receiver can possibly contain pressure when brought to the surface. The LED light lens is a pressure relief port and will pop out long before the internal pressure reaches dangerous levels. A missing LED port is a sure sign of a damaged battery, and careful handling must be followed to avoid exposure to battery acid. Minor pressure could also be released as the receiver is opened, and care should be taken to avoid possible spray or fumes exiting the casing when opening.

Possible internal water damage in the TBR 800 receiver

A water leak in the receiver can result in internal pressure and corrosion damage to the battery. A receiver with internal water damage needs to be handled according to safety procedures due to the pressure, and potential hazardous gases and liquids within resulting from the battery.



How to handle a damaged TBR 800 Receiver

We recommend following these steps when handling a potentially damaged TBR 800 Receiver:

1. **Use protective gear** such as gloves, protective glasses, and respiratory protection, and work in a well-ventilated location.
2. **Always follow proper safety procedures** implemented in the area you are working in (Check country, state, and county rules where you are using your equipment).
3. If you suspect that the receiver is damaged and you are unsure what to do, **do not hesitate to contact the Thelma Biotel team: service@thelmabiotel.com**
4. If the receiver is potentially compromised and not handled immediately, remember always to keep the unit **stored in a safe location** in case of a breach. **Do not point the top part of the receiver** towards anyone else or yourself.

If you suspect a leak in the receiver, the best way to handle it is by wrapping it in a thick towel or similar fabric to catch any spray, liquid, gas, or pressurized parts. Contained in the towel you can use a flathead screwdriver to unscrew and open the receiver carefully. Opening a damaged receiver must be done either outside or in a well-ventilated area with protective gear, as stated above.

NOTE: if you don't feel comfortable with the procedure or have further questions, do not hesitate to [contact us](#) before opening the unit yourself.