

RanchOn TankBoss™

Battery Safety Statement

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Issued by	RanchOn, LLC, 4506 N CR 412, Loraine, Texas 79532, United States
Contact	512-987-7719 · support@ranchonllc.com
Related documents	RanchOn TankBoss Two-Year Limited Warranty; RanchOn TankBoss Installation Guide; RanchOn Terms of Service; RanchOn Privacy Policy

Scope

This Safety Statement covers the lithium battery in the RanchOn TankBoss™ tank monitoring device (the “Device”): its specifications, what can go wrong with it, how to recognize a problem, what to do in an emergency, and how a Device is removed from service, shipped, and disposed of.

Read it with the RanchOn TankBoss Two-Year Limited Warranty, the RanchOn TankBoss Installation Guide, the RanchOn Terms of Service, and the RanchOn Privacy Policy. Each subject has one home. This Safety Statement states battery specifications and what to do when something is wrong with a Device. The Warranty states what is covered and on what conditions, including operating conditions and the requirements for AC-powered operation. The Installation Guide states how to site, mount, commission, and maintain a Device. The Terms of Service governs subscription, data, and alert services.

Quick Reference — If Something Looks Wrong

If a TankBoss Device is hot, swollen, cracked, discolored, leaking, smoking, hissing, or on fire:

1. **Do not touch or move it if it is hot, smoking, hissing, leaking, or on fire.** If it is only swollen, cracked, or discolored and still cool, leave it outdoors — or carry it outdoors if it is inside. Never put it in a vehicle.
2. **Move upwind.** Get people and livestock away.
3. **Call 911 if there is smoke or flame.** Tell them it is a lithium battery.
4. **Protect what is around it, not the Device.** The Device is expendable. Water is the right tool.
5. **Call RanchOn at 512-987-7719.** Never ship a damaged Device — RanchOn collects it.

1. The Battery in Your TankBoss

The TankBoss Device contains one rechargeable lithium-ion battery pack, enclosed within the Device housing. **The battery is not user-serviceable.** There is no battery door, no user-replaceable cell, and no reason for a customer to open the enclosure. Only RanchOn may open a Device or service or replace a battery.

RanchOn currently ships Devices with one of two battery packs, both built from the same cell. A given Device contains one or the other. The two are equivalent for every purpose in this document; they differ only in capacity.

	Three-cell pack	Four-cell pack
Battery part number	L37A102-3-2-2W	L37A136-4-3-2W
Cell	ICR18650, 3.7 V, 3350 mAh lithium cobalt oxide (LiCoO ₂) cylindrical cell	Same
Configuration	Three cells in parallel (1S3P)	Four cells in parallel (1S4P)
Nominal voltage	3.7 V	3.7 V
Rated capacity	10.2 Ah	13.6 Ah
Rated energy	37.7 Wh	50.3 Wh
Approximate mass	151 g	200 g
Protection circuit	Overcharge cutoff 4.2 V; over-discharge release 2.5 V; overcurrent threshold 5 A	Same
Rated charge temperature	0 °C to 45 °C	Same
Rated discharge temperature	-20 °C to 60 °C	Same
Cell certification	UL 62133-2 and CSA C22.2 No. 62133-2:20 (SGS certificate SGSNA/23/SZ/00374)	Same
UN 38.3	Passed, tests T1-T8. Test Summary MTi220222009-19B3, issued 14 April 2022	Passed, tests T1-T8. Test Summary MTi220222009-25B3, issued 14 April 2022
Safety data sheet	MTi220222009-19B2	MTi220222009-25B2
Transport classification	UN3481, lithium ion batteries contained in equipment, Class 9	Same

Both packs are below 100 Wh, and the individual cells are below 20 Wh. Neither pack contains lithium metal.

2. Hazards and Warning Signs

The battery is enclosed, protected by its own circuit, and safe in normal use. The conditions below are listed so that you can recognize a problem, not because they are expected.

- **Mechanical damage.** Crushing, puncture, or heavy impact can short a cell internally. In the field the realistic causes are livestock rubbing against or knocking the Device, a vehicle or implement striking it, or a fall during installation or removal.
- **Thermal runaway.** A self-sustaining reaction in which a cell heats itself, vents flammable and irritant gas, and may catch fire. It cannot be stopped by disconnecting power.
- **Internal short circuit** arising from a manufacturing defect or from cumulative damage to a cell.
- **External short circuit** across exposed contacts — relevant only if the enclosure or a connector has been opened, damaged, or improvised.
- **Overcharge or deep discharge.** Managed by the pack's protection circuit in normal operation. Powering or charging the Device by any unapproved means can bypass that protection.
- **Water or moisture intrusion** past a cracked, deformed, or improperly closed enclosure or connector, which can cause corrosion or a short circuit.
- **Ignition of what is around the Device.** Outdoors this means dry grass and brush; indoors it means hay, feed, fuel, and the structure itself. For a Device of this size this is the most consequential outcome of any of the above.

Warning signs. Swelling or bulging of the housing; heat you can feel through the case; a sharp, sweet, or solvent-like odor; hissing or popping; discoloration, charring, or staining around seams or connectors; visible leakage. Any of these means stop: do not install, use, or ship the Device, and follow the steps for damaged Devices under Removal From Service and Shipping.

3. Handling, Powering Down, and Inspection

3.1 The Device is sealed

- Never open, crush, puncture, drill, cut, or disassemble a Device or its battery.
- Never attempt to substitute a battery of a different type, chemistry, capacity, or manufacturer.
- Do not pressure-wash the Device or immerse it.

3.2 Powering the Device down

The Device has no power switch. The Device housing has two LP-12 connectors. The **LP-12 power connector** is the one the solar panel plugs into, or an AC power supply through an LP-12 adapter; the other connects the level probe. The Device is powered on when a power source is connected to the power connector and powered down when it is disconnected. **To power a Device down, unplug the solar panel or AC adapter from the LP-12 power connector.** Unplugging the level probe does not power it down.

Powering down does not discharge the battery, which remains charged inside the enclosure. A powered-down Device still contains a lithium battery and is handled accordingly.

3.3 Powering and charging

The Device is powered and charged by its solar panel. It may instead be powered from AC mains, using either the RanchOn AC Power Kit or customer-supplied equipment, on the conditions stated in the Warranty.

Do not power or charge the Device by any other means — for example, from a vehicle or equipment battery, a vehicle power outlet, a battery charger, a USB source, a jump pack, or any improvised connection.

3.4 Inspection

When you are at the tank, look at the Device. You are checking for:

- Swelling, bulging, or deformation of the housing
- Cracks, punctures, or impact damage, including to the panel and its cable
- Discoloration, charring, or staining, particularly around seams and connectors
- Leakage or residue
- Heat you can feel through the case, or an unusual odor
- A loose, damaged, or corroded mount

If you find any of these, stop. Do not remove the Device, and do not put it in your vehicle. Call RanchOn at 512-987-7719.

4. Storage

This section applies to a Device that has been uninstalled and put away. An installed Device is outdoors, in the sun, by design.

- Power the Device down by unplugging the LP-12 power connector, and close its cap.
- Store indoors in a cool, dry place, out of direct sunlight and away from heat sources.
- Store it in a sturdy container, or somewhere it cannot be knocked down, crushed, or punctured.
- Do not store in an unconditioned vehicle, cab, or metal building in summer.
- Do not store with or near fuel, hay, feed, chemicals, or other flammable materials.
- Keep out of reach of children and animals.
- Inspect for swelling, cracking, discoloration, odor, or leakage before returning a stored Device to service. If any are present, do not install it — follow the steps for damaged Devices.
- **Storing longer than six months.** A powered-down Device cannot charge, and a lithium cell left at a low state of charge for a long period can be permanently damaged. Every six months, reconnect the solar panel and leave the Device in full sun for a full day, then disconnect it again.

5. Emergency Procedures

5.1 Fire, smoke, or a venting Device

Your priority is people, livestock, and whatever is around the Device. The Device itself is expendable.

1. Move away from the Device and upwind. Vented battery gas is flammable and irritating.
2. Move people and livestock clear.
3. **Call 911** if there is smoke or flame. Tell the dispatcher it is a lithium battery and describe what is around it — dry grass, a barn, stored hay. In a rural district that determines what the responding department brings.
4. Do not touch, lift, or carry the Device. Do not put it in a vehicle or take it indoors.
5. **If fire threatens grass, hay, or a structure and you can act safely from a distance and upwind, wet down what is around it.** At a tank you are standing next to the water supply.

6. Do not go back to the Device until it is cold to look at from a distance and the fire department has released the scene.

On extinguishing agents. A lithium-ion battery fire is not a Class D fire; Class D agents are for burning metals and these packs contain no lithium metal. Dry powder provides no cooling, which is what a cell fire actually needs. Water is appropriate. The battery safety data sheet states that fires involving these packs can be controlled with water, with the caveat that hydrogen may evolve and can accumulate in a confined space — which is why water is the right call at an open tank and why an enclosed pump house or barn should be ventilated and left to the fire department. **Do not buy or carry a Class D extinguisher for this Device.**

Reignition. A cell that appears to be out can reignite. Keep the area wet, keep it watched, keep livestock away, and do not pick the Device up until it is completely cold.

5.2 Contact with battery electrolyte

- **Skin:** remove contaminated clothing and flush with lukewarm, gently flowing water for at least 30 minutes. Seek medical attention if irritation or pain persists.
- **Eyes:** flush with lukewarm, gently flowing water for at least 30 minutes, holding the eyelids open. Do not rub. **Seek emergency medical care.**
- **Inhalation:** move to fresh air. Obtain medical advice.
- **Ingestion:** do not induce vomiting. Rinse the mouth with water and seek emergency medical care.

5.3 Leaking or venting without fire

- Stay upwind and keep others away. Do not breathe the vapor.
- If the Device is indoors or in an enclosed space, ventilate and leave.
- Do not handle residue with bare hands. Use gloves and eye protection if cleanup is unavoidable.
- Keep spilled material out of stock tanks, creeks, and ground water.
- Do not handle or move the Device until it is completely cool. Call RanchOn.

5.4 After any incident

- Call RanchOn at 512-987-7719 as soon as it is safe, even if the Device is out of warranty. Reporting is how a pattern gets found.
- Photograph the Device, the mount, and the surroundings if you can do so safely.
- Leave the Device where it is. RanchOn will arrange collection.

6. Removal From Service and Shipping

6.1 Uninstalling is not removal

Taking a Device off its mount is not the same as removing it from service. You may uninstall a Device — power it down and unbolt it — and keep it on the place, move it to another tank, or put it away as described under Storage. **Removal from service means the Device leaves your possession, and RanchOn arranges that.**

6.2 Getting a Device back to RanchOn

When a Device needs to go back to RanchOn, call RanchOn at 512-987-7719 or email support@ranchonllc.com. RanchOn will either collect the Device or send you packaging and a shipping label so that you can ship it. Do not ship a Device until RanchOn has sent you its packaging and label.

6.3 Shipping an undamaged Device

A Device contains a lithium battery, and shipping one is regulated. **Ship a Device only in the packaging RanchOn supplies, with the shipping label RanchOn provides.** That packaging is prepared to meet the rules for shipping lithium batteries; other packaging is not.

- **Never use your own packaging** or a shipping label you bought yourself.
- **Inspect the Device before you pack it.** If it shows any of the warning signs listed under Hazards and Warning Signs, do not pack or ship it — follow the steps for damaged Devices below.
- **Power the Device down** by unplugging the LP-12 power connector, and close its cap.
- **Pack it exactly as the instructions with the packaging describe**, and put nothing in the box that those instructions do not call for.
- **Do not remove, cover, or alter** any mark or label on the packaging.

6.4 Damaged, defective, or suspect Devices — never shipped

A Device that is swollen, cracked, leaking, discolored, unusually hot, or that has been in a fire must never be shipped — by any carrier, in any packaging, including RanchOn's. Damaged lithium batteries carry transport restrictions well beyond the ordinary ones, and RanchOn's shipping packaging is for undamaged Devices only. RanchOn always collects a damaged Device.

This applies even if RanchOn has already sent you packaging. If a Device shows any of these signs when you go to pack it, stop.

1. **If it is hot, smoking, hissing, leaking, or on fire, do not touch it.** Get everyone away from it — out of the building if it is indoors — and follow the Emergency Procedures.
2. **If it is only swollen, cracked, or discolored and still cool:** if it is outdoors, leave it where it is and do not uninstall it. If it is indoors, carry it outdoors gently, without pressing on it, and set it on bare ground or gravel, away from anything that can burn and out of reach of children and livestock.
3. Do not put it in a vehicle, a shed, a barn, or a house.
4. Call RanchOn at 512-987-7719. RanchOn arranges collection at no charge.
5. Photograph the Device and the mount if you can do so safely.

7. Disposal and Recycling

- **Do not dispose of a TankBoss Device yourself.** Call RanchOn, which will arrange its return.
- Never put a Device in household or ranch trash, in a burn barrel, in a dump, or in an incinerator.
- Never attempt to remove or dismantle the battery.
- RanchOn disposes of returned Devices and batteries in accordance with applicable local, state, and federal requirements.

8. Documents Available on Request

RanchOn will provide the following to customers, carriers, distributors, and insurers on request at support@ranchonllc.com:

- UN 38.3 Test Summaries for both battery packs
- Safety data sheets for both battery packs
- The cell certificate of compliance to UL 62133-2 and CSA C22.2 No. 62133-2:20

RanchOn will notify affected customers directly of any safety notice, field advisory, or recall. Keep your contact details current with RanchOn so that notices reach you.

Contact

RanchOn, LLC

4506 N CR 412, Loraine, Texas 79532, United States

512-987-7719 • support@ranchonllc.com

Report any battery-related incident, however minor, and any Device showing the warning signs described above.

Document History

Version	Date	Summary of changes
2.0	October 2026	First release. Earlier versions were internal drafts and were not released.

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