

RETRON BOX Operating Manual



> RETRON

Please, read the operating manual carefully before using the RETRON BOX.

retronbox.de



Preliminary note

This operating manual contains important instructions on the safe assembly, use and maintenance of the RETRON BOX. Read this operating manual thoroughly and in full before using the RETRON BOX for the first time.

Retain this operating manual for future reference. If the RETRON BOX is transferred to a new owner, the information must be provided along with it.

Compliance with the instructions in this operating manual, especially the safety information and warnings, is a basic prerequisite for the safe and failure-free use of the RETRON BOX.

RETRON is a service of REMONDIS Industrie Service, a REMONDIS Group company.

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1 Safety

1.1 Instructions in this manual

1.1.1 Safety information in this manual



Safety information is preceded by the warning symbol shown here. The entire section with this warning symbol contains safety-related information.

1.1.2 Warnings in this manual

Each warning pertains to a specific action. The various signal words (warning, caution) indicate various degrees of danger.

Warning for a hazard, which can lead to health defects or serious physical injuries, e.g.:

WARNING

Risk of poisoning due to combustion of produced gases!

- Do not inhale gases!

Warning for a hazard which can cause minor physical injuries, e.g.:

CAUTION

Risk of burns due to hot surfaces!

- Do not touch the container while it is on fire!

1.1.3 Other instructions in this manual



Recycle materials separately.



Indicates other important information.

> SAFETY

1.2 General safety information



When there is a battery inside, do not place the RETRON BOX immediately next to or on top of flammable materials; keep away from all flammable objects. It is recommended to store and set up the product on a mineral, non-flammable surface. Set-up locations should be outside the living and sleeping area (e.g. garage, cellar...) and ideally well-ventilated.

- In the event that a battery spontaneously ignites, do not touch or open the box
- Avoid inhaling the fumes
- After a fire, containers must be appropriately disposed of. For expert services as well as assistance with questions and uncertainties, please refer to > retronbox.de

1.3 Intended use

The RETRON BOX can be used as a safe container for lithium-ion batteries for the following purposes:

- Housing lithium-ion batteries during charging
- Storing lithium-ion batteries when not in use
- Transporting lithium-ion batteries

Intended use also includes compliance with all instructions in this operating manual, in particular the safety information and warnings.

Using the RETRON BOX for any purpose other than its intended purpose or exceeding the limits of its intended use shall be considered misuse. In particular, misuse of the RETRON BOX includes:

- Disregarding safety information and warnings
- Using the RETRON BOX with hazardous materials other than lithium-ion batteries
- Using the RETRON BOX with both lithium-ion batteries and other hazardous materials together
- Using the RETRON BOX with the lid not securely attached
- Using the RETRON BOX while it is damaged or not in good working order

- Incorrectly assembling the charging cable(s) and the cable gland
- Making modifications to the RETRON BOX
- Improper repairs to the RETRON BOX
- Using non-original spare parts or accessories
- Using the RETRON BOX without RETRON pads
- Using the RETRON BOX again after a fire

 **WARNING**

Misusing the RETRON BOX could pose a risk of death!



Any improper use shall exclude the manufacturer from liability and void the guarantee and warranty.

1.4 Residual risks

The RETRON BOX was designed and developed in strict compliance with the applicable legal requirements and normative specifications. The latest standards of technical development and safety have been applied. Even in conjunction with intended use, the RETRON BOX can pose residual risks, i.e. unavoidable hazards. These hazards are indicated in this operating manual.

2 Technical specifications

Technical specifications	> System solutions and products
Dimensions (L x W x H) <ul style="list-style-type: none">■ external■ internal	520 x 420 x 200 mm 474 x 384 x 190 mm
Weight	9 kg

3 Function

Under adverse conditions (such as a short circuit in the cells), there is a risk of the lithium-ion batteries spontaneously igniting. The resulting flames can reach temperatures of over 1200 °C. These flames can very quickly set fire to surrounding objects. In most cases, the fire cannot be prevented from spreading. Heavy fumes will inevitably be generated. These gases are extremely toxic and caustic and should not be inhaled under any circumstances. The partially explosive ignition of the lithium-ion batteries can cause fragments of the battery and/or housing to fly through the air like bullets, inflicting significant property damage and personal injuries.

Using the RETRON BOX is an ideal means of preventative fire protection. The RETRON BOX provides flame protection. Storing, transporting and charging the lithium-ion battery in the RETRON BOX significantly reduces the risk of a potential fire spreading to the surrounding areas. The RETRON BOX likewise offers protection from exposure to flying fragments of the battery and housing. The RETRON BOX cannot prevent gases from spreading, but the toxic/caustic components of the fumes are partly filtered out by the RETRON pads in the RETRON BOX. The RETRON pads are also flame-retardant and will absorb any leaking electrolytes.

WARNING

Risk of poisoning and death due to inhalation of gases generated during combustion!

- Do not inhale gases under any circumstances!

3.1 Design and scope of delivery

The RETRON BOX is in good working order if all the parts in the scope of delivery are undamaged and installed and used as instructed (see Sections 5 through 10).

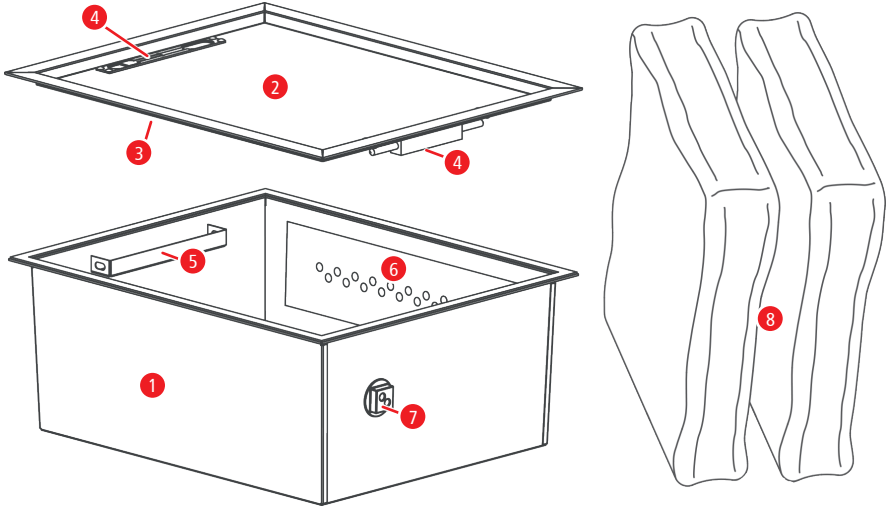


Fig. 1 Design and scope of delivery of the RETRON BOX

- | | |
|--|----------------------------------|
| 1 Container made of coated sheet steel | 5 Bracket for the latch |
| 2 Container lid made of coated sheet steel | 6 Flame arrestor grate |
| 3 Gasket | 7 Cable gland |
| 4 Latch | 8 Two fire retardant RETRON pads |



Fig. 2 Locking lever in "closed" position

4 Packaging

All the components from section 3. 1, Fig.1 should be included in the package. In case of missing components, please use the contact form on > retronbox.de.



Packaging materials must be sorted and recycled. Local regulations apply. The packaging can also be stored for later recycling.

5 Assembly

The RETRON BOX comes pre-assembled and ready to use for transporting and storing lithium-ion batteries. To use the RETRON BOX while charging your lithium-ion batteries, run the charger cable through the cable gland and into the RETRON BOX. The cable gland can accommodate up to two charger cables. During charging, the RETRON BOX should contain only one or no pads.

5.1 Fitting the charger cable in the cable gland

1. Put the lever of the latches in the "open" position (Section 3.1, Fig.2) and lift up the lid of the RETRON BOX!
2. Next, unscrew the union nut (1) of the cable gland on the inside of the RETRON BOX (Section 5.1, Fig.3)!
3. Pull the cable gland outwards to remove (see Fig. 3)!
4. Remove the outer shells (2) of the cable gland (see Fig. 4)!
5. With the help of a screwdriver, separate the outer shells (2) of the cable gland (see Fig. 4)!
6. The rubber part (3) of the cable gland now be pushed out (see Fig. 4)!
7. Depending on the number of cables to be used, remove either one or both blind plugs (4) from the rubber part of the cable gland (see Fig. 4)!
8. Insert the charger cable into the groove!
9. Put the outer shells (2) of the cable gland back on (see Fig. 4)!

10. From the outside, push the cable gland into the hole in the RETRON BOX (see Fig. 3)!
11. Push the plug of the charger in the RETRON BOX through the union nut!
12. Screw the union nut (1) of the cable gland on the inside of the RETRON BOX back on (see Fig.3)!

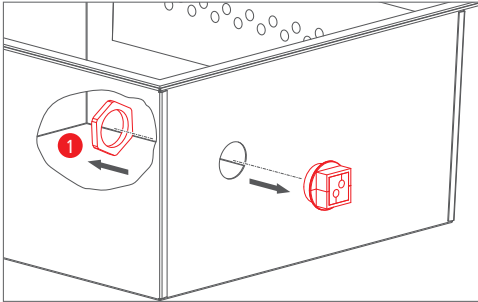


Fig. 3 Remove cable gland

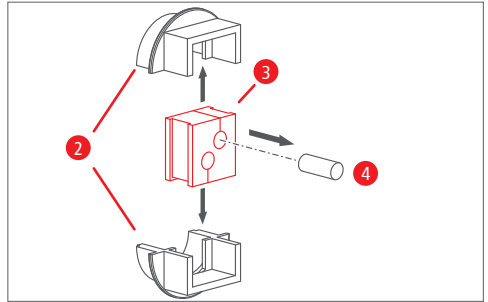


Fig. 4 Open cable gland

6 Operation

During charging, only use the bottom pad, placing the batteries on top. When holding/storing (without charging) or transporting batteries, please use both pads, placing the batteries in between. The RETRON pads are flame retardant and protect the batteries from shocks and vibrations.

WARNING

Risk of poisoning and death due to inhalation of gases generated during combustion!

- Always place the lithium-ion batteries between the two RETRON pads!

WARNING

Blocking the flame arrester grate poses a risk of death!

- The openings of the flame arrester grate on the back of the RETRON BOX should never be blocked or sealed by modifications either from the outside or the inside!

> OPERATION

6.1 Inserting batteries

1. Put the lever of the latches in the "open" position and lift up the lid!
2. Fit one RETRON pad (included in delivery) precisely into the bottom of the RETRON BOX!
3. Place the battery/batteries on the bottom RETRON pad!
4. Place the second pad on top of the battery/batteries! The battery/batteries are now between the pads!
5. Put the lid on the container!
6. When closing the RETRON BOX, ensure that the RETRON pads do not get caught in the latches or pinched between the container and its lid!
7. Lock the latches by putting them in the "closed" position!

CAUTION

Crush hazard when closing the lid!

- Do not insert fingers between container and lid

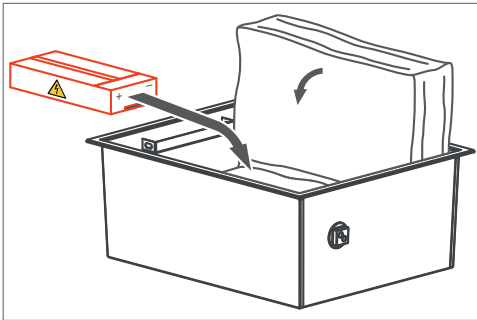


Fig. 5 Place battery between the pads in the RETRON BOX

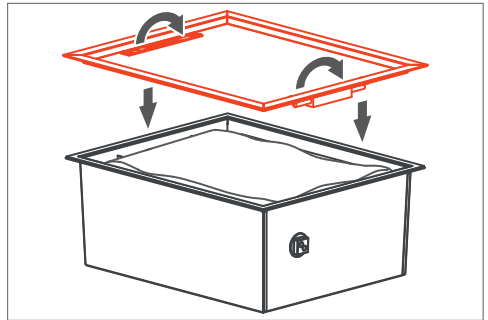


Fig. 6 Lock lid on the RETRON BOX

6.2 Storing and transporting batteries in the RETRON BOX

A securely locked RETRON BOX is the ideal place to keep lithium-ion batteries. They can be properly and safely stored there over extended periods of time. In addition, the inserted RETRON pads provide protection from vibrations.



Use an appropriate transport lock on the RETRON BOX to prevent damage to the box and the lithium-ion battery inside!

In the event that a lithium-ion battery spontaneously ignites (e.g. due to a short circuit), the RETRON BOX reduces the risk of the fire spreading to surrounding areas. However, in this situation, the RETRON BOX cannot be prevented from becoming extremely hot.



- Keep an adequate distance between the loaded RETRON BOX and any flammable objects in the environment
- We recommend storing and setting up the product on a mineral, non-flammable surface

6.3 What to do in case batteries spontaneously combust



- Call the fire brigade immediately!
- Do not open the RETRON BOX on any account!
- Inform the fire brigade of the contents of the RETRON BOX.

In the event of a fire, hot gases will escape through the flame arrestor grate of the RETRON BOX container. Gases can potentially escape through the lid gasket, as well!

WARNING

Risk of poisoning and death due to combustion fumes!

- Do not, under any circumstances, enter smoke-filled rooms!
- Stay away from source of fire!
- Do not inhale gases!
- Ensure the area is well ventilated!

CAUTION

Risk of burns due to hot surfaces!

- Do not touch the container while it is on fire or afterwards!
- Do not open container!

CAUTION

Risk of burns due to hot gases!

- Do not open container!
- Do not block openings on flame arrestor grate of container!

6.4 Following a spontaneous combustion fire

After a spontaneous ignition, the RETRON BOX is damaged and should no longer be used. It must be disposed of as hazardous waste.

For information, refer to > retronbox.de.

WARNING

Risk of poisoning and death due to combustion fumes!

- Following a fire, always keep the RETRON BOX closed!
- Container contents and combustion residues are hazardous to health!
- Following a fire, container contents and combustion residues must be disposed of as hazardous waste!

CAUTION

Risk of burns due to hot surfaces!

- Do not touch the container while it is on fire!
- Do not open container!

CAUTION

Risk of burns due to hot gases!

- Do not open container!
- Do not block openings on flame arrestor grate of container!

7 Maintenance and cleaning

The RETRON BOX is practically maintenance-free. The no longer functional components can be removed (see ch. 8 Repairs) by authorised REMONDIS specialists and replaced with original spare parts (see ch. 9 Spare parts).

After extended intensive use, moveable parts of the latches may require lubrication. To lubricate, use a commercially available grease. If heavily soiled, the box can be cleaned with a commercially available washing-up liquid.

> OPERATION & REPAIRS

If contaminated or destroyed, the RETRON pads should be replaced with original spare pads. They cannot be cleaned or repaired. To replace your RETRON pads, follow the instructions at > retronbox.de or contact us directly using the contact form at > retronbox.de (Section 1.2). This can also be obtained using the contact form on our website.

8 Repairs



RETRON recommends that repairs be performed exclusively by RETRON specialists, who can be reached using our contact form (Section 1.2).

Unauthorised repairs by specialists not authorised by REMONDIS constitute misuse of the RETRON BOX and void the guarantee and warranty. To the following extent, it is permissible to replace faulty or no longer usable parts of the RETRON BOX on your own: The replacement of damaged parts with original spare parts shall not be considered unauthorised repairs and is described below.

8.1 Cable gland replacement

For description, see ch. 5.1 Fitting the charger cable in the cable gland

8.2 RETRON pad replacement

For description, see ch. 6.1 Inserting batteries

9 Spare parts



The use of non-original spare parts is considered misuse and voids the guarantee and warranty.

Description

Cable gland

Fire retardant RETRON pad

10 Disposal



The worn out materials of the RETRON BOX must be recycled separately!

Disposal for reasons other than fire

- Worn out or contaminated RETRON pads may be disposed of as household waste or collected as hazardous materials!
- The cable gland may be disposed of as household waste!
- The container and its lid can be disposed of as steel scrap!

Disposal following a fire

- Do not use the RETRON BOX again!
- Fire residues and other container contents should be disposed of as hazardous waste!

For any questions regarding the disposal of the RETRON BOX, always consult with our specialised staff, using the contact form > retronbox.de.

11 Certifications and test reports

11.1 Certification as packaging for the transport of hazardous materials

The RETRON BOX has been certified as packaging for the transportation of hazardous materials by the German Federal Institute for Materials Research and Testing (BAM) under number D/BAM 15774/4A.

11.2 Prototype test for hazardous materials transport

The RETRON BOX has undergone prototype testing as packaging for hazardous materials transport through TÜV Rheinland (test report no. 210119 1. issue version 0 of 18/06/2021)

The original approval certificate is available to you at > retronbox.de.

12 Warranty

The statutory Implied Warranty shall apply. In case of warranty claims or malfunctions, contact us using the contact form at > retronbox.de (Section 1.2).

Have your RETRON BOX receipt ready.



RETRON is a service of REMONDIS Industrie Service, a REMONDIS Group company. REMONDIS is one of the world's largest recycling, services and water companies. The group has locations and shareholdings in over 30 countries of Europe, Africa, Asia and Australia. Over 40,000 REMONDIS employees service some 30 million citizens as well as thousands of companies. Above and beyond. Working for the future.

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