Resetting the safety function

The NumericBees Zephyr 2 smoker has a safety feature that stops the blower after approximately 60 seconds of operation. This prevents the smoker from being accidentally left in forced blower mode (position 1), avoiding uncontrolled combustion in the combustion chamber.
This safety feature also prevents the smoker from overheating and causing a fire if it falls to the ground in a tilted position.
To restart your smoker after the safety feature has been activated,

1. The red hourglass LED is on.
2. Set the switch to 0 or tilt the smoker forwards.
3. The red hourglass LED is off.
4. Resume the previous operation: set the switch to position 1 (ignition) or 2 (smoke), or put the smoker on standby.

Storing your smoker during the off-season

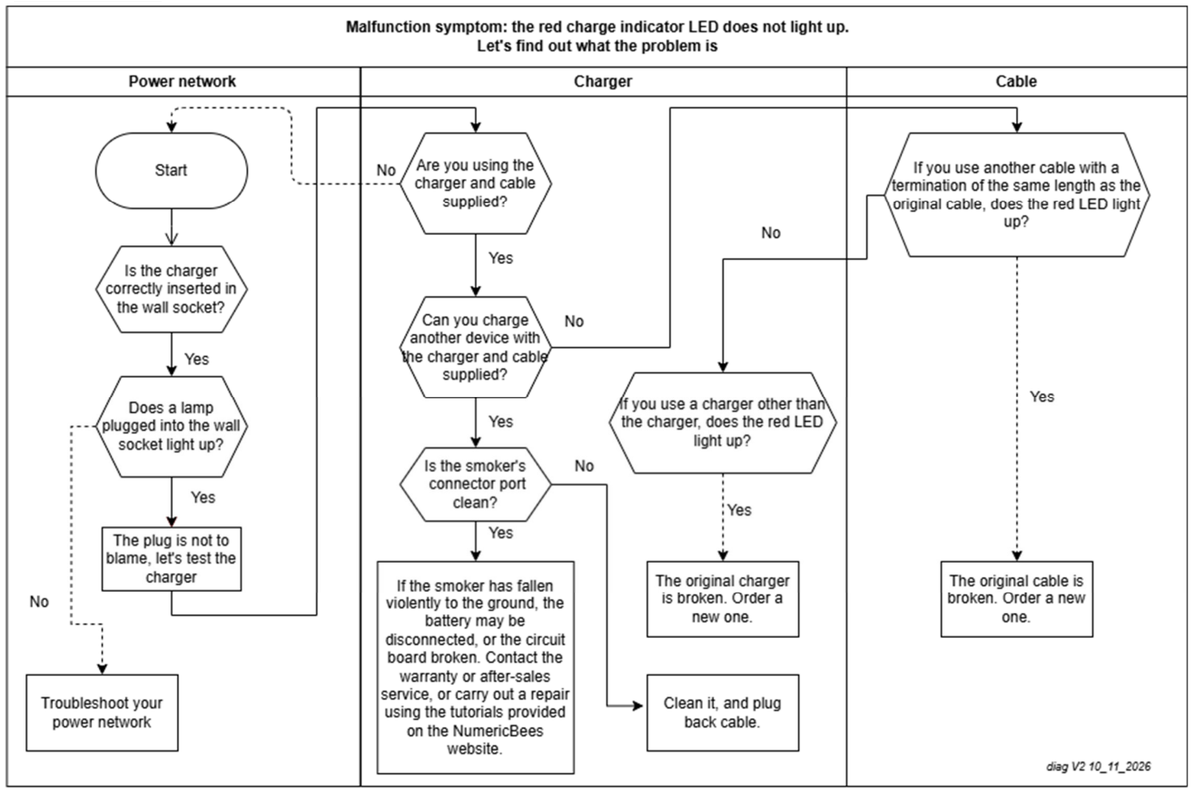
1. Clean the inside of the smoker. Remove all remaining fuel, burnt material and ashes
2. Close the smoker.
3. Recharge the battery (see charging instructions).
4. Store the smoker upright, with the switch in position 0.

Maintaining your smoker

1. Tar removal: watch our video at https://www.numericbees.com
2. If needed, you can find spare parts and replacement tutorials on our website.
   Use genuine replacement parts. We encountered problems when testing similar components before selecting the final ones. Avoid unnecessary trouble and risks to your health and safety.
3. Do not modify your smoker. You could put your health or life at risk.

Your Zephyr 2 is built to serve you for many years. Take good care of it.
The combustion chamber is exposed to extreme conditions: temperatures above 800°C and tar deposits. Normal wear is to be expected, and the chamber will eventually need replacing.
When used correctly — fully discharged before being fully recharged — the battery pack withstands at least 300 charging cycles, equivalent to years of use. It is normal for your smoker's battery life to decrease over the years.

Troubleshooting



Zephyr 2 Automatic Electric Bee Smoker

NumericBees
Beekeeping Made Easy

This guide provides information on safety, operation and customer support. Before using your NumericBees automatic smoker, read all the instructions and safety precautions below and keep this guide for future reference. More detailed instructions are available at https://www.numericbees.com

Safety Information

- Please read all the information before using your automatic smoker to ensure proper and safe operation and your personal safety.
- This smoker operates at ambient temperatures between 5°C and 35° C. Storage temperature must be between -20°C and 40°C. Excessively high or low temperatures may damage the device or shorten battery life.
- Charge the battery in a well-ventilated area.
- Do not charge the battery for more than 10 hours.
- The charger must be placed near the device and remain easily accessible.
- Use only the original charger, cable and battery to prevent electric shock, fire, explosion or other hazards.
- Do not disassemble or modify the battery, as this may cause leakage, overheating, explosion or fire.
- Do not expose the device to temperatures above 40°C or to direct sunlight through glass, to prevent battery overheating and the risk of explosion.
- To avoid damaging internal components or circuits, do not use the device in dusty or damp environments.
- If any part of the product is cracked or damaged, stop using it immediately and contact NumericBees customer support.
- Switch off the device when in a potentially explosive atmosphere.
- The battery can withstand several hundred charge and discharge cycles. As a consumable component, it will gradually wear out with use. Make sure to fully discharge the battery before recharging it completely. Before storing your device for the winter, fully charge the battery.

Safety

- **Battery charger:** If the charger casing becomes cracked, broken or partially detached following a fall or any other incident (crushing, cable being pulled out, animal bites, exposure to high temperatures, etc.), stop using the charger immediately. Continuing to use it could expose the user to a risk of fatal electric shock. Take the charger to a recycling centre or an authorised electronic waste collection point. **See the WEEE section**.

Precautions for Use

- The automatic smoker must never be lit or operated in an enclosed space. It emits CO (carbon monoxide) and CO_2 (carbon dioxide), which can be fatal at concentrations above 0.01% (100 ppm) for CO and 0.1% (1,000 ppm) for CO_2 in the air.
- For outdoor use only.
- **Transporting the smoker while lit inside a vehicle is extremely dangerous and strictly prohibited.**
- Before transporting the Zephyr 2 smoker inside or outside a vehicle, it must be extinguished and completely emptied of any fuel, embers or ashes.
- Before putting the Zephyr 2 smoker away or storing it, make sure it is extinguished and completely emptied of any fuel, embers or ashes.
- **A bee smoker is a miniature stove, and its internal temperature can reach 800°C or more.** Do not remove the heat protection grille.
- The smoker may become extremely hot. To avoid burns, only touch the handle or the ring provided for this purpose.
- Ensure adequate airflow around the smoker to prevent its surface temperature from rising.
- **Do not use the continuous blower function for more than 3 minutes at a time. Prolonged operation may damage the smoker and cause its steel to become red-hot. It also produces hot smoke that agitates the bees. After such prolonged use, leave the smoker switched off for 10 minutes.**
- Do not expose the smoker to strong winds. Wind can create a Venturi effect, drawing smoke out and intensifying combustion inside the smoker, potentially causing a fire. Keep a plug available to seal the smoke outlet.
- Wind can cause reverse airflow, forcing smoke out through the air inlet. This is very dangerous if it lasts more than a few seconds. In this case, block the smoke outlet or turn the smoker to face downwind.
- An overheated smoker can ignite nearby dry combustible materials. At any time of year, especially in summer among dry scrubland or grass, hang your smoker or place it on a raised surface, away from flammable materials.
- **Never place your smoker on a wooden surface or on a plastic or polystyrene hive roof. This is dangerous and strictly prohibited.**
- **Always carry a means of extinguishing embers or a fire that may start.**
- To extinguish the smoker, empty its contents into a fireproof container or location, such as a metal container, terracotta pot or hole dug in sand. Extinguish the fire and embers with water. Make sure the smoker is completely empty.
- Never transport a lit smoker hanging outside a vehicle. It could fall to the ground, or flying embers could ignite dry combustible materials or cause an accident.
- When walking with your smoker lit, make sure no embers fall to the ground and ignite dry grass or vegetation.
- Avoid inhaling smoke from a bee smoker whenever possible. Work with your back to the wind.
- Do not blow smoke onto honey super frames containing honey. This could deposit harmful tar or fine particles on the honey or wax cappings. It would also give your honey an unpleasant smoky taste.
- Do not modify your smoker. In particular, do not use a combustion chamber other than the one supplied. Do not install a hose between the blower and the smoker. Any modification to the smoker is prohibited. It may compromise safety and cause an accident. NumericBees accepts no liability for damage resulting from unauthorised modifications, without prejudice to applicable statutory warranties.

Waste Electrical and Electronic Equipment (WEEE)

This symbol, with or without a solid bar, means that under local regulations, this product and/or its battery must be disposed of separately from household waste. At the end of its life, take the product to your nearest recycling centre and place it in the appropriate collection bin, or return it to a retailer. Proper recycling helps reduce risks to the environment and your health.
This product is designed to be repaired by the user. NumericBees encourages you to keep it in good working order by replacing worn or broken components. If you no longer wish to use it, sell it second-hand or give it to a beginner beekeeper.

Restriction of Hazardous Substances

This device and its electrical accessories comply with applicable restrictions on the use of certain hazardous substances, including the REACH Regulation, the RoHS Directive and European battery regulations. For REACH and RoHS declarations, visit our website: https://www.numericbees.com

Declaration of Conformity

NumericBees SAS, 56 rue du Dauphiné, 69003 Lyon, France, hereby declares that this device complies with the essential requirements and other relevant provisions of the following European Directives:
CE marking:
Directive 2014/30/EU — Electromagnetic Compatibility (EMC)
Directive 2014/35/EU — Low Voltage Directive (LVD)
Directives 2011/65/EU and 2015/863/EU — Restriction of Hazardous Substances (RoHS)
Regulation (EU) 2023/1542 — Batteries and Waste Batteries

After-Sales Service

Legal Guarantee of Conformity

In the EU, for 24 months from the date of purchase or actual receipt of the product, the seller shall cover the cost of repairing or replacing a non-conforming product, including return and shipping costs. The seller must inform you of your rights under the legal guarantee of conformity and provide you with a dated certificate. The customer is not required to provide proof of the lack of conformity.

Legal Warranty Against Hidden Defects

In the EU, the legal warranty against hidden defects applies for two years from the date on which the customer discovers the defect. The customer may invoke the warranty against hidden defects under Article 1641 of the French Civil Code. In this case, the customer may choose between cancellation of the sale and a reduction in the purchase price, in accordance with Article 1644 of the French Civil Code. The customer must provide the seller with evidence that the hidden defect existed before the sale.

Warranty Conditions

- The warranty is valid only under normal conditions of use. Damage caused by the user or falling under any of the following conditions is excluded from free warranty coverage. However, repairs may still be carried out at the user's expense:
- The warranty period has expired;
- Damage caused by human error, including improper use, use in an unsuitable environment, or failure to understand and follow the user manual;
- The customer has disassembled, repaired or modified the smoker without authorisation and/or had it repaired by a repair workshop not authorised by NumericBees;
- Damage caused by force majeure, such as floods, fires, earthquakes or lightning;
- The user cannot provide the warranty certificate and valid proof of purchase, or the product model and barcode do not match or have been altered;
- Normal wear and tear of the product, including the housing, combustion chamber assembly, lid, switches, battery and other accessories;
- External damage;
- Damage caused by failure to follow the product maintenance instructions;
- Damage caused by improper transport, storage or handling of the product.

Geographical Warranty Coverage

The above warranty applies to residents of the EU. In other countries, please contact the local retailer from whom you purchased the product.

Operating Instructions

Our aim in offering you this smoker is to make visiting your apiary and opening your hives a pleasure. The smoker is the beekeeper's primary protective tool. The smoke masks the alarm pheromone contained in the venom sprayed by guard bees. Thick, abundant smoke helps keep you safe. A properly lit smoker that stays alight helps protect you from stings.

You can find the illustrated instructions and video tutorials on our website. https://www.numericbees.com

Unpacking Your Zephyr 2

Your Zephyr 2 smoker package should contain:
- A complete smoker with its combustion chamber and electric blower unit.
- A battery charger and its cable.
- A quick start guide.

Your Smoker's Components

1	Blower housing
2	Combustion chamber
3	Display and charging
4	Function selector



LED Display Description

Function	Charging connector. USB-C type.
Charging indicator	Battery charging when the LED is lit.
Charge complete indicator	Battery fully charged: green LED lit.
Battery level indicator	80% battery capacity remaining when the LED is lit.
Battery level indicator	60% battery capacity remaining when the LED is lit.
Battery level indicator	40% battery capacity remaining when the LED is lit.
Battery level indicator	20% battery capacity remaining when the LED is lit.
Safety indicator	Fire prevention safety cut-off activated when the LED is lit.

Some Technical Specifications:

- Charging: 5 V, 1 A.
- Nominal battery capacity: 6,000 mAh.
- Nominal battery voltage: 3.7 V.
- Charging time: approximately 5 hours.
- Airflow rate: approximately 1 dm^3/s.

The NumericBees Zephyr 2 is an electric blower smoker with automatic activation at the apiary. Simply tilt the smoker towards the bees and it starts producing smoke. There is no button to press or bellows to operate.
Beginner beekeepers will also appreciate the ignition function, which keeps the blower running continuously and makes lighting the fuel much easier. There is no longer a risk of failing to light the smoker, or any need to keep squeezing bellows for several minutes to get the fire started.
The blower maintains combustion and produces thick white smoke that masks the bees' alarm pheromone and calms even the most defensive bees.
Professional beekeepers will no longer need to pump the bellows all day, reducing strain on their hands and wrists.

Charging Your Smoker's Battery

When Should You Charge the Battery?

Batteries gradually lose their charging capacity — the maximum amount of energy they can store — through repeated charge and discharge cycles, particularly due to the “memory effect”. Whenever possible, discharge the battery as much as possible before fully recharging it. If possible, wait until all four blue LEDs have gone out before recharging your smoker's battery. To protect against deep discharge, a safety device cuts off power to the blower when the remaining battery capacity falls below a protective threshold.
Professional beekeepers may benefit from having two smokers: one in use and the other fully charged as a spare.
Battery life is approximately 15 hours of continuous operation. Depending on usage frequency and the number of hives, a charge can last several weeks for a professional beekeeper or several months for a hobby beekeeper.

1	Prepare the charger and the smoker.
2	Take the charger.
3	Plug the charger into a mains socket.
4	Take the smoker.
5	Plug the charger's USB connector into the smoker's charging port.
6	Check that the red LED is lit (charging in progress).
7	Wait until the green LED lights up (charging complete — approximately 5 hours from an empty battery). Unplug the charger as soon as charging is complete.

Checking the Remaining Battery Charge

1	Set the switch to position 1 - ignition.
2	Count the number of blue LEDs lit: 1, 2, 3 or 4. Remaining battery charge: 4 LEDs: >80%; 3: >60%; 2: >40%; 1: >20%; 0: <20%.
3	Set the switch to position 0 — off.

Video Tutorials:

- On our website: www.numericbees.com
- On our YouTube channel: https://www.youtube.com/@NumericBees/videos

Starting Your Smoker

1	Prepare: The smoker (battery charged). Ignition fuel (dry hay recommended; other fuels may be used but are not recommended). Main smoking fuel (a mixture of wood and alfalfa pellets recommended; other fuels may be used but are not recommended). A means of ignition (matches or lighter). A handful of fresh green grass. A hive tool for packing down the fuel.
2	Take the smoker.
3	Open the smoker by pulling the ring./**!\ WARNING — VERY IMPORTANT/!**: Check that the legs of the grate at the bottom of the smoker do not obstruct the air inlet. If they do, rotate the grate.
4	Take the ignition fuel.
5	Put a small amount of ignition fuel into the smoker.
6	Take your ignition device (matches, lighter, etc.).
7	Light the ignition fuel.
8	Set the switch to position 1 — forced ignition mode.
9	Wait until flames and glowing embers appear.
10	Add more ignition fuel if necessary.
11	Fill with the main smoking fuel up to 3 cm below the top rim.
12	Pack down the main smoking fuel with a hive tool.
13	Place a plug of fresh green grass on top of the fuel.
14	Close the smoker.
15	Allow the main fuel to ignite fully.
16	When smoke production is continuous and dense, set the switch to position 2 — automatic smoke mode.
17	Set the smoker down in standby mode.
18	**When the blower safety timer expires, indicated by the red LED in the hourglass symbol, restart one or two continuous blowing cycles as needed until the smoker is fully lit**, by toggling the switch or tilting the smoker. With the recommended fuels, three one-minute cycles are sufficient. Beyond this, the steel may become red-hot.

Using Your Smoker at the Apiary

1	Take the smoker with the switch set to position 2 — automatic smoke mode.
2	Tilt the smoker towards the desired area. The blower starts and smoke is produced automatically.
3	Sweep the smoke across the desired area. Respect the bees — do not use too much smoke.
4	Set the smoker down. The blower and smoke production stop automatically.

Extinguishing Your Smoker

1	Set the switch to position 0 — off.
2	Open the smoker.
3	Empty the smoker's contents onto the ground or into a metal or earthenware container.
4	If necessary, extinguish the fire with water.
5	Set the smoker down and allow it to cool. Wait until the metal is cold before handling it.
6	Make sure the fire grate is clean and all ashes have been removed.
7	Close the smoker.
8	Store the smoker.