

# BV0508 User's Manual

## Electronic microprocessor-controlled device for extracting bee venom

### Model BV0508



#### How to use the device

The device has a built-in set of batteries and is ready for use right out of the box. To start collecting bee venom, put the glass directly below the stretched wires in the front angled side of the device.



The devices do not require any additional attendance or attaching.

Place the device at the hive entrance, with the pointed part (glass and wires) towards the hive entrance.



Turn on the device using the button, in position I. After 5 seconds, the device starts working. An indication that the device is working properly, is the short blinking of the green (or light blue) LED, named RUN. Every 50 seconds, the device pauses for 10 seconds. After 40 minutes work time, the device turns off automatically. That is the maximum time for bee venom collection in 1 session per hive. The device can be turned off manually before 40 minutes have passed, by pressing the button in position 0.

When the device is turned off automatically, the two LEDs turn off too. To turn the device back on again, press the button from position I to 0. Wait 1 minute, then press it again in position I. In 5 seconds, the device is ready again, the RUN indicator will blink shortly with green or blue light.

After 20 to 40 minutes, turn off the device manually, or let turn itself off in 40 minutes. Leave the device for 10-20 minutes in a shady place, without removing the glass. Doing this lets the remaining bees fly away. Now remove the glass – there are white crystals on it. Leave it in a shady place so the venom can dry, and scrap it off using a razor.

Warning: if some of the automatic protections has trigger and the red FAULT indicator is blinking, it is possible in rare cases the device to not shut down automatically. If such a case is present, turn it off manually by pressing the button in position 0.



Bee venom scrapped off the glass

The dried bee venom might contain additional visible components – they should be removed. The final drying out of the venom is done in open test-tube glasses, over calcium chloride. The venom, in its final weight, is kept in dark bottles, in a dry place, avoiding direct light. Remaining moisture should be less than 10%. The dehydrated venom can be stored in a refrigerator for over a year. To increase the quality and preserve it even further, the venom can be lyophilized – treated this way and stored in a fridge, the venom keeps its properties for 5 years.



Lyophilized bee venom

The reasonable use of the device doesn't affect the extraction of the other bee products.

During the active season, 0,1 to 0,5 grams of poison are produced from a bee family per day.

The best time to extract bee venom is during the early morning hours, 1-2 hours before bees' flight. Duration of bee venom extracting can be from 30 minutes up to 2 hours per hive, daily.

\* This is the venom weight when scrapped off the glass 30 minutes after the glass is removed from the device.

**Indication FAULT.** This indication shows one or all of the following events: short-circuit between the visible wires; triggered automatic protection when too many bees are on the device, the humidity is too high; or batteries low. Blinks in red color.

- Blinking once – too many bees on the device, or humidity is too high. The device shuts down automatically. In a couple of seconds, checks if what caused this is still present, then attempts to turn on automatically.
- Blinking twice – short-circuit between the visible wires of the device. Two or more wires are connected. The device shuts down. Check the device's condition and separate the wires if needed. The device will turn on and continue working automatically – there is no need to turn it off/on manually.
- Blinking three times – batteries low. Change the batteries with new ones. If the batteries are completely dead – none of the two indicators (RUN and FAULT) should be working 5 seconds after you turn on the device. Again in this case -- you should replace the batteries. Reminder – after manually shutting down the device, you need to wait 1 minute before turning it on again.

If a protection has triggered, and what caused the triggering is still present, and the red FAULT indication is still blinking, it is possible the device to not turn off automatically after 40 minutes. If that is the case – turn the device off manually.

Changing the batteries: Unscrew the bolts on the right small panel, on the back of the device. Bellow is the battery-holding case. Replace the batteries, while making sure the polarity is correct.



Improperly inserted batteries might damage the device if left for long. Always be careful about their polarity! Use alkaline batteries size AA(LR6) 1,5V. DO NOT use rechargeable batteries 1,2V!

One set of alkaline provides normal work for 4-5 months. Alkaline batteries Duracell ultra digital MH1500 (or GP Ultra Alkaline Battery), size AA(LR6) 1.5V are used, at 6 hours per day, 5 days per week.

If water (or another fluid) wet the device – let it dry in a warm place for 24 hours before turning on again.

#### **Safety precautions**

Take all possible measures to ensure safe work with bee venom. Work with gloves and protective glasses. Make sure the venom does not get into your eyes, nose or mouth. Always work in a team of at least 2. Keep the glasses, the devices and the venom itself out of children's reach, other people, away from food products or animals. Wash your hands well after work. Keep the clothes you used while you worked separately from your others. Do not watch the LEDs directly for long from a distance shorter than 100cm.

The device comes with a warranty of 2 years.

It includes:

\*We will repair products with damaged electronics or replace them at our cost.

It does not include:

\*Any damage sustained due to improper and/or uncareful use

\*Shipping costs

\*Wood part damage