

MicroFogger 3 Lite Manual

Quick start guide

The following guide will show you how to setup your new MicroFogger 3 Lite for the first time. Follow each step carefully- failure to do so can damage the product and cause frustration!

Read the “safety” part of this manual to familiarize yourself with the safety procedures before operating the MicroFogger.

1. Upon unboxing your parcel, locate the MicroFogger 3 and the USB charging cable. **Turn the MicroFogger on using the black toggle switch** on the bottom and plug it into the charger using the included cable. Be sure to plug the cable into the charger first and then the cable into the MicroFogger second. Only use a wall socket type USB charger to prevent unintentional activation during charging. **The MicroFogger can only be charged while it is on.** We recommend that you allow the MicroFogger to fully charge before beginning to use it. This can take up to 6 hours.
2. While the MicroFogger is charging, carefully unscrew the fluid tank (the black metal cylinder) by turning it in an anti-clockwise direction. Once removed, please note that it consists of an inner and outer wall. The fog liquid is supposed to be poured between these walls, around the circumference of the fluid tank.
3. Locate the bottle of fog liquid and unscrew the top cap. Using the pipette-style tip, carefully pour fog liquid into the afore-mentioned cavity. Take your time and don't squeeze the bottle too hard - you don't want to make a mess! **Don't pour any liquid into the middle cavity (marked in red)** as this is where the airflow will pass through. If you do, simply wipe it away using a paper towel. Keep filling the fluid tank until the liquid is at the same level as the top of the interior metal wall.
4. Now that the fluid tank is filled up, it's time to screw it back on but before you do so, take a moment to check that the heating coil (the small silver cylinder) is tightened sufficiently. Only do this with your fingers, don't use any pliers or other tools - it doesn't need to be incredibly tight! If it didn't come installed, make sure to install it beforehand. Once you are satisfied, screw the fluid tank back on while keeping the microfogger pointed down to prevent any spillage. Once again, don't over-tighten it when it's screwed in. Do not screw the fluid tank on if the coil isn't installed



5. This is a simple step - all you need to do is wait. Let the MicroFogger rest in an upright position for a minimum of 30 minutes, this ensures that the liquid has a chance to seep into the dry heating coil. If you don't wait this long you run the risk of damaging the coil since instead of evaporating the liquid, you will essentially be burning the dry absorbent material.
6. Well done, your MicroFogger is ready for use! Now, when you hold down the main button, the MicroFogger will produce smoke. However tempting it may be to now fill your entire room with smoke just remember that the MicroFogger is designed to be an impulse device - using it continuously will make the heating coil wear out faster. It can easily fog up a room but be patient - let it rest for 10 seconds between each burst!

On-board user interface

By now, you've probably noticed that there's a button, a toggle switch and 2 lights (LEDs) on the device.






Large top power button

-Hold down when the device is on to begin smoke production, let go to stop

Toggle switch

- Move to the I (on) position to turn the device on either for operation or for charging.
- Move to the 0 (off) position to completely turn the device off

Below is a diagram for the LED codes that may be appear on your MicroFogger:

Top LED	Ready to operate	
	Operating	
Bottom LED	High battery level	
	Low Battery level	
	Charging	

If MicroFogger is turned off using the toggle switch, both LEDs will also be turn off.

When the MicroFogger 3 Lite is fully charged, the orange charging indicator will turn off but this may take up to 6 hours to complete. However, the battery will be mostly charged within 2 hours so it is not necessary to “top it off” by leaving it on charge for the full duration.

Normal operation

Holding down the main power button while the MicroFogger is turned on will begin smoke production. To maximize heating coil lifespan, we recommend a 10 second limit on continuous use after which point, it is advisable to wait at least another 10 seconds before the next burst to allow the fog fluid to be re-absorbed. Failure to do so will cause excessive coil wear and may make the smoke smell burnt. If you observe this, follow the instructions in the “storage and maintenance” section of this manual to replace the heating coil. In extreme cases, if you keep running the MicroFogger even after the heating coil has worn out, small burning fragments of the absorbent material may be ejected out of the nozzle.

Although the MicroFogger can be used in any orientation provided that the tank is mostly full, we still recommend that you keep it upright (with the nozzle pointing vertically upwards) as much as possible. This position allows the coil to optimally absorb the liquid, even if the tank is near-empty. If there isn't much fog liquid remaining in the tank, avoid using the MicroFogger in any orientation other than upwards as this would have the same effect as running it without any liquid. If you are mounting the MicroFogger in a static position and require smoke output in a downward direction, we would recommend using our hose attachment accessory.

After each use, we recommend ejecting any excess fog liquid that may have re-condensed within the barrel of the MicroFogger. This can be done by simply “flicking” the MicroFogger while holding it to eject any excess liquid from the barrel. If inside, make sure to flick it into a sink to avoid getting drops on your floor. Alternatively, you can tap the MicroFogger's barrel on a surface while keeping it upside-down to encourage the liquid to drip out. Failure to eject excess liquid after use may result in liquid damage in the long term.

Storage and maintenance

To store the MicroFogger, fully charge it and then turn it off using the toggle switch. Place it in a cool, dry place that is away from direct sunlight and any potentially flammable materials. Unscrew the fluid tank and heating coil and give them a quick rinse to remove any remaining fog liquid. Dry these components after washing and do not install them back onto the MicroFogger for storage. Do not store the MicroFogger for extended periods of time (more than a few days) with fog liquid still in the fluid tank.

If, during normal use, you notice that the smoke produced starts smelling burnt, it's time to replace your heating coil by following the steps below:

1. Unscrew the MicroFogger while keeping the nozzle pointed downwards to prevent any liquid from spilling.
2. Wipe away any liquid that remains on the now-exposed metal components on the body of the MicroFogger
3. Unscrew the heating coil (the small metal cylinder) by rotating it in an anti-clockwise direction. Most of the time, you'll be able to use your fingers to do so but if the coil is excessively tight, you can use some pliers or other gripping tools to get more torque.
4. If you notice any liquid in the airflow channel under the heating coil, try to wipe away as much of it as possible using a paper towel.
5. Locate the spare heating coil included with your order and remove it from its packaging
6. Screw the new heating coil into the slot. Make sure it is tight - a loose heating coil can cause the MicroFogger to leak or display a heating coil error.
7. Re-fill and re-screw the fluid tank to complete the procedure. As with the first-time setup guide, please allow the liquid to absorb for at least 30 minutes before using the MicroFogger.

If, during use, the MicroFogger isn't producing any smoke and there is a bubbling sound, immediately stop operation and eject Andy excess liquid as detailed in the "normal operation" section.

Part F - Troubleshooting

No smoke is emitted even though the fan spins and the top LED is blue when you press the main button - Ensure the heating coil is fully tightened. If the problem persists, carefully insert a fine screwdriver or other rod-like object into the barrel of the MicroFogger (the hole from which smoke is emitted) while the unit is turned off. Briefly apply light pressure to the screwdriver, this will ensure that proper electrical contact is restored. Remove the screwdriver and try again. Should this error persist, replace the coil with a new one.

Fluid tank leaking - Ensure that the tank and heating coil are fully screwed in. If the leaks persists, ensure that all white gaskets on the heating coil and tank are in place and undamaged.

MicroFogger won't turn on - Plug it in to charge (while the toggle switch is in the ON position) and wait 4 hours while the MicroFogger recharges.

MicroFogger won't charge - If the MicroFogger is in a critically low battery state, the LED indicators may not come on for the first 30 minutes of charging. If the MicroFogger proceeds to not display any LED codes after this time, please try using another charger and micro-USB cable to diagnose whether it is an issue with the MicroFogger or not.

MicroFogger keeps charging forever (Lower LED orange) - Some USB ports may not charge the MicroFogger to 100% of its capacity but rather to a nearly-charged state of around 90%. To fully charge the MicroFogger, try plugging it into another USB port. This is a non-critical error

MicroFogger turns on when the USB cable is plugged into it but the other end of the cable is not in a charger - this can occur with some cables because the MicroFogger is recognizing it as a trigger input (a feature that allows you to trigger it though a cable). Disconnect the cable from the MicroFogger and plug it into a charging port before re-connecting the MicroFogger.

MicroFogger activates randomly while charging - This can happen if you are using a computer or power bank to charge your MicroFogger. Sometimes, if your computer or power bank goes to sleep during the charging process, the MicroFogger may recognize this as a control cable signal. To prevent this from happening, only use wall-socket type USB chargers that do not go to sleep.

MicroFogger produces a burning smell even with a new heating coil - There may be a very slight burning smell present in the first few second of operation with a new coil, this is normal. If the smell does disappear or gets more severe, stop using the MicroFogger and allow it to rest for at least another 30 minutes before continuing. Ensure that the fluid tank is fully filled. In cold environments, the fog liquid becomes more viscous and will take longer to absorb into the heating coil. If this is the case, place the MicroFogger in a warm area before using it.

Safety

The MicroFogger 3 Lite is powered by a high-performance Lithium-ion battery. This type of battery presents a potential fire risk if handled improperly. The following safety guidelines aim to prevent any issues from arising:

- Never leave the MicroFogger charging while unattended
- Never charge a MicroFogger using a computer or battery bank
- Always keep the MicroFogger away from any flammable materials
- Never expose the MicroFogger to temperatures over 40 degrees Celsius
- Never attempt to disassemble the MicroFogger unless instructed
- Never expose the MicroFogger to direct sunlight for extended periods of time
- Always ensure the MicroFogger's heating coil compartment is clear of debris
- If the MicroFogger sustains a significant impact through a drop or other mistake that punctures its battery, immediately cease operation (unplug it if it is charging) and place it in a safe area outdoors to prevent any further damage to its surrounds should the battery over-heat.
- If the lower half of the MicroFogger heats up to uncomfortable temperatures of over 40 degrees Celsius, immediately cease operation (unplug it if it is charging) and place it

in a safe area outdoors and wait for at least 10 minutes. If the MicroFogger has cooled down to operational temperatures, you may proceed to use it.

- Never attempt to power the MicroFogger using a home-made charging cable. If you do so, this will be at your own risk.
- Always store the MicroFogger with the heating coil unscrewed and toggle switch in the off position as this is the most stable and safe state that it could be in.

To produce smoke, the MicroFogger evaporates a mix of Propylene Glycol and Vegetable Glycerin. Although these chemicals are both generally recognized as safe and are commonly used in food additives and skin lotions, you must always follow the following safety points:

- Do not consume the fog liquid
- Do not get any fog liquid into your eyes
- Never use the MicroFogger near children under the age of 4 or pregnant women
- Never use the MicroFogger near people with renal health issues
- Never deliberately inhale the smoke produced
- Never operate the MicroFogger if the liquid tank is empty
- Never fog up a room to a visibility of less than 3m
- Never use any fog liquid other than the liquid which provided by us. If you decide to do so, this would be at your own risk as we can only guarantee the safety and performance of our own liquid.

If you feel nauseous, light-headed or exhibit any other adverse health-related side-effect, immediately cease operation and go to well-ventilated room with fresh air. Call a doctor if symptoms continue. Similarly, call a doctor if you are concerned about the impact of these chemicals on your health.

During operation, the MicroFogger heats an internal metal coil in order to achieve the afore-mentioned evaporation of chemicals. To prevent any heat-related issues please follow these guidelines:

- Never touch the fluid tank during operation as it can burn you
- Always allow the fluid tank to cool down before changing coils or refilling liquid
- Never aim the MicroFogger at people or animals that are within 1m of range as sometimes, small droplets of hot fog liquid can exit the nozzle
- Never look directly into the MicroFogger's nozzle while it is running

Finally, there are a few more miscellaneous guidelines that must be respected:

- Never allow anyone under the age of 18 to use the MicroFogger
- If the smoke starts smelling burnt, immediately cease operation and replace the heating coil with a new one.
- Never leave the MicroFogger in a car that is exposed to direct sunlight during hot weather as this is likely to cause the plastic case to degrade and potentially soften. This could result in gaps forming around the edges of the top cover.

Vosentech LLC will not accept any responsibility for property damage or bodily harm caused by the improper use of the MicroFogger 3 Lite. It is the user's responsibility to use good judgement and knowledge of the risks detailed above to correctly and safely operate the device. If you are unwilling to accept the risks associated with the use of this device, immediately return it back to us for a full refund.

Part H - package contents

The following base items should be included in your order of the MicroFogger 3.

- MicroFogger 3 Lite
- Dropper bottle with 50ml of fog liquid
- Replacement heating coil
- Instruction manual download link
- USB charging cable

Depending on your order, any of the following additional items may be included in the box. The general layout of the parcel may be different should you purchase more than one of these items.

- Set of 5 additional replacement coils
- Remote control and dongle (located under replacement coils/charging cable)
- Extra bottle of fog fluid
- Hose attachment
- Control cable
- Rake attachment
- Circular diffuser
- Loc-Line adapter (located under the fog fluid bottles)
- Replacement liquid tank (located under the fog fluid bottles)

Part I - additional features

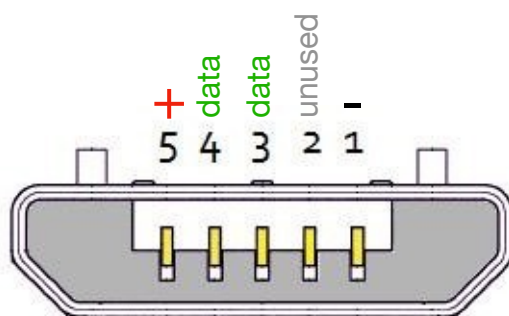
The MicroFogger 2 supports several additional features that'll make it easier for you to incorporate it into your own custom projects should you decide to do so. Please note that although these modifications are officially supported, you will void your MicroFogger's warranty should you decide to proceed since there is a potential to damage the internal electronics if you are not careful. Whilst the following guides will detail each step to make the process as easy as possible, we still advise that you only attempt these modifications if you believe you have sufficient technical knowledge.

Proceed at your own risk

Wired control

The MicroFogger can be triggered via its USB port to allow for automated control or to let you reliably activate it over long distances where the remote control may be unsuitable. This can be done by simply connecting the two data pins (pins 3 and 4) of the micro USB port together. To access these pins, you'll need to get one of our control cables. The control cable has 4 exposed and pre-tinned wires on one end; a red, black, white and green one. For triggering, the white and green wires will be used. You can now solder these wires to a relay or switch of your choice but take care to not let the red and black wires touch. In more advanced projects, you can connect the relay to a micro-controller such as a Raspberry PI or an Arduino to allow for precise timing or environment-dependent triggering when paired with additional sensors.

Incorrectly wiring or accidental contact between any wires other than the data ones can lead to irreversible damage that is not covered by the warranty.



MicroFogger 2 female micro USB type B port top view

Support and FAQs

Can the MicroFogger trigger smoke alarms?

Yes, if enough smoke is produced then ionization and photoelectric smoke alarms will be activated. Traditional heat-activated smoke alarms and sprinklers won't be affected

Is it possible to change the smoke color?

Unfortunately not. The MicroFogger produces smoke through the evaporation of a fog liquid so it can only be white, adding a dye to the liquid will not change this. The only way to simulate colored smoke using the MicroFogger would be to light up the white smoke using some external lights.

Can I breathe in the smoke?

During proper operation, the fog produced is considered to be non-toxic but we do not recommend breathing it in anyway. The smoke can only become toxic if the safety precautions regarding the replacement of worn-out heating coils are not followed.

What is the fog liquid made out of?

Our fog liquid consists of a high purity vegetable glycerin and propylene glycol mixture. These chemicals are commonly-available chemical and may be found in local vape shops as a base liquids for electronic cigarettes.

Can I use liquids from other smoke machines?

Liquids from other fog machines are usually far less viscous than our composition so if used in the MicroFogger, they are unlikely to produce any smoke. We can only guarantee the safety and performance of the fog liquid that we sell so if you decide to experiment with other compositions, this would be at your own risk.

How long does the smoke linger in the air?

Depending on the atmospheric conditions, the smoke can remain in the air for up to an hour after being released. The main factor affecting this is whether or not there is any air movement, drafts or wind will greatly accelerate the smoke dispersion.

Do original MicroFogger/MicroFogger 2 heating coils work with the MicroFogger 3 Lite?

Absolutely, we've kept the heating coils the same so that you can already use any that you have previously purchased from us.

What obstacles can the remote control signal go through?

It really depends on the exact situation but in general, as a rough guideline, you will be able to control the MicroFogger through several thin plaster walls. Similarly, if you decide to put it into cardboard or fabric enclosure, you shouldn't encounter any issues. On the other hand, metal barrier such as car doors will usually block the signal although we have even had luck with activating the MicroFogger while it was inside a car hood!

Can I control the MicroFogger 2 via a wired remote?

Yes, the usb charging port also doubles as a signal input which allows you to trigger the MicroFogger using a switch, relay or micro controller of your choice. You'll need our control cable accessory to access this functionality.

If you believe that your Microfogger is faulty, please check the troubleshooting section of this manual. If your problem still persists, please reach out to us at the email address below. If it is a specific question about your order, please include your 4-digit order number which can be found on your printed invoice.

Support@vosentech.com