

AYRA

WSM Black 01 / 02 / 03 DMX Fog Machine



User manual

The information in this user manual is subject to change at any time without notice.

Version: 1.0 Date of creation and author's initials: 29-07-2017 RV Revision date and author's initials: -

Introduction

Thank you for purchasing the Ayra WSM Black smoke machine. This powerful device produces clouds of fog which will fill the room with a misty fog. This user manual provides all the information you need in order to use this product safely and properly.

We advise that you read this user manual in its entirety before unpacking the contents of the box so that you are familiar with all of the functionality that this product has to offer. Please be sure to check that all of the parts and accessories listed below under 'Box contents' are included in the package. In the event that the WSM Black machine does not function properly, or if you have any issues while operating it, please remove the plug from the power socket and contact your dealer for assistance.

Box contents:

- WSM Black smoke machine (model 01 / 02 / 03)
- IEC C13 - Schuko power cable, 1.5 mm²
- wired timer/remote control
- receiver interface for wireless remote control
- wireless remote control, battery included
- mounting bracket
- hardware for mounting bracket

Please inspect the device and the included accessories.

Should you discover that either the device or one or more of the included parts have been damaged or are completely broken down during transport, please contact your dealer directly.

Please note that the images in this user manual serve illustrative purposes only and may differ from the actual product.

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Safety instructions



WARNING!



Keep this device away from moisture, water and rain to avoid the chance of electric shocks.



WARNING!



Only connect this device to a suitable power socket. This device functions on a specific power voltage. If it is plugged into a power socket with a different voltage, it could result in permanent damage and even dangerous situations such as fire or electric shocks.



WARNING!



Be careful when operating this device. Touching the wires that are connected to the mains, inside or outside the device, could result in electric shocks.

Everyone involved with the installation, operation and maintenance of this device must:

- Be qualified
- Be skilled
- Have read the instructions in this user manual
- Be sure that neither the device nor the included accessories are damaged. Should the device or the included accessories be damaged, please contact your dealer for more information.
- Ensure that the device is in good working condition and is safe to operate. Please follow the advice and instructions as they are described in this user manual.

Damage caused by misuse and/or modifications made to the device are not covered by the warranty. This device does not contain any parts that need to be repaired or replaced by the user. Should maintenance or repairs be necessary, they must be handled by a qualified technician.

Important information regarding health and safety:

- Do not remove any labels or stickers from this device.
- Do not leave any cables lying around.
- The device should not be opened up, and any hardware or software that may be present should not be modified.
- To achieve optimal performance, inputs on this device should not be fed with a signal higher than necessary.
- The device should only be used indoors; contact with water, rain and moisture should always be avoided. Do not place any objects containing liquid on top of the device.
- Remove the device from any nearby flames or heat sources; do not place it near flammable fluids, gases or objects.
- Disconnect this device from the power supply if it will not be used for a longer period of time, if maintenance is necessary, or if the device needs to be cleaned.
- Do not pull on the cable to remove a connector, as this could cause damage.

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- Do not use any cables other than the ones described in this manual. Do not use defective cables. Please contact your dealer if the included or necessary cables do not function properly with this device.
- Only use this device with a stable AC power supply.
- Only use this device with power from a grounded power source.
- In the event that the device is exposed to extreme temperature changes (e.g. transported through a cold outdoor environment into a warm indoor environment), it should not be turned on until it has reached room temperature. This is necessary to prevent moisture from forming in the device, which could lead to electric shocks.

Guidelines and operation:

- This device is intended for use by professionals on stage, in theatres, in clubs, and in similar entertainment locations.
- This device is not suitable for use by children, and should always be operated by an adult.
- This device is designed to produce mist/smoke plumes for entertainment purposes. This device is not designed for household use or for industrial applications (to check for leaks or for fire extinguishing exercises for instance).
- This device may only be used in a suitable environment where no damage to the device can occur. Do not use the device in moist or dusty environments such as:
 - indoor swimming pools where chlorine is used
 - beaches where there is sand and salt
 - outdoors
 - indoors in spaces where intense heat sources are present, or where it reaches temperature levels that would be considered uncomfortable for a person
- Avoid impact and collisions during use and transport. Do not transport the device while it is in use. Avoid using excessive force when installing and operating the device.
- The user should become familiar with the functions of this device before using it.
- Should the device not be used in the manner described in this user manual, damages or even injuries could occur. Ayra cannot be held responsible for any injuries or damages that occur as a result of improper use of this product.

Storage and transport:

- This product was designed for mobile use. Please only transport the device in the original packaging, or in a flight case with a suitable foam inlay.
- This device is not designed for permanent (24/7) use. The expected lifespan of the device will not be affected by occasionally turning the device off. Disconnect the device or turn off the power when it is not actively in use.
- If the device will not be used for a longer period of time, it should be disconnected and stored in a dust-free environment.
- Do not expose the device to extreme temperature differences.

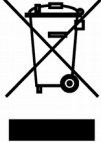


Housing:

- Inspect the device's housing frequently, and always just before use. Avoid operating the device if there are large dents or cracks, or if screws are missing. Do not use the device if the housing is not in good condition. Contact your dealer or a qualified technician if you are unsure about the state of the device.
 - Check the device and the screws for corrosion. Corrosion must not be present on this device. Contact your dealer or a qualified technician if you find any corrosion on the screws.
- Every power and signal connector should be securely mounted. Do not use the device if the connectors are not secure.
- Avoid dust and dirt build-up. Clean the device once a month by disconnecting it from the power supply and wiping it down with a dry or slightly moist cloth. If the device is used frequently, the cleaning intervals should increase.

Symbol explanation:

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	<p>WEEE: Ensure that this device is disposed of properly. This product falls under the WEEE (Waste Electrical and Electronic Equipment) directive. The requirements of this directive apply to all manufacturers and producers of electronic devices in the EU. Do not throw this product away with regular rubbish. Please contact your local authority for more information about how to recycle and dispose of these products in your region. By recycling this product in the proper manner, we can work together to ensure that we can continue to enjoy these kinds of products and still protect the environment as much as possible from pollution.</p>
	<p>CE: The CE logo indicates that this product meets the European norms and requirements to which it must legally conform.</p>
	<p>Only suitable for indoor use: this product was only designed for indoor use. The maximum environmental temperature must not exceed 40 degrees Celsius (104 degrees Fahrenheit).</p>

Battery hazard:

WARNING

Do not ingest battery.

Chemical burn hazard.

This device comes with standard AA batteries.

If a battery is swallowed, it can cause severe internal burns in just 2 hours and possibly lead to death.

Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type of battery.

Do not expose batteries to excessive heat such as sunshine, fire and the like.

Do not leave batteries in an extremely high-temperature environment, as this may cause explosions or leakage of flammable liquids or gas.

Do not burn batteries, do not place batteries in a hot oven, and do not crush or cut batteries, as this may cause explosions.

Do not subject batteries to extremely low air pressure (high altitudes), as this may cause explosions or leakage of flammable liquids or gas.

If equipment is not used for an extended period of time (e.g. a few months), batteries should be removed.

Instantly remove empty batteries from the equipment.

Do not store loose batteries or carry them in your pocket or purse. Contact with metal objects like coins and keys, etc. may cause them to leak, rupture or short-circuit.

Recycling:

Do not dispose of batteries in general household waste. Batteries can contain substances that may harm the environment. If they are properly recycled, used batteries are a valuable source of reusable materials.

Contact your local government for information on battery disposal.

Contact:

Ayra professional lighting products
 Verrijn Stuartweg 18
 4462 GE Goes
 The Netherlands

Please do not send any products to this correspondence address.


Should you wish to send in a product for repair or for a refund, please contact your dealer for an RMA (Return Merchandise Authorisation).

Operating instructions and warnings

General instructions

- Only use water-based smoke machine fluid. This device is not suitable for oil-based smoke fluids.
- Ayra recommends using Ayra brand fluids with this smoke machine. This device is optimised for use with these fluids.
- Fluids by other brands may shorten the lifespan of this device as a result of residue left behind in the pipework.
- Using fluids by other brands can cause the smoke machine to spray hot fluid with the clouds of fog.
- It is recommended to empty the fluid tank before transport.
- Fluid can remain in the tank as long as the device is held upright during transport and the tank contents does not exceed 50%. As the lid of the tank is not water-tight, fluid splashing around inside the tank during transport could cause leakage.
- When the device is turned on, it needs to be positioned in such a way so that it can be monitored at all times.
- The device should be connected to a power source that can be disconnected immediately in case of emergency. This can either be a standard power outlet that is within reach or a socket with a dual pole switch that completely disconnects power.
- The device may not be mounted in a completely closed construction. There must be enough ventilation and space to monitor the machine at all times.

Temperature-related instructions:




WARNING!




This device is equipped with a built-in heating element. The housing can become very hot during use. Do not touch the housing of this machine while it is in use and never place your hand in front of the output nozzle.

- The device requires time for the heating element to warm up. For this reason, the machine can not be used directly after being switched on.
- The temperature settings of the smoke machine have been factory-optimised and can not be adjusted by the user.
- The smoke that comes out of this machine directly in front of the output nozzle is very hot. Keep animals, children, flammable objects and electronics away from the output nozzle of this smoke machine.
- When you are finished using the device, make sure it is switched off before removing the cable from the power outlet. The machine will still be hot after use and requires some time to cool down. Allow the smoke machine at least 20 minutes to cool down before transport.
- The smoke machine may produce small plumes of smoke after it has been switched off.

Ventilation and health-related instructions:



WARNING!



When a large quantity of fog is being produced in a poorly-ventilated room, some people may become light-headed or dizzy. If anyone develops these symptoms, it is advised to stop producing smoke immediately. Open a door or window to let in some fresh air and/or activate an indoor ventilation system.

- Always ensure that there is sufficient ventilation in the room. There must be access to fresh air so the smoke can be removed quickly if necessary.
- Pay attention to the amount of smoke this machine produces. Only a small amount is required to make light

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effects visible. Stop producing smoke immediately if the visibility in the room at any given point is 2 metres or less.

- The smoke produced by this machine is not hazardous to your health as long as the machine is monitored at all times and there is plenty of ventilation during use. Water-based smoke fluids contain a small amounts of propylene glycol (no more than 30%) and demineralised water, which can be augmented by other chemicals, depending on the type of fluid used.

Housing-related instructions:

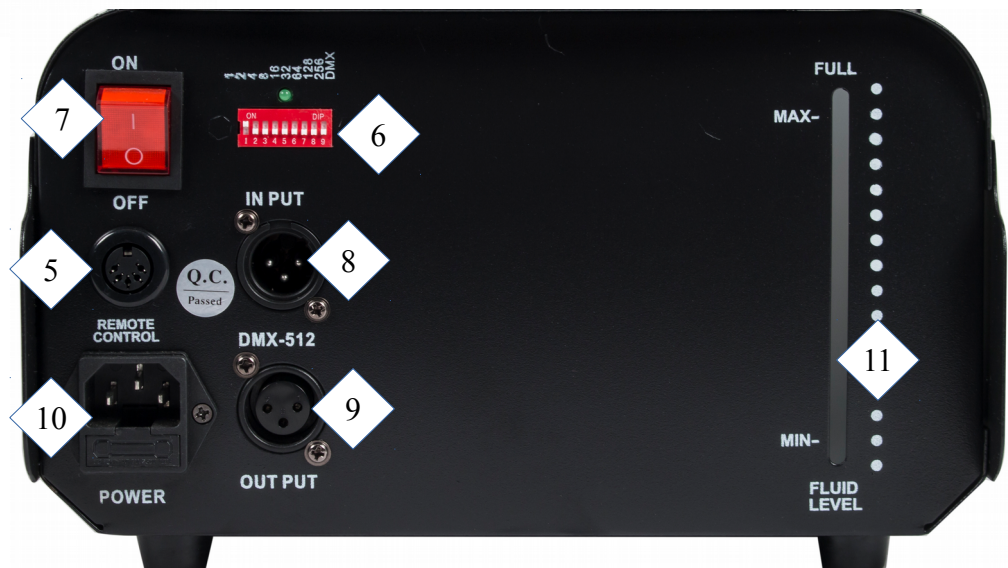
- Make sure that the output nozzle of the smoke machine is unobstructed.
- Do not cover the output nozzle of the smoke machine with a tube or hose.
- Do not tilt the smoke machine more than 15% upwards or downwards when being it is being used upright or suspended in a truss.
- When suspended, attach an optionally available safety cable to the smoke machine.
- When used upright, place the smoke machine on a flat, stable surface.
- When suspended, ensure that the smoke machine is mounted securely in a stable truss construction.
- Do not lift or hold the machine during use.
- The handles on this machine are designed to be used when the machine is not activated or switched off.
- Do not mount or suspend this machine directly above an audience in case the machine sprays hot smoke fluid.

Fluid-related instructions:

- When the container of smoke fluid has been opened and the machine's tank has been filled, the lids of both the tank and the container need to be closed tightly. If this is not done properly, hazardous bacteria may form due to exposure to oxygen.
- Keep smoke fluid out of reach of children.
- The fluid tank can be removed from the machine as long as the lid is open and the siphon has been removed from the tank.
- When filling the tank, always use a funnel to prevent fluid from spilling on the floor and creating a slipping hazard.

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Apparaat-overzicht



1. fog machine nozzle
2. carrying handle
3. ventilation slots
4. fluid hose and closing cap
5. control input for wired remote (5 pin DIN)
6. DMX dipswitch panel with indication numbers for DMX starting address
7. on / off switch
8. DMX input through 3-pin XLR
9. DMX output through 3-pin XLR
10. IEC C14 power input with fuse holder
11. fluid level indicator

The WSM Black 02 is shown above, the WSM Black 01 and 03 models feature similar lay-outs and the same connections

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Remote control units

The WSM Black fog machines are equipped with various options for operation on a distance. The user can choose between three ways of remote control, each with its own characteristics. This way, the user is able to choose the right operating mode for any occasion. The third way of operation, not covered below, is through DMX. This will be explained later on in this user manual.

1. Wired timer-remote

The wired timer-remote consists of a device with three rotaries, three pressing buttons and three LED indicators. This remote is equipped with a solid connection cable and can be connected to the designated 'remote control' input on the fog machine.

Features:

- Interval min - max: Minimum and maximum time of the interval (the waiting time in between two moments of fog output projection), variable setting
- Duration min - max: Minimum and maximum time of the fog production (how long should the fog machine produce fog), variable setting
- Output min - max: minimum and maximum output of the fog machine for each fog production period of time, variable setting

- yellow LED indicator: status LED for activation timer-function, turned on when illuminated
- red LED indicator: status LED for activation continuous mode, turned on when illuminated
- green LED indicator: fog machine heater status LED, ready to produce fog when illuminated
- yellow button: timer function on or off
- red button: continuous mode on or off
- green button: manual production of fog based on the set fog machine output level (push and hold)



2. Wireless handheld remote

The WSM Black fog machines have a built-in receiver for the wireless remote. This is a handheld device, in a key chain sized housing, equipped with a protection cover to avoid unwanted button pushing.

The remote has an extractable antenna and works on the 433 MHz frequency band, which ensures that aiming the remote correctly is of less importance to achieve optimal result compared to infrared remotes. This way the machine can be operated easily on distance. Both buttons on the remote trigger 100% output from the machine and with a LED indicator the user knows that the signal is being sent out from the transmitter. Large objects being positioned between the transmitter and receiver, may alter the operating range of the remote (such as audience or concrete walls).

Keep in mind that the transmitter and receiver are not connected with an unique ID, so any transmitter is able to send signals to multiple or different WSM Black series machines. The remote comes with an A23 type 12V battery (L1028 / LR23A).



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Operation and mounting

In order to use this fog machine as intended by the manufacturer, Ayra recommends following the steps below and reading the instructions thoroughly before use.

Fluid

Before turning on the device, the fluid tank should be filled with a sufficient amount of smoke fluid. Keep the tank half full for best results. This device functions best with fluids made by Ayra. Good smoke fluid does not leave residue behind, is more efficient, creates longer-lasting smoke, and produces an almost odourless mist. The use of other types of fluids could have a negative impact on the lifespan of this machine, and could result in hazardous hot spatters of fluid.

The WSM Black 01 has a tank capacity of approximately 1.8 litres. The WSM Black 02 and 03 both have tank capacities of approximately 2.3 litres.

Always fill the tank about 3/4 full instead of completely full. This prevents the contents of the tank from spilling over if the machine is adjusted or moved.

How much fluid is used depends on many factors, including the type of machine, the type of fluid used and the characteristics of the room where the machine is being used. It is therefore impossible to give an exact amount.

As a rule, 1 litre of smoke fluid is sufficient to produce a layer of mist that lasts all evening in a small well-ventilated venue.

Monitor the fluid level is closely while the machine is in use. The fluid level is clearly visible but the machine does not automatically warn you if the fluid level is too low.

If the fluid level is too low, then the pump will make more noise and the smoke production will decrease considerably. If this happens, stop producing smoke immediately and fill the tank with fluid according to the standard procedure. If the machine runs without fluid for a longer period of time, permanent damage may occur.

Positioning and installation

The WSM Black smoke machine is designed to be used standing upright or suspended in a stable construction. In order to prevent unauthorized use of this machine, it is recommended to place it somewhere out of reach of others, but where you can still monitor it at all times.

If the machine is positioned on a bar, DJ booth or table, the surface needs to be sturdy and able to withstand heat. Do not place the machine on a surface that is covered with a sheet, tarp, table cloth or foil. Keep children away from hanging cables and make sure that cables on the floor that are attached to the machine do not form a tripping hazard.

If the machine is suspended in a truss, at least three of the following instructions need to be followed:

- mount the bracket of the machine using the included hardware.
- tighten the knobs firmly, but not too tightly so that the device can no longer be moved or tilted.
- make sure the load capacity of mounting hardware such as G-hooks or half couplers is sufficient to carry the weight of the machine.
- attach a safety cable (optionally available) to the machine's safety eyelet when suspending it in a truss.
- attach the (optionally available) safety cable in such a way that the device can't fall more than 30 cm before the safety cable prevents it from falling any further. Wrap the safety cable multiple times around the truss construction to keep the falling distance to a minimum.

Before mounting the device to the wall, beam or ceiling, it is recommended to contact a specialist who can provide advice and proper hardware. A second point needs to be made for attaching the safety cable and the procedure described above needs to be adhered to.

Warming up

Once the machine has been turned on, the internal heating element needs time to reach the right

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temperature. During this warming-up process, the machine can not be used. Status LEDs that illuminate the fluid tank and the remote indicate various status levels of the machine:

- Red: warming up
- Purple (Red + Blue): warming up, but machine can be used
- Blue: fully warmed up and ready for use

When the machine is heating for the first time when using it, it is recommended to allow the machine to reach full blue status and then allowing it to rest for another 5 to 10 minutes before use. This enables the heating element to reach the optimal temperature for best results.

Smoke production

When triggering the smoke machine via DMX, the wireless remote or the wired remote control, the pump will start siphoning fluid out of the tank and passing it through the heating element. As a result, the machine expels clouds of fog into the room.

The machine can produce smoke for about 20 to 30 continuous seconds at full capacity. Afterwards, it will stop and the status LED will jump back to red while the heating element warms back up again. This is normal. Once the machine has reached the right temperature, the process will repeat itself so more smoke can be produced.

It is not possible to use the machine during the warming up process while the red LED is lit.

By adjusting the output capacity with the timer remote control of the WSM Black 02 or 03, it is sometimes possible to generate continuous smoke.

Thermal protection unit

WSM Black fog machines are equipped with thermal protection unit, which is located on top of the heating element. It's a component with a bimetallic strip that allows a current to pass through depending on the temperature of the heating element. If the temperature is below the critical level, the thermal protection unit provides an uninterrupted flow of current to the heating element.

If the temperature gets too high, the bimetallic strip will bend, instantly interrupting the current. The interrupted current can only be repaired by manually pushing the white button on the top of the machine, which resets the thermal protection unit. This prevents the heating element from overheating and causing permanent damage to the machine or even injury.

If you need to press the reset button multiple times during use, then there is probably something wrong with the machine. One reason could be a defective thermostat that does not automatically switch off the heating element once the optimal temperature has been reached.

If the thermal protection unit is engaged, the machine may suddenly not reacting to your remote control or DMX commands. It will not produce any smoke either until it is manually reset. If the thermal protection unit keeps getting activated, turn off the machine and contact your dealer for information about how to solve the problem.

Any damages that occur as a result of tampering with or sabotaging the thermal protection unit will not be covered under the warranty Ayra offers for this product.

Triggering alarm systems

If this machine is used in a public venue where an alarm installation is present, it is advised to contact the owner of the venue or installer of the alarm system.

Some public venues are equipped with an optical smoke detector that could be activated by the smoke or fog produced by this machine. Setting off an alarm may cause a panic, not to mention expenses due to unnecessarily calling emergency services.

Some public venues have thermal smoke detectors that are triggered by high temperatures in the room (caused by a fire). This smoke machine will not activate alarm systems of this type.

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Ensure the safety of yourself and your audience - NEVER simply switch off a smoke detector or alarm system!

Parts and repair

This product does not include spare parts and can not be repaired by the user. All inspections and overall maintenance should be done by a specialist.

Cleaning and maintenance

Clean the exterior of this device monthly with a dry, or slightly damp microfibre cloth. Ensure that the device is unplugged before cleaning it.

Check if all the screws are intact and secured and tighten or replace them where needed. Check all metal parts of the device for any signs of corrosion. If corrosion is found, then the device needs to be checked thoroughly.

Using the smoke machine with DMX

It is possible to operate this smoke machine via DMX. Plug it directly into a DMX controller or place it in a daisy chain of DMX-controlled lighting effects. Determine the start channel by using dip switches to indicate the start address.

For instance, if you choose DMX channel 27 as the start channel, then the machine will follow all commands assigned to channel 27.

Set the start channel using dip switches. Add the values of the selected dip switches together to determine the start channel.

For example, when dip switches 1 and 5 are set to 'ON', this forms the mathematical equation $1 + 16 = 17$. This means the machine will react to commands assigned to channel 17. By combining different dip switches, you can create countless combinations that range from channel 1 to 511.

Connect DMX by plugging standard XLR cables into the 3-pin inputs and outputs on the machine.

Using the wireless remote control

The wireless remote control makes use of a radiographic FM signal and is therefore not direction-sensitive. It has a range of approximately 30 metres around the machine.

The connection between the remote control and the receiver is not protected or adjustable, which means multiple WSM Black machines can be operated with one remote control. This also means that someone with another remote control on the same frequency band may inadvertently trigger the machine.

For best results while using the remote control, it is recommended to fully extend the antenna.

When you press one of the two buttons on the keychain remote control, a red LED will light up to indicate a signal is being transmitted. If the LED does not light up and the smoke machine does not react, then this is usually solved by replacing the battery.

The remote controls in the WSM Black series come with a standard L1028 / LR22A battery. To replace the battery, remove the rear panel of the remote control with a mini Philips screwdriver.

Always replace the battery with a battery of the same format and type/model. Pay attention to the polarity when replacing the battery.

After replacing the battery, close the compartment lid and tighten the screw.

During transport, a cover slides over the remote control to protect the buttons and prevent it from transmitting a signal inadvertently.

Using the wired timer/remote control

The WSM Black 02 and 03 both come with a wired timer/remote that gives you control over various settings.

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You can use the timer function to set smoke intervals and duration, or regulate a smooth output that ranges from 0 to 100%. The remote has buttons for triggering the machine manually or producing a steady output level.

The LED indicators on the remote show you which function is active at any given time as well as the status of the smoke machine.

Installing the machine

All WSM Black smoke machines come with a mounting bracket for installation on a light stand or truss.

To avoid the risk of injury due to hot spatters of smoke fluid, do not mount the smoke machine directly above the location of your audience. There should be a horizontal distance of at least 2 metres between the machine's output nozzle and your closest audience member. If this is not possible, try rotating the machine or mount it at a lower level.

Do not mount this machine at an angle greater than 15 degrees.

Storage and transportation

If you do not intend to use the smoke machine within 2 to 4 weeks after using it last, it is recommended to empty the fluid tank completely. This prevents any fluid or residue from getting into the internal components and clogging the machine.

In order to empty the pipework of all fluid, the smoke machine needs to be switched on and ready for use. Open the lid of the machine and remove the siphon. Place it in an empty plastic cup for instance, so it doesn't fall on the floor and get dirty.

Start the machine by pressing the button manually or using one of the remote controls until the amount of smoke has reduced significantly, or until the pump starts to make noise. When this happens, stop the machine immediately. The pipework should now be free of fluid and the machine can be switched off and stored for an extended period of time.

When using the machine again after taking it out of storage, it may take some time before the fluid is passed throughout the system. During this process, the pump will make some noise at first, but this will eventually decrease and smoke will come out.

Do not run the machine too long without fluid, as this can cause permanent damage to the pump. Cleaning out the machine ensures the internal components are free of fluid residue and prevents clogging.

Switching off and cooling down the smoke machine

When the machine is no longer being used (and optionally drained), then it can be switched off. Bear in mind that the machine can not be transported directly after it has been switched off.

The machine requires at least 20 minutes to cool down after use. The heating element needs time to cool down to a temperature that makes it less vulnerable to damage caused by shocks and bumps which may occur during transport.

Transporting the machine directly after it has been switched off could damage the heating element and result in a machine that no longer warms up when turned on.

It is therefore strongly advised to give the machine time to cool down after use before transporting it.

During the cooling-down period, the machine may produce small plumes of smoke.

Less or no smoke production - what to do

If the machine starts to produce less smoke or none at all, then it might be clogged. To solve this problem, the pump needs to be in working order.

If the pipework is clogged, try clearing it by making a special cleaning fluid.

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Make your own cleaning fluid by mixing 4 parts distilled water and 1 part cleaning vinegar in a plastic cup . Half a litre of cleaning fluid is sufficient.

The products mentioned above are available at most supermarkets, home improvement shops or chemists.

Remove the siphon from the tank and make sure the cleaning fluid is drawn into the tank and passed through the internal system of the machine. As some smoke fluid is probably still in the pipework, the machine will produce smoke first, then a flow of light steam that may increase if the clog has been cleared.

Run the machine at maximum capacity and allow the cleaning fluid to pump through the machine for a maximum of three cycles. (Warm up → Smoke production → Warm up → Smoke production → Warm up → Smoke production). Do not allow this process to go on any longer, as lack of lubrication could damage the pump.

If there is no improvement in smoke production, then the smoke machine is probably irreparable due to clogged pipework.

If there is an improvement in smoke production, clean out the pipework as described above. When the machine is used again for the first time, it will need some time to absorb the smoke fluid thoroughly and produce smoke normally.

PLEASE NOTE: Never use drinking water from a bottle or the tap to clean the smoke machine. Some of the chemicals that are used in drinking water to kill bacteria can damage the machine's pipework, which can cause clogging and even irreparable damage!

Ayra does not recommend using specific smoke machine cleaning fluids for this type of machine.

Using additives for smoke fluid (scented fluids)

The use of smoke fluid additives is not recommended, as they can have a negative impact on the performance and lifespan of the smoke machine.

When using smoke fluid additives, any damage caused by clogging, or any other possible resulting damage, is not covered by the warranty.

Most scented fluids and other additives are extremely concentrated. A few small drops in a full tank is enough to create the desired effect. When attempting to use additives, read the manufacturer's instructions carefully before use.

Smoke machine and DMX troubleshooting

If you have a problem with your device, please consult the troubleshooting section for possible solutions. If, after consulting this section, the problem remains unresolved, please contact your dealer for more information and/or help.

This troubleshooting section contains information on how to solve the most common smoke machine and DMX-related problems, but it does not and cannot cover every eventuality. It is possible that you won't find your problem, cause and solution in this section due to differences between various connecting devices.

Problem	Possible cause	Solution
The device can not be turned on.	A fuse is blown	Check the fuse to rule out if it is blown or not. If it is blown, replace it with a new fuse of the same type and class.
	Power cable not plugged in	Check if the power cable is properly connected to the device and plugged into an active power socket.
The device is not reacting to DMX signals	Incorrect DMX start address	Check if the device has been set to the correct DMX start address
	DMX controller is on 'Blackout'	Make sure the 'Blackout' function on the DMX controller is not activated
	Make sure the polarity switch on the DMX controller is set correctly	Try to reverse the DMX polarity switch on the DMX controller.
	The device is not reacting, there is no DMX signal indication	Make sure the XLR cables are connected properly and are not defective. Replace if necessary.
The smoke machine does not produce smoke	The device is still warming up	Check the status of the smoke machine by means of the illuminated fluid tank. The machine is possibly still warming up.
	Fluid tank is empty	If you can hear the pump working but the machine is not producing any smoke, then the fluid tank might be empty. Check the tank and add some fluid if necessary.
	Smoke machine is clogged	If the smoke output is very low and the smoke comes out in small, weak puffs, then the machine could be clogged.
	Thermal reset is activated	If there is a technical defect which disables the heating element from stopping once it reaches the correct temperature, (the digital thermostat should shut off), then the thermal reset will activate and switch off current flowing to the heating element. This can only be restored manually by pressing the reset button on the top of the machine. If you need to press the reset button several times to get the machine to work again and again, something is probably wrong. If this is the case, turn the machine off completely and contact your dealer.
The machine produces	Machine is cooling down	Shortly after the smoke machine is switched off, it

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puffs of smoke when it has not been commanded to do so	Machine is warming up	will produce small puffs of smoke as it is cooling down. Once the machine has been switched on, it will produce small puffs of smoke as it is warming up.
The DMX signal appears to be interrupted and some devices are flashing or behaving strangely	Damaged/defective cables Power interference on the DMX signal DMX terminator is missing Signal loss or interference in the DMX circle	Check and replace the DMX cables if necessary. Avoid connecting signal cables parallel to power cables. Close the DMX circle with a DMX terminator. Close the DMX circle with a terminator or connect a booster after maximum 32 fixtures.
Fluid sprays out of smoke machine output nozzle	Incorrect type of fluid Heating element or thermal component is not functioning	Make sure you are using the correct type of smoke fluid for this machine. Other fluid types may produce spatters. If the heating element or other internal component is not functioning (properly), this can cause the output nozzle to spray fluid. If you are unsure whether the machine is functioning properly, switch it off completely and contact your dealer for information and/or advice.
The wireless remote control does not work	Receiver is not plugged in Remote control battery is empty Smoke machine is out of range	Make sure the wireless remote control receiver is connected correctly. If the battery of the remote control is empty, be sure to replace it with one of the same model/type. If the distance between the remote and receiver is too great, the remote will not work. Try controlling the machine with the remote from a closer distance, if possible, ensure the path between the receiver and the transmitter is unobstructed, and make sure the antenna is fully extended.

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Technical specifications

General specifications:

- powerful smoke machine
- works with water-based smoke fluids
- optimal results with Ayra fluids
- LED status indicators illuminate fluid tank (red, blue)
- fluid level can be seen on the rear of the machine
- equipped with eyelet for optionally available safety cable when used suspended
- DMX controlled operation (1 channel)
- set DMX start channel via DMX dip switch
- DMX connections via 3-pin XLR I/O
- 5-pin DIN connector for remote control
- power socket via IEC C14 power connector with fuse holder
- mains voltage: 110 – 240V AC, 50 / 60 Hz
- remote control frequency range: 433 MHz

Included accessories per model:

- timer remote control with cable attached
- wireless keychain remote control with 2 buttons, LED indicator and protective cover
- mounting bracket
- hardware for mounting bracket

battery type (for remote control)

- battery type A23, 12V (L1028 / LR23A), already installed

Specifications per model

Feature	WSM 01 Black	WSM 02 Black	WSM 03 Black
Heating element	900 W	1200 W	1500 W
Pump	30 DCB	40 DCB	55 DCB
Output distance	3 - 4 m	5 - 6 m	7 - 8 m
Warm-up time	+/- 3 - 5 min	+/- 4 - 6 min	+/- 5 - 8 min
Smoke machine output per min	+/- 140 m ³	+/- 350 m ³	+/- 570 m ³
Tank capacity	+/- 1.2 litres	+/- 2.3 litres	
Maximum power consumption	1000 W	1300 W	1600 W
Smoke temperature at nozzle	60 - 75° C		
Housing temperature during normal use	35 - 40° C		
Dimensions	350 x 270 x 280 mm	560 x 330 x 280 mm	
Weight	4 kg	7 kg	7.5 kg
Fuse	F8AL 250V fast blow 20mm glass	F10AL 250V fast blow 20mm glass	F15AL 250V fast blow 20mm glass

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