

# AURA

**WSM 02 – WSM 03 MKIII**

**1200W – 1500W DMX fog machine**



## **User manual**

*All information and illustrations shown in this user manual are subject to change without further notice.*

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# Safety instructions



## WARNING!



Always keep this device away from moisture and rain! Hazardous electrical shocks may occur!



## WARNING!



Only connect this device to a matching power outlet. This device is intended to work on a specified AC currency. Connecting this device to power outlets with other voltages may result in permanent damage and possible hazardous situations, such as fire or electrical shocks!



## WARNING!



Be careful with every operation of this device. Touching live wires inside and outside the unit may cause hazardous electrical shocks!

This unit must be operated by, or under the supervision of an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device has to:

- Be qualified
- Follow the instructions of this manual
- Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information and consultation.
- To make sure the device maintains in perfect condition and for safe operation, it is necessary for the user to follow the instructions and warning notes of this user manual.
- Damage caused by improper use or modifications to the device are not covered by warranty.
- This device does not have any user-serviceable parts inside. Servicing of this device needs to be done by qualified technicians.

### Important notes regarding safety and health:

- Never let the power cord come in contact with other cables. Handle the power cord and all connectors with the mains with caution.
- Never remove any warning or informative labels from the unit
- The ground contact always needs to be connected. Do not cover or remove the ground contact.
- Never leave cables lying around
- Do not open the device and do not modify any hard- or software of this unit.
- Do not insert this object into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the system on and off frequently as this will reduce the lifespan of the device.
- Do not drive the inputs of the fixture with a signal larger than required to work at full performance.
- Only use this device indoor, avoid contact with water, moist or other liquids. Do not place items filled with liquids on top of the unit.

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- Avoid nearby flames or heat sources, do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period or time, when servicing is needed or when the device needs cleaning.
- Only handle the power cord by its connectors. Never pull the cable to remove a connector from its socket, as this could lead to damage and electrical shocks.
- Always operate this device with a stable AC current.
- Always operate this device with the AC ground wire connected to the electrical system's ground.
- Never use other types of cables than specified in the manual, do not use defective or bad functioning cables. Contact your dealer when the included or required cables do not work properly with this device.
- When the device has been exposed to large temperature differences (for example, transport from outdoor to indoor), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moist might build up inside the unit, which may cause shortcuts and/or electrical shocks.

#### **Guidelines and types of use:**

- This device is intended to be used by professionals on stage, in theaters, clubs and other equal venues.
- This device is not suitable for children and always needs to be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
  - indoor swimming pools where chlorine is used.
  - Beaches, where sand and salt are present.
  - Outdoor, without roof protection
  - Indoor areas where intense heat sources are present or where the temperature exceeds levels which are comfortable for humans.
- Only use the included power adapter and only connect the device to a suitable power outlet with the correct output voltage. Connecting the device to a power outlet with the wrong type of voltage or using the product with a wrong type of power supply may cause permanent damage to the device.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid brute force during the installation and operation of this device.
- Familiarize yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in other ways than described in this user manual may cause damage and injury. Ayra does not take responsibility for any damage or injury caused by improper use.

#### **Storage and transport:**

- This device is intended for mobile use. When transported, use the original packaging of the product, or a fitting flightcase, preferably filled with foam.
- This device is not intended for permanent use. Operation breaks will ensure that the lifespan of the device remains unchanged.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flightcase.
- Store the device indoor, dry and do not expose the device to extreme temperature differences.

#### **Housing:**

- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be avoided at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use the power cord when the cores are visible. Contact your dealer for a replacement if needed.
- Avoid the buildup of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. When using the device intensively, the cleaning frequency needs to be increased.

#### **Fuses:**

- The main fuse of this device is to be found on the rear of the device. In most cases, directly next to the power inlet.
- Only replace a fuse for a new one with the same type and rating! Do not use a fuse with a higher or lower

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rating.

- Do not bridge the fuse with electrical wires, aluminum foil, as the fuse is used for protection against electrical shocks and short circuit.
- Always mount the fuse cover back to the fuse compartment.

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# Guidelines for fog machines

## Fluid guidelines:

- Only use water-based fog liquids!
- Ayra recommends the use of Ayra fog machine fluid only. Other types of fog liquid may cause permanent damage or bad performance. When the wrong type of fog liquid is used, the machine might spray hot liquid.
- It is possible to keep fog machine fluid in the tank during transport. Pay close attention to possible tipping. When transporting this device with fluid still in the tank, the maximum level should not exceed 50%!
- When transporting this device with parcel delivery companies (or any other way of transport where the device could be positioned upside-down), the fluid tank needs to be fully drained.

## Temperature guidelines:




## WARNING!




**This machine has a built-in heating element. The housing of this device may become very hot during use. Do not touch the housing of the device during use and do not place your hand in front of the fog machine output nozzle!**

- The fog machine requires a heat-up time. It is not directly ready for use when switched on.
- The temperature of the heating element is set in the factory. Do not attempt to change the set temperature of the device.
- The fog coming out of the fog machine is very hot and moist on short distance. Keep animals, small children, flammable objects and electronic devices away from the fog machine output.
- After use, unplug the power cable from its socket and let the machine cool down at least 20 minutes. Do not transport the machine while it is still hot! Small puffs of smoke may be produced during cool-down time.

## Ventilation and health guidelines:



## WARNING!



**Large amounts of fog in a bad ventilated room may cause headaches, lightheadedness, dizziness and possible other health-related issues. If any of these symptoms occur, stop producing fog immediately and open a door or window to let fresh air into the room.**

- Always make sure that there is sufficient ventilation in the room. Fresh air needs to be able to enter the room and vaporized fog needs to be able to be drained from the room.
- Pay caution with the amount of fog used. Only small amounts of fog are required to accentuate professional lighting and make the beams visible. Do not proceed producing fog when the visibility drops below 2 meters.
- The use of fog is not hazardous for people or animals, if used with caution and proper ventilation. Do not use more fog than needed to achieve the desired effect.

## Exterior guidelines:

- Do not cover the nozzle of the fog machine, do not place a tube over the nozzle.
- When using the fog machine in a standing or hanging angle, do not adjust the vertical angle more than 15% up or down
- When used in a hanging position, the device always needs to be secured by using a safety cable. Attach the safety cable to the provided safety eye with the carabiner hook. A safety cable is not included in delivery and can be purchased separately.
- The device must be installed on a flat surface or hanging from a solid construction by using the included bracket. Never hold the machine in your hands during use!

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- The handle provided on the device is only to be used during transport, not during operation.
- This device is not intended to be installed directly above publicly accessible areas.
- When using the device in a hanging position, always mount a G-clamp or half coupler to the bracket, or use bolts to install the bracket directly to a ceiling or beam.

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# Box contents

## Box contents

- 1x WSM fog machine (WSM 02 MKIII or WSM 03 MKIII)
- 1x power cable
- 1x wired controller
- 1x keychain wireless remote control
- 1x mounting bracket

## Unit and accessory inspection

- Always check the unit, box and accessories for possible damage before use. If you suspect that something is wrong with the unit, do not connect it to a power source! When you suspect that your unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.
- If any of the parts that should be included is missing, contact your local dealer for help.
- If the box appears severely damaged, soaked with liquid or ripped apart, do not unpack the product and contact your local dealer for help and more information.
- Always preserve the original box and packaging materials as long as the warranty period is active. This way, the device can be transported for repair and inspection safely.

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# Device overview



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- 1. Fog machine nozzle (fog output)
- 2. Transport handle
- 3. Ventilation slots
- 4. Liquid hose and liquid tank cap
- 5. Wired control input (5-pin connector)
- 6. DMX dipswitch panel with indication LED
- 7. On/off switch
- 8. DMX input
- 9. DMX output
- 10. Power inlet (IEC connector)
- 11. Fluid level indicator

- 12. Duration selection
- 13. Interval selection
- 14. Output intensity
- 15. Timer functionality on/off
- 16. Continuous fog
- 17. Manual fog
- 18. Keychain Fog 100%



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# Setting up the unit

To make sure that you use this machine as intended, Ayra recommends to follow the steps described below.

## Liquid

Before turning on the machine, make sure there is enough fog liquid in the tank. This machine is designed and set for Ayra fog fluid. Proper fog liquid leaves less residue, is more efficient/economical and creates almost odorless fog. The use of other fog fluids may cause fluid spraying or unpleasant fog odors.

The liquid tank of your WSM device has a volume of approximately 1,8 liters. Fill the tank for approximately  $\frac{3}{4}$  of its capacity. Overfilling the tank may cause the liquid to spill during transport, because of shocks, impact and tilting of the machine. Fluid consumption depends on the type of fluid, the amount of fog that you wish to create and the time span of use.

## Positioning

The WSM01 MKII fog machines is designed for use on a stable platform. It can be positioned on a floor, DJ-booth or bar. However, Ayra does not recommend placing the machine near audience because of the high temperature of the fog at short distance.

## Control

The WSM fog machines are controllable in several ways. You are able to use the included wired remote, the included wireless keychain remote or you can control the device with a DMX controller (not included).

### Wired remote

Connect this controller with the 5-pin DIN connector on the rear of the machine.

- 1. Interval selection:** Determines the timespan when the machine is activated.
- 2. Duration selection:** Determines the duration if the timer activates the machine.
- 3. Output intensity:** Output 0-100% (variable)
- 4. Timer functionality on/off**
- 5. Continuous fog:** Continuous operation with the selected output intensity
- 6. Manual fog:** Fog projection at the selected output intensity, when pressed

**Yellow LED:** Timer function on/off

**Red LED:** Continuous fog function on/off

**Green LED:** Fog machine ready-indicator

### Wireless keychain remote

The wireless keychain remote is compact and gives you flexibility. It operates under a range of max. 25 meters, if not obstructed by objects or walls.

To use the wireless keychain remote, connect the receiver to your fog machine using the correct connector. The keychain has a protective cover, making it impossible to press buttons while you aren't using the remote. The cover slides down easily, granting access to the LED and buttons. When pressing a button, the LED will be lit, indicating that a signal is being sent to the receiver.

The keychain remote has an expandable antenna to improve the range and signal transmission. To replace the internal battery, remove the screws on the rear.

### DMX control

When you are already in the possession of a DMX-controller, it is possible to integrate the WSM fog machine in your light show. The output of the fog machine can be adjusted with one DMX channel, from 0 to 100%.

For optimal use of the fog machine on DMX, some basic knowledge is needed. Contact your local dealer for more information.

Connect the fog machine to your DMX-controller, using standard XLR male to XLR female cables.

Select the correct DMX starting address by using the dipswitch panel.

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The dipswitch value is shown for each dipswitch. By adding several values you are able to make combinations to reach the desired DMX value between 1 and 512. For example, if you wish to set the device to channel 17, you need to select dipswitch 1 + 5.

A status LED is provided, indicating that the machine receives DMX-signal from your controller.

### **Turning on the machine**

Turn on the ON/OFF switch on the rear of the machine. When doing so, you will not have instant smoke as the internal heating element needs to reach a certain temperature. The machine has a built-in indication LED, which projects on the liquid tank. This way you can see the tank light up when the fog machine is ready (indicated with a green LED).

### **Projecting fog**

After +/- 50 seconds (depends on the output volume) the fog machine will stop its output to reheat the internal heating element. A built-in thermostat keeps the heating element on a proper temperature. During the reheating time, the fog machine can not be used to project any fog.

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# Maintenance and protection against damage and/or injuries

To be able to keep your fog machine in optimal shape, please pay attention to the maintenance guidelines stated below. Following these guidelines ensures that your fog machine remains in perfect condition over a longer period of time. Incorrect or no maintenance may reduce the life span of your device and could cause permanent damage.

## **Before shutting the machine down**

If you want to shut the machine down, it is recommended that you empty any remaining fluids inside the fluid distribution system. Especially when the machine will not be used for a longer period of time, it is recommended that you open the fluid tank, remove the fluid hose from the tank and place it next to the tank in open air.

Subsequently, emit some fog at 100% output, so the fog distribution system will be cleared from any remaining fluid. When you notice a strong reduction in fog emission, decrease the output power (if possible) to approximately 25% until no fog is produced anymore. After this, switch the machine off.

## **Cooling-down period**

After use, let the fog machine cool down before transporting it by the handle. Small bits of fog may still be emitted just after the machine is switched off. Let the machine cool down for at least 20 minutes and only transport it when the housing of the machine reaches a temperature that is comfortable enough to handle. Transporting the machine while it is still hot may cause injuries and permanent damage to the internal electronics and heating element.

## **Re-activating the machine**

When using your fog machine again with an empty fog fluid distribution system, turn on the device as usual. Let the machine heat up so it is ready for fog production. Always start with 25% output, so the internal pump does not have to perform at 100% capacity without any fluid. When fog clouds are produced by the machine at 25% output, it is safe again to use the machine at full output. Increase the output percentage gradually until the desired effect is created.

## **Scented fog fluids**

Ayra strongly discourages the use of scented fog fluids, as these fluids usually have a sticky consistency, and will be sucked into your fog machine (and its internal components).

If you are going to use scented fog fluids, always read the instructions first and do not exceed the maximum amount of scented fluid to add to a tank or jerrycan of fluid. A few drops of scented fluid are more than enough for 1 liter of fog fluid.

Exceeding the recommended amount of scented fluid may cause permanent damage to your fog machine and its internal components. Damage and defects or decrease in performance caused by wrong use of fluids are not covered by the warranty.

## **Fog fluids**

Ayra strongly recommends the use of Ayra brand fog machine fluids with the WSM series machines (water-based fog fluids).

Any other fluids used with this device may not result in optimal performance and could even cause sputtering at the nozzle of the machine (causing hot drips of fluid being sprayed from the nozzle output!). Ayra cannot be held responsible for any damage and/or injuries caused by improper use of the device, or when wrong types of fog machine fluids are used.

No other fluids other than fog machine fluids (water-based fluids) should be used to fill the tank of the fog machine. Ayra cannot be held responsible for any damage or injuries caused by the use of other liquids than recommended in this user manual.

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# Technical specifications

	WSM02 MKII	WSM03 MKII
Heating element	1200 Watt	1500 Watt
Pump	40DCB	55DCB
Output distance	8-12m	10-14m
Warm-up time	Approximately 6 minutes	Approximately 7 minutes
Tank capacity	Approximately 2.3 liters	
Fog output	350m <sup>3</sup> per minute	570m <sup>3</sup> per minute
Ready-indicator inside tank	X	X
Wireless keychain remote included	X	X
Wired timer remote included	X	X
DMX control	1 channel	
Hanging bracket included	X	X
Safety eye	X	X
Power requirements	110-240V AC, 50/60 Hz	
Internal fuse	8A 250V fast blow 20mm glass	
Dimensions	470 x 250 x 190 mm	
Weight	6 kg	7 kg

## Connectors:

- DMX: 3p XLR male and female
- Power: IEC power connector
- Wired timer remote: 5-pin DIN

## Included accessories:

- Power cable with Shucko & IEC connectors
- Mounting bracket with hardware
- Wired timer remote
- Wireless keychain remote

## Connectors and wiring schematics:

### DMX-connections:

#### DMX-output

XLR mounting-socket:



- 1: Ground  
2: Signal (-)  
3: Signal (+)

#### DMX-input

XLR mounting-plug:



- 1: Ground  
2: Signal (-)  
3: Signal (+)

### Electrical wiring:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

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