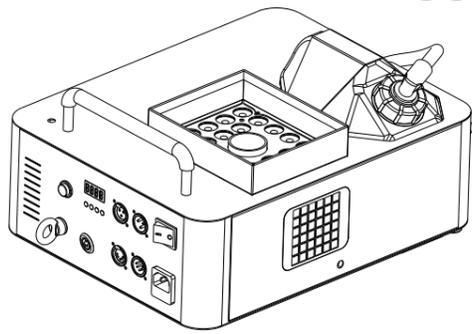


THRILL Vertical Fogger



Safety and Installation Guide

Martin
by HARMAN



WARNING!

Read the safety precautions in this guide before installing or using this product.

Introduction

Congratulations on your purchase of this THRILL by Martin atmospheric effect machine. The THRILL Vertical Fogger combines brilliant color-mixing LEDs with powerful fog output to produce stunning atmospheric effects. Its flexible rigging and control options make it well suited for a wide range of applications.

This guide contains important safety and installation information. For operating instructions, see the THRILL Vertical Fogger User Guide. For the full range of Martin products visit our website at www.martin.com.

Features at a glance

- 480 m³ (17,000 ft³) per minute fog output
- Brilliant RGB color-mixing, 21 long-life LEDs
- 7-channel DMX and 4-channel wireless remote control
- Flexible installation, creates effects at almost any angle

The THRILL Vertical Fogger is supplied with this safety and installation guide, a user guide, a wireless remote control, a mounting bracket, and a power cable.

Before installing and using the Vertical Fogger:

1. Read the safety information in this guide.
2. Unpack the Vertical Fogger and ensure that there is no transportation damage. Do not attempt to operate a damaged machine.
3. Ensure that your AC voltage and frequency match the power requirements of the device.
4. Ensure that you have the specified RUSH Fog Fluid,
5. Check the Martin Professional website at www.martin.com for the most recent product documentation and technical information. Martin document revisions are identified by the revision letter below the legal notices at the end of this guide.

Safety information

The following symbols identify important safety information:



Warning!
Safety hazard. Risk of severe injury or death.



Warning!
See user manual for important safety information.



Warning!
Hazardous voltage. Risk of lethal electric shock.



Warning!
Hot surfaces.



Warning!
Fire hazard.



This device presents risks of severe injury or death due to fire hazards, electric shock, falls, and respiratory problems. Its emissions may create a fire hazard or cause severe injury if safety precautions are not followed. It is Exempt Group (RG 0) per EN 62471, where no optical hazard is considered reasonably foreseeable, even for continuous, unrestricted use.

Install, operate and service this product only as directed, or you may create a safety hazard or cause damage that is not covered by product warranties.



Follow the safety precautions below and observe all warnings on the product. Keep this information for future reference.

For the latest user documentation and information about this and other Martin products, visit our website at www.martin.com.

Respect all locally applicable laws, codes and regulations when installing, operating or servicing the product.

Protection from electric shock



Do not expose the product to water or moisture. Disconnect the product from AC power before carrying out installation or maintenance and when not in use.

Ensure that the product is electrically connected to ground (earth).

Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.

Replace blown fuses with ones of the specified type and rating. Stop using the product if the problem persists.

Isolate the product from power immediately if the power plug or any seal, cover, hose, or other component is damaged, defective, deformed, wet or showing signs of overheating. Do not reapply power until the problem is corrected.

Before connecting the product to power, check that all power distribution equipment and cables are undamaged and rated for the electrical requirements of all connected products.

Protection from burns and fire



Do not operate the product if the ambient temperature (T_a) exceeds 40° C (104° F).

The product casing and fog output nozzle can become hot during operation. Avoid contact by persons and materials.



Do not touch the output nozzle during or after use – it becomes extremely hot, up to 300° C (572° F), and could cause burns or pose a risk to flammable materials for up to three hours after the machine has been shut down. The nozzle cools slowly - Do not cover or pack the machine away until the nozzle temperature has been reduced. Allow the machine to cool for at least 15 minutes before handling.

Provide a minimum free space of 600 mm (24 in.) around the machine, and ensure free and unobstructed air flow to and around the machine, including air vents and fans.

Keep the machine at least 600 mm (24 in.) away from people, combustible and heat-sensitive materials.

Do not point fog output at people and objects less than 5 m (16.4 ft.) away from the output nozzle. This figure can be reduced to 2 m (6.6 ft.) when the machine is pointed vertically up only.

If a fault occurs, the machine can produce streams or excessive droplets of hot fluid that could burn persons or damage materials. If these conditions are noticed, unplug and stop using the machine immediately and contact Martin Professional for service.

Do not install the machine such that hot fluid droplets could fall or be projected onto people or objects and materials that are sensitive (including heat-sensitive) or combustible.

Protection from injury

Do not attempt to repair a defective product or modify the product in any way. LEDs are not user-replaceable. Refer all service to your Martin dealer or contact Martin directly for technical support through www.martin.com/contact-support.

Ensure that any supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support and complies with locally applicable regulations.

To suspend the effect machine from a rigging structure, use a suitable rigging clamp. Do not use safety cables as the primary means of support.

If the product is installed in a location where it may cause injury or damage if it falls, install as directed a secondary attachment such as a safety cable that will hold the machine if a primary attachment fails. The secondary attachment must be approved by an official body such as TÜV as a safety attachment for the weight that it secures, must comply with EN 60598-2-17 Section 17.6.6 or BGV C1 / DGUV 17, and must be capable of bearing a static suspended load at least six times the weight of the fixture (or more if required by locally applicable regulations).

Do not operate the product with missing or damaged covers. Check that all external covers and rigging hardware are securely fastened.

In the event of an operating problem, stop using the product immediately and disconnect it from power. Do not attempt to use a machine that appears to be damaged or that does not have fluid.

Block access below the work area and work from a stable platform whenever installing, setting, adjusting, filling, or cleaning the product.

Martin products are not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety. Children must be supervised to ensure that they do not play with the product.

Do not install atmospheric effect machines directly overhead in areas where people may be present.

Atmospheric effects can cause condensation. Do not point the output from an atmospheric effect machine at a smooth floor. Floors and surfaces may become slippery. Check these frequently and wipe dry as necessary to avoid any danger of slipping.

Flashing light can trigger epileptic seizures in flicker-sensitive persons. Provide notice when strobe lighting is in use at the entrance(s) to the venue. Mount flashing lights as high above head height as practicable and avoid extended periods of continuous flashing, particularly at 10 to 20 flashes per second. Stop lights from flashing immediately if a person has an epileptic seizure.

Atmospheric effect fluid contains food-grade glycols in solution but may present health risks if swallowed. Do not drink it. Store it securely. If eye contact occurs, rinse with water. If a person swallows fluid, give water and obtain medical advice.

Protection from breathing problems



An atmospheric effect machine can operate safely only with the fluid it is designed for. Use only fluid that is specified in the product specifications and user guide for use with the product. Other fluids may cause the release of toxic gases, presenting a severe health hazard. You will also probably cause damage to the product that is not covered under the product's warranty.

Do not create dense fog in confined or poorly ventilated areas. Ensure at least 2 m (6.6 ft.) visibility in areas where fog is being produced.

Do not expose people with health problems (including allergic and/or respiratory conditions such as asthma) to atmospheric effects including fog or haze.

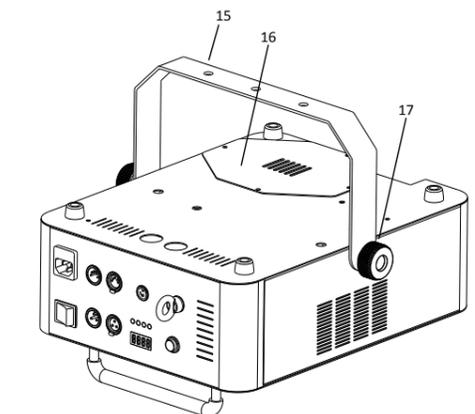
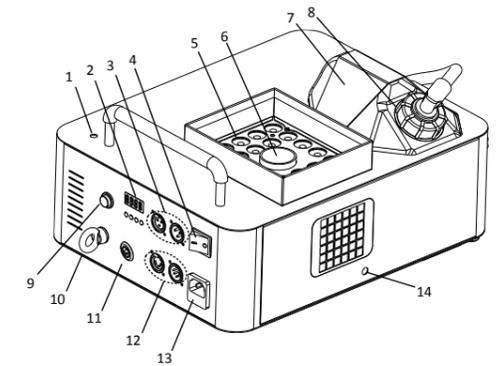
Do not point the product's output directly at a person's face or at face height.

Protection from eye injury



Do not stare at an operating LED. Do not look at the light output with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light. Eye injury may result.

Product overview



- | | |
|-----------------------------|--|
| 1. Eyebolt attachment point | 9. Pushbutton control |
| 2. User interface | 10. Safety cable attachment point |
| 3. 3-pin XLR DMX sockets | 11. Remote control socket |
| 4. Power switch | 12. 5-pin XLR DMX sockets |
| 5. LEDs | 13. AC mains power input / fuse holder |
| 6. Output nozzle | 14. Bracket attachment point |
| 7. Fluid tank bracket | 15. Mounting bracket |
| 8. Fluid tank filler cap | 16. Fluid tank well cover |
| | 17. Mounting bracket adjustment wheel |

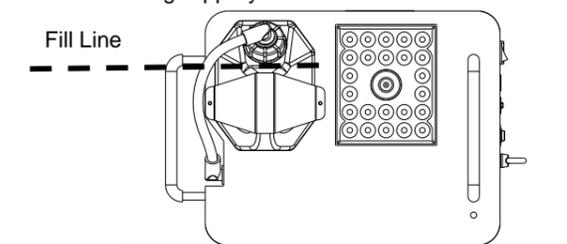
Physical installation



The machine is designed for indoor use only and must be used in a dry location with adequate ventilation. Observe all precautions in the Safety Information section of this guide.

Surface installation

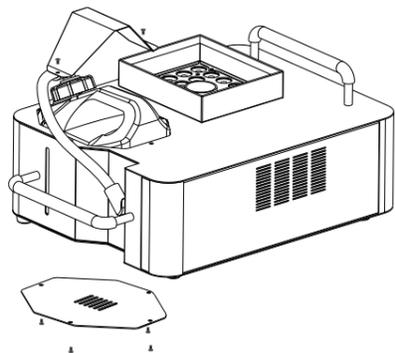
The THRILL Vertical Fogger is designed to be placed on a floor or stable surface with the output nozzle vertical. The machine may also be placed on its side as shown below for horizontal output. The filler cap must be above the fluid level to prevent leakage, as shown below. If using horizontally, do not place the output at eye level. Take extra precautions to prevent surfaces from becoming slippery.



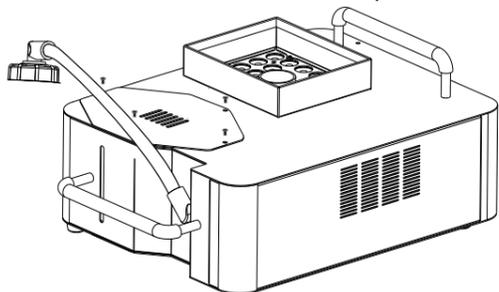
Changing fluid tank orientation

Before mounting the machine on a truss with the output nozzle pointing down, the fluid tank must be flipped as follows:

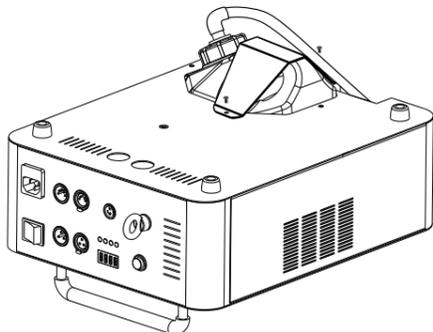
1. Disconnect the machine from AC mains power and allow to cool.
2. Remove the fluid tank bracket from the top and remove the fluid tank well cover from the bottom.



3. Unscrew the filler cap and remove the fluid tank.
4. Fasten the fluid tank well cover to the top of the machine.



5. Turn the machine upside down and place the fluid tank in the well as shown. Screw on the filler cap.
6. Fasten the fluid tank bracket to the bottom of the machine.



Mounting the effect machine on a truss

If the fluid tank is installed as shown above, the machine can be clamped to a truss or similar structure with the nozzle pointing down. It may be tilted up to 45° if the fluid tank is partially filled. Overfilling or steeper tilting may cause fluid leakage.

Use a half-coupler clamp (shown to right) that completely encircles the truss chord.

To clamp the effect machine to a truss:

1. Install the mounting bracket on the machine and secure with both bracket hand wheels and included washers.
2. Check that the rigging structure can support at least 10 times the weight of all equipment to be installed on it and complies with locally applicable regulations.
3. Block access under the work area.
4. Bolt a rigging clamp securely to the mounting bracket. The bolt used must be M12 (or 1/2"), grade 8.8 steel minimum. It must pass through both mounting bracket legs and be fastened with a self-locking nut.
5. Working from a stable platform, hang the effect machine on



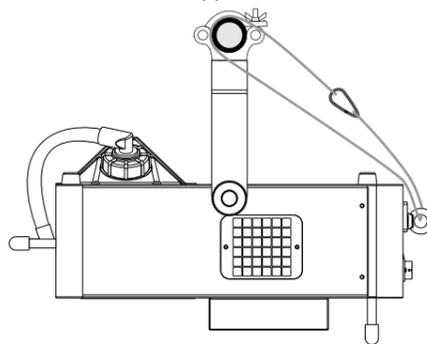
6. Secure the machine with a safety cable as directed in next section.

Securing with a safety cable

Secure the THRILL Vertical Fogger with a safety cable or other secondary attachment that is approved for the weight of the machine so that the safety cable will hold the machine if a primary attachment fails.

Screw the supplied eyebolt securely into one of the threaded sockets on the top or side. Clip the safety cable to the eyebolt, loop it around a secure anchoring point, and secure the free end. Do not loop the safety cable around the machine's mounting bracket only, as this will leave the machine unsecured if it separates from the bracket. See illustration below.

Do not use any other eyebolt than the one supplied. Using an eyebolt with a length in excess of 15 mm (0.60 in.) may cause damage to the machine. If the eyebolt is missing, contact Martin Professional service and support for assistance.



AC power



For protection from electric shock, the machine must be grounded (earthed). The power distribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault) protection.



Before connecting the machine to power, check that the AC mains supply is adequately dimensioned for the current draw of all connected devices and that the local AC mains voltage is within the range indicated on the machine's rear panel. If your AC mains voltage is outside the specified range, do not use the machine.

To apply power, plug the AC mains power cable (included) into the AC power input socket and then to a suitable AC mains power outlet. Flip the power switch to the "I" position to turn on the machine.

Turn off the machine and disconnect from AC mains power when not in use.

Specifications

Physical

Length	455 mm (17.9 in.)
Width	311 mm (12.5 in.)
Height	199 mm (7.8 in.)
Weight, dry / filled	9.5 kg (20.9 lbs.) / 12 kg (26.5 lbs.)

Dynamic Effects

Color mixing	RGB
Color selection	36 color presets
Electronic dimming	0-100%
Strobe and pulse effects	Variable speed and action, random strobe
Electronic 'shutter' effect	Instant open and blackout
Fog	On/Off

Performance

Coverage volume	480 m ³ (17,000 ft ³) per minute
Maximum fluid consumption	60 ml per minute
Maximum operating time at full output	30 seconds
Ready time	8 minutes

Control and Programming

Control options ... DMX, 4-channel wireless remote control, pushbutton on/off	
Control parameters with wireless remote	On/off operation
Control parameters with DMX	Full-featured DMX channels
User interface	Control panel with LED display
DMX compliance	ANSI E1.11 - USITT DMX512-A

Optics

Light source	21 x 3 W LEDs (7 each R,G,B)
Minimum LED lifetime	30 000 hours (to >70% luminous output) *

*Figure obtained under manufacturer's test conditions

Construction

Housing	Steel
Color	Black
Heat exchanger	1400 W, thermally protected
Fluid pump	Oscillating piston, high pressure
Fluid management	Fluid out sensing, sight glass
Fluid reservoir	2.5 l, removable
Hanging bracket	Integrated adjustable yoke
Safety attachment points	2 threaded inserts, front/side (M8 eyebolt)
Wireless remote control unit (included)	4-channel, 30m (100 ft.) range

Installation

Mounting	Standing vertical/horizontal or hanging
Orientation	Any
Mounting points	Bracket for single/double rigging clamp, M12 or 1/2"
Clearance around machine	600 mm (24 in.)

Connections

AC Power	IEC male inlet, C14
DMX	3-pin and 5-pin locking XLR
Wireless remote receiver	DIN 41524, 5-pin, 45°, 180°, inlet

Electrical

EU model

AC power	220-240 V nominal, 50/60 Hz
Main fuse	F 8 AL, 250 V
Typical power and current at 220 V	1280 W, 5.8 A*
Typical power and current at 240 V	1520 W, 6.3 A*

US model

AC power	100-120 V nominal, 50/60 Hz
Main fuse	F 15 A, 125 V
Typical power and current at 100 V	980 W, 9.8 A*
Typical power and current at 120 V	1400 W, 11.6 A*

*Measured at nominal voltage. Allow for a deviation of +/- 10%.

Thermal

Maximum ambient temperature (T _a max.)	40° C (104° F)
Minimum ambient temperature (T _a min.)	5° C (41° F)
Exterior surface temperature, steady state	50° C (122° F)
Max. nozzle temperature	300° C (572° F)

Approvals

EU RED	EN 60335, EN 60598-2-17, EN 62471, EN 62479, EN 62493, EN 300220-1, EN 300220-2, EN301489-1, EN 301489-3
US EMC	CFR Title 47 Part 15 Class B
Canadian EMC	ICES-003 Class B
Australia/NZ (pending)	RCM



Included Items

Fluid Reservoir, 2.5 l
Hanging bracket and hardware
M8 safety bolt
Power cable, EU, 10 A, IEC C13, molded Schuko plug, 1.2 m (4 ft.)
Power cable, US, 10 A, IEC C13, molded NEMA 5-15P, 1.2 m (4 ft.)
Wireless transmitter, 4-channel
Wireless receiver, Vertical Fogger, black
Battery for wireless transmitter, 12 V, A23

Accessories

Approved Fluids

RUSH® Fog Fluid
JEM® Pro Clean Supreme

Installation Hardware

Half-coupler clamp	P/N 91602005
Safety cable, SWL 60 kg (132 lb.), BGV C1/ DGUV 17, black	P/N 91604006

Related Items

Martin® M-Touch	P/N 90737040
Martin® M-Play	P/N 90737030

Ordering Information

THRILL Vertical Fogger, EU	P/N 92215402
THRILL Vertical Fogger, US	P/N 92215403

Specifications are subject to change without notice. For latest product specifications, see www.martin.com.

CAUTION! The wireless controller is a radio transmitter and receiver operating at 433MHz, and the internal antenna sends out and receives radio frequency (RF) energy. Changes or modifications made by the user could void the user's authority to operate the equipment. Personal medical devices such as pacemakers, hearing aids, etc. are shielded from RF energy, but RF energy may affect electronic equipment. The wireless controller must be kept clean and dry to avoid damage to the internal circuitry.

FCC Compliance

This device complies with Part 15, Class B, of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Canadian Interference-Causing Equipment Regulations - Règlement sur le Matériel Brouilleur du Canada

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le Matériel Brouilleur du Canada.

Harman Professional Denmark ApS hereby declare that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. An EU Declaration of Conformity covering this product is available on the product's Tech Docs/Support page on the Martin Professional website at www.martin.com.

Disposing of this product



THRILL by Martin® products are supplied in compliance with Directive 2014/53/EU of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), where applicable. Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of THRILL by Martin® products.

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