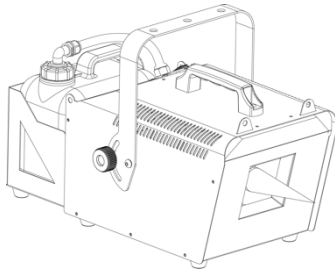




BOREAS S4



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1 BEFORE YOU BEGIN

1.1 What Is Included

- Machine
- Timer Remote Control
- Hanging Bracket
- Power Cord
- User Manual




1.2 Optional Accessories

- FFM-RM-WR5 Wireless Remote Transceiver/ Receiver Set

1.3 Unpacking Instructions

Carefully unpack the product immediately and check the container to make sure all the parts are in the package and are in good condition. If the box or the contents (the product and included accessories) appear damaged from shipping, or show signs of mishandling, notify the carrier or dealer/seller immediately. In addition, keep the box and contents for inspection.

1.4 Symbols

Symbol	Meaning
	Caution Critical installation, configuration, or operation information. Not following these instructions may make the product not work, cause damage to the product, or cause harm to the operator.
	Important Important installation or configuration information. Failure to comply with this information may keep the product from working correctly.
	Information Useful information.

1.5 Disclaimer

The information and specifications contained in this User Manual are subject to change without notice. FROGGYS FOG assumes no responsibility or liability for any errors or omissions and reserves the right to revise or to create this manual at any time.

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1.6 Safety Notes

Please read the following Safety Notes carefully before working with the product. The notes include important safety information about installation, usage, and maintenance.

1.6.1 Personal Safety

- Always connect the product to a grounded circuit to avoid the risk of electrocution.
- This machine is not waterproof. Please keep it away from moisture and water. If moisture, water, or fluid gets inside the housing, stop using it.
- Make sure that children, unauthorized people and animals do not obtain access to the machine.

1.6.2 Mounting and Rigging

- To prevent risk of fire or shock, do not expose the product to rain or moisture.
- CAUTION: When transferring product from extreme temperature environments, (e.g. cold truck to warm humid ballroom) condensation may form on the internal electronics of the product. To avoid causing a failure, allow product to fully acclimate to the surrounding environment before connecting it to power.
- Do not mount the product on a flammable surface (linoleum, carpet, wood, paper, carton, plastic, etc.).
- Do not use in a confined space. Always install the product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- When hanging this product, always secure to a fastening device using a safety cable.
- Be sure that no ventilation slots on the product's housing are blocked or clogged by dust. If necessary, remove the dust.

1.6.3 Power and Wiring

- Always make sure that the voltage of the outlet to which you are connecting the product is within the range stated on the decal or rear panel of the product.
- Make sure the power cord is not crimped or damaged.
- Never connect this product to a dimmer pack or rheostat.
- Never disconnect the product from power cord by pulling or tugging on the cord.
- To eliminate unnecessary wear and improve its lifespan, during periods of non-use completely disconnect the product from power via breaker or by unplugging it

1.6.4 Operation

- Do not operate this product if you see damage to the housing or cables. Have the damaged parts replaced by an authorized technician at once.
- Make sure there are no flammable materials close to this product while it is operating.
- The maximum ambient temperature is 104 °F (40 °C). Do not operate the product at higher temperatures.
- **Do not cover the ventilation slots when operating to avoid internal overheating.**
- **Do not cover or plug the output nozzle during operation.**
- Never carry the product by the power cord or any moving part. Always use the handles of the machine.
- **Drain the tank before transporting the product.**
- Always disconnect the product from the power source before cleaning.
- In the event of a serious operating problem, stop using the product immediately.
- This product contains no user-serviceable parts. Any reference to servicing in this User Manual will only apply to properly trained, certified technicians. Do not open the housing or attempt any repairs which can lead to damage or malfunction.



Keep this User Manual for future use. If you sell the product, be sure that the purchaser receives this document.

2 INTRODUCTION

2.1 Description

The Boreas S4 features both 3 and 5 pin DMX, 4 Button Control Panel with LED SSD and timer functions. The 2 Speed Blower delivers snow for any situation and acoustic dampening keeps the machine quiet. The 5 Liter / 1.32 Gallon tanks ensures you have ample room to add another gallon of Froggy' s Flake snow fluid to the reservoir. 1.32 Gallons is also enough to last the standard user 50 minutes at full blizzard output, and 200 minutes at the lowest, flurry-sized output.

2.2 Features

- 1350W - 2 Speed Fan
- 30 ft+ Snow Projection
- Sound Reduction Design
- Advanced Low Fluid Sensing
- 4 Button Control Panel with LED SSD
- Durable 5 Liter Fluid Tank
- Built-In Hanging Bracket
- Timer Control Included (Wireless Optional)
- Electronics Compartment to keep all fluid related components away from boards
- Removable Fluid Tank Bracket for tight install applications
- Rubberized Feet

3 TECHNICAL SPECIFICATIONS

AC Power	Input Voltage & Rate	120 V, 60 Hz
	Current Limiter Type	Breaker
	Current Limiter Specifications	250V
	Total Power Consumption	1,350W High Fan / 800W Low Fan
Capacity	Fluid Tank Capacity	1.3 Gal
	Output Duration with Fluid Tank Full	50 mins
Output	Adjustable Output	YES
	Fluid Consumption	25ml/min (1%) - 300ml/min (100%)
	Continuous Output	YES
Control	On-device Manual Control	7-Seg Digital Display
	Wireless Control	Optional FFM-RM-WR5 / RF 433MHz
	Wired Control	Included
	Control Protocol	DMX512
	DMX Channel Range	1
Consumable	Consumable	Froggys Fog Water Based Snow Fluid
Weight & Dimensions	Net Weight	23.5 lbs
	Gross Weight	28.7 lbs
	Machine Dimensions	21.3 x 12.5 x 11.5 in
	Packing Dimensions	25.5 x 14.4 x 13.6 in

4 SETUP

4.1 AC Power

The machine has a fixed voltage power supply and can work with an input voltage of AC 120 V, 60 Hz, depending on the specific model.

To determine the product's power requirements (circuit breaker, power outlet, and wiring), use the current value listed on the label affixed to the product's back panel, or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.



Always connect the product to a protected circuit (circuit breaker or fuse). Make sure the product has an appropriate electrical ground to avoid the risk of electrocution or fire.



Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

4.2 AC Plug

The FSM-BOREAS-S4 comes with a power input cord terminated with an IP65 Rated Seetronic Powerkon Plug and US Plug

4.3 DMX Linking

You can link the FSM-BOREAS-S4 to a DMX controller using a 3- or 5-pin DMX connection. If using other DMX-compatible products with this product, you can control each individually with a single DMX controller. Instructions for connecting and configuring this product for DMX operation are further down in the User Manual.

4.4 Mounting

Before mounting the product, read and follow the safety recommendations indicated in the Safety Notes.

4.4.1 Orientation

Always mount this product in a safe position and make sure there is adequate room for ventilation, configuration, and maintenance. The machine can operate in any position, but care should be taken to keep the fluid tank upright to prevent spilling and to allow the fluid pump tube to remain immersed in the bottom of fluid tank.

4.4.2 Rigging

FROGGYS FOG recommends using the following general guidelines when mounting this product.

- Before deciding on a location for the product, make sure there is easy access to the product for maintenance and programming purposes.
- Make sure that the structure or surface onto which you are mounting the product can support the product's weight (see the Technical Specifications).
- When mounting the product on the floor, make sure that the product and cables are away from people and vehicles.

5 OPERATION

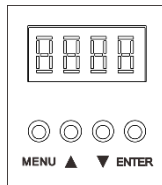
5.1 Preparing for Operation

To prepare the FSM-BOREAS-S4 for operation, perform the following steps.

- After checking that all the parts are intact and complete, position the machine on flat surface.
- Withdraw the fluid tank from its compartment and remove its cap.
- Verify that the plastic hose attached to the cap are in place and in good condition.
- Fill tank with snow fluid and return the tank back to its compartment in the FSM-BOREAS-S4.
- Make sure the plastic hose entering the FSM-BOREAS-S4 from the fluid tank cap is not bent or kinked.
- Always connect the product to a grounded circuit. Before power on, make sure it is connected with the rated voltage.

5.2 On-device Control Panel

To access the control panel functions, use the four buttons located underneath the LCD display.



Button	Function
<MENU>	Switch menu pages to select a function
▲	Increases the numeric value of current function
▼	Decreases the numeric value of current function
<ENTER>	Save current setting and return to standby page.

5.3 On-device Control Mode & Operation

5.3.1 Programming

- Refer to the Menu Map to understand the menu options. The menu map shows the main level and a variable number of programming levels for each option.
- To go to the desired main level, press <MENU> repeatedly until the option shows on the display. This will take you to the first programming level for that option.
- To select an option or value within the current programming level, press ▲ or ▼ until the option shows on the display. If there is another programming level, you will see that first option, or you will see the selected value.
- Press <MENU> repeatedly to switch menu pages.
- Press <ENTER> to confirm selection.
- The machine can be operated manually without remote from within the menu settings.

5.3.2 Menu Map

	Display	Description	Parameter Range
Standby Page		Ready to work.	
Setting Pages		DMX Address - Press Enter, Then Press ▲ or ▼ to select DMX starting address. Confirm Selection with Enter	1-512
		Variable Snow Volume - Press Enter, Then Press ▲ or ▼ to select snow pump speed. Confirm Selection with Enter	001-100
		Manual Operation - Press Enter, Then Press ▲ or ▼ to select On or Off. Confirm Selection with Enter	ON/OFF
		Manual Operation - Press Enter, Then Press ▲ or ▼ to select On or Off. Confirm Selection with Enter	ON/OFF

5.3.3 Hi/ Low Fan Switch

- Use the rocker switch on the control panel to select a fan speed to run at during operation in DMX, timer, manual and wireless mode. Higher speeds create a longer, louder projection of snow. Low speed results in quieter operation, reduced snow projection length.

5.4 Timer Remote Control Mode & Operation

The wired timer controller allows you to automatically trigger snow output by setting interval and duration times. LED indicator lights display the machine and controller's current state. Rotary knobs set interval time, output, and duration time, while manual and continuous buttons allow overriding control.

- Plug in the Snow machine to power.
- Plug in the wired timer controller to the Manual Remote Connector socket on the back of the snow machine.

The wired timer controller has three modes of operation: timer, continuous, and manual.

5.4.1 Timer Mode



To trigger the machine with the timer function, follow the instructions below:

- Set the desired output level with the OUTPUT knob.
- Set the INTERVAL and DURATION knobs to the desired positions.
The INTERVAL knob sets the amount of time in between bursts of Snow.
The DURATION knob sets the length of time that the Snow machine will run during the burst.
- Press the <TIMER ON/OFF> latching button. The LED indicator above the button will light up. The timer will now run as set by the INTERVAL, DURATION, and OUTPUT knobs.
- Press the <TIMER ON/OFF> button again to turn off the timer.



The <MANUAL> button will override the timer.

5.4.2 Continuous Mode

To trigger the machine to continuously output snow, follow the instructions below:

- Set the desired output level with the OUTPUT knob.
- Press the <CONTINUOUS> latching button. The LED indicator above the button will light up. The snow machine outputs snow until the <CONTINUOUS> button is pressed again.
- Press the <CONTINUOUS> button again to stop the snow output.



The duration of Continuous snow output is based on the capacity of the tank.

Fluid consumption will be significantly increased during Continuous mode.

5.4.3 Manual Mode

To trigger the machine manually, do the following:

- Set the desired output level with the OUTPUT knob.
- Press and hold the <MANUAL> button on the wired timer controller. The LED indicator above the button will light up. The snow machine will output snow for as long as you hold down the <MANUAL> .
- Release the <MANUAL> button to stop the snow output.



The duration of manual snow at any given output setting is based on the fluid level in the tank.

5.5 Wireless Remote-Control Mode & Operation (Optional)

The FSM-BOREAS-S4 allows for the optional wireless remote receiver to plug into the remote port on the snow machine. The snow output can be activated by pressing the one of the four buttons on the remote to start the snow output and again to turn the snow off. The fan speed is controlled by the Hi/Low switch on the machine and the snow volume by the menu setting. The four buttons allow control of multiple machines assigned to up to 4 channels. Make sure the corresponding DIP switch on the receiver is set to ON to select which channel (1,2,3,4) is communicating with the desired button (A,B,C,D).

5.6 DMX Mode & Operation DMX

The Machine FSM-BOREAS-S4 works with a DMX controller.

- Connect the product to a suitable power outlet.
- Turn the product on.
- Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket on the product.

5.6.1 Starting Address



Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket on the product, or press repeatedly "MENU" button until the LED shows "Addr" . Press ▲ or ▼ to set desired DMX starting address and confirm with the Enter Button.

5.6.2 DMX Mode Menu Map

- When the machine connects to DMX, the display will always show DMX starting address, and you can set or change it at any time.

5.6.3 DMX Channel Assignments and Values DMX

Channel	Function	Value	Description
1	Fluid	000 - 010	No function
		011 - 255	1-100%

6 TECHNICAL INFORMATION

6.1 Maintenance

Do not allow the FSM-BOREAS-S4 to become clogged. Please follow these instructions for safely cleaning your fog machine if output become noticeably decreased. High quality fluid recommended by the manufacturer lengthens the amount of time between periods of maintenance as described below.

Tools: Clean lint free cloth, coffee filter or similar fine mesh filter cloth, plastic or glass container larger than the reservoir size, hot tap water, Froggys Fog Winterizer Fluid.

- Drain any snow solution that remains in the tank into a container through the filter mesh for reuse.
- Add hot tap water to fill the snow fluid reservoir 1/2.
- Run machine for 10 minutes in an outdoor area.
- Turn off the machine, then drain the water from the reservoir.
- Insert the fluid tube into a container of the Winterizer fluid or a mixture of propylene glycol and run for 30 secs.
- The Winterizer acts as a pump seals lubricant, de-icer and an anti-microbial agent, keeping the lines prepped for extended storage.
- The excess snow fluid is best stored in a sealable container.
- Store the machine in a cool, dry place when not in use. Avoid freezing temperatures, high heat above 120 degrees and humid/damp locations which may cause control board failure.
- If possible, remove from storage after 6 months and operate the machine for 15 minutes or more, then repeat step 1 – 5.



Test-run your FROGGYS FOG® FSM-BOREAS-S4 on a monthly basis to achieve the best performance.

7 WARRANTY INFORMATION

7.1.1

Save these instructions. 2 Year Limited Warranty: Valid from the date of purchase. Warranty covers manufacturing defects only and does not cover misuse or abuse of the machine. Serial number, place of purchase with dated valid receipt must be submitted at time of service. Warranty is only valid with-in the United States. Buyer may be responsible for shipping fees associated with repairs.