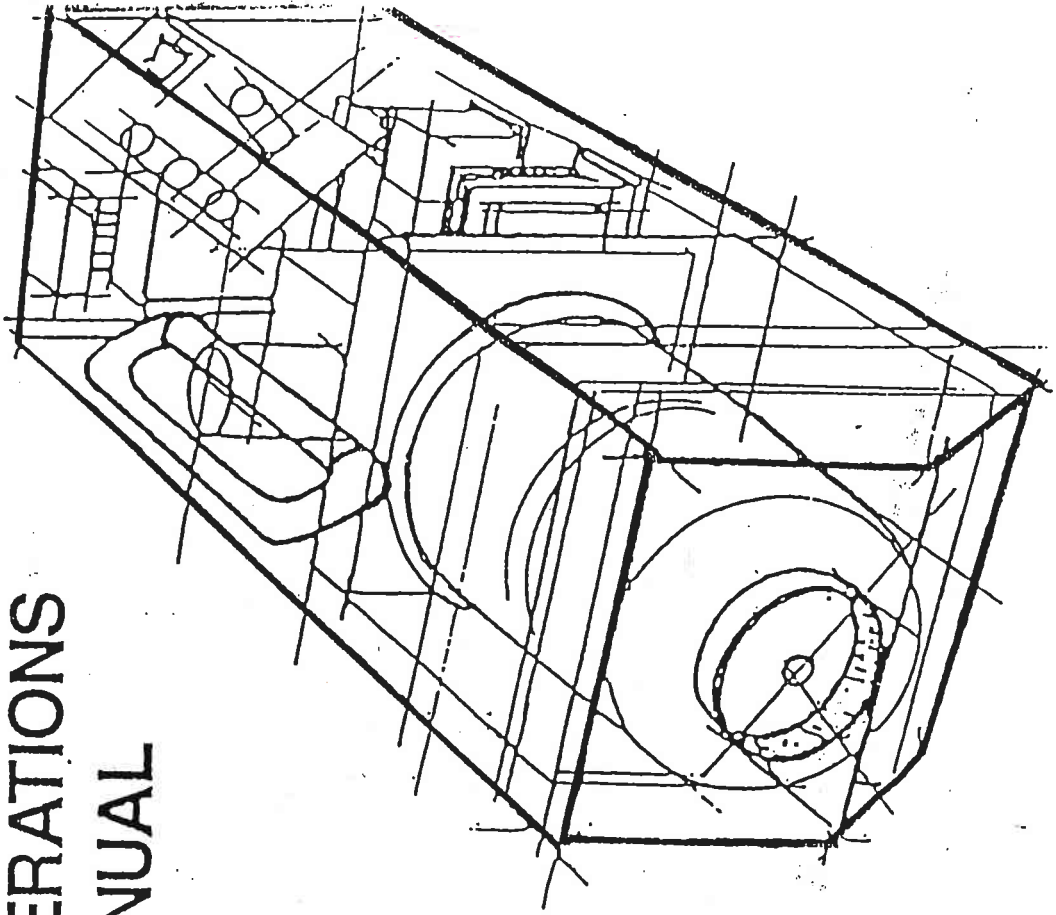


# rosco1500

FOG/SMOKE MACHINE

## OPERATIONS MANUAL



## HOW THE MACHINE PRODUCES FOG/SMOKE

ROSCO FOG FLUID is placed in an external reservoir.

Fluid is syphoned from the reservoir and forced, under pressure, into the heat exchanger where it is heated to a temperature above its vaporization point.

When the heat exchanger has reached its operating temperature, the operator applies power to the syphoning pump, forcing fluid into the heat exchanger.

The heated and pressurized liquid is then discharged through the nozzle into the atmosphere, where it vaporizes and upon mixing with cooler air, condenses into millions of fine particles.

Rosco's new model 1500 for fog and smoke combines high reliability, dry smoke, continuous operation, remote control and low price. Here are some of the specifics:

### Won't quit smoking.

When the script calls for smoke, the machine has to operate... every time! The 1500 is equipped with Rosco's totally new heat exchanger, developed after seven years of field experience with theatrical smoke. The fluid moves to the atomizing chamber through a unique free-flowing channel in a precisely temperature-controlled environment. This super efficient heat exchanger is designed to operate continuously, without fail. In addition, an easily accessible filtering system for the smoke fluid has been built in to trap contaminants before they clog the system.

And you won't have to stop the 1500 to refill it in the middle of a scene. The machine features a long-life pump designed to meet the life-and-death quality control requirements of blood pumping equipment. With an external tank and this internal pump, you can refill simply while operating continuously.

### Arid, extra dry.

It's supposed to look like fog, not feel like it! Wet fog and smoke make actors, patrons and technicians uncomfortable. So Rosco's is made to be extra dry. There's no clammy sensation, and no slippery residue on stage floors, scenery or performers.

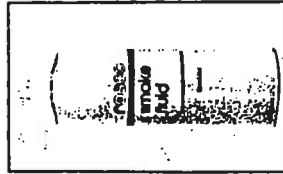
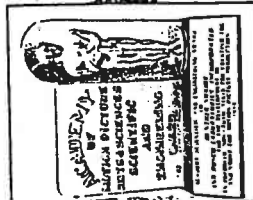
### Remote control.

The model 1500 is equipped with a totally new remote control as standard equipment. This device allows for operation of the machine from any remote position.

In addition to the normal functions of ON/OFF and smoke generation, a new control has been designed into this device: you can actually vary the volume of smoke produced! Output ranging from a cigarette-like puff to room-filling clouds, a ratio of 10:1, can be dialed simply (and remotely). And there is no extra cost for all these features.

### And super remote.

An optional Super Remote is also available. This unit is larger and will control all the functions described above plus permit you to program the output. This programmable sequencer will create smoke at pre-set intervals as well as for the duration you require. You have total control and you don't have to be near the machine.



#### Power Requirements:

240 volts, 50/60 Hz @ 1.5 amps  
(Dedicated Source Recommended)

#### Tank Capacity:

Unlimited External

#### Fluid Consumption:

1.2 liters per hour

#### Smoke Output:

1500 cubic ft. per minute

#### Particle Size:

0.5 - 60 microns

#### Warm Up Time:

30 minutes approx.

## Technical specifications

#### Weight:

18.5 lbs.

#### Dimensions:

15.56" long x 6" high x 6.37" wide

#### Power Cord:

7.5' EAC Type Female Plug and  
NEMA 5-15P Male Plug

#### Standard Remote:

24V System - 25' Cord, Volume Control,  
Momentary and On switch, plus -  
Remote On, Heater On and Ready Lites.



# A Strand Lighting

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# OPERATING INSTRUCTIONS

## 1. POWER HOOK-UP

Plug the power cord into the socket marked "Main Power" on the rear of the machine. The machine requires a dedicated power source. Turn on the main power switch located on the top of the machine. The green indicator light above the switch as well as the "Heater On" indicator should light. The "Fog" switch should be in the center position and not lit.

## 2. WARM UP

Let the machine warm up for about 10 minutes until the green "Ready" indicator light turns on and the "Heater On" light turns off for the first time. The green "Ready" indicator light will come on before the first heating cycle is over. Wait until the "Heater On" light turns off for the first time. The machine is now ready to use, as long as the "Ready" indicator light remains on and the fluid reservoir is filled.

## 3. FLUID HOOK-UP

Connect the clear PVC fluid siphon hose to the "Fluid Inlet" on the rear of the machine. Place the hose inside the one liter Rosco Fog Fluid bottle. The liter bottle can then be placed in bottle holder ring at the rear of the machine. To draw from one gallon or larger containers, simply place the siphon hose into fluid.

The fluid siphon hose can be extended with an additional plastic hose to a maximum vertical distance between reservoir and machine of 9 feet (3m). The horizontal length of the siphon hose can be up to 32.8 feet (10m). When the fluid reservoir is placed higher than the machine, be certain that the siphon hose connection to the inlet is tight.

NOTE: The machine works only with uncontaminated Rosco Fog/Smoke Fluid. Other fluids cause spitting and serious clogging problems. The use of other fluids voids the warranty of the Rosco 1500 Fog/Smoke machine

## 4. FOG/SMOKE OUTPUT CONTROL

To control the output, adjust the knob marked "Fog Volume Control". The marks indicate greater output as the knob is turned clockwise, but do not represent numerical increments. Output can range from a puff to heavy smoke. However, since fluid remains in the system, changes in setting will not alter the flow instantaneously. At the "O" position a small volume of smoke will be generated.

## 5. PRODUCING SMOKE

To produce smoke at the machine, place the "Remote/Local" switch in the "Local" position. Move the "Fog" switch to the "On" position for continuous smoke. For bursts of smoke, push the switch up to the momentary position as needed.

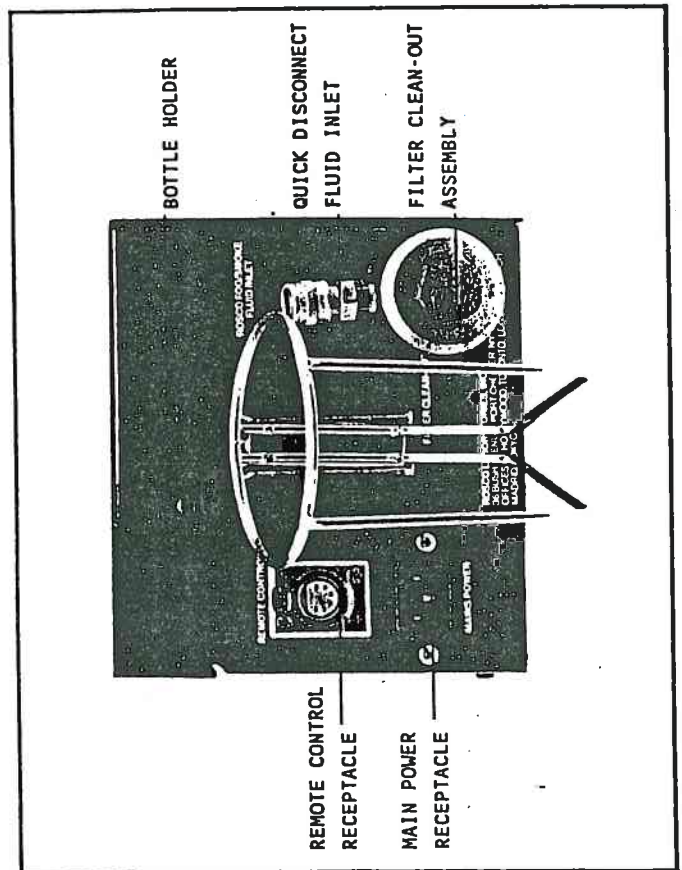
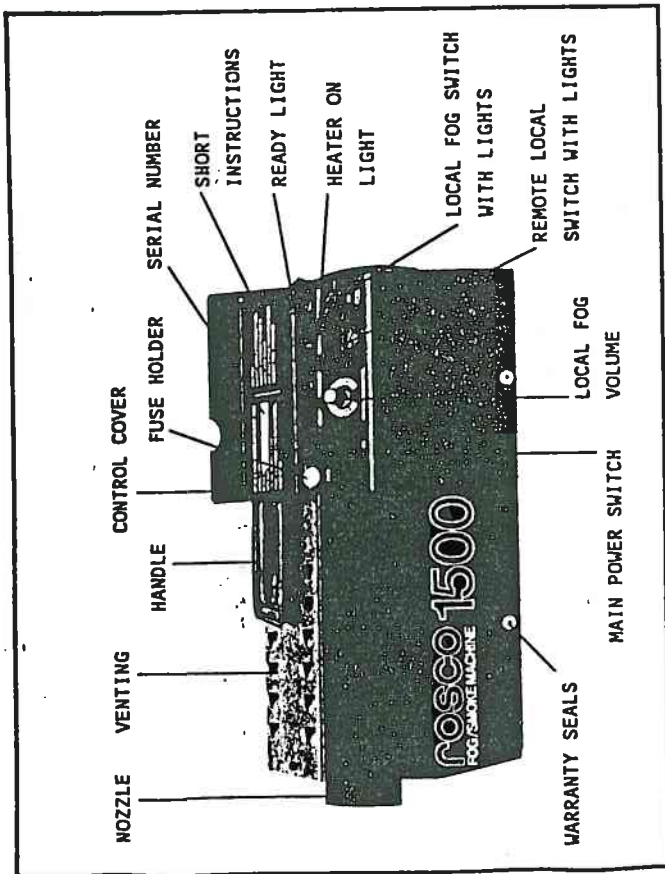
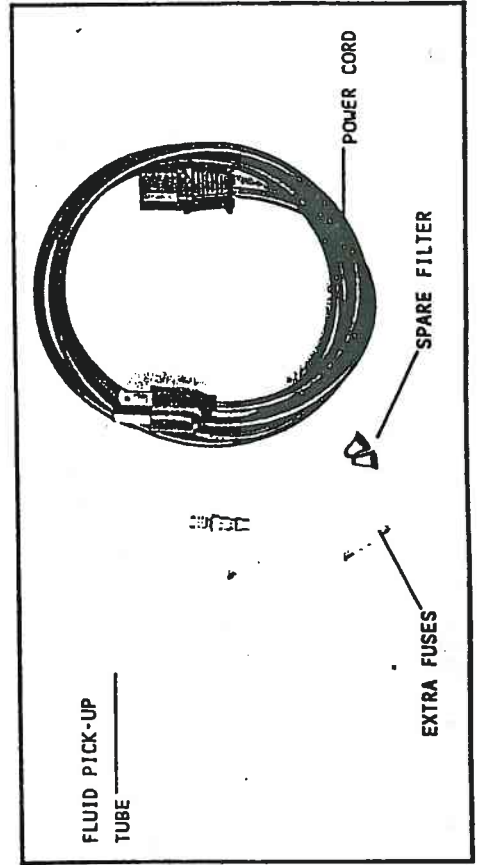
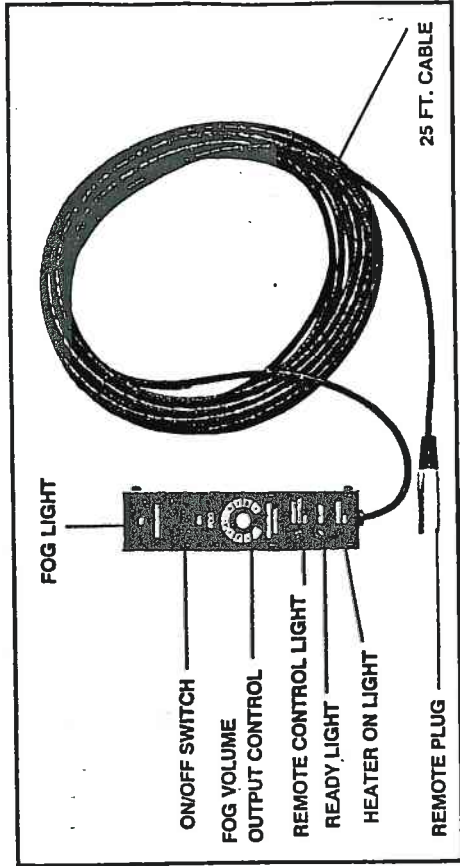
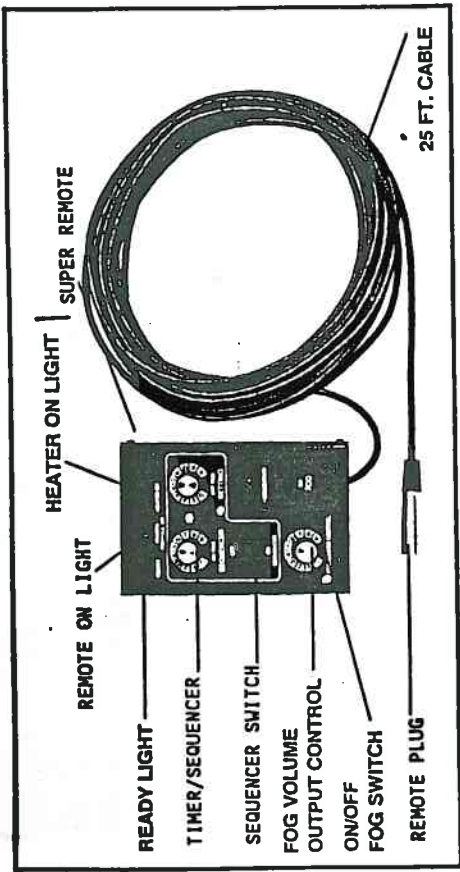
## 6. REMOTE CONTROL

To use the remote control module, attach the connector on the end of the remote cable to the plug on the back of the machine marked "Remote Control". Move the "Remote/Local" switch to the "Remote" position (the indicator light should come on). Follow the same instructions as in numbers 4 and 5 above.

# DO'S & DON'T'S

- DO Read the entire manual before operating the machine and pay particular attention to all **CAUTIONS AND WARNINGS**.
  - DO Use **ONLY Rosco Fog/Smoke Fluid**.
  - DO Use an extension cord which is properly rated for voltage, current and length and which is free from nicks or other signs of wear.
  - DO Before each operating period, check to see that the machine is clean and free of foreign objects.
  - DO Before fogging, extinguish all oil and gas pilot lights and turn off all unnecessary electrical devices in an enclosed area.
  - DO Ensure that the machine is adequately ventilated.
  - DO NOT Use a machine which is damaged or operating improperly in any way.
  - DO NOT Use a machine which leaks fluid from the housing.
  - DO NOT Leave the machine on for prolonged periods without producing smoke. This will lead to deterioration of the heating element.
  - DO NOT Enclose the machine.
  - DO NOT Install a machine in such a fashion that the operator cannot see the whole machine including indicator lights.
  - DO NOT Continue fogging in an enclosed area when the visibility is reduced to less than 15 inches (38cm).
  - DO NOT Touch the shielded nozzle of the machine. Allow sufficient cooling time after operation before attempting maintenance.
  - DO NOT Direct the fog continuously against the same spot. This may eventually cause fog fluid to recondense on walls, furniture, seats, etc.
- NOTE: **READ COMPLETE MANUAL TO INSURE SAFE OPERATION.**

**WARNING: USE OF ANY FLUID OTHER THAN ROSCO FOG/SMOKE FLUID OR MODIFICATION OR ATTEMPTED REPAIR OF THE FOG MACHINE WILL IMMEDIATELY INVALIDATE THE WARRANTY. DO NOT OPEN THE MACHINE.**



Read and understand these safety precautions before operating the machine. Failure to properly follow these precautions may lead to a fire, explosion or electrical shock hazard.

\* **FOGGING ENCLOSED SPACES:** It has been established that the maximum fog concentration level acceptable in the atmosphere is one gallon per 50,000 cubic feet (2.7 liters per 1,000 cubic meters or 9 minutes per 1,000 cubic feet of air space is the standard developed for a listing of Underwriters Laboratories). But long before this concentration is reached, visibility within the fog is reduced to less than 15 inches (38cm). Thus, an operator fogging within an enclosed area will not be able to see his way long before a combustible atmosphere can be approached. However, if he is outside an enclosed area, or if the machine is operated by remote control, it is possible to unintentionally over-fog. Care should be taken, particularly if the area is small. Never fog in closets or small, sealed rehearsal spaces.

\* In any facility with public admittance, the fog concentration should be controlled. The fog should never mask emergency exits, safety signs, staircases or other safety constructions.

\* After long use or if the machine is not properly set, some liquid droplets or a wet area may appear in front of the fog outlet. This liquid should be wiped up to avoid accumulation.

\* Machines are designed for continuous use over an 8 hour day, but to protect components, it is wise to turn off the machine when it is not in use. In permanent installations, it is advisable to equip the circuit with a night cut-off device. Under no circumstances should the unit be left heating overnight.

\* During the warming-up phase, people should not stand within one yard (1m) of the front of the machine. Flammable material like paper, fabric, etc., should never be placed directly on or around this, or any other electric device with heating elements.

\* The fog should blow into open space and should not be directed at people or objects. Never blow fog on hot surfaces, into glowing heating elements or into open flames. The normally non-flammable and non-toxic fog can react on hot surfaces and decompose.

\* Unauthorized repair or alteration, especially of thermostat, heat regulation devices and safety devices can lead to improper operation and accidents. Repairs should be done only by an authorized Service Center.

\* Do not operate machine in a confined space where temperature of the ambient air exceeds 135 degrees F (57 degrees C). A continuous flow of air is required to maintain temperature within machine housing. Sensitive components deteriorate rapidly under high heat conditions.

## MAINTENANCE

1. After every operation, the machine should be wiped with a clean damp cloth. This practice prevents the build up of dirt and dust which may enter the machine and damage sensitive internal components. Do not use solvents for cleaning. Ammonia and water are effective.

2. After every 35 hours of continuous operation, or sooner if needed, remove the filter clean-out assembly at the rear of the machine. After every 12 hours of operation, check the output of the machine. If the output has diminished in any amount, replace the filter by removing the filter clean-out assembly. This may be done by using an adjustable wrench to remove the 7/8" hex nut. Care should be taken as the nut is unscrewed to prevent the retained spring from falling out. Remove the old filter and replace it with a new filter. Replace the retaining spring and screw the hex nut in firmly, making sure the O-ring attached to the hex nut is not damaged and seats properly.

3. Whenever a fluid filter is replaced or when the machine is stored for an extended period, distilled water should be placed into a fluid container and the machine flushed clean for at least 3 minutes. The machine can then be used or stored.

4. If changing the filter did not increase the output of an under-performing machine, then check the nozzle. To do this unscrew the nozzle (7/16") and check for blockage. Remove any blockage with a pin or wire which easily fits the orifice (.0465/drill #56). Do not enlarge the orifice in any way.

5. During use, operation of all switches and indicator lights should be monitored. Lights that blink or flicker when they should be on or off, for example, are an indication of problems within the circuitry.

## FOG DISTRIBUTION

The fog distribution in an enclosed area depends on air flow and temperature. Air conditioning and ventilation systems will affect movement of fog. Test under realistic conditions before performance. If a space must be filled with fog very quickly, move the fog machine up and down and side to side. To conduct the fog to particular areas, use a Rosco hose adaptor and ducting hose. Make sure that there is a space between fog outlet and hose to permit air flow. The fog machine works properly only in a horizontal or slightly tilted position (approximately a 15 degree to 30 degree angle of inclination).

To achieve colored smoke use spotlights and Rosco Color Filters. Do not add colorants to fluid.

For assistance in dealing with unusual fog or smoke requirements, consult a distributor or a Rosco office.

WARRANTY INFORMATION

LIMITED WARRANTY AND SERVICE INSTRUCTIONS

Rosco Laboratories Inc. warrants to the original purchaser that the Rosco 1500 Fog/Smoke Machine will be free from original defects in workmanship and material for a period of six months from date of purchase. During the warranty period, machines will be repaired or replaced at the option of Rosco.

IF THE PURCHASER RETURNS TO ROSCO A COMPLETED REGISTRATION CARD WITHIN 30 DAYS OF PURCHASE, ROSCO WILL EXTEND THE LIMITED WARRANTY ON THE PUMP ASSEMBLY #10010 AND THE HEAT EXCHANGER ASSEMBLY #000120 TO A FULL YEAR FROM DATE OF PURCHASE. IF THE WARRANTY REGISTRATION CARD IS NOT RETURNED, THE WARRANTY WILL REMAIN EFFECTIVE FOR SIX MONTHS.

The warranty does not extend to any parts of the Rosco 1500 Fog/Smoke Machine that have been subjected to misuse or accident. Neither does the warranty cover any Rosco 1500 Fog/Smoke machine that has been modified or repaired other than by Rosco or its designated repair station.

The warranty will not apply if procedures described in the Instruction Manual are not followed. It is the user's obligation to clean and maintain the Rosco 1500 Fog/Smoke Machine properly. NOTE: USE OF ANY FLUID OTHER THAN ROSCO FOG/SMOKE FLUID WILL VOID THE WARRANTY.

Unless otherwise stipulated by state law, all warranties, expressed or implied, are limited to the six (6) month period of this warranty except where the extended warranty applies.

UNLESS EXCLUSIONS ARE SPECIFICALLY FORBIDDEN BY STATE LAW, ROSCO SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR FAILURE OF THIS PRODUCT, INCLUDING INJURY TO PERSONS OR PROPERTY.

To obtain service for the Rosco 1500 Fog/Smoke Machine, please refer to **your nearest stockist**

Equipment requiring repair should be suitably packaged, including a note with the owner's name and address and a description of the reason for return. Ship package prepaid and insured. Rosco cannot be responsible for loss or damage in shipment.

KEEP FOR YOUR RECORDS:

Date purchased \_\_\_\_\_ Serial # \_\_\_\_\_

Please retain this warranty in case your machine ever requires service.



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COMPLETE AND RETURN WARRANTY REGISTRATION CARD WITHIN 30 DAYS OF PURCHASING FOR THE EXTENDED LIMITED WARRANTY.

ROSCO 1500 FOG MACHINE WARRANTY REGISTRATION CARD

Date Purchased \_\_\_\_\_ Serial # (see control panel cover) \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Name of dealer from whom you purchased this machine: \_\_\_\_\_

Where will the Rosco Fog/Smoke Machine usually be located? (please check)

Theatre \_\_\_\_\_ Film/video studio \_\_\_\_\_

Theme Park \_\_\_\_\_ Club or disco \_\_\_\_\_

Other (please specify) \_\_\_\_\_

I have read the three sides of this warranty, and understand its provisions.

Signature \_\_\_\_\_