

# G150 Operations Manual



*Please Read Carefully Before Operating*

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## Introduction

The G150 is a Microprocessor Controlled, Water Base Fog generating system.

### Microprocessor Control

The Microprocessor is responsible for the following control elements -

- Monitoring the heat exchanger temperature.
- Driving the heater within the heat-exchanger.
- Driving the fluid pump unit in a pulse mode, relating fluid flow to temperature
- Accepting and manipulating data from the Flow, Duration and Interval controls.
- Accepting data from the Smoke Switch.
- Monitoring the heater and pump power switching devices.
- Monitoring the voltage supply.
- Ready Status, Heater Status, temperature .

### Water Base Fog Technology

Water Base Fog technology is achieved by pumping a Glycol/Water mixture through a Heat exchanger. The heat exchanger has been heated to the point where at the fog fluid mixture will vaporize.

The fluids own vaporization forces the hot mixture out of the output nozzle where, when it mixes with the ambient air, it forms an opaque aerosol (fog). The fog is made up of tiny droplets of glycol that form around the small particles in the air. The suspended droplets reflect the light, which is why fog will take on the colour of the light illuminating it.

Warning

**IMPORTANT SAFETY INSTRUCTIONS**  
**Do not touch or place hands, expose skin,**  
**within 50 cm. of discharge nozzle.**  
**SAVE THESE INSTRUCTIONS**  
**READ THESE IMPORTANT SAFETY INSTRUCTIONS**

**WARNING**  
**READ THESE IMPORTANT SAFETY INSTRUCTIONS**  
**Do not remove the outer case until power has been**  
**disconnected from the machine**

**READ THESE IMPORTANT SAFETY INSTRUCTIONS**  
**Persons suffering from asthma or allergenic**  
**sensitivity may experience irritation, discomfort, or**  
**allergic symptoms when exposed to heated**  
**fog effects**

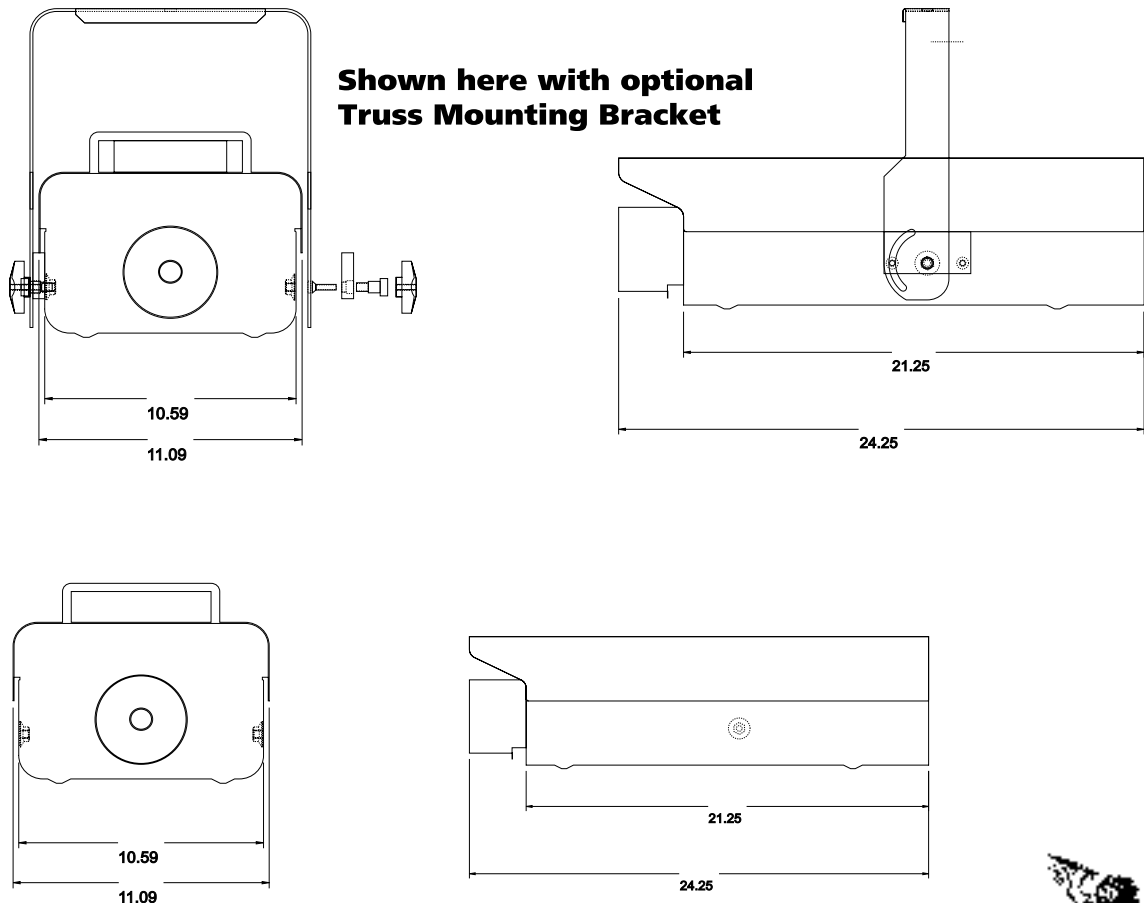
**WARNING**  
**Ensure that this unit is grounded at all times.**  
**Failure to do so may result in serious injury.**

**WARNING**  
**Never use alternative fluids. Toxicity free output**  
**is your responsibility.**

## Technical Specifications:

Model:	G150 Continuous Flow Fog Micro-Processor Control Management
Type:	Water Base Fog generating system
Size:	615 x 258 x 235 mm. 24 1/4 "x11 1/4"x9 1/4" High (Incl. Handle)
Weight:	18 Kilos , 40 Lbs.
Power Rating:	110 Volt A.C. 50/60 Hz 12 Amps 240 Volt A.C. 50/60 Hz 6 Amps
Facilities:	Detachable Remote

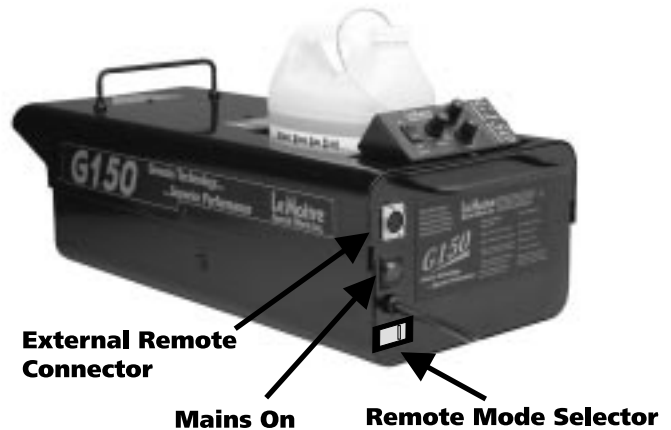
## G150 Illustration



## Operating Procedure

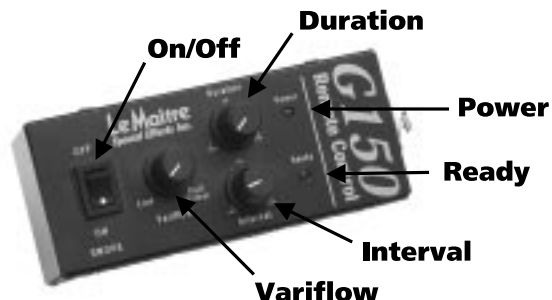
- 1) The G150 must only be connected to a mains supply capable of sustaining at least 15 Amps, and be adequately Grounded. The supply should be 'clean' and free of interference.
- 2) Place 4L. Le Maitre fog fluid jug into jug holder, remove cap and break foil seal. Place the fluid feed pipe into the jug and secure the bottle cap.
- 3) Connect the remote handset supplied with the machine, to the connector which is located inside the remote cradle recess of the fog machine. To locate the remote in a different location simply use a 3 conductor mic cable and use the XLR mounted on rear panel of unit for easier access.

4) Activate the Mains On switch located on the rear panel. The Mains On switch will illuminate to indicate the presence of power, the Power indicator on the remote handset will also illuminate. If the Power indicator of the remote handset does not illuminate, ensure the Remote Mode Selector is in the regular remote position. (For more details see further in this manual).



5) After a few minutes, the Ready indicator on the remote handset will start to flash, indicating that the fog machine is ready to operate but is still in heating mode. Fog is available at this point, but full fog output will not be available. After approximately 9 minutes the Ready indicator on the remote handset will stop flashing and go to a steady red, this indicates the fog machine has fully heated and is ready for use at full fog output if required.

6) It will now be necessary to Prime fluid into the system to expel any air that might be present. The Variflow control on the remote handset should be set to Full (Prime) position, and the Duration control should be set to 1 second, and the Interval control set to 0 minutes.



**G150 Standard Remote**

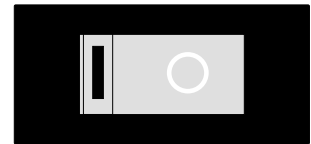
7) Activating the Smoke switch will effect a pulsing fluid flow which will Prime the machine correctly. Once Primed (when there is no more sporadic output) the controls on the remote handset can be set as desired.

Note:

In order to prime the fog machine, the 'Ready' indicator must be a steady red (fog machine fully heated).

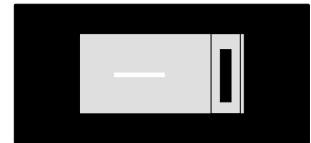
## Remote Mode Selector

**To operate DMX the Remote Selector Mode Switch must be in this position**



**DMX Remote Mode**

**To operate Standard Remote the Remote Selector Mode Switch must be in this position**



**Regular Remote Mode**

## Remote Handset Operations

1. If you are using a standard remote handset ensure that the remote mode selector switch, located on rear panel, is in the regular remote position. If you are using a DMX remote handset, ensure that the remote mode selector switch is in the DMX position. We will cover DMX remote operation further in this manual.

2. The fog output time is set using the 'Duration' control. 1 to 30 seconds, and the time between successive fog outputs is set using the 'Interval' control. 0 to 20 minutes. Continual flow can be achieved by 'Duration' at setting 30 and 'Interval' setting 0. Please note that the 'Smoke' switch must be turned off for at least 4 seconds before new smoke output settings can be reactivated.

## Remote Handset LED Indicators

The G150 Remote Handset was designed to indicate operation modes and to indicate fault codes that will help in diagnosing the problem with the unit. These are as follows:

Single flashing output: Indicates unit is ready to operate but still in heating mode, fog is available at this point. Not full fog output.

Double flashing mode: Indicates a fluid out situation, the fluid container must be replaced. Use only Le Maitre Fog Fluids. Then Main Power switch must now be turned off for 4 sec. to reset the G150 for normal operation.

Triple flash: Indicates an over-temperature situation, call your local Le Maitre dealer for instructions. An over-temperature situation occurs when the microprocessor has sensed a temperature that is in excess of a safe operating temperature.

Quadruple flash: Indicates pump triac failure. Call your local Le Maitre dealer for instructions.

### Note:

To simplify the reading of the flashing fault codes make sure the Smoke switch on the Remote Handset is in the Off position. Count the number of flashes of the Ready light, and see explanation of each fault code above.

### Service Note:

Should there be a continuous triple 'flash' of either led on the remote handset, and the unit will not reset, then the 'G150' should be returned for service.

### Note:

Keep a check on fluid levels, and make sure that the filter screen on the fluid supply pipe is clean. If blocked, this will restrict fluid flow and will cause problems.

Never use alternative fluids. Toxicity free output is your responsibility.

## Remote and External Control Features

### External Remote Connector

The standard Remote Handset may be removed from the machine, and operated effectively away from the issue site. The maximum recommended cable length is 150 Feet.

Pin Out

#### Regular Remote Mode

Pin 1. Remote (Input)  
Pin 2. GND.  
Pin 3. +12V

#### D.M.X. Remote Mode

Pin 1. 0-10V.(Input)  
Pin 2. GND  
Pin 3. +12V

## Maintenance

### Exterior:

The casing of the G150 is steel with a powder paint coating. To clean simply wash with mild soap and warm water.

### Fluid Pick up:

Periodically check to ensure that the fluid pick up filter screen is in place and clean from debris.

### Heat Exchanger:

With normal use we do not recommend flushing or cleaning the heat exchanger, with the use of genuine Le Maitre fluids. Using high quality Le Maitre fluid should result in a long heat exchanger life. (See warranty policy later in this manual).

## Recommended Fluids

### Fog Fluid

This fluid has been our long standing blend. It is a clean, white, practically odourless fog. It is used for many applications where a cloud of fog is required with a medium hang time.

### Long Lasting Fluid

This is a brand new blend. We have had many compliments on our fog fluid but many of our customers would like it to hang longer so we introduced the "Long Lasting Fluid". It is still odourless but a little less white than our "Fog Fluid". It hangs in the air 2 - 3 times longer than the above "Fog Fluid".

### Quick Dissipating

We have been mixing this for some time for our special effects people working in the movies. We have decided that there are many other applications for this fluid. When using this in the LSX or LSG you will find it works very well if you are having problems with the smoke rising too quickly. It has also been used for quick burst-of-steam effects, nitrogen bursts, etc. It will dissipate at about twice the rate of the "Molecular Fluid".

### Extra Quick Dissipating:

It is very similar to the "Quick Dissipating" but dissipates at about twice the rate of the "Quick Dissipating".

### Molecular:

The "Molecular Fluid" was originally designed for use in the LSG and LSX, however, many other applications were found very quickly. It is a clean, white, thick fog, practically odourless and dissipates as it begins to warm.

## Maxi Fluid:

Maxi Fog Fluid was developed for our high volume users requiring an excellent balance of price and performance without compromise.

All of our Fog Fluids are water base and leave NO residue. Permanent damage will occur if Haze Fluid is used in G150 for any length of time.



## Warranty

### Warranty:

All warranty is one year parts and labour unless specified and is on manufacturer defect only. Overuse or poor maintenance is not accepted. Le Maitre fluids must always be used. Any trace of other fluids will automatically void **ALL** warranties. Accept no substitutions as there are no exceptions to this rule. Proof of purchase or proof of sale must always accompany any warranty returns. An RA (return authorization) number must be noted on the outside of any box returned to our facilities. Any packages without a clearly marked RA number will not be accepted by our receiving department. Freight on warranty items are freight prepaid to our facility and we will prepay freight back to your facility after repair, by the most economical means available. Should you require the item express-returned, then you are responsible for any difference in freight cost.

### Return Policy:

Return of any product must be done within 30 days of purchase. The package must be returned freight prepaid and the RA number clearly marked on the outside of the box. A restocking charge of up to 25% may be levied. Only credits are issued to the dealers account. Any product not returned within 30 days is considered purchased.

### Warning:

Le Maitre Special Effects Inc. considers all it's product to be safe for use in the application it was intended. Le Maitre Special Effects takes no responsibility for misuse or incorrect use. Always refer to equipment owners manual for proper use.

## Safety Precautions

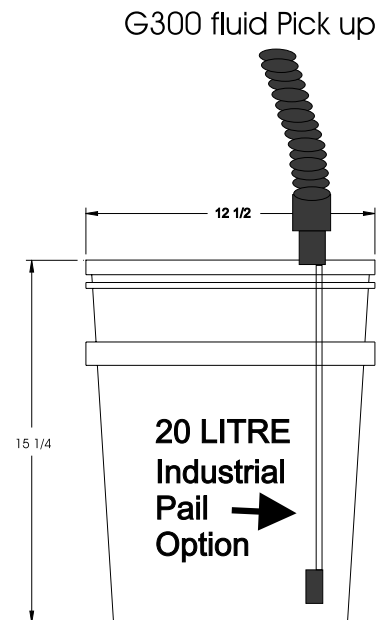
1. Ensure that operation of the machine is supervised by suitably trained and authorised personnel.
2. Do not modify the machine or use a machine which has been damaged in any way.
3. Allow sufficient air circulation around the machine at all times.
4. Protect the G150 from direct weather effects and wet locations.
5. Only use fluids recommended by the Manufacturer.
6. Do not continue to produce Fog output in an enclosed area when visibility is reduced below 50cm.
7. Avoid direct Fog output continuously at persons, structure or objects within close proximity of the discharge nozzle.
8. Ensure that adequate exhausting arrangements are available in the event of an emergency.
9. Do not place hands, or exposed skin within the first 50cm of the discharge nozzle at any time during fog production.

## Accessories

Model	Description
CLF 2630	G150 Truss Adaptor
CLF 3320	DMX Interface
CLF 2610	G150 Remote Only (Cable not Included)
CLF 2607	G150 20 Litre Pail Adaptor
CLP PC025	G150 XLR - XLR 25 Foot Remote Cable
CLF 2665	Standard RoadCase
CLF 2660	Deluxe RoadCase

## G150 Industrial 20 L. Pail Option

1. Follow these steps for easy setup.
  - a) Remove cap from 20L pail (this will not be used, so you may want to put it in a safe place for use later on.), and remove inner cap if equipped.
  - b) Examine the end of the hose from your machine and make sure the filter is in place and free from obstruction.
  - c) Now place the hose into the pail's pour spout and snap the black fitting into place.

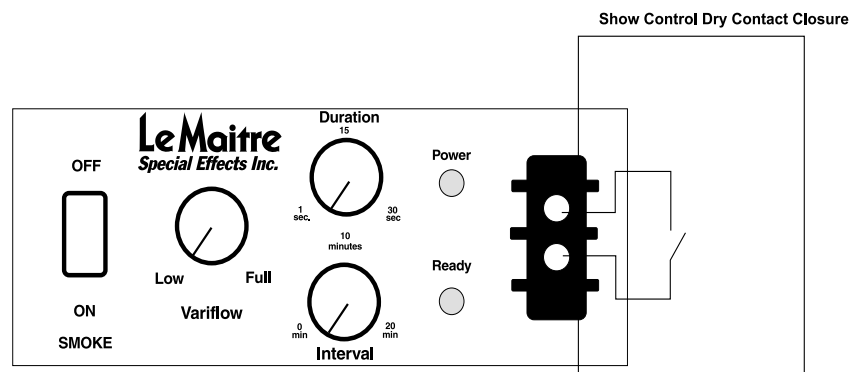


2. It is now necessary to prime fluid into the system by following these steps:
  - a) Set Flow Rate fully clockwise
  - b) Set duration to 0 sec.
  - c) Set interval to 0 min.
  - d) Switch the smoke control to ON

This will produce a pulsing fluid flow which will prime the machine correctly. Please allow one minute to ensure proper priming.

3. Dry Contact show control terminals have been added to your G150 remote to facilitate control through central control system. One set of Normally open contacts are all that is required.

4. Your custom machine is now ready for regular use.



## G150 Steamer/ Air Purge Control List

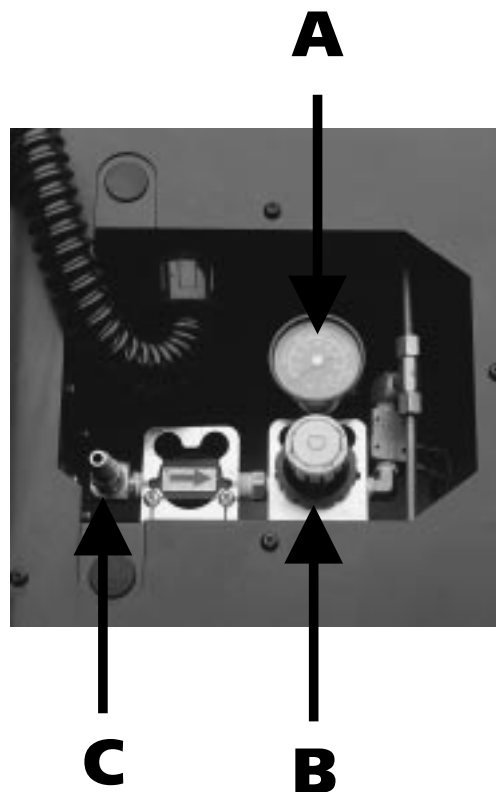
A- Air pressure Gauge: This is used as a visual aid to help in setting the air pressure used in the steam simulation/ air purge effect.

B- Air Pressure Control: This is used to control the velocity of the steam/ air purge effect, with the setting being displayed on the Air Pressure Gauge in p.s.i (pounds per square inch).

C- Air Input: This quick coupler connector is used as the input for the compressed air, and is an industrial interchange 1/4" body.

Some experimenting is necessary to achieve each desired effect. A few points to keep in mind are the air pressure will determine the velocity of the effect, while the flow control of the fog machine will determine the density of the effect.

When using the air option as a fog purge, enough time must be allowed for the air to completely purge the heat exchanger of fog and fog fluid. Remember on the next fog cue enough time must be allowed for the fog fluid to fill the heat exchanger and exit out the nozzle.



Notes