

Instruction manual

Please read carefully before operating



Le Maitre

G-Force 1

Smoke machine

www.lemaitreltd.com

Power requirements

230V ~ 5A 50/60Hz 1100W
110V ~ 10A 50/60Hz 1100W

Electrical Connections

Since the 'G-Force 1' smoke machine is internally fused at a rating of 7 amps, please ensure that the mains plug is rated higher than this.

Wiring should be in accordance with the following colour coding:-

Brown-Live
Green/Yellow-Earth
Blue-Neutral

It is imperative that this machine is EARTHED under all circumstances - Failure to ensure correct Earthing could result in serious injury.

Basic operation

The 'G-Force 1' is fitted with an integral fluid tank. This should only be filled with Le Maitre smoke fluid.

The use of any other fluid could lead to damage of the heat exchanger assembly or toxic smoke output.

1. Fill the tank with Le Maitre smoke fluid. Replace and secure the tank cap.

2. Connect the remote handset supplied, to the connector, which is located on the rear of the 'G-Force 1'. The remote control unit is fitted with a magnetic strip; this can be used to secure the remote unit to the side of the 'G-Force 1'.
3. Plug the 'G-Force 1' into a suitable mains supply. Switch on the 'Mains On' switch located on the rear panel and the 'Mains On' switch will illuminate and indicate the presence of 'Mains' power, along with the 'Mains' indicator on the remote handset.
4. After a few minutes, the 'Ready' indicator on the remote handset will start to flash, indicating that the 'G-Force 1' is ready to operate but is still in heating mode, smoke is available at this point, but not full smoke output. After approximately 5 minutes the 'Ready' indicator on the remote handset will stop flashing and go to a steady red, this indicates the 'G-Force 1' has fully heated and is ready for use at full smoke output if required.
5. 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 'Prime' position, and in the case of a 'Varitime' remote the 'Duration' control should be set to 30 seconds, and the 'Interval' control set to 0 minutes.
6. Activating the 'Smoke' switch will initiate a pulsing fluid flow, which will 'Prime' the 'G-Force 1' correctly. Once 'Primed' the controls on the remote handset can be set as desired. If 'A' fluid is used, (check fluid bottle for confirmation) then the 'Variflow' control can be set to maximum. However if other fluids are used, the output should be set

below the full power 'A' segment on the remote, or higher if monitored.

Note - in order to prime the 'G-Force 1', the 'Ready' indicator must be a steady red (fully heated).

7. In the case of a 'Varitime' remote control the smoke output time is set using the 'Duration' control. 1 to 30 seconds, and the time between successive smoke outputs is set using the 'Interval' control. 0 to 20 minutes. Virtual continual flow is set by 'Duration' at setting 30 and 'Interval' 0. Please note that the 'Smoke' switch must be turned off for at least 4 seconds before smoke output can be reactivated.
8. If the 'G-Force 1' has been fitted with the dmx upgrade interface, then this can be used to control the smoke output volume, via a DMX source. Simply dial up the relevant address, on the address switches and connect the DMX signal to the 5 pin input socket.

NOTE: The address must be assigned before connecting the DMX input signal. Failure to do this will result in the new address being ignored.

With the 'G-Force 1' unheated and no DMX signal, the led will start flashing red.

When the DMX signal is applied to the input socket, the led will shimmer red. Once the 'G-Force 1' has reached an operating temperature (Not fully heated) the led will flash green & red. Finally, when the 'G-Force 1' reaches top temperature, the led will shimmer green.

9. A 0-10V smoke output control feature is available as standard on the 'G-Force 1' DMX Interface. When this feature is to be used, please ensure that the external 0-10V-control voltage is connected to the 0-10V 3-pin socket located on the DMX side panel of the 'G-Force 1' correctly. i.e. pin 1 is 0V, pin 2 is the positive voltage, pin 3 is a 12V dc supply for the Le maitre 'Dry Icer' low fog machine. Varying the voltage to pin 2 between 3 to 10 Volts will change the smoke output proportional to the voltage on pin 2. i.e. 3 to 4 Volts - low smoke output, 10 Volts - full smoke output. Also fitted to the DMX interface is a smoke on switch. This allows the user to activate the smoke issue at full power from the 'G-Force 1'.

10. The 'G-Force 1' is designed to give maximum output and effect from the highest quality smoke fluids supplied by Le Maitre. Le Maitre fluid bottles are **CLEARLY MARKED** with 'A' Fluid this indicates that this is premier grade fluid. Fluid not marked with 'A' such as Global (budget) or Quick Dissipating Fluid (specialised), will operate satisfactorily but the smoke output settings will have to be reduced. Failure to do this will result in incomplete atomisation of the fluids, which may cause dampness or leave deposits. See Remote Control unit labelling for details. When using the machine in DMX mode with budget or specialised fluids, the output must be monitored to ensure complete atomisation of the fluid.

Optional extras

- DMX interface card.
- Varitime remote control.
- Variflow remote control.
- 2" ducting adaptor.
- 4" ducting adaptor.
- 2" flexible ducting hose.
- 4" flexible ducting hose.
- Rapid change replacement kit.

Service note

Should there be a continuous double 'flash' of either led on the remote handset, then the 'G-Force 1' should be returned for service.

As part of routine maintenance, the internal inline fluid filter should be checked, and replaced when required, as this is not a serviceable part. It is simply a case of pulling the fluid pipes from the old filter and reconnecting to the new one.

Warning

Only use Le Maitre smoke fluid. Be aware that Le Maitre Standard 'A' fluid is designed to give 'G-Force 1' maximum output and efficiency. When using any other 'budget' or 'specialised' Le Maitre fluid output levels must be set to the lower indicated position on the remote control. When using DMX the output **MUST** be monitored to ensure complete atomisation.

Keep all persons and objects away from the smoke jet. Smoke close to the output nozzle is **VERY HOT**, and can cause burns. The smoke will condense on objects up to 30 cm and could burn exposed skin.

Never use this smoke machine in such a manner that, in the event of a failure, injury could be caused. (Hot fluid output, above head height etc.)

Continual running without fluid will damage the pump unit.

Keep a check on fluid levels.

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

Replacement of fluid pipe in a ‘Rapid Change’ heat exchange

See diagram for exploded view of heat exchanger:

Never attempt to service a ‘G-Force 1’ until it has been allowed to fully cool.

Remove the chassis cover, by removing the five self-tapping screws, one M5 bolt though the fluid tank (located on top of ‘G-Force 1’) and sliding the chassis forward.

Lift the fluid tank away and place to the side. The fluid pipe will not need to be removed.

Remove the insulating material from the top of the heat exchanger, and place insulating material to one side.

Disconnect the compression fitting on the fluid pipe, from the bulkhead fitting using a 3/16W spanner.

Unscrew the temperature sensor from the top of the heat exchanger.

NOTE: This item is fragile and needs extra care when removing and fitting. This unit is a glass bead and will fracture if over tightened.

With the insulation material removed the nine securing nuts and washers are exposed. Using a 10mm socket and wrench, remove the nine nuts and washers. Dispose of nuts, as replacement nuts are included in the replacement kit.

Lift the top two heat exchanger plates, to expose the fluid pipe. Which can now be removed, and replaced with the new one. Ensuring the correct position of the pipe around the securing bolts.

Reassembly is reverse of disassembly procedure. Ensure that the fluid pipe is sitting flat between the two aluminium plates. Inspect the flat aluminium plates. If they are marked or feel rough they would benefit from being rubbed down with steel wool or similar abrasive. The cleaner the plates the better the heat transference and the better the machine will work. After prolonged use or several changes it may become necessary to replace the aluminium plates. This is especially the case if they become warped through indifferent tightening. Once fully assembled, the securing nuts can be tightened. It is difficult to over tighten the nuts but if they are too loose, then the fluid will not atomise properly. If this happens then the nuts will need to be tightened further.

