



**SG4000™
SMOKE
GENERATOR**

[USER'S MANUAL

**ORIGINAL
USER'S MANUAL**

Version 1.1
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1 General

The SG4000™ is a smoke generator designed for fire-fighters and industrial use. It is a continuously working smoke generator that supplies a constant stream of quality smoke. Safety and Health issues played a big part in the design of this generator. A priority set for this generator was not the quantity but the quality of smoke.

A processor continuously monitors the smoke generation and adjusts it as needed. This means that the temperature within the core of the machine as well as the volume of smoke generated is monitored in various areas and continuously adjusted as needed. If the set values are exceeded, then the smoke production will instantly be stopped.

The principle of the heat exchanger was developed in association with TU Eindhoven. A lot of time was spent on this research. The heat exchanger is the heart of the generator and is the basis for good, healthy smoke. TU Delft wrote a report regarding the effects of smoke fluid and can be used as a reference for this product.

The most important functions and capabilities of the SG4000™ are:

- Continuous working smoke generator with adjustable smoke density.
- It is possible to quickly start smoke production, for example to quickly fill a room. It is then possible to create continuous smoke production with no delays.
- Automatic programs to fill an area with smoke and maintain this smoke
- Manual programs with various timer functions for smoke and delay
- Pre-adjustable timer to allow start-up at a later time
- Possibility of wired and wireless remote control
- Possibility of control via DMX
- Smoke Liquid level on display
- Adjustable to 2000 Watt or 1000 Watt
- Menu in 5 languages: Dutch, English, French, German and Spanish

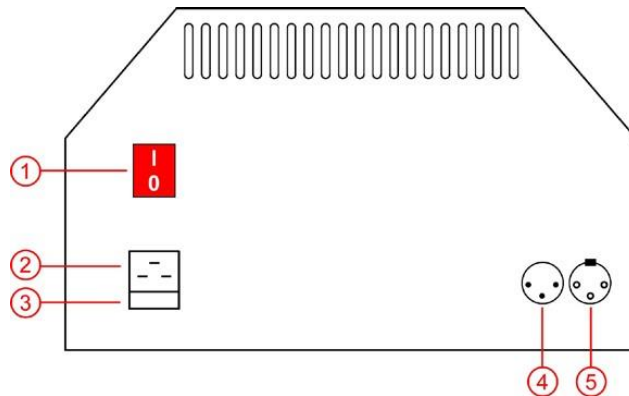
Because the SG4000™ is a continuously working smoke generator but still needs to guaranty a certain quality of smoke, it's possible that the smoke production slows down from time to time. The temperature control is the most important aspect of the SG4000™. As soon as the temperature starts dropping, the aerosol particles increase in size which means that these can be deposited in the lungs.

When the electric current is lower than normal, the generator will automatically slow the production of smoke to maintain the needed temperature.

The machine accepts a variation of temperature of a few degrees. As soon as a deviation is detected, the smoke production will be toned down. In practice, these variations of smoke productions will not be noticed.

The SG4000™ is developed to use LION's Smoke Liquid. The machine and smoke liquid are tuned to produce an optimal result.

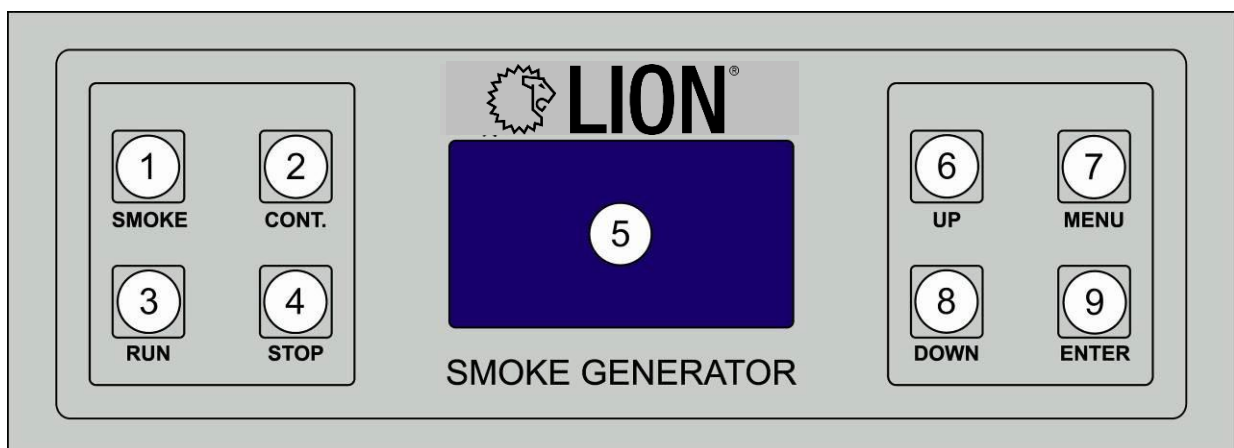
2 Control Units



2.1 Rear Panel

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. On/Off Switch 2. Electric plug 3. Fuse box 4. DMX / RC-entry 5. DMX exit | <p>Switch to turn on and off the machine</p> <p>Plug for the electric cable
Fuse: 10A-T HRC.</p> <p>Remote control cable plug
Exit for DMX equipment</p> |
|---|--|

2.2 Control Panel



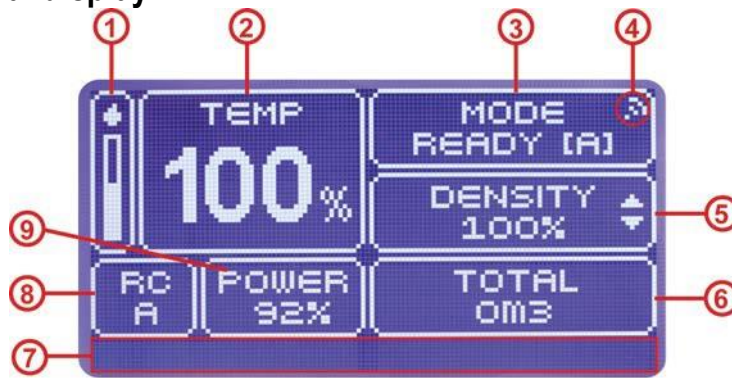
Keys:

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. SMOKE 2. CONT 3. RUN 4. STOP 6. UP 7. MENU 8. DOWN 9. ENTER | <p>Smoke production/Boost as long as this is pressed in</p> <p>Short press for continuous smoke production</p> <p>Short press to start a pre-programmed scenario</p> <p>Short press for continuous smoke production or to stop a program</p> <p>Pressing it increases the smoke density/menu choice</p> <p>Short press to open the menu or close it</p> <p>Pressing it diminishes the smoke density/menu</p> <p>Confirmation button for choice in menu choice</p> |
|---|---|

Display:

- | | |
|--|--|
| <ul style="list-style-type: none"> 5. Display | <p>Multifunctional display for status information of the smoke generator</p> |
|--|--|

2.3 Multifunctional display



1. Liquid Level	Amount of liquid remaining
2. Temperature	Relative temperature (in %) of the heater. As long as the machine is heating up, the text "TEMP" will be flashing. Once the heater reaches optimal temperature, the word "TEMP" will no longer flash.
3. Mode	Actual modes of the smoke generator: - WARMING UP - READY [A] (automatic program chosen) - READY [T] (manual timer program chosen) - BOOST - CONTINUOUS - AUTO small / AUTO medium / AUTO large - TIMER - CABLE AB (cable remote control selected) - DMX
4. RC Choice	Symbol shows if a remote control is registered
5. Smoke Density	Selected smoke density. A choice of 100% equates to the maximum choice of smoke density possible
6. Total Smoke production	Total smoke production since turning on the machine. This counter is reset to 0 when the machine is turned off.
7. Error Message	Warnings and error messages (see chapter 8)
8. RC channel	Channel of the RC of DMX
9. Power available	Available electric power of the heater

3 Usage

3.1 Placing of the generator

Place the generator with the four rubber feet on a solid surface. Make sure that the smoke exit is clear of obstruction. Objects should be at a minimum of 3 meters from the exit so as not to damage any objects in front of the machine. The smoke is very warm when leaving the machine. On top of that there's a chance of smoke particles deposit when the machine is placed against objects.

3.2 Filling the Smoke Liquid tank

Fill the smoke liquid tank with LION smoke liquid. Never fill the tank to the brim. Make sure the level stays at least under the neck of the tank. Use a funnel when filling the tank so as to avoid spillage. Make sure the liquid doesn't spill into the machine via the ventilation vents.

3.3 Warming up

Plug in the machine with the supplied electric cable. Flip the switch on the back of the generator to turn it on. The LCD will turn on and display the status of the machine. During the warming up, it's not possible to use the smoke generator. The "MODE" display will show the text "WARMING UP".

Depending on the power and the ambient temperature, the generator will be warm enough to be used about 5 to 10 minutes after turning it on. The "MODE" display will show the text "READY [A]" or "READY [T]".

3.4 Smoke production

The generator has various settings for smoke production:

- Smoke
- Continuous
- Automatic program
- Manual program
- Delayed start of the program
- Remote Control
- Wireless remote Control
- DMX-interface

The SG4000™ produces "dry" smoke. LION smoke fluid consists of aerosols, tiny droplets of liquid smoke. In principle, the amount of liquid smoke is spread in the room where smoke is made. If the air is saturated, the smoke can condense and precipitate so good ventilation optimises the effectiveness of the smoke. In normal conditions and when used in combination with LION Smoke Liquid, there will be no significant residue.

Importance attention points for a safe and clean usage:

- Stop the smoke production when the visibility is sufficiently obscured by smoke.
- Limit the lack of visibility to 50cm
- Ventilate the area sufficiently after an exercise
- If natural ventilation isn't possible, use a smoke/gas ventilator
- Use a filter mask or oxygen when using higher concentrations of smoke

3.4.1 Smoke Boost

Wait until the machine is ready, push the “SMOKE” button and hold it down. When the machine is hot enough, a large quantity of smoke will be produced for 20 seconds (140% density). After that, the machine will switch back to normal density (100%)

If the heater isn't warm enough, it will immediately switch to 100% density and skip the boost mode.

As long as smoke is produced, the “MODE” display will show “BOOST”

3.4.2 Continuous

Wait until the machine is ready; shortly press the “CONT” button. The “MODE” display will show the text “CONTINUOUS” and the generator will continuously produce smoke, until someone pushes the “STOP” button or until the Smoke Liquid tank is empty. Density can be adjusted with the “UP” and “DOWN” buttons, between 5 and 100%.

3.4.3 Automatic program

The generator is foreseen of an automated program to fill and maintain an area full with smoke. Just set the size of the area (small/middle/large) and press RUN to start the program. Press STOP to stop the program.

During the automatic program, the smoke production can be adjusted; as long as the “SMOKE” button is pressed in the machine will temporarily switch to Smoke Boost. The machine will switch back to the automatic program once the button is released.

If the automatic program is stopped in the middle, the generator will keep the program in memory for 5 minutes. This means that if you push the RUN button in the next 5 minutes, the generator will resume the original program. If the limit of 5 minutes is surpassed, the program will start from the beginning.

See chapter 4.1 for setting automatic programs up.

3.4.4 Manual Timer program

The manual timer program can be used for a single use or repeatable program. Set the smoke time, the pause time and repeat function. Press the “RUN” button to start the program. During the program, the smoke density can be adjusted with the “UP” and “DOWN” buttons.

During the manual program, the smoke production can be manually adjusted. As long as the SMOKE button is pressed down, the generator will switch over to Smoke Boost mode. The generator switches back to the timer program as soon as the SMOKE button is released.

See chapter 4.2 for setting manual timer programs up.

3.4.5 Delayed start of a program

The automatic and manual program can be delayed by a maximum of 24 hours. Set the desired delay and press the “RUN” button.

The generator will start counting down as soon as the “RUN” button is pressed and run once the counter hits 0:00.

When the delay is longer than 15 minutes, the heater will shut down to save energy. The machine starts automatically heating up 15 minutes prior to the end of the countdown.

See chapter 4.1 and 4.2 for setting up programs.

3.4.6 DMX interface

The generator can be used with DMX equipment. Set the desired DMX channel and attach the DMX cable to the rear panel. Then the machine is operated via a DMX device such as a light box. To avoid interference when using a wired remote control, the DMX can be disabled: DMX channel: OFF. See chapter 4.4 for setting up DMX channels.

3.4.7 Remote Control

The generator can be operated at distance thanks to the optional wired remote control. As long as the button is pressed, the generator will produce smoke based on the chosen smoke density. Select the smoke density by using the “UP” and “DOWN” buttons on the generator.

Plug the remote control in at the back of the generator. Wait until the generator is warmed up (the screen will show “READY”) and push on the button of the remote control.

The generator will keep producing smoke as long as the button is pressed in.

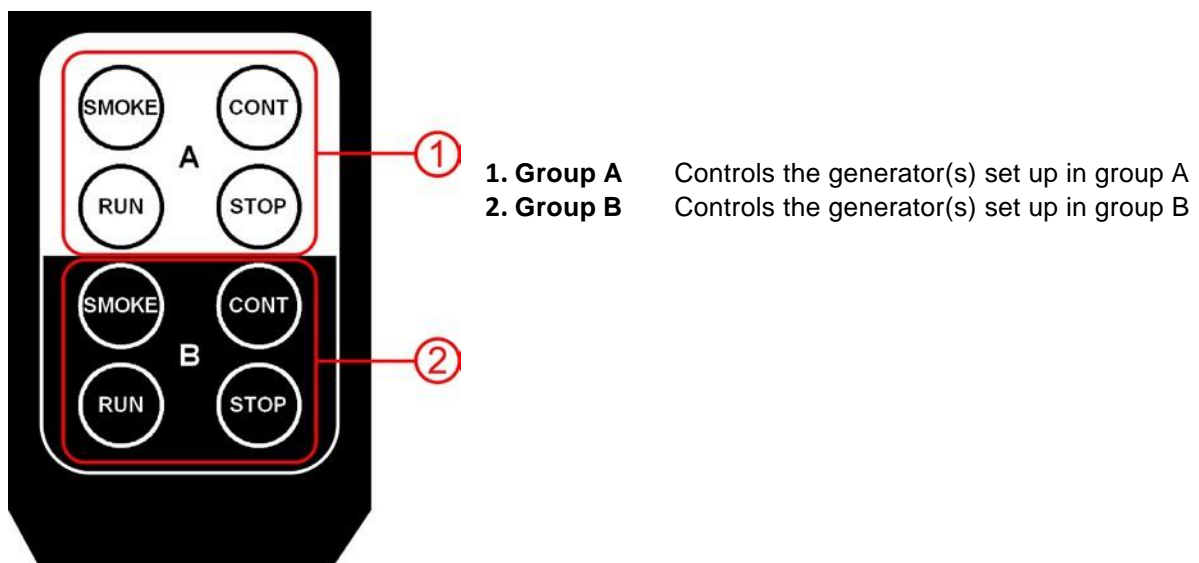
3.4.8 Wireless Remote Control

The generator can be controlled via the four buttons, CONT, RUN and STOP of the optional wireless remote control

The wireless remote control can operate two different generators at a time (group A and B) separately from each other or at the same time (multiple machines in the same group react at the same time to the buttons of the RC).

Watch out! The RC only works when the display shows the main screen. If the menu is visible, the generator won't react to the RC.

See chapter 4.5 for setting up the wireless remote control.



3.5 Smoke Density

Smoke density is adjustable in continuous mode or manual timer program. The smoke density is preprogrammed in all other modes.

To set up smoke density:

- Make sure that the main screen is showing on the display.
- Push the “UP” button to increase smoke density (maximum 100%) or press the “DOWN” button to lower the smoke density (minimum 5%).

4 Advanced settings

The advanced settings are reachable via the menu which is based on a tab structure.

Program	Automatic program/Manual timer program
Setup	Setting up power, language and restoring factory settings
DMX	Channel settings for DMX
RC	Settings for wireless remote control

To open the menu and change settings:

- Press the “MENU” button to open the menu.
- The blinking cursor indicates which item is selected. Move the cursor to the desired setting with the “UP” and “DOWN” button. Choose the desired setting by pressing the “ENTER” button. The chosen setting should now be flashing.
- Change the setting with the “UP” and “DOWN” button of the panel and press “ENTER” to validate your choice.
- To access a different tab, put the cursor on the item in the lower right section (5) and press the “ENTER” button. The next tab will then be opened.
- Press the “MENU” button to close the menu.

If the menu is opened but is idle for a long period it will automatically close.

4.1 Automatic Program



1. Menu	The menu tab shows the available tabs.
2. Delay	As soon as the “RUN” button is pressed, the generator will wait during the selected delay time before starting the program. Set the delay to 0:00 to deactivate the delay.
3. Mode	AUTO means automatic program.
4. Space	Size of the area: Small/Medium/Large.
5. Next tab	Next tab is Setup.
6. Cursor	The cursor indicates which menu item is active.

To adjust the automatic program:

- Open the menu and go to tab **program (1)**
- Set the **mode (3)** to **auto**.
- Set **area (4)** to the desired size:
 - o **Small** 15 - 20 m³
 - o **Medium** 30 - 50 m³
 - o **Large** 200 - 250 m³
- If a delay before the generator starts working is desired, fill this in in **delay (2)**.
- Press “MENU” to leave the menu. The main screen will be shown again.
- Press “RUN” to start the program.

4.2 Manual Timer Program



- | | |
|--|--|
| <p>1. Menu</p> <p>2. Delay</p>
<p>3. Mode</p> <p>4. Smoke Time</p> <p>5. Pause Time</p>
<p>6. Next Tab</p> <p>7. Repeat</p> <p>8. Cursor</p> | <p>The menu shows all available tabs.</p> <p>As soon as the “RUN” button is pressed, the generator will wait during the selected delay time before starting the program.
Set the delay to 0:00 to deactivate the delay.</p> <p>TIMER means Manual Timer Program</p> <p>Set how long you want the generator to make smoke.</p> <p>Set how long the generator should wait after smoke production before it starts again.</p> <p>Next tab is Setup.</p> <p>Set if the program should repeat continuously or just once.</p> <p>The cursor shows which menu item is active.</p> |
|--|--|

To adjust the Manual Timer Program:

- Open the menu and go to the **tab program (1)**
- Set the **mode (3)** to **Timer**.
- Set the **smoke time (4)** to the desired length of time.
 - o Minimum is 1 second, maximum is 10 minutes.
- Set the **delay (5)** to the desired length of time.
 - o Minimum is 1 second, maximum is 10 minutes.
- Set the **repeat function (7)** to on or off.
- If a delay before the filling of the room with smoke is desired, insert it in **delay (2)**.
- Push “MENU” to leave the menu. The main screen will be shown again.
- Set the desired smoke density with the “UP” and “DOWN” buttons.
- Press “RUN” to start the program.

4.3 Setup menu



4.3.1 Power

The **power (2)** of the generator is adjustable to 1000W or 2000W. This allows you for example to work multiple generators of one plug.

Smoke production will automatically be adjusted so that a continuous production of smoke is still possible. This means that the machine will produce half the smoke at 1000W that it would at 2000W.

The smoke production in the automatic program (see chapter 3.4.3) remains the same. To adjust the power:

- Open the menu to the tab "SETUP".
- Set the cursor to "POWER" (2).
- Press the "ENTER" button, the chosen value will start flashing.
- Press the "UP" or "DOWN" button to modify the setting.
- Press the "ENTER" button.
- Press the "MENU" button to leave the menu. The main screen will then be displayed.

4.3.2 Language

The **language (3)** used in the display can be changed to: Dutch, English, German, French and Spanish. To set the language:

- Open the menu and go to the tab "SETUP".
- Set the cursor to "LANGUAGE" (3).
- Press "ENTER", the chosen language will start flashing>
- Press "UP" or "DOOWN" to change the setting.
- Press "ENTER"
- Press "MENU" to leave the menu. The main screen will be displayed.

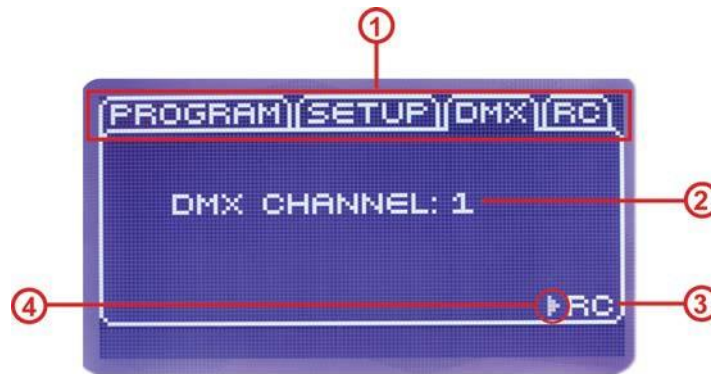
4.3.3 Restoring Factory Settings

This will restore all factory settings except for the language.

To restore factory settings:

- Open the menu and go to the tab “SETUP”.
- Select **factory settings (4)** with the cursor.
- Press the “ENTER” button. The display will show “READY” and the factory settings will be restored.
- Press “MENU” to leave the menu. The main screen will be displayed again.

4.4 DMX



The generator uses one DMX channel. The selected value of this channel defines how much smoke is made:

DMX-value	Result
0 – 21	No smoke
22 – 178	Smoke, Smoke Density between 1% and 100%
179-255	Smoke Boost (20 second Boost, afterwards 100% density)

The DMX tab allows for DMX channel setting modifications, between 1 and 512. The generator automatically recognizes a DMX controller. This does not necessitate manual intervention. To avoid interference when using a wired remote control, the DMX can be disabled: DMX channel: OFF.

To set the DMX channel up:

- Open the menu and go to the DMX (1) tab.
- Place the cursor on “DMX CHANNEL” (2).
- Press the “ENTER” button. The chosen channel will start flashing.
- Press the “UP” or “Down” button to modify this setting.
- Press the “ENTER” button.
- Press the “MENU” button to leave the menu. The main screen should be displayed.

4.5 Wireless Remote Control (RC)



4.5.1 Wireless Remote Control settings

The wireless RC had two groups of buttons: group A and group B. This allows for two generators being controlled at the same time by one remote.

Group A uses the top 4 buttons of the RC. Group B uses the bottom 4.

The four buttons have the same function as the four buttons on the left of the generator display.

Setting up the RC:

- Open the menu and go to tab "RC" (1).
- Set the cursor on "CONTROLLING" (3).
- Press the "ENTER" button, the selected setting will start flashing.
- Press the "UP" and "DOWN" button to switch between groups.
- Press the "ENTER" button.
- Press the "MENU" button to return to the main screen.

4.5.2 Setting up a Remote Control

Up to 40 RC's can be memorized by the generator. To memorize an RC:

- Open the menu and go to tab "RC".
- Place the **cursor (7)** on **memorize RC (4)** and keep the "ENTER" button depressed.
- Press a button of the RC.
- Release the "ENTER" button.
- Press a button of the RC. The **receiving symbol (2)** will appear if the generator is receiving a signal from an RC. In case the symbol doesn't appear repeat the procedure.
- Press "MENU" to return to the main screen.

4.5.3 Erasing RC memory

To make sure an RC doesn't work with a certain generator anymore, the whole RC memory must be erased. Once the procedure complete, any RC that needs to be used with the generator in question will have to be memorized again.

To erase the memory:

- Open the menu and go to the "RC" tab.
- Place the **cursor (7)** on **erase all (4)** and keep the "ENTER" button depressed for 12 seconds until the display shows "**READY**" (4).
- Release the "ENTER" button.
- Press the "MENU" button to return to the main screen.

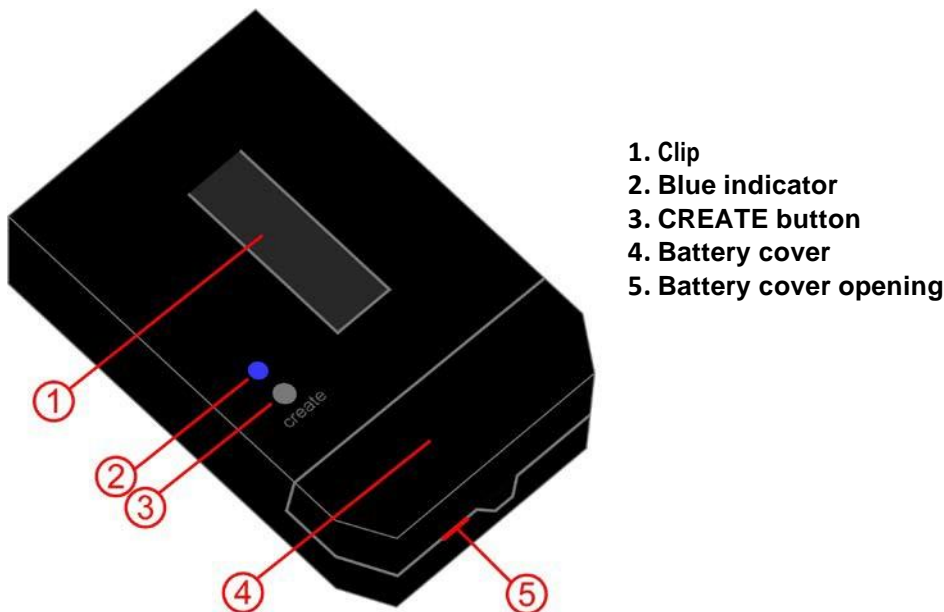
4.5.4 Changing the RC identification code

Every RC has its own identification code. It can happen that multiple RC's share the same code. The consequence is that the generator is controlled by many RC's at the same time even though that may not be wished.

In that case, the identification code of the RC can be changed. To do this, follow these steps:

- Press the paperclip to hit the hidden **"CREATE"** (3) button.
- The blue indicator (2) should be flashing now.
- Press **all** the buttons on the front of the remote one by one.
- Press the paperclip to hit the hidden **"CREATE"** (3) button.
- The blue indicator should stop flashing.

The RC now has a different identification code and needs to be "re-memorized" by the generator.



4.5.5 Replacing the RC battery

If the strength of the RC signal should diminish, the battery needs to be replaced. To replace the battery:

Remove the battery cover (4) by inserting a screwdriver in the opening (5) and pushing upwards. Remove the battery (Type CR2032) and replace it with a new one.

Note the polarity; insert the new battery with the "+" visible to the user.

5 Accessories

5.1 Smoke Liquid

This generator was designed to be used with LION Smoke Liquid. Use of other smoke liquid can lead to damage to the generator. The warranty is void as soon as another liquid is used with this generator.

LION Smoke Liquid is available in two forms:

- art. 010700 LION Smoke Liquid 5L can
- art. 010800 LION Smoke Liquid 20L can

More Information about our smoke and Smoke Liquid is available in our smoke report which can be requested from our sales department.

5.2 Smoke Conducting System

There are two different systems available for the SG4000™:

- art. 010500 Smoke conducting tube set 127mm (6m length)
- art. 010500B Smoke conducting tube set 63mm (5m length)

Our sales department can advise you as to which is best suited for your needs.

5.3 Remote Control

Different types of RC's are available for the SG4000™:

- art. 017600 Wireless remote control (wireless RC + antenna)
- art. 017800 Wired remote control (RC with 5m cable)

Our sales department can advise you as to which is best suited for your needs.

6 Technical specifications:

6.1 Technical specifications, 230V version:

- Voltage: 230V~ 50Hz - 60Hz
- Electrical consumption: Max. 2000W.
- Fuse: 10A-T HRC Ceramic 5 x 20 mm
- If not possible the consumption can be set to 1000W via the menu
- Measurements: 52.5 x 33 x 26 cm.
- Weight: 18.4 kg (empty).
- Connecting cable: Euro connecting cable 3 x 1 mm², length 5 meter.
- Satisfies all safety and security requirements. CE certificates available on demand
- Capacity of built-in plastic storage tank: 5 litre
- Max. consumption of smoke liquid when at maximum power: 65 ml/minute
- Warm up time from cold: 5.5 min.
- Ambient temperature during use: -10 °C - 30°C
- Smoke production: 630 m³ /min (Boost) - 450 m³/min (Continuous)*

6.2 Technical specifications, 115V version (compared to 230V version):

- Voltage: 115V~ 50Hz - 60Hz
- Electrical consumption: Max. 1800W.
- Fuse: F16A Quick Blow Ceramic HRC 6.3 x 32 mm
- Connecting cable: connecting cable 14AWG x 3, length 10ft, NEMA 5-15P.
- Warm up time from cold: 7 min.

*Smoke production with LION Smoke Liquid is satisfies all legislation concerning disco use.

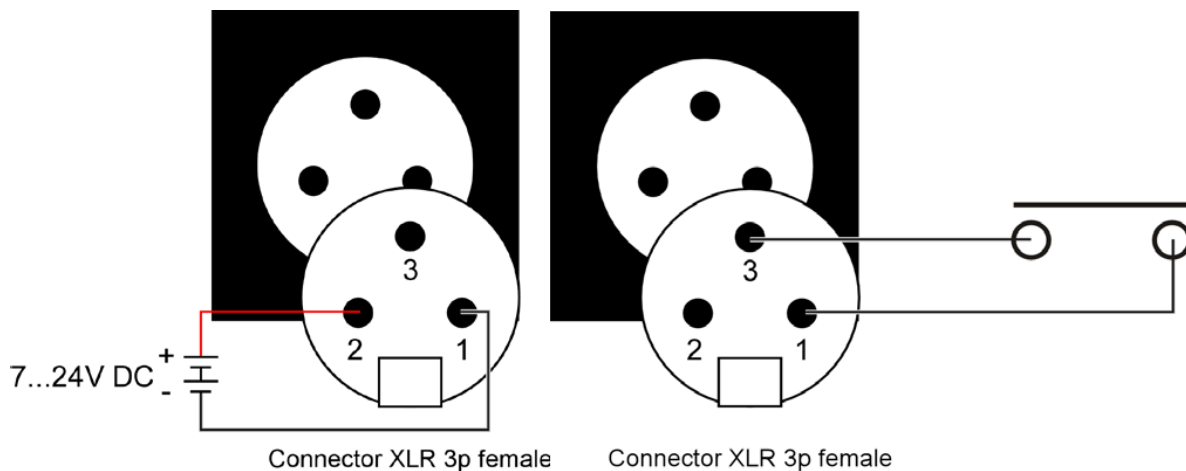
6.3 Technical Specifications Wireless Remote:

- Range: 30 meters metres in the open field
- Frequency: 433.92 MHz
- Battery: CR2032

6.4 Technical Specifications Connection Wired Remote Control:

- Function: smoke on / smoke off
- Control via potential-free contact or by applying +7 ... 24V DC

Wiring diagrams



7 Maintenance

The smoke generator was designed to need very little maintenance.

7.1 Yearly maintenance

Once a year, the smoke generator needs to be flushed with distilled water. First all smoke liquid must be removed from the generator. Once this done, 3 litres of distilled water needs to be flushed through the whole system. Start the generator and leave it running on continuous until all liquid is vaporized. Should any liquid remain it needs to be manually removed.

7.2 Warranty

The smoke generator has a full one year warranty on materials, hourly rates and call-out charges. Any damage caused by wrong use, fall damage or other external factors are not covered by the warranty.

The warranty will immediately be voided if other liquids other than the ones sold by LION are used.

The warranty starts the second the generator leaves LION Fire Training Products.

7.3 Water

The generator is **not** water tight. If the generator is used during fire trainings make sure it is placed in a spot where it cannot get wet. It cannot be covered with a sheet. This can have dangerous consequences if the generator cannot discharge any heat.

When using outside, be mindful of weather conditions!

De warranty is voided if damage is caused by water.

7.4 Cleaning spilled smoke liquid

Should you spill any liquid next to or on the generator, this can be cleaned by a moist towel.

7.5 Connecting cable

Should the connecting cable need replacing, the following should use:

- 230V: Euro connecting cable with H05VV-F (VMVL) specification or better. It should have core diameter of 3 x 1 mm².
- 115V: 14AWG x 3 or better, IEC320-C19 and NEMA 5-15P plug.

7.6 Opening and repairing

Opening and repairing of the generator may only be done by qualified personnel.

8 Error Messages

As long as one or multiple errors are present, the generator will produce no smoke. In some cases, the heating elements will be turned off depending on the type of error. Error messages are displayed on the screen as “E x”. The number of the error indicates what type of error is present. In the case of multiple errors, the type of error will alternate on the screen.

These are the type of errors possible:

Code	Text	Description	Generator still working?
E0	Power low	Too little power available for warming up. Use a shorter/wider power cable.	Yes
E1	Maintenance needed	Planned maintenance needed. Make an appointment with our service department.	Yes
E2	(not used)		
E3	H1 on – sensor off	Heater 1 is on but gives no indication of temperature. Contact us as soon as possible.	Yes, half power
E4	H2 on – sensor off	Heater 2 is on but gives no indication of temperature. Contact us as soon as possible.	Yes, half power
E5	Smoke Liquid empty	Fill the Smoke Liquid tank with smoke liquid.	No
E6	Casing to hot	The casing is too warm. Turn off the generator and wait until the casing has cooled. Turn the generator back on. If the error is still present it could be defective.	No
E7	Heater to hot	The heater is too hot. Turn off the generator and wait until it has cooled. Turn the generator back on. If the error is still present it could be defective.	No
E8	Heat sensor defective	Defective heat sensor.	No
E9	H1 off – sensor on	Heater 1 is off but is replying. Dangerous for the generator. Turn off the machine directly and send in for repairs.	No
E10	H2 off – sensor on	Heater 2 is off but is replying. Dangerous for the generator. Turn off the machine directly and send in for repairs.	No
E11	Casing-sensor defective	Defective heat sensor.	No
E12	Warming up to slow	Defective heat sensor.	No

9 Warnings and recommendations

THIS GENERATOR MAY NOT BE USED FOR ANY OTHER PURPOSES BUT THAT OF CREATING SMOKE. USE A FUNNEL WHEN FILLING THE GENERATOR WITH SMOKE LIQUID.

WHEN OPEN CERTAIN PARTS IN THE GENERATOR CAN STAY UNDER VOLTAGE.

THE SMOKE GENERATOR MAY ONLY BE OPENED AND REPAIRED BY LION TRAINED PERSONEL. WHEN OPENING THE GENERATOR SOME ELEMENTS CAN RETAIN AN ELECTRICAL CHARGE.

MAKE SURE NO WATER GETS INTO THE GENERATOR.

PLACE THE GENERATOR WHEN IN USE IN A HORIZONTAL POSITION ON SOLID GROUND AND NEVER DIRECTLY ABOVE PEOPLE'S HEADS.

MAKE SURE THAT THE GENERATOR OPENING IS MORE THEN 3 METERS AWAY FROM ANY OBJECT.

DO NOT PLACE ANYTHING ON THE GENERATOR. MAKE SURE THAT THE VENTILATION DUCTS ARE ALWAYS OBSTRUCTION FREE.

DO NOT USE THE GENERATOR IN EXTREME CONDITIONS AND ALWAYS KEEP OUT OF THE SUN WHEN IN USE.

THE GENERATOR IS COMPOSED OF SOME PARTS THAT CAN REACH UP TO 300 DEGREES CELCIUS WHEN IN USE.

ONLY USE PLUGS THAT CAN PROVIDE ENOUGH POWER FOR THE GENERATOR. AVOID USING EXTENSION CABLES.

TO ENSURE THAT NO RESIDU REMAINS, MAKE SURE TO **TURN OFF THE GENERATOR ONCE THE SIGHT IS IMPAIRED ENOUGH AND ALWAYS VENTILATE THE AREA DURING AND AFTER AN EXCERCISE.**

DON'T USE THE SMOKE GENERATOR IN SPACES WITH SENSITIVE ELECTRONIC EQUIPMENT OR FOODSTUFFS.

SMOKE IS ONLY HARMLESS WHEN IN SMALL QUANTATIES. **DURING FIREFIGHTER EXERCISES WHERE THE QUANTATIES ARE LARGE, WE ADVISE THE USE OF A FILTER MASK.**

ONLY USE SMOKE LIQUID PRODUCED AND SOLD BY **LION** IN THE SG4000™.

IN CASE OF USE OF ANY OTHER SMOKE LIQUID, THE WARRANTY IS IMMEDIATELY VOID. OTHER SMOKE LIQUIDS CAN CAUSE DAMAGE TO THE HEALTH WHEN USED IN COMBINATION WITH THE SG4000™.

10 Synopsys

Setting up and powering up.

- Attach the cable to the back of the SG4000™ and plug it into a socket (230V / 10A).
- Turn on the generator.
- Wait until the display shows “READY”. The SG4000™ smoke generator is ready to be used.

10.1 SMOKE / BOOST

- Wait until the generator reaches the right temperature.
- Press the SMOKE button and hold it down until the smoke production starts.
- Release the SMOKE button to stop smoke production.

10.2 CONTINUOUS

- Wait until the generator reaches the right temperature.
- Press the CONT button to start the smoke production.
- Press the STOP button to stop smoke production.

10.3 SMOKE DENSITY

Smoke density is adjustable for CONT and TIMER modes.

The smoke density is only adjustable when the menu is shown on the display.

- Press the UP button to increase the smoke density (max. 100%).
- Press the DOWN button to decrease the smoke density (min. 5%).

10.4 AUTO/TIMER

- Set the desired program (AUTO or TIMER) and the parameters (delay, space or time/repeat) via the menu.
- Press the RUN button to start the program.
- Press the STOP button to stop the program.

10.5 FULL OR HALF POWER

- Open the menu and go to the “SETUP” tab.
- Set the power to 2000w for full power or 1000W for half power.
- Close the menu.



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