

ResTra Fog

Rescue Training Fogger

RTF-1300 / RTF-2600

Operating Manual



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ResTraFog

by Smoke Factory GmbH

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1 PREAMBEL

1. Preambel

All Smoke Factory fog machines are quality products at the cutting edge of technology. Our many years of experience, the continuous development and optimization of our products, especially from a practical point of view, have made us one of the leading manufacturers of fog machines in the field of stage technology. The very close interlocking of development, production and assembly work in our factory near Hanover are the guarantee for the quality seal "Made in Germany".

Congratulations on your purchase of a Smoke Factory fog machine. We thank you for your trust with the certainty that you will work safely and comfortably with this device in the future. Our Smoke Factory employees are qualified professionals with years of experience who understand your task and turn it into precisely tailored solutions with the concentrated know-how of the entire Smoke Factory team. Give us your task! We will be happy to advise you and will certainly find the optimal solution for you from our fog machine program. Please take your time to read these operating instructions carefully in order to operate the machine in the best possible way. Please pay particular attention to the safety-relevant aspects and always act responsibly. We wish you a lot of fun with the Smoke Factory fog machine.

-Mario Rincon, General Manager



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3 GENERAL INFORMATION

2. Scope of Delivery

- 1 RTF-1300 / RTF-2600
- 1 Canister lid for a 5 L canister

3. General Information

This document contains the operating manual for the machines „RTF-1300 / RTF-2600“, which will be referred to as „the machine“. If there are differences between the two models, they will be specified separately.

Elements mentioned in the text that are visible on the machine's control panel are displayed in *italic, bold font*.

The RTF-1300 / RTF-2600 is a professional fog machine designed for professional use. The device operates on the vaporizer principle, meaning a glycol-based fluid is vaporized and condenses into fog when exiting the fog nozzle. Continuous temperature control by microprocessors ensures a consistently accurate vaporization temperature. This guarantees that no harmful substances are generated by excessive vaporization, and that the device does not "spit" out unvaporized fluid. The RTF-1300 / RTF-2600 is energy-efficient, making optimal use of the energy applied. It is always ready for operation after the initial heating and maintains the required temperature threshold.

With the correct fog fluid, realistic scenarios can be created without endangering the health of those involved.

The RTF-1300 / RTF-2600 should only be used with original fluid, as using other fluids can lead to device damage, void the warranty, and cause harm to third parties.

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4 TECHNICAL SPECIFICATIONS

4. Technical Specifications

4.1. Dimensions and Weight

The following section provides the dimensions and weights of the two fog machines listed separately.

4.1.1. RTF-1300

- Procedure: Fog generation based on the vaporizer principle
- Power: 1300 Watts
- Supply Voltage: 240 V / 50 Hz (also available as a 110V version)
- Tank Capacity: 5 L
- Fog Output: Adjustable from 1% to 99% in 1% increments
- Fog Time: ~ 30 sec at 100% continuous fog below 50%
- Control Options: DMX 512, stand-alone, timer, analog 0-10V
- Heat-up Time: ~ 7 minutes
- Temperature Control: Microprocessor-controlled
- Operating Temperature: 5°C to 45°C
- Fluid Consumption: 120 ml/min (max. output), 35 ml/min (continuous fog)
- Length: 43.3 cm
- Width: 23 cm
- Height: 23.5 cm
- Weight: 9.7 kg

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4 TECHNICAL SPECIFICATIONS

4.1.2. RTF-2600

- Procedure: Fog generation based on the vaporizer principle
- Power: 2600 Watts
- Supply Voltage: 240 V / 50 Hz
- Tank Capacity: 5 L
- Fog Output: Adjustable from 1% to 99% in 1% increments
- Fog Time: ~ 30 sec at 100% continuous fog below 50%
- Control Options: DMX 512, stand-alone, timer, analog 0-10V
- Heat-up Time: ~ 7 minutes
- Temperature Control: Microprocessor-controlled
- Operating Temperature: 5°C to 45°C
- Fluid Consumption: 240 ml/min (max. output), 70 ml/min (continuous fog)
- Length: 58.5 cm
- Width: 23 cm
- Height: 24.7 cm
- Weight: 12.8 kg

4.2. Connections

Below is an overview of the connections.

4.2.1. Power Supply

- Protective contact plug, depending on country-specific version

4.2.2. Communication and Pin Assignment

- Analog Port: 3-pin XLR female 0 - 10 V
 - Pin 1 = Ground

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4 TECHNICAL SPECIFICATIONS

- Pin 2 = 0-10 V+ DC in
- Pin 3 = 12 V+ DC out
- max. 50 mA
- DMX512 Port: 5-pin in / out
 - Pin 1 = Ground
 - Pin 2 = DMX-
 - Pin 3 = DMX+
 - Pin 4 + 5 = nc

4.2.3. Fluid

- Hose with quick coupling plug for tank lid connection

Note

The RTF-1300 / RTF-2600 should only be operated with Rescue Training Fogger Fluid. Using non-original fog fluids or additives will clog the heating element and void the warranty.

Do not use fog fluid that is older than five years. Fog fluids do not have an unlimited shelf life.

WARNING!

Do not use cleaning fluids or citric acid, etc.

For further information on fog fluids, please consult your dealer or contact us directly.

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5 SAFETY INSTRUCTIONS

5. Safety instructions

- **Caution, hot vapour!**
- Keep a safe distance of at least 1.50 m from the mist outlet for people and heat-sensitive objects.
- It is strictly forbidden to handle the mist outlet during operation! A minimum distance of 60 cm must be maintained with flammable materials.
- During operation of a fog machine, hot fluid droplets may occasionally escape. Do not allow these to become a danger to people.
- Sick persons or persons with pre-existing respiratory or pulmonary problems or a tendency to allergies should avoid contact with theatre fog!
- The user bears sole responsibility for damage resulting from improper use or non-compliance with the operating instructions. The manufacturer accepts no liability. Modifications to the safety-relevant components of the appliance are strictly prohibited!

Caution!

- Never leave switched-on devices unattended!
- Never fog into ignition sources such as naked flames or pyrotechnic effects!
- Never allow visibility to fall below 2 metres! You are responsible for the risk of accidents to persons in the fogged room.
- Never open an appliance that is connected to the mains!
- Do not ingest or apply fog fluids externally!
- Keep away from children!

In case of eye contact, rinse eyes with plenty of water. In case of accidental ingestion, consult a doctor immediately. Spilt fluid or splashed fluid droplets can cause slipping. Pick up the fluid and dispose of it properly!

ResTraFog fog fluids are completely water-soluble and biodegradable. The method used by ResTraFog to produce fog with vaporiser fog machines is the most safe. We are not aware of any case in which a normally healthy person has been harmed in any way by this artificial fog. The prerequisite is the use of professional fog machines with the correct vaporisation temperatures and the appropriate fog fluids.

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6 DEVICE IDENTIFICATION

6. Device Identification

- [1] Fog Outlet
- [2] Control Panel
- [3] Analog Port
- [4] DMX in/out
- [5] Fluid Hose
- [6] Power Cable
- [7] Fluid Canister Holder
- [8] Handle
- [9] TIMER LED
- [10] READY LED
- [11] DMX LED
- [12] Mode Button
- [13] Display
- [14] Enter Button
- [15] UP / DOWN Buttons



Figure 1: RTF-1300 / RTF-2600 Front

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7 COMMISSIONING



Figure 2: RTF-1300 / RTF-2600 Back

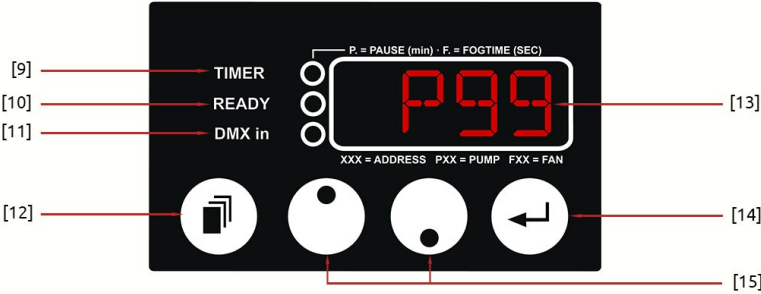


Figure 3: RTF-1300 / RTF-2600 Display board

7. Commissioning

- Plug the power cable into a grounded outlet.
- Observe the operating voltage!
- The illuminated digital display on the control panel will show a "P" followed by two numbers.
- The green Ready LED blinks when the operating temperature is reached (heating time approx. 7 minutes).
- The green Ready LED remains solid when the final temperature is reached.
- Enter the desired settings for the fogging process via the control panel, then start the fogging process by pressing the Enter button.

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7 COMMISSIONING

WARNING!

Ensure the fluid tank is kept clean to prevent the pump from drawing in contaminants. Even minor impurities can cause the device to clog.

7.1. Location Selection

The location of the RTF-1300 / RTF-2600 should meet the following criteria:

- Free of vibrations and shocks
- Dust- and dirt-free air
- Non-flammable surface
- Ventilation with fresh, fog-free air
- Ambient temperature between 5°C and 45°C
- Relative humidity below 80%

WARNING!

When integrating the on page into props or similar structures, make sure to supply fog-free air. Air with a high fog concentration can condense in the machine, causing moisture damage. In case of installation, please observe the following:

- Fog must not be pushed back into the device.
- No condensing fluid should enter the device.
- No objects should protrude into the fog outlet.

7.2. Filling the Fluid Tank

- Release the plug from the quick coupling by pressing the metal button.
- Unscrew and remove the tank lid.
- Replace the canister with a new one, or refill the existing canister.
- Place the tank lid back on and tighten it „hand-tight“.
- Firmly insert the plug back into the quick coupling until a clear click is heard.

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8 OPERATING THE RTF-1300 / RTF-2600

7.3. Fluid

WARNING!

The RTF-1300 / RTF-2600 must only be operated with the following Rescue Training Fogger Fluids:

- Basic Fluid
- Premium Fluid

Using non-original fog fluids or additives will clog the heating element and void the warranty.

Do not use fog fluid that is older than five years. Fog fluids do not have an unlimited shelf life.

Do not use cleaning fluids, citric acid, etc.

For more information on fog fluids, consult your dealer or contact us directly.

8. Operating the RTF-1300 / RTF-2600

The following section explains the operation and control of the RTF-1300 / RTF-2600.

8.1. Controls

An overview of buttons and their labels can be found under Device Identification.

Note

Menu items are accessed by pressing the Mode button in quick succession. Holding the Mode button for more than two seconds starts the timer mode.

8.2. Control Options

The RTF-1300 / RTF-2600 can be controlled externally via the XLR ports in analog or DMX mode. Additionally, the RTF-1300 / RTF-2600 can operate in stand-alone mode or with the integrated timer.

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8 OPERATING THE RTF-1300 / RTF-2600

Note

DMX always takes priority. This means that control via DMX 512 takes precedence over all other control options.

8.2.1. Operation via Analog Input

Connect the fog machine to a 3-pin XLR socket with an analog console or with the optional cable remote control.

- Plug the connection cable from the console/cable remote control into the XLR socket of the device.
- Use the rotary knob on the cable remote control/fader on the analog console to adjust the pump value.
- Use the On/Off switch on the cable remote control to start the fogging process.
- Set the desired maximum fog intensity on the device's control panel. The device will only produce full output if both the XLR remote and the fog machine are set to 100%.

8.2.2. Operation via Wireless Remote Control

The fog machine can be controlled with the optional wireless remote control.

- Plug the wireless remote control receiver into the XLR socket of the device.
- Press the top button on the wireless remote control to activate fogging (see also the wireless remote control manual).
- Set the desired fog intensity on the device's control panel.

8.2.3. Operation via DMX 512

Connect the fog machine to the DMX source using the 5-pin XLR socket. The yellow DMX LED indicates a correct DMX signal.

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8 OPERATING THE RTF-1300 / RTF-2600

Setting the DMX Start Address

- Mode: Press until 3 numbers appear on the display.
- Up/Down: Set the desired DMX start address.
- Enter: Save.

Setting the Pump Value

- When operating via DMX, the pump values can be set directly on the console.

Setting the Fan Value

- The 2600-watt devices have a second DMX channel, which allows the Hirschmann connection to be controlled. For example, an external fan can be connected and dimmed.
- The channel for the external connection corresponds to the DMX start address + 1.

ATTENTION!

Please note the maximum power allowed for the external connection. You can find this information on the device's nameplate.

Turning Off the Device

- After turning off the DMX console, the fog machine will automatically turn off after 15 seconds.

8.2.4. Stand-alone Operation

The fog machine can also operate in stand-alone mode. The pump output can be adjusted directly on the device.

- Mode: Press until "P" and 2 numbers appear on the display.
- Up/Down: Set the desired pump output.
- Enter: Start/stop the fogging process.

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8 OPERATING THE RTF-1300 / RTF-2600

- The pump output settings can be adjusted at any time during operation by pressing the Up/Down buttons.

8.2.5. Operation via Timer

With the internal timer, the fog time in seconds (1 - 99), pause time in minutes (0.1 - 99), and pump output in percent (1 - 99) can be programmed.

- Mode: Press and hold for more than 2 seconds to enter the timer menu.
- The red timer LED lights up.
- Up/Down: Set the desired pump output.



Figure 4: Setting the pump output in 1% increments.

- Mode: Press briefly to adjust the pause time.
- A dot appears after the "P."
- Up/Down: Set the desired pause time.



Figure 5: Setting the pause time in minutes (0.1 - 99).

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9 SHUTTING DOWN

- Mode: Press briefly to adjust the fog time.
- Up/Down: Set the desired fog time.



Figure 6: Setting the fog time in seconds (1 - 99).

- Enter: Starts the timer with the current settings.

Exiting the Timer Mode

- Mode: Press and hold for more than 2 seconds to exit the timer menu.

or

- Mode: Press until "ESC" appears on the display.
- Enter: Exit the timer menu.

Auto-Start

If the power plug is removed or the power supply interrupted while the timer is active, the fog machine will automatically start in timer mode with the previously entered values the next time it is powered on.

9. Shutting Down

- Mode: Press until OFF appears on the display. After 15 seconds, the device will automatically power off.
- A red dot appears in the lower right corner of the display.
- Enter: The device turns off immediately.

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10 CARE AND MAINTENANCE

10. Care and Maintenance

- Ensure that the ventilation slits do not become clogged with dust. Clean them if necessary.
- Avoid overheating the device by adhering to the operating and ambient temperature specifications. Do not direct heat sources directly at the device.
- The RTF-1300 / RTF-2600 should not be operated without fluid, as this will cause the pumps to run dry.
- Any spilled fluid should be immediately wiped up, as moisture—including fluid—can damage the electronics.
- The RTF-1300 / RTF-2600 should be cleaned after each use, especially when used in an installed setup.
- The fluid tank should be thoroughly rinsed before each refill. This prevents premature coagulation of the fluid due to contamination.
- When positioning the RTF-1300 / RTF-2600, ensure a continuous supply of fog-free air. Cooling air with a high fog concentration can condense inside the machine and cause moisture damage.
- The sintered filters in the canister lid should be periodically checked and cleaned or replaced as needed.
- For permanent installations, the fluid canister can be placed externally—a maximum height difference of 1.5 m between the canister and device is allowed.
- After extended operating hours, condensation droplets may accumulate in the fog outlet. This is normal and not a malfunction.

WARNING!

Condensation droplets should only be removed when the device has cooled down. Otherwise, there is a risk of burns!

PLEASE NOTE! The vaporizer does NOT require cleaning! Commercially available cleaning fluids (cleaners) can damage the vaporizer! The warranty is void if cleaners are used

The warranty is void if cleaners are used on the vaporizer.

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11 TROUBLESHOOTING

11. Troubleshooting

The RTF-1300 / RTF-2600 is not producing fog

- Check external control connections.
- Verify the power source.
- Check fluid levels.
- Ensure a secure connection between the fluid tank and canister lid.
- Check the fluid hose for leaks.
- Inspect the sintered filter for any contaminants.

The RTF-1300 / RTF-2600 is fogging uncontrollably

- Check external control connections.
- Inspect for moisture inside the device, as this may trigger the fogging process.
- Check the sintered filter in the canister and ensure secure connections to the canister lid.

The RTF-1300 / RTF-2600 is shutting down unexpectedly

- The temperature sensor may have triggered an automatic shutdown due to overheating. Remove any external heat sources and ensure adequate ventilation. The device will restart after approximately 15–30 minutes once it has cooled sufficiently.

Loud humming noise when fogging

- The pump is running dry—this should be avoided!
- Refill the fluid.
- Check and re-secure the hose coupling.
- Inspect the fluid hose for kinks or damage.

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12 WARRANTY CONDITIONS

Error message E-4 on display

- The RTF-1300 / RTF-2600 is overheating, and the heater will shut down to cool off.
- Unplug the power cable, wait approximately 10 minutes, then reconnect.

Error message E-1 on display

- Please send the RTF-1300 / RTF-2600 to a service center for inspection.

12. Warranty Conditions

Effective only for the Federal Republic of Germany Rescue Training Fogger grants you warranty for the mentioned product according to the following conditions:

1. Free of charge, subject to the following conditions (No. 2-6) we will repair any defect or fault in the unit if it is caused by a proven factory fault and has been advised immediately after appearance and within 36 months (battery pack 6 months) of delivery to the end user. Insignificant deviations of the regular production quality do not guarantee replacement rights, nor do faults or defects caused by water, by generally abnormal environment conditions or an unavoidable accident.
2. Warranty Service will be done in the following way: Faulty parts will be repaired or replaced according to our choice with the correct parts. Faulty units have to be brought to us or our authorized service centers or to be sent to us or our service centers at the customer's expenses. The invoice and/or receipt showing the purchase date and the serial number has to come with the faulty unit, otherwise we cannot honor the warranty. Parts that are replaced become our property.
3. The customer loses all rights for warranty services, if any repairs or adjustments are done to the units by unauthorized persons and/or if spare parts are used which are not approved by us. The right of warranty service is also lost if fluids other than the original Rescue Training Fogger-fluid have been used or if units are sent to us with full fluid bottles. Also non-compliance with the instructions in this manual or mistakes by incorrect handling/treating of the machine will lead to a loss of guarantee and also any faults and damages caused by undue force.
4. Carrying costs caused to warranty services are borne by the customer himself.

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5. Warranty services do not cause an extension of the warranty time or the start of a new warranty time. The warranty for replaced parts ends with the warranty time of the whole device.
6. If a defect/fault can not be repaired by us in a satisfactory time frame, we will do one of the following within 36 months after sale (customer may choose):
 - replace the whole unit for free or
 - refund the lesser value or
 - take back the whole unit and refund the purchase price, but not more than the usual market price at the time of the refund.
7. Further claims, especially for damages, losses etc. outside the unit are excluded, if the liability is not statutory. Outside the Federal Republic of Germany the warranty conditions of our local agencies take effect. Our local agencies in and outside the Federal Republic of Germany will provide you with the warranty conditions any time. In case you do send the machine in for warranty repairs, please make sure that the fluid is removed from the bottle.

13. Contact

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B DOCUMENT CHANGES

B. Document Changes

Table 1: Document Changes

Date	Changes	Editor
11.11.2024	Initial Release	BST