UR FOG

SECURITY FOGGING SYSTEMS

# INSTALLATION AND USE MANUAL

## MODULAR PLUS

*Series*

ENGLISH MANUAL

**WARNING!**

All UR FOG fogging systems should only be used with UR FOG-branded fluids.
It is strictly forbidden to use any fluid not previously authorized in writing by UR FOG srl.

## SUMMARY


| | | |
|---|---|---|
| 01 | Package contents | page 2 |
| 02 | Introduction of the product | page 3 |
| 03 | Conditions of use and warnings | page 3 |
| 04 | Installation tips to install fogging systems | page 4 |
| 05 | Technical specifications | page 5 |
| 06 | How to activate the system | page 6 |
| 07 | Mains power and power supply connections | page 7 |
| 08 | Description of input and output connections | page 8 |
| 09 | Connection examples | page 10 |
| 10 | Error checking | page 10 |
| 11 | Shooting time setting | page 12 |
| 12 | Fluid bag installation, exchange and reset | page 13 |
| 13 | Front LEDs meaning | page 14 |
| 14 | Maintenance | page 15 |
| 15 | Defects and possible solution | page 16 |
| 16 | Warranty | page 18 |
| 17 | Maintenance | page 19 |


The **conditions of use** will be automatically accepted by breaking the security labels on the product.

## 01 PACKAGE CONTENT

***Inside the package you will find:***

1. The Unit Modular CPlus
2. One 750 ml bag. (Optional 1000 ml)
3. A self adhesive window warning label to indicate the device installation
4. Installation and use manual

# 02 INTRODUCTION OF THE PRODUCT

**Thank you for purchasing a UR Fog product**

The great patented technological innovations such as the moduled liquid injection system, the revolutionary heating system, and the ActiveCloud ready technology make the Modular CPlus fog generators the best fog devices with the best performance in the security market.

**Simple**: Machine easy to install and able to be integrated to any existing alarm system.

# 03 CONDITIONS OF USE AND WARNINGS

he fog generated by UR Fog does not create particular problems or injuries for a human being for a short stay in a fogged room if the system is used according to the manufacturer's recommendations.
Generated fog is certified as safe for people and animals from an authorized international certification company and is proved that it does not leave any residual.
UR Fog systems are certified respecting European laws and regulations.
Any certifications required in specific countries are a responsibility of the distributor of that specific country.

The documents related to certifications can be requested by mail to **support@urfog.com**.

It is not guaranteed by the manufacturer the use of UR Fog system in the presence of objects that may be damaged anyway by the contact with substances based on glycol, water and alcohol.
Any employee or worker that may be exposed to fog must be warned in advance and must be checked for any allergy to the substances listed above.
At the date of printing of this manual it has never been pointed out any problem related to any allergy.
UR Fog is in no way responsible for any damage or condition of use that has not been required and specifically approved by any specific written request prior to the installation of its products.

For fog fluid please refer to UR Fog fluid safety data sheet published on the website and carefully read it at **www.urfog.com**.

Contact a doctor if for any reason you swallow fog fluid or if after contact with eyes or skin you have any kind of reaction, and in any case wash it immediately with water and soap. Do never stay for a long time in a room filled with fog.
Do not use charged bags that are not the ones suggested by UR Fog and never try to recharge them, they are made for a single use. Follow your national rules for the dispose of empty bags.
Keep UR Fog bags out of reach of babies and animals.
The nozzle may be hot and touching it may cause burns.
Do not look directly into the nozzle.
Never use UR Fog products for any purpose that is not related to protection from thief or robbery (the choice of the conditions of use in case of robbery will be suggested by your security consultant).
Never use different fog fluids or add any other substance into the cylinders.
Do not use or keep charged UR Fog machines in vehicles and do never transport UR Fog before 24 hours since it has been shut off.
During transport it must be not armed.

# 04 INSTALLATION TIPS FOR FOGGING SYSTEMS

Please observe the following instructions for installing UR Fog:

**1.** The unit must be installed avoiding to obstruct escape routes.
**2.** Verify the fog does not limit the visibility near: stairs, landings, moving objects that may cause: falls down, injuries or any damage to persons.
**3.** Do not look directly into the nozzle. Use only authorized fluids and original bags.
**4.** The heather box may reach high temperatures, touch it may cause burns.
**5.** When UR Fog produces fog avoid staying closer than 1 meter from the unit.
**7.** Report the Fog Unit installation to the firefighters in your area and eventually to other institutions if needed. Before testing the unit remember to report it to the firefighters in your area to avoid false alarms.
**8.** Remember to stick on a window in a visible place the included warning label.
**9.** Do not move the machine when it is still hot.
**10.** It is necessary to add an external switch to separate the fog generator from the alarm system and it should be activated before the maintenance to avoid that input tests, for example, can activate the fog generator.
**11.** Never direct the fog jet towards an object or a wall less than 2 meters away and if possible increase the suggested minimum distance. Thanks to the power of the jet, UR Fog reaches and exceeds more than 10 meters away in the first 3 seconds from the point where the machine is installed.
**12.** Setting the shooting time interval between the minimum and maximum shown in the shooting table, avoid "overshooting" even if the produced fog is dry and generally doesn't leave residue. A shot that goes far beyond the recommended seconds can create a residue problems in the room.
**13.** UR Fog continues to be effective for up to 2 hours without 220V and 115V mains power thanks to the insulation system which maintains the temperature in the heating system.
**14.** Install at an height of about 2,5 meters not to let it be reached, avoiding possible tampering.
**15.** The unit has a nozzle inclination of 15° oriented to the floor.
**16.** The main body of UR Fog, which has the heating system enclosed inside a metal frame, should not be opened unless by specific and authorized service centers. Do not open and touch for any reason the insulation before 24 hours the unit has been shut off. The internal part may reach really high temperature.
**17.** Do not activate the UR Fog machine before the installation is completed.
**18.** Insert the bag as last installation procedure.
**19.** When the installation is finished, always test the system with a trial shoot (suggested 4 seconds)
**20.** After connection to mains power at least one hour is necessary to reach the minimum temperature needed to generate fog.
**21.** Install UR Fog avoiding any obstacles in front of it which can prevent the spreading of the fog.
**22.** The external temperature of UR Fog can be higher from room temperature up to 50 °C.
**23.** Connecting to the mains the edge of a stranded conductor should not be soft-soldered
**24.** The UR Fog machine should not be exposed to water spray or dripping.
**25.** The content of fluid bags is meccanically pre-determined , the tollerance is in the range -10% +10%
**26.** Request to UR Fog or its distributors to take part in courses for installers to ensure the optimal installation of the equipment.

# 05 TECHNICAL SPECIFICATIONS

| | MODULAR 2 PLUS | MODULAR 3 PLUS | MODULAR 4 PLUS | MODULAR 5 PLUS | MODULAR 8 PLUS |
|---|---|---|---|---|---|
| Weight without bag | 8 Kg | 9 Kg | 10 Kg | 10 Kg | 11 Kg |
| Max fog emission in a single shot | 200 $m^3$ | 300 $m^3$ | 400 $m^3$ | 500 $m^3$ | 800 $m^3$ |
| Total fog emission capacity with full bag | 1275 $m^3$ | 1350 $m^3$ | 1200 $m^3$ | 1500 $m^3$ | 2400 $m^3$ |
| Fog bag capacity | 750 ml | 750 ml | 750 ml | 750 ml | 1000 ml |
| Working time without mains power | over 1 hour | over 1 hour | over 1 hour | over 1 hour | over 1 hour |
| Average power consumption during heating | 170 W + 10 | 170 W + 10 | 280 W + 10 | 280 W + 10 | 280 W + 10 |
| Heating time | about 1,5 hour | about 1 hour | about 1 hour | about 2 hours | about 2 hours |
| Average power consumption range | 37- 41 W | 37- 41 W | 42- 47 W | 42- 47 W | 48- 53 W |
| Maximum current consumption at 14.1 V | 1.2 A | 1.4 A | 2.3 A | 2.5 A | 2.8 A |
| Batteries type suggested | Pb 2 Ah 12V | Pb 2 Ah 12V | Pb 2 Ah 12V | Pb 2 Ah 12V | Pb 2 Ah 12V |
| Cover tamper | microswitch | microswitch | microswitch | microswitch | microswitch |
| RTC real time clock | Yes | Yes | Yes | Yes | Yes |
| LAN & WIFI board support | Yes | Yes | Yes | Yes | Yes |

**Warning: press “RESET” button only when you actually exchange the bag or you will lose the seconds counting.**

**WARNING:**

- **Do not disconnect the units from its power immediately after the shoting fog**
- **Change the battery every two years**
- **Change the bag as soon as the “empty” signal appears**
- **The generator must have the side holes free for air ventilation**

# 06 HOW TO ACTIVATE THE SYSTEM

To avoid injuries please securely fix the fogging machine to the wall according to the installation instructions.
It is recomended not to install the machine behind walls in a limited void without a specific ventilation, in order to prevent a possible overheating.

**CAUTION:** It is always recommended to fix the fog generator to a solid wall even when it is placed on a flat surface.
The optional VESA bracket, mainly recommended for ceiling installation, can also make standard wall installations more straightforward, by allowing for easy acces to the back holes for the cables entry.
Always ensure that the bracket or the support surface are suitable for the weight of the machine.

Remove the machine from the packaging and unscrew the 4 screws fixing the front panel to gain access inside.

# 07 POWER SUPPLY CONNECTION

Mains power (115V or 230V ) source supplies energy to the heating system and to the internal power supply.
A VRLA 12V 2.0Ah battery (not included) must be connect to the recharge circuit to allow unit to shoot even without mains power. At the heating startup the power consumption is maximum and in a couple of hours it goes down.
The average consumption range is from around 37 W (Modular 2) to 53 W (Modular 8).
Ambient temperature and battery loading can influence the average power consumption.

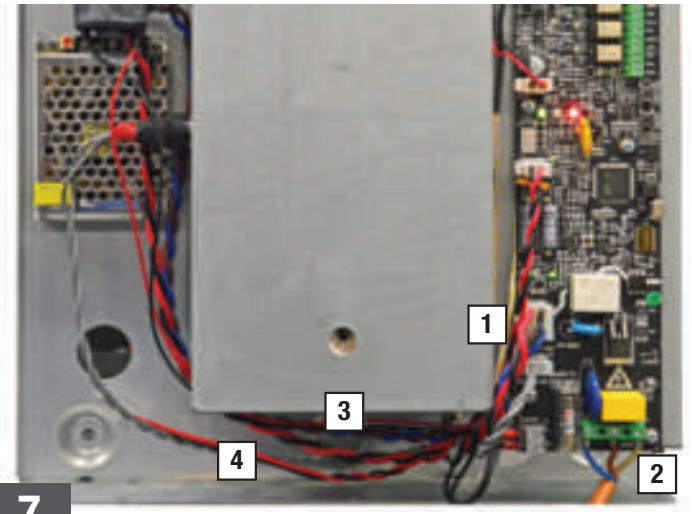
**Do not use inverter or UPS if you are not sure that they generate a true sine wave, not a rebuilt one. Please refer to the UPS manufacturer the correspondance of such features before proceeding with the connection.**

- The max current to be considered for the system is 3,15A
- The connection to the electricity grid (115v or 230V ) must be performed by a qualified technician.
- Connect the equipment to the electricity grid only after you have completed the installation.
- It is necessary to connect the ground terminal.
- The system must be connected to the mains trough on automatic switch (automatic switch, curie C, with Ih= 10 A and Idif= 30 mA,...) with breaking capacity based on the assumed fault current of the fogging system in the sampling point.

**PLEASE NOTE THAT, AS ALL POWERED EQUIPMENT FROM THE ELECTRICITY GRID REQUIRING INSTALLATION, IT IS SUBJECT TO COMPLIANCE WITH RULES OF THE COUNTRY IN WHICH IT IS INSTALLED**
For section and types of wires, fuses, suitability of materials to installation sites etc..

**REPLACE FUSE ONLY USING SAME TYPE ,FOLLOWING THOSE SPECIFICATIONS:**
**CERAMIC BODY FILLED WITH QUARTZ, REF. STD. EN60127-2-3/DIN41660 3,15Ah (EXAMPLE OMEGA GT520231)**

- The battery is necessary to use the system in a safe way. The battery is recharged by system board.
- The placing of the lead-acid battery 2 Ah DC 12 V is under the heat exchanger, in flat position with poles facing the plastic cover.
- In order to accede to the battery case is necessary to remove the frontal cover.




1 Power supply main connections

2 Mains power

3 Ground connection

4 Battery slot (battery not included)

While connecting the machine to the mains power, it is raccomended to never disconnect existing ground cable.
The fact of disconnecting or modifing existing cables voids the warranty and can cause troubles or accidents related to the temperature control.

# 08 DESCRIPTION OF INPUT AND OUTPUT CONNECTIONS

### Discrete signals port

The discrete signal port is hosted on a multiple way screwed connector, visible on the right side of Fig. 1.
In Tab. 1 is indicated the pinout, along with some important notes about each signal.
IMPORTANT: the descriptions in Tab. 1 are valid if DIP-SWITCH 4 is on OFF position (passive security, relays are normally NOT active).
The signals present on this port will always be available to the user and will work in parallel with the commands received by the serial interface. In no case a voltage greater than the board's power supply should be applied to any pin of this port, except for relay outputs that can manage up to 60V, 500mA. Some interface options depend on S3 (Dip Switch) configuration and W1 and W2 jumpers: Fig.2 shows their position on the board.

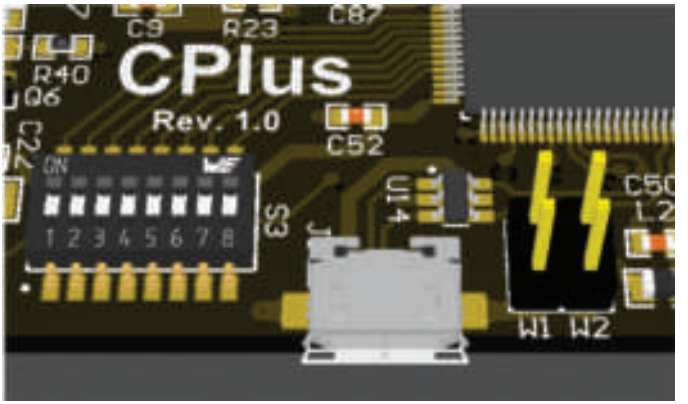


Fig. 1

| DIP SWITCH | Function |
|---|---|
| 1 | Fire Validation Output setting, see FIRE VALIDATION on Table 1 |
| 2 | OFF – main signalling leds enabled, ON – main signalling leds disabled (panels leds, green blu and red) |
| 3 | OFF – signalling sound enabled, ON – signalling sound disabled |
| 4 | OFF – Passive security (relays are normally inactive, the event will activate relay) ON – Active security (relays are normally active, the event will deactivate relay) |
| 5 | OFF – Panic input (IN1P, IN1N) not enabled ON – Panic input (IN1P, IN1N) enabled |
| 6 | (Reserved for future use) |
| 7 | (Reserved for future use) |
| 8 | OFF – Normal mode ON – Service Mode (the machine will be not operative, no led, no outputs) |

| Label | Direction | Description |
|---|---|---|
| +12V | Out (power) | +12V output, max 200mA |
| - | - | 0 V ground terminal internally connected to mains earth. |
| ARMP | in | *Arm* signal input, galvanically insulated, ARMP positive terminal, ARMN negative terminal:<br>+12V: machine armed (dip switch 6 in OFF position) or machine NOT armed (dip switch 6 in ON position);<br>0V or left open: machine NOT armed (dip switch 6 in OFF position) or machine armed (dip switch 6 in ON position). |
| ARMN | | |
| TRGP | in | Shoot signal input, galvanically insulated, TRGP positive terminal, TRGN negative terminal:<br>• +12V: triggers a shot if *READY* signal is TRUE, the machine is armed and IN0 input is active (dip switch 6 in OFF position) or does not trigger any shot (dip switch 6 in ON position);<br>• 0V or left open: does not trigger any shot (dip switch 6 in OFF position) or triggers a shot if READY signal is TRUE, the machine is armed and IN0 input is active (dip switch 6 in ON position)<br>The machine will be shooting for all the preset fire time. It will prematurely stop shooting when *READY* goes off (signaling the inability of the fog generator to continue shooting) or the machine is disarmed. |
| TRGN | | |
| IN0P | in | **Secondary shoot signal input, galvanically insulated, IN0P positive terminal, IN0N negative terminal:**<br>**• +12V : triggers a shot if READY signal is TRUE and the machine is armed;**<br>**• 0V or left open: does not trigger any shot.**<br><br>**The machine will be shooting for all the preset fire time. It will prematurely stop shooting when READY goes off (signaling the inability of the fog generator to continue shooting) or the machine is disarmed.** |
| IN0N | | |
| IN1P | in | *Panic* shoot signal input, IN1P positive terminal, IN0P negative terminal:<br>• +12V : triggers a shot if *READY* signal is TRUE and dip switch 5 is ON<br>• 0V or left open: does not trigger any shot.<br>The machine will be shooting for all the preset fire time. It will prematurely stop shooting when *READY* goes off (signaling the inability of the fog generator to continue shooting). |
| IN1N | | |
| EMPC | out<br>(relay C pin) | EMPTY indication, relay output; the relay activation signals that the fluid level is under a threshold level and the fluid bag needs to be replaced as soon as possible.<br>Use W3 to select the normal state (open or closed contact selection) |
| EMP | out<br>(relay pin) | |
| FLTC | out<br>(relay C pin) | FAULT indication, relay output; the relay activation signals that an anomalous condition has been detected. This could be due to an hardware faults (that will necessarily need a technical maintenance operation) or because of potentially self-recoverable problems like a power loss or low battery voltage.<br>Use W4 to select the normal state (open or closed contact selection) |
| FLT | out<br>(relay pin) | |
| TMPC | out<br>(relay C pin) | TAMPER indication, relay output: the relay activation signals that the tamper input is open.<br>Use W5 to select the normal state (open or closed contact selection) |
| TMP | out<br>(relay pin) | |
| FVLC | out<br>(relay C pin) | FIRE VALIDATION relay output: the relay activates to signal a shooting. Its behaviour depends on dip switch 1 position:<br>• if dip switch 1 is OFF, the output will be activated for 10s after the end of shot;<br>• if dip switch 1 is ON, the output will be activated from the start of the shot till 10 s after the end of the shot.<br>In case the shot cannot be completed the output will not be activated (if dip switch 1 is OFF) or will be deactivated as soon as the shot stops (if dip switch 1 is ON). |
| FVL | out<br>(relay pin) | |
| AUXC | out<br>(relay C pin) | (Reserved for future use) |
| AUX | out<br>(relay pin) | |
| PIR+ | Out (power) | +12V output, max 200mA (PIR power supply) |
| PIR- | - | 0 V ground terminal internally connected to mains earth. |
| PIRC | in | Open active input from PIR.<br>If jumper W1 is not inserted, the PIR input will be ignored.<br>If jumper W1 is inserted, the fog machine will shoot if all these conditions are met:<br>• machine is ready<br>• machine is armed<br>• TRIG signal is active (see dip switch 6)<br>• PIRC becomes active (i.e. opens its contact)<br>In this configuration the fogging machine, as long as the TRIG signal is active, will trigger a new shot each time a new pulse on PIRC input is detected.<br>If W1 and W2 are both inserted, there is no need for TRIG signal to be active to shoot: provided that all necessary conditions are met, an active state on either TRIG or PIRC input will trigger a shot, independently from one another. |

# 09 SHOOTING TIME SETTING

To set the shooting time, after removing the plastic front cover, in the middle of PCB is located the FIRETIME (S2) button. By holding down the button, the 3 coloured front leds will flash and the buzzer emit an acustic signal, each flash/beep is equivalent to one second of fog emission from the device.
By pressing the button again, the shooting time is not added to the one previously set, but will restart the count from zero. If the button is pressed for a time higher than the unit capabilities, the fog emission will be set to the maximum allowed for the unit. A short pressure on FIRETIME (S2) button will activate the shooting time verification mode: the buzzer will emit a series of "beep"corresponding to the currently stored shooting time (1 beep each s). In this mode no changes will be made.

**N.B. Before opening the cover ensure that the control panel is set to "service", so that the opening of "anti-sabotage or tamper" circuit does not cause any shooting.**
**N.B. Shooting time can be setted second by second, anyway it is recommended a minimum time of 4 seconds.**

### RECOMMENDED SHOOTING SECONDS ACCORDING TO THE VOLUME SPACE TO PROTECT ($m^3$)

Fogging systems Modular CPlus are able to produce fog continuously till the maximum time allowed, according to the model specifications. There might be cases in which, due to specific characteristic of the location, levels of air temperature and pressure, degree of the fog density and light in the target area, that the shooting time can be increased or decreased. For example, above 5 m of height the shooting time must be 20% more and above 7 m, every additional meter should be consideredas double.

**(HxLxP) x D x V x R x I**

HxLxP-------- Height x Width x Depth of the area to protect
D---------- Density of the produced fog
V---------- Temperature and air pressure
R---------- Acceptable residue in case of saturation of V parameter
I---------- Intensity of the surface light

The following tables indicate the suggested fog emission in relation to the number of seconds of shooting set in average condition of temperature, air pressure and humidity.

**N.B.** To correctly dimension the machines it is needed to verify that the saturation of the area occurs in faster time than the one supposed for the theft.

# 10 ERROR CHECKING

The machine is equipped with a full set of self-diagnosys checks. If a problem is detected, that requires the installer intervention, the red led DL7 will switch on. In this case it is possible to have an indication of the problem by briefly pressing RESET button: the buzzer will then emit a number of "beep" according to the following table.

| *beep* | *error type* |
|---|---|
| **1** | **heat exchanger overtemperature** |
| **2** | **temperature regulation fault** |
| **3** | **thermocouple reference fault** |
| **4** | **triac overtemperature** |
| **5** | **thermocouple error** |
| **6** | **eeprom error** |
| **7** | **missing battery** |

| *beep* | *error type* |
|---|---|
| **8** | **low battery voltage** |
| **9** | **mains power supply missing** |
| **10** | **mains power supply low** |
| **11** | **pump overcurrent** |
| **12** | **pump shortcicuit** |
| **13** | **empty fluid bag** |

## SHOOTING TABLE MODULAR 2 PLUS (max 28 sec.)

| m³ to protect | Seconds of emission | m³ to protect | Seconds of emission | m³ to protect | Seconds of emission |
|---|---|---|---|---|---|
| 25 (75*) | 7 | 100 (300*) | 14 | 200 (600*) | 28 |
| 75 (225*) | 9 | 150 (450*) | 21 | | |

## SHOOTING TABLE MODULAR 3 PLUS (max 40 sec.)

| m³ to protect | Seconds of emission | m³ to protect | Seconds of emission | m³ to protect | Seconds of emission |
|---|---|---|---|---|---|
| 50 (150*) | 7 | 150 (450*) | 21 | 300 (900*) | 40 |
| 75 (225*) | 9 | 200 (600*) | 28 | | |
| 100 (300*) | 14 | 250 (750*) | 35 | | |

## SHOOTING TABLE MODULAR 4 PLUS (max 46 sec.)

| m³ to protect | Seconds of emission | m³ to protect | Seconds of emission | m³ to protect | Seconds of emission |
|---|---|---|---|---|---|
| 50 (150*) | 6 | 150 (450*) | 21 | 300 (900*) | 40 |
| 75 (225*) | 9 | 200 (600*) | 23 | 400 (1200*) | 46 |
| 100 (300*) | 12 | 250 (750*) | 35 | | |

## SHOOTING TABLE MODULAR 5 PLUS (max 48 sec.)

| m³ to protect | Seconds of emission | m³ to protect | Seconds of emission | m³ to protect | Seconds of emission |
|---|---|---|---|---|---|
| 50 (150*) | 6 | 150 (450*) | 16 | 300 (900*) | 27 |
| 75 (225*) | 9 | 200 (600*) | 21 | 400 (1200*) | 37 |
| 100 (300*) | 12 | 250 (750*) | 24 | 500 (1500*) | 48 |

## SHOOTING TABLE MODULAR 8 PLUS (max 64 sec.)

| m³ to protect | Seconds of emission | m³ to protect | Seconds of emission | m³ to protect | Seconds of emission |
|---|---|---|---|---|---|
| 50 (150*) | 4 | 200 (600*) | 16 | 500 (1500*) | 40 |
| 75 (225*) | 6 | 250 (750*) | 20 | 600 (1800*) | 48 |
| 100 (300*) | 8 | 300 (900*) | 24 | 700 (2100*) | 56 |
| 150 (450*) | 12 | 400 (1200*) | 32 | 800 (2400*) | 64 |

*Industrial standard as from other manufacturers

The value in the first column indicates the volume of the room to be protected, with respective seconds of emission reported in the second column. The value in m³ varies depending on the density to be obtained. With the suggested value it is possible to get the maximum density recommended to ensure the absence of any residual. In places where a little residual causes no problems, it is possible to increase the shooting time. Please note that the more fog released, the more the time required to recover visibility. High levels of fog, over recommended limits, can leave residual. Any residue usually goes away by itself within 24/48 hours, otherwise, being soluble in water, it is enough to use a wet cloth for cleaning. If you desire to obtain an average of 1 meter visibility after 60 seconds, as specified by the standard EN 50131-8 : 2019, as used as reference by all manufacturers of Fog generators, the number of shooting seconds it is to be reduced in half.

**Do not obstruct the nozzle when the generator is armed and bag is in.**

# 11 CONNECTION EXAMPLES

Modular Plus family fogging systems are designed to be simply connected to any existing Alarm Panel available on the market.
In compliance to the existing rules and for security purpose the activation of the fog emission should be as a result of a "double confirmation" input.The meaning of the "ARM" signal is to be intended as a 1st confirmation.
If a TRIG command or a PIR validation input (if active) is received by the unit in "ARM" status (Blue led on), the unit will generate fog for the time previously programmed and stored in the unit via the time setting procedure.

The unit is able to handle both activation method commonly used by fogging systems.

**A) Siren emulation:**

1) **ARMING**: When the intruder alarm system is armed (local monitoring with sensors and active zones) a latched output must be sent to the unit (12v DC + to the ARMP PIN and 12v DC - to the ARMN PIN). The Blue LED on the unit lights up to signal the armed status.
2) **SHOOTING**: In the case of an alarm activation the intruder alarm system for an event signaled by an area or sensor, the alarm panel must send a impulse signal (duration >500ms) to the unit (12v DC + to the PIN TRGP and 12v DC - to the PIN TRGN). The device activates instantaneously and emits fog for the preset time.

**B) Relay activation:**

1) **ARMING**: Define on the intruder alarm panel an area dedicated to the arming of the fog device. The relay in this area (NO) will have to close when the alarm system is activated.
2) **SHOOTING**: Define on the intruder alarm panel an area dedicated to allow the emission of fog by the unit. The relay in this area (NO) will have to close when the intruder alarm system is activated in by an event detected by an area or sensor.

**Please note that if the ARMED signal is removed during the shooting, the units immediatly stops fog emission.**

## Optional shooting methods.

Other activation methods are available on the Modular Plus series, some of which are dependant on optional devices. This provides the installer with a range of common wiring options to suit all applications.

**A) Additional TRIG button**

The input IN0P/IN0N is an optional trig command device that can be added to command the fog emission.It acts exactly as TRGP/TRGN input and follows the same rules.

**B) Panic/HUA Antirobbery TRIG button**

The input IN1P/IN1N is an optional trig command that enables the device to create fog EVEN WITHOUT BEING ARMED. This option must only be set up if the end user is trained around its operational capabilities and on how and when to use this option.To prevent accidental activation it this recommended that a dual push HUA button is installed.This function must be activated by the installer only , that take the responsability to train users. To activate Panic HUA functions, move SW5 to the ON position, and then reboot the unit.

**C) Cloud Monitoring/Activation by remote**

The Modular Plus Series can be equipped with the URF0g ActiveCloud LAN board , that allows Ethernet (RJ45 or WiFi) connectivity to full monitor , diagnostic and be interactive with the unit by remote.Please refer to you local URFog dealer for more details

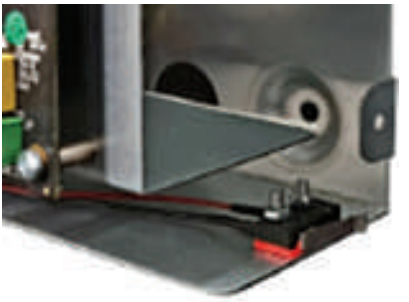
**D) PIR INPUT**

A local PIR sensor can be installed near the device and directly connect to the Modular Plus board to activate the trig only if presence is detected in the shooting area.This function is activated by closing the W1 (PIR INPUT ACTIVE) and works in AND with the normal TRIG input received from the alarm panel.By closing ALSO W2 Jumper the PIR INPUT confirmation will let the PIR work as standalone activation device.Turn off and back on the unit after Jumper setting.

Insert the fluid container into the compartment as shown in the picture

Metal plug

Connect the female metal plug connector to the fluid in let hose male connector until you hear the “click” of the metal plug (pictures above), then close the unit’s plastic cover.
Press and hold the RESET button until a “beep” is emitted from the buzzer.



**Connect the female metal plug connector to the fluid in let hose male connector until you hear the “click” of the metal plug (pictures above), then close the unit’s plastic cover.**
**Press and hold the RESET button until a “beep” is emitted from the buzzer.**

# 13 FRONT LED INDICATORS

**EMPTY BAG**

**RED LED** (right)
**ON**: Error (Empty bag or low fluid , Mains power off/Battery low) or Fault
**OFF**: No error

**ARMED AND READY**

**BLU LED** (center)
**ON**: Unit is armed and ready to shoot (with green led ON).
**OFF**: Unit is disarmed, shot not possible.

**WARMING**

**GREEN LED** (left)
**ON**: Unit has reached the correct temperature, full time shooting possible
**OFF**: Unit in warming condition, a shot can be triggered or not, depending on the partial charge of the heat exchanger

The central RED low power light means unit is powered on.
The RED FAULT led is on the top of the board.

# 14 MAINTENANCE

UR FOG fogging systems don't need special maintance, nevertheless is suggested a periodical check to the following parts by skilled operators:

**1)** Verify battery and power supply status.

**2)** Verify screws are firmly closed.

**3)** Verify the output nozzle is not damaged and without anyting inside.

**4)** Verify pneumatic circuit.

**5)** Verify once a year liquid pump.

### BATTERY AND PSU VOLTAGES

Verify that the output of the power supply without any load (battery unplugged ) is 14,1 V on the PSU and 13,8 V on FASTON battery connectors.If a different value is noticed , set the trimmer on power supply.
Verify battery status (integrity check, no overheating); is suggested to replace the battery on 2 years base due to the heavy load during shots without mains power.

### SCREWS

Verify that all fixing screws are correctly setted and eventually rescrew them.

### OUTPUT NOZZLE

Verify that ouput nozzle is not damaged and that there is nothing inside blocking the fog ejection flow.

### YEARLY PUMP FUNCTIONALITY TEST

The test is done executing a trial shot on the unit.
To avoid creating too much fog during the test is suggested to stop the flow after a few seconds dearming the unit under test.
The fog flow will immediatly stop.

# 15 FAULT-DEFECTS POSSIBLE SOLUTION

| DEFECT FOUND | POSSIBLE CAUSE | POSSIBLE SOLUTION |
|---|---|---|
| Small fog flow coming out from nozzle | All products are 100% tested before shipping and a small ammount of liquid could be still in the warming unit | This condition is normal and can happen on first installation, it will completely disappear in a while when the unit will become completely hot. |
| RED Led ON (Error) | Too low battery level or exaust | Replace Battery |
| | Bag in Reserve or Empty | Replace fluid Bag |
| | No Mains power | Check mains power or F4 fuse |
| RED Led ON (Fault) | Disturbance / interference or potential differences between devices | In the evenience of high noise on mains power (lightings) an error while reading thermocouple values can occur. Execute a complete Power Down (mains and battery) to recover unit. If even recovery fails the unit may be faulty |
| | | In very large installations or with more than one fog units connected to the same alarm panel, a mains power difference can occur, in that evenience the units have to be decoupled |
| | Error in the thermal loop | Error on thermocouple, resistor. Please refer to technical service |
| | Heater Temperature too high or thermocouple error | Switch off the unit and verify the screw on TC2 connector |
| | Poor ventilation | Switch off the unit and clean air holes |

| DEFECT FOUND | POSSIBLE CAUSE | POSSIBLE SOLUTION |
|---|---|---|
| Unit ARMED (BLUE LED ON) but don't execute trig command | Red front led ON | Bag changed, reset needed<br>Follow instructions Paragraph 13 |
| | | Empty bag - replace it following instructions on Paragraph 13 |
| | Green front led is OFF | Unit still warming, wait max 120min. with the unit connected to the mains power for 1st time activation |
| | Wires error | Verifify to have 12V beetween TRGP and TRGN when alarm is ON. |
| | Mains power overload | Try a complete power down (mains and battery) to recover unit.<br>With no results board needs to be replaced |
| | Electronic Board overheath | Clean side air flow holes |
| Unit cannot be ARMED BLU LED OFF | Wires error | Verifify to have 12V beetween ARMP and ARMN when alarm panel is active. |

# 16 WARRANTY

The warranty of UR Fog is two years and is handled directly from the dealer or authorized installer, so please contact your supplier to take advantage of warranty with the copy of the purchase document that contains the serial number of the machine. Not included in the warranty: moving parts and/or damages depending on the incorrect use unless it is found a manufacturing defect in origin. Liquid and bags are not covered by warranty.

BY BREAKING THE SECURITY LABELS AND THE OPENING OF THE MACHINE
YOU WILL ACCEPT WHAT IS WRITTEN ON THIS MANUAL AND
ON THE WEB SITE: **www.urfog.com**

**UR Fog srl**: Via Toscana n. 38 - 10099 San Mauro Torinese - Italy
Phone +39 011/01.33.037 - Fax 011/01.33.005
**support@urfog.com**

***Legal office***: Via Giacinto Collegno 11 - 10143 - Torino - Italy

RESELLER/INSTALLER STAMP
(company to contact for the warranty)

Serial number _____

Date of installation _____

Signature of installer _____

**At the end of the installation, write down the identification number of the machines, the date of the installation and sign in the dedicated spaces.**

| DATE | BATTERY EXCHANGE | | BAG EXCHANGE | | SIGNATURE |
|---|---|---|---|---|---|
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |
| | YES | NO | n. | NO | |

**It is mandatory to fill out this table in accordance with the security rules**

**N.B. Ask for the PDF module writing to: support@urfog.com**

TO USE UR FOG FOGGING SYSTEMS WITH PURIFOG/PURIFOG HYPO FLUIDS FOLLOW THE DATASHEETS INSTRUCTIONS AVAILABLE FOR DOWNLOAD ON WWW.PURIFOG.COM

UR FOG
SECURITY FOGGING SYSTEMS

**UR Fog S.r.l.** Via Toscana 38 - 10099 San Mauro Torinese - Italy