

# **UR FOG FAST PRO PLUS Fogging Security Systems User Manual**

Home » UR FOG » UR FOG FAST PRO PLUS Fogging Security Systems User Manual



#### **Contents**

- 1 UR FOG FAST PRO PLUS Fogging Security Systems
- **2 Product Information**
- 3 Product Usage Instructions
- **4 PACKAGE CONTENT**
- **5 INTRODUCTION OF THE PRODUCT**
- **6 CONDITIONS OF USE AND WARNINGS**
- 7 INSTALLATION TIPS FOR FOGGING SYSTEMS
- **8 TECHNICAL SPECIFICATIONS**
- 9 HOW TO ACTIVATE THE SYSTEM
- 10 MAINS POWER SUPPLY
- 11 POWER SUPPLY CONNECTIONS
- 12 DESCRIPTION OF INPUT AND OUTPUT
- **CONNECTIONS**
- 13 CONNECTION EXAMPLES
- 14 MEANING OF FRONT LEDS
- 15 SHOOTING TIME SETTING AND FOG FLOW
- **DIRECTION**
- **16 NOZZLE TAMPER**
- 17 INSTALLATION, EXCHANGE AND CYLINDER RESET
- **18 MAINTENANCE**
- 19 RESET FROM FAULT CONDITION
- **20 DEFECTS POSSIBLE SOLUTION**
- 21 WARRANTY
- **22 MAINTENANCE**
- 23 Documents / Resources
  - 23.1 References
- 24 Related Posts



## **UR FOG FAST PRO PLUS Fogging Security Systems**



## **Product Information**

## **Specifications**

• Weight without tanks: 22 Kg

• Max fog emission in a single shot: 1200 m3

• Total fog emission capacity: 1400 m3

• Fog tank capacity: 2 x 600 ml

• Working time without mains power: about 2.5 hours

• Max power on the heating system: 2 x 300 W

- Average power consumption during heating time:  $540\;\mbox{W}$ 

Max heating time: about 2.5 hours
Max consumption at 12 V: 60 W

• Power consumption at 12 V: 500 mA while shooting, 60 mA in standby

• Battery type (not included): Pb 2 Ah 12V

• Door tamper: Tamper screw

· Anti-tear off and anti-shift: Accelerometer

## **Product Usage Instructions**

## **Installation Tips for Fogging Systems**

- 1. The machine must be installed avoiding to obstructing escape routes.
- 2. Verify the fog does not limit the visibility near stairs, landings, and moving objects that may cause hazards.
- 3. Ensure the system is activated before maintenance to prevent accidental activation during tests.

4. Avoid directing the fog jet towards objects or walls less than 2 meters away.

#### **Operating Instructions**

To operate the FAST 01 2C PRO PLUS fog generator:

- 1. Ensure the device is securely connected to power.
- 2. Insert the fog cylinders into the designated slots.
- 3. Follow the reset procedure only when replacing empty cylinders to maintain accurate shot counting.
- 4. Ensure proper integration with any existing alarm systems for synchronized functionality.

#### **FAQ**

## What should I do if the device shows an empty signal?

The empty signal indicates not only an empty bag but also that the system has shot for at least 35 seconds. It is crucial to reset the system only when replacing the bag to avoid losing shot counting accuracy.

Installation and use manual model FAST 01 2C PRO PLUS 120 V/230 V rev. 04/04/2024 page 1 of 23

#### **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.

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

#### PACKAGE CONTENT

## Inside the package you will find:

- 1. The machine FAST 01 2C PRO PLUS.
- 2. Two fog cylinders of 600 ml each.
- 3. A label to indicate the device's presence.
- 4. Installation and use manual.

#### INTRODUCTION OF THE PRODUCT

## Thank you for purchasing the UR Fog product.

The great patented technological innovations such as the liquid injection system, the disposable cylinders, the fact that they don't need to be refilled, the ecological and economic system for the complete emptying of the cylinders, together with the heating system, all of them make the FAST 01 2C PRO PLUS fog generators the best fog devices with the best performance in the security market.

#### · Reliable:

- There are no high-pressure pumps that lose fluid or tend to stop working.
- There are no high-pressure pumps that must be tested periodically.
- Double cylinder technology is guaranteed to work in any condition.

## Competitive:

- Complete use of cylinders liquid avoiding any waste of liquid thanks to pressure control.
- · Low power consumption. Fast and powerful.
- Simple: The machine is easy to install and able to be integrated into any existing alarm system.

#### **CONDITIONS OF USE AND WARNINGS**

- The 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 by an authorized international certification company
  and is proven that it does not leave any residual.
- UR Fog systems are certified respecting European laws and regulations. Any certifications required in specific countries are the responsibility of the distributor of that specific country.
- The documents related to certifications can be requested by mail to <a href="mailto:support@urfog.com">support@urfog.com</a>.
- It is not guaranteed by the manufacturer the use of the UR Fog system in the presence of objects that may be
  damaged anyway by contact with substances based on glycol, water, and alcohol. Any employee or worker
  who may be exposed to fog must be warned 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 before the installation of its products.
- For fog fluid please refer to the UR Fog fluid safety data sheet published on the website and carefully read it at <a href="https://www.urfog.com">www.urfog.com</a>.
- 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 cylinders 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 disposal of empty cylinders.
- Keep UR Fog cylinders 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 thieves 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 to 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.

## **INSTALLATION TIPS FOR FOGGING SYSTEMS**

## Please observe the following instructions for installing UR Fog:

- 1. The machine must be installed avoiding to obstructing escape routes.
- 2. Verify the fog does not limit the visibility near stairs, landings, or moving objects that may cause: falls, injuries, or any damage to persons.
- 3. Do not look directly into the nozzle. Do not add any other substance to the cylinders.
- 4. The nozzle may reach high temperatures, touch it may cause burns.

- 5. When UR Fog produces fog avoid staying closer than 1 meter from the machine.
- 6. When UR Fog is armed avoid staying closer than 50 cm from the nozzle.
- 7. Before testing UR Fog, remember to report it in advance to the firefighters in your area to avoid false alarms.
- 8. Remember to put warning labels about the presence of UR Fog on the windows.
- 9. Report its installation to the firefighters in your area and eventually to other institutions if needed.
- 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 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 timetable, avoid "overshooting" even if the produced fog is dry and generally doesn't leave a residue.
  - A shot that goes far beyond the recommended seconds can create residue problems in the room
- 13. UR Fog continues to be effective for up to 2 hours without 230 V or 120 V main power thanks to the insulation system which maintains the temperature in the heating system.
- 14. Install at a height of about 2,5 meters so as not to let it be reached, avoiding possible tampering.
- 15. Install with a maximum inclination of 20°.
- 16. Do not move the machine when it is still hot.
- 17. 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
  - UR Fog has been shut off. The internal part may reach high a temperature.
- 18. Do not activate the UR Fog machine before the installation is completed.
- 19. Insert the cylinders as the last procedure and verify the anti-tampering function.
- 20. When the installation is finished, always test the system.
- 21. From the moment of UR Fog activation, at least one hour is necessary to reach the minimum temperature needed for fog shooting.
- 22. Install UR Fog avoiding any obstacles in front of it which can prevent the spreading of the fog.
- 23. The external temperature of UR Fog can change from room temperature to 50 °C.
- 24. The tip of a stranded conductor should not be soft-soldered where the conductor is subjected to contact pressure.
- 25. The UR Fog machine should not be exposed to water spray or dripping.
- 26. Request UR Fog or its distributors to take part in courses for installers to ensure the optimal installation of the equipment.

## **TECHNICAL SPECIFICATIONS**

* Industrial standard as from other manufacturers	FAST 01 2C PRO PLUS
Weight without tanks	22 Kg
Max fog emission in a single shot	1200 m3
Total fog emission capacity	1400 m3
Fog tanks capacity	2 x 600 ml
Working time without mains power	about 2,5 hours
Max power on the heating system	2 x 300 W
Average power consumption during heating time	540 W
Max heating time	about 2,5 hours
Max consumption at 12 V	60 W
Power consumption at 12 V	500 mA while shooting, 60 mA in stand by
Battery type (not included)	Pb 2 Ah 12V
Door tamper	Tamper screw
Anti-tear off and anti-shift	Accelerometer

- The "empty" signal doesn't mean only that the bag is empty but also warns you that the system has shot at least 35 seconds.
- For this reason is very important to make the "reset" only when you exchange the bag or you will lose the seconds counting. (See paragraph 13)

#### **WARNING:**

- The loosened ferrule can cause a dropping
- Do not disconnect the machine immediately after the shot
- · Change the battery every two years
- Change the cylinder as soon as the "empty" signal appears

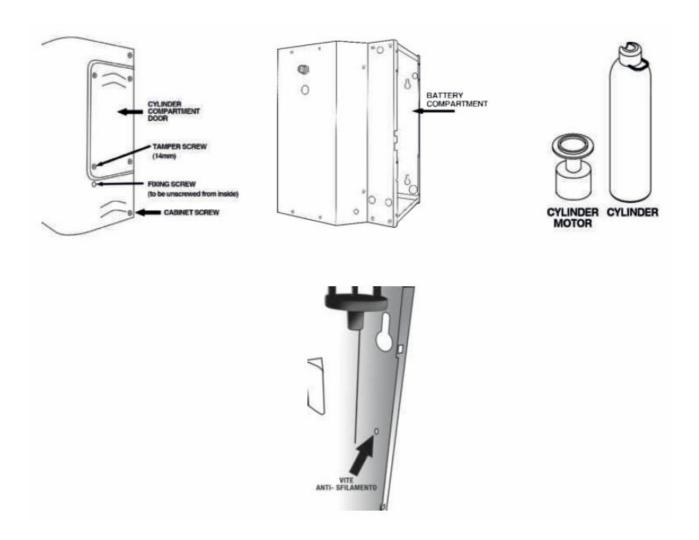
#### HOW TO ACTIVATE THE SYSTEM

- It is always recommended to fix the fog generator to a wall even when it is placed on a flat surface. The optional bracket is always recommended to simplify the installation, allowing to use of back holes for the passage of cables.
- Remember to use the fixing screw placed in the cylinder compartment.
- Always verify that the bracket or the support surface is suitable for the weight of the machine.
- It is suggested not to install the machine behind walls in a limited closed area without specific ventilation, in order to possible overheating.
- **CAUTION:** To avoid injuries please securely fix the fogging machine to the wall according to the installation instructions. In case of installation behind a wall, it is possible to request a nozzle extension, of 7 cm.
- After removing the machine from the package, unscrew the two screws that stop the right side panel and

remove it. Remove tamper screws and shell screws from inside.

At this point, it is possible to remove the frontal shell and see the electronic circuit, from here on called PCB.
 The screw in the lower left part of the cylinders' compartment door is longer than the others and its removal activates the tamper output.

It is recommended to install the fogging system Fast 01 2C PRO PLUS vertically. If it is needed to install Fast 01 2C PRO PLUS horizontally, it is necessary to order a special machine prepared for such installation and strictly follow the installation instructions. After the screw has been positioned correctly, the machine emits 4 beeps and deactivates the tamper output.



## **MAINS POWER SUPPLY**

The heating element is rated at 600 W, at the very beginning power consumption is about 500 W and in some minutes it goes down reaching average consumption of about 110 W.

Do not use an inverter or UPS if you are not sure that they generate a true sine wave, not a rebuilt one. Ask please the UPS manufacturer for the correspondence of such features before proceeding with the connection.

- The max current to be considered for the system is 6 A for the 120 V or 3 A for the 230 V
- The connection to the 230 V electricity grid 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.

INSTALLATION, IT IS SUBJECT TO COMPLIANCE WITH THE RULES OF THE COUNTRY IN WHICH IT IS INSTALLED

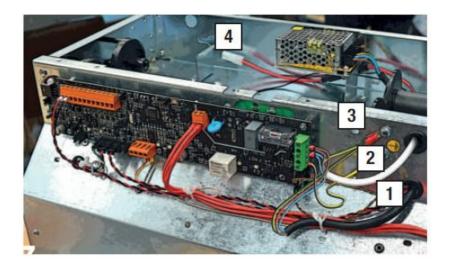
For section and types of wires, fuses, suitability of materials to installation sites, etc.

## IF YOU NEED TO REPLACE THE FUSE, USE ONLY FUSE WITH THE FOLLOWING SPECIFICATIONS:

- FOR 230 V MAINS VOLTAGE: CERAMIC BODY FILLED WITH QUARTZ, REF. STD. EN60127-2-3/DIN41660, 6.3 A, H 1500 A (EXAMPLE OMEGA GT520231)
- FOR 120 V MAINS VOLTAGE: CERAMIC BODY FILLED WITH QUARTZ, REF. STD. EN60127-2-3/DIN41660, 10 A, H 1500 A

## **POWER SUPPLY CONNECTIONS**

- Remove first the internal nut and its screw and then the external 4 screws to take out the cover.
- Connect the incoming mains wires (usually brown, blue, green/yellow) with the same colored wires of mains input of the 12V power supply, and THEN connect the two pairs to the board on the J2 connector. (PIN 2 in the middle, blue wires, PIN 3 on the right, brown wires). In the PIN1 on the left, the board's ground cable green and yellow is already installed and should not be removed.
- Connect the ground cable coming from the mains to the pin fixed on metal near the ground label together with the ground cable from the power supply.
- The unit is now ready to be connected to the mains power (230 V 50hz or 120 V 60hz), is now warming up, and will be in this condition until the two green LEDs on the bottom stop blinking. Depending on the model it will take around 3 hours to reach the shooting temperature.
- 1. Power supply mains connections
- 2. Mains power
- 3. Ground connection (ground cable removal could void the manufacturer's warranty)
- 4. Battery holder (battery not included)



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



## **DESCRIPTION OF INPUT AND OUTPUT CONNECTIONS**

## **INPUTS**

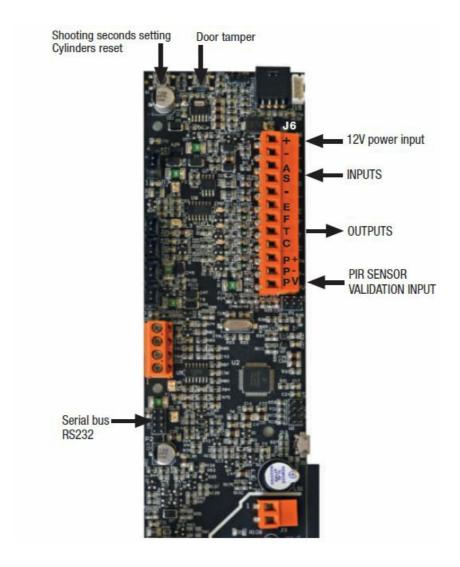
- + +12V power input
- - GND power input
- ARM Arming input
- SHOOT Shooting input
- - GND

## **OUTPUTS**

- EMPTY Empty cylinder output
- FAULT Fault output
- TAMPER Tamper output
- CONFIRM Shot confirmation output

## PIR SENSOR VALIDATION INPUT

- P+ +12V for PIR power supply
- P- GND for PIR power supply/COM. PIR
- PV N.C. PIR



#### **INPUTS**

## + 12V Power input

The power supply is connected to those inputs.

## **INPUT SIGNALS**

- By connecting this input to positive, FAST 01 2C PRO PLUS is armed, the blue frontal LED is switched on and when the machine reaches the proper temperature it means that it is ready for shooting.
- S Putting this input to positive, if FAST 01 2C PRO PLUS is hot and armed, starts fog emission for the set time (see paragraph 11). In case of alarm, opening ARM input, the fog emission stops immediately, even if the time set wasn't reached.

#### **VALIDATION INPUT**

- To validate this input, it's necessary to insert the jumper W4 with the unit switched OFF.
- This input automatically generates an AND function with input S.
- If any input receives the shooting command, the generator doesn't emit fog if within 1 minute doesn't receive the command also from the second input.
- P+ Output positive to give power to a validation sensor or a remote control receiver, max 300 mA.
- P- Output negative to give power to a validation sensor or a remote control receiver, max 300 mA.
- PV Validation input. It's possible to connect to this input a validation sensor with a contact normally closed

connected to the terminal P-.

The PV input can be connected to external devices such as PIR or door sensors and behaves as an additional firing validation input. When the PV function is active, by closing the W4 jumper, the emission of fog will be possible ONLY if the SHOOT and PV commands have both been received, in any order, in a time interval not exceeding 60 seconds. After the shooting in these conditions, both inputs will be inhibited for 2 minutes to avoid false activations.

#### **OUTPUTS**

- E This output (NPN Open Collector) closes towards the negative direction when the bag is empty. This output (NPN open collector) closes towards negative when the fogging machine emits fog for at least 100" or when the bag is empty.
- The signal is activated by a sensor that detects the absence of liquid just while shooting.
- The empty bag signal is deactivated only making the RESET (see paragraph 14). For this reason, if the bag is not inserted, or there is an empty bag inside, FAST 01 2C PRO PLUS will detect it just after a shot.
- F This output (NPN Open Collector) closes towards negative when there is a malfunction (such as batteries expired, fault power supply, or temperature control fault), which compromises the functioning of the device and requires technical action. The fault signal due to supply absence has a delay of 20 minutes.
- T This output (NPN Open Collector) closes towards a negative direction when you open the bag door or when the accelerometer detects a sudden movement (such as the detachment from the wall).
- C This output (NPN open collector) closes towards negative only after that the system has emitted fog for the set time.
- If the emission of fog is interrupted (if there is an interruption of ARM command, if the glycol finishes, if there is no thermal autonomy anymore) this output will not change its status.

Remember, it is necessary to connect all three outputs to an alarm central or an electronic panel that can see all that information in real-time and take proper action. To avoid accidental activation with subsequent fog emission, the inputs are in "negative security", for this reason, the disconnection of a wire does not cause activation. So it is necessary to check carefully the reliability of connections and protect the cables to the control panel to avoid the risk of accidental damages.

- UMPER W4: if closed, it activates external PIR.
- JUMPER W3: reserved for diagnostic, DO NOT USE!
- **JUMPER W2:** if closed, it activates the antirobbery function (instant shot through the antirobbery button).
- **JUMPER W1:** if closed, it activates the serial port to use additional boards, like a LAN board (not a relay board).

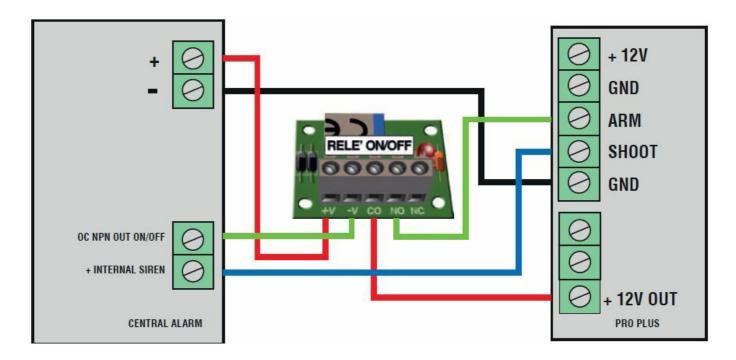
#### **CONNECTION EXAMPLES**

The diagrams and examples below are intended to better understand the operation of the inputs/outputs. None of the diagrams below represents the "single scheme to perform" as, with respect to the reference standard EN50131-8, there are precise indications and only using all inputs and outputs on the PCB it is possible to be compliant with the standard. For safety reasons and to avoid false fog emissions, after arming, FAST 01 2C PRO PLUS becomes operative only after 20 ". After this time, fog emission is immediate.

- A. Example of connection of FAST 01 2C PRO PLUS inputs with outputs of a standard alarm system
- B. Example of connection of FAST 01 2C PRO PLUS inputs to an alarm with relay outputs

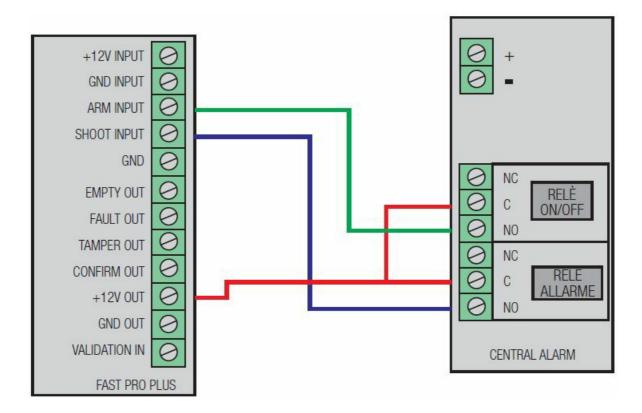
- C. Example of connection of FAST 01 2C PRO PLUS inputs with outputs of an alarm with open collector outputs
- D. Example of connection of FAST 01 2C PRO PLUS outputs to drive LEDS and/or relays
- E. Example of connection of FAST 01 2C PRO PLUS outputs with inputs of an alarm normally opened
- F. Example of connection of FAST 01 2C PRO PLUS outputs with balanced inputs of an antitheft
- G. Example of connection of FAST 01 2C PRO PLUS outputs with antirobbery connection
- H. Example of connection of FAST 01 2C PRO PLUS outputs with relay board

## A - Example of connection of FAST 01 2C PRO PLUS inputs with outputs of a standard alarm system



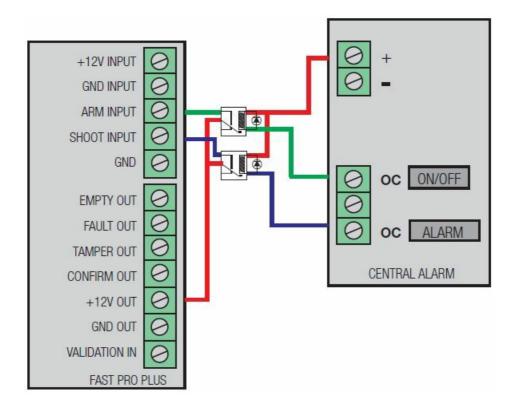
- In the diagram above the control panel, as an example, provides to UR Fog power supply between 11 and 14V DC 250 mA max. The ON/OFF output of this alarm is an Open Collector NPN opened when the system is off and it is stably closed to negative as long as the system is turned on.
- The alarm output of the alarm is normally open and becomes positive during the alarm time.

## B – Example of connection of FAST 01 2C PRO PLUS inputs to an alarm with relay outputs



The ON/OFF output of this alarm central is an open relay when the system is off and it is stably closed to positive as long as the system is turned on.

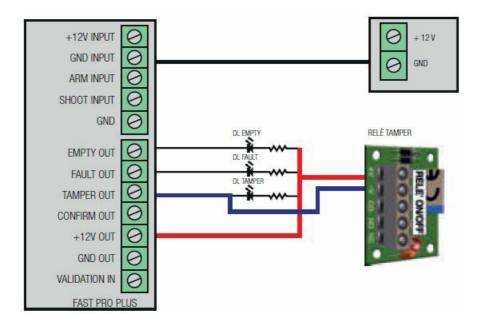
# C – Example of connection of FAST 01 2C PRO PLUS inputs with outputs of an alarm with open collector outputs



- Compared to the B diagram, this alarm central has only open collector outputs.
- The simplest action to take is to use 2 relays to create a connection similar to the one shown in the previous diagram.

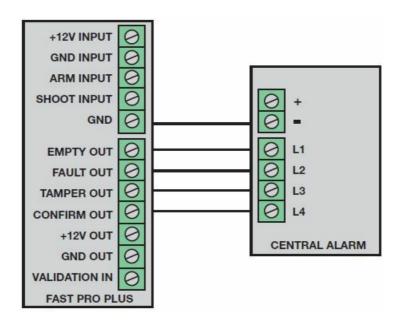
## D - Example of connection of FAST 01 2C PRO PLUS outputs to drive LEDS and/or relays

- In case of an empty cylinder, the DL EMPTY LED will switch on.
- In case of a fault, the DL FAULT LED will switch on.
- By opening the cylinder door, besides the DL TAMPER turning on, the relay will switch as well.
- Max power applicable on the outputs is 100mA



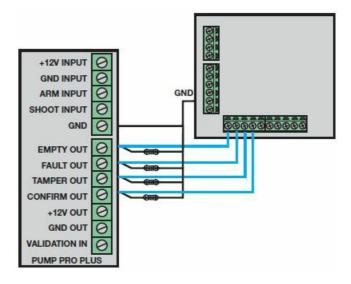
## E - Example of connection of FAST 01 2C PRO PLUS outputs with inputs of an alarm normally opened

- The outputs shown in the diagram are not always necessary, but only in cases where the voltage of pull-up resistance is lower than the power supply one.
- The UR Fog outputs are normally opened and connected with the input zones of the alarm control panel normally opened.



## F - Example of connection of FAST 01 2C PRO PLUS outputs with balanced inputs of an antitheft

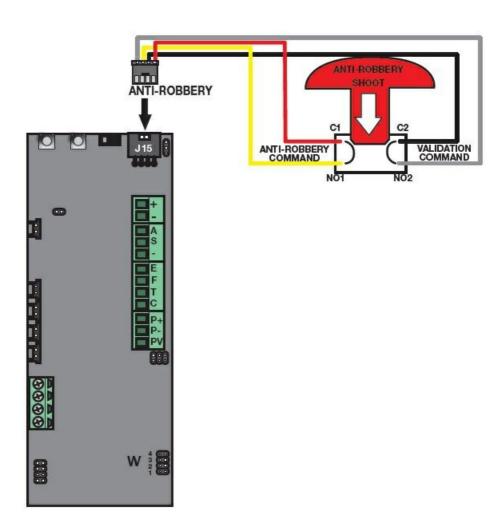
In this diagram, by putting a resistance with a value required by the alarm control panel used, in UR Fog terminal with not used outputs the central will see the correct resistance. After the activation of an output, a pull-down will occur causing the alarm in the corresponding zone.



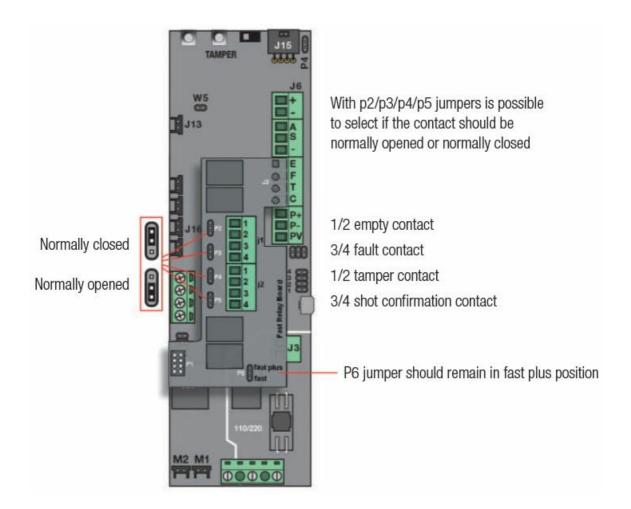
## G – Example of connection of FAST 01 2C PRO PLUS outputs with antirobbery connection

Using the special connector and enabling the option antirobbery closing the Jumper W2, you will obtain the immediate emission of the fog for the seconds that you set (paragraph 13) even if the fogging system is not armed.

• N.B. Is recommended to use this function after a careful evaluation of the risks from a security consultant.



H – Example of connection of FAST 01 2C PRO PLUS outputs with a relay board



#### **MEANING OF FRONT LEDS**



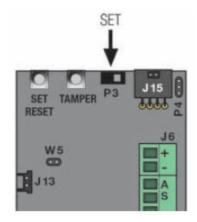
IF THE BLUE LED IS FLASHING, TOGETHER WITH A CONTINUOUS SOUND OF THE BUZZER, A
PROBLEM IS DETECTED. SEE PARAGRAPH 16 (RESET FROM FAULT CONDITIONS)

## SHOOTING TIME SETTING AND FOG FLOW DIRECTION

To set the shooting time, after opening the cylinder compartment door, at the top of the PCB, facing the board you must move the jumper P3 to the left position (closer to the buttons S1/S2). Holding down the button S1 "SET", 6

LEDs on the front will flash and each flash is equivalent to one second. If you press the button again, the shooting time is not added to the one previously set but will restart from zero.

**N.B.** Before opening the side door ensure that the control panel is set to "service" so that the opening of the "antisabotage or tamper" circuit does not cause any shooting.



## RECOMMENDED SHOOTING SECONDS ACCORDING TO THE VOLUME SPACE TO PROTECT (m3)

Systems FAST 01 2C PRO PLUS can produce fog for a maximum respectively 70 seconds per single shot. The maximum quantity of 10,7 ml/s allows it to fill an area of about 1200 m3. There might be cases in which, due to specific characteristics of the location, nozzle type, levels of temperature and air pressure, degree of the fog density, and light in the target area, the shooting time can be increased. For example, above 5 m of height, the shooting time must be integrated and above 7 m, every additional meter should be considered as double.

## $(HxLxP) \times D \times V \times R \times I$

- 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 about the number of seconds of shooting set in average conditions 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 a faster time than the one supposed for the theft.

## **SHOOTING TABLE FAST 02 1C PRO PLUS**

m³ to protect 1 3-16 (48*)	Seconds of em ission 1	m³ to protect 3 21-386 (1158*)	Seconds of em ission 25	m³ to protect 6 29-756 (2268*)	Seconds of emi ssion 49
26-32 (96*)	2	337-401 (1203*)	26	643-771 (2313*)	50
39-47 (141*)	3	347-416 (1248*)	27	656-786 (2358*)	51
52-62 (186*)	4	360-432 (1296*)	28	668-802 (2406*)	52
64-77 (231*)	5	372-448 (1344*)	29	681-817 (2451*)	53
77-93 (279*)	6	386-463 (1389*)	30	694-832 (2496*)	54
90-108 (324*)	7	399-478 (1434*)	31	707-848 (2544*)	55
103-124 (372*)	8	412-493 (1479*)	32	720-864 (2592*)	56
116-139 (417*)	9	424-508 (1524*)	33	732-879 (2637*)	57
129-155 (465*)	10	437-524 (1572*)	34	745-902 (2706*)	58
142-170 (510*)	11	450-540 (1620*)	35	758-909 (2727*)	59
155-185 (555*)	12	463-555 (1665*)	36	771-925 (2775*)	60
168-200 (600*)	13	476-571 (1713*)	37	784-940 (2820*)	61
180-216 (648*)	14	488-586 (1758*)	38	796-956 (2868*)	62
193-232 (696*)	15	501-601 (1803*)	39	809-971 (2913*)	63
206-247 (741*)	16	514-616 (1848*)	40	822-987 (2961*)	64
219-262 (786*)	17	527-632 (1896*)	41	835-1002 (3006*	65
232-278 (834*)	18	540-648 (1944*)	42	848-1017 (3051*	66
244-293 (879*)	19	552-663 (1989*)	43	860-1032 (3096* )	67
257-308 (924*)	20	578-694 (2082*)	44	873-1048 (3144* )	68
270-324 (972*)	21	565-700 (2100*)	45	886-1064 (3192* )	69
283-340 (1020*)	22	591-709 (2127*)	46	900-1080 (3240*	70
296-362 (1086*)	23	604-724 (2172*)	47	1080-1210 (363 0*)	85
308-370 (1110*)	24	616-740 (2220*)	48	1200-1348 (404 4*)	95

• 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. Within the second column, the first value allows you to get the maximum density recommended to ensure the absence of any residual, while with the second value, you get minimum recommended visibility according to the standard CENELEC, whereas a higher visibility would make the fog superfluous. In places where a little residual causes no problems, it is possible to increase the shooting time. Please note that the higher the fog released, the more time is 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, as used as a reference by all manufacturers of Fog generators, the number of shooting seconds must be reduced by half.

#### FOG FLOW DIRECTION

To ensure the right direction of the fog flow, it is recommended to insert a screwdriver of the diameter of the hole and, without forcing, orient the nozzle in the correct fog emission direction. This allows you to see the direction and keep it in place while tightening. To screw and unscrew the nozzle you should use a pair of pliers in good condition to avoid damaging the plating. Do not overscrew the nozzle, it is sufficient that the Teflon nozzle does not move. Do not direct the fog jet towards objects and walls less than 2 meters away or to the floor if it is installed at a height lower than 2.50 meters.



#### **WARNING!**

After the fog emission, and for a few minutes the nozzle is very hot RISK O F BURNS IF TOUCHED by bare hands.

## **NOZZLE TAMPER**

- The check of the nozzle obstruction is done with a little airflow, while a sensor checks the pressure of the
  internal circuit. In case the sensor detects an increase of the internal pressure, means that there is an
  obstruction inside the nozzle.
- As a consequence of the detection, the tamper output will be activated, the buzzer will emit a sound with a fast frequency with the flash of the red LEDs.
- This condition of the alarm will continue until the system is disarmed and armed again.

As the little compressor that introduces the airflow emits some vibrations, its activation occurs only in the following cases:

- When you press the RESET button for more than 5 seconds, besides the activations of the motors, will start a cycle of monitoring of 15 minutes, to simulate the obstruction and check the correct working.
- When the system is armed the cycle of monitoring starts. This cycle is the most important, because as the
  system was disarmed probably was easier to go near the machine and obstruct the nozzle. After 15 minutes,
  the compressor will stop automatically. If the system is disarmed and armed again, the cycle will start again for
  15 minutes.
- After the emission of the fog, as normally the zone where the machine is installed is the last where the visibility is reduced, the generator remains vulnerable, giving the possibilitintruderstruder to attempt sabotage. For this

reason, after the emission of the fog, the compressor will be activated for 15 minutes.

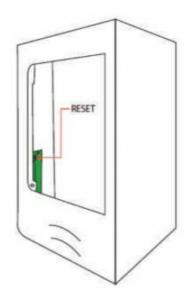
#### **WARNING**

Do not obstruct the nozzle when the generator is armed and the cylinders are in.

## INSTALLATION, EXCHANGE AND CYLINDER RESET

The cylinders for FAST 01 2C PRO PLUS are guaranteed to work until the expiry date that is printed on the top.

- After that date, cylinders should be changed even if they have not been used.
- It is recommended to return them to your dealer, who will take care of disposal.
- After removing the screws of the door, is sufficient to remove the cylinder and reset the LED of the empty cylinder. After that, insert a new cylinder until you hear the "click" of the plastic support entering its housing, then close the door.
- If the cylinder seems to be "stuck" in the upper part DO NOT pull with force, make a pressure with two fingers on top of the cylinder, to lower it. Then, try to remove it again. If the cylinder does not enter, check if the cylinder plate of the motor remains lifted. In case of an empty cylinder to be replaced, it is recommended to replace it with the second cylinder still fully present in the machine, and a new cylinder will replace this last one.
- Th is to ensure a proper rotation of the cylinders and to avoid that a cylinder can remain unused for a long time within the device.



#### N.B.

When you close the door, the buzzer will make a sound to confirm the tamper is closed. Attention: before opening the side door, make sure that the alarm control panel is in "service" mode so that the opening of the "anti-sabotage or tamper" circuit does not cause any alarm.

## **MAINTENANCE**

UR Fog generators do not require special care, however, it is recommended the support of qualified and authorized personnel for periodic annual monitoring, taking into account the following:

- 1. Verify the good working condition of the power supply and battery
- 2. It is advisable to replace the cylinders after 2 years from the installation

- 3. Verify the lock of the nozzle ferrule
- 4. Verify the entirety of the nozzle sphere
- 5. Check the air tightness of the circuit and the switch functioning
- 6. Intervention report redaction and release of conformity declaration according to 37/08 order in case of provision

## Check the efficiency of the power supply and the battery

Verify that the tension of the no-load voltage power supply (disconnected battery) is 13,8 V. If the tension is different, regulate it using the trimmer placed on the power supply. Verify the efficiency of the battery (it should not be hot and bloated); it is suggested to change it every two years due to the heavy and prolonged charge during the shot without mains power.

#### Entirety of the nozzle sphere

Verificare che il foro sia rimasto cilindrico. La durata media della sfera dell'ugello dipende dal numero e dalla durata degli spari, indicativamente intorno agli 8 litri di glicole. Sostituire esclusivamente con sfere originali da 7 mm.

Checking of the pneumatic circuit and the pressure control system THE TEST CAN BE DONE JUST BY QUALIFIED PERSONNEL

#### **WARNING**

Before starting the test of the pressure control it's necessary:

- · to remove the cylinders
- · to be sure that the nozzle is cold
- to be sure that the nozzle tamper is activated

The pneumatic seal test must be done within a few seconds when the machine for nozzle tamper control is turned on, as the nozzle temperature rises rapidly reaching temperatures that may cause serious burns.

The air coming out of the nozzle exceeds 200° C.

#### IT'S ADVISABLE TO USE GLOVES

- 1. Obstruct the nozzle with soft and insulating material (for example an eraser).
- 2. Keep the nozzle obstructed, press the button P3 previously moved in the RESET position (see paragraph 14), and keep it pressed until you hear that the pump is activated.
- 3. Wait for the activation of the buzzer (Max 30")
- 4. Remove the obstruction taking away your hand quickly to avoid being in contact with the hot emission of air. The buzzer must stop.
  - If after 30" you don't hear the buzzer, maybe a loss inside the circuit; please contact the service center.
  - If after removing the obstruction the buzzer doesn't stop, it means that there is an obstruction; please contact the service center.

## **RESET FROM FAULT CONDITION**

This process is useful to discriminate false interpretations of faults caused by electrical shocks or serious problems in power supply from thermal loop problems.

- 1. A serious fault signal occurs with the first phase when the buzzer emits a continuous sound for 20 minutes and blue LED flashes, the output FAULT immediately switches (if the generator is disconnected and connected again you can go directly to point 3)
- 2. After 20 minutes, the buzzer stops, while the blue LED goes on flashing, the FAULT output remains closed. This phase remains permanently until the machine is completely disarmed.
- 3. When you connect again the machine, blue and red LEDs flash alternately and no sound is emitted.
  - This phase lasts for 30 minutes, then, the output FAULT is reset and the generator starts to work again.
  - If during this process the generator is disconnected, when you connect it again the time starts again from the beginning and for 30 minutes.

If at the end of this process, the generator starts to work again regularly is not necessary for any further operation. If occurs again the fault condition within the following 20 minutes, it's necessary a check from the assistance center, or to send the machine back to the factory.

#### **DEFECTS POSSIBLE SOLUTION**

	I		
DEFECT FOUN D	POSSIBLE CA USE	POSSIBLE SOLUTION	
When you conn ect the machine you hear a relay clicking cyclicall y	lt's not a fault	When the machine is cold or has just emitted fog, until the exchanger has reached the working temperature, a relay is activated with the triac to d ecrease the consumption.	
	As soon as the PCB is switche d on, the micro processor makes a diagnostic chec k	For the duration of the test, e ven GREEN LED is flashing, the exchanger is not activate d.  Wait for 2 minutes	
When you conn	GREEN LED s witched on and fix	The heating exchanger has r eached the temperature, so the relay is n ot activated anymore, but just occasionally	
ect the generato r you don't hear the clicking rela y	GREEN LED s witched off	There is no 120/230 V power supply, check the mains on the input terminals of the power supply and wait for 2 minutes	

When you are the machine you hear an internal buzz, like a motor	The compresso r is checking th at there are no obstructions in t he circuit of fog emission	When the machine is armed, for 15 minutes the compressor will monitor the n ozzle. After this time it will de activate automatically: if the f ogging system is disarmed, t he compressor will go on for 15 minutes. If the machine is disarmed and then armed ag ain, the count will start again f rom zero.	
When you are t he fogging syste m, a little fog flo w goes out from the nozzle even if the machine h as never shot b efore	During the testi ng phase in the factory, we also test the quality of fog in all produced syste ms, a small qua ntity of the fog li quid remains in the ducts	This emission occurs just at first activation, it will decrease visibly with any activaion, until disappears completely. After an eventual disassembly and reinstallation or after the transport of the machine, with the first activations, a little flow of fog can occur again.	
The 3 frontal LE Ds are flashing and the buzzer emits 1 beep for a minute	The tension on +12 V input is t oo low or too hi gh	Check the external power su pply or the alarm unit	
The buzzer emit s 2 beeps for a minute	Low batteries b ut possible shot	Replace batteries – See para graph 15	
The buzzer emit s 3 beeps for a minute	Low batteries b ut possible shot	Replace batteries – See para graph 15	
	Batteries not pr esent	Insert batteries	
	False contact in the battery case	Move the batteries, turn The connector	
The buzzer emit s 10 beeps for a minute	sector was not i nserted correctl y	Remove and reinsert the con nector	
	1	useful to use a tester to verify to oltage on the battery case	
		Linder reset has not been ma de as described in paragraph 14	
	The front RED LED The cylind		

	er	Cylinders are empty – Chang e the cylinders as described i n paragraph 14	
The machine is armed (BLUE L ED ON) but doe sn't shoot	The front GREEN LED fl ashes	The heat exchanger has not yet reached the minimum te mperature of shooting, wait f or the LED to stop flashing (s tandard heating time: 2,5 h.)	
	The machine d oesn't shoot im mediately after arming	For safety reasons and to av oid false fog emissions during power on, when the m achine is armed, it becomes operative only after 20'. After this time,  the emission is instantaneous.	

	Wiring error	Verify that the alarm, once activated, has tension on connectors of at least 12 V between GND(5) + S HOOTS(4)
	Overvoltage power line (12 0/230 V)	Try to reset. See paragraph 16 In case of unsuccessful restoration the PCB can b e damaged, contact the assistance service.
TUE DIVIE LED : (1 L :	Overtemperature of the PC B	Check there is sufficient ventilation around the ma chine.
THE BLUE LED is flashing		In the case of strong interference (lightning), a ther mocouple reading error, so make a reset.
		See paragraph 16.
The buzzer emits a continuo		In case of unsuccessful restore can be occurred a potential difference or a fault large-sized
us sound	Disturbance/ interference or potential differences between devices	e size plants or with more than one fogging system connected with the same central, in rare si tuations, there may be potential differences betwe en the equipment and it could be necessary to unc ouple.
BLUE and RED LEDS		The possible fault of thermocouple, resistance, or fuse cable. Don't try to repair
are flashing alternately	Error in the thermal loop	Contact the assistance service center.
Impossible to arm the machi ne BLUE LED doesn't switch on	Wiring error	Check on the terminal with a tester that when the alarm system is turned on there is a minimum volt age of 11 V between – GND (5) + ARM (3).

Cannot arm, BLUE LED doe sn't switch on	Wiring error	Test the terminal that there is a minimum voltage b etween 11V – GND (5) + ARM (3), when the anti-theft system is activated
When you press the reset button you don't hear the sound of the buzzer, the frontal LEDS are flashing but the RED LEDS does not reset	The Jumper P3 is in the "S ET" position	Warning: in this case, shooting time is reset to zero  Reset bombole (Paragrafo 14)  Impostazione tempo di sparo (Paragrafo 12)
The cylinder does not enter	The plate is raised	Press down and then pull
The cylinder doesn't go out	The cylinder is stuck in the valve	Press down and then pull
Setting the shooting time, the buzzer does not sound and the LEDs do not flash	The jumper P3 stands in the "RESET" position	See the shooting setting in paragraph 12

#### WARRANTY

The warranty of UR Fog is two years and is handled directly by the dealer or authorized installer, so please contact your supplier to take advantage of the warranty with a 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 cylinders are not covered by warranty.

- At the end of the installation, write down the identification number of the machines, and the date of the installation and sign in the dedicated spaces.
- We recommend throwing away the batteries in the appropriate waste containers for recycling. Heavy metals contained in them are recyclable.
- BY BREAKING THE SECURITY LABELS AND THE OPENING OF THE MACHINE YOU WILL ACCEPT WHAT IS WRITTEN ON THIS MANUAL AND THE WEB SITE: <a href="www.urfog.com">www.urfog.com</a>.

UR Fog srl: Via Toscana n. 38 – 10099 San Mauro Torinese – Italy Phone 011/01.33.037 – Fax 011/01.33.005 <a href="mailto:support@urfog.com">support@urfog.com</a>.

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

## **MAINTENANCE**

DATE	BATTERY EX	XCHANGE	CYLINDER EX	CHANGE	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 by the law.

Notificati	on of successful installation
Hereby informs that UR FOG mach	ine, model
has been connected to the alarm of Company Name	ystem at:
Company Hame	
Address	
Parterent	E-mail address
Phone number	Mobile number
The top machine generates a dense to	g when an intrusion occurs to impede the visibility to the insuber.
The fog is safe for people, animals, thir This notification has been sent or delive	gs and food.
Fremen	4 1 1 1 1
( - CP+TT-[ 195 P )	
Referent	Smal egge-
Phone number	Nobile number
	4
Public security	
Belerett.	E-mail address
Phone number	Mobile number
Prione number	protone unturbes.
Private security	
Referent	E-mail address
Phone number	Mobile number
AUTHORIZED INSTALLER:	
PLACE-	DATE
	SPRIE.

N.B. Ask for the PDF module by writing to: <a href="mailto:support@urfog.com">support@urfog.com</a>.

**UR Fog S.r.I.** Via Toscana 38 – 10099 San Mauro T.se (Torino) – Italy.

## **Documents / Resources**



<u>UR FOG FAST PRO PLUS Fogging Security Systems</u> [pdf] User Manual FAST PRO PLUS Fogging Security Systems, FAST PRO PLUS, Fogging Security Systems, Security Systems

- Manti-intrusion Fogging Systems anti-theft UR Fog S.r.l.
- User Manual

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