

SUPRATECH

HYGIENE ON THE MOVE!



I-CARO

**AUTOMATIC RECESSED
URINAL FLUSH VALVE**

INSTALLATION AND MAINTENANCE GUIDE

I-CARO recessed stainless steel automatic urinal flush valve

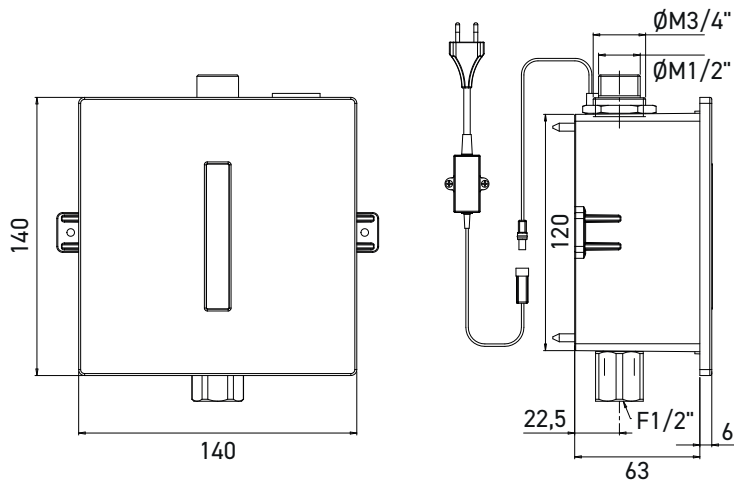
Ref. **DUS-50 / DUS-51**

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TECHNICAL FEATURES

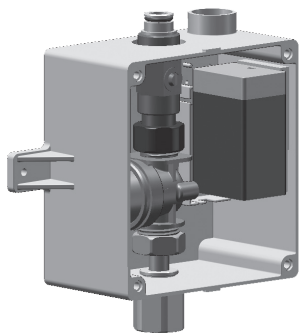


The I-CARO automatic urinal flush valve operates using an infrared sensor. The flush activates when the user leaves the sensor's detection range.

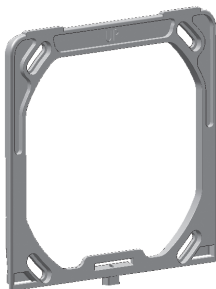
Power supply	9V internal battery o 230/9V transformer
Water pressure	0.5-8 bar (if above, use a pressure limiter)
Sensor range	600 mm, adjustable with remote control (optional)
Minimum sensor range	300 mm
Maximum sensor range	800 mm
Flush duration	6 seconds factory set, adjustable with remote control (optional)
Hygiene flushing	Automatic hygienic flush every 24 hours if not used
Pre-flushing	Optional

COMPONENTS

1 X RECESSED BOX
WITH SOLENOID VALVE



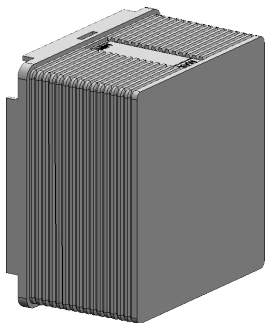
1 X FRONT PANEL
PLASTIC SUPPORT



1 X SS FRONT PANEL
WITH ELECTRONICS



1 X PROTECTIVE
COVER



4 X SCREWS



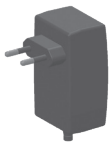
1 X ALLEN KEY



1 X M4X10 SCREW



DUS-51 :
230V/9V
TRANSFORMER



PRE-INSTALLATION

CHECKING THE PACKAGE CONTENTS

Remove all the parts from the package and check that they are all present, as listed in the COMPONENTS section.

If any part is missing, DO NOT attempt to install the electronic flush valve. Wait until the missing part has been received.

PREPARATION FOR INSTALLATION

Carefully flush the water supply before installing the flush valve.

Make sure that no dirt, Teflon tape or metal particles enter the valve.

CAUTION

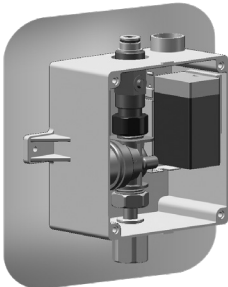
DO NOT install the system in front of a mirror or another electronic device operating with an infrared sensor.

To avoid interference caused by reflections, it is recommended to maintain a minimum distance of 1500 mm between the valve and any other object.

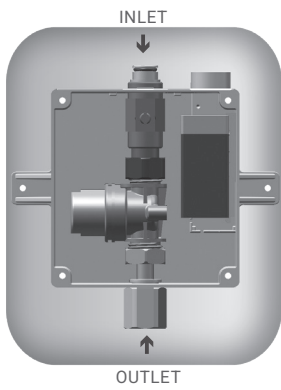
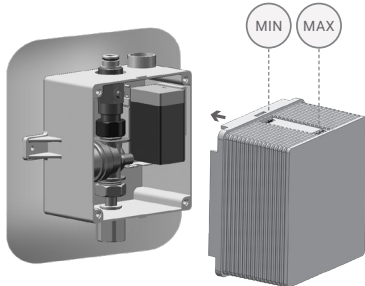
Installation must comply with applicable local standards and regulations.

INSTALLATION

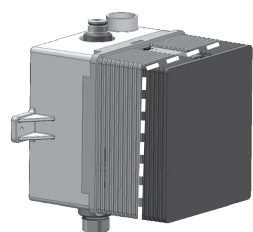
STEP 1 – VALVE INSTALLATION

1	Shut off the water supply.	
2	Make a wall opening to fit the recessed box (H120 x W110 (160 with fixings) x D60 mm). For the mains-powered version (DUS-51), allow space for the flexible conduit (not included) through which the transformer cable (5 m) will be routed.	
3	Insert the recessed box into the wall opening.	

INSTALLATION

4	Connect to the water supply.	
5	Connect the water outlet of the valve to the urinal flush pipe.	
6	Open the water supply and check for leaks.	
7	Place the solenoid valve protective cover. NOTE : observe the MIN and MAX marks on the cover in relation of the finished wall.	

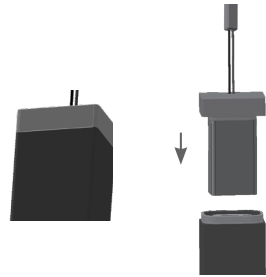
STEP 2 – ELECTRICAL CONNECTION

1	Once the electrical and plumbing work are complete, and the tile has been laid, cut the protective cover at the appropriate size.	
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INSTALLATION

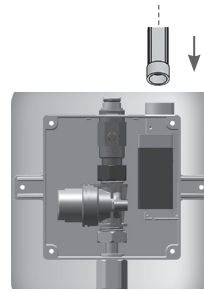
2

For the battery-powered version (DUS-50), put the battery inside the box and place the battery box inside the recessed box.



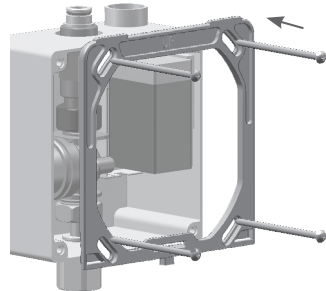
3

For the mains-operated version (DUS-51), insert the transformer connection cable into the recessed box.



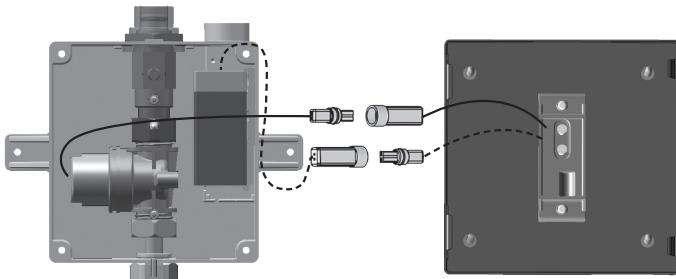
4

Fix the front panel plastic support with the 4 supplied screws.



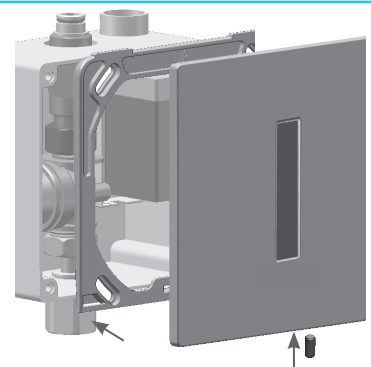
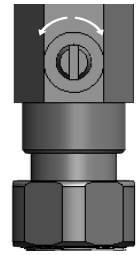
5

Connect the electronic unit connectors to the solenoid valve and power supply connectors (battery box or transformer).



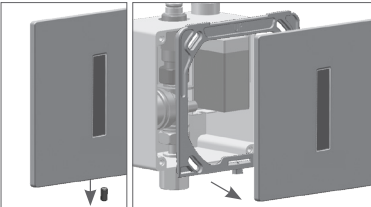
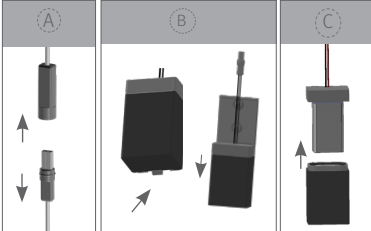
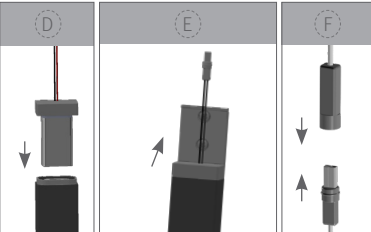
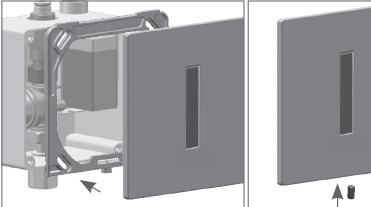
INSTALLATION

STEP 3 – FINISH THE INSTALLATION

1	Assemble the stainless steel front panel with its plastic support, and secure it with the M4X10 screw.	
2	Remove the protective adhesive from the sensor.	
IMPORTANT: wait a few seconds before activating the flush valve to avoid activating the sensor's detection range adjusting mode.		
3	Move away from the valve, and the flushing will activate a few seconds later.	
4	If necessary, adjust the flush flow using the shut-off valve.	
NOTE: to change the pre-set detection range, use the RES-31 remote control (optional).		

BATTERY REPLACEMENT

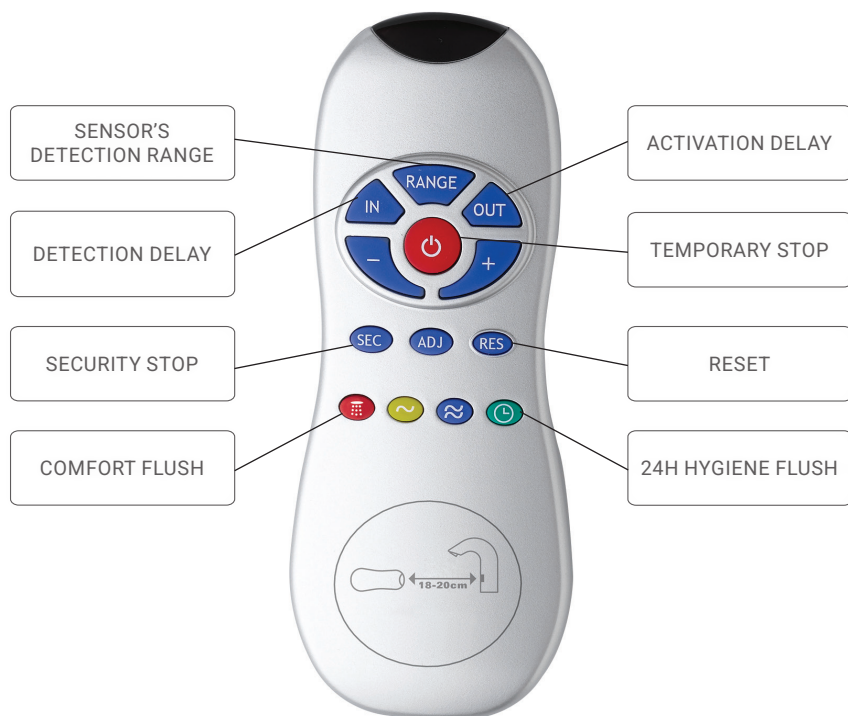
For the battery-operated version, DUS-50, when the battery is low, the sensor LED indicator flashes regularly. The battery must be replaced within the following two weeks.

1	Unscrew and remove the front panel.	
2	A. Disconnect the waterproof connector between the battery box and the sensor. B. Remove the battery box from the bracket by pressing on the lower part. C. Remove the battery box cover.	
3	D. Replace the used battery with a new 9V battery (lithium battery recommended). E. Close the battery box and place it back on the bracket. F. Reconnect the waterproof connector.	
4	WARNING: Wait a few seconds before activating the flush to avoid activating the sensor's detection range adjusting mode.	

CAUTION: When replacing the battery, DO NOT dispose of the used battery with household waste. Contact your local authority for information on waste disposal and to find the nearest collection point.



SETTINGS ADJUSTMENT



ADJUSTMENTS WITH THE RES-31 REMOTE CONTROL (OPTIONAL)

The optimal detection range is adjusted automatically.

If necessary, the detection settings can be adjusted as follows:

Shut off the water supply.

To adjust the detection settings using the remote control, hold the remote control approximately 5-10 cm in front of the sensor.

Select the function to be adjusted by pressing the corresponding function key once.

After pressing the key once, a blue LED indicator on the sensor flashes rapidly.

The setting can be adjusted by pressing the (+) or (-) keys. Each press increases or decreases the setting by one level.

Once the adjustment is complete, reopen the water supply.

SETTINGS ADJUSTMENT

	DETECTION RANGE: the sensor's detection range represents the optimal distance at which a person or a hand must be placed to activate the system. Press the RANGE key. Wait until the LED indicator on the sensor flashes rapidly. Then press (+) to increase the detection range or (-) to decrease it.
NOTE: once the detection range has been adjusted with the remote control, the setting is saved, even in the event of a power failure.	
	DETECTION DELAY: set the time the user must remain within the sensor's detection range to be identified as an active user. This prevents the flush from being activated by every movement in front of the sensor (e.g. during cleaning). Press the IN key. Wait until the LED indicator on the sensor flashes rapidly. Then press (+) to increase the detection delay or (-) to decrease it.
	ACTIVATION DELAY: this function allows to adjust the activation delay of the flush valve after the user leaves the detection range. An activation delay close to 0 will save more water. An increased activation delay will make the user's experience more comfortable. Press the OUT key. Wait until the LED indicator on the sensor flashes rapidly. Then press (+) to increase the activation delay or (-) to decrease it.
	TEMPORARY STOP: allows any activity in front of the sensor without activating it (e.g. during cleaning). Press this key to deactivate the flush valve for one minute. To cancel this function and return to normal operation, press the key again or wait one minute.
	RESET: this function restores the original settings, except for the sensor range. If necessary, press and hold the RESET key, then press the (+) key once.
	24H HYGIENE FLUSH: allows the automatic flush of the urinal if not used during 24 hours. Press the clock key to activate this function, then wait until the LED indicator on the sensor flashes rapidly. Press the (+) key to activate the hygiene flush or (-) to deactivate it.
	SECURITY STOP: by default, if the sensor is covered more than 90 seconds, water flow stops automatically. To restore normal operation, remove any obstruction from the sensor. Press the SEC key. Wait until the LED indicator on the sensor flashes rapidly. Then press (+) to increase the security time or (-) to decrease it.
	COMFORT FLUSH: press this key and wait until the LED indicator on the sensor flashes. The pre-set flushing cycle is then activated. The comfort flush can be interrupted or deactivated by pressing the same key before the cycle ends.

FILTER CLEANING INSTRUCTIONS

The flush valve is supplied with a stainless steel filter preventing foreign particules to enter the solenoid valve. It is recommended to clean the filter every six months. If the water flow decreases, this may be due to a clogged filter.

The filter can be cleaned as follow:

1. Close the shut-off valve.
2. Dismantle the solenoid valve by removing the screws.
3. Remove and clean the filter under running water.
4. Reassemble the parts.
5. Open the shut-off valve and check for leaks.

CARE AND CLEANING OF THE STAINLESS STEEL SURFACE

DO NOT use steel wool or cleansing agents containing alcohol, acids, abrasives, or the like as they may damage the valve.

For surface cleaning, use ONLY soap and water, then wipe and dry with a clean cloth.

When cleaning bathroom tiles, the valve should be protected from any splattering of harsh cleansers.

For disinfection, chlorine must be used at regular service intervals (maximum de concentration: 50 mg/L in water for 1 hour).

SOLENOID VALVE SERVICING

1. Close the shut off valve. Disconnet the power supply.
2. Remove the front panel from the recessed box and disconnect the solenoid valve.
3. Unscrew the solenoid valve using a 25 mm open-ended spanner.
4. Remove the black diaphragm and clean under running water (small central hole).
5. Check that the black piston in the center of the solenoid valve is correctly positionned, with the spring underneath it in vertical position.
6. Reassemble the parts. Check that the filters are correctly positionned on the hoses.



The solenoid valve diaphragm requires periodical cleaning every six months. DO NOT attempt to dismantle the solenoid valve if you are unfamiliar with electronic solenoid valves.

SPARE PARTS LIST

Stainless steel panel kit	S07040214
Sensor kit	S07220345
Solenoid valve kit	S07231010
Nipple	S07246002
Filter	S08530013
9V transformer	S06522097
Battery box	S06530100
<i>Optional:</i>	
Remote control	RES-31

TROUBLESHOOTING

PROBLEM	INDICATOR	CAUSE	SOLUTION
No running water	1. The sensor's LED flashes continuously when the user is within the detection range	Low battery.	Replace battery.
	2. The sensor's LED does not turn on when the user is in the detection range	1. The range is too short.	Increase range.
		2. The range is too long.	Decrease range.
		3. Battery is used up.	Replace battery.
		4. Sensor is picking up reflections from another reflective object.	Remove cause of reflection.
	3. The sensor's LED flashes once when the user is in the detection range	1. Connectors between the sensor and the solenoid valve are disconnected.	Reconnect the electronics to the solenoid valve.
		2. Dirt or cale in the solenoid valve.	Clean the solenoid valve: unscrew it, remove the piston and the spring, and clean it. When replacing the piston, ensure that the spring is in vertical position.
		3. The central orifice of the solenoid valve black diaphragm is clogged or the diaphragm is broken.	Clean or replace the diaphragm.
		4. The water supply pressure is higher than 8 bar.	Decrease water pressure or use a pressure limiter.
Water does not stop running	1. The sensor's LED flashes once when the user is in the detection range	Dirt or cale in the solenoid valve.	Clean the orifice and replace the diaphragm.
	2. The sensor's LED does not flashes when the user is in the detection range	1. The sensor is dirty or covered.	Clean the sensor or remove the source or interference.
		2. The sensor is picking up reflections from another reflective object.	Remove cause of reflection.

LIMITED WARRANTY

This faucet is covered by a 3-year contractual warranty from the date of invoicing by SUPRATECH.

In the event of a manufacturing or operating defect attributable to the product and identified during this period under normal conditions of use, SUPRATECH will, at its discretion, repair or replace the parts found to be defective.

This warranty covers parts only. Unless otherwise agreed in writing in advance by SUPRATECH, it does not cover labour, removal, reinstallation, installation, travel expenses or any other incidental costs associated with servicing the product.

The warranty does not cover, in particular, malfunctions or damage resulting from:

- incorrect installation or installation not carried out in accordance with the instructions, including reversed hot and cold water supplies;
- pressure or temperature exceeding the specified limits;
- improper use, modification of the product or inadequate maintenance;
- foreign bodies, dirt, limescale or deposits in the water supply;
- water quality or composition incompatible with the product specifications;
- normal wear and tear and consumable items, including batteries;
- impact, deliberate damage or vandalism.

Failure to comply with the safety precautions, conditions of use, or installation and maintenance recommendations described in this guide may result in exclusion from warranty coverage where such failure is the cause of the malfunction or damage concerned.

For any warranty claim, please contact your installer, reseller or SUPRATECH and provide the information required to process your claim: a detailed description of the malfunction, product reference and serial number, proof of purchase and, if available, the installation date.

This contractual warranty is provided without prejudice to any applicable statutory rights and warranties.

SUPRATECH

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