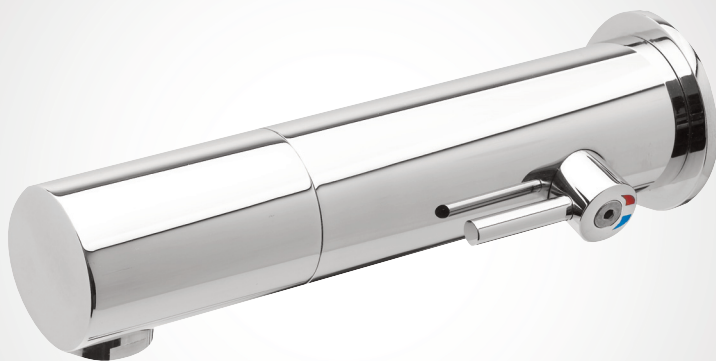


DB450 / DB475

DOLPHIN WALL MOUNTED INFRARED TAP WITH MIXER

INSTALLATION AND MAINTENANCE GUIDE

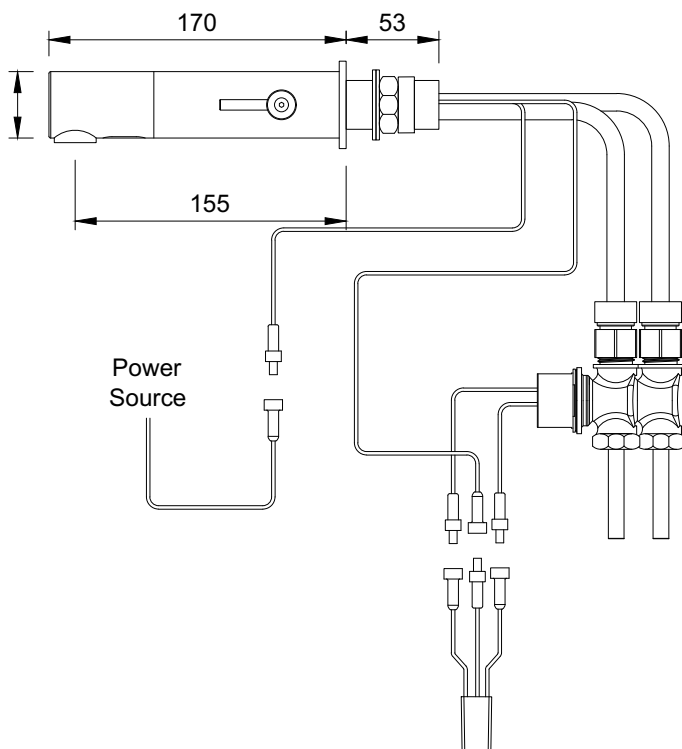


October 2019

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21	Spare Parts
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TECHNICAL DATA

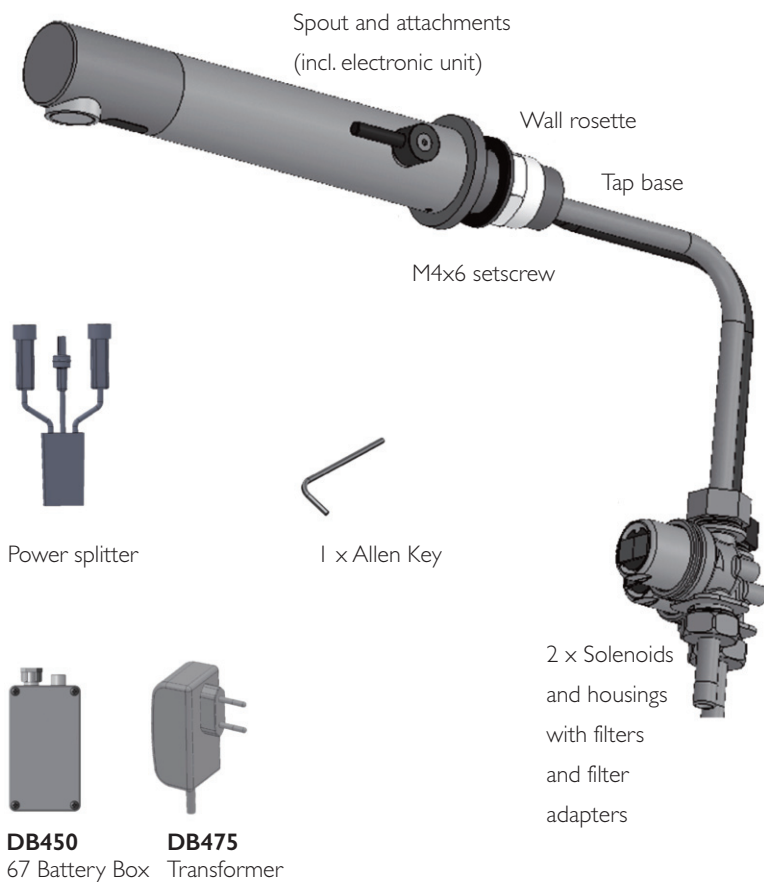


Power supply for battery versions:	9V battery or 6 X 1.5V AA batteries
Power supply for electricity versions:	9V transformer
Recommended water pressure:	0.5-8.0 bar (7-11.6 PSI) With water pressure of more than 8 bars, use a pressure reducing valve for reduction
Sensor range:	Self adjusting
Minimum sensor range:	80 mm
Maximum sensor range:	300 mm
Security time:	90 seconds. Can be reduced with the remote control
Hot water temperature:	Max. 70°C

PACK CONTENTS

Familiarise yourself with the part names and confirm that the parts are included:

DB450 / DB475

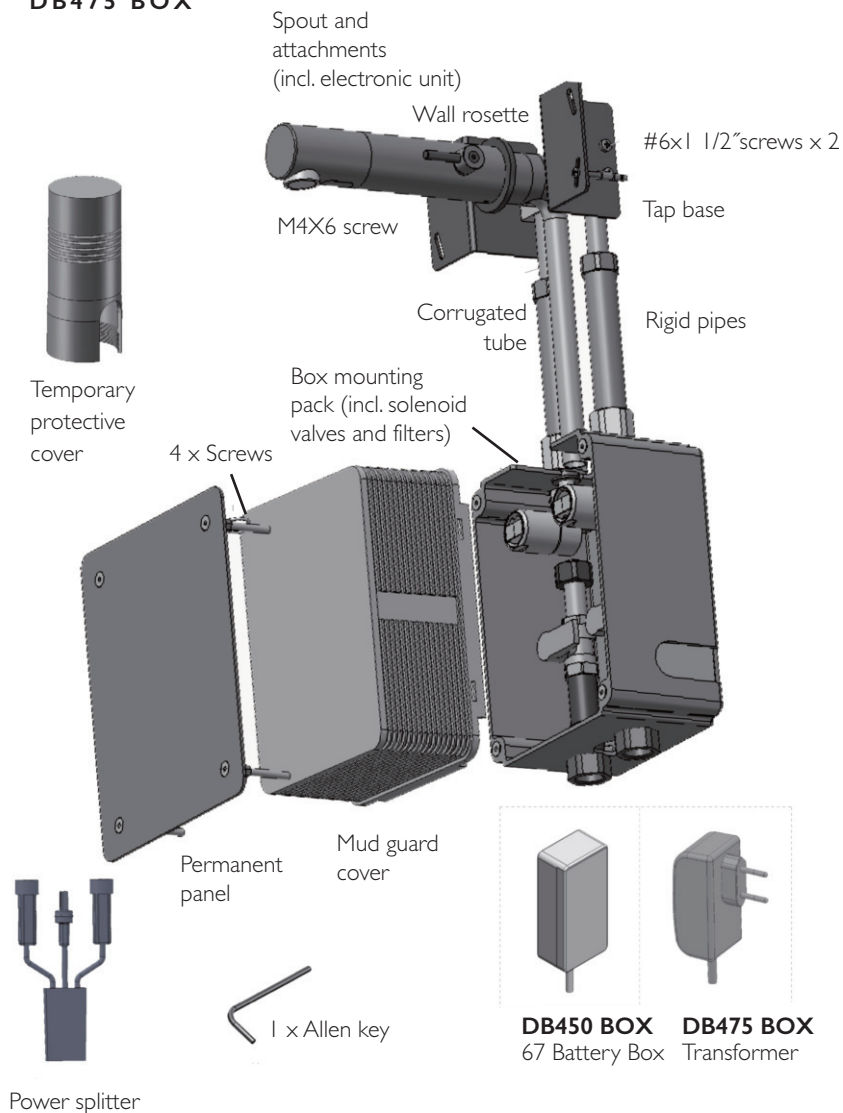


INSTRUCTIONS

Familiarise yourself with the part names and confirm that the parts are included:

DB450 BOX

DB475 BOX



PRE INSTALLATION INFORMATION

CHECK CONTENTS

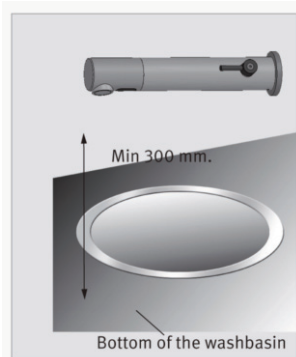
Separate all parts from the packaging and check each part with the pack contents section. Pay attention to the variations of the different models.

Make sure all parts are accounted for before discarding any packaging material.

If any parts are missing, do not attempt to install your electronic tap until you obtain the missing parts.

WARNING

- Highly reflective surfaces directly beneath the sensor of this product, in particular polished finish basin wastes/ strainers, will cause false activation of the infrared sensors and can result in malfunction. We recommend satin or matt finish products which can be found on our website.
- It is very important to allow permanent access to the mounting tail/nut of this product for future servicing and repair. Where this is not possible see our wall plate mounted products.
- To avoid reflection problems keep a distance of more than 300 mm. between the sink and the spout.
- This tap model, with an infrared sensor pointing down, is not intended to be used together with a sink of a reflective material such as stainless steel.
- If a sink strainer is straight below the tap sensor; use a strainer with a non reflective finish (do not use a chrome plated one).



PREPARATION FOR INSTALLATION

Flush the water supply lines thoroughly before installing the tap. Do not allow dirt, teflon tape or metal particles to enter the tap. Shut off water supply.

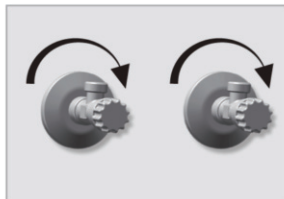
IMPORTANT

All plumbing is to be installed in accordance with applicable codes and regulations.

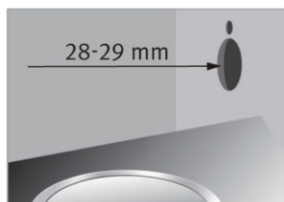
TAP INSTALLATION DB450/ DB475

STEP ONE : INSTALLING THE TAP

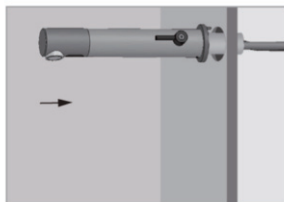
- 1 Shut off the water supply.



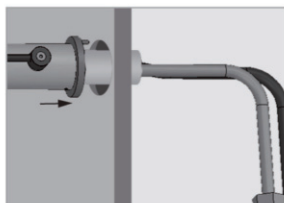
- 2 Drill a hole (28 to 29 mm.) where you want to install the spout of the tap, and a small hole just above the previous one for the anti-rotation pin.



- 3 Remove the gasket, disk and nut from the base of the tap and insert the tap through the wall.

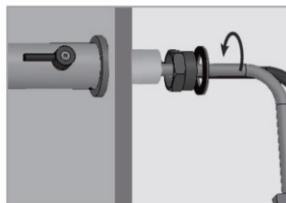


- 4 Secure the rosette into position using the anti rotation pin.



TAP INSTALLATION DB450 / DB475

- 5 Fix the base behind the wall with the hexagonal nut and the disk.



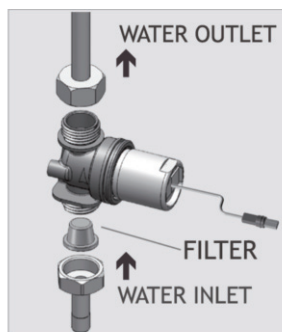
NOTE: Make sure that the aerator in the Tap spout will be installed facing the washbasin.

TAP INSTALLATION DB450 / DB475

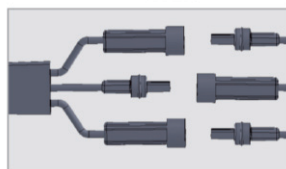
STEP 2 - CONNECTING THE WATER SUPPLY

- 1 Fit the water supply inlets (hot and cold water inlet) to the adapter at each of the solenoid valve housings.

NOTE: Make sure the filters are located between the solenoid housings and the water inlets.

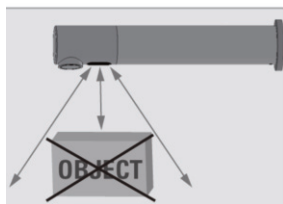


- 2 Connect the cable coming from the electronic unit that leads to the solenoid valves to the power splitter.

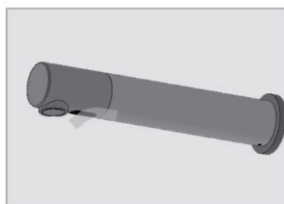


IMPORTANT: This product includes a self adjusting sensor.

The ideal sensor range for the specific location will be set automatically.



Before proceeding, check that no objects are in front of the sensor besides the washbasin.



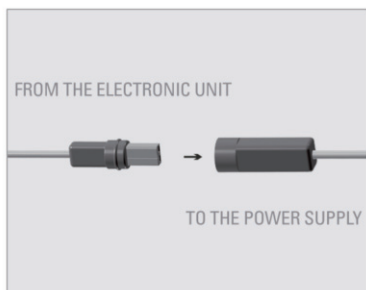
Now, remove the protective sticker that covers the sensor.

TAP INSTALLATION DB450 / DB475

STEP 3 - CONNECTING THE POWER SOURCE

1a For DB450 connect the cable coming from the electronic unit in the tap base leading to the power source, to the battery box.

1b For DB475 the cable coming from the electronic unit in the tap base leading to the power source, to the transformer: Plug the transformer into the electricity socket.



2 After you have connected the power source (battery or transformer) wait about 10 seconds in order to allow the system to set the ideal sensor range. Then the product will be ready for use.



3 Turn on the central water supply. Check for leaks.



NOTE: The tap includes a special aerator that allows you to adjust the water stream direction on site in order to prevent water splashing if needed. To change the angle of the water stream, simply move the adjustable tilting plate by pressing it smoothly.



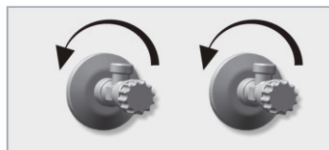
If the automatically adjusted sensor range is not satisfactory to your purposes, please refer to the section entitled "Settings adjustment".

TAP INSTALLATION

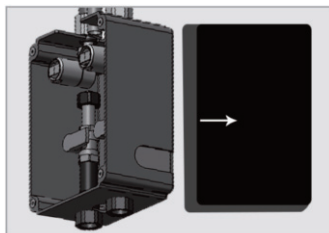
DB450 BOX / DB475 BOX

STEP I – INSTALLING THE TAP

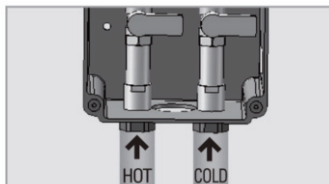
- 1 Shut off the water supply.



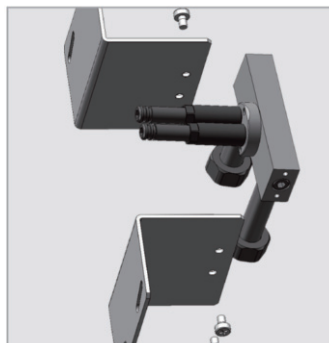
- 2 Cut an adequate opening in the wall for the dimensions of the tap box, corrugated tube, rigid pipes and the tap base. Then, insert the tap box through the wall.



- 3 Connect the water supply pipes to the nipples at the bottom of the tap box.



- 4 Prepare the support bar for the tap base by assembling the angle supports with the 4 provided screws. Then, mount the tap base through the wall opening using the 2 screws and anchors provided. Now, assemble the temporary protective cover to the tap base.

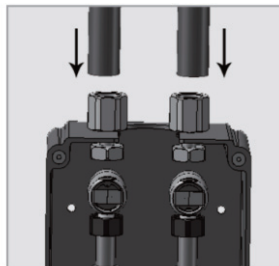


IMPORTANT: The tap base should be installed so that the outside surface of the finished wall falls between the minimum and maximum lines marked on the temporary protective cover.

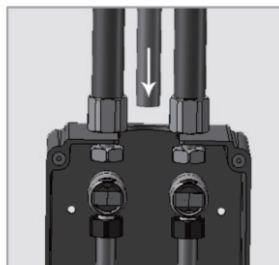
TAP INSTALLATION DB450 BOX / DB475 BOX

STEP 3 - INSTALLING THE TAP

- 5 Assemble the rigid pipes between the nipples in the box to the inlets in the tap base.

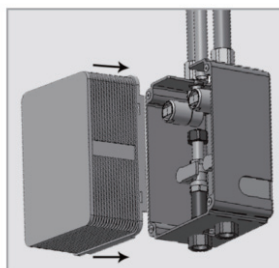


- 6 Insert the corrugated tube through the tap box. If required, cut it to the appropriate length as needed by the installation.

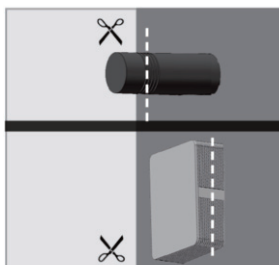


- 7 Assemble the mud guard cover to the tap box.

Note: the MIN and MAX marks on the box



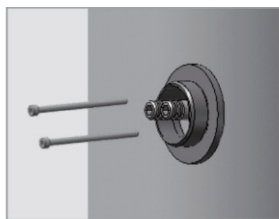
- 8 Once the works on electricity, plumbing and tiles have been finished:
- Cut the temporary protective cover at the proper mark in wall level.
 - Cut the box mud guard cover wherever required by the installation.



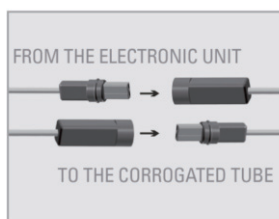
TAP INSTALLATION

DB450 BOX / DB475 BOX

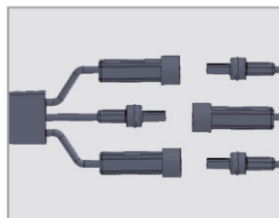
- 9 Assemble the wall rosette over the tap base and secure it using the 2 screws provided.



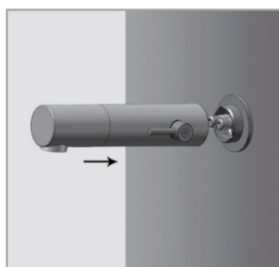
- 10 Connect the cables from the electronic unit to the cables coming from the corrugated tube.



- 11 Connect the electronic unit connectors coming from the corrugated tube into the box, to the power splitter.



- 12 Fix the tap body to the rosette and secure the screw with the Allen key. Make sure that this area is clean before proceeding.



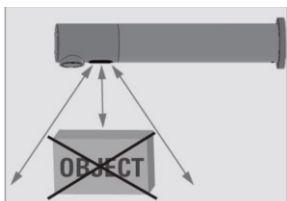
NOTE: Make sure that the aerator in the tap spout will be installed facing the washbasin.

TAP INSTALLATION

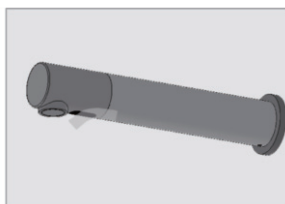
DB450BOX / DB475BOX

STEP 2- CONNECTING THE POWER SOURCE

IMPORTANT: This product includes a self adjusting sensor. The ideal sensor range for the specific location will be set automatically.



Before proceeding, check that no objects are in front of the sensor besides the washbasin



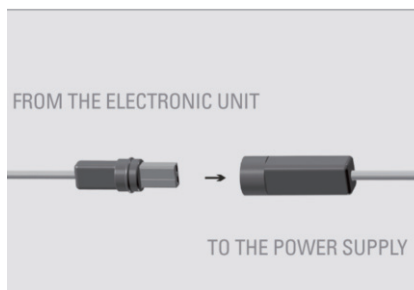
Now, remove the protective sticker that covers the sensor

1a If your model is DB450 Box, the battery box is attached to the panel.

Connect the battery box connector to the electronic unit connector

1b If your model is DB475Box: Thread the transformer wire to the box.

Connect the power supply connector from the electronic unit coming from the corrugated tube to the transformer; and plug the transformer into the electricity socket.

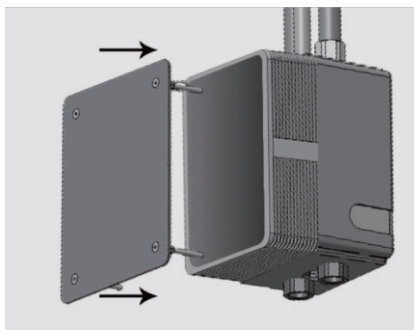


- 2 After you have connected the power source (battery or transformer) wait about 10 seconds in order to allow the system to set the ideal sensor range. Then the product will be ready for use.



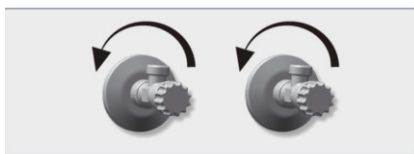
TAP INSTALLATION DB450BOX / DB475BOX

- 3 Assemble the permanent panel by screwing the provided four screws.



STEP 3 – CONNECTING THE WATER SUPPLY

- 1 Turn on the central water supply and check for leaks.



NOTE: Tap includes a special aerator that allows you to adjust the water stream direction on site in order to prevent water splashing if needed. To change the angle of the water stream, simply move the adjustable tilting plate by pressing it smoothly.

If the automatically adjusted sensor range is not satisfactory to your purposes, please refer to the section entitled "Settings adjustment".

SETTING ADJUSTMENT



ADJUSTING THE SETTINGS WITH THE REMOTE CONTROL

If necessary, the sensor settings can be adjusted as following:

Shut off the water supply. In order to adjust the sensor with the remote control, hold the remote control straight in front of the sensor in a distance of about 6-8" (15-20cm). Choose the function you want to adjust by pressing once on one of the function buttons. After pressing once on a specific function button, a quick flashing of the red light at the front of the sensor will occur. At this stage, you can change the setting by pressing the (+) or the (-) buttons, every push will increase or decrease one level. After finishing the adjustment, turn the water supply back on.

SETTING ADJUSTMENT



DETECTION RANGE: This tap was supplied with a self adjusting sensor. The ideal detection range for the specific location will be set automatically. Only if necessary, use the remote control to adjust the sensor range as follows:
Press the RANGE button. Wait until a quick flashing of the red light in the sensor eye is perceived. Then, press + to increase the range and – to reduce it. Every push will increase or decrease one level.

NOTE: Once you have changed the detection range with the remote control, the distance will be remembered by the sensor, even if the power source is disconnected.
To get back to the self adjustment mode, use the ADJ button only.



ENTRANCE TO THE SELF ADJUSTMENT MODE:
Check that no objects are in front of the sensor. Press the ADJ button. Once a quick flashing of the red light of the sensor eye is perceived, remove your hand holding the remote control and move away from the sensor area. The ideal sensor range for the specific location will be set automatically. Once the self adjustment has taken place, the solenoid valve will be opened and closed for 1 second as an indication that the ideal sensor range was set and the product is ready for use.



SECURITY TIME: The Security time, prevents continuous running of water due to reflections or vandalism. By default, if the sensor is covered for more than 90 seconds the water flow will shut automatically. To resume regular operation any obstruction must be removed. Press the SEC button. Wait until a quick flashing of the red light in the sensor eye is perceived. Then, press + to increase the security time and – to reduce it.

SETTING ADJUSTMENT



DELAY IN TIME: It is recommended to change the delay in time for flush valves for urinals or toilets only. If required, the delay in time can also be modified in taps as follows:

Press the IN button. Wait until a quick flashing of the red light in the sensor eye is perceived. Then, press + to increase the delay in time and – to reduce it.



DELAY OUT TIME: This button allows modifying the water flow time after the user removes his hands from the tap. A delay out time close to 0 will save more water. An increased delay out time will make the user experience more comfortable. If required, the delay out time can be modified as follows: Press the OUT button. Wait until a quick flashing of the red light in the sensor eye is perceived. Then, press + to increase the delay out time and – to reduce it.



24 HOUR HYGIENE FLUSH: If you have a compatible model with a 24 hours hygiene flush it is possible to enable and disable it. To activate the hygiene flush, press the clock button. Wait until a quick flashing of the red light in the sensor eye is perceived. Then press + to activate the hygiene flush or – to deactivate it.



TEMPORARY OFF FUNCTION: This function is ideal to perform any kind of activity in front of the sensor without operating the system (for example, cleaning). The tap will remain shut for 1 minute when this button is pressed once. To cancel this function and to return to normal operation press the On/Off button again or wait 1 minute.



RESET BUTTON: This function restores all the factory settings except for the sensor range. If required, press the Reset button and without releasing it, press the + button once.

NOTE: To enter the self adjusting mode, use the ADJ button. To change the sensor range, use the RANGE button.

BATTERY REPLACEMENT

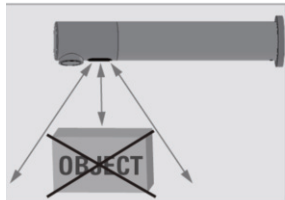
BATTERY MODELS ONLY

When the battery weakens, the red indicator light will blink at a constant rate when the user's hands are within the sensor range. The battery must be replaced within two weeks.

TO REPLACE THE BATTERY:

1. For DB450: Carefully open the battery box and remove the old batteries. Replace the used batteries with six new 1.5V AA batteries. Close the box.
2. For DB450 Box: Release the screws at the panel and remove it. The battery box is located behind the panel. Carefully open the battery box and replace the used battery with a new 9V battery (Lithium battery is recommended). Close the box and re-assemble the wall cover panel.

IMPORTANT: These models were supplied with a self adjusting sensor. The ideal sensor range for the specific location will be set automatically again after changing the battery.



Check that there are no objects in front of the sensor after the battery placement was completed



After you have replaced the battery, move away from the sensor range. Wait 15 seconds in order to allow the system to set the ideal sensor range. Then after the self adjustment has taken place the solenoid valve will be opened and closed for 1 second as an indication that the ideal sensor range was set and the product is ready for use.

IMPORTANT: Spent batteries should not be disposed of with normal household waste. Contact your local authority for information on waste disposal and recycling.

MAINTENANCE

FILTER CLEANING INSTRUCTIONS

These models are provided with stainless steel filters preventing foreign particles to enter the lines. It is recommended to clean the filters every six (6) month. If the water flow has decreased, this may be because the filters are clogged. The filters can be cleaned as follows:

1. **For DB450 and DB475**
 - a. Shut-off the water shut off valve.
 - b. Disconnect the water supply pipes from the adapters and disassemble the filters.
 - c. Wash the filters under running water.
 - d. Reassemble the parts.
 - e. Restore the incoming water supplies.
 - f. Make sure that there is no water leakage.
2. **DB450 BOX and DB475BOX**
 - a. Release the screws at the panel and remove it. Turn off the regulating valve.
 - b. Disassemble the solenoid valves by opening the nuts.
 - c. Remove the filters and wash them under running water.
 - d. Reassemble the filters.
 - e. Reassemble the solenoid valves.
 - f. Turn on the regulating valve and adjust the flow capacity.
 - g. Make sure that there is no water leakage. Reassemble the wall cover panel

SOLENOID VALVE SERVICING

The solenoid valve diaphragm requires periodical cleaning every six (6) month. Remove the diaphragm from the solenoid valve and examine it for dirt. In case it is dirty or clogged, wash it under running water and reassemble it. Do not attempt to dismantle the solenoid valve if you are unfamiliar with electronic solenoid valves.

CARE AND CLEANING OF CHROME AND SPECIAL FINISHES

DO NOT use steel wool or cleansing agents containing alcohol, acid, abrasives, or the like. Use of any prohibited cleaning or maintenance products or substances could damage the surface of the tap. For surface cleaning of tap use **ONLY** soap and water; then wipe dry with clean cloth or towel. When cleaning bathroom tile, the taps should be protected from any splattering of harsh cleansers.

If system chemical disinfection is practiced, chlorine can be used (calculated chlorine concentration of 50mg/l maximum in water per one hour dwell time) at service interval frequency.

SPARE PARTS LIST

DB450 / DB475

Seals And Screws Kit	DB07210113
Sa Sensor Kit 10-Pack	DB07220254
Solenoid Bs-Housing Kit	DB07231008
Solenoid Bs-Housing Kit For Usa	DB07231009
Solenoid Valve Kit 10-Pack	DB07232000
Diaphragm 10-Pack	DB04500048
Mixer Handle Kit	DB07260007
Ip 67 Battery Box	DB06530020
Transformer 12-Pack	DB06540002

DB475BOX / DB475BOX

Seals And Screws Kit	DB07210076
Panel Kit	DB07040119
Sa Sensor Kit 10-Pack	DB07220281
Solenoid Bs-Housing Kit 8-Pack	DB07201103
Nipple Kit	DB07246002
Diaphragm 10-Pack	DB04500048
Filter	DB08530011
Mixer Handle Kit	DB07260007
Ip 67 Battery Box	DB06530008
Transformer 12-Pack	DB06540002

WARRANTY

Dolphin Solutions Ltd. warrants that its electronic taps, flush valves and controls will be free of defects in material and workmanship during normal use for two years from the date the product is purchased. If a defect is found in normal use, Dolphin Solutions Ltd. will, at its discretion, repair, provide a replacement part or product, or make appropriate adjustments. Damage caused by accident, misuse, or abuse is not covered by this warranty. Improper care and cleaning will void the warranty. Proof of purchase (original sales receipt) must be provided to Dolphin Solutions Ltd. with all warranty claims. Dolphin Solutions Ltd. is not responsible for labor charges, installation, or other incidental or consequential costs other than those noted above. In no event shall the liability of Dolphin Solutions Ltd exceed the purchase price of the tap, valve or control. If you believe that you have a warranty claim, contact your Dolphin Solutions Ltd Distributor, Dealer or Plumbing Contractor. Please be sure to provide all pertinent information regarding your claim, including a complete description of the problem, the product, model number, the date the product was purchased, from whom the product was purchased and the installation date. Also include your original invoice.

DOLPHIN SOLUTIONS LTD ENGINEERING AND/OR SELLER DISCLAIM ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty excludes product damage due to installation error; incorrect maintenance, wear and tear; battery, water composition, product abuse, or product misuse, whether performed by a contractor; service company, or the consumer.

This warranty does not cover product damage caused by the following:

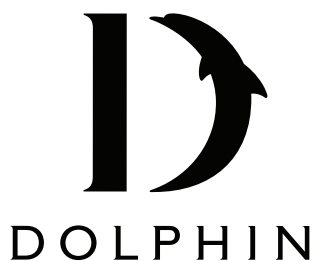
- Incorrect installation, inversions of supply pipes.
- Pressures or temperatures exceeding recommended limits.
- Improper manipulation, tampering, bad or lapsed maintenance.
- Foreign bodies, dirt or scale introduced by the water supply.

TROUBLE SHOOTING

PROBLEM	INDICATOR	CAUSE	SOLUTION
No water coming out of the faucet:	1. Sensor flashes continuously when user's hands are within the sensor's range.	Low battery.	Replace battery
	2. Red light in the sensor does not flash once when user's hands are within the sensor's range.	1. Range is too short.	Increase the range
		2. Range is too long.	Decrease the range
		3. Battery is completely used up	The battery must be replaced.
		4. Unit is in "Security Mode"	
		5. Sensor is picking up reflections from the washbasin or another object.	Eliminate cause of reflection.
	3. Red light in the sensor flashes once when user's hands are within the sensor's range.	1. Debris or scale in solenoid.	Unscrew solenoid, pull out the plunger and the spring from the solenoid and clean them. Use scale remover material if needed. When replacing the plunger, please make sure that the spring is in vertical position.
		2. The central orifice in the diaphragm is plugged or the diaphragm is torn	Clean the orifice or replace diaphragm.
		3. The water supply pressure is higher than 8 bar.	Reduce the supply water pressure.
		4. The water supply pressure is under 8 bars and yet the pressure in the faucet's body is higher. This situation could be caused by a sudden increase in the water supply pressure that the backcheck prevents from dropping, even after water supply pressure drops under 8 bars.	Shut off water supply and unscrew one of the flexible pipes in order to reduce the pressure that blocks the product.
Water flow from spout does not stop:	1. Sensor flashes once when user's hands are within the sensor's range.	1. Debris or scale in diaphragm	Clean the orifice or replace diaphragm.
	2. Red light in the sensor does not flash once when user's hands are within the sensor's range.	2. Connectors between the electronic unit and the Dual power input box are disconnected or not connected properly	Connect the connectors properly. Refer to page 6 to see how.
		1. Sensor is dirty or covered.**	Clean or eliminate cause of interference.
		2. Sensor is picking up reflections from the washbasin or another object.	Decrease the range or eliminate cause of reflection.
Water flow diminished		Filter or aerator is clogged	Remove, clean, re-install

* "Security Mode": If the sensor is covered for more than 90 sec. the faucet will automatically shut off water flow. To return to normal operation remove any blockage.

** In this case, the water flow will stop anyway after 90 seconds because of the security time.



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