

L-990 Series



Electronic Sensor Tap

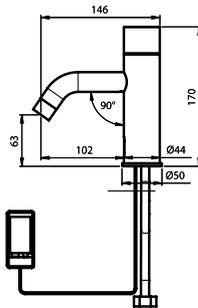
L-991
L-992
L-993
L-994
L-995
L-996
L-997
L-998

Index

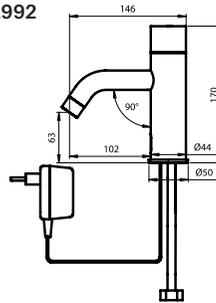
03	Technical Data
04-05	Pack Contents
06	Pre - Installation Information
07-09	Tap Installation
10-13	Setting Adjustment
14	Battery Replacement
15	Spare Parts List
16	Maintenance
17	Warranty
18	Troubleshooting

Technical Data

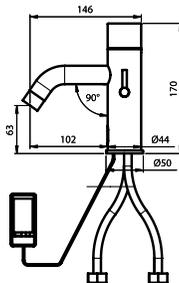
L991



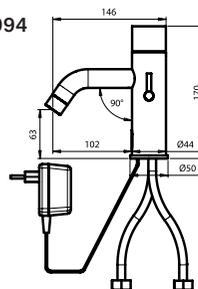
L992



L993



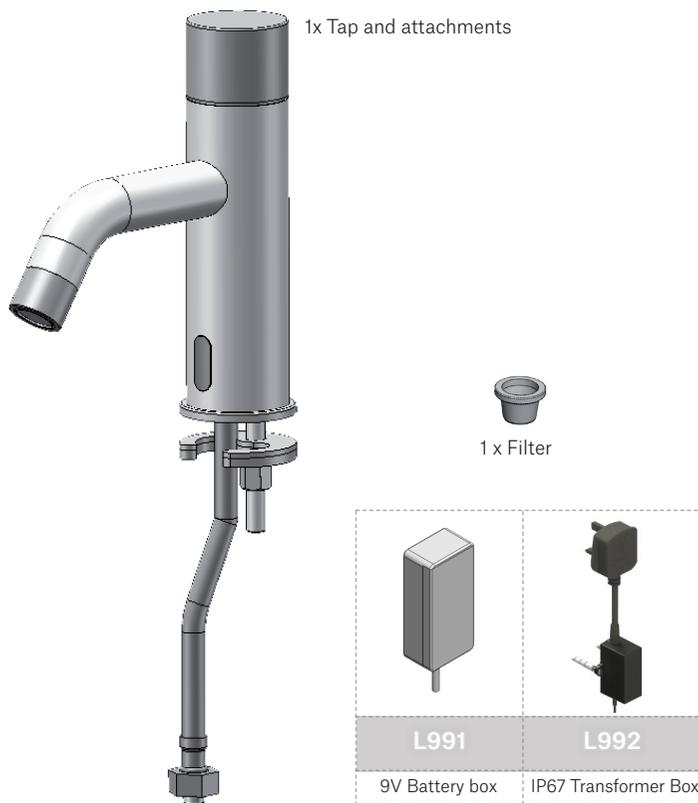
L994



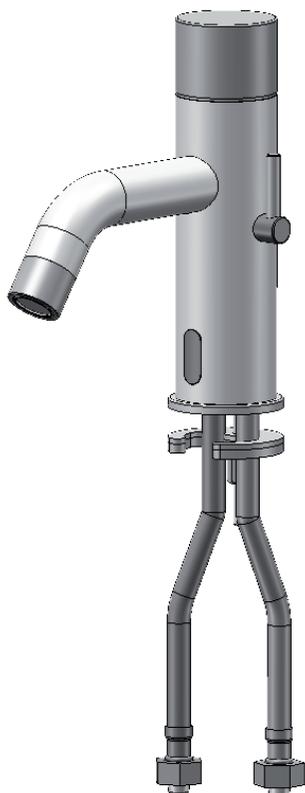
Power supply:	9V battery or 9V transformer
Recommended water pressure:	0.5-8.0 bar (7-116 PSI) With water pressure of more than 8 bars, use a pressure reducing valve for reduction.
Preset sensor range:	170 mm Adjustable.
Minimum sensor range:	80 mm
Maximum sensor range:	300 mm
Security time:	90 seconds
Hot water temperature:	Max 70°C

Pack Contents L-991 / L-992

Familiarize yourself with the part names and confirm that the parts are included.



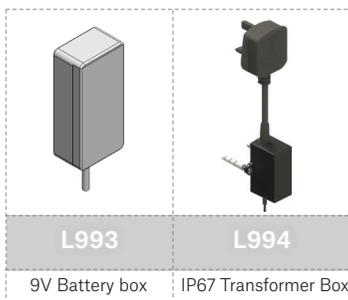
Pack Contents L-993 / L-994



1x Tap and attachments



2 x Filters



Pre - Installation Information

Check contents

Separate all parts from the packaging and check each part with the "Pack contents" section.

Pay attention to the different models variations.

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

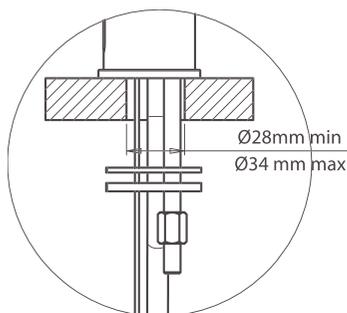
If any parts are missing, do not attempt to install your electronic tap until you obtain the missing parts.

Warnings

Do not install the system facing a mirror or any other electronic system operated by an infra-red sensor.

To prevent reflection problems, it is recommended to keep a minimum distance of 1.50 meters between the tap and any other objects.

Recommended Hole Size



Preparation for installation

Flush water supply pipes thoroughly before installing the tap.

Do not allow dirt, Teflon tape or metal particles to enter the tap.

Shut off water supply.

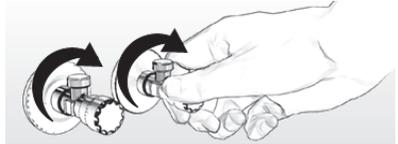
Important

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

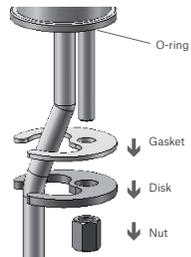
Tap Installation

Step 1 – Preparation for mounting the tap

1. Shut off the water supply.

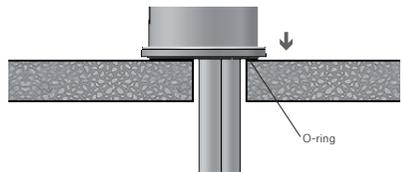


2. Remove the hexagonal nut, the washer and the gasket. Do not remove the O-ring from the base of the tap.

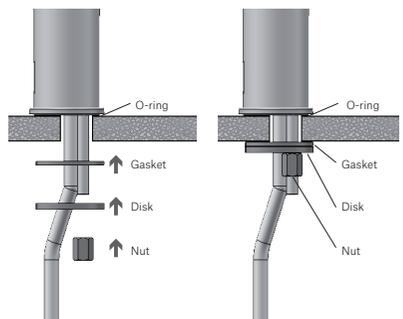


Step 2 – Installing the tap

1. Place the tap with O-ring into the hole in deck or lavatory. Make sure the O-ring is located between the deck or lavatory and the bottom of the tap.



2. Slide the gasket, washer and hexagonal nut over the flexible hose and secure the tap into place.

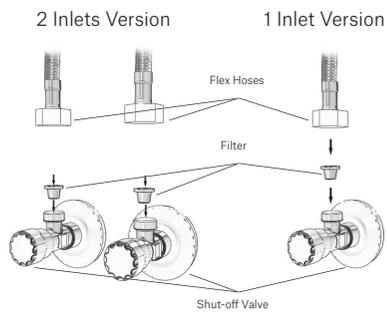


Tap Installation

Step 3 - Connecting the water supply

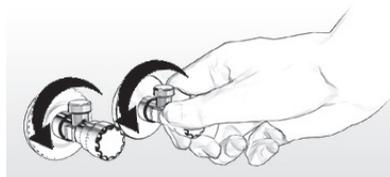
1. Connect the flexible pipe to the water supply.

For models with temperature control connect the red flexible pipe to the hot water supply and the blue flexible pipe to the cold water supply.



Make sure that the filter(s) is/are installed between the flexible pipe and the shut off valve (angle valve) (not supplied).

2. Turn on the central water supply and the shut-off valves (angle valves) and check for leaks.

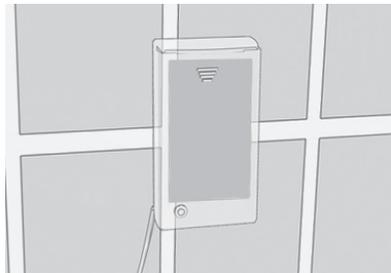


Tap Installation

Step 4 - Connecting the power source (Transformer Version)

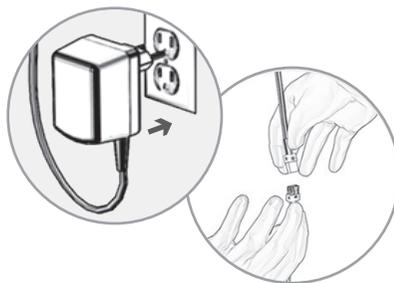
1. Battery Version

Install the battery box at the wall underneath the sink using the two sided adhesive foam tape. The cable connection must point down. (You can use an optional extension cable in order to assemble the battery box up to 3m away from the sink.)



1. Transformer Version

Plug the transformer into the electricity socket and connect the connectors.



2. In order to avoid entering into the adjusting mode, wait 10 seconds before operating the tap. If the range is unsatisfactory, refer to the section titled "settings adjustment"



ABOUT 10 seconds

Settings Adjustment With Remote Control

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 15-20cm (6-8"). 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.



Settings Adjustment With Remote Control



Detection Range: The sensor range is the greatest distance that an object can be away from the sensor to activate the tap.

The sensor is factory preset. To adjust the sensor range press + to increase detection range and - to decrease the detection range of the sensor.



Security time: The Security time, prevents continuous flushing 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 of the sensor eye is perceived. Then, press + to increase the security time and - to reduce it.



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 be modified in taps as follows: Press the IN button. Wait until a quick flashing of the red light of 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 of the sensor eye is perceived. Then, press + to increase the delay out time and - to reduce it.

Settings Adjustment With Remote Control



Comfort flush: This function is for flushing the tap during maintenance works. This setting is activated by pressing the clock button to make water flow for 2 minutes. After 2 minutes the water will stop.

To activate the comfort flush, press the clock button. Wait until a quick flashing of the red light of the sensor eye is perceived. Then press + to activate the comfort 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).

Taps 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 allows the sensor to return to the original factory preset settings.

If required, press the Reset button and without releasing it, press the + button once.

Settings Adjustment

NOTE: Adjust only if necessary.

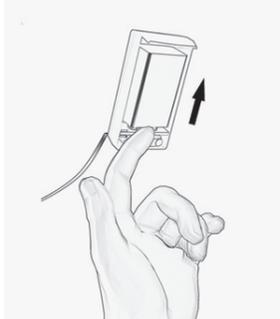
Adjusting the sensor range without remote control:

1. Disconnect the power supply, battery or transformer, from the sensor.
2. Activate the sensor three or four times.
3. Reconnect the power supply to the sensor.
4. To enter into the adjusting mode, put your hand in front of the sensor at a distance of 2"(5cm) to 4"(10cm) within 5 seconds after the reconnection of the power supply.

Note: If you will not put your hand in front of the sensor after connecting the power supply, the sensor will not enter into adjusting mode and the previous setting will return.

5. When the sensor enters into the adjusting mode and your hand is in front of the sensor, a slow flashing of the red light at the front of the sensor will occur.
6. Keep your hand at the front of the sensor until the slow flashing changes into quick flashing. At this point, move your hand to the required distance from the sensor and wait until the red light } will stop flashing.
7. When the red light has turned off, the sensor has been adjusted to the required distance.
8. Check the distance you have set and if it is not satisfactory, repeat steps 1-6.

Battery version



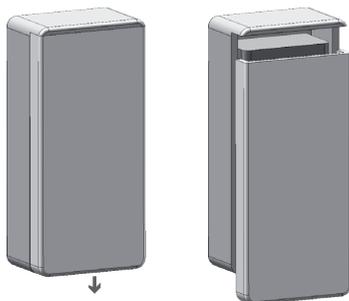
Transformer version



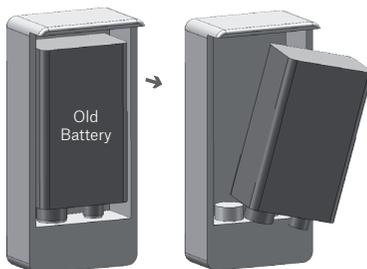
Battery Replacement

Battery models only

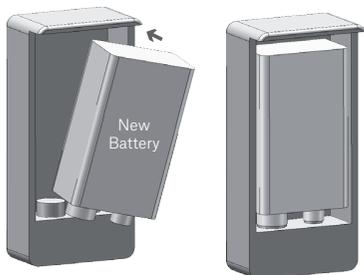
When the battery weakens, the red indicator light will blink at a constant rate. The battery must be replaced within two weeks.



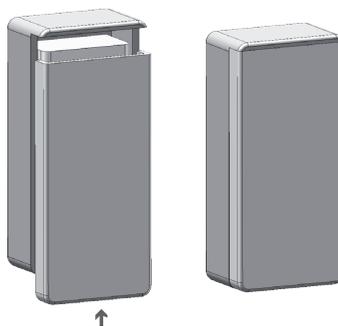
1. Carefully open the battery box.



2. Remove the old battery.



3. Replace the used battery with a new 9V battery (Lithium battery is recommended).



4. Close the box

Spare Parts List

Spare Parts

L7000002	Solenoid valve
L07221009	Solenoid valve with valve housing
L04500001	Solenoid valve diaphragm
L09550036	Sensor tap flexi hose - $\frac{1}{2}$ " BSP thread - 450mm
L09510073	Sensor tap flexi hose - $\frac{1}{2}$ " BSP thread - 700mm
L06530021	IP67 rated transformer - 9V
L06530020	IP67 rated battery box (for 6x AA batteries)
L08510040	Cascade aerator - 3.98 litres per minute (1 US gal per min)
L08510012	Cascade aerator - 1.89 litres per minute (0.5 US gal per min)
L08510034	Cascade aerator - 6 litres per minute (1.59 US gal per min)

If further information is required, contact Lovair technical team for more detailed guidelines.

Maintenance

Filter cleaning instructions

This tap is provided with one / two stainless steel filter(s) preventing foreign particles to enter the lines. If the water flow has decreased, this can be because the filter(s) is/are clogged. The filter(s) can be cleaned as follows:

1. Shut-off the water shut off valve (angle valve).
2. Disconnect the flexible pipe.
3. Remove the filter(s) and wash it/them under running water.
4. Reassemble the parts.
5. Reconnect the flexible pipe(s) and restore the incoming water supply. For two inlets models, make sure that the filters are installed between the flexible pipes and the shut off valves (angle valves).
6. Make sure that there is no water leakage.

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.

Limited Warranty

Warranty

Lovair 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, Lovair 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 Lovair Ltd. with all warranty claims.

Lovair Ltd is not responsible for labour charges, installation, or other incidental or consequential costs other than those noted above. In no event shall the liability of Lovair Ltd. exceed the purchase price of the tap, valve or control.

If you believe that you have a warranty claim, contact your Lovair 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.

LOVAIR LTD 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.

Problem	Indicator	Cause	Solution
Water not flowing	Sensor flashes continuously when user's hands are within sensor range.	Low battery	Replace battery
	Red light in the sensor does not flash when user's hands are within sensor range.	Range is too short	Increase range
		Range is too long	Decrease range
		Battery is completely out of power	Replace batteries
		Tap is in 'Security Mode' (see note below)	
		Sensor is detecting reflection from basin or other source	Remove obstruction
	Red light in the sensor flashes once when user's hands are within range.	Connection between the sensor and the solenoid is disconnected.	Connect the sensor to the solenoid
		Debris or limescale in solenoid valve.	Remove solenoid valve, pull out the plunger and spring and clean the parts under running water. If necessary, use a proprietary limescale remover. When replacing the plunger, ensure the spring is in the correct orientation.
		The central orifice in the diaphragm is blocked or the diaphragm is damaged.	Clean orifice or replace diaphragm (Lovair part no L04500001)
		The water supply pressure is more than 8bar.	Reduce water supply pressure.
		The water supply pressure is under 8 bar 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 supply to the tap.
Water flow does not stop from spout.	Sensor flashes once when user's hands are within range	Debris or limescale in diaphragm.	Clean orifice or diaphragm (see instructions below)
	Red light in sensor does not flash once user's hands are within sensor detection range	Sensor is dirty or covered	Clean sensor or remove obstruction.
		Sensor is picking up reflections from the basin or other object	Decrease sensor detection range, and / or remove cause of reflection.
Water flow diminished		In-line filter / strainer is blocked	Remove, clean and replace the filter.
Water flow is intermittent		Sensor is picking up reflections from the basin or other object	Decrease sensor detection range, and / or remove cause of reflection.

Lovair
