

Installation Guide - IR120SA and IR121SA

Electronic Basin Mounted Tap



IR120SA - Battery Operated
IR121SA - with Transformer



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Technical Data

Power supply IR120SA:	Battery box requires a 9V battery supply 6 off 1.5V AA batteries
Power supply IR121SA:	IP67 transformer box
Recommended water pressure:	1.0 to 8.0 bar (14.5 to 116 psi) With water pressure in excess of 8 bar use with a pressure reducing valve
Pre-set sensor range:	220mm adjustment
Minimum sensor range:	80mm
Maximum sensor range:	300mm
Security time:	90 seconds
Hot water temperature:	70°C maximum

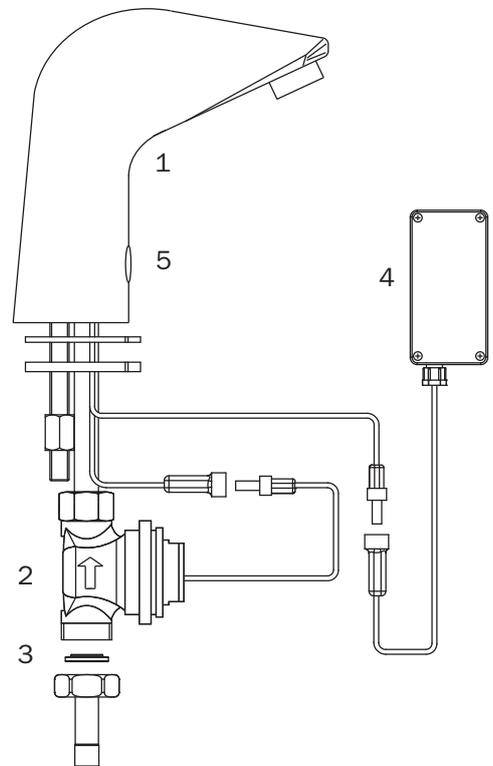
Check Contents

Before commencing remove all components from packaging and check each component with the contents list.

Ensure all parts are present, before discarding any packaging.

If any parts are missing, do not attempt to install your Saracen electronic tap until the missing parts have been obtained.

Item	Qty	Components	Part Nos
1	1 x	Tap and attachments	260300
2	1 x	Solenoid valve	07230002
3	1 x	Filter	08530011
4	1 x	Battery box - IR120SA	0653019
4	1 x	Transformer box - IR121SA	06530021
5	1 x	IR Sensor	0722004



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Pre-installation Information

Warning

Do not install the tap 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 1.5m between the tap and other objects.

Preparation for installation

Flush the water supply pipes thoroughly prior to installation. Do not allow debris, PTFE tape or any metal particles to enter the tap.

Turn off the water supply.

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

Installation

Step 1 - Preparation for mounting the tap

1. Shut off the water supply and remove the hexagonal nut, washer and gasket from the threaded inlet.

Step 2 - Installing the tap

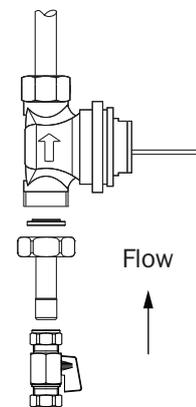
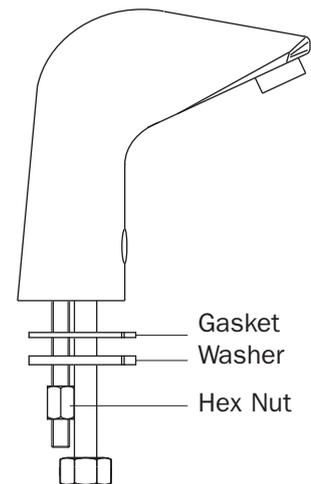
1. Position the tap into the hole in the basin or water proof work surface.
2. Slide the gasket over the flexible hose.
3. Secure the tap to the basin or work surface using the hexagon nut and washer.

Step 3 - Connecting the water supply

1. A service ball valve must be installed in the supply pipe to enable the tap to be isolated for servicing should it be required.
2. Connect the tap to the solenoid valve and then from the solenoid valve to the service ball valve.

Ensure the flow direction through the solenoid valve is the same as indicated by the arrow on the valve body.

3. Ensure the filter is assembled between the inlet joint and the solenoid valve.
4. Turn on the water supply and check all joints for leakage.
5. Isolate via the service ball valve and tighten or remake joints if leakage occurs.



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Installation

Step 4 - IR120SA Connecting the power supply

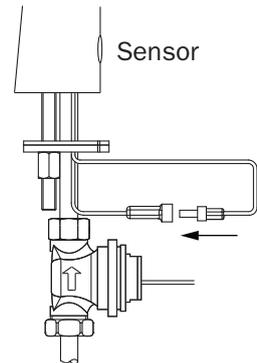
1. Install the battery box on the wall under the basin using the screws provided or the two sided adhesive foam tape.
2. Wait a few seconds before activating the tap.
3. If the range is unsatisfactory, refer to the 'Range Adjustment' section.

Step 4 - IR1201SA Connecting the power supply

1. Install the transformer box on the wall under the basin using the screws provided or the two sided adhesive foam tape.
2. Connect to the mains supply via a fused switch.

Important - All electrical wiring to be installed in accordance with applicable codes and regulations.

3. Wait a few seconds before activating the tap.
4. If the range is unsatisfactory, refer to the 'Range Adjustment' section.



Adjusting the Sensor Range

Note: Adjust only if necessary

The sensor range is the greatest distance, an object can be from the sensor, to activate the tap.

The factory setting should be satisfactory for most installations. If the range is too short (i.e. not sensing users) or too long (i.e. sensing the opposite wall), it may be adjusted as follows:

- Disconnect the battery or switch off the electricity supply to the transformer.
- Make a short circuit between the (+) and the (-) connections of the sensor for 5 seconds by connecting together the 2 wires from the sensor.
- **Do not make a short circuit on the sensor when the power supply is connected.**
- Reconnect the battery or switch on the electricity to restore power to the sensor.
- To enter into the adjusting mode, put your hand in front of the sensor at a distance of 5cm (2") to 10cm (4") within 5 seconds of re-connecting the power supply.
- **Note:** If you do not put your hand in front of the sensor after re-connecting the power supply, the sensor will not enter adjusting mode and the previous adjustment will return.
- When the sensor enters the adjusting mode, with your hand in front of it, the red light will flash slowly.
- Keep your hand in front of the sensor for 5 seconds until the slow flashing changes to quick flashing.
- Now move your hand away from the sensor to the required distance and wait until the red light stops flashing.
- When the red light stops flashing, the sensor has been adjusted to the required distance.
- Check the new distance and if still unsatisfactory, repeat the procedure.



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Battery Replacement

When the battery is ready for changing the red indicator light will flash at a constant rate. The battery must be changed within two weeks.

To replace the battery:-

1. Carefully open the battery box.
2. Remove the old battery
3. Replace with a new 9V battery, a lithium battery is recommended.
4. Close the battery box.

Maintenance

Filter cleaning

This tap is provided with a stainless steel filter preventing foreign particles from entering the tap.

If the water flow has decreased, this may be due to the filter becoming blocked.

The filter can be cleaned as follows;

1. Turn off the water supply by closing the service ball valve.
2. Disconnect the solenoid valve from the service valve and dismantle the filter adaptor from it.
3. Remove the filter and wash thoroughly using running water.
4. Reassemble the parts.
5. Re-connect the solenoid valve and turn on the water supply at the service valve.
6. Check to ensure none of the joints are leaking.

Aftercare

Saracen electronic taps have a high quality finish and should be treated with care.

An occasional wipe with a mild detergent on a soft damp cloth followed by a thorough rinse and wipe dry with a soft clean cloth is all that is required.

Do not use an abrasive or chemical household cleaner as this may cause damage to the surfaces.

When cleaning bathroom tiles the tap should be protected from any splattering of harsh cleaners.



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Trouble Shooting

Problem	Indicator	Cause	Solution
No water from tap	1. Sensor flashes continuously when user's hands are within sensor range.	Low battery - IR120SA	Replace battery.
	2. Red light in the sensor does not flash when the user's hands are within the sensor's range.	1. Range is too short. 2. Range is too long. 3. Battery is completely used up - IR120SA 4. Electricity supply to transformer switched off - IR121SA 4. Unit is in 'Secure Mode'*. 5. Sensor is picking up reflections from mirror or other objects.	Increase the range. Reduce the range. The battery must be replaced. Switch on supply. Eliminate the cause of the reflection.
* & ** see notes at foot of following page.	3. Red light in the sensor flashes when the user's hands are within the sensor's range.	1. Connector between the electronic unit and solenoid are disconnected.	Connect the electronic unit's connector to the solenoid.
		2. Debris or scale in solenoid.	Unscrew solenoid, pull out the plunger and the spring from the solenoid and clean them. Use scale removal agent if required. When replacing the plunger, please ensure that the spring is in the vertical position.
		3. The central orifice in the diaphragm is blocked or the diaphragm is torn.	Clean the orifice or replace the diaphragm.
		4. The water supply pressure is higher than 8 bar.	Reduce the water supply pressure.
		5. The water supply pressure is under 8 bar and yet the pressure in the tap's body is higher. This situation could be caused by a sudden increase in water supply pressure that the check valve or double check valve prevents from dropping, even after the water supply pressure falls below 8 bar.	Shut off the water supply and unscrew one of the flexible pipes in order to release the entrapped pressure.



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Trouble Shooting

Problem	Indicator	Cause	Solution
Water flow from the spout does not stop.	1. Sensor flashes when the user's hands are within the sensor's range.	Debris or scale in diaphragm or the diaphragm is torn.	Clean the orifice or replace the diaphragm.
	2. Red light in the sensor does not flash when the user's hands are within the sensor's range.	1. Sensor is dirty or covered **. 2. Sensor is picking up reflections from a mirror or other object	Clean or remove cause of interference. Reduce the range or remove the cause of reflection.
Water flow diminishes		Filter or aerator is clogged	Remove, clean and reinstall.

Notes:

* 'Security Mode': If the sensor is covered for more than 90 seconds the tap will automatically turn off the water flow. To return to normal operation remove the obstructive covering.

** Water flow will stop after 90 seconds due to security timing.

Warranty

Limited Warranty

This product is covered by a limited warranty for one year from the date of purchase.

During this period the manufacturer undertakes, at its option, to repair or replace any faults caused by defective material or manufacturing faults that may arise (see Warranty).

This guarantee does not cover faults or damage caused by incorrect installation and/or maintenance, wear and tear, battery or water composition (eg hard water), this includes but is not limited to the following:

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

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