

INSTALLATION AND MAINTENANCE GUIDE

# TUBULAR 1000 SERIES

WALL MOUNTED ELECTRONIC FAUCET WITH MIXER



Tubular 1000 B

Tubular 1000 E

Tubular 1000 B Box

Tubular 1000 E Box

# STERN

STERN ENGINEERING LTD.

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# TECHNICAL DATA

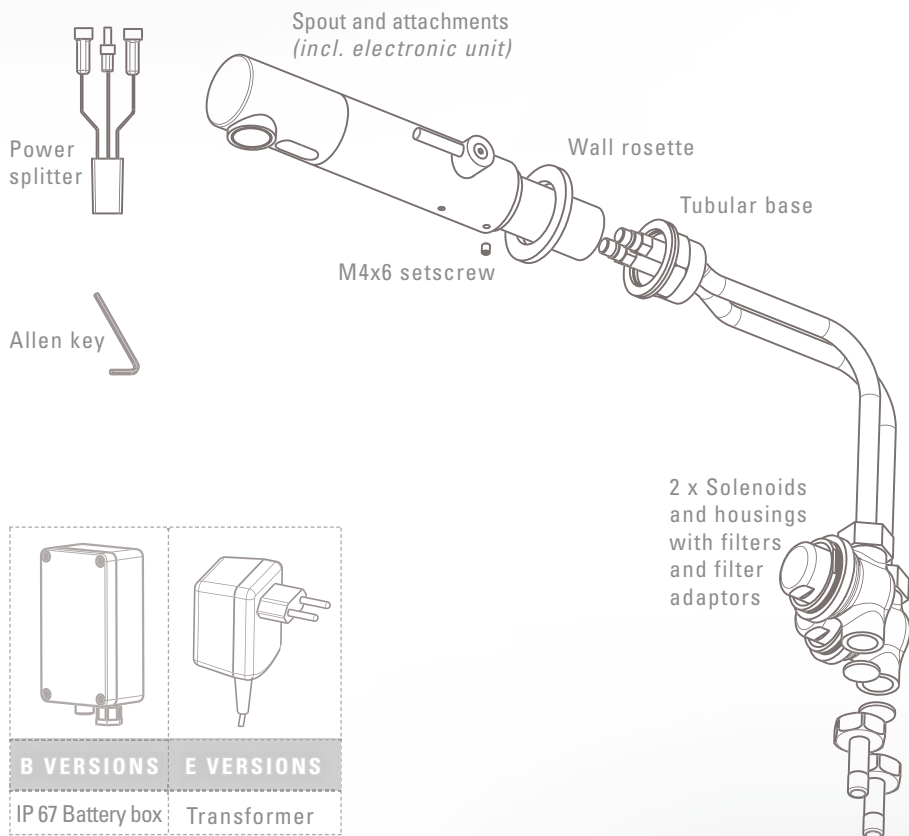


**TUBULAR 1000** WALL MOUNTED ELECTRONIC WITH A MIXER TO ADJUST THE TEMPERATURE

<b>Power supply for battery versions:</b>	9V battery or 6 x 1.5 V AA batteries
<b>Power supply for electricity versions:</b>	9V transformer
<b>Recommended water pressure:</b>	0.5-8.0 bar (7-116 PSI) With water pressure of more than 8 bars, use a pressure reducing valve for reduction
<b>Sensor range:</b>	Self adjusting
<b>Minimum sensor range:</b>	50 mm
<b>Maximum sensor range:</b>	250 mm
<b>Security time:</b>	90 seconds. Can be reduced with the remote control
<b>Hot water temperature:</b>	Max. 70° C

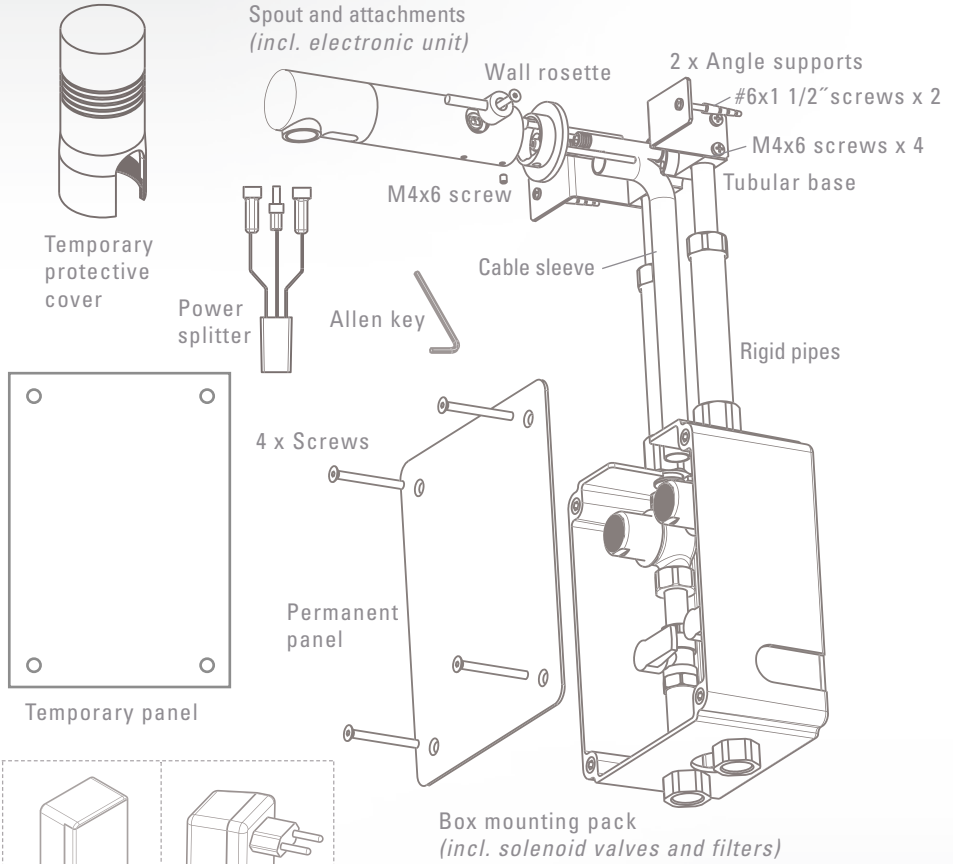
# PACK CONTENTS

TUBULAR 1000 B / 1000 E



# PACK CONTENTS

TUBULAR 1000 B BOX / 1000 E BOX



B VERSIONS	E VERSIONS
Battery box	Transformer

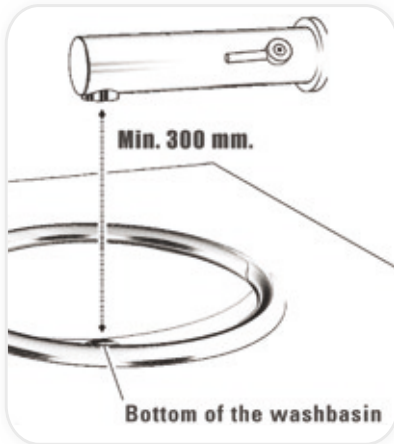
# PRE-INSTALLATION INFO

## 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 faucet until you obtain the missing parts.



## Warning

To avoid reflection problems keep a distance of more than 300 mm. between the bottom of the washbasin and the spout.

## Preparation for installation

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

## Important

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

# FAUCET INSTALLATION

## Installation instructions for

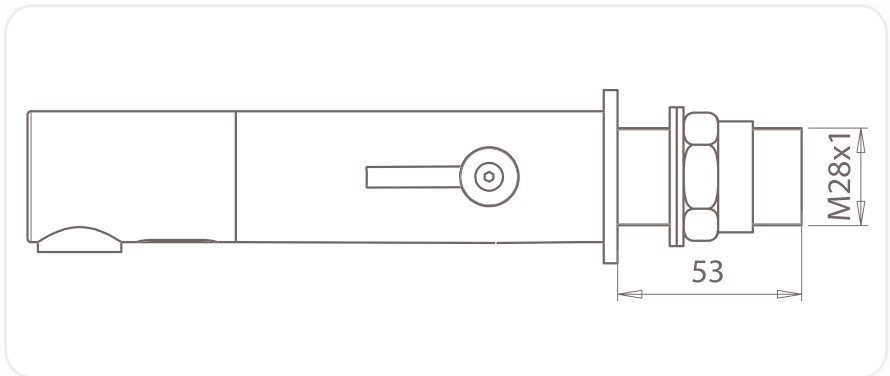
TUBULAR 1000 B

&

TUBULAR 1000 E

### Step 1 – Installing the faucet

1. Shut off the water supply.
2. Drill a hole (28 to 29 mm. ) at the place where you want to install the spout of the tap.
3. Insert the Tubular and its attachments through the wall.



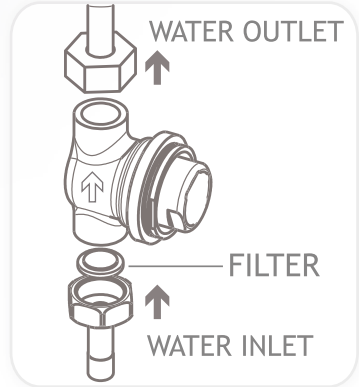
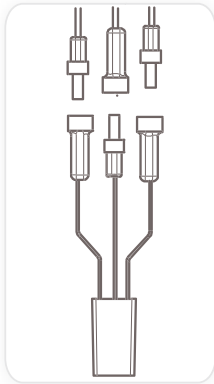
4. Fix the base behind the wall with the hexagonal nut and the disk.
5. Connect the cable leading to the solenoid and the cable leading to the power supply at the spout to those at the Tubular base.
6. Insert the flexible hoses from inside the wall through the Tubular base. Screw them to the Tubular spout.
7. Fix the Tubular spout by inserting the nipple into the Tubular base. Make sure that this area is clean before proceeding. Secure the screw with the Allen key. Make sure that the aerator at the Tubular spout will be installed facing the washbasin.

# FAUCET INSTALLATION

## Step 2 - Connecting the water supply

1. Fit the flexible pipes coming from the Tubular base to the solenoid valve housing.
2. 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.



3. Connect the cable coming from the electronic unit that leads to the solenoid valves to the power splitter. *See the figure at the left.*

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



Before proceeding to step 3, check that no objects are in front of the sensor besides the washbasin.

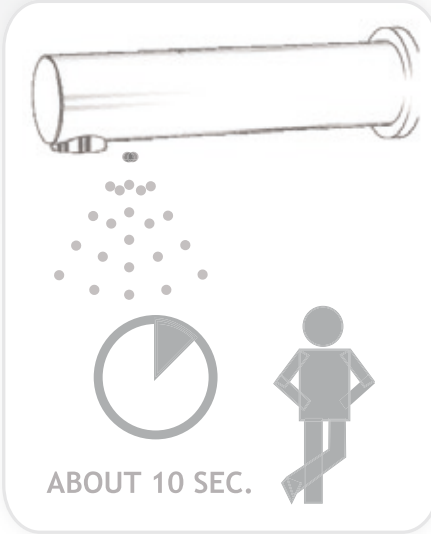


Remove now the protecting sticker that covers the sensor.



# FAUCET INSTALLATION

## Step 3 – Connecting the power source



1.a. For Tubular 1000 B: Connect the cable coming from the electronic unit at the Tubular base leading to the power source to the battery box.

1.b. For Tubular E: Connect the cable coming from the electronic unit at the Tubular 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:** Tubular 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.

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



# FAUCET INSTALLATION

## Installation instructions for

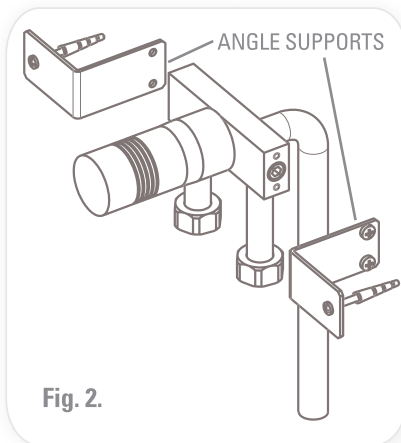
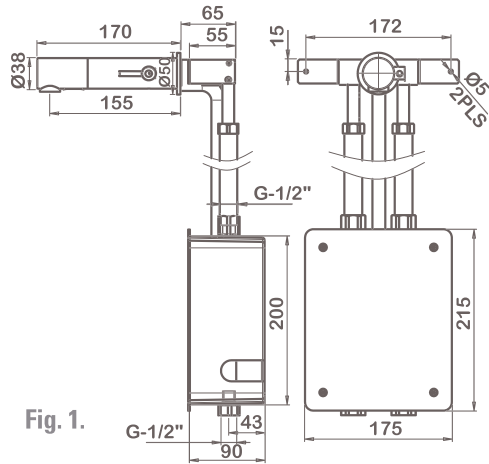
TUBULAR 1000 B BOX

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TUBULAR 1000 E BOX

### Step 1 – Installing the faucet

1. Shut off the water supply
2. Cut an adequate opening in the wall for the dimensions of the Tubular box, the cables sleeve, the rigid pipes and the Tubular base (at the place where you want to install the spout).
3. Insert the Tubular box through the wall. Connect the water supply pipe to the nipple at the bottom of the Tubular box.



4. Prepare the support bar for the Tubular base by assemble the angle supports with the 4 provided screws. Then mount the Tubular base through the wall opening using the 2 screws and anchors provided. See Fig. 2.

# FAUCET INSTALLATION

**Important:** The Tubular base should be installed so that the outside surface of the finished wall falls between the minimum and maximum lines marked at protective plastic cover.

5. Assemble the rigid pipes from the nipple at the box to the inlets at the Tubular base.

6. Insert the cables sleeve inside the Tubular box through the hole at the top of the Tubular box. If the cables sleeve is too long at the specific location, you can shorten it as needed. Make sure you will not damage the cables inside the sleeve while you cut it.

7. Assemble the temporary panel to the Tubular box.

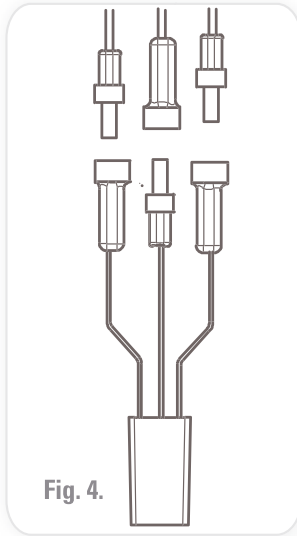


Fig. 4.

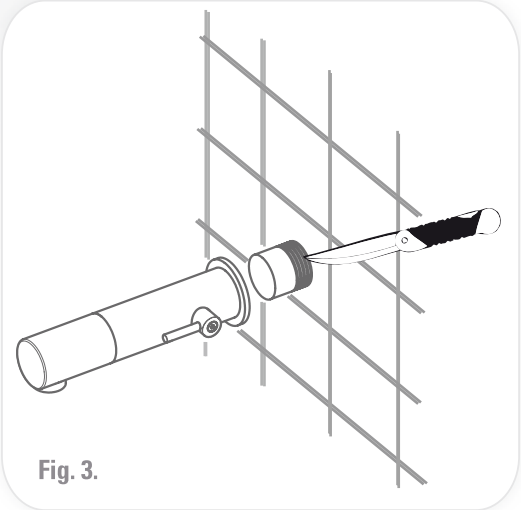


Fig. 3.

8. Once the works on electricity, plumbing and tiles have been finished, cut the temporary protective cover at the proper mark at the wall level. *See Fig. 3.*

9. Insert the wall rosette through the Tubular base and pass the cables from the spout through the rosette.

10. Connect the cables from the spout to the cables coming from the cables sleeve.

11. Fix the rosette to the Tubular base with the 2 provided screws.

12. Connect the electronic unit's connector coming from the cables sleeve to the power splitter solenoid's connector.

13. Connect the cables from the power splitter leading to the solenoids to the solenoid's connectors.

# FAUCET INSTALLATION



14. Fix the Tubular spout by inserting the nipples from the Tubular base. Make sure that this area is clean before proceeding.

15. Secure the screw with the Allen key. Make sure that the aerator at the Tubular spout faces the washbasin.

**Important:** This product includes a self adjusting sensor. The ideal sensor range for the specific location will be set automatically. Check that no objects are in front of the sensor besides the washbasin.

Remove now the protecting sticker that covers the sensor.

## Step 2 – Connecting the power source

1. If your model is Tubular 1000 B Box, the battery box is attached to the panel. Connect the battery box connector to the electronic unit connector.

2. If your model is Tubular 1000 E Box: place the transformer near the electricity plug and thread the transformer's wire to the box.

Connect the power supply connector from the electronic unit coming from the cables sleeve to the transformer.



# FAUCET INSTALLATION



3. 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.

4. Assemble the permanent panel by screwing the provided four screws.

## Step 3 - Connecting the water supply

1. Turn on the central water supply.
2. Check for leaks.

**Note:** Tubular 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.

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



# SETTINGS ADJUSTMENT

## Adjusting the sensor range with the remote control

Tubular was supplied with Stern's new Self Adjusting Sensor. The ideal sensor range for the specific location will be set automatically.

**Only if necessary**, use the remote control to adjust the sensor range as follows:

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 4" (10cm). 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 adjustment by pressing the (+) or the (-) buttons, every push will increase or decrease one level. After finishing the adjustment, turn on the water supply.

**Range:** Press + to increase detection range and – to decrease the detection range of the sensor.

## Adjusting other settings with the remote control

**Flow time (Security time):** Press + to increase the security time and – to decrease it.

**Delay In:** Changes the time the water will start flowing when the user's hands are within the sensor range. Press + to increase it and – to decrease it.

**Delay Out:** Changes the time of water flow after the user's hands are removed. Press + to increase it and – to decrease it.

**On/Off:** Press this function button and the faucet will remain off for 1 minute. To cancel this function press the on/off again.

**Reset:** This function allows to come back to all the factory settings. Press the Reset button and without releasing it, press one time the + button.

**Note:** After the reset function is performed, the Self Adjusting Sensor will set again the ideal sensor range for the specific location. Check that there are no objects in front of the sensor and wait 10 seconds in order the product will be ready for use.



# 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.

Always use batteries from a reputable source. Poor quality batteries may affect the performance of the product.

### To replace the battery (battery models only):

1. For Tubular 1000 B: Open carefully the batteries' box and remove the old batteries. Replace the used batteries with six new 1.5V AA batteries. Close the box.
2. For Tubular 1000 B Box: Release the screws at the panel and remove it. The battery box is located behind the panel. Open carefully the battery's 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.



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



After you have connected the power source (Battery or Transformer) wait 10 seconds in order to allow the system to set the ideal sensor range. Then the product will be 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

This tap is provided with a stainless steel filters preventing foreign particles to enter the lines. If the water flow has decreased, this may be because the filter is clogged. The filter can be cleaned as follows:

1. For Tubular 1000 B and Tubular 1000 E: Shut-off the water shut off valve.
  - a. Disconnect the water supply pipes from the adaptors and disassemble the filters from it.
  - b. Wash the filters under running water.
  - c. Reassemble the parts.
  - d. Restore the incoming water supplies.
  - e. Make sure that there is no water leakage.
2. For Tubular 1000 B Box and Tubular 1000 E Box
  - 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. Re-assemble the wall cover panel

## 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 faucet. For surface cleaning of faucet use **ONLY** soap and water, then wipe dry with clean cloth or towel. When cleaning bathroom tile, the faucets 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

Self adjusting sensor kit .....	Cat.No. 07220056
Solenoid valve kit .....	Cat.No. 07500100
Solenoid housing kit .....	Cat.No. 07231001
Transformer .....	Cat.No. 06522025
IP67 Battery box .....	Cat.No. 06522020
Diaphragm .....	Cat.No. 04500001

## **Optional accessories**

Remote control .....	Cat.No. 07100002
Battery box for 1 x 9V battery .....	Cat.No. 06530008
IP67 Transformer box with transformer .....	Cat.No. 06530021
Transformer junction box .....	Cat.No. 06530013
Transformer junction box exit with 3 meter cable and male connector .....	Cat.No. 06000067
Mixing valve .....	Cat.No. 200070

# TROUBLE SHOOTING

PROBLEM	INDICATOR	CAUSE	SOLUTION
<b>No water coming out of the tap:</b>	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 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"*	
	3. Red light in the sensor flashes when user's hands are within the sensor's range.	5. Sensor is picking up reflections from the washbasin or another object.	Eliminate cause of reflection.
		1. Connectors between the electronic unit and solenoid are disconnected.	Connect the electronic unit connectors 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 remover material if needed. When replacing the plunger, please make sure that the spring is in vertical position.	
<b>Water flow from spout does not stop:</b>	1. Sensor flashes when user's hands are within the sensor's range. 2. Red light in the sensor does not flash when user's hands are within the sensor's	3. The central orifice in the diaphragm is plugged or the diaphragm is torn	Clean the orifice or replace diaphragm.
		4. The water supply pressure is higher than 8 bar.	Reduce the supply water pressure.
		Debris or scale in diaphragm	Clean the orifice or replace diaphragm.
		1. Sensor is dirty or covered.	Clean or eliminate cause of interference.
<b>Water flow diminished</b>		2. Sensor is picking up reflections from the washbasin or another object.	1. Decrease the range or eliminate cause of reflection.
		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 to re-establish operation.

# LIMITED WARRANTY

This product is covered by a limited warranty for two years from date of purchase.

During this period, STERN undertakes, at its option, to repair or replace any faults caused by defective materials or manufacturer defaults that may arise (see Stern Warranty).

The guarantee does not cover faults or damage caused by incorrect installation and/or maintenance, wear and tear, battery, or water composition. This includes, but is not limited to 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

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