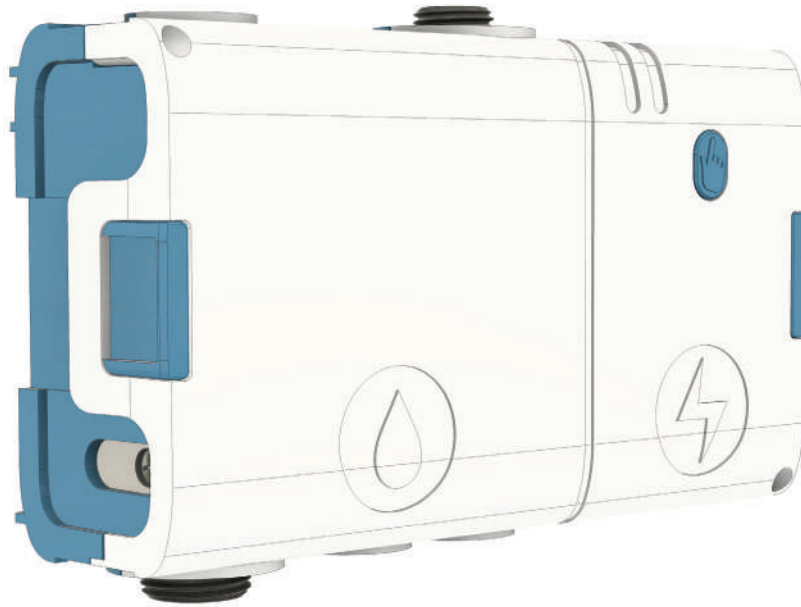


# Installation Manual

## TCF.2000 - Touch Sensitive Sensor Box For Use With All Isenberg Kitchen Faucets

### FOR USE WITH UNDERMOUNT SINKS ONLY



#### BEFORE YOU BEGIN

- You must Observe All Local Plumbing Laws and Codes.
- Do not Install this Valve if it does not meet local Plumbing Codes.
- Shut off the Main Water Supply.

# Installation Manual

## TCF.2000 - Touch Sensitive Sensor Box

For Use With All Isenberg Kitchen Faucets

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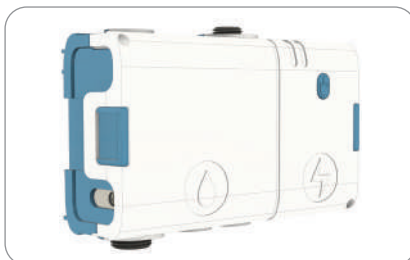
# Installation Manual

## TCF.2000 - Touch Sensitive Sensor Box For Use With All Isenberg Kitchen Faucets

### PROVIDED EQUIPMENT



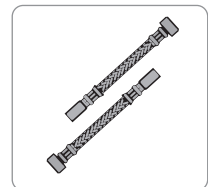
Kitchen Faucet  
\*\*\*\*\*Not Included\*\*\*\*\*



Box (Includes Solenoid Valve/Clarinet and Battery Holder)



6 AA Alkaline batteries



Non Metallic Supply hoses



Sensor Cable



Plastic Mounting Ring  
(Only for Metallic Sink)

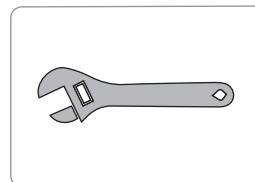


Electrode Washer

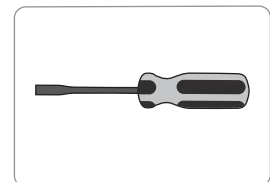
### TOOLS REQUIRED FOR INSTALLATION



Under Mount Metallic Sink

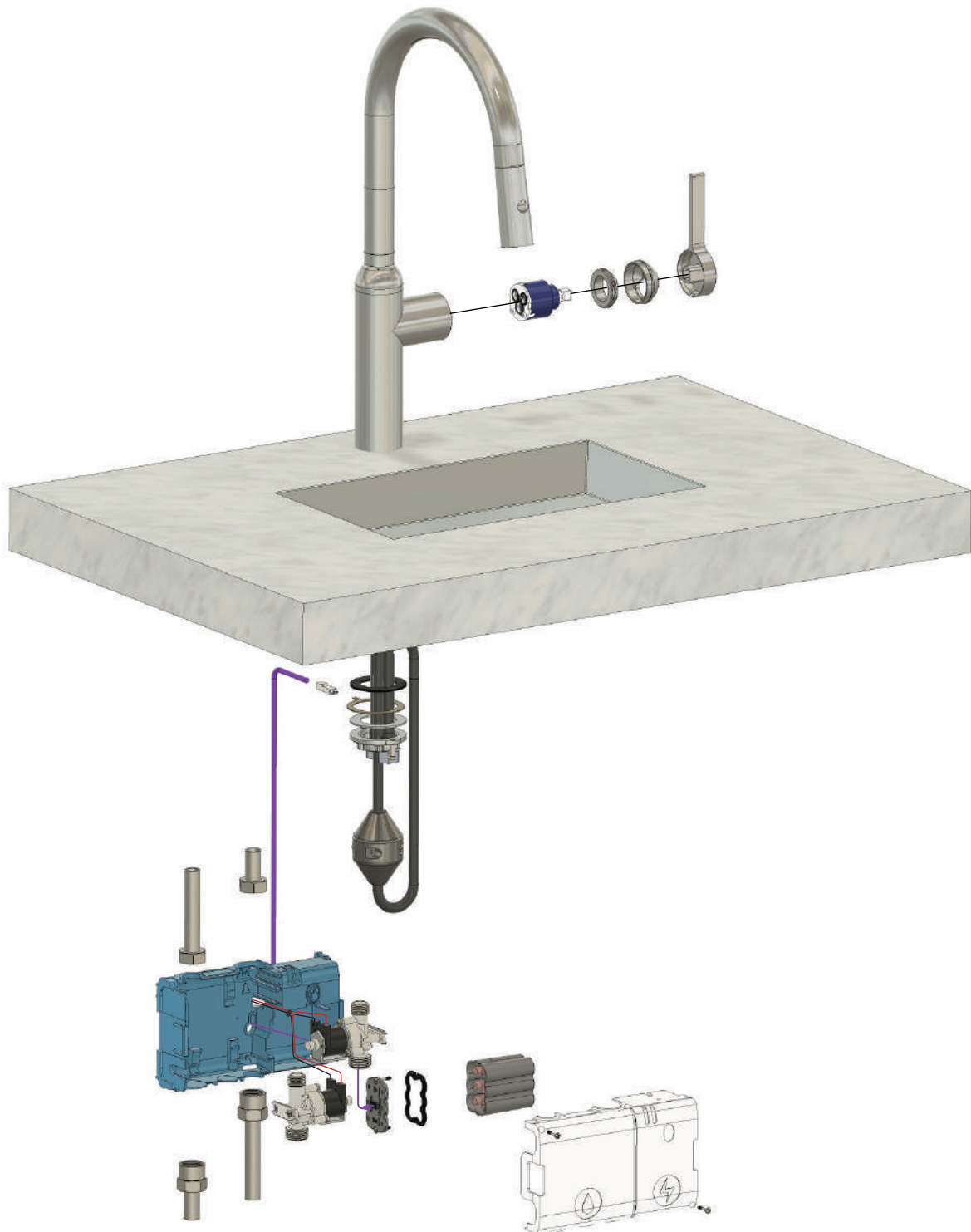


Wrench



Screwdriver

**EXPLODED VIEW**



## OPERATING SPECIFICATIONS

### WATER TEMPERATURE



This product is to be used with water at a temperature range of 40°F-120°F ONLY!

### WATER PRESSURE



This product is to be used with a water pressure range of 15 PSI to 80 PSI ONLY!  
If water pressure is greater than 80 PSI install a pressure reducing valve (PRV)

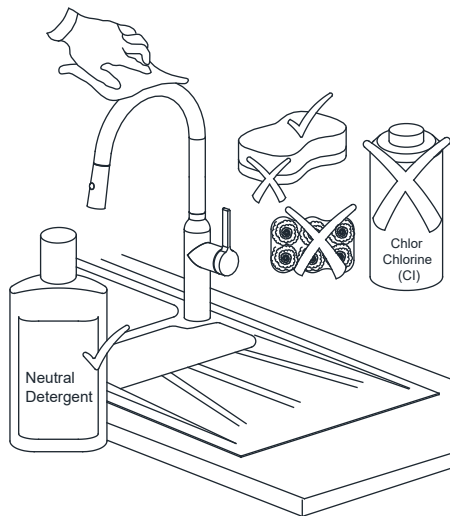
## NOTICE TO HOMEOWNER

- We recommend that this product is installed by a qualified professional plumber.
- Please check this product immediately to ensure that it has not been damaged and is complete. Before installation, please make sure this product is the correct model and you have all the parts required for installation and use.
- Please flush the water system to ensure that no metal swarf, solder and other impurities can enter the product.
- Turn off water supply before commencing work.
- Please read these instructions carefully and retain for future reference.



- All Water hoses to the faucet and box must be in plastic, Non conductive.
- The waste water siphon must be plastic, No metal.
- Carry out all installment steps before opening water supply and powering up the box.

## OPERATING SPECIFICATIONS



**Fluid :** Drinking water

**Temperature :** Storage temperature between -20° C and 70° C (Ensure that no water is inside the valve body). The valve is designed to operate with water temperature between 5° C and 65° C.

**Operating Pressure :** The valve has been designed to function with pressure between 0.5 and 8 bars.

**Recommended Operating Pressure :** 1 to 5 bars

**Hydraulic connection :** G 1/2 male threads.

**Flow direction :** Unidirectional (According to arrow on the valve side or bottom).

## USING OF FAUCET

Activate the faucet by touching the faucet body. Touch the faucet a second time to close it. Grab the faucet body for 320ms to activate the grab function.

## STORAGE GUIDELINES

Always store boxes in their original packaging so that the product can be immediately identified easily. Following reception and inspection, the product must be placed back into its original packaging and stored as such up until the moment that the product is installed. Store boxes, within their original packaging, in a cool dry space protected from humidity, heat, frost and wind (can potentially carry solid particles such as earth, sand or cement). When testing in quality control, take care of the water quality: clear water and no silicone residue.

## HANDLING GUIDELINES

Avoid damaging shocks and impacts with the box and threaded ends. The box must be handled with caution, any impact can weaken the resistance of the plastic body or cracks that could cause leaks as the product ages.

## ASSEMBLY INSTRUCTIONS

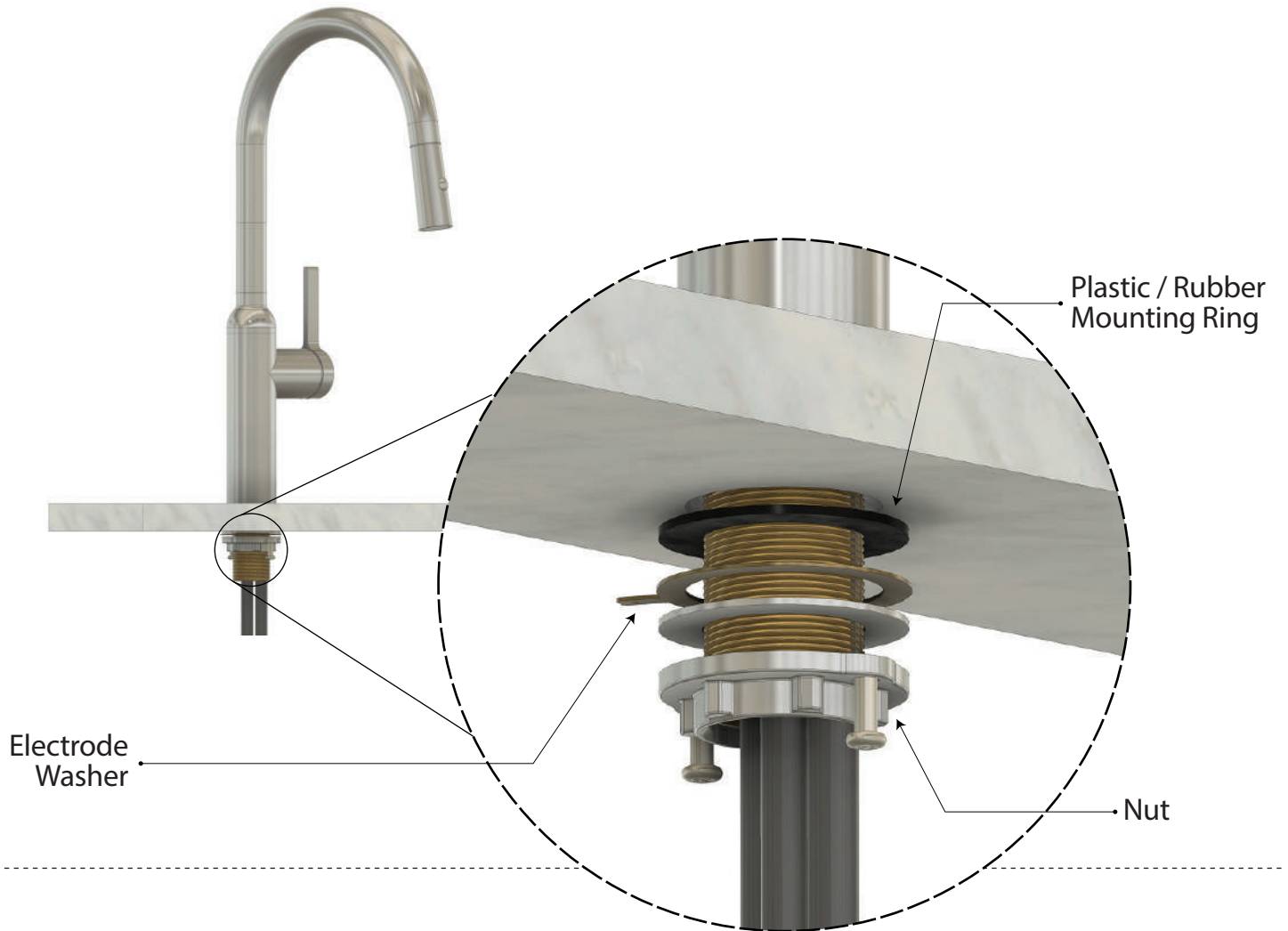
The box must be installed in conformity with the relevant standards and national regulations. Before installation and once the packaging is removed, check that the box is clean, and that it has not been damaged by impacts that may have occurred during the product's transportation. Check that the seals and threaded ends of the box are clean.

## INSTALLATION INSTRUCTIONS

The C Flex Box should be isolated from other electrical machines that do not respect relevant EMC standards for sanitary ware installations. All connections must be carried out in accordance with applicable standards (EN 806-4, for example) and the instructions that are detailed within this manual. Several flushes of the water pipes must be carried out prior to installation in order to eliminate dust, debris and residue from soldering fluxes. Water piping must be perfectly clean prior to the installation of the box. It is essential to allow for the possibility that the box be uninstalled at a later date (ensure that hydraulic connections are accessible, wrench passage etc.). The box must remain accessible to allow for maintenance operations (cleaning/changing filter, changing batteries for examples). Before installation turn off the water supply and check that you have all the necessary equipment.

## FAUCET INSTALLATION WITH ELECTRODE WASHER

Reminder : In the case of a metal sink, the sink must be grounded.

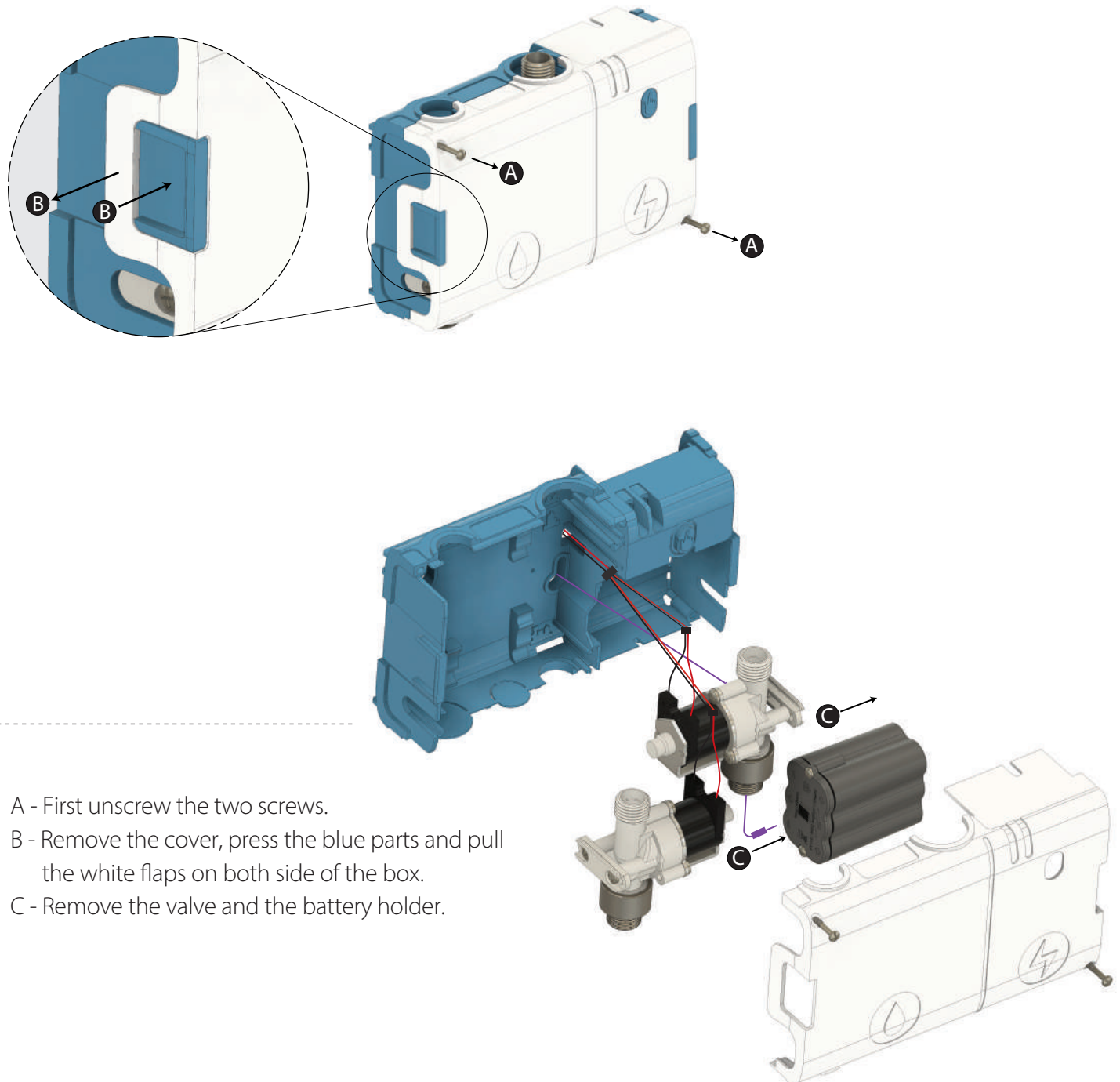


### INSTALL THE FAUCET ON TO THE COUNTER TOP

- 1) The body of the faucet must be well electrically isolated from the sink.
- 2) Ensure that the faucet's threaded shank thread is not in contact with the sink.
- 3) Install the electrode washer under the sink, between the nut and the plastic / rubber mounting ring.
- 4) Install the faucet on the sink following the faucet instructions.
- 5) The electrode washer cannot be in contact with a metallic sink.
- 6) The electrode washer must be in contact with the faucet shank.

## PREPARING THE SENSOR BOX

Reminder : In the case of a metal sink, the sink must be grounded.




A - First unscrew the two screws.

B - Remove the cover, press the blue parts and pull the white flaps on both side of the box.

C - Remove the valve and the battery holder.

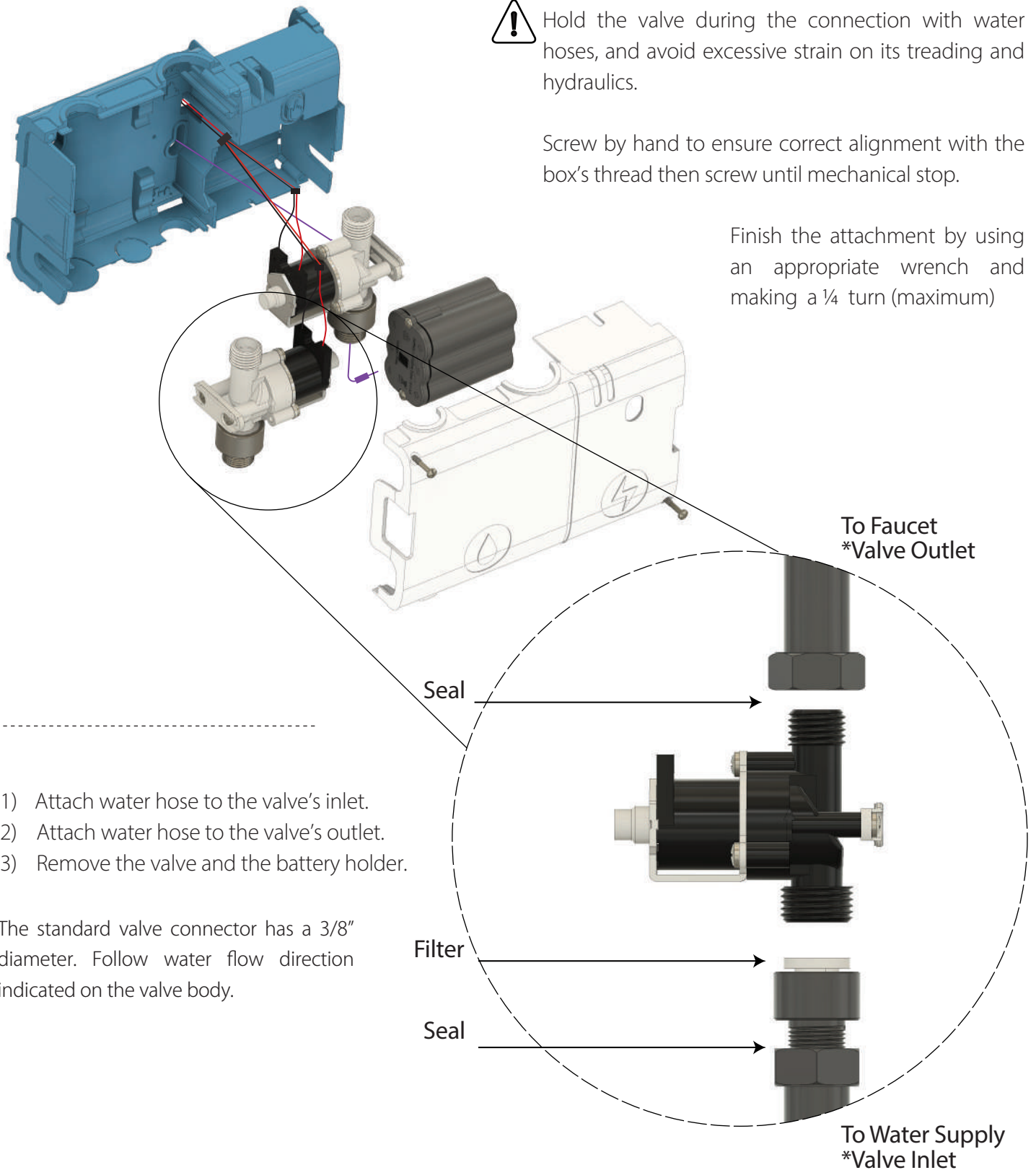


## ATTACHING THE SUPPLY HOSES

 Hold the valve during the connection with water hoses, and avoid excessive strain on its threading and hydraulics.

Screw by hand to ensure correct alignment with the box's thread then screw until mechanical stop.

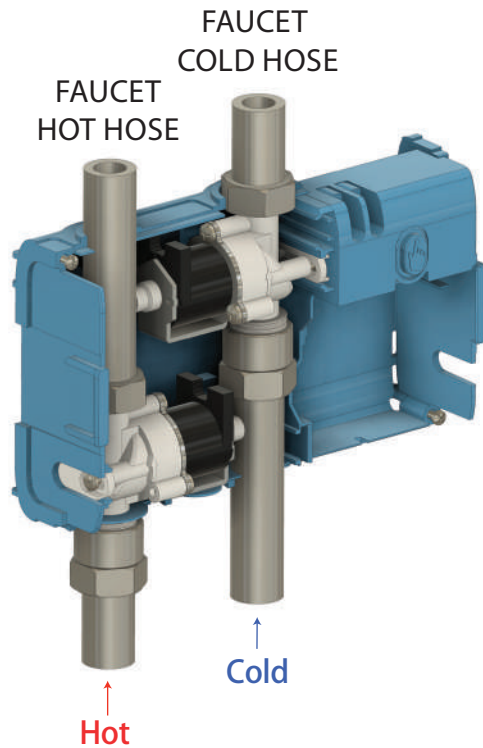
Finish the attachment by using an appropriate wrench and making a ¼ turn (maximum)



- 1) Attach water hose to the valve's inlet.
- 2) Attach water hose to the valve's outlet.
- 3) Remove the valve and the battery holder.

The standard valve connector has a 3/8" diameter. Follow water flow direction indicated on the valve body.

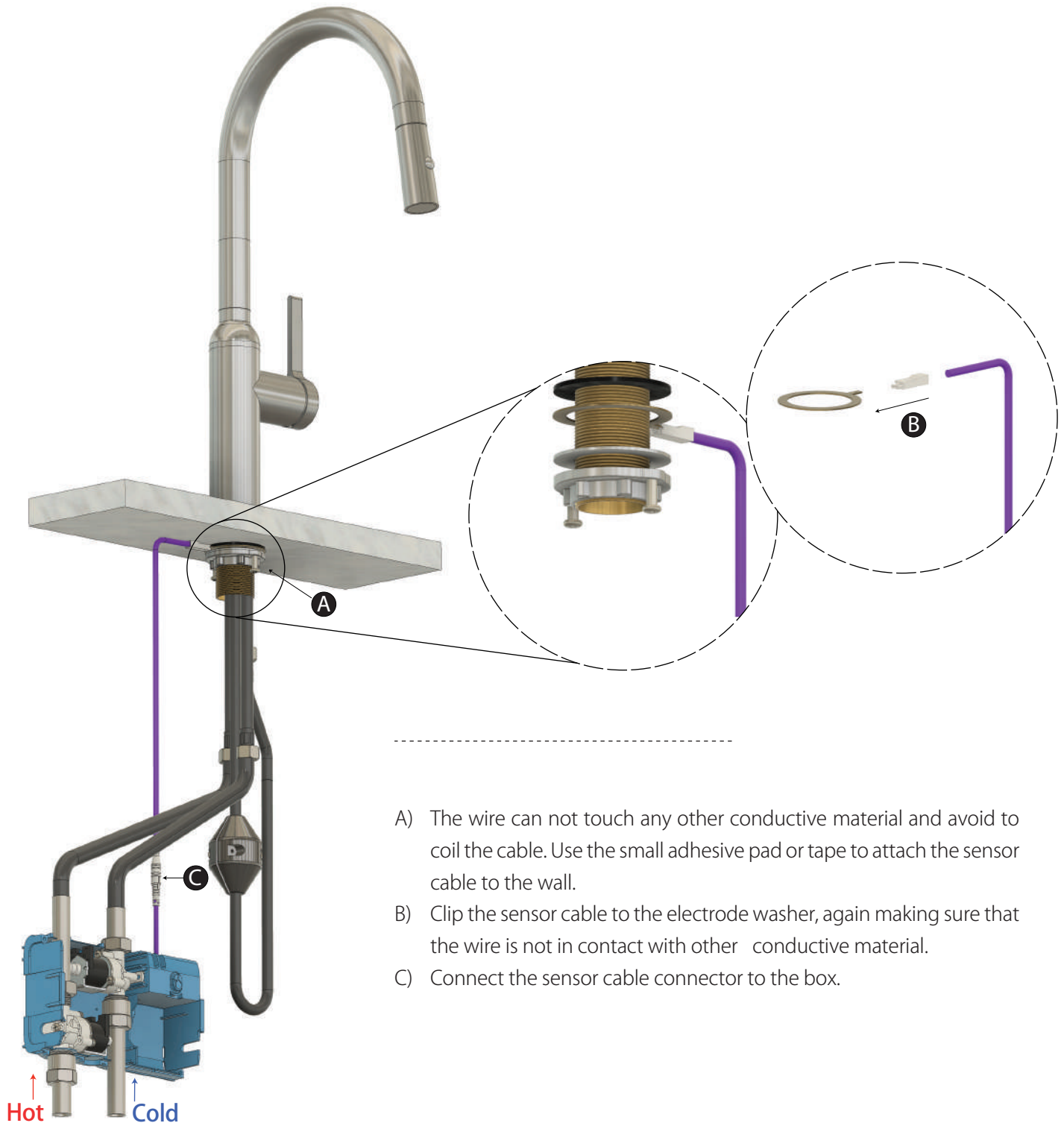
## SECURING THE SOLENOID VALVES INTO CASE



Replace the valve in the box according to the pictogram on the base of the box. The valve's position in the box varies depending on the configuration type dual flow (see visual).

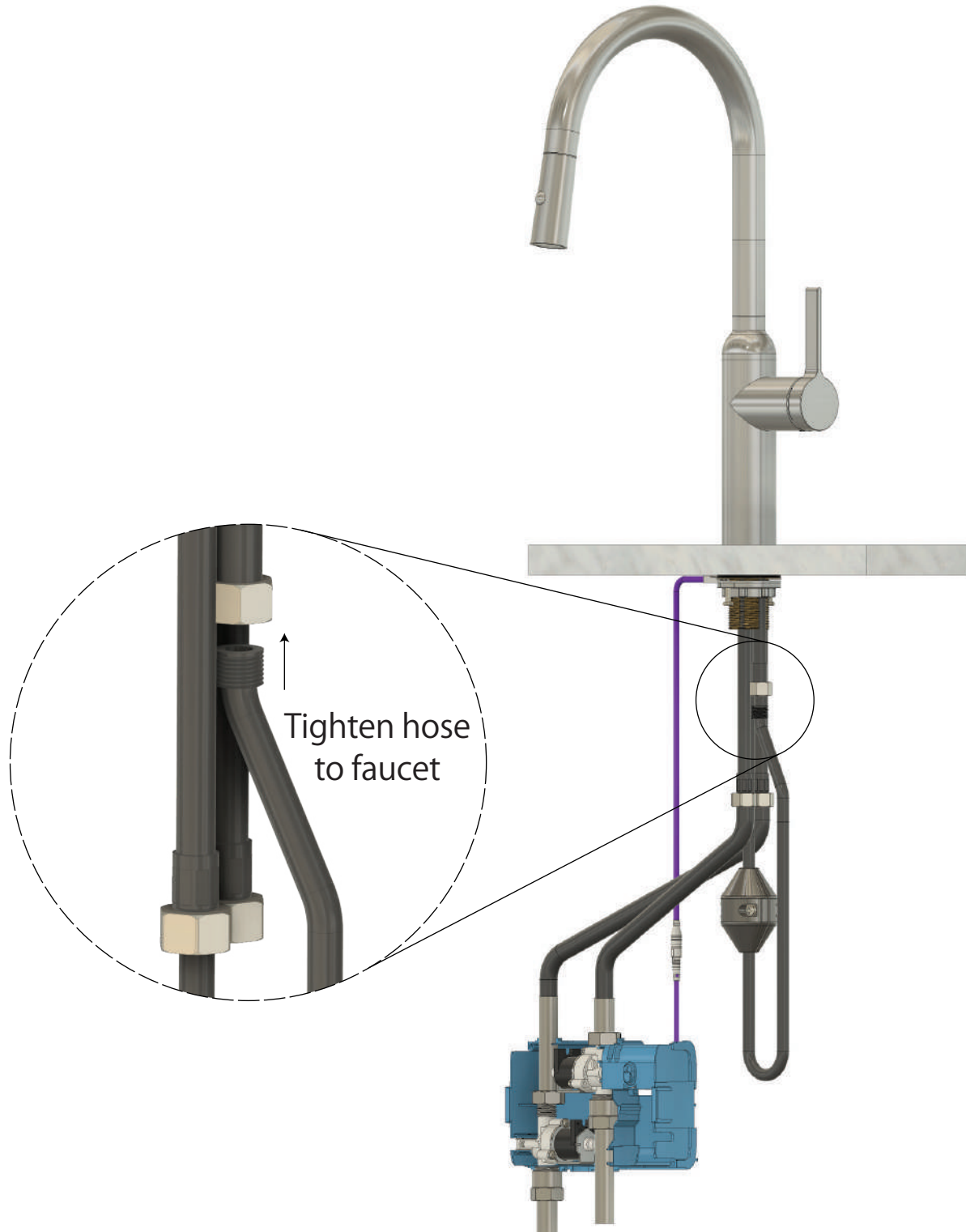
Once the valve is securely placed in the box, connect the solenoid valve's cable to the box's corresponding red and black cable.

## CONNECTING THE SENSOR CABLE

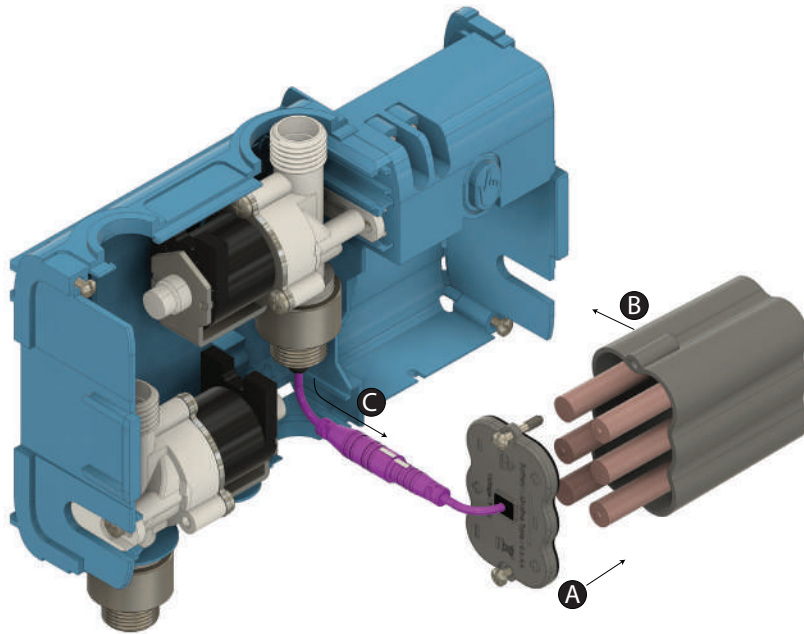


- A) The wire can not touch any other conductive material and avoid to coil the cable. Use the small adhesive pad or tape to attach the sensor cable to the wall.
- B) Clip the sensor cable to the electrode washer, again making sure that the wire is not in contact with other conductive material.
- C) Connect the sensor cable connector to the box.

TIGHTENING THE FAUCET SPRAYER HOSE



## INSERTING AA BATTERIES



- A) Place 6 AA batteries in the battery holder according to polarity.\
- B) Place the battery holder in the box.
- C) Plug the battery holder to the corresponding connector in the box (connector with purple cable). Respect the order of sequence A,B and C.



The C Flex box touch can not be used with a mains power supply.

## OPENING THE WATER SUPPLY



Open the water supply, after water to flow into the valve. Water may start to flow from the faucet,

The faucet may also remain closed, but this isn't a problem. Whether water flows from the faucet or not depends on the solenoid valve's position (open or closed) at the time of installation.

## CLOSING THE BOX

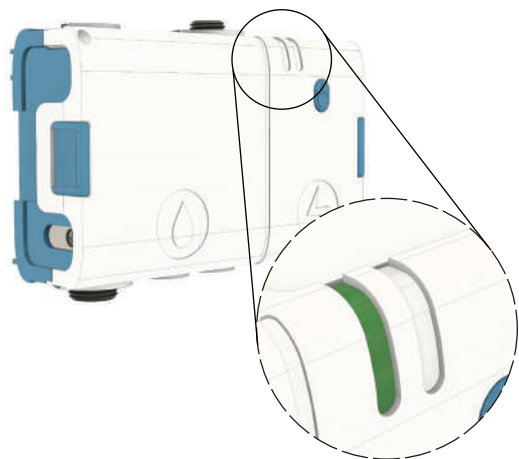


Check that there are no water leakages near the hoses, faucet and valve.

Then close the box cover.

You can use the 2 screws to hold the cover in place for anti-vandal purposes.

## CALIBRATION



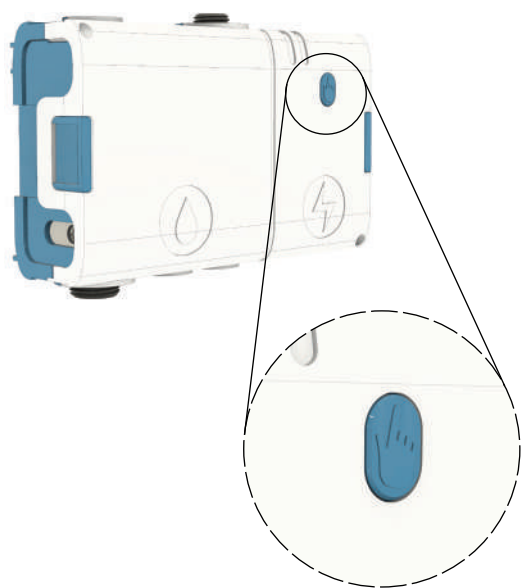
After connecting the battery holder, the led is green. Press the button to launch the calibration. Make no contact with the faucet, box or any other components of the installation.

During calibration, the green led flashes and water flows from the faucet for 10 seconds. Once the water has stopped flowing, touch the faucet and maintain contact only with one finger until the water flows again. The water stops flowing automatically is less then 1s.

If the calibration is successful, the green light stops flashing and the faucet releases a short burst of water (<1s). If the calibration is unsuccessful, the box's red led lights up and the faucet releases two short bursts of water.

In this case, unplug and reconnect the box's batteries in order to reinitialise the calibration process. If the problem persists consult troubleshooting guidance.

## ADJUSTING THE SENSITIVITY



After the calibration phase, activate and deactivate the faucet 3 to 4 times. This should allow the sensor to automatically optimise sensitivity to its installation conditions but if the sensor sensitivity is not satisfactory press the button to adjust it.

The sensor has 3 levels of sensitivity:

**Level 1:** Low    **Level 2:** Medium    **Level 3:** High

The level of sensitivity can be set by using the button. To enter sensitivity adjustment press the button for 3 seconds (until the led flashes). Release the button.

The sensitivity level is indicated by a series of flashes. for example, level 2 is indicated by 2 flashes. Each time the button is pressed the sensitivity level increases by 1. At level 3, press once more and the system returns to level 1.

After adjusting the level, press the button for 3 seconds to validate. Both leds flash once to confirm that the sensitivity level has been validated. After adjustment the system reboots and restarts an auto calibration cycle. If the sensitivity level is not validated, the led continues to flash for 25 seconds before stopping without saving the new sensitivity level.

## PUSH BUTTON INDICATION

ACTION	WHEN	PUSHING TIME	DESCRIPTION
Start-up	Within 60min after powering the unit or a reset	0s (simple push)	
Bypass	After calibration	0s (simple push)	If the batteries are OK, open the valve with a timeout of 10 min. A second simple touch will cancel the bypass and reactivate the valve. If the batteries are weak, open the valve with no timeout. If the batteries are empty, bypass feature is not possible.
Sensibility setting	After calibration	>3s	1/ Push the button for more than 3s until the red and green LED's flash once.  2/ The red LED blinking indicates the level of the current sensibility (2 blinks = sensibility 2).  3/ To validate the setting, a long push of 3s will be required. The sensibility adjustment mode is left without saving after 30s without user action.
Reset	After calibration	>10s	1/ Push the button for more than 10s until the water briefly flows and the red and green LED's flash once.  2/ The box restarts and redo a calibration.

## LED INDICATION

STATUS	What YOU SEE	CAUSE
First Start-up	Green LED permanently lit	The box starts up and waits for a push of the button.
Calibration	Fast green LED flashes	The box is calibrating.
Bypass	1 fast red and green flash every 3s	The valve is opened (with or without timeout depending on the level of the batteries).
Low battery	1 red LED flash every 3s	The batteries are weak.
Empty battery	1 red LED flash every 1s	The batteries are empty.



## LED INDICATION

### LOW BATTERY

1 blink every 5 seconds

When batteries reach a low level the box's red LED blinks every 5 seconds. The batteries are nearly empty and need to be changed quickly before the system shuts off. It takes on average 10 days for the system to go from low battery to the shut off.

### EMPTY BATTERY

1 blink every 5 seconds and no water.

The batteries are empty, the system has shut off the water, and the blinking continuous until no power remains or the batteries are replaced.

### MANUAL OVERRIDE

To continue using the faucet manually when the batteries are empty, press the control button. The faucet can now be opened and closed by using the faucet's handle alone. Once the box's batteries have been replaced, normal sensor operation resumes automatically. Manual override is available for up to two weeks after the box's batteries are empty.



### LOW BATTERY

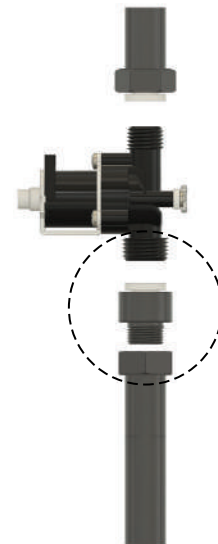
Depending on the water quality it may be necessary to clean or replace the box's valve filter.

### EMPTY BATTERY

Remove the valve from the box. Run water into the valve's inlet, whilst tilting the valve to the side to allow impurities to pour out into the sink.

### MANUAL OVERRIDE

Remove the valve from the box. Use a pair of tweezers to remove the filter from the valve. Put an identical filter in place with the filter grill facing outwards. Push the filter into the valve up until the mechanical stop.



## ⚠️ TROUBLESHOOTING

### IF THE SYSTEM IS IRRESPONSIVE OR SUFFERS FALSE DETECTIONS, THEN IT IS POSSIBLE THAT:

- **Cables are in contact with the water hoses or metallic parts :** Ensure that the sensor cable doesn't contact the supply hoses or metallic parts.
- **The waste water siphon is metallic :** Replace with plastic waste water pipe
- **The batteries are discharged or misoriented.**
- **Surrounding equipment do not confirm to EMC standards are are impeding the sensor's performance.**

ACTIVATION POSTURE

Posture 1



Posture 2



(Touch sensor will not be activated when the hand is positioned in either Posture 1 or Posture 2.)

Posture 3



(Touch sensor will be activated when the hand is positioned as Posture 3.)