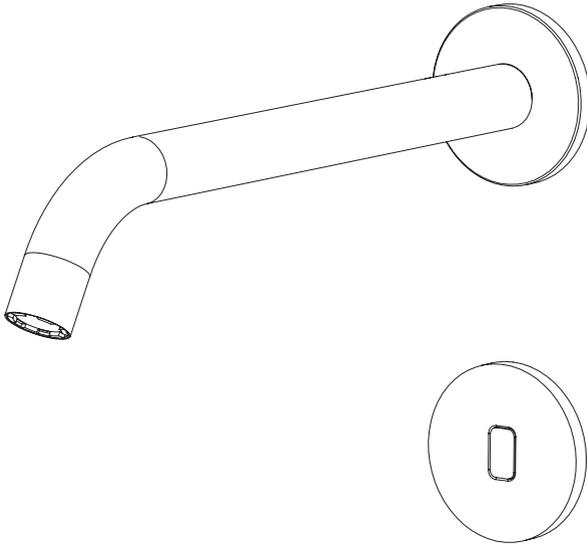


# TSL.882 / 884

Radius Sensor Faucet - Large / Small



installation + maintenance

+ THE  
SPLASH  
LAB

# contents

<b>3</b>	Safety and Warnings
<b>4</b>	Box Contents
<b>5</b>	Technical Data
<b>7</b>	Before You Install
<b>11</b>	How to Install
<b>16</b>	Commissioning
<b>17</b>	The Complete System
<b>18</b>	Settings Adjustment: Wired Controller
<b>19</b>	Maintenance
<b>24</b>	Cleaning
<b>25</b>	Diagram
<b>26</b>	Troubleshooting
<b>28</b>	Warranty
<b>29</b>	Spare Parts / Accessories
<b>30</b>	Drilling Template
<b>31</b>	Contact Details

# TSL.882 8 5/8" IR sensor tap – mains power

## TSL.884 5 7/8" IR sensor tap – mains power

### Read and save these instructions

#### WARNING

To reduce the risk of fire, electric shock or injury to persons, observe the following:

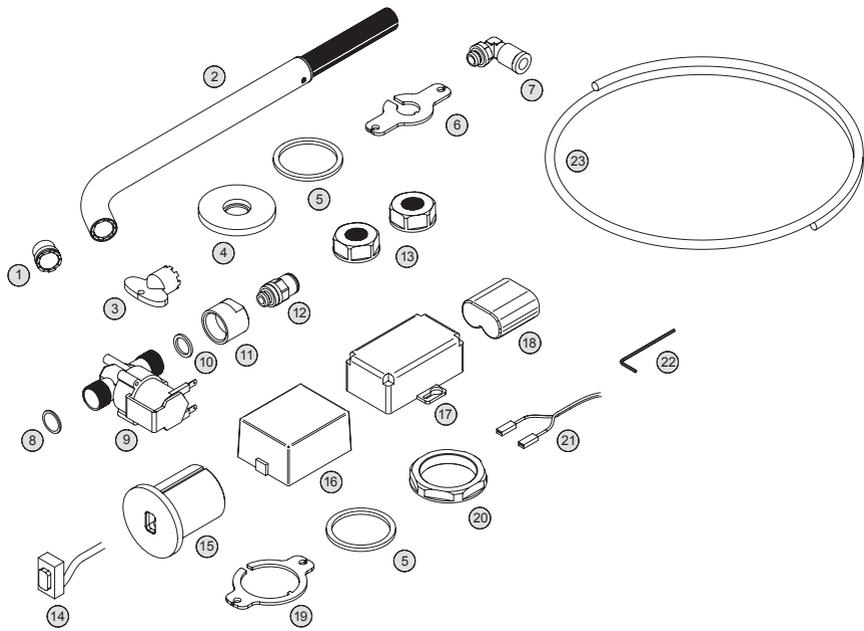
- + Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer (see back page for more details).
- + Replace batteries only with the same type and rating of batteries.
- + Disconnect power supply before performing any maintenance on product.
- + Ensure wiring is installed correctly before connecting to power supply (see installation instructions, page 11, for details).
- + Keep plugs and receptacles dry.
- + All plumbing is to be installed in accordance with applicable codes and regulations.

#### For more information contact:

Tel: +1 310 410 5008

[info.usa@thesplashlab.com](mailto:info.usa@thesplashlab.com)

# box contents



	TSL.882	TSL.884	
1	Aerator - 1.89lpm - Spray pattern	TSLP.260063	TSLP.260063
2	Tap spout	TSLP.009	TSLP.010
3	Aerator key	TSLP.260050	TSLP.260050
4	Wall bezel	TSLP.021	TSLP.021
5	Wall seal gasket	TSLP.111	TSLP.111
6	Anti rotation plate	TSLP.110	TSLP.110
7	Elbow coupling	TSLP.033	TSLP.033
8	Inline filter / strainer	TSLP.08530015	TSLP.08530015
9	Solenoid valve	TSLP.120030	TSLP.120030
10	Sealing washer	TSLP.101	TSLP.101
11	Solenoid valve adapter coupling	TSLP.115	TSLP.115
12	Straight coupling	TSLP.032	TSLP.032
13	Sensor housing locking nut	TSLP.112	TSLP.112
14	IR sensor	TSLP.260045	TSLP.260045
15	Sensor housing	TSLP.005	TSLP.005
16	Mains power supply unit	TSLP.270066	TSLP.270066
17	Battery holder (Optional)	TSLP.270029	TSLP.270029
18	Battery (Optional)	TSLP.270030	TSLP.270030
19	Sensor housing anti-rotation plate	TSLP.113	TSLP.113
20	Sensor housing fixing nut	TSLP.112	TSLP.112
21	Solenoid connector cable	TSLP.120032	TSLP.120032
22	Hex wrench	TSLP.030	TSLP.030
23	Inlet tubing	TSLP.260064	TSLP.260064

# technical data

<b>Finishes</b>	TSL.882/884.BK Black
	TSL.882/884.BR Brass
	TSL.882/884.CP Copper
	TSL.882/884.CS Satin

## MECHANICAL

---

<b>Body Material</b>	AISI 304 Stainless Steel
<b>Coating Type</b>	PVD (colours only)
<b>Aerator</b>	Cascade
<b>Water Pressure (Dynamic)</b>	7.25 to 108.78 psi
<b>Water Temperature (max)</b>	140°F
<b>Flow Rates</b>	1.0gpm Also available as optional extras: 0.35gpm 0.5gpm

---

## ELECTRICAL

---

<b>Power supply</b>	110-230 Vac, 50-60Hz, 1.5A
<b>Output (max)</b>	6 Vdc, 1A
<b>Power consumption</b>	< 87% Active mode, 0.3W No load
<b>Solenoid valve type</b>	6V Latching
<b>Water Ingress</b>	IP55
<b>Cable lengths</b>	2'-7 1/2" - Power supply connection 2'-7 1/2" - Solenoid valve connection

---

# technical data

## SENSOR FUNCTION

<b>Sensor type</b>	Infrared
<b>Pre-set sensor range</b>	2" to 4 3/4"
<b>Sensor range (max)</b>	9 7/8"
<b>Tolerance on range</b>	± 20%
<b>Comfort delay</b>	2 sec
<b>Security time-out</b>	30 sec
<b>Operating Temperature</b>	32° F to 122° F
<b>Response Time (max)</b>	0.3 – < 1 sec
<b>Tolerance on times</b>	± 20%

# before you install

## **Power Supply**

---

The TSL.880 IR Sensor Tap system is provided with a mains power supply (110-240Vac transformer) compatible for European and North American markets which requires wiring into a fused connection unit (FCU) or spur.

To reduce installation costs the power supply can be wired into a junction box (not supplied) and then fed directly into a FCU or distribution board.

## **Water Supply**

---

Flush water supply lines thoroughly before installing the tap. Do not allow dirt, Teflon tape or metal particles to enter the tap. Shut off the water supply before installation. Gravity-fed systems may require a booster pump to achieve the optimal operating pressure.

## **Flow Rates**

---

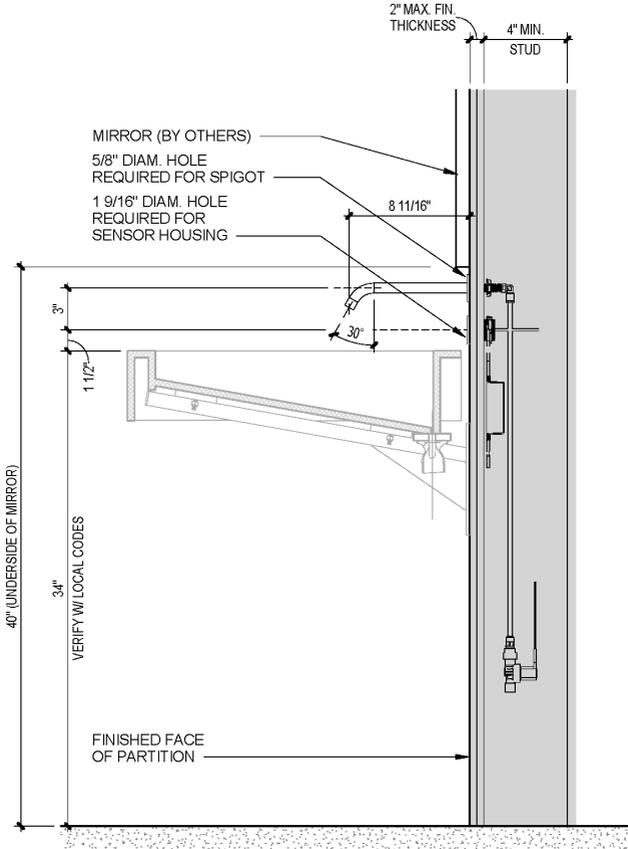
The aerator supplied as standard has a flow rate of 0.5gpm. However, different flow rates may need to be achieved and The Splash Lab offer alternatives with flow rates of 0.35gpm and 0.5gpm respectively.

# before you install

## Access Requirements

It is critical all components which require fixing behind the wall are easily accessible at all times during installation and routine maintenance.

**Wall Cavity:** a minimum cavity depth of 4" is recommended to ensure enough clearance for installing and commissioning tap components, connecting to mains water supply and safe installation of power supply.



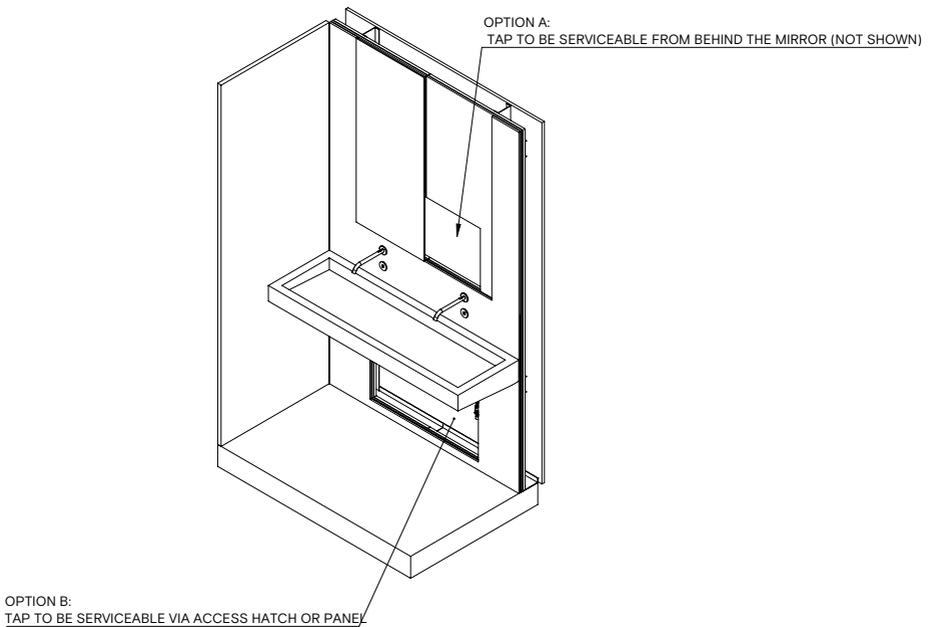
# before you install

## Access Requirements

---

**Front access:** a hatch or panel(s) must be constructed either below the washbasin or behind the mirror to ensure the tap, solenoid valve, isolation valves and power supply are accessible.

### ACCESSIBILITY REQUIREMENTS

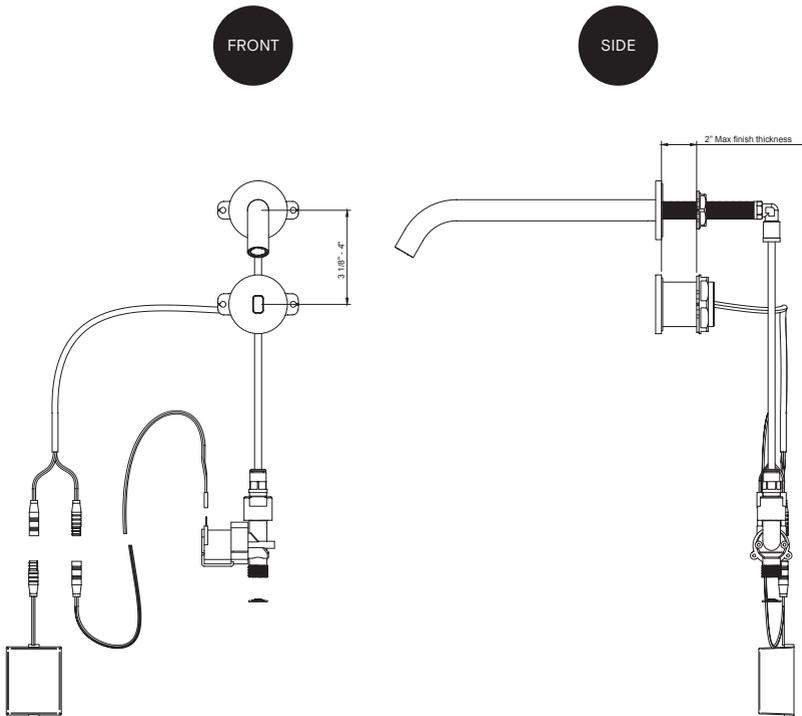


Ensure access hatches below the washbasin and/or behind the mirror are accounted for to ensure easy access of components during installation and for routine maintenance.

# before you install

## Mounting Location

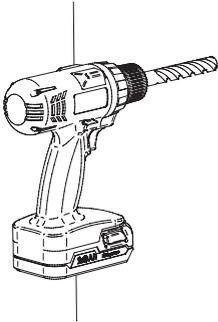
- + The maximum wall thickness the tap can be mounted to is 2" (incl. all finishes).
- + The recommended distance from the center of the spout to the countertop of the washbasin is 8".
- + The distance between the centres of the spout and sensor housing is 4"
- + Ensure the holes and appropriate mounting points are created in accordance with the 1:1 drilling template shown on page 30.
- + Taps should not be installed above highly polished surfaces to avoid reflection interference



# how to install

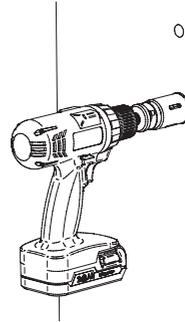
## Tap & Sensor Housing Installation

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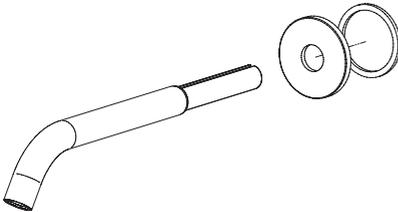
**1**

Drill a  $\text{Ø}5/8''$  hole through the mounting surface and into the wall cavity.



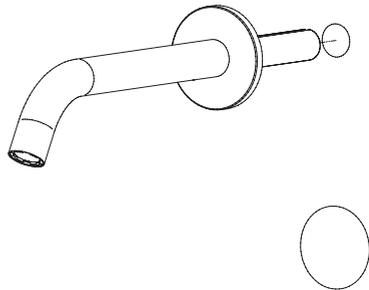
**2**

Drill a  $\text{Ø}1\ 5/8''$  hole through the mounting surface and into the wall cavity.



**3**

Slide the collar and gasket over the spigot



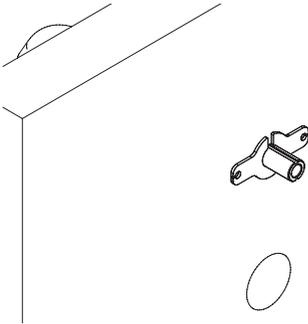
**4**

Slot the spigot end of the tap through the pre-drilled hole

# how to install

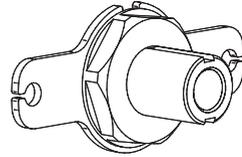
## Tap & Sensor Housing Installation

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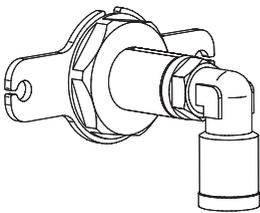
**5**

Fit the anti-rotational washer over the spigot.



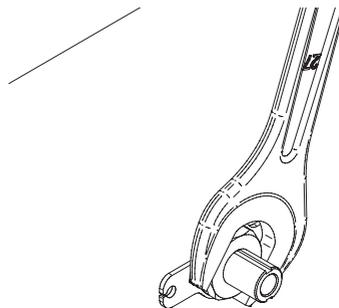
**6**

Thread the locking nut onto the spigot until hand tight



**7**

Tighten elbow fitting into the spigot and tighten with a spanner.



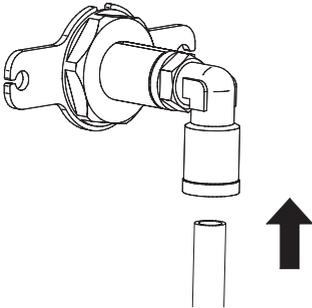
**8**

Tighten locking nut with a spanner and check spout of tap is aligned correctly from the front.

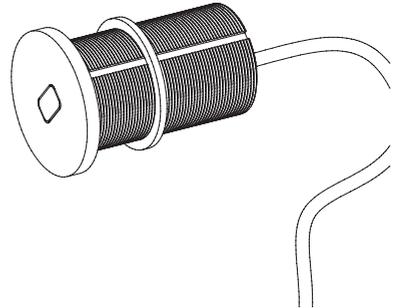
# how to install

## Tap & Sensor Housing Installation

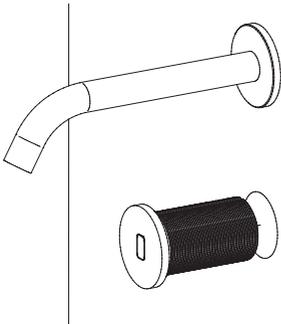
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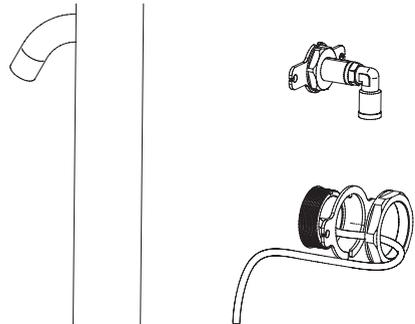
**9**  
Push plastic inlet tubing all the way into the elbow fitting.



**10**  
Insert the gasket into the shoulder of the sensor housing



**11**  
Slot the sensor housing assembly through the pre-drilled hole

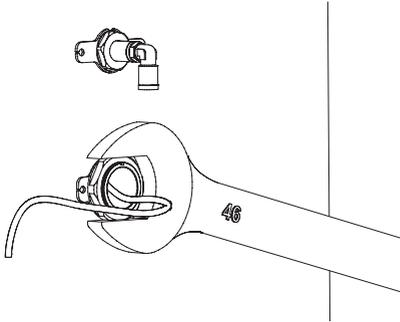


**12**  
Fit the anti-rotational washer and locking nut onto the sensor housing and thread until hand tight.

# how to install

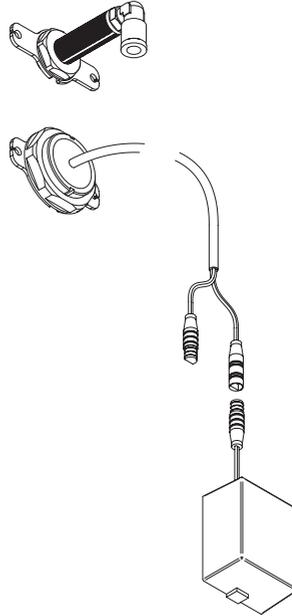
## Tap & Sensor Housing Installation

---



**13**

Tighten locking nut with a spanner and check sensor housing is aligned vertically and is square.



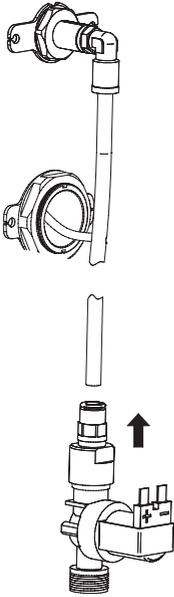
**14**

Fix the power supply to the wall or support ensuring the cables are long enough to connect to both the sensor and solenoid valve.

# how to install

## Solenoid Valve Installation

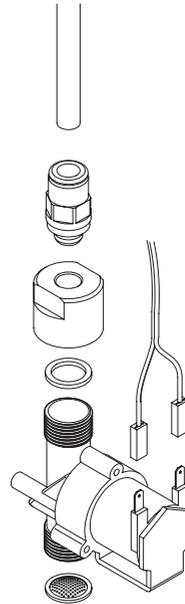
---



**15**

Trim any excess tubing not required and fit solenoid valve and reducing coupler assembly to plastic inlet tubing.

**WARNING:** Ensure both push-fit connections are securely sealed with the plastic inlet tubing.



**16**

Insert conic filter into inlet side of valve and connect to water supply.

The filter must be fitted, otherwise the warranty may be invalid.

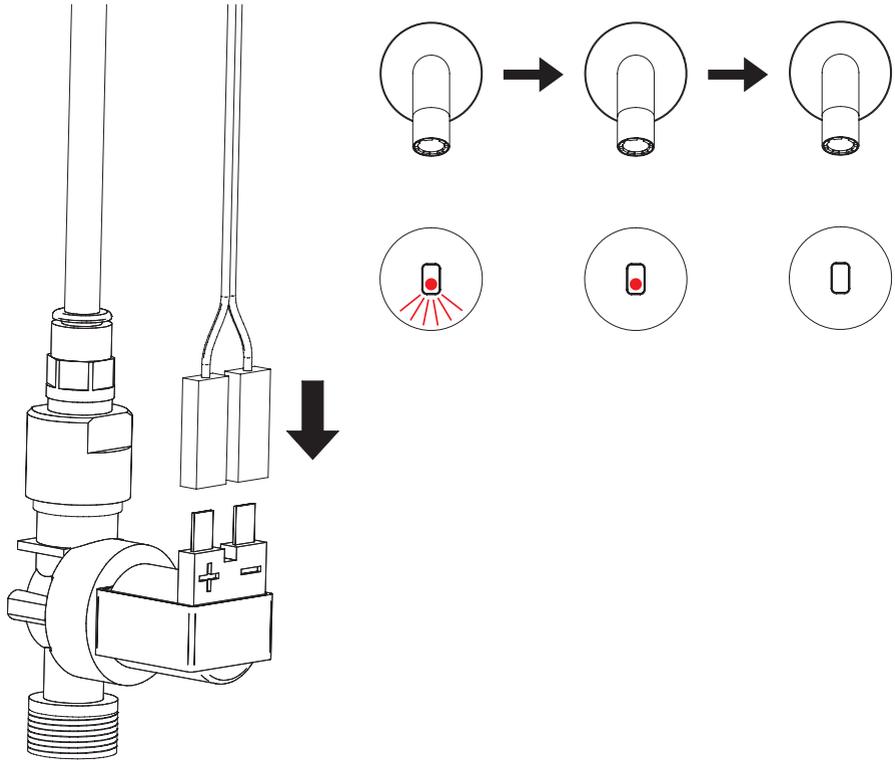
### Activation

---

**17**

The installation is now ready to commission.

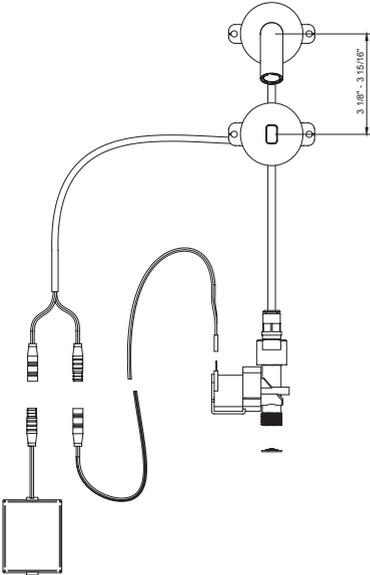
# commissioning



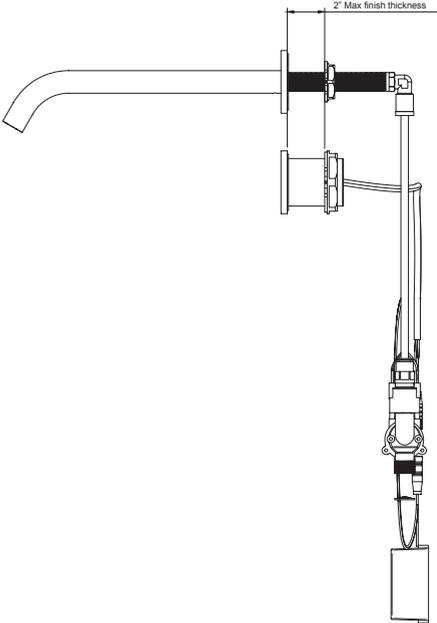
- + Connect the solenoid valve cable to the sensor.
- + Wait a minimum of 5 seconds.
- + Check the sensor mounted on the wall starts flashing red,
- + Once the red LED is flashing, position your hand within 2" of the tap.
- + When the red LED is continuously lit (and no longer flashing), position your hand at the desired activation position.
- + Wait until the red LED goes out before removing your hand
- + Once the red light goes out the pre-set range is set.

# the complete system

FRONT



SIDE



# settings adjustment: wired controller

Disconnect the plug from the solenoid valve cable and connect to the wired controller to access information such as diagnostics, function and programmable settings (see table below).

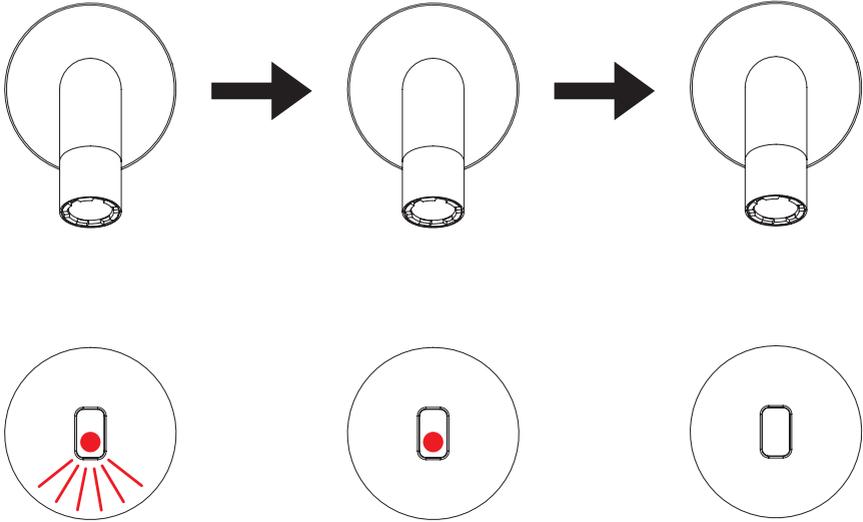
**Comfort Delay:** keeps the water running for 2 seconds after there is no detection.

**Security time-out** after 30 seconds of continuous water flow the solenoid valve will close and the sensor will be blocked for 10 seconds. During this period the red LED will start flashing two times on repeat.

	<b>Detection Range</b>	<b>Comfort delay</b>	<b>Security time-out</b>	<b>Auto-rinse cycle</b> (after last activation)
<b>Pre-set</b>	8 5/8"	2 seconds	30 seconds	Inactive
<b>Programmable</b>	7 7/8" - 9 7/8" Intervals: 2", 2 3/4", 4", 4 3/4", 5 15/16", 6 5/8", 7 7/8", 8 5/8", 9 7/8"	0 -100 seconds [1 sec intervals]	1 -240 seconds [1 sec intervals]	Inactive or Active Active: 6, 12 or 24 hours Rinse Duration: 10 - 180 seconds [10sec intervals]

\*Pre-set detection range is valid for sensor for which the range has not been changed since factory-set. For sensors where the detection range has been changed this distance will be kept in memory even if reset to the appropriate mode using the controller.

# maintenance



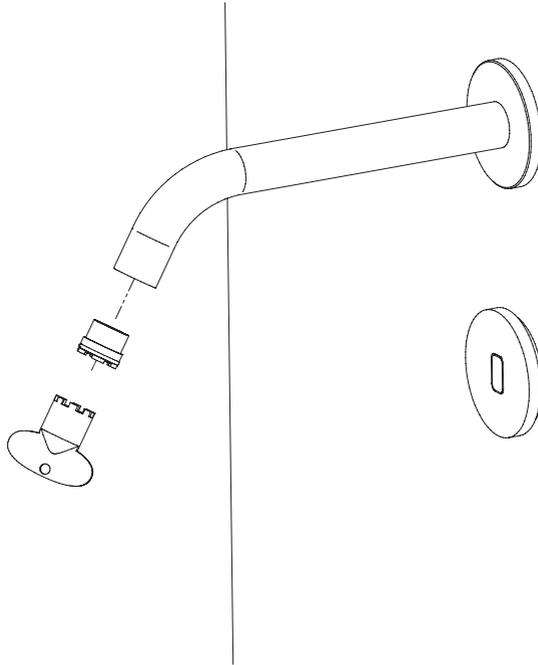
## Re-setting the Sensor

---

- + Disconnect the sensor cable from the power supply.
- + Wait a minimum of 5 seconds and reconnect the power.
- + When the sensor mounted on the wall starts flashing red, position your hand within 2" of the tap.
- + When the red LED is continuously lit (and no longer flashing), position your hand at the desired activation position.
- + Wait until the red LED goes out before removing your hand
- + Once the red light goes out the new detection distance is set.
- + Test the system and repeat from step 1 until the tap works as required.

**WARNING:** Re-setting the sensor can lead to errors in the system with unnecessary activations or poor sensitivity. If you are considering altering the pre-set sensor settings, we recommend calling The Splash Lab for assistance.

# maintenance



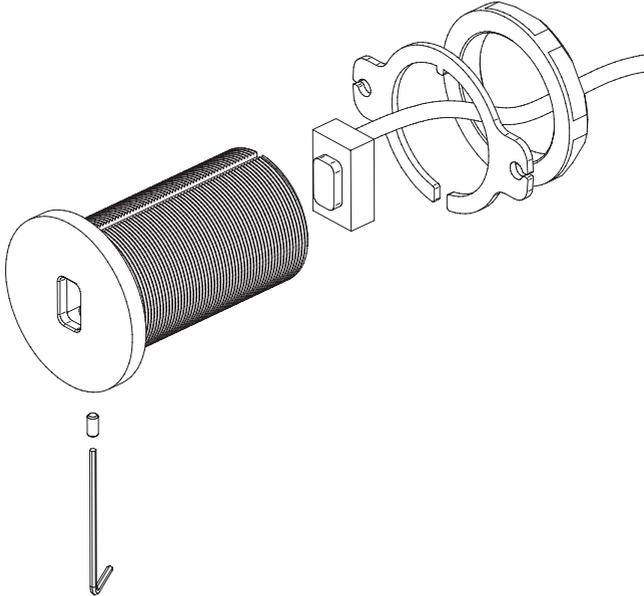
## Changing the Aerator

---

- + Shut off the water supply to the tap.
- + Carefully unscrew the aerator using the supplied Aerator Key
- + Thread the new aerator taking care not to over tighten and damage the o-ring.
- + Reconnect water supply

Refer to Spare Parts & Accessories (page 29) for alternative aerators available.

# maintenance



## Changing the Sensor

---

- + Shut off the water supply to the tap.
- + Disconnect the sensor cable from the power supply
- + Loosen the locking nut for the sensor housing
- + Feed sensor housing back through the front of the wall
- + Using a 1.5 Hex/Allen key, loosen the grub screw taking care not to misplace it
- + Remove sensor
- + Insert new sensor and re-fit parts
- + Re-connect to power supply
- + Ensure sensor is set to the correct range

# maintenance

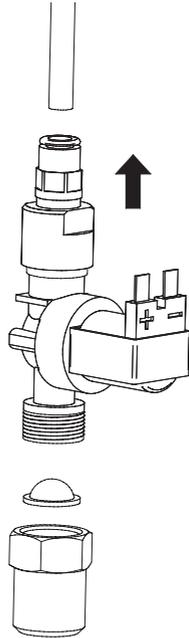
## Changing the Solenoid Valve

---

- + Shut off the water supply to the tap.
- + Disconnect the solenoid cable from the power supply.
- + Disconnect the solenoid valve from the brass reducing adaptor and the brass fitting attached to the mains water supply.
- + Remove the filter from the faulty solenoid valve.
- + Re-fit new filter to replacement solenoid valve.
- + Reassemble the parts as shown.
- + Restore the incoming water supply checking there are no water leaks.
- + Reconnect the solenoid cable to the power supply.

**Note:** the directional flow of water is shown on the solenoid housing with an arrow.

# maintenance



## Cleaning the Solenoid Valve Filter

---

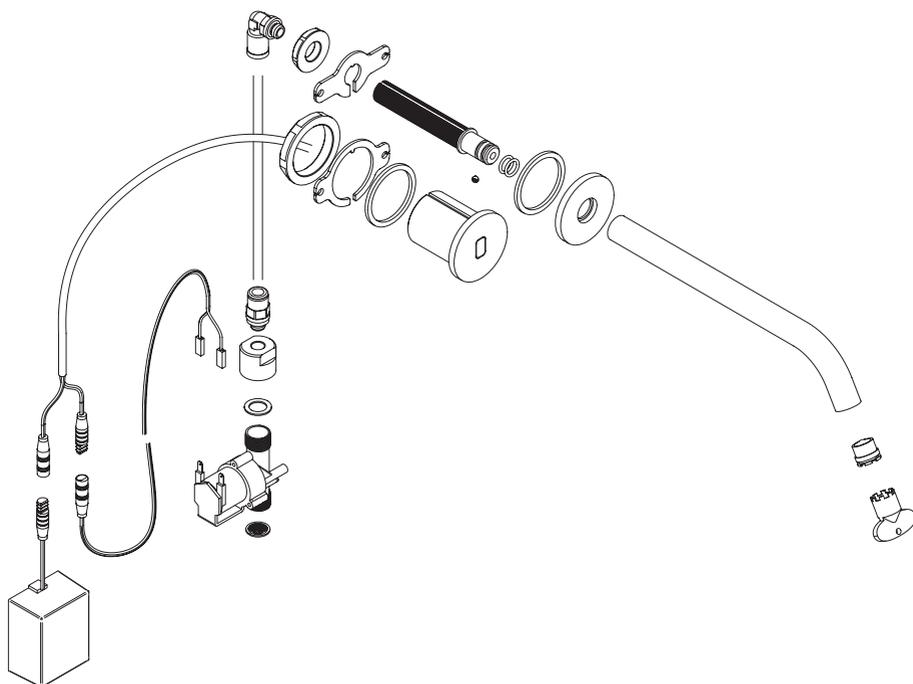
The tap is provided with a stainless steel filter preventing foreign particles to enter the lines. If the water flow has decreased, this may be because the filter is blocked.

- + Shut off the water supply to the tap.
- + Disconnect the solenoid cable from the power supply.
- + Disconnect the solenoid valve from the brass fitting attached to the mains water supply and locate the filter.
- + Wash the filter under running water to remove any debris.
- + Reassemble the parts as shown.
- + Restore the incoming water supply and check there are no water leaks.
- + Reconnect the solenoid cable to the power supply.

# cleaning

- + Take extra care when cleaning decorative surfaces.
- + For surface cleaning of the tap use ONLY soap and water, then wipe dry with a clean cloth or towel.
- + DO NOT use steel wool or cleaning 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.
- + When cleaning bathroom tiles, the taps should be protected from any splattering of harsh cleansers.
- + For solenoid filter cleaning instructions see page 23.

# diagram



# troubleshooting

## **Corrective Actions for Initial Installation Failures**

---

### **No water flow out of the tap when user's hands are within sensor range:**

---

- + No power
- + Range is too short
- + Range is too long
- + Sensor is dirty or covered.
- + Debris or scale in the solenoid.
- + Unit is in "Security time-out" mode
- + Check polarity of solenoid valve cable connection is correct
- + Sensor is picking up reflections from the washbasin or another object.

### **Water flow does not stop when user's hands are within sensor range:**

---

- + Debris or scale in solenoid diaphragm.
- + Cables between the power supply and solenoid valve are disconnected.
- + Check polarity of solenoid valve cable connection is correct
- + The water supply pressure is too high
- + Check sensor setting with wired remote controller to ensure the sensor is set to Hand-wash mode

**We are always looking to improve.**

**If these did not solve your problem please contact us:**

Tel: +1 310 410 5008

[info.usa@thesplashlab.com](mailto:info.usa@thesplashlab.com)

# troubleshooting

## **Corrective Actions for Initial Installation Failures**

---

### **Slow response time when opening or closing solenoid valve:**

---

- + Check all cable connections are secure
- + Check the tap is well isolated from the ground or the water.
- + Debris or scale in solenoid diaphragm.
- + Sensor is picking up reflections from the washbasin or another object.

### **Water flow rate reduced:**

---

- + Aerator or solenoid valve filter is clogged. Inspect inline strainer and clean if necessary.
- + Increase the sensor range (see page 18).
- + Decrease the sensor range (see page 18).
- + Remove obstruction to sensor.
- + Eliminate cause of reflection.
- + Reduce the water supply pressure.
- + Remove, clean and re-install

# warranty

The Splash Lab will replace necessary parts, free of charge, if they are defective from the manufacturer. The Splash Lab guarantees all of its products against manufacturing defects under the terms and conditions listed below

**Faucets TSL backs every faucet with a lifetime guarantee against material defect.**

## **Not Covered**

- Components subject to wear and tear.
- Items or parts that are damaged or not working properly due to misuse, negligence or improper maintenance.
- Improper installation or installation by a non-licensed technician.
- Failure from external causes such as physical damage; exposure to adverse or hazardous chemicals or other substances; use of reactive cleaning agents and/or harsh chemicals, or acts of nature.
- Stains on natural finishes, such as brass or stainless steel, that have been exposed to the natural environment or improperly maintained.
- Parts that have been modified.
- Moving parts installed in high-traffic areas. The Splash Lab offers customized warranty options for high-traffic areas; please contact TSL for details.
- Installation of replacement parts or labor costs.

## **Installation Requirements**

This product must be installed by licensed technicians following the steps in the instruction guide provided. Altering or modifying any components of any product will void the manufacturer's warranty. If the recommended pressure and temperature are exceeded or reduced, the warranty is voided.

## **Maintenance Requirements**

Never use abrasive sponges or products with abrasive substances such as chloride acid, ammonia, acetone, vinegar or, bleach. The usage of these products can cause permanent damage and will void the manufacturer's warranty.

## **If You Have a Claim**

Defective products must be sent, shipping prepaid, to The Splash Lab with a copy of this warranty document and the purchase invoice included. Replacement products will be sent, shipping prepaid, to the address provided. If the cost of the replacement parts exceeds the purchase price of the product(s) the Splash Lab will reimburse the cost of the original items.

# spare parts & accessories

## Spare Parts

---

<b>TSLP.120030</b>	Solenoid valve assembly
<b>TSLP.120032</b>	Solenoid valve connector cable
<b>TSLP.260045</b>	IR Sensor
<b>TSLP.270066</b>	Power Supply 110~240V AC / 6V DC
<b>TSLP.230161</b>	Sensor Tap Extension Cable 1.2M
<b>TSLP.260050</b>	CACHE-TT Aerator Key
<b>TSLP.260062</b>	CACHE-TT Aerator PCA AERATED 3.8l/min [1.0gpm]
<b>TSLP.270029</b>	Battery Holder

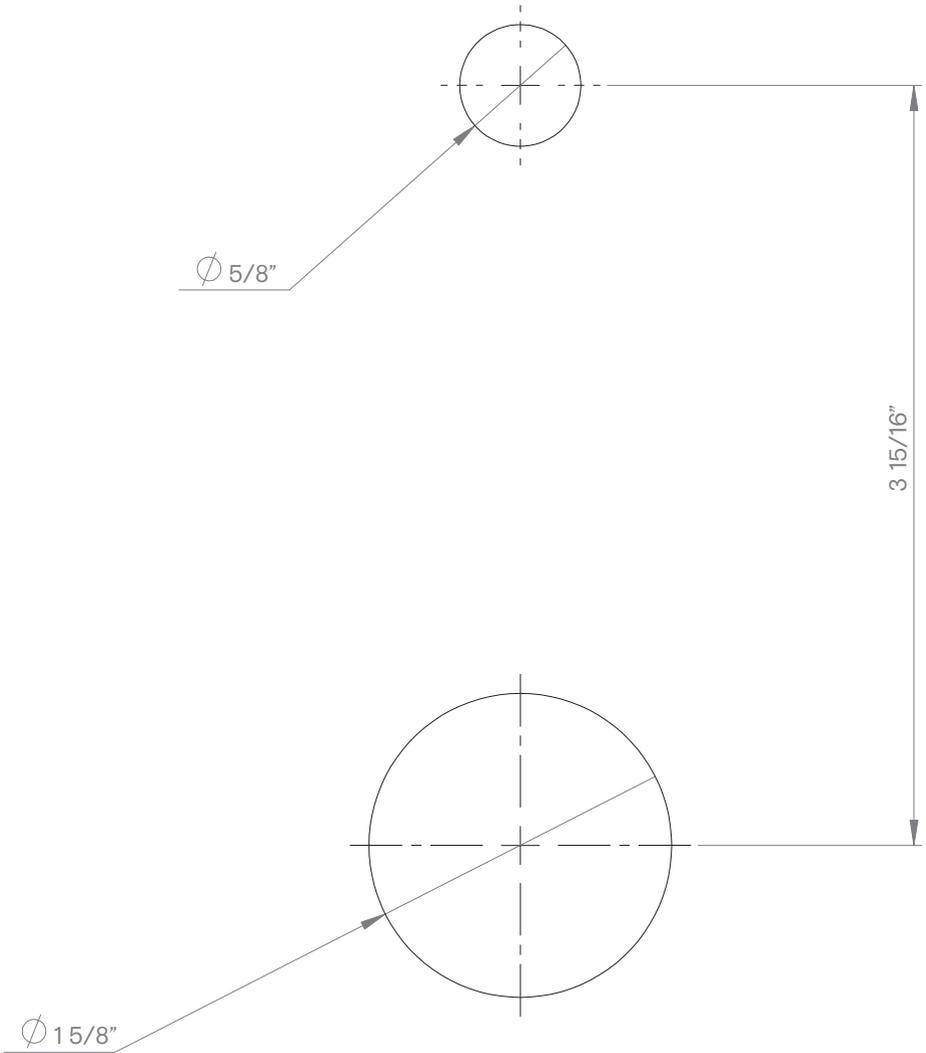
## Accessories

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<b>TSLP.260051</b>	CACHE-TT Aerator PCA Spray 1.35l/min [0.35gpm]
<b>TSLP.260063</b>	CACHE-TT Aerator PCA SPRAY 1.89l/min [0.5gpm]
<b>TSLP.120020</b>	Daisy Chain Enclosure
<b>TSLP.120021</b>	Daisy Chain Cable
<b>TSLP.230161</b>	Extension cable for sensor / power lead 1.2m
<b>TSLP.230099</b>	Wired Controller RIO14-WP

If further information is required, contact The Splash Lab technical team for more detailed guidelines

# drilling template



# contact



## General information

[info.usa@thesplashlab.com](mailto:info.usa@thesplashlab.com)

310 410 5008

20809 Higgins Ct

Torrance, CA 90501

## Technical support

[info.usa@thesplashlab.com](mailto:info.usa@thesplashlab.com)

## For further information visit:

[www.thesplashlab.com/usa](http://www.thesplashlab.com/usa)