



Sensor Faucets and Flush Valves



OPERATION & MAINTENANCE MANUAL
4000C Series Faucet

www.hydrotekintl.com

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4000C Series

U.S. Patent 6192530B1, 4741363

Sensor Faucets and Flush Valves

AC or Battery Powered Sensor Operated Faucet

The 4000C Series faucet is a single-hole deck mounted, piston operated sensor faucet that provides a vandal resistant, no touch lavatory solution with hot/cold mixing and manual on/off that promotes better hygiene and energy savings.

- **ADA Compliant.** Meets all barrier free codes
- Conserves water and energy
- Easily installed in new or retrofit applications
- Competitively priced for today's commercial market
- Promotes cleanliness & hygiene
- Proven Hydrotek craftsmanship and reliability

Available in:

AC Powered Models

- ✓ Lead Free, AC Powered (H-4000C)
- ✓ Lead Free, AC Powered Scrub Sink (H-4000C-SD)
- ✓ Lead Free, AC Powered with DC Backup (H-4000C-DC)
- ✓ Lead Free, AC Powered with DC Backup Scrub Sink (H-4000C-SD-DC)

Battery Powered Models

- ✓ Lead Free, Battery Powered (HB-4000C)
- ✓ Lead Free, Battery Powered Scrub Sink Version (HB-4000C-SD)

Compliances & Certifications



- ADA Compliant
- ASME A112.18.1/CSA B125.1
- NSF/ANSI Standard 372 - Lead Free Certified
- USGBC Member

Features:

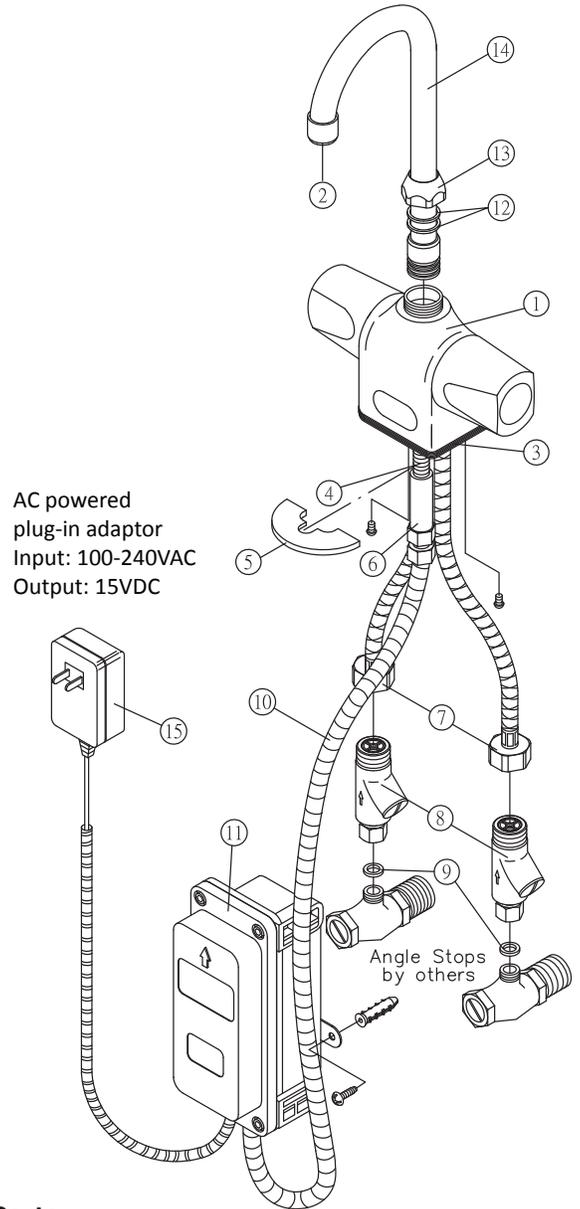
- **ACCU-SENSE** adjustable sensor eyes.
- Chrome plated, solid brass construction.
- Wall mountable, waterproof control box with armored, vandal resistant control and power cables.
- Preset/adjustable sensor range of 6" - 30" for various installation requirements.
- Standard automatic time-out feature. Disabled, but adjustable to 20, 30, or 60 seconds. Prevents accidental sink overflow.
- Shut-off delay is adjustable from 0.5 (preset) to 8 seconds.
- Solid brass body with single hole deck mounting. Optional 4" or 8" cover plate for 3 point anchoring.
- Includes in-line filter with clean-out trap to reduce maintenance costs.
- All parts are field-replaceable to ensure quick and easy repair.
- Adjustable to AC or battery powered (additional part required).
- AC with DC backup models automatically switch to batteries during a power outage.
- Manual override provides continuous water flow for special applications or in case of failure.
- Manual controlled temperature adjustment.
- Slow closing, piston-operated solenoid valve provides reliable and smooth operation without water hammer.
- Superior VSI silicone elastomer piston seals are unaffected by chlorine, chloramines, or ammonia.
- Standard 1.5 GPM Laminar flow control.
- Control module allows a unique self-check of all electrical components.



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AC or Battery Powered Sensor Operated Faucet Installation Instructions

1. Prior to installation, thoroughly flush all water lines and replace stop washers, if required.
2. Position faucet by lowering the flexible **Supply Tubes (7)** and **Sensor Eye Cable (10)** through the deck hole. Secure the faucet to the sink deck using the **Mounting Washer (5)** and **Mounting Nut (6)**.
3. Considering the length of the **Sensor Eye Cable (10)**, drill two holes 2 3/4" apart into the wall and insert the mounting anchors into those holes. Position the control box so that the **Sensor Eye Cable (10)** enters the box from the bottom. Attach the **Control Box (11)** to the wall by aligning the box mounting holes with mounting anchors and using the the anchor screws.
4. To ensure proper operation, "DRY TEST" the faucet by plugging the **Sensor Eye Cable (10)** into the matching connector on the PC board inside of the **Control Box (11)**.
 - a. **AC Powered:** Connect the **Power Adapter (15)** to the PC Board inside of the **Control Box (11)**, then plug the **Power Adapter (15)** into a 120 V AC wall outlet. Place your hand in front of the sensor eye and listen for a clicking sound.
 - b. **Battery Powered:** Properly install new batteries into the battery holder and ensure the battery holder is connected to the PC board inside of the **Control Box (11)**. Place your hand in front of the sensor eye and listen for a clicking sound.
 - c. If there is no clicking sound, push the reset button on the PC Board inside of the **Control Box (11)**. Listen for a clicking sound.
 - d. ****If there is still no clicking sound, call Hydrotek at the number listed below.**
5. Insert the blue plug and the brass ring on the end(s) of the shielding for the **Sensor Eye Cable (10)** and the cable for the AC **Power Adapter (15)** (AC models ONLY), into the designated openings at the bottom of the **Control Box (11)**. To ensure proper water resistance, reinstall the cover for the **Control Box (11)** and tighten the screws.
6. Attach the **Filters/Check Valves (8)** to the stop valves. Attach **Supply Tubes (7)** to filter/check valves compression fittings. Left is the HOT supply tube and right is the COLD supply tube.
NO TEFLON TAPE, NO PIPE DOPE
7. Mount **Gooseneck Spout (14)** onto the **Faucet Body (1)** using the **Lock Nut (13)**.
8. Position the right handle (manual temperature control) to "auto". Open both stop valves to turn on the water supply. Check all the connections for leaks.
9. Test faucet by placing hands under spout. Water should begin to flow. Water flow should stop when hands are removed. If the faucet does not function properly, refer to the troubleshooting guide.
10. Sensor sensitivity is preset at the factory. If you need to alter this setting, please call Hydrotek 1-800-922-9883.
11. Periodically clean the filter element in the **In-Line Filters (8)**.



AC powered
plug-in adaptor
Input: 100-240VAC
Output: 15VDC

Parts:

1. Faucet Body	9. Nylon Washer
2. Aerator	10. Sensor Eye Cable
3. Mounting Gasket	11. Control Box
4. Mounting Bolt	12. Split Washers (installed)
5. Mounting Washer	13. Lock Nut
6. Mounting Nut	14. Gooseneck Spout
7. Supply Tubes (2)	15. Power Adapter (AC models only)
8. Filter/Check Valve (2)	

IMPORTANT: (1) For outdoor installations, the faucets must be installed in fully enclosed spaces where they are completely shielded from direct sunlight, as exposure to the sun can affect performance. Hydrotek International, Inc. is not liable for any damages, malfunctions, or performance issues caused by exposure to direct sunlight.

(2) Additionally, the stop valve must not be opened beyond the point where water flow exceeds the sink drain's capacity. The sink's drain and plumbing must accommodate continuous water flow from the faucet to prevent overflow. Hydrotek is not responsible for any damages resulting from sink overflow caused by water flow exceeding the capacity of the drain or pipes. Proper installation and operation are the user's responsibility.

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AC or Battery Powered Sensor Operated Faucet

Troubleshooting Guide

OPERATION: When power is connected, the unit will automatically begin to perform the setup procedure. You will hear a click and the sensor light will flash. Once setup is complete, water will flow when the sensor is activated by placing the user's hands under the spout and will continue to flow for the duration of the sensor activation. Water flow will automatically stop once the user's hands are removed. Periodic maintenance is required for smooth and trouble-free operation.

PROBLEM	SYMPTOM	CAUSE	SOLUTION
LIMITED or NO water flow when the sensor is activated, clicking is undetectable	*Battery Units: Red sensor light is flashing continuously	Batteries are low on charge	Replace batteries
	*AC Units: Red sensor light does not flash during activation OR stays on continuously	There is no power to the unit	Verify power from the outlet. If there is power to the outlet, test the low voltage wires on the power adapter to confirm 15V+ output. If there is no voltage, replace power adapter
	Red sensor light does not flash during activation	Sensor is defective	Open control box and press RESET button on the PCB to confirm defective sensor. If clicking is detectable, replace sensor
LIMITED or NO water flow when the sensor is activated, clicking is detectable	Faucet is dripping, trickling, or does not flow at all	Water supply stop valves are closed or only partially open	Turn both stop valves fully open
	Faucet is dripping, trickling, or does not flow at all, and stop valves are fully open	Excessive line debris has clogged the inline filter and/or the aerator	Turn off both stop valves, remove inline filter screen and rinse with water. Remove aerator with aerator key and rinse with water
	Faucet is dripping, trickling, or does not flow at all, stop valves are fully open, and inline filter and aerator have been cleaned	Solenoid valve is clogged due to excessive hard water deposits	Repair solenoid valve with solenoid valve repair kit or replace complete solenoid valve assembly
	*Units with below deck mixing valves: Faucet is dripping, trickling, or does not flow at all, and stop valves are fully open	Mixing valve is defective	Disconnect tempered line and place in a bucket to confirm normal waterflow. If there is no flow, replace defective mixing valve
Continuous water flow or dripping with or without sensor activation	Water does not turn off	Possible sensor adjustment required or solenoid valve is defective	Shut off water to the unit immediately. Contact the Hydrotek Tech Support Line at the number listed below
	*3000C & 4000C MODELS ONLY: Water does not turn off	Manual override handle is enabled	Locate manual override handle on the right side and set to "automatic" position

For assistance with replacement parts or part numbers, please refer to the Assembly Parts Diagram.

For troubleshooting beyond the steps in this guide, please call:

**Hydrotek Technical Support
(800)922-9883**

Care and Cleaning Instructions:

- **WARNING!** Using abrasive or chemical cleaners *will* damage the chrome or decorative finishes.
- Use only soap and water to clean the finish, then wipe dry with a clean cloth.
- If chemical cleaners are used for other parts of the lavatory, ensure that the faucet is protected from potential contact from those cleaners.

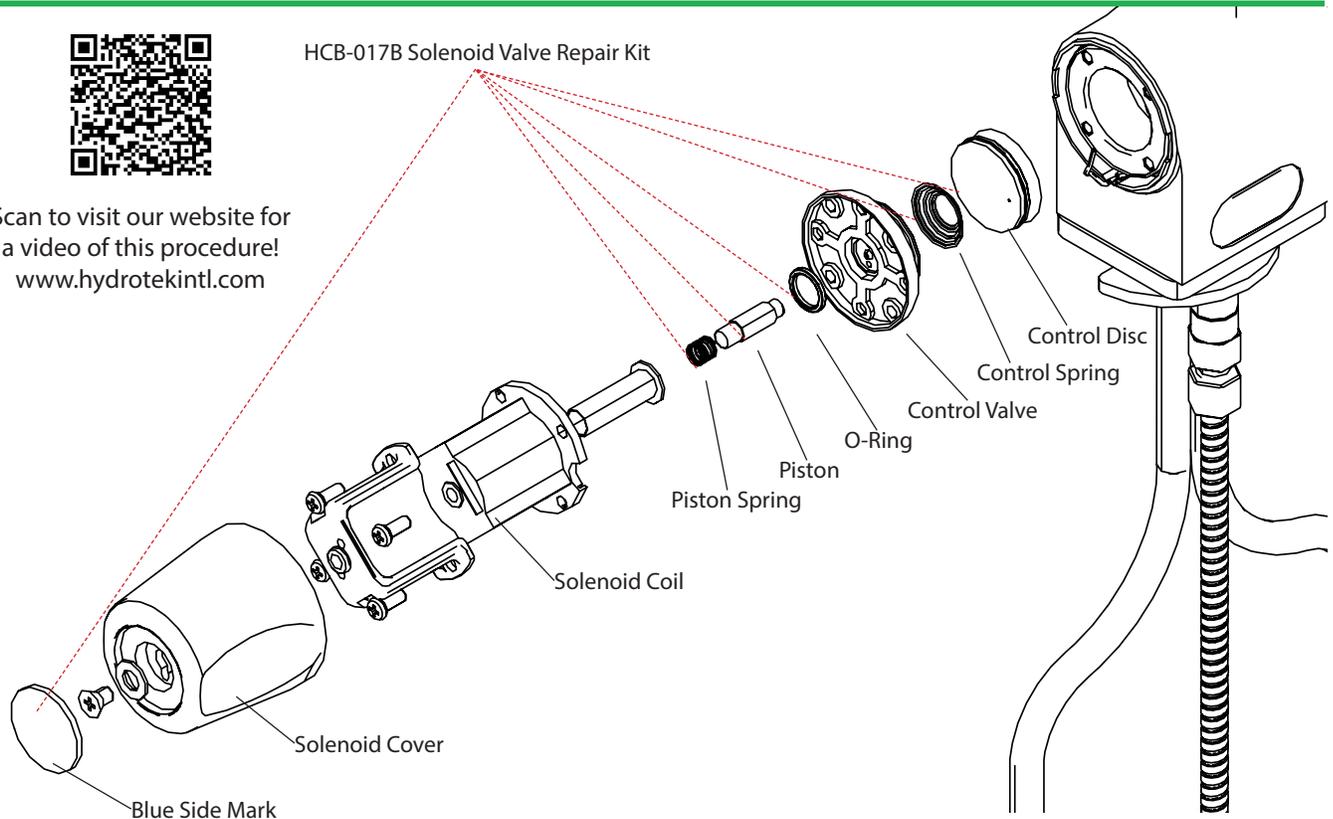
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HCB-017B Solenoid Valve Repair Kit Installation



Scan to visit our website for a video of this procedure!
www.hydrotekintl.com



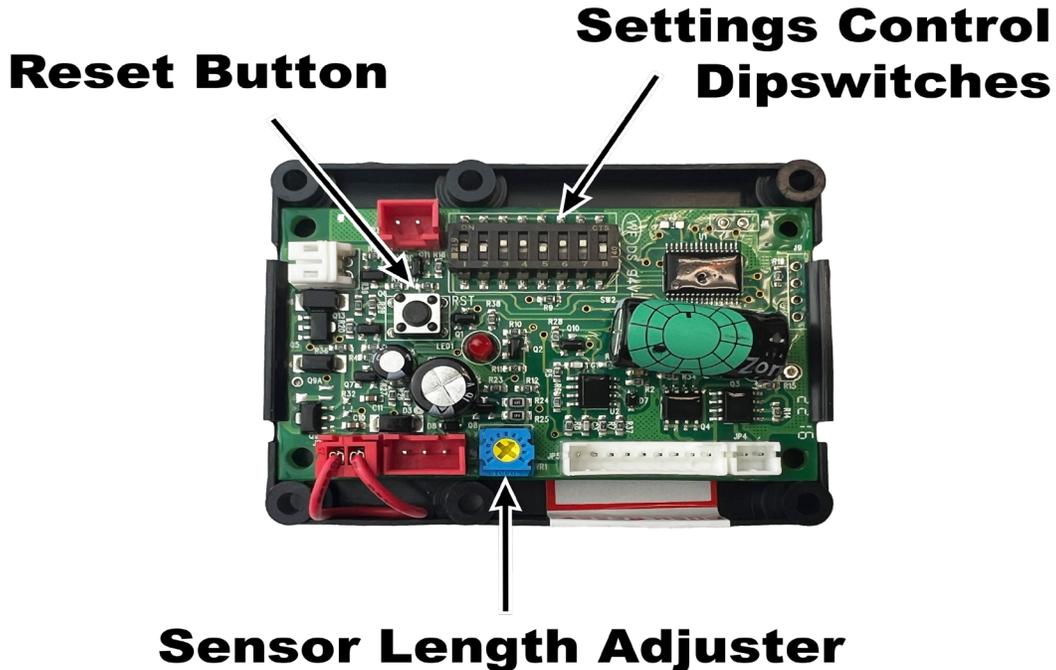
1. Turn off the water supplies at the stop valves.
2. Place your hands within the sensor range to drain the residual water in the valve.
3. Use a 3mm Allen key to remove the lid from the control box located below the sink.
4. Disconnect the shielded sensor cable ONLY from the PC Board.
5. Pry the blue side mark from the solenoid cover (left handle).
6. Remove the center mounting screw from the left handle and then remove the handle.
7. Remove all 4 screws on the solenoid and the solenoid brass bracket.
8. Remove the solenoid without disconnecting the orange and blue wires and set it on the side of the faucet with the piston side facing up.
9. Remove the piston and the piston spring from the solenoid and replace both with new ones.
10. Gently pry the control valve, remove the control spring and the control valve O-ring ONLY, and replace both with the new ones provided in the kit.
11. Slightly turn one of the stop valves ON to remove the control disc from the valve and replace it with the new one.

12. Inspect the internal part of the valve seat, looking for debris and hard calcium build up. If excessive calcium, lime deposits are noticeable inside the valve seat, use triple zero steel wool to break up the deposits, and wipe with a clean cloth.
13. Reinstall the control disc (flat surface facing out), and the control valve with the control valve spring mounted in the center of the control valve, into the valve body.
14. Reinstall the solenoid coil and the solenoid brass bracket, making sure the wires are tucked under the bracket on either side, not on top.
15. Reconnect the sensor cable to the PC board inside the box below the sink.
16. Press the reset button to confirm solenoid clicking sound.
17. Once clicking sound confirmed, reinstall the control box cover, turn both stop valves on, and check for any possible leaks.
18. If no leaks are detected, test the faucet both by placing hands within 6 inches of the sensor, and by turning the manual override handle to manual.

**Solenoid Valve maintenance recommended every 4 years.*

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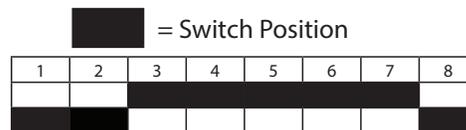
AC or Battery Powered Sensor Operated Faucet Control Module Settings



Shut Off Time Delay (After hands are removed)

Sw1	Sw2	Sw3	Delay
Off	Off	On	0.5 Sec
On	On	On	1 Sec
On	On	Off	2 Sec
On	Off	On	3 Sec
On	Off	Off	4 Sec
Off	On	On	5 Sec
Off	On	Off	6 Sec
Off	Off	Off	8 Sec

Factory Preset



Sensor Distance

Sw6	Mode	Distance
On	Std	4" - 12"
Off	Enhanced	10" - 12"

To increase distance, turn adjuster CLOCKWISE
To decrease distance, turn adjuster COUNTER-CLOCKWISE

Automatic Time Off (maximum run time after activation)

Sw4	Sw5	Time Off
On	On	Disabled
On	Off	20 Sec
Off	On	30 Sec
Off	Off	60 Sec

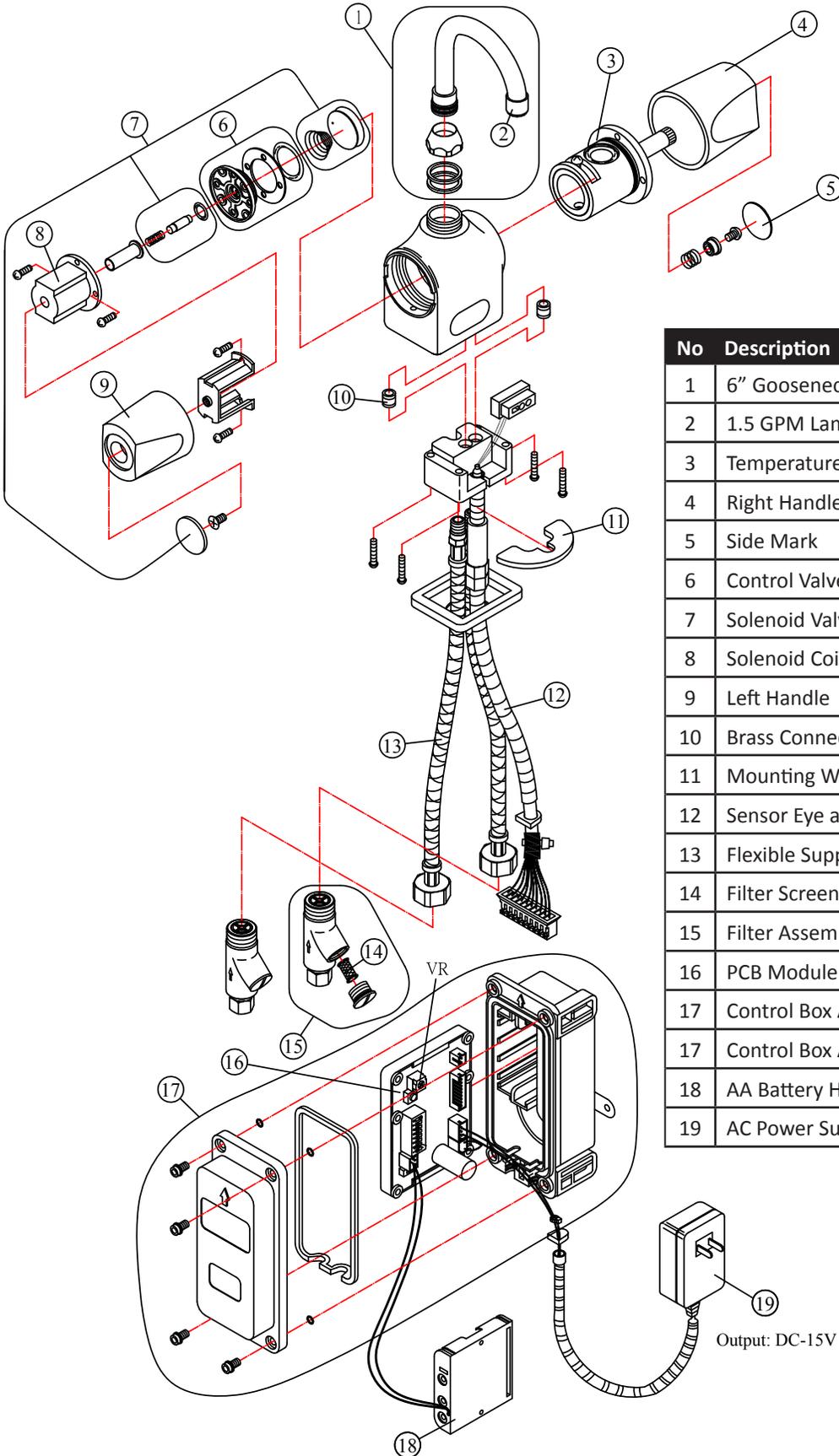
Faucet Switch - DO NOT TOUCH

Sw7	Sw8	Mode
On	Off	Auto Faucet

IMPORTANT: Always push the Reset Button after any adjustments

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AC or Battery Powered Sensor Operated Faucet Assembly Parts



No	Description	Part Number
1	6" Gooseneck Spout Assembly	HC-007A
2	1.5 GPM Laminar Flow Control	HB-003EF
3	Temperature Adjuster Rod Assembly	HC-027A
4	Right Handle (Manual Control)	HC-029R
5	Side Mark	H3-01-09A
6	Control Valve	HB-05-04
7	Solenoid Valve Repair Kit	HCB-017B
8	Solenoid Coil	HCC-019
9	Left Handle	HC-029L
10	Brass Connector	H3-01-03A
11	Mounting Washer	B3-01-06
12	Sensor Eye and Cable	HCC-032
13	Flexible Supply Tube	HC-025G
14	Filter Screen	HC-020
15	Filter Assembly	HC-009A
16	PCB Module	HCC-011B
17	Control Box Assembly (AC)	HCC-004A
17	Control Box Assembly (Batt) <small>*HCC-103A included</small>	HCC-004B
18	AA Battery Holder	HCC-103A
19	AC Power Supply Assembly	HCC-008B