



Sensor Faucets and Flush Valves



OPERATION & MAINTENANCE MANUAL
5000E Series Faucet

www.hydrotekintl.com

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Sensor Faucets and Flush Valves

5000E Series

U.S. Patent 6192530B1

AC or Battery Powered Sensor Operated Faucet

The 5000E Series faucet is an elegant piston operated sensory faucet that provides a vandal resistant, no touch lavatory solution that promotes better hygiene and energy savings.

Designed to be easy to install and maintain, all major faucet components are encased above deck, making for easier access. The sensor included in this faucet is self adapting, meaning manual adjustments are not necessary and the innovative sensor placement eliminates ambient reflectivity issues.

- 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:

- ✓ H-5000E-LR: Low Lead, AC Powered
- ✓ HE-5000E-LR: Low Lead, Battery Powered with Enduratek **NEW!**



Features:

- Proprietary **Enduratek** energy saving design allows up to 1.5 million on/off cycles
- Vandal resistant faucet body with chrome plated, solid metal construction
- Faucet design allows for quick and simple installation.
- Clam shell design allows for easy "above the deck" access to all major faucet component parts.
- Slow closing solenoid valve provides reliable and smooth operation without water hammer.
- Available in AC powered and battery powered versions.
- Unique, energy-saving design of electronics and solenoid valve contributes to longer battery life.
- AC power input cable is armored and vandal resistant (AC powered version).
- Sensor eye positioning eliminates ambient reflectivity issues.
- "Self-adapting" sensor distance adjustment eliminates the need for manual sensor adjustments.
- 30 second time-out feature prevents accidental sink overflow.
- Built-in, replaceable filter screen reduces maintenance costs.
- Low battery indicator light.
- Unique electronic control module allows for faucet electronic component diagnostics.
- Standard 0.5 GPM vandal resistant aerator.
- Single-hole deck mount with optional 4" and 8" cover plate for vandal resistant three point anchoring.

Hydrotek Automatic Faucets

5000E Series

Deck Mounted / Non-mixing

Meets ANSI/ASME A112.18.1 M-1989

Operation:

1. A continuous, invisible beam is emitted from the sensor.
2. The faucet is activated by placing hands under the spout within the effective range of the beam. Water starts to flow immediately for as long as the user's hands remain in the sensor range.
3. When hands are removed, the water flow stops. The sensor will automatically reset and be ready for the next user.
4. In the battery powered version, a flashing red light will indicate a low battery condition.

Specifications:

Faucet Construction:	..... Metal & chrome plated
Control Circuit:	
Auto. Time-out:	..... 30 seconds
Sensor Range:	..... Self adapting
Shut-off Delay:	..... 1 second
Solenoid Valve:	..... 6V DC, normally closed
Wattage:	..... 0.2W (idle), 3W (in use)
Operating Pressure:	..... 5 psi to 125 psi
Flow Control:	..... 0.5 GPM Laminar, vandal resistant

AC Mode

Power Adapter

Standard Plug-in:	..... Input AC 120V 60 Hz (UL/CSA)..... Output DC 7.5V, 0.8A/Class 2
Power Cable:	..... Armored, vandal resistant
Optional Multi-Unit Adapter:	..... Serves up to 8 faucets (UL/CSA)..... Input AC 120V, Output DC 7.5V, 3A

Battery Mode

Battery Powered Models:	..... (4) AA Alkaline Batteries
Enduratek Service Life:	..... 1.5 million on/off cycles, up to 10 years

Package Includes:

- (1) Faucet with sensor/solenoid
- (1) 7.5V DC plug-in power adaptor (H-5000E & H-5000E-LR Only)
- (2) Armored steel supply tube with filter
- (1) Mounting lock nut and washer
- (1) 0.5 GPM vandal resistant Rosette flow control
- (4) AA Alkaline batteries (HB-5000E & HB-5000E-LR Only)

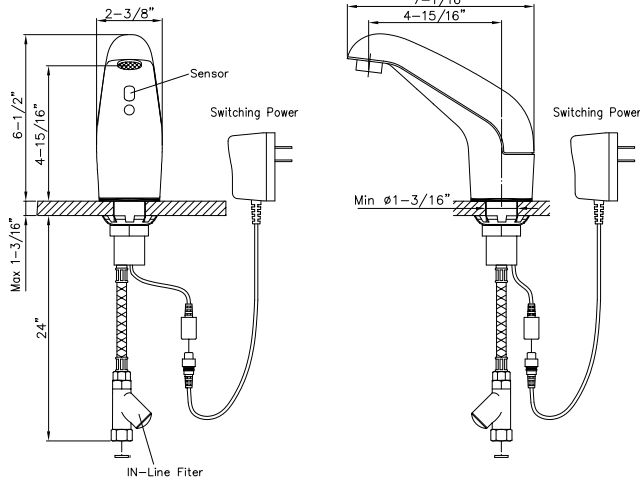
Dimensions:

Base Width (Outside Measurement)	..... 2-3/8"
Base Depth	..... 2-3/8"
Faucet Height (Aerator to Base)	..... 4-7/8"
Faucet Height Overall	..... 6-1/2"
Depth (Center of Aerator to Center of Faucet Base)	..... 4-7/8"
Mounting Bolt Length	..... 2-1/4"
Mounting Bolt Size	..... 1-1/8"

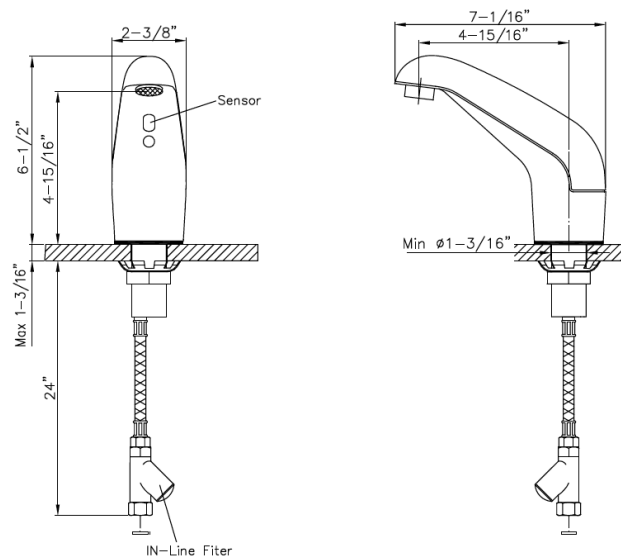
Optional Variations and Accessories

- 1.5 GPM VR Soft Flow or 0.35, 2.2 GPM Laminar Flow Control
- 4" or 8" Centerset Cover Plate
- HC-010E Multi-Unit Voltage Adapter (AC Powered Only)
- HBL-04 Thermostatic Mixing Valve with Checks

H-5000E (AC Powered)



HB-5000E (Battery Powered)



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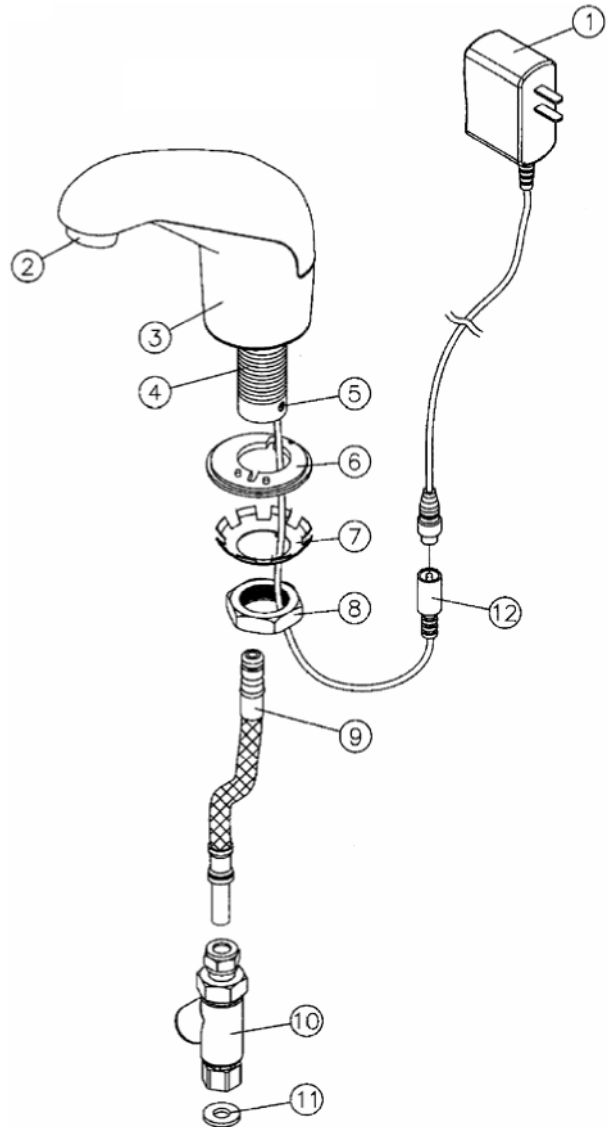


H-5000E

AC Powered Sensor Operated Mixing Faucet

Installation Instructions

1. Prior to installing this faucet, thoroughly flush all water lines and replace stop washers, if necessary.
2. To ensure proper operation, " DRY TEST " the faucet by plugging the Power Adapter (1) into a wall outlet and connecting the Power Adapter output lead to the faucet Input Wire Lead (12). The faucet should immediately perform a self-adjustment and diagnostic function. If you see the indicator light flash and hear a clicking sound, proceed to the next step. If there is no flash of light or clicking sound, recheck power source and connections.
3. Unplug Power Adapter (1) from the wall outlet. Disconnect the Power Adapter output lead from the faucet's AC Input Lead (12).
4. Rotate the Supply Tube Locking Screw (5) fully clockwise. Insert the end of the Supply Tube (9) (with O-rings) fully into the bottom of the Mounting Rod (4) by twisting and pushing until properly seated. Rotate Supply Tube Locking Screw (5) counter-clockwise to lock the Supply Tube into the Mounting Rod.
5. Attach the faucet's AC Input Lead (12) armored cable bracket to the bottom of the Mounting Rod (4) using the existing Mounting Rod screws.
6. Install In-Line Filter (10) onto stop valve using the Nylon Washer (11).
7. Unscrew the Mounting Nut (8) from the Mounting Rod (4) and completely remove both the Mounting Nut (8) and the Star Locking Washer (7).
8. From above the deck, carefully feed the faucet's AC Input Lead (12), Supply Tube (9), and Mounting Rod (4) into the deck mounting hole and seat the faucet in the correct mounting location.
9. From below the deck, feed the AC Input Lead (12) and Supply Tube (9) through the keyed Star Locking Washer (7) and Mounting Nut (8). Slide the Locking Washer and Mounting Nut up onto the Mounting Rod (4) and tighten Mounting Nut on the Mounting Rod to securely lock faucet to the deck.
10. Connect the Supply Tube (9) to the In-Line Filter compression fitting (10) and securely tighten.
11. Connect the Power Adapter (1) output lead to the faucet's AC Input Lead (12). Plug the Power Adapter into the electrical wall outlet.
12. Turn water on and check for leaks. Place your hands under the faucet spout to activate water flow. Remove hands and water should stop.



Part Number Descriptions	
1. Power adapter	7. Star locking washer
2. Flow control	8. Mounting nut
3. Faucet body	9. Supply tube
4. Mounting rod	10. In-line filter
5. Supply tube locking screw	11. Nylon washer
6. Gasket	12. AC input lead

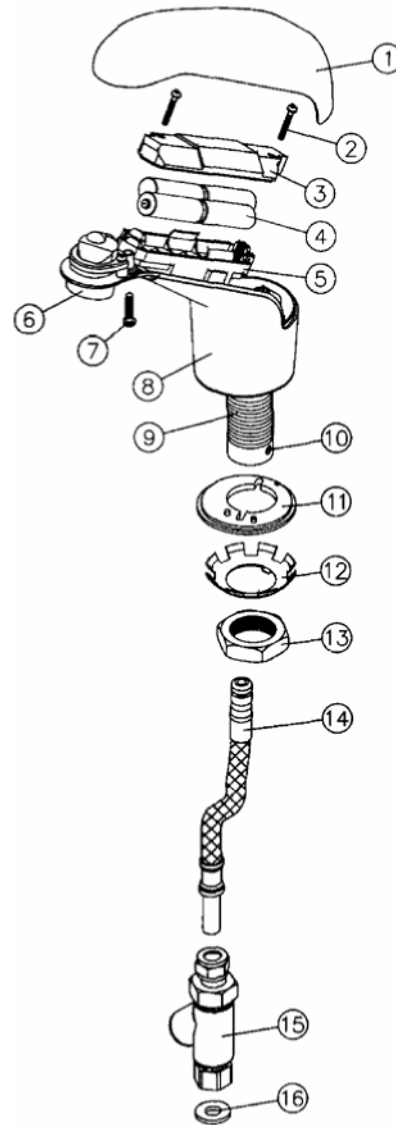
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DC Powered Sensor Operated Mixing Faucet

Installation Instructions

1. Prior to installing this faucet, thoroughly flush all water lines and replace stop washers, if necessary.
2. To ensure proper operation, " DRY TEST " the faucet by loosening the Cover Screw (7) and removing the Top Cover (1). Loosen the Battery Holder Screws (2) and remove the Battery Holder Cover (3). Insert batteries into the Battery Holder (5) and reinstall the Battery Holder Cover. The faucet should immediately perform a self-adjusting and diagnostic function. If you see the indicator light flash and hear a clicking sound, proceed to the next step. If there is no flash of light or clicking sound, recheck batteries for correct positioning.
3. Remove Battery Holder Cover and batteries.
4. Rotate the Supply Tube Locking Screw (10) fully clockwise. Insert the end of the Supply Tube (14) (with O-rings) fully into the bottom of the Mounting Rod (9) by twisting and pushing until properly seated. Rotate Supply Tube Locking Screw (10) counter-clockwise until the red indicator marking on the Locking Screw is at its closest position to the red indicator marking on the Mounting Rod. This is necessary to ensure that the Supply Tube has been properly locked into the Mounting Rod.
5. Install In-Line Filter (15) onto stop valve using the Nylon Washer (16).
6. Unscrew the Mounting Nut (13) from the Mounting Rod (9) and completely remove both the Mounting Nut (13) and the Star Locking Washer (12).
7. From above the deck, carefully feed the faucet's Supply Tube (14) and Mounting Rod (9) into the deck mounting hole and seat the faucet in the correct mounting location.
8. From below the deck, feed the Supply Tube (14) into the keyed Star Locking Washer (12) and Mounting Nut (13). Slide the Locking Washer and Mounting Nut up onto the Mounting Rod (9) and tighten the Mounting Nut on the Mounting Rod to securely lock the faucet to the deck.
9. Connect the Supply Tube (14) to the In-Line Filter Compression Fitting (15) and securely tighten.
10. Reinstall batteries and secure Battery holder Cover (3) with the Battery Holder Screws (2).
11. Reinstall Top Cover (1) and secure the faucet body with Cover Screw (7).
12. Turn water on and check for leaks. Place your hands under the faucet spout to activate water flow. Remove hands and water should stop.



Part Number Descriptions	
1. Top cover	9. Mounting rod
2. Battery holder screws (2)	10. Locking screw for supply tube
3. Battery holder cover	11. Rubber gasket
4. AA Alkaline Batteries (4)	12. Star locking washer
5. Battery holder	13. Mounting nut
6. Aerator	14. Supply tube
7. V.R. screw for top cover	15. In-line filter
8. Faucet body	16. Nylon washer

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Sensor Operated Mixing Faucet Troubleshooting Guide

Normal Operation: When power is connected, the faucet will immediately perform diagnostic function. You will hear a clicking sound and see lights flash. When the user's hands are placed under the spout, the light will flash once and water will start to flow. Water flow will stop when hands are removed. The red indicator light will flash when the batteries are low.

Turn the manual handle clockwise to increase temperature and counter-clockwise to decrease.

Problem	Possible Cause	To Diagnose	Remedy
Faucet will not turn on:	Water not turned on	Check water supply	Turn water on
	Power supply failure	No light, no clicking: <ul style="list-style-type: none"> • Check batteries • Check power adapter 	Reinstall or replace batteries/ Replace power adapter
	Low battery	Light continues to flash	Replace batteries
	Electronic PCB / Sensor is defective	No light, no clicking: <ul style="list-style-type: none"> • Reinsert batteries • Reattach power adapter 	Replace electronic PCB
	Solenoid valve is clogged	Solenoid is clicking but no water is coming out	Clean solenoid
	In-line filter is clogged	Open clean-out trap and check filter screen	Clean or replace filter screen
	Solenoid coil is defective	Insert new batteries or reattach power adapter. Light blinks but no solenoid is clicking	Replace solenoid coil
	Flow control is clogged	Open flow control device and check	Celan the flow control device
Faucet will not shut off, has low glow, or drips:	The solenoid valve is normally closed. Turn off water and activate the faucet. If there is a clicking sound, the solenoid valve is dirty. If there is no clicking sound, then check the solenoid valve. If the faucet is dripping, clean the solenoid valve.		

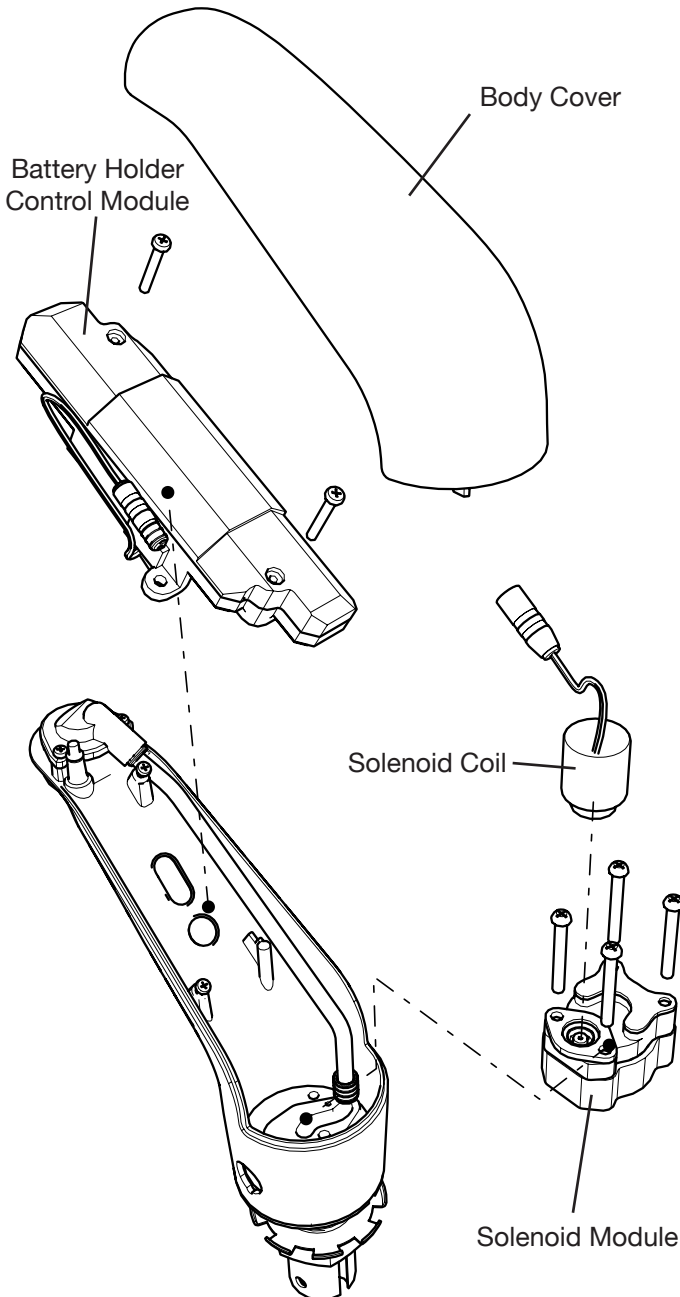
IMPORTANT: Periodic maintenance is required for smooth and trouble-free operation of this faucet.

For service and inquiry about available repair kits, please call Hydrotek Technical Support at (800) 922-9883.

5000E Series

Sensor Operated Mixing Faucet Maintenance Tasks

HCE-194 Solenoid Valve Assembly Replacement



1. Remove faucet **Body Cover**.
2. Remove batteries (battery powered faucets) or unplug power adapter (AC powered faucets).
3. Loosen and remove the **Battery Holder/Control Module**, making sure to disconnect all connectors.
4. Unscrew and remove the **Solenoid Coil** from the **Solenoid Valve Module**.
5. Completely loosen the four screws securing the **Solenoid Valve Module**. List the **Solenoid Valve Module** from the faucet.
6. Install the new **Solenoid Valve Module** and reassemble the faucet in reverse order. **NOTE: When installing the Solenoid Coil to the Solenoid Valve Module, DO NOT over-tighten. Fit should be snug.**

CONTROL MODULE (P.C. BOARD) REPLACEMENT

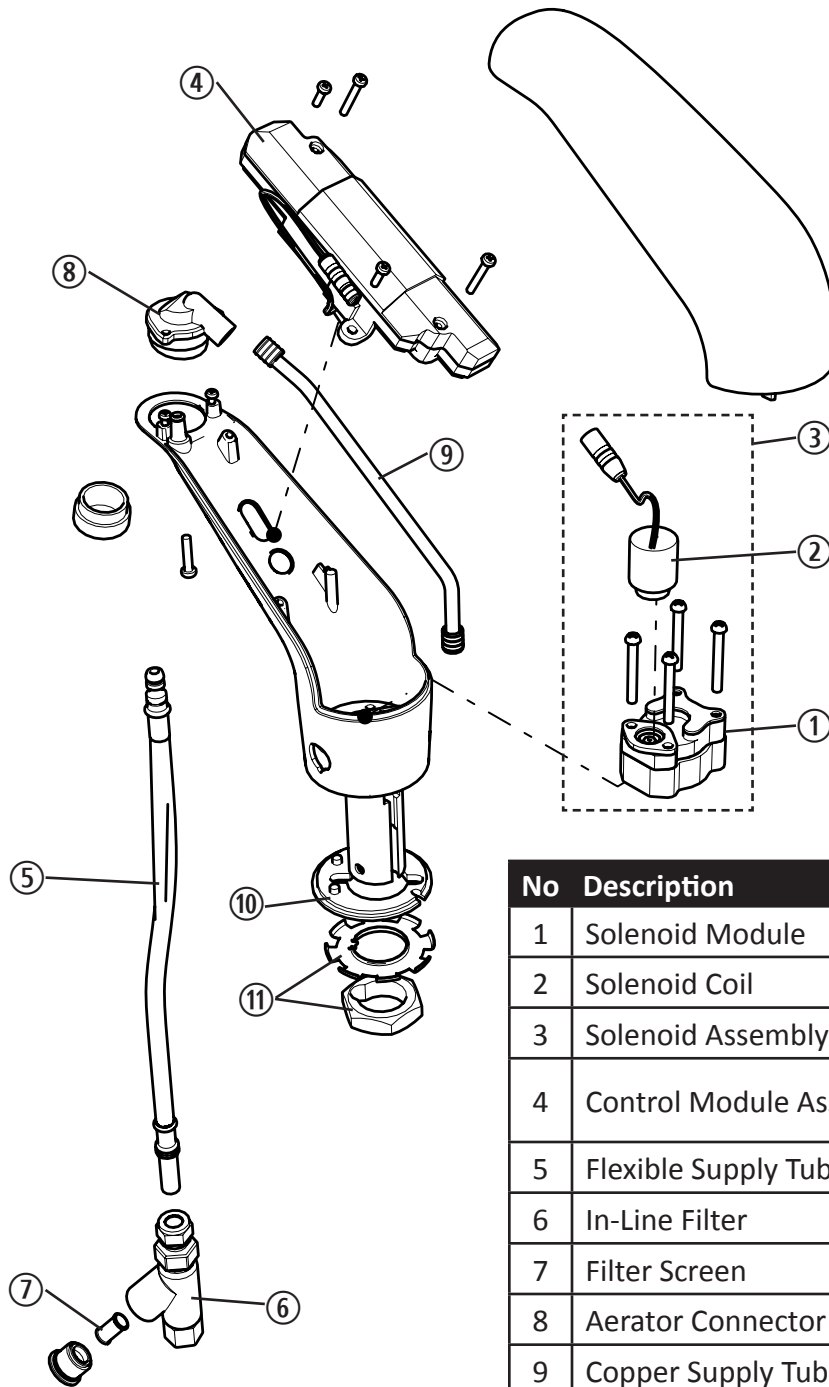
1. Remove faucet **Body Cover**.
2. Remove batteries (battery powered faucets) or unplug power adapter (AC powered faucets).
3. Unplug the Battery Holder/Control Module connector.
4. Loosen the two screws holding the Battery Holder/Control Module and remove it.
5. Install the new Battery Holder/Control Module ensuring the sensor eye is fitted correctly to the faucet body.

For further questions, please call Hydrotek Technical Support at (800) 922-9883.

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Sensor Operated Mixing Faucet

Assembly Parts



No	Description	Part Number
1	Solenoid Module	HCE-004
2	Solenoid Coil	HCE-019
3	Solenoid Assembly	HCE-194
4	Control Module Assembly	HCE-018A (AC) HCE-018B (DC)
5	Flexible Supply Tube	HCE-026
6	In-Line Filter	HC-009A
7	Filter Screen	HC-020
8	Aerator Connector	HCE-006
9	Copper Supply Tube	HCE-016
10	Rubber Gasket	HCE-022
11	Mounting Nut & Washer	HCE-021

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