



Sensor Faucets and Flush Valves



OPERATION & MAINTENANCE MANUAL
7000EM Series Faucet

www.hydrotekintl.com

5055 Forsyth Commerce Rd, Ste 124, Orlando, FL 32807
Phone (800) 922-9883 | Fax (866) 670-5580



Sensor Faucets and Flush Valves

7000EM Series

U.S. Patent 619253081

AC or Battery Powered Sensor Operated Faucet

The 7000EM Series faucet is a piston operated, mixing sensory faucet that provides a vandal resistant, no touch lavatory solution 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:

- ✓ Lead Free, AC Powered (H-7000EM-LR)
- ✓ Lead Free, Battery Powered (HB-7000EM-LR)



Features:

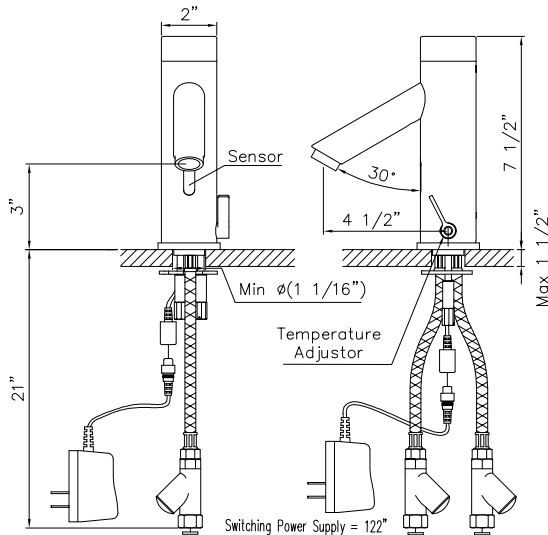
- Vandal-resistant faucet body with chrome plated, solid brass construction.
- Faucet design allows quick "above the deck" access to all major faucet component parts.
- 30 second time-out feature prevents accidental sink overflow.
- Integrated faucet mixing valve (with built-in checks)
- "Above the deck" external or internal temperature adjustment variation.
- Low battery indicator light (battery powered models only).
- Standard 0.5 GPM flow control for water conservation and annual savings.
- Single-hole deck mounting with optional 4" and 8" cover plate for vandal resistant, three point anchoring.
- Patented electronics and slow closing solenoid valves provide reliable and smooth operation without water hammer.
- Preset/adjustable sensor range of 6" - 8" for various installation requirements.
- Includes in-line filter adapter for easier cleaning.
- Superior VSI silicone elastomer piston seals are unaffected by chlorine, chloramines, or ammonia.

Hydrotek Automatic Faucets

7000EM Series

Deck Mounted / Mixing
Meets ANSI/ASME A112.18.1 M-1989

H-7000EM (AC Powered)



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. Water temperature adjustment can be easily accessed with external adjuster.

Specifications:

Faucet Construction: Solid brass, chrome plated

Control Circuit:

Auto. Time-out: 30 seconds

Sensor Range: Preset and adjustable from 6"-8"

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, Rosette, Vandal Resistant

AC Mode

Power Adapter (UL/CSA)

Standard Plug-in: Input AC 120V 60 Hz or 220V
Output DC 7.5V, 0.8A/Class 2

Power Cable: Armored, vandal resistant

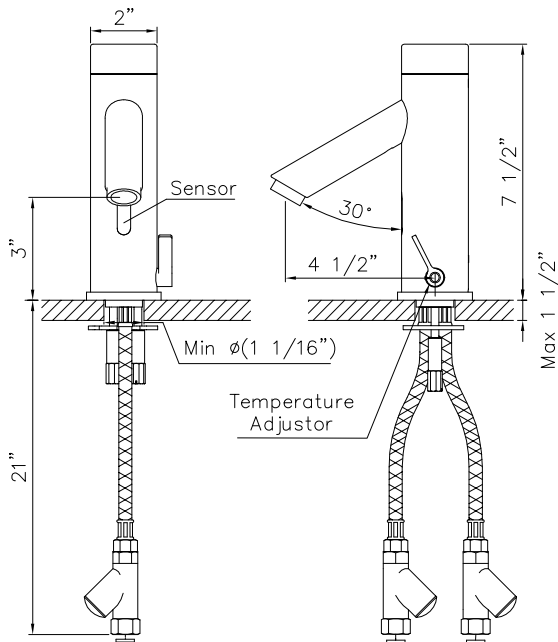
Optional Multi-Unit Adapter: . . Serves up to 10 faucets
(UL/CSA) Input AC 120V, Output DC 7.5V, 3A

Battery Mode

Battery Powered Models: (4) AA Alkaline Batteries

Battery Service Life: 400,000 on/off cycles, up to 4 years

HB-7000EM (Battery Powered)



Package Includes:

- (1) Faucet with sensor/solenoid
- (1) 7.5V DC plug-in power adaptor (*H-7000EM, -LR Only*)
- (1) Adapter with filter
- (1) Mounting rubber, washer, lock nut
- (1) 0.5 GPM Rosette Flow Control
- (4) AA Alkaline batteries (*HB-7000EM, -LR Only*)

Dimensions:

Base Depth2"
Faucet Height (Aerator to Base)3"
Faucet Height Overall7-1/2"
Mounting Rod Length2"
Mounting Rod Size1"

Optional Variations and Accessories

- 1.5 VR Soft Flow, 0.35, 2.2 GPM Laminar Flow Control
- 4" or 8" Centerset Cover Plate
- HC-001 Mixing/Checking Valve (Mechanical)
- HBL-04 Thermostatic Mixing Valve with Check

HYDROTEK INTERNATIONAL, INC.
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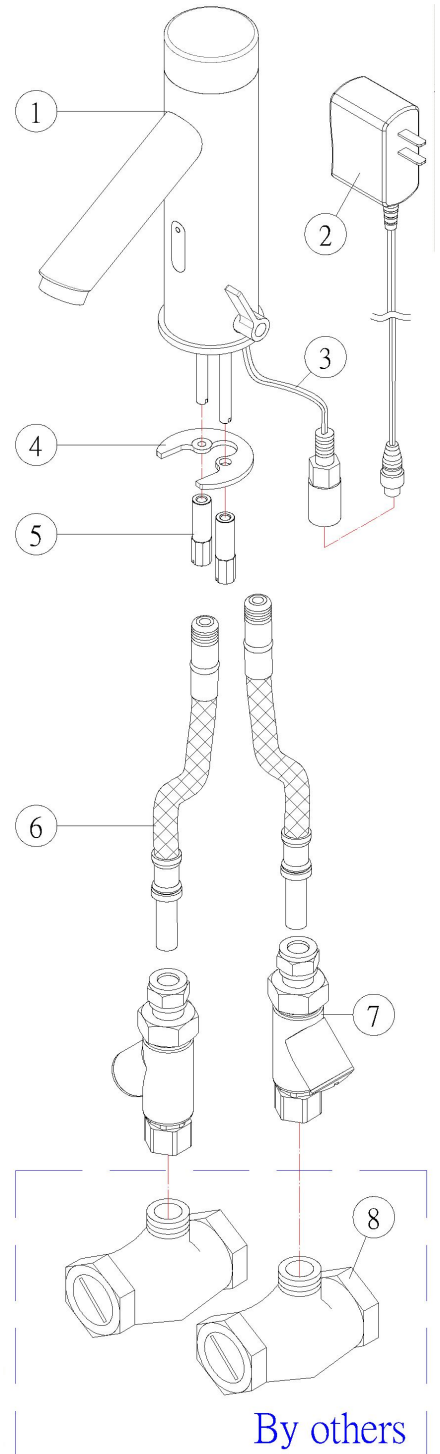
H-7000EM

AC Powered Sensor Operated Mixing Faucet

Installation Instructions

Installation Instructions:

1. Connect the supply tubes(6) to the faucet by turning the threaded ends into the bottom of the body(1). Teflon tape is **NOT REQUIRED**. **DO NOT USE PIPE DOPE.**
2. Remove the washer(4) and lock nuts(5) and slide the faucet supply rods through the deck hole. If there are 3 holes, use the cover plate(4"or 8") from Hydrotek, call 800-922-9883. Tighten faucet to deck using washer(4) and lock nuts(5).
3. Connect in-line filter(7) to the supply tube and the in-line filters to the stop valves(8). A $\frac{3}{8}$ " union connector (**provided by others**) is required to connect the inline filters to the stop valves.
4. Attach the plug-in adapter(2) to the AC connector(3) and plug the plug-in adapter into a powered outlet. Place hand in front of spout, it should click. If not, check the connection between the AC connector and plug-in adapter.
5. Turn on water from the stop valve and check for leaks.
6. Place hand in front of the sensor eyes, water should start to flow. Remove hands, water stops.
7. **IMPORTANT:** The control stop valve should never be opened to the point where the flow from valve exceeds the flow capability of the sink fixture. In the event of a valve failure, the sink fixture must be able to accommodate a continuous flow from the valve.
8. **IMPORTANT:** This product contains mechanical components that are subject to normal wear. Periodical maintenance is required in order to maintain the faucet performance.
9. **DO NOT USE** abrasives, acids or cleaning fluids to clean Hydrotek Sensor faucet. Use only soap and water then wipe with clean cloth or towel.



Parts:

- | | |
|--------------------|------------------------------------|
| 1. Body | 5. Lock Nut (2) |
| 2. Plug-in Adapter | 6. Supply Tube (2) |
| 3. AC Connector | 7. In-Line Filter (2) |
| 4. Washer | 8. Stop Valve (provided by others) |

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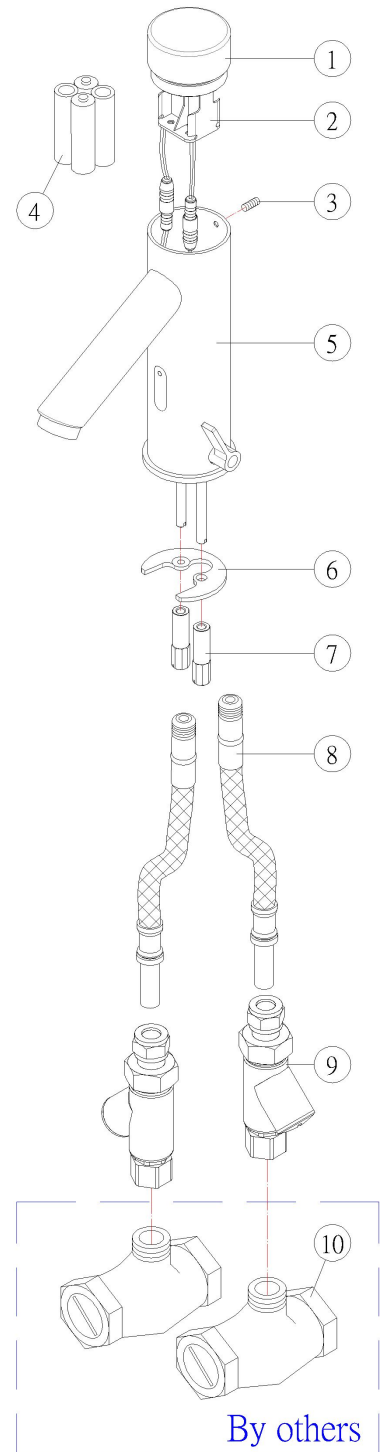


HB-7000EM

DC Powered Sensor Operated Mixing Faucet Installation Instructions

Installation Instructions:

1. Connect the supply tubes(8) to the faucet by turning the threaded ends into the bottom of the body (5). Teflon tape is **NOT REQUIRED**. **DO NOT USE PIPE DOPE.**
2. Remove the washer(6) and lock nuts(7) and slide the faucet supply rods through the deck hole. If there are 3 holes, use the cover plate(4"or 8") from Hydrotek, call 800-922-9883. Tighten faucet to deck using washer(6) and lock nuts(7).
3. Connect in-line filters(9) to the supply tubes and the in-line filters to the stop valves(10). A $\frac{3}{8}$ " union connector (**provided by others**) is required to connect the inline filters to the stop valves.
4. Using the hex key supplied, remove the set screw(3) and carefully pull open the top cap(1).
5. Properly insert batteries(4) into the battery holder(2). Gently insert the battery holder assembly into the top cap(1). Slowly push wire connector and the top cap including the battery holder down into faucet body. Be gentle in order to avoid crimping the wire.
6. Attach the set screw(3) on back of faucet. Place hand in front of the spout, it should click. If not, check the battery contacts and wires.
7. Turn on water from the stop valve and check for leaks.
8. Place hand in front of the sensor eyes, water should start to flow. Remove hands, water stops.
9. **IMPORTANT:** The control stop valve should never be opened to the point where the flow from valve exceeds the flow capability of the sink fixture. In the event of a valve failure, the sink fixture must be able to accommodate a continuous flow from the valve.
10. **IMPORTANT:** This product contains mechanical components that are subject to normal wear. Periodical maintenance is required in order to maintain the faucet performance.
11. **DO NOT USE** abrasives, acids or cleaning fluids to clean Hydrotek Sensor faucet. Use only soap and water then wipe with clean cloth or towel.



Parts:

- | | |
|------------------------------|-------------------------------------|
| 1. Top Cap | 6. Washer |
| 2. Battery Holder | 7. Lock Nut (2) |
| 3. Set Screw | 8. Supply Tube (2) |
| 4. 4 (AA) Alkaline Batteries | 9. In-Line Filter (2) |
| 5. Body | 10. Stop Valve (Provided by others) |

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7000 Series Sensor Adjustment Guide

The Hydrotek 7000 series faucets are equipped with an adjustable infrared sensor with 6 distinct sensor length settings. This allows the faucets to better suit various applications and affords a method to troubleshoot any issues due to improperly set sensor lengths or environmental factors such as sink basin reflectivity.

1. To begin, disconnect the power source. Wait approximately 20 seconds for completely reset the control module and sensor eye.
2. Reconnect power. When the LED indicator light in the sensor starts blinking, immediately wave your hand across the front of the sensor once to put it into adjustment mode. Then quickly proceed to the next step.
3. The sensor has 6 set sensing lengths. Each wave of your hand across the sensor will change the setting to the next one. **Note:** Whenever entering sensor adjustment mode, the first setting will always be setting 1.

Setting	6	1	2	3	4	5
Length	7"	6.5"	6"	5.5"	5"	4.5"

4. Once the desired adjustment setting has been chosen, clear any object in front of the sensor and wait until the sensor starts to blink rapidly. When it starts to blink rapidly, wave your hand in front of the sensor to confirm the setting. **Note:** If sensor length is not confirmed, the faucet will return to its original preset.
5. Once the setting is confirmed, the sensor will blink slowly a couple of times and there will be a short spurt of water. This completes the sensor adjustment procedure.

Notes:

- The sensor distance for each setting is a relative distance. Factors such as color and reflectivity can and will affect sensor distance.



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7000EM Series

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.

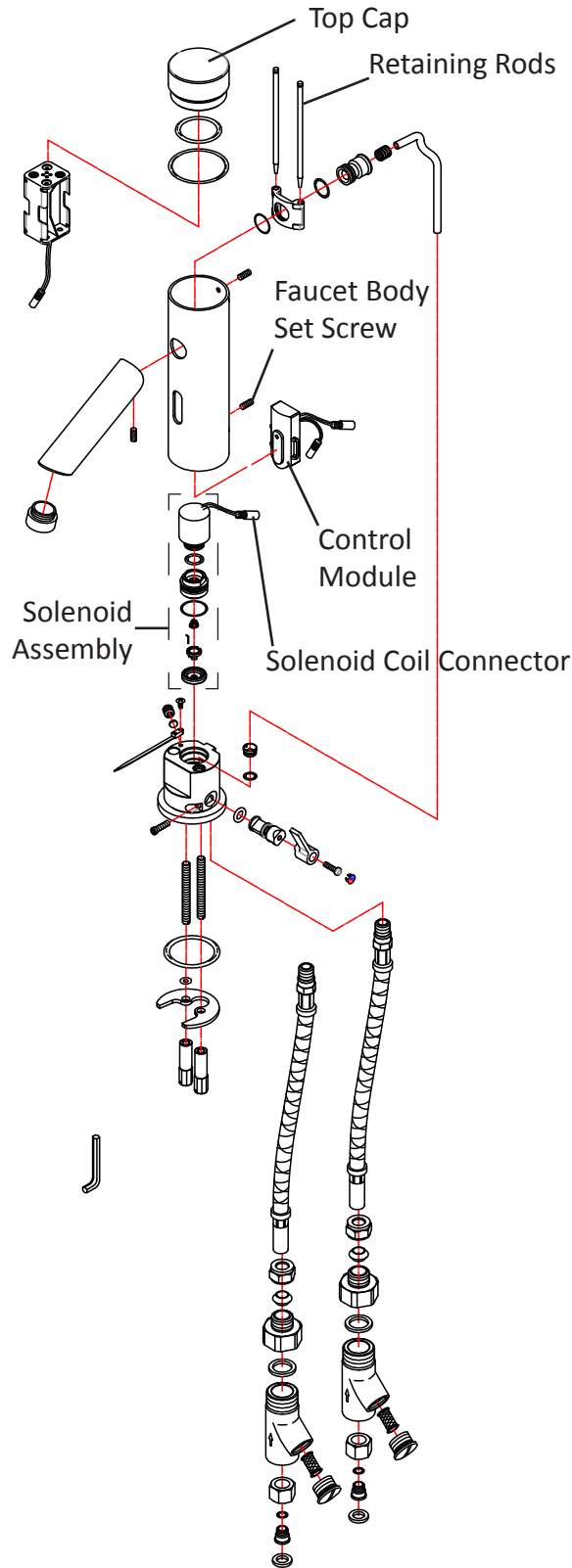
Problem	Possible Cause	To Diagnose	Remedy
Faucet will not turn on:	Water not turned on	Check water supply	Turn water on
	Power supply failure	No light, no clicking: • Check batteries • Check power adapter	Reinstall or replace batteries/ Replace power adapter
	Low battery	Light continues to flash	Replace batteries
	Electronic PCB / Sensor is defective	No light, no clicking: • 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.

7000EM Series

Sensor Operated Mixing Faucet Maintenance Tasks



PRESSURE RELEASE VALVE REPLACEMENT

1. Remove faucet **Top Cap**.
2. Remove batteries (battery powered faucets) or unplug power adapter (AC powered faucets).
3. Unscrew the **Faucet Body Set Screw** and with an upward motion, pull the the faucet body off of the faucet base.
4. Disconnect the **Solenoid Coil connector**.
5. Unscrew the **Solenoid Assembly** and remove it from the faucet base.
6. Install the new **Solenoid Assembly** and reassemble the faucet in reverse order.

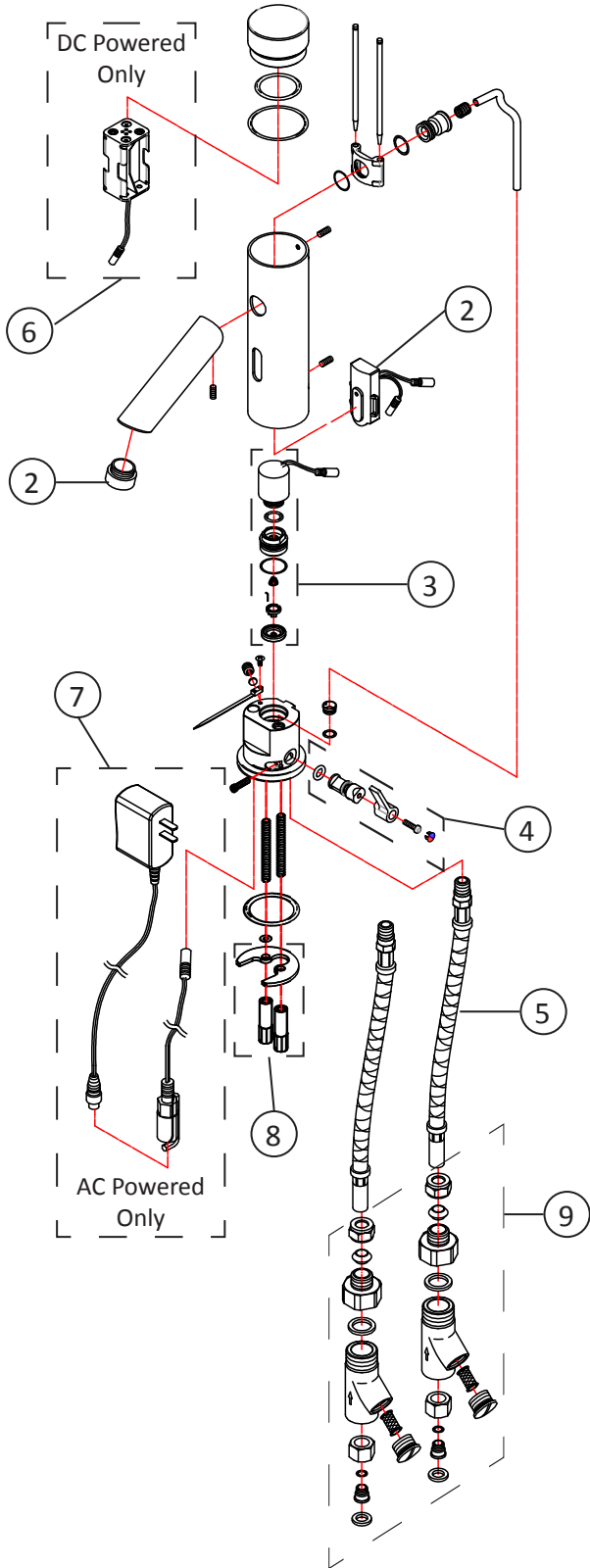
CONTROL MODULE (P.C. BOARD) REPLACEMENT

1. Remove faucet **Top Cap**.
2. Remove batteries (battery powered faucets) or unplug power adapter (AC powered faucets).
3. Unscrew the **Faucet Body Set Screw** and with an upward motion, pull the faucet body off of the faucet base.
4. Disconnect the **Solenoid Coil** connector.
5. Pull the **Retaining Rods** up and out through the top of the faucet body.
6. Remove the **Control Module**.
7. Install the new **Control Module** and reassemble the faucet in reverse order.

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

7000EM Series

Sensor Operated Mixing Faucet Assembly Parts



No	Description	Part Number
1	Laminar Flow Control - 0.5 GPM - Male - Vandal Resistant	HB-003AMVR
2	Control Module & Sensor (A for AC, B for DC Powered)	HCE-007A (AC) HCE-007B (DC)
3	Solenoid Assembly	H41-004
4	Temperature Adjustment Assembly	HCE-030
5	Flexible Supply Tube	HC-025C
6	Battery Holder (DC Powered Only)	HCC-103B
7	Plug-In Adapter	HCE-008
8	Mounting Kit	HCE-7000
9	In-Line Filter	HC-009A

Please visit our website, www.hydrotekintl.com, for our most current Products Pricing Sheet.