

HYDROTEK INTERNATIONAL, INC.

5055 Forsyth Commerce Rd., Ste. 124, Orlando, FL 32807

Phone (800)922-9883 / Fax (866)670-5580

www.hydrotekintl.com

OPERATION & MAINTENANCE MANUAL

HYDROTEK MODEL #HB-5000E FAUCET

TECHNICAL SUPPORT TEAM:

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AC or Battery Powered Automatic Faucet

5000E Series

ISO 9002 Certified



5000E Series

High Technology For No Touch Operation

- 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

Features:

- 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 design allows for faucet electronic component diagnostics.
- Standard 0.5 GPM vandal resistant aerator.
- Single-hole deck mounting with optional 4" and 8" cover plate for vandal resistant three point anchoring.

Hydrotek Automatic Faucet

Non-Mixing / Deck Mounted

Model H-5000E (AC) or HB-5000E (Battery)

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. 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 model, a flashing red light will indicate 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: 0.3 Bar to 10 Bar (5 psi to 125 psi)

Flow Control:

- 0.5 GPM, Rosette, Vandal Resistant

AC Powered Mode

Power Adapter

Standard plug-in:

(UL/CSA)

Power Cable:

Optional Multi-Unit Adapter:

(UL/CSA)

- Input AC 120V 60 Hz

- Output DC 7.5V, 0.8A/Class 2

- Armored, Vandal Resistant

- Serves up to 10 Faucets

- 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 yrs

Standard Package Includes:

H-5000E (AC)

- | | |
|---|---|
| X | (1) Faucet with Sensor/Solenoid |
| X | (1) 7.5V DC Plug-in Power Adapter |
| X | (2) Armored Steel Supply Tube with filter |
| X | (1) Mounting Lock Nut and Washer |
| X | (1) 0.5 GPM V.R. Rosette Flow Control |
| X | (4) AA Alkaline Batteries |

HB-5000E (Bat)

X

X

X

X

X

X

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"

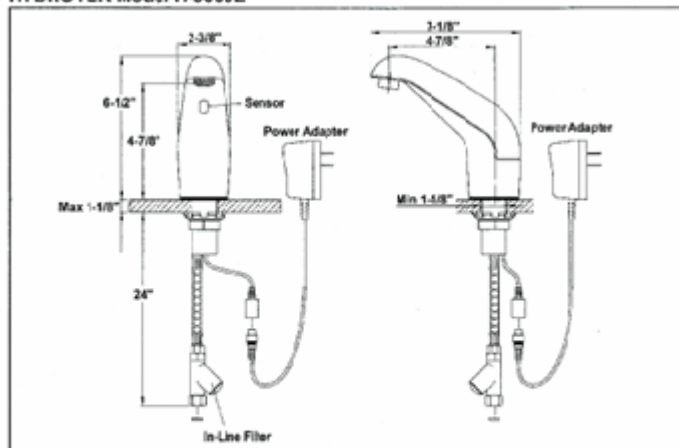
Mounting Bolt Size (Single-Hole Mount)

1-1/8"

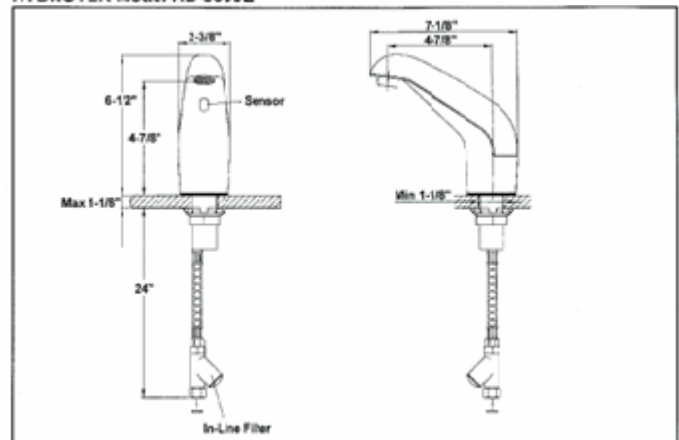
Optional Variations and Accessories:

- 1.5 or 2.0 GPM Laminar Flow Control
- 4" or 8" Centerset Cover Plate
- HC-010 Multi-Unit Voltage Adapter (AC Model)
- HBL-04 Thermostatic Mixing Valve with Checks

HYDROTEK Model H-5000E



HYDROTEK Model HB-5000E



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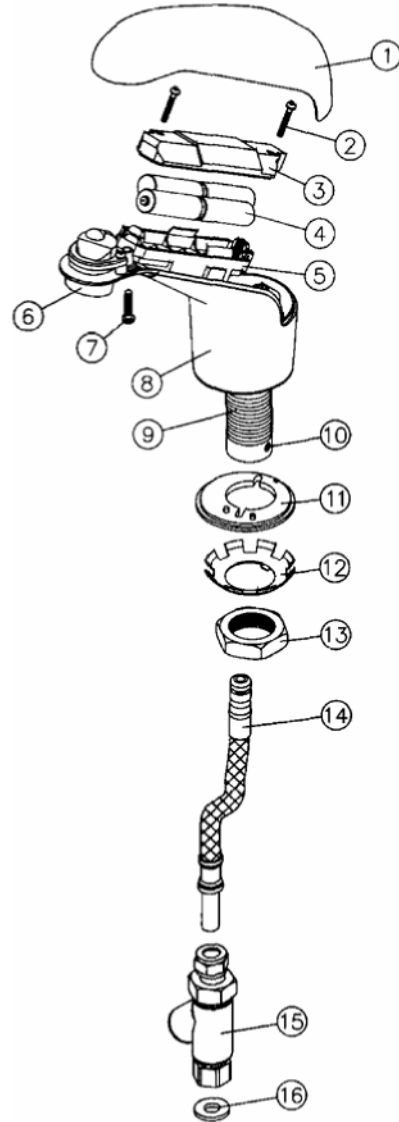


INSTALLATION INSTRUCTIONS

Hydrotek Non-Mixing Automatic Faucet (Battery Powered)

Model HB-5000E

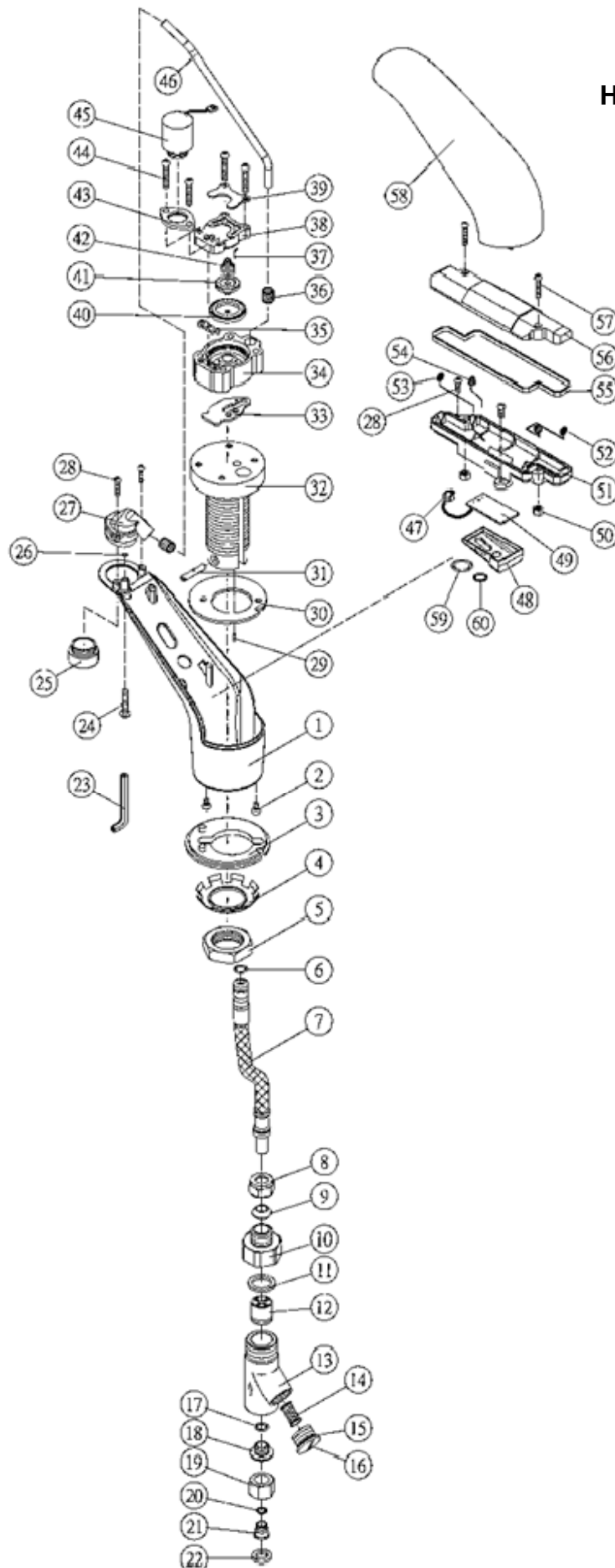
1. Prior to installing this faucet, thoroughly flush all water lines and replace stop washers, if necessary.
2. To ensure proper operation, " DRY TEST " the faucet by loosening the Cover Screw (7) and removing the Top Cover (1). Loosen the Battery Holder Screws (2) and remove the Battery Holder Cover (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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HYDROTEK Model HB-5000E



NO	DESCRIPTION	PART NO.
1	Body	01537004
2	Screw X2	00670006
3	Bottom Plate Rubber	00549031
4	Star Lock Washer	00311010
5	Mounting Nut	00806015
6	O-Ring	00400067
7	Supply Tube	01628010
8	Compression Nut	00847001
9	Ferrule	00400061
10	Compression Adapt.	01647011
11	Washer	00400056
12	Check Valve	00420002
13	Filter Body	01127004
14	Filter Screen	01702001
15	O-Ring	00400032
16	Filter Cap	00737001
17	O-Ring	00400046
18	Swivel Nut Connector	01647005
19	Swivel Nut	00807001
20	O-Ring	00400045
21	Connector	01636010
22	Nylon Washer	00400054
23	Key-VR Screw	40760004
24	VR Screw	00791002
25	Aerator	01720013
26	O-Ring	00400038
27	Aerator Connector	01129001
28	Screw X4	00630010
29	Position Staff	00112002
30	Rubber Gasket	00549022
31	Lock Rod	00212003
32	Non-Mixing Chamber Seat	01146004
33	Gasket Rubber	00539001
34	Solenoid Seat	01119001
35	Spacer	00539002
36	Tube Connector X2	00419018P
37	Guide Pin	01401001
38	Solenoid Seat Cover	01132003
39	Seat Washer	00546003
40	Control Disc Rubber	01409001
41	Control Disc	01152003
42	Spring	00300015
43	Coil Fixing Shaft	01516002
44	Screw X4	00630011
45	Solenoid Coil	02042001
46	Copper Tube	01601039
47	Connector	01920018
48	Sensor Eye Casing	01209013
49	Electronic PCB	0211N010
50	Nut X2	00800002
51	Battery Holder	01909001
52	Spring	00300018
53	Spring	00300016
54	Spring	00300017
55	Seal Rubber	00439014
56	Battery Holder Cover	01249006
57	Screw X2	00630034
58	Faucet Body Cover	01247001
59	O-Ring	00400078
60	O-Ring	00400077

HYDROTEK AUTOMATIC FAUCET TROUBLESHOOTING GUIDE

(H/HB-5000E and H/HB-5000EM)

Normal Operation: When power is connected or RESET button is pushed, the faucet will immediately perform a self-adjusting and 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. Red indicator light will flash when the batteries are low.

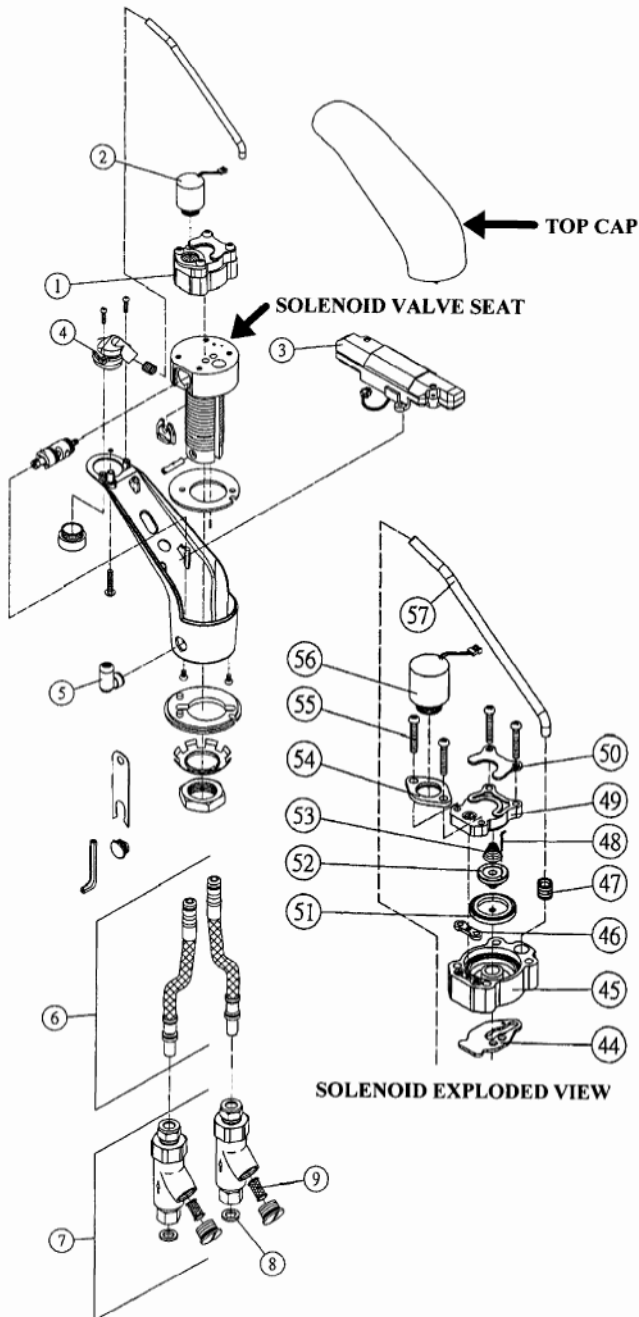
*For the mixing model (5000EM-LR), turn manual handle clockwise to increase temperature and counter-clockwise to decrease. Pull handle to turn on faucet manually, and push in to turn off faucet manually.

<u>PROBLEM</u>	<u>POSSIBLE CAUSE</u>	<u>TO DIAGNOSE</u>	<u>REMEDY</u>
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 click: 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 clicking.	Replace solenoid coil.
	Flow control is clogged.	Open flow control device and check.	Clean the flow control device.
Faucet will not shut off, has low flow, or drips:	Solenoid valve is normally closed. Turn off water and activate faucet. If there is a clicking sound, the solenoid valve is dirty. If there is no clicking sound, then check solenoid valve. If the faucet is dripping, clean the solenoid valve. *For mixing models (5000EM-LR): if the faucet continues to run, check the manual adjust handle to see if it is on the "ON" position.		

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 Tech Support at (800)922-9883 ext. 105

SOLENOID VALVE MODULE TASKS FOR HYDROTEK 5000E, 5000EM FAUCETS (AC AND BATTERY POWERED)



(For further questions, please call Hydrotek Tech Support
at 1-800-922-9883 ext. 105)

HCE-004 (SOLENOID VALVE MODULE) REPLACEMENT

1. Remove faucet top cap.
2. Remove batteries (for battery powered faucets) or unplug power adapter (for AC powered faucets).
3. Loosen and remove the Battery Holder / Control Module (#3), making sure to disconnect all electrical connections.
4. Unscrew and remove the Solenoid Coil Module (#2) from the Solenoid Valve Module (#1).
5. Completely loosen the four screws securing the Solenoid Valve Module (#1) to the Solenoid Valve Seat. Lift the Solenoid Valve Module from the Faucet Body Housing.
6. Install new HCE-004 and reassemble faucet in the reverse order. **NOTE: When reinstalling Coil Module to Solenoid Valve Module, DO NOT over-tighten. Fit should be snug.**

HCE-004 (SOLENOID VALVE MODULE) CLEANING

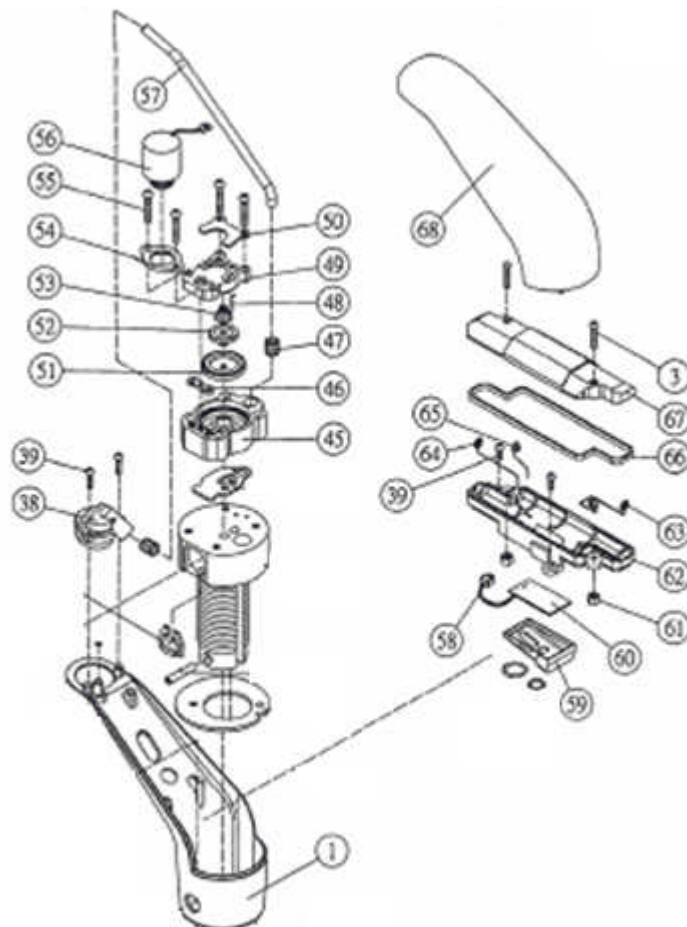
1. Follow steps 1-5 above to remove Solenoid Valve Module (#3) from the faucet body.
2. Separate the Solenoid Valve Module Top Housing (#49) from the Lower Housing (#45).
3. Lift out Cone-shaped Spring (#53) and set aside.
4. Lift Rubber Diaphragm (#51) out of the Lower Housing (#45).
5. Clean and rinse all parts of the debris.
6. Reassemble all parts in reverse order. **NOTE: When reinstalling Coil Module to Solenoid Valve Module, DO NOT over-tighten. Fit should be snug.**

CONTROL MODULE (P.C. BOARD) REPLACEMENT FOR HYDROTEK 5000E and 5000EM FAUCETS

(AC or BATTERY POWERED)

1. Remove the faucet Body Cover (#68).
2. For AC Powered faucets, unplug the Power Adapter from the electrical wall outlet. For Battery Powered faucets, remove batteries from the Battery Holder (#62).
3. Unplug the black connector (#58) on the Control Module from the Solenoid Coil (#56).
4. Remove the two screws (#39) holding the Control Module to the Faucet Body (#1). Remove the Control Module (#60).
5. Reinstall the new control module onto the faucet body, making sure that the Sensor Eye Casing (#59) is in the right position.
6. Retighten the two screws (#39) that hold the control module on the body.
7. Connect the Control Module (#60) to the Solenoid Coil (#56).
8. Plug the Power Adapter in (for AC Powered faucets) or insert batteries (for Battery powered faucets) and listen for the click of the solenoid. Test for proper operation.

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Assembly Parts for 5000E & 5000EM Series Faucets
AC or Battery Powered Lavatory Faucets

TEMPERATURE MIXER ASSEMBLY		
H-5000EM	Part # 33-37	HCE-028
HB-5000EM	Part # 32-36	HCE-028
CONTROL MODULE ASSEMBLY		
H-5000E	Part # 48-56, 64, 65	HCE-018A
H-5000EM	Part # 60-67, 3, 75, 76	HCE-018A
HB-5000E	Part # 47-57, 59, 60	HCE-018B
HB-5000EM	Part # 58-67, 3, 70, 71	HCE-018B
SOLENOID COIL		
H-5000E	Part # 46	HCE-019
H-5000EM	Part # 58	HCE-019
HB-5000E	Part # 45	HCE-019
HB-5000EM	Part # 56	HCE-019
SOLENOID VALVE KIT (WITHOUT COIL)		
H-5000E	Part # 34-44	HCE-004
H-5000EM	Part # 46-56	HCE-004
HB-5000E	Part # 33-43	HCE-004
HB-5000EM	Part # 44-54	HCE-004
Y-STRAINER WITH CHECK		
H-5000E	Part # 8-22	HC-009A
H-5000EM	Part # 16-30	HC-009A
HB-5000E	Part # 8-22	HC-009A
HB-5000EM	Part # 15-29	HC-009A

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