

# **HYDROTEK INTERNATIONAL, INC.**

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

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

[www.hydrotekintl.com](http://www.hydrotekintl.com)

## **OPERATION & MAINTENANCE MANUAL**

**HYDROTEK MODEL #HB-6000C FAUCET**

TECHNICAL SUPPORT TEAM:

Michael Hu & Armin Kharazi

Phone (800) 922-9883 ext. 105

Email: [mike@hydrotekintl.com](mailto:mike@hydrotekintl.com) or [armin@hydrotekintl.com](mailto:armin@hydrotekintl.com)



**Solid Brass AC or Battery Powered**

# Automatic Faucet

6000C Series

ISO 9002 Certified

## 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



6000C Series

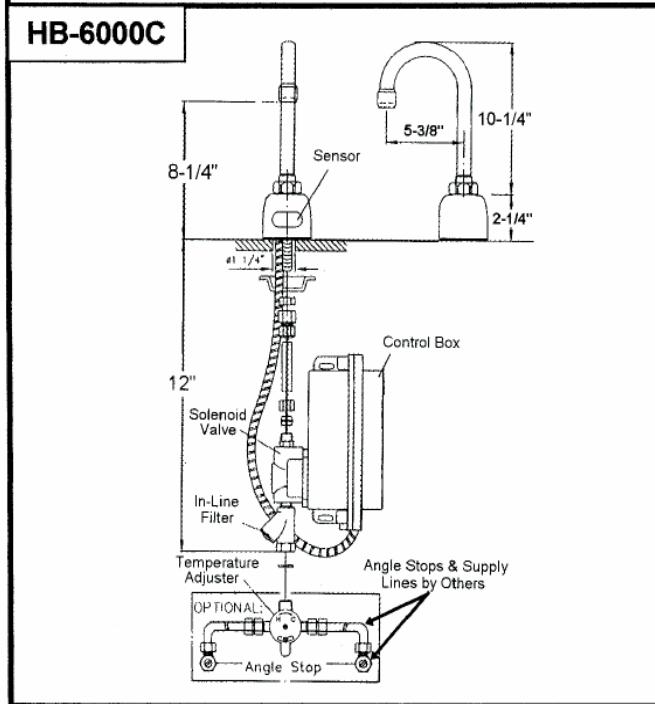
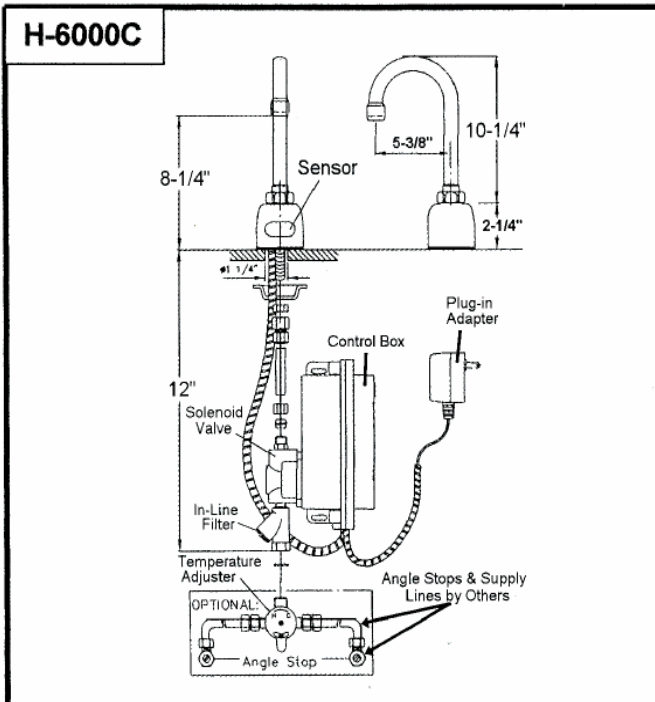
U.S. Patent:  
6192530B1

## 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 6" - 30" for various installation requirements.
- Standard automatic time-out feature. Preset at 0 but adjustable to 15, 30, or 60 seconds. Prevents accidental sink overflow.
- Shut-off delay is adjustable from 1 second (preset) to 8 seconds.
- Standard single-hole deck mount. Adaptable to optional 4" or 8" cover plates.
- Includes in-line filters with clean-out trap to reduce maintenance costs.
- Standard 6" gooseneck spout and 2.0 GPM laminar flow control.
- All parts are field replaceable to ensure quick and easy repair.
- Same faucet, field switchable to/from AC Powered or Battery Powered.
- 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.
- Control module automatically performs a unique self-check of all electrical components.
- No-touch system enhances hygiene in medical, institutional, food service industries, etc.

# Hydrotek Automatic Gooseneck Faucet

Non-Mixing / Deck Mounted  
 Model H-6000C (AC) or HB-6000C (Battery)  
 Meets ANSI/ASME A112.18.1M-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 battery powered mode, flashing red light will indicate low battery condition.

**Specifications:**

- Faucet Construction:** - Solid Brass, Chrome Plated  
**Control Circuit:** - Solid state, AC or Battery, Switchable  
**Auto. Time-out:** - Preset and Adjustable for 0, 15, 30, or 60 seconds  
**Sensor Range:** - Preset and Adjustable  
**Shut-Off Delay:** - Preset and Adjustable from 1 - 8 seconds  
**Control Cable:** - Armored, Vandal Resistant  
**Solenoid Valve:** - 6V DC, Normally closed  
 - Wattage: 0.4W (idle), 5W (in use)  
 - Operating Pressure: 5psi to 125psi  
 - 2.0 GPM, Laminar

**Flow Control:**

**AC Mode**

- Power Adapter:** - Input AC 120V 60 Hz or 220 V  
 - Output DC 12V, 0.8A/Class 2  
**Power Cable:** - Armored, Vandal Resistant  
**Operational Multi-Unit Adapter (UL/CSA):** - Serves up to 8 Faucets  
 - Input AC 120V, Output DC 12V, 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-6000C (AC)**

- X (1) Faucet with Electronic Sensor
- X (1) Control Box w/6V DC Solenoid
- X (1) 12V DC Plug-in Power Adapter
- X (1) In-Line Filter with Clean-Out Trap
- X (1) Copper Supply Tube, 3/8"
- X (1) Mounting Hardware
- X (1) 6" Gooseneck Spout
- X (1) 2.0 GPM V.R. Laminar Flow Control
- (4) AA Alkaline Batteries
- (1) Battery Holder

**HB-6000C (Bat)**

- X
- X
- X
- X
- X
- X
- X
- X
- X
- X

**Dimensions:**

Base Width (Outside Measurement)	2-1/4"
Base Depth	2-1/4"
Faucet Height (Aerator to Base)	8-1/4"
Faucet Height Overall	12-1/2"
Depth (Center of Aerator to Center of Faucet Base)	5-3/8"
Mounting Bolt Length	2-1/4"
Mounting Bolt Pattern	Single-Hole Mount

**Optional Variations and Accessories:**

- 1.6 GPM Soft-Flow Aerator 1.5 & 2.5 GPM Laminar Flow Control and Rose Spray Head
- 4" or 8" Centerset Cover Plate
- HC-010 Multi-Unit Voltage Adapter (AC Powered Only)
- HC-001 Mixing/Check Valve (Mechanical)
- HBL-04 Thermostatic Mixing Valve with Checks
- 8" deep Gooseneck and 6" or 8" Swing Spout

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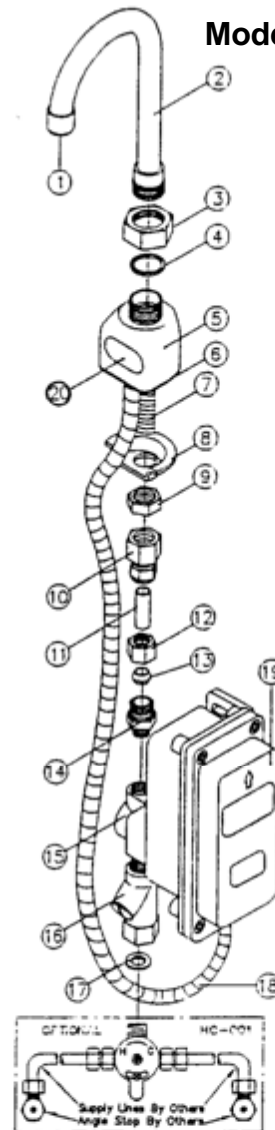


# INSTALLATION INSTRUCTIONS

## Hydrotek Non-Mixing Gooseneck Automatic Faucet (Battery Powered)

Model HB-6000C

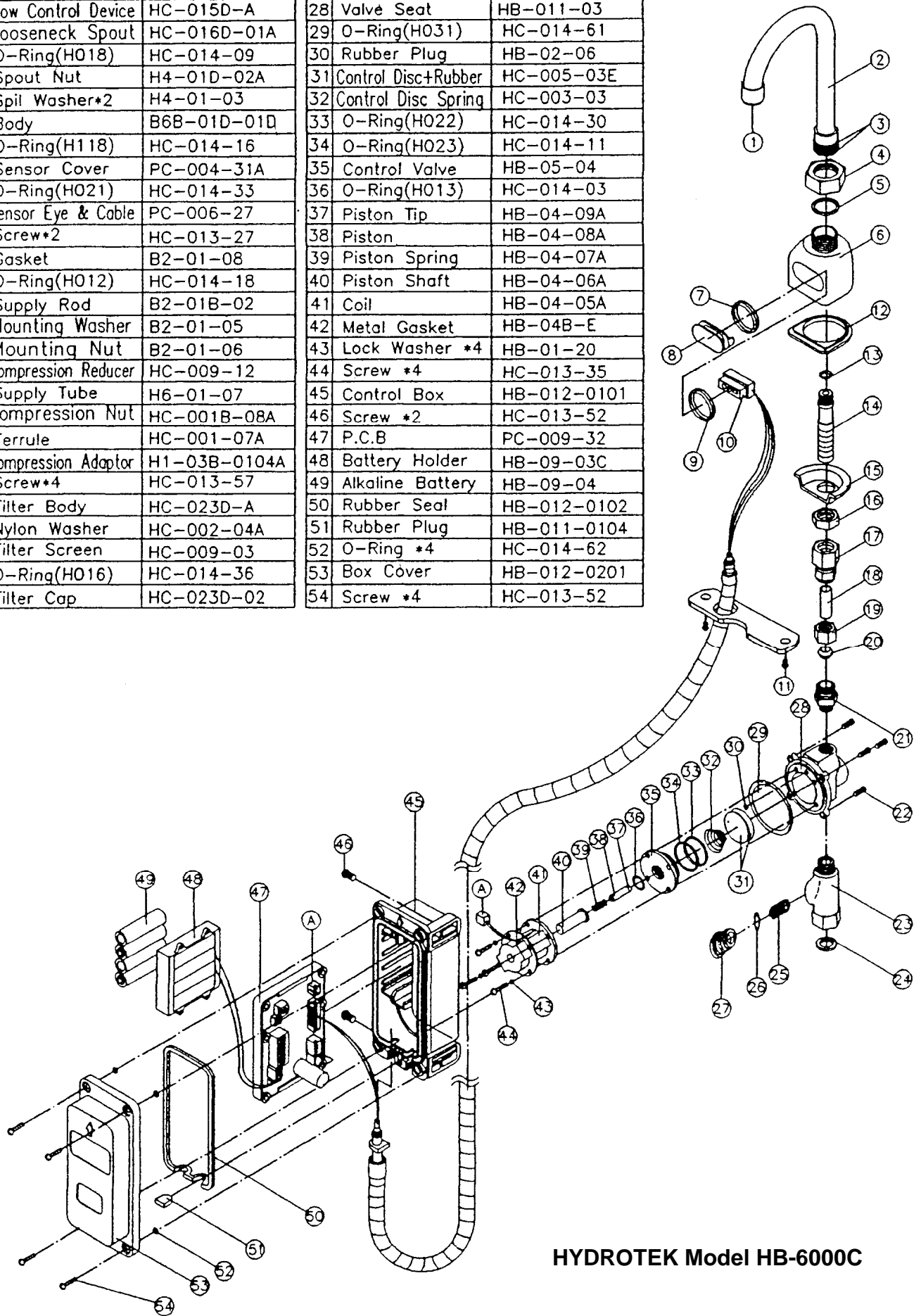
1. Prior to installing this faucet, thoroughly flush all water lines and replace stop washers, if necessary.
2. To ensure proper operation, " DRY TEST " the faucet by plugging (18) Sensor Eye Cable connector into the matching connector on the PC board inside the (19) Control Box. Pull out PC board for easier access. Properly install batteries in Battery Holder and plug Battery Holder output connector into the corresponding connector on the PC board. Place your hand in front of faucet sensor eye. If there is a clicking sound, the faucet is activating properly. If not, call the factory.
3. After successful "DRY TEST," unplug Sensor Eye Cable and Battery Holder connectors from the PC board.
4. \*\*Use Teflon Tape, not Pipe Dope for all connections. Loosen (1) Flow Control Device and assemble (2) Gooseneck Spout using (4) Split Washers and (3) Spout Nut. Mount gooseneck spout onto (5) Faucet Body and set the faucet on the sink. Apply Plumber's Putty to the bottom of the gasket. Secure faucet to sink using (8) Washer and (9) Mounting Nut. Connect (11) Supply Tube to (7) Supply Rod using the (10) Compression Adapter.
5. Connect Sensor Eye Cable as described in STEP #2, making sure that the Sensor Eye cable is seated into the Control box housing properly.
6. Attach (14) Compression fitting to (15) Solenoid valve outlet and connect it to (11) Supply tube using (12) Compression nut and (13) Compression ferrule. Insert (17) Nylon washer into swivel nut located on (16) In-line filter inlet **(for pre-tempered or cold water only)**. Using a union fitting (not supplied), connect supply line (not supplied) from supply stop to (16) In-line filter inlet swivel nut **(for tempered water)**.  
>>Attach optional Hydrotek HC-001 Mixing/Check Valve or HC-003 Mixing "T" w/checks to In-line filter inlet. Connect supply lines (not supplied) from hot and cold supply stops to Mixing valve or Mixing "T" inlets.  
**Use Teflon Tape, not Pipe Dope for all connections.**
7. Turn on water and check for leaks. Connect Battery holder to the PC board and reinstall the Control box cover. Tighten screws to ensure that the box is water resistant. Place hand in front of Sensor eye to activate water flow. Remove hands and water should stop. If not, refer to troubleshooting guide.
8. Periodically clean the filter element located inside the (16) In-line filter.
9. For minor adjustments, refer to the instructions located inside the Control box cover.



Part No.	Description	Part No.	Description
1.	Laminar Flow Control	11.	Supply Tube
2.	Gooseneck Spout	12.	Compression Nut
3.	Spout Nut	13.	Compression Ferrule
4.	Split Washer	14.	Compression Fitting
5.	Body	15.	Solenoid Valve
6.	Gasket	16.	In-Line Filter
7.	Supply Rod	17.	Nylon Washer
8.	Washer	18.	Sensor Eye Cable
9.	Mounting Nut	19.	Control Box
10.	Compression Adapter	20.	LED Sensor

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NO	DESCRIPTION	PART NO.	NO	DESCRIPTION	PART NO.
1	Flow Control Device	HC-015D-A	28	Valve Seat	HB-011-03
2	Gooseneck Spout	HC-016D-01A	29	O-Ring(H031)	HC-014-61
3	O-Ring(H018)	HC-014-09	30	Rubber Plug	HB-02-06
4	Spout Nut	H4-01D-02A	31	Control Disc+Rubber	HC-005-03E
5	Spil Washer*2	H4-01-03	32	Control Disc Spring	HC-003-03
6	Body	B6B-01D-01D	33	O-Ring(H022)	HC-014-30
7	O-Ring(H118)	HC-014-16	34	O-Ring(H023)	HC-014-11
8	Sensor Cover	PC-004-31A	35	Control Valve	HB-05-04
9	O-Ring(H021)	HC-014-33	36	O-Ring(H013)	HC-014-03
10	Sensor Eye & Cable	PC-006-27	37	Piston Tip	HB-04-09A
11	Screw*2	HC-013-27	38	Piston	HB-04-08A
12	Gasket	B2-01-08	39	Piston Spring	HB-04-07A
13	O-Ring(H012)	HC-014-18	40	Piston Shaft	HB-04-06A
14	Supply Rod	B2-01B-02	41	Coil	HB-04-05A
15	Mounting Washer	B2-01-05	42	Metal Gasket	HB-04B-E
16	Mounting Nut	B2-01-06	43	Lock Washer *4	HB-01-20
17	Compression Reducer	HC-009-12	44	Screw *4	HC-013-35
18	Supply Tube	H6-01-07	45	Control Box	HB-012-0101
19	Compression Nut	HC-001B-08A	46	Screw *2	HC-013-52
20	Ferrule	HC-001-07A	47	P.C.B	PC-009-32
21	Compression Adaptor	H1-03B-0104A	48	Battery Holder	HB-09-03C
22	Screw*4	HC-013-57	49	Alkaline Battery	HB-09-04
23	Filter Body	HC-023D-A	50	Rubber Seal	HB-012-0102
24	Nylon Washer	HC-002-04A	51	Rubber Plug	HB-011-0104
25	Filter Screen	HC-009-03	52	O-Ring *4	HC-014-62
26	O-Ring(H016)	HC-014-36	53	Box Cover	HB-012-0201
27	Filter Cap	HC-023D-02	54	Screw *4	HC-013-52



**HYDROTEK Model HB-6000C**

# HYDROTEK AUTOMATIC FAUCET TROUBLESHOOTING GUIDE

(AC Powered)

Normal Operation: When power is connected or RESET button is pushed, the lights on the Printed Circuit Board (PCB) will blink in the following sequence: red – red (with solenoid clicking) – green – red – red. Green light will remain lit. When the user's hands are placed under the spout, the red indicator light on the faucet and PC board will illuminate and water will begin to flow. Water flow will stop when hands are removed. Always push the RESET button BEFORE attempting to diagnose any problem and AFTER taking corrective action.

<u>PROBLEM</u>	<u>POSSIBLE CAUSE</u>	<u>TO DIAGNOSE</u>	<u>REMEDY</u>
<b>Faucet will not turn on:</b>	Water not turned on.	Check water supply.	Turn water on.
	Power supply failure.	Check power adapter voltage, polarity, wires, and connections.	Replace power adapter and reconnect. Push RESET button.
	Sensor distance is too short.	Use hand/palm to find focal point of sensor beam.	To adjust sensor distance out, turn adjustment clockwise. Push RESET button.
	Electronic PCB is defective.	With power adapter plugged in, push RESET button. No light, no action.	Replace PCB.
	Sensor eyes are defective.	With power adapter plugged in, place hands in front of sensor eyes. Indicator light on faucet does not blink.	Replace sensor eyes and cable.
	Solenoid valve is clogged.	Solenoid is clicking but no water is coming out.	Clean solenoid and blow free all by-pass holes. Replace control disc. Push RESET button.
	In-line filter is clogged.	Open clean-out trap and check filter screen.	Clean or replace filter screen.
	Solenoid coil is defective.	With power adapter plugged in, push the RESET button. Light blinks but no solenoid clicking.	Replace solenoid coil. Push RESET button.

**Faucet will not shut off:** 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 replace solenoid valve. Other factors could be problematic (Sensor distance adjustment could be too long or electronic PCB could be defective). If the faucet is dripping, the solenoid valve needs a rebuild kit. Follow the same procedures as above for remedies.

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

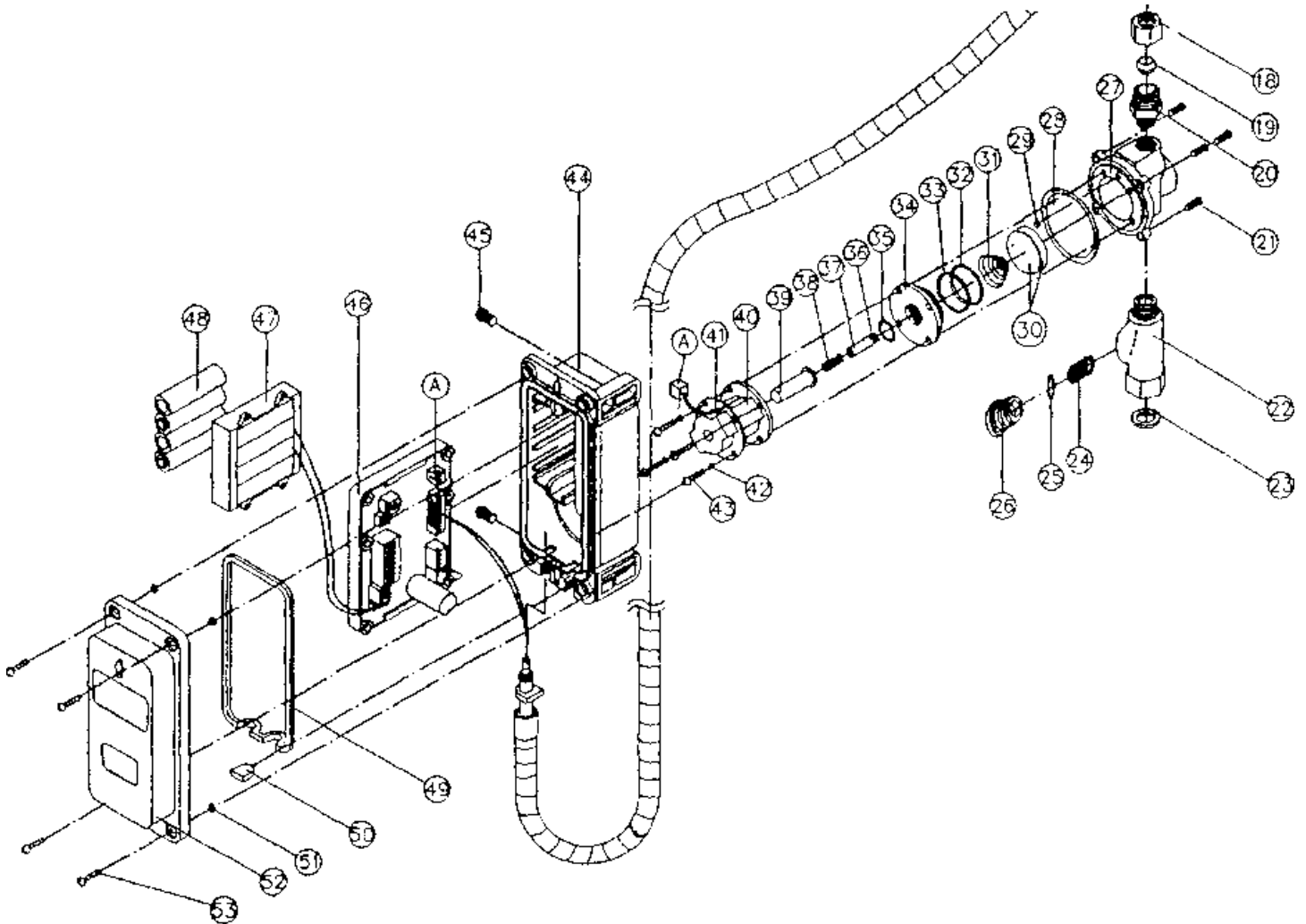
*For more detailed remedy procedures, please call Hydrotek Tech Support at (800)922-9883 ext. 105*

## SOLENOID VALVE CLEANING FOR HYDROTEK 1000C, 2603C, 6000C, 6700C FAUCETS (AC AND BATTERY POWERED)

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1. Turn off water supply at stop valve.
2. Remove control box (if possible) to gain access to the solenoid valve.
3. Remove four Screws (#21) and separate the valve from the box.
4. Remove four Coil Screws (#43) and separate Coil (#41) from Valve Seat (#27).
5. When separating Plastic Control Valve (#34) be careful to retain the small Orange Rubber Plug (#29). Re-install this on Brass Valve Seat (#27).
6. Clean or replace Control Disc (#30), Disc Spring (#31), Piston & Tip (#36 and 37), Piston Spring (#38), and check Sleeve (#39) for corrosion.
7. Re-install all parts in same order as the diagram below.
8. Re-install solenoid on the control box and re-mount box in water line.
9. Check and clean Filter Screen (#24) in Filter Body (#22).
10. Reset P.C. Board and make sure solenoid clicks open and thumps closed.
11. Turn on water and check for leaks and proper operation.

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

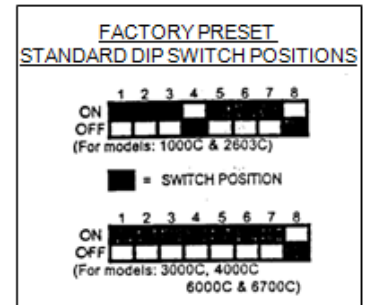


# HYDROTEK AUTOMATIC FAUCET: DIP SWITCHES

**\*NOTE: ALWAYS PUSH THE RESET BUTTON AFTER ANY ADJUSTMENTS\***

A. Shut Off Time Delay (After hands are removed):

Sw 1	Sw 2	Sw 3	Time Delay
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	ON	7-Sec
OFF	OFF	OFF	8-Sec



B. Automatic Time Off (Maximum run time after activation):

Sw 4	Sw 5	Time Off
ON	ON	0 Sec
ON	OFF	15 Sec
OFF	ON	30 Sec
OFF	OFF	60 Sec

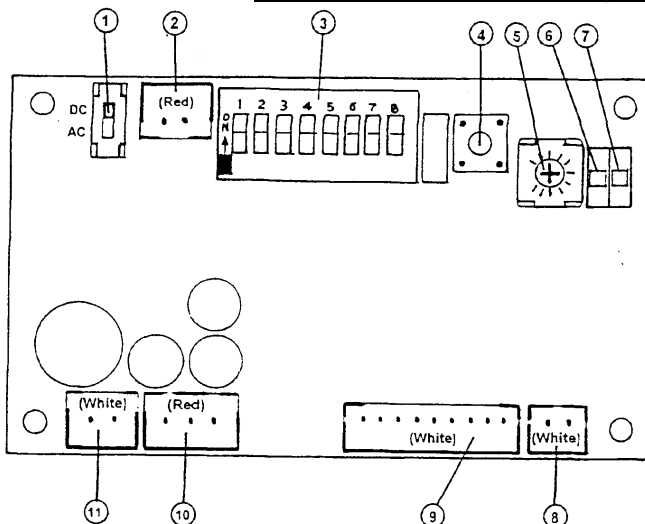
C. Sensor Distance: To increase distance, turn SDA screw clockwise.  
To decrease distance, turn screw counter-clockwise.

Sw 6	Mode	Distance
ON	Std	4" – 12"
OFF	Enhanced	10" – 24"

D. Faucet Switch:

Sw 7	Sw 8	Product
ON	OFF	Auto Faucet

## Control Module Diagram for C-Series Faucets



1. AC/DC Switch
2. Battery Holder Pin Connector (Red)
3. Dip Switches
4. Reset Button
5. Sensor Distance Adjustment (SDA)
6. Indicator LED (Green)
7. Indicator LED (Red)
8. Solenoid Pin Connector (White)
9. Sensor Eye Control Cable (White)
10. AC Power Adapter Pin Connector (Red)
11. Battery Holder Pin Connector (White)



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**Suggested Backup Parts for 6000C Series Faucets**  
 AC or Battery Powered Lavatory Faucets

<b>Part Number From Drawing</b>	<b>Hydrotek Item Code</b>	<b>Description</b>
52	HCC-008B	12V AC Adapter (for AC model)
23-27	HC-009B	Filter without Check
10-11	HCC-031	Sensor Eye & Cable
47 47	HCC-011A HCC-011B	Module – PCB for AC Model Module – PCB for Battery Model
15-16	HC-015C	Mounting Kit
25	HC-020	Filter Screen
31,32,36,37,38,39	HCB-017A	Valve Repair Kit
41	HCC-019	Solenoid Coil
31	HCB-005A	Control Disc Only
24	HC-040	Nylon Washer (Filter Inlet)
22-51	HCC-003A	Complete Control Box Assembly

*(Please visit [www.hydrotekintl.com](http://www.hydrotekintl.com) to view our most current Products Pricing Sheet)*