HYDROTEK INTERNATIONAL, INC.

957 N. Pennsylvania Avenue, Winter Park, FL 32789 800-922-9883 Fax: 407-647-0471

OPERATION & MAINTENANCE MANUAL

HYDROTEK MODEL #H-8000C FLUSH VALVE

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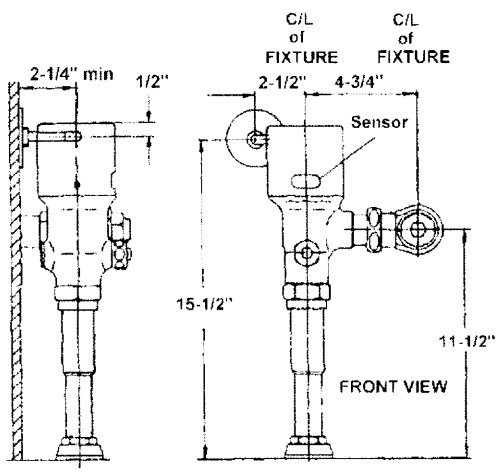
Hydrotek Autoflush Valves

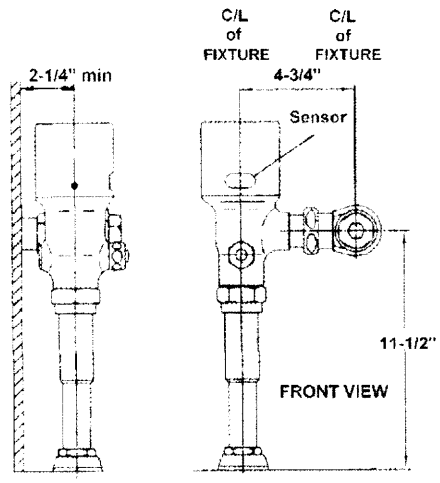
H-8000C (AC) and HB-8000C Series (Battery)

H-8000C SERIES (AC Powered)



H-8000C-A	H-8000C-B1	H-8000C-B2
1" IPS Angle Stop	3/4" IPS Angle Stop	1" IPS Angle Stop
1-1/2" Top Spud	3/4" Top Spud	1-1/4" Top Spud

HB-8000C SERIES (Battery Powered)



H-8000C-A	H-8000C-B1	H-8000C-B2
1" IPS Angle Stop	3/4" IPS Angle Stop	1" IPS Angle Stop
1-1/2" Top Spud	3/4" Top Spud	1-1/4" Top Spud

STANDARD PACKAGE INCLUDES:

EXPOSED FLUSH VALVE MODELS

H-8000C (A-B1-B2)	HB-8000C (A-B1-B2)	HB8RFKC (C-U)	
X	X	X	(1) Flush valve
X	X		(1) Stop valve
X	X		(1) Sweat Kit
X	X		(1) Flush Tube
X	X		(1) Spud coupling
X	X		(1) Vacuum breaker
X			(1) Plug-in AC Adapter
X			(1) Wall Flange
X			(1) AC Input Tube
	X	X	(4) AA Alkaline Batteries

OPTIONAL ACCESSORIES:

- HC-010 Multi-Unit Power Adapter: Powers up to 8 Flush Valve units. (AC Powered only)

HB8RFKC Retrofit Flush Valve Models:

- HB8RFKC-C Hydrotek Retrofit battery-powered closet flush valve. Unit bolts to Sloan or Zurn stop valve and flush tube.
- HB8RFK-U Same as above, but for urinals
- HB8RFKC-CD Hydrotek Retrofit battery-powered closet flush vavle. Unit bolts to Delany stop valve and flush tube
- HB8RFKC-UD Same as above, but for urinal

PLUMBING SPECIFICATIONS:

Model #	*Fixture*	*Supply Line*	*Top Spud*	*Flow Rate*
H/HB-8000C-A	Closet	1"	1-1/2"	1.5-5.0 GPF
H/HB-8000C-B1	Urinal	3/4"	3/4"	0.5-3.5 GPF
H/HB 8000C-B2	Urinal	1"	1-1/4"	0.5-3.5 GPF

- AC & Battery Powered Concealed Flush Valves Available
- Meets A.S.S.E. Standard 1037-89

ELECTRICAL REQUIREMENTS:

- AC Powered Unit:
  - Solenoid valve and sensor, 6V DC
  - Transformer: Input 120V AC, 60 Hz
    Output 12V DC

- Battery Powered Unit:
  - Solenoid valve and sensor, 6V DC
  - Battery: (4) AA Alkaline Batteries
  - Battery Service Life: 400,000 flushes, up to 4 years

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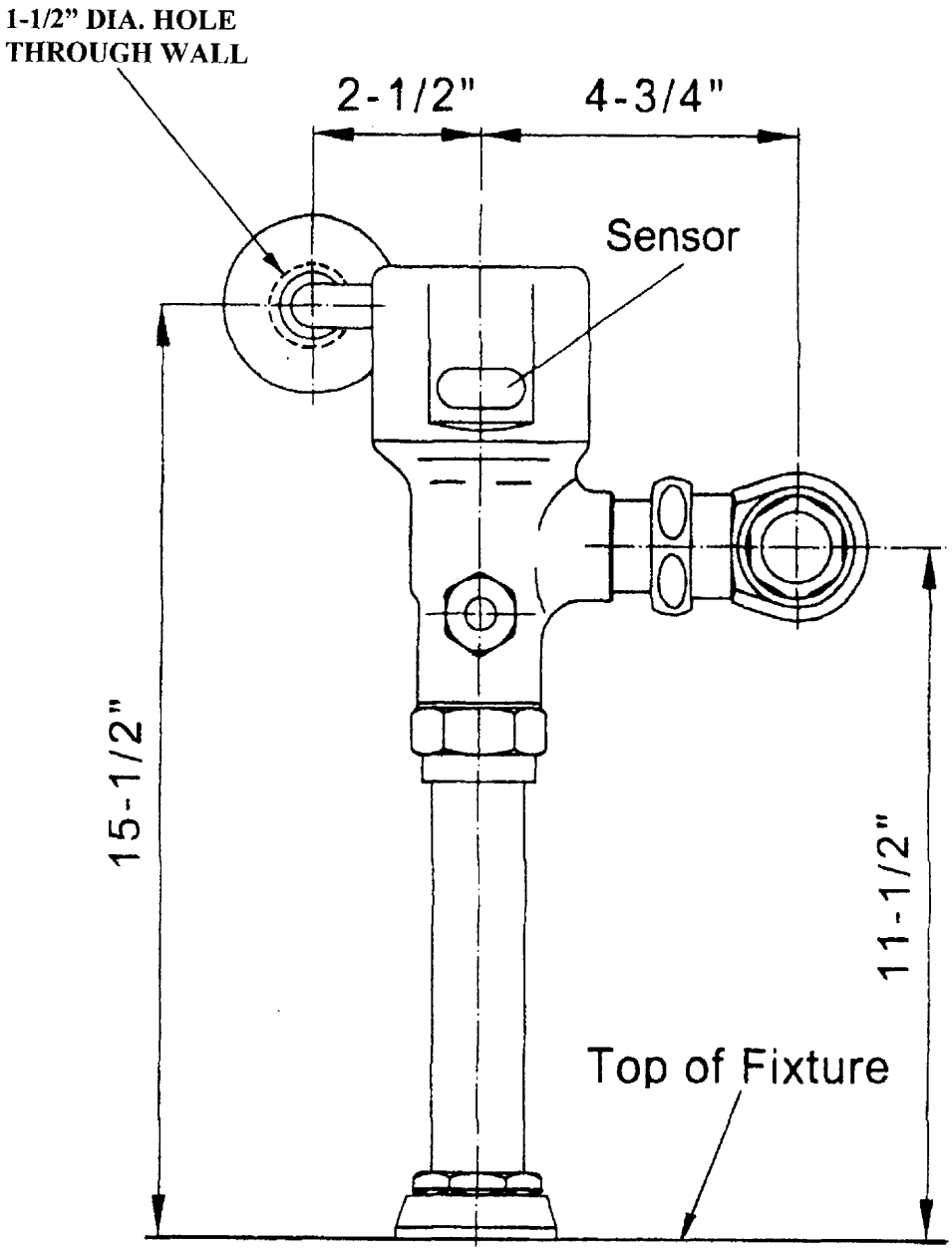
www.hydrotekintl.com

INSTALLATION ROUGH-IN TEMPLATE

HYDROTEK Model # H-8000C Flush Valve



HYDROTEK AUTOFLUSH VALVE

Operation and Installation Instructions For
Exposed Type Flush Valves -- AC Powered

OPERATIONS:

1. The AUTOFLUSH valve operates by emitting a continuous beam from the sensor.
2. As the user enters the beam's effective range, a red light flashes one time to alert the user that the flush valve is sensing. If the user stays in the range for more than 4 seconds, the beam is reflected into the receiver circuitry and the system goes into a "HOLD" mode for as long as the user remains in the range of the sensor. This "HOLD" mode also acts as a safety feature to prevent multiple flushes in the event the sensor is covered or blocked.
3. When the user steps out of range, the sensor sends a signal to the solenoid for a one time flushing cycle operation. The sensor then automatically resets and is ready for the next user.
4. If the MANUAL OVERRIDE button is pushed, the flushing mechanism will be activated without impacting the mode of automatic operation. This TRUE MANUAL OVERRIDE can be used to flush the valve when there is no electricity or if the electrical equipment fails.

INSTALLATION INSTRUCTIONS:

1. Prior to installation, "BENCH TEST" the unit for proper operations. (Refer to Drawings on back page), loosen the set screws (15) using Allen wrench provided and slowly lift and remove top cap cover (1) from valve body (8). Properly connect electrical wires from Transformer (19) to the valve (Note the polarity; white dotted wire to red, black to black). Plug DC Power connector (16) to a receptor (#10 on PCB diagram) on Control Module (2). Push RESET button and the indicator lights on PC Board will be flashing as follows: Red, Red (Click), Green, Red, and Red. The green light will stay on. This indicates the electronics and solenoid is functioning properly. If the indicator lights do not blink or no clicking sound can be heard, contact the factory or your local Rep.
2. Reinstall top cap cover (1) to valve body (8) using set screws (15). Install the stop valve (3) to supply line using a Hydrotek sweat kit (optional).
3. Connect the Valve Body (8) to Stop Valve (3) using slip joint nut (7).
4. Attach the Friction ring(10),Vacuum Breaker (11) and Tailpiece (13) to Valve Body (8) using Lock Nut(12). Secure the Tailpiece to the plumbing fixture using the spud coupling (14) provided.
5. **Electrical Installation:** Mount the standard Plug-in Transformer and its required duplex receptacle within 9 ft. of flush valve. Mount Optional Multi-unit Transformer in chase way or in drop ceiling. Confirm power cord access hole is located properly per Rough-in drawing. Run Flush Valve Input wiring through AC Input tube. Screw AC Input Tube onto Top Cap 90 degree ELL and tighten. Install Wall Flange on to AC Input Tube. Connect output wiring from power source to input wires for flush valve using wire nuts. Push excess wiring back in to access hole. Slide Wall Flange snug against wall and tighten set screw. NOTE: Flush Valve electrical connections are Polarity Sensitive.
6. Free spinning, vandal-resistant Stop Valve Cap may be removed by using small flat bladed inserted between cap and stop valve body. Taking care not to damage chrome finish, pry up on cap to remove.
7. Turn water on and check for leaks. Push OVERRIDE button (9) and the Valve should flush. Adjust water flow from Stop Valve for a smoother flush.
8. **TEST:** Stand in front of the Valve and a red light should come on. After 4 seconds and steps away, the valve should flush automatically. If not, refer to the Trouble Shooting Guide.
9. Flush Valves are pre-adjusted at the Factory. If minor adjustment is needed, call Hydrotek for further details **1-800-922-9883.**

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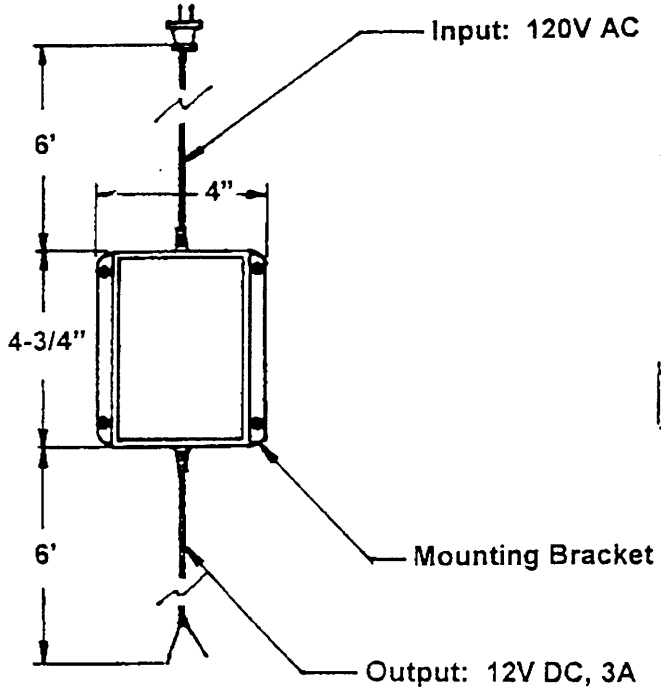
HC-010 Multi-Unit Power Adapter

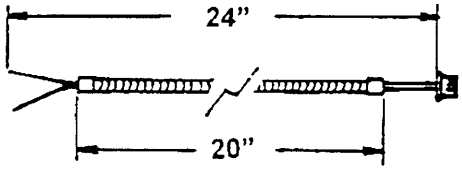
(OPTIONAL ACCESSORY)

TOP VIEW



HC-010 Multi-Unit Power Adapter

WARNING: DO NOT TOUCH LEADS (+ -) TOGETHER WHILE UNIT IS PLUGGED IN. UNIT WILL FAIL AND WARRANTY WILL BE VOIDED



HCC-008P Wire Leads (Pig-tail)

SPECIFICATIONS:

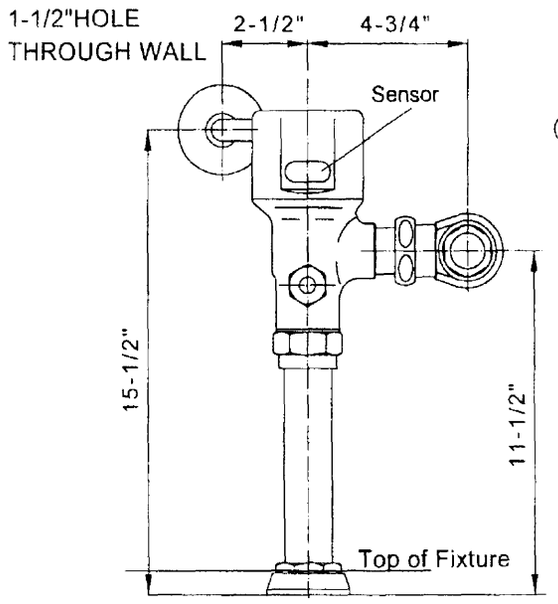
- Input: 120V AC, 60 Hz, 60
- Output: 12V DC, 3A, Class 2 CSA, UL
- Input Lead: 18 Gage, 6' (feet) with Plug
- Output Lead: 18 Gage, 6' (feet), bare for Hardwiring
  (white stripe = Positive, black = negative)
- Length = 4-3/4", Width = 4", Height = 3"
- Mounting: Remote, wall or deck with mounting hardware
- Capacity: Powers up to 8 faucets and/or flush valves
- Wire Leads: 22 gage, 24" long with 20" cable shield, connector on one end and bare on the other (red = positive, black = negative)

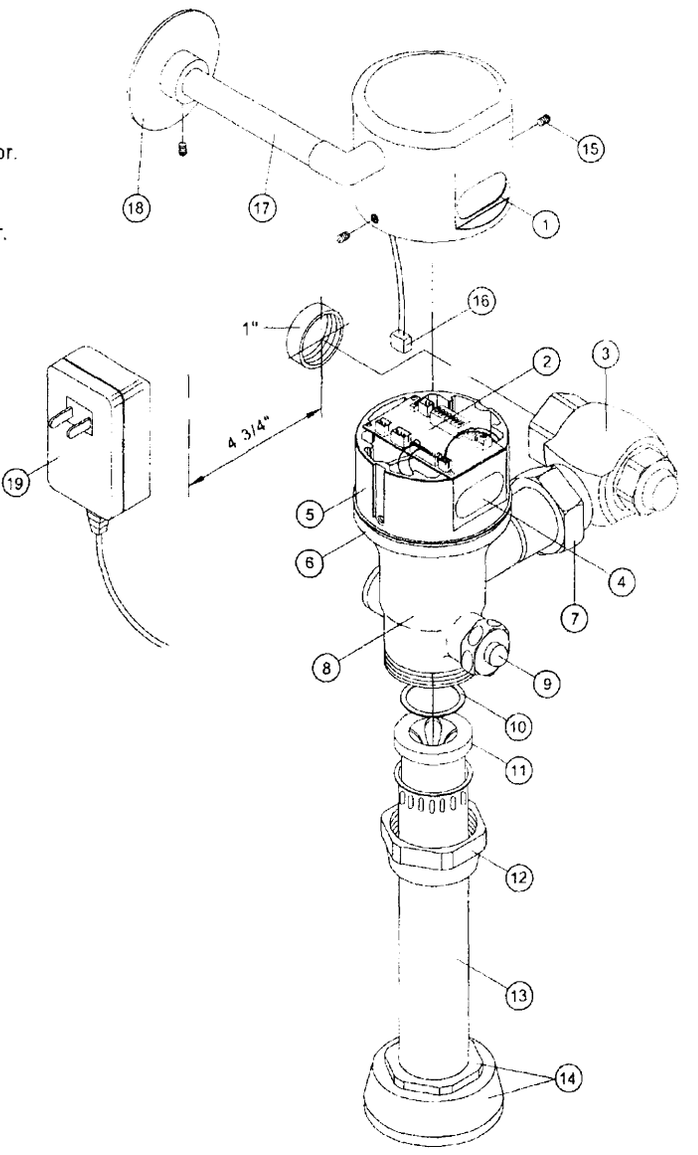
Note: 20-22 Gage wire from Adapter to Faucet or Flush Valve to be provided by others

AC POWERED EXPOSED TYPE FLUSH VALVE

H-8000C Closet or Urinal

1. Top cap cover.
2. Control module(PCB).
3. Stop valve.
4. Sensor eye.
5. Retainer ring.
6. O-Ring.
7. Slip joint nut.
8. Valve body.
9. Override button.
10. Friction Ring.
11. Vacuum breaker.
12. Lock nut.
13. Tailpiece.
14. Top spud.
15. Set screw.
16. DC power connector.
17. AC input tube.
18. Wall Flange.
19. Plug-In transformer.





HYDROTEK AUTOMATIC FLUSH VALVE TROUBLE SHOOTING GUIDE

AC Powered

Normal operation: When electricity is connected, or RESET button is pushed, the lights on Printed Circuit Board (PCB) will blink in a sequence as follows: Red, Red (with clicking sound), Green, Red and Red. Then green light stays on. When a user enters the beam's effective range, the red light comes on and stays on. If the user stays in the range for more than 4 seconds and steps away, the valve will activate (1) flush cycle. The unit automatically resets and is ready for the next user. When the manual OVERRIDE button is pushed, the flushing mechanism will be activated without impacting the mode of automatic operation. Please note: Always Push the RESET button BEFORE diagnosing any problem and AFTER taking a corrective step.

PROBLEM	POSSIBLE CAUSE	TO DIAGNOSE	REMEDY
VALVE WILL NOT TURN ON	Water not on	Check water supply	Turn on water supply.
	Power supply failure.	Check power output, wires and polarity.	Provide power supply and proper Connections. Push RESET.
	Sensor distance is too short.	Stand in front of valve To find focal point.	Adjust sensor distance (Turn SDA clockwise), push RESET.
	Electronic PCB is Defective.	Replace Adapter or Reset the unit, no light or action.	Replace PCB. Push RESET.
	Sensor Eyes are Defective.	Push RESET, Stand In front of valve, no red Light comes on.	Replace sensor eyes and cable. Push RESET.
	Solenoid Valve is Clogged.	Solenoid is clicking but No water.	Clean solenoid valve, blow free all bleed Holes. Replace control disc. Push RESET.
	Time in sensor Range is too short.	Stand in front of valve, Red light stays on.	Stay in range for more than 4 seconds, Then move away.
	Solenoid coil is Defective.	Reset the unit, or replace Power Adapter, lights blink Normally, but no clicking.	Replace solenoid coil. Push RESET.

VALVE WILL NOT SHUTOFF — Solenoid valve is normally closed. Turn off water and activate the valve, if there is a clicking sound, then the solenoid is dirty. If there is no clicking sound, then replace solenoid valve. Other factors could be Sensor distance is too long (adjust SDA counterclockwise); Electronic PCB is defective. Manual push button is sticking. If water is leaking through, then the solenoid valve is dirty. Follow same procedures as above for remedies.

IMPORTANT:(1) Periodical maintenance is required for a smooth and trouble-free operation of the flush valve.

For more detailed procedures for above remedies, call Hydrotek at 1-800-922-9883.

100200

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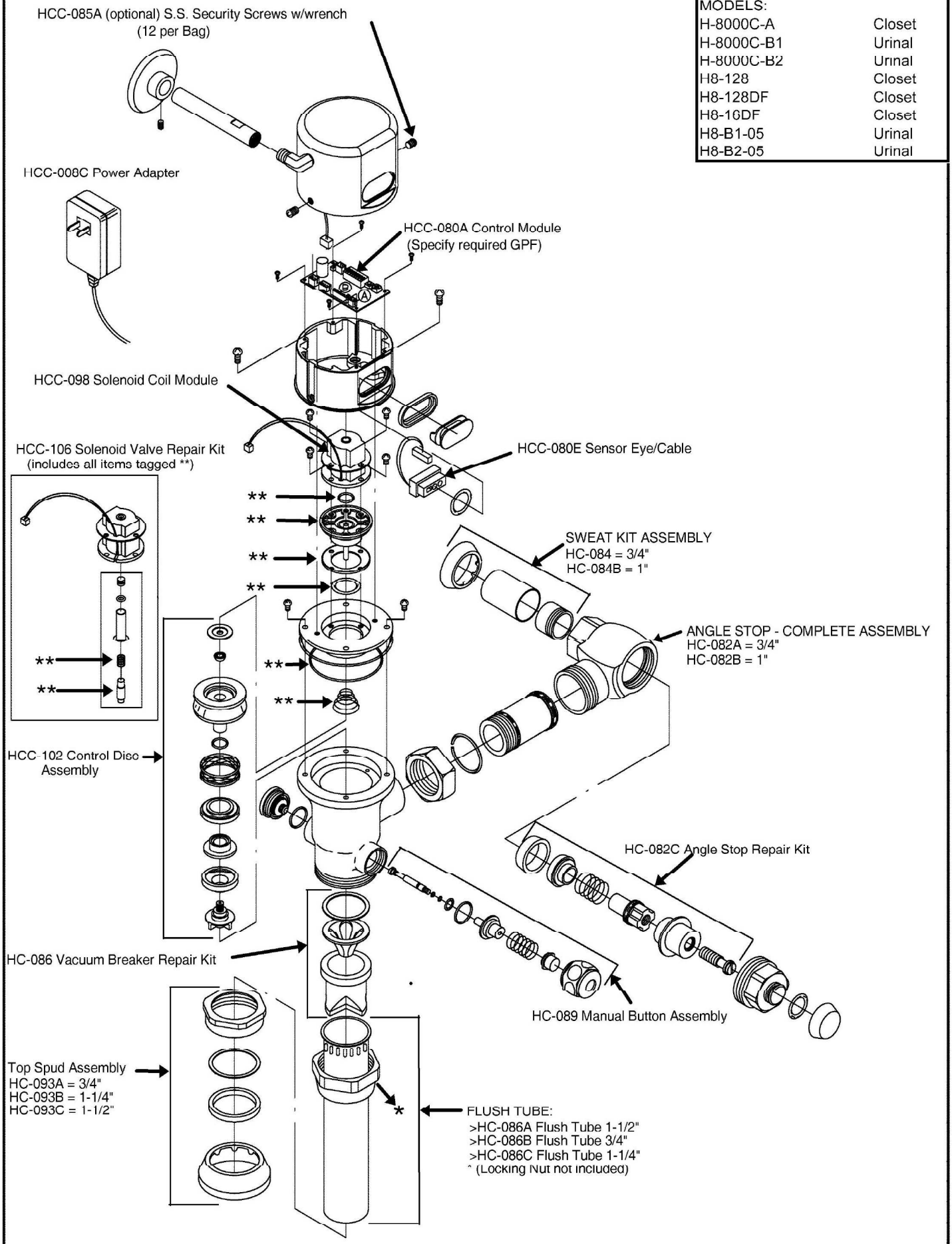
HYDROTEK Flush Valves
(AC Powered)

MODELS:	
H-8000C-A	Closet
H-8000C-B1	Urinal
H-8000C-B2	Urinal
H8-128	Closet
H8-128DF	Closet
H8-16DF	Closet
H8-B1-05	Urinal
H8-B2-05	Urinal



HYDROTEK ILLUSTRATED FLUSH VALVE REPAIR PARTS & ASSEMBLIES

HYDROTEK AUTOMATIC FLUSH VALVE

Dip Switch Settings

Flushing Volume (Time) - Closet or Urinal:

	Gallons Per Flush	Sw 1	Sw 2	Sw 3	Sw 4	Flush Time
	0.5	ON	ON	ON	ON	1 SEC
(Urinal)	**1**	**ON**	**ON**	**OFF**	**ON**	**2 SEC**
(Closet)	**1.6**	**ON**	**ON**	**OFF**	**OFF**	**3 SEC**
	2.0	ON	OFF	ON	ON	4 SEC
	2.5	ON	OFF	ON	OFF	5 SEC
	3.0	ON	OFF	OFF	ON	6 SEC
(Closet)	**3.5**	**ON**	**OFF**	**OFF**	**OFF**	**7 SEC**
		OFF	ON	ON	ON	8 SEC
		OFF	ON	ON	OFF	9 SEC
		OFF	ON	OFF	ON	10 SEC
		OFF	ON	OFF	OFF	11 SEC
		OFF	OFF	ON	ON	12 SEC
		OFF	OFF	ON	OFF	13 SEC
		OFF	OFF	OFF	ON	14 SEC
		OFF	OFF	OFF	OFF	15 SEC

Factory Preset Flush Volume (Time)

Closet:	1.6 GPF (3 Seconds)
Urinal:	1.0 GPF (2 Seconds)

Sensor Arming Time (Sensing Time Required for Flush):

Closet:		Sw 5	Sw 6	Sw 7	Sw 8	Arming Time
>	**Standard**	**ON**	**OFF**	**OFF**	**OFF**	**4 SEC**
	Optional	OFF	OFF	OFF	OFF	8 SEC

Urinal:		Sw 5	Sw 6	Sw 7	Sw 8	Arming Time
	Optional	ON	OFF	OFF	ON	1.5 SEC
>	**Standard**	**OFF**	**OFF**	**OFF**	**ON**	**3.0 SEC**

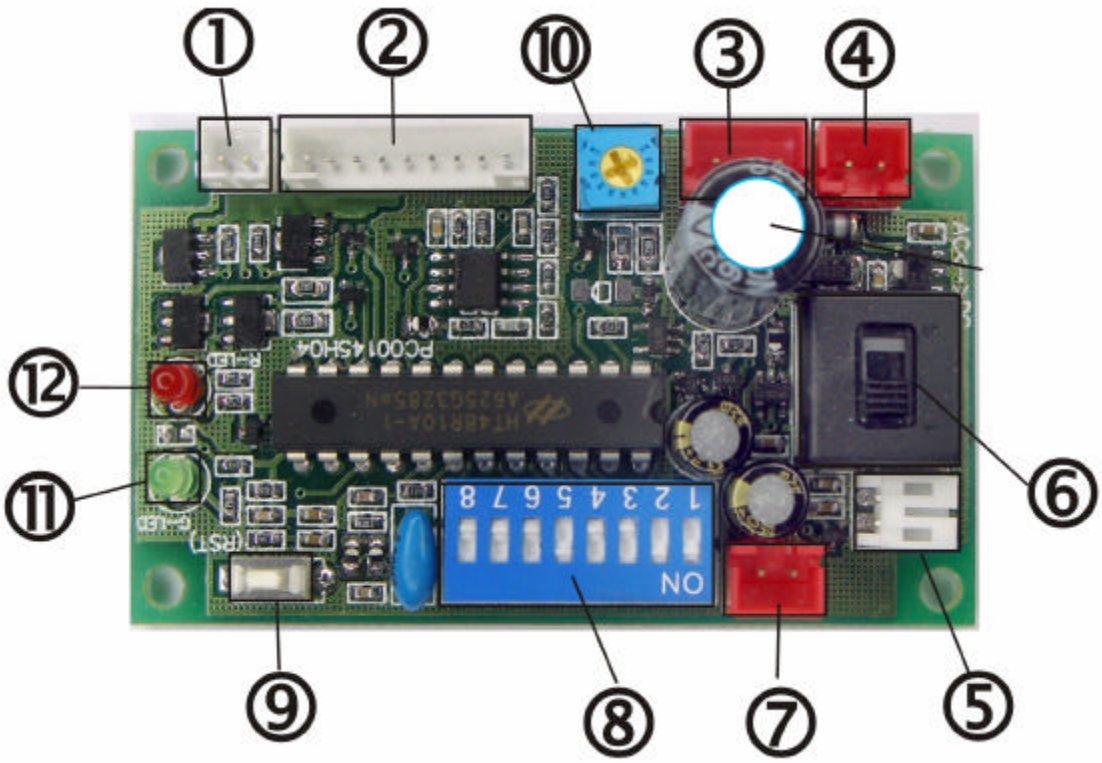
NOTE: PUSH RESET BUTTON ON PC BOARD (CONTROL MODULE) AFTER ANY DIP SWITCH ADJUSTMENTS.

Sensor Distance (factory preset):

Adjustment Screw is located on PC Board (do not over-rotate)

CLOCKWISE = INCREASE SENSOR DISTANCE
COUNTER-CLOCKWISE = DECREASE SENSOR DISTANCE

CONTROL MODULE



Legend:

(1) = Solenoid Pin Receptor
(2) = Control Cable (Sensor Eye) Pin Receptor
(3) = AC Input Pin Receptor
(4) = DC Input Pin Receptor
(5) = Electro-Mechanical Push Button Pin Receptor
(6) = AC/DC Selector Switch
(7) = DC Input Pin Receptor
(8) = Dip Switches
(9) = Reset Button
(10) = Sensor Distance Adjustment Screw
(11) = Green LED
(12) = Red LED