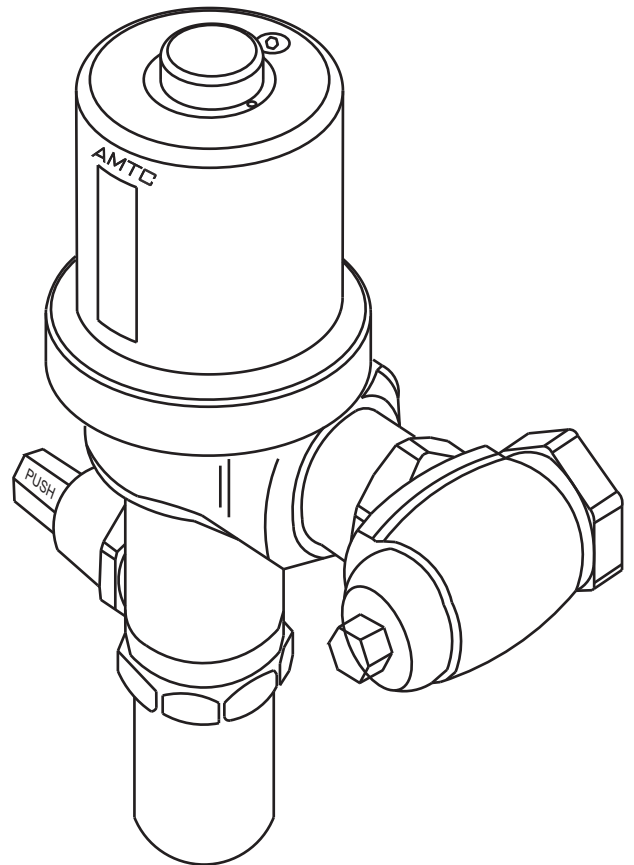
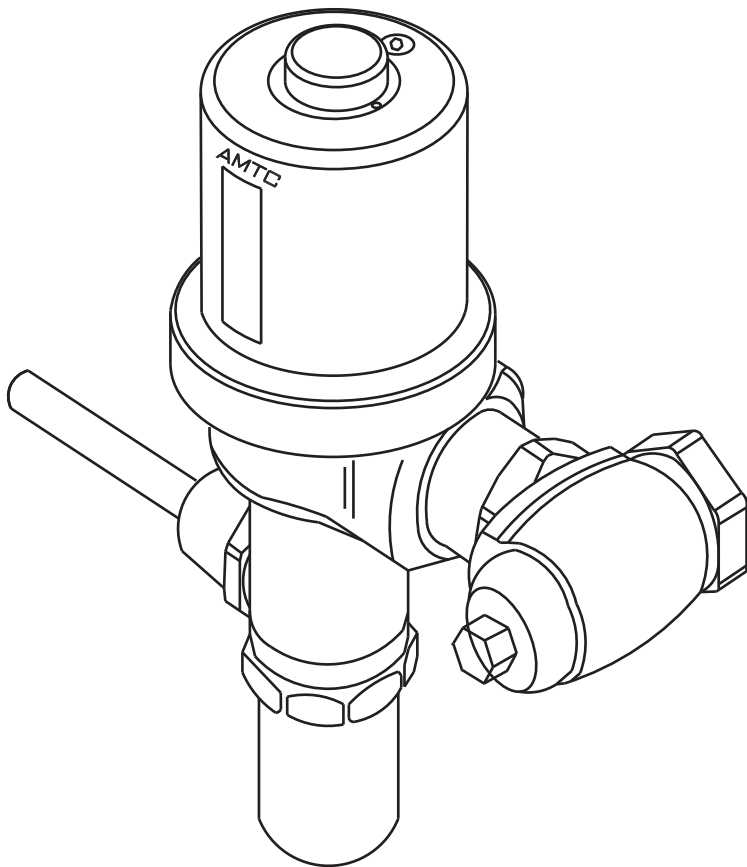


Installation and Owner's Manual

HYBRIDFLUSH[®] AEF-802 SERIES

AUTOMATIC/MANUAL FLUSH VALVE SYSTEM
FOR WATER CLOSETS (TOILETS) AND URINALS



Advanced Modern Technologies Corporation

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Introduction

Thank you for purchasing the HYBRIDFLUSH® automatic/manual flush valve system by Advanced Modern Technologies Corporation (AMTC). The HYBRIDFLUSH® is designed to retrofit AMTC®, Sloan®, and Zurn® exposed diaphragm-type manual flushometers. The patented “hybrid” design gives the user the ability to flush the fixture by touch-free infrared sensor activation or by a push button located on the top of the unit. A “true mechanical” back-up flush option by way of the side handle or side push button allows the fixture to flush manually even when the battery power is drained or absent.

This manual will guide you through the proper installation and operation procedures to begin using your new HYBRIDFLUSH® flush valve system. Please read the installation instructions thoroughly to assure proper installation and operation of the device.

Before you begin make sure that the following components are included:



A - Top Cover

B - Electronic Module

C - Locking Ring

D - Diaphragm Assembly

E - Ball Relief Valve

F - Push Button Conversion Kit (PBCK)

G - Four (4) AA Alkaline Batteries

H - Flat-Head Screwdriver

I - Allen Wrench

J - Strap Wrench

LIMITED WARRANTY

AMTC WARRANTS ITS PRODUCTS TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF FIVE (5) YEARS FROM DATE OF PURCHASE, WHEN PROPERLY INSTALLED AND UNDER NORMAL USE AND SERVICE. THESE PROVISIONS DO NOT INCLUDE THE BATTERIES SHIPPED WITH THE PRODUCTS. A DEFECTIVE PRODUCT MAY BE RETURNED TO AMTC OR ITS AUTHORIZED REPRESENTATIVES WITHIN FIVE (5) YEARS FROM DATE OF PURCHASE WITH THE PROPER INVOICE OF PURCHASE. AMTC AT ITS DISCRETION WILL REPLACE OR REPAIR DEFECTIVE PRODUCT AT NO CHARGE. CLAIMS FOR LABOR, TRANSPORTATION, AND ANY OTHER INCIDENTAL COSTS WILL NOT BE ALLOWED. AMTC WILL NOT BE RESPONSIBLE FOR ANY CONSIDERABLE DAMAGES OF ANY KIND WHATSOEVER.

FOR TECHNICAL SUPPORT PLEASE CALL TOLL FREE 1-800-874-7822 OR VISIT OUR WEBSITE AT WWW.AMTCORPORATION.COM.

MAKE SURE TO VISIT OUR WEBSITE PERIODICALLY FOR INFORMATION ON NEW PRODUCTS AND TO DOWNLOAD ANY IMPORTANT PRODUCT DOCUMENTS THAT YOU MAY NEED IN THE FUTURE.

ATTENTION!

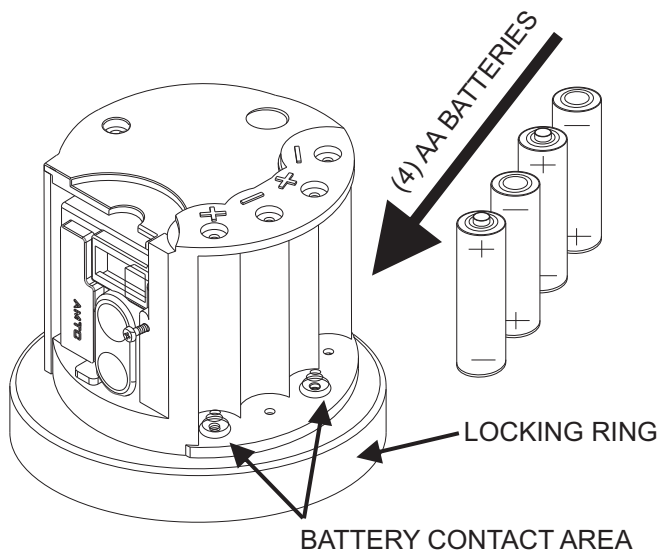
Pre-Installation Note

1. Read all instructions prior to installing this product.
2. Make sure that water volume of the unit (GPF) matches the water volume (GPF) on the fixture.
3. Make sure you have the proper locking ring for your fixture. Either for an AMTC[®]/Sloan[®] or Zurn[®] valve body.
4. When installing unit on a poorly draining urinal or toilet bowl it is highly recommended that the angle stop on the flushometer be throttled back to the point where the water drains faster than the water being flushed to prevent overflow.

WARNING!

Please Read Before Installation

PLEASE READ THE IMPORTANT NOTES BELOW BEFORE INSTALLING THE BATTERIES INTO THE UNIT!



PLEASE DO THE FOLLOWING BEFORE INSTALLING THE BATTERIES:

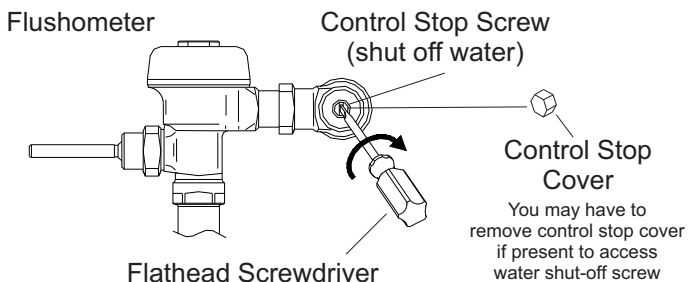
1. DRY YOUR HANDS BEFORE HANDLING THE BATTERIES.
2. MAKE SURE BATTERY CONTACT AREA IS COMPLETELY DRY AFTER INSTALLING THE LOCKING RING AND BEFORE INSTALLING THE BATTERIES!
3. MAKE SURE THAT BATTERIES ARE INSERTED IN PROPER POSITION (+, -, +, -).

IMPORTANT NOTE:

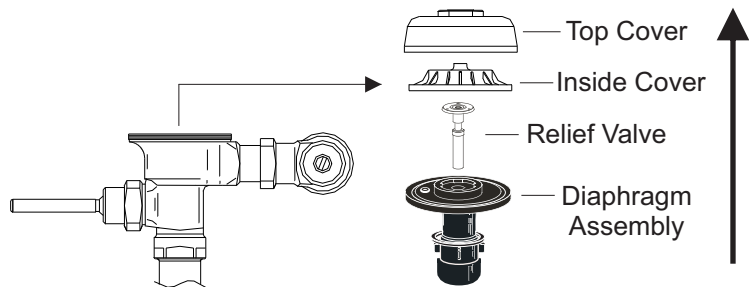
It is highly recommended that you install the unit and tighten the locking ring before installing the batteries. Then check that there is no left over water in the battery contact area as shown by the arrows in the diagram to the left. If there is water present use a towel and wipe off all the water before installing the batteries to avoid any possible damage to the batteries and/or the unit.

HYBRIDFLUSH® Installation Instructions

- A** Using a Flathead Screwdriver turn the Control Stop Screw of the Flushometer to the right (clockwise) to completely shut off the water. Then Hold down the flush handle to relieve the pressure in the valve chamber.



- B** Loosen and remove the Top Cover, Inside Cover, Relief Valve, and Diaphragm Assembly.



- C**
1. Insert Diaphragm Assembly, Ball Relief Valve, and Electronic Head Assembly into Valve Body. Note: Sensor Window must face directly forward.

2. Thread Locking Ring onto Valve Body. Use Strap Wrench provided to tightly secure Locking Ring.

Important: The Locking Ring must be installed down past the valve body threads by at least one thread. Make sure to remove any build-up of matter on the threads of old valve body in order to allow Locking Ring to securely tighten. If retrofitting onto a Zurn® valve body, a special Locking Ring must be used (identified by a machined groove around the ring).

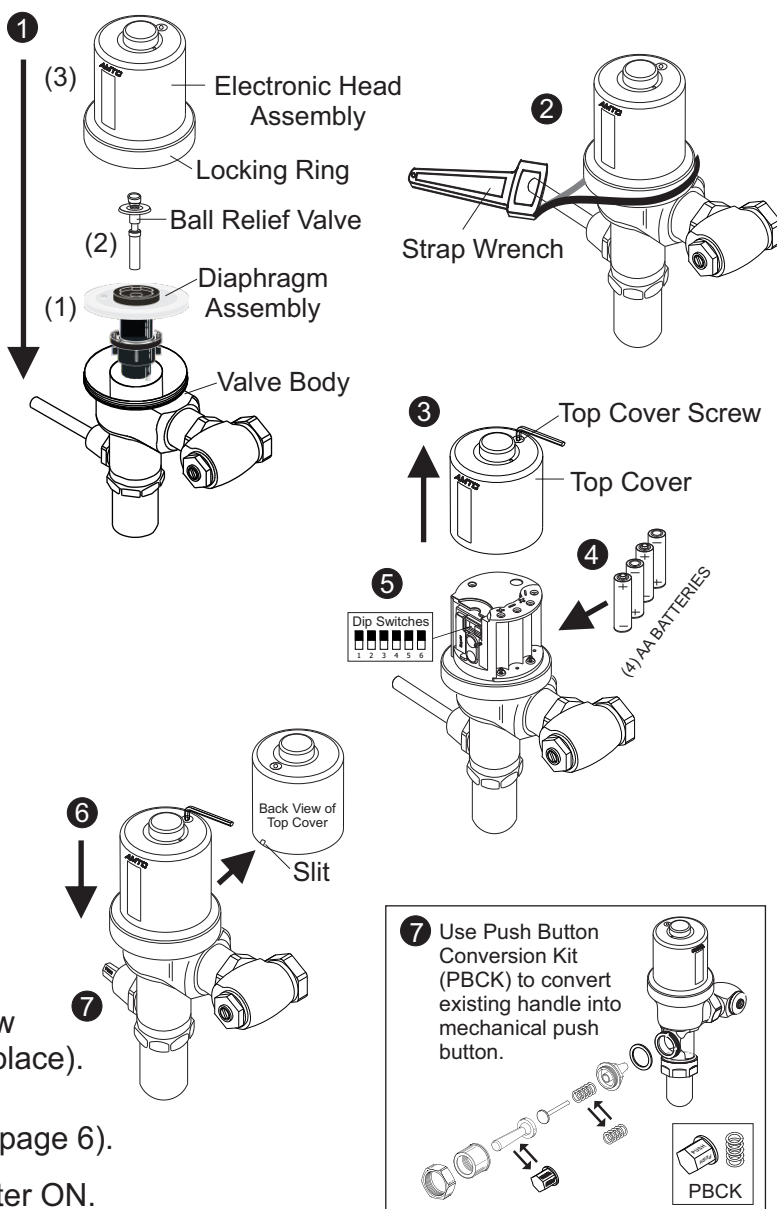
3. Using Allen Wrench provided loosen the Top Cover Screw and remove Top Cover.
4. Insert (4) AA batteries into battery compartment. (Make sure to have dry hands when installing batteries and that battery contact area is dry). Note: Unit will activate once, and a red LED will blink (5) times indicating unit is powered on.

5. Make any dip switch adjustments if necessary. (see page 5 for switch adjustment guide).

6. Re-Install Top Cover and tighten Top Cover Screw (Make sure Slit on back of top cover inserts into place).

7. Convert Side Handle into Side Push Button (see page 6).

8. Open Control Stop (counterclockwise) to turn water ON.

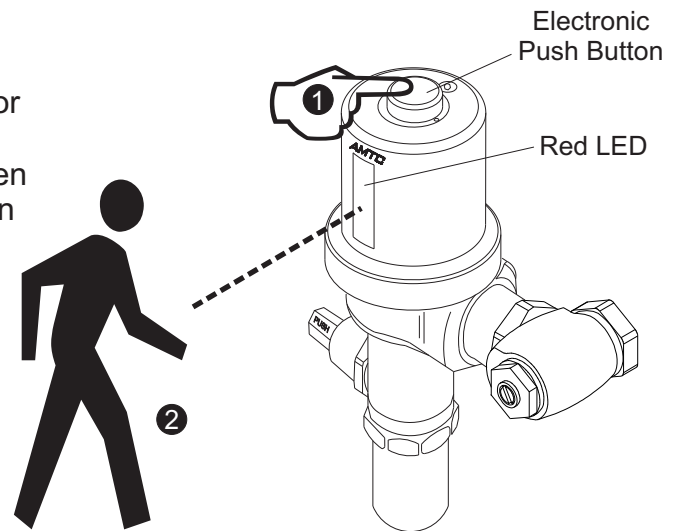


Sensor Distance Adjustment using Top Push Button

Directions:

- Press (unit will flush once) and hold down Electronic Push Button until you see a blinking red LED in sensor window. Release Electronic Push Button, wait one second, then press and immediately release Electronic Push Button to put unit into sensor distance setup mode.
- While in setup mode, stand at desired distance (red LED will continuously blink as long as you are within the allowed sensor reading range). Remain still at desired distance until red LED becomes solid (unit will flush once).

Sensor is now set at the new distance.

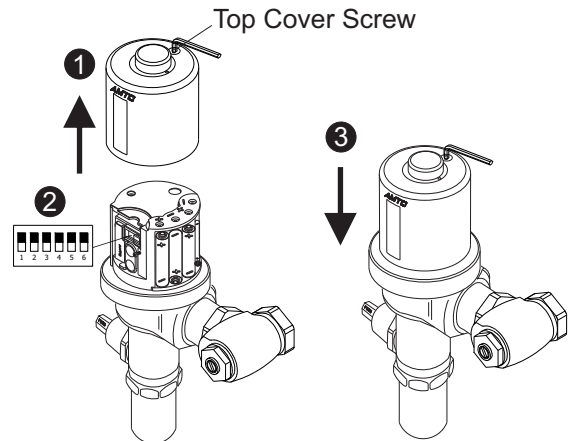


Dip Switch Adjustments

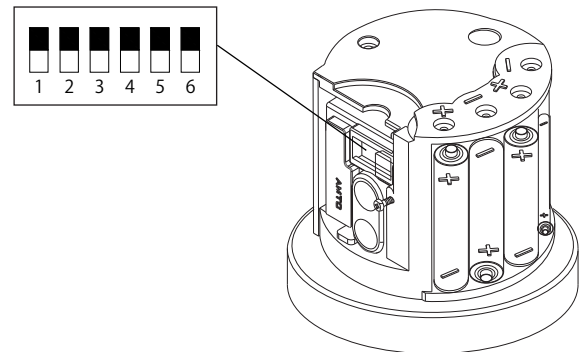
To make dip switch adjustments please refer to the following dip switch adjustment guide.

Directions:

- Using Allen Wrench provided loosen the Top Cover Screw and remove Top Cover.
- Make adjustments (refer to DIP SWITCH ADJUSTMENT GUIDE below).
- Re-install Top Cover and tighten Top Cover Screw.



DIP SWITCH ADJUSTMENT GUIDE		
SENSOR DISTANCE <input type="checkbox"/> <input type="checkbox"/> 18" (45 CM) <input type="checkbox"/> <input type="checkbox"/> 22" (55 CM) <input type="checkbox"/> <input type="checkbox"/> 26" (65 CM) <input type="checkbox"/> <input type="checkbox"/> 30" (75 CM)	WATER SAVER MODE (URINAL ONLY) <input type="checkbox"/> WATER SAVER OFF <input type="checkbox"/> WATER SAVER ON (FLUSH EVERY OTHER USER) GHOST FLUSH MODE <input type="checkbox"/> GHOST FLUSH OFF <input type="checkbox"/> GHOST FLUSH ON (FLUSH EVERY 24 HOURS)	FLUSH VOLUME MODE <input type="checkbox"/> NORMAL FLUSH <input type="checkbox"/> HI-VOLUME FLUSH FLUSH DELAY MODE <input type="checkbox"/> FLUSH DELAY OFF <input type="checkbox"/> FLUSH DELAY ON (3-SECOND DELAY)



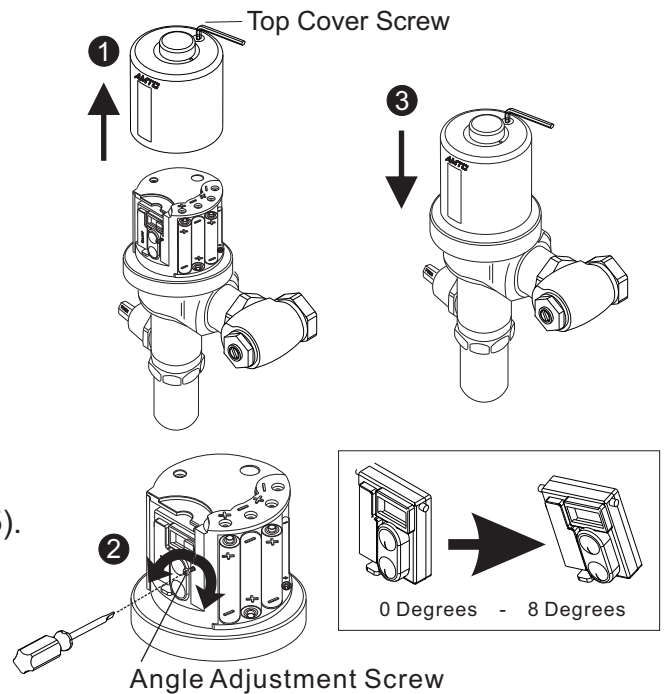
Sensor Angle Adjustment

Directions:

1. Using Allen Wrench provided loosen the Top Cover Screw and remove Top Cover.
2. Using a small screwdriver slowly turn the Angle Adjustment Screw clockwise to increase the sensor angle downward or counterclockwise to decrease the angle. (Sensor angle can be adjusted downward a maximum of 8 degrees).

Note: When the sensor is angled downward, the sensor beam becomes longer. Therefore, the sensor range must be offset by setting a shorter sensor range (see sensor distance adjustment on page 5).

3. Re-install Top Cover and tighten Top Cover Screw.



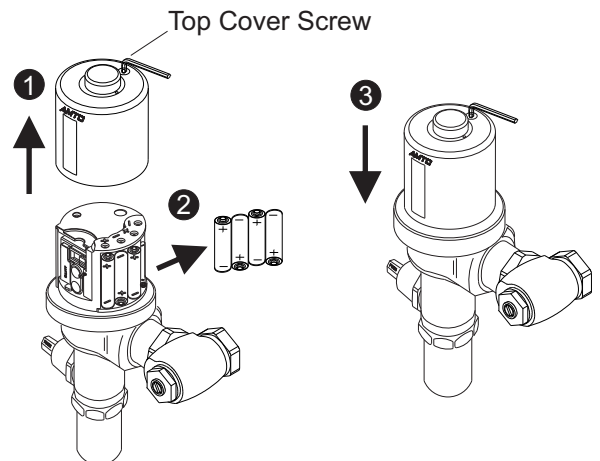
Battery Replacement

Directions:

1. Using Allen Wrench provided loosen the Top Cover Screw and remove Top Cover.
2. Remove old batteries and Install (4) new AA Batteries. Make sure that all (4) batteries are inserted correctly in the proper position (+, -, +, -).

Note: Unit will activate (flush) once, and a red LED will blink (5) times indicating unit has power. If red LED does not come on, then batteries might not be making proper contact.

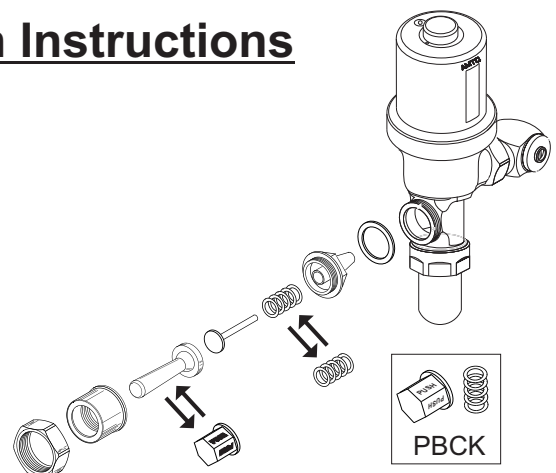
3. Re-install Top Cover and tighten Top Cover Screw.



Push Button Conversion Instructions

Directions:

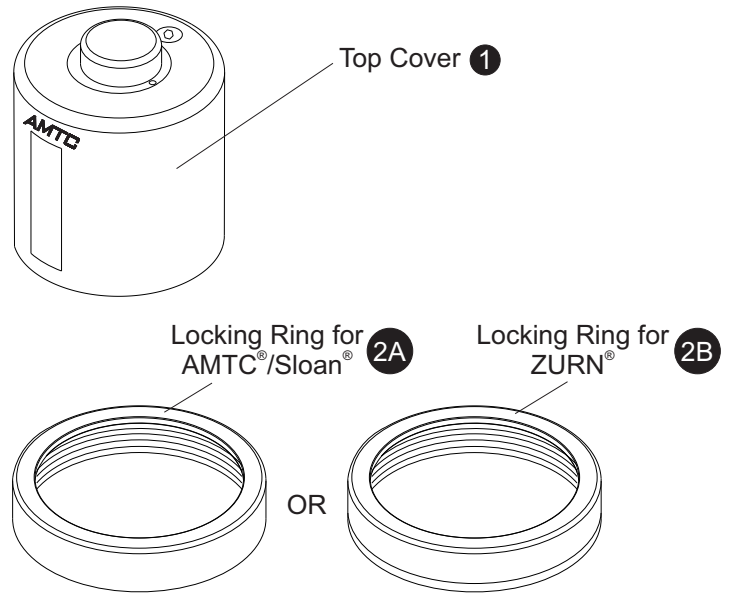
1. Remove handle assembly from flushometer valve body.
2. Disassemble handle assembly.
3. Remove handle and spring and replace with push button and soft spring (PBCK).
4. Re-assemble and install push button assembly.



HYBRIDFLUSH® Parts List & Diagram

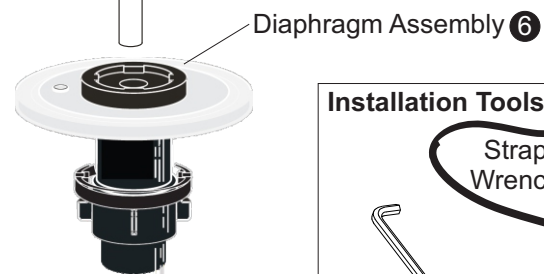
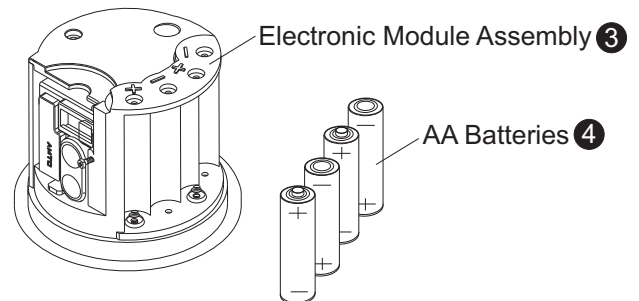
AEF-802 SERIES HYBRIDFLUSH® PARTS LIST

Ref. No.	Part No.	Description
1	TC802	Top Cover
2A	LR802-S	Locking Ring for AMTC®/Sloan®
2B	LR802-Z	Locking Ring for Zurn®
3	EMA802	Electronic Module Assembly
4	AABAT	AA batteries
5	DI-BRV	Ball Relief Valve with Plunger (See chart below flush volumes)
6	DI-SH	Diaphragm Assembly (See chart below for flush volumes)
5,6	DI-SRKH	Diaphragm Repair Kit (See chart below for flush volumes)
7	PBCK	Push Button Conversion Kit
8	SCDR802	Flat-Head Screwdriver
9	AW802	Allen Wrench
10	STRW802	Strap Wrench



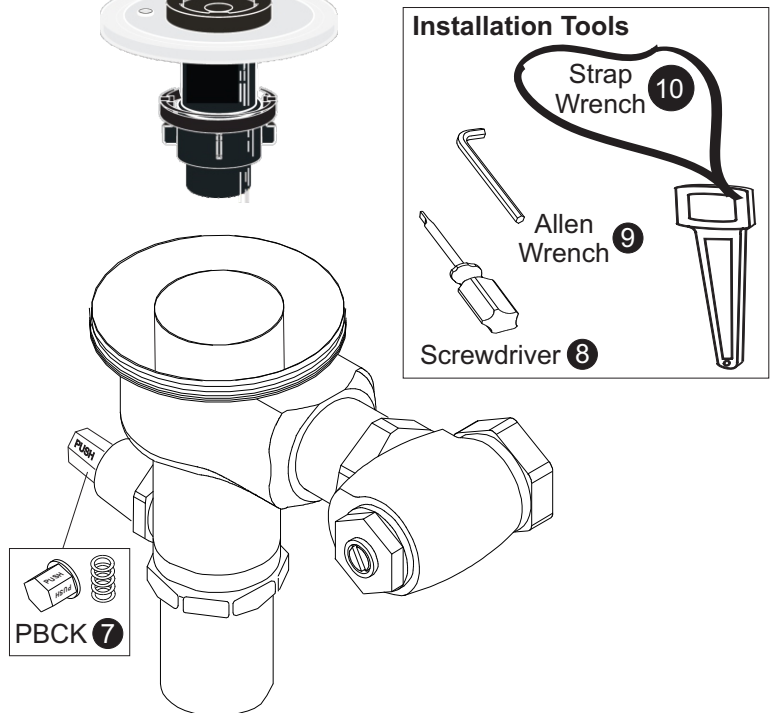
DIAPHRAGM REPAIR KITS

Ref. No.	Part No.	Description
5,6	DI-SRKH-U18	Diaphragm Repair Kit for Urinal - 0.125gpf
5,6	DI-SRKH-U05	Diaphragm Repair Kit for Urinal - 0.5gpf
5,6	DI-SRKH-U10	Diaphragm Repair Kit for Urinal - 1.0gpf
5,6	DI-SRKH-U15	Diaphragm Repair Kit for Urinal - 1.5gpf
5,6	DI-SRKH-T11	Diaphragm Repair Kit for Toilet- 1.1gpf
5,6	DI-SRKH-T12	Diaphragm Repair Kit for Toilet- 1.28gpf
5,6	DI-SRKH-T16	Diaphragm Repair Kit for Toilet- 1.6gpf
5,6	DI-SRKH-T35	Diaphragm Repair Kit for Toilet- 3.5gpf



BALL RELIEF VALVES & DIAPHRAGMS

Ref. No.	Part No.	Description
5	DI-BRV-U18	Ball Relief Valve for Urinal - 0.125gpf
5	DI-BRV-U05	Ball Relief Valve for Urinal - 0.5gpf
5	DI-BRV-U10	Ball Relief Valve for Urinal - 1.0gpf
5	DI-BRV-U15	Ball Relief Valve for Urinal - 1.5gpf
5	DI-BRV-T11	Ball Relief Valve for Toilet- 1.1gpf
5	DI-BRV-T12	Ball Relief Valve for Toilet- 1.28gpf
5	DI-BRV-T16	Ball Relief Valve for Toilet- 1.6gpf
5	DI-BRV-T35	Ball Relief Valve for Toilet- 3.5gpf
6	DI-SH-U18	Diaphragm for Urinal - 0.125gpf
6	DI-SH-U05	Diaphragm for Urinal - 0.5gpf
6	DI-SH-U10	Diaphragm for Urinal - 1.0gpf
6	DI-SH-U15	Diaphragm for Urinal - 1.5gpf
6	DI-SH-T11	Diaphragm for Toilet- 1.1gpf
6	DI-SH-T12	Diaphragm for Toilet- 1.28gpf
6	DI-SH-T16	Diaphragm for Toilet- 1.6gpf
6	DI-SH-T35	Diaphragm for Toilet- 3.5gpf



Care and Maintenance

1. Do not use any abrasive or chemical cleaners to clean the unit as they may discolor or damage the finish of the product.
2. Do not directly hose down unit with water to avoid possible damage to electronics or batteries.
3. Maintain unit's appearance by wiping unit down using a soft, damp cloth or microfiber towel to remove any residue.

Troubleshooting Guide

PROBLEM	SOLUTION
Red LED does not come on in sensor window after installation of batteries	Check that all (4) AA batteries are installed correctly and are making proper contact. Remove all (4) AA batteries and re-install them. Make sure that at least (1) battery is not drained. Replace with new batteries if necessary.
Solid red LED stays on in sensor window	Drained battery indicator (batteries are dead). Replace with new batteries. Water got inside the battery compartment causing damage to battery contacts and batteries. Clean battery contacts with metal brush and replace all batteries with new batteries.
Unit does not flush electronically	Make sure that water is turned on. Make sure to stand/sit within the sensor range for at least (10) seconds or until red LED blinks once before you move away. Make sure that all (4) AA batteries are installed correctly and are making proper contact. Make sure that sensor range is properly adjusted (refer to page 5 of this manual). Remove and re-install the unit. Replace the diaphragm (refer to diaphragm repair kit chart on page 7 of this manual).
Unit flushes sometimes electronically	Make sure you are within sensor range to activate the unit. Watch red LED blink once, then move away from the sensor range. Make sure that sensor range is properly adjusted (refer to page 5 of this manual). Adjust sensor angle downward to read lower (refer to page 6 of this manual). Check for dirt or debris in the diaphragm. Remove and re-install the unit.
Unit does not shut off	Check for dirt or debris in the bleed hole of diaphragm. Remove all (4) AA batteries and re-install. Remove and re-install the unit. Replace the diaphragm (refer to diaphragm repair kit chart on page 7 of this manual).
Unit is not picking up/reading user	Sensor range is set too short. Make sure that sensor range is properly adjusted (refer to page 5 of this manual).
Unit does not pick up/read user on high toilet application, or small children on urinal	Adjust sensor angle downward to read lower (refer to page 6 of this manual). Make sure that sensor range is properly adjusted (refer to page 5 of this manual).
Unit does not activate if sensor angled downward	Make sure that sensor range is properly adjusted (refer to page 5 of this manual).
Sensor is reading opposite wall or mirror and activating a ghost flush	Sensor range is set too long and needs to be shortened. Adjust sensor range to read shorter (refer to page 5 of this manual).
Electronic flush is too short	Make sure that correct diaphragm is being used (refer to page 7 of this manual). Move dip switch #5 up to activate high volume flush mode (refer to page 5 of this manual). Turn angle stop screw counterclockwise to increase the water volume.
Electronic flush is too long	Make sure that correct diaphragm is being used (refer to page 7 of this manual). Replace diaphragm. Turn angle stop screw clockwise to decrease the water volume.
Locking ring does not fit valve body correctly	Check that you have the correct locking ring for AMTC®/Sloan® or Zurn® flushometers (refer to page 7 of this manual). Check that threading on valve body is not damaged. Replace valve body if necessary. Locking ring may be damaged. Replace the locking ring if necessary.



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