# Instruction stallation

# SELECTRONIC® EXPOSED URINAL FLUSH VALVE AC POWERED PROXIMITY

0.125 0.25 0.5 & 1.0 GPF

MODEL NUMBERS 606B.101 606B.051 606B.025 606B.013

Expos for 3/4

COVER PLATE (Required for Front Installation Only)

Exposed Flushometer for 3/4" Top Spud Urinals

**CAUTION:** Use only American Standard supplied transformers and cable sets. Using non-AS supplied cables, or cutting, splicing or modifying any components will void the warranty.

Certified to comply with ASME A112.19.2 © 2017 AS America, Inc.

# American Standard

#### NOTE TO INSTALLER: Please give this manual to the customer after installation.

To learn more about American Standard Selectronic® Products visit our website at: www.americanstandard-us.com or e-mail us at: CRTTEAM@americanstandard.com

American Standard

For Parts, Service, Warranty or other Assistance, please call (844) CRT-TEAM / (844) 278-8326 (In Canada: 1-800-387-0369) (In Toronto Area only: 1-905-306-1093)

Certified Response Technician

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Thank you for selecting American-Standard...the benchmark of fine quality for over 100 years. To ensure that your installation proceeds smoothly--please read these instructions carefully before you begin.

#### **UNPACKING**

All American Standard Products Are Water Tested At Our Factory. Some Residual Water May Remain In The Valve During Shipping.

Remove the Flush Valve items from the carton. The illustration below shows all items after they have been removed from the carton. Some items may be packaged partially assembled to other items.

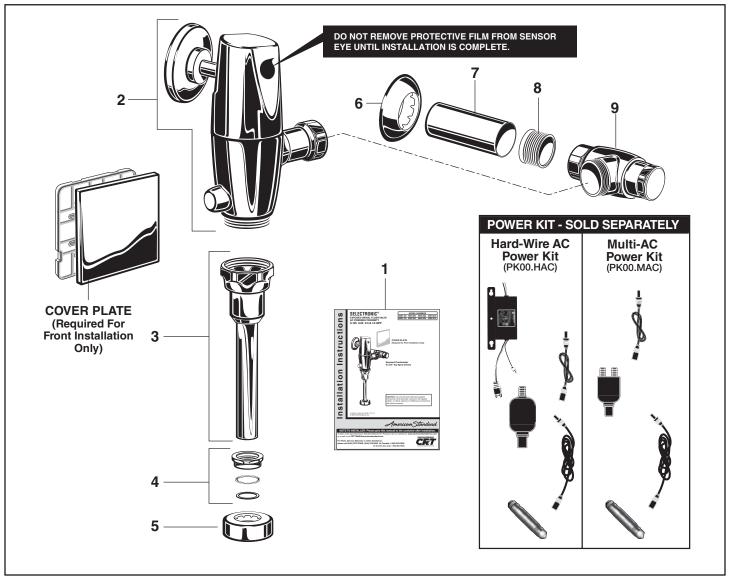
- 1. Installation Instructions
- 2. Flush Valve Body Assembly
- 3. Vacuum Breaker Tube
- 4. Spud Coupling Nut and Washers
- 5. Spud Flange
- 6. Wall Escutcheon
- 7. Cover Tube

- 8. Sweat Adapter
- 9. Stop Valve

#### **CARE INSTRUCTIONS:**

DO: CLEAN THE PRODUCT WITH CLEAR WATER, DRY WITH A SOFT COTTON FLANNEL CLOTH.

DO NOT: DO NOT CLEAN THE PRODUCT WITH SOAPS, ACID, POLISH, ABRASIVES, HARSH CLEANERS,
OR A CLOTH WITH A COARSE SURFACE.

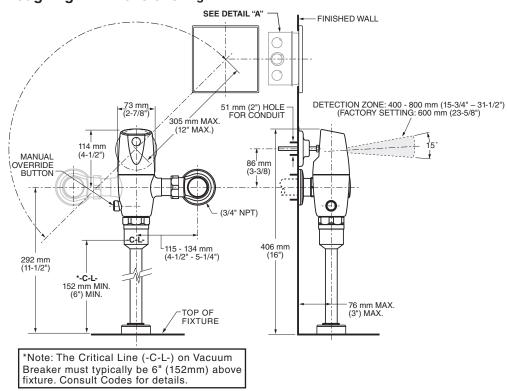


#### Fig. 1 (Before November 2017) Roughing-in Dimensions (Front Installation Shown) **GENERAL DESCRIPTION:** SELECTRONIC® PROXIMITY URINAL FLUSH VALVE **Right or Left Hand Installation** See (Section 5) for converting Flush Exposed Flushometer for 3/4" Top Spud Fixtures SEE DETAIL "A" Valve to Left Hand Installation. FINISHED WALL **CAUTION:** Use only American Standard supplied transformers and cable sets. Using non-AS supplied cables, or cutting, splicing or modifying any components will void the warranty. $\begin{array}{c} {\sf DETECTION\ ZONE:400-800\ mm\ (15\text{-}3/4"-31\text{-}1/2")} \\ ({\sf FACTORY\ SETTING:600\ mm\ (23\text{-}5/8")} \end{array}$ 51 mm (2") HOLE FOR CONDUIT 305 mm MAX. (12" MAX.) 4" (102 mm) SQ. BOX DEVICE COVER (PLASTER RING). 3/4" (19 mm) HIGH **Hubbel-RACO #779** OR EQUAL (BY CONTRACTOR). NOTE: INSTALL PLASTER RING SO THAT SCREW HOLES ARE ON THE LEFT AND RIGHT SIDE OF BOX. 117 mm (4-5/8" MANUAL OVERRIDE 86 mm BUTTON (3-3/8)0 FINISHED TILE WALL-(3/4" NPT) DETAIL "A" 409 mm (16-1/8") -115 - 134 mm (4-1/2" - 5-1/4") 292 mm (11-1/2") \*-C-L-152 mm MIN. (6") MIN. 76 mm MAX. TOP OF (3") MAX. FIXTURE FINISHED PLASTER WALL \*Note: The Critical Line (-C-L-) on Vacuum

#### Fig. 1A (After November 2017)

Breaker must typically be 6" (152mm) above fixture. Consult Codes for details.

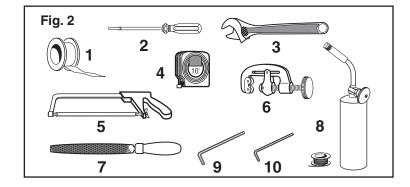
#### Roughing-in Dimensions Fig. 1



4" (102 mm) SQ. x 3-1/2" (89 mm) DEEP ELECTRICAL BOX - Hubbel-RACO #256 OR EQUAL (BY CONTRACTOR).

#### **RECOMMENDED TOOLS; Fig. 2.**

- 1. Teflon Tape
- 2. Flat Blade Screwdriver
- 3. Adjustable Wrench
- 4. Tape Measure
- 5. Hacksaw
- 6. Tubing Cutter
- 7. File
- 8. For Sweat Connection; Solder and Torch
- 9. 2.5 mm Hex Wrench
- 10. 1.5 mm Hex Wrench



#### PRIOR TO INSTALLATION

Note: Prior to installing the Selectronic™ Flush Valve the following items must be installed.

- 1. Urinal
- 2. Drain line
- 3. Water supply line

#### **IMPORTANT:**

- All plumbing and electrical wiring should be installed in accordance with applicable codes and regulations.
- The use of water hammer arrestors is strongly recommended for commercial applications. All piping behind the walls should be properly secured and fastened.
- Water supply lines must be sized to provide an adequate volume of water for each fixture.

- Flush all water lines prior to operation. Dirt and debris can cause flush valve to run continuously.
- With the exception of Stop Valve Inlet, DO NOT use pipe sealant or plumbing grease on any valve component or coupling!
- Protect the chrome or special finish on the Flushometer.
   DO NOT USE toothed tools on finished surfaces to install or service these valves. Also see "Care and Cleaning" section of this manual.
- This product contains mechanical and/or electrical components that are subject to normal wear. These components should be checked on a regular basis and replaced as needed to maintain the valve's performance.

## **FLUSH VALVE INSTALLATION**

#### 1 INSTALL SWEAT ADAPTER; Fig. 3

CAUTION Turn water supplies off before beginning

Note: Install Optional Sweat Adapter (Supplied) for copper pipe supply line.

- **1.** Measure the distance (A) from the finished wall to the center of the inlet spud on the fixture.
- 2. Cut the supply pipe 1-1/4" (A-B=C) shorter than the measurement taken in Step 1. File any rough edges off the end of the supply pipe.
- **3.** Clean the end of the supply pipe. Push the threaded Adapter until it is seated against the internal stop. Sweat the Adapter to the pipe.

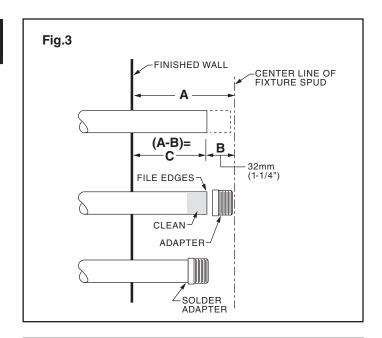
# 2 INSTALL COVER TUBE, WALL ESCUTCHEON and STOP VALVE; Fig. 4

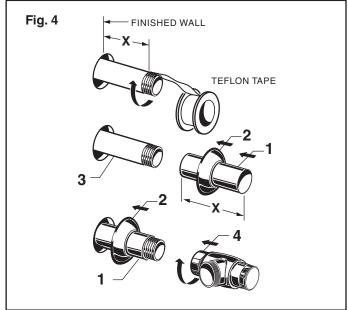
- 1. Measure from finished wall to first thread of Adapter or threaded supply pipe (dimension "X"). Cut COVER TUBE (1) to length (X). Apply Teflon Tape to the threaded end of the Adapter or supply pipe.
- 2. Push WALL ESCUTCHEON (2) onto the COVER TUBE (1). Slide both onto the SUPPLY PIPE (3).
- **3.** Push the COVER TUBE **(1)** in to expose the threads of the supply pipe. With a wrench thread the STOP VALVE **(4)** onto the SUPPLY PIPE **(3)**. Align and tighten.
- 4. Pull COVER TUBE (1) against STOP VALVE (4) and push WALL ESCUTCHEON (2) against finished wall.

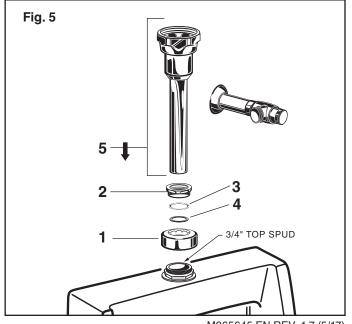
## 3 INSTALL VACUUM BREAKER TUBE; Fig. 5

- Place the SPUD FLANGE (1) over the spud on the Fixture.
- Place FRICTION WASHER (3) and SEAL WASHER
   (4) inside SPUD COUPLING NUT (2) and thread onto Spud. Do not tighten fully.
- 3. Insert the VACUUM BREAKER TUBE (5) into the SPUD COUPLING NUT (2) and push it down.

Note: If cutting VACUUM BREAKER TUBE (5) to size, note that Critical Line (C/L) on Vacuum Breaker must typically be 6" (152mm) above fixture. Consult Code for details.







### 4 FLUSH OUT SUPPLY LINES; Fig. 6

- 1. Remove STOP VALVE COVER (1) from STOP VALVE (2).
- 2. Open STOP VALVE (2) with a flat blade screwdriver.
- Turn on water supply to flush line of any debris or sediment.
- **4.** Close STOP VALVE **(2)** and replace STOP VALVE COVER **(1)**.

# 5 LEFT OR RIGHT HAND INSTALLATION; Fig. 7

The unit is shipped with the adjustable tailpiece on the right side. If needed, the orientation can be modified by following the steps below.

- Loosen SET SCREW (1) with 2.5mm Hex Wrench (4) in back of FLUSH VALVE COVER (2).
- 2. Rotate FLUSH VALVE COVER (2) to the right and pull off.
- 3. Rotate FLUSH VALVE BODY (3) 180°
- Replace COVER (2) and rotate until key engages.
   Tighten SET SCREW (1).

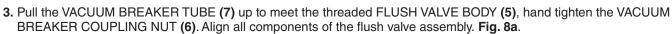
### 6 INSTALL FLUSH VALVE; Fig. 8, 8a

1. Insert ADJUSTABLE TAILPIECE (1) into the STOP VALVE (2). Lubricate the O-RING (3) with water if necessary. Lightly tighten COUPLING NUT (4). Fig. 8.

Important: Do not use lubricants (other than water) or any type of thread sealing paste or tape.

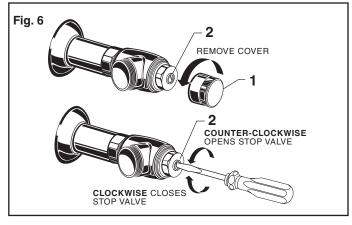
2. Align the FLUSH VALVE BODY (5) directly above the VACUUM BREAKER TUBE (7) and VACUUM BREAKER COUPLING NUT (6). Fig. 8a.

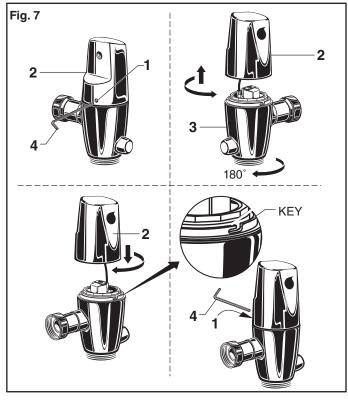
Note: There is a +13mm, -6mm (+1/2, -1/4) tolerance for the 121mm (4-3/4) dimension.

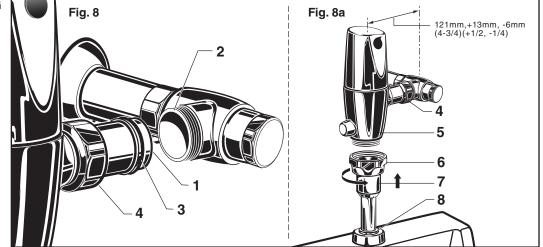


4. Lightly tighten the COUPLING NUT (4) connection first, then the VACUUM BREAKER COUPLING NUT (6) and finally the SPUD COUPLING NUT (8). Once alligned correctly, use a wrench to tighten couplings to make water tight connections.

Fig. 8a.







## **ELECTRICAL INSTALLATION**

# 7 INSTALL ELECTRICAL BOX (BY OTHERS); Fig. 9

FOR FRONT INSTALLATION (with cover plate)

Note: The ELECTRICAL BOX (1) can be installed in any location along the marked arc.

Cut a 105 x 105 mm (4-1/8" x 4-1/8") opening in finished wall for ELECTRICAL BOX (1) (not supplied) and follow installation template provided in box.

## REMOTE INSTALLATION OF ELECTRICAL BOX (without cover plate)

Mount a 4" x 4" x 3-1/2" (102 x 102 x 89 mm), ELECTRICAL BOX (1) (not supplied) within 10' from the installed flush valve. See Fig. 11.

# 8 INSTALL POWER SUPPLY AND MAKE ELECTRICAL CONNECTIONS; Fig. 10, 10a

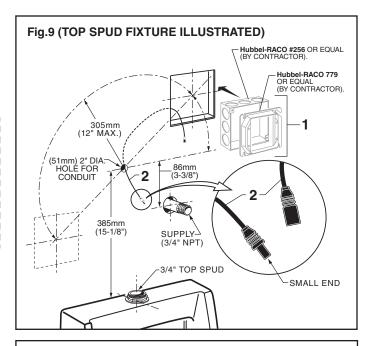
CAUTION

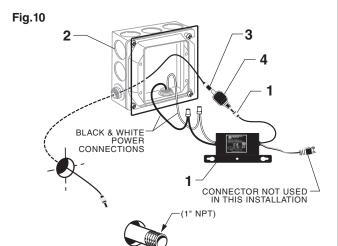
Ensure that the line power to bathroom is OFF prior to making connections.

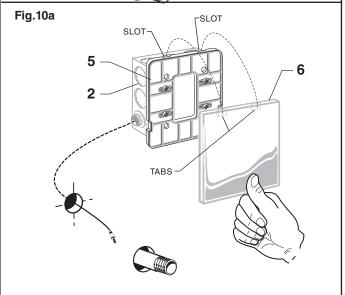
- Mount POWER SUPPLY (1) into ELECTRICAL BOX (2). Connect White and Black power connections to POWER SUPPLY (1). Fig. 10.
- 2. Connect AC TRANSFORMER (1) to the SINGLE AC ADAPTER (4). Fig. 10.
- 3. Connect the 27" EXTENSION CABLE (3) from the flush valve cover to SINGLE AC ADAPTER (4). Fig. 10. If ELECTRICAL BOX (2) is installed remotely, then connect the 10' EXTENSION CABLE (sold seperately) to the 27" EXTENSION CABLE (3) from the flush valve cover and secure this connection by installing into CONNECTOR LOCKING DEVICE (5) as shown in Fig. 11 (on page 8).

# 8a COVER PLATE FRAME AND COVER PLATE INSTALLATION (front installation only)

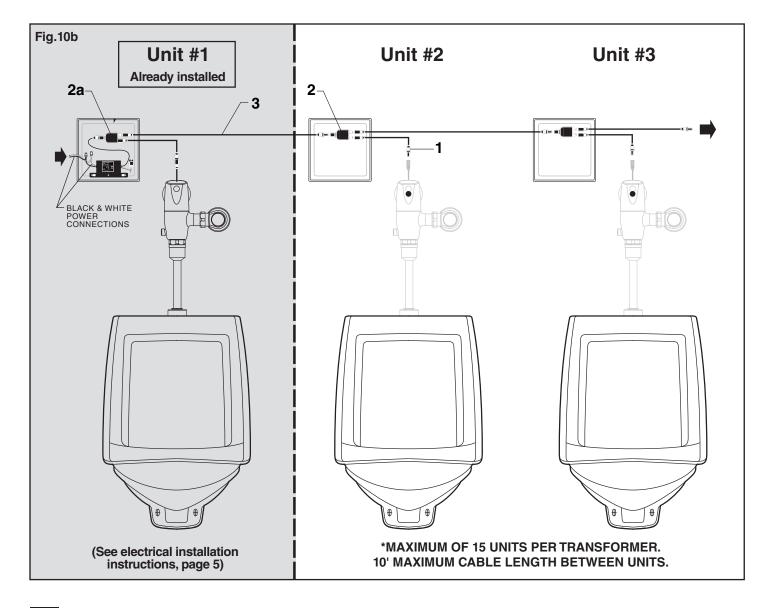
- After POWER SUPPLY (1) is installed and wire connections are completed, install the COVER PLATE FRAME (5) onto the ELECTRICAL BOX (2). Fig. 10a.
- 2. Install the two tabs on the back side of the COVER PLATE (6) into the two Slots located on the top edge of the COVER PLATE FRAME (5). Push on bottom until it snaps into place. Fig. 10a.







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## 8b MULTI-AC VERSION (DAISY-CHAIN); Fig. 10b.

**CAUTION** Ensure that the line power to bathroom is OFF prior to making connections.

Important: All cover plates must be uninstalled before beginning to make daisy-chain connections.

Disconnect the first unit's Y-Adapter from power supply before making daisy-chain connections.

Note: For Unit #1 electrical instructions, refer to section #7 & #8a (page 5).

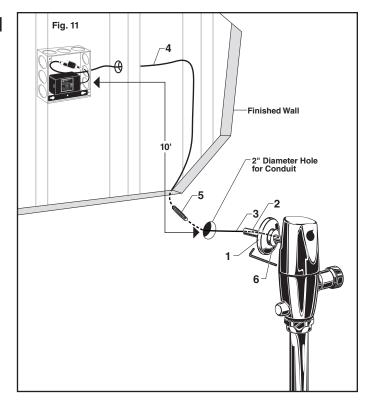
For subsequent Units, refer to section #7 (page 5), as well as instructions below...

- 1. Connect one end of the 27" EXTENSION CABLE (1) to one of the two available terminals on the one end of the Y-ADAPTER (2).
- 2. Take the 10' EXTENSION (3) and connect one end to the single terminal of Y-ADAPTER (2), and the other end to available terminal of the previous unit's Y-ADAPTER (2a).
- 3. Repeat process for each subsequent unit.
- 4. Place Y-ADAPTERS (2) into respective electrical box.
- 5. Reconnect the first unit's Y-ADAPTER (2a) to power supply once all daisy-chain unit connections have been made.

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# 9 INSTALL CONDUIT, ESCUTCHEON AND SENSOR CABLE; Fig. 11

- 1. Drill a 2" diameter hole (shown in Fig. 9) in the finished wall for the CONDUIT (2).
- 2. Slide ESCUTCHEON (1) onto CONDUIT (2).
- 4. Make sure 10' EXTENSION CABLE (6), 27" EXTENSION CABLE (3), CONNECTOR LOCKING DEVICE (7), and CONDUIT (2) are inserted through the 2" diameter hole in the wall.
- **5.** Slide ESCUTCHEON **(1)** tight against finished wall and secure by tightening SET SCREW **(5)**.



## **MAINTENANCE**

### A ADJUST STOP VALVE; Fig. 12

IMPORTANT: To avoid overflowing, the STOP VALVE (3) must never be opened to the point where the flow from the valve exceeds the draining ability of the fixture.

1. After installation is complete, peel off the PROTECTIVE FILM (1) from the sensor. Standing to one side, block the sensor with your hand for 10 seconds.

Remove your hand and listen for audible "click" from within the valve.

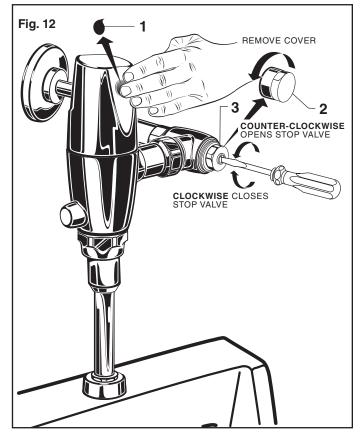
Remove STOP VALVE COVER (2) from STOP VALVE (3).
 Turn on water supply 1/4 turn to 1/2 turn (CCW) and test for leaks.

Note: Unit may flush for approximately 5 to 10 sec. when water is first turned on. If flow persists, turn water off and repeat step #1 above.

- 3. Actuate the FLUSH VALVE:
  - A) Cover sensor with hand for 10 seconds.

NOTE: Stand outside of sensor detection area.

- B) Remove hand from sensor detection area; unit will flush in approximately 3 seconds.
- 4. Adjust STOP VALVE (3) after each flush until the stated flush volume is achieved, no splashing occurs and the fixture is properly cleansed.
- **5.** When adjustment is complete, replace STOP VALVE COVER **(2)** and tighten to ensure vandal-resistance.



## **B** SET DETECTION RANGE (if Required); Fig. 13 & 14

Note: The detection distance is preset and ideal for most installations. Should an adjustment be required, follow the steps below.

- 1. To remove the COVER PLATE (1), insert WIRE KEY (2) (supplied) into the two holes located at the bottom of the COVER PLATE (1). Push the WIRE KEY (2) up until it releases the bottom clips. Pull the bottom edge away and lift the COVER PLATE (1) off. Fig. 13.
- 2. Disconnect the 27" EXTENSION CABLE (3) from the Y-ADAPTER (4), and reconnect.

Note: You have 5 seconds to begin entering the program code after power connection is made.

- 3. While the SENSOR CONTROL LED (1) is blinking slowly, place your hand 1 to 2 in. (30-50 mm.) in front of the sensor. Fig. 14.
- 4. When the LED (1) stops blinking and stays "ON", move your hand to the desired position from sensor and hold in place until the LED (1) begins to blink again.

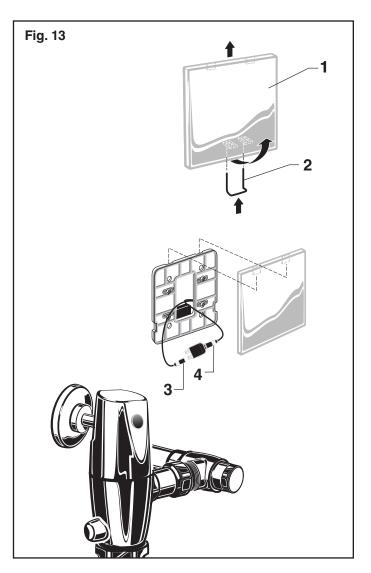
Note: Detection Zone is 400 - 800 mm (15-3/4"x 31-1/2"). (Factory Setting: 600 mm (23-5/8")

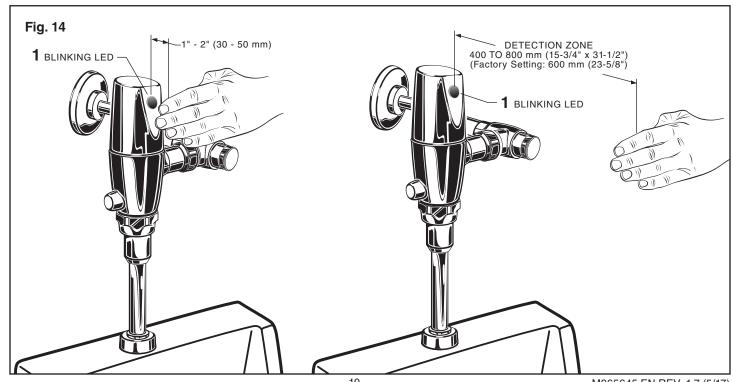
- 5. Once the SENSOR CONTROL LED (1) begins to blink again, remove your hand from the detection zone. When the flashing stops, the detection distance is set.
- 6. Actuate the FLUSH VALVE:

A) Cover sensor with hand for 10 seconds.

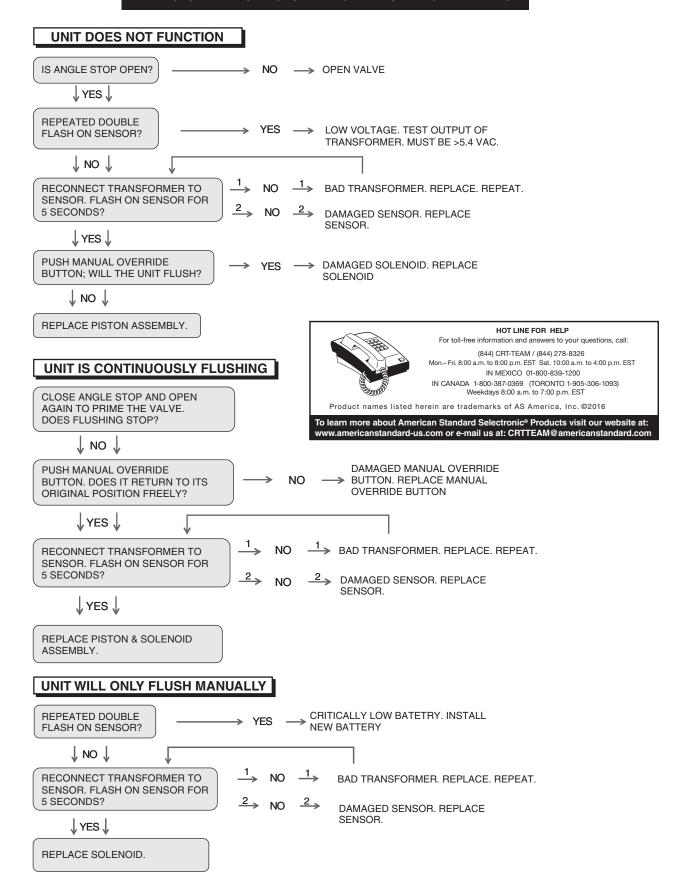
NOTE: Stand outside of sensor detection area.

B) Remove hand from detection area; unit will flush in approximately 3 seconds.





## TROUBLESHOOTING FLOW CHARTS



# American Standard M964120-0020A ESCUTCHEON & CONDUIT ASSEMBLY

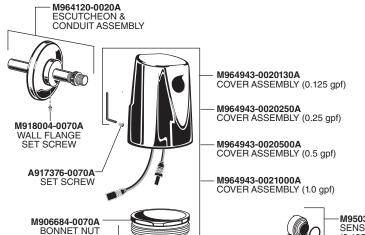
#### **BEFORE NOVEMBER 2017**

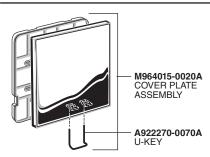
## **SELECTRONIC®**

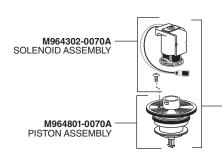
AC POWERED PROXIMITY **EXPOSED URINAL FLUSH VALVE** 0.125 0.25 0.5 & 1.0 GPF

**MODEL NUMBERS** 

606B.101 606B.051 606B.025 606B.013









-**M950319-0070130A** SENSOR ASSEMBLY (0.125 gpf)

M950319-0070300A SENSOR ASSEMBLY (0.25 gpf)

-**M950319-0070500A** SENSOR ASSEMBLY (0.5 gpf)

M950319-0071000A SENSOR ASSEMBLY (1.0 gpf)

**M964802-0070A** SOLENOID & PISTON SUBASSEMBLY

A912809-0070A



M964945-0020A ADJUSTABLE TAILPIECE (4-1/4" to 5-1/4" Rough-in)

OPTIONAL ADJUSTABLE TAILPIECE OPTIONAL ADJOSTABLE TAILFIECE (Purchased Separately) M962836-0020A (8-1/4" to 9-1/4" Rough-in) M962834-0020A (7-1/4" to 8-1/4" Rough-in) M962834-0020A (6-1/4" to 7-1/4" Rough-in) M962833-0020A (5-1/4" to 6-1/4" Rough-in)

M962801-0070A FLOW REGULATOR (Before July 2015)

M923189-0070A FLOW REGULATOR (After July 2015)



**POWER KITS** Hard-Wired AC M950399-0070A SINGLE AC **ADAPTER** M950360-0070A CONNECTOR LOCKING DEVICE **M950511-0070A** 10' EXTENSION CABLE M950520-0070A HARD-WIRED AC TRANSFORMER Multi-AC M950512-0070A Y-ADAPTER **M950511-0070A** 10' EXTENSION (6-



M950354-0020A

MANUAL VALVE







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M952262-0020A **ESCUTCHEON KIT** 

PART OF LIXIL

#### **AFTER NOVEMBER 2017** American Standard **SELECTRONIC® AC POWERED PROXIMITY EXPOSED URINAL FLUSH VALVE** M964120-0020A ESCUTCHEON & 0.125 0.25 0.5 & 1.0 GPF CONDUIT ASSEMBLY **MODEL NUMBERS** 606B.013 606B.101 606B.051 606B.025 M970345-0020130A COVER ASSEMBLY (0.125 gpf) M970345-0020250A COVER ASSEMBLY (0.25 gpf) M918004-0070A WALL FLANGE M964015-0020A M970345-0020500A COVER ASSEMBLY (0.5 qpf) SET SCREW **COVER PLATE** ASSEMBLY A917376-0070A SET SCREW M970345-0021000A COVER ASSEMBLY (1.0 gpf) A922270-0070A -**M950319-0070130A** SENSOR ASSEMBLY M906684-0070A BONNET NUT (0.125 gpf) **M950319-0070300A** SENSOR ASSEMBLY **POWER KITS** (0.25 gpf) Hard-Wired AC **M950319-0070500A** SENSOR ASSEMBLY M964302-0070A (0.5 gpf) SOLENOID ASSEMBLY M950399-0070A M950319-0071000A SINGLE AC SENSOR ASSEMBLY **ADAPTER M964802-0070A** SOLENOID & PISTON M950360-0070A CONNECTOR LOCKING DEVICE M964801-0070A SUBASSEMBLY PISTON ASSEMBLY A912809-0070A M950511-0070A 10' EXTENSION CABLE M964945-0020A ADJUSTABLE TAILPIECE (4-1/4" to 5-1/4" Rough-in) M950354-0020A OPTIONAL ADJUSTABLE TAILPIECE MANUAL VALVE OPTIONAL AUJUSTABLE TAILFIECE (Purchased Separately) M962836-0020A (8-1/4" to 9-1/4" Rough-in) M962834-0020A (7-1/4" to 8-1/4" Rough-in) M962834-0020A (6-1/4" to 7-1/4" Rough-in) M962833-0020A (5-1/4" to 6-1/4" Rough-in) M950520-0070A HARD-WIRED AC TRANSFORMER M962801-0070A FLOW REGULATOR Multi-AC (Before July 2015) M923189-0070A FLOW REGULATOR (After July 2015) M950512-0070A M964402-0070A Y-ADAPTER M952261-0020A VACUUM BREAKER KIT 3/4" INLET PIPE ASSEMBLY M950511-0070A 10' EXTENSION **M955058-0020A** 3/4" STOP VALVE KIT (C) M964075-0070A 3/4" SWEAT ADAPTER M964412-0020A 3/4" VACUUM **M924347-0020A** STOP VALVE CAP **BREAKER KIT** HOT LINE FOR HELP For toll-free information and answers to your questions, call: (844) CRT-TEAM / (844) 278-8326 - Fri. 8:00 a.m. to 8:00 p.m. EST Sat. 10:00 a.m. to 4:00 p.m. EST IN MEXICO 01-800-839-1200 M952262-0020A IN CANADA 1-800-387-0369 (TORONTO 1-905-306-1093) **ESCUTCHEON KIT** Weekdays 8:00 a.m. to 7:00 p.m. EST Product names listed herein are trademarks of AS America, Inc. @2016 To learn more about American Standard Selectronic® Products visit our website at www.americanstandard-us.com or e-mail us at: CRTTEAM@americanstandard.co PART OF LIXIL