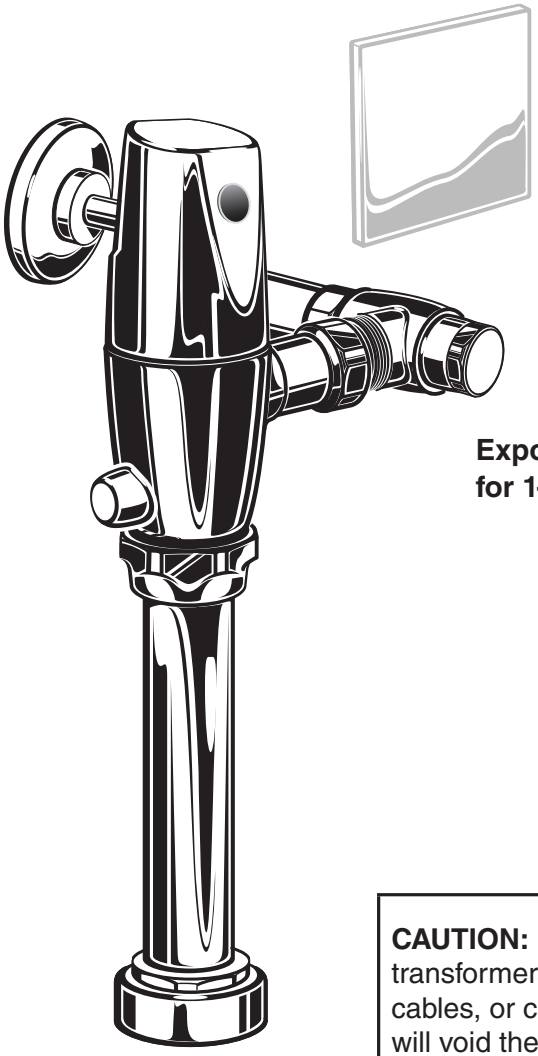
Installation Instructions

SELECTRONIC®

EXPOSED TOILET FLUSH VALVE
AC POWERED PROXIMITY
1.1, 1.28, 1.6,
1.6/1.1 & 1.28/1.1 GPF

MODEL NUMBERS				
606B.111	606B.121	606B.161	606B.721	606B.761



COVER PLATE
(Required for Front Installation Only)

Exposed Flush Valve
for 1-1/2" Top Spud Bowls

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

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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**

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)

American Standard CRT Certified Response Technician

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.

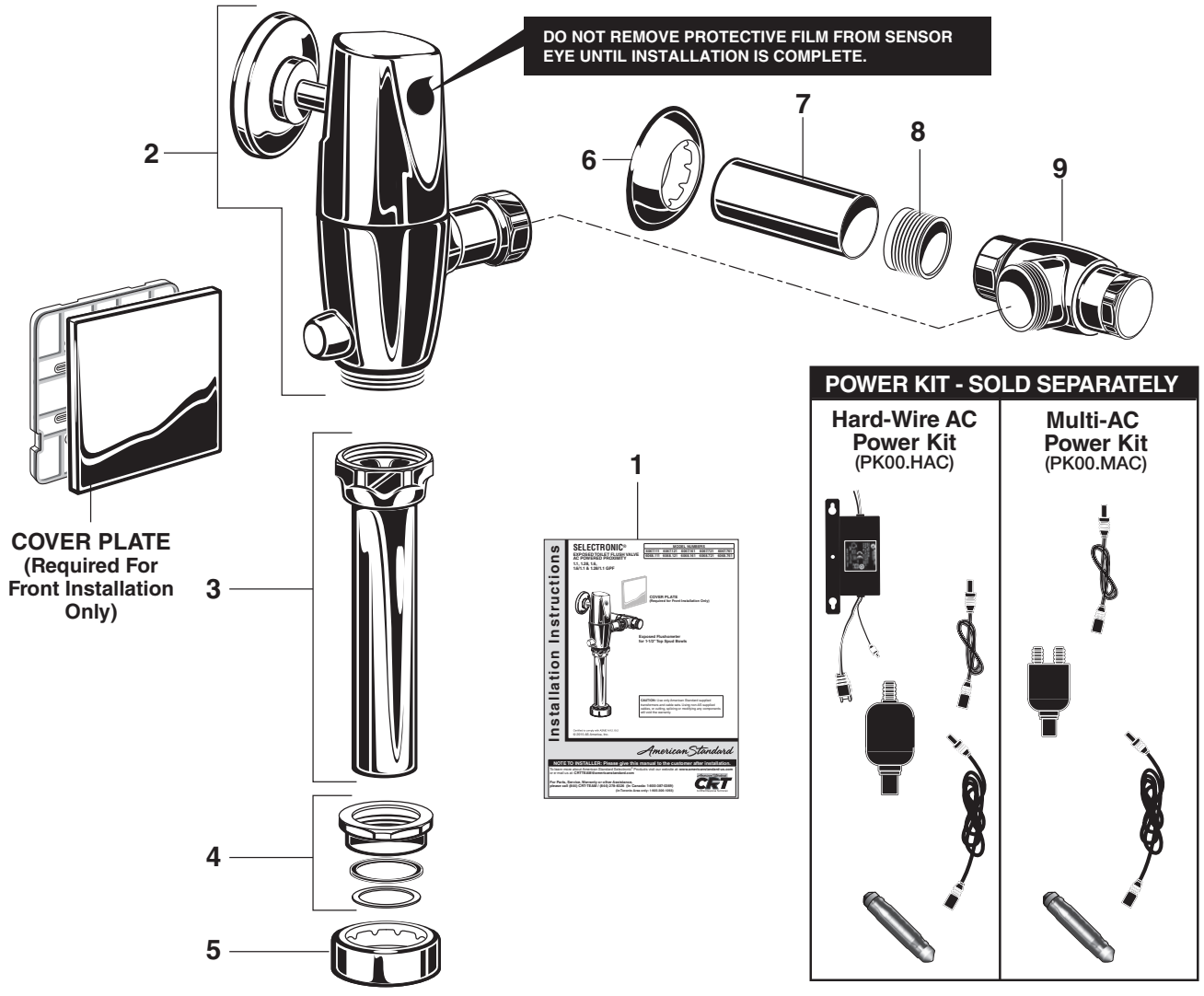
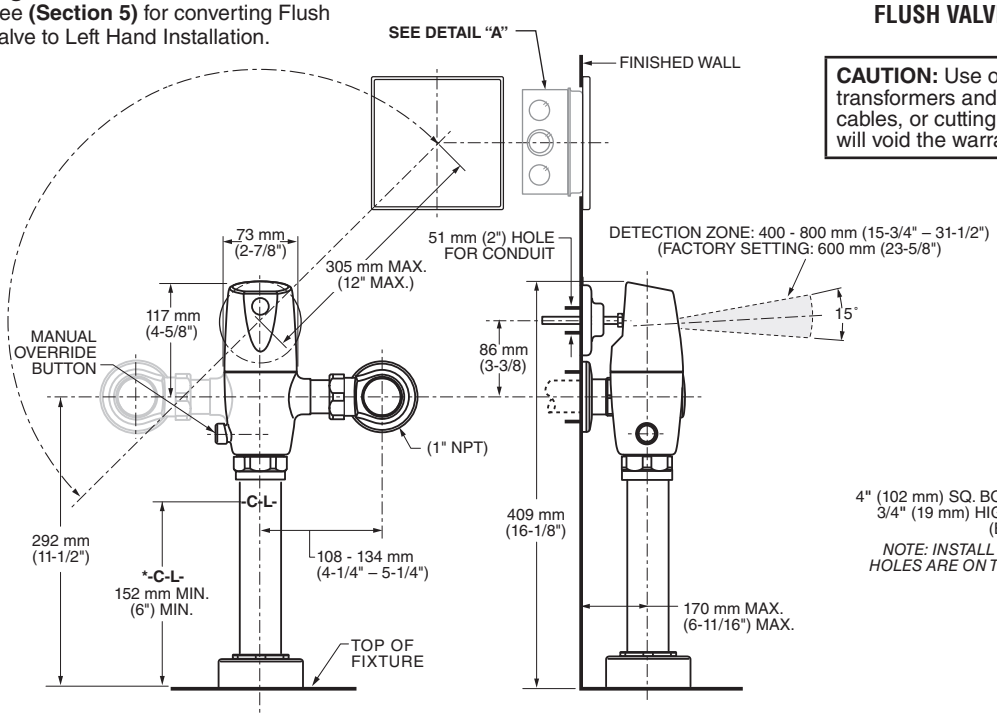


Fig. 1 **(Before November 2017)**

Roughing-in Dimensions *(Front Installation Shown)*

Right or Left Hand Installation
See **(Section 5)** for converting Flush Valve to Left Hand Installation.



*Note: The Critical Line (-C-L-) on Vacuum Breaker must typically be 6" (152 mm) above fixture. Consult Codes for details.

GENERAL DESCRIPTION:

SELECTRONIC® PROXIMITY TOILET FLUSH VALVE for 1-1/2" Top Spud Fixtures

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.

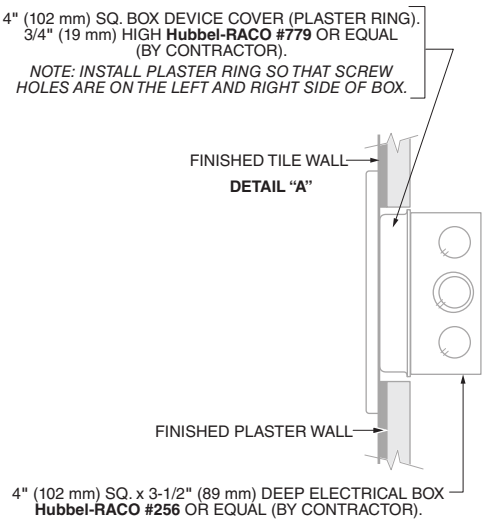
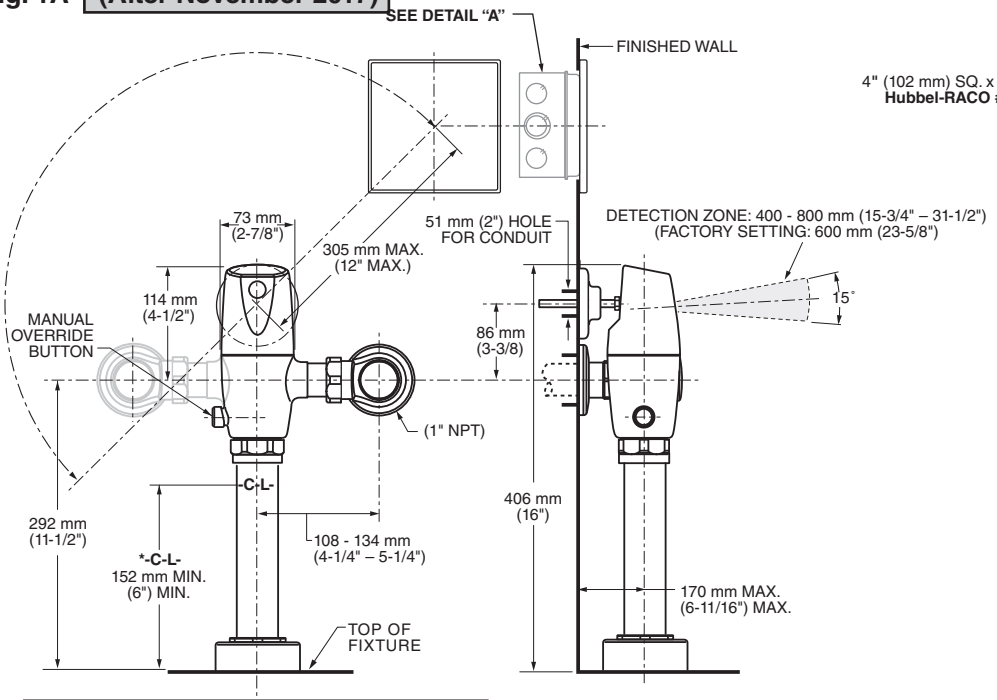


Fig. 1A **(After November 2017)**

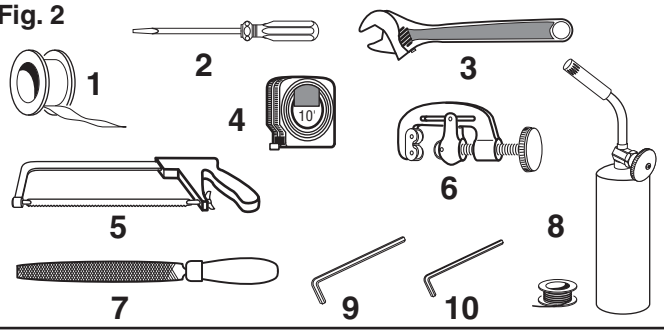


*Note: The Critical Line (-C-L-) on Vacuum Breaker must typically be 6" (152 mm) above fixture. Consult Codes for details.

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

Fig. 2



PRIOR TO INSTALLATION

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

1. Toilet

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

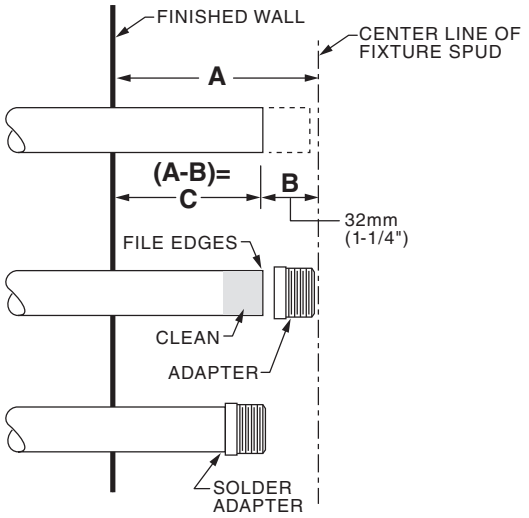
Note: Install Optional Sweat Adapter (Supplied) for copper pipe supply line.

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.

Fig.3



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

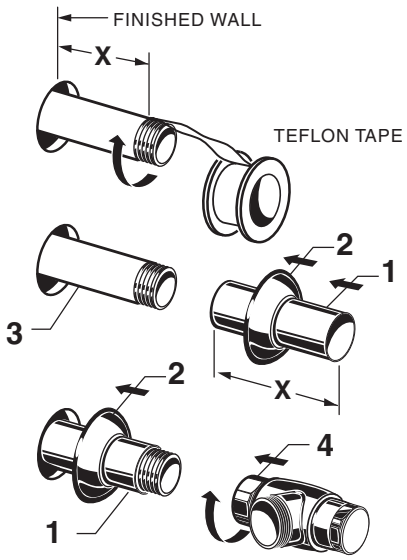
1. Measure from finished wall to first thread of Adapter or threaded supply pipe (dimension "X"). Cut COVER TUBE **(1)** to length (X). Apply Teflon Tape to the threaded end of the Adapter or supply pipe.

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.

Fig. 4



3 INSTALL VACUUM BREAKER TUBE; Fig. 5

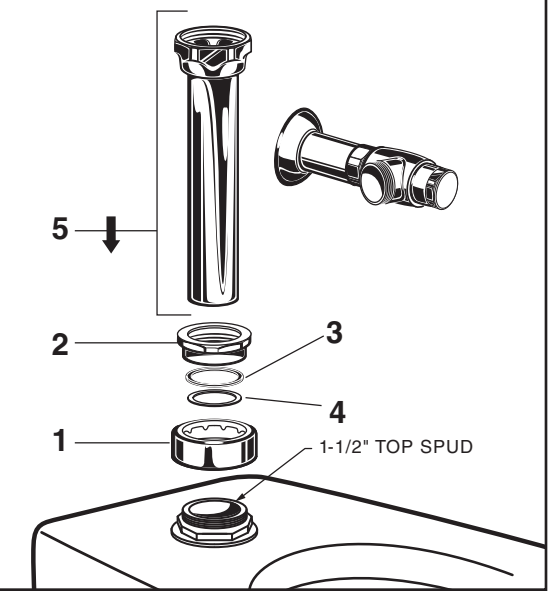
1. Place the SPUD FLANGE **(1)** over the spud on the Fixture.

2. 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.***

Fig. 5



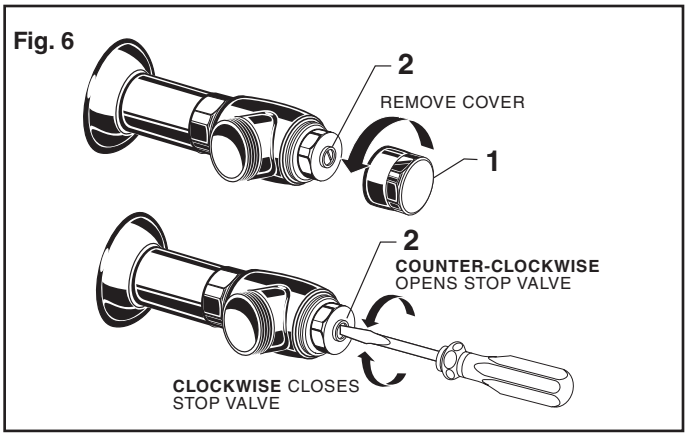
4 FLUSH OUT SUPPLY LINES; Fig. 6

1. Remove STOP VALVE COVER **(1)** from STOP VALVE **(2)**.

2. Open STOP VALVE **(2)** with a flat blade screwdriver.

3. 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

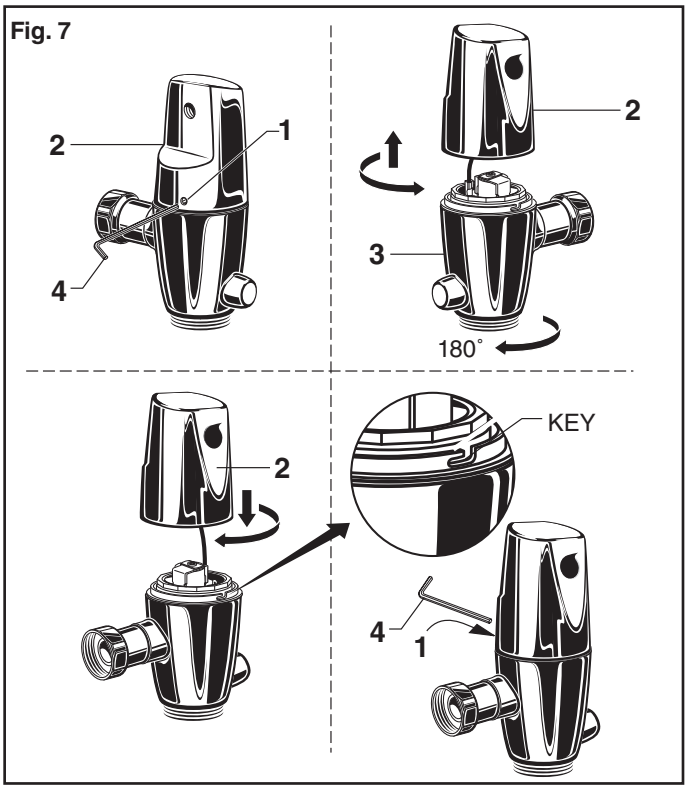
The unit is shipped with the adjustable tailpiece on the right side. If needed, the orientation can be modified by following the steps below.

1. 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 lift off.

3. Rotate FLUSH VALVE BODY **(3)** 180˚

4. 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**.

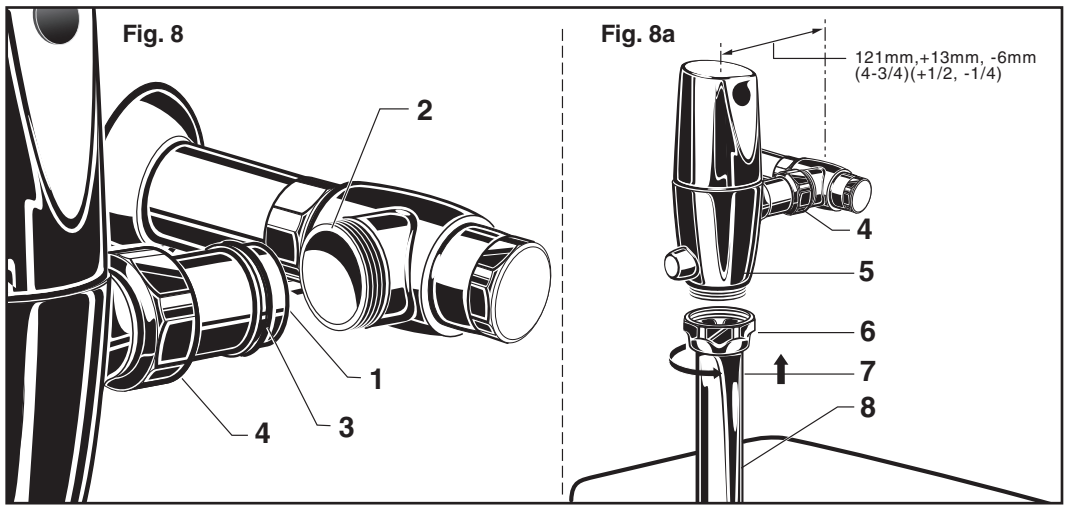
Important: ***Do not use lubricants (other than water) or any type of thread sealing paste or tape.***

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.***

3. Pull the VACUUM BREAKER TUBE **(7)** up to meet the threaded FLUSH VALVE BODY **(5)**, hand tighten the VACUUM BREAKER COUPLING NUT **(6)**. Align all components of the flush valve assembly. **Fig. 8a**.

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.**

1. 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)

1. 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**.

Fig.9 (TOP SPUD FIXTURE ILLUSTRATED)

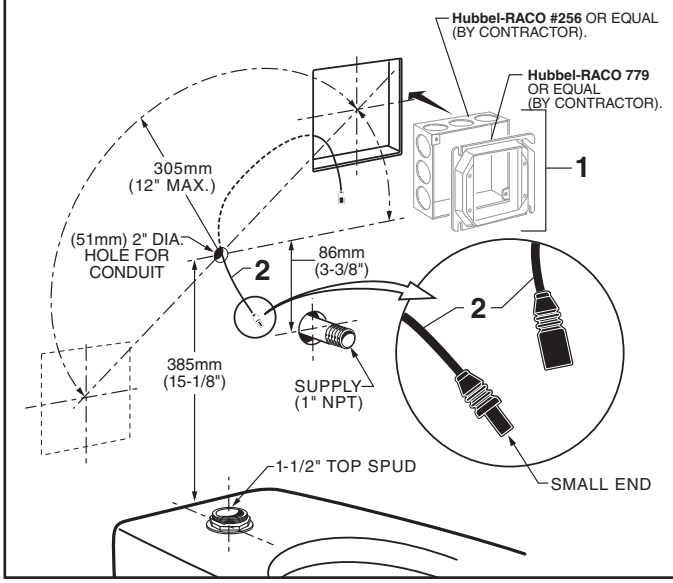


Fig.10

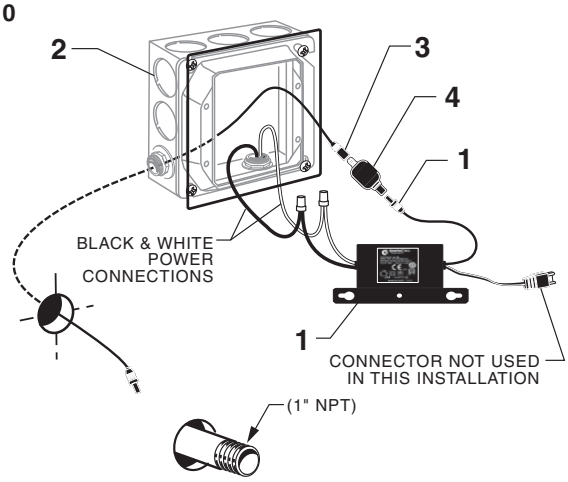
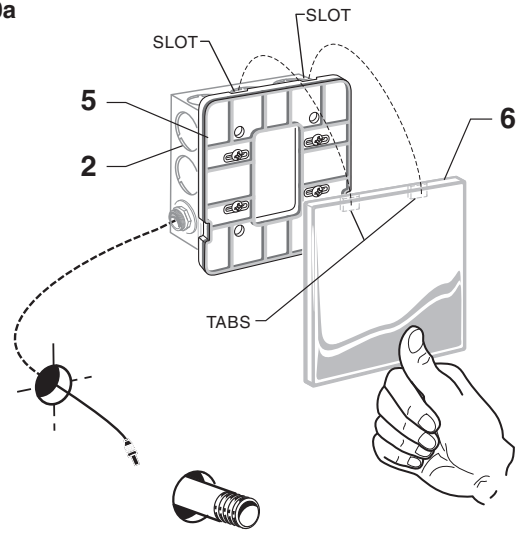
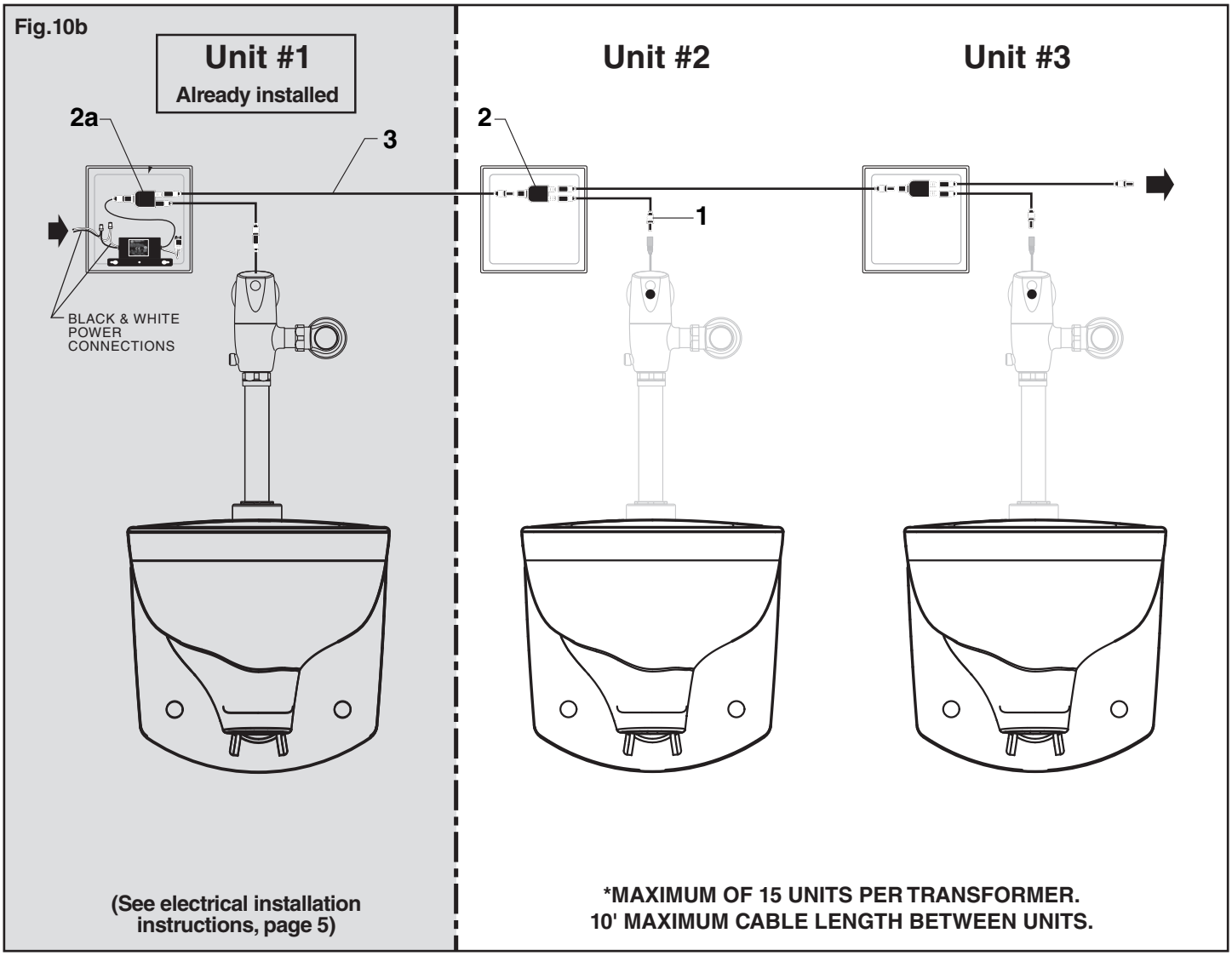


Fig.10a



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.



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 removed before beginning to make 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.

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.

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

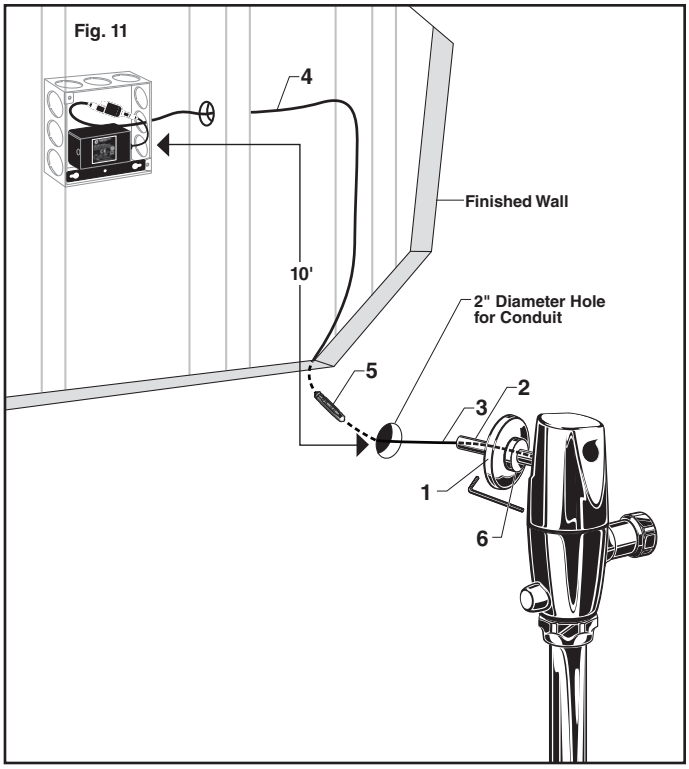
1. Drill a 2" diameter hole (shown in **Fig. 11**) in the finished wall for the CONDUIT **(2)**.

2. Slide ESCUTCHEON **(1)** onto CONDUIT **(2)**.

3. Make sure 10' EXTENSION CABLE **(3)**, 27" EXTENSION CABLE **(4)**, CONNECTOR LOCKING DEVICE **(5)**, and CONDUIT **(2)** are inserted through the 2" diameter hole in the wall.

4. Slide ESCUTCHEON **(1)** tight against finished wall and secure by tightening SET SCREW **(6)**.

Fig. 11



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.

2. 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.

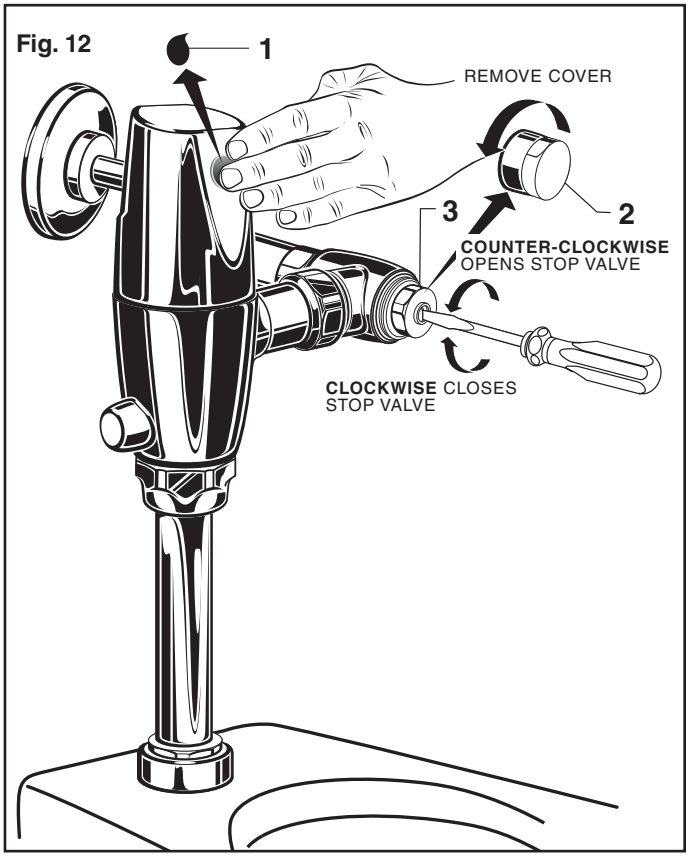
NOTE: ***Stand outside of sensor detection area.***

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.

Fig. 12



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.

Fig. 13

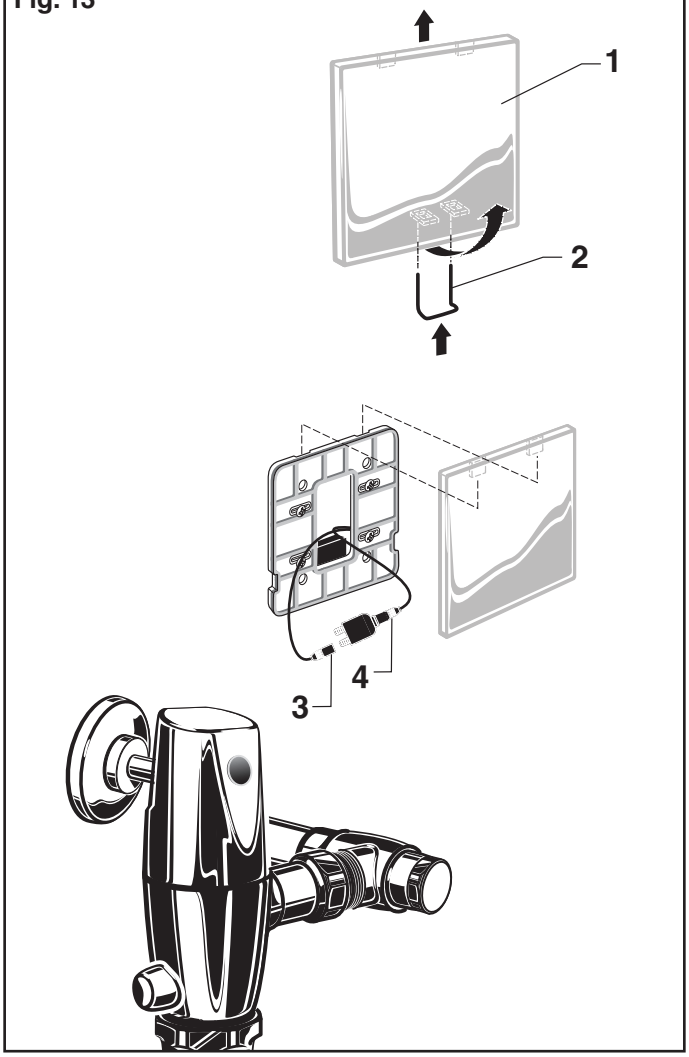
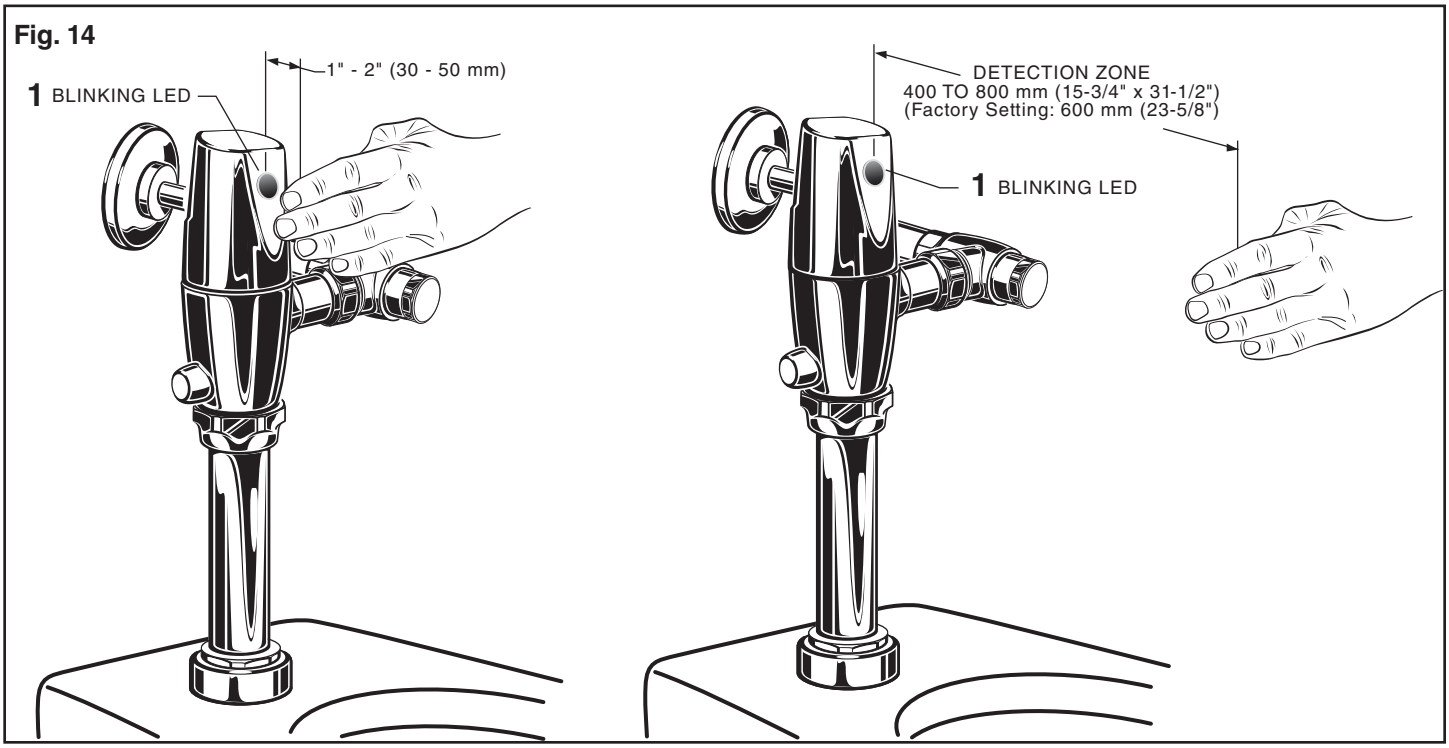


Fig. 14



TROUBLESHOOTING FLOW CHARTS

UNIT DOES NOT FUNCTION

IS ANGLE STOP OPEN? → NO → OPEN VALVE

↓ YES

REPEATED DOUBLE FLASH ON SENSOR? → YES → LOW VOLTAGE. TEST OUTPUT OF TRANSFORMER. MUST BE >5.4 VAC.

↓ NO

RECONNECT TRANSFORMER TO SENSOR. FLASH ON SENSOR FOR 5 SECONDS?

1 → NO → 1 → BAD TRANSFORMER. REPLACE. REPEAT.

2 → NO → 2 → DAMAGED SENSOR. REPLACE SENSOR.

↓ YES

PUSH MANUAL OVERRIDE BUTTON; WILL THE UNIT FLUSH? → YES → DAMAGED SOLENOID. REPLACE SOLENOID

↓ NO

REPLACE PISTON ASSEMBLY.



HOT LINE FOR HELP

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UNIT IS CONTINUOUSLY FLUSHING

CLOSE ANGLE STOP AND OPEN AGAIN TO PRIME THE VALVE. DOES FLUSHING STOP?

↓ NO

PUSH MANUAL OVERRIDE BUTTON. DOES IT RETURN TO ITS ORIGINAL POSITION FREELY? → NO → DAMAGED MANUAL OVERRIDE BUTTON. REPLACE MANUAL OVERRIDE BUTTON

↓ YES

RECONNECT TRANSFORMER TO SENSOR. FLASH ON SENSOR FOR 5 SECONDS?

1 → NO → 1 → BAD TRANSFORMER. REPLACE. REPEAT.

2 → NO → 2 → DAMAGED SENSOR. REPLACE SENSOR.

↓ YES

REPLACE PISTON & SOLENOID ASSEMBLY.

UNIT WILL ONLY FLUSH MANUALLY

REPEATED DOUBLE FLASH ON SENSOR? → YES → CRITICALLY LOW BATETRY. INSTALL NEW BATTERY

↓ NO

RECONNECT TRANSFORMER TO SENSOR. FLASH ON SENSOR FOR 5 SECONDS?

1 → NO → 1 → BAD TRANSFORMER. REPLACE. REPEAT.

2 → NO → 2 → DAMAGED SENSOR. REPLACE SENSOR.

↓ YES

REPLACE SOLENOID.

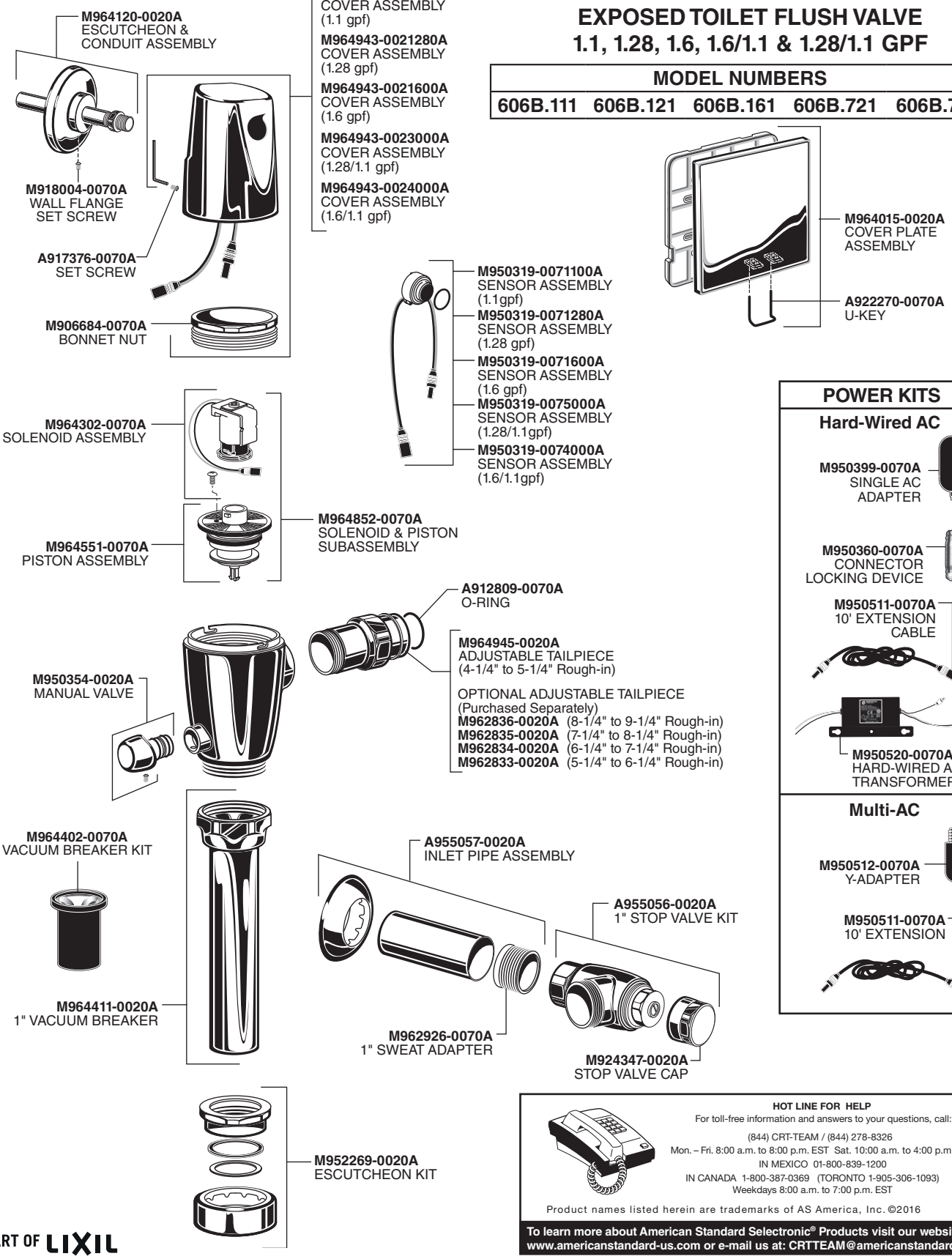
American Standard

BEFORE November 2017

SELECTRONIC®

AC POWERED PROXIMITY EXPOSED TOILET FLUSH VALVE 1.1, 1.28, 1.6, 1.6/1.1 & 1.28/1.1 GPF

MODEL NUMBERS				
606B.111	606B.121	606B.161	606B.721	606B.761



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Hard-Wired AC

Multi-AC

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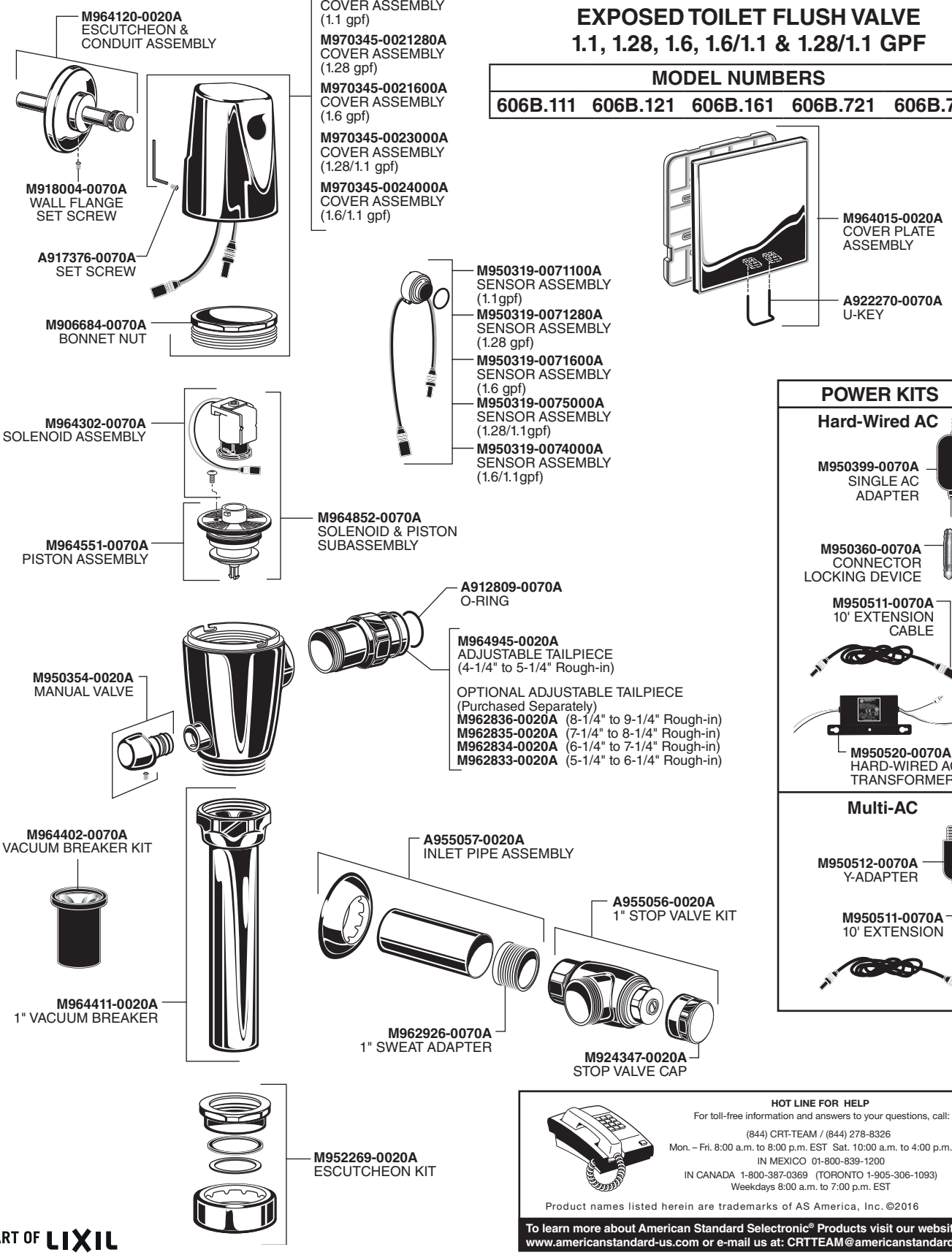
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AFTER November 2017

SELECTRONIC®

AC POWERED PROXIMITY EXPOSED TOILET FLUSH VALVE 1.1, 1.28, 1.6, 1.6/1.1 & 1.28/1.1 GPF

MODEL NUMBERS				
606B.111	606B.121	606B.161	606B.721	606B.761



POWER KITS

Hard-Wired AC

Multi-AC

HOT LINE FOR HELP

For toll-free information and answers to your questions, call:

(844) CRT-TEAM / (844) 278-8326
Mon. – 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
IN CANADA 1-800-387-0369 (TORONTO 1-905-306-1093)
Weekdays 8:00 a.m. to 7:00 p.m. EST

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

PART OF LIXIL

AS AMERICA, INC. ONE YEAR LIMITED WARRANTY FOR COMMERCIAL FIXTURES

If inspection of this AS America, Inc. ("American Standard®") plumbing product, within one year after its initial purchase, confirms that it is defective in materials or workmanship, American Standard® will repair or, at its option, exchange the product for a similar model.

If the commercial fixture is purchased with a matching American Standard flush valve, American Standard will extend the limited commercial warranty for the commercial fixture to five years. Proof of purchase is required and must show that the commercial fixture and flush valve are purchased together and in the same proof of purchase document.

This limited warranty applies only to the original purchaser and installation of these products. In the event of a limited warranty claim, proof of purchase will be required – **save sales receipt.**

This limited warranty does not apply to local building code compliance. Since local building codes vary considerably, the purchaser of this product should check with a local building or plumbing contractor to insure local code compliance before installation.

This limited warranty is void if the product has been moved from its initial place of installation; if it has been subjected to faulty maintenance, abuse, misuse, accident or other damages; if it was not installed in accordance with American Standard®'s instructions; or if it has been modified in a manner inconsistent with the product as shipped by American Standard®.

American Standard®'s option to repair or exchange the product under this limited warranty does not cover any labor or other costs of removal or installation. IN NO EVENT WILL AMERICAN STANDARD® BE LIABLE FOR THE COST OF REPAIR OR REPLACEMENT OF ANY INSTALLATION MATERIALS, INCLUDING BUT NOT LIMITED TO, TILES, MARBLE, ETC. American Standard® will not be responsible for any other incidental or consequential damages attributable to a product defect or to the repair or exchange of a defective product, all of which are expressly excluded from this limited warranty. This limited warranty does not cover any liability for consequential or incidental damages, all of which are hereby expressly disclaimed, or the extension beyond the duration of this limited warranty of any implied limited warranties, including those of merchantability or fitness for an intended purpose. (Some states or provinces do not allow the exclusion or limitation of implied limited warranties, so this exclusion may not apply to you.)

This limited warranty gives you specific legal rights. You may have other statutory rights that vary from state to state or from province to province, in which case this limited warranty does not affect such statutory rights.

AS AMERICA, INC. LIMITED WARRANTY FOR CHAMPION® PRO AND CHAMPION®4 TOILETS

This toilet comes with a limited lifetime warranty on chinaware, a limited 10 year warranty on all mechanical parts of the toilet and a limited 1 year warranty on the toilet seat if included with product. If inspection of this AS America, Inc. ("American Standard®") plumbing product, inclusive of the chinaware and all mechanical parts, confirms that it is defective in materials or workmanship, American Standard® will repair or, at its option, exchange the product for the same or a similar model.

This limited warranty applies only to the original non-commercial purchaser and installation of the products. In the event of a limited warranty claim, proof of purchase will be required – **save sales receipt.**

For this warranty to become effective, the warranty registration process must be completed via the internet or telephone per the warranty registration instructions.

This limited warranty does not apply to commercial installations. The warranty for commercial installations is 1 year on chinaware and mechanical parts and 1 year on the toilet seat if included with product.

This warranty **does not apply** to local building code compliance. Since local building codes vary considerably, the purchaser of the product should check with a local building or plumbing contractor to ensure local code compliance before installation.

This warranty **will be void** if the product has been moved from its initial place of installation; if it has been subjected to faulty maintenance, abuse, misuse, accident or other damage; if it was not installed in accordance with American Standard®'s instructions; or if it has been modified in a manner inconsistent with the product as shipped by American Standard®.

WARNING: This warranty **DOES NOT COVER** any damages caused by the use of in-tank cleaners. These products can seriously corrode the fittings in the tank. This damage can cause leakage and property damage. **American Standard® will not be responsible or liable for any damage caused by the use of in-tank cleaners.**

American Standard®'s option to repair or exchange the product under this warranty does not cover any labor or other costs of removal or installation including any costs of any surrounding material such as tile or marble. **American Standard® is not responsible for any other incidental or consequential damages attributed to a product defect or to the repair or exchange of a defective product, all of which are expressly excluded from this warranty.** (Some states or provinces do not allow the exclusion or limitation of implied warranties, so this exclusion may not apply to you.)

This warranty gives you specific rights. You may have other statutory rights that may vary from state to state or province to province, in which case this warranty does not affect such statutory rights.