

# Installation Instructions

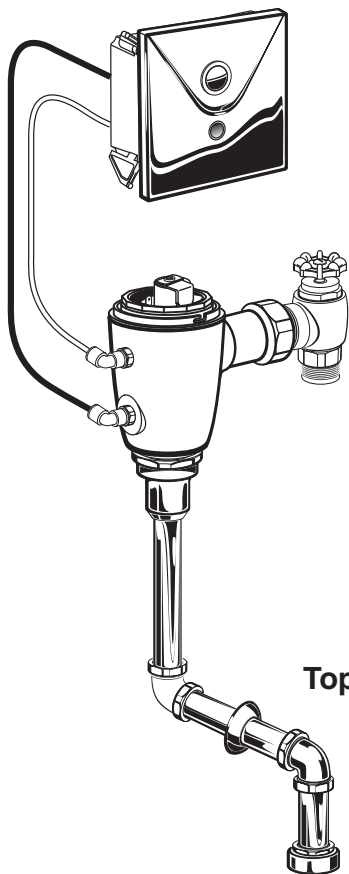
## Ultima™ Selectronic® Battery Powered Urinal Flush Valve, Piston-Type

### MODEL NUMBERS

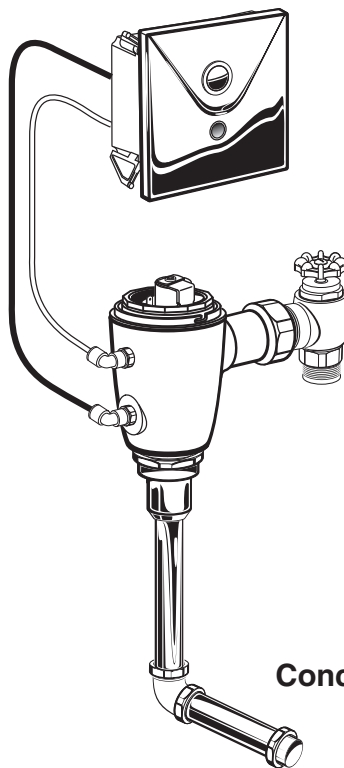
606B.X10

606B.X05

606B.X01



Top Spud



Concealed Back Spud

**Product to be used with WaterSense Certified Fixture with the same rated flush volume.**

**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](http://www.americanstandard-us.com) or e-mail us at: [CRTTEAM@americanstandard.com](mailto:CRTTEAM@americanstandard.com)

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(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.

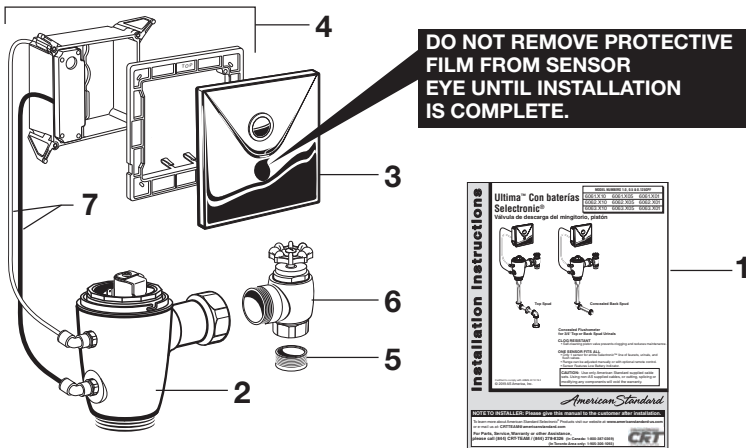
## UNPACKING

**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.

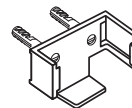
- |                              |   |
|------------------------------|---|
| 1. Installation Instructions | 7. Manual Override Hoses                        |
| 2. Flush Valve Body Assembly | 8a. Vacuum Breaker Flush Connection (Top Spud)  |
| 3. Cover Plate with Sensor   | 8b. Vacuum Breaker Flush Connection (Back Spud) |
| 4. Electrical Box            |   |
| 5. Sweat Adapter             |   |
| 6. Stop Valve                |   |

### SMALL PLATE CONCEALED URINAL FLUSH VALVES

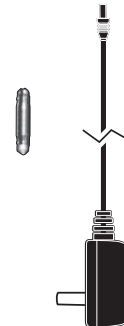


### POWER KITS — SOLD SEPARATELY

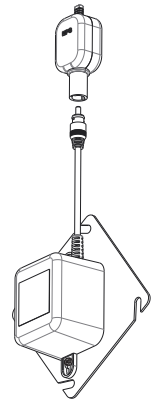
**PWRX  
Power Kit  
PK00.WRK**



**Plug-In AC  
Power Kit  
PK00.PAC**



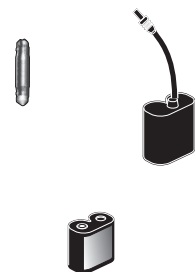
**Hard-Wired AC  
Power Kit  
PK00.HAC**



**Multi-AC  
Power Kit  
PK00.MAC**



**CR-P2 Battery  
Power Kit**



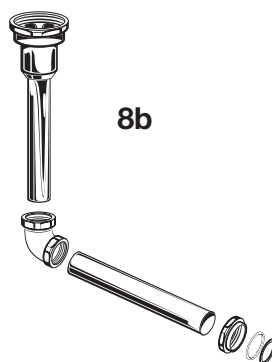
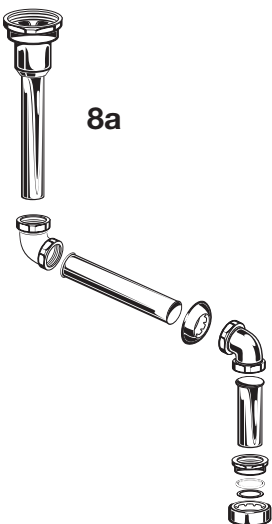
### VACUUM BREAKER FLUSH CONNECTIONS

606X.2XX

606X.3XX

8a

8b



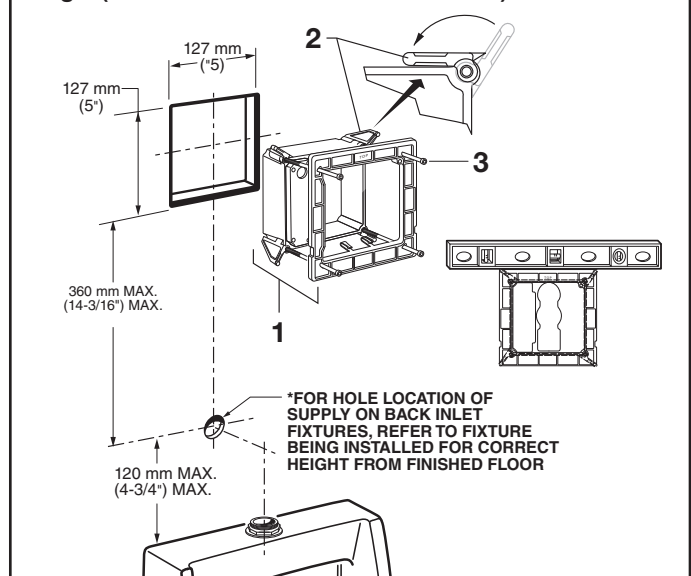


# FLUSH VALVE INSTALLATION

## 1 INSTALL ELECTRICAL BOX; Fig. 3

1. Cut a 127x127 mm (5"x 5") opening in finished wall for ELECTRICAL BOX (1) at the dimension shown.
2. Rotate the 4 MOUNTING TABS (2) flat against the electrical box. Holding the MOUNTING TABS (2) in position, install the ELECTRICAL BOX (1) into the opening. Make sure the MOUNTING TABS (2) are behind the wall.
3. Tighten the 4 MOUNTING SCREWS (3) until the ELECTRICAL BOX (1) is almost secure in the wall. Before tightening fully, rest a level at the top edge of the ELECTRICAL BOX (1) and make sure the box is level.
4. Cut a 2" hole for outlet pipe at dimension shown.\*

Fig.3 (TOP SPUD FIXTURE ILLUSTRATED)



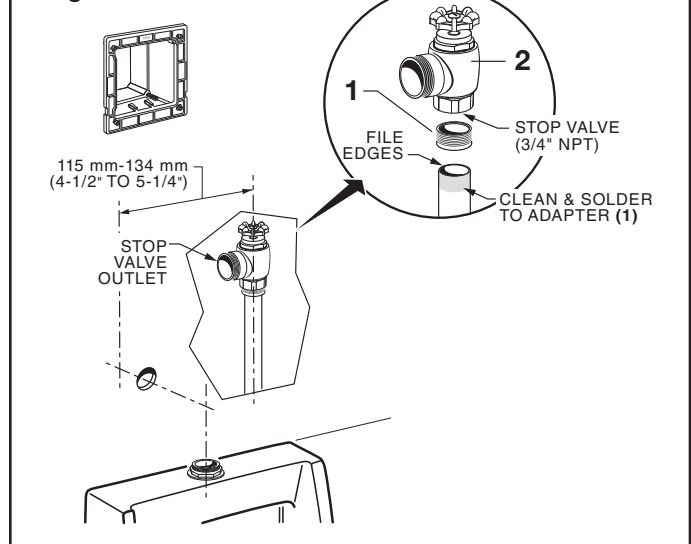
## 2 INSTALL SWEAT ADAPTER; Fig. 4

**CAUTION** Turn water supplies off before beginning

**Note:** Stop Valve inlet is 3/4" NPT. For optional sweat connection, *install Sweat Adapter (1) (Supplied) for 3/4" copper pipe supply line.*

1. Clean the end of the supply pipe. Push the threaded ADAPTER (1) until it is seated against the internal stop. Sweat the ADAPTER (1) to the pipe.
2. Install the STOP VALVE (2) to the water supply line with the outlet positioned as required (Behind the Wall).
3. Support piping as required.

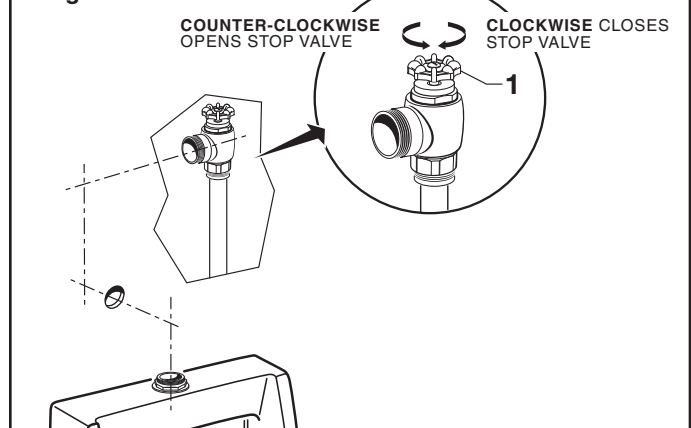
Fig. 4



## 3 FLUSH OUT SUPPLY LINES; Fig. 5

1. Open STOP VALVE (1).
2. Turn on water supply to flush line of any debris or sediment.
3. Close STOP VALVE (1) and turn off water supply line.

Fig. 5



## 4 INSTALL VACUUM BREAKER AND FLUSH CONNECTIONS; Fig. 6

1. Place the SPUD FLANGE (1) over the spud on the Fixture. **Fig. 6.**
2. Place FRICTION WASHER (3) and SEAL WASHER (4) inside SPUD COUPLING NUT (2) and thread onto Spud. Do not tighten fully. **Fig. 6.**
3. Remove the ELBOW COUPLING NUTS (6, 6a) from the CHROME ELBOW (5). Make sure there are a RUBBER (7) & FIBER GASKET (8) in each. **Fig. 6a.**
4. With the flange end up, slide the FIBER GASKET (8) and ELBOW COUPLING NUT (6) onto the VERTICAL OUTLET PIPE (9). Place the RUBBER GASKET (7) onto the flange. Now connect the ELBOW COUPLING NUT (6) to the CHROME ELBOW (5) and tighten fully.
5. Insert the VERTICAL OUTLET PIPE (9) with CHROME ELBOW (5) assembly into the SPUD COUPLING NUT (2) and push it down. Do not tighten fully. **Fig. 6a.**

**Note:** *Cutting the VERTICAL OUTLET PIPE (10) may be necessary for the CHROME ELBOW (5) center line to line up with opening in the wall.*

6. Measure and cut the HORIZONTAL OUTLET PIPE (10) to length required. **Fig. 6b.**

**Important:** *Make sure that there is a minimum of 1-1/4" for engagement with coupling when making your measurement.*

7. With the flange end toward the BRASS ELBOW (11) slide the FIBER GASKET (12) and ELBOW COUPLING NUT (13) onto the HORIZONTAL OUTLET PIPE (10). Place the RUBBER GASKET (14) between the flange and the BRASS ELBOW (11) and fully tighten. **Fig. 6b.**
8. From behind the wall, insert the assembled BRASS ELBOW and HORIZONTAL OUTLET PIPE (11, 10) through the hole in the wall. Install WALL ESCUTCHEON (15) onto the HORIZONTAL OUTLET PIPE (10). Slide the ELBOW COUPLING NUT (6a) and TAPERED RUBBER WASHER (7a) onto the HORIZONTAL OUTLET PIPE (10). Push the HORIZONTAL OUTLET PIPE (10) into the CHROME ELBOW (5). Tighten ELBOW COUPLING NUT (6a) but not fully. **Fig. 6b.**
9. **For back spud installations:** Follow steps #1 and #2 to install the spud coupling kit. Push the HORIZONTAL OUTLET PIPE (10) into the spud connection on the back of the fixture. Do not tighten fully. **Fig. 6b.**

10. **All installations:** If required, cut VACUUM BREAKER PIPE (17), leave a minimum of 1-1/4" (32mm) of pipe to ensure engagement with compression coupling. Assemble the ELBOW COUPLING NUT (13a) and TAPERED RUBBER WASHER (14a) onto the VACUUM BREAKER PIPE (17). Install VACUUM BREAKER PIPE (17) into BRASS ELBOW (11) and hand tighten ELBOW COUPLING NUT (13a). **Fig. 6c.**

**Note:** *If cutting VACUUM BREAKER PIPE (17) to size, note that Critical Line (C/L) on Vacuum Breaker must typically be 6" (152 mm) above fixture. Consult Code for details.*

Fig. 6

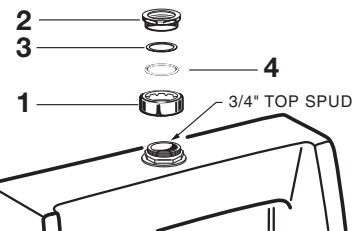


Fig. 6a

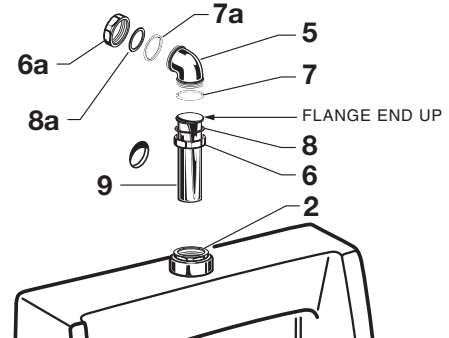


Fig. 6b

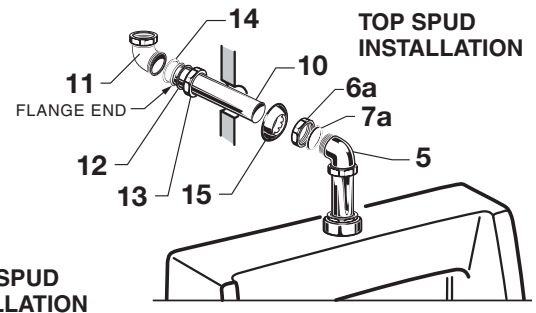
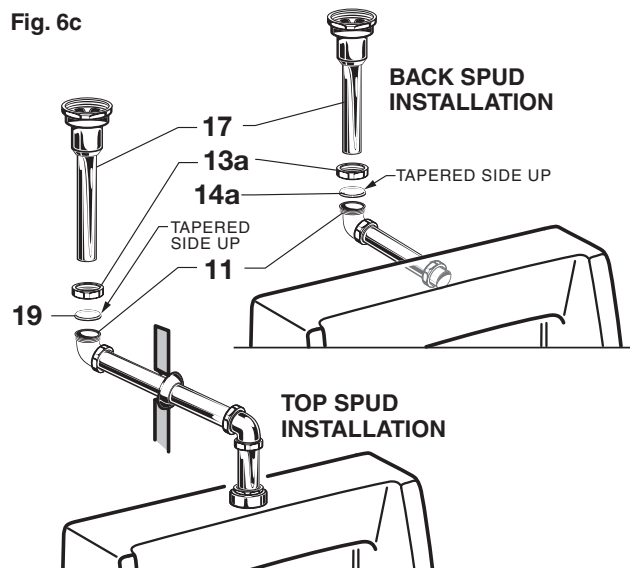


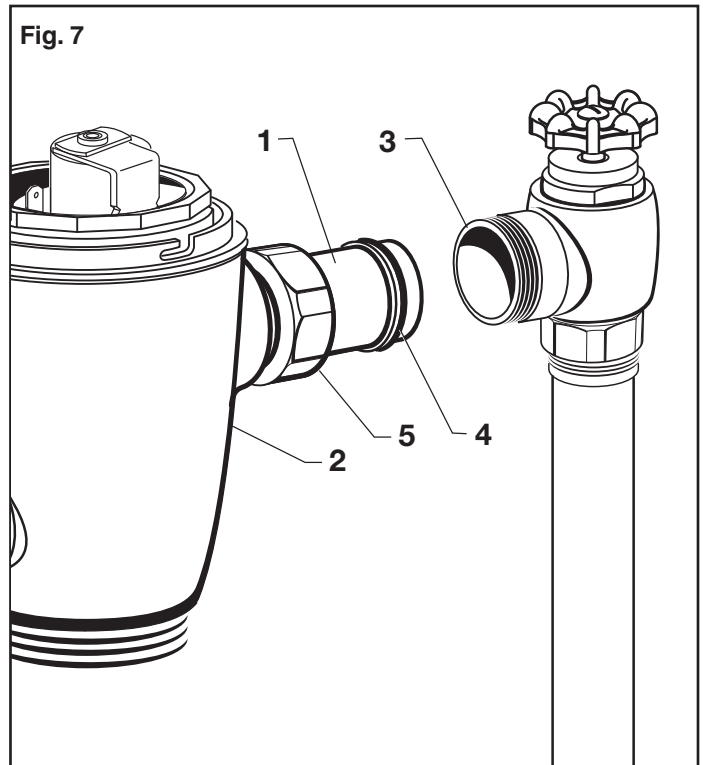
Fig. 6c



## 5 INSTALL FLASH VALVE; Fig. 7

1. Insert the side ADJUSTABLE TAILPIECE (1) on the FLUSH VALVE (2) into the STOP VALVE (3). Lubricate the TAILPIECE O-RING (4) with water if necessary. Thread the COUPLING NUT (5) onto the STOP VALVE (3) and tighten lightly. **Fig. 7.**

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

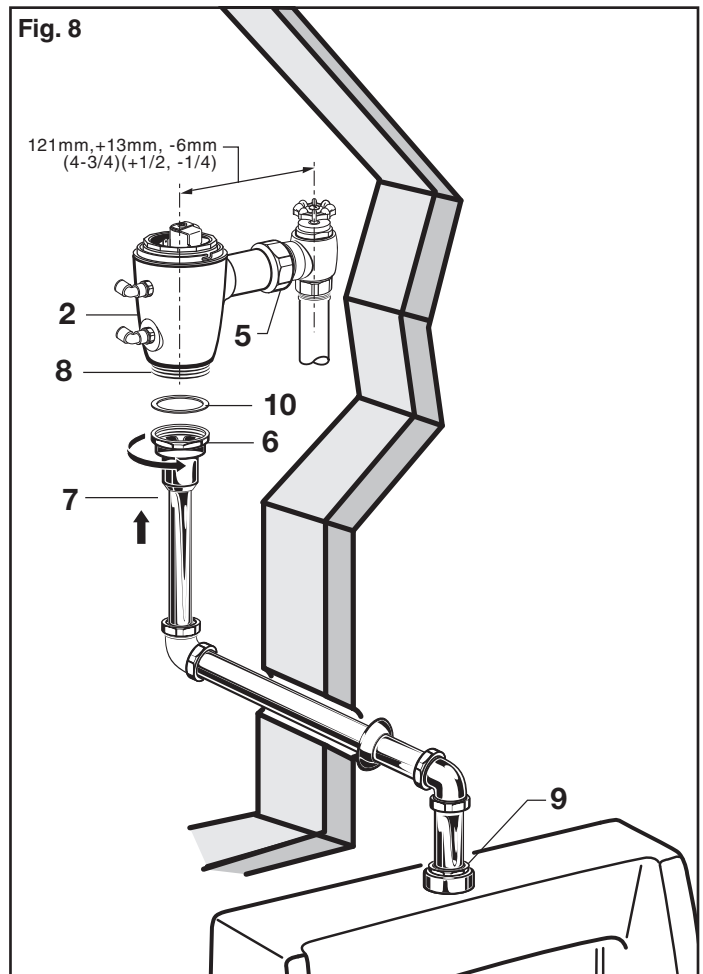


## 6 CONNECT FLUSH VALVE TO VACUUM BREAKER TUBE; Fig. 8

1. Align the FLUSH VALVE BODY (2) directly above the VACUUM BREAKER TUBE (7) and VACUUM BREAKER COUPLING NUT (6). Make sure that GASKET (10) is installed.

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

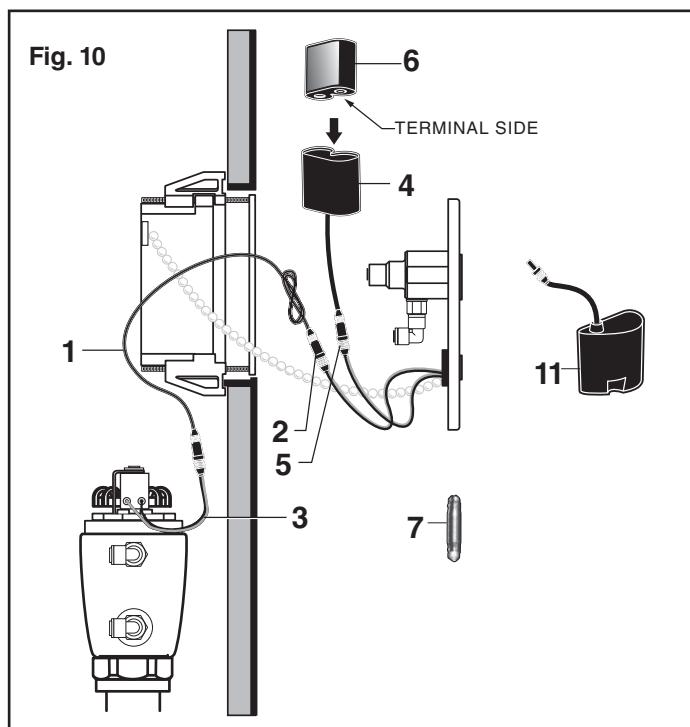
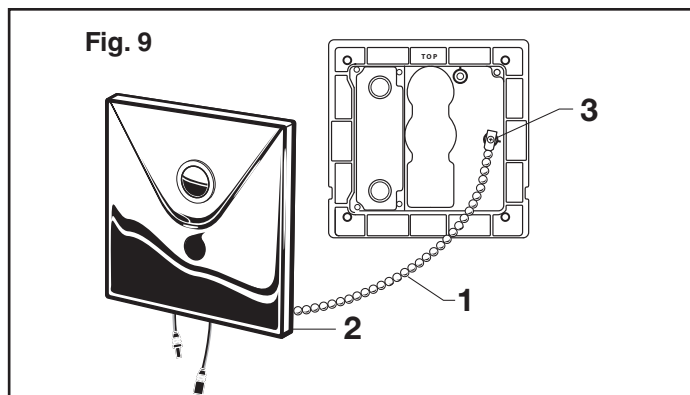
2. Pull the VACUUM BREAKER TUBE (7) up to meet the threaded FLUSH VALVE (2) and hand tighten the COUPLING NUT (6). Align all components of the flush valve assembly.
3. Lightly tighten the TAILPIECE COUPLING NUT (5) connection first, then the VACUUM BREAKER COUPLING NUT (6) and finally the SPUD COUPLING NUT (9). Once aligned correctly, use a wrench to tighten all couplings to make water tight connections.
4. Secure piping behind wall as required.



# ELECTRICAL INSTALLATION

## 7 STANDARD BATTERY POWER KIT (PK00.CRP); Fig. 9, 10

1. Attach the SAFETY CHAIN (1) from the COVER PLATE (2) to the MOUNTING POST (3) as shown. **Fig. 9.**
2. Connect one end of the 27" EXTENSION CABLE (1) to SENSOR CABLE (2). Connect the other end of the 27" EXTENSION CABLE (1) to the SOLENOID CABLE (3). **Fig.10.**
3. Insert BATTERY (6) into BATTERY HOLDER (4), making sure terminal side is inserted first. **Fig.10.**
4. Connect BATTERY HOLDER (4) to available SENSOR CABLE (5) and install the CONNECTOR LOCKING DEVICE (7). Place BATTERY HOLDER (4) into electrical box. **Fig.10.**



## 7a PWRX POWER KIT (PK00.WRK); Fig. 9, 10

1. Attach the SAFETY CHAIN (1) from the COVER PLATE (2) to the MOUNTING POST (3) as shown. **Fig. 9.**
2. Connect one end of the 27" EXTENSION CABLE (1) to SENSOR CABLE (2). Connect the other end of the 27" EXTENSION CABLE (1) to the SOLENOID CABLE (3). **Fig.10.**
3. Insert BATTERY (11) to available SENSOR CABLE (5) and install the CONNECTOR LOCKING DEVICE (7). Place BATTERY (11) to electrical box. **Fig.10.**

## 8 AC VERSION (PK00.PAC POWER KIT); Fig. 9, 10a

1. Attach the SAFETY CHAIN (1) from the COVER PLATE (2) to the MOUNTING POST (3) as shown. **Fig. 9.**
2. Connect one end of the 27" EXTENSION CABLE (4) to SENSOR CABLE (5). Connect the other end of the 27" EXTENSION CABLE (4) to the SOLENOID CABLE (6). **Fig.10a.**
4. Connect the second 27" EXTENSION CABLE (7) to the AC POWER SUPPLY (8), and the other end of the 27" EXTENSION CABLE (7) to available SENSOR CABLE (9). **Fig.10a.**
5. Plug AC POWER SUPPLY (8) into outlet. **Fig. 10a.**

## FOR HARD-WIRED VERSION (PK00.HAC POWER KIT)

7. Contractor to supply ELECTRICAL BOX (11).
8. Connect black and white power line connections to HARD-WIRED AC TRANSFORMER (12) and mount onto ELECTRICAL BOX (11).

**NOTE: CONNECTOR LOCKING DEVICE not used for AC installation.**

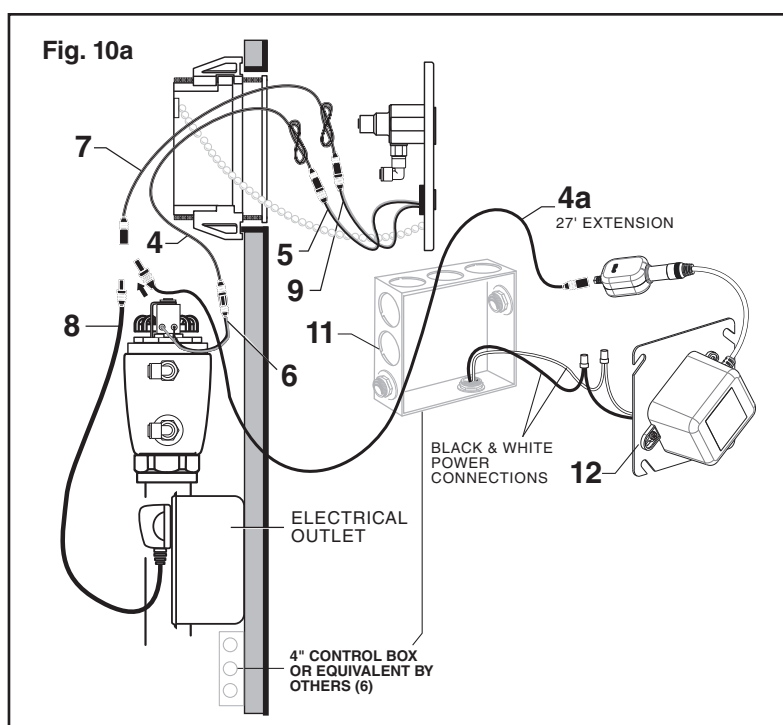
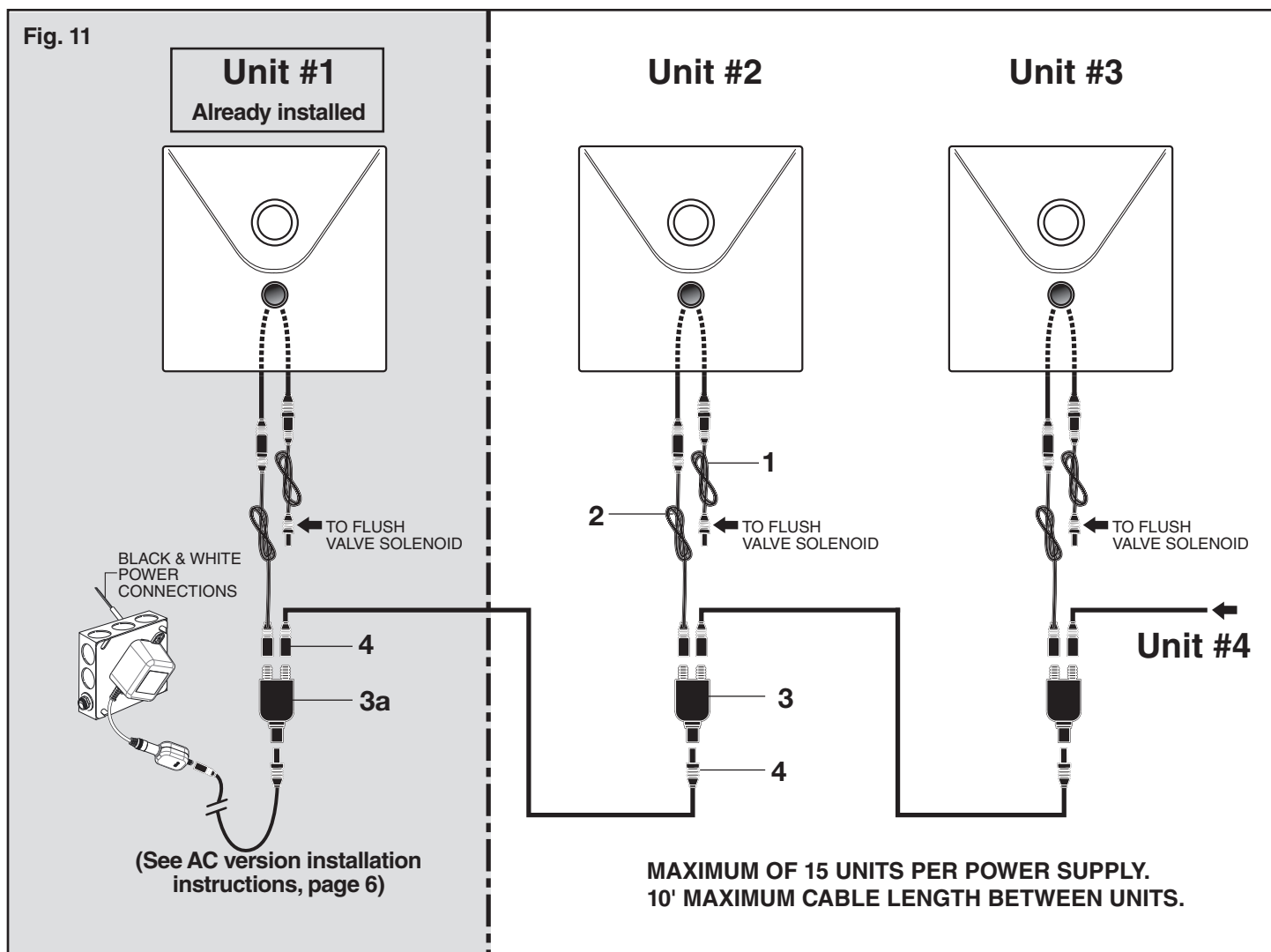


Fig. 11



## 9 MULTI-AC VERSION – DAISY-CHAIN; (PK00.MAC POWER KIT) Fig. 11

**Important:** *Disconnect AC Power Supply from wall outlet before making daisy-chain connections.*

**Note:** *For Unit #1 installation instructions, refer to AC version section (page 7).*

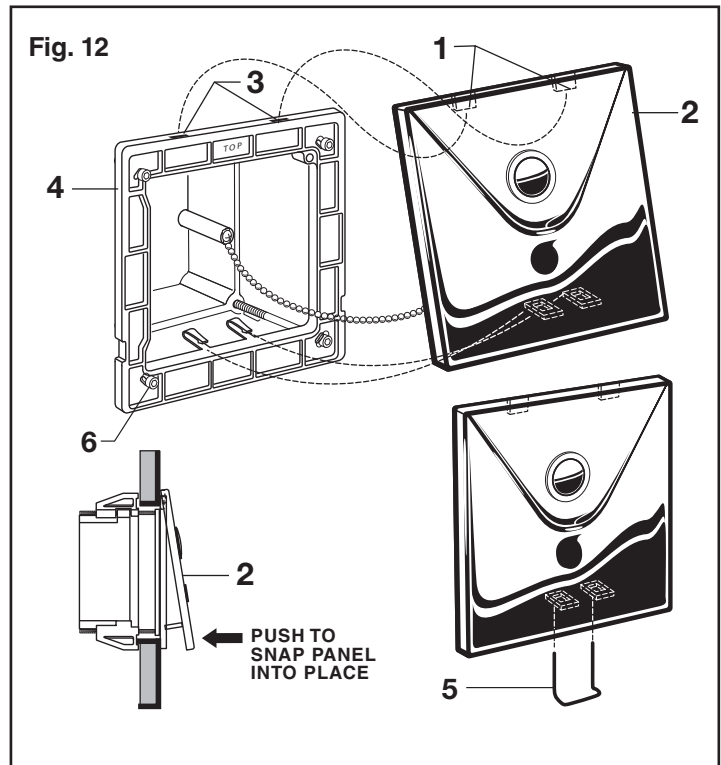
**For subsequent Units...**

1. Take the first 27" EXTENSION CABLE (1) and connect one end to the solenoid cable, the other end to a sensor cable.
2. Take the second 27" EXTENSION CABLE (2) and connect one end to the available sensor cable, the other end to one of the two terminals at the one end of the Y-ADAPTER (3).
3. Take the 10' EXTENSION (4) and connect one end to the single terminal of Y-ADAPTER (3), and the other end to available terminal of the previous unit's Y-ADAPTER (3a).
4. Repeat process for each subsequent unit.
5. Place Y-ADAPTERS (3) into respective electrical box.
6. Plug in AC power supply into wall outlet 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.

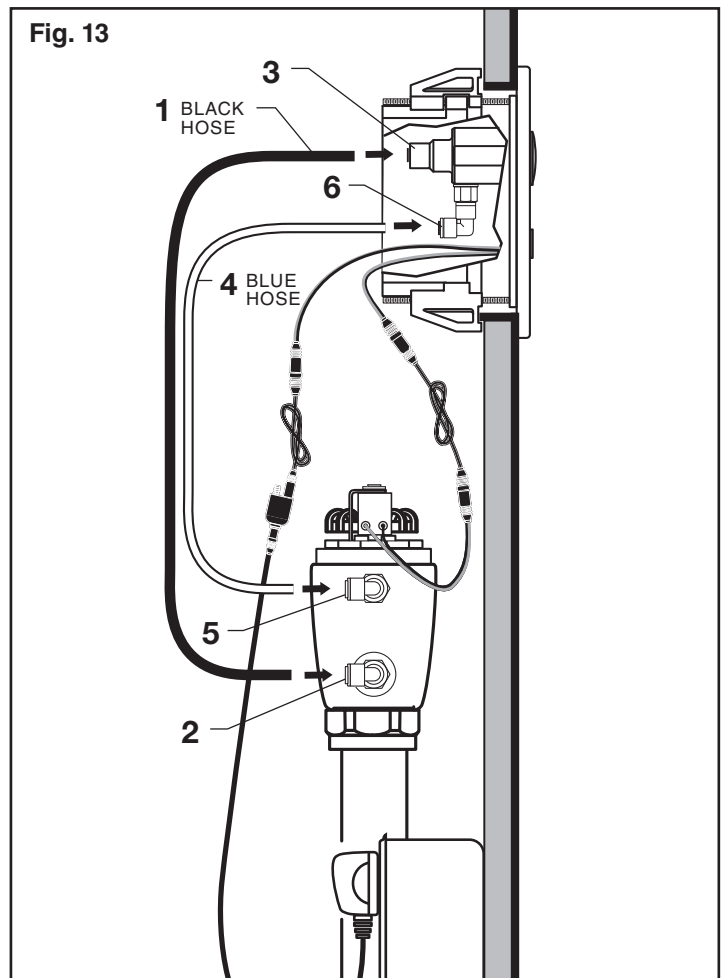
## 10 INSTALL COVER PLATE; Fig. 12

1. Install the two TABS (1) on the back side of COVER PLATE (2) into the two SLOTS (3) located on the top edge of the ELECTRICAL BOX (4).
2. Push on the bottom edge of the COVER PLATE (2) until it snaps into place. *If COVER PLATE (2) will not snap into place, then loosen the MOUNTING SCREWS (6) on the ELECTRICAL BOX (4) slightly.*
3. To remove COVER PLATE (2), insert WIRE KEY (5) (supplied) into the two holes located at the bottom of the COVER PLATE (2). Push the WIRE KEY (5) up until it releases the bottom clips. Pull the bottom edge away and lift the COVER PLATE (2) off.



## 11 CONNECT OVERRIDE HOSES, AC & DC POWER; Fig. 13

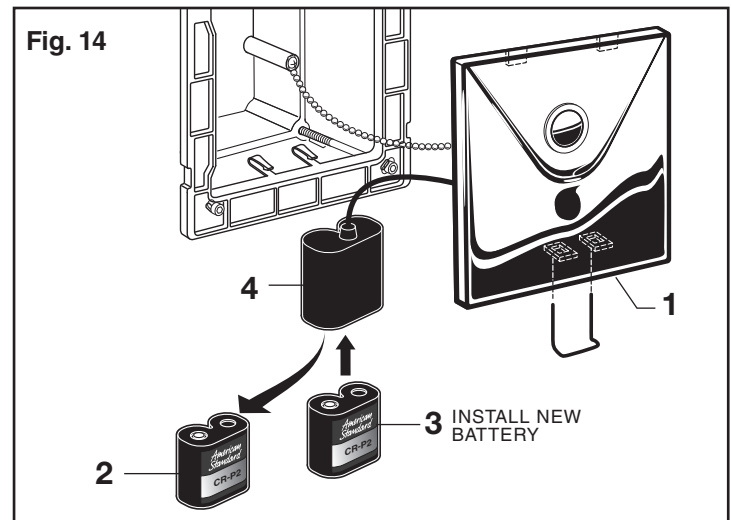
1. Push the BLACK HOSE (1) into the BOTTOM HOSE CONNECTOR (2) on flush valve body and push the other end into the back of the MANUAL OVERRIDE VALVE (3).
2. Push the BLUE HOSE (4) into the TOP HOSE CONNECTOR (5) on flush valve body and push the other end into the BOTTOM CONNECTOR (6) of the manual override valve.



# MAINTENANCE

## A INSTALL NEW BATTERY; Fig. 14

1. Remove the COVER PLATE (1). For removing front panel instructions, see **Step 10**.
2. Remove old BATTERY (2) from BATTERY HOLDER (4). Install the new BATTERY (3), making sure the shape of the BATTERY (3) follows the shape of the BATTERY HOLDER (4).
3. Install COVER PLATE (1).



## B ADJUST STOP VALVE; Fig. 15

**IMPORTANT:** To avoid overflowing, the STOP VALVE (2) must never be opened to the point where the flow from the valve exceeds the flow capacity of the fixture. Valve is designed to provide stated flush volume with a 10 GPM flow rate.

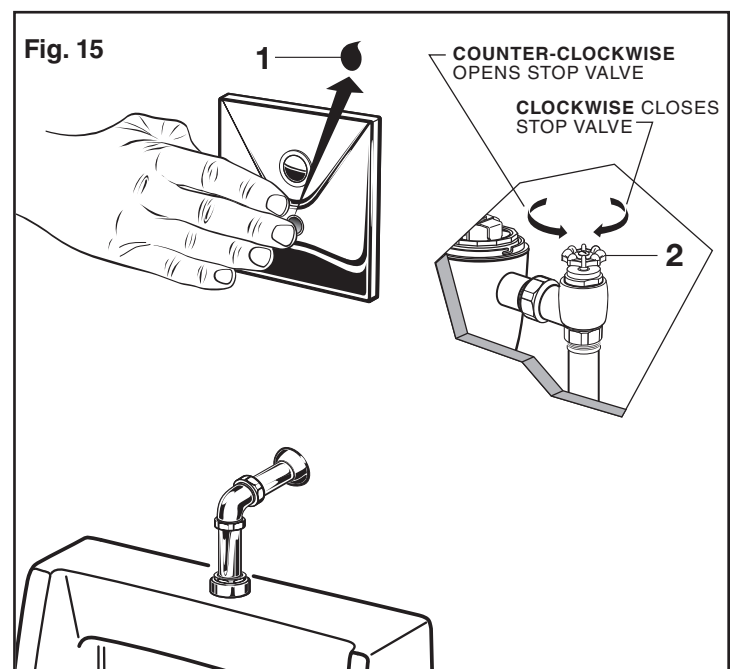
1. After installation is complete, peel off the PROTECTIVE FILM (1) from the sensor. Standing to one side, block the sensor with your hand for 10 seconds. **Remove your hand and listen for audible "click" from within the valve.**
2. Turn on STOP VALVE (2) 1/4 turn to 1/2 turn (CCW) and test for leaks.

**Note:** Unit may flush for approximately 5 to 10 seconds 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 detection area; unit will flush in approximately 3 seconds.
4. Adjust STOP VALVE (2) after each flush until the stated flush volume is achieved, no splashing occurs and the fixture is properly cleansed.



## C SET DETECTION RANGE (if required); Fig. 16 & 17

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

1. Remove COVER PLATE (1). See Step 10 for front panel removal instructions.
2. Disconnect SENSOR CABLE (2) from BATTERY HOLDER (3) or from POWER SUPPLY 27" EXTENSION CABLE (4). Fig. 16.
3. Keeping hands away from the front of the sensor, reconnect the SENSOR CABLE (2). Do not secure the COVER PLATE (1) at this time. Fig. 16.

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

4. While the SENSOR CONTROL LED (5) is blinking slowly, place your hand 1 to 2". (30-50 mm.) in front of the sensor. Fig. 17.
5. When the LED (5) stops blinking and stays "ON," move your hand to the desired position from sensor and hold in place until the LED (5) begins to blink again. Fig. 17.

**Note:** Detection Zone is 400mm - 800mm.  
(Factory Setting: 400mm)

6. Once the SENSOR CONTROL LED (5) begins to blink again, remove your hand from the detection zone. When the flashing stops, the detection distance is set.
7. Replace and secure COVER PLATE (1).
8. 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. 16

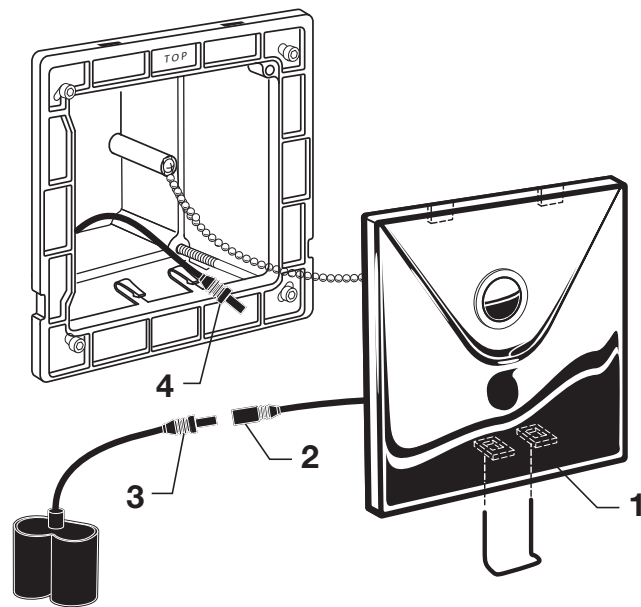
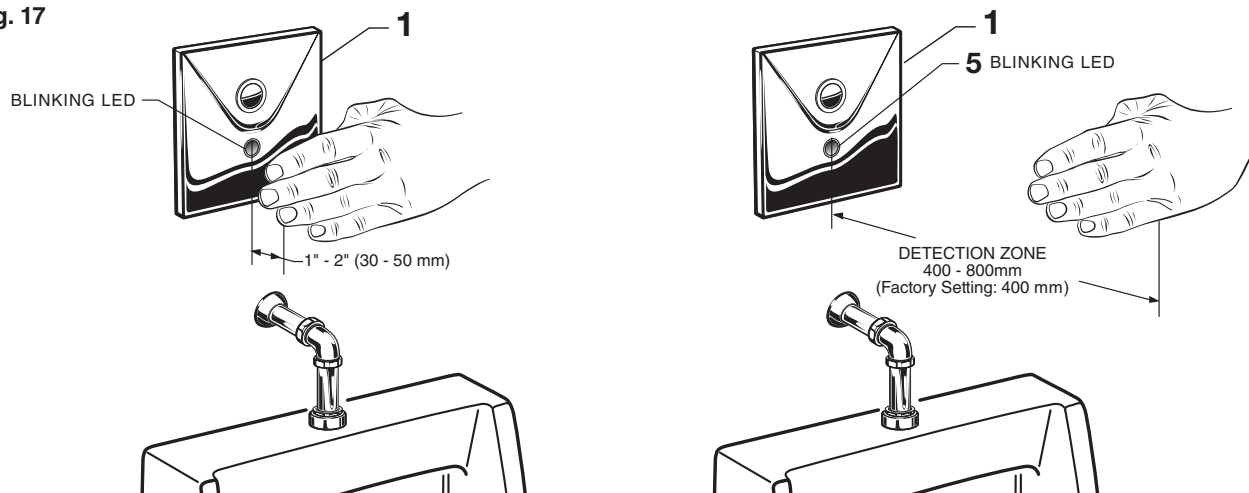


Fig. 17



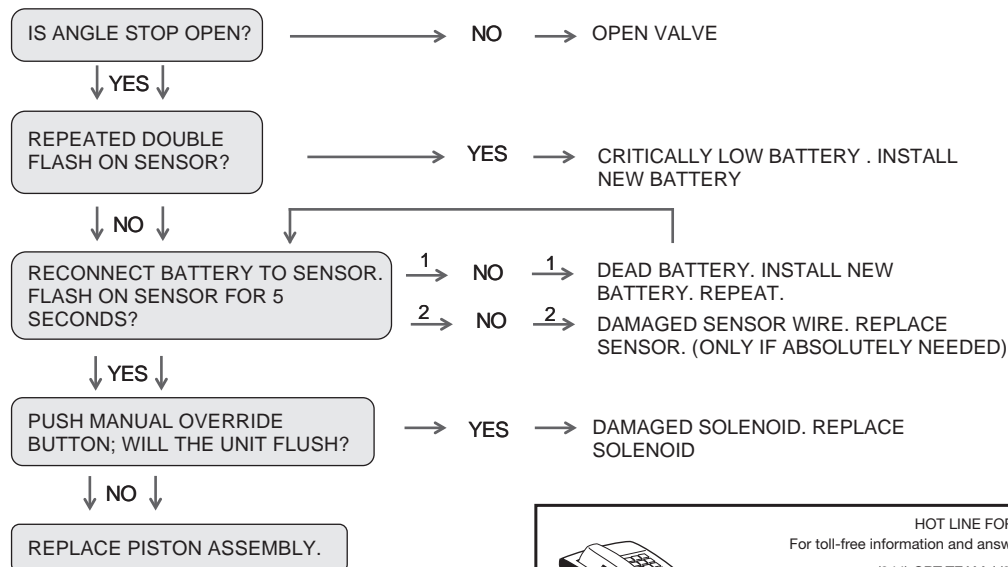
### CARE INSTRUCTIONS:

**DO:** CLEAN 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.

# TROUBLESHOOTING FLOW CHARTS

## UNIT DOES NOT FUNCTION

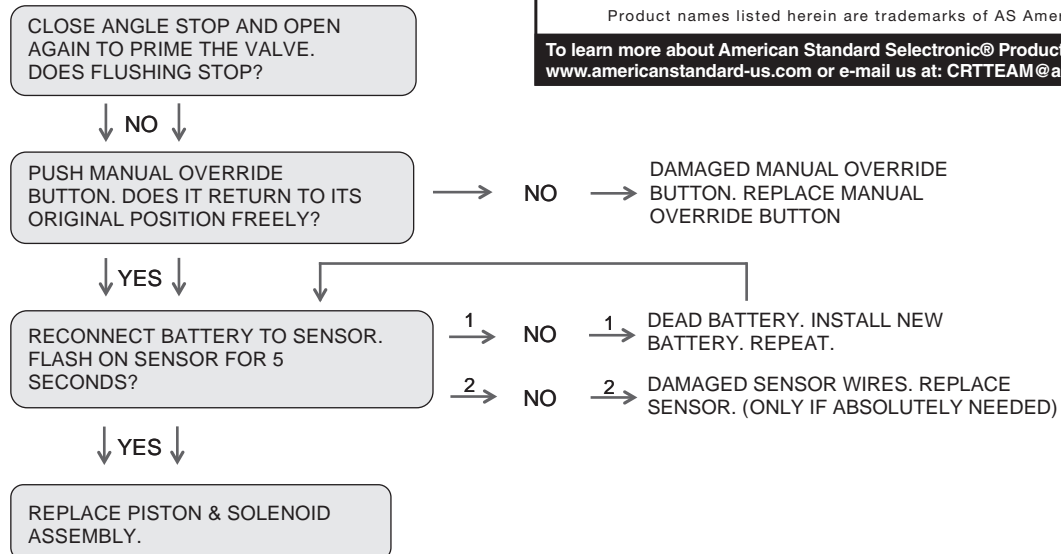


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## UNIT WILL ONLY FLUSH MANUALLY



## UNIT IS CONTINUOUSLY FLUSHING

