

# Installation Instructions

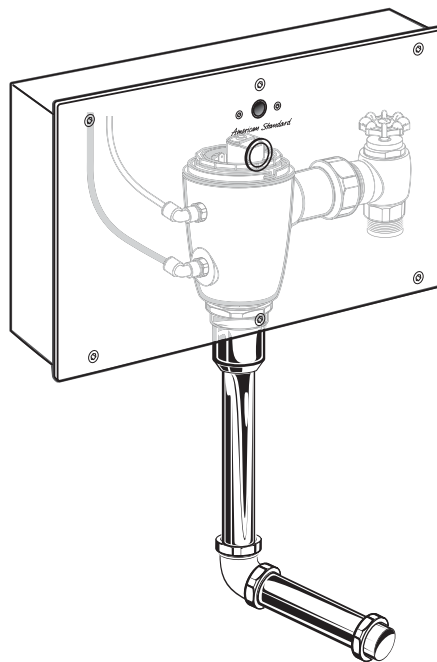
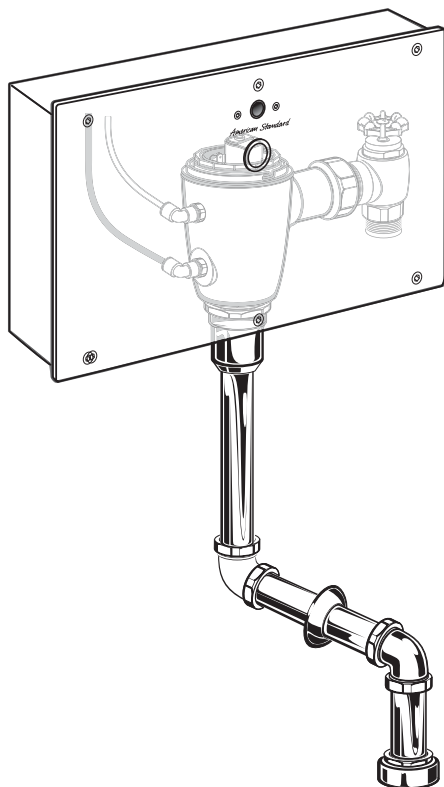
## Ultima™ Selectronic® Battery Powered Urinal Flush Valve, Piston-Type

### MODEL NUMBERS

606B.X10

606B.X01

606B.X05



**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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please call (844) CRT-TEAM / (844) 278-8326 (In Canada: 1-800-387-0369)  
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American Standard  
**CRT**  
Certified Response Technician

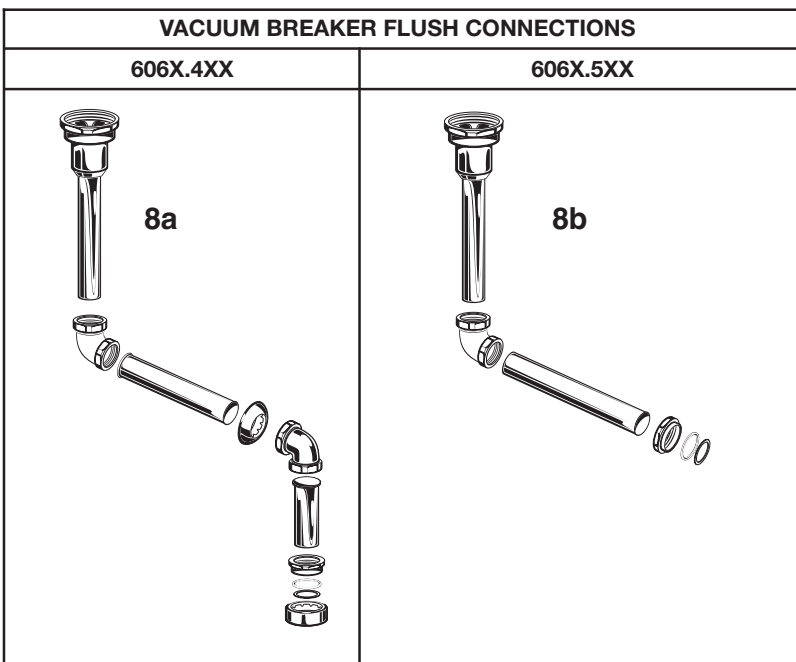
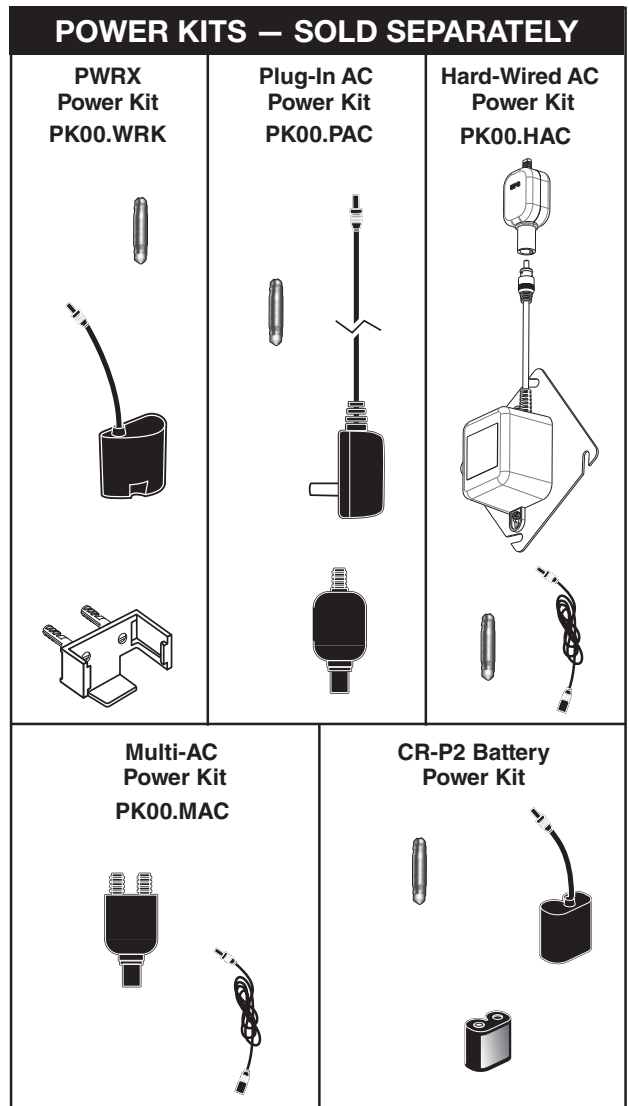
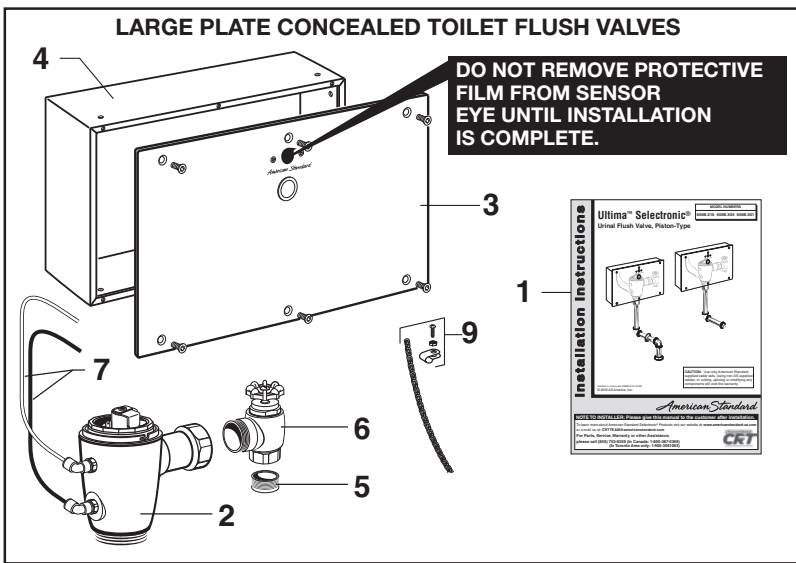
Thank you for selecting American-Standard...the benchmark of fine quality for over 100 years. To ensure that your installation proceeds smoothly--please read these instructions carefully before you begin.

# UNPACKING

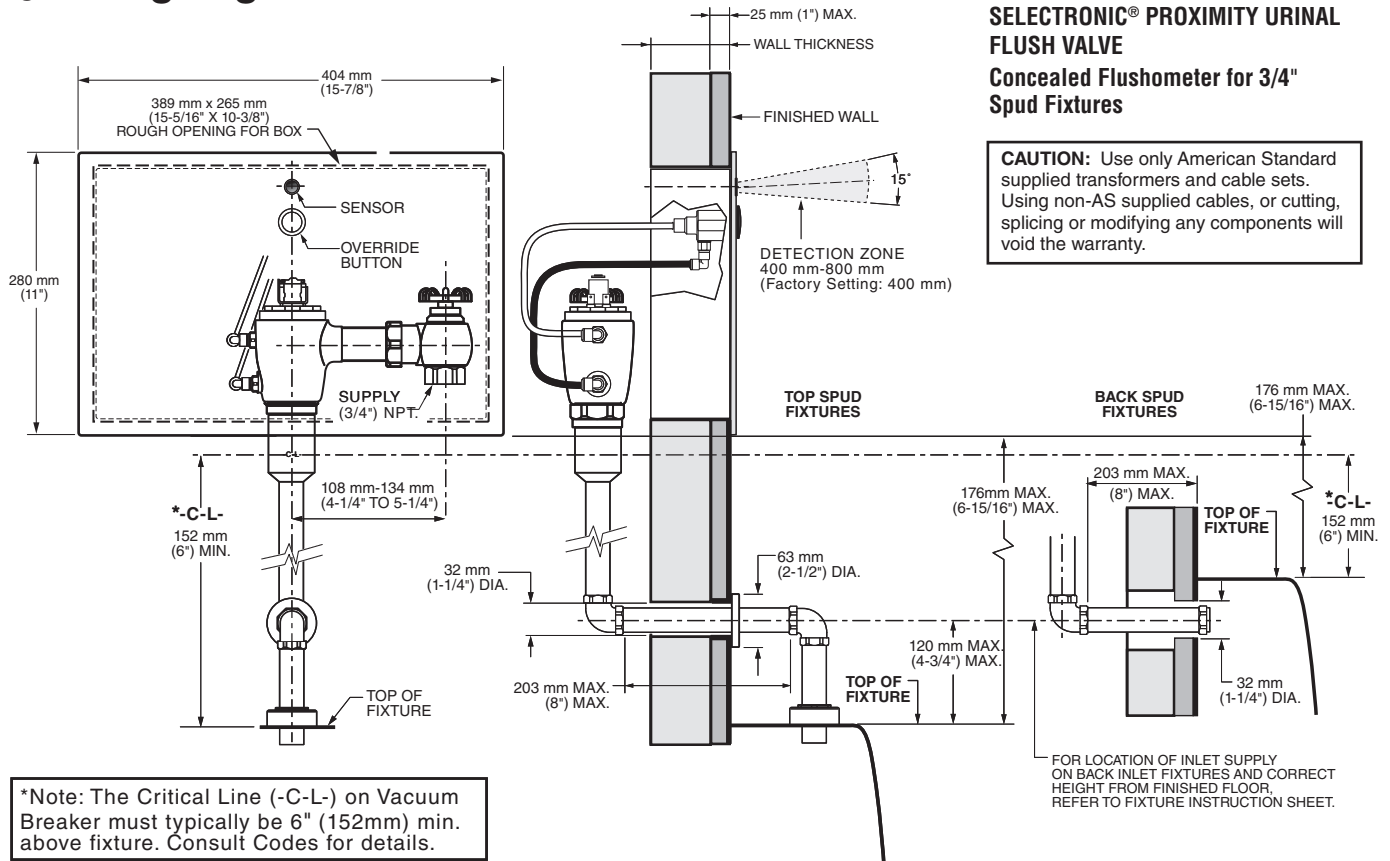
**All American Standard Products Are Water Tested At Our Factory. Some Residual Water May Remain In The Valve During Shipping.**

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 | 8a. Vacuum Breaker Flush Connection (Top Spud)  |
| 2. Flush Valve Body Assembly | 8b. Vacuum Breaker Flush Connection (Back Spud) |
| 3. Cover Plate with Sensor   | 9. Safety Chain                                 |
| 4. Wall Box                  |   |
| 5. Sweat Adapter             |   |
| 6. Stop Valve                |   |
| 7. Manual Override Hoses     |   |

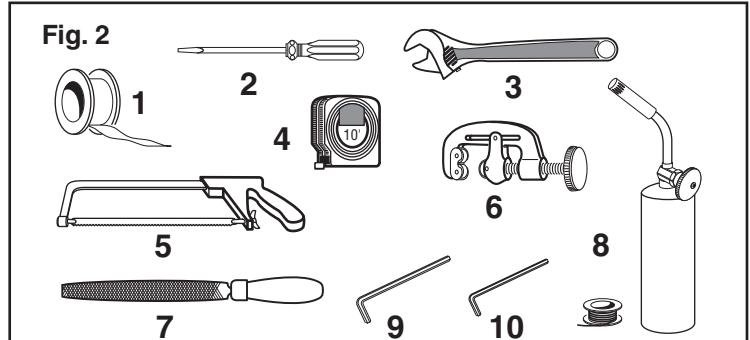


**Fig. 1 Roughing-in Dimensions**



**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. 2.5mm Hex Wrench
10. 1.5mm 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:**

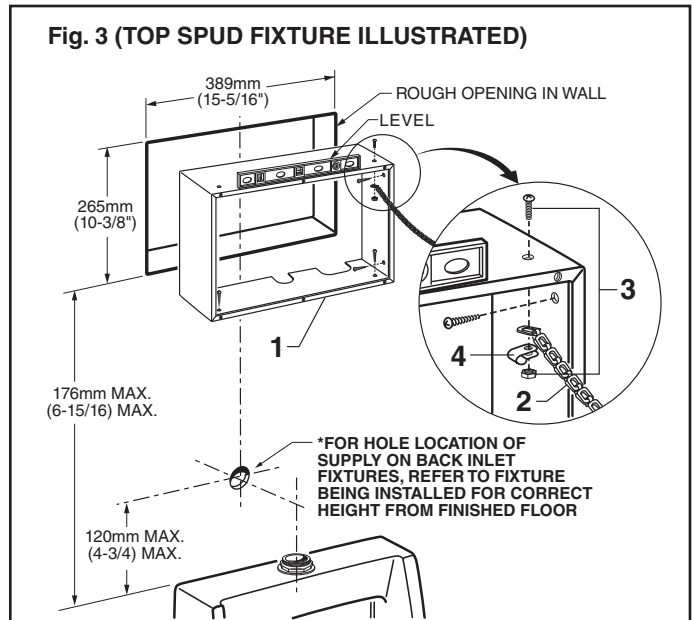
- All plumbing and electrical wiring should be installed in accordance with applicable codes and regulations.
- The use of water hammer arrestors is strongly recommended for commercial applications. All piping behind the walls should be properly secured and fastened.
- Water supply lines must be sized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

- Flush all water lines prior to operation (see Step 3). 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 ELECTRICAL BOX; Fig. 3

1. Frame out a 389mm x 265mm (15-5/4" X 10-3/8") rough opening in wall for the WALL BOX (1) at the dimension shown.
  2. Fasten one end of the SAFETY CHAIN (2) and CLIP (4) to the WALL BOX (1) with NUT & SCREW (3) provided.
  3. Install the WALL BOX (1) into rough opening in the wall Level and secure the WALL BOX (1) to the wall opening with screws.
- Important: Front face of WALL BOX (1) should be flush with finished wall.**
4. Cut a 2" hole for outlet pipe to fixture at dimension shown.\*

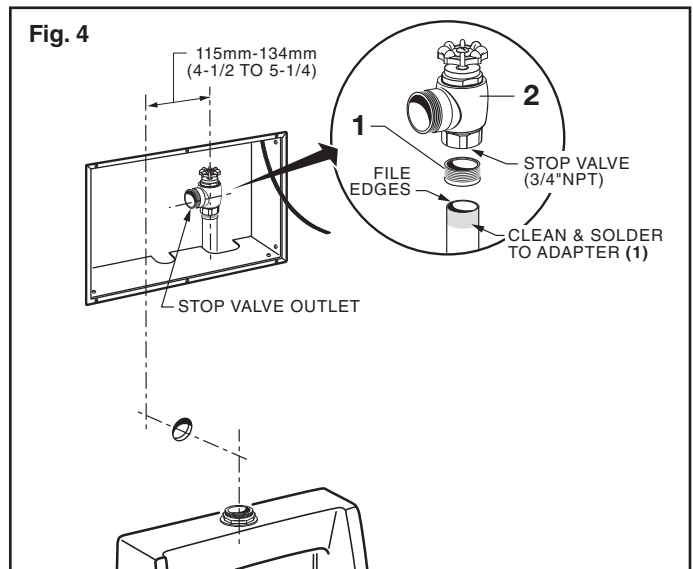


## 2 INSTALL SWEAT ADAPTER; Fig. 4

**CAUTION** Turn water supplies off before beginning

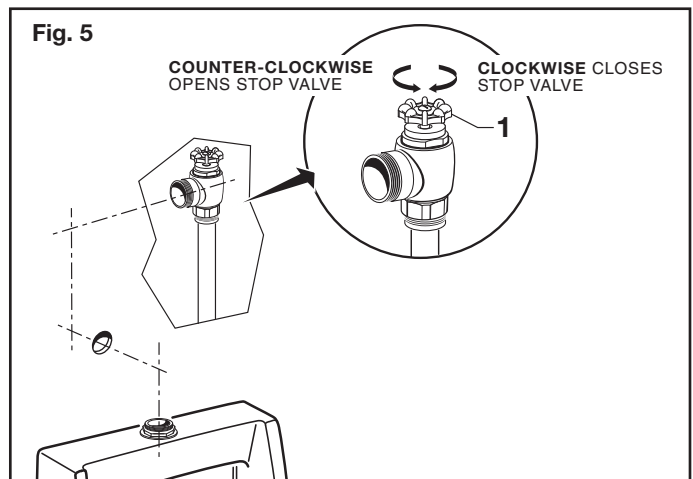
**Note: Stop Valve inlet is 3/4" NPT. For optional sweat connection, install Sweat Adapter (1) (Supplied) for 3/4" copper pipe supply line.**

1. Clean the end of the supply pipe. Push the threaded SWEAT 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.



## 3 FLUSH OUT SUPPLY LINES; Fig. 5

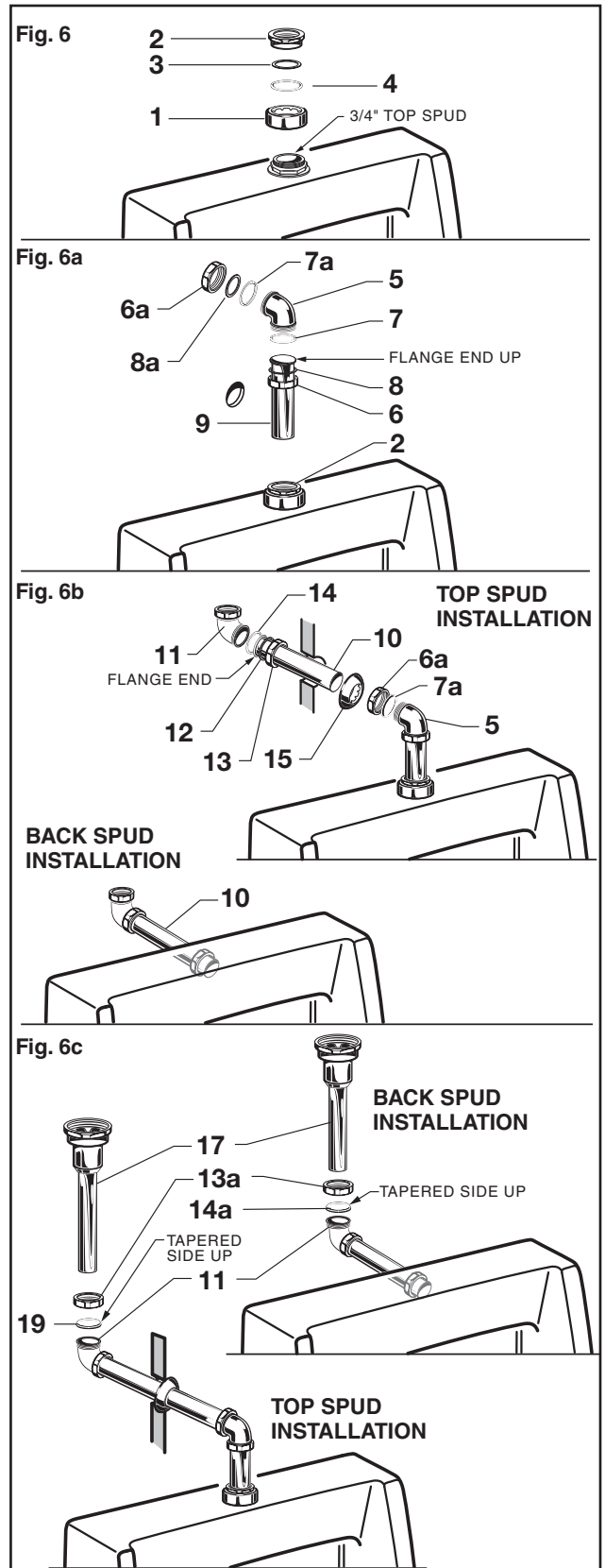
1. Open STOP VALVE (1).
2. Turn on water supply to flush line of any debris or sediment.
3. Close STOP VALVE (1) and turn off water supply line.



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

- Place the SPUD FLANGE (1) over the spud on the Fixture. **Fig. 6.**
  - Place FRICTION WASHER (3) and SEAL WASHER (4) inside SPUD COUPLING NUT (2) and thread onto Spud. Do not tighten fully. **Fig. 6.**
  - 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.**
  - 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.
  - 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.**
- 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.**
- 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.**
  - 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.**
  - 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.**
  - 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.**

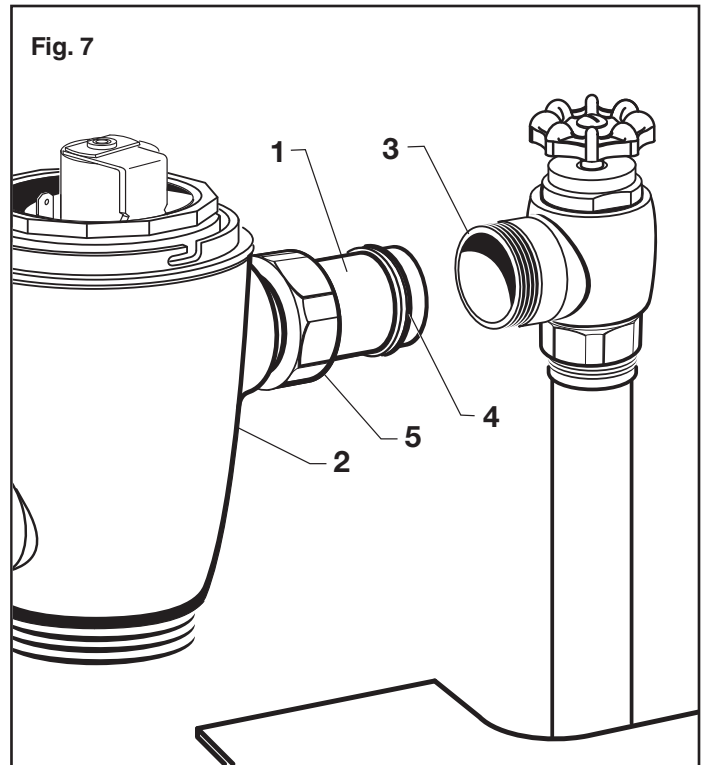
**Note: If cutting VACUUM BREAKER PIPE (17) to size, note that Critical Line (C/L) on Vacuum Breaker must typically be 6" (152mm) above fixture. Consult Code for details.**



## 5 INSTALL FLUSH 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.

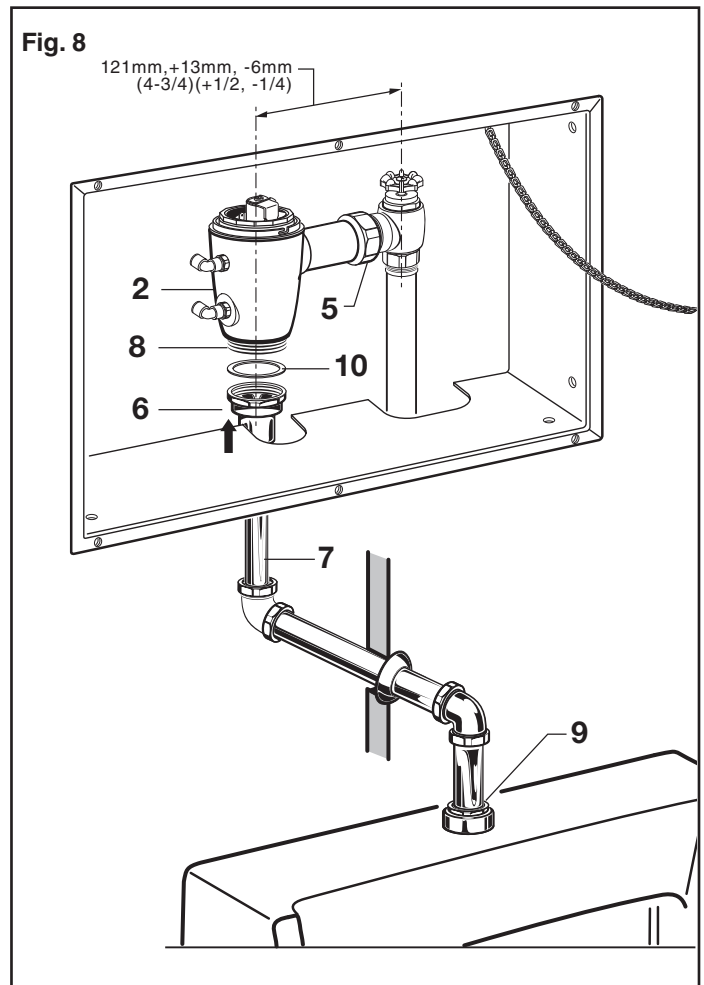


## 6 CONNECT FLUSH VALVE TO VACUUM BREAKER TUBE; Fig. 8

1. Align the FLUSH VALVE BODY (2) (Fig. 9) directly above the VACUUM BREAKER TUBE (7) and VACUUM COUPLING NUT (6). Make sure that GASKET (10) is installed.

**Note:** There is a +13mm, -6mm (+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 CONNECTION (8) 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 with in wall as required.

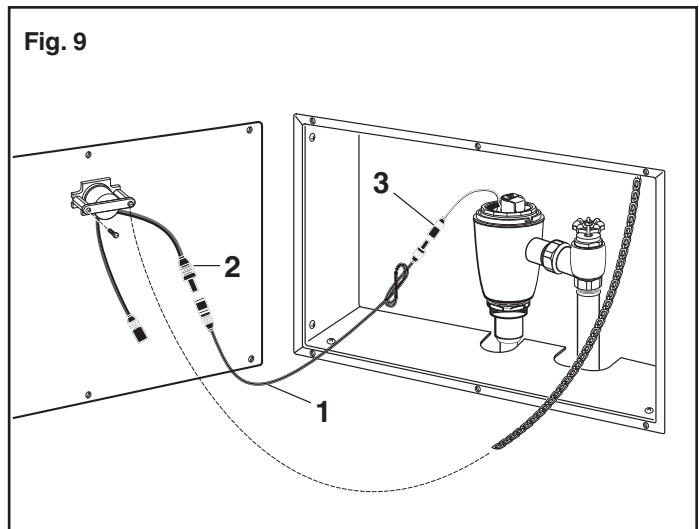




# ELECTRICAL INSTALLATION

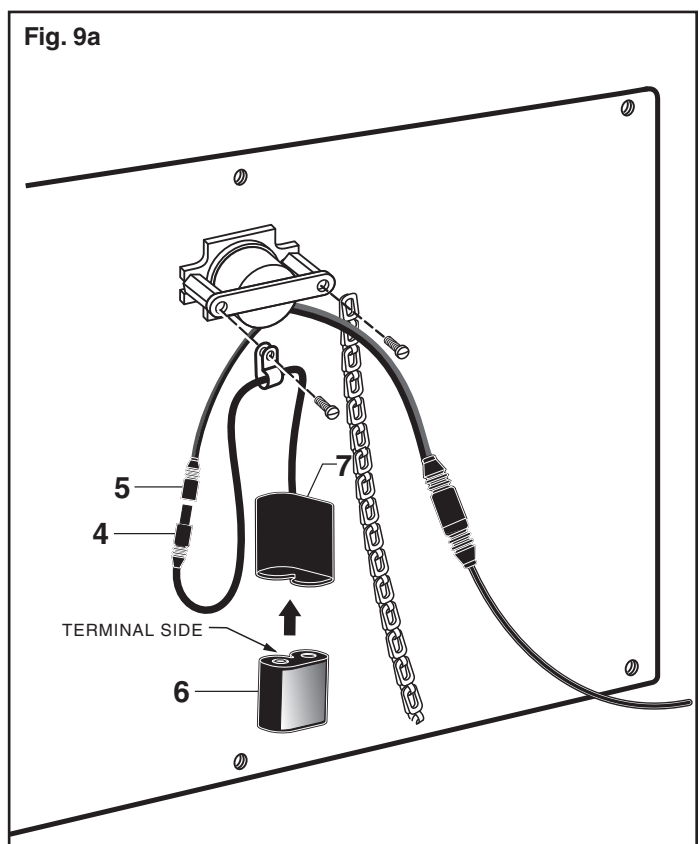
## 7 STANDARD BATTERY POWER KIT (PK00.CRP); Fig. 9, 9a

1. Connect one end of the 27" EXTENSION CABLE (1) to a SENSOR CABLE (2). Connect the other end of the 27" EXTENSION CABLE (1) to the SOLENOID CABLE (3). Fig.9.
2. Insert BATTERY (6) into BATTERY HOLDER (7), making sure terminal side is inserted first. Fig.9a.
3. Connect BATTERY HOLDER (7) to available SENSOR CABLE (5) and install the CONNECTOR LOCKING DEVICE (7). Place BATTERY HOLDER (7) into electrical box. Fig.9a.



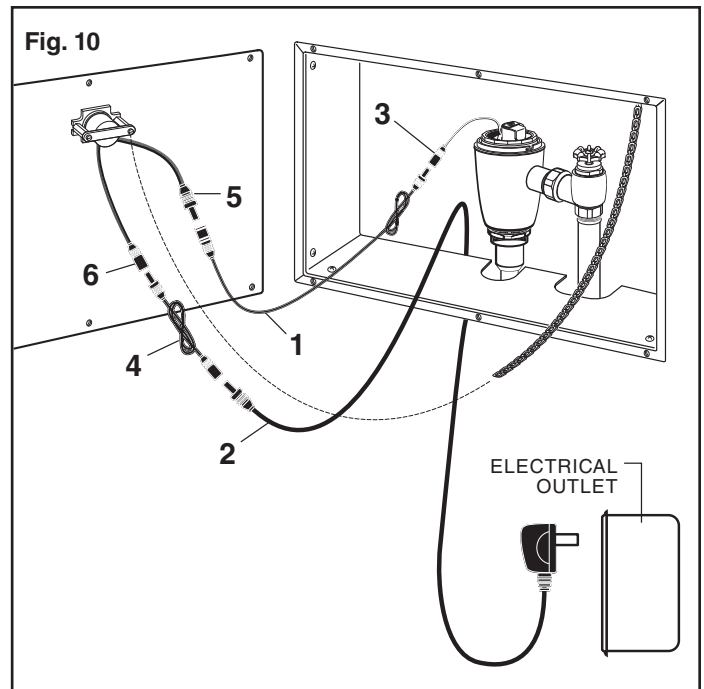
## 7a PWRX POWER KIT (PK00.WRK); Fig. 9, 9a

1. Connect one end of the 27" EXTENSION CABLE (1) to a SENSOR CABLE (2). Connect the other end of the 27" EXTENSION CABLE (1) to the SOLENOID CABLE (3). Fig.9.
2. Connect BATTERY (6) to available SENSOR CABLE (5) and install the CONNECTOR LOCKING DEVICE (10) on battery - sensor connection. Place BATTERY (6) to electrical box. Fig.9a.



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

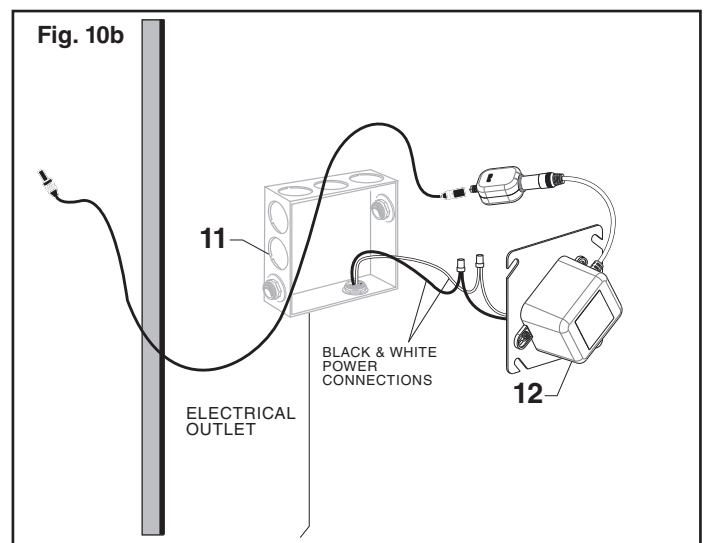
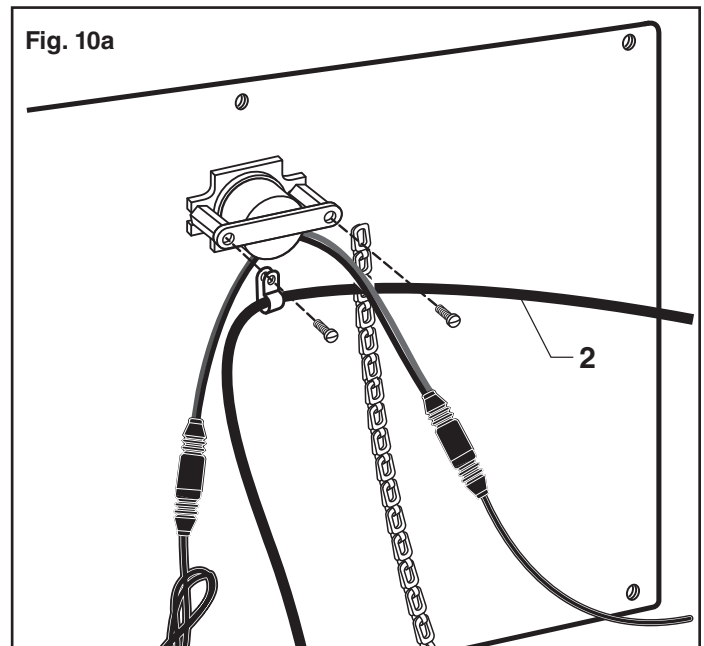
1. Connect one end of the first 27" EXTENSION CABLE (1) to SENSOR CABLE (5). Connect the other end of the 27" EXTENSION CABLE (1) to the SOLENOID CABLE (3). Fig.10.
2. Connect the second 27" EXTENSION CABLE (1) to the POWER SUPPLY (2), and the other end of the 27" EXTENSION CABLE (1) to available SENSOR CABLE (6). Fig.10.
3. Plug AC POWER SUPPLY (2) into outlet. Fig.10a.
4. Place SINGLE AC ADAPTER (10) into electrical box.



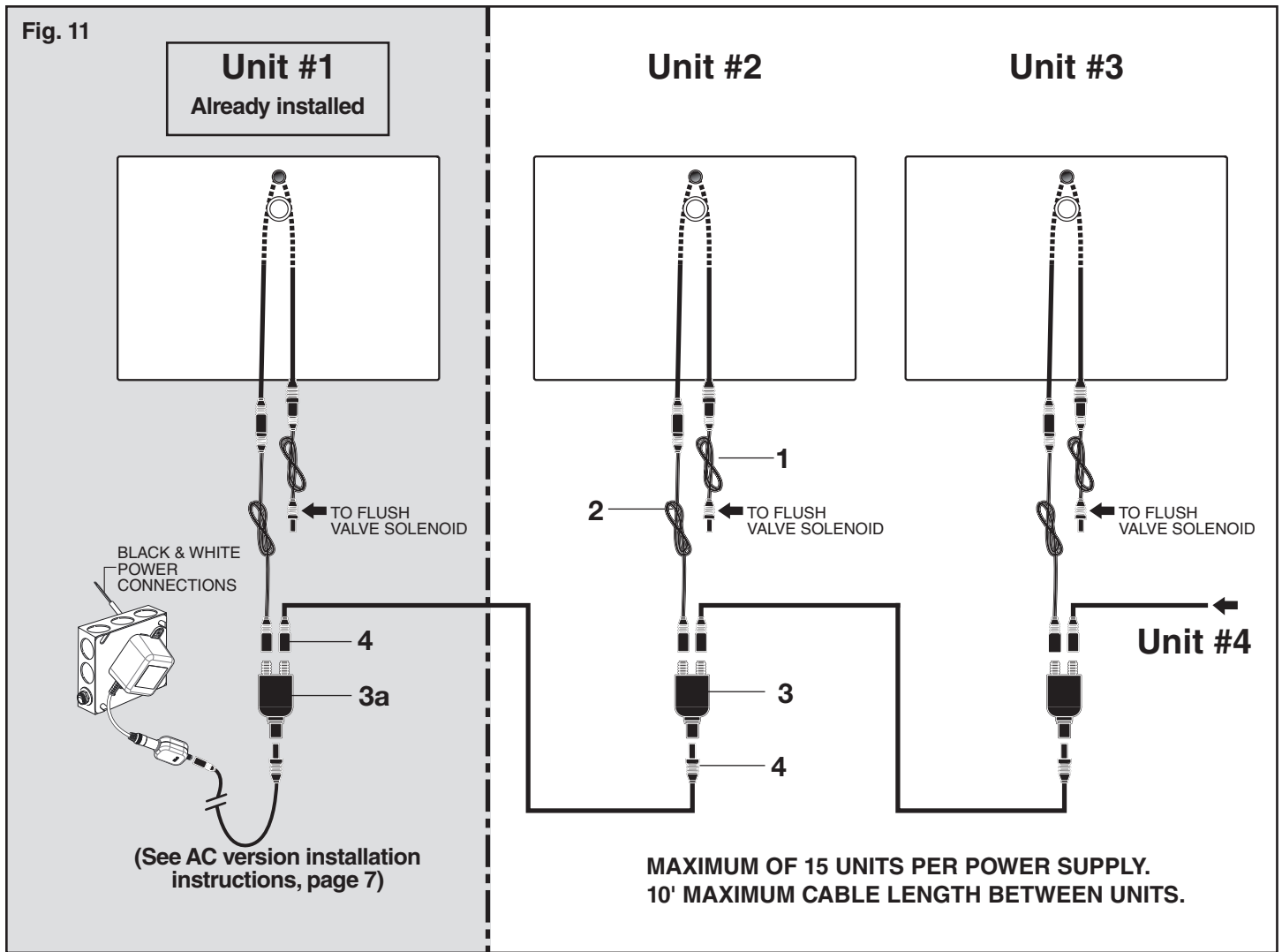
## FOR HARD-WIRED VERSION (PK00.HAC POWER KIT) Fig. 10b

6. Contractor to supply ELECTRICAL BOX (11).
7. Connect black and white power line connections to HARD-WIRED AC TRANSFORMER (12) and mount onto ELECTRICAL BOX (11). Fig. 10b.

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







## 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 8).*

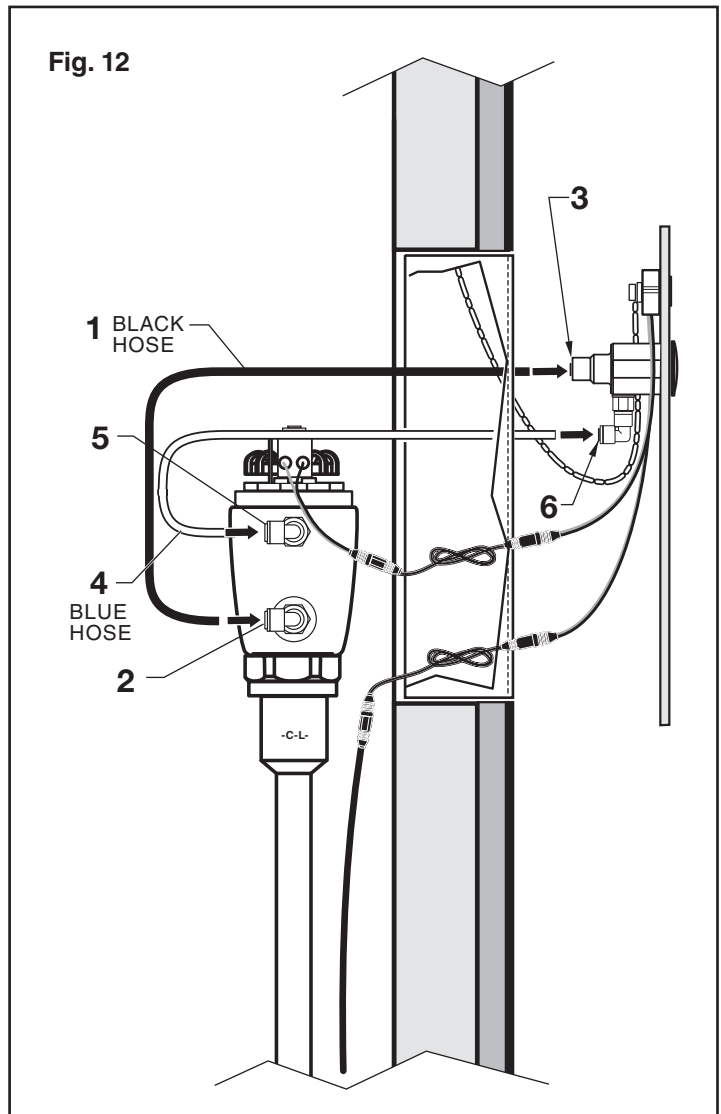
**For subsequent Units...**

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.

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## 10 CONNECT OVERRIDE HOSES, AC & DC POWER; Fig. 12

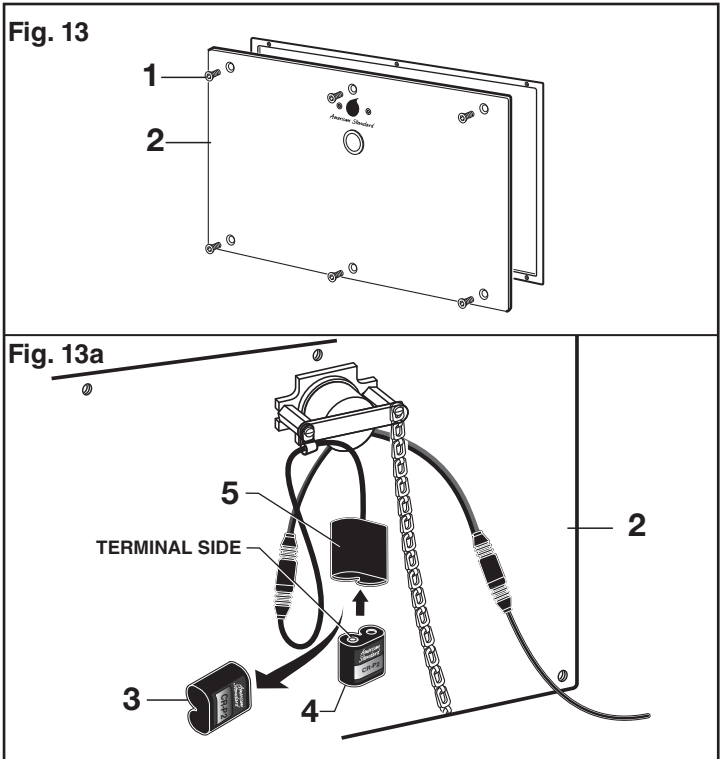
1. Push the BLACK HOSE (1) into the BOTTOM HOSE CONNECTOR (2) on flush valve body and push the other end into the back of the MANUAL OVERRIDE VALVE (3).
2. Push the BLUE HOSE (4) into the TOP HOSE CONNECTOR (5) on flush valve body and push the other end into the BOTTOM CONNECTOR (6) of the manual override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



# MAINTENANCE

## A INSTALL NEW BATTERY; Fig. 13

1. Remove the six COVER PLATE SCREWS (1), then remove COVER PLATE (2). Fig. 13.
2. Remove old BATTERY (3). Install the new BATTERY (4), making sure the terminal side is inserted first and shape of the battery follows the shape of the BATTERY HOLDER (5). Reinstall COVER PLATE (2). Fig. 13a.



## B ADJUST STOP VALVE; Fig. 14

**IMPORTANT:** To avoid overflowing, the STOP VALVE (3) 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, remove COVER PLATE (1). Peel off the PROTECTIVE FILM (2) 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 (3) 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.

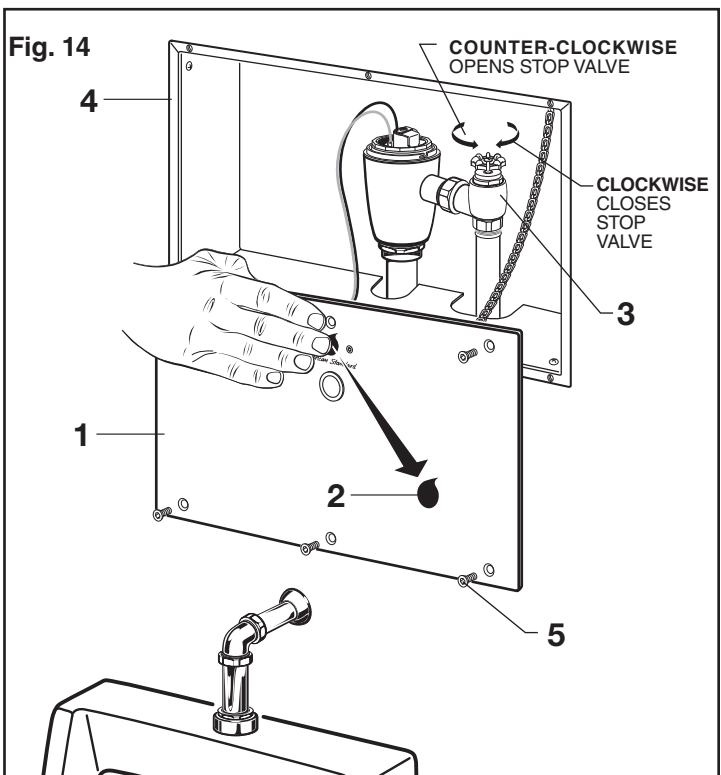
3. Actuate the FLUSH VALVE:  
A) Cover sensor with hand for 10 seconds.

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

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

4. Adjust STOP VALVE (3) after each flush until the stated flush volume is achieved, no splashing occurs and the fixture is properly cleansed.

5. Attach the COVER PLATE (1) to the WALL BOX (4) with the six MOUNTING SCREWS (5). Use a 2.5mm Hex Wrench supplied to secure COVER PLATE (1).



### 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.

## **C** SET DETECTION RANGE (if required); Fig. 15 & 16

**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 A for removing front panel instructions.
2. Disconnect SENSOR CABLE (2) from BATTERY HOLDER (3) or from POWER SUPPLY 27" EXTENSION CABLE (4). Fig. 15.
3. Keeping hands away from the sensor detection area, reconnect the SENSOR CABLE (3) and quickly hang the COVER PLATE (1) onto the wall box. Do not secure the COVER PLATE (1) at this time. Fig. 15.

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

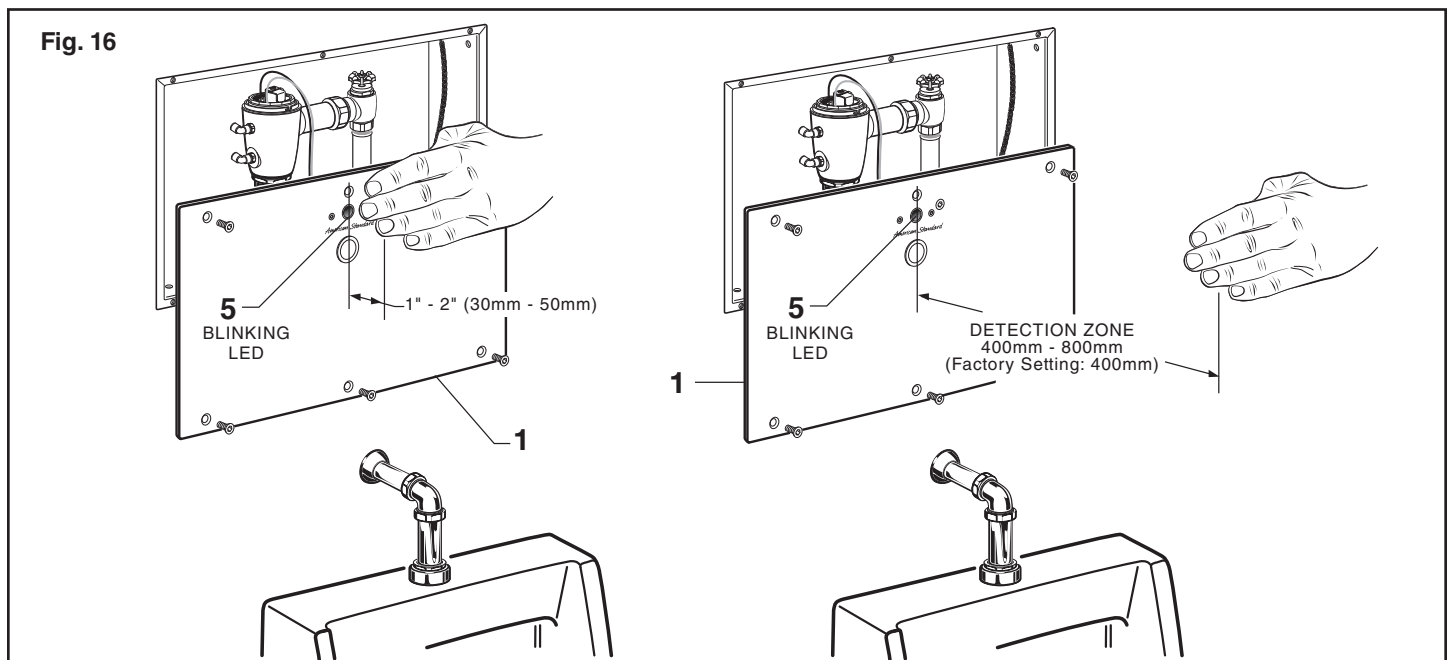
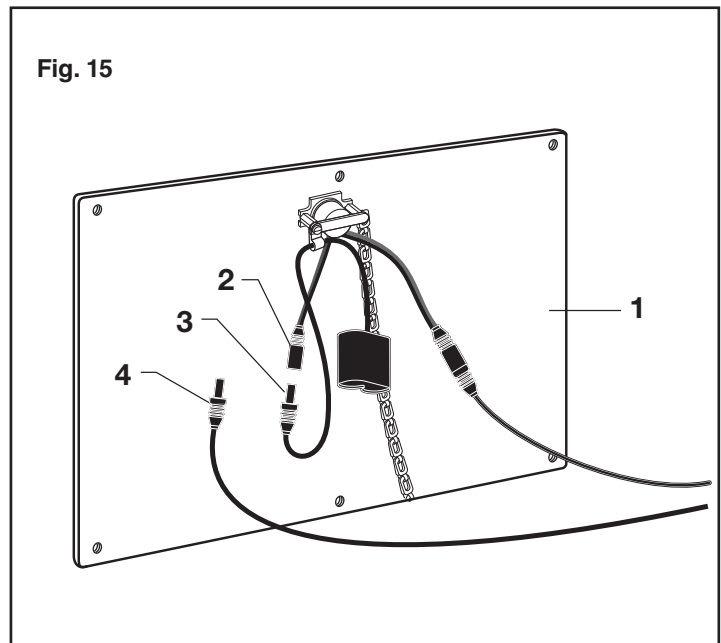
4. While the SENSOR CONTROL LED (5) is blinking slowly, place your hand 1 to 2". (30-50mm.) in front of the sensor. Fig. 16.
5. When the LED (5) stops blinking and stays "ON", move your hand to the desired position from sensor and hold in place until the LED (5) begins to blink again. Fig. 16.

**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). Fig. 16.
8. Actuate the FLUSH VALVE:
  - A) Cover sensor with hand for 10 seconds.

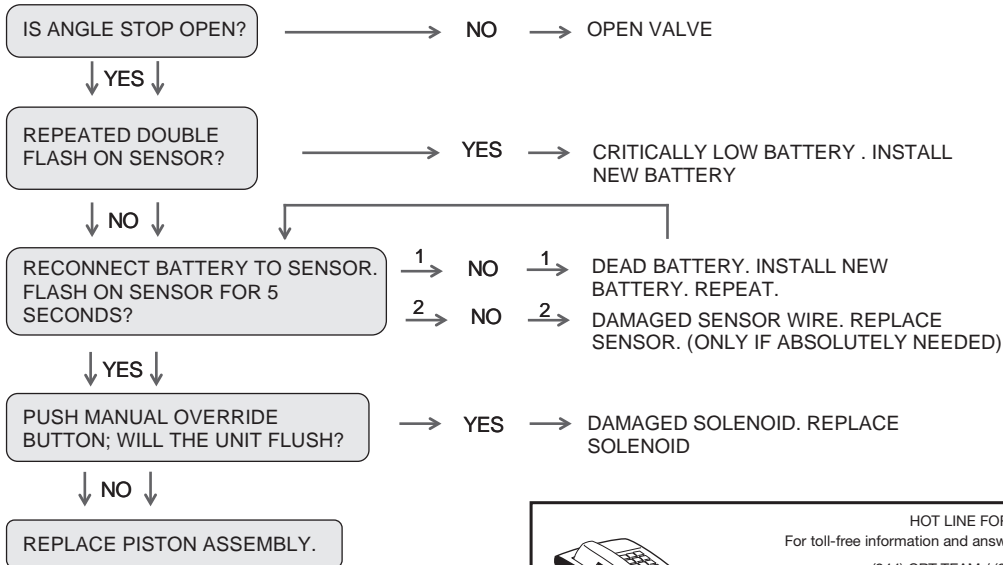
**Note:** Stand outside of sensor detection area.

  - B) Remove hand from in front of the sensor; unit will flush in approximately 3 seconds.



# TROUBLESHOOTING FLOW CHARTS

## UNIT DOES NOT FUNCTION

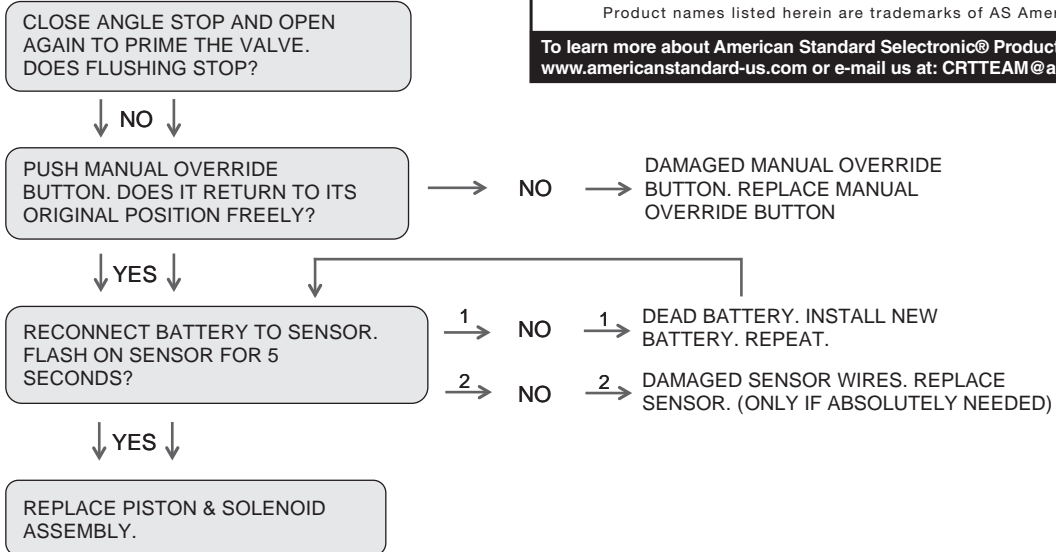



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## UNIT WILL ONLY FLUSH MANUALLY



## UNIT IS CONTINUOUSLY FLUSHING

