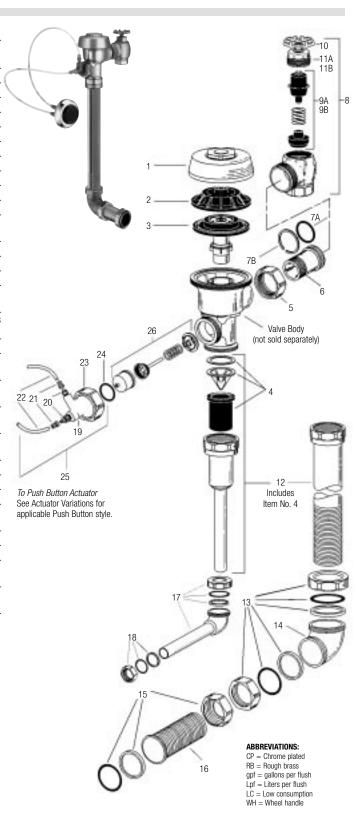


# **Series 900® Flushometer**

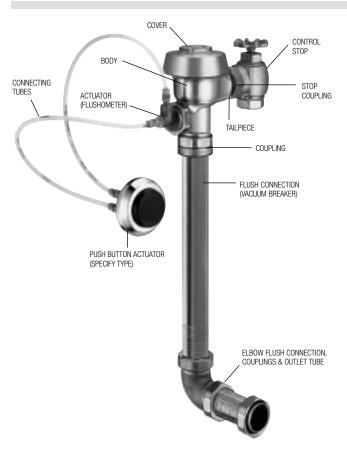
#### **PARTS LIST**

	O LIOI			
Item No.	Code No.	Part No.	Description	
1.	0301173	A-72	RB Cover	
2.	0301168	A-71	Inside Cover	
3.	SEE THE INSIDE PARTS KIT CHART ON NEXT PAGE			
4.	3323182	V-651-A	Vacuum Breaker Repair Kit	
5.	0308690	H-550	RB Tailpiece Coupling	
6.	0308802	H-551-A	RB Adjustable Tailpiece, 2-1/16" (52 mm)	
7A.	5308696	H-553	0-ring – 24 per package	
7B.	5308381	H-552	Locking ring – 12 per package	
8.	0388010	H-730-A	RB Wheel Handle Bak Chek® Control Stop	
9A.	3308855	H-541-A	1" Wheel Handle Repair Kit for H-730-A Control Stop	
9B.	3308858	H-543-A	3/4" Wheel Handle Repair Kit for H-730-A Control Stop	
10.	0308919	H-558-A	Wheel Handle	
11A.	0308615	H-623	1" RB Bonnet	
11B.	0208083	H-623	3/4" RB Bonnet	
12.	See page 4.6.1	V-600-AA	Royal Vacuum Breaker Flush Connection (specify length and size)	
13.	0306619	F-2-AA	1-1/2" (38 mm) RB Couplings (2 each), Friction Rings (2 each), and Rubber Gaskets (2 each)	
14.	0206146	F-21	RB Elbow	
15.	0306087	F-2-A	1-1/2" (25 mm) RB Coupling, Friction Ring, and Rubber Gasket	
16.	See page 4.6.2	F-100	RB Flared End Flush Connection (specify length)	
17.	See page 4.6.2	F-15-A	3/4" (19 mm) RB Elbow Flush Connection with Coupling and Rubber Gasket (specify length)	
18.	0306054	F-2-A	3/4" (19 mm) RB Coupling, Friction Ring, and Rubber Gasket	
19.	0318024	HY-25	RB Valve Actuator Housing only	
20.	0318023	HY-24	Tube Fitting (2 required)	
21.	0318033	HY-35	Tube Fitting Nut (2 required)	
22.	0318093	HY-30	1/4" (6 mm) x 48" (1219 mm) Connecting Tubes (2 required)	
23.	0301082P	<b>0</b> A-6	RB Handle Coupling Nut	
24.	0337086	D0-22	O-ring	
25.	3318005	HY-109-A	Actuator Housing Assembly (includes Items 22, 23, 24, 26, and 27)	
26.	3318001	HY-83-A	Actuator Cartridge Assembly (Replacement Kit, includes Item 27)	



# TAILPIECES, CONTROL STOPS AND FLUSH CONNECTIONS

For additional information on tailpieces, control stops and flush connections see Section 4.

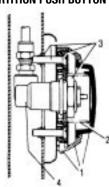


ITEM 7. INSIDE PARTS KITS (See illustration on previous page) Part No. **Application** Low Consumption Water Closets-1.6 gpf (6.0 Lpf) 3301502 A-1041-A 3301501 A-1038-A Water Saver Water Closets-3.5 gpf (13.2 Lpf) 3301505 A-1044-A 9 Liter European Water Closets-2.4 gpf (9.0 Lpf) 3301504 A-1043-A Wash Down Urinals-0.5 gpf (1.9 Lpf) 3301503 Low Consumption Urinals-1.0 gpf (3.8 Lpf) A-1042-A Water Saver Urinals-1.5 gpf (5.7 Lpf) 3301500 A-1037-A



# **Series 900<sup>®</sup> Flushometer**

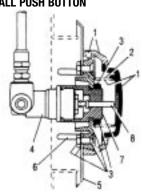
#### HY-49-A (0318049) METAL PARTITION PUSH BUTTON



Item No.	Code No.	Part No.	Description
1.	3318007	HY-1000-A	Push Button Kit — includes Push Button, Flange, Spring & Set Screw
2.	0318004	HY-3	Spring
3.	3318010	HY-1003-A	Mounting Flange Kit – includes Mounting Flange, Mounting Nut, Screws (2) & Tinnerman Nuts (2)
4.	0318123	HY-71-A	Actuator Assembly

NOTE: Includes HY-32-A cartridge (shown at right)

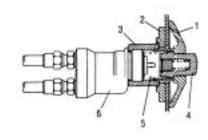
## HY-72-A-1 (0318072) SIDE WALL PUSH BUTTON



Item No.	Code No.	Part No.	Description
1.	3318007	HY-1000-A	Push Button Kit – includes Push Button, Flange, Spring & Set Screw
2.	0318004	HY-3	Spring
3.	3318008	HY-1001-A	Mounting Flange Kit – includes Mounting Flange, Mounting Nut, Screws (2), Nuts (2) & Washers (2)
4.	0318123	HY-71-A	Actuator Assembly
5.	0318041	HY-40	Plate
6.	0305173	EL-173	Screws (4)
7.	0318073	HY-73	Extension Adapter
8.	0318074	HY-74	Extension Stem

NOTE: Includes HY-32-A cartridge (shown at right)

#### HY-108-A (0318119) PENAL WARE METAL PUSH BUTTON



Item			
No.	Code No.	Part No.	Description
1.	0318116	HY-91	Flange
2.	0318111	HY-94	Mounting Washer
3.	0318112	HY-93	Mounting Nut
4.	0318115	HY-86-A	Push Button Assembly
5.	0305134	EL-109	Spring
6.	0318078	HY-50-A	Actuator Assembly

NOTE: Includes HY-32-A cartridge (shown below)

## HY-32-A ACTUATOR CARTRIDGE ASSEMBLY



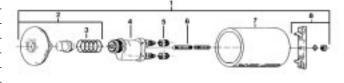
For use with HY-50-A and HY-71-A actuator assemblies

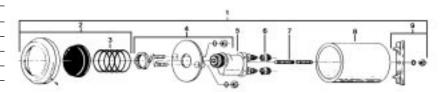
### HY-100-A (0318117) FIXTURE WALL METAL PUSH BUTTON

Item			
No.	Code No.	Part No.	Description
1.	0318117	HY-100-A	Fixture Wall Metal Button Assembly
2.	3318006	HY-111-A	Metal Button Kit
3.	0305134	EL-109	Spring
4.	0318078	HY-50-A	Actuator Assembly
5.	0318033	HY-35	Tube Fitting Nut (2 required)
6.	0318028	HY-29	Threaded Rod
7.	0318109	HY-105	Spacer
8.	3318009	HY-1002-A	Mounting Strap Kit

#### HY-33-A (0318001) FIXTURE WALL PUSH BUTTON







# **Series 900® Flushometer**

#### TROUBLESHOOTING GUIDE

**ATTENTION INSTALLERS:** With the exception of the control stop inlet, DO NOT USE pipe sealant or plumbing grease on any valve component or coupling! To protect the chrome or special finish of Sloan Flushometers, DO NOT USE toothed tools to install or service these valves. Use our A-50 Super-Wrench™ or other smooth-jawed wrench to secure couplings. Regulations for low consumption fixtures (1.6 gpf/6.0 Lpf closets and 1.0 gpf/3.8 Lpf urinals) prohibit use of higher flush volumes.

#### **Push Button Actuator Assembly**

#### 1. Leakage occurs at the push button.

A. Damaged or worn seals or lime build-up in the actuator cartridge.
 Replace with new HY-32-A cartridge.

#### Flushometer does not flush and a small amount of leakage is visible on the fixture.

- A. Foreign material is lodged in the cartridge. Remove and inspect cartridge for foreign material. Clean cartridge under running water.
- B. Damaged or worn seals or lime build-up in the actuator cartridge. Replace with new HY-32-A cartridge.
- C. Plastic tubing installed incorrectly. Install plastic tubing correctly.

#### **Actuator Cartridge Removal at Push Button**

#### **Plastic Push Button**

- Loosen the set screw in the button flange and remove the button, flange and spring from the actuator body.
- 2. Unscrew the cartridge from the actuator body.

NOTE: An automatic check valve in the actuator body allows removal of the cartridge without turning off the water supply.

#### **Metal Push Button**

- 1. Remove the button or actuator assembly from the wall or the fixture.
- 2. Disassemble the flange or button assembly from the actuator body.
- 3. Unscrew the cartridge from the actuator body.

NOTE: The metal push button was designed to be vandal resistant and must be removed from the wall before servicing.

#### **Flushometer Actuator Assembly**

# The Flushometer does not flush or flushes only once and will not flush a second time when the button is pushed.

- A. The plunger is lodged in the actuator cartridge or the plunger by-pass hole is clogged. Remove the actuator housing and cartridge from the Flushometer. Clean under running water. If cartridge parts are worn, deteriorated, or limed up and the problem persists after cleaning, replace with new H-83-A cartridge (item 29).
- B. Plastic tubing installed incorrectly. Install plastic tubing correctly.

#### **Actuator Removal from the Flushometer**

- 1. Turn off water at the control stop (item 11).
- 2. Unscrew the housing coupling nut (item 26) from the Flushometer.
- 3. Remove the valve actuator housing (item 22) from the Flushometer. The tubing (item 25) can be left intact.
- 4. Remove the actuator cartridge assembly (item 29) from the Flushometer body. Care should be taken upon removal so that the actuator does not abruptly separate due to spring compression within. If the actuator cartridge is lodged in the body cavity, grip the exposed portion gently with a pair of channel-lock pliers and rotate back and forth to loosen the O-ring seal.
- Separate the actuator housing to reveal the spring and plunger. Inspect for wear and, if necessary, replace with new actuator cartridge assembly (item 29).

#### **Flushometer Service**

#### 1. The Flushometer does not function.

A. The control stop or main water supply valve is closed. Open control stop or main water supply valve.

# 2. The volume of water is insufficient to adequately siphon the

- A. The control stop is not open wide enough. Open control stop for desired delivery of water.
- B. Urinal inside parts installed incorrectly in a closet Flushometer. Replace with correct closet inside parts kit (see item 7).
- C. Inadequate volume or pressure at the water supply valve. If no gauges are available to properly measure the supply pressure or the volume of water at the Flushometer, completely remove the entire diaphragm assembly (item 7). Open the control stop and let water pass through the empty Flushometer body. Make sure that the water supply is adequate to siphon the fixture. If this does not provide a satisfactory siphon, steps should be taken to increase the water supply pressure and/or volume.

#### 3. The Flushometer closes off immediately.

- A. The diaphragm is ruptured or damaged. Install new inside parts kit (see item 7).
- B. The by-pass hole is enlarged from corrosion or damage. Install new inside parts kit (see item 7).

#### 4. The length of the flush is too short.

- A. The diaphragm (item 5) and the guide assembly (item 6A, B, C, D or E) are not properly tightened. Screw diaphragm and guide assembly together and tighten by hand (see diagram for item 7).
- B. The by-pass hole is enlarged from corrosion or damage. Install new inside parts kit (see item 7).
- C. Urinal inside parts installed incorrectly in a closet Flushometer. Replace with correct closet inside parts kit (see item 7).

#### 5. The length of the flush is too long or continuous.

- A. The relief valve of the inside parts assembly (item 3A, B, C or D) is not seating properly or the by-pass hole is clogged with foreign material or by a gelatinous film caused by "overtreated" water. Disassemble the working parts and wash under running water.

  NOTE: THE SIZE OF THE DIAPHRAGM BY-PASS ORIFICE IS OF UTMOST IMPORTANCE. DO NOT ENLARGE OR DAMAGE THIS HOLE. DO NOT USE A PIN OR OTHER SMALL OBJECT TO REMOVE DIRT FROM THIS ORIFICE.
- B. Line pressure has dropped and is no longer sufficient enough to force the relief valve to seat properly. Close control stop until adequate pressure has been restored to the line, then reopen control stop.

## 6. Water splashes out from the fixture.

- A. The water supply volume is more than required. Throttle down control stop to reduce volume.
- B. Lime has accumulated on the vortex or spreader hole of the fixture. Remove lime accumulation.