



LIMITED WARRANTY

Sloan Valve Company warrants its Hydraulic Flushometer to be made of first class materials, free from defects of material or workmanship under normal use and to perform the service for which they are intended in a thoroughly reliable and efficient manner when properly installed and serviced for a period of 3 years from date of purchase. During this period, Sloan Valve Company will, at its option, repair or replace any part or part which prove to be thus defective if returned to Sloan Valve Company, at customer's cost, and this shall be the sole remedy available under this warranty. No claims will be allowed for labor, transportation or other incidental costs. This warranty extends only to those persons or organizations who purchase Sloan Valve Company's products directly from Sloan Valve Company for purpose of resale.

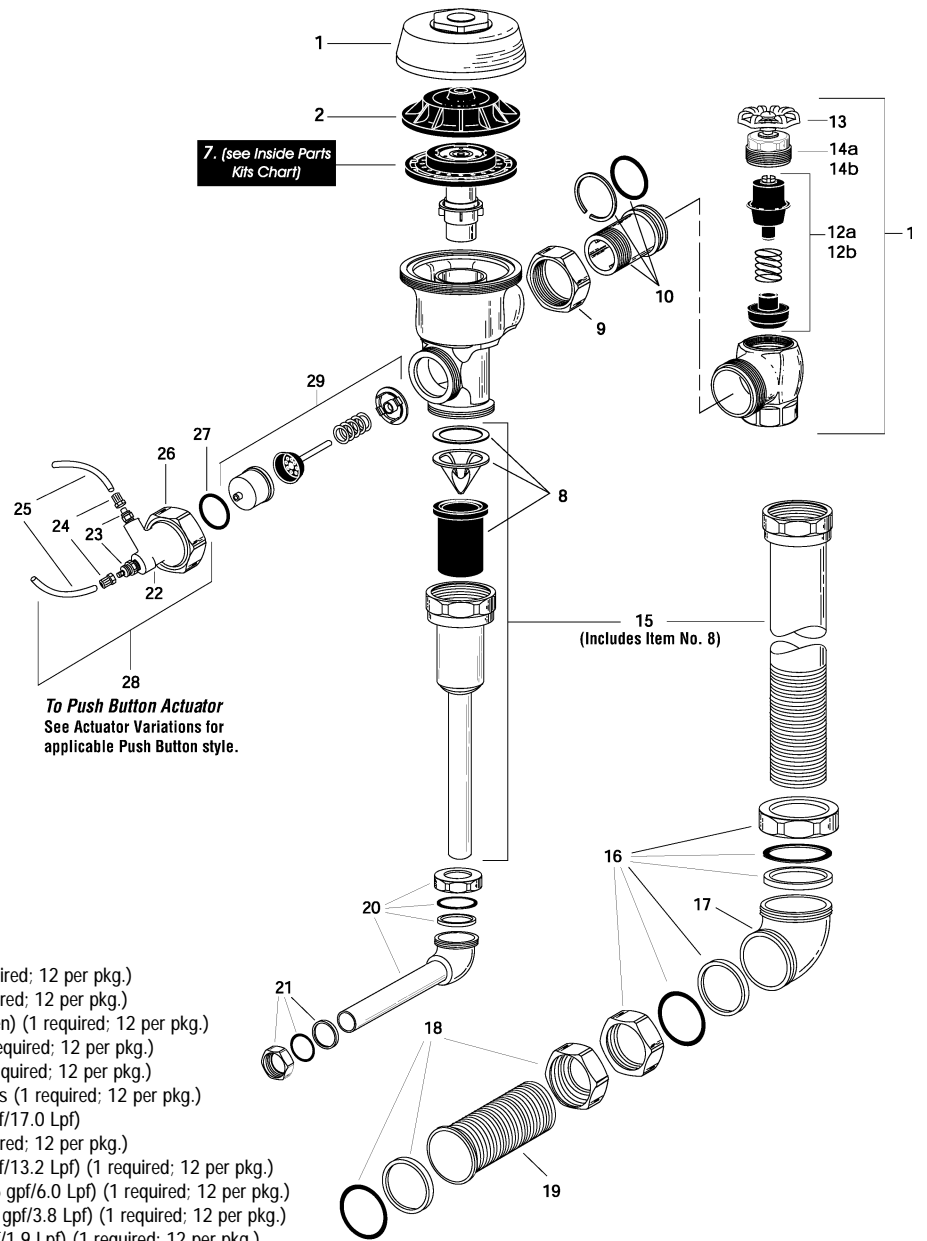
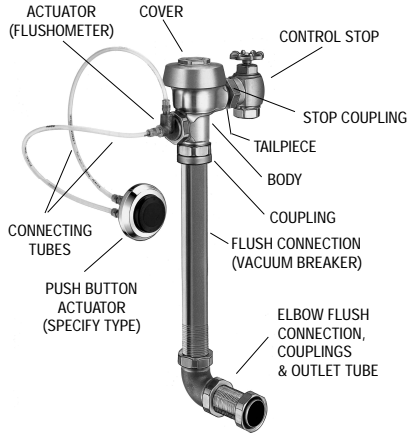
THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. IN NO EVENT IS SLOAN VALVE COMPANY RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY MEASURE WHATSOEVER.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131

Ph: 800/9-VALVE-9 847/671-4300 • Fax: 800/447-8329 847/671-4380 • <http://www.sloanvalve.com>

SLOAN® FLUSHOMETERS

Series 900® Hydraulic Flushing System Maintenance Guide



To Push Button Actuator
See Actuator Variations for
applicable Push Button style.

PARTS LIST

Item No.	Code No.	Part No.	Description
1	0301173	A-72	RB Cover
2	0301168	A-71	Inside Cover
3a	5301058	A-19-AC	Relief Valve, Closet (white) (1 required; 12 per pkg.)
3b	5301059	A-19-AU	Relief Valve, Urinal (black) (1 required; 12 per pkg.)
3c	5301211	A-19-ALC	Relief Valve, LC Closet/Urinal (green) (1 required; 12 per pkg.)
3d	5301143	A-19-AL	Relief Valve, 9 L Closet (blue) (1 required; 12 per pkg.)
4	5301111	A-15-A	Disc - for all Inside Parts Kits (1 required; 12 per pkg.)
5	5301188	A-156-A	Diaphragm - for all Inside Parts Kits (1 required; 12 per pkg.)
6a	5301236	A-163-A	Guide Assembly for Closet (4.5 gpf/17.0 Lpf) or Urinal (1.5 gpf/5.7 Lpf) (1 required; 12 per pkg.)
6b	5301032	A-152-A	Guide Assembly for Closet (3.5 gpf/13.2 Lpf) (1 required; 12 per pkg.)
6c	5301031	A-151-A	Guide Assembly for LC Closet (1.6 gpf/6.0 Lpf) (1 required; 12 per pkg.)
6d	5301155	A-155-A	Guide Assembly for LC Urinal (1.0 gpf/3.8 Lpf) (1 required; 12 per pkg.)
6e	5301157	A-157-A	Guide Assembly for Urinal (0.5 gpf/1.9 Lpf) (1 required; 12 per pkg.)
7			SEE THE INSIDE PARTS KIT CHART
8	3323182	V-651-A	Vacuum Breaker Repair Kit
9	0308690	H-550	RB Tailpiece Coupling
10	0308802	H-551-A	RB Adjustable Tailpiece, 2-1/16" (52 mm)
11	0388010	H-730-A	RB Wheel Handle Bak-Chek® Control Stop
12a	3308855	H-541-A	1" Wheel Handle Repair Kit for H-730-A Control Stop
12b	3308858	H-543-A	3/4" Wheel Handle Repair Kit for H-730-A Control Stop
13	0308919	H-558-A	Wheel Handle
14a	0208079	H-561	1" RB Bonnet
14b	0208083	H-623	3/4" RB Bonnet
15			V-500-A Vacuum Breaker Flush Connection (specify size)
16	0306619	F-2-AA	1-1/2" (38 mm) RB Couplings (2 each), Friction Rings (2 each), and Rubber Gaskets (2 each)
17	0206146	F-21	RB Elbow
18	0306087	F-2-A	1" (25 mm) RB Coupling, Friction Ring, and Rubber Gasket
19			F-100 RB Flared End Flush Connection (specify length)
20			F-15-A 3/4" (19 mm) RB Elbow Flush Connection with Coupling and Rubber Gasket (specify length)
21	0306054	F-2-A	3/4" (19 mm) RB Coupling, Friction Ring, and Rubber Gasket
22	0318024	HY-25	RB Valve Actuator Housing only
23	0318023	HY-24	Tube Fitting (2 required)
24	0318033	HY-35	Tube Fitting Nut (2 required)
25	0318093	HY-30	1/4" (6 mm) x 48" (1219 mm) Connecting Tubes (2 required)
26	0301083	A-6	RB Handle Coupling Nut
27	0337086	DO-22	"O" Ring
28	3318005	HY-109-A	Actuator Housing Assembly (includes items 22, 23, 24, 26, and 27)
29	3318001	HY-83-A	Actuator Cartridge Assembly (Replacement Kit, includes item 27)

Each item has been identified by a Part Number and a corresponding Code Number. To expedite your replacement requirements, order by Code Number.

ABBREVIATIONS:

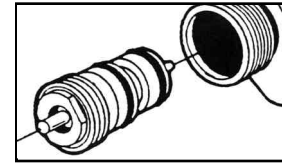
Assem. = Assembly
CP = Chrome Plated
RB = Rough Brass
gpf = gallons per flush
Lpf = Liters per flush
LC = Low Consumption
WH = Wheel Handle

ROYAL FLUSHOMETER INSIDE PARTS KITS (item #7 from previous page)

7. INSIDE PARTS KITS

A-36-A	A-37-A	A-38-A	A-41-A	A-42-A	A-43-A	A-44-A
3301036	3301037	3301038	3301041	3301044	3301081	3301024
4.5 gpf/17.0 Lpf	1.5 gpf/5.7 Lpf	3.5 gpf/13.2 Lpf	1.6 gpf/6.0 Lpf	1.0 gpf/3.8 Lpf	0.5 gpf/1.9 Lpf	2.4 gpf/9.0 Lpf
CLOSET	URINAL	CLOSET	CLOSET	URINAL	URINAL	CLOSET

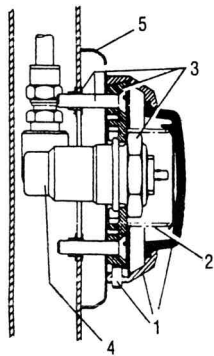
**HY-32-A (0318031)
ACTUATOR CARTRIDGE ASSEMBLY**



For use with HY-50-A and HY-71-A Actuator Assemblies
(see Actuators listed below)

PUSH BUTTON ACTUATOR VARIATIONS

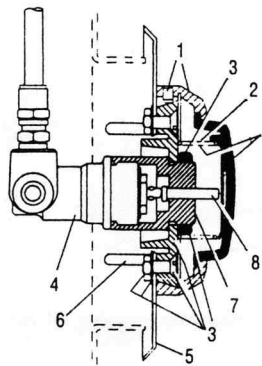
**HY-49-A (0318049)
METAL PARTITION PUSH BUTTON**



- 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
- 5 0218046 **HY-46** Mounting Flange

NOTE: Includes HY-32-A Cartridge (shown above)

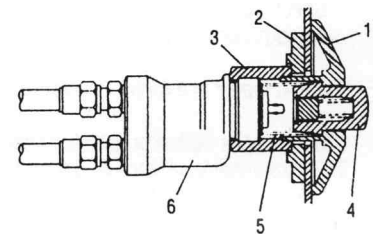
**HY-72-A (0318072)
SIDE WALL PUSH BUTTON**



- 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 0218043 **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 above)

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

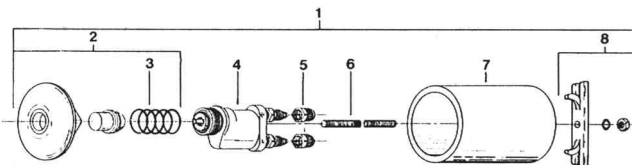


- 1 0318116 **HY-91** Flange
- 2 0318111 **HY-94** Mounting Washer
- 3 0318112 **HY-93** Mounting Nut
- 4 0318115 **HY-86-A** Push Button Assembly
- 5 0305134 **EL-109** Spring
- 6 0318078 **HY-50-A** Actuator Assembly

NOTE: Includes HY-32-A Cartridge (shown above)

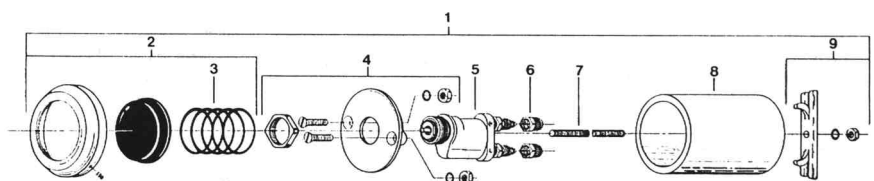
**HY-100-A (0318117)
FIXTURE WALL METAL PUSH BUTTON**

- 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**

- 1 0318001 **HY-33-A** Fixture Wall Push Button Assembly
- 2 3318007 **HY-1000-A** Push Button Kit
- 3 0318004 **HY-3** Spring
- 4 3318008 **HY-1001-A** Mounting Flange Kit
- 5 0318078 **HY-50-A** Actuator Assembly
- 6 0318033 **HY-35** Tube Fitting Nut (2 required)
- 7 0318028 **HY-29** Threaded Rod
- 8 0318109 **HY-105** Spacer
- 9 3318009 **HY-1002-A** Mounting Strap Kit



TROUBLESHOOTING AND MAINTAINING THE SLOAN SERIES 900™ HYDRAULIC FLUSHING SYSTEM

Push Button Actuator Assembly

I. Leakage occurs at the Push Button.

Cause: Damaged or worn Seals or lime build-up in the Actuator Cartridge.

Solution: Replace with new HY-32-A Cartridge.

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

Cause: Foreign material is lodged in the Cartridge.

Solution: Remove and inspect Cartridge for foreign material. Clean Cartridge under running water.

Cause: Damaged or worn Seals or lime build-up in the Actuator Cartridge.

Solution: Replace with new HY-32-A Cartridge.

Cause: Plastic Tubing installed incorrectly.

Solution: Install Plastic Tubing correctly.

Actuator Cartridge Removal at Push Button

Plastic Push Button:

1. 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

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

Cause: The Plunger is lodged in the Actuator Cartridge or the Plunger bypass hole is clogged.

Solution: 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 HY-83-A Cartridge (item 29).

Cause: Plastic Tubing installed incorrectly.

Solution: 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.

5. 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

I. The Flushometer does not function.

Cause: The Control Stop or main water supply valve is closed.

Solution: Open Control Stop or main water supply valve.

II. The volume of water is insufficient to adequately siphon the fixture.

Cause: The Control Stop is not open wide enough.

Solution: Open Control Stop for desired delivery of water.

Cause: Urinal Inside Parts installed incorrectly in a Closet Flushometer.

Solution: Replace with correct Closet Inside Parts kit (see item 7).

Cause: Inadequate volume or pressure at the water supply valve.

Solution: 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.

III. The Flushometer closes off immediately.

Cause: The Diaphragm is ruptured or damaged.

Solution: Install new Inside Parts Kit (see item 7).

Cause: The bypass hole is enlarged from corrosion or damage.

Solution: Install new Inside Parts Kit (see item 7).

IV. The length of the flush is too short.

Cause: The Diaphragm (item 5) and the Guide Assembly (item 6A, B, C, D or E) are not properly tightened.

Solution: Screw Diaphragm and Guide Assembly together and tighten by hand (see diagram for item 7).

Cause: The bypass hole is enlarged from corrosion or damage.

Solution: Install new Inside Parts Kit (see item 7).

Cause: Urinal Inside Parts installed incorrectly in a Closet Flushometer.

Solution: Replace with correct Closet Inside Parts kit (see item 7).

V. The length of the flush is too long or continuous.

Cause: The Relief Valve of the Inside Parts Assembly (item 3A, B, C or D) is not seating properly or the bypass hole is clogged with foreign material or by a gelatinous film caused by "overtreated" water.

Solution: Disassemble the working parts and wash under running water.

NOTE: THE SIZE OF THE DIAPHRAGM BYPASS 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.

Cause: Line pressure has dropped and is no longer sufficient enough to force the Relief Valve to seat properly.

Solution: Close Control Stop until adequate pressure has been restored to the line, then reopen Control Stop.

VI. Water splashes out from the fixture.

Cause: The water supply volume is more than required.

Solution: Throttle down Control Stop to reduce volume.

Cause: Lime has accumulated on the vortex or spreader hole of the fixture.

Solution: Remove lime accumulation.

If further assistance is required, please contact the Sloan Valve Company Installation Engineering Department at 847-671-4300.

The information contained in this document is subject to change without notice.

SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131

Ph: 800/9-VALVE-9 847/671-4300 • Fax: 800/447-8329 847/671-4380 • <http://www.sloanvalve.com>