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Genuine Renewal Parts  
**PRESTO / EMPIRE**

## RENEWAL PARTS & SERVICE FOLDER PV-3

Prices in this folder are subject to change without notice and supersede all previous prices. It is not to be construed that possession of this price folder by any person is an offer to sell him, or anyone else, the material listed herein at the prices stated.

**DISTRIBUTION POLICY** It is the firm policy of Coyne & Delany Co. to sell to plumbing wholesalers only. We regret that orders cannot be accepted from contractors or end users.

**GENUINE DELANY PARTS** Manufactured to the same exacting standards as our original equipment, genuine Delany renewal parts are assurance of additional years of faultless service. The wavy line logo in the box above identifies genuine parts as unmistakably Delany and unmistakably correct.

**OMISSION ALLOWANCES** If assemblies are ordered less one or more parts, deduct from price of the assembly 1/3 of the price of each part omitted.

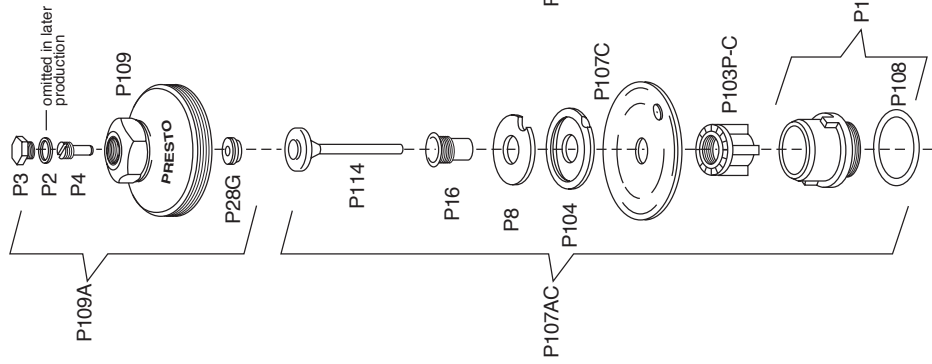
**SCALE** Drawings on the following pages do not illustrate the actual physical size of Delany parts. In the interest of clarity, scale may vary from drawing to drawing.

**FINISHES**— Descriptions and prices are for polished chrome where material is for exposed use and for rough brass where material is normally concealed. Certain parts are common to both exposed and concealed valve models and such parts are described and priced in polished chrome. If rough brass finish is desired, so specify and deduct 10% from price shown for polished chrome. If satin chrome, satin brass, or polished brass finish is desired, so specify and add 225% to polished chrome price.

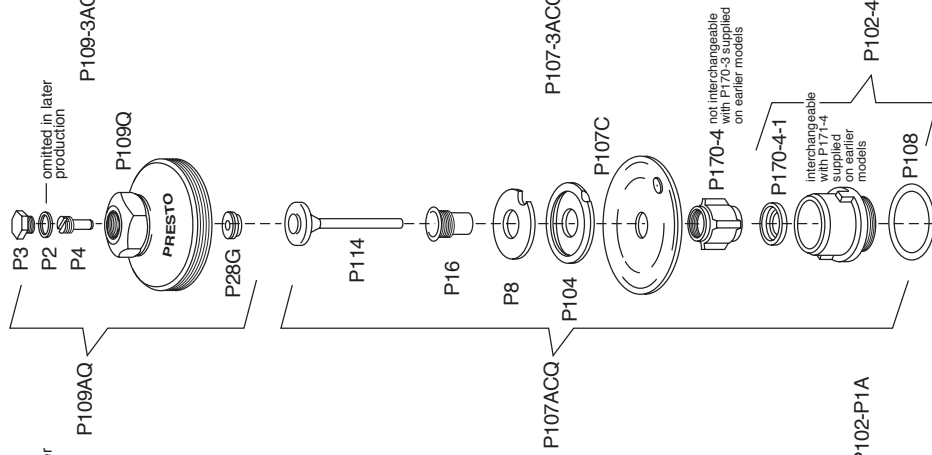
# Delany Presto / Empire Genuine Renewal Parts

Note: For Empire parts replace "P" for Presto prefix with "E" for Empire

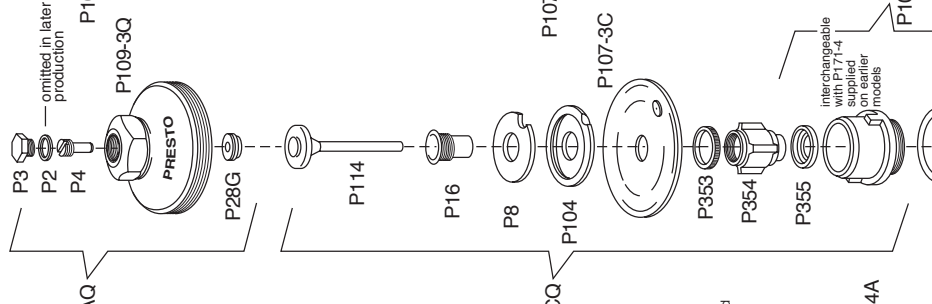
**P402 / P452**  
(Without "Turn-to-silence" on cover)  
(Valves with 1" supply)



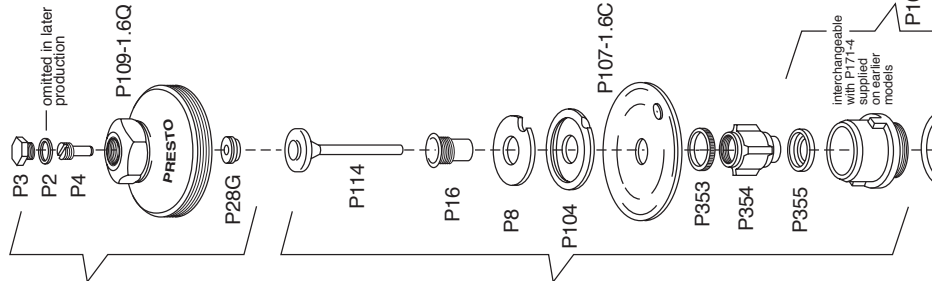
**P402 / P452**  
(With "Turn-to-silence" on cover)  
(Valves with 1" supply)



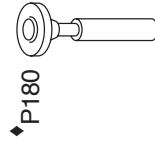
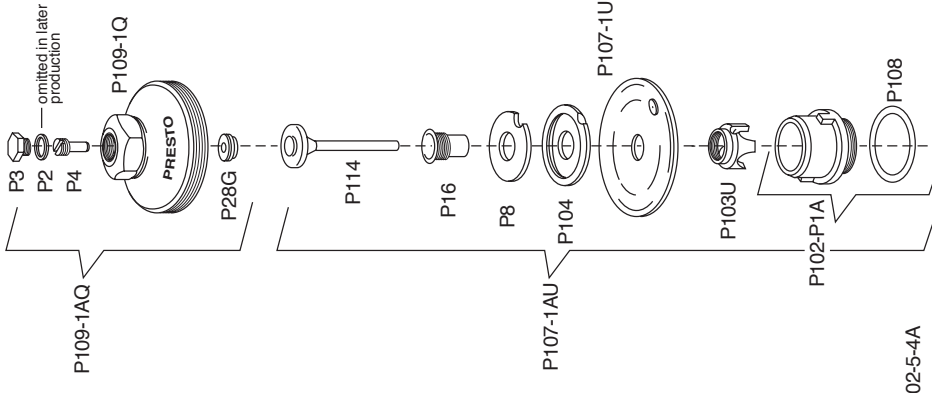
**P402-3 / P452-3**  
(With "water saver" / "3.5gpi" on cover)  
(Valves with 1" supply)



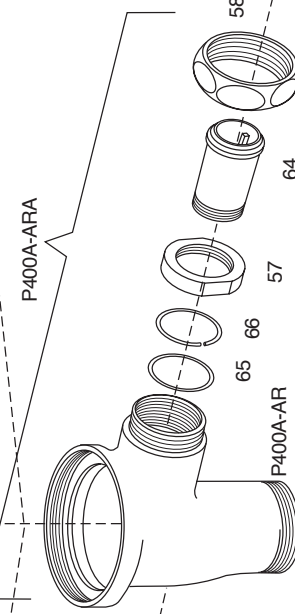
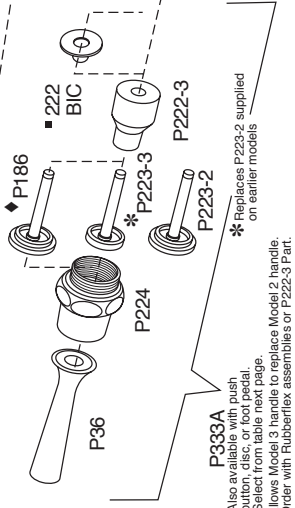
**P402-1.6 / P452-1.5**  
(With "1.6gpi" on cover)  
(Valves with 3/4" supply)



**P451 / P451-1.0**  
(With "1.0gpi" on cover)  
(Valves with 3/4" supply)



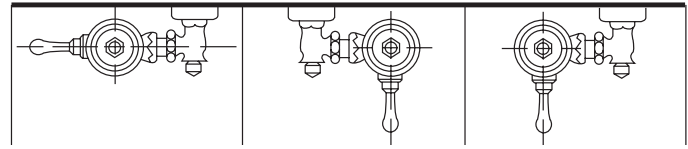
P180 part and P186 part supplied in hold open feature must be used together. For complete assembly, operating spring, diaphragm, spring, disc, and O-ring, order as applicable:  
P107ACT5  
P107ACT5  
P107-3ACQT5  
P107-1.6ACQT5  
P107-1AUT5  
For complete assembly, order as applicable:  
P333A  
P333A



Partial Assemblies		List Price Ea.
80A	Cover bumper assembly	
▲P107AC	Diaphragm operating assembly (for valves with 1" supply or larger)	
▲P107ACQ	Diaphragm operating assembly (for valves with 1" supply or larger and Turn-to-Silence equipment)	
▲P107-3ACQ	Diaphragm operating assembly (for valves with 3.5GPF equipment)	
▲P107-1.6ACQ	Diaphragm operating assembly (for valves with 1.6GPF equipment)	
▲P107AU	Diaphragm operating assembly (for valves with 3/4" supply or smaller)	
▲P107-1AU	Diaphragm operating assembly (for valves with 1.0GPF equipment)	
P107KC	Renewal kit (for valves with 1" supply or larger). Contains P107C and P8 parts.	
P107-3KC	Renewal kit (for valves with 3.5GPF equipment). Contains P107-3C and P8 parts.	
P107-1.6KC	Renewal kit (for valves with 1.6GPF equipment). Contains P107-1.6C and P8 parts.	
P107KU	Renewal kit (for valves with 3/4" supply or smaller). Contains P107U and P8 parts.	
P107-1KU	Renewal kit (for valves with 1.0GPF equipment). Contains P107-1U and P8 parts.	
P109A	Cover assembly	
P109AQ	Cover assembly (for valves with Turn-to-Silence equipment)	
P109-3AQ	Cover assembly, complete (for valves with 3.5GPF equipment)	
P109-1.6AQ	Cover assembly, complete (for valves with 1.6GPF equipment)	
P109-1AQ	Cover assembly, complete (for valves with 1.0GPF equipment)	
†*P333A	Rubberflex handle assembly	
†*P333A-B	Rubberflex 1/2" push button assembly	
†*P333A-C	Rubberflex 3" oscillating disc assembly	
†*P333A-T29	Rubberflex foot pedal assembly	
**P400A-ARA	KwikFit valve body assembly (standard length No. 64 part)	
Individual Parts		
P2	Washer for cover screw	
P3	Cover screw	
P4	Regulating screw	
P8	Auxiliary valve seat	
P16	Diaphragm bushing	
P28G	Packing for cover	
P36	Handle	
57	Clamping nut	
58	Union nut	
*64	KwikFit union tailpiece, 2" standard length overall (allows 4 1/2" to 5 1/2" centers. Supplied complete with No. 65 and No. 66 parts)	
65	"O" ring	
66	Clamping ring	
80	Cover bumper body	
81	Bumper holder	
82	Set screw for cover bumper	
83	Seat bumper	
P102-P1A	Main valve seat with P108 part	
P102-4A	Main valve seat with P108 and P171-4-1 parts (for valves with Turn-to-Silence equipment)	
P102-5-4A	Main valve seat with P108 and P355 parts (for valves with 3.5GPF and 1.6GPF equipment)	
P103P-C	Seat guide (for valves with 1" supply or larger)	
P103U	Seat guide (for valves with 3/4" supply or smaller)	
P104	Auxiliary valve seat holder	

▲ If for use with valves containing non-hold-open feature, add suffix T5 to assembly number. Add to price shown \$1.10 list.

## Valve Bodies Available



400 Series

500 Series

600 Series

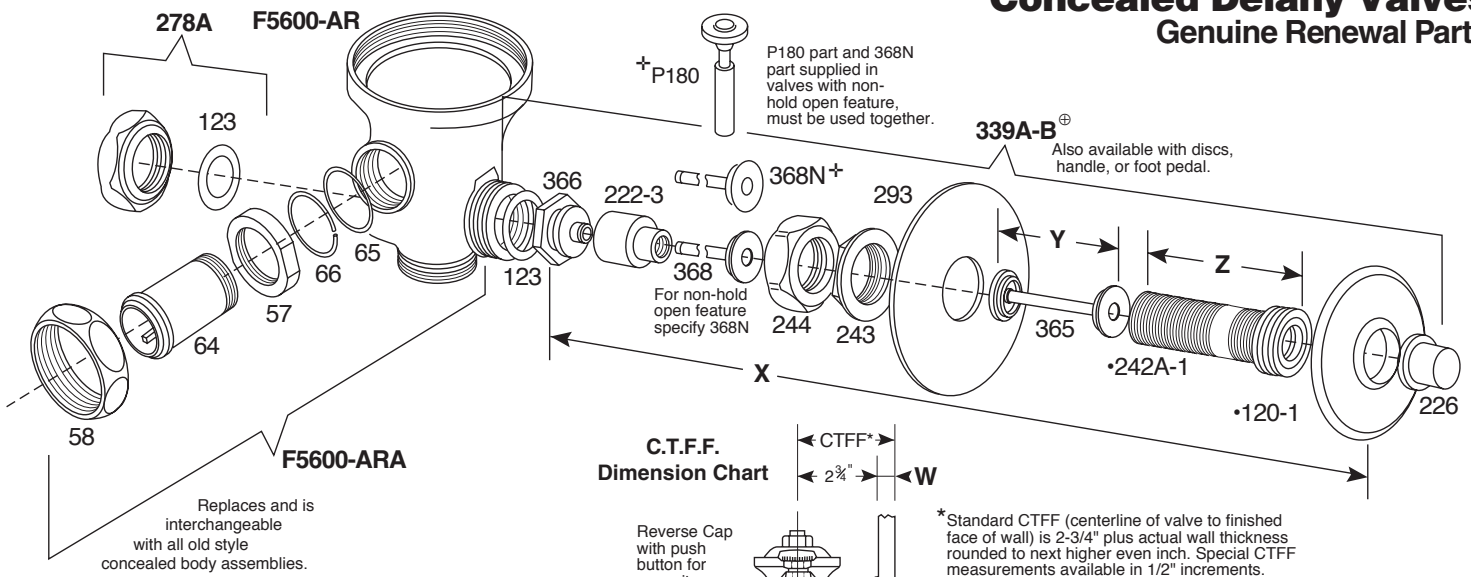
**HOW TO SPECIFY** Per drawings above, exposed valve bodies are identified as P400A-AR, P500A-AR, or P600A-AR depending upon relationship of handle, push button, or foot pedal assembly to inlet of body casting.

Individual Parts (continued)		List Price Ea.
P107C	Diaphragm with bypass (for valves with 1" supply or larger)	Available in P107KC kit only. See Partial assemblies
P107-3C	Diaphragm with bypass (for valves with 3.5GPF equipment)	Available in P107-3KC kit only. See Partial assemblies
P107-1.6C	Diaphragm with bypass (for valves with 1.6GPF equipment)	Available in P107-1.6KC kit only. See Partial assemblies
P107U	Diaphragm with bypass (for valves with 3/4" supply or smaller)	Available in P107KU kit only. See Partial assemblies
P107-1U	Diaphragm with bypass (for valves with 1.0GPF equipment)	Available in P107-1KU kit only. See Partial assemblies
P108	Main valve seat washer	
P109	Cover	
P109Q	Cover (for valves with Turn-to-Silence equipment)	
P109-3Q	Cover, only (for valves with 3.5GPF equipment)	
P109-1.6Q	Cover, only (for valves with 1.6GPF equipment)	
P109-1.6SC-Q	Cover, only, non-adjustable (for valves with 1.6GPF equipment)	
P109-1Q	Cover, only (for valves with 1.0GPF equipment)	
P109-1SC-Q	Cover, only, non-adjustable (for valves with 1.0GPF equipment)	
P114	Auxiliary valve	
P170-4	Seat guide (for valves with 1" supply or larger and Turn-to-Silence equipment)	
P171-4-1	Choke ring for main valve seat (for valves with Turn-to-Silence equipment)	
P180	Auxiliary valve (for valves with non-hold-open feature)	
P186	Operating stem (for valves with non-hold-open feature. Overall length 1 9/16")	
222BIC	Brass Insert Converter	
P222-3	Flexer	
P223-2	Operating stem (overall length 1 11/16")	
P223-3	Operating stem (overall length 1 11/16")	
P224	Handle nut (stamped Model 2 or Model 3)	
P353	Refill ring	
P354	Seat guide (for water saver & low consumption vlvs. w/ Turn-to-Silence equipment)	
P355	Choke ring for main valve seat (for water saver & low consumption vlvs. w/Turn-to-Silence equipment)	
P400A-AR	KwikFit valve body only	
HH KwikFit Union Tailpieces		
Special lengths available as follows:		
64-1	KwikFit union tailpiece, 3" overall length (allows 5 1/2" to 6 1/2" centers. Complete with No. 65 and No. 66 parts)	
64-2	KwikFit union tailpiece, 4" overall length (allows 6 1/2" to 7 1/2" centers. Complete with No. 65 and No. 66 parts)	
64-3	KwikFit union tailpiece, 5" overall length (allows 7 1/2" to 8 1/2" centers. Complete with No. 65 and No. 66 parts)	

★ If for use with valves containing non-hold-open feature, add suffix T5 to assembly number. Price remains the same.

† Model 3 stamped in P224 part.

# Concealed Delay Valves Genuine Renewal Parts



Replaces and is interchangeable with all old style concealed body assemblies.

**C.T.F.F. Dimension Chart**

Reverse Cap with push button for opposite rough

\*Standard CTFF (centerline of valve to finished face of wall) is 2-3/4" plus actual wall thickness rounded to next higher even inch. Special CTFF measurements available in 1/2" increments.

⊕ NOTE:  
Old style spring loaded assembly no longer available. Replaced by and interchangeable with Rubberflex assembly illustrated below and described in table below.

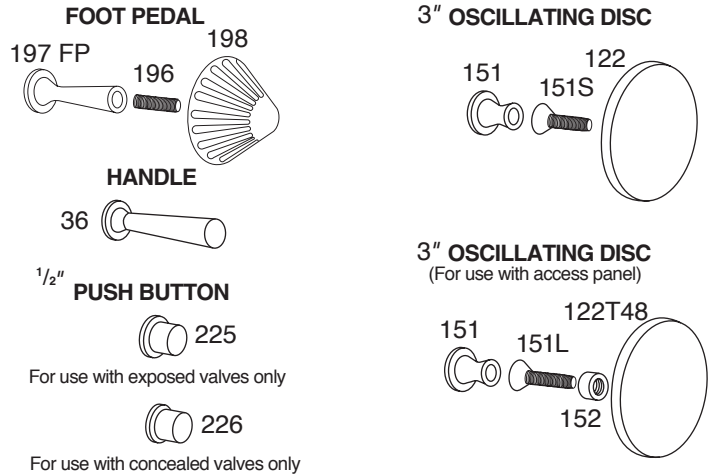
• For use with 1/2" pushbutton only. Specify part No. 242A or 120 for use with discs, handle, or foot peddle.

Partial Assemblies		List Price Ea.
▶▶★ 339A-B	Rubberflex 1/2" push button assembly	
▶▶★ 339A-C	Rubberflex 3" oscillating disc assembly	
▶▶★ 339A-T28	Rubberflex handle assembly	
▶▶★ 339A-T29	Rubberflex foot pedal assembly	
P5600-ARA	KwikFit concealed valve body assembly (standard length No. 64 part. See table preceding page for special lengths)	

Individual Parts		List Price Ea.
26	Packing washer	
28L	Packing nut	
36	Handle	
†39	Wall sleeve spacer	
57RB	Clamping nut, rough brass	
58RB	Union nut, rough brass	
★★ 64RB	KwikFit union tailpiece, rough brass, 2" standard length overall (allows 4 1/2" to 5 1/2" centers. See table preceding page for special lengths. Supplied complete with No. 65 and No. 66 parts)	
65	"O" ring	
66	Clamping ring	
▶120	Wall flange (for use with discs, handle, or foot pedal)	
▶120-1	Wall flange (for use with 1/2" push button only)	
▶122	3" oscillating disc	
122T48	3" oscillating disc (for use with access panel)	
123	Washer for coupling nut or handle opening cap	
124	Sink flange (for use with 1/2" push button only)	
125	Spring	
151	Holder for discs	
151L	Holding screw for disc (for use with access panel)	
151S	Holding screw for discs	
152	Retaining ring for holding screw	
196	Stud for foot pedal	
197FP	Holder for foot pedal	
198	Foot pedal	
222.3	Flexer	
225	1/2" Push button (for use with exposed valves only)	
226	1/2" Push button (for use with concealed valves only)	

## Actuators for Presto Valve

For use with both concealed and exposed valves, except as noted.



Individual Parts (continued)		List Price Ea.
\$242A	Wall sleeve (for use with discs, handle, or foot pedal)	
\$242A-1	Wall sleeve (for use with 1/2" push button only)	
243	Locknut	
244	Coupling nut	
245	Operating stem (overall length 2 3/8")	
245N	Operating stem (for valves with non-hold-open feature. Overall length 2 1/4")	
278A	Cap for handle opening with No. 123 part	
293	Bearing plate	
#365	Wall sleeve spacer	
366	Wall sleeve bushing	
368	Operating stem (overall length 3 1/32")	
368N	Operating stem (for valves with non-hold-open feature. Overall length 2 29/32")	
P5600-AR	KwikFit concealed valve body only	

■ If for use with valves containing non-hold-open feature, add suffix T5 to assembly number. Price remains the same.

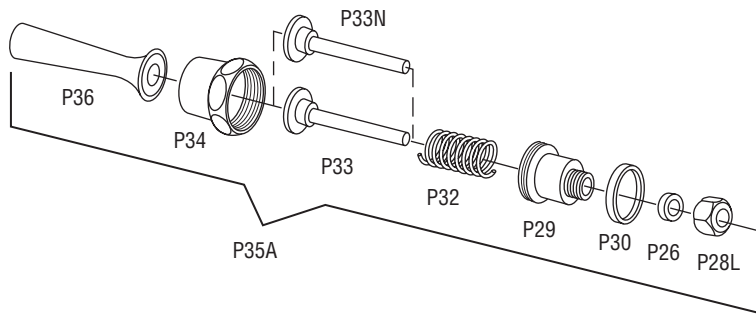
★ Specify exact 'X' dimension required. Price shown is for 1" wall thickness with "X" dimension of 2 1/8". Add to price shown \$2.35 per inch or fraction thereof above "X" dimension shown.

# Specify exact 'Y' dimension required. Price shown is for 1" wall thickness with "Y" dimension of 7/16". Add to price shown \$.55 per inch or fraction thereof above "Y" dimension shown.

§ Specify exact 'Z' dimension required. Price shown is for 1" wall thickness with "Z" dimension of 2 3/16". Add to price shown \$1.80 per inch or fraction thereof above "Z" dimension shown.

▶ If for use with access panel, add suffix T48 to handle assembly, or part number. Price remains the same.

## Old Style Spring Loaded Handle



★ P35A	Spring loaded handle assembly	
★ P35A-B	Spring loaded 1/2" push button assembly	
★ P35A-C	Spring loaded 3" oscillating disc assembly	
★ P35A-T29	Spring loaded foot pedal assembly	
P26	Packing washer	
P28L	Packing nut	
P29	Spring housing	
P30	Coupling washer	
P32	Spring	
P33	Operating stem (overall length 1 29/32")	
P33N	Operating stem (for valves with non-hold-open feature. Overall length 1 27/32")	
P34	Handle nut	
P36	Handle	

★ If for use with valves containing non hold open feature, add suffix T5 to assembly number. Price remains the same.

## Service Procedures

### HOW TO SERVICE VALVE

- 1) Shut off water at control stop. Trip valve to release water pressure.
- 2) Remove cover assembly by turning counterclockwise, using Delany No. 748 cover wrench, standard 1 1/4 hex box wrench, or flat jawed adjustable wrench with jaws taped to protect chrome. Inspect cover parts for possible replacement.
- 3) Place fingers on both sides of auxiliary valve seat holder and lift vertically to remove entire diaphragm operating assembly, except for main valve seat. Inspect for possible replacement of individual parts or entire assembly.
- 4) Inspect condition of main valve seat. If replacement is required, remove by engaging two lugs provided with Delany No. 747 main valve seat wrench and turning counterclockwise. Make sure replacement seat is wrenched tight.
- 5) If diaphragm with bypass is to be replaced as an individual part, hold diaphragm operating assembly in one hand and unscrew the seat guide from the bottom with the other hand. The diaphragm will then slip off the No. 16 diaphragm bushing. Take care to install the new diaphragm with the pinhole of the bypass on the under side. Also, take care to replace the seat guide hand tight, but firmly. Good preventive maintenance calls for simultaneous replacement of No. 8 auxiliary valve seat washer, supplied in same kit as the replacement diaphragm.
- 6) To reassemble valve, reverse all procedures outline above. After diaphragm operating assembly has been dropped into valve, run thumb around edge of diaphragm to insure it is tamped flat on shoulder at base of thread for cover.

### HOW TO SERVICE CONTROL STOP

See Renewal Parts & Service Folder SVB-3 for detailed parts information.

- 1) Shut off water supply at branch to toilet room or at cellar main, if necessary. Make sure entire line above elevation of stop is drained.
- 2) If problem is leakage at shut off stem, and previous tightening of packing nut failed to correct leakage, remove packing nut. Remove old No. 49 packing, using sharp pointed tool if necessary. Insert new packing.
- 3) Reverse above procedure to put stop back in service.
- 4) For renewal of internal parts, place flat jawed adjustable wrench on large hex bonnet. To protect chrome finish, taped jaws are recommended. Turn counterclockwise to remove bonnet assembly for inspection. Replace bonnet assembly, shut off stem assembly, or individual parts as required. Before installing assemblies, back off shut off stem by turning counterclockwise with screwdriver.
- 5) Reverse above procedure to put stop back into service.

Note: Earlier production stops were supplied with fibre bonnet washer. Most current production uses metal-to-metal joint only. If fibre bonnet washer is present, it should be replaced each time bonnet is removed.

### HOW TO SERVICE VACUUM BREAKER

See Renewal Parts & Service Folder SVB-3 for detailed parts information.

- 1) Shut off water at control stop. Trip valve to release water pressure.
- 2) Using flat jawed adjustable wrench, loosen No. 58 union nut. To protect chrome finish, taped jaws are recommended. Loosen No. 426 cowl nut at vacuum breaker and slip down flush connection. Lift valve assembly clear and set aside.
- 3) Lift out No. 427A rubber sleeve for inspection and possible replacement.
- 4) To reassemble, reverse procedure. Be sure to make up No. 426 cowl nut hand tight only, or use quarter turn of wrench at most.

Note: Earlier production vacuum breakers were supplied with fibre washer on top of No. 427A sleeve. Discard before reassembly.

### HOW TO SERVICE HANDLE

Also pertains to push buttons, discs, and foot pedals.

### EXPOSED VALVES

- 1) Shut off water at control stop. Trip valve to release water pressure.
- 2) Using flat jawed adjustable wrench, unscrew handle nut and remove handle assembly. To protect chrome, taped jaws are recommended.

- 3) If handle is old style spring loaded type, remove No. 28L packing nut and replace No. 26 packing washer. Also replace No. 30 coupling washer. If operating stem shows signs of wear, it is recommended that entire handle assembly be replaced.

If handle is Rubberflex type, inspect operating stem and No. 222-3 flexer for wear. Good preventive maintenance calls for simultaneous replacement of both parts.

- 4) To reassemble, reverse above procedures. Note that No. 28L packing nut must be tight enough to prevent leakage but loose enough to prevent binding.

### CONCEALED VALVES

- 1) Shut off water at control stop. Trip valve to release water pressure.
  - 2) Loosen No. 58 union nut. Loosen No. 244 coupling nut, lift valve assembly clear and set aside.
  - 3) If handle is old style spring loaded type, No. 28L packing nut will be in full view. Remove and replace No. 26 packing washer and No. 123 coupling washer. If operating stem shows signs of wear, place wrench on large hex of No. 36NS wall sleeve bushing and turn counterclockwise to remove. Operating stem and No. 125 spring will slide out of wall sleeve and both should be replaced simultaneously.
- If handle is Rubberflex type, place wrench on hex of No. 366 wall sleeve bushing and turn counterclockwise to remove. Inspect operating stem and No. 222-3 flexer for wear. Good preventive maintenance calls for simultaneous replacement of both parts.
- 4) To reassemble, reverse above procedures. Note that No. 28L packing nut must be tight enough to prevent leakage but loose enough to prevent binding.

### HOW TO REGULATE LENGTH OF FLUSH

The length of flush and consequently the amount of water consumed per flush can be readily varied by the No. 4 regulating screw in the valve cover. Remove the No. 3 cover screw and engage No. 4 regulating screw with screwdriver. Turn clockwise to lower the screw and shorten flush and counterclockwise to raise the screw and increase flushing cycle. Water consumption requirements of different fixtures vary widely. The flexibility built into Delany Valve regulation permits proper flushing action without waste of water. If valve is equipped with non-hold-open feature, or equipped with a "solid cover", no regulation is possible by means of the No. 4 part. For such valves, regulation is achieved by substitution of different sized bypasses on a trial and error basis.

### HOW TO ADJUST TURN-TO-SILENCE STOP

If valve is equipped with Turn-to-Silence equipment, the stop should be checked for proper adjustment after the building has been put into service. Unless pressure at the valve changes radically, the setting is permanent.

To set for minimum flushing noise, open Turn-to-Silence wide by turning counterclockwise with screwdriver or wheel handle. Trip the valve and note noise level. While valve is running, begin to close stop and slowly Turn-to-Silence. Depending on inlet pressure at any given fixture, there is one setting of the stop at which water noise will be hushed. If pressure is low, this optimum setting will be near the wide open stop position. If pressure is high, the setting will be near the closed position.

The gallonage demands of the fixture must also be satisfied. Adjustment of the No. 4 regulating screw in the valve cover may be helpful in this regard.

### HOW TO CARE FOR CHROMIUM PLATING

Chrome finishes on Delany material are of the highest quality obtainable. Each part is coated with a thick deposit of nickel, and finally chrome plated for lasting brilliance.

The life of chrome plate depends directly on the amount and type of maintenance provided. All chrome parts should be washed with a liberal amount of clear water and wiped dry with a clean cloth at least once a week. Valves subject to heavy traffic or aggressive atmospheres will benefit from more frequent cleaning. Uric acid and its fumes are harmful and will blacken and destroy chrome plate if left undisturbed for a period of time.

Caution should be taken to insure that no paste or powder cleaners are applied to chrome. Under no circumstances should bowl and urinal cleaners, most of which are acid solutions, be allowed to contact or spatter chrome plate. Such solutions can blacken and eat through chrome in a matter of hours.

# Delany Flush Valves

## Trouble Shooting Chart

WHEN	THEN	AND YOU SHOULD
<b>VALVE WILL NOT START TO FLUSH</b>	<ol style="list-style-type: none"> <li>1) Control stop is shut.</li> <li>2) Tip of operating stem is worn.</li> <li>3) Operating stem is too short.</li> </ol>	<ol style="list-style-type: none"> <li>1) Open control stop.</li> <li>2) Replace operating stem, now supplied with nylon tip.</li> <li>3) Install correct length stem as indicated in parts listings.</li> </ol>
<b>VALVE STARTS FLUSHING BUT CLOSSES IMMEDIATELY</b>	<ol style="list-style-type: none"> <li>1) Diaphragm is ruptured.</li> <li>2) Valve contains an oversized bypass orifice (pinhole).</li> <li>3) Tip of operating stem is worn.</li> <li>4) Seat guide is loose.</li> </ol>	<ol style="list-style-type: none"> <li>1) Replace diaphragm. Good preventive maintenance includes simultaneous replacement of No. 8 auxiliary seat supplied in same kit.</li> <li>2) Install diaphragm with correct bypass size from proper kit indicated in parts listing. Valves with <math>\frac{3}{4}</math>" supply or smaller use larger orifice sizes than valves with 1" supply or larger. Replace No. 8 auxiliary valve seat at the same time.</li> <li>3) Replace operating stem.</li> <li>4) Tighten.</li> </ol>
<b>VALVE GIVES TOO SHORT A FLUSH OR TOO LONG A FLUSH</b>	<ol style="list-style-type: none"> <li>1) Valve needs regulation.</li> <li>2) Valve contains an oversized bypass orifice. (Flush too short.)</li> <li>3) Bypass orifice is partially blocked. (Flush too long.)</li> <li>4) Tip of operating stem is worn.</li> </ol>	<ol style="list-style-type: none"> <li>1) Remove No. 3 cover screw. Insert screwdriver and turn No. 4 regulating screw counterclockwise for longer flush or clockwise for shorter flush. If valve is equipped with non hold open feature, timing must be changed by trial and error of different bypass orifices.</li> <li>2) Install diaphragm with correct bypass size from proper kit. Replace No. 8 auxiliary valve seat at same time. Step (1) above should be tried first.</li> <li>3) Clean monel bypass. Hold pinhole up to light. If blocked, pinhole may be cleaned with pin, air hose, or acid solution.</li> <li>4) Replace operating stem.</li> </ol>
<b>VALVE CONTINUES TO RUN FULL FORCE OR CONTINUES TO RUN BUT ONLY SLIGHTLY</b>	<ol style="list-style-type: none"> <li>1) Bypass blocked.</li> <li>2) Foreign object is blocking closing action.</li> <li>3) Leakage is occurring at the No. 8 auxiliary valve seat due to foreign objects or wearing and pitting of the auxiliary valve.</li> <li>4) Water pressure and/or volume is insufficient to fill upper chamber of valve and cause valve to close.</li> <li>5) Auxiliary valve head has separated from rod allowing leakage.</li> <li>6) Slight leakage is present at main valve seat due to minute foreign object embedded in diaphragm.</li> <li>7) Main valve seat is loose.</li> </ol>	<ol style="list-style-type: none"> <li>1) Clean as indicated in (3) immediately above.</li> <li>2) Remove foreign object. Smooth any indentations on under side of diaphragm. If diaphragm is mutilated, replace.</li> <li>3) Remove any foreign objects from No. 8 auxiliary valve seat. Examine seating surface of auxiliary valve for pitting or cutting. Replace as needed with new auxiliary valve, now supplied by Delany with long lasting Delrin head. Replace No. 8 part at same time.</li> <li>4) Increase pressure and/or volume. If several valves are running at one time, pressure may be built up by shutting off all control stops and then opening them again one by one.</li> <li>5) Replace auxiliary valve and No. 8 auxiliary valve seat. Auxiliary valves are now produced with solid Delrin heads, eliminating this chance of leakage.</li> <li>6) Remove any foreign objects. If diaphragm has been scarred at contact point with main valve seat, replace diaphragm. If main valve seat is scored or pitted, replace. All Delany Valves are equipped with renewable main valve seats, most now supplied in Delrin for extra durability.</li> <li>7) Tighten.</li> </ol>
<b>WATER SPLASHES FROM BOWL</b>	The pressure at the fixture is in excess of that set by the fixture manufacturer as an upper limit.	Install a pressure reducing valve in the supply line. Failing this, reduce the volume of water flowing through the flush valve by partially closing the control stop.
<b>VALVE WILL NOT PASS ENOUGH WATER TO SATISFACTORILY SYPHON BOWL</b>	<ol style="list-style-type: none"> <li>1) Control stop not completely open.</li> <li>2) Seat guide for valves with <math>\frac{3}{4}</math>" supply or smaller has been installed in valve in error.</li> <li>3) Insufficient volume of water is being supplied to valve due to low pressure or undersized piping, or both.</li> </ol>	<ol style="list-style-type: none"> <li>1) Open control stop wide.</li> <li>2) Replace with seat guide for valves with 1" supply or larger.</li> <li>3) Establish volume of water available by removing entire diaphragm operating assembly from flush valve, replacing cover, and flushing valve. This converts valve into a simple elbow. If adequate flush still cannot be obtained, water pressure or pipe sizes, or both, must be increased.</li> </ol>
<b>VALVE GOES OFF BY ITSELF</b>	Water in upper chamber of valve has been syphoned out by demand from lower levels. When pressure is restored, valve flushes automatically.	Install diaphragm with non syphon bypass, available as special equipment for any Delany Valve. Consider increasing water pressure or replacing piping since system is in critical condition.
<b>FLUSHING ACTION IS NOT QUIET ENOUGH</b>	<ol style="list-style-type: none"> <li>1) High pressure is causing abnormal noise in water supply system.</li> <li>2) Flush valve is not quiet type.</li> <li>3) Turn-to-Silence equipment is not properly adjusted for maximum quietness.</li> <li>4) Localized roaring noise of fixture may be contributing factor.</li> </ol>	<ol style="list-style-type: none"> <li>1) Install pressure reducing valve in water supply line.</li> <li>2) Install Delany Valve with Turn-to-Silence equipment, standard at no extra cost.</li> <li>3) See instructions for adjusting elsewhere in this literature.</li> <li>4) Make quick test to isolate fixture noise from any valve noise. Place cardboard under toilet seat all but covering opening of bowl. Valve noise will then be readily identified. If fixture is noisy, install quiet action bowl.</li> </ol>
<b>VALVE LEAKS AT HANDLE</b>	<ol style="list-style-type: none"> <li>1) No. 26 handle packing is worn, if valve is fitted with old style spring loaded handle.</li> <li>2) No. 222-3 flexer has fatigued and ruptured.</li> </ol>	<ol style="list-style-type: none"> <li>1) Tighten No. 28L packing nut or replace No. 26 packing. For long range leakfree performance and economy, install Delany Valve with patented Rubberflex sealed handle unit, standard on almost all models.</li> <li>2) Replace No. 222-3 part to regain new spring and sealing action. Good preventive maintenance includes simultaneous replacement of operating stem.</li> </ol>
<b>WATER LEAKS FROM AIR VENTS OF VACUUM BREAKER</b>	<ol style="list-style-type: none"> <li>1) No. 427A rubber sleeve has ruptured from fatigue.</li> <li>2) Vacuum breaker is being subjected to excessive back pressure by restrictive urinal or water closet.</li> </ol>	<ol style="list-style-type: none"> <li>1) Replace No. 427A part. Refer to "How To Service Vacuum Breaker" in the Presto Renewal Parts Folder, PV-3</li> <li>2) Open up flow control on urinal if such a device is provided. Also, flow rate through valve may be reduced at control stop. If condition persists, contact manufacturer of fixture for corrective action.</li> </ol>