Battery-Powered

BATTERY-POWERED RETRO-FIT KITS

AC-Powered

Sensor-Operated Flush Valves

Owner's Manual

Moen Incorporated • 25300 Al Moen Drive • North Olmsted, OH 44070-8022

For more information: Moen Specifier Services 1-800-BUY-MOEN, email specmoen@moen.com

Sensor-Operated Flush Valves

Model Description

104334 Control Module (Closet)
104401 Multi-Unit AC Adapter (Up to 8 Flush Valves)
104406 AC Power Adapter (Single Unit)
104435 Solenoid Coil Kit
104437 Piston Control Disc
104440 Battery Holders (2/bag)
104445 Sensor Eye/Wires
104449 Vandal Proof Screws (12 per bag)
104453 Tube & Wall Flange
104454 AC Flush Valve Cap
104455 DC Flush Valve Cap
104456 Lens Cover
104457 Manual Override Replacement Plug
18 G.A. Wire

AC-POWERED

104516 2-1/4" Delany Style Supply Ext. Nipple
104517 1-3/4" Delany Supply Ext. Nipple
104518 2-3/4" Delany Supply Ext. Nipple
104519 1" Sweat Kit, 1/2" Long
104520 Sensor Eye/Wires
104521 1" Angle Stop Valve
104522 3/4" Angle Stop Valve
104523 Angle Stop Repair Kit
104524 Manual Override Button
104525 Vacuum Breaker w/Washer
104526 Brass Flush Valve Nut
104527 Seat O-Ring
104528 1-1/2" Top Spud Assembly
104529 1-1/4" Top Spud Assembly
104530 3/4" Top Spud Assembly
104531 1-1/2" Extension Tube
104532 1-1/4" Extension Tube
104533 3/4" Extension Tube

BATTERY-POWERED

104510 4" Sloan-Moen Style Ext. Nipple
104511 4-1/2" Sloan-Moen Style Ext. Nipple
104512 5" Sloan-Moen Style Ext. Nipple
104513 5-1/2" Sloan-Moen Style Ext. Nipple
104514 6" Sloan-Moen Style Ext. Nipple
104515 1-1/2" x 24" Extension Tube
104516 Split Ring Wall Support
104517 Trap Primer
104518 1" Sweat Kit, 3" Long
104519 1" Sweat Kit, 6" Long
104520 Sensor Eye/Wires
104521 1" Angle Stop Valve
104522 3/4" Angle Stop Valve
104523 Angle Stop Repair Kit
104524 Manual Override Button
104525 Vacuum Breaker Kit
104526 Brass Valve Body Nut
104527 O-Ring (Large) For Seat
104528 1-1/2" Brass Flush Tube
104529 1-1/4" Brass Flush Tube
104530 3/4" Brass Flush Tube
104531 1-1/2" Top Spud Assembly
104532 1-1/4" Top Spud Assembly
104533 3/4" Top Spud Assembly
104534 Control Module (Closet)
104535 Solenoid Piston Tips (10 per bag)
104536 Flush Valve Cap Mount
104537 Solenoid Piston Tips (10 per bag)

OPTIONAL ACCESSORIES

104516 Flush Tube Support
104517 Wall Bracket
104518 Trap Primer
104519 1" Sweat Kit, 3" Long
104520 Sensor Eye/Wires

Service Kit Parts

Model Description

104561 Manual Override Replacement Plug
104562 2-1/4" Delany Style Supply Ext. Nipple
104563 3/4" Delany Style Supply Ext. Nipple
104564 1-1/4" Delany Style Supply Ext. Nipple
104565 1/2" Delany Style Supply Ext. Nipple
104566 3/4" Delany Style Supply Ext. Nipple
104567 1-1/4" Delany Style Supply Ext. Nipple
104568 1-1/2" Delany Style Supply Ext. Nipple
104569 1/2" Delany Style Supply Ext. Nipple
104570 3/4" Delany Style Supply Ext. Nipple
104571 Trap Primer
104572 3/4" Delany Style Supply Ext. Nipple
104573 1-1/4" Delany Style Supply Ext. Nipple
104574 2-1/4" Delany Style Supply Ext. Nipple
104575 1 1/2" Delany Style Supply Ext. Nipple
104576 3/4" Delany Style Supply Ext. Nipple
104577 1-1/4" Delany Style Supply Ext. Nipple
104578 1-1/2" Delany Style Supply Ext. Nipple
104579 2-1/4" Delany Style Supply Ext. Nipple
104580 1-1/4" Delany Style Supply Ext. Nipple
104581 3/4" Delany Style Supply Ext. Nipple
104582 2-1/4" Delany Style Supply Ext. Nipple
104583 2 1/2" Delany Style Supply Ext. Nipple
104584 3/4" Delany Style Supply Ext. Nipple
104585 1-1/4" Delany Style Supply Ext. Nipple
104586 1-1/2" Delany Style Supply Ext. Nipple
104587 2-1/4" Delany Style Supply Ext. Nipple
104588 2 1/2" Delany Style Supply Ext. Nipple
104589 3/4" Delany Style Supply Ext. Nipple
104590 1-1/4" Delany Style Supply Ext. Nipple
104591 1-1/2" Delany Style Supply Ext. Nipple
104592 2-1/4" Delany Style Supply Ext. Nipple
104593 2 1/2" Delany Style Supply Ext. Nipple
104594 3/4" Delany Style Supply Ext. Nipple
104595 1-1/4" Delany Style Supply Ext. Nipple
104596 1-1/2" Delany Style Supply Ext. Nipple
104597 2-1/4" Delany Style Supply Ext. Nipple
104598 2 1/2" Delany Style Supply Ext. Nipple
104599 3/4" Delany Style Supply Ext. Nipple
104600 1-1/4" Delany Style Supply Ext. Nipple
104601 1-1/2" Delany Style Supply Ext. Nipple
104602 2-1/4" Delany Style Supply Ext. Nipple
104603 2 1/2" Delany Style Supply Ext. Nipple
104604 3/4" Delany Style Supply Ext. Nipple
104605 1-1/4" Delany Style Supply Ext. Nipple
104606 1-1/2" Delany Style Supply Ext. Nipple
104607 2-1/4" Delany Style Supply Ext. Nipple
104608 2 1/2" Delany Style Supply Ext. Nipple
104609 3/4" Delany Style Supply Ext. Nipple
104610 1-1/4" Delany Style Supply Ext. Nipple
104611 1-1/2" Delany Style Supply Ext. Nipple
104612 2-1/4" Delany Style Supply Ext. Nipple
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104635 1-1/4" Delany Style Supply Ext. Nipple
104636 1-1/2" Delany Style Supply Ext. Nipple
104637 2-1/4" Delany Style Supply Ext. Nipple
104638 2 1/2" Delany Style Supply Ext. Nipple
104639 3/4" Delany Style Supply Ext. Nipple
104640 Battery Holder (2/Bag)
104641 Vandal Resistant Screw W/O-Ring & Key (12/Bag)
104642 Tube and Wall Flange
104643 Piston Control Disc
104644 Multi-Unit (up to 8) Power Adapter
Input: 120V AC
Output: 12V DC, 3A

BATTERY-Powered

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## Battery-Powered & AC-Powered Flush Valves

Normal Operation: When new batteries are inserted or AC power is connected or RESET Button is pushed, the lights on the Printed Circuit Board (PCB) will blink in the following sequence: Red, Red (with solenoid clicking), Green, Red and Red. Green light will stay on. When the user enters the sensor beam’s effective range, the Red light will flash one time on battery-operated flush valves and will stay on on AC-powered models. If the user stays in the effective range for more than 4 seconds and steps away, the valve will activate (1) flush cycle. The flush valve unit will automatically reset for the next user. When the manual OVERRIDE Button is pushed, the flushing mechanism will be activated without impacting the mode of automatic operation. On battery powered models, the Red indicator light flashes when batteries are low.

Please note: Always push the RESET Button BEFORE diagnosing any problem and AFTER taking a corrective action.

### Worn batteries are the leading cause of malfunctions.

<table>
<thead>
<tr>
<th>PROBLEM - FLUSH VALVE WILL NOT FLUSH</th>
<th>POSSIBLE CAUSE</th>
<th>TO DIAGNOSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water does not turned on</td>
<td>Check water supply.</td>
<td>Turn water on at valve.</td>
<td></td>
</tr>
<tr>
<td>Power supply failure</td>
<td>Check polarity of batteries (or Power Adapter voltage) and connections.</td>
<td>Replace batteries (or Power Adapter). Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>Batteries are weak</td>
<td>Red indicator light flashes, no click.</td>
<td>Replace batteries. Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>Sensor distance is too short</td>
<td>Stand in front of valve to find focal point of sensor beam.</td>
<td>To adjust sensor distance out, turn adjustment screw clockwise. Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>PC Board does not respond</td>
<td>No light, no action.</td>
<td>Replace batteries (or Power Adapter). Replace PCB. Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>Sensor eye angle adjustment</td>
<td>Beam not detecting user.</td>
<td>Disassemble control unit, rotate lens up/down with finger. Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>User time in the sensor range is too short</td>
<td>Stand in front of flush valve. The red indicator light only flashes once.</td>
<td>Stand in sensor range for more than 4 seconds, then move away. Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>Solenoid valve is clogged</td>
<td>Solenoid is clicking, but water does not flow.</td>
<td>Clean solenoid and blow free all by-pass holes. Replace solenoid. Push RESET Button.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROBLEM - FLUSH VALVE WILL NOT SHUT OFF</th>
<th>POSSIBLE CAUSE</th>
<th>TO DIAGNOSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solenoid coil malfunction</td>
<td>Light blinks but no solenoid clicking.</td>
<td>Replace batteries (or Power Adapter). Replace solenoid coil. Push RESET Button.</td>
<td></td>
</tr>
<tr>
<td>Solenoid is dirty</td>
<td>Solenoid valve is normally closed. Clicking sound means the solenoid is dirty.</td>
<td>Replace solenoid valve. Push RESET Button.</td>
<td></td>
</tr>
</tbody>
</table>

### Sensor Operated Flush Valves

#### Dip Switch Settings - Push reset button on PC board after any dip switch adjustments

<table>
<thead>
<tr>
<th>Diagram #</th>
<th>Flushing Volume (Time) Water Closet or Urinal</th>
<th>Sensor Arming Time (Sensing Time Required For Flush)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urinal Factory pre-set 8315*</td>
<td>SW 1 8315 ON ON ON ON OFF OFF OFF ON 3 SEC</td>
</tr>
<tr>
<td>2</td>
<td>Urinal Factory pre-set 8312* 8314* 8312R10*</td>
<td>SW 2 8312 ON ON ON OFF OFF OFF OFF OFF 4 SEC</td>
</tr>
<tr>
<td>3</td>
<td>Closet factory pre-set 8311*</td>
<td>SW 3 8311 ON OFF OFF ON OFF OFF OFF OFF 4 SEC</td>
</tr>
<tr>
<td>4</td>
<td>Urinal Factory pre-set 8312R15*</td>
<td>SW 4 8312R15 ON OFF OFF ON OFF OFF OFF 4 SEC</td>
</tr>
<tr>
<td>5</td>
<td>Closet Factory pre-set 8310* 8313 8310R16*</td>
<td>SW 5 8310 ON OFF OFF OFF OFF OFF OFF OFF 4 SEC</td>
</tr>
<tr>
<td>6</td>
<td>Closet Factory pre-set 8310R35*</td>
<td>SW 6 8310R35 ON OFF OFF OFF OFF OFF OFF OFF 4 SEC</td>
</tr>
</tbody>
</table>

*Includes AC models • Pint and Dual Flush models contain non-adjustable PC boards.

### Adjusting Settings

Note: Pint and Dual Flush models contain non-adjustable PC boards.