

# Commercial Mixing Valve Installation, Operation & Maintenance Instructions MODEL MVC (34C/34CLF SERIES)



**INSTALLATION**

1. The Apollo MVC should be installed by a licensed contractor in accordance with these instructions and local plumbing codes.
2. Flush the water supply lines prior to installation.
3. The valve can be installed vertically or horizontally. A balancing valve is necessary only if the pressure differential between the hot and cold inlet lines is greater than 30 psi.
4. Make sure the cold water supply is open to mixing valve to prevent excessive hot water temperatures from damaging the thermostat.

**OPERATION**

The Apollo MVC is designed in accordance with ASSE 1017 to control the mixed water temperature during pressure and temperature fluctuations, providing a safe and consistent mixed water temperature. Once the desired temperature is set, the valve will automatically maintain desired water temperature without large fluctuations. Periodic inspection and cleaning by a licensed contractor is recommended.

**ADJUSTMENT**

Open fixture downstream as the valve must be set under flowing conditions. Turn the adjusting knob/bolt accordingly to increase or decrease temperature at the fixture or measurement port. Turn the knob/bolt clockwise for lower temperatures or counterclockwise for higher temperatures. The water should be flowing while adjusting the valve. Use a thermometer or temperature gauge (not supplied) near the point of use to accurately set the valve to desired setpoint.

**MAINTENANCE**

The Apollo MVC will need to be inspected periodically depending on usage and water conditions. If cleaning and re-lubrication does not provide satisfactory temperature control, repair kits can be easily installed.

**Repair Instructions (3/4" and 1")**

1. Turn off hot and cold water supply to the valve.
2. Remove the top retainer and discard O-ring (Item 2).
3. Remove shuttle and spring (Item 3 & 4) from the body and discard.
4. Using a screwdriver or pliers, remove the retaining clip from the adjustment bolt.
5. Remove adjustment bolt from the top retainer and discard the O-ring (Item 1).
6. Replace discarded items with items from the repair kit (34C104RK for low temp and 34C104RK1 for high temp) and re-assemble in reverse order. **IMPORTANT-** Silicone based lubricant, supplied with repair kit, or lubricant compatible with o-ring material must be used.
7. After re-assembling purge air from the system and adjust the valve setpoint to desired temperature.

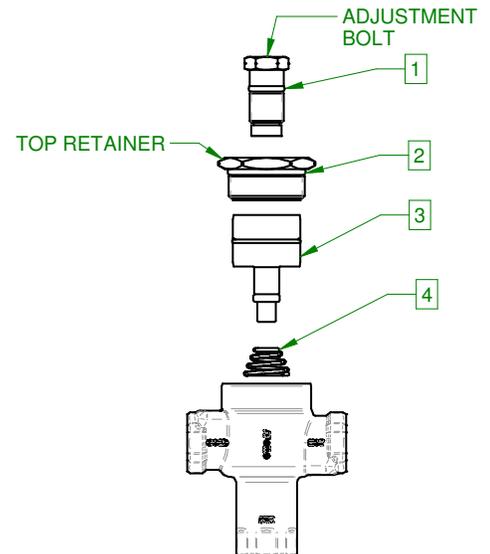
**34C104RK\***

| ITEM | PART NO. | DESCRIPTION                        |
|------|----------|------------------------------------|
| 1    | D503200  | O-RING, -228, EPDM, NSF61          |
| 2    | D503100  | O-RING, -213, EPDM                 |
| 3    | W436200  | SHUTTLE, S-ASSY, 3/4"-1" LOW TEMP  |
| 4    | A243400  | SPRING, CONICAL, 3/4"-1"           |
| 5*   | I901600  | LUBRICANT, DOW CORNING 111, 6 GMS. |

**34C104RK1\***

| ITEM | PART NO. | DESCRIPTION                        |
|------|----------|------------------------------------|
| 1    | D503200  | O-RING, -228, EPDM, NSF61          |
| 2    | D503100  | O-RING, -213, EPDM                 |
| 3    | W437200  | SHUTTLE, S-ASSY, 3/4"-1" HIGH TEMP |
| 4    | A243400  | SPRING, CONICAL, 3/4"-1"           |
| 5*   | I901600  | LUBRICANT, DOW CORNING 111, 6 GMS. |

**\*34C Repair Kits are Lead Free**



**Repair Instructions (1-1/4", 1-1/2" & 2")**

1. Turn off hot and cold water supply to the valve.
2. Remove the bottom retainer and discard O-ring (Item 5). Warning: Spring is in compression against retainer so expect sudden release while loosening.
3. Remove spring (Item 4) and discard.
4. Remove shuttle and thermal element (Items 2 & 3) and discard.
5. Remove brass plug inside top of valve and discard the O-ring (Item 1)

**34C106RK\***

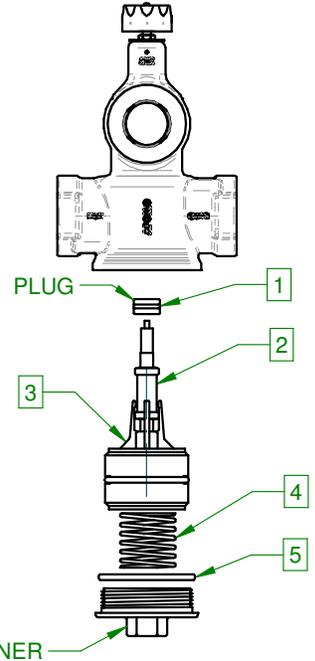
| ITEM | PART NO. | DESCRIPTION                                |
|------|----------|--|
| 1    | D435400  | O-RING, -116, EPDM                         |
| 2    | I844600  | ELEMENT, THERMAL (90°F - 140°F)            |
| 3    | W885005  | SHUTTLE, S-ASSY, 1-1/4" - 2" LOW/HIGH TEMP |
| 4    | A245500  | SPRING, 0.738ID, 0.131WD, 4.138FL          |
| 5    | D251000  | O-RING, -236, BUNA-N                       |
| 6    | I901600  | LUBRICANT, DOW CORNING 111, 6 GMS.         |

**34C106RK1\***

| ITEM | PART NO. | DESCRIPTION                                |
|------|----------|--|
| 1    | D435400  | O-RING, -116, EPDM                         |
| 2    | I844700  | ELEMENT, THERMAL (130°F - 180°F)           |
| 3    | W885005  | SHUTTLE, S-ASSY, 1-1/4" - 2" LOW/HIGH TEMP |
| 4    | A245500  | SPRING, 0.738ID, 0.131WD, 4.138FL          |
| 5    | D251000  | O-RING, -236, BUNA-N                       |
| 6    | I901600  | LUBRICANT, DOW CORNING 111, 6 GMS.         |

**\*34C Repair Kits are Lead Free**

6. Replace discarded items with items from the repair kit (34C106RK for low temp and 34C106RK1 for high temp) and re-assemble in reverse order. **IMPORTANT-** Silicone based lubricant, supplied with repair kit, or lubricant compatible with o-ring material must be used.
7. After re-assembling reset the temperature setting to desired temperature.



**!** CALIFORNIA PROP 65: WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**FOR NON-LEAD FREE VALVES:** It is illegal to use this product in the United States for potable water services (water intended for human consumption).

**FOR LEAD FREE VALVES:** This product complies with U.S. Safe Drinking Water Act (SDWA). Suitable for potable water applications intended for human consumption.