

# METERING VALVE INSTALLATION AND MAINTENANCE

Connections: 1/2" inlet and outlet

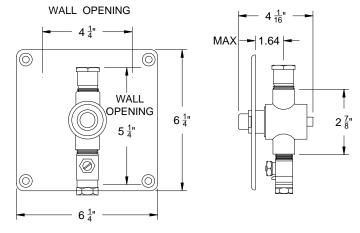
WARNING! TEST THIS METERING VALVE WITH TEMPERED WATER ONLY (90-100°F, 32-38°C). DO  $\underline{NOT}$  TEST WITH COLD WATER ONLY.

## MAXIMUM OPERATING PRESSURE, 65 PSI (4.5 BAR)

## LV-477B-3 CONCEALED VALVE

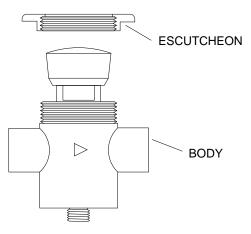
SEE PAGE 2





## LV-477E PANEL MOUNTED VALVE SEE PAGE 3







**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to <a href="https://www.P65Warnings.Ca.gov">www.P65Warnings.Ca.gov</a>

## BEFORE INSTALLING

For increased life and easier maintenance, we strongly recommend that the following items be installed.

- Pressure reducing and regulation device which should be installed upstream of the sanitary appliance, and which should be fitted with a pressure gauge.
- One or more protection filters, for overall protection, located on each of the sanitary branch-pipes which MUST be protected. A filter with removable basket should permit easy access.
- · Isolating stop valves, easily reached, which divide the installation into several branch sections.
- One or more drain cocks located at installation low points, in order to prevent piping from freezing.

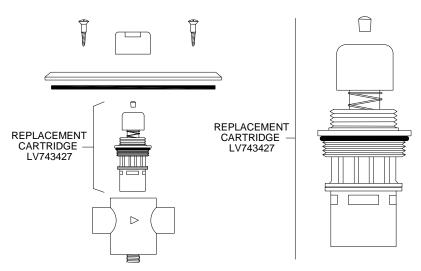
#### WHEN INSTALLING

In order to avoid any problems when the controls are put into service, it is vital that pipes be drained of all foreign debris, which could block their mechanisms.

Email: info@leonardvalve.com
Web Site: http://www.leonardvalve.com

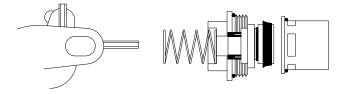
## LV-477B-3 REPAIR AND MAINTENANCE

## WARNING! TEST THIS METERING VALVE WITH $\underline{\text{TEMPERED}}$ WATER (90 – 100°F). DO $\underline{\text{NOT}}$ TEST WITH COLD WATER ONLY.



#### FLOW RATE ADJUSTMENT

When LV-477B-3 valves include an adjustable flow rate cartridge, the flow rate is factory set 2.5 GPM (12 l/min). Adjustment of the flow rate is achieved from the front of the valve using a 3mm allen key which is used to set a needle screw which blocks the exit of water and is located in the axis of the piston. This allows the flow rate to be adjusted without removing the valve or shutting off the water supply.



## **MAINTENANCE**

- If the tap doesn't shut off or drops, it may be caused by impurities in the water (sand, lime, scales.) In this case, push and turn the push-button several times to flush the impurities.
- If the tap is still leaking, shut off the supply to the metering valve and remove the cartridge.
- Unscrew the head of the device or tap using a 23mm open-ended spanner.
- Remove the complete cartridge assembly, ensuring that the plastic jacket is also removed.
- Remove scale trace inside the vertical groove of the jacket with a knife.
- · Clean the interior of the body.
- · If necessary renew the cartridge with the washers and spares of the reconditioning kit or install the new cartridge and tighten.

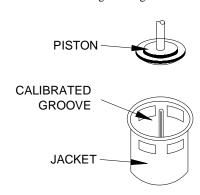
### SERVICE RECOMMENDATIONS

Never grease the cup-seal on the piston which slides in the plastic jacket. Ensure that the vertical groove in the jacket is kept clean.

Public facilities must be repaired and maintained rapidly. We suggest that a small stock of complete cartridges be kept for immediate replacement of mechanisms. The used cartridge may subsequently be reconditioned with the aid of a reconditioning kit.

**CLEANING**: Cleaning with a soft cloth and soapy water is adequate. Never use abrasive or chlorinated products.

**RISK OF FREEZING**: Where there is risk of freezing, pipes should be drained before winter, and the metering valve operated several times to drain them. If the installation is not to be used for a long period, it is best to remove the entire cartridge containing the mechanism and to store it.



# LV-477E REPAIR AND MAINTENANCE (AS FURNISHED ON SS-MV, SS-PAM, SS-7600 MODELS) ALSO PANEL MOUNTED

WARNING! TEST THIS METERING VALVE WITH <u>TEMPERED</u> WATER (90 – 100°F). DO <u>NOT</u> TEST WITH COLD WATER ONLY.

## DESCRIPTION

LV-477E TIMED FLOW SHOWER VALVE (PANEL MOUNT) - Designed for panel type installation, 30 second push button self-closing action. Provides for easy maintenance. Cartridge may be removed and serviced from front of panel without removing valve body on the panel.

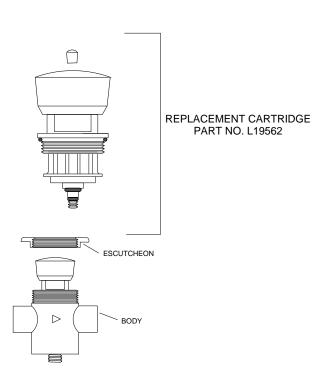
## **MAINTENANCE**

To service valve, first shut off inlet supply. Complete cartridge may be removed through front of panel using a <u>thin</u> 15/16" wrench across flats of bonnet assembly. Replacement cartridge (Part No. L19562). Note **DO NOT GREASE "O RINGS" OR CUP SEAL.** 

It is important to flush the system completely before operating metering valve.

Not to be used with pressures exceeding 65 PSI (4.5 BAR)





WARNING! HOT WATER IN EXCESS OF 110°F IS DANGEROUS! MAKE CERTAIN THIS METERING VALVE IS SUPPLIED WITH CONTROLLED TEMPERED WATER!

1360 Elmwood Avenue, Cranston, RI 02910 USA Phone: 401.461.1200 Fax: 401.941.5310 Email: info@leonardvalve.com

Web Site: http://www.leonardvalve.com

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