



# MODEL REMXL-RA Installation Instructions

## LEAD FREE\* Pressure Reducing Valve 20mm

\*This product contains a weighted average lead content less than 0.25% for surfaces in contact with water per the requirements of Clause A5G4 of NCC 2022 Volume Three (Plumbing Code of Australia).

Annual inspection and maintenance is required of all plumbing system components. To ensure proper performance and maximum life, this product must be subject to regular visual inspection and pressure testing, with cleaning or repair as needed. Installation, inspection and maintenance must be performed by a licensed plumber. It is also recommended that a suitable strainer be installed upstream of the valve. Anytime a pressure reducing valve is adjusted, a pressure gauge must be used downstream to verify correct pressure setting. **Do not bottom out adjustment spindle.** It is recommended regulators are protected from water hammer as this can cause premature wear on the valves and is not covered by warranty.

**NOTE:** Failure to adhere to installation instructions will void warranty

### Installation Instructions

1. This valve should be installed by a qualified licensed plumber.
2. Flush supply line to remove loose dirt and scale which may damage the seal ring and seat.
3. Install valve in-line with arrow on valve body pointing in the direction of flow. The valve shall be installed in an accessible location and may be installed in any orientation. The valve must be installed in accordance to local codes and should be installed with unions to assist removal if required.
4. All valves are factory set to approximately 500kPa\*, adjust regulator to desired outlet set pressure by using a 6mm hex key to turn adjustment spindle clockwise to raise pressure or counterclockwise to reduce pressure.

\* Preset outlet pressure is according to factory conditions. Valve **must** be adjusted at time of installation to site conditions to guarantee performance. Failure to do so will void warranty

5. When desired pressure is achieved, test valve to confirm proper operation using installation testing procedures below.

#### Installation Testing Procedure:

1. Determine the incoming supply pressure for reference.
2. Install the pressure gauge on the downstream sensing port (M14 X 1.5 thread).
3. Open a downstream fixture inside the dwelling to start flow through the valve.
4. Record the reading on the pressure gauge for reference. This is the reduced flowing pressure.
5. Close the inside faucet or fixture and immediately record the reading on the pressure gauge. This is the reduced static pressure and outlet set point of the valve.
6. Observe the gauge for 10 minutes.
7. Criteria:
  - a. If the desired outlet pressure is maintained for 10 minutes without increasing, the valve is working properly and no further action is required. If not, adjust to suitable outlet pressure and observe again according to steps 3-7.
  - b. If outlet pressure increases immediately and is equal to supply pressure from step 1, the valve may be severely fouled, damaged, or defective and should be repaired or replaced.
  - c. If pressure slowly creeps up within 10 minutes the valve may be fouled and should be cleaned and retested. If you are retesting a valve that has been cleaned and / or repaired, and it still has pressure creep, replace the valve.
  - d. If there is any external leakage from the body the valve should be replaced.

# Troubleshooting

Pipelines in a water supply system must be of sufficient carrying capacity to maintain adequate pressure at the most remote or highest fixture. Relatively high service pressures which can create high water velocities in pipelines would allow use of smaller pipes to satisfy fixture use. However, high velocity tends to cause whistling and humming. Reduction of pressure by the use of a pressure reducing valve, in an attempt to eliminate such a condition, may reduce pipeline capacities below that which is adequate for maximum probable use. When high service pressures are in effect, either continuously or periodically, the application of a pressure reducing valve will be successful only when the installed pipeline is of adequate size to satisfy the system demand at the lower pressure. When actual water demands are unknown, the valve size should be no less than the existing pipe size.

PLEASE NOTE: Due to conditions in Australia it is recommended that pressure reduction is staged with valves installed on risers and branch lines. Failure to do so may cause premature wear of valves and is not covered under warranty.

- 1. Pressure periodically builds up in system above the outlet set pressure of the pressure reducing valve.**
  - a. Cause: Thermal expansion of water as it is being heated.
    - i. Solution: This is a natural consequence. It may happen each time that the heater runs. Pressure will be relieved the next time a fixture is opened until the next time the heater turns on. An expansion control relief valve properly piped to a suitable drain or expansion tank set at the pressure reducing valve outlet set pressure must be installed. This will not prevent pressure rise but should limit it to a safe level.
- 2. Pressure builds up in system above the outlet set pressure of the pressure reducing valve.**
  - a. Cause: Debris on seating face of seal ring.
    - i. Solution: Flush the reducing valve by opening multiple fixture outlets wide open. If this does not correct the problem, remove the internals for inspection and cleaning.
  - b. Cause: Cut or worn seal ring or stem o-ring.
    - i. Solution: Replace the valve.
- 3. Fixture pressure and flow is unsteady or inadequate.**
  - a. Cause: Low water supply pressure in mains.
    - i. Solution: This is a water department problem. It is due to the mains being inadequate for the demands made on them during certain periods of the day.
  - b. Cause: Heavy periodic demands by appliances in the house or inadequate line size.
    - i. Solution: House service lines may at times be inadequate for certain fixtures. Size of some pipelines may need to be increased. Increasing the house service mains might be necessary if inadequate flow is general at all fixtures. A qualified licensed plumber will need to determine if pipeline sizes need to be increased.
    - ii. Solution: Pressure setting of reducing valve may be too low. Try increasing the setting of the reducing valve gradually to increase flow at the fixtures.  
**Caution:** Do not bottom out adjustment spindle on bell housing.
- 4. Valve appears to be noisy; chatters, hums, whistles.**
  - a. Cause: High velocity of flow in pipelines causing vibration.
    - i. Solution: The valve or the pipelines could be undersized. Pipes and valves being undersized would accentuate this condition. A qualified licensed plumber will need to determine if the valve size or pipe size should be increased.
  - b. Cause: Worn seat washer or loosely installed seal ring.
    - i. Solution: Replace the valve.
  - c. Cause: Pressure reduction is greater than 3 to 1
    - i. Solution: Increase set pressure temporarily to see if noise goes away, adding a second valve in series may be required to achieve desired pressure setting without noise.

# Typical Installation

**\*\*Local codes shall govern installation requirements.\*\***

Unless otherwise specified, the assembly shall be mounted in accordance with the latest edition of the local codes. The Model REMXL-RA may be installed in any position. The assembly shall be installed with sufficient side clearance for testing and maintenance.

