Model 600XL
Pressure Reducing Valve with Integral By-pass
(1/2", 3/4", 1", 1 1/4", 1 1/2" & 2")

*This product contains a weighted average lead content less than 0.25% for wetted surfaces.

Installation □ Testing □ Maintenance Instructions

REPAIR KIT INSTRUCTIONS
HOW TO MAKE REPAIRS:
(Shut off service before starting disassembly)
1. Open faucet on dwelling to remove line pressure.
2. Note distance that adjustment bolt protrudes from bell housing.
   Loose locknut on adjustment bolt, then turn adjustment bolt out
   of bell housing until free of spring tension.
3. Loosen main cap and remove counterclockwise.
4. Loosen plunger and remove counterclockwise. Remove old seal
   ring then insert new seal ring.
5. Loosen strainer cap counterclockwise and remove screen.
6. Unscrew bell housing counterclockwise and remove spring,
   spring disc and friction ring.
7. Remove stem assembly from regulator. Inspect area in body
   where stem o-ring guides for pitting or scratches. Smooth bore with
   emery cloth if needed. This area must be smooth for the valve
   to function correctly.

TO REASSEMBLE:
1. Open shut-off valve slowly and flush body and line of any debris.
2. Assemble new stem unit using new stem, o-ring, diaphragm,
   diaphragm disc and diaphragm bolt/nut. Tighten bolt/nut securely
   (CAUTION: Be sure the rounded edge of the diaphragm disc is next
   to the diaphragm).
3. Lubricate o-ring with grease supplied in repair kit and install
   stem unit in body.
4. Center washer on stem. Screw plunger into stem unit.
   CAUTION: Do not over tighten plunger; it is possible to break
   the threaded end of the plunger.
5. Install new spring, spring disc and friction ring then replace
   bell housing by tightening clockwise. Turn adjustment bolt
   clockwise until adjustment bolt touches spring disc.
6. Install new screen, cap gaskets and replace caps by tightening
   clockwise.
7. Turn adjustment bolt into bell housing to old setting then enter
   dwelling and turn on several faucets.
8. Turn on water service. Let water run for several seconds then
   turn off faucets in dwelling.
9. Adjust the regulator to desired pressure by turning adjustment bolt
   clockwise (into bell housing) to raise pressure or counterclockwise
   (out of bell housing) to lower pressure. It is recommended a
   pressure gauge be installed downstream of the regulator to
   ensure pressure is reduced below 75 psi. NOTE: When reducing
   pressure, open a downstream faucet to relieve pressure.
10. Tighten locknut when desired pressure is achieved.

INSTALLATION INSTRUCTIONS
Install valve in line with arrow on valve body pointing in direction of
flow. Before installing reducing valve, flush out line to remove loose
dirty and scale which might damage seal ring and seat. All valves will be
furnished with stock settings to reduce to 50 psi. To readjust reduced
pressure, loosen outer locknut and turn adjustment bolt clockwise (into
bell housing) to raise reduced pressure, or counterclockwise (out of
bell housing) to lower reduced pressure.

NOTICE: 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 inspec-
tion, testing and cleaning.

Regulators in series: Where the desired pressure reduction is
more than a 4 to 1 ratio (i.e. 200psi to 50psi), multiple regulators
in series should be installed.

SEALED CAGE WARNING: Loosen lock washer at adjustment
bolt slowly. Look for any trapped water pressure under the sealed
cage washer. Relieve pressure before removing bell.

CAUTION: Anytime a reducing valve is adjusted, a pressure gauge
must be used downstream to verify correct pressure setting. Do
not bottom out adjustment bolt on bell housing. Valve may be
installed in any position.

WARRANTY: ZURN WILKINS Valves are guaranteed against defects of material or workmanship when used for the services recom-
mended. If in any recommended service, a defect develops due to material or workmanship, and the device is returned, freight prepaid,
to ZURN WILKINS within 12 months from date of purchase, it will be repaired or replaced free of charge. ZURN WILKINS’ liability shall
be limited to our agreement to repair or replace the valve only.

WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects and other reproductive harm
ADVERTENCIA: Este producto contiene una sustancia química que el Estado de California como causante de cáncer, defectos de nacimiento
y otros daños reproductivos
Troubleshooting

Pipe lines in a water supply system must be of sufficient carrying capacity to maintain adequate pressure at the most remote or highest fixture. Under the maximum probable fixture use, minimum adequate pressure is generally 8 to 15 lbs. but may be more, depending on the equipment being supplied. Relatively high service pressures which can create high water velocities in pipe lines 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 pipe line 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 pipe line 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.

PROBLEM
1. Pressure creeps or builds up in system above the setting of pressure reducing valve.

SOLUTION
a. This is a natural consequence. It may happen each time that the heater runs. A pressure relief valve or expansion tank must be installed. This will not prevent pressure rise but should limit it to a safe level.
b. Flush the reducing valve by opening one or two fixture outlets wide. If this does not correct the problem, remove seal ring for cleaning.
c. Replace with new seal ring. Temporary repairs may be made by turning the seal ring over.
d. Replace with new stem o-ring and/or cartridge.

2. Pressure and fixture flow is unsteady.

SOLUTION
a. This is a water department problem. It is due to the mains being inadequate for the demands made on them.
b. House service lines may at times be inadequate for the load. Size of some pipelines may need to be increased. Pressure setting of reducing valve may be too low.
c. Try increasing pressure before changing pipelines.

3. Small, inadequate flow from fixtures.

SOLUTION
a. It may be necessary to increase pipe sizes only in some sections of the system leading to the offending appliances or fixtures. Increasing the house service mains might be necessary if small supply is general at all fixtures.
b. Raise pressure gradually by readjusting valve until this point is determined.
c. Clean screen.

4. Valve appears to be noisy; hums, whistles or chatters.

SOLUTION
a. Pipelines could be small or too light. Reducing valves could be too small. Pipes and valves being small would accentuate this condition.
b. Inspect seal ring. If a deep channel appears on seal ring face, replace or use the opposite side.
c. Frequently noise appears in a faucet or appliance and seems to originate from the reducing valve. There is a general tendency to use streamline piping of a relatively small size. Velocity is naturally high and noise of fast moving water is not unusual.