



Installation Instructions

3/4" PVB, Models 220-03 and 220-13 (80-0550 pre-1993)

1" PVB, Models 220-04, 220-14 and 220-54 (80-0560 pre-1993)

1" PVB, Model 53300

Notice to Installer — This device must not be installed indoors.

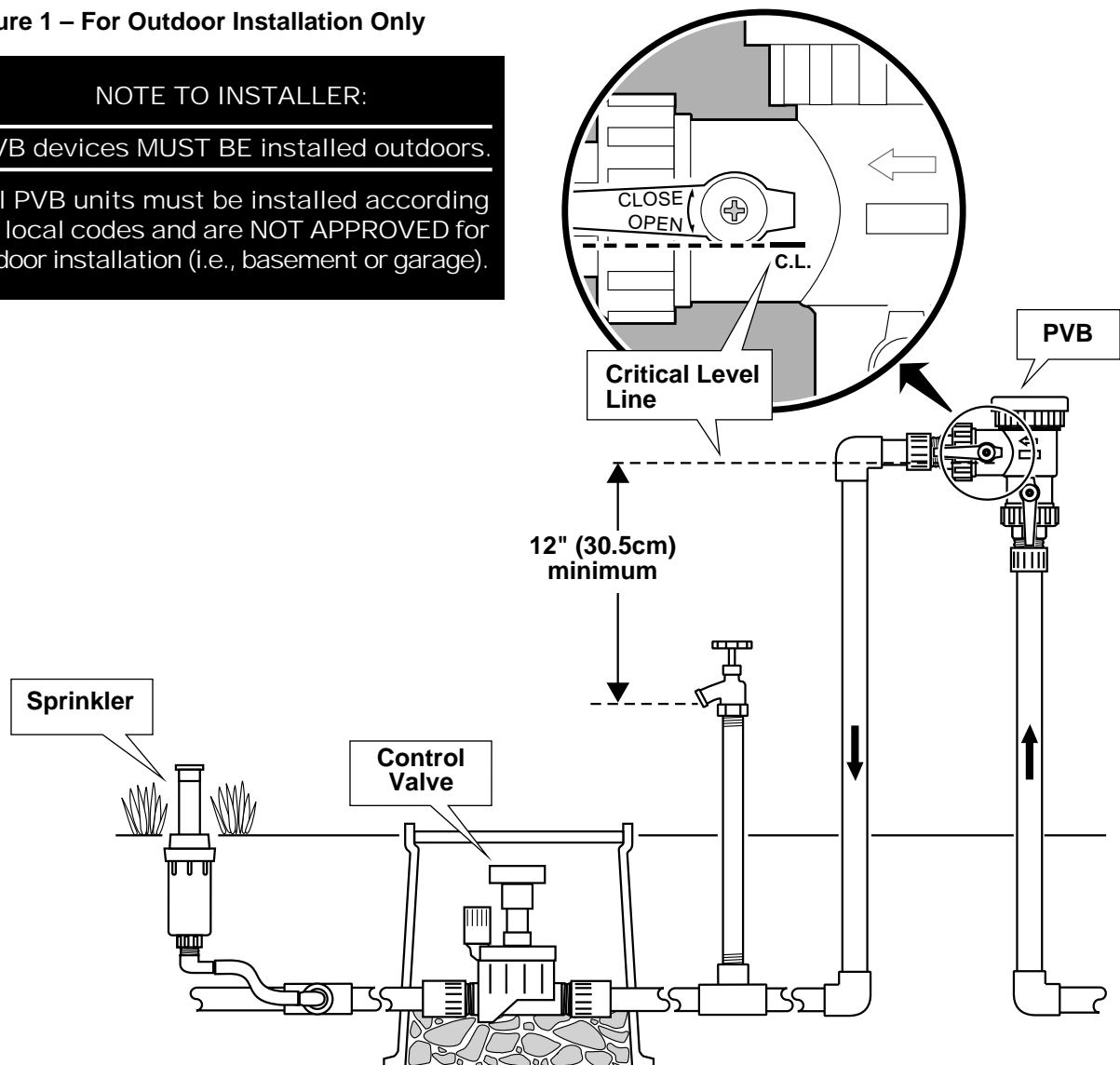
The Toro PVB (Pressure Vacuum Breaker) is designed to prevent backflow of contaminated water into the potable water system due to back-siphoning conditions only. This device should not be installed indoors or where backflow due to back pressure may occur. Installation of this device should conform to local building and plumbing codes as they apply. Refer to the "Installation Requirements" on page 2 prior to installing this device.

Introduction

The Toro Model PVB is comprised of a positive-seating check valve, a spring-loaded vent float assembly (located down stream of the check valve), quarter-turn ball valves on the inlet and outlet ports and test cocks located upstream and downstream of the check valve. The vent float assembly is spring loaded to the open position and will allow air to enter the system when line pressure drops to 1 PSI (.07 kg/cm²) or below, thus preventing back-siphoning. This feature permits installation of irrigation control valves downstream of the PVB. Recommended operating pressure range is 25–150 PSI (1.75–10.6 kg/cm²).

Figure 1 – For Outdoor Installation Only

NOTE TO INSTALLER:
PVB devices **MUST BE** installed outdoors.
All PVB units must be installed according to local codes and are **NOT APPROVED** for indoor installation (i.e., basement or garage).



Installation Requirements

The following list of installation requirements is provided to assure maximum performance of the Toro PVB. Read this list completely prior to installation.

- The installed height of the PVB, when measured at the Critical Level line, must be at least 12" (30.5cm) above the highest downstream water outlet (sprinkler, hose bib etc.). Refer to **Figure 1** for location of the Critical Level line.
- Provide an accessible location for periodic inspection and testing of the PVB.
- The PVB must not be subject to standing water which can rise to less than 6" from the Critical Level line.
- Install the PVB vertically with the top of the device in a level position.
- Do not install the PVB in a valve box below ground level.
- **Do not install the PVB indoors** or in an area where some water spillage is harmful.
- Do not install the PVB until the water supply line has been flushed of foreign material.
- Do not over-tighten inlet and outlet caps – hand-tight is sufficient.
- Do not use the PVB with fertilizer injection.

Caution: Do not allow the PVB to freeze or be subjected to downstream water hammer effect. Thermal water expansion and excessive pressure situations can cause severe damage to the PVB and the irrigation system.

Caution: Use teflon tape for sealing threaded connections. Use of other sealing compounds may cause thread deterioration.

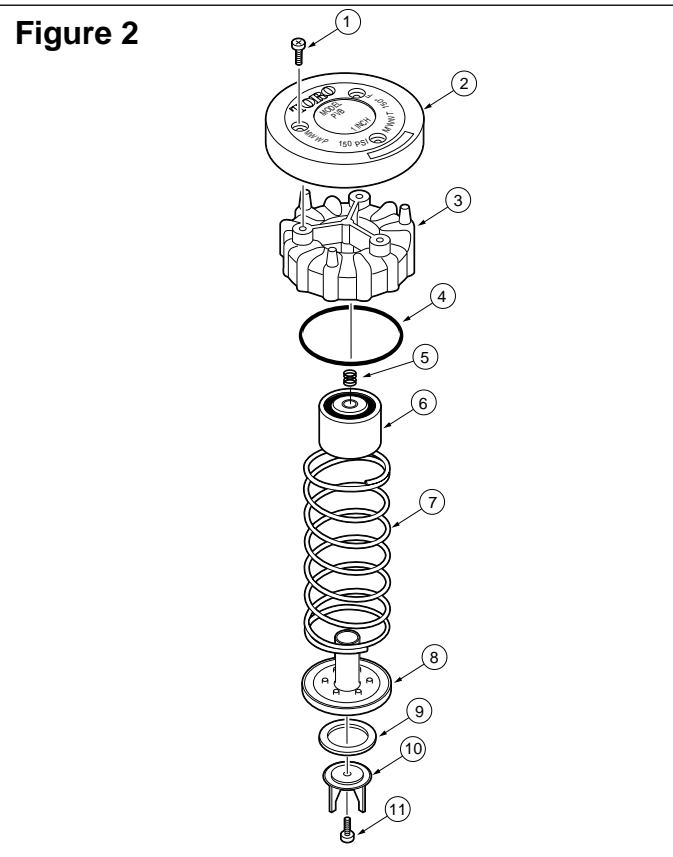
Servicing Float and Check Valves

(Refer to **Figure 2**)

1. Turn off water supply to PVB at source.
2. Remove three cover screws (1) and cover (2).
3. Unscrew cap (3) counterclockwise.
4. Remove o-ring (4), float assembly (5 & 6), check valve spring (7), and check valve assembly (8–11).
5. Disassemble check valve assembly by removing phillips screw (11).
6. Clean and inspect all components thoroughly prior to reassembly.
7. Reassemble in reverse order, utilizing new parts as needed.

Note: For float assembly replacement parts, order service kit number 89-6006. Kit includes items 3–6.

Note: For check valve assembly replacement parts, order service kit number 80-0553. Kit includes items 8–11.



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