Table 1

	gpm	m³/h	l/s
100-PGA	5 – 40	1,14 – 9,08	0,32 – 2,52
150-PGA	30 – 100	6,81 – 22,70	1,89 – 6.30
200-PGA	40 – 150	9,08 – 34,05	2,52 – 9,45
100-PEB/PESB/PESB-R	5 – 50	1,14 – 11,35	0,32 – 3,15
150-PEB/PESB/PESB-R	20 – 150	11,36 – 34,05	3,15 – 9,45
200-PEB/PESB/PESB-R	50 – 200	17,03 – 45,40	4,73 – 12,60
100-EFB-CP	5 – 50	1,14 – 11,35	0,32 – 3,15
150-EFB-CP	20 – 140	4,52 – 31,78	1,25 – 8,82
200-EFB-CP	20 – 200	4,54 – 45,40	1,26 – 12,60
300-BPES	60 – 300	13,62 –68,10	3,78 – 18,90

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P/N 231947

PRS-DIAL Pressure Regulating Module

Installation and Operation Guide

English PRS-DIAL Pressure Regulating Module

Thank you for purchasing a Rain Bird PRS-DIAL pressure regulating module to optimize the performance of your irrigation system. This product automatically maintains constant outlet pressure regardless of inlet pressure fluctuations.

Proper operation requires inlet pressure to be a minimum of 15 psi (1 bar) higher than desired outlet pressure. This product is designed for use with Rain Bird PGA, PEB, PESB, PESB-R, EFB-CP and BPES commercial valves. Much of the installation is done by hand; elsewhere, an adjustable wrench and pressure hose gauge are required.

As with all pressure regulators, this product senses back pressure before regulating outlet pressure. When opening the valve, it is normal for outlet pressure to momentarily exceed the desired set pressure and then begin regulating outlet pressure. This situation can be greatly reduced by following the installation and adjustment procedures below.

Notes:

1. For areas with very high pressure or uneven terrain, install sprinklers with PRS pressure regulating stems or SAM check valves.
2. When inlet pressures exceed 100 psi (6,9 bars), a pressure regulating master valve or inline pressure regulator is suggested.
3. Rain Bird does not recommend using the PRS-DIAL module for applications outside the recommended flow ranges (listed in Table 1).

Installation Refer to Figure 1.

1. Turn off water supply to the valve and turn flow control handle A clockwise until closed.
2. Remove solenoid B and adapter C from bonnet F with an adjustable wrench.
3. Remove the Schrader valve cap D.
4. Thread PRS-DIAL housing E into valve bonnet F until hand tight.
5. Loosen slightly to align latch G between ribs on plastic valves H or hole on brass valves, then push down latch to snap in place.
6. Thread PRS-DIAL cartridge I into housing until hand tight, then thread adapter and solenoid into top of housing.
7. Keep the flow control handle closed, then turn on water supply to the valve and proceed with adjustment.

Adjustment Refer to Figure 1.

1. Remove the PRS-DIAL cap by pulling away from the housing. Verify setting is 100 psi (6,9 bars).
2. Attach pressure hose gauge to Schrader valve D.
3. Turn solenoid counter-clockwise ¼ turn to manually open the valve or activate the solenoid from the controller. Do not use external bleed.
4. Turn flow control handle counter-clockwise until pressure gauge indicates 15 psi (1 bar) above desired downstream pressure.
5. Turn PRS-DIAL adjustment knob J until pressure gauge indicates the desired outlet pressure, then replace PRS-DIAL and Schrader valve caps.
6. Turn solenoid clockwise to close the valve or deactivate the solenoid from the controller.

Troubleshooting

External Leaks. Main cause is improper o-ring seal between bonnet, cartridge, adapter or solenoid.

1. Turn off water supply to the valve, then unthread parts at the leak.
2. Wipe or blow parts clean, reassemble, then turn on water supply and verify proper function.

Internal Leaks. Main cause is loose solenoid. If tightening solenoid does not fix the leak, proceed as follows:

1. Turn off water supply to the valve, then remove solenoid and clean debris.
2. Unthread the PRS-DIAL and check the rubber boot under the housing for tears or debris.
3. Check inside the solenoid bowl for damage to the white seat; a slight impression on top is normal.
4. Clean all parts and reassemble, then turn on water supply and verify proper function.

Excess Vibration. Main cause is excess air in the line or operation outside recommended flow ranges (see Table 1). To purge the air, proceed as follows:

1. Keep water supply on.
2. PGA VALVES ONLY: remove solenoid and let water flow for two minutes.
3. ALL OTHER VALVES: remove external bleed screw and let water flow for two minutes.
4. Open and close flow control handle a few times to remove air trapped inside the bonnet.
5. Reinstall parts, follow adjustment procedures and verify proper function.

Schrader Valve. Main cause of failure is loose valve stem or seal failure causing external leaking.

1. Check torque of valve stem and verify that it is set at 3-5 in-lbs (0,3-0,6 Nm). Turn clockwise until tight and proper torque is achieved.
2. If the valve is still leaking, replace valve stem and turn clockwise until tight and proper torque is achieved.

Figure 1