# **P** Series

## Fuel Filter/Water Separator

Instruction Part Number 58126 Rev D



The patented P Series diesel fuel conditioning module (for vacuum side applications only) was developed for application in any diesel engine fuel injection system. P Series assemblies are available in three sizes and all feature 3/8" NPT inlet and outlet fuel ports. This innovative and modular fuel filter/ water separator incorporates low-pressure fuel system components into a single package.

#### Getting Started

The following customer supplied materials should be on hand before beginning installation.

- Motor Oil
- Hose Cutter
- Shop Towels
- 15mm Wrench
- Thread Sealant
- Mounting Fasteners (3/8")
- Inlet/Outlet Fittings (3/8"-18 NPT)
- Torque Wrench (inch pounds)

#### Installation Instructions

- Engine must be off and cool to touch. Do not smoke or allow open flames near installation. Obtain good ventilation.
- 2. Disconnect ground cable from battery.
- 3. Find an appropriate mounting location near fuel supply hose.
- 4. Attach optional mounting bracket to filter assembly using 15mm bolts (provided) and torque to 200 inch pounds.



Note: P3 shown above. Clear bowls available for P3 and P5 units only. The P4 has a black bowl.

- Mount assembly near fuel supply hose using mounting instructions below (fasteners not provided).
- Install appropriate inlet and outlet fittings with liquid thread sealant. Do not use thread tapes as particles may break off and contribute to clogging the filter. Do not exceed 420 inch pounds of torque when tightening the fittings.

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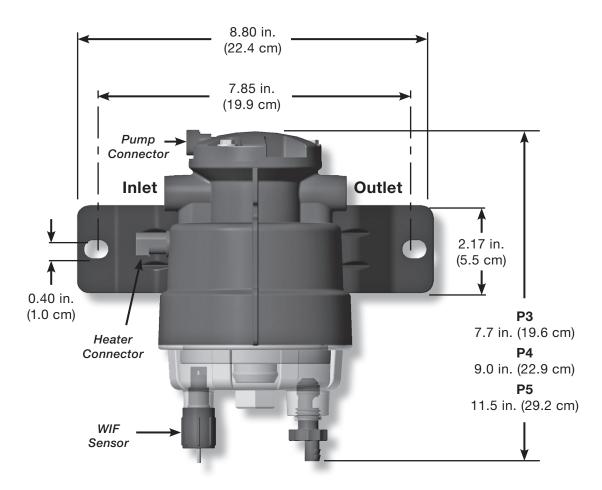
### **Contact Information**

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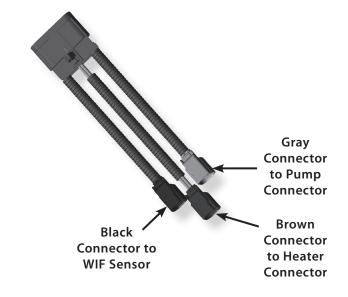


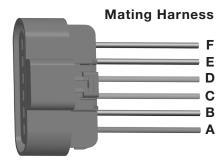
#### **Mounting Information**

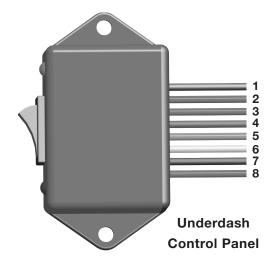


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- 7. Relieve pressure from fuel line if appropriate.
- 8. Cut fuel line and attach to inlet and outlet fittings.
- 9. Connect the wiring harness to the filter assembly as shown to the right.
- 10. Connect wire leads as shown below with 18 gauge wire (minimum unless otherwise specified).
- 11. When routing wires, take care to avoid hot or moving surfaces. Use cable ties if necessary to keep wires away from potential damage.
- 12. It is not necessary to manually prime unit. While cranking engine, press the priming switch on the underdash control panel until engine starts (and fuel lines are primed). Check for leaks and correct as necessary with engine off.







- 1: **Orange** wire (heater) (-) to **C** orange wire
- 2: Yellow wire (probe) to A black wire
- 3: White wire (pump) (-) to E black wire
- 4: Black wire to ground
- 5: Brown wire (heater) (+) to D orange wire
- 6: **Red** wire to 12 volt fused power supply (30A). Use 14 gauge wire (minimum)
- 7: Yellow wire (probe) to B black wire
- 8: Blue wire (12 volt pump) (+) to F red wire

#### **Element Changeout**

- Verify engine is off and cool to touch. Do not smoke or allow open flames near filter servicing.
- 2. Position a container to catch drained fuel.
- 3. Drain unit completely using self-venting drain on bottom of bowl. Turn drain counter-clockwise to open.
- After all fuel has drained from filter assembly, close drain by turning clockwise. Tighten snugly by hand only—do not use tools.
- 5. Using a 26mm wrench, remove bowl from assembly by turning counter-clockwise.
- 6. Detach used filter from bowl (dispose of used filter properly).
- 7. Attach new filter to bowl.
- 8. Replace used o-ring on bowl with new o-ring supplied with new filter.
- 9. Lubricate bowl and filter o-rings with motor oil or clean fuel.
- 10. Thread bowl onto assembly and tighten snugly. Bowl should bottom-out on housing.
- 11. It is not necessary to manually prime unit. While cranking engine, press priming switch on underdash control panel until engine starts (and fuel lines are primed).
- 12. Check for leaks and correct as necessary with engine off.

#### **Draining Water From Bowl**

 Engine must be off and cool to touch. Do not smoke or allow open flames near filter servicing. Obtain good ventilation.

Note: If drain is left open too long, it will drain entire filter assembly. Open drain in a counterclockwise rotation and close as soon as all water has been removed and fuel begins to drain.

Also, it is not necessary to manually prime unit. While cranking engine, press priming switch on underdash control panel until engine starts (and fuel lines are primed).

2. Check for leaks and correct as necessary with engine off.

Specifications	P3	P4	P5
Maximum Flow Rate	30 GPH (114 LPH)	40 GPH (151 LPH)	50 GPH (189 LPH)
Clean Pressure Drop	0.4 PSI (2.8 kPa)	0.5 PSI (3.4 kPa)	0.8 PSI (5.5 kPa)
Max. Pump Output (at 14.4 volts)	40 GPH (151 LPH)	40 GPH (151 LPH)	40 GPH (151 LPH)
Standard Fuel Port Size (SAE J476)	3/8"-18 NPT	3/8"-18 NPT	3/8"-18 NPT
Number of Ports Available: (fuel inlets) (fuel outlets)	2 1 1	2 1 1	2 1 1
Replacement Filter: (2 micron) (10 micron) (30 micron)	R58060-02 R58060-10 R58060-30	R58095-2 R58095-10 R58095-30	R58039-2 R58039-10 R58039-30
Minimum Service Clearance	2.5 in. (6.4 cm)	2.5 in. (6.4 cm)	2.5 in. (6.4 cm)
Height	7.7 in. (19.6 cm)	9.0 in. (22.9 cm)	11.5 in. (29.2 cm)
Depth	5.2 in. (13.2 cm)	5.2 in. (13.2 cm)	5.2 in. (13.2 cm)
Width (with bracket)	8.8 in. (22.4 cm)	8.8 in. (22.4 cm)	8.8 in. (22.4 cm)
Weight (dry)	3.4 lb (1.5 kg)	3.8 lb (1.7 kg)	4.2 lb (1.9 kg)
Maximum Pump Outlet Pressure	10 PSI (0.69 bar)	10 PSI (0.69 bar)	10 PSI (0.69 bar)
Features:¹ (water sensor) (heater) (pressure regulator, 10 PSI) (pump by-pass flow valve)	Standard Standard Standard Standard	Standard Standard Standard Standard	Standard Standard Standard Standard
Water Removal Efficiency	99.9%		
Operating Temperature	-40° to +255°F (-40° to +124°C)		

Vacuum installations are recommended. <sup>1</sup> Do not use on gasoline applications.

# **Replacement Parts**

#### P3, P4 and P5

Part No. Description

1. **RK 58075**\*\* Pressure Regulator

2. RK 58109\*\* Bracket Kit
 3. 58066\*\* Element O-ring

4. Replacement Elements (see Specifications chart)

(includes #3)

5. **RK58029**\*\* Bowl O-ring

6. **RK58179** P3 (shown) (Clear Bowl)

**RK 58010** P4 (Black Bowl) **RK58181** P5 (Clear Bowl)

7. **RK 30476** Drain Valve Kit (for P3 and P5) **RK 58049** [not shown] Drain Valve Kit (for P4)

8. RK 21069\*\* Water Probe Kit

9. **RK58107\*\*** 6-Way Electrical Harness Kit

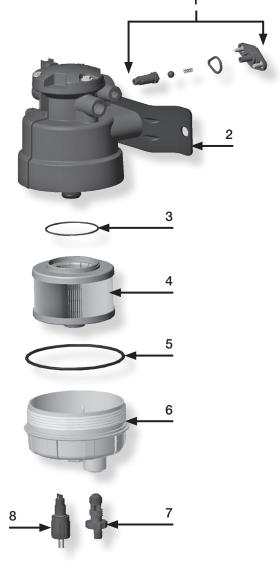
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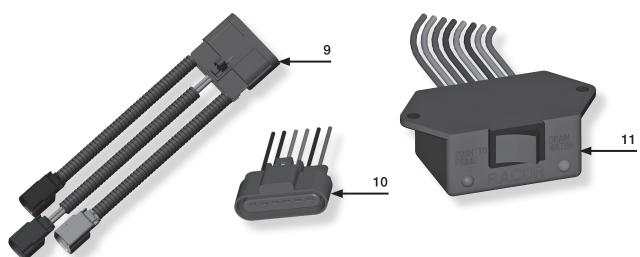
10. **RK58137**\*\* Mating Connector Harness
11. **RK58132**\*\* Under-dash Control Panel

12. **RK 58092** [not shown] Water Sensor Connector

Kit (for P4)

Note: \*\* = For use with all models.





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