

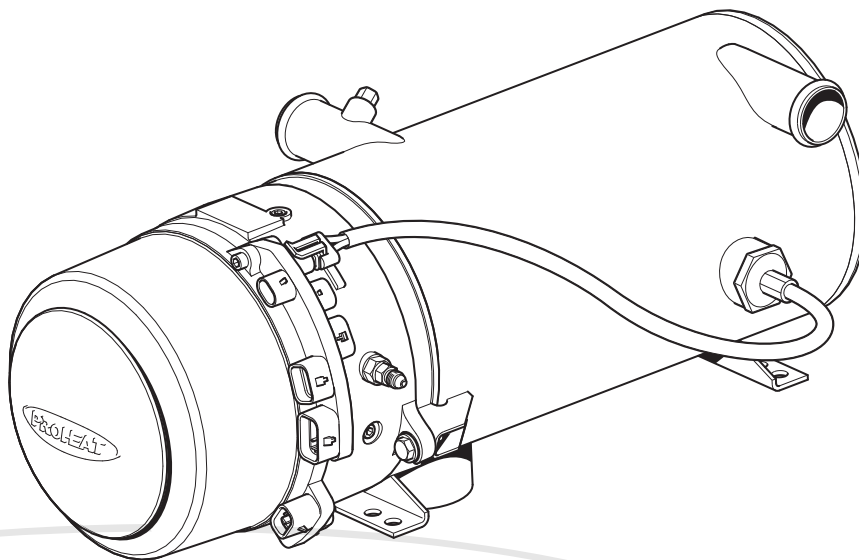


Fall Tune-Up

SB0041 Rev. B-01

January 2008

PROHEAT M-SERIES



Your Proheat has been designed to operate with a minimum of maintenance. To ensure the efficient operation of your heater a **FALL TUNE-UP** is recommended to be performed each year.

Proper maintenance will result in the following benefits:

- Maximum heat transfer to the coolant
- Minimum battery power draw
- Long term cost savings
- Increased reliability

NOTICE

A higher duty cycle may require a more frequent maintenance schedule. i.e. 2 or 3 times per year.

1 Clean Heater Enclosure

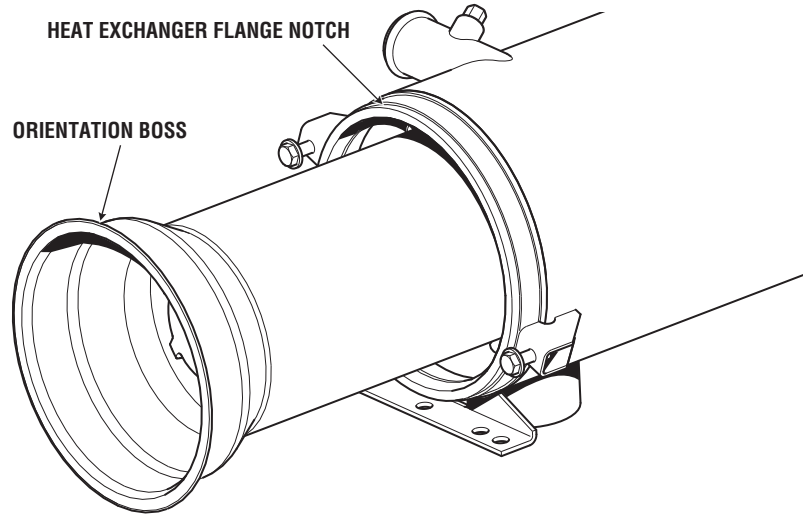
- Clean any accumulated debris or dust from the components.
- Make sure the opening around the exhaust pipe is clear.
- Visually inspect all the components for wear or damage.
- Ensure that the burner air intake is clear.
- **DO NOT pressure wash.**
- **If excessive dirt is accumulating inside the heater, refer to service bulletin SB0044.**

2 Check Exhaust System

- Check the exhaust system carefully.
- Make sure the exhaust pipe is vented safely away from the vehicle.
- Check the pipe for dents, restrictions or severely corroded areas.
- Replace the exhaust pipe and clamps if necessary.
- Ensure the exhaust pipe clamp is tight.

3 Check Heat Exchanger

- Remove the burner head assembly and combustion tube to access the inside of the heat exchanger.
- To maintain optimum heat output, clean any combustion deposits that may have accumulated on the heat exchanger fins.
- Use a wire brush to loosen the deposits and a vacuum to suck them out.
- Ensure exhaust pipe is clean and free from restriction.



4 Check Cooling System

- Check all heater hoses and connections for signs of leakage or damage.
- Repair or replace as required.
- **NOTE:** the coolant mix must be 50% Ethylene Glycol.

5 Check Power Source

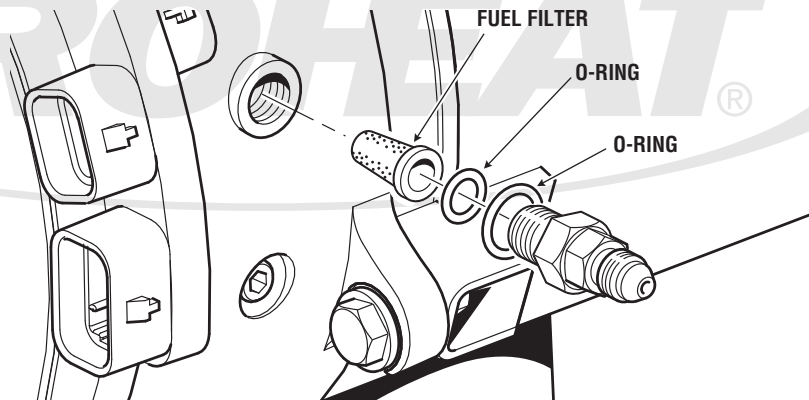
- Check the condition of the power source and connections. The heater will not function properly with a faulty power source or corroded connections.

6 Check Fuel System

- Check the fuel system for damaged fuel lines or leakage.
- Make sure the clamps on the fuel lines are secure.

7 Check Fuel Filter

- Remove and inspect filter. Clean or replace as necessary.
- Clean O-ring and seat. Avoid cutting or scratching.

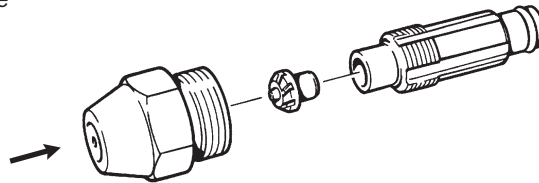


8 Clean Nozzle

- To properly clean the nozzle use a degreaser/cleaner or carburetor cleaner in a spray can. This will wash any dirt out and leave no residue. When using compressed air, blow into the nozzle orifice from the head end.

- **DO NOT use a welding torch tip cleaner.**

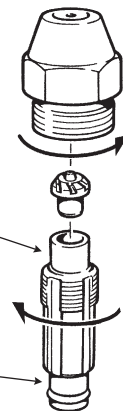
SPRAY THIS DIRECTION WHEN USING COMPRESSED AIR.



HOLD UPRIGHT TO ASSEMBLE

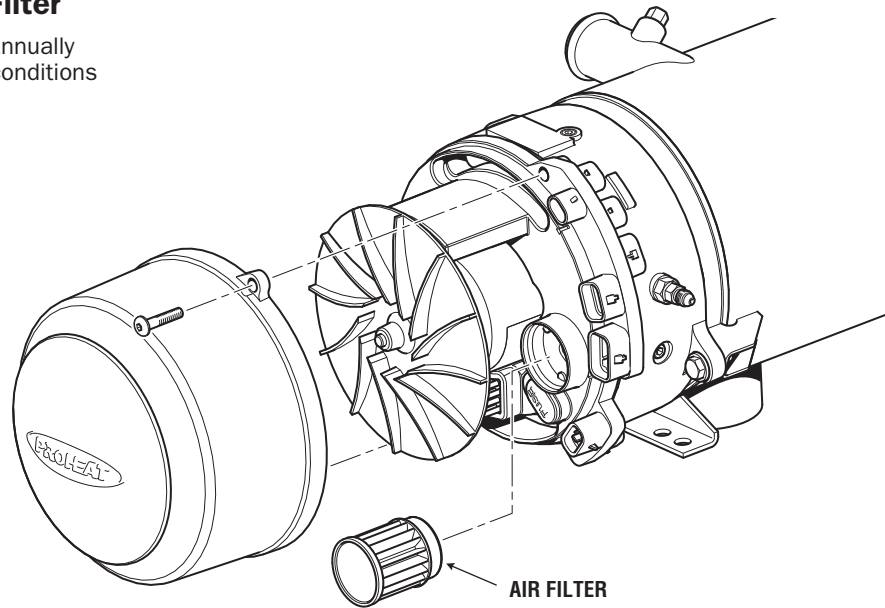
TORQUE TO 30 IN. LBS. (3.5 Nm)

LUBRICATE O-RING WITH DIESEL FUEL



9 Compressor Air Filter

- Replace inlet air filter annually or more often if dusty conditions are encountered.
- Ensure the air filter is seated correctly.



10 Compressor

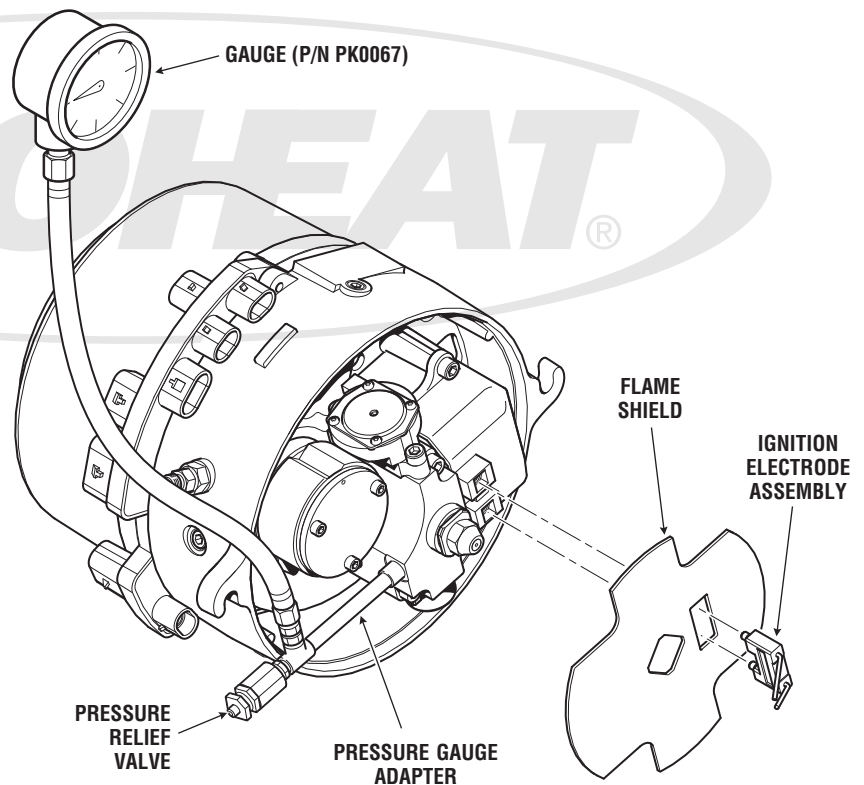
- **Important: Complete steps 8 and 9 prior to step 10 compressor check.**
- Ensure Blower Housing Cover is installed before testing.
- Disconnect all external harnesses at the PCM.
- Disconnect fuel supply line.
- Remove Burner Head Assembly.
- Remove Ignition Module Electrodes and Flame Shield.
- Disconnect Fuel Shut-Off Valve and Ignition Module connectors at the PCM.

Note: Disconnecting these components will cause the heater to go directly into purge when started and prevent combustion.

- Remove relief valve and install test gauge adapter (PK0071).
- Install air pressure test gauge (PK0067).
- Reconnect Power and Switch Harness only.
- Start heater and read the air pressure on the gauge.

Warning: Flammable. Point Nozzle away from face, open sparks and flames.

- If the measured pressure is not within specification, refer to items 4.2.4 and 5.2 of the M-Series Service Manual.



MODEL	AIR PRESSURE BAR (PSI)
M50	0.42 ± 0.01 bar (6.2 ± 0.2 psi)
M80	0.22 ± 0.01 bar (3.2 ± 0.2 psi)

11 Electrical System

- Check the internal and the external wire harnesses for damage or corrosion. Replace if required.

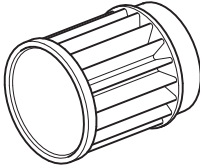
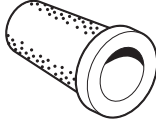
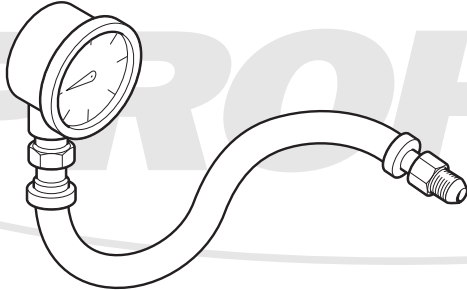
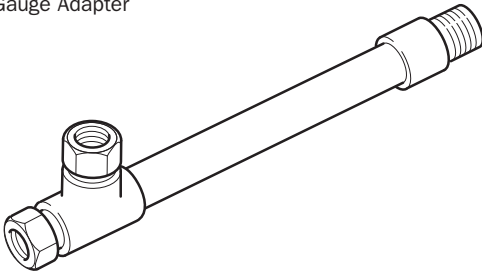
12 Timer/Toggle Switch Supplemental/Preheat

- Check heater operation under specified heater on signals.

13 Operation Test

- Run the system for at least 15 minutes or until the heater cycles "OFF" and then "ON" again.

Replacement Parts/Test Equipment

PART #	QTY	DESCRIPTION
200610K	1	Filter, Air, Element 
880035K	1	Fuel Filter 
PK0067	1	Test Gauge, Air Pressure 
PK0071	1	Test Gauge Adapter 
PK0091	1	Remote On/Off Switch 