

MSERIES

AIR PRESSURE SETTING RECOMMENDATION

(Diaphragm Compressor Models) for Sustained High Altitude Operations.

Sustained operation and servicing of the M-Series compressor above 4,000 ft (1219 m) requires the compressor setting be checked and/or adjusted for proper combustion.

Requirements

- Basic Hand Tools.
- Proheat Remote Start Switch (P/N PK0091).
- Proheat Digital Manometer Test Gauge (P/N PK0036).
- Or Proheat Analog Air Pressure Test Gauge (P/N PK0067).

NOTICE

Before adjusting air pressure, ensure the Air Compressor filter and Fuel Nozzle are clean. See service manual at: www.proheat.com

⚠ WARNING

To avoid the risk of shock and to ensure that the PROHEAT does not start, disconnect the Ignition Module and Fuel Solenoid harness's at the PCM.

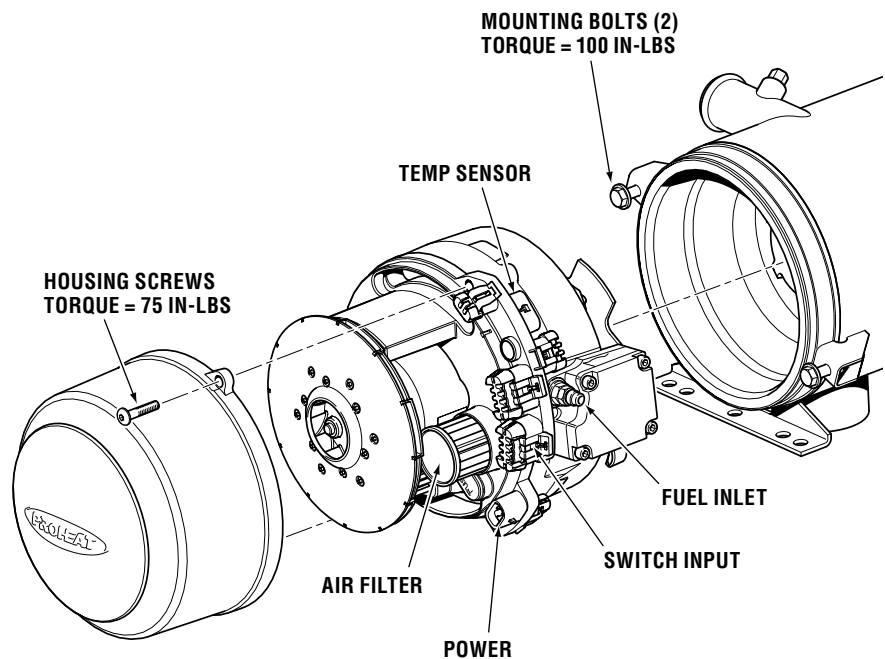


Figure A. Burner Head & Blower Housing Removal.

Test Procedure

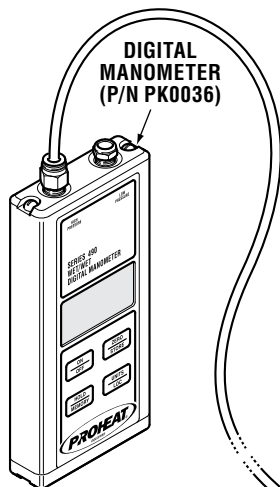
⚠ WARNING

Shock hazard due to high secondary coil voltage.

- Disconnect all harnesses at the PCM.
- Disconnect the fuel supply line.
- Loosen and back out the burner head mounting (2) bolts five to six turns allowing enough room to rotate the burner head 15° counter-clockwise and remove.

⚠ WARNING

Connect power and switch only. DO NOT connect the temperature sensor.

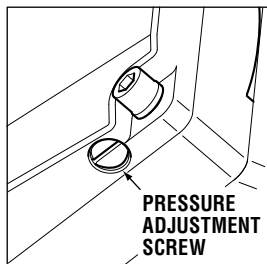


PRESSURE ADJUSTMENT SCREW

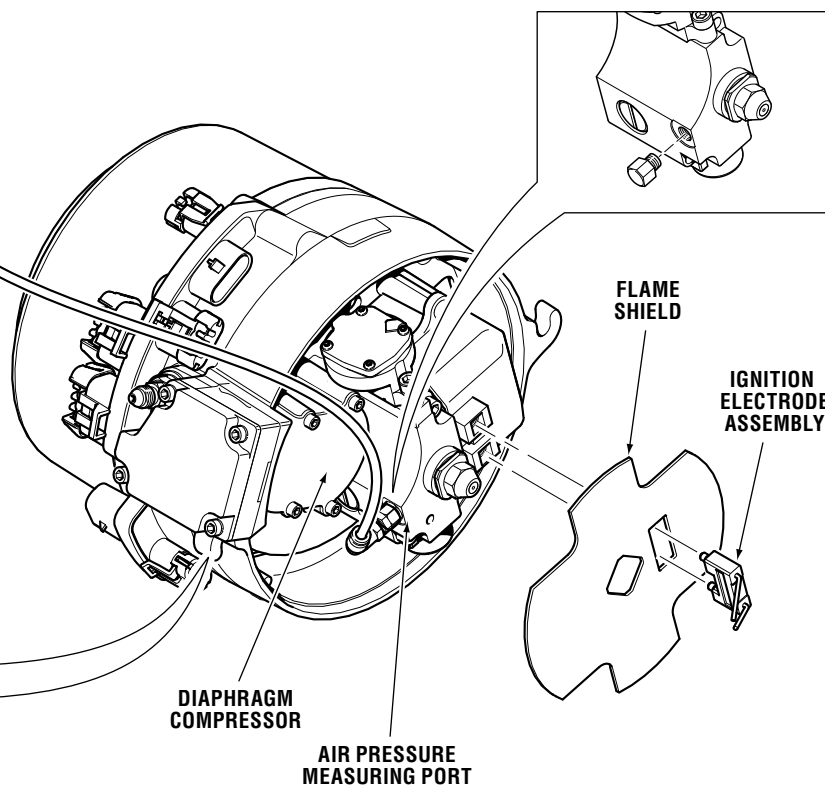


DECREASE PRESSURE

INCREASE PRESSURE



PRESSURE ADJUSTMENT SCREW



- d) Remove Ignition Electrode Assembly. Use a flat head screwdriver to gently pry the electrode assembly out.
- e) Remove the Flame Shield. (Rotate to match the mounting square.)
- f) Disconnect the Fuel Shut-off Valve and Ignition Module connectors at the PCM. This ensures that fuel will not spray and/or light during testing.
- g) Remove the plug to the air pressure measurement port.
- h) Thread in the Pressure Gauge and torque to 25 in-lbs \pm 3 in-lbs (2.8 Nm \pm 0.3 Nm) as shown in figure B.
- i) Connect ONLY the Power Harness and Remote Switch to the PCM.

NOTICE

If using PK0067, Analog air pressure gauge, Calibrate gauge before each use refer to: www.proheat.com/PDFs/990614.pdf

NOTICE

Leaving the Temperature Sensor disconnected ensures that the burner head will only run in Cool Down (Purge) mode for three minutes.

Figure B. Air Pressure Test. Diaphragm Compressor Model.

- j) Switch the PROHEAT on and observe the air pressure after one minute, and compare to figure C, D or E on page 3 and page 4: *If Air Pressure is outside the recommended setting for your location please ensure the fuel nozzle and air compressor filter are clean, then check air pressure again.*
- k) Adjust the air pressure if necessary by turning the screw as shown in figure B. *If the pressure cannot be set to the correct setting, rebuild kits are available. See www.proheat.com for the latest parts manual SL9167 for more information.*

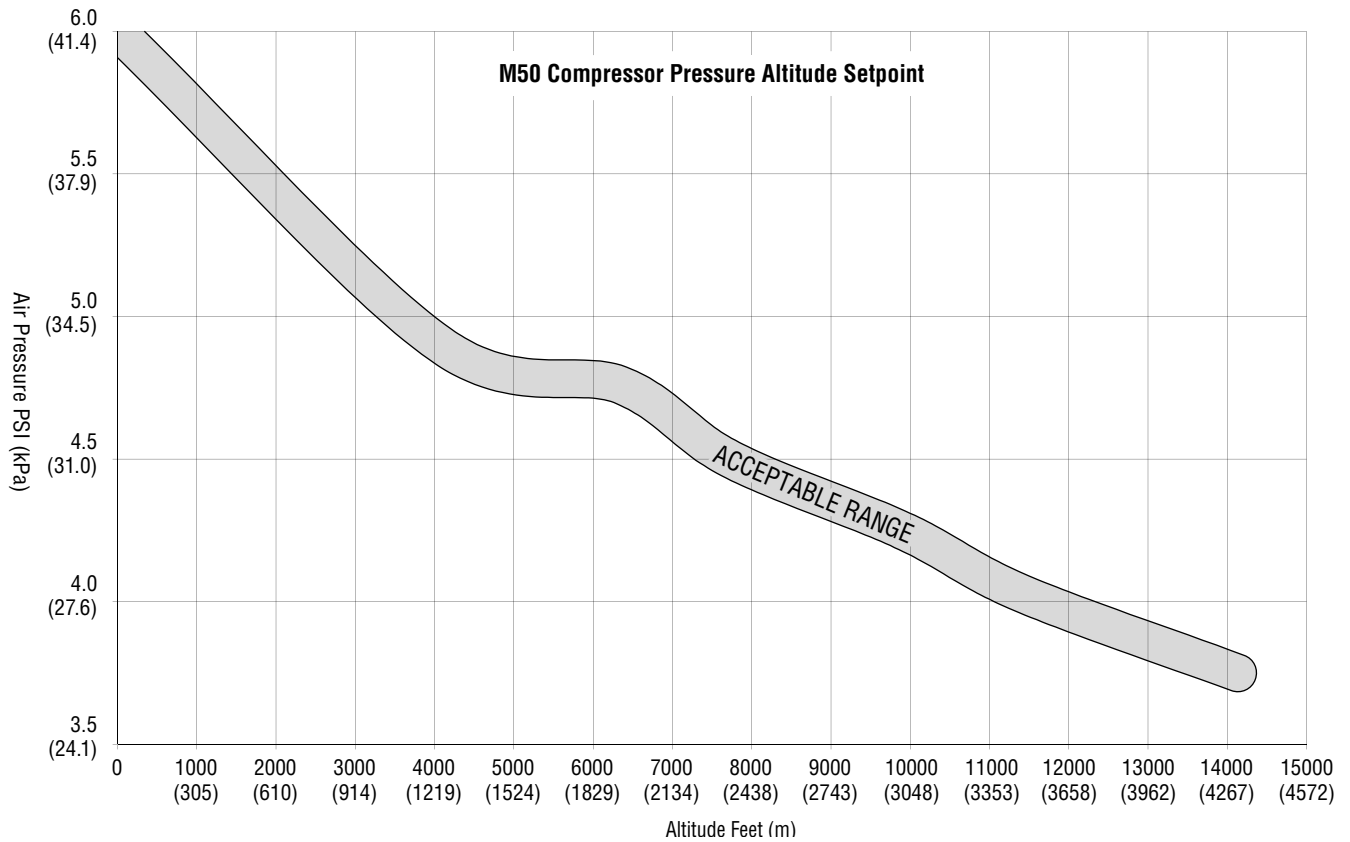


Figure C. M50 Compressor Pressure Altitude Setpoint.

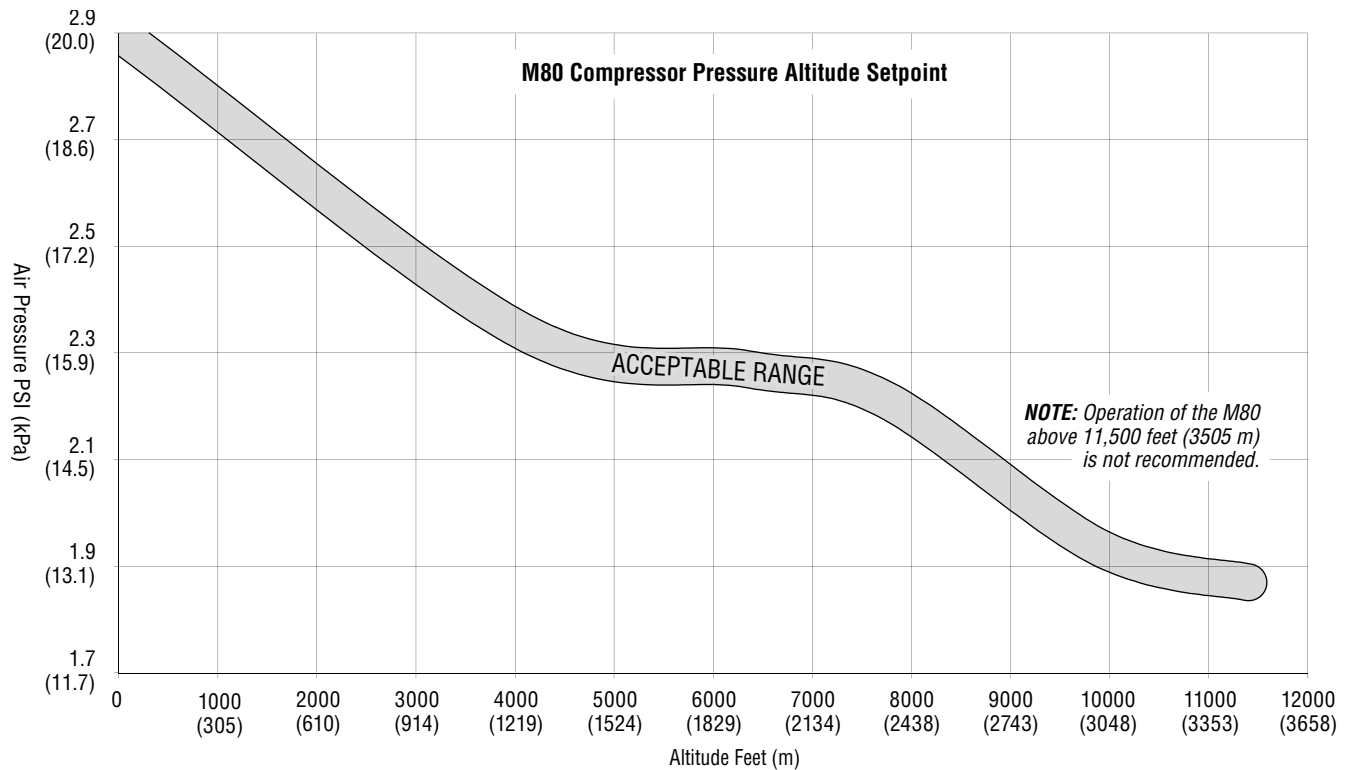


Figure D. M80 Compressor Pressure Altitude Setpoint.

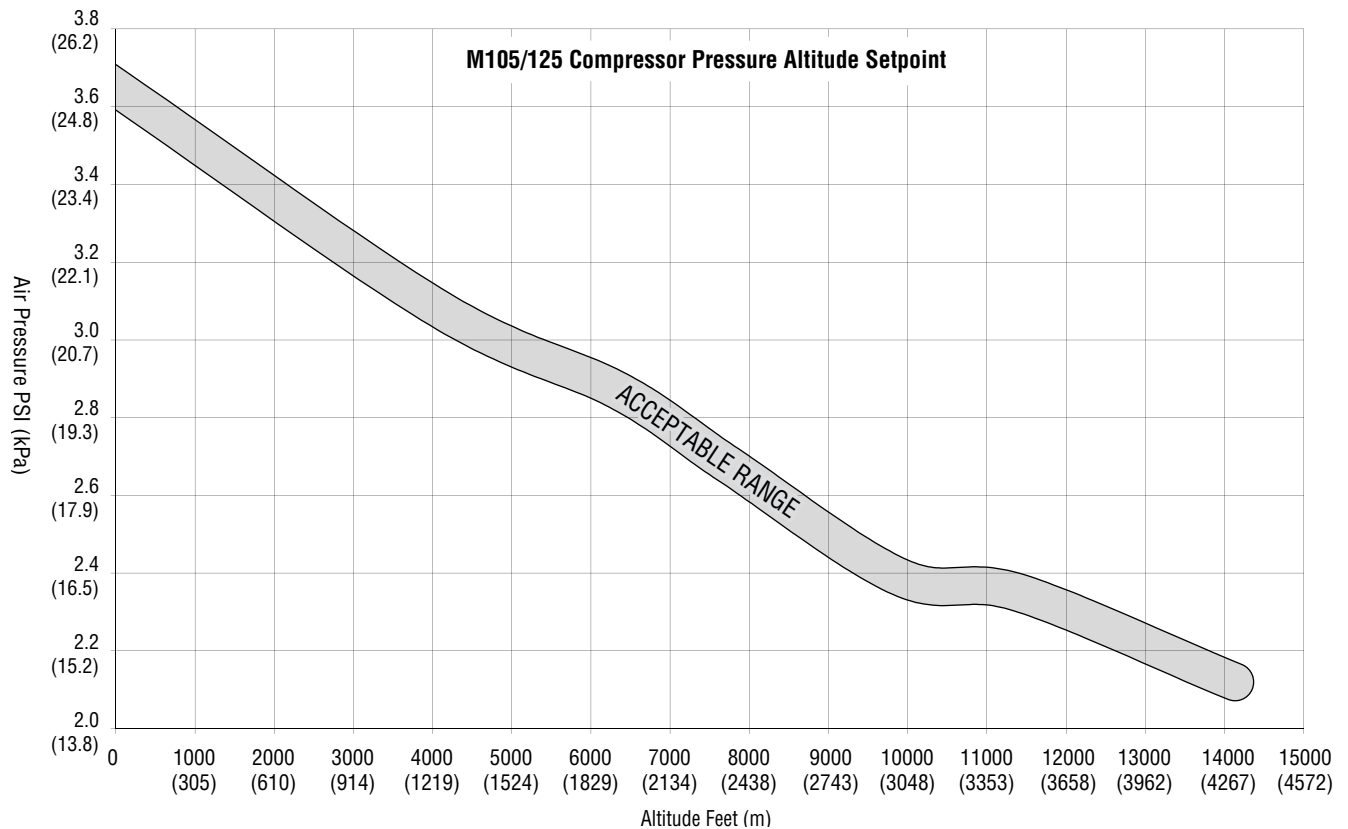


Figure E. M105/125 Compressor Pressure Altitude Setpoint.

NOTICE

All plugs/harnesses must be reinstalled into the Proheat Control Module (PCM) before heater goes back into service.

- l) Turn heater off. Wait until cool down (purge) mode is complete (approximately 3 minutes).
- m) Remove test gauge. Lubricate air measurement port plug O-ring with diesel fuel and reinstall plug into fuel block. Torque to 25 in-lbs \pm 3 in-lbs (2.8 Nm \pm 0.3 Nm). Re-install the Flame Shield, the Ignition Electrode Assembly and Burner Head onto the Heat Exchanger. Torque mounting bolts to 100 in-lbs (11.6 Nm \pm 1.1 Nm).
- n) Connect the Power, Dual Mode Temperature Sensor and Coolant Pump electrical connections to the heater Burner Head and reconnect the fuel line.
- o) Activate the heater with the remote switch and observe operation for at least one complete cycle. The heater should run smoothly with no smoke although there may be some hesitation initially due to air in the fuel line.
- p) Remove the remote switch and re-connect the control connection.