



M-SERIES DIAPHRAGM REPLACEMENT KIT

Part# 200685K

Disassembly Instructions

NOTICE

DO NOT discard any component unless directed to do so. All mounting hardware will be re-used during the installation of the compressor kit.

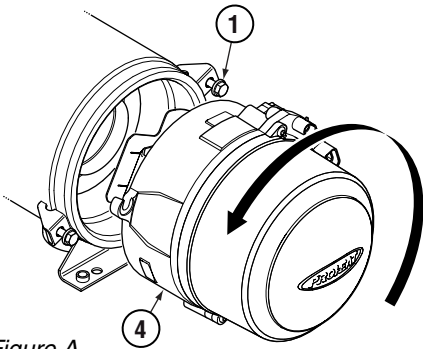


Figure A.

⚠ WARNING

To avoid the risk of shock, ensure to disconnect power to the heater unit during disassembly/reassembly.

1. Disconnect all harnesses at the PCM.
2. Disconnect the fuel supply line.
3. Referring to figure A, loosen and back out the burner head mounting bolts (item 1) allowing enough room to rotate the burner head 15° counter-clockwise and remove.
4. Turn the Burner head over as shown in figure B. Remove the ignition electrode (item 16) then the flame shield (item 17).
5. Remove the valve cover (item 7) by removing the four M5 screws (item 5) and lock washers (item 6), then remove the cylinder head (item 10).
6. Remove and discard the two O-rings (items 8 and 9) from the valve cover (item 10), and the two O-rings (item 15) from the burner head flange (item 4).
7. Remove the #8 screw (item 11) from the connecting rod assembly (item 21), then remove the intake disk (item 12), diaphragm (item 13) and compression disk (item 14).

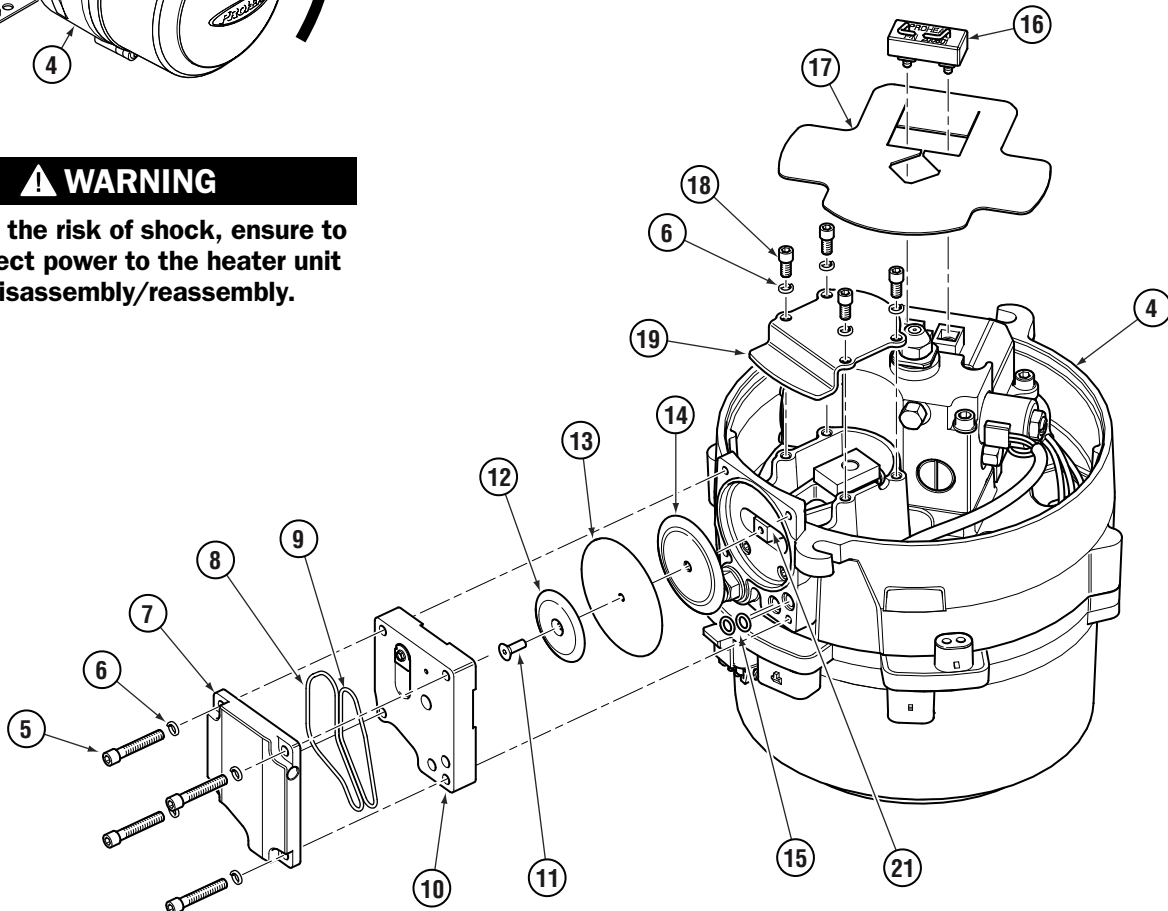


Figure B.



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8. Remove the compressor cover (item 19) by removing the four M5 screws (item 18) and lock washers (item 6).
9. Discard all of the remaining components as per the disassembly parts checklist.

Disassembly Parts Checklist

ITEM	RE-USE	DISCARD	DESCRIPTION	QTY	UOM
1	X		Screw, M8 x 1.25 x 30, HWHCS	2	ea
2	X		Screw, M6 x 1 x 1.25, BHSCS SS	2	ea
3	X		Blower Housing	1	ea
4	X		Burner Head Flange	1	ea
5	X		Screw, M5 x 0.8 x 30 SHCS ZP	4	ea
6	X		Lockwasher, #10 SS	8	ea
7	X		Valve Cover	1	ea
8		X	O-Ring, 2-035	1	ea
9		X	O-Ring, 2-031	1	ea
10	X		Cylinder Head	1	ea
11		X	Screw, #8-32 x 1/2, FHSCS SS	1	ea
12		X	Intake Disk	1	ea
13		X	Diaphragm	1	ea
14		X	Compression Disk	1	ea
15		X	O-Ring, 2-010	2	ea
16	X		Ignition Electrodes	1	ea
17	X		Flame Shield	1	ea
18	X		Screw, M5 x 0.8 x 10, SHCS SS	4	ea
19	X		Compressor Cover	1	ea
20	X		Compressor Shaft Assembly	1	ea

Reassembly Instructions

1. Install the diaphragm assembly (items 22–25) onto the connecting rod. **NOTE:** orient the intake disk (item 23) and compression disk (item 25) with the beveled side pointing away from burner head flange (see figure C inset).
2. Install two O-rings (item 26) into the burner head flange (item 4).

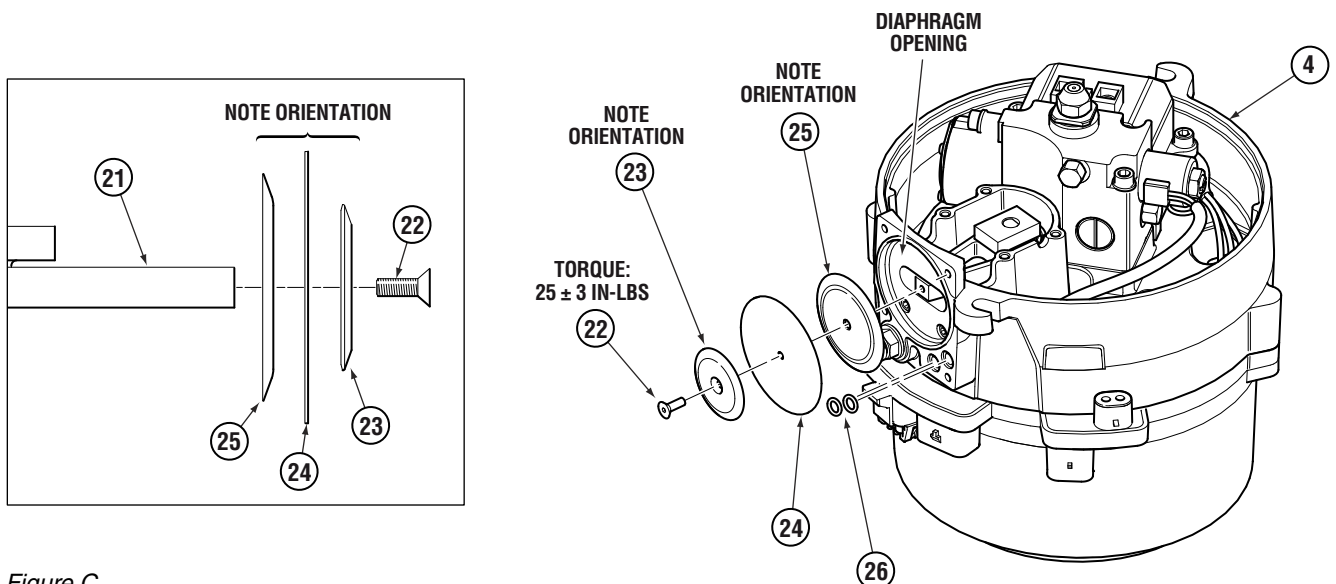


Figure C.



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ENSURE COUNTER-WEIGHT IS ALIGNED BOTTOM DEAD CENTER (BDC) BEFORE INSTALLATION

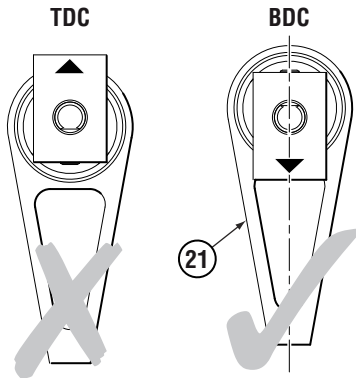


Figure D.

3. Install two O-rings (items 27 & 28) into the valve cover (item 7).
4. Position the connecting rod assembly (item 21) so that it is in BDC (see figure D), and ensure the diaphragm (item 24) is concentric to the "diaphragm opening".

NOTE: this operation is CRITICAL prior to proceeding onto step 5.

5. Install the cylinder head assembly (item 10) and valve cover (item 7) and secure with four M5 screws (item 5) and lock washers (item 6). Torque the screws according to the torque sequence shown in figure E inset.
6. install the compressor cover (item 19) and secure with four screws (item 18) and lock washers (item 6).

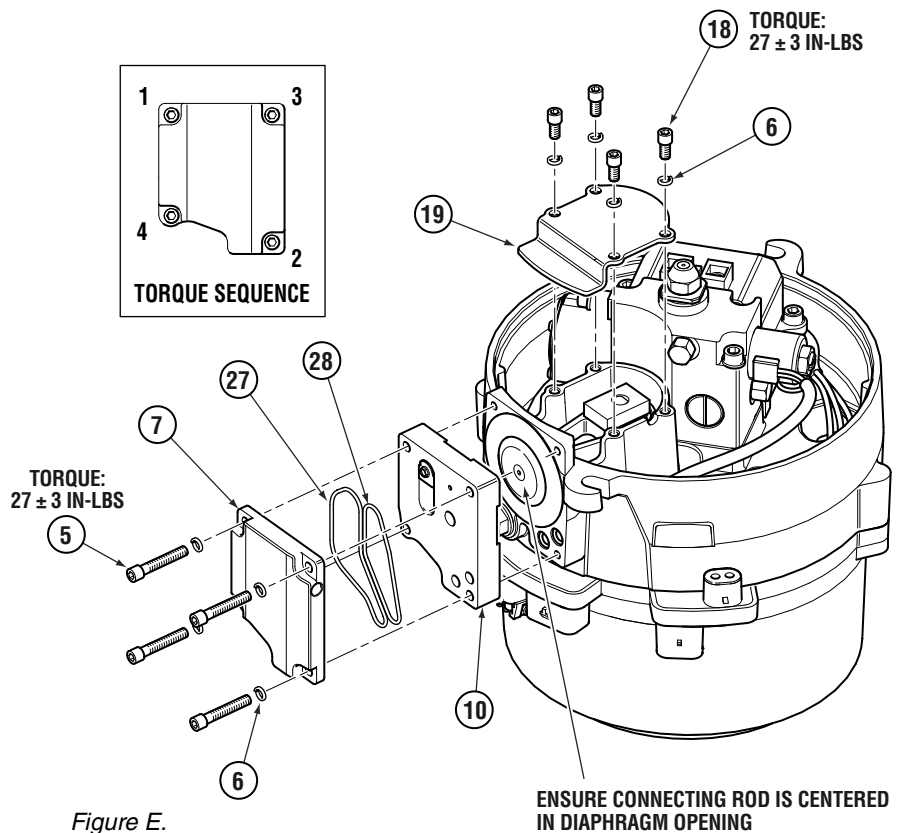


Figure E.

7. Install the heat shield (item 17) and ignition electrodes (item 16).
8. Set Compressor Pressure (refer to figure F).

Refer to M-Series Service Manual SL9150 at www.proheat.com for detailed instructions. Air filter and nozzle must be clean for compressor setting. Inspect air passages of fuel block and clean as required.

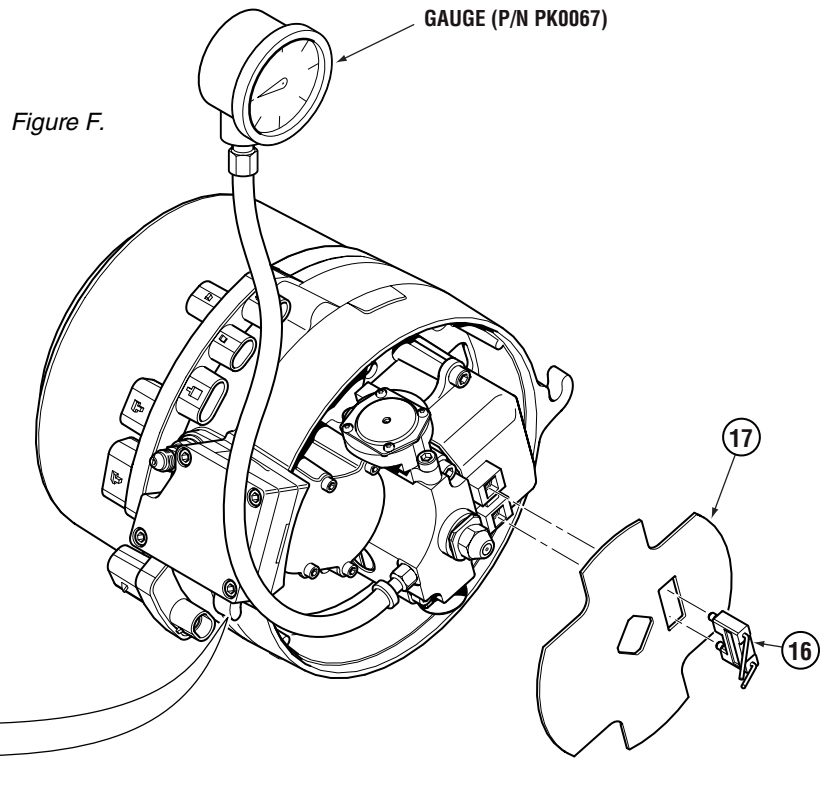
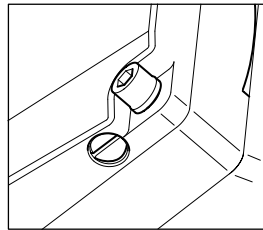
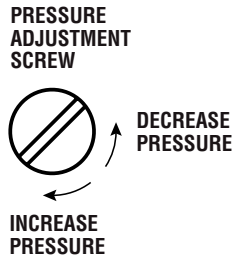
MODEL AIR PRESSURE SETTING

M50	6.0 ± 0.1 PSI (41.4 ± 0.7 kPa)
M80	2.9 ± 0.1 PSI (20.0 ± 0.7 kPa)



NOTICE

PK0067 Pressure Test Gauge is required to complete the rebuild. It is NOT supplied in the rebuild kit. Go to www.proheat.com for more information.



9. Install the heat shield (item 17) and ignition electrodes (item 16).

10. Inspect and Clean Heat Exchanger and Combustion Tube.

Remove combustion tube to access the inside of the heat exchanger. Clean any combustion deposits that may have accumulated on the heat exchanger fins with a wire brush. Use a vacuum to suck the combustion deposits out. Ensure that the exhaust pipe is clean and free from restriction.

Clean the combustion tube with a wire brush. Reinstall combustion tube into the heat exchanger ensuring that the orientation boss is at the 12 o'clock position as shown in figure G.

11. Install the burner head back onto the heat exchanger and secure with two screws (item 1) as shown in figure H.

12. Operate heater for a minimum of two cycles to ensure functionality. Inspect for fuel leaks around the exterior of the burner head and heat exchanger.

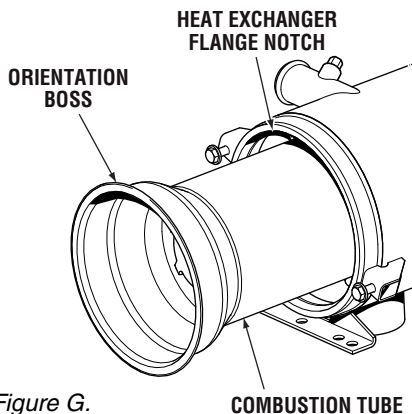


Figure G.

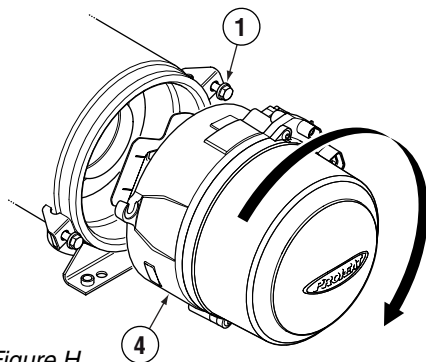


Figure H.

Reassembly Parts Checklist

ITEM	DESCRIPTION	QTY	UOM
22	Screw, #8-32 x 1/2, FHS CS SS	1	ea
23	Intake Disk	1	ea
24	Diaphragm	1	ea
25	Compression Disk	1	ea
26	O-Ring, 2-010	2	ea
27	O-Ring, 2-035	1	ea
28	O-Ring, 2-031	1	ea
29	Cylinder Head	1	ea