

M SERIES

COMPRESSOR KIT

Part# 201080K, 201050K & 201105K

Disassembly Instructions

NOTICE

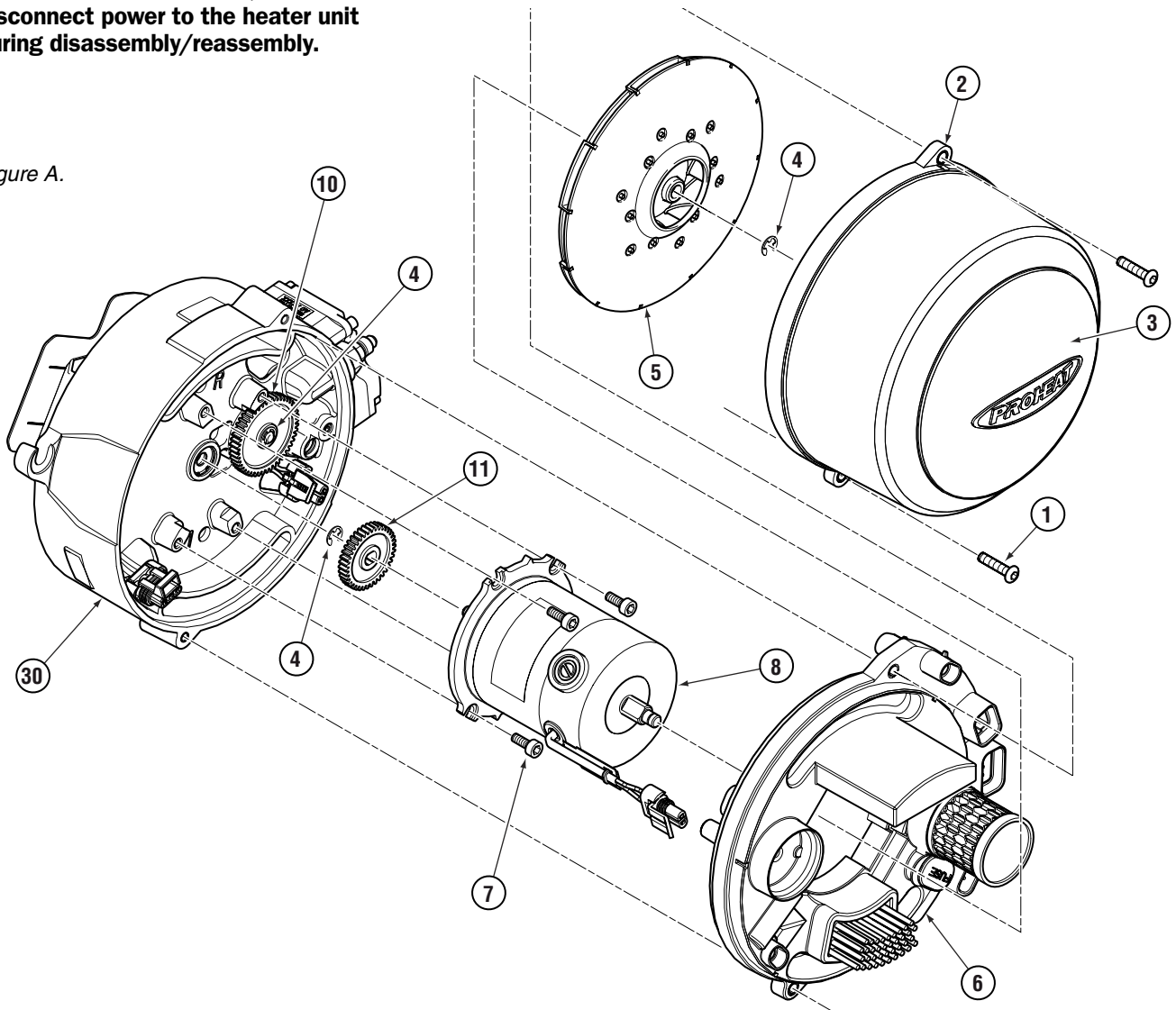
DO NOT discard any component unless directed to do so. All mounting hardware will be re-used during the installation of the compressor kit.

⚠ WARNING

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

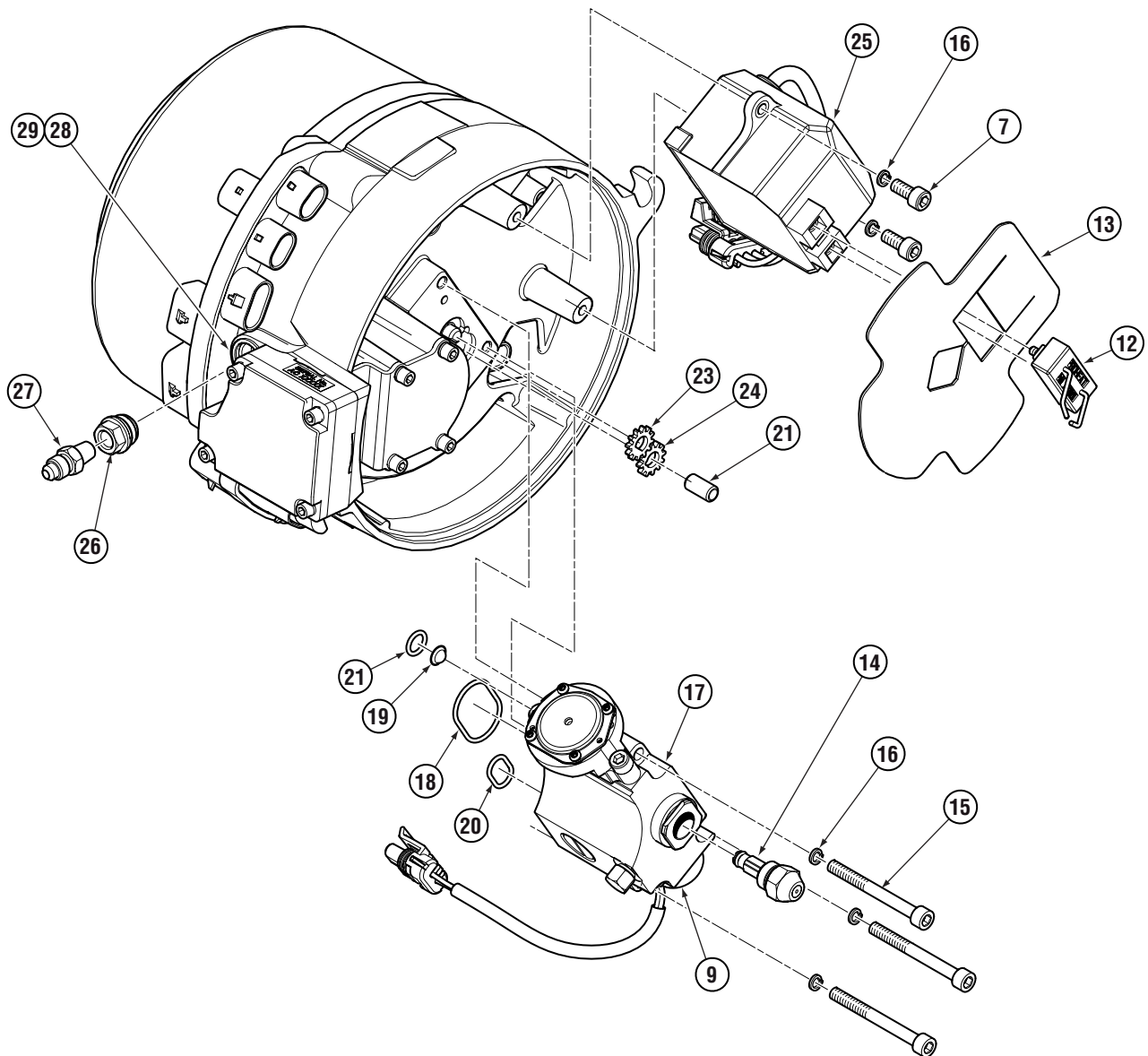
1. Disconnect the power from the heater unit then disassemble the burner head from the heat exchanger (*heat exchanger not shown*).
2. Remove blower housing (item 2) by removing the two M6 screws (item 1). Item 3 may vary in appearance depending on the type of heater model.
3. Remove the blower fan (item 5) by removing the retaining ring (item 4).
4. Unplug the motor (item 8), solenoid (item 9), and ignition module (item 26) from the PCM (item 6), then slide off the PCM. DO NOT remove the air filter from the PCM.

Figure A.



5. Remove the motor (item 8) by removing the four M6 screws (item 7). Note initial orientation of motor for reassembly (refer to Fig. D1 on page 5).
6. Remove and discard the motor gear (item 11) by removing the retaining ring (item 4).
7. Turn burner head flange over and remove the ignition electrode (item 12) then the flame shield (item 13).
8. Remove the ignition module (item 26) by removing the two M6 screws (item 7) and the two lock washers (item 16).
9. Remove the nozzle (item 14) from the fuel delivery unit (item 17). Clean the nozzle in accordance with the service manual.
10. Remove the fuel delivery unit (item 17) by removing the three M6 screws (item 15) and three lock washers (item 16).

Figure B.





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- 11.** From the fuel delivery unit, remove and discard the three O-rings (item 18, 20, 21) and the inlet screen (item 19).
- 12.** Pull out the idler shaft (item 22) and remove the two gears (item 23, 24).
- 13.** Remove the fuel inlet fitting (item 27), then the fuel cap (item 26).
- 14.** 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, M6 x 1 x 30mm, SHCS ZP	2	ea
2	x		Housing, Blower	1	ea
3	x		Splash Guard	1	ea
4	x		Retaining Ring	2	ea
5	x		Fan Blade	1	ea
6	x		PCM	1	ea
7	x		Screw, M6 x 1 x 16 , SHCS ZP	6	ea
8	x		Motor	1	ea
9	x		Solenoid, Fuel	1	ea
10		x	Gear, Compressor	1	ea
11		x	Gear, Motor	1	ea
12	x		Ignition Electrodes	1	ea
13	x		Flame Shield	1	ea
14	x		Nozzle	1	ea
15	x		Screw, M6 x 1 x 60 , SHCS ZP	3	ea
16	x		Lock Washer #10 SS	5	ea
17	x		Fuel Delivery Unit	1	ea
18		x	O-Ring, 2-025	1	ea
19	x		Screen, Inlet	1	ea
20		x	O-Ring, 2-015	1	ea
21		x	O-Ring, 2-012	1	ea
22	x		Idler Shaft	1	ea
23	x		Gear, D-Shape Hole	1	ea
24	x		Gear, Fuel Pump	1	ea
25	x		Ignition Module	1	ea
26	x		Fuel Cap	1	ea
27	x		Fitting -4JIC-M x 1/8NPT-M STL	1	ea
28		x	Filter, Fuel	1	ea
29		x	O-Ring, 2-011	1	ea
30		x	Burner Head Flange & Compressor	1	ea

Reassembly Instructions

NOTICE

Compressor output comes pre-set. Adjustment after installation is not required.

1. Apply Loctite® 592 (item 41) to the fuel inlet fitting (item 29), then re-install into the fuel inlet port (see Fig. C1 for elbow style fuel fittings). Ensure fuel inlet port is clean and free of debris prior to installation.
2. Install the two gears (item 23, 24) and idler shaft (item 22) into the compressor flange (item 38) ensuring the area is clean and free of debris. Lubricate both gears with diesel fuel prior to installation. Gears should spin freely after installation.

Figure C.

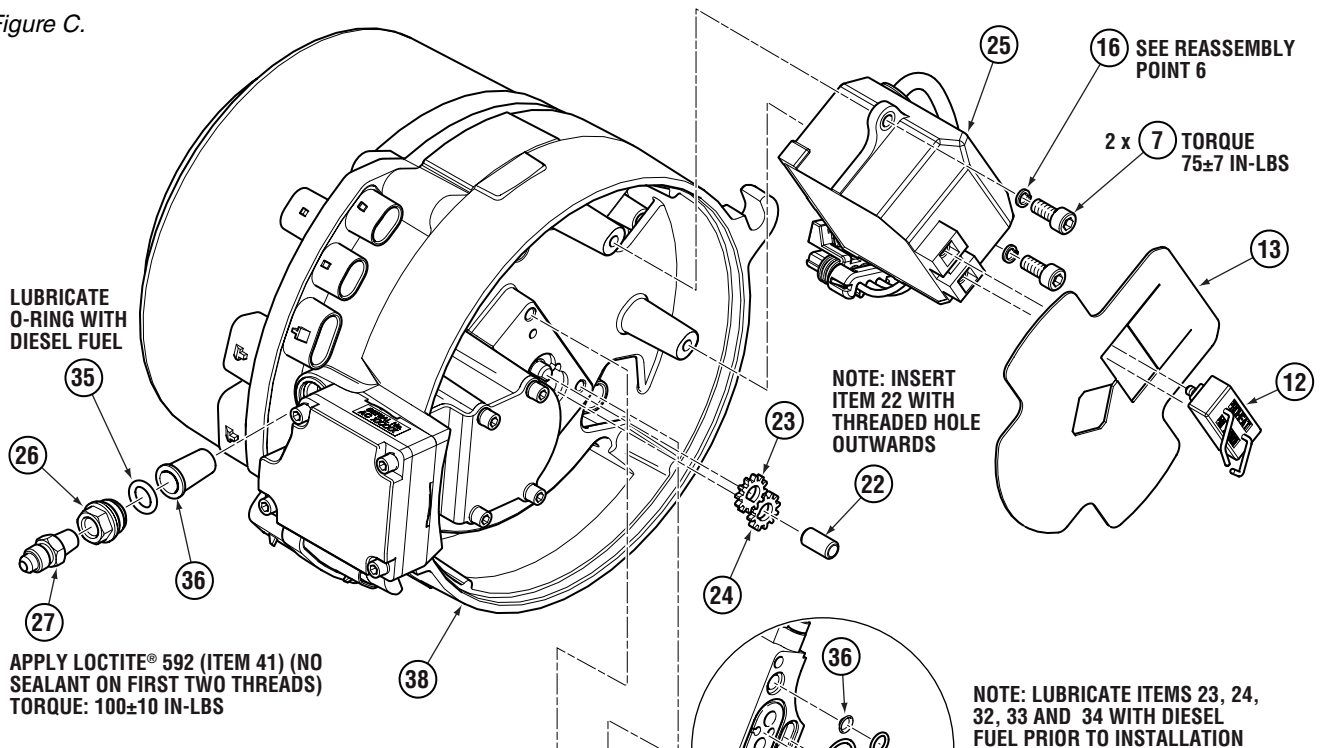
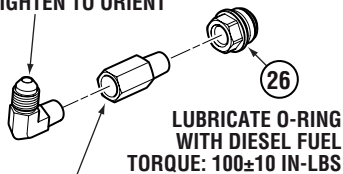
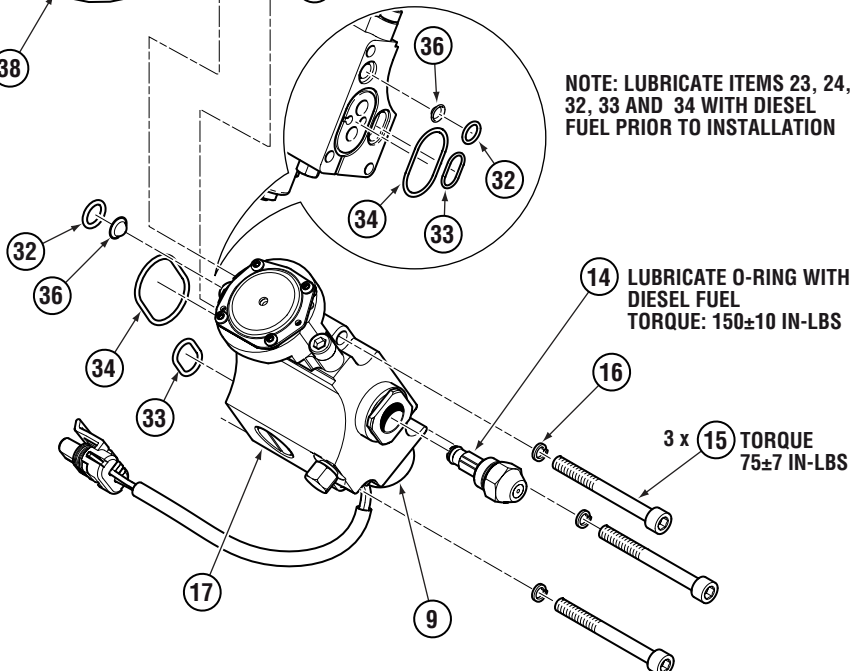


Figure C1.
Elbow Style Fitting Installation

ELBOW FITTING (NOT INC.)
APPLY LOCTITE® 592 (ITEM 41) (NO SEALANT ON FIRST TWO THREADS).
TORQUE: 100±10 IN-LBS
TIGHTEN TO ORIENT



ADAPTOR (NOT INC. ONLY REQUIRED IF ITEM 27 IS AN ELBOW FITTING).
APPLY LOCTITE® 592 (ITEM 41) TO MALE THREADS. (NO SEALANT ON FIRST TWO THREADS)
TORQUE: 100±10 IN-LBS



3. Install O-rings (item 32, 33, 34) and inlet screen (item 36) onto the fuel delivery unit (item 17) as shown in Fig. C2. Ensure to lubricate all O-rings with diesel fuel prior to installation.
4. Re-install the fuel delivery unit (item 17) using the three original screws (item 15) and lock washers (item 16).
5. Re-install the ignition module (item 25) using the two original screws (item 7) and lock washers (item 16).
6. Re-install the nozzle (item 14) into the fuel delivery unit (item 17), then re-install the heat shield (item 13) and the ignition electrode (item 12).

Figure D.

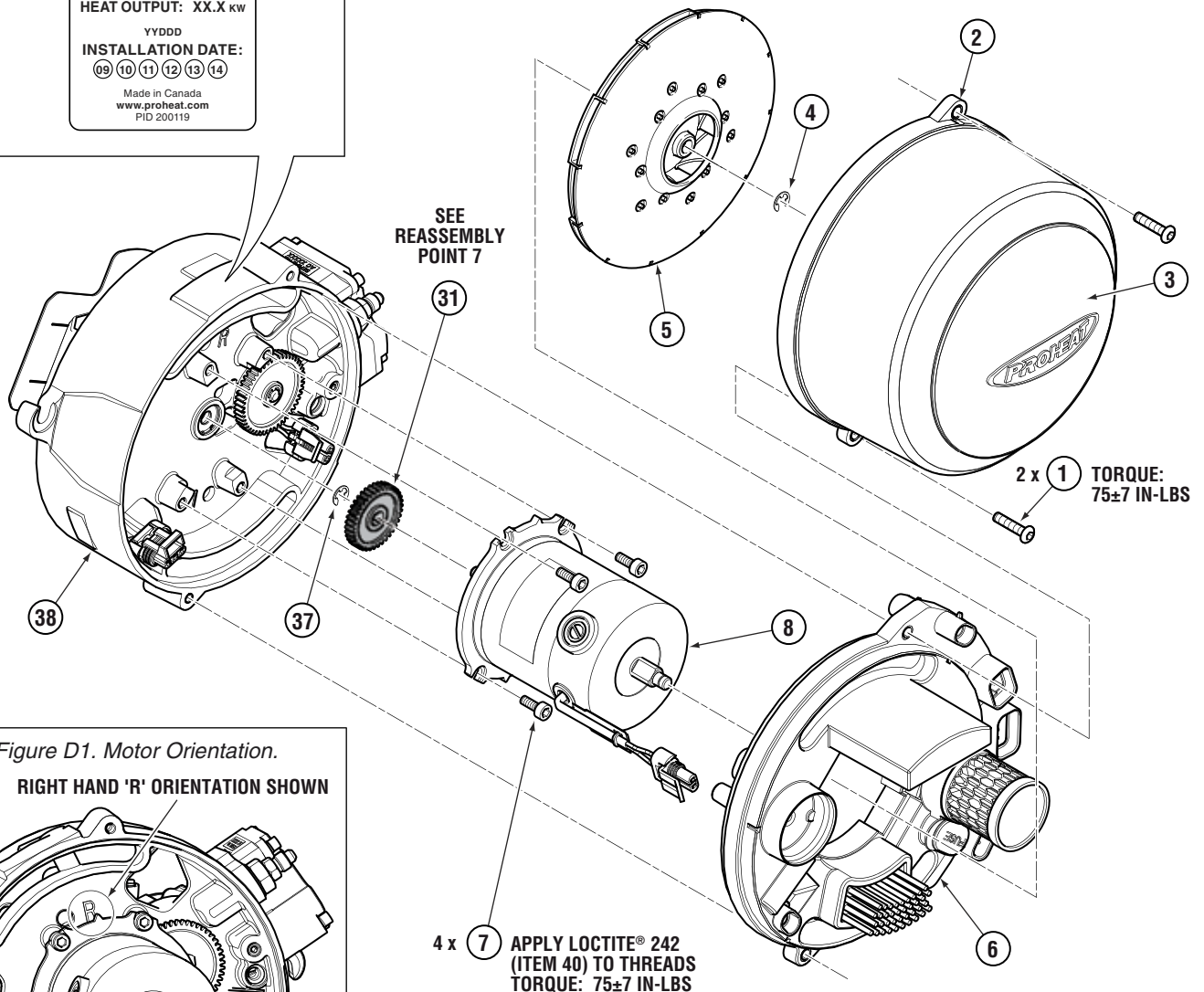
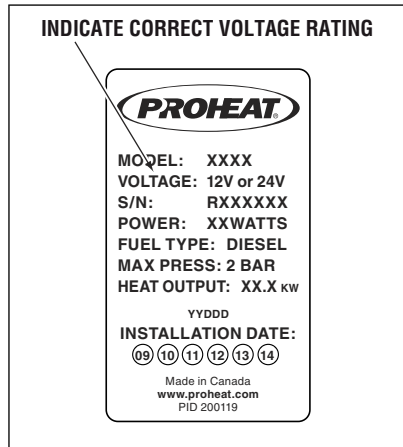


Figure D1. Motor Orientation.

RIGHT HAND 'R' ORIENTATION SHOWN

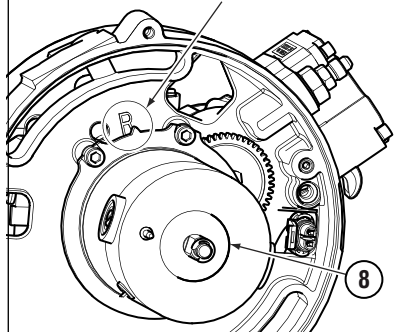
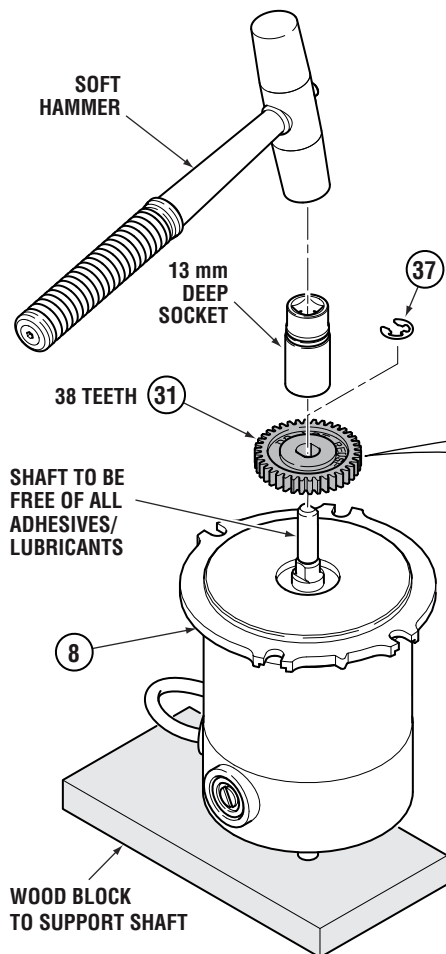
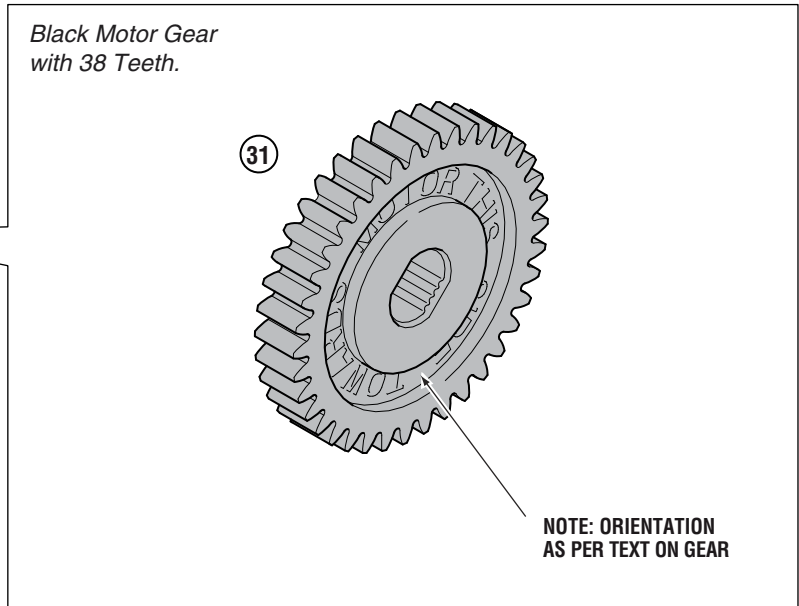


Figure E.



7. Orient the Motor Gear (item 31) as noted in Fig. E (Inset) with appropriate side facing Motor flange as per gear text. Install by hand and secure to the Motor Shaft with a new retaining ring (item 37). If gear cannot be installed by hand, a 13 mm deep socket and soft hammer can be used to lightly tap gear onto shaft. Support Motor shaft from combustion air blower side as shown in Fig. E.



NOTICE

Ensure to rotate fan blade by hand until it spins freely. This seats the fuel pump gear pack and avoids a Code12 on startup.

For more information, refer to the manual at www.proheat.com

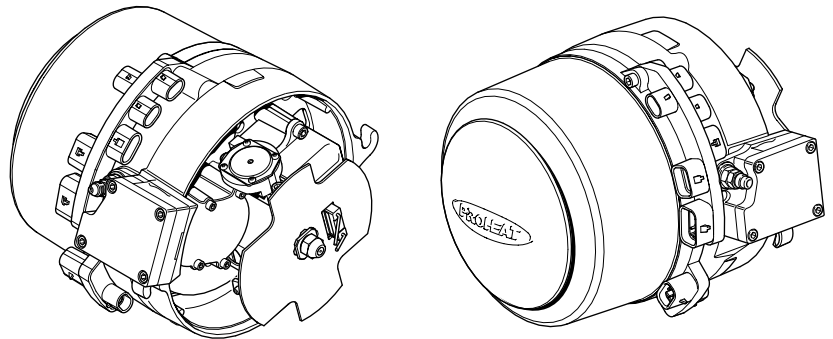
8. Re-install the motor (item 8) using the four original M6 screws (item 7). Motor must be mounted according to its original position (see Fig. D1). Ensure to apply Loctite® 242 (item 40) to the screw threads prior to installation.
9. Re-install the PCM (item 6) ensuring correct orientation, then re-connect the motor (item 8), solenoid (item 9), and ignition module (item 25) to their respective terminals.
10. Ensure the air filter is still attached to the PCM. Re-install the fan blade (item 5) using a retaining ring (item 4). Spin the fan blade by hand until it turns freely.
11. Re-install the blower housing (item 2) ensuring its correct orientation, then secure with the two original M6 screws (item 1).
12. Using a permanent marker, scratch off the incorrect voltage rating from the S/N decal as shown in Fig. C on page 4.
13. Re-install the burner head onto the heat exchanger using the original mounting hardware. (*Heat exchanger not shown.*)
14. Restore power to the fully reassembled heater unit and operate for a minimum of two cycles to ensure functionality. Inspect for fuel leaks around exterior of burner head and heat exchanger.



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Reassembly Parts Checklist

ITEM	DESCRIPTION	QTY	UOM
31	Gear, Motor	1	ea
32	O-Ring, 2-012	1	ea
33	O-Ring, 2-015	1	ea
34	O-Ring, 2-025	1	ea
35	O-Ring, 2-110	1	ea
36	Filter, Fuel	1	ea
37	Retaining Ring	2	ea
38	Burner Head Flange & Compressor	1	ea
39	Loctite® 620 (.5 ml Tube)	1	ea
40	Loctite® 242 (.5 ml Tube)	1	ea
41	Loctite® 595 (6 ml Tube)	1	ea