

INSTRUCTIONS-PARTS LIST

This manual contains **IMPORTANT INSTRUCTIONS and WARNINGS.**
READ AND RETAIN FOR REFERENCE.



307-734

Rev C
Supersedes B

PT2000 Pressure Roller System REPAIR KITS

WARNING

Pressure Relief Procedure

To reduce the risk of serious bodily injury, including injury from moving parts or electric shock, always follow this procedure whenever you shut off the system, when checking or servicing any part of the system, and whenever you stop painting.

1. Turn the ON/OFF switch to OFF.
2. Unplug the power supply cord.
3. Trigger the roller valve to relieve pressure.

If you suspect that pressure is not fully relieved after following the steps above, open the priming valve two turns counterclockwise.

NOTE: These kits include only those parts having a reference number, such as 1. Those parts with reference letters, such as A, are not included in the kit.

IMPORTANT PHONE NUMBERS

TO PLACE AN ORDER with Graco, contact your Graco distributor, or call Graco between 7:30 a.m. and 5:00 p.m. Central Time:

1-800-423-8594 Toll Free
1-612-623-6921 in Minnesota.

FOR TECHNICAL ASSISTANCE, service repair information or answers to questions regarding the application of Graco equipment, call the following number between 7:30 a.m. and 5:00 p.m. Central Time:

1-800-543-0339 Toll Free
1-612-623-6922 in Minnesota

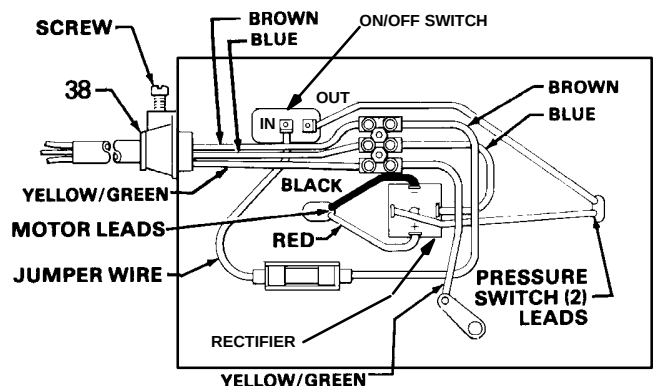
MOTOR KIT 218-975

1. Remove the screws (A) and front cover plate (B).
2. Remove the screws (C), bumpers (D) and bottom cover plate (E). Disconnect the motor leads from the positive and negative rectifier terminals.
3. Remove the motor screws (F) and lockwashers (G). Lift the motor (1) slightly. Holding the connecting rod, pull the motor away from the housing (H).
4. Inspect the bearing in the connecting rod (J). If it looks worn or any rollers are broken, replace the bearing and rod assembly.
5. Use your fingers to pack high-quality bearing grease thoroughly in between the bearing rollers.
6. Feed the motor leads through the rubber grommet (K). Align the motor with the pins in the connecting rod housing (H), guiding the motor eccentric through the connecting rod bearing. Spin the motor shaft to be sure it moves freely.
7. Loosely install the lockwashers and screws (F) to hold the motor. Spin the motor shaft again. Now alternately tighten the screws with a 9/64 in. hex key wrench. Spin the motor shaft again.

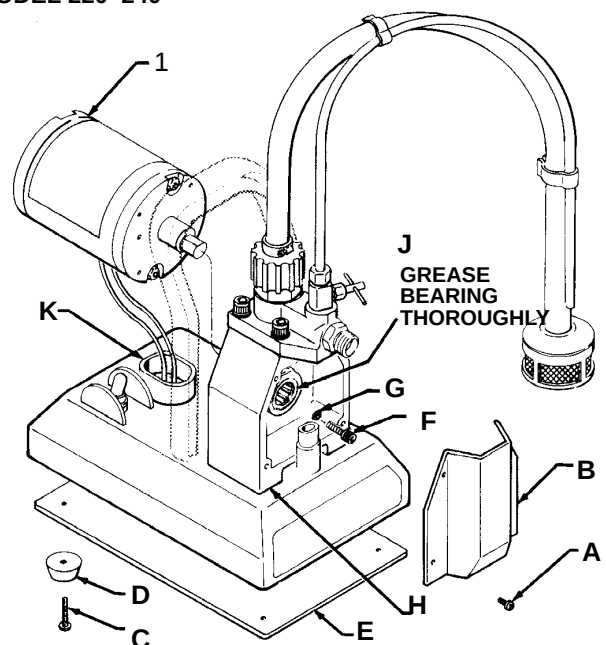
CAUTION

Spinning the motor shaft while assembling the pump ensures that parts are properly aligned. If they are not, and you start the pump, serious damage could result to the motor, bearing, and connecting rod. If you feel binding or resistance, disassemble the parts, checking the spin often, until you determine the cause of the binding.

8. Connect the red motor lead to the positive (+) terminal and the black motor lead to the negative (-) terminal of the rectifier.
9. Reinstall the front cover plate (B) and screw (A).



MODEL 220-240



GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1444

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OUTLET VALVE KIT 220-970

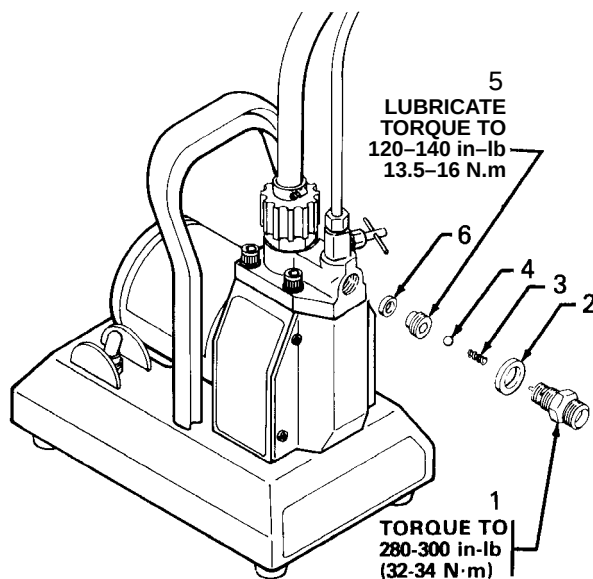
Includes items 1-6

REF NO.	PART NO.	DESCRIPTION	QTY
1	220-952	FITTING, outlet	1
2	180-454	GASKET	1
3	107-521	SPRING	1
4	101-956	BALL	1
5	218-968	HOUSING, seat, valve	1
6	180-455	SEAL, washer	1

1. Remove the outlet hose, unscrew the outlet fitting (1) and remove the gasket (2). Tip the pump forward to remove the ball (4).
2. Use a 1/4 in. square socket wrench extension to screw out the seat (5). Use a pointed tool, such as a dentist's pick, to remove the seal (6).
3. Thoroughly clean the threads in the pump housing.
4. Tip the pump back. Install a new seal (6) making sure it lays flat. Lubricate the seat (5), install it, and torque it to 120-140 in-lb (13.5-16 N.m).
5. Drop in the ball, making very sure it stays there!

CAUTION

Be very careful not to let the ball drop into the pressure switch cavity. If that happens, and the outlet fitting (1) is screwed into the pump, the switch will be permanently damaged.



6. Place a new gasket (2) around the fitting (1). The last coil on one end of the spring (3) is turned in. Place this end on the ball stop pin. Screw the fitting into the pump housing, torquing to 280-300 in-lb (32-34 N.m).

INLET VALVE KIT 220-931

Includes items 1a and 1b

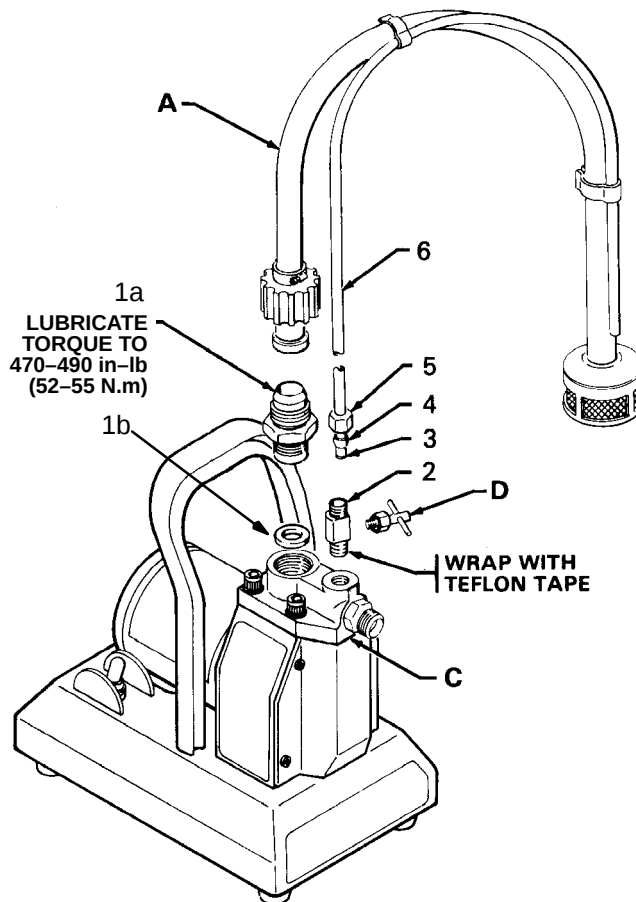
1. Unscrew the suction hose (A) from the inlet valve housing (1a). Screw the inlet valve housing out of the pump housing (C). Remove the gasket (1b); replace it if it is worn or damaged.
2. Screw the valve into the pump housing, torquing to 470-490 in-lb (53-55 N.m).

NOTE: To torque the inlet valve, have someone firmly hold the pump housing (C).

PRIMING VALVE KIT 218-973

Includes items 2-6

1. Unscrew the nut on the handle (D) of the priming valve (2), then unscrew the stem of the handle. Screw the priming valve (2) out of the pump housing (C). Discard the valve (2), tube (6) and fittings (3,4,5).
2. Wrap the threads of the priming valve with Teflon tape, then screw it snugly into the pump housing. The hole for the valve handle should be parallel with the angled edge of the housing, to avoid interference with the inlet or outlet valves.
3. Slide the nut (5) and ferrule (4) onto the tube (6), then install the tube support (3) in the end of the tube. Screw the nut onto the priming valve, which will seat the ferrule.
4. Screw the stem of the handle (D) onto the priming valve until it bottoms, then back it out two turns. Screw the nut hand tight onto the priming valve, then tighten the stem into the valve.



Includes items 1-8

1. Tap out the pin (A) from the trigger (B) and slide the trigger off of the roller valve (E). See Fig 1.
2. Remove the cap (C). Use a 1/2 in. socket wrench to screw the fluid housing (D) out of the valve. See Fig 1.
3. Pull the needle (6) out with needle nose pliers.
4. Tap the seat (3) out of the roller valve (E). See Fig 1.
5. Remove the ball (2) and spring (1) from the valve handle. See Fig 1.
6. Turn the nylon screw (7) into the packing (4). Insert the needle (6) through the top of the housing (D) and push the packing out of the fluid housing. See Fig 2.
7. Clean all parts thoroughly. Use a cotton-tipped swab or pipe cleaner to clean small orifices.
8. Grease the needle (6) and packing (4). Insert the tapered end of the needle into the back (flat) side of the packing. See Fig 3.
9. Guide the tapered end of the needle into the assembly tool (8) and press the lips of the packing over the end of the tool. See Fig 3.
10. Grease the free end of the needle. Guide the tool (8) into the fluid housing until the needle protrudes through the top of the housing. Lightly tap the tool end until you "hear" the packing bottom in the housing. Remove the tool with pliers. See Fig 3.
11. Grease the seat (3) and place it on the fluid housing so the seat which is formed on the inside diameter faces out. See Fig 4.
12. Install the spring (1) in the spring cavity of the valve handle, then install the ball (2) so it is centered on the spring. See Fig 1.
13. Place the o-ring (5) around the fluid housing. Pushing lightly with your fingers, start the threads of the housing into the valve handle. Torque the housing to 15-20 in-lb (1.7-2.2 N.m). See Fig 1.
14. Push on the needle until you feel some resistance.
15. Grease the cap (C) and place it on the end of the needle. See Fig 1.
16. Slide the trigger (B) into place. Install the pin (A) in the trigger. See Fig 1.

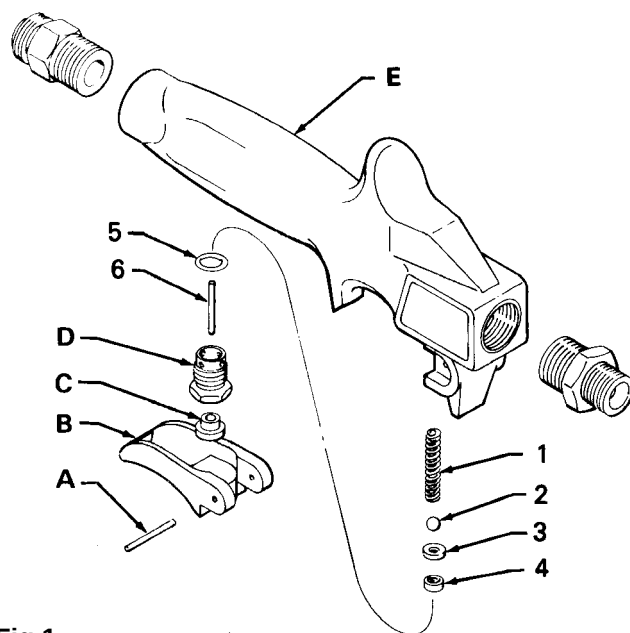


Fig 1

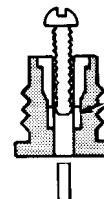


Fig 2

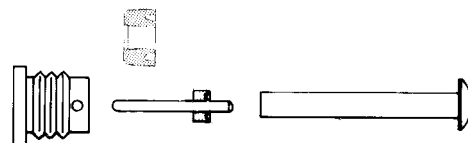


Fig 3

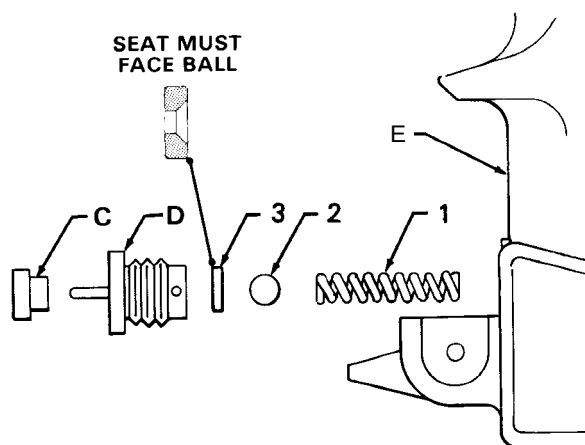


Fig 4

PRESSURE SWITCH REPLACEMENT KIT 218-974

Includes items 1 and 2.

1. Follow the Pressure Relief Procedure on the front cover of the instruction manual.
2. Disconnect the pressure switch leads from the ON/OFF switch and from the rectifier. See Fig 1.
3. Remove the screws and front cover.
4. Unscrew the retainer (A) and remove the pressure switch (1) and o-ring (2). See Fig 2.
5. Grease and install a new o-ring (2) in the pump housing (C).
6. Slide the retainer (A) over the pressure switch and screw the retainer into the pump housing. Torque the retainer to 55-65 in-lb (6.2 - 7.4 N.m).

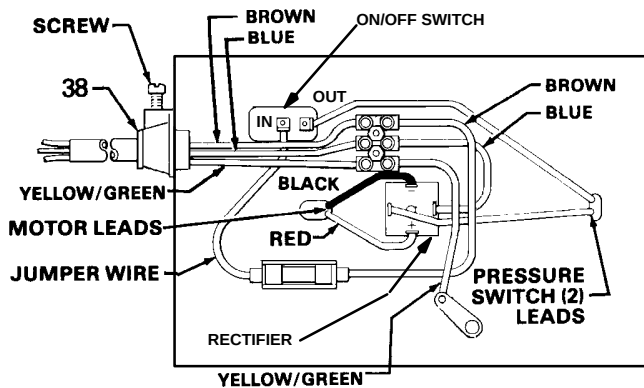


Fig 1

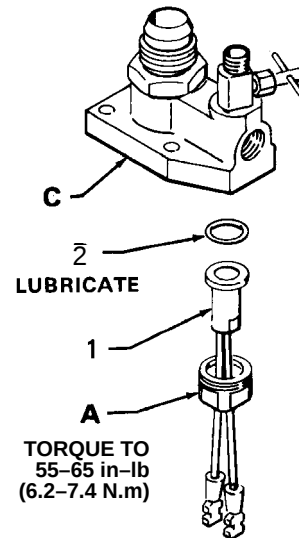


Fig 2

7. Guide the pressure switch leads through the base. Connect a lead to the power-out side of the ON/OFF switch and a lead to an unmarked terminal on the rectifier. See Fig 1.
8. Reinstall the front cover.

SERVICE INFORMATION

The wiring diagram for Kits 218-975 & 218-974 were changed.

Outlet Valve Kit 220-970 was 218-977.

Inlet Valve Kit 220-931 was 218-976

THE GRACO WARRANTY AND DISCLAIMERS

WARRANTY

Graco warrants all equipment manufactured by it and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. As purchaser's sole remedy for breach of this warranty, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment proven defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for, any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility with Graco equipment of structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claim. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor and transportation.

DISCLAIMERS AND LIMITATIONS

THE TERMS OF THIS WARRANTY CONSTITUTE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AND ARE IN LIEU OF ANY OTHER WARRANTIES (EXPRESS OR IMPLIED), INCLUDING WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY NON-CONTRACTUAL LIABILITIES, INCLUDING PRODUCT LIABILITIES, BASED ON NEGLIGENCE OR STRICT LIABILITY. EVERY FORM OF LIABILITY FOR DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOSS IS EXPRESSLY EXCLUDED AND DENIED. IN NO CASE SHALL GRACO'S LIABILITY EXCEED THE AMOUNT OF THE PURCHASE PRICE. ANY ACTION FOR BREACH OF WARRANTY MUST BE BROUGHT WITHIN TWO (2) YEARS OF THE DATE OF SALE.

EQUIPMENT NOT COVERED BY GRACO WARRANTY

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO ACCESSORIES, EQUIPMENT, MATERIALS, OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motor, switches, hose, etc.) are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

Factory Branches: Atlanta, Dallas, Detroit, Los Angeles, West Caldwell (N.J.)

Subsidiary and Affiliate Companies: Canada; England; Switzerland; France; Germany; Hong Kong; Japan

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