Parts

Contents

INSTRUCTIONS-PARTS LIST

308740

Rev. C
Supersedes B

This manual contains important warnings and information.
READ AND KEEP FOR REFERENCE.

INSTRUCTIONS

GRACO

First choice when quality counts.™

ProMix ™ Proportioning System

For proportional mixing of plural component coatings

See page 3 for the model numbers and descriptions.

Recognized Component

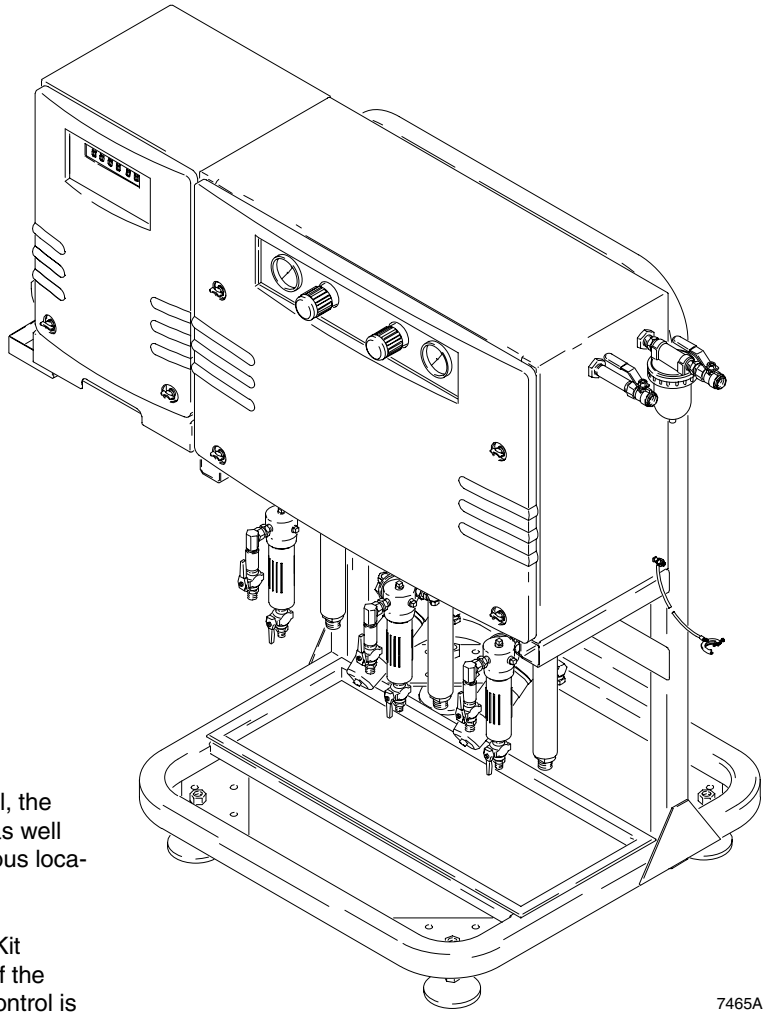
Conforms to ANSI/UL standard 2279

Certified to CAN/CSA 22.2 No. E79–11–95

EExia II A T4

98D.123384

Intrinsically Safe for Hazardous Locations
Class I; Division 1; Group D*



7465A

* If an external power supply is connected to the control, the control is no longer intrinsically safe and the control, as well as the power supply, must not be operated in hazardous locations.

If a printer is connected to the control, Printer Barrier Kit 240652 must be installed to maintain intrinsic safety. If the printer is installed without the Printer Barrier Kit, the control is no longer intrinsically safe and the control and printer must not be installed or operated in hazardous locations.

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440–1441
http://www.graco.com

Graco Inc. is registered to I.S. EN ISO 9001

Symbols

Warning Symbol

⚠ WARNING

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol

⚠ CAUTION

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

Table of Contents

ProMix Models

⚠ WARNING

COMPONENT RUPTURE HAZARD

To avoid component rupture and serious injury, including injection, do not exceed the maximum working pressure of the system components.

The maximum working fluid pressures below are based on the component A and B pump outputs at 100 psi incoming air pressure. The solvent supply line inside the control has a 3000 psi (21 MPa, 207 bar) maximum working fluid pressure, so the fluid supply for solvent purging must not exceed 3000 psi (21 MPa, 207 bar) maximum working pressure.

Medium Pressure Models

ProMix® Part No.	Maximum Working Fluid Pressure	Maximum Working Air Pressure	Includes:		
			Pump Part No.	Quantity	Description
239738	3000 psi (21 MPa, 207 bar)	100 psi (0.7 MPa, 7 bar)	223843	2	30:1 Ratio President® Pumps for supplying plural components
239739	3000 psi (21 MPa, 207 bar)	100 psi (0.7 MPa, 7 bar)	223843	2	30:1 Ratio President® Pumps for supplying plural components
			223596	1	23:1 Ratio Monark® Pump for supplying solvent

High Pressure Models

ProMix® Part No.	Maximum Working Fluid Pressure	Maximum Working Air Pressure	Includes:		
			Pump Part No.	Quantity	Description
239736	4000 psi (28 MPa, 276 bar) with 239954 High Pressure Spring Kit	100 psi (0.7 MPa, 7 bar)	239140	2	46:1 Ratio President® Pumps for supplying plural components
239737	4000 psi (28 MPa, 276 bar) with 239954 High Pressure Spring Kit	100 psi (0.7 MPa, 7 bar)	239140	2	46:1 Ratio President® Pumps for supplying plural components
			223596	1	23:1 Ratio Monark® Pump for supplying solvent

⚠ WARNING

INJECTION HAZARD

Spray from the gun, hose leaks, or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Splashing fluid in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate medical attention.**
- Do not point the spray gun at anyone or at any part of the body.
- Do not put hand or fingers over the spray tip.
- Do not stop or deflect fluid leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** on page 12 whenever you: are instructed to relieve pressure; stop spraying; clean, check, or service the equipment; or install or clean the spray tip.
- Tighten all the fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.

FIRE, EXPLOSION, AND ELECTRIC SHOCK HAZARD

Improper grounding, poor air ventilation, open flames, or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. See “Ground the System” on page 11.
- The ProMix control is intrinsically safe when used without any external electrical components connected to it. If an external power supply or printer is connected to the control, the control is no longer intrinsically safe and the control, as well as the power supply and printer, must not be operated in hazardous locations, as defined in article 500 of the National Electrical Code (USA) or your local electrical code.
- If using an external power supply, do not exceed the +24 volts maximum applied voltage. Disconnect electrical power at the main switch before servicing the equipment.
- Turn off the air to the air driven power supply before servicing the equipment.
- Provide fresh air ventilation to avoid the buildup of flammable vapors from solvent or the fluid being sprayed.
- Extinguish all the open flames or pilot lights in the spray area.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Do not turn on or off any light switch in the spray area while operating or if fumes are present.
- Do not smoke in the spray area.
- Do not operate a gasoline engine in the spray area.
- If there is any static sparking while using the equipment, **stop spraying immediately**. Identify and correct the problem.
- Keep liquids away from the electrical components.

⚠ WARNING

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.

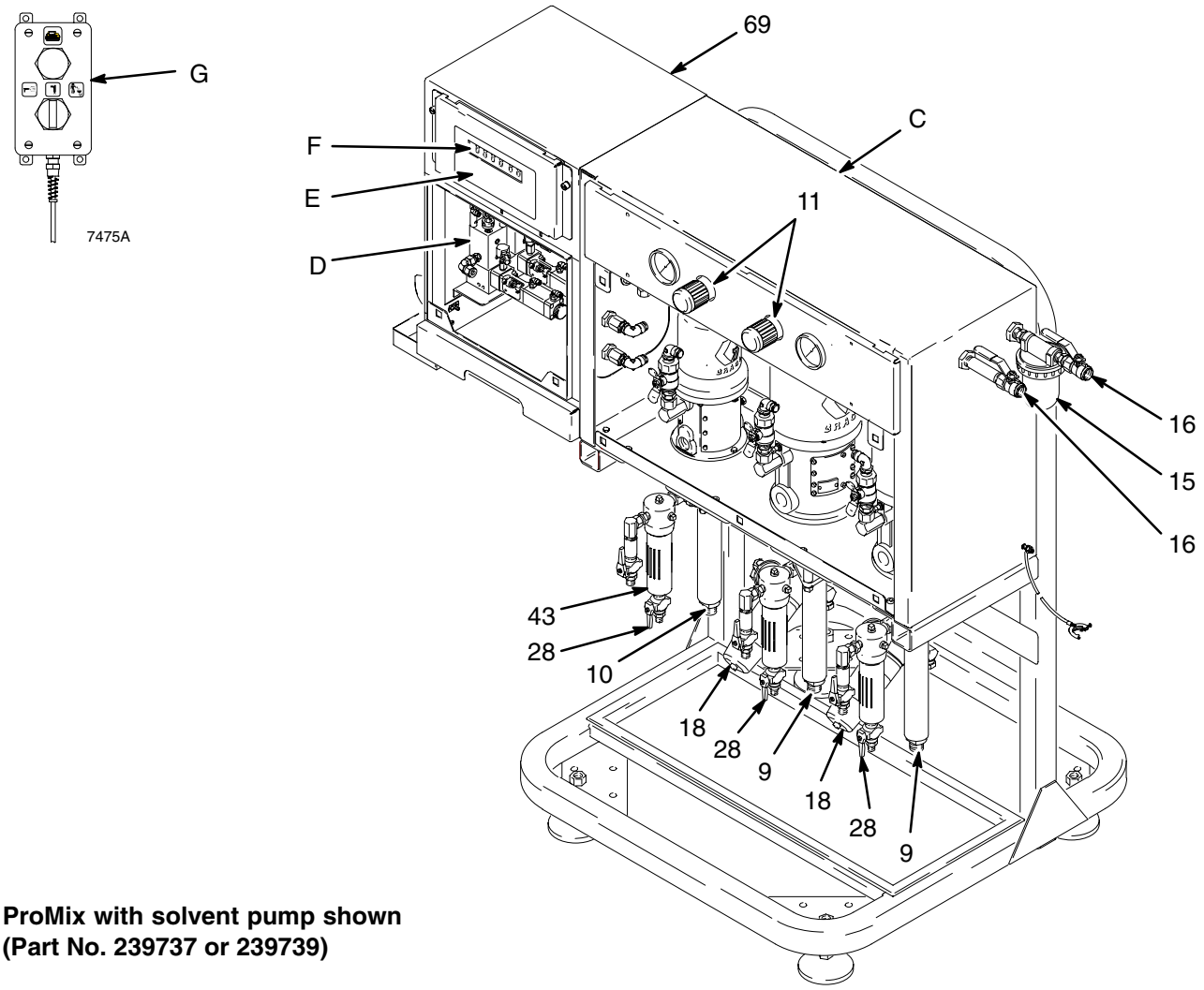
- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check the equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the system components. See the instruction manuals of the individual system components for their maximum working pressures. See page 3 for the maximum working pressures of your ProMix model.
- Route the hoses away from the traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 180°F (82°C) or below –40°F (–40°C).
- Use only Graco approved hoses. Do not remove hose spring guards, which help protect the hose from rupture caused by kinks or bends near the couplings.
- Do not use the hoses to pull the equipment.
- Use fluids or solvents that are compatible with the equipment wetted parts. See the **Technical Data** section of all the equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Comply with all applicable local, state and national fire, electrical and other safety regulations.

TOXIC FLUID HAZARD

Hazardous fluids or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, swallowed, or inhaled.

- Know the specific hazards of the fluid you are using. Read the fluid manufacturer's warnings.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Wear the appropriate protective clothing, gloves, eyewear, and respirator.

ProMix Proportioner Overview



ProMix with solvent pump shown
(Part No. 239737 or 239739)

Fig. 1 7466A

KEY

C ProMix Fluid Section
D Mix Manifold
E Keypad
F LED Display
G Operator Station
9 Plural Component Supply Pump
10 Solvent Supply Pump
11 Air Regulator
15 Air Filter
16 Air Shutoff Valve
18 Fluid Regulator
28 Fluid Drain Valve
43 Fluid Filter (one out of three pointed out)
69 ProMix Control

Installation

NOTE:

- Reference numbers and letters in parentheses in this text refer to the numbers and letters in the illustrations.
- Icons in the text refer to the icons on the equipment, keypad, or reference card.
- Be sure all accessories are adequately sized and pressure-rated to meet the system requirements.
- For maintenance and safety, you must have a ball valve between each fluid supply line and the ProMix system.
- See page 34 for dimensions.

⚠ CAUTION

The ProMix pot life timer will not function properly when used with multiple guns that are operating simultaneously. To avoid having mixed material set in the equipment, carefully monitor the pot life by some other means.

Location

⚠ WARNING

FIRE AND EXPLOSION HAZARD
The ProMix control is intrinsically safe when used without any external electrical components connected to it. If an external power supply or printer is connected to the control, the control is no longer intrinsically safe and the control, as well as the power supply and printer, must not be operated in hazardous locations, as defined in article 500 of the National Electrical Code (USA) or your local electrical code.

If moving the ProMix with a forklift, be sure to tie the unit securely to the forklift before lifting it. An optional Caster Kit is available.

Setup

1. Remove the front panels from the ProMix control (69) and the fluid section (C).

2. Tighten the fluid line connections between the flow meter, mix manifold, and other system components as they may have loosened during shipment.

3. Connect the ProMix control (69) to the fluid section (C). See Fig. 2.

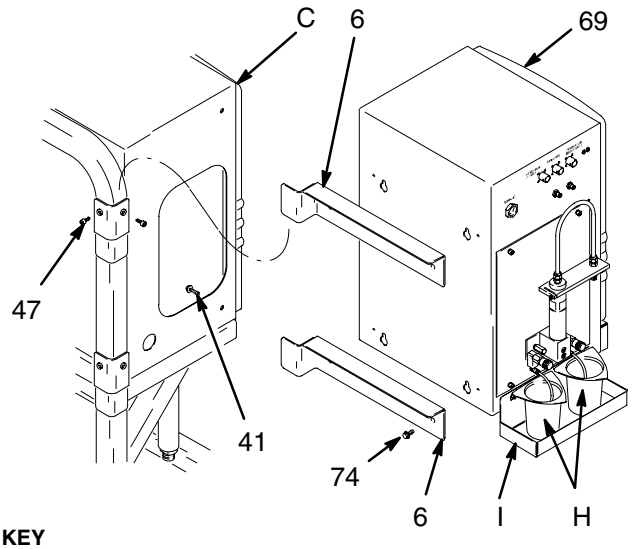
   a. Place the brackets (6) into the slots in the ProMix fluid section (C). Loosely install the control bracket set screws (47).

   b. Connect the ProMix control (69) to the brackets (6) with the screws (74).

   c. Tighten the screws (41) to make the fluid section and control sides flush. Tighten the set screws (47) for further adjustment.

   NOTE: If you choose to mount the control on a wall, rather than connecting it to the fluid section, make sure the mounting surface can support the weight of the control and any hoses and accessories connected to it and any stress that may be applied during operation. See the control manual 308783 for mounting dimensions.

   d. Install the beaker tray (I) with the two screws (included), and place the beakers (H) in the tray.



KEY

C Fluid Section
H Beaker
I Beaker Tray
6 Control Bracket
69 ProMix Control
74 Screw

Fig. 2 7467A

Installation

4. Connect the supply lines from the fluid section to the ProMix control connectors. See Fig. 3.

⚠ WARNING

COMPONENT RUPTURE HAZARD
To avoid component rupture and serious injury, including injection, the fluid supply unit for solvent purging must not exceed 3000 psi (21 MPa, 207 bar) maximum working fluid pressure. See page 3 for additional maximum working pressure information.

   a. Connect the component A (resin) line from the pump to control connector **A**.

   b. Connect the component B (catalyst) line from the pump to control connector **B**.

   c. Connect the solvent line from the pump or other solvent supply to control connector **S**.

   d. Connect the air lines to the two control air connectors .

   NOTE:
   The *Control Air* line supplies the air to the control solenoids and air driven power supply and to the spray gun.

   The *Manifold Purge Air* line supplies the air for the mix manifold solvent/air purge sequence.

5. Screw the air filter (15) into the Pump/Purge air inlet. See Fig. 4.

   NOTE: This air inlet is for the air supply to the two plural component pumps and the manifold for air purging.

6. Screw the shutoff valve (16^{-1}) into the air filter (15).

7. Screw the second shutoff valve (16^{-2}) into the Control/Gun air inlet.

   NOTE: This air inlet is for the air supply to the solenoids and air driven power supply and to the spray gun.

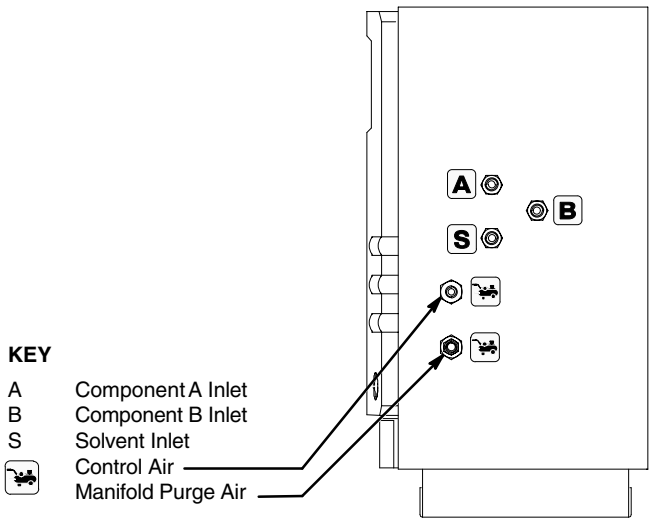
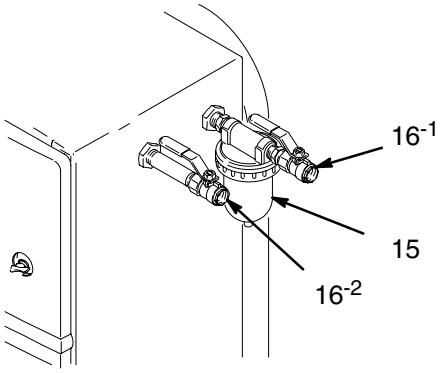


Fig. 3



KEY

15 Air Filter
16^{-1} Shutoff Valve for Pump/Purge Air
16^{-2} Shutoff Valve for Control/Gun Air

7470A

Fig. 4

Installation

8. Connect the air supply lines (J) to the two shutoff valves (16). See Fig. 5.

9. Connect the fluid supply lines (K) to the pump fluid inlets (L). See Fig. 5.

   a. Connect the component A line to the component A pump.

   b. Connect the component B line to the component B pump.

   c. Connect the solvent line to the solvent pump or other solvent supply.

10. Connect fluid and air supply lines to the spray gun. See Fig. 5 and 7.

    a. Connect the gun fluid supply line (N) between the manifold's static mixer outlet (P) and the gun fluid inlet.

    b. Connect the gun air supply line (M) between the ProMix gun air outlet (O) and the gun air inlet.

NOTE: Install an air shutoff valve in the gun air supply line or at the gun air inlet.

⚠ WARNING

FIRE AND EXPLOSION HAZARD
To reduce the risk of fire and explosion, an automatic shutoff valve must be properly installed in the gun air line if using a Graco electrostatic PRO™ Gun.

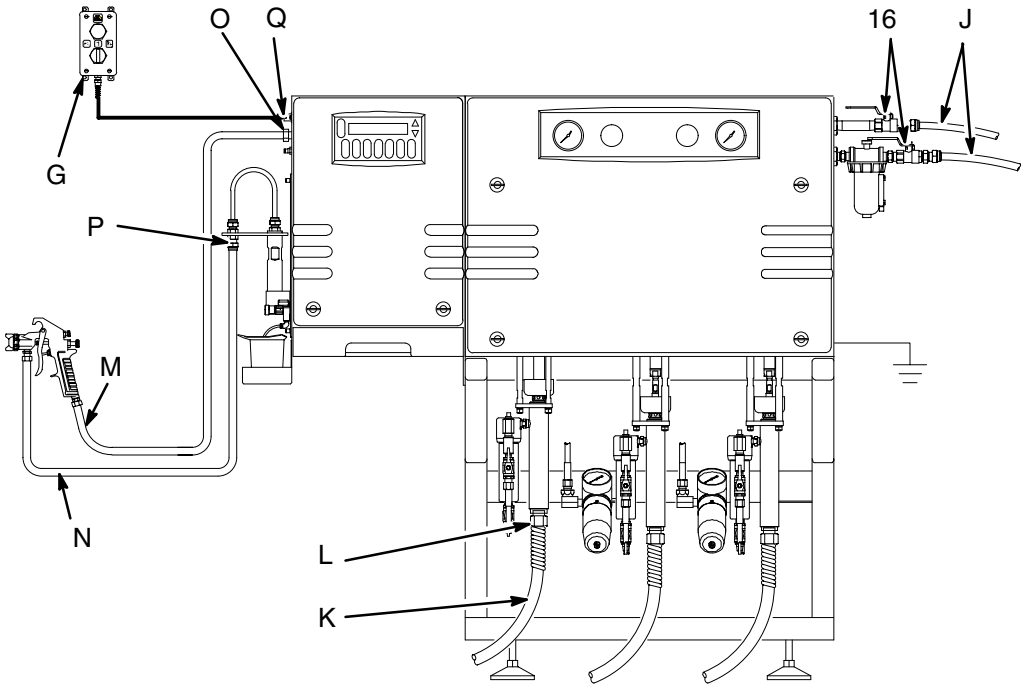
Contact your Graco representative for information on air shutoff valves for electrostatic applications.

11. Plug the operator station (G) into the connector (Q) on the ProMix control, using the 50 ft. cable supplied. See Fig. 5 and 7.

    Mount the operator station in an area where the operator can easily access it.

KEY

G Operator Station
J Air Supply Line
K Pump Fluid Supply Line
L Pump Fluid Inlet
M Gun Air Supply Line
N Gun Fluid Supply Line
O Gun Air Outlet
P Manifold Static Mixer Outlet
Q Operator Station Connector
16 Shutoff Valve



7471A

Fig. 5

Installation

⚠ WARNING

FIRE AND EXPLOSION HAZARD

The ProMix control is intrinsically safe when used without any external electrical components connected to it. If an external power supply or printer is connected to the control, the control is no longer intrinsically safe and the control, as well as the power supply and printer, must not be operated in hazardous locations, as defined in article 500 of the National Electrical Code (USA) or your local electrical code.

12. If using a printer, plug the printer cable into the printer cable connector on the ProMix control. See Fig. 7.

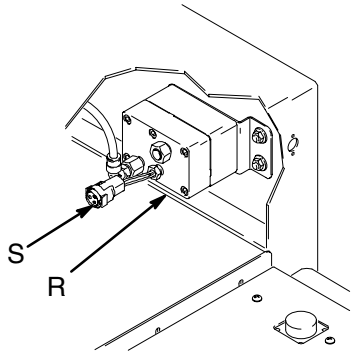
13. If the external power option is used instead of the air driven power supply (R) inside the control, disconnect the wire harness from the power supply connector (S). See Fig. 6.

    Plug the power cable into the external power connector. See Fig. 7. Use a 12–18 Vdc, 0.3 amp power supply. Do not exceed the +24 volts maximum applied voltage.

14. If the alarm option is used, connect an air line between the alarm air outlet on the control and the air inlet on the alarm. See Fig. 7.

KEY

R Air Driven Power Supply
S Power Supply Connector

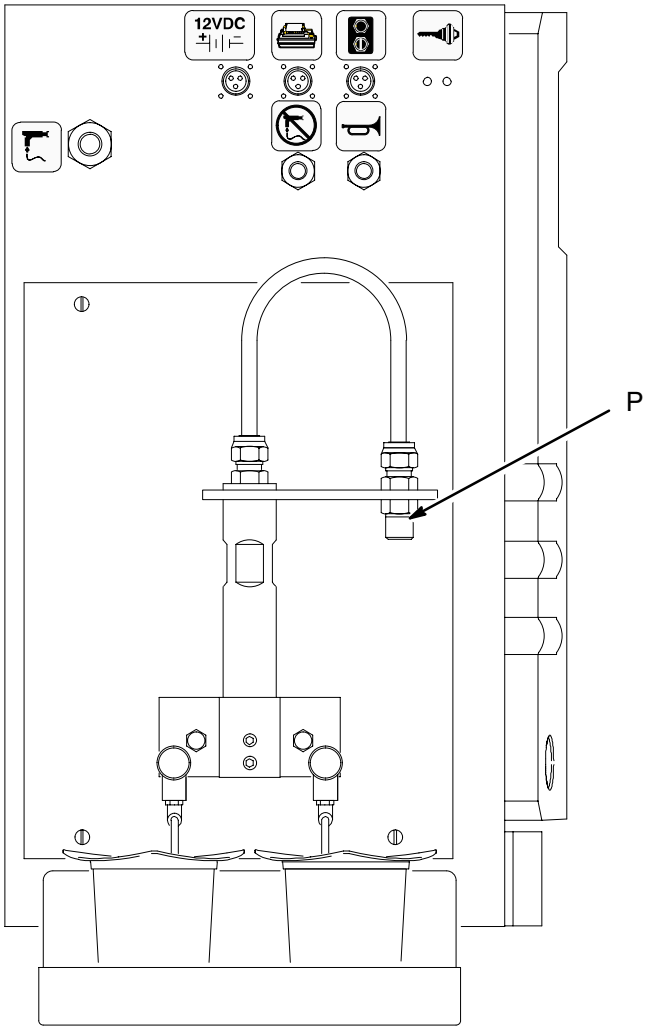


7682A

Fig. 6

KEY

Gun Air Outlet
Air Signal Outlet (optional)
Alarm Air Outlet (optional)
Operator Station Connector
Printer Cable Connector
External Power Connector
P Manifold Static Mixer Outlet



7472A

Fig. 7

Installation

15. Ground the system. See Fig. 8.

⚠ WARNING

FIRE, EXPLOSION, AND ELECTRIC SHOCK HAZARD
To reduce the risk of fire, explosion, or electric shock, the system must be properly grounded. Follow the **Fire, Explosion, and Electric Shock Hazard** warnings on page 4 and follow the instructions below.

a. Connect the ground wire (T) supplied to the ProMix ground lug (50). See Fig. 8. Connect the ground wire clamp to a true earth ground as defined in your local code.

b. A ground wire (U) is connected to a ground lug inside the ProMix fluid section. See Fig. 9. Connect the other end of the ground wire to the ProMix control ground lug (50).

c. Ground the other system components as instructed in their separate instruction manuals.

d. Use only grounded air and fluid hoses.

e. Ground the fluid supply container according to your local code.

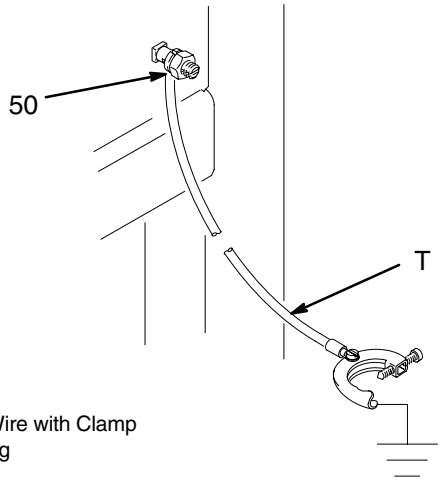
f. Ground the object being sprayed according to your local code.

g. Ground the solvent pails according to your local code. Use only metal pails, which are conductive, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts the grounding continuity.

h. Maintain grounding continuity when purging or relieving pressure. Follow the instructions in your separate gun manual for safely grounding your gun while purging.

16. Check grounding continuity.

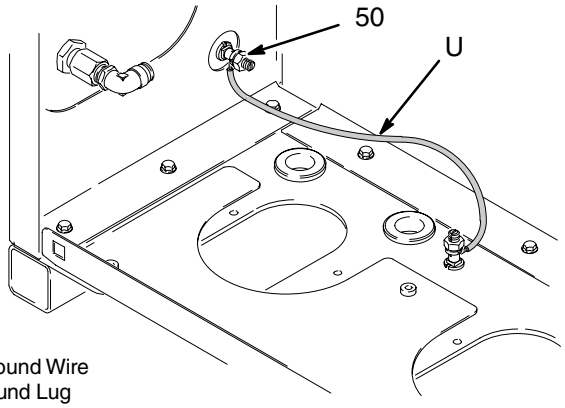
Have a qualified electrician check the resistance between each ProMix component and the true earth ground. The resistance must be less than 25 ohms. If the resistance is greater than 25 ohms, a different ground site may be required. Do not operate the system until the problem is corrected.



KEY
T Ground Wire with Clamp
50 Ground Lug

7473A

Fig. 8



KEY
U Ground Wire
50 Ground Lug

7468A

Fig. 9

Operator Controls

Two devices provide operator interface; they are the *Operator Station*, located in the spray booth, and the *Keypad*, located on the control.

The operator station has four functions, represented by four icons on its cover. See Fig. 10.

See the control manual 308783 for additional information on using the Operator Station and the Keypad for setup and operation. The keypad icons are also explained in manual 308783.

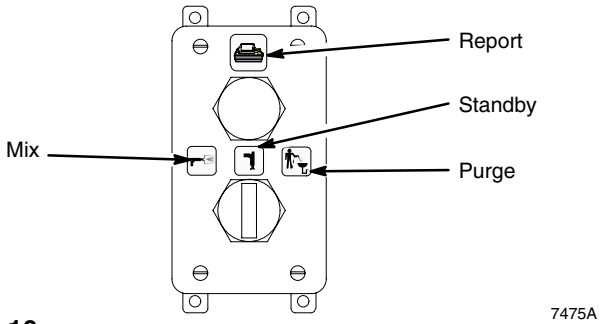


Fig. 10

Pressure Relief Procedure

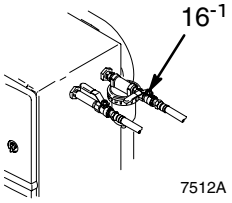
⚠ WARNING

INJECTION HAZARD
The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

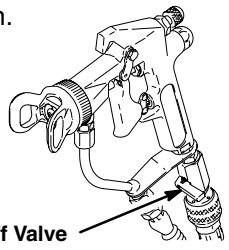
- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- install or clean the spray tip.

1. Set the operator switch to standby. See Fig. 10.

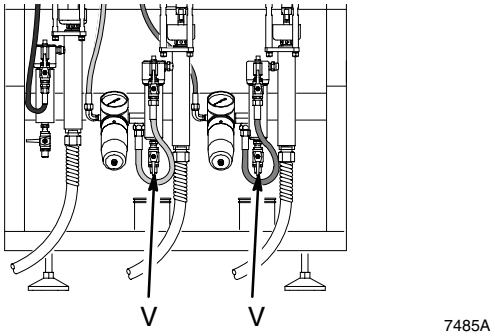
2. Close the Pump/Purge air shutoff valve (16^{-1}).



3. Shut off the air at the spray gun.

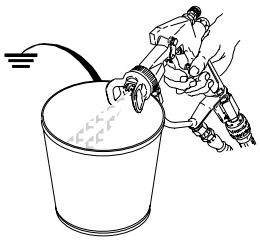


4. Place waste containers under each of the pump drain valves (V) and open the drain valves to relieve fluid pressure at the pumps.



5. Set the operator switch to mix.

6. Hold a metal part of the spray gun firmly to the side of a grounded metal pail, and trigger the gun to relieve fluid pressure.



7. Set the operator switch to standby.

8. If you suspect that the spray tip or hose is completely clogged or that pressure has not been fully relieved after following the steps above, very slowly loosen the hose end coupling and relieve pressure gradually, then loosen the coupling completely. Now clear the tip or hose obstruction.

9. Close the pump drain valves before spraying again.

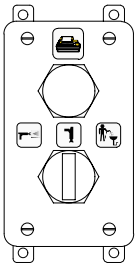
Startup

⚠ CAUTION

The ProMix pot life timer will not function properly when used with multiple guns that are operating simultaneously. To avoid having mixed material set in the equipment, carefully monitor the pot life by some other means.

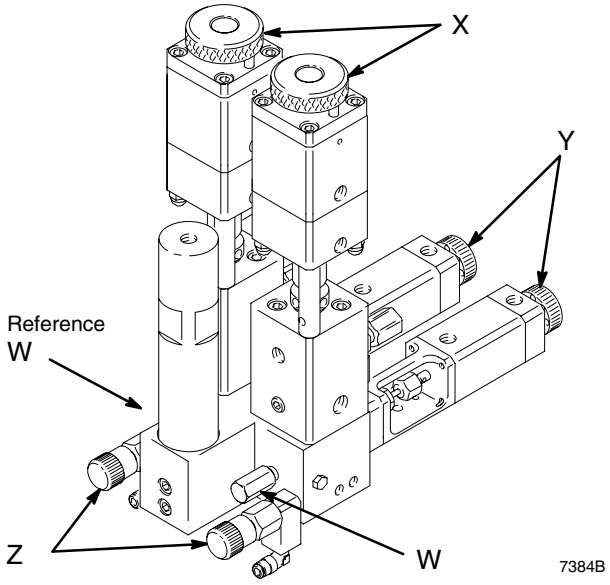
NOTE: If the ratio is set to 0.6:1 to 20:1, the ratio will remain at its setting when powered off and on. If the ratio is set to 0.5:1 or less and the system is powered off and on, the ratio will reset to the default of 1:1. All other settings will also reset to their default.

1. Make sure the operator switch is set at standby to avoid mixing or purging material at startup.



7475A

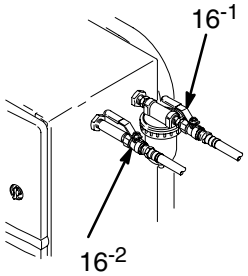
2. Check that the supply containers for component A and B and solvent are filled.
3. Check that the mix manifold fluid shutoff knobs, dispense valve knobs, and purge valve knobs are set as follows:
   - (W) Fluid Shutoff Knobs: fully open
   - (X) Dispense Valve Knobs: three “clicks” open from fully closed setting
   - (Y) Purge Valve Knobs: two turns open from fully closed setting
   - (Z) Ratio Check Valve Knobs: fully closed



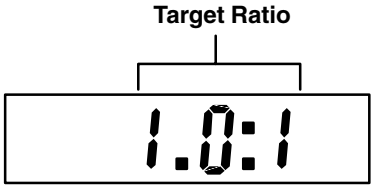
7384B

4. Turn the air supply on and open the air shutoff valves (16^{-1},16^{-2}).

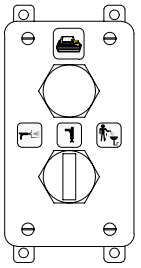
   A diagnostic test will run and the last known Target Ratio will display on the LED panel. This will be a 1.0:1 ratio on the initial startup.



7474A



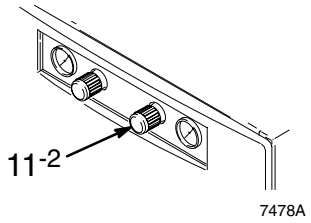
5. If this is the first startup of the system, purge it as instructed in **Purging the Fluid Supply** on page 18. The system was tested with light-weight oil, which should be flushed out to avoid contaminating the fluid you will spray.
6. You can check the tolerance, pot life time, and other operation status information by pressing the proper key on the keypad. See the control manual 308783 for the meaning of the icons on the keypad.
7. Setup the ratio and other values as needed. See control manual 308783 for setup information.
8. Make sure the operator switch is set at standby.



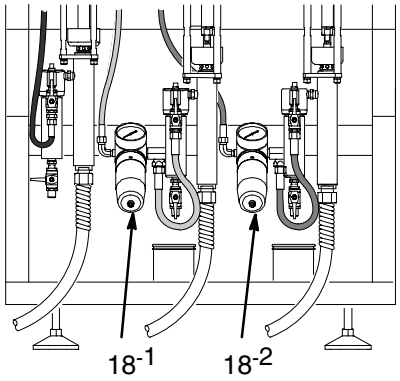
7475A

Startup

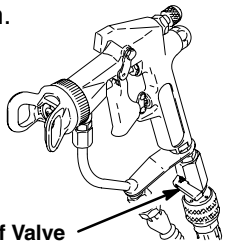
9. Check that the component pump air regulator (11^{-2}) is properly set for your application. Do not exceed the 100 psi (0.7 MPa, 7 bar) maximum working air pressure of the pump.



10. Check that the fluid valves are open and the fluid pressure regulators (18^{-1}, 18^{-2}) are properly set for your application. Do not exceed the maximum fluid working pressure of your system components.



11. Shut off the air at the spray gun.



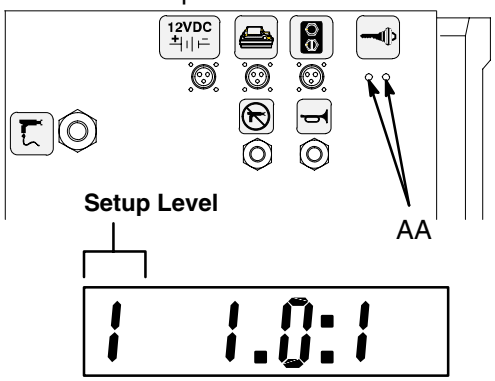
12. Prime the system.

⚠ CAUTION

Do not use the first 4 to 5 oz. (120 to 150 ml) of material from the system, as it may not be thoroughly mixed due to alarms while priming the system.

NOTE: If the flow meters overrun because of air in the system, operation will stop. See control manual 308783 for alarm troubleshooting information.

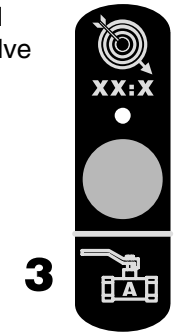
a. Touch the token (on the back of the reference card) to the setup contacts (AA). Number 1 appears on the display, indicating the control is at level 1 setup.



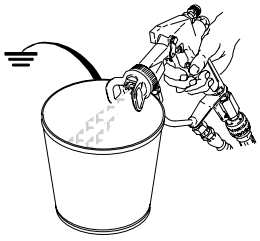
b. Refer to the reference card, and press the return key (↵) on the keypad twice to move to level 3 setup.

c. 3 appears on the display, indicating that the system is at level 3 setup, and the light under the first icon lights up.

d. Refer to the reference card and hold down the component A valve key to open the component A valve.



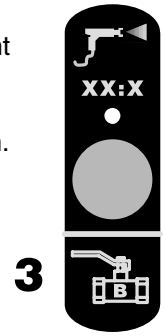
e. Trigger the gun into a grounded waste container until component A flows from the gun.



Startup

f. Release the component A valve key to close the valve.

g. Hold down the component B valve key to open the component B valve. Trigger the gun into a grounded waste container until component B flows from the gun.

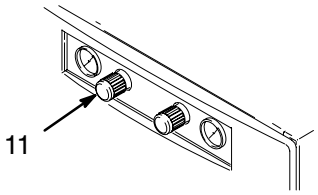


h. Release the component B valve key to close the valve.

13. Clear the lines of unmixed material by purging with solvent.

a. Press the return key (↵) to move to level 1 setup.

b. Adjust the solvent pump air pressure regulator (11) or other solvent supply regulator. Use the lowest pressure possible to avoid splashing.



7478A

c. Hold down the solvent valve key to open the solvent valve.

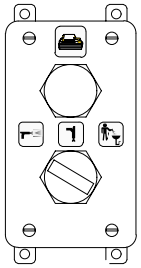
d. Trigger the gun into a grounded waste container until solvent flows from the nozzle.

e. Release the solvent valve key to close the valve.

f. Touch the token to the setup contacts to exit setup mode.

14. Prime the lines with mixed material.

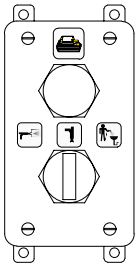
a. Turn the operator switch to mix.



7476A

b. Trigger the gun into a grounded waste container until mixed material flows from the nozzle.

c. Turn the operator switch to standby.

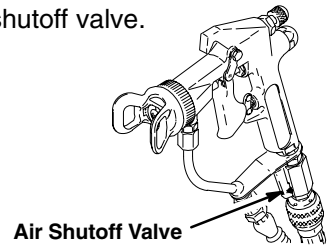


7475A

Startup

15. Spray

a. Open the gun air shutoff valve.



b. Turn the operator switch to mix.

c. Spray the material as instructed in your spray gun manual.

d. **If the fluid output is too low,** increase the air pressure to the component supply pumps or increase the regulated fluid pressure.

If the fluid output is too high, reduce the air pressure, close the manifold dispense valves further, or adjust the fluid pressure regulator.

NOTE: The pressure adjustments of each component will vary with the viscosity. In general, start with the same feed pressures for component A and B and then adjust as needed.

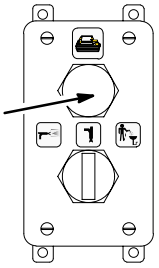
⚠ CAUTION

Never allow the fluid supply tanks to empty completely while the ProMix is operating. Fill them periodically, as needed. Failure to fill the tanks when they are low may allow air or off-ratio material into the fluid lines, causing an alarm condition and stopping production.

Reporting

If a printer is connected to the ProMix control, set the operator switch to standby and press the report button to generate a report.

NOTE: The system must be in standby mode to run a report.

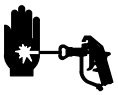


The control will reset the component A and B totalizers and send the following information to the printer:

Start Date and Time
End Date and Time
Consumption A
Consumption B
Desired Ratio
Ratio Tolerance
Maximum Ratio Deviation

Shutdown

⚠ WARNING



INJECTION HAZARD
To reduce the risk of a serious injury, follow the **Pressure Relief Procedure** on page 12 whenever you:

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- install or clean the spray tip.

Stop production at any time by setting the operator switch to standby. If your stop time will not exceed the pot life, no additional action is needed, except to relieve the system pressure. If your stop time will exceed the pot life, you must purge the mixing system. See **Purging the ProMix of Mixed Material**, page 17.

NOTE: If the ratio is set to 0.6:1 to 20:1, the ratio will remain at its setting when powered off and on. If the ratio is set to 0.5:1 or less and the system is powered off and on, the ratio will reset to the default of 1:1. All other settings will also reset to their default values.

Purging

There are two purging procedures: one for purging the ProMix control of mixed materials, and one for purging the fluid supply system.

Purging the ProMix of Mixed Material

Follow the procedure below:

- After a ratio check,
- Before any break or service procedure that exceeds the pot life of the fluid,
- Before servicing the control assembly.

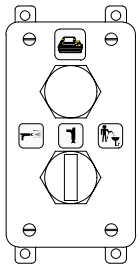
NOTE: In general, the ratio check valves only need to be purged after a ratio check. To purge the ratio check valves, see page 22.

⚠ WARNING

INJECTION HAZARD
To reduce the risk of a serious injury, follow the **Pressure Relief Procedure** on page 12 whenever you are instructed to relieve the pressure.

1. Make sure the solvent is compatible with the equipment wetted parts and with the fluid being sprayed.

2. Make sure the operator switch is set at standby.

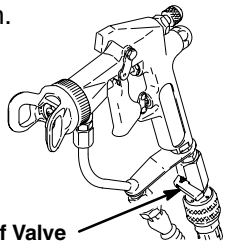


7475A

⚠ WARNING

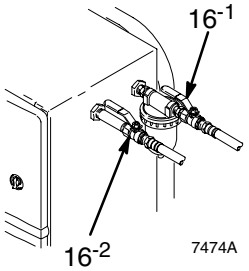
FIRE, EXPLOSION, AND ELECTRIC SHOCK HAZARD
To reduce the risk of fire, explosion, or electric shock, the air to the gun must be shut off on a Graco PRO™ electrostatic spray gun to ensure the electrostatic power is not on when purging.

3. Shut off the air at the spray gun.

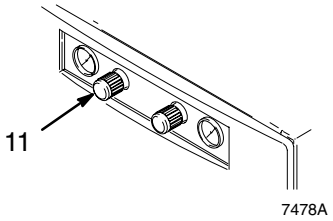


4. If you are using a high pressure gun*, relieve the pressure as instructed on page 12, and remove the spray tip before purging the system. Clean the tip separately.

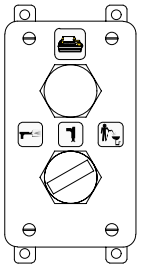
5. Turn the air supply on and open the air shutoff valves (16^{-1}, 16^{-2}).



6. Adjust the solvent pump air pressure regulator (11) or other solvent supply regulator. Use the lowest pressure possible to avoid splashing.



7. Turn the operator switch from standby to purge.

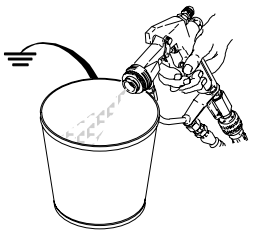


7477A

* A gun is considered *high pressure* when its maximum working pressure is 900 psi [6.2 MPa, 62 bar] or greater.

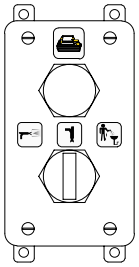
Purging

8. Trigger the gun into a grounded waste container. The control will run, alternating solvent and air, until the set purge time is over.



If the fluid section is not clean after completing the purge sequence, repeat the purge by turning the operator switch to standby and back to purge. If the purge time is repeatably too short, change to setup mode and lengthen the purge time.

9. Turn the operator switch to standby.



7475A

10. Relieve the pressure as instructed on page 12.

Purging the Fluid Supply

Follow the procedure below:

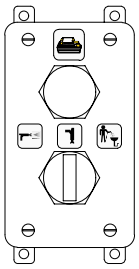
- During initial startup,
- Before changing colors,
- At the end of each workday,
- Before servicing the system if possible or after servicing if production will not resume right away.

⚠ WARNING

INJECTION HAZARD
To reduce the risk of a serious injury, follow the **Pressure Relief Procedure** on page 12 whenever you are instructed to relieve the pressure.

1. Make sure the solvent is compatible with the equipment wetted parts and with the fluid being sprayed.

2. Make sure the operator switch is set at standby.

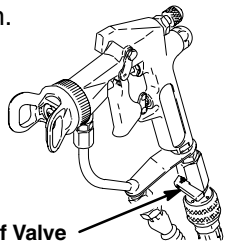


7475A

⚠ WARNING

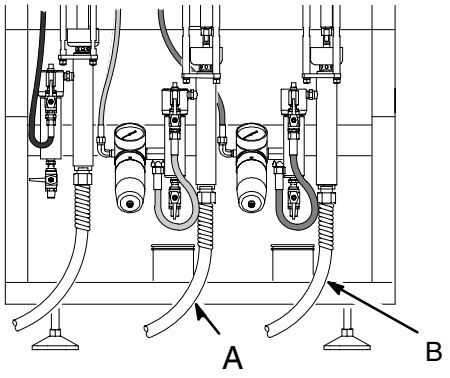
FIRE, EXPLOSION, AND ELECTRIC SHOCK HAZARD
To reduce the risk of fire, explosion, or electric shock, the air to the gun must be shut off on a Graco PRO™ electrostatic spray gun to ensure the electrostatic power is not on when purging.

3. Shut off the air at the spray gun.



4. Relieve the pressure as instructed on page 12.

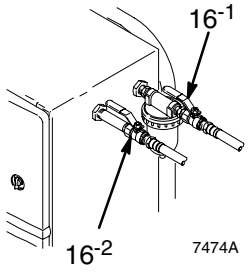
5. Disconnect the component A and B fluid supply lines, and connect regulated solvent supply lines in their place.



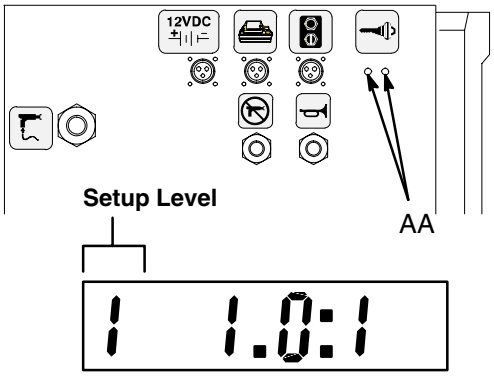
7485A

Purging

6. Turn the air supply on and open the air shutoff valves (16^{-1}, 16^{-2}).



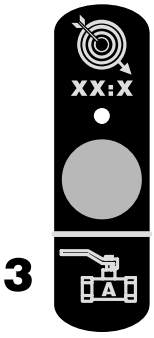
7. Touch the token to the setup contacts (AA). Number 1 appears on the display, indicating the control is at level 1 setup.



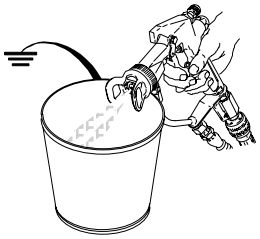
8. Refer to the reference card, and press the return key (↵) on the keypad twice to move to level 3 setup.

9. 3 appears on the display, indicating that the system is at level 3 setup, and the light under the first icon lights up.

10. Refer to the reference card and hold down the component A valve key to open the component A valve.

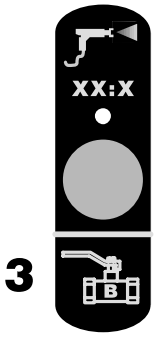


11. Trigger the gun into a grounded waste container until the component A fluid lines are clean.



12. Release the component A valve key to close the valve.

13. Hold down the component B valve key to open the component B valve. Trigger the gun into a grounded waste container until the component B fluid lines are clean.



14. Release the component B valve key to close the valve.

15. If changing colors/materials, change the ratio and other values as needed.

16. Touch the token to the setup contacts to save any new values that were entered and exit setup mode.

17. Relieve the pressure as instructed on page 12.

18. Disconnect the solvent supply lines, and reconnect the component A and B fluid supply lines.

19. See page 13 for startup procedure.

Ratio Check

Check the ratio at least once per month, as part of a regular maintenance routine, and anytime a flow meter is changed.

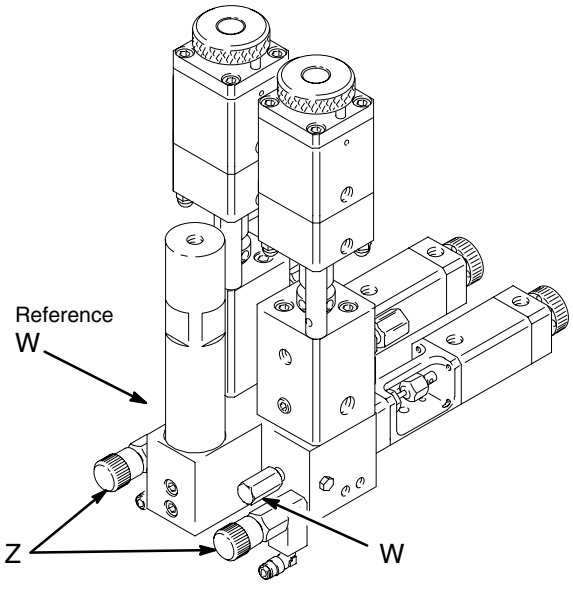
⚠ WARNING

PRESSURIZED EQUIPMENT HAZARD
To avoid splashing fluid in the eyes when performing a ratio check or purging:

- Wear eye protection.
- Only open the ratio check valves enough to allow fluid to flow at a rate of 100 to 200 cc per minute.

⚠ CAUTION

The fluid shutoff valves and ratio check valves are retained in their housings by mechanical stops that prevent accidental removal of the valve stem while the manifold is pressurized. If manual force cannot turn the valve stems, the system pressure must be relieved and the valve properly disassembled and cleaned to remove the resistance.

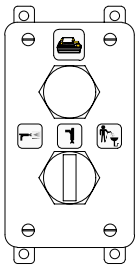


7384B

KEY

W Fluid Shutoff Knobs
Z Ratio Check Valve Knobs

1. Make sure the operator switch is set at standby.



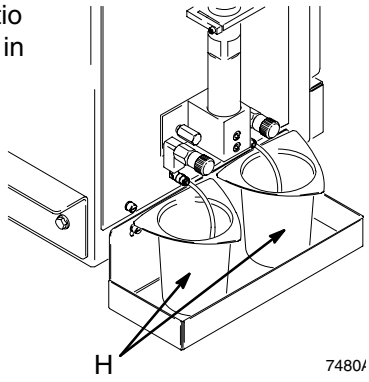
7475A

2. Turn off all the spray or dispense devices connected to the ProMix.

3. Close both fluid shutoff valves (W) and ratio check valves (Z) by turning the knobs in.

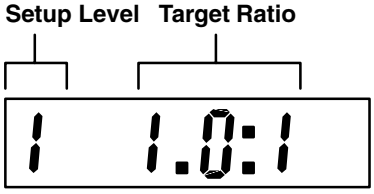
4. Make sure the two beakers (H) and the ratio dispense tubes are in place.

NOTE: Use 5/32" I.D. tubing for the ratio dispense tubes.



7480A

5. Touch the token to the setup contacts. 1 appears on the display, indicating the control is at level 1 setup. The last known target ratio will also display.

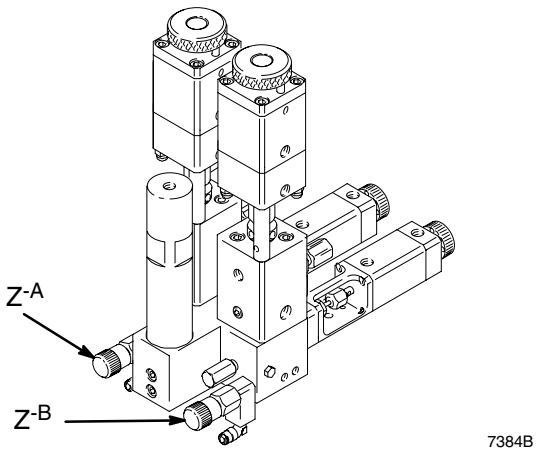


Ratio Check

6. Refer to the reference card. Hold down either the flow meter A key or flow meter B key for two seconds. The light under the icon will turn green to indicate that the ratio check function has been activated.

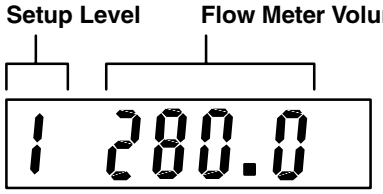
7. To avoid splashing, slowly open the component A ratio check valve (Z^{-A}) by turning the knob out. After one shot of component A has dispensed, slowly open the component B ratio check valve (Z^{-B}).

   The ProMix will run and dispense 10 doses of component A and B into the separate beakers.

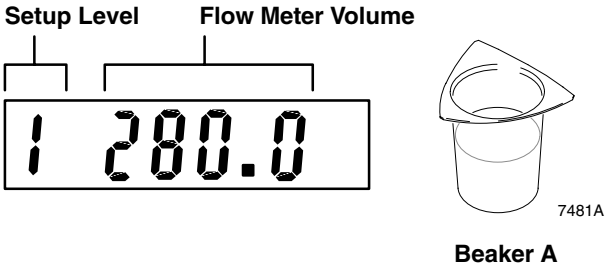


8. After completing the ratio check, close both of the ratio check valves (Z^{-A}, Z^{-B}).

9. Press the flow meter A key . The amount of fluid dispensed will display in cubic centimeters (cc).



10. Compare the amount on the display to the amount in the component A beaker. For maximum accuracy, use a gravimetric (mass) method to determine the actual dispensed volumes.

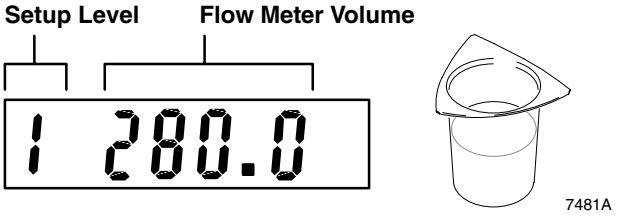


Beaker A

11. If the amounts are different, press the arrow keys (△▽) up or down to change the displayed dispense amount to equal the actual dispensed amount in the beaker.

12. Press the flow meter B key .

13. Compare the amount on the display to the amount in the component B beaker.



Beaker B

14. If the amounts are different, press the arrow keys (△▽) up or down to change the displayed dispense amount to equal the actual dispensed amount in the beaker.

Ratio Check

15. **Always purge the ratio check valves after a ratio check.**

    a. Make sure both component A and B fluid shutoff valves (W^{-A}, W^{-B}) are still closed.

    b. Place an empty beaker under each ratio check valve.

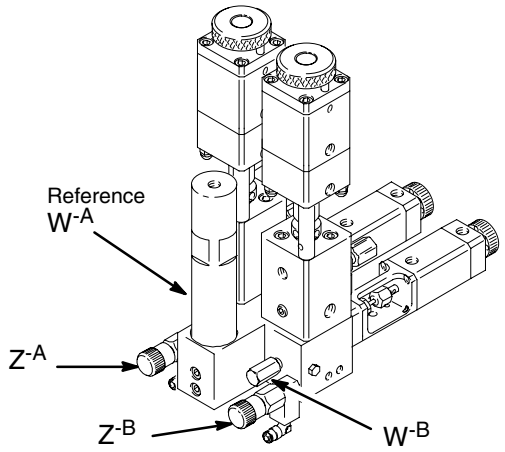
    c. Hold down the ratio valve purge key to open the solvent valve.

    NOTE: If the purge valve does not remain open while the key is pressed, service the fluid dispense valves.

    d. Slowly open the component B ratio check valve (Z^{-B}) one-half turn to one full turn. Purge until clean solvent flows from the check valve, then close the valve.

    e. Open the component B fluid shutoff valve (W^{-B}) , and trigger the gun until clean solvent flows from it.

    f. Fully open the component A fluid shutoff valve (W^{-A}), and slowly open the component A ratio check valve (Z^{-A}) one-half to one full turn. Purge until clean solvent flows from the check valve, then close the valve.



7384B

    g. Release the ratio valve purge key to close the solvent valve.

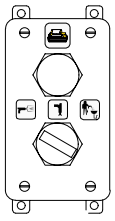
16. Make sure both component A and B ratio check valves (Z^{-A}, Z^{-B}) are closed and both fluid shutoff valves (W^{-A}, W^{-B}) are fully open.

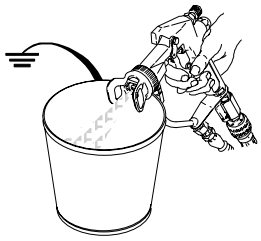
17. Touch the token to the setup contacts to save the new value entered during the ratio check and exit setup.

18. The control will retain the new value and return to operation mode.

19. Purge the system as instructed on page 18 if you are not loading paint into the system to start production. If you are starting production, follow the purging procedure on page 17.

20. Before you begin production, clear the system of solvent and prime it with material by turning the operator switch to mix and triggering the gun into a grounded waste container until mixed material comes out of the gun nozzle. The system is now ready to apply material.


7476A



Service

⚠ WARNING

INJECTION HAZARD
To reduce the risk of a serious injury, follow the **Pressure Relief Procedure** on page 12 before checking or servicing the equipment.

⚠ WARNING

ELECTRIC SHOCK HAZARD
To reduce the risk of electric shock, the air to the air driven power supply must be shut off before servicing the control. If an external power supply is used, make sure its power is turned off.

⚠ CAUTION

Wear the grounding strap provided when servicing the control to avoid shorting out the circuit board.

⚠ CAUTION

Do not use any fluid in the line that was dispensed off ratio as it may not cure properly.

NOTE: When assembling parts, use anaerobic pipe sealant on all non-swiveling pipe threads.

Alarm Troubleshooting

See the control manual 308783 for information on alarm troubleshooting.

Instruction Manuals

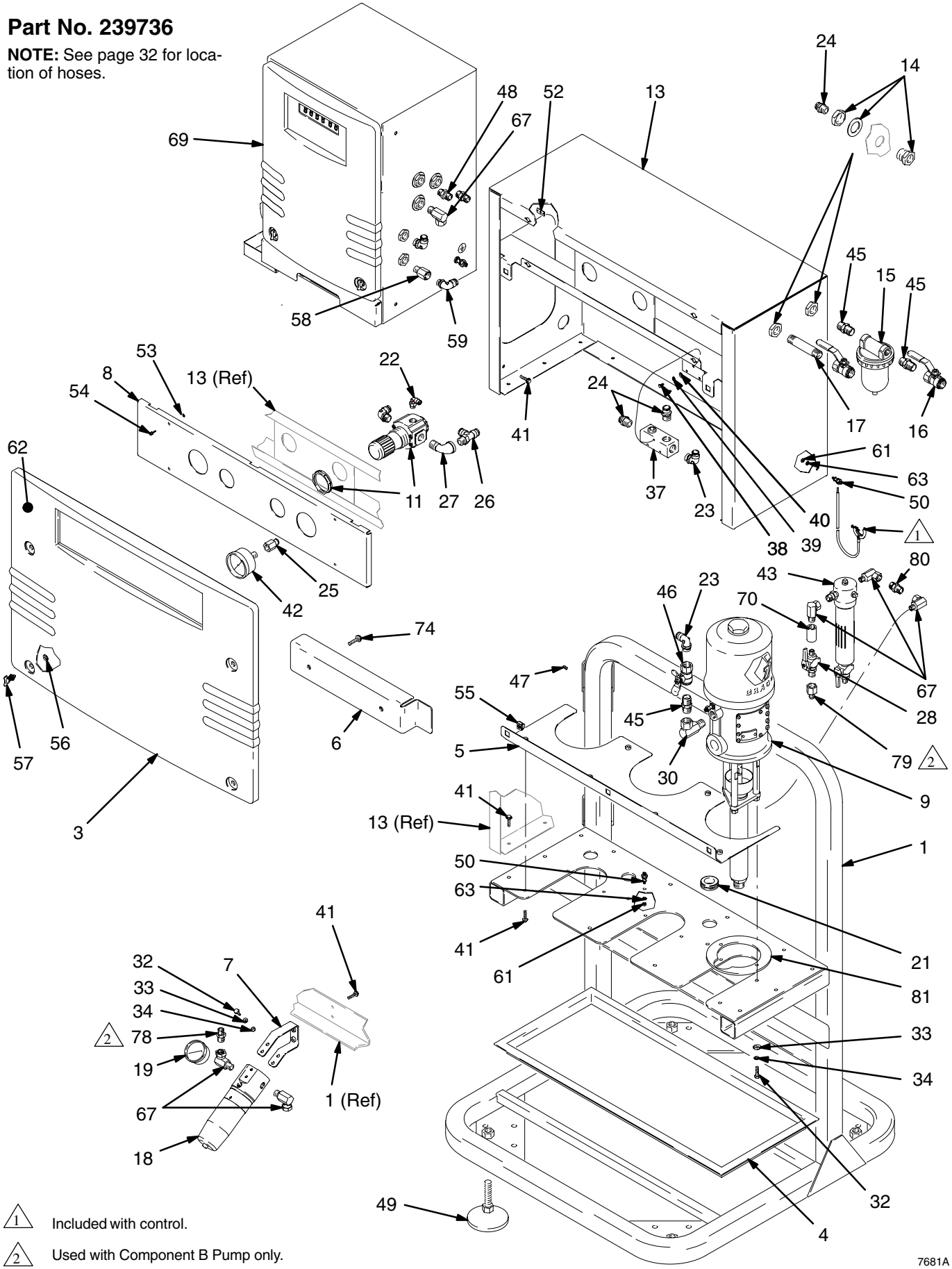
Additional instruction manuals are included with the ProMix system. To maintain, service, or order parts for an individual component, such as a pump, refer to its instruction manual.

Description	Part No.	Instruction Manual No.
Air Filter	106149	308169
Ball Valve	235992	306861
Control	239735	308783
Fluid Filter	239800	307273
Fluid Regulator	238892	308647
G3000 Meter	239716	308778
Mix Manifold	239732	308288
23:1 Ratio Monark Pump	223596	307619
Monark Air Motor	205530	307043
30:1 Ratio President Pump	223843	308106
46:1 Ratio President Pump	239140	307619
President Air Motor	207352	306982

Parts

Part No. 239736

NOTE: See page 32 for location of hoses.



1 Included with control.

2 Used with Component B Pump only.

7681A

Parts

Part No. 239736

Includes two President® 46:1 pumps

Ref. No.	Part No.	Description	Qty.
1	192476	FRAME	1
2↙	239830	HOSE, fluid; 2' (610 mm)	1
3	192373	COVER, front	1
4	192402	PAN, drip	1
5	192463	PLATE, support	1
6	192480	BRACKET, control	2
7	192464	BRACKET, fluid regulator	2
8	192462	PLATE, front	1
9☆	239140	PUMP, 46:1 Ratio President®	2
11	114105	REGULATOR, air	1
12↙	239831	HOSE, fluid; 3' (914 mm)	1
13	192479	HOUSING	1
14	114106	BULKHEAD; 1/2 npt x 1-1/8 –14 UNS	2
15☆	106149	FILTER, air; 1/2 npt	1
16	113331	VALVE, ball, vented; 1/2 npt	2
17	101353	NIPPLE, pipe; 1/2 npt	1
18☆	238892	REGULATOR, fluid pressure; includes item 19	2
19	113654	• GAUGE, fluid pressure	1
21	114108	GROMMET, buna-n	3
22	114109	ELBOW, swivel; 1/4" OD tube x 1/4 npt	1
23	114110	ELBOW, swivel; 1/2" OD tube x 1/2 npt	4
24	114111	CONNECTOR; 1/2" OD tube x 1/2 npt	4
25	114112	CONNECTOR; 1/4" OD tube x 1/4 npt	1
26	114113	TEE, swivel; 1/2" OD tube x 1/2 npt	1
27	100119	ELBOW, pipe; 1/2 npt	1
28	235992	VALVE, ball	2
30	155470	UNION, swivel, 90°; 1/2 npt x 1/2 npsm	2
32	100270	SCREW, cap, hex head; 1/4-20 UNC x 5/8"	12
33	100527	WASHER, plain	12
34	100016	WASHER, lock; 1/4"	12
37	192438	MANIFOLD; 1/2 npt	1
38	108053	SCREW, cap, hex head; M4 x 0.7 x 10 mm	3
39	110919	WASHER, lock; M4	3
40	110918	WASHER, flat; M4	3
41	114182	SCREW, machine, hex flange head; M6 x 1 x 16 mm	22
42	114117	GAUGE, air pressure	1
43☆	239800	FILTER, fluid	2
45	158491	NIPPLE; 1/2 npt	4
46	110225	VALVE, ball, vented; 1/2 npt	2
47	114107	SCREW, set, socket head; M6 x 1 x 12 mm	4
48	188089	NIPPLE; 3/8 npt x 3/8 special	1
49	114159	LEVELER	4
50	104029	LUG, ground	2
52	114145	RECEPTACLE	4
53	114144	RETAINER; 5/8"	4
54	114146	SCREW, captive	4
55	114127	RECEPTACLE	4
56	114126	RETAINER, split; 5/8"	4
57	114125	SCREW, wing, 1/4 turn	4
58	150286	ADAPTER; 3/8 npt	2
59	114114	ELBOW, swivel; 1/2" OD tube x 3/8 npt	2
61	110911	NUT, hex; M5	2
62▲	290331	LABEL, warning	1
63	111307	WASHER, lock, external: M10	2
67	207123	UNION, swivel, 90°; 3/8 npt x 3/8 npsm	8
68	239840	GROUNDING HARNESS; *not shown*	1
69☆	239735	CONTROL ASSEMBLY	1
70	500203	COUPLING; 3/8 x 1/4	2
71	192935	TUBE, nylon; 1/2" OD; *not shown*	†
73	114221	TUBE, polyurethane; 1/4" OD; *not shown*	*
74	114237	SCREW, machine, hex flange head; M8 x 16	4
76↙	114239	HOSE, fluid; 2' (610 mm)	1
77↙	114240	HOSE, fluid; 2.5' (762 mm)	1
78	112100	ADAPTER, male; 9/16 UNF x 3/8 npt	3
79	114241	FITTING, bushing; 9/16 UNF(m) x 3/8 npt(f)	1
80	166469	NIPPLE, hex	1
81	166392	GASKET	2

↙ *See drawing on page 32.*

☆ *See the separate instruction manual for this component to order parts. See page 23 for the manual number.*

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

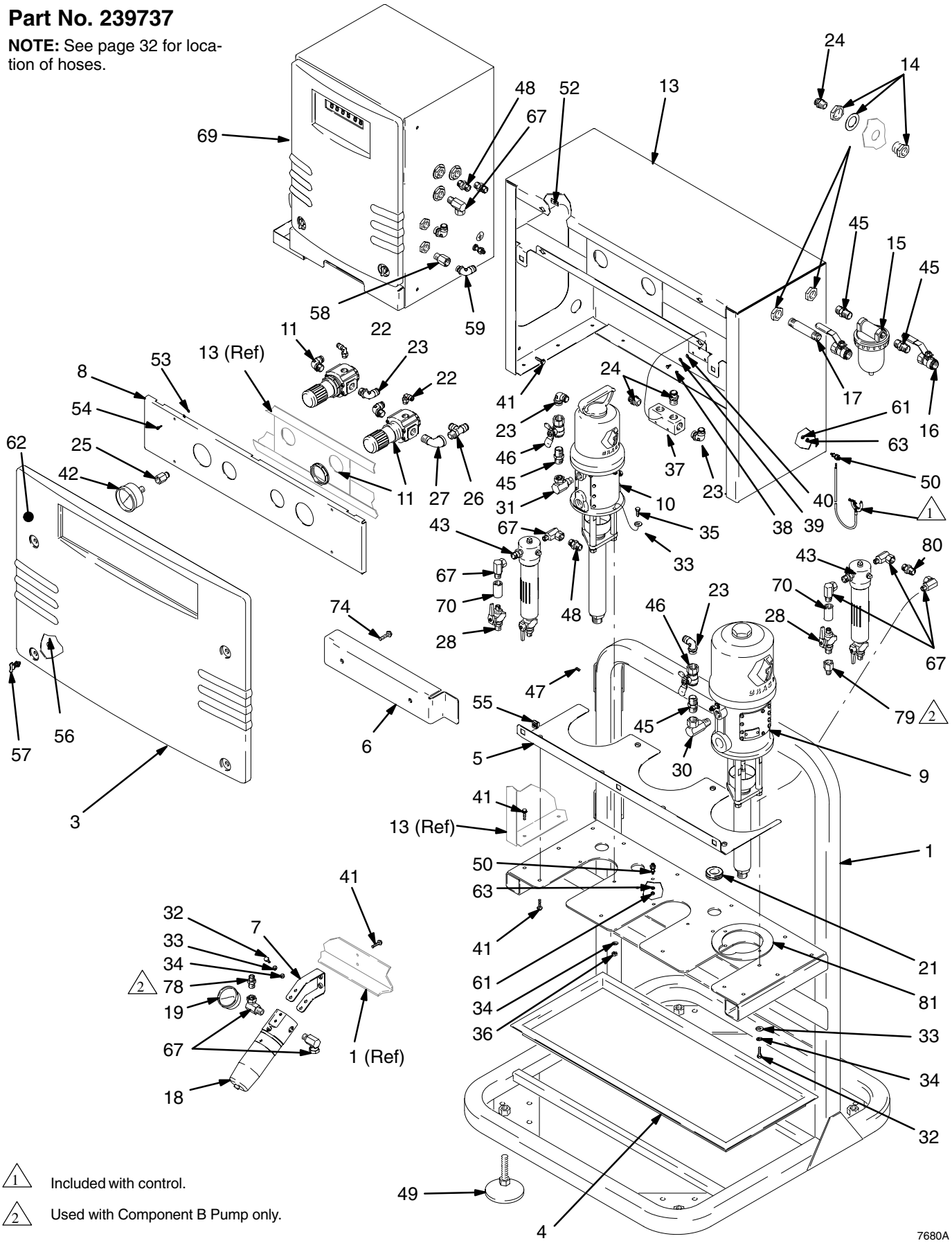
* *Main air line to flow control. Available in 100 ft. (30.5 m) bulk rolls.*

† *Air line to solenoids for power supply and air purge. Available in 50 ft. (15.25 m) bulk rolls.*

Parts

Part No. 239737

NOTE: See page 32 for location of hoses.



1 Included with control.

2 Used with Component B Pump only.

7680A

Parts

Part No. 239737

Includes two President® 46:1 pumps and one Monark® 23:1 pump

Ref. No.	Part No.	Description	Qty.
1	192476	FRAME	1
2↙	239830	HOSE, fluid; 2' (610 mm)	1
3	192373	COVER, front	1
4	192402	PAN, drip	1
5	192463	PLATE, support	1
6	192480	BRACKET, control	2
7	192464	BRACKET, fluid regulator	2
8	192462	PLATE, front	1
9☆	239140	PUMP, 46:1 Ratio President®	2
10☆	223596	PUMP, 23:1 Ratio Monark®	1
11	114105	REGULATOR, air	2
12↙	239831	HOSE, fluid; 3' (914 mm)	1
13	192479	HOUSING	1
14	114106	BULKHEAD; 1/2 npt x 1-1/8 –14 UNS	2
15☆	106149	FILTER, air; 1/2 npt	1
16	113331	VALVE, ball, vented; 1/2 npt	2
17	101353	NIPPLE, pipe; 1/2 npt	1
18☆	238892	REGULATOR, fluid pressure; includes item 19	2
19	113654	• GAUGE, fluid pressure	1
20↙	239832	HOSE, fluid; 2.5' (762 mm)	1
21	114108	GROMMET, buna-n	3
22	114109	ELBOW, swivel; 1/4" OD tube x 1/4 npt	2
23	114110	ELBOW, swivel; 1/2" OD tube x 1/2 npt	7
24	114111	CONNECTOR; 1/2" OD tube x 1/2 npt	5
25	114112	CONNECTOR; 1/4" OD tube x 1/4 npt	2
26	114113	TEE, swivel; 1/2" OD tube x 1/2 npt	1
27	100119	ELBOW, pipe; 1/2 npt	1
28	235992	VALVE, ball	3
30	155470	UNION, swivel, 90°; 1/2 npt x 1/2 npsm	2
31	217430	UNION, swivel, 90°; 3/8 npt x 1/2 npsm	1
32	100270	SCREW, cap, hex head; 1/4-20 UNC x 5/8"	12
33	100527	WASHER, plain	14
34	100016	WASHER, lock; 1/4"	14
35	100021	SCREW, cap, hex head; 1/4-20 UNC x 1"	2
36	112248	NUT, hex; 1/4-20 UNC	2
37	192438	MANIFOLD; 1/2 npt	1
38	108053	SCREW, cap, hex head; M4 x 0.7 x 10 mm	3
39	110919	WASHER, lock; M4	3
40	110918	WASHER, flat; M4	3
41	114182	SCREW, machine, hex flange head; M6 x 1 x 16 mm	22
42	114117	GAUGE, air pressure	2
43☆	239800	FILTER, fluid	3
45	158491	NIPPLE; 1/2 npt	5
46	110225	VALVE, ball, vented; 1/2 npt	3
47	114107	SCREW, set, socket head; M6 x 1 x 12 mm	4
48	188089	NIPPLE; 3/8 npt x 3/8 special	2
49	114159	LEVELER	4
50	104029	LUG, ground	2
52	114145	RECEPTACLE	4
53	114144	RETAINER; 5/8"	4
54	114146	SCREW, captive	4
55	114127	RECEPTACLE	4
56	114126	RETAINER, split; 5/8"	4
57	114125	SCREW, wing, 1/4 turn	4
58	150286	ADAPTER; 3/8 npt	2
59	114114	ELBOW, swivel; 1/2" OD tube x 3/8 npt	2
61	110911	NUT, hex; M5	2
62▲	290331	LABEL, warning	1
63	111307	WASHER, lock, external: M10	2
67	207123	UNION, swivel, 90°; 3/8 npt x 3/8 npsm	13
68	239839	GROUNDING HARNESS; *not shown*	1
69☆	239735	CONTROL ASSEMBLY	1
70	500203	COUPLING	3
71	192935	TUBE, nylon; 1/2" OD; *not shown*	†
73	114221	TUBE, polyurethane; 1/4" OD; *not shown*	*
74	114237	SCREW, machine, hex flange head; M8 x 16	4
76↙	114239	HOSE, fluid; 2' (610 mm)	1
77↙	114240	HOSE, fluid; 2.5' (762 mm)	1
78	112100	ADAPTER, male; 9/16 UNF x 3/8 npt	3
79	114241	FITTING, bushing; 9/16 UNF(m) x 3/8 npt(f)	1
80	166469	NIPPLE, hex	2
81	166392	GASKET	2

↙ *See drawing on page 32.*

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

☆ *See the separate instruction manual for this component to order parts. See page 23 for the manual number.*

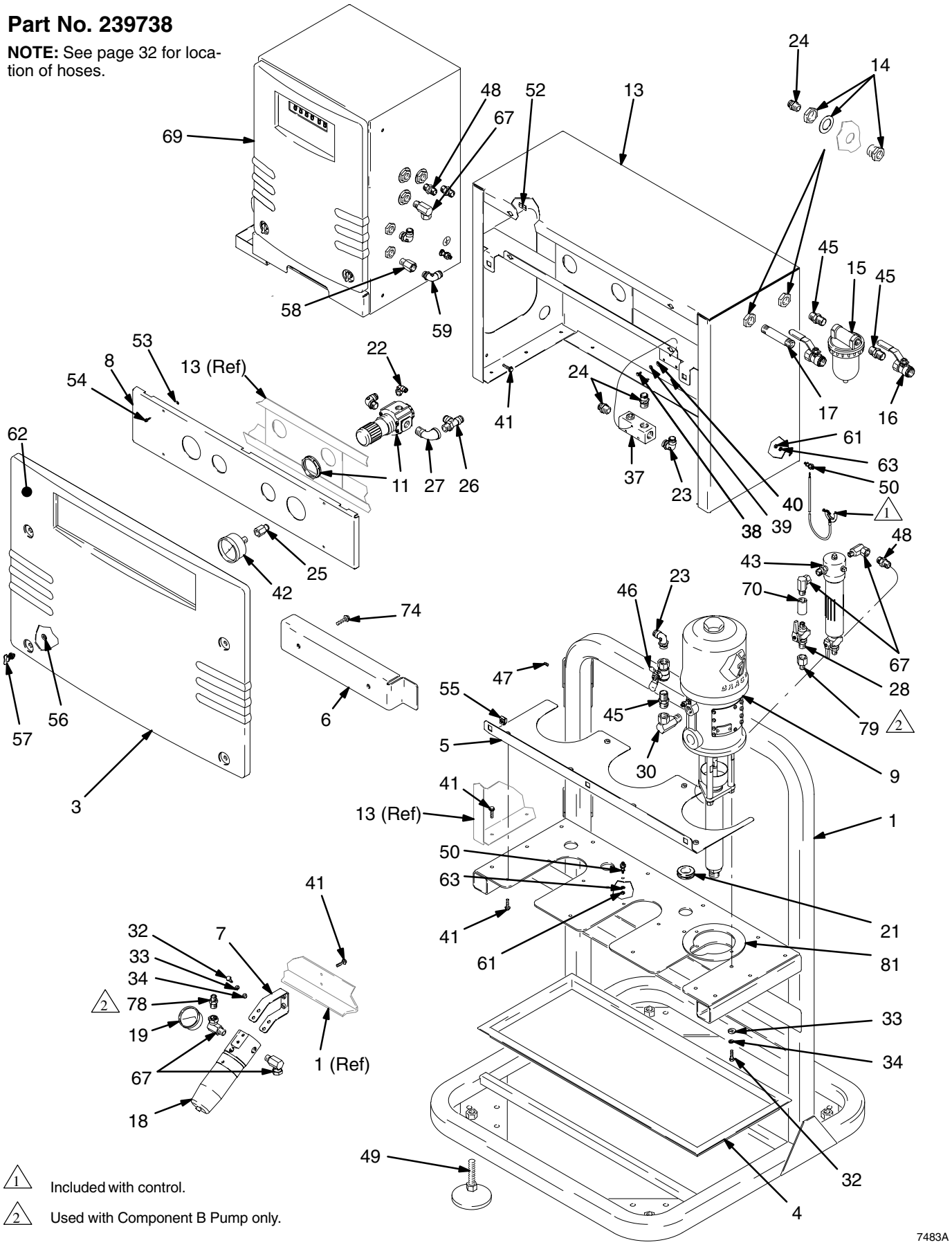
* *Main air line to flow control. Available in 100 ft. (30.5 m) bulk rolls.*

† *Air line to solenoids for power supply and air purge. Available in 50 ft. (15.25 m) bulk rolls.*

Parts

Part No. 239738

NOTE: See page 32 for location of hoses.



Parts

Part No. 239738

Includes two President® 30:1 pumps

Ref. No.	Part No.	Description	Qty.
1	192476	FRAME	1
2↙	239830	HOSE, fluid; 2' (610 mm)	1
3	192373	COVER, front	1
4	192402	PAN, drip	1
5	192463	PLATE, support	1
6	192480	BRACKET, control	2
7	192464	BRACKET, fluid regulator	2
8	192462	PLATE, front	1
9☆	223843	PUMP, 30:1 Ratio President®	2
11	114105	REGULATOR, air	1
12↙	239831	HOSE, fluid; 3' (914 mm)	1
13	192479	HOUSING	1
14	114106	BULKHEAD; 1/2 npt x 1-1/8 –14 UNS	2
15☆	106149	FILTER, air; 1/2 npt	1
16	113331	VALVE, ball, vented; 1/2 npt	2
17	101353	NIPPLE, pipe; 1/2 npt	1
18☆	238892	REGULATOR, fluid pressure; includes item 19	2
19	113654	• GAUGE, fluid pressure	1
21	114108	GROMMET, buna-n	3
22	114109	ELBOW, swivel; 1/4" OD tube x 1/4 npt	1
23	114110	ELBOW, swivel; 1/2" OD tube x 1/2 npt	4
24	114111	CONNECTOR; 1/2" OD tube x 1/2 npt	4
25	114112	CONNECTOR; 1/4" OD tube x 1/4 npt	1
26	114113	TEE, swivel; 1/2" OD tube x 1/2 npt	1
27	100119	ELBOW, pipe; 1/2 npt	1
28	235992	VALVE, ball	2
30	155470	UNION, swivel, 90°; 1/2 npt x 1/2 npsm	2
32	100270	SCREW, cap, hex head; 1/4-20 UNC x 5/8"	12
33	100527	WASHER, plain	12
34	100016	WASHER, lock; 1/4"	12
37	192438	MANIFOLD; 1/2 npt	1
38	108053	SCREW, cap, hex head; M4 x 0.7 x 10 mm	3
39	110919	WASHER, lock; M4	3
40	110918	WASHER, flat; M4	3
41	114182	SCREW, machine, hex flange head; M6 x 1 x 16 mm	22
42	114117	GAUGE, air pressure	1
43☆	239800	FILTER, fluid	2
45	158491	NIPPLE; 1/2 npt	4
46	110225	VALVE, ball, vented; 1/2 npt	2
47	114107	SCREW, set, socket head; M6 x 1 x 12 mm	4
48	188089	NIPPLE; 3/8 npt x 3/8 special	3
49	114159	LEVELER	4
50	104029	LUG, ground	2
52	114145	RECEPTACLE	4
53	114144	RETAINER; 5/8"	4
54	114146	SCREW, captive	4
55	114127	RECEPTACLE	4
56	114126	RETAINER, split; 5/8"	4
57	114125	SCREW, wing, 1/4 turn	4
58	150286	ADAPTER; 3/8 npt	2
59	114114	ELBOW, swivel; 1/2" OD tube x 3/8 npt	2
61	110911	NUT, hex; M5	2
62▲	290331	LABEL, warning	1
63	111307	WASHER, lock, external: M10	2
67	207123	UNION, swivel, 90°; 3/8 npt x 3/8 npsm	8
68	239840	GROUNDING HARNESS; *not shown*	1
69☆	239735	CONTROL ASSEMBLY	1
70	500203	COUPLING; 3/8 x 1/4	2
71	192935	TUBE, nylon; 1/2" OD; *not shown*	†
73	114221	TUBE, polyurethane; 1/4" OD; *not shown*	*
74	114237	SCREW, machine, hex flange head; M8 x 16	4
76↙	114239	HOSE, fluid; 2' (610 mm)	1
77↙	114240	HOSE, fluid; 2.5' (762 mm)	1
78	112100	ADAPTER, male; 9/16 UNF x 3/8 npt	3
79	114241	FITTING, bushing; 9/16 UNF(m) x 3/8 npt(f)	1
80	166469	NIPPLE, hex	1
81	166392	GASKET	2

↙ *See drawing on page 32.*

☆ *See the separate instruction manual for this component to order parts. See page 23 for the manual number.*

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

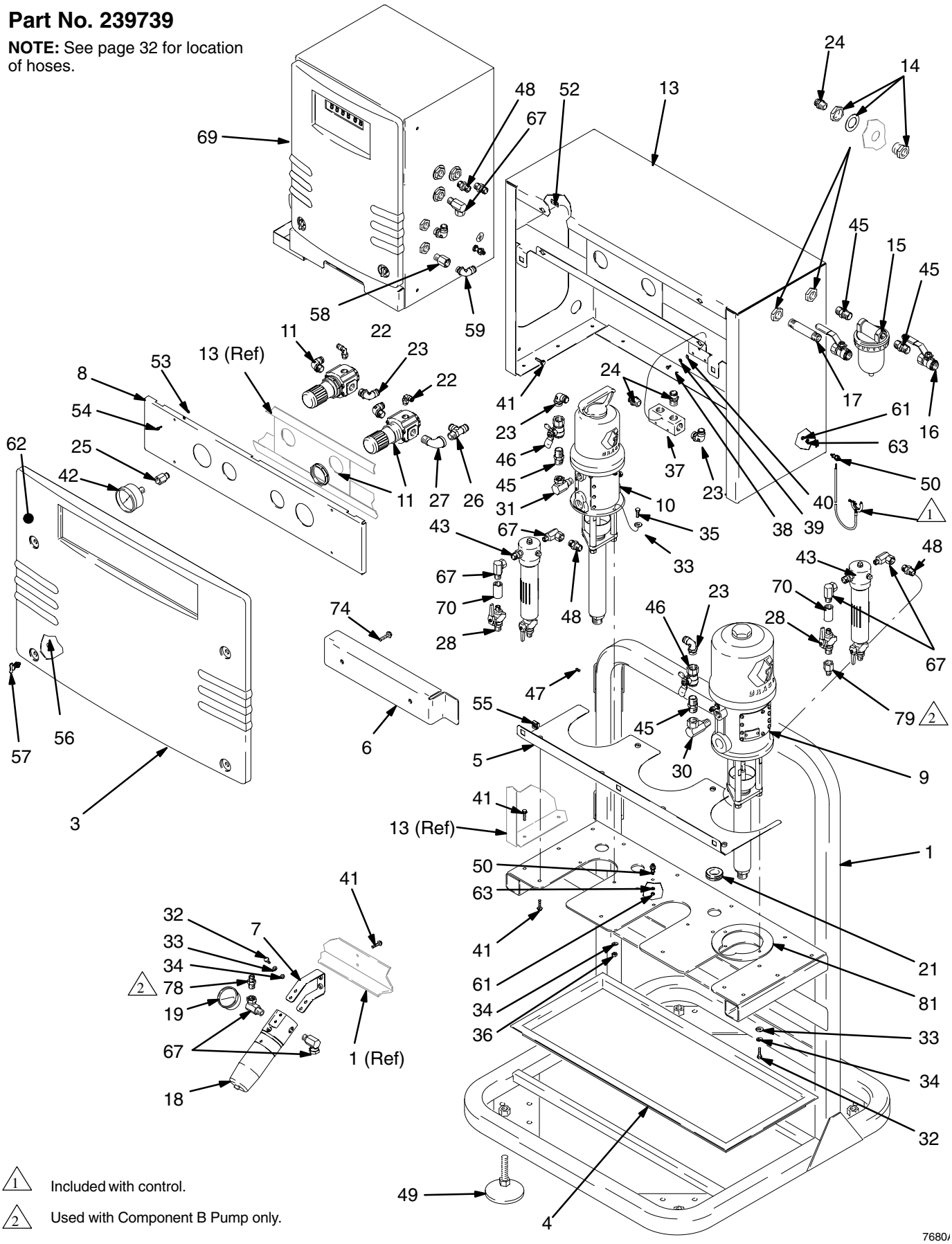
* *Main air line to flow control. Available in 100 ft. (30.5 m) bulk rolls.*

† *Air line to solenoids for power supply and air purge. Available in 50 ft. (15.25 m) bulk rolls.*

Parts

Part No. 239739

NOTE: See page 32 for location of hoses.



1 Included with control.

2 Used with Component B Pump only.

Parts

Part No. 239739

Includes two President® 30:1 pumps and one Monark® 23:1 pump

Ref. No.	Part No.	Description	Qty.
1	192476	FRAME	1
2↙	239830	HOSE, fluid; 2' (610 mm)	1
3	192373	COVER, front	1
4	192402	PAN, drip	1
5	192463	PLATE, support	1
6	192480	BRACKET, control	2
7	192464	BRACKET, fluid regulator	2
8	192462	PLATE, front	1
9☆	223843	PUMP, 30:1 Ratio President®	2
10☆	223596	PUMP, 23:1 Ratio Monark®	1
11	114105	REGULATOR, air	2
12↙	239831	HOSE, fluid; 3' (914 mm)	1
13	192479	HOUSING	1
14	114106	BULKHEAD; 1/2 npt x 1-1/8 –14 UNS	2
15☆	106149	FILTER, air; 1/2 npt	1
16	113331	VALVE, ball, vented; 1/2 npt	2
17	101353	NIPPLE, pipe; 1/2 npt	1
18☆	238892	REGULATOR, fluid pressure; includes item 19	2
19	113654	• GAUGE, fluid pressure	1
20↙	239832	HOSE, fluid; 2.5' (762 mm)	1
21	114108	GROMMET, buna-n	3
22	114109	ELBOW, swivel; 1/4" OD tube x 1/4 npt	2
23	114110	ELBOW, swivel; 1/2" OD tube x 1/2 npt	7
24	114111	CONNECTOR; 1/2" OD tube x 1/2 npt	5
25	114112	CONNECTOR; 1/4" OD tube x 1/4 npt	2
26	114113	TEE, swivel; 1/2" OD tube x 1/2 npt	1
27	100119	ELBOW, pipe; 1/2 npt	1
28	235992	VALVE, ball	3
30	155470	UNION, swivel, 90°; 1/2 npt x 1/2 npsm	2
31	217430	UNION, swivel, 90°; 3/8 npt x 1/2 npsm	1
32	100270	SCREW, cap, hex head; 1/4-20 UNC x 5/8"	12
33	100527	WASHER, plain	14
34	100016	WASHER, lock; 1/4"	14
35	100021	SCREW, cap, hex head; 1/4-20 UNC x 1"	2
36	112248	NUT, hex; 1/4-20 UNC	2
37	192438	MANIFOLD; 1/2 npt	1
38	108053	SCREW, cap, hex head; M4 x 0.7 x 10 mm	3
39	110919	WASHER, lock; M4	3
40	110918	WASHER, flat; M4	3
41	114182	SCREW, machine, hex flange head; M6 x 1 x 16 mm	22
42	114117	GAUGE, air pressure	2
43☆	239800	FILTER, fluid	3
45	158491	NIPPLE; 1/2 npt	5
46	110225	VALVE, ball, vented; 1/2 npt	3
47	114107	SCREW, set, socket head; M6 x 1 x 12 mm	4
48	188089	NIPPLE; 3/8 npt x 3/8 special	4
49	114159	LEVELER	4
50	104029	LUG, ground	2
52	114145	RECEPTACLE	4
53	114144	RETAINER; 5/8"	4
54	114146	SCREW, captive	4
55	114127	RECEPTACLE	4
56	114126	RETAINER, split; 5/8"	4
57	114125	SCREW, wing, 1/4 turn	4
58	150286	ADAPTER; 3/8 npt	2
59	114114	ELBOW, swivel; 1/2" OD tube x 3/8 npt	2
61	110911	NUT, hex; M5	2
62▲	290331	LABEL, warning	1
63	111307	WASHER, lock, external: M10	2
67	207123	UNION, swivel, 90°; 3/8 npt x 3/8 npsm	11
68	239839	GROUNDING HARNESS; *not shown*	1
69☆	239735	CONTROL ASSEMBLY	1
70	500203	COUPLING	3
71	192935	TUBE, nylon; 1/2" OD; *not shown*	†
73	114221	TUBE, polyurethane; 1/4" OD; *not shown*	*
74	114237	SCREW, machine, hex flange head; M8 x 16	4
76↙	114239	HOSE, fluid; 2' (610 mm)	1
77↙	114240	HOSE, fluid; 2.5' (762 mm)	1
78	112100	ADAPTER, male; 9/16 UNF x 3/8 npt	3
79	114241	FITTING, bushing; 9/16 UNF(m) x 3/8 npt(f)	1
81	166392	GASKET	2

↙ *See drawing on page 32.*

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

☆ *See the separate instruction manual for this component to order parts. See page 23 for the manual number.*

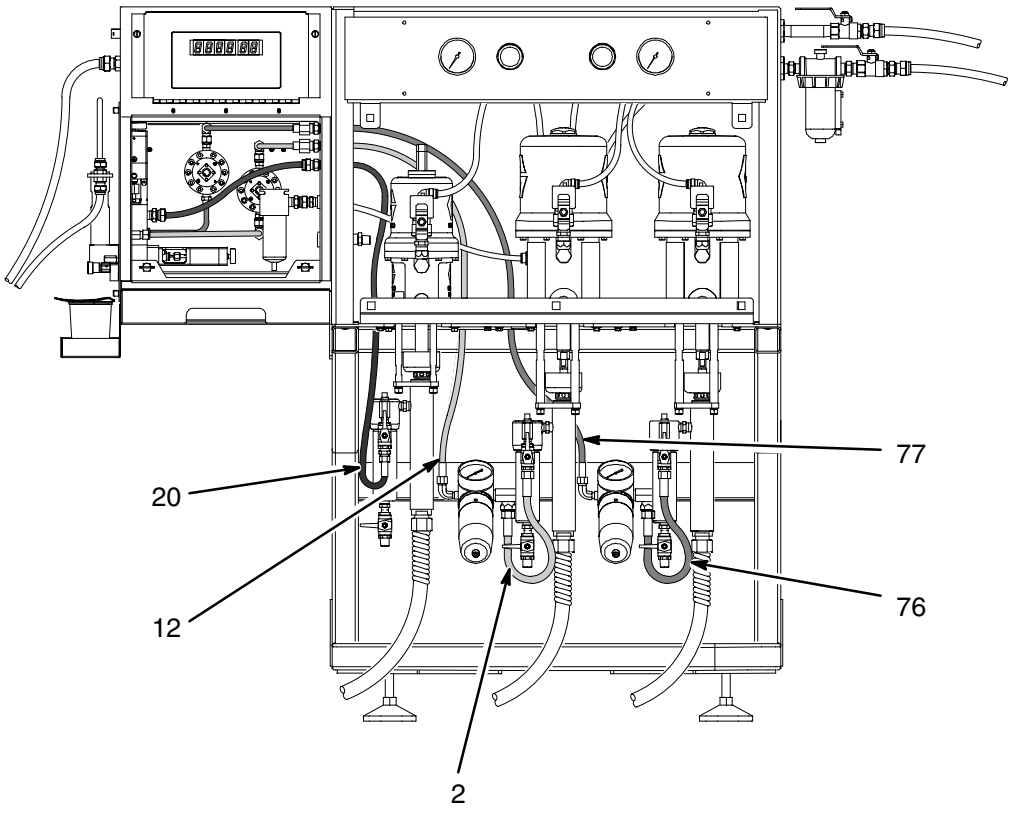
* *Main air line to flow control. Available in 100 ft. (30.5 m) bulk rolls.*

† *Air line to solenoids for power supply and air purge. Available in 50 ft. (15.25 m) bulk rolls.*

Parts

Fluid Lines

ProMix with Monark solvent pump shown. Fluid hoses are thermoplastic; 3/8 npsm(f) x 3/8 npt(m) coupled; 7500 psi (51 MPa, 517 bar) maximum working pressure. See parts lists for part numbers.



Accessories

⚠ WARNING

FIRE AND EXPLOSION HAZARD
If an external power supply or printer is connected to the control, the control is no longer intrinsically safe and the control, as well as the power supply and printer, must not be operated in hazardous locations.

239810 Universal AC Power Supply Kit
Includes power supply and 6.56 ft. (2 m) cable.100–250 Vac input

239873 Printer Kit
Includes:

113774 Printer
192491 Power Cable: 25 ft. (7.6 m)

The printer will print out individual job tickets after each dispense transaction is complete. These dispense reports can be torn off immediately or saved for later analysis.

514037 Printer Paper Roll
Single roll of paper for 113774 printer.

239809 Caster Kit
Install in place of levelers. Includes four swivel roller casters with brakes and mounting hardware.

238916 Air Regulator Repair Kit
For repairing 114105 air regulator.

223688 Turbine Alternator Repair Kit
Includes two bearings and a fan. Bearings should be replaced after 2000 hours of operation.To maintain intrinsic safety, only use this Graco kit to replace bearings and follow the service instructions provided with the kit.

239954 High Pressure Spring Kit
For use when operating at fluid pressures above 3000 psi (21 MPa, 207 bar). Install high pressure spring in place of standard 111092 shutoff spring in mix manifold. Kit includes two springs.

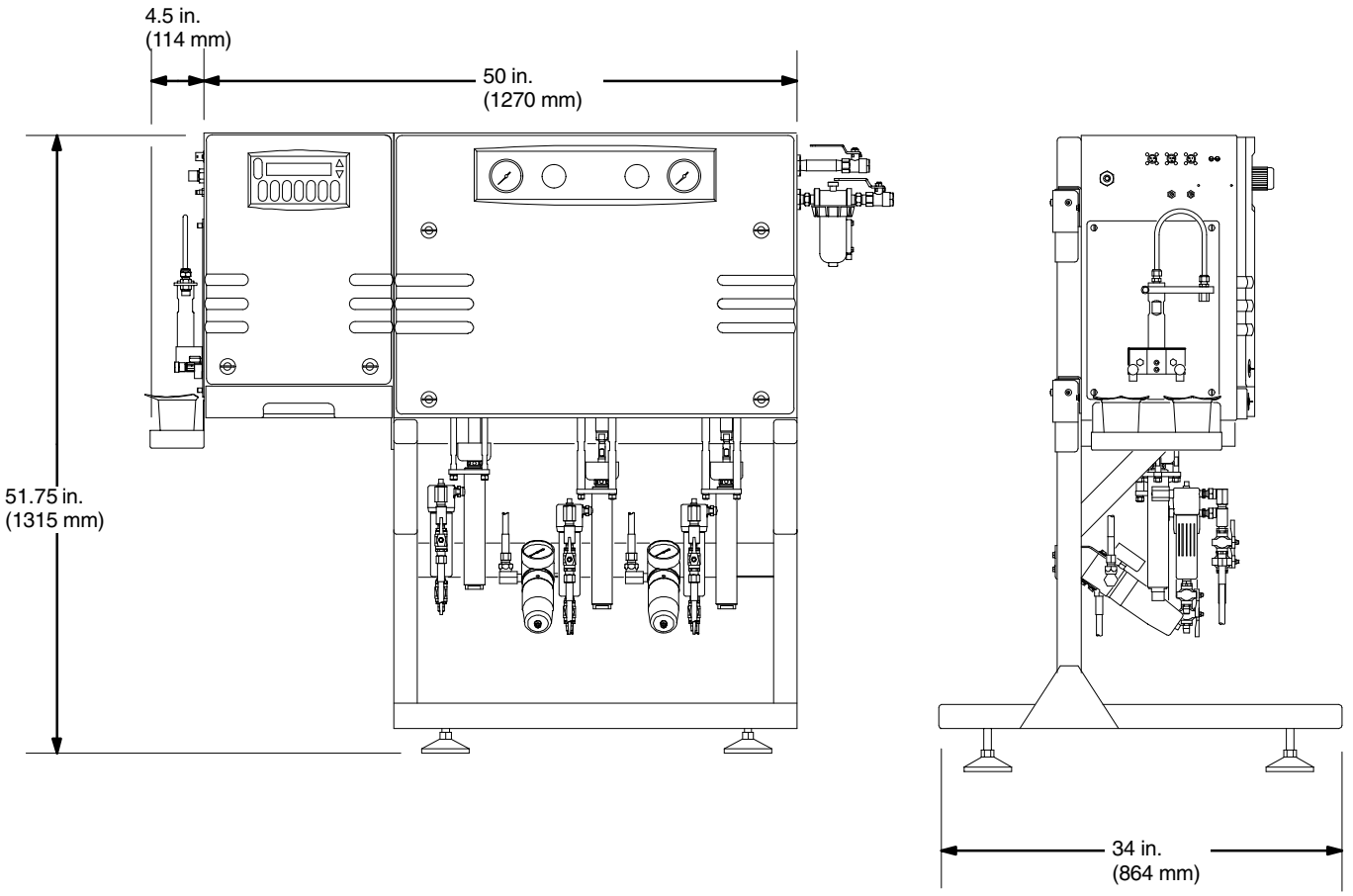
511270 Air Horn Alarm
Provides an audible alarm when connected to the control alarm air outlet. 92 decibels at 100 ft. (30.5)

239811 Reference Card with Token
For setup access and reference to available options.

192672 Adapter Fitting
1/2–14 npt(m) x 1/2–14 BPST(f)

114312 Control Panel Paint Shield
Includes 10 disposable plastic shields to cover the control panel and shield it from paint.

Dimensions



7484A

Technical Data

Maximum working fluid pressure	**Part No. 239738 and 239739** 3000 psi (21 MPa, 207 bar)
Maximum Fluid Working Pressure with Part No. 239954 High Pressure Spring Kit	**Part No. 239736 and 239737** 4000 psi (28 MPa, 276 bar)
Maximum solvent supply pressure	3000 psi (21 MPa, 207 bar)
Maximum working air pressure	100 psi (0.7 MPa, 7 bar)
Air supply	80–100 psi (0.5–0.7 MPa, 5.5–7 bar). 10 micron (minimum) filtration required.
Average air consumption	35 scfm (0.98 m^3/min.) pumps 20 scfm (0.56 m^3/min.) gun + 10 scfm (0.28 m^3/min.) turbine alternator 65 scfm (1.82 m^3/min.) TOTAL
Mixing ratio range	0.6:1 to 20:1*
On-ratio accuracy	up to ± 1%
Fluids handled	Two-component epoxy or polyurethane paints
Viscosity range of fluid	20 to 5000 cps*
Fluid filtration	100 mesh minimum
Fluid flow rate range	3.4 to 68 oz./min. (100 to 2000 cc/min.)*
Operating temperature range	41 to 104° F (5 to 40° C)
External Power Supply Requirements	12–24 Vdc, 0.3 amp
Weight	500 lbs. (227 kg)
Wetted parts	303, 304 SST, 17–4 SST, Tungsten carbide (with nickel binder), Chemraz®; Teflon®; CV75
Sound Data**	
Sound Pressure Level at 100 psi (0.7 MPa, 7 bar)	67 dB(A)
Sound Power at 100 psi (0.7 MPa, 7 bar), maximum cycle rate	74 dB(A)

** Dependant on application. For more detailed information on viscosities, flow rates, or mixing ratios, consult your Graco representative.*

*** Sound Pressure measured one meter from the unit, at floor level. Sound Power measuerd per ISO Standard 9614–1.*

Chemraz® is a registered trademark of the Green, Tweed, & Company.

Teflon® is a registered trademark of the DuPont Company.

NOTE: See the individual component manuals listed on page 23 for additional technical data.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco 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. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be 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 general wear and tear, or 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 of Graco equipment with 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 claimed defect. 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.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, 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.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procedures concernées.

Manual Change Summary

Changed the maximum working fluid pressure specification.

Graco Phone Number

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify the distributor closest to you:
1–800–367–4023 Toll Free

All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.

Sales Offices: Minneapolis, Detroit
Foreign Offices: Belgium, Korea, Hong Kong, Japan

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440–1441
www.graco.com

PRINTED IN U.S.A. 308740 September 1997 Revised September 1999