

ProMix Gun Flush Box Module

309137 Rev.B

100 psi (7 bar) Maximum Air Inlet Pressure

ProMix Gun Flush Box Retrofit Kit

243777 for Delta Guns
243778 for Pro Guns
243780 for AA/RAC Guns

Integrated ProMix w/GFB

243781 for Delta Guns
243782 for Pro Guns
243784 for AA/RAC Guns



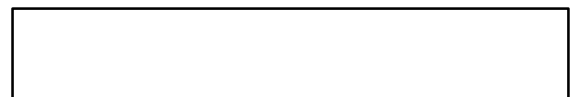
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Read warnings and instructions.

PROVEN QUALITY. LEADING TECHNOLOGY.



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.

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, or install or clean the spray tip. Hazardous fluids or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, swallowed, or inhaled.
- are instructed to relieve the pressure.
- stop spraying.
- check or service any of the system equipment.
- or install or clean the spray tip.



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.



PRESSURIZED EQUIPMENT HAZARD

Spray from the gun, hose leaks, or ruptured components can splash fluid in the eyes or on the skin and cause serious injury.

- Do not bypass the Gun Flush Box interlock sensors. They prevent the Gun Flush Box from operating unless the gun is in position and the door of the box is locked.
- Do not stop or deflect fluid leaks with your hand, body, glove, or rag.
- 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.

WARNING



FIRE, EXPLOSION, AND ELECTROSTATIC SHOCK HAZARD

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

- Ground the equipment and the object being sprayed. See **Grounding** on page 4.
- Turn off gun electrostatics before loading or purging in GFB.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvent or the fluid being sprayed. Never operate the Gun Flush Box unless ventilation fans are operating.
- Extinguish all the open flames or pilot lights in the spray area.
- Do not smoke 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 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.
- Connect an interlock (atomizing air shut off valve included) to prevent atomizing air from turning on during flushing.



INSTRUCTIONS

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 lowest rated system component. This equipment has a **100 psi (7 bar) maximum air inlet pressure**.
- 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.
- Use fluids or solvents that are compatible with the equipment wetted parts. Read the fluid and solvent manufacturer's warnings.
- Wear hearing protection when operating this equipment.
- Comply with all applicable local, state and national fire, electrical and other safety regulations.




ProMix Gun Flush Box Control

The pneumatic based package provides the capability to automatically flush and load a spray gun. The complete system can be located entirely in a hazardous duty environment. By automatically controlling the flush and load sequences, solvent and paint usage can be substantially reduced. Also, hazardous waste generation will be minimized.

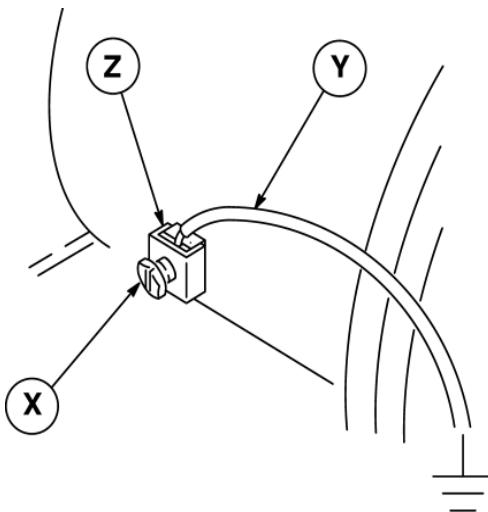


Installation

Grounding





⚠ WARNING
FIRE, EXPLOSION, AND ELECTRIC SHOCK HAZARD
To reduce the risk of fire, explosion, or electric shock, the system must be properly grounded. Ground the Gun Flush Box as instructed below. Ground your system as instructed in the manuals included with your equipment.



Gun Flush Box: Connect a ground wire to the grounding lug (X) on the box. Connect the ground clamp (Z) to a true earth ground (Y).

Spray Gun: See your gun instruction manual.

Ventilation



⚠ WARNING
TOXIC OR FLAMMABLE FUMES HAZARD
To avoid hazardous concentrations of flammable or toxic fumes, install the Gun Flush Box in a properly ventilated spray booth. Never operate the Gun Flush Box unless ventilation fans are operating.

Electrically interlock the Gun Flush Box air supply with the ventilators to prevent the box from operating when ventilating fans are not operating. Check and follow all National, State, and Local codes regarding air exhaust velocity requirements.

Location

Locate the Gun Flush Box in an area easily accessible to the operator and away from the spray or application point, to help avoid getting over-spray on it.

Mounting

The Gun Flush Box can be wall, stand, or drum mounted in the spray booth. Make sure the mounting surface will withstand the weight of the Gun Flush Box, hoses, and the stress of operation.

Note: Flammable Liquids in the spray area must be kept in approved, grounded containers. Do not store more than the quantity needed for one shift.

Installation

The following instructions are for integrating the GFB field retrofit kit into a ProMix. For a ProMix ordered with the GFB integrated at the factory, steps 1–9 are done at the factory.

PROMIX CONTROL

1. Using the dimensions shown in Fig.1, drill two 7/16" diameter holes in the side of the panel.

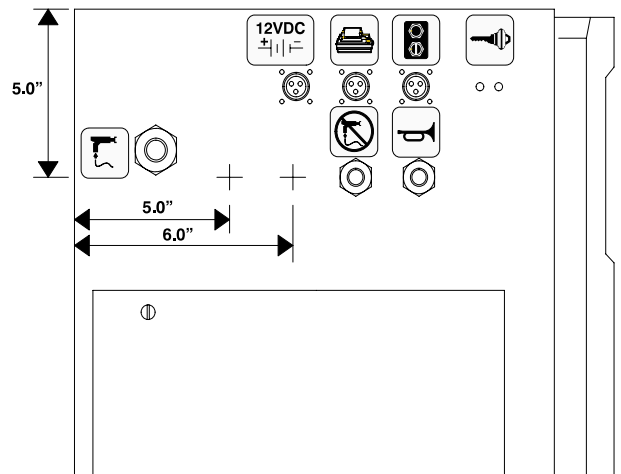


Fig. 1

TI0252

2. Install the (2) bulkhead fittings (part #113284) into the holes.
3. Apply the label (I.D. #1149) to the ProMix panel as shown in fig. 2.

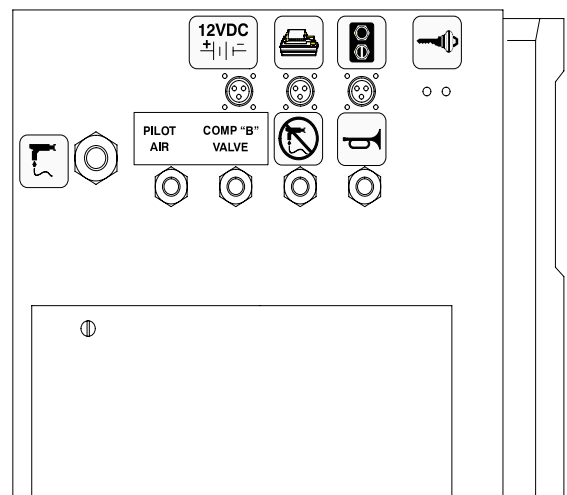


Fig. 2

TI0252

Installation continued

4. Loosen the two screws (21) from the center panel (63) to allow the panel to drop forward (see fig. 3)
5. Remove the protective tape backing on the “B” valve air assembly (I.D. #1141) and install onto the circuit board cover (AA) between the wire harnesses (94, 95). The pilot line (red hoses) should be oriented towards the panel hinge.
6. Remove the red 5/32” hose from the “B” port located on the fluid manifold. Reroute the hose to the open fitting on the “B” valve air assembly (I.D. #1141).
7. Route the second red hose mounted on the “B” valve air assembly to the “B” port of the fluid manifold.
8. Plug the two labeled yellow hoses into the newly installed bulkhead manifolds located on the side of the ProMix panel.
9. Close the panel (63); be sure not to crimp or pinch the hoses and wires. Secure the panel with the screws (21).
10. Install the atomizing air shutoff valve in the air supply line to the gun. Make sure port “S” from the GFB is connected to the pilot port of the atomizing air shutoff valve (Part #104632).

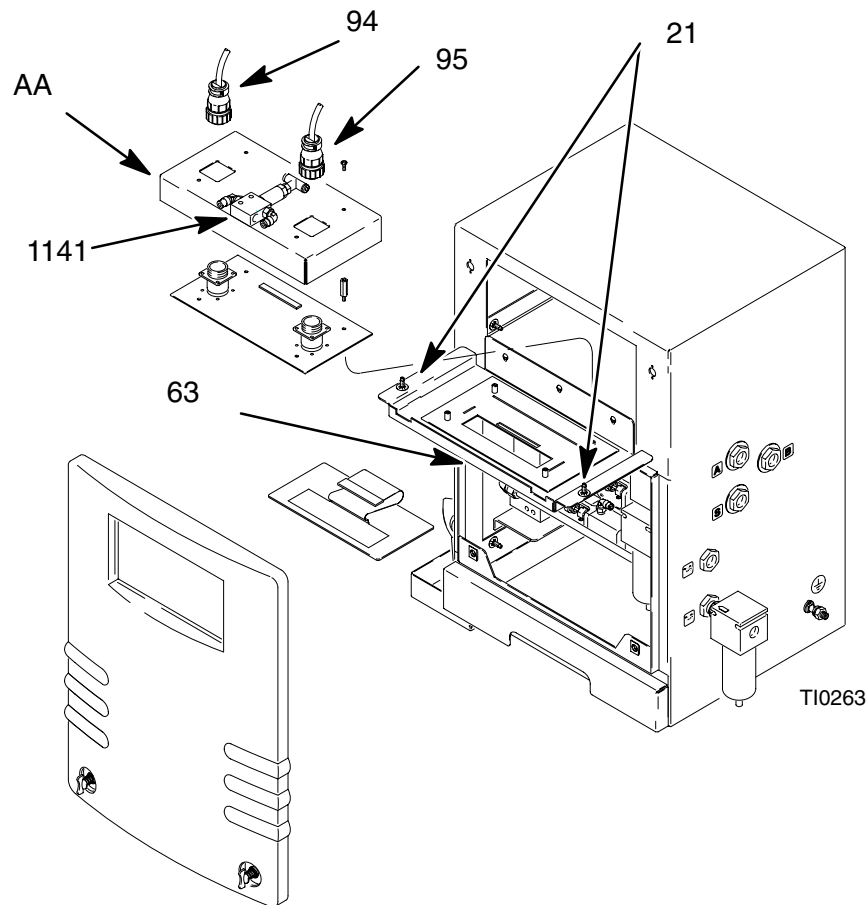


Fig. 3

Installation

Install the System as illustrated in Fig. 4

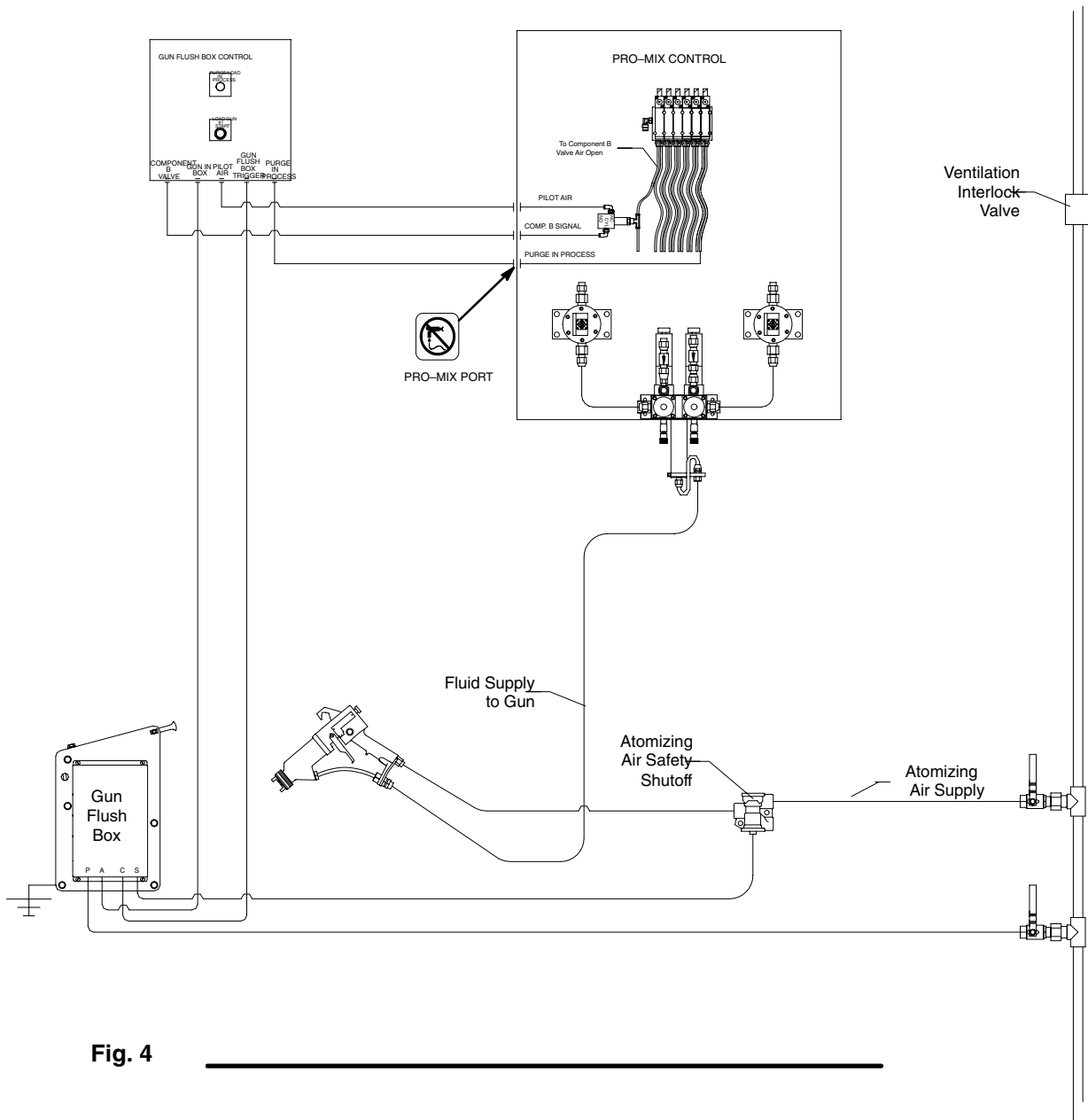


Fig. 4

Gun Flush Box Operation

Initial Setup

1. Follow all steps of the installation procedure.
2. Verify the gun flush box (GFB) is properly adjusted to accept the appropriate spray device. Make sure the lid closes properly when the gun is in the box. Reference Graco Manual 309227 for GFB adjustment information.
3. Turn the ProMix **MIX/Standby/Purge** selector switch to the **Purge** position. Adjust the ProMix purge sequence by manually triggering the spray gun into a grounded bucket. The sequence is correct if clean solvent is consistently left in the gun at the end of each purge.
4. Turn the **ProMix Mix/Standby/Purge** selector switch to the **Mix** position. Manually trigger the spray gun into a grounded bucket. Count the number of dispense cycles it takes to load the hose and spray gun with paint (*note: a cycle is a complete A and B component dispense*).
5. Set the load counter preset to equal the number of cycles determined in step 4. The counter is located inside the GFB control enclosure.

Normal Operation (Purging the spray gun)

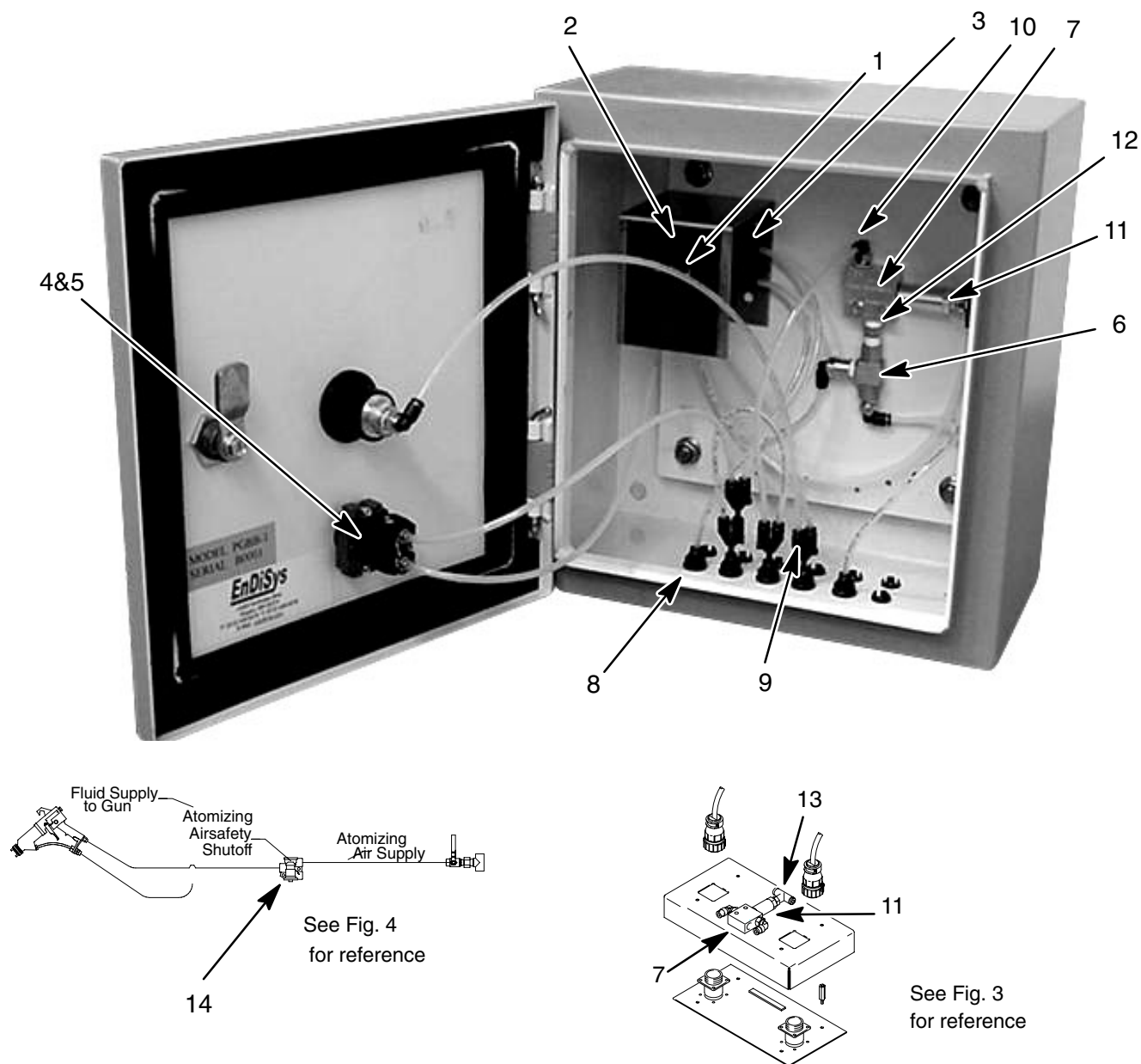
1. Place the spray gun in the GFB and shut the door. (*Note: the atomizing air to the spray gun will turn off as soon as the door to the GFB is opened and will remain off as long as the gun is in the GFB*).
2. Turn the **ProMix Mix/Standby/Purge** selector switch to the **Purge** position.
3. The GFB will trigger the spray gun and the indicator located on the front of the GFB control will activate. Once the purge sequence is finished, the GFB will trigger off the spray gun and the indicator light will turn off.
4. The purge process is complete.

Normal Operation (Loading the spray gun)

1. Place the spray gun into the GFB and shut the door.
2. Turn the ProMix **Mix/Standby/Purge** selector switch to the **Mix** position.
3. Press the **Load Gun** button located on the front of the GFB control.
4. The GFB will trigger the spray gun and the indicator located on the front of the GFB control will activate. The GFB control will deactivate the spray gun trigger when the dispense cycles equal the counter preset.
5. The process is now complete.

Additional Notes: The atomizing air to the spray gun will remain off as long as the door is open to the GFB. The GFB control will not prevent the ProMix system from purging or mixing if the gun is not in the box.

Parts



Parts

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	104382	COUNTER, pneumatic	1	8	113284	FITTING, bulkhead, push-in tube	7
2	109193	FITTING, tube, male, elbow	4	9	514896	FITTING, tee, 3 way	4
3	551110	BRACKET, mounting, for pneumatic counter	1	10	108395	FITTING, hose, swivel	6
4	551659	CONTACT, block	1	11	501014	ACTUATOR, air 2.5–30 PSI	2
5	551663	BASE, mounting switch	1	12	110206	NIPPLE, pipe, hex	1
6	593538	CLAMP, valve	1	13	598141	FITTING, tee, swivel	1
7	502526	VALVE, air, PB 3 way	2	14	104632	VALVE, atomizing air shutoff	1

Graco Standard Warranty

Graco warrants all equipment 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.

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Graco Information

TO PLACE AN ORDER, contact your Graco distributor, or call one of the following numbers to identify the distributor closest to you:

1-800-367-4023 Toll Free

612-623-6921

612-378-3505 Fax

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Sales Offices: Minneapolis, Detroit

International Offices: Belgium, Korea, Hong Kong, Japan

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