

Gun Air Shutoff Kit

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EN

Automatically shuts off gun atomizing air during purge or color change in ProMix[®] 2KS, ProMix[®] 2KE, ProMix[®] PD2K, and ProMix[®] II Proportioning Systems. Not for use in systems using gun flush boxes. For professional use only.

Part No. 15V823

For use with ProMix[®] 2KS, ProMix[®] 2KE, and ProMix[®] PD2K Electronic Proportioners
100 psi (0.7 MPa, 7 bar) Maximum Working Pressure

Part No. 234928

For use with ProMix[®] II Electronic Proportioner
100 psi (0.7 MPa, 7 bar) Maximum Working Pressure

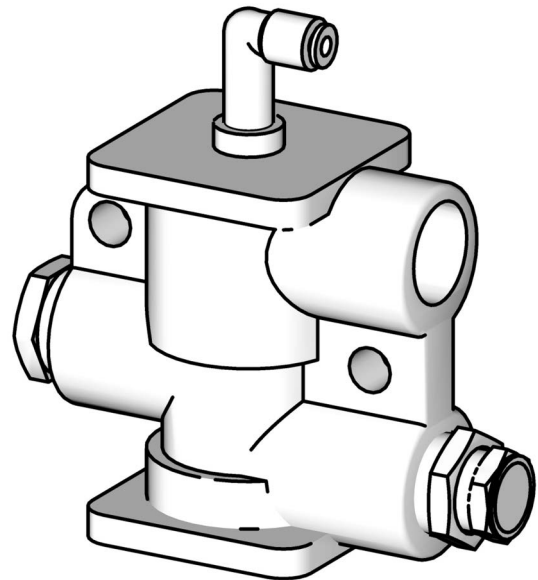
Part No. 15V829

For use with ProMix[®] 2KS (Second Gun)



Important Safety Instructions

Read all warnings and instructions in this manual.
Save these instructions.



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Related Manuals

Component Manuals in English

Manual	Description
312775	ProMix 2KS Manual System Installation
312776	ProMix 2KS Manual System Operation
312777	ProMix 2KS Manual System Repair-Parts
3A0868	ProMix 2KE Pump-Based Operation
3A0869	ProMix 2KE Meter-Based Operation
3A0870	ProMix 2KE Repair-Parts
310633	ProMix II Operation
310653	ProMix II Repair-Parts
332457	ProMix PD2K Manual System Installation
332562	ProMix PD2K Manual System Operation
3A2800	ProMix PD2K Manual System Repair-Parts



Warnings



The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 WARNING	
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use and clean equipment only in well ventilated area. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc). • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords or turn lights on or off when flammable fumes are present. • Ground equipment, personnel, object being sprayed, and conductive objects in work area. See Grounding instructions. • Use only Graco grounded hoses. • Check gun resistance daily.* • If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem. • Do not flush with gun electrostatics on. Do not turn on electrostatics until all solvent is removed from system.*
	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. • Check equipment daily. Repair or replace worn or damaged parts immediately. • Do not alter or modify equipment. • For professional use only. • Use equipment only for its intended purpose. Call your Graco distributor for information. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not use hoses to pull equipment. • Comply with all applicable safety regulations.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear • Clothing and respirator as recommended by the fluid and solvent manufacturer • Gloves • Hearing protection

* When using electrostatic gun.

Installation

							
<p>For Electrostatic Guns:</p> <ul style="list-style-type: none"> • Read warnings, page 3. • Follow the warnings in your electrostatic gun manual. 							

							
<p>You must connect safety interlock air to prevent atomizing air from turning on during flushing.</p>							

The kit includes a solenoid, air piloted shutoff valve, and the tubing and fittings required for installation.

NOTE: ProMix 2KS systems can use two guns. Use kit 15V823 for gun 1 and kit 15V829 for gun 2. Kit 15V829 incorporates a shuttle valve to facilitate proper flushing in a two-gun system.

Location (All Models)

Locate the atomizing air shutoff valve (2) in a convenient location between the Fluid Panel and the spray area, but far enough away from possible application over-spray.

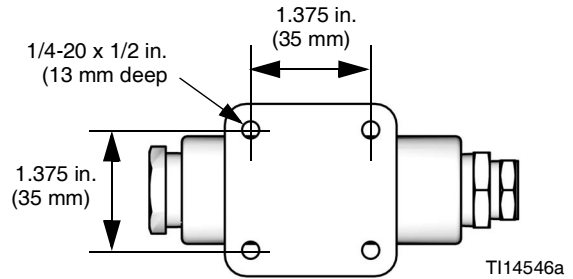
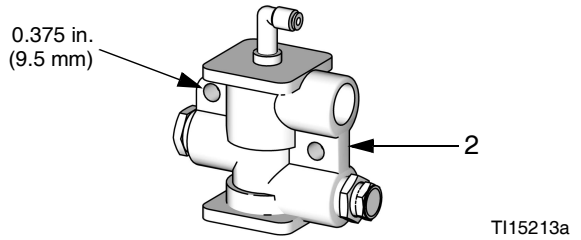


FIG. 1: Shutoff Valve Mounting Diagram

ProMix 2KS Installation

Install Solenoid

1. Turn off EasyKey™/Control Box power, and shut off power at main circuit breaker (See your Installation and Repair-Parts manual in **Related Manuals**, page 2.)
2. Remove Fluid Panel cover to access the solenoids.
3. Remove two sealing screws (SS), and install solenoid valve (3). Tighten screws to secure. (See FIG. 2-1)

4. Connect solenoid wires to terminals as shown in FIG. 2-2.
5. Remove air manifold plug from row B (marked on manifold, bottom row) and install tube fitting (4, G1). (See FIG. 2-3).

⚠ In a two-gun ProMix 2KS system, install the second solenoid (G2) as shown.

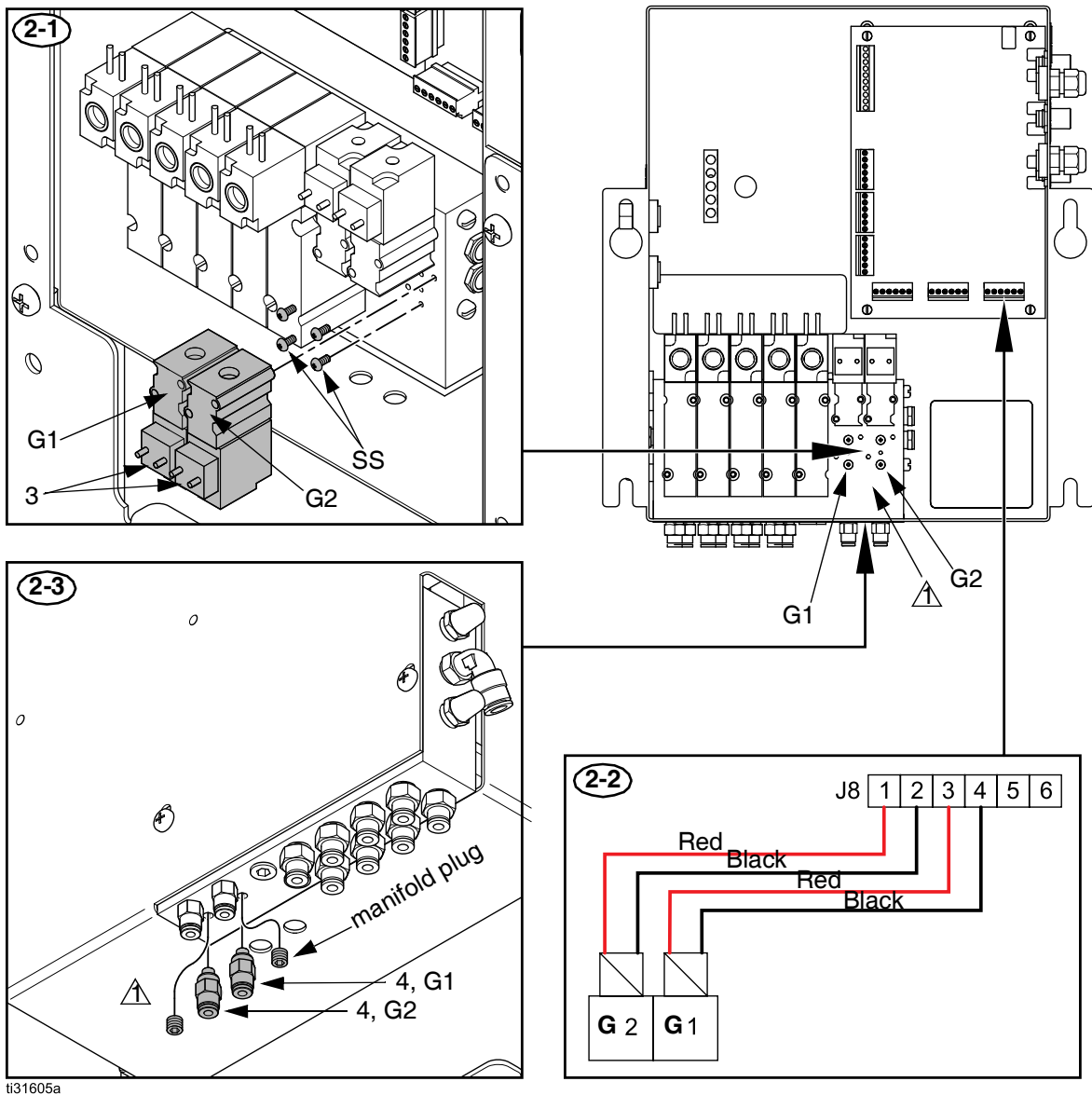


FIG. 2: Solenoid Connections at Fluid Panel, ProMix 2KS

Install Atomizing Air Shutoff Valve

1. Mount the shutoff valve (2) securely. (See FIG. 1 on page 4)
2. Install bushing (6) and muffler (9) in the lower port (N/C-Normally Closed). (See FIG. 3 for steps 2-5.)
3. Connect atomizing air line from AFS (A) to upper port (B; N/O-Normally Open).
4. Connect an air line from solenoid fitting (4, G1) to pilot port (D).
5. Connect an air line from the outlet port (C) to the gun air inlet.
6. When using two guns, install as shown in FIG. 4.

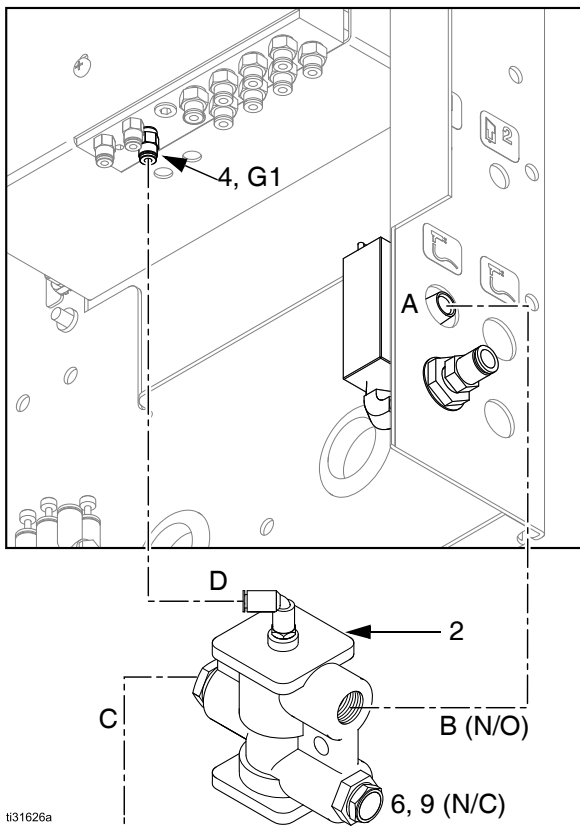


FIG. 3: Air Line Connections, ProMix 2KS (One-gun system pneumatic diagram)

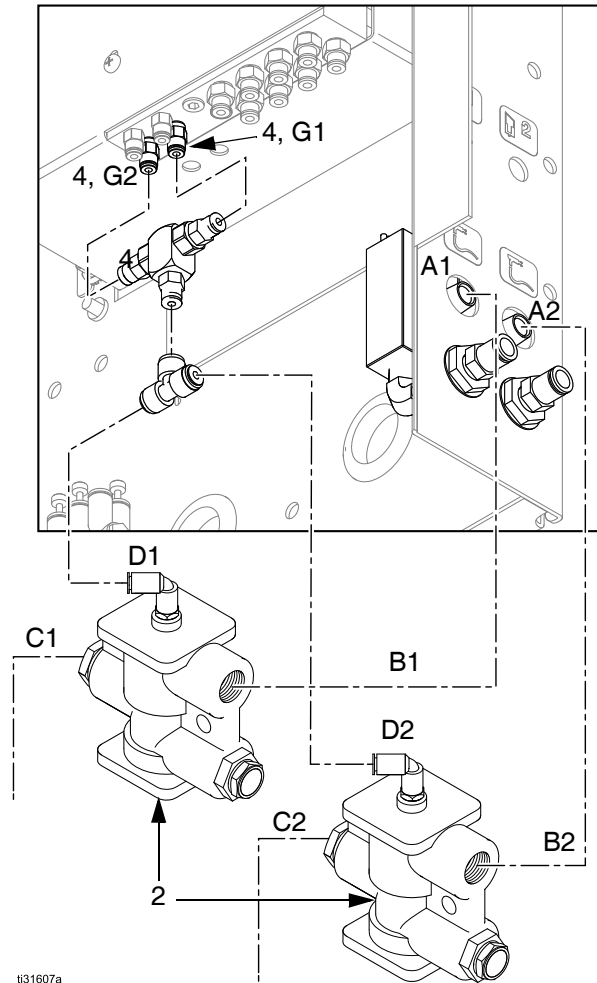


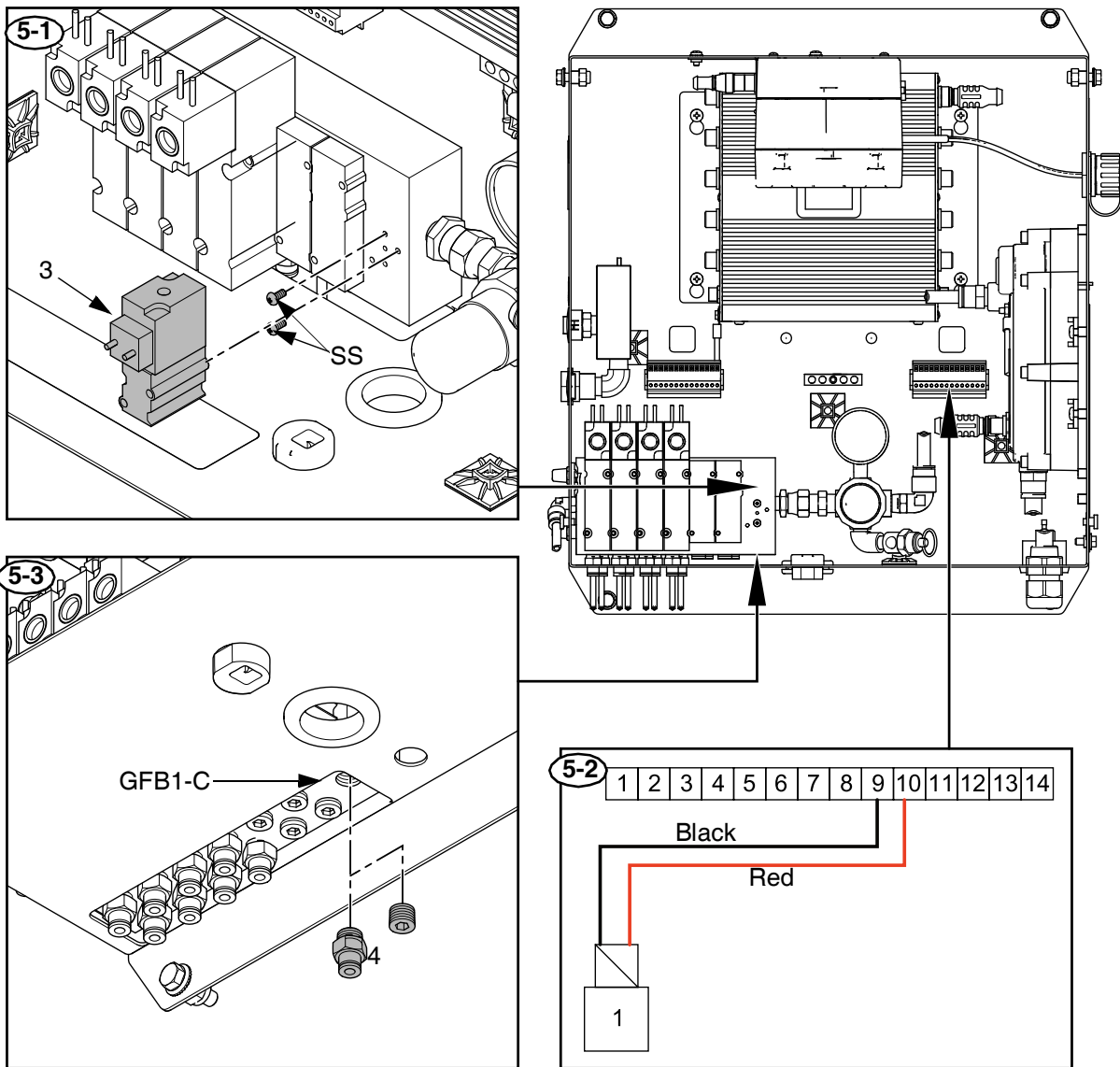
FIG. 4: ProMix 2KS (Two-gun system pneumatic diagram)

ProMix 2KE Installation

Install Solenoid

1. Turn off EasyKey™/Control Box power, and shut off power at main circuit breaker. (See your Installation and Repair-Parts manual in **Related Manuals**, page 2.)
2. Remove Fluid Panel cover to access the solenoids.

3. Remove two sealing screws (SS), and install solenoid valve (3). Tighten screws to secure. (See FIG. 5-1)
4. Connect solenoid wires to terminals as shown in FIG. 5-2.
5. Remove air manifold plug from GFB1-C (marked on manifold, bottom row) and install tube fitting (4) (See FIG. 5-3).



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FIG. 5: Solenoid Connections at Control Box, ProMix 2KE (One-gun pneumatic diagram)

Install Atomizing Air Shutoff Valve

1. Mount the shutoff valve (2) securely. (See FIG. 1 on page 4.)
2. Install bushing (6) and muffler (9) in the lower port (N/C-Normally Closed). (See FIG. 6 for steps 2-5.)
3. Connect atomizing air line from AFS (A) to upper port (B; N/O-Normally Open).
4. Connect an air line from solenoid fitting (4) to pilot port (D).
5. Connect an air line from the outlet port (C) to the gun air inlet.

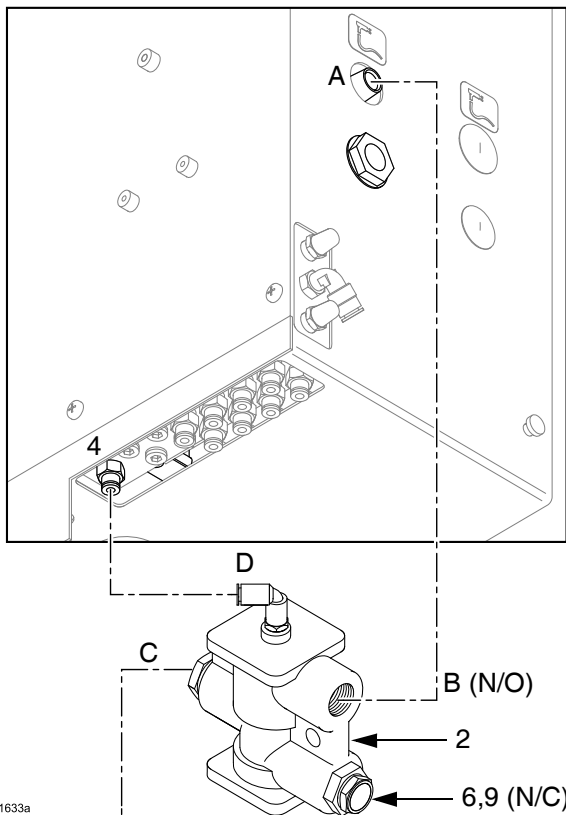
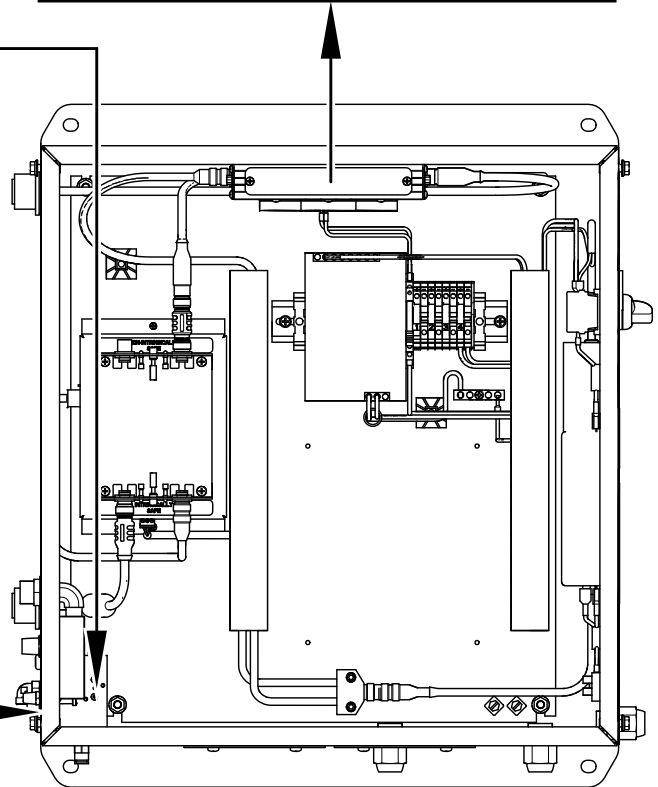
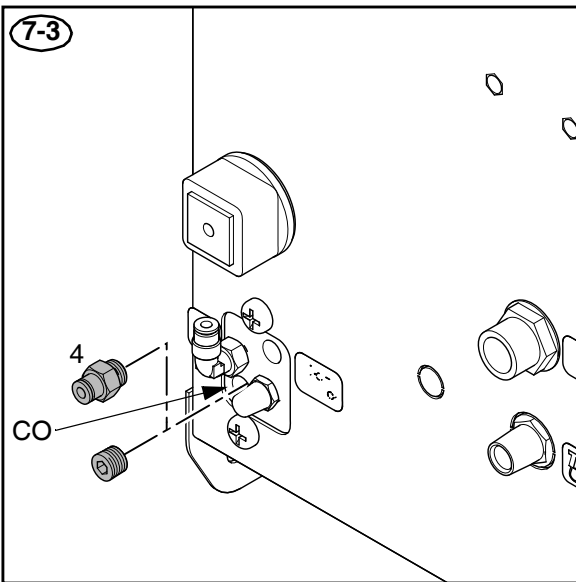
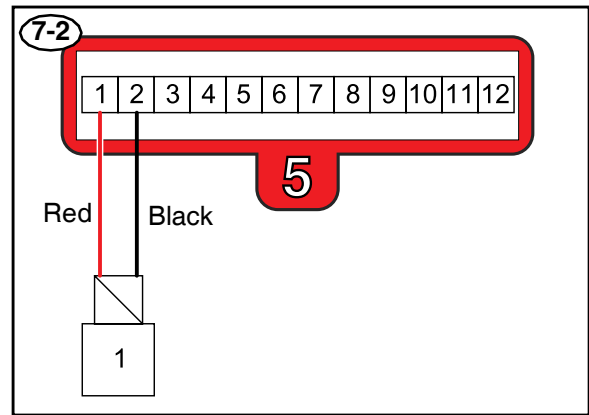
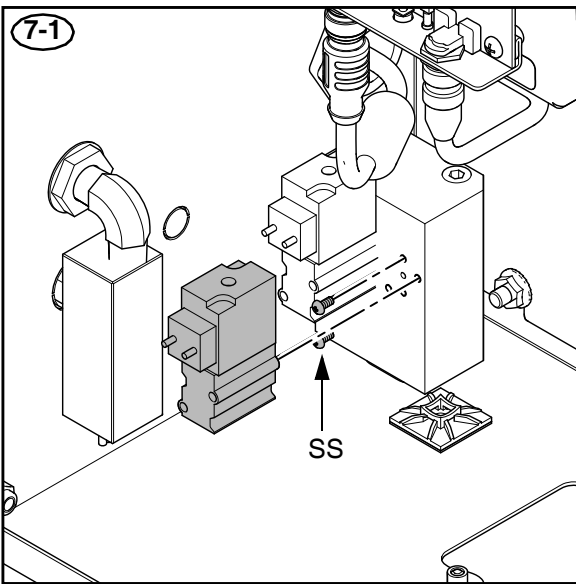


FIG. 6: Air Line Connections, ProMix 2KE

ProMix PD2K Installation

Install Solenoid

1. Turn off EasyKey™/Control Box power, and shut off power at main circuit breaker. (See your Installation and Repair-Parts manual in **Related Manuals**, page 2.)
2. Remove Fluid Panel cover to access the solenoids.
3. Remove two sealing screws (SS), and install the solenoid valve. Tighten screws to secure. (See FIG. 7-1)
4. Connect solenoid wires to terminals as shown in FIG. 7-2. Route wires up Panduit to EFCM.
5. Remove air manifold plug from CO (marked on manifold, bottom row) and install tube fitting (4) (See FIG. 7-3).



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FIG. 7: Air Line Connections, ProMix PD2K

Install Atomizing Air Shutoff Valve

1. Mount the shutoff valve (2) securely. (See FIG. 1 on page 4.)
2. Install bushing (6) and muffler (9) in the lower port (N/C-Normally Closed). (See FIG. 8 for steps 2-5.)
3. Connect atomizing air line from AFS (A) to upper port (B; N/O-Normally Open).
4. Connect an air line from solenoid fitting (4) to pilot port (D).
5. Connect an air line from the outlet port (C) to the gun air inlet.

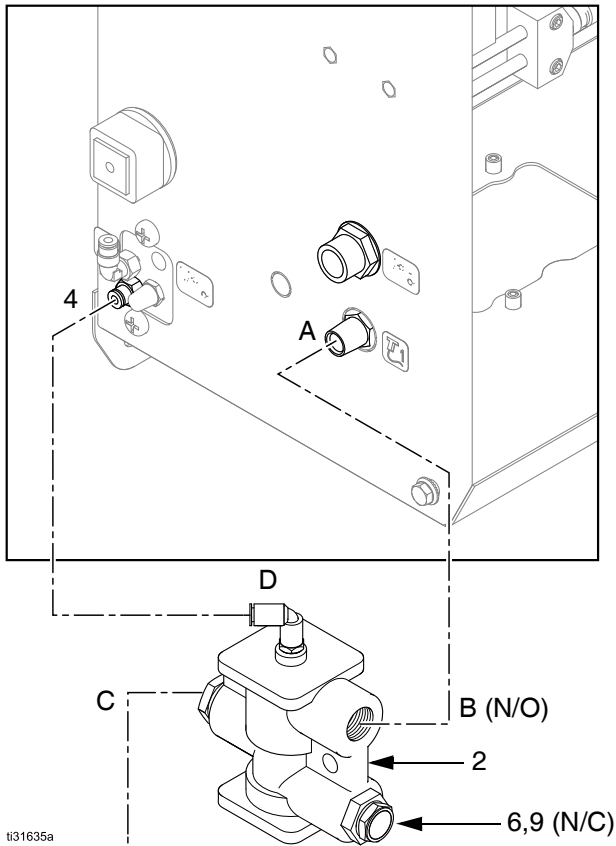
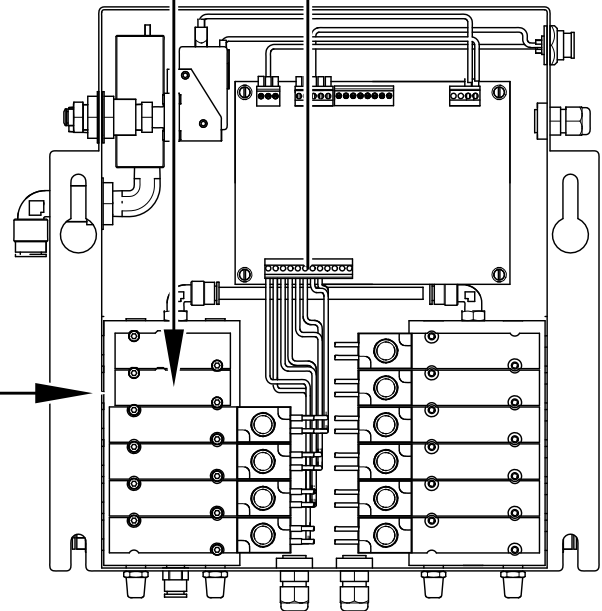
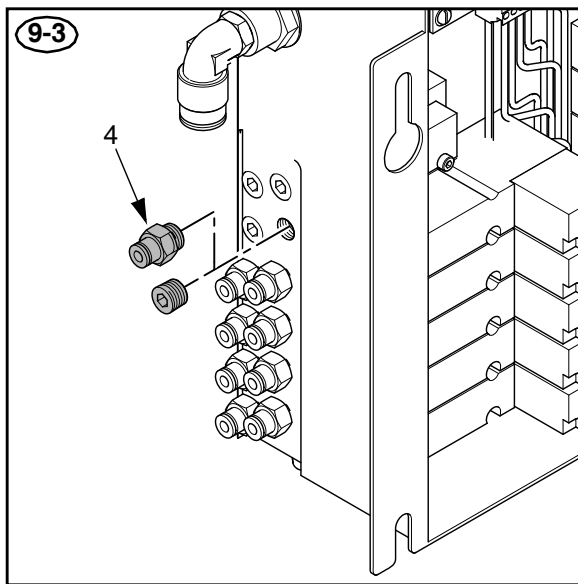
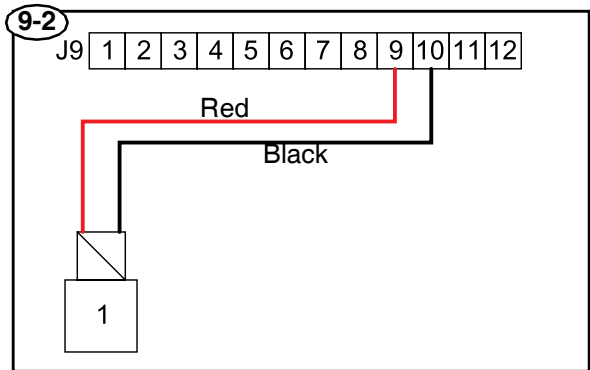
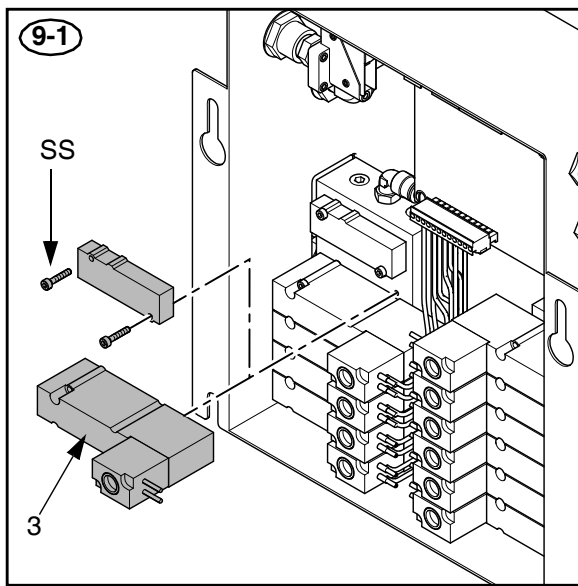


FIG. 8: Air Line Connections, ProMix PD2K

ProMix II Installation

Install Solenoid

1. Turn off EasyKey™/Control Box power, and shut off power at main circuit breaker. (See your Installation and Repair-Parts manual in **Related Manuals**, page 2.)
2. Remove Fluid Panel cover to access the solenoids.
3. Remove Blank Plate (SS), and install solenoid valve (3). Tighten screws to secure. (See FIG. 9-1)
4. Connect solenoid wires to terminals as shown in FIG. 9-2.
5. Remove air manifold plug from row B (marked on manifold) and install tube fitting (4) (See FIG. 9-3).



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FIG. 9: Air Line Connections, ProMix II

Install Atomizing Air Shutoff Valve

1. Mount the shutoff valve (2) securely. (See FIG. 1 on page 4.)
2. Install bushing (6) and muffler (9) in the upper port (N/O-Normally Open). (See FIG. 10 for steps 2-5.)
3. Connect atomizing air line from AFS (A) to lower port (B;N/C-Normally Closed).
4. Connect an air line from solenoid fitting (4) to pilot port (D).
5. Connect an air line from the outlet port (C) to the gun air inlet.

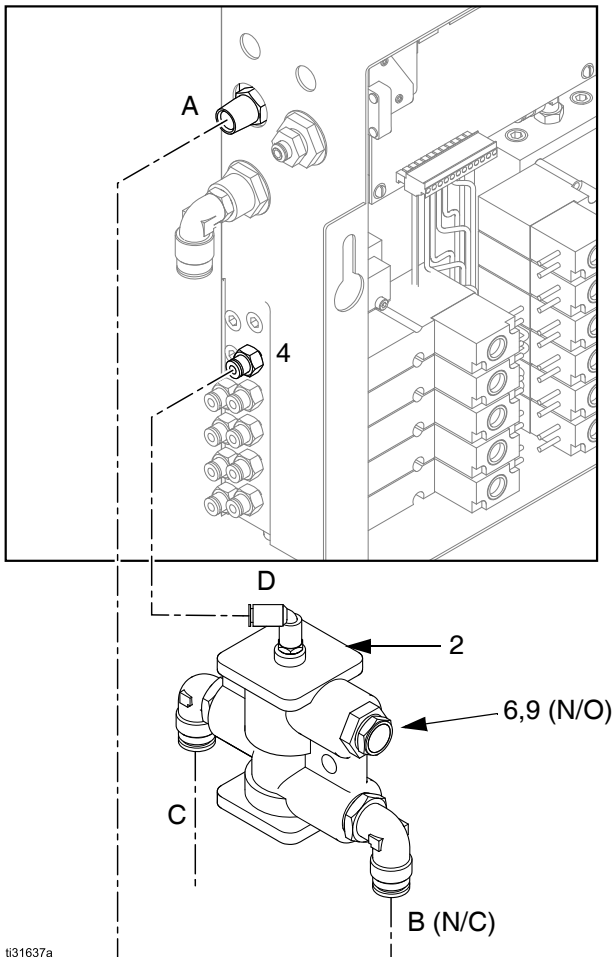




FIG. 10: Air Line Connections, ProMix II

Operation

Follow the operating instructions in your proportioner’s Operation manual (See **Related Manuals**, page 2.).

						
If using an electrostatic gun shut off the electrostatics before flushing the gun.						

Overview

It is recommended that manual spray systems be equipped with an operator-controlled atomizing air shutoff. Use the air shutoff for flow rate adjustment and checks, as well as for gun maintenance checks.

The manual shutoff should also be used during purge and fill functions to prevent unintended paint or solvent spray at the end of each sequence.

Operation Sequence

ProMix 2KS, ProMix 2KE, and ProMix PD2K: During normal mix mode there is no air supplied to the pilot port. The solenoid (3) supplies an air signal to the pilot port to shut off atomizing air to the gun during purge or color change mode.

ProMix II: During normal mix and standby modes, the solenoid (3) supplies air pressure to the pilot port, allowing atomizing air to be supplied to the gun.

When the operator starts a purge or color change sequence, the solenoid (3) shuts off, which stops the air supply to the shutoff valve pilot port (D).

Without air pressure, the atomizing air shutoff valve (2) closes, which shuts off the atomizing air supply to the gun.

Maintenance

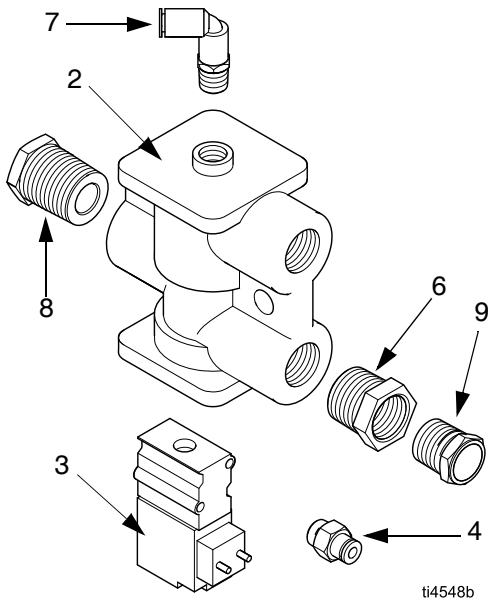
Check hoses tubes and couplings daily. Replace worn or damaged parts immediately.

Troubleshooting

Problem	Cause	Solution
Gun atomizing air is off when in standby or mix mode.	<ul style="list-style-type: none"> Air is shut off. Tubing is not installed correctly 	<ul style="list-style-type: none"> Turn on system air. Check connections, page 5-12.
Gun air comes on when in purge or color change mode.	<ul style="list-style-type: none"> Shutoff valve or solenoid have failed. 	<ul style="list-style-type: none"> Test and repair/replace valves.

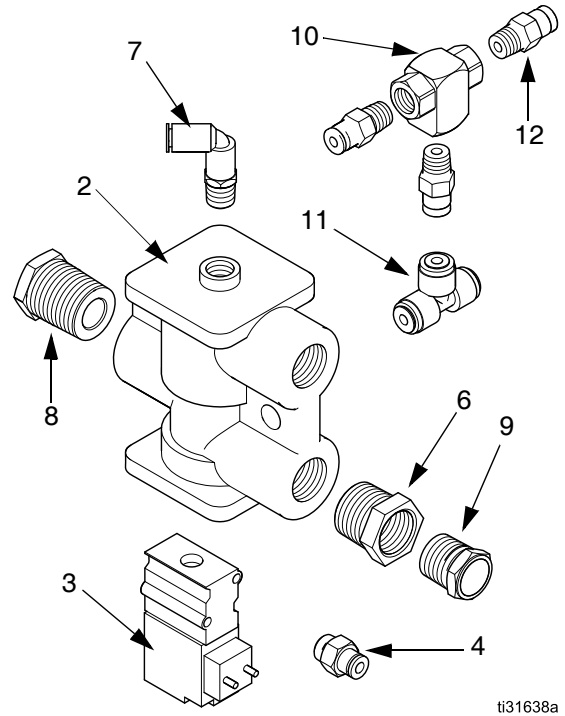
Parts

**Kit No. 15V823, for ProMix 2KS,
ProMix 2KE, and ProMix PD2K**



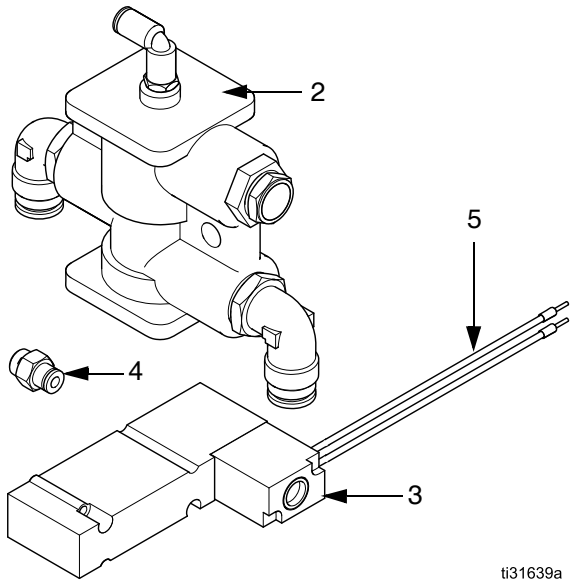
Ref. No.	Part No.	Description	Qty.
1	598095	TUBE, nylon, 5/32 in. OD, 10 ft. (3.05 m) long (not shown; connects solenoid fitting [4] to valve fitting [7])	1
2	104632	VALVE, air safety shutoff	1
3	121324	VALVE, solenoid, 12 VDC, IS	1
4		FITTING (see FIG. 2 - FIG. 8)	1
	111328	10-32 x 5/32 tube (2KS)	
	114263	1/8 npt(m) x 5/32 tube (2KE, PD2K)	
6	100081	BUSHING, pipe; 1/2 npt(m) x 3/8 npt(f)	1
7	598140	ELBOW, tube fitting; 1/8 npt(m) x 5/32 in. OD	1
8	100206	BUSHING, pipe; 1/2 npt(m) x 1/4 npt(f)	1
9	111881	MUFFLER; 3/8 npt(m)	1

**Kit No. 15V829, for ProMix 2KS
(Second Gun)**



Ref. No.	Part No.	Description	Qty.
1	598095	TUBE, nylon, 5/32 in. OD, 10 ft. (3.05 m) long (not shown; connects solenoid fitting [4] to valve fitting [7])	2
2	104632	VALVE, air safety shutoff	1
3	121324	VALVE, solenoid, 12 VDC, IS	1
4		FITTING (see FIG. 2 - FIG. 8)	1
	111328	10-32 x 5/32 tube (2KS)	
	114263	1/8 npt(m) x 5/32 tube (2KE, PD2K)	
6	100081	BUSHING, pipe; 1/2 npt(m) x 3/8 npt(f)	1
7	598140	ELBOW, tube fitting; 1/8 npt(m) x 5/32 in. OD	1
8	100206	BUSHING, pipe; 1/2 npt(m) x 1/4 npt(f)	1
9	111881	MUFFLER; 3/8 npt(m)	1
10	593538	Valve, Shuttle	1
11	17A252	Fitting, Tube, Union Tee, 5/32 Acetal	1
12	198177	Fitting, Push, Straight, 5/32 x 1/8-27 NPT	3

Kit No. 234928, for ProMix II



Ref. No.	Part No.	Description	Qty.
1	598095	TUBE, nylon, 5/32 in. OD, 50 ft. (15 m) long (not shown; connects solenoid fitting [4] to valve fitting [D])	*
2	570132	VALVE, air safety shutoff	1
3	117356	VALVE, solenoid, 12 VDC, IS	1
4	114263	FITTING, 1/8 npt x 5/32 tube	1
5	112512	FERRULE, wire	2

* Order length needed.

Technical Data

Kit No. 15V823, for ProMix 2KS, ProMix 2KE, and ProMix PD2K

Maximum Working Pressure	100 psi (0.7 MPa, 7 bar)
Shutoff Valve Port Fitting Sizes	
Inlet	1/2 npt(f)
Outlet	1/4 npt(f)
Pilot	5/32 in. (4 mm) OD

Kit No. 234928, for ProMix II

Maximum Working Pressure	100 psi (0.7 MPa, 7 bar)
Shutoff Valve Port Fitting Sizes	
Inlet	1/2 in. (12.7 mm) OD
Outlet	1/2 in. (12.7 mm) OD
Pilot	5/32 in. (4 mm) OD

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 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.

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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.

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For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

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Original instructions. This manual contains English. MM 310745

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