

ProMix[™] Auto Color and Catalyst Change Kits 311396 rev.A

For proportional mixing of plural component coatings.

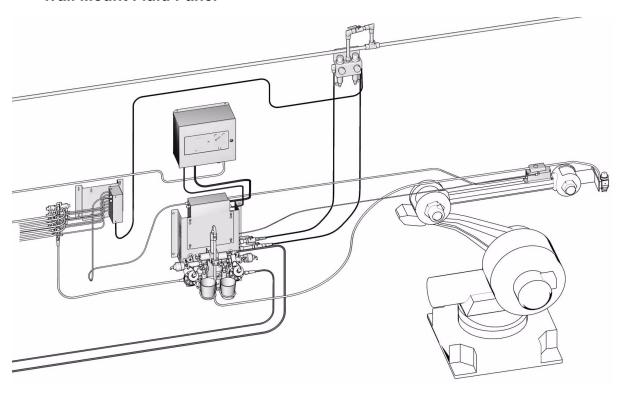
See page 2 for kit information.



Important Safety Instructions

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

Wall Mount Fluid Panel



PROVEN QUALITY. LEADING TECHNOLOGY.



Contents

Related Manuals 2	Wall Mount Fluid Panel	8
Kit Information		
Warnings 3	Parts - Wall Mount Fluid Panel	12
Service 5	RoboMix II Fluid Panel	13
Before Servicing 5	Installation	13
After Servicing	Parts - RoboMix II Fluid Panel	16
Pressure Relief Procedure 6	Notes	17
Shutdown	Graco Standard Warranty	18

Related Manuals

Component Manuals in U.S. English

Manual	Description
311079	ProMix Auto Operation
311189	ProMix Auto Service - Parts
310654	Fluid Mix Manifold
310655	Dispense Valve
308778	G3000, G250, G3000HR, G250HR Flow Meter
310696	Coriolis Flow Meter
307731	Color Change Valve Assembly, Low Pressure
307941	Color Change Valve, Low Pressure
308291	Color Change Valve Assembly, High Pressure
308977	Color Change Valve, High Pressure
311191	ProMix Auto [™] Web Communications Software

Kit Information

Wall Mount Color/Catalyst Change Kits: RoboMix II Color/Catalyst Change Kits:

Kit 249973, 2 color/catalyst change Kit 249970, 2 color/catalyst change

Kit 249974, 4 color/catalyst change Kit 249971, 4 color/catalyst change

Kit 249975, 7 color/catalyst change Kit 249972, 7 color/catalyst change

Warnings

The following general warnings are for the setup, use, grounding, maintenance, and repair of this equipment. Additional, more specific warnings may be found throughout the body of this manual where applicable. Symbols appearing in the body of the manual refer to these general warnings. When these symbols appear throughout the manual, refer back to these pages for a description of the specific hazard.

WARNING



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- Use 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 power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See Grounding instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- · Keep a fire extinguisher in the work area.



INTRINSIC SAFETY

Only models with a G3000 or G3000HR for both A and B meters are approved for installation in a Hazardous Location - Class I, Div I, Group D, T2 C. To help prevent fire and explosion:

- Do not install equipment approved only for non-hazardous location in a hazardous area. See the ID label for the intrinsic safety rating for your model. Refer to instruction manuals for your model.
- Do not substitute system components as this may impair intrinsic safety.



ELECTRIC SHOCK HAZARD

Improper grounding, setup, or usage of the system can cause electric shock.



- Turn off and disconnect power at main switch before disconnecting any cables and before servicing equipment.
- Connect only to grounded power source.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.



SKIN INJECTION HAZARD

High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**



- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.

MARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- 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. For complete information about your material, request MSDS forms from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine Graco replacement parts only.
- Do not alter or modify equipment.
- 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 kink or over bend hoses or use hoses to pull equipment.
- · Keep children and animals away from work area.
- Comply with all applicable safety regulations.



MOVING PARTS HAZARD

Moving parts can pinch or amputate fingers and other body parts.

- · Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in this manual. Disconnect power or air supply.



TOXIC FLUID OR FUMES HAZARD

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

- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.



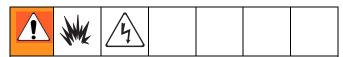
PERSONAL PROTECTIVE EQUIPMENT

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:

- Protective evewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

Service

Before Servicing



- Servicing EasyKey[™] display exposes you to high voltage. Shut off power at main circuit breaker before opening enclosure.
- Do not substitute system components as this may impair intrinsic safety.
- 1. Follow "Pressure Relief Procedure" on page 6.
- Follow "Shutdown" on page 7 if service time will exceed pot life time and before servicing fluid components.
- Close main air shutoff valve on air supply line and on ProMix™ Auto.

- 4. Shut off ProMix™ Auto power (0 position). Fig. 1.
- 5. If servicing EasyKey™ Display, also shut off power at main circuit breaker.



Fig. 1: Power Switch

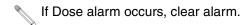
After Servicing

After servicing the system, be sure to follow the **Start Up** checklist and procedure in the ProMix[™] Auto Operation manual 311079.

Pressure Relief Procedure



- 1. While in Mix mode (dispensing mix material), isolate the A and B fluid supply.
- Push the manual override on the A and B dispense valve solenoids to relieve pressure. Fig. 2 (Wall Mount Fluid Supply) and Fig. 3 (RoboMix II Fluid Supply).



- 3. Purge mix material following the Purging section in the ProMix[™] Auto Operation Manual (311079).
- 4. Isolate the solvent fluid supply.
- Initiate purge sequence following the Purging section in the ProMix[™] Auto Operation Manual (311079).
- 6. Verify the solvent pressure is reduced to 0.



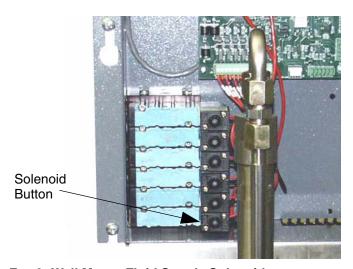


Fig. 2: Wall Mount Fluid Supply Solenoids

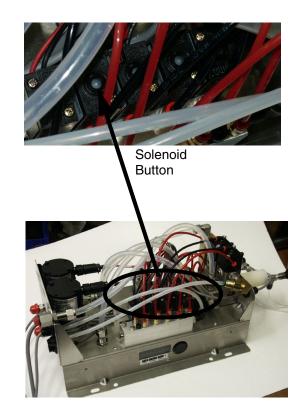


Fig. 3: RoboMix II Fluid Supply Solenoids

Shutdown



- Servicing EasyKey[™] display exposes you to high voltage. Shut off power at main circuit breaker before opening enclosure.
- Do not substitute system components as this may impair intrinsic safety.

Service Shutdown

- 1. Follow "Pressure Relief Procedure" on page 6.
- Close main air shutoff valve on air supply line and on ProMix™ Auto.
- 3. Shut off ProMix™ Auto power (0 position). Fig. 4.

4. If servicing EasyKey™ Display, also shut off power at main circuit breaker.



Fig. 4: Power Switch

Wall Mount Fluid Panel













Installation

See illustrations and "Parts - Wall Mount Fluid Panel" on page 12 for component kit parts and referenced numbers throughout this procedure.

- Apply pipe sealant to all tapered threads when installing kit. Do not apply sealant to swivel fittings.
- 1. Follow "Pressure Relief Procedure" on page 6.
- 2. Determine if you are installing color change or catalyst change.
- If installing catalyst change dump valve, follow same procedure for color side of Wall Mount Fluid Panel.

Mount Dump Valve

Dump valve bracket mounts in same holes with same hardware as manifold bracket.

 Remove manifold from mounting plate. Place dump valve bracket (7) in place and reinstall manifold bracket. Dump valve bracket (7) will be installed between plate and manifold bracket. (See Fig. 5.)

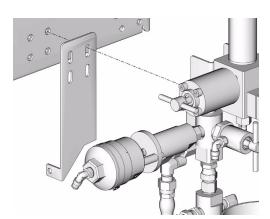


Fig. 5: Mount Dump Valve Bracket

2. Remove plug on dosing valve. Replace with 90° fitting (5) to either color change dosing valve or catalyst change dosing valve. (See Fig. 6.)

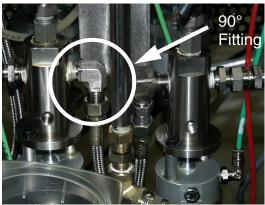


Fig. 6: Install 90° Fitting

- Mount dump valve (12) to bracket (7) (use screw (16) provided) from side of dispense valve air piston/cylinder. (See Fig. 7.)
- 4. Mount 90° fitting (5) into inlet of dump valve. (See Fig. 6.)



Fig. 7: Mount Dump Valve to Bracket

Connect fluid hose (10) from dosing valve to dump valve.

Mount Solenoid Valve

Solenoid valve mounts into existing manifold.

1. Remove blank plate from position 5 for color change or position 6 for catalyst change. (See Fig. 8.)

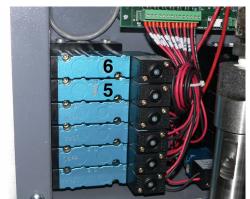


Fig. 8: Install Solenoid Valve

- 2. Install solenoid (6) valve using screws provided in place of blank plate. Verify that solenoid gasket remains on solenoid. (See Fig. 8.)
- 3. Wire solenoid valve: (See Fig. 9.)
- For color change, wire solenoid valve into port J9, Pin 11 and J9, Pin 12 (red in Pin 11 and black in Pin 12).

• For catalyst change, wire solenoid valve into port J9, Pin 13, and J9, Pin 14 (red in Pin 13 and black in Pin 14).

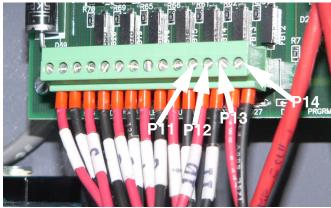


Fig. 9: Wire Solenoid Valve

Install Fittings

- Remove electrical panel from mounting panel. To complete this step, you may need to detach pneumatic tubing and lengthen wiring in electrical panel. Label pneumatic tubing before detaching from manifold.
- 2. Remove 2 plugs for each solenoid on outbound side of manifold. (See Fig. 10.)



Fig. 10: Outlet Ports

3. Thread in 1/8 in. NPT pneumatic push fittings (4).

4. Connect pneumatic tubing from push fittings (4) down side of cabinet, through grommet, and to dump valve (12). (See Fig. 11.)



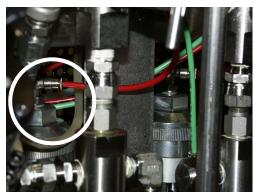


Fig. 11: Connect Pneumatic Tubing

5. Reinstall electrical panel.

Install Communication Network (CAN) Cable

1. Wire CAN cable (9) (with strain relief (3) through port on left side of electrical box) to J7 connector on circuit board. (See Fig. 12.)

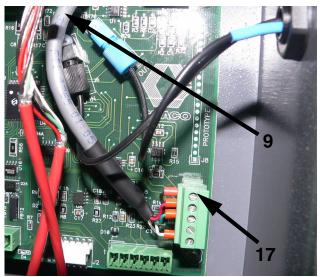


Fig. 12: CAN Cable Wiring

- Follow wiring diagram to connect Ferrules to Phoenix connector (17). See ProMix[™] Auto Service and Repair manual (311189). (See Fig. 12.)
- 3. Connect Phoenix connector (17) to board. (See Fig. 12.)
- 4. After connection is made, tighten strain relief fitting (3).
- 5. Run CAN cable (9) to color change control assembly and connect to CAN input (See Fig. 13).



Fig. 13: CAN Cable

 Provide air supply to main air inlet of color change control assembly. (Main air inlet should be on bottom of assembly to prevent moisture buildup in manifold solenoid valves.) (See Fig. 14.)



Fig. 14: Air Inlet

7. Route tubing (14) (10 ft. of 5/32 in. tube for each valve is included in kit) from outlet fitting of each

solenoid in color change control assembly to color change fluid valve stack (15). (See Fig. 15.)

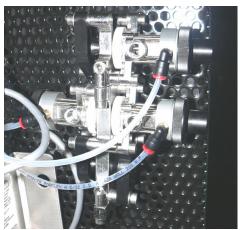


Fig. 15: Color Stack

Each color change control assembly includes a solenoid for each color and a solenoid for solvent flush.

Set Address

Follow procedures for setting address and termination resistor according to ProMix[™] Auto Operation manual (311079).

Parts - Wall Mount Fluid Panel

Kit 249973, 2 color/catalyst change Kit 249974, 4 color/catalyst change Kit 249975, 7 color/catalyst change

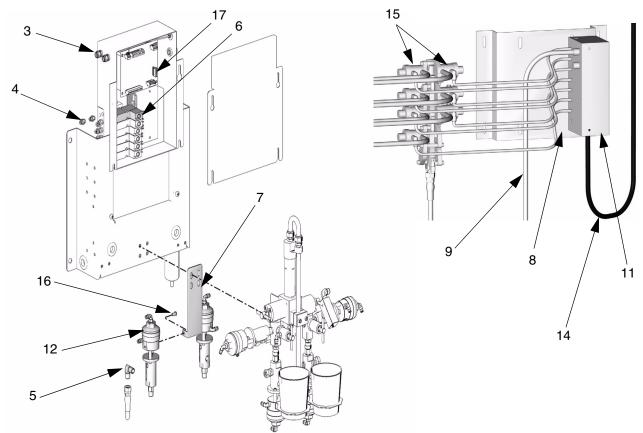


Fig. 16: Wall Mount Fluid Panel Color/Catalyst Change Kit

				Ref.			
Ref.				No.	Part No.	Description	Qty
No.	Part No.	Description	Qty	12	287394	VALVE, dispense	1
1	054754	TUBE, nylon, rnd, 3 ft. (not shown)	1	13	590332	TUBE, poly-flo, 5/32 ID x 1/4 OD,	1
2	054757	TUBE, nylon, rnd, 3 ft. (not shown)	1			100 ft. (not shown)	
3	111987	CONNECTOR, cord, strain relief	1	14	598095	TUBE, 5/32 OD, nylon	-
4	114263	FITTING, connector, male	2			Kit 249973, 30 ft.	
5		ELBOW, 1/4-18 NPSM	2			Kit 249974, 50 ft.	
6		VALVE, solenoid, 12 VDC	1			Kit 249975, 80 ft.	
7		BRACKET, valve mount	1	15		Color/catalyst change valve stack	
8	15G450	BRACKET, color change	1			assy	
9	15G612	CABLE, 50 ft.	1		949796	,	1
10	205324	HOSE, coupled, 1 ft. (not shown)	1		220020	: ,	1
11		ASSY, control, color/catalyst			220023	8 valve assy used in kit 249975	1
		change		16	C19798	•	1
	249868	2 color, 1 flush	1	17	119248	,	1
	249869	4 color, 1 flush	1	18		SEALANT, pipe, SST (not shown)	1
	249870	7 color, 1 flush	1		_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

RoboMix II Fluid Panel















Installation

See illustrations and "Parts - RoboMix II Fluid Panel" on page 16 for component kit parts and referenced numbers throughout this procedure.

Apply pipe sealant to all tapered threads when installing kit. Do not apply sealant to swivel fittings.

- 1. Follow "Pressure Relief Procedure" on page 6.
- 2. Determine if you are installing color change or catalyst change.

Mount Solenoid Valve

- 1. Remove blank plate from position 5 for color change or position 6 for catalyst change.
- Install solenoid valve (3) using screws provided in place of blank plate. Use position 5 for color change and position 6 for catalyst change. Verify solenoid gasket remains on solenoid.
- 3. Route wiring from solenoid valve through grommet (D) to board. (See Fig. 17.)
- For color change, wire solenoid valve into ports J9, Pin 11 and J9, Pin 12 (red in Pin 11 and black in Pin 12). (See Fig. 9.)

 For catalyst change, wire solenoid valve into port J9, Pin 13, and J9, Pin 14 (red in Pin 13 and black in Pin 14). (See Fig. 9.)

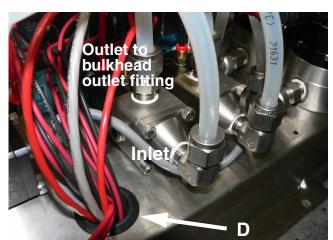


Fig. 17: RoboMix II Dump Valves and Grommet

Mount Dump Valve

- Remove cap screw plugs from one of two open positions on RoboMix II fluid panel. Mount dump valve (13) in that position. Use screws (7) included with kit to screw dump valve down to RoboMix II housing assembly. (See Fig. 17.)
- 2. Mount outlet fitting (10) and inlet fitting (9) into dump valve (13). (See Fig. 17.)

Install Fittings

 Install bulkhead outlet fittings (4) for ports A and B; tighten nut. (See Fig. 18.)



Fig. 18: Outlet Fittings

- 2. Mount 1/4 in. PTFE tubing (19) (included in kit) into fittings and tighten fittings:
 - a. Remove 1/4 in. plug from color dosing valve top port or catalyst dosing valve top port.
 - b. Install fitting (9) from kit into port that plug was removed from.
 - c. Route tubing from dosing valve to dump valve (13). (See Fig. 17.)
 - d. Route tubing from dump valve (13) to bulkhead outlet fitting (4). (See Fig. 17 and Fig. 18.)

Install Communication Network (CAN) Cable

1. Install strain relief fitting (15) into color change or catalyst change port on back of RoboMix II housing assembly. (See Fig. 19.)



Fig. 19: RoboMix II Strain Relief Fitting

- 2. Route CAN cable (6) through strain relief (15), through assembly, and through grommet to board. (See Fig. 19.)
- 3. Connect CAN cable (6) to J7 connector on board.
- Follow wiring diagram to connect Ferrules to Phoenix connector. See ProMix[™] Auto Service and Repair manual (311189). (See Fig. 20.)
- 5. Connect Phoenix connector (16) to board. (See Fig. 20.)

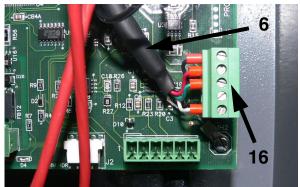


Fig. 20: Phoenix Connector

6. After connection is made, tighten strain relief fitting (15). (See Fig. 19.)

- 7. Run CAN cable (6) to color change control assembly (8) and connect to CAN input. (See Fig. 13.)
- Provide air supply to main air inlet of color change control assembly using tubing (11). (Main air inlet should be on bottom of assembly to prevent moisture buildup in manifold solenoid valves.) (See Fig. 14.)
- 9. Route tubing (12) (10 ft. of 5/32 in. tube for each valve is included in kit) from outlet fitting of each

- solenoid in color change control assembly to color change fluid valve stack (14). (See Fig. 15.)

Each color change control assembly includes a solenoid for each color and a solenoid for solvent flush.

Set Address

Follow procedures for setting address and termination resistor according to ProMix[™] Auto Operation manual (311079).

Parts - RoboMix II Fluid Panel

Kit 249970, 2 color/catalyst change Kit 249971, 4 color/catalyst change Kit 249972, 7 color/catalyst change

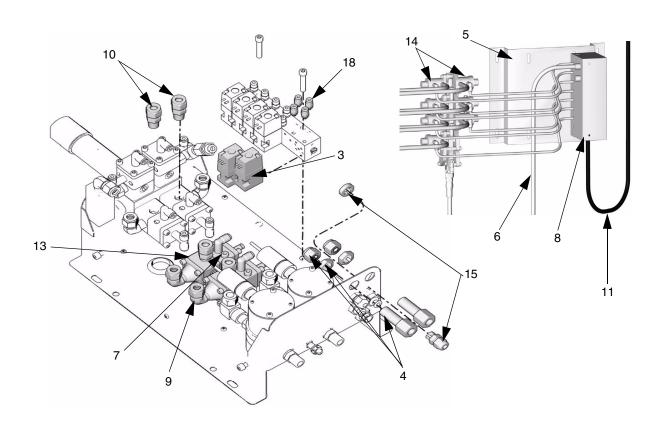


Fig. 21: RoboMix II Fluid Panel Color/Catalyst Change Kit

Ref.				Ref.	5		٥.
		.	٥.	No.		Description	Qty
No.	Part No.	Description	Qty	12	598095	TUBE, 5/32 OD, nylon (not shown)	-
1	054754	TUBE, nylon, rnd, 1 ft. (not shown)	1			Kit 249970, 30 ft.	
2	054757	TUBE, nylon, rnd, 1 ft. (not shown)	1			Kit 249971, 50 ft.	
3	120014	VALVE, solenoid, includes item 7	1			Kit 249972, 80 ft.	
4	120029	FITTING, bulkhead, compression	1	13	692022	VALVE, diaphragm, dispense	1
5	15G450	BRACKET, color change	1	14		Color/catalyst change valve stack	
6	15G612	CABLE, 50 ft.	1			assy	
7	15G842	FASTNER, SHCS, 1/4-20 x 1.625	2		949796	3 valve assy used in kit 249970	1
8		ASSY, control, color/catalyst			220020	5 valve assy used in kit 249971	1
		change					1
	249868	2 color, 1 flush	1	15			1
	249869	4 color, 1 flush	1	16			1
	249870	7 color, 1 flush	1	_		(not shown)	
9	510223	FITTING, elbow, male	1	17	110110	SEALANT, pipe, SST (not shown)	1
10	513308	FITTING, connector	2	18		CONNECTOR, male	2
11	590332	TUBE, poly-flo, 5/32 ID x 1/4 OD	1	19		TUBE, PTFE, 3/8 OD, 3 ft.	1
		,, , , , , , , , , , , , , , , , , , , ,		.0	007,000	(not shown)	•
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Notes

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.

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 procédures concernées. Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 or Toll Free: 1-800-328-0211 Fax: 612-378-3505

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MM 311396

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