

# Repair



## Interior Texture Sprayer RTX 650

311771D

*For Water-Based Materials Only*

### Model: 254973

*50 psi (0.35 MPa, 3.5 bar) Maximum Fluid Working Pressure  
100 psi (0.7 MPa, 7.0 bar) Maximum Air Pressure*



#### Important Safety Instructions

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

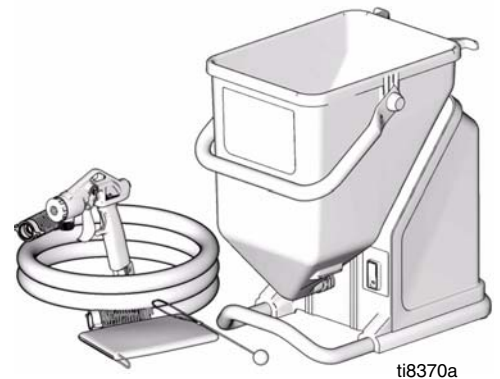
#### Related Manuals



311777



311767






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**Model 254973 Shown**

PROVEN QUALITY. LEADING TECHNOLOGY.

# Warnings

The following are general warnings related to 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 through the manual, refer back to these pages for a description of the specific hazard.

	<b>Warnings</b>
	<p><b>Fire and Explosion Hazard</b> Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in fire or explosion and serious injury.</p> <ul style="list-style-type: none"> <li>• The system is for use with water-based materials only. Only use fluids compatible with the equipment. Refer to Technical Data of all equipment manuals. Read fluid and solvent manufacturers warnings.</li> <li>• Ground all equipment in the work area. See <b>Grounding and Electrical Requirements</b>, page 6.</li> <li>• If there is any static sparking or you feel an electric shock while using this equipment, stop spraying immediately. Do not use the equipment until you identify and correct the problem.</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Comply with all applicable state and national fire, electrical and safety regulations.</li> <li>• Keep a fire extinguisher in the work area.</li> </ul>
	<p><b>Equipment Misuse Hazard</b> Equipment misuse can cause equipment to rupture, malfunction, or start unexpectedly and cause serious injury.</p> <ul style="list-style-type: none"> <li>• Before operating this equipment, read all manuals, tags, and labels, including material labels and instructions.</li> <li>• Do not expose system to rain. Always store system indoors.</li> <li>• Do not alter or modify equipment.</li> <li>• Do not spray cementitious materials.</li> <li>• Do not exceed maximum working pressure of lowest rated component in your system.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately.</li> <li>• To reduce risk of serious injury, including electric shock and splashing fluid in eyes, follow <b>Pressure Relief Procedure</b> on page 6 before servicing the unit.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Route hoses away from traffic areas, sharp edges, moving parts and hot surfaces. Do not expose Graco hoses to temperatures above 130° F (55° C) or below -35° F (-37° C).</li> <li>• Air hoses at the compressor end, can get very hot! Allow sprayer to cool down 15 minutes before removing air hose.</li> <li>• Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.</li> <li>• Never directly inhale compressed air. Compressed air may contain toxic vapors.</li> </ul>

	<p><b>Warnings</b></p>
 	<p><b>Electric Shock Hazard</b>                      To reduce the risk of electric shock:</p> <ul style="list-style-type: none"> <li>• Be sure sprayer is adequately grounded through electrical outlet, page 6.</li> <li>• Use only 3-wire, extension cords.</li> <li>• Make sure ground prongs are intact on sprayer and extension cords.</li> <li>• Do not operate with cover removed.</li> <li>• Turn off sprayer. Follow <b>Pressure Relief Procedure, page 6</b>, and unplug unit, before removing any parts.</li> </ul>
 	<p><b>Pressurized Equipment Hazard</b>                      Fluid from gun, leaks or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> <li>• Follow <b>Pressure Relief Procedure, page 6</b> when you stop spraying and before cleaning, checking or servicing.</li> <li>• Do not point spray gun at anyone; put hand, fingers or rag over nozzle, or stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Wear protective clothing, gloves, and eyewear.</li> </ul>
	<p><b>Cleaning Solvent Hazard with Plastic Parts</b>                      Use only compatible water-based solvents to clean plastic structural or pressure-containing parts. Many solvents can degrade plastic parts to the point where they could fail. Such failure could cause serious injury or property damage. See Technical Data on page 19 of this instruction manual and in all other equipment manuals. Read fluid and solvent manufacturer's warnings.</p>
	<p><b>Personal Protective Equipment</b>                      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"> <li>• Protective eyewear</li> <li>• Clothing and respirator as recommended by the fluid and solvent manufacturer</li> <li>• Gloves</li> <li>• Hearing Protection</li> </ul>

**CAUTION**

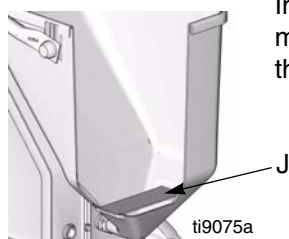


Water or material remaining in unit when temperatures are below freezing can damage motor and/or delay pump startup.

To insure water and material are completely drained out of unit:

1. Remove material line from sprayer.
2. Tip sprayer up as shown.

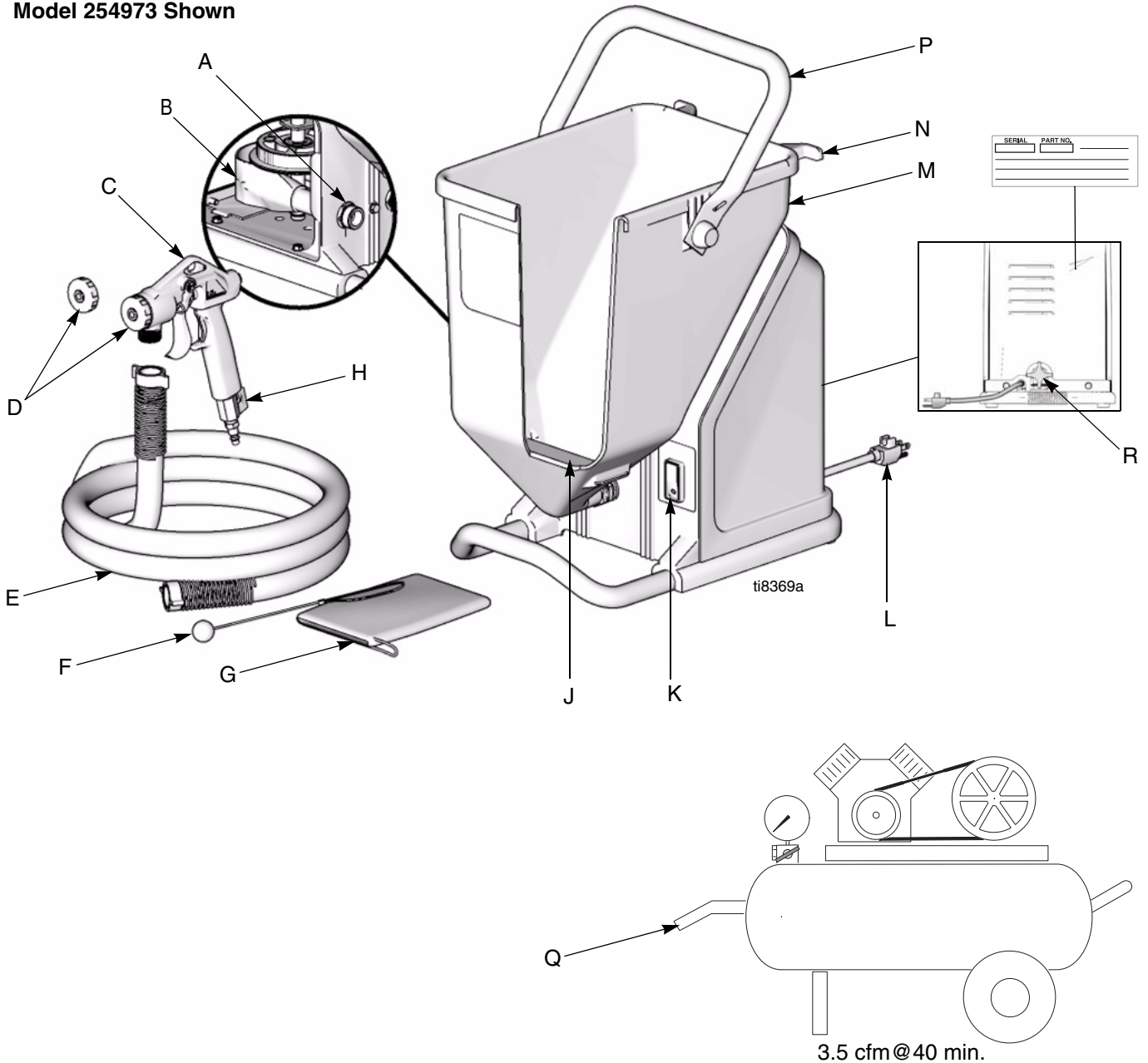
Before adding material or starting unit in cold weather, run warm water through pump.



Install burp guard (J) before adding material to hopper. When only a small amount of material remains in the hopper, the burp guard prevents material from shooting out when the sprayer is turned off. This material could splash into the operator's eyes or skin.

# Component Identification

Model 254973 Shown



Item	Component	Item	Component
A	Pump Hose Outlet	J	Burp Guard
B	RotoFlex™ II Pump (inside)	K	ON/OFF Switch
C	Texture Spray Gun (Manual 311777)	L	Power Cord (120V, 15 ft)
D	Nozzle (2 included)	M	Material Hopper - 5 gallon
E	Material Hose (20 ft)	N	Cord Wrap
F	Material Thickness Gauge	P	Handle
G	Accessories Bag	Q	Air Compressor (Not Supplied by Graco)
H	Gun Air Valve	R	Knob/Pressure Control

## Pressure Relief Procedure

To reduce risk of injury, follow this procedure whenever you see this symbol throughout this manual. Also, perform this procedure whenever you:



- Stop spraying
- Check or repair any part of this system
- Install or clean spray nozzle



1. Turn Power Switch OFF.



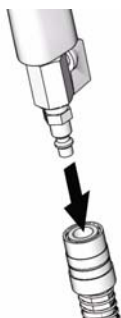
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2. Trigger gun into material hopper.



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3. Disconnect air gun.

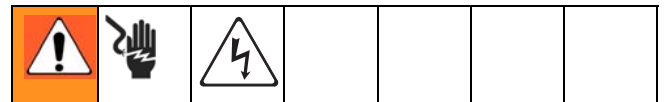


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## Grounding and Electrical Requirements

This sprayer must be grounded. Grounding reduces the risk of electrical shock by providing an escape wire for the electrical current. The sprayer cord includes a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Check with a qualified electrician or if grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded. Do not modify plug provided; if it will not fit the outlet, have proper outlet installed by a qualified electrician.



### 120V AC Systems

- This equipment requires a 120V AC, 60 Hz, 15A circuit with a grounding receptacle. Do not use an adapter with this product.

### Extension Cords

- Use only an extension cord with an undamaged, 3-prong plug.
- For 25 to 50 ft (7.6 to 15.2 m) cords, use 3-wire, 14 AWG (1.5 mm<sup>2</sup>) minimum.
- For up to 100 ft. (30.48 m) cord, use 3-wire, 12 AWG (2.5 mm<sup>2</sup>) minimum.

### Auxiliary Air Compressor (Required)

Minimum requirements 3.5 cfm @ 40 psi or 2.5 cfm @ 90 psi (see manual 311763 for detailed recommendations).

### Generator Requirements (Alternate)

3500 W (3.5 KW) minimum.

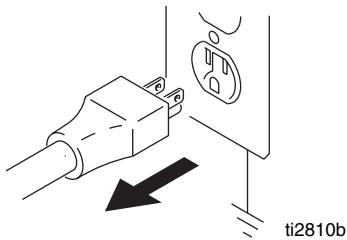
### Hose Size and Length

The system comes with a hose set consisting of a 3/4 in. ID x 20 ft (25 mm x 7.6 m) material hose.

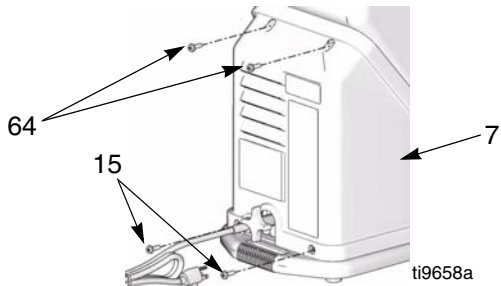
# Shroud Removal

## Disassembly

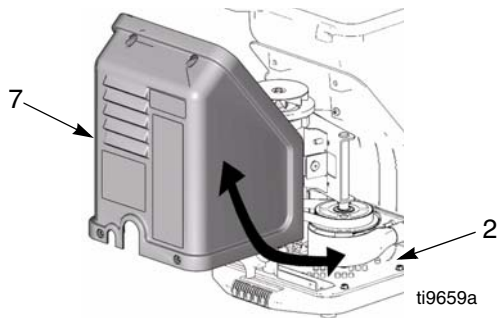
1. **Relieve Pressure**, page 6.
2. Unplug sprayer from outlet.



3. Remove two screws (15) and two screws (64) from back of shroud (7).



4. Pull shroud (7) back and up over knob (41).



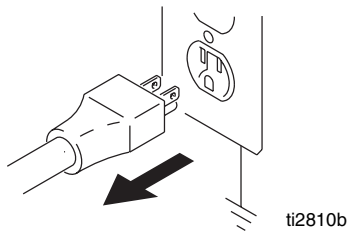
## Reassembly

1. Slide shroud (7) onto base (2).
2. Tighten two bottom screws (15) and two top screws (64) into shroud (7).

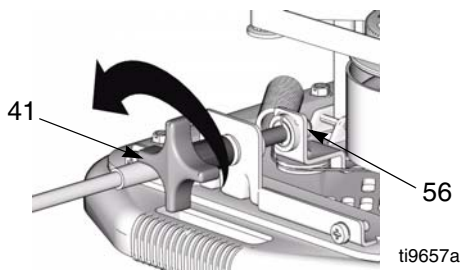
# RotoFlex™ II Pump

## Disassembly

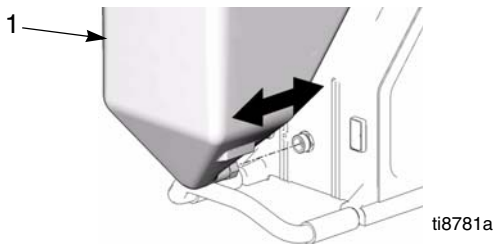
1. **Relieve Pressure**, page 6.
2. Unplug sprayer from outlet.



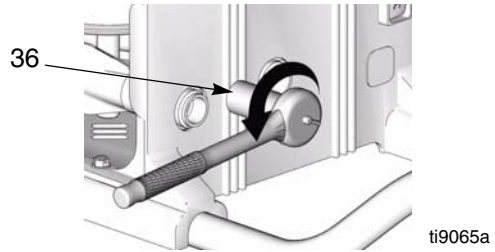
3. Remove **Shroud**, page 7.
4. Loosen two spacers (56) and knob (41).



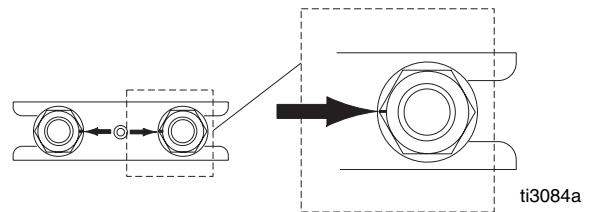
5. Loosen hopper fitting by hand to remove hopper (1).



6. Use 3/8 in. socket to remove screw (36) from hose bracket (27).



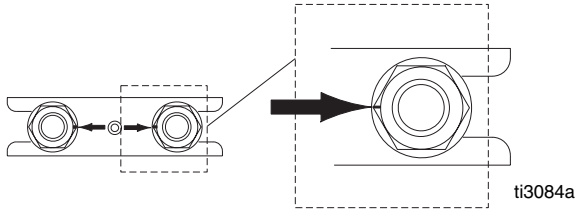
7. Slide hose fittings out of hose bracket (27) and remove hose (23) from base (2).





## Reassembly

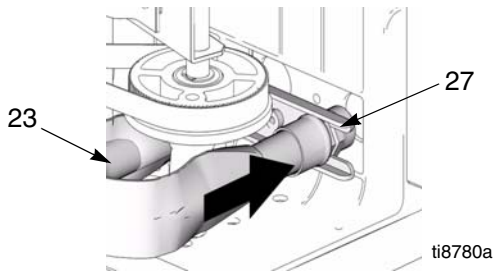
1. Bend hose (23) so colored dots on hose fittings face each other and slide hose fittings through hose bracket (27).



### CAUTION

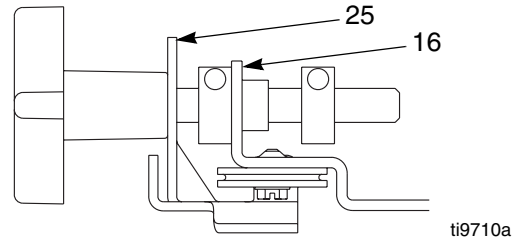
Make sure protective fabric faces outside of hose. Roller will touch exposed area of pump hose when pump is in place.

2. Squeeze hose ends together to keep hose (23) and bracket (27) together and feed pump hose fittings through holes on front of base.

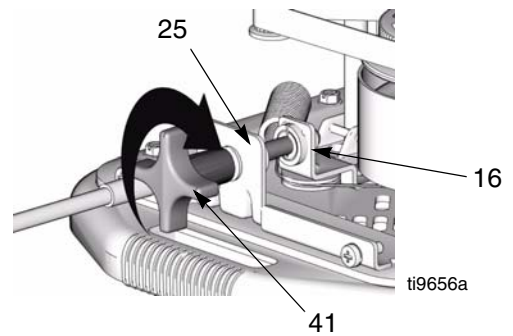


3. Use 3/8 in. socket to tighten screw (36) on hose bracket (27).
4. Install hopper and tighten hopper fitting on hopper (1) by hand until snug.

5. To set pressure, apply petroleum jelly to threads (41), tighten knob (41) until back of bracket (25) is approximately 1/2 in. from front of tensioning bracket (16).

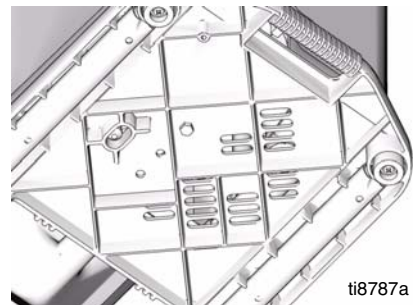


Tighten front spacer (56) until flush to front of tensioning bracket (16). Tighten back spacer (56) 3/8 in. from tensioning bracket.



To break in new pump, run sprayer dry for no longer than two minutes.

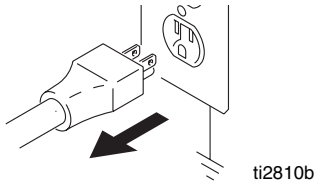
Replace hose when mud seeps through slots in the base and leaves material on the floor.



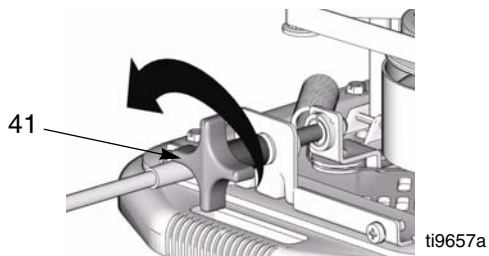
# Motor

## Disassembly

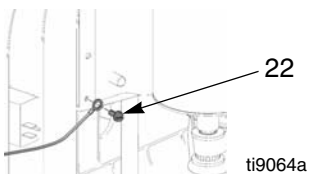
1. **Relieve Pressure**, page 6.
2. Unplug sprayer from outlet.



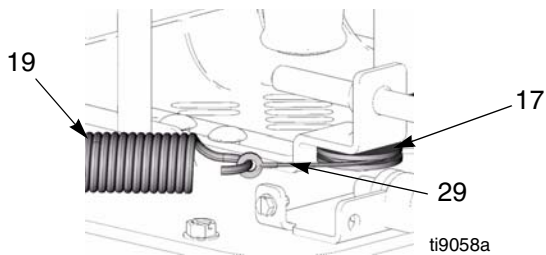
3. Remove **Shroud**, page 7.
4. Loosen knob (41) until spring relaxes.



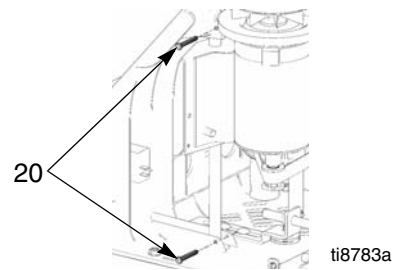
5. Remove **Pump**, page 8.
6. Disconnect all electrical **Wiring**, page 16.
7. Use 1/4 in. socket to remove grounding screw (22).



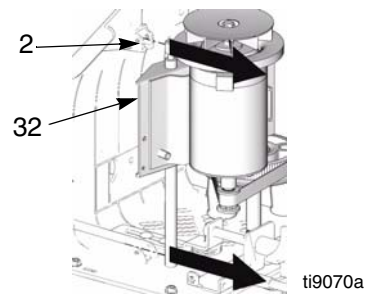
8. Disconnect extension cable (29) from pulley (17) and spring (19) to allow motor tray to pivot.



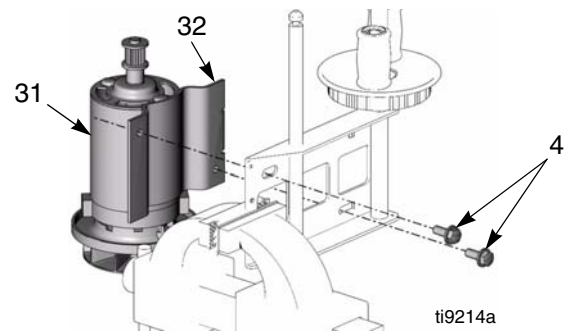
9. Remove two clevis pins (20) from base.



10. Slide motor tray (32) out of slots in base (2) to remove motor and tray from sprayer.

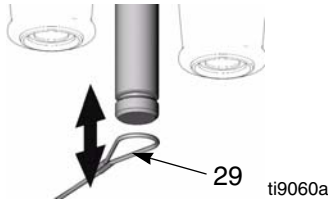


11. Remove **Belt**, page 13.
12. Loosen bolts (4) and remove motor (31) from motor tray (32).

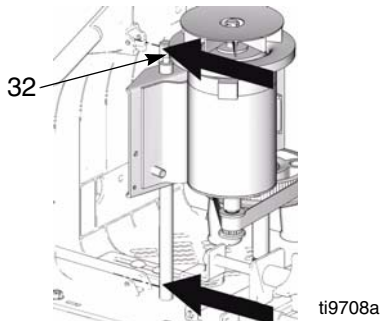


## Reassembly

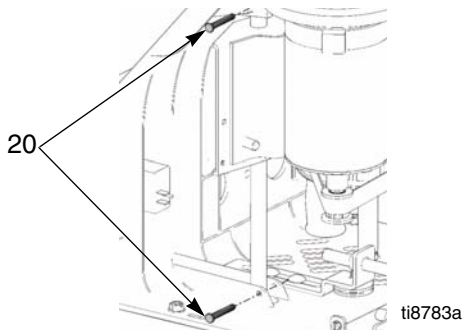
1. Tighten **Belt**, page 13.
2. Use petroleum jelly to grease area of shaft that makes contact with extension cable (29).



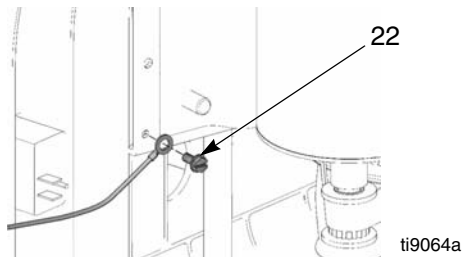
3. Slide pin on motor tray (32) into slots on base and push motor and tray back into position.



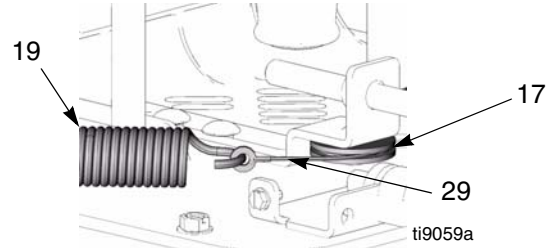
4. Replace two clevis pins (20) in base (2).



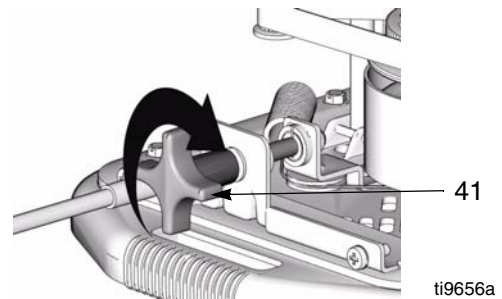
5. Reconnect all electrical wiring including ground wire (22), **Wiring**, page 16.



6. Pull back on motor tray (32) to create slack in extension cable (29). Loop extension cable (29) through pulley (17) and connect to extension spring (19). Apply petroleum jelly to pulley (17) and threads on knob (41).

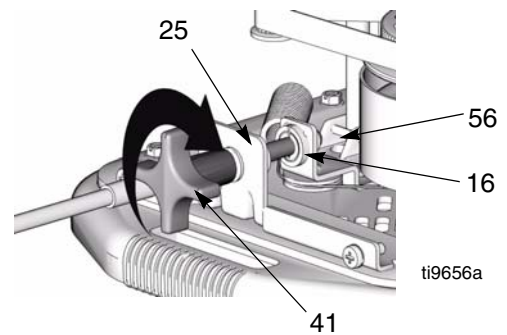


7. Tighten knob (41).



8. To set pressure, tighten knob (41) until back of bracket (25) is approximately 1/2 in. from front of tensioning bracket.

Tighten front spacer (56) until flush to front of tensioning bracket (16). Tighten back spacer (56) 3/8 in. from tensioning bracket (16).



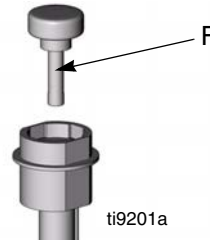
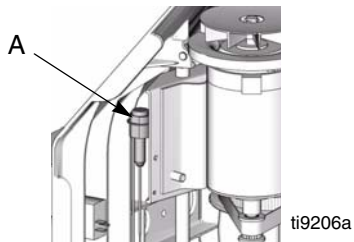
9. Reassemble **Shroud**, page 7.

# Motor Fuse Removal

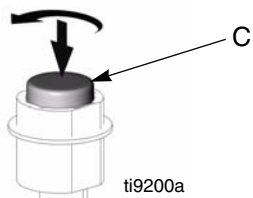
When replacing fuse, use only Bussman GMF-3 (3A) to prevent premature trips or equipment damage.

The cover will pop up to allow the fuse (F) to be inspected and replaced if needed.

The motor has a replaceable fuse attached to the motor bracket. The fuse assembly (A) is fastened to the motor bracket along with a clamp.



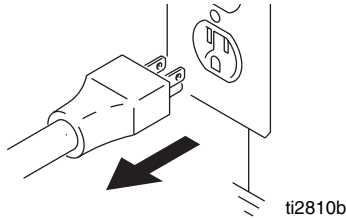
To remove the motor fuse, press down on the round center cover (C) and turn it counterclockwise.



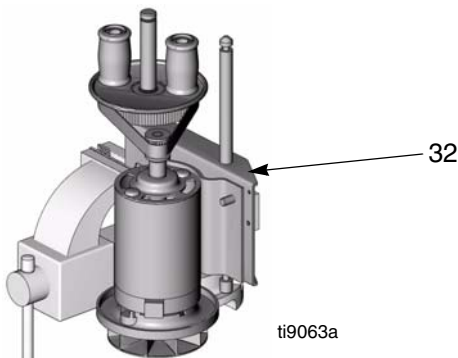
# Belt

## Disassembly

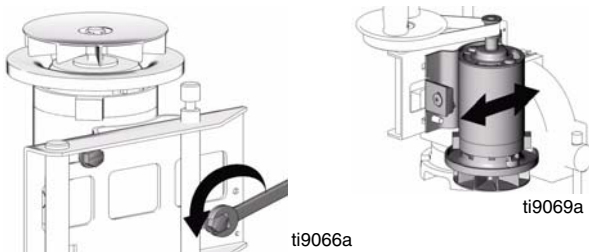
1. **Relieve Pressure**, page 6.
2. Unplug sprayer from outlet.



3. Remove **Shroud**, page 7.
4. Remove **Motor**, page 10.
5. Place motor tray (32) into vice and tighten until snug.



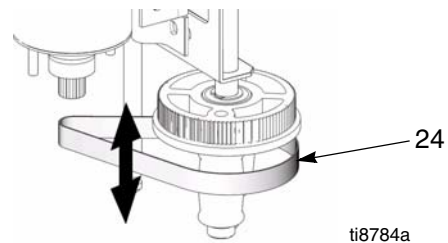
6. Use 9/16 in. wrench to loosen two mounting screws (4) on motor tray (32) to allow motor to slide around.



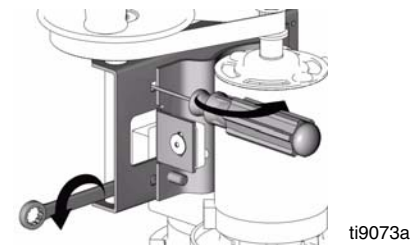
7. Remove old belt and discard.

## Reassembly

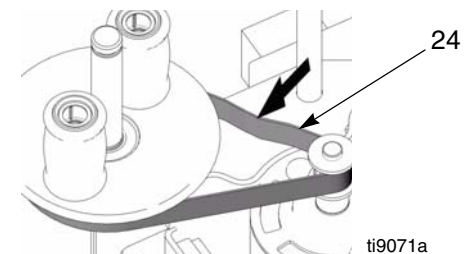
1. Loop one end of belt over extension cable (29) and pulley (17), then loop other end of belt over motor shaft (make sure teeth of belt (24) and pulley are aligned).



2. Insert flat screwdriver into slot on back of motor tray (32) and use screwdriver as a lever to pull motor (31) into position.
3. Use 9/16 in. wrench to tighten two mounting screws (4) while keeping motor (31) in position with screwdriver.

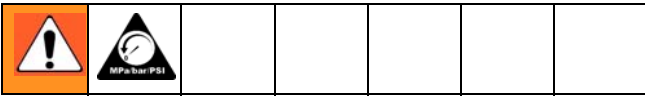


Once the motor is in place, you can test the belt to make sure it is properly tightened. When you push on the belt (24) with one finger it should move no more than 1/4 in. If it moves more than 1/4 in., go back to step 8 and re-tighten the belt.



4. Reassemble **Motor**, page 10.
5. Reassemble **Shroud**, page 7.

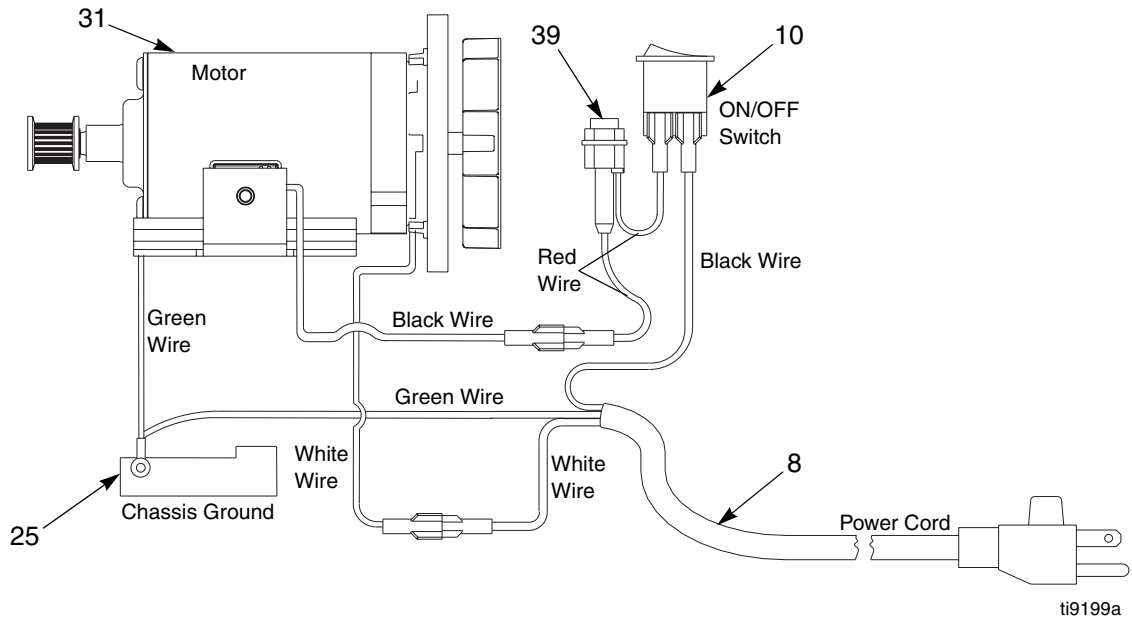
# Troubleshooting



Problem	Cause	Solution
Sprayer won't run	Power switch not on	Turn switch on.
	No power at wall outlet	Check outlet by seeing if light in the plug is illuminated. If not, try another outlet.
	Wrong size generator	Use a 3500 watt or larger generator. Refer to Generator Requirements, page 6.
	Too many items on same circuit	Unplug other items from circuit
	Extension cord too long or wrong gauge	Use a different extension cord. Refer to Grounding and Electric Requirements, page 6.
	Breaker tripped	Reset breaker.
	Blown motor fuse	Check to see if fuse needs to be replaced, page 12.
Pump won't pump material	Failed motor or motor shield	Replace motor or motor fuse.
	Mix too thick	Add water to thin material. Use Material Thickness Gauge.
	Plugged gun	<b>Relieve Pressure</b> , page 6. Remove gun from hose. Clean gun.
	RotoFlex II pump worn out	Replace hose. Recommended hose replacement - once a year or every 3000 gallons.
	Pump cold or material frozen in pump	Move pump to warm room and allow it to warm up or run hot water through sprayer.
	Material in hose	Remove material hose from outlet and run until material flows.
Material runs out of bottom of sprayer onto floor	RotoFlex II pump worn out	Replace hose.
No air flowing from gun	Gun air valve closed	Open gun air valve.
	Gun needle plugged	Clean needle and retry.
	Lines not connected	Check all connections to gun and hoses.
	Damaged hose	Replace hose.
	Worn compressor	Replace compressor.

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Speed of application too slow	New pump hose not broken in properly	Run pump dry for no longer than 2 minutes.
	Material too thick	Thin material.
	Nozzle too small	Change nozzles to a larger size. See Operation Manual, Recommended Nozzle Selection Chart, page 10.
	Plugged or dirty gun	<b>Relieve Pressure</b> , page 6. Clean gun.
	Kinked hose	Unkink hose.
	Gun fluid flow adjustment set too low	Increase flow adjustment with flow adjustment nut.
Intermittent flow/sputtering	Hopper connection not tight	Check gasket. Tighten connection.
	Debris in system	Clean system.
Gun will not shut off	Worn nozzle or needle.	<b>Relieve Pressure</b> , page 6. Replace worn parts.
	Debris in needle passage	<b>Relieve Pressure</b> , page 6. Clean.
Fluid leaking at Flow Adjustment Nut on gun	Damaged seal.	<b>Relieve Pressure</b> , page 6. Replace seal.
Fluid leaking out of either plug on gun	Missing or damaged o-rings	<b>Relieve Pressure</b> , page 6. Replace o-rings.
	Gun damaged	Replace gun.
Needle adjustment on gun won't adjust	Dirty threads	Clean threads.
	Nozzle not on gun	Put nozzle on gun.

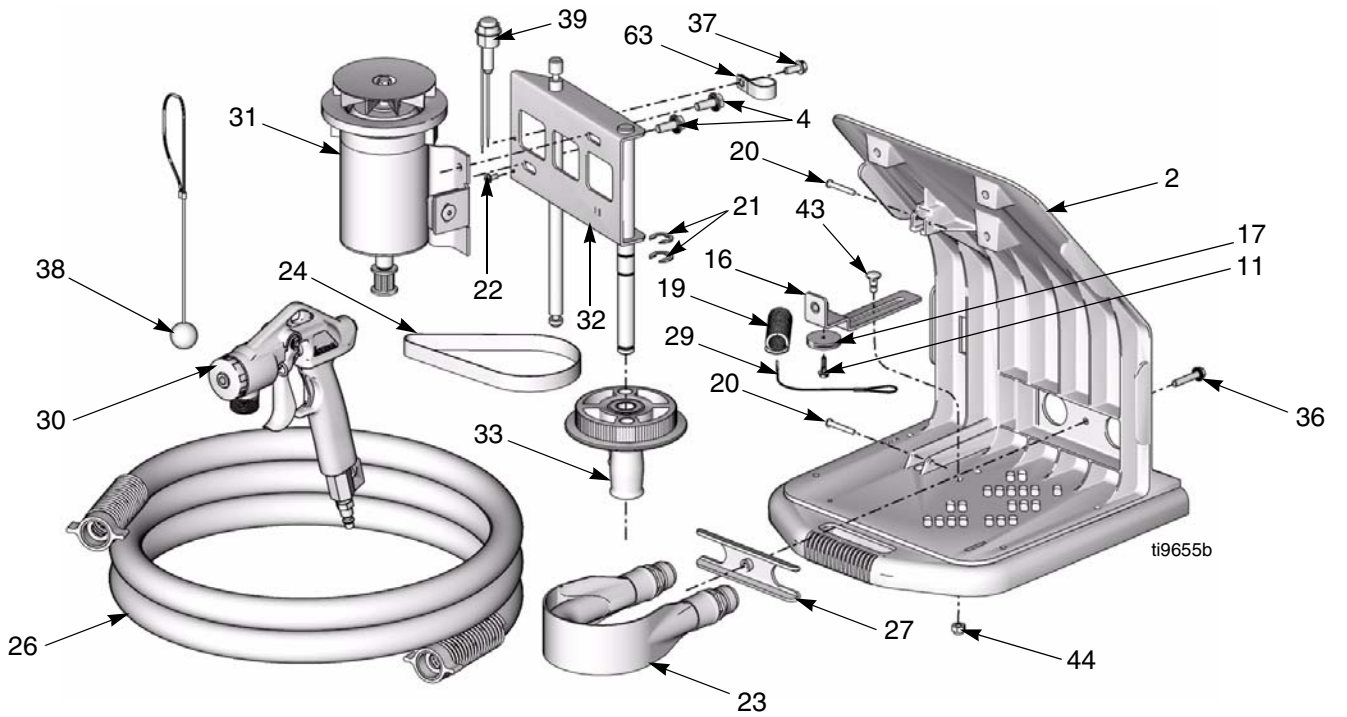
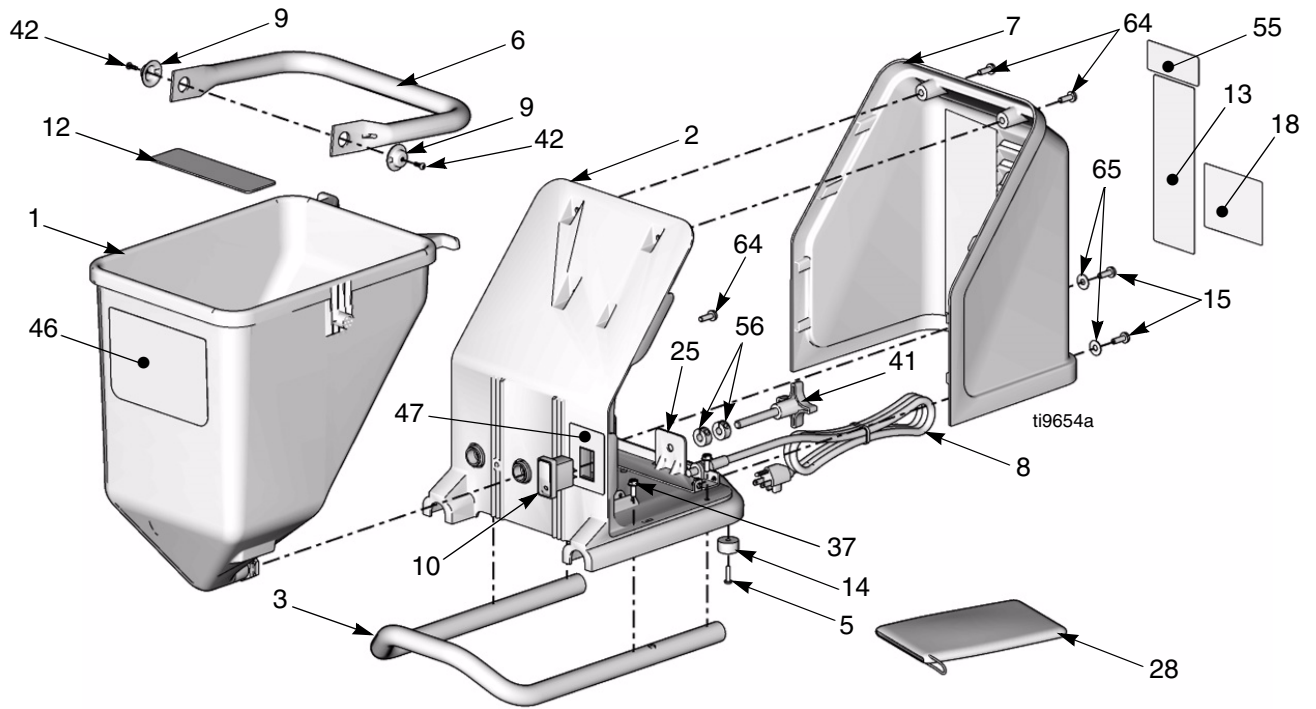
# Wiring Diagram





# Parts

Models 254973



# Parts

## Models 254973

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	15K225	HOPPER, 5 gallon	1	28	15J506	BAG, accessories	1
2	15J181	BASE	1	29	120658	CABLE, extension	1
3	15K227	FRAME, tubular, painted, silver	1	30	288629	GUN, spray, texture	1
4	117791	SCREW, cap, tri lobe	2	31	288740	MOTOR (includes item 39)	1
5	120783	SCREW, mach, pnh	3	32	288229	TRAY, motor, weld	1
6	15K228	HANDLE, tubular, painted, silver	1	33	288225	PULLEY, w/rollers	1
7	288608	COVER, adjustable	1	36	120444	SCREW, hex hd, flanged	1
8	15J505	CORD, power	1	37	117633	SCREW, slot hex wash hd	5
9	120817	FASTENER, push-on hat w/hole	2	38	15C090	GAUGE, thickness, fluid	1
10	117693	SWITCH, power	1	39	288739	FUSE, Bussman GMF-3 (3A)	1
11	120700	SCREW, shoulder	1	41	15K143	KNOB	1
12	15J222	GUARD, burp	1	42	114538	SCREW, mach, torx, pan hd	2
13▲ †	15K512	LABEL, warning	1	43	120757	SCREW, carriage, shoulder	1
14	15J388	DAMPENER, feet	2	44	102040	NUT, lock, hex	1
15	120648	SCREW	2	45	103473	STRAP, tie, wire	2
16	15K154	LEVER, spring, tensioning	1	46▲	15K324	LABEL, hopper RTX 650	1
17	15J459	PULLEY	1	47▲	15K339	LABEL, control	1
18▲	15H868	LABEL, instruction	1	55▲	15E298	LABEL, ident	2
19	120657	SPRING, extension	1	56	120770	SHAFT, collar	2
20	15J510	PIN, detent clevis	2	57	338507	DVD	1
21	101242	RING, retaining, ext.	2	63	120830	CLAMP, loop	1
22	115498	SCREW, mach, slot hex wash hd	2	64	120771	SCREW	3
23	288623	HOSE	1	65	100527	WASHER	2
24	288718	BELT, timing	1				
25	15K155	BRACKET, cover/cord	1				
26	288622	HOSE, coupled, 20 feet	1				
27	15J500	BRACKET, hose	1				

▲Labels are not included with components. They must be ordered separately.

† Additional warning labels are available at no cost.

## Technical Data

Main Unit Power Requirements . . . . .	120 Vac, 60 Hz, 15A, 1 phase
Maximum Fluid Working Pressure . . . . .	50 psi, (3.5 bar)
Maximum Air Working Pressure . . . . .	100 psi (7.0 bar)
Compressor Specifications . . . . .	Universal motor thermally protected, oil-less
Compressor (Not Supplied) . . . . .	3.5 @ 40 psi minimum
Generator (Optional). . . . .	3500 W minimum
Electric Motor . . . . .	Permanent Magnet DC-5A
Power Cord . . . . .	16 AWG, 3-wire, 15 ft
Material Hopper Capacity . . . . .	5 gallons
Maximum Delivery with Texture . . . . .	0.65 gpm
TX 65 Dimensions and Weight	
Length . . . . .	19 in. (482 mm) with handle
Width . . . . .	12 in. (305 mm)
Height (no handle) . . . . .	20 in. (508 mm)
Weight (includes hoses or gun) . . . . .	33 lb (14.9 kg)
Wetted Parts . . . . .	brass, aluminum, plastic
Sound Data (less compressor)	
Sound Pressure Level . . . . .	N/A
Sound Power Level . . . . .	N/A
Storage Temperature Range . . . . .	35°F - 160°F (1.6°C - 71°C)
Operating Temperature Range . . . . .	40°F - 115°F (4°C - 46°C)
Gun:	
Maximum Fluid Working Pressure . . . . .	70 psi (3.5 bar)
Maximum Air Working Pressure. . . . .	125 psi (8.75 bar)
CFM Rating . . . . .	3.0 - 11 CFM
Weight . . . . .	1.1 lb (500 g)

# 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 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.

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.

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## Graco Information

**TO PLACE AN ORDER**, contact your Graco distributor, or call **1-800-690-2894** to identify the nearest distributor.

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