Instructions - Parts List

Fuel Transfer Pump

311304A

For pumping gasoline, diesel fuel, and kerosene. Do not use to pump other fluids including water.

Models 260000 through 260017, 260019 and 260024, 10 gpm (38 lpm), 12 VDC (UL approved)
Models 260020 and 260021, 10 gpm (38 lpm), 24 VDC
Models 260022 and 260023, 12 gpm (45 lpm), 230 VAC
Models 260025 through 260028, 12 gpm (45 lpm), 115 VAC
10 psi (0.07 MPa, 0.7 bar) Maximum Working Pressure

Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.

Contents

PROVEN QUALITY. LEADING TECHNOLOGY.

Graco Inc. P.O. Box 1441 Minneapolis, MN 55440-1441

UL mark applies to 12 VDC models only

Models

Part No.	Hose	Nozzle
12 VDC, 10 gpm (38 lpm), 12.5 Amps		
260000	260069 - 12 ft (3.66 m) grounded, UL listed	260079 - manual, leaded/diesel
260001	260069 - 12 ft (3.66 m) grounded, UL listed	260082 - automatic, regular
260002	260069 - 12 ft (3.66 m) grounded, UL listed	260078 - manual, unleaded
260003	260069 - 12 ft (3.66 m) grounded, UL listed	260083 - automatic, unleaded
260004	260072 - 4 ft (1.22 m) UL listed 260075 - 8 ft (2.44 m) UL listed	260078 - manual, unleaded
260005	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260006	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260007	260074 - 6 ft (1.83 m) grounded, UL listed	260078 - manual, unleaded
260008	260074 - 6 ft (1.83 m) grounded, UL listed	260078 - manual, unleaded
260009	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260010	260070 - 10 ft (3.05 m) UL listed	260078 - manual, unleaded
260011	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260012	260075 - 8 ft (2.44 m) UL listed	260078 - manual, unleaded
260013	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260014	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260015	260075 - 8 ft (2.44 m) UL listed	260078 - manual, unleaded
260016	270071 - 12 ft (3.66 m) UL listed 260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260017	260073 - 5 ft (1.52 m) UL listed	260078 - manual, unleaded
260019	None	None
260024	None	None
24 VDC, 10 gpm (38 lpm), 7 Amps		
260020	260069 - 12 ft (3.66 m) grounded	260079 - manual, leaded/diesel
260021	260069 - 12 ft (3.66 m) grounded	260082 - automatic, regular
230 VAC, 12 gpm (45 lpm), 2 Amps		
260022	260069 - 12 ft (3.66 m) grounded	260078 - manual, unleaded
260023	260069 - 12 ft (3.66 m) grounded	260083 - automatic, unleaded
115 VAC, 12 gpm (45 lpm), 1 Amp		
260025	260069 - 12 ft (3.66 m) grounded	260079 - manual, leaded/diesel
260026	260069 - 12 ft (3.66 m) grounded	260082 - automatic, regular
260027	260069 - 12 ft (3.66 m) grounded	260078 - manual, unleaded
260028	260069 - 12 ft (3.66 m) grounded	260083 - automatic, unleaded

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

When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources, such as cigarettes and portable electric lamps.
- Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Ground all equipment in the work area.
- Use only grounded hoses.
- 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.

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.

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

PRESSURIZED EQUIPMENT HAZARD

Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow **Pressure Relief Procedure** in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

⚠ WARNING

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.

BURN HAZARD

Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.

Installation

When unpacking pump, check for shipping damage. Report any shipping damage to delivering carrier immediately.

CAUTION
Do not use a curb pump automatic shut-off nozzle with this pump. Use of a curb pump automatic nozzle may cause priming problems, reduced output flow, and motor overheating. If an automatic shut-off nozzle is required, use Graco part number 260082 (regular) or 260083 (unleaded) or Catlow, Inc. part number NCLF-1 (regular) or NCNLF-1 (unleaded).

Mounting Pump

CAUTION
• Ensure tank being used is clean and free of welding slag. • Ensure the tank has a vent to allow air into the tank as the fuel is being pumped out. Failure to vent tank will cause priming problems.

1. Apply fuel compatible sealant to large thread on bung adapter (5b) (2 in. x 1-1/2 in. reducer fitting). Install bung adapter on fuel tank.
2. Assemble suction tube sections (5c) by applying PVC cement (supplied with your pump) to the inside diameter of the lower section of the suction tube (non-threaded section). Make sure PVC cement is applied to the complete diameter and slide the upper section (threaded section) into the lower section with a twisting motion.

   For tanks deeper than 34 in. (813 mm) you will need a standard 1 in. (25 mm) pipe with 1 in. npt threads on one end. Suction tubes longer than 60 in. (1.52 m) require a foot valve at the bottom of the tube to prevent loss of prime.

3. Cut the suction tube so that it is 2 in. (55 mm) from the bottom of the tank when installed in the tank.
4. Insert inlet gasket (5a/7f) into union nut (1k). Apply a fuel compatible sealant to the threads on the suction tube assembly (5c) and screw the suction tube into the pump inlet (1j).
5. Insert suction tube attached to pump through bung adapter (5b) into tank. Position pump as desired and tighten union nut (1k) on bung adapter (5b).

Mounting Hose and Nozzle

1. Apply fuel compatible sealant to male threads on the street elbow fitting (1m) and screw fitting into the 3/4 in. npt outlet port on the top of pump. Do not over tighten.
2. Apply sealant to threads on both ends of the hose assembly. Screw one end of hose into the female thread on the fitting (1m) and tighten.
3. Screw nozzle onto the other end of hose and tighten.

Electrical Installation 12 VDC and 24 VDC

The following instruction will install the wiring for a negative ground system.

1. Ensure pump switch is OFF.
2. To remove electrical cover (2a), remove four bolts (2c).

   Power cable can be cut to shorter length if 18 feet (5.5 m) is not required. Cut to proper length and proceed with steps 3 and 4.

3. Strip 3 in. (76 mm) of outside insulation from power cable (6c) from end opposite of fuse.
4. Strip 3/8 in. (10 mm) of insulation from red and black wires.
5. Slide strain relief (6b) over end of power cable (6c) on the end just stripped. Male thread of strain relief should be toward stripped end.
6. Insert power cable through conduit thread in electrical cover (2a). Connect wires from power cable to wires from the motor using wire nuts (2e): red to red and black to black.

7. Screw strain relief (6b) into electrical cover (2a).
8. Position power cable (6c) so the large diameter of power cable extends through strain relief (6b).
9. Tighten nut on strain relief to form a seal around the power cable.
10. Reinstall electrical cover (2a) on the pump.
11. Remove 1/2 in. (13 mm) of insulation from wires on the fuse holder end of the power cable.
12. Attach battery clamps (6a) with red sleeve to red wire and black sleeve to black wire. Wire must be crimped to the battery clamp firmly to get a good electrical connection.
13. Connect red wire with fuse holder inline to positive battery terminal. Connect black wire to negative battery terminal.

Electrical Installation 115 VAC and 230 VAC

On 115 VAC and 230 VAC pumps, electrical connections must be made by a licensed electrician per requirements of local, state, and national codes regarding class 1, group D installations. Only rigid conduit with threaded connections should be used. Conduit opening in pump must be sealed with waterproof, fuel-resistant sealant. Failure to comply with this warning could result in injury from electrical shock.

1. Ensure pump switch is OFF and electrical power is disconnected.
2. Install conduit and user-supplied power cord to pump.
3. Strip 3 in. (76 mm) from power cord jacket and 1/2 in. (13 mm) from individual conductor insulation.
4. To remove electrical cover (2a), remove four bolts (2c).
5. Remove 1/2 in. (13 mm) of insulation from power wires inside pump electrical terminal cavity.
6. Insert electrical power wire through conduit opening in back of pump.
7. Using wire nuts (2e), connect wires: green to green, white to white, and black to black.
8. Replace electrical cover.

Priming Pump

1. All pump models will prime with no fluid in the pumping chamber to a height of 5 ft (1.52 m). If pump fails to prime, remove hose from street elbow-fitting on pump outlet and pour 8 oz (0.24 liter) of motor oil into the pump outlet port.
2. If suction height is too great, the pump may lose its prime if the nozzle is opened with the pump turned off.
3. To hold fluid in the suction tube, a check valve (foot valve) may be required on the bottom of tanks with a suction height over 5 ft (1.52 m).
4. The tank must be vented or the pump may not prime or may lose its prime due to a vacuum in the tank.

Operation

Before servicing, turn pump off and open the nozzle to relieve pressure.

CAUTION
Do not operate pump dry. Do not run pump for more than 5 minutes with nozzle closed. Do not operate pump for more than 30 minutes continuously in 1 hour.

On/Off switch lever (8d) is located under nozzle holder. Remove nozzle before turning pump on.

1. Move switch lever (8d) on.
2. Insert nozzle into tank and actuate nozzle lever to dispense fuel.
3. Immediately after fueling turn switch lever (8d) off.

Maintenance

1. Clean inlet strainer (3b) after every 50 hours of operation.
2. To remove inlet strainer (3b), remove four screws (3c) and strainer cover (3a). Remove and clean strainer.
3. If strainer is excessively dirty, clean tank to protect pump and the equipment being fueled.
4. After cleaning strainer, replace strainer and cover. Make sure cover seal (3d/7e) is in place.

Troubleshooting

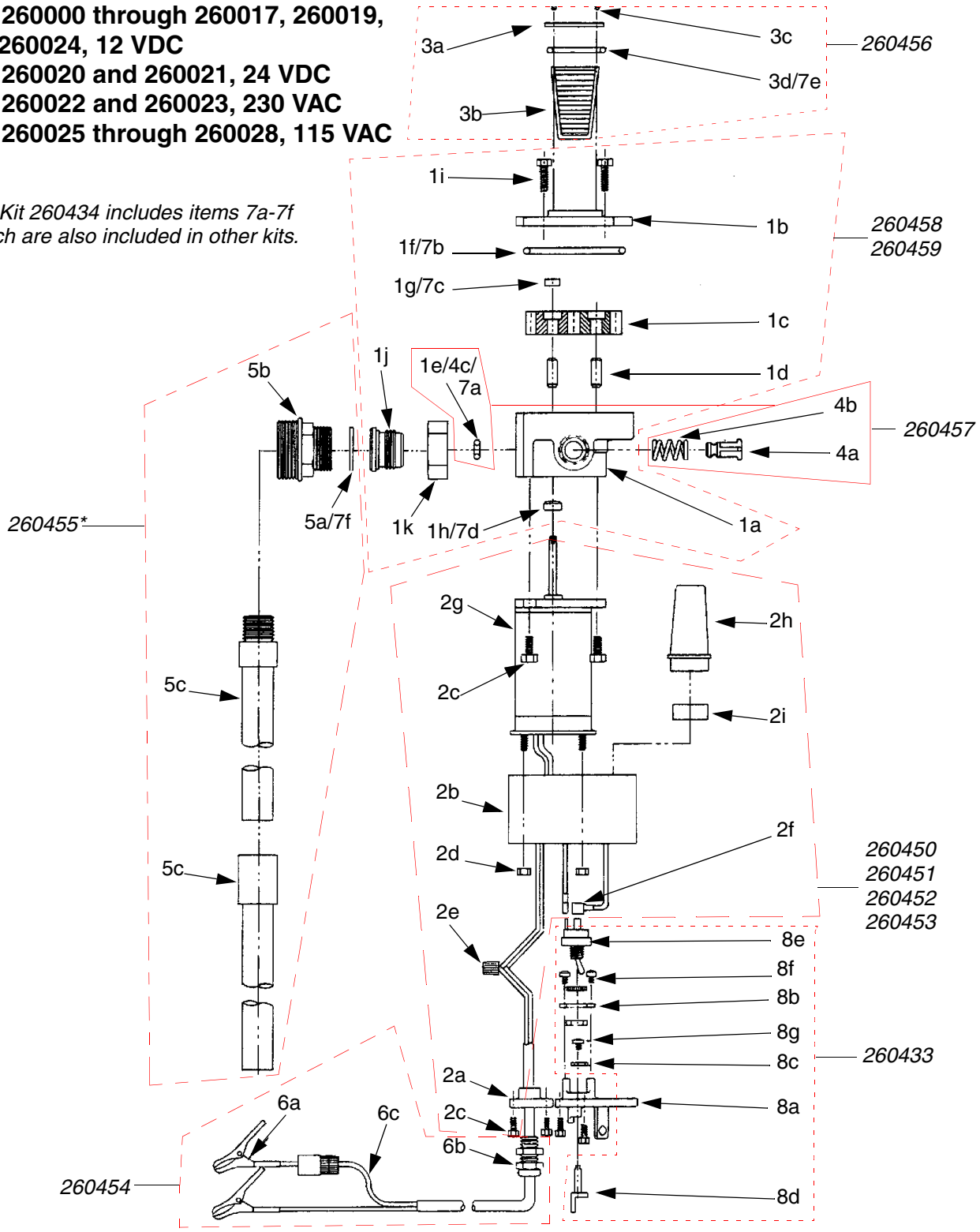
Problem	Cause	Solution
Motor runs but pump will not prime.	Motor rotation wrong. (12 VDC and 24 VDC units only.)	Check wiring instructions for possible problems.
	Missing relief valve o-ring seal (1e/4c/7a).	Remove gear cover (1b) inspect seal (1e/4c/7a), replace if missing or damaged.
	Sheared drive key (1g/7c).	Remove cover (1b) and inspect key (1g/7c), replace if worn or sheared.
	Dirt under relief poppet (4a) or seal (1e/4c/7a).	Remove cover (1b) and inspect, clean or replace if damaged.
	Strainer seal (3d/7e) leaking.	Inspect and replace if damaged.
	Fuel depth too high to prime.	See **Priming Pump**, page 7.
	Worn or damaged gears.	Remove cover (1b) and inspect gears. Replace if worn or damaged.
	Fuel level low.	Refill tank.
	Cover seal (1f/7b) damaged.	Replace if worn or damaged.
	Inlet strainer (3b) clogged.	Remove and clean or replace.
	Air leak in suction tube.	Inspect all joints in suction tube, make sure all joints have sealant applied.
	Air lock in system.	This may occur if filter or meter or automatic shut-off nozzle is used. If this occurs, fill pump and meter with fuel through top of pump.
	Motor does not run at proper speed.	Check electric connections. Check supply voltage for proper voltage level.
Unit pumps but output flow is low.	Clogged inlet strainer (3b).	Clean or replace.
	Air leak in suction tube.	Check to make sure all joints in suction tube are sealed.
	Suction tube too close to tank bottom.	Suction tube must have a 2 in. (51 mm) minimum clearance.
	Tank empty.	Refill tank.
	Tank not vented.	Tank must be vented to atmosphere.
	Worn or damaged gears.	Remove cover (1b) and inspect gears. Replace if worn or damaged.
	Damaged motor.	Replace motor.
	Clogged suction tube, hose, or nozzle.	Inspect and clean.
Motor stalls when nozzle is closed.	Bypass relief valve (4a) stuck.	Inspect relief valve, making sure poppet is free. Replace if damaged.
	Low supply voltage.	Check supply voltage.
	Gears (1c) damaged and binding.	Inspect gears. Gears should turn freely. Replace if damaged.
	Faulty motor.	Replace motor.

Problem	Cause	Solution
Fuel leaking in motor mount.	Faulty or damaged motor shaft seal (1h/7d).	Replace shaft seal
	Operating pump extended time with nozzle closed.	Do not exceed 5 minutes of operation with nozzle closed.
	Motor shaft worn.	Replace motor if shaft has groove worn in seal area.
Motor overheating.	Gears (1c) binding.	Check to make sure gears turn freely on shaft.
	Operating pump extended time with nozzle closed.	Do not exceed 5 minutes of operation with nozzle closed.
	Clogged strainer (3b).	Clean or replace, see **Maintenance**, page 8.
	Clogged suction tube, hose, or nozzle.	Inspect and clean if required.
	Operating pump more than 30 minutes continuous duty.	Limit operation to 30 minutes per hour.
Switch will not turn pump on.	Blown fuse.	Replace fuse.
	Electrical problem.	Check that supply voltage is proper and getting to pump.
	Defective switch (8e).	Check and replace if defective.
	Mechanical problem.	Check switch actuator cam (8c). Cam should be actuating the switch (8e).
	Damaged or defective motor.	Check motor, replace if damaged or defective.

Parts

Models 260000 through 260017, 260019, and 260024, 12 VDC
Models 260020 and 260021, 24 VDC
Models 260022 and 260023, 230 VAC
Models 260025 through 260028, 115 VAC

Packing Kit 260434 includes items 7a-7f which are also included in other kits.



Models 260000 through 260017, 260019, and 260024, 12 VDC
Models 260020 and 260021, 24 VDC
Models 260022 and 260023, 230 VAC
Models 260025 through 260028, 115 VAC

Ref. No.		Description	Qty.
1	260458	KIT, pump with swivel (includes items 1a-1m)	
	260459	KIT, pump without swivel (includes items 1a-1j and 1m)	
	1a	BODY, assembly	1
	1b	COVER, gear	1
	1c	GEAR	2
	1d	SHAFT, gear	2
	1e (4c/7a)	SEAL, relief valve	1
	1f (7b)	SEAL, gear cover	1
	1g (7c)	KEY, drive	1
	1h (7d)	SEAL, shaft	1
	1i	BOLT, hex, 5/16-18 x 3/4 in.	4
	1j	FITTING, inlet	1
	1k	NUT, union (260458 only)	1
	1m*	FITTING, outlet, 3/4 in. npt, street elbow (not shown)	1
2	260450	KIT, motor, 12 VDC (includes items 2a-2i)	
	260451	KIT, motor, 24 VDC (includes items 2a-2i)	
	260452	KIT, motor, 115 VAC (includes items 2a-2i)	
	260453	KIT, motor, 230 VAC (includes items 2a-2i)	
	2a	COVER, electrical	1
	2b	HOUSING, electrical, 12 V	1
	2c	BOLT, hex, 1/4-20 x 3/4 in.	10
	2d	NUT, 10-32	2
	2e	WIRE NUT, 260450 and 260451	2
		WIRE NUT, 260452 and 260453	3
	2f	FLAG TERMINAL	2
	2g	MOTOR, electric	1
	2h	COVER, nozzle	1
	2i	GUIDE, nozzle	1
3	260456	KIT, filter, universal (includes items 3a-3d)	
	3a	COVER, strainer	1
	3b	SCREEN	1
	3c	SCREW, hex head, 10-24 x 3/8 in.	
	3d (7e)	SEAL, strainer cover	1
4	260457	KIT, popoff (includes items 4a-4c)	
	4a	POPPET, relief valve	1
	4b	SPRING, relief valve	1
	4c (1e/7a)	SEAL, relief valve	1
5*	260455	KIT, siphon, universal (includes items 5a-5c)	
	5a (7f)	GASKET, inlet	1
	5b	BUNG ADAPTER, 2 in. x 1-1/2 in.	1
	5c	TUBE, suction, 34 in. (86.4 cm)	1
6**	260454	KIT, cable, 12 V and 24 V only (includes items 6a-6c)	
	6a	CLAMP, battery	2
		BLACK SLEEVE	1
		RED SLEEVE	1
	6b	STRAIN RELIEF	1
	6c	ASSEMBLY, power cable, 20 ft (6.1 m), fuse holder, 20 Amp fuse	1
7	260434	KIT, packing (includes items 7a-7f)	1
	7a (1e/4c)	SEAL, relief valve	1
	7b (1f)	SEAL, gear cover	1
	7c (1g)	KEY, drive	1
	7d (1h)	SEAL, shaft	1
	7e (3d)	SEAL, strainer cover	1
	7f (5a)	GASKET, inlet	1
8	260433	KIT, switch (includes items 8a-8g)	
	8a	COVER, switch	1
	8b	BRACKET, switch	1
	8c	CAM, actuator switch	1
	8d	SWITCH, actuator assy.	1
	8e	SWITCH	1
	8f	SCREW, phillips, 8-32 x 3/8 in.	2
	8g	SCREW, phillips, 6-32 x 1/4 in.	1
9	see pg. 2	ASSEMBLY, hose, 3/4 in. (not shown)	
10	see pg. 2	ASSEMBLY, nozzle, (not shown)	
11▲	15G901	LABEL, warning (not shown)	

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

* *Not used on models 260004, 260006, 260008, 260009, 260010, 260013, 260014, 260015, 260017, 260019 and 260024*

** *Used on 12 VDC and 24 VDC models only*

Technical Data

Working pressure	10 psi (0.07 MPa, 0.7 bar)
Inlet size	1 in. npt
Outlet size	3/4 in. npt
Weight	20 lb (9 kg)
Power cable	18 ft (5.5 m), 14 AWG (12 VDC and 24 VDC models only)
Duty cycle	30 min/hour
Suction tube	1 in. x 34 in. (25.4 mm x 864 mm)
Wetted parts	carbon steel with zinc plating, 416 and 302 stainless steel, Viton®, Buna-N, Aluminum, Valox®, Nylon, Nitrile, PVC, Vellumoid,

Viton® is a registered trademark of the DuPont Company.

Valox® is a registered trademark of the General Electric Company

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.

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Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.
Phone: 612-623-6928 **or Toll Free:** 1-800-533-9655, **Fax:** 612-378-3590

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Graco reserves the right to make changes at any time without notice.

MM 311304

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www.graco.com
Printed in USA 311304A
11/2005