

# Merkur<sup>®</sup> Heated Spray Packages

313255N

EN

For finishing and coating applications requiring heated materials, in hazardous or non-hazardous locations. For professional use only.

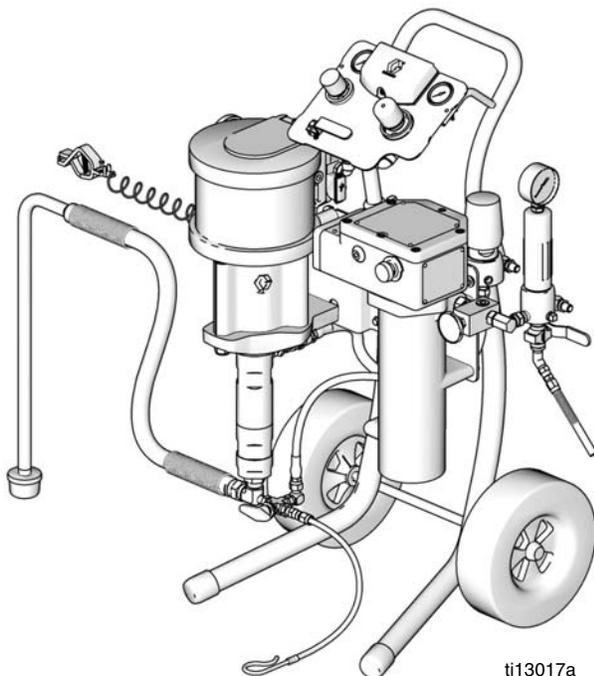


### Important Safety Instructions

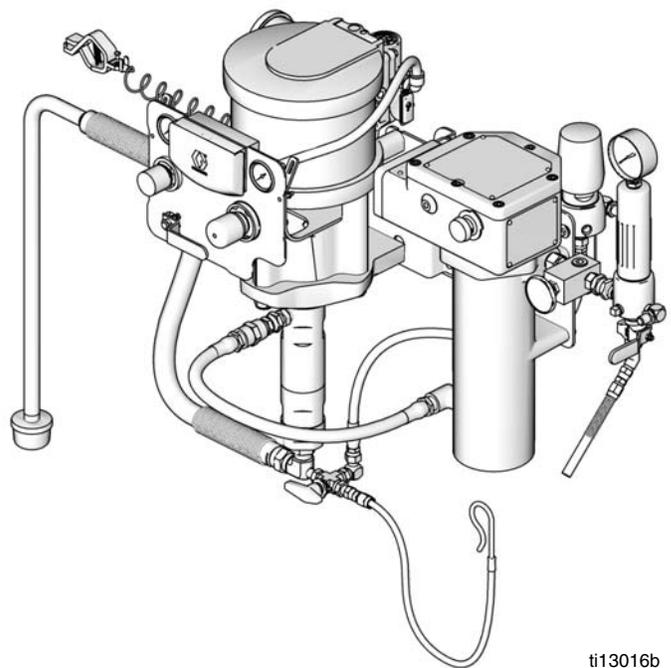
Read all warnings and instructions in this manual.  
Save these instructions.

See pages 5 to 7 for model information, including maximum working pressures and approvals.

Model  
G28C18



Model  
G30W82



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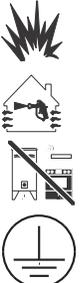
## Related Manuals

Manual	Description
312792	Merkur Displacement Pump
312794	Merkur Pump Assembly
312796	NXT™ Air Motor
312797	Merkur Spray Packages, Ambient
312798	Merkur Electrostatic Spray Packages, Ambient and Heated
3A0149	AA Series Spray Gun (G15, G40, and G40 with RAC)

Manual	Description
312145	XTR™5 and XTR™7 Airless Spray Gun
309524	Viscon® HP Heater
307273	Fluid Outlet Filter
306860	Back Pressure Regulator
307892	Back Pressure Valve

# 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 symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

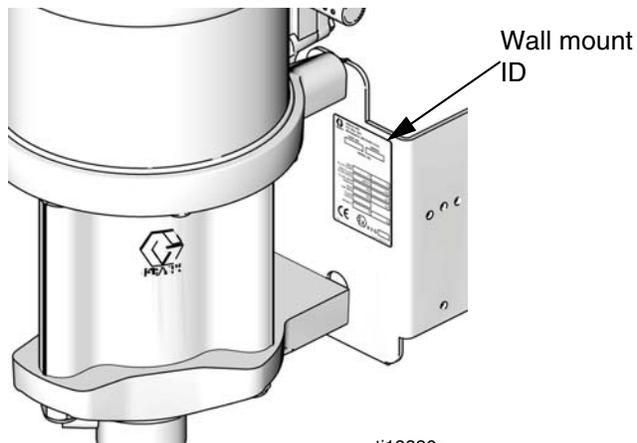
 <h2 style="margin: 0;">WARNING</h2>	
	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>
	<p><b>SPECIAL CONDITIONS FOR SAFE USE</b></p> <p>Equipment must comply with the following conditions to avoid a hazardous condition which can cause fire or explosion.</p> <ul style="list-style-type: none"> <li>• All label and marking material must be cleaned with a damp cloth (or equivalent).</li> <li>• The electronic monitoring system is required to be grounded. See <b>Grounding</b> instructions.</li> </ul>
	<p><b>ELECTRIC SHOCK HAZARD</b></p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> <li>• Turn off and disconnect power at main switch before disconnecting any cables and before servicing equipment.</li> <li>• Connect only to grounded power source.</li> <li>• All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.</li> </ul>
	<p><b>SKIN INJECTION HAZARD</b></p> <p>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. <b>Get immediate surgical treatment.</b></p> <ul style="list-style-type: none"> <li>• Do not point gun at anyone or at any part of the body.</li> <li>• Do not put your hand over the spray tip.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Do not spray without tip guard and trigger guard installed.</li> <li>• Engage trigger lock when not spraying.</li> <li>• Follow <b>Pressure Relief Procedure</b> in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.</li> </ul>

# ⚠️ WARNING

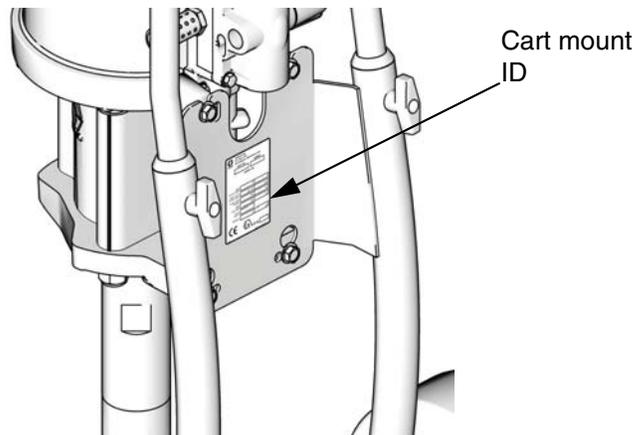
	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the <b>Pressure Relief Procedure</b> in this manual when equipment is not in use.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>
	<p><b>MOVING PARTS HAZARD</b></p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> in this manual. Disconnect power or air supply.</li> </ul>
	<p><b>TOXIC FLUID OR FUMES HAZARD</b></p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> <li>• Read MSDS's to know the specific hazards of the fluids you are using.</li> <li>• Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> <li>• Always wear impervious gloves when spraying or cleaning equipment.</li> </ul>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b></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"> <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>

## Models

Check the identification plate (ID) for the 6-digit part number of your package. Use the following matrix and tables to define the components of your package. For example, package number **G30W80** represents a Merkur package (**G**), with a 30:1 ratio pump (**30**), wall mounting (**W**), and the components shown for (**80**) in the table on page 6.



ti12326a



ti12327a

<b>G</b>	<b>30</b>		<b>W</b>		<b>80</b>
<b>First Digit</b>	<b>Second and Third Digits (Ratio)</b>		<b>Fourth Digit (Mounting Type)</b>		<b>Fifth and Sixth Digit (Components Included)</b>
<b>G</b> (Merkur Package)	<b>28</b>	28:1	<b>C</b>	Cart	See Tables, page 6
	<b>30</b>	30:1	<b>W</b>	Wall	
	<b>48</b>	48:1			

DataTrak™ has the following agency approvals.

  
 Intertek  
 9902471  
 Class I, Div. 1,  
 Group D T3A

  
 0359

 II 1 G  
 Ex ia IIA T3 Ga  
 ITS13ATEX27862X

## Merkur 28:1 Heated Packages (G28Wxx and G28Cxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum Fluid Working Pressure: 2800 psi (19.3 MPa, 193 bar)

Model		Pump Assembly	Heater	Gun	Air Controls		Hoses			Options			Maximum Fluid Flow Rate gpm (lpm)
Wall Mount	Cart Mount				Pump Only	Pump and Gun	Gun Fluid Hose	Gun Fluid Whip Hose	Gun Air Hose	Siphon Kit	Fluid Filter	DataTrak	
G28W07	G28C05	W28EAS	120V	XTR	✓		✓	✓		✓	✓		2.0 (7.5)
G28W08	G28C06	W28EBS	120V	XTR	✓		✓	✓		✓	✓	✓	
G28W09	G28C07	W28EAS	240V	XTR	✓		✓	✓		✓	✓		
G28W10	G28C08	W28EBS	240V	XTR	✓		✓	✓		✓	✓	✓	
G28W17	G28C15	W28EAS	120V	G40		✓	✓		✓	✓	✓		
G28W18	G28C16	W28EBS	120V	G40		✓	✓		✓	✓	✓	✓	
G28W19	G28C17	W28EAS	240V	G40		✓	✓		✓	✓	✓		
G28W20	G28C18	W28EBS	240V	G40		✓	✓		✓	✓	✓	✓	

## Merkur 30:1 Heated Packages (G30Wxx and G30Cxx)

Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)

Maximum Fluid Working Pressure: 3000 psi (20.7 MPa, 207 bar)

Model		Pump Assembly	Heater	Gun	Air Controls		Hose			Options			Maximum Fluid Flow Rate gpm (lpm)
Wall Mount	Cart Mount				Pump Only	Pump and Gun	Gun Fluid Hose	Gun Fluid Whip Hose	Gun Air Hose	Siphon Kit	Fluid Filter	DataTrak	
G30W67	G30C59	W30CAS	120V	XTR	✓		✓	✓		✓	✓		1.2 (4.5)
G30W68	G30C60	W30CBS	120V	XTR	✓		✓	✓		✓	✓	✓	
G30W69	G30C61	W30CAS	240V	XTR	✓		✓	✓		✓	✓		
G30W70	G30C62	W30CBS	240V	XTR	✓		✓	✓		✓	✓	✓	
G30W79	G30C77	W30CAS	120V	G40		✓	✓		✓	✓	✓		
G30W80	G30C78	W30CBS	120V	G40		✓	✓		✓	✓	✓	✓	
G30W81	G30C79	W30CAS	240V	G40		✓	✓		✓	✓	✓		
G30W82	G30C80	W30CBS	240V	G40		✓	✓		✓	✓	✓	✓	

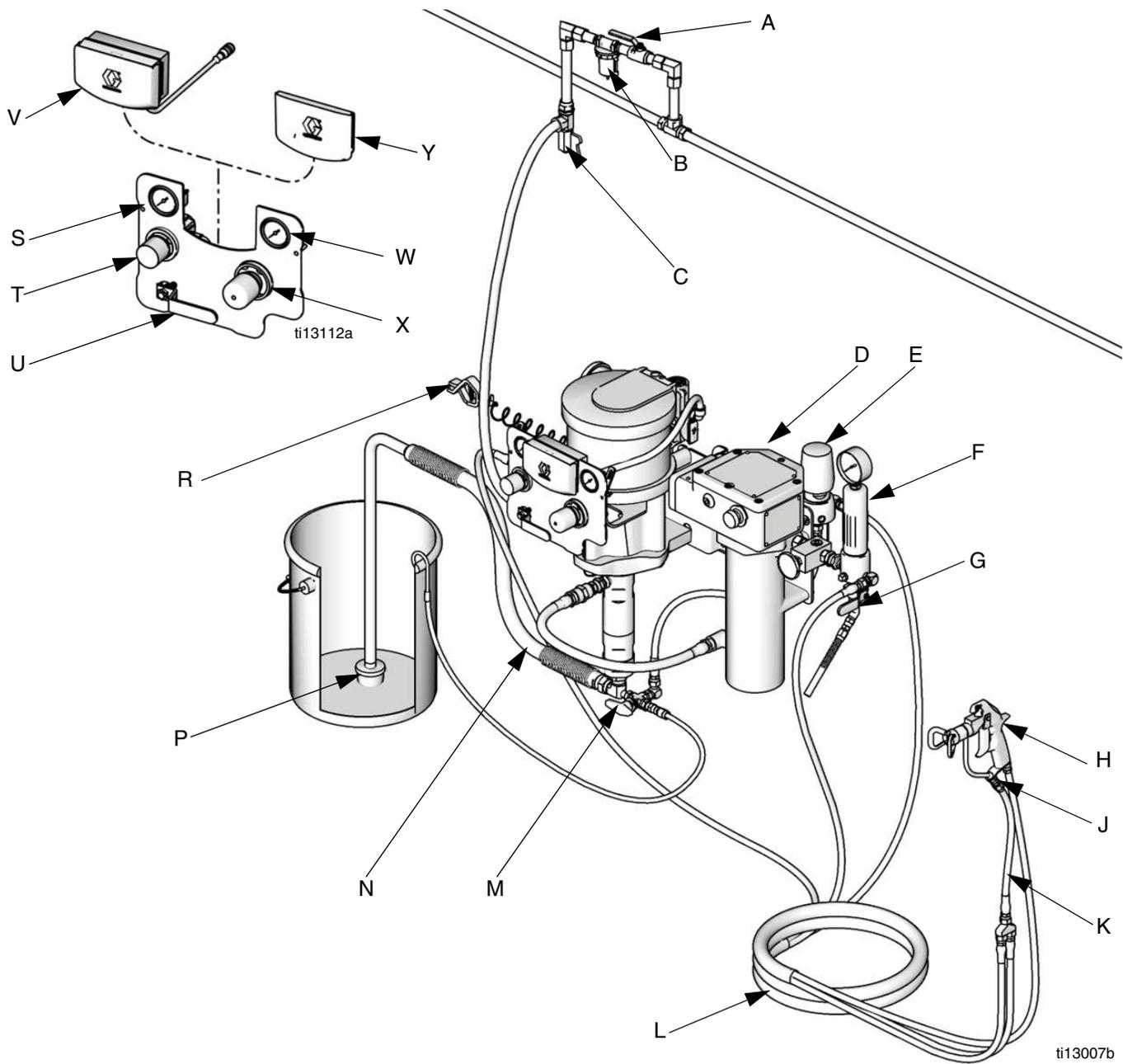
## Merkur 48:1 Heated Packages (G48Wxx)

*Maximum Inlet Air Pressure: 100 psi (0.7 MPa, 7 bar)*

*Maximum Fluid Working Pressure: 4800 psi (33.1 MPa, 331 bar)*

Model		Pump Assembly	Heater	Gun	Air Controls		Hose			Options			Maximum Fluid Flow Rate gpm (lpm)
Wall Mount	Cart Mount				Pump Only	Pump and Gun	Gun Fluid Hose	Gun Fluid Whip Hose	Gun Air Hose	Siphon Kit	Fluid Filter	DataTrak	
G48W17	-----	W48CAS	120V			✓							1.2 (4.5)
G48W18	-----	W48CBS	120V			✓					✓		

# Installation



**FIG. 1: Typical Installation (Your package may not include all items shown.)**

**Key:**

- |   |   |   |  |   |                                      |
|---|---|---|--|---|--------------------------------------|
| A | Air Shutoff Valve (optional accessory)                      | H | Spray Gun  | S | Gun Air Pressure Gauge               |
| B | Air Filter (optional accessory)                             | J | Gun Swivel   | T | Gun Air Pressure Regulator           |
| C | Air Line Moisture Trap and Drain Valve (optional accessory) | K | Fluid Whip Hose  | U | Bleed Type Master Air Valve          |
| D | Fluid Heater  | L | Electrically Conductive, Air and Heated Fluid Supply/Return Hose | V | DataTrak                             |
| E | Back Pressure Regulator                                     | M | 3 Way Valve  | W | Pump Air Pressure Gauge              |
| F | Fluid Filter  | N | Suction Hose and Tube  | X | Pump Air Pressure Regulator          |
| G | Fluid Drain Valve   | P | Strainer   | Y | Insert (for models without DataTrak) |
|   |   | R | Pump Ground Wire   |   |                                      |

## General Information

 Reference numbers and letters in parentheses in the text refer to the callouts in the figures and the parts drawing.

 Always use Genuine Graco Parts and Accessories, available from your Graco distributor. If you supply your own accessories, be sure they are adequately sized and pressure-rated for your system.

FIG. 1 is only a guide for selecting and installing system components and accessories. Contact your Graco distributor for assistance in designing a system to suit your particular needs.

## Prepare the Operator

All persons who operate the equipment must be trained in the operation of all system components as well as the proper handling of all fluids. All operators must thoroughly read all instruction manuals, tags, and labels before operating the equipment.

## Prepare the Site

Ensure that you have an adequate compressed air supply.

Bring a compressed air supply line from the air compressor to the pump location. Refer to the performance charts in your pump assembly manual to find the air consumption of your pump. Be sure all air hoses are properly sized and pressure-rated for your system. Use only electrically conductive hoses. The air hose should have a 3/8 npt(m) thread. A quick disconnect coupling is recommended.

Keep the site clear of any obstacles or debris that could interfere with the operator's movement.

Have a grounded, metal pail available for use when flushing the system.

## Wall Mount Packages

1. Be sure the wall can support the weight of the pump, bracket, hoses and accessories, as well as the stress caused during operation.
2. Position the wall bracket about 4–5 ft (1.2–1.5 m) above the floor. For ease of operation and service, make sure the pump air inlet, fluid inlet, and fluid outlet ports are easily accessible.
3. Using the wall bracket as a template, drill 0.4 in. (10 mm) mounting holes in the wall. Wall mounting dimensions are shown on page 34.
4. Attach the bracket to the wall. Use 3/8 in. (9 mm) screws that are long enough to keep the pump from vibrating during operation.

**NOTE:** Be sure the bracket is level.

## Ventilate the Spray Booth



Provide fresh air ventilation to avoid the buildup of flammable or toxic vapors. Do not operate the gun unless ventilation fans are operating.

Electrically interlock the gun air supply with the ventilators to prevent gun operation without ventilating fans operating. Check and follow all National, State, and Local codes regarding air exhaust velocity requirements.

## Supplied Components

See FIG. 1. **Components vary by package ordered.**  
See tables on pages 6 to 7. Your package may include:

- The red-handled bleed-type master air valve (U) is required in your system to relieve air trapped between it and the air motor and gun when the valve is closed. Do not block access to the valve.

						
Trapped air can cause the pump to cycle unexpectedly, which could result in serious injury from splashing or moving parts.						

- The pump air regulator (X) controls pump speed and outlet pressure by adjusting the air pressure to the pump.
- The air relief valve (not shown) opens automatically to prevent overpressurization of the pump.
- The gun air regulator (T) adjusts the air pressure to the air-assisted spray gun (H).
- The air-assisted or airless spray gun (H) dispenses the fluid. The gun houses the spray tip (not shown), which is available in a wide range of sizes for different spray patterns and rates of flow. Refer to gun manual for tip installation.
- The hose bundle (L) supplies fluid (and air for AA guns) to the gun, and allows recirculation of fluid when the gun is not triggered.
- The gun swivel (J) allows for freer gun movement.
- The suction hose (N) with strainer (P) allows the pump to draw fluid from a 5 gallon (19 liter) pail.
- A fluid filter (F) with a 60 mesh (250 micron) stainless steel element filters particles from fluid as it leaves the pump.
- DataTrak (V) provides pump diagnostics and material usage information. See page 19.
- The back pressure regulator (E) controls pressure back to the gun and maintains proper circulation pressure.

- The 3-way valve (M) allows choice to circulate fluid back to the pump or return it to the supply container.
- A fluid drain valve (G) relieves fluid pressure in the hose and gun.
- The fluid heater (D) heats the fluid as it passes through, to maintain the correct spraying viscosity.

Read and understand all instructions in the supplied heater manual 309524 before operating the heater.

						
Heat causes fluid to expand. If the heated fluid is trapped with nowhere to expand, it can cause component rupture. Be sure to keep the heated fluid circulating (turn the 3-way valve to CIRC). Do not install a fluid shutoff device between the heater and the gun.						

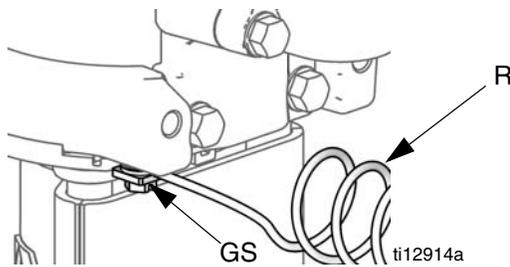
## Grounding

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The equipment must be grounded to reduce the risk of static sparking and electric shock. Electric or static sparking can cause fumes to ignite or explode. Improper grounding can cause electric shock. Grounding provides an escape wire for the electric current.

The equipment must be grounded. Grounding reduces the risk of static and electric shock by providing an escape wire for the electrical current due to static build up or in the event of a short circuit.

1. Pump: See FIG. 2. Verify that the ground screw (GS) is attached and tightened securely to the air motor. Connect the other end of the ground wire (R) to a true earth ground.



**FIG. 2. Ground screw and wire**

2. Pump fluid hoses: use only electrically conductive fluid hoses. Check electrical resistance of hoses. If total resistance to ground exceeds 25 megohms, replace hose immediately.
3. Viscon HP Heater: refer to the heater manual, supplied.
4. Air compressor: follow manufacturer's recommendations.
5. Spray gun: ground through connection to a properly grounded fluid hose and pump.
6. Fluid supply container: follow your local code.
7. Object being sprayed: follow your local code.

8. Solvent pails used when flushing: follow your local code. Use only metal pails, which are conductive, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts the grounding continuity.
9. To maintain grounding continuity when flushing or relieving pressure, hold a metal part of the spray gun firmly to the side of a grounded metal pail, then trigger the gun.

## Setup

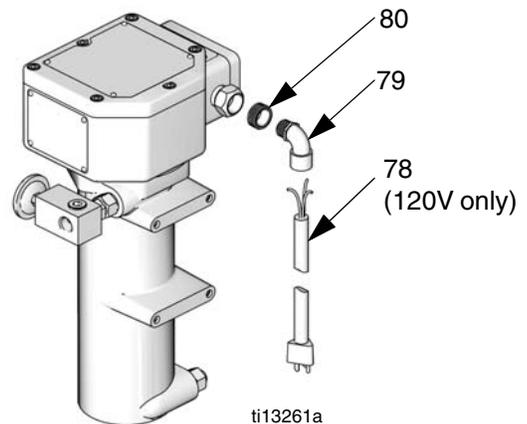
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The Viscon HP Heater must be installed by a qualified electrician in compliance with all state and local codes and regulations.

**Wall Mount Electrical Connections.** Follow all directions and requirements in the Viscon HP Heater manual 309524.

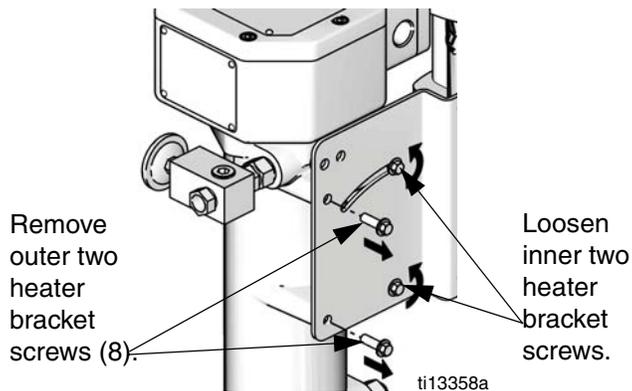
**Cart Mount Hazardous Location Wiring.** The heater is shipped with a fitting that is suitable for wiring in hazardous locations. Follow all directions and requirements in the Viscon HP Heater manual 309524. **Do not use the supplied electrical cord**, which is suitable **only** for non-hazardous location wiring.

**Cart Mount Non-Hazardous Location Wiring.** See FIG. 3. Replace installed fitting with bushing (80), shipped loose. Attach strain relief bushing (79). Follow all directions in the Viscon HP Heater manual 309524 to connect the 120V supplied electrical cord (78), or user-supplied cord for 240V applications.

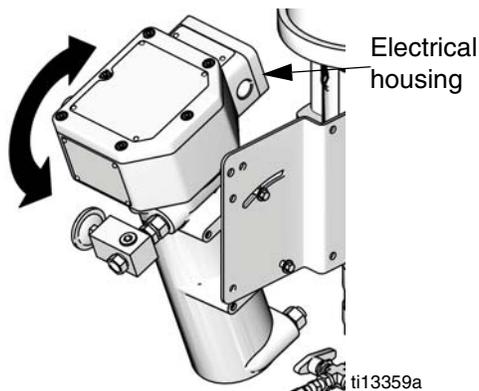


**FIG. 3. Non-Hazardous Location Electrical Cord**

## Electrical Housing Access



Tilt the heater away from the pump for easier access to the screws on the cover of the electrical housing.



## Hose Connections

See FIG. 1, page 8.

1. Attach one end of the air hose to the gun air regulator (T, G40 spray guns only).
2. Attach the other end of the air hose to the air inlet at the base of the gun (G40 spray guns only).
3. Attach gun swivel (J) to the gun fluid inlet.
4. Attach one end of the fluid whip hose (K) to the gun swivel and the other end to the recirculating manifold.
5. Attach one blue fluid hose to the recirculating manifold and to the back pressure regulator (E).
6. Attach the other blue fluid hose to the recirculating manifold and to the filter (F) outlet.
7. Apply lens cover to both regulator gauge lenses.
8. Verify that suction hose fittings and drain hose fittings are tight.

# Operation

## Pressure Relief Procedure



1. Engage the trigger lock.
2. See FIG. 1. Turn off the bleed-type master air valve (U).
3. Disengage the trigger lock.
4. Hold a metal part of the gun firmly to a grounded metal waste container. Trigger the gun to relieve fluid pressure.
5. Engage the trigger lock.
6. Open all fluid drain valves in the system, having a waste container ready to catch the drainage. Leave the drain valve(s) open until you are ready to spray again.
7. If you suspect that pressure has not been fully relieved after following the steps above, check the following:
  - a. The spray tip may be completely clogged. Very slowly loosen the air cap retaining ring to relieve pressure in the cavity between the ball/seat shutoff and the plugged tip. Clear the tip orifice.
  - b. The gun fluid filter or the fluid hose may be completely clogged. Very slowly loosen the hose end coupling at the gun and relieve pressure gradually. Then loosen completely to clear the obstruction.
  - c. After following the steps above, if the spray tip or hose still seems completely clogged, very slowly loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. With tip removed, trigger gun into waste container.

## Flush Before Using Equipment

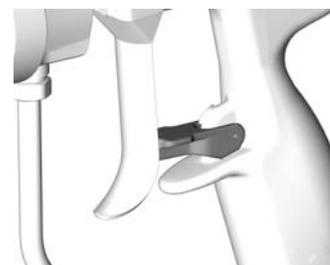
The equipment was tested with lightweight oil, which is left in the fluid passages to protect parts. To avoid contaminating your fluid with oil, flush the equipment with a compatible solvent before using the equipment. See **Flush the Pump**, page 17.

## Trigger Lock



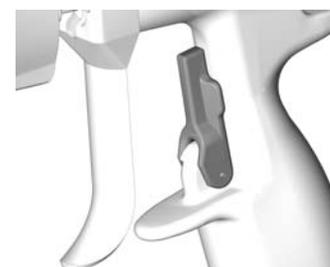
See FIG. 4. Always engage gun trigger lock when you stop spraying to prevent gun from being triggered accidentally by hand or if dropped or bumped.

Gun Trigger  
Safety Locked



TI6581A

Gun Trigger  
Safety Unlocked



TI6582A

**FIG. 4. Trigger Lock**

## Wet Cup



Before starting, fill wet cup 1/3 full with Graco Throat Seal Liquid (TSL) or compatible solvent.

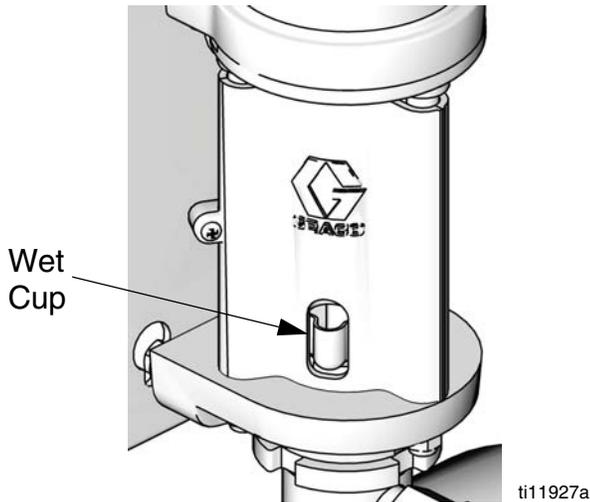


FIG. 5. Wet Cup

## Prime the Pump

1. See FIG. 1. Lock gun trigger. Remove tip guard and spray tip from gun (H). Refer to gun manual.
2. Close gun air regulator (T) and pump air regulator (X) by turning knobs counterclockwise reducing pressure to zero. Close bleed-type air valve (U). Also verify that all drain valves are closed.
3. Connect air line to bleed type air valve (U).
4. Check that all fittings throughout system are tightened securely.
5. Position pail close to pump. Suction hose is about 4 ft (1.2 m) long. Do not stretch hose tight; let it hang to assist fluid flow into pump.
6. Hold metal part of gun (H) firmly to side of grounded metal pail, unlock trigger, and hold trigger open.
7. *Units with runaway protection only:* enable the prime/flush function by pushing the prime/flush button  on the DataTrak.

8. Open bleed-type air valve (U). Slowly turn pump air regulator (X) clockwise, increasing pressure until pump starts.
9. Cycle pump slowly until all air is pushed out and pump and hoses are fully primed.
10. *Units with runaway protection only:* disable the prime/flush function by pushing the prime/flush button  on the DataTrak.
11. Release gun trigger and lock trigger safety. Pump should stall against pressure.

## Install the Spray Tip



Follow **Pressure Relief Procedure**, page 13. Install the spray tip and tip guard as explained in your separate gun manual, supplied.

The fluid output and pattern width depend on the size of the spray tip, the fluid viscosity, and the fluid pressure. Use the Spray Tip Selection Chart in your gun instruction manual as a guide for selecting an appropriate spray tip for your application.

## Adjust the Atomization



- Do not turn on atomizing air supply. Fluid pressure is controlled by the air pressure supplied to the pump (pump air regulator). Set fluid pressure at low starting pressure. For low viscosity fluids (less than 25 sec, #2 Zahn cup) with lower percent solids (typically less than 40%), start at 300 psi (2.1 MPa, 21 bar) at pump outlet. For fluids with higher viscosity or higher solids content, start at 600 psi (4.2 MPa, 42 bar). Refer to the following example.

### Example:

Pump Ratio		Pump Air Regulator Setting psi (MPa, bar)	=	Approximate Fluid Pressure psig (MPa, bar)
15:1	x	20 (0.14, 1.4)	=	300 (2.1, 21)
30:1	x	20 (0.14, 1.4)	=	600 (4.2, 42)

- Hold gun perpendicular and approximately 12 inches (304 mm) from surface.
- Move gun first, then pull gun trigger to spray onto test paper.
- Increase fluid pressure in 100 psi (0.7 MPa, 7 bar) increments, just to the point where a further increase in fluid pressure does not significantly improve fluid atomization. Refer to the following example.

### Example:

Pump Ratio		Pump Air Regulator Increment psi (MPa, bar)	=	Incremental Fluid Pressure psi (MPa, bar)
15:1	x	7 (.05, 0.5)	=	100 (0.7, 7.0)
30:1	x	3.3 (0.02, 0.2)	=	100 (0.7, 7.0)

## Adjust the Spray Pattern

### Packages with Airless Guns

The spray tip orifice and spray angle determine pattern coverage and size. When you need more coverage, use a larger spray tip rather than increasing fluid pressure. Align guard horizontally to spray a horizontal pattern. Align guard vertically to spray a vertical pattern.

### Packages with AA Guns

- See FIG. 6. Close off pattern adjustment air by turning knob (AA) clockwise (in) all the way. This sets gun for its widest pattern.

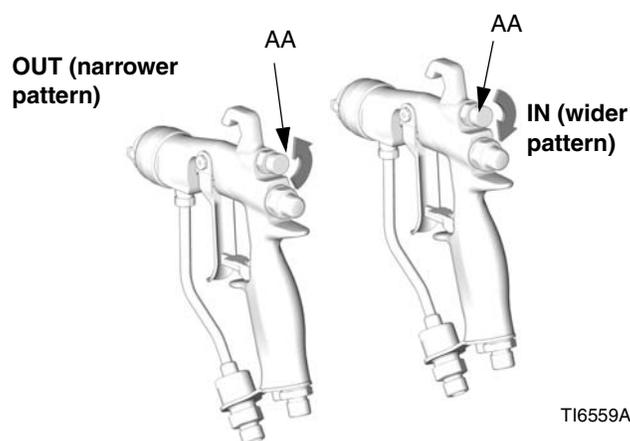


FIG. 6. Pattern Air Knob

- See FIG. 7. Set atomizing air pressure at about 5 psi (0.35 bar, 35 kPa) when triggered. Check spray pattern, then slowly increase air pressure until tails are completely atomized and pulled into spray pattern. Do not exceed 100 psi (0.7 MPa, 7 bar) air pressure to gun.

3. See FIG. 7. For narrower pattern, turn pattern adjustment valve knob (AA) counterclockwise (out). If pattern is still not narrow enough, increase air pressure to gun slightly or use different size tip.

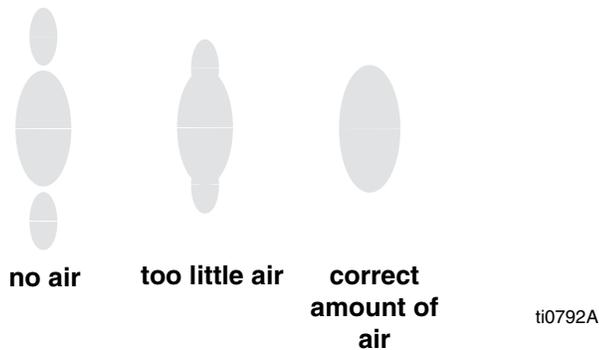


FIG. 7. Spray Pattern Problems

## Shutdown



Follow **Pressure Relief Procedure**, page 13.

Always flush the pump before the fluid dries on the displacement rod. See **Flush the Pump** on page 17.

# Maintenance

## Preventive Maintenance Schedule

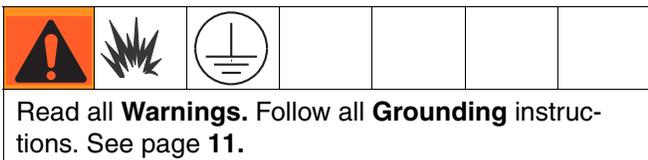
The operating conditions of your particular system determine how often maintenance is required. Establish a preventive maintenance schedule by recording when and what kind of maintenance is needed, and then determine a regular schedule for checking your system.

Replace lens covers on regulator gauge lenses when dirt makes gauges difficult to read.

## Tighten Threaded Connections

Before each use, check all hoses for wear or damage. Replace as necessary. Check that all threaded connections are tight and leak-free.

## Flush the Pump



Flush the pump:

- Before first use
- When changing colors or fluids
- Before repairing equipment
- Before fluid dries or settles out in a dormant pump (check the pot life of catalyzed fluids)
- At the end of the day
- Before storing the pump.

Flush at the lowest pressure possible. Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended flushing fluids and flushing frequency.

1. Follow **Pressure Relief Procedure**, page 13.
2. Remove tip guard and spray tip from gun. Refer to separate gun manual.
3. Place siphon tube in grounded metal pail containing cleaning fluid.
4. Set pump to lowest possible fluid pressure, and start pump.
5. Hold a metal part of the gun firmly to a grounded metal pail.
6. *Units with runaway protection only:* enable the prime/flush function by pushing the prime/flush button  on the DataTrak.
7. Trigger gun. Flush system until clear solvent flows from gun.
8. *Units with runaway protection only:* disable the prime/flush function by pushing the prime/flush button  on the DataTrak.
9. Follow **Pressure Relief Procedure**, page 13.
10. Clean the tip guard, spray tip, and fluid filter element separately, then reinstall them.
11. Clean inside and outside of suction tube.

## Wet Cup

Fill the wet cup one-half full with Graco Throat Seal Liquid (TSL). Maintain level daily.

# Troubleshooting

						
<p><b>Relieve the pressure</b> before checking or servicing the equipment.</p>						

**NOTE:** Check all possible problems and causes before disassembling the pump.

Problem	Cause	Solution
Pump fails to operate.	Restricted line or inadequate air supply; closed or clogged valves.	Clear line or increase air supply. Check that the valves are open.
	Obstructed fluid hose or gun; fluid hose ID is too small.	Open, clear*; use hose with larger ID.
	Fluid dried on the displacement rod.	Clean; always stop the pump at the bottom of its stroke; keep the wet-cup 1/3 filled with Graco throat seal liquid (TSL).
	Dirty, worn, or damaged air motor parts.	Clean or repair air motor. See manual 312796.
	DataTrak models only: Air valve cannot cycle because solenoid pin is extended	Enable runaway protection (See <b>DataTrak Operation, Setup Mode</b> , page 20). Bleed air from motor. Press  on the DataTrak display to retract solenoid pin.
Pump operates, but output is low on both strokes.	Restricted line or inadequate air supply; closed or clogged valves.	Clear line or increase air supply. Check that the valves are open.
	Obstructed fluid hose or gun; fluid hose ID is too small.	Open, clear*; use hose with larger ID.
	Worn packings in displacement pump.	Replace packings. See manual 312794.
Pump operates, but output is low on downstroke.	Held open or worn ball check valves or piston packings.	Clear valve; replace packings. See manual 312794.
Erratic or accelerated pump speed.	Exhausted fluid supply.	Refill and prime.
	Held open or worn ball check valves or packings.	Clear valve, replace packings; see manual 312794.
Fluid being pumped is visible in the TSL reservoir.	Worn throat packings.	Replace throat packings. See manual 312794.

\* To determine if the fluid hose or gun is obstructed, relieve the pressure. Disconnect the fluid hose and place a container at the pump fluid outlet to catch any fluid. Turn on the air just enough to start the pump. If the pump starts when the air is turned on, the obstruction is in the hose or gun.

# DataTrak Controls and Indicators

## Key for FIG. 8

- AA Runaway Limit, in cycles per minute (user settable; 00=OFF)
- AB Lower Displacement (user settable)
- AC Flow Rate Units (user settable to  $\updownarrow$ /min, gpm [US], gpm [Imperial], oz/min [US], oz/min [Imperial], l/min, or cc/min)
- AD LED (fault indicator when lit)
- AE Display
- PF Prime/Flush Key (Enables Prime/Flush mode. While in Prime/Flush mode, runaway protection is disabled and the batch totalizer [BT] will not count.) LED will flash while in Prime/Flush mode.

- RK Reset Key (Resets faults. Press and hold for 3 seconds to clear the batch totalizer.) Push to toggle between flow rate and cycle rate. With runaway protection enabled, push to extend and retract the solenoid pin.
- CF Cycle/Flow Rate
- BT Batch Totalizer
- GT Grand Totalizer
- RT Runaway Toggle (enable/disable)
- UT E1 Toggle
- DT E2 Toggle
- ST E5 Toggle

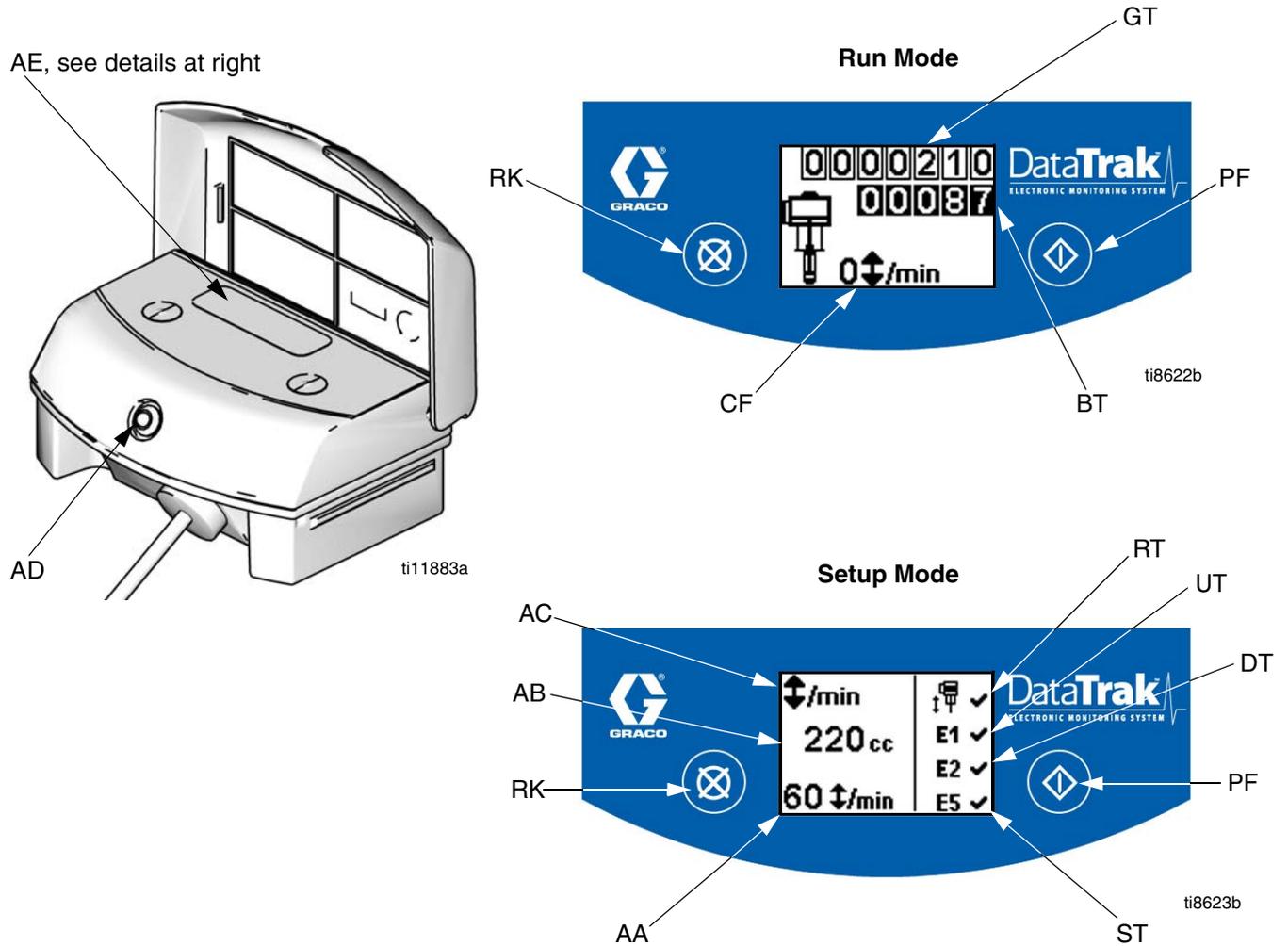


FIG. 8. DataTrak Controls and Indicators

# DataTrak Operation

**NOTE:** The display (AE) will turn off after 1 minute to save battery life. Press any key to wake up the display.

**NOTICE**

To prevent damage to the softkey buttons, do not press the buttons with sharp objects such as pens, plastic cards, or fingernails.

## Setup Mode

1. See FIG. 8. Press and hold  for 5 seconds until Setup menu appears.
2. To enter settings for runaway (if equipped), lower size, and flow rate units, and to enable runaway, E1, E2, and E5 error options, press  to change the value, then  to save the value and move the cursor to the next data field. See page 22 for a description of E1, E2, and E5 error codes.

**NOTE:** Graco recommends setting runaway (if equipped) to 60 . All DataTrak modules are shipped with runaway protection not enabled.

**NOTE:** When runaway, E1, E2, and E5 error options are enabled, a ✓ will appear on the setup screen. See FIG. 8.

3. Move the cursor to the E5 error enable option field, then press  once more to exit Setup mode.

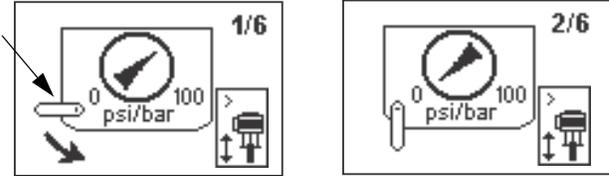
## Run Mode

### Runaway

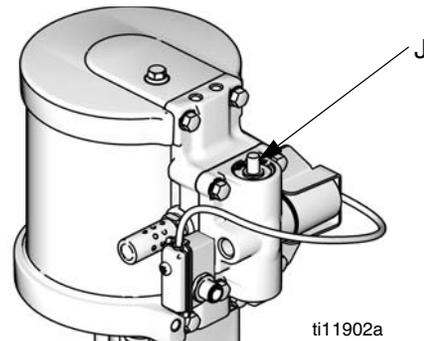
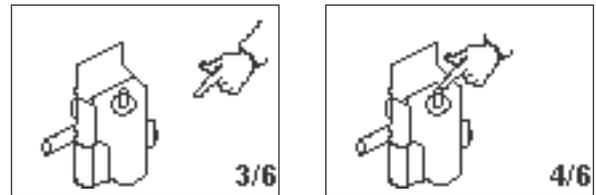
**NOTE:** DataTrak is available with and without runaway protection. Packages with M02xxx air motors ship without a runaway solenoid. All other DataTrak packages are equipped with a runaway solenoid.

1. See FIG. 8. If pump runaway occurs, the runaway solenoid will actuate, stopping the pump. The LED (AD) will flash and the display (AE) will indicate a runaway condition (see Table 1). The display will cycle through six instruction screens.

2. Runaway Screens 1 and 2: To reset the runaway solenoid, close the master air valve (E). Wait for air to completely bleed off the air motor.

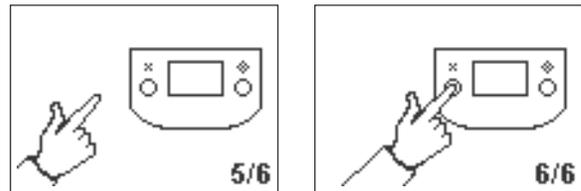


3. Runaway Screens 3 and 4: After the air is bled off, push the solenoid release button (J) down to reset the air valve. The button will pop back up when the air valve is repressurized.



**FIG. 9. Solenoid Release Button**

4. Runaway Screens 5 and 6: Press  to clear the diagnostic code and reset the runaway solenoid.



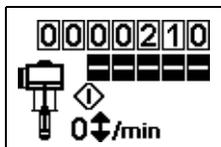
5. Open master air valve (E) to restart pump.

**NOTE:** To disable runaway monitoring, go to setup mode and set runaway value to 0 (zero) or toggle (RT) off  (see FIG. 8).

## Prime/Flush

1. See FIG. 8. To enter Prime/Flush mode, press any key to wake up the display, then press . The Prime/Flush symbol will appear in the display and

the LED will flash



2. While in Prime/Flush mode, runaway protection is disabled and the batch totalizer (BT) will not count. The grand totalizer (GT) continues to count.
3. To exit Prime/Flush mode, press any key to wake up the display, then press . The Prime/Flush symbol will disappear from the display and the LED will stop flashing.

## Counter/Totalizer

See FIG. 8. The last digit of the batch totalizer (BT) represents tenths of gallons or liters. To reset the totalizer, press any key to wake up the display, then press and hold  for 3 seconds.

- If AC is set to gallons or ounces, BT and GT display gallons.
- If AC is set to liters or cc, BT and GT display liters.
- If AC is set to cycles, BT and GT display cycles.

Press  to toggle between flow rate units and cycles. A letter under the BT display indicates that both BT and GT are displaying gallons (g) or liters (l). No letter means both BT and GT are displaying cycles.

## Display

See FIG. 8. The display (AE) will turn off after 1 minute of inactivity in Run mode or 3 minutes in Setup mode. Press any key to wake up the display.

**NOTE:** DataTrak will continue to count cycles when display is off.

**NOTE:** The display (AE) may turn off if a high-level static discharge is applied to the DataTrak. Press any key to wake up the display.

## Diagnostics

DataTrak can diagnose several problems with the pump. When the monitor detects a problem, the LED (AD, FIG. 8) will flash and a diagnostic code will appear on the display. See Table 1.

To acknowledge the diagnosis and return to the normal operating screen, press  once to wake up the display, and once more to clear the diagnostic code screen.

Table 1: Diagnostic Codes

Symbol	Code	Code Name	Diagnosis	Cause
		Runaway (DataTrak only)	Pump running faster than set runaway limit.	<ul style="list-style-type: none"> <li>Increased air pressure.</li> <li>Increased fluid output.</li> <li>Exhausted fluid supply.</li> </ul>
	E-1	Diving Up	Leak during upstroke.	Worn piston valve or packings.
	E-2	Diving Down	Leak during downstroke.	Worn intake valve.
	E-3	Low Battery	Battery voltage too low to stop runaway.	Low battery. Replace battery; see page 23.
	E-4	Service Component 1 (units with runaway protection only)	Problem with stopping runaway.	<ul style="list-style-type: none"> <li>Damaged solenoid.</li> <li>Damaged valve carriage.</li> <li>Runaway (RT, FIG. 8) protection may be enabled with pump that is not equipped with a runaway solenoid valve. Enter setup screen and disable runaway protection.</li> </ul>
	E-4	Disconnected Solenoid (units with runaway protection only)	Solenoid is disconnected.	<ul style="list-style-type: none"> <li>Solenoid unplugged.</li> <li>Damaged solenoid wires.</li> </ul>
			Solenoid is not engaging piston cup (112).	<ul style="list-style-type: none"> <li>Bracket and solenoid not tight against air valve housing.</li> </ul>
	E-5	Service Component 2	Problem with sensing valve movement.	<ul style="list-style-type: none"> <li>Sensors unplugged.</li> <li>Sensors mounted incorrectly.</li> <li>Damaged sensors.</li> <li>Damaged valve carriage.</li> </ul>
	E-6	Blown Fuse	Fuse is blown. Replace fuse; see page 23.	<ul style="list-style-type: none"> <li>Faulty solenoid or solenoid wiring.</li> <li>Extreme temperatures (above 140°F [60°C]).</li> <li>Runaway (RT, FIG. 8) protection may be enabled with pump that is not equipped with a runaway solenoid valve. Enter setup screen and disable runaway protection.</li> </ul>

## Replace DataTrak Battery or Fuse

						
<p>To reduce the risk of fire and explosion, the battery and fuse must be replaced in a non-hazardous location.</p> <p>Use only an approved replacement battery, shown in TABLE 2, and an approved fuse, shown in TABLE 3. Use of an unapproved battery or fuse will void Graco's warranty and Intertek and Ex approvals.</p>						

### Replace Battery

1. Unscrew cable from the back of the reed switch assembly. See FIG. 10.
2. Remove the cable from the two cable clips.

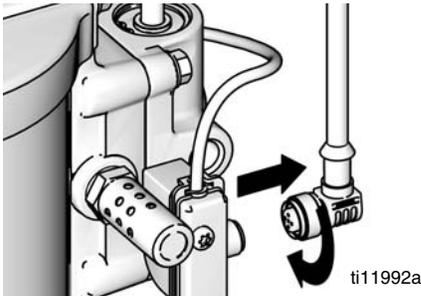


FIG. 10. Disconnect DataTrak

3. Remove DataTrak module from bracket. See FIG. 11. Take module and attached cable to a non-hazardous location.

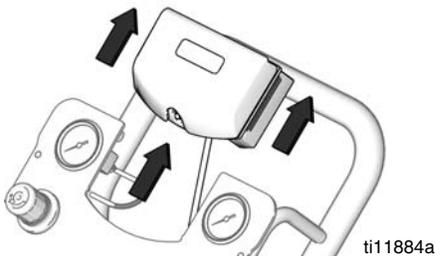


FIG. 11. Remove DataTrak

4. Remove two screws on back of module to access battery.
5. Disconnect the used battery and replace with an approved battery. See Table 2.

**Table 2. Approved Batteries**

Energizer alkaline # 522
Varta alkaline # 4922
Ultralife lithium # U9V
Duracell alkaline # MN1604

## Replace Fuse

1. Remove the screw, metal strap, and plastic holder.
2. Pull the fuse away from the board.
3. Replace with an approved fuse from TABLE 3.

DataTrak Part Number	Series*	Fuse Required
289822	A or B	24C580
	C and later	24V216
All other part numbers	A	24C580
	B and later	24V216

\* FIG. 12 shows where to find the Series letter.

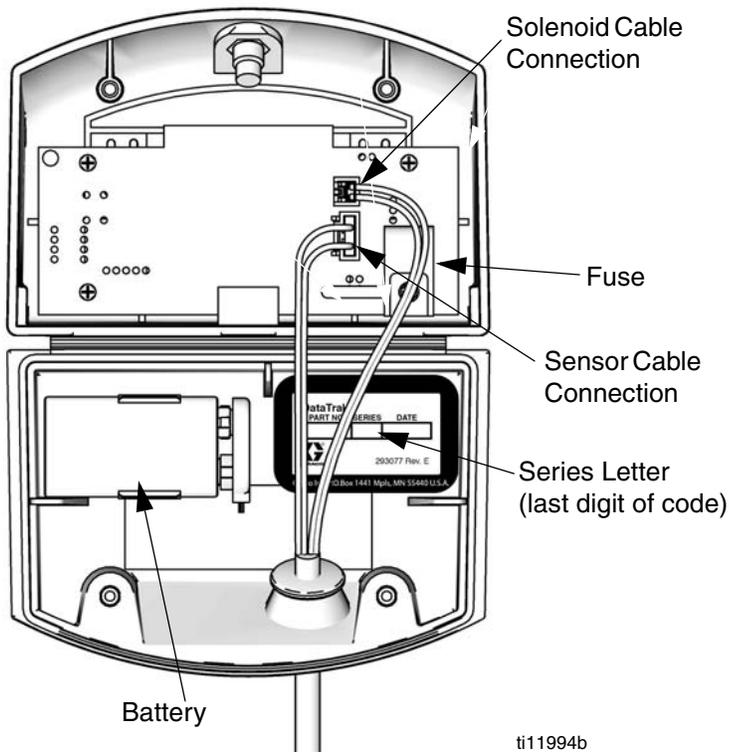
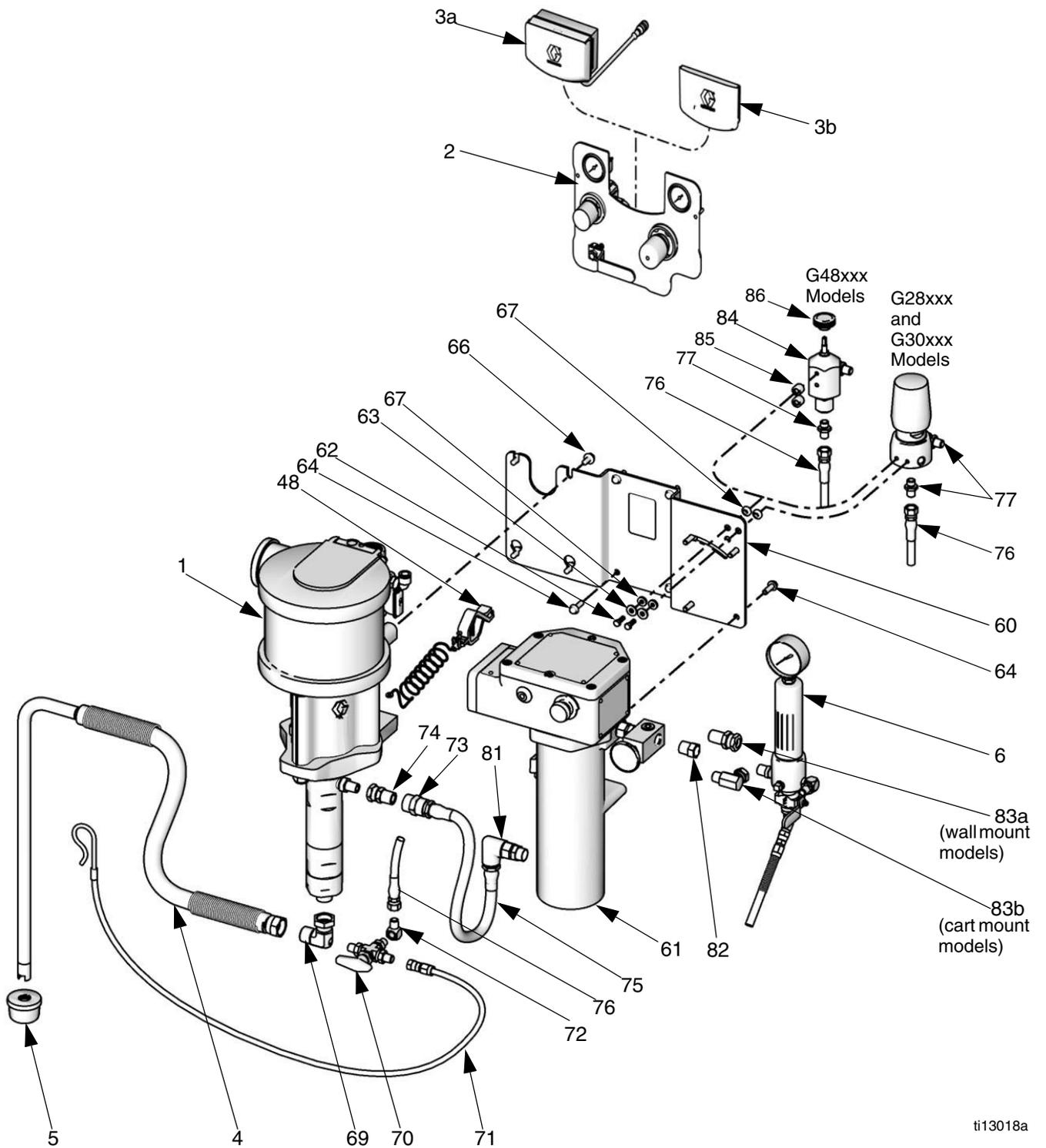


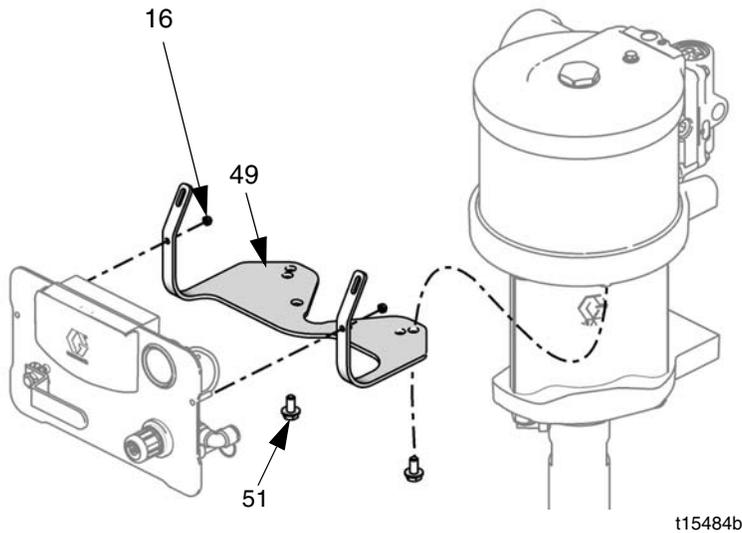
FIG. 12. DataTrak Battery and Fuse Location

# Parts

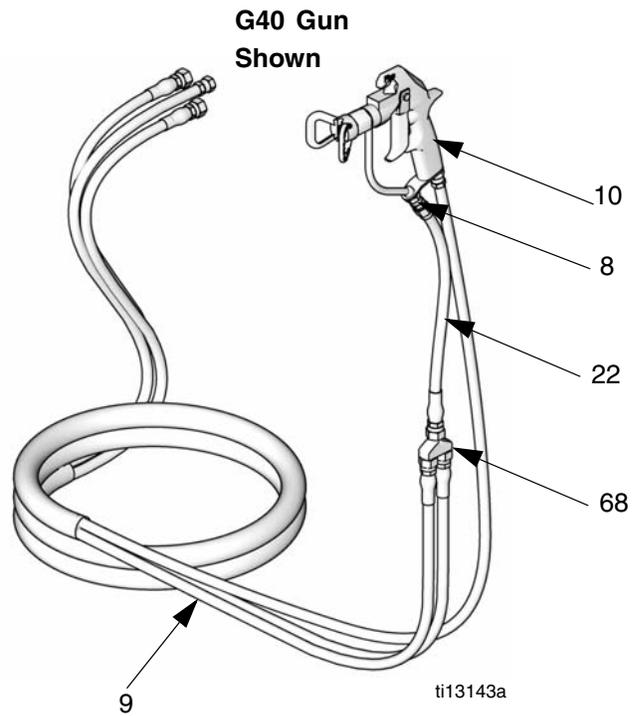
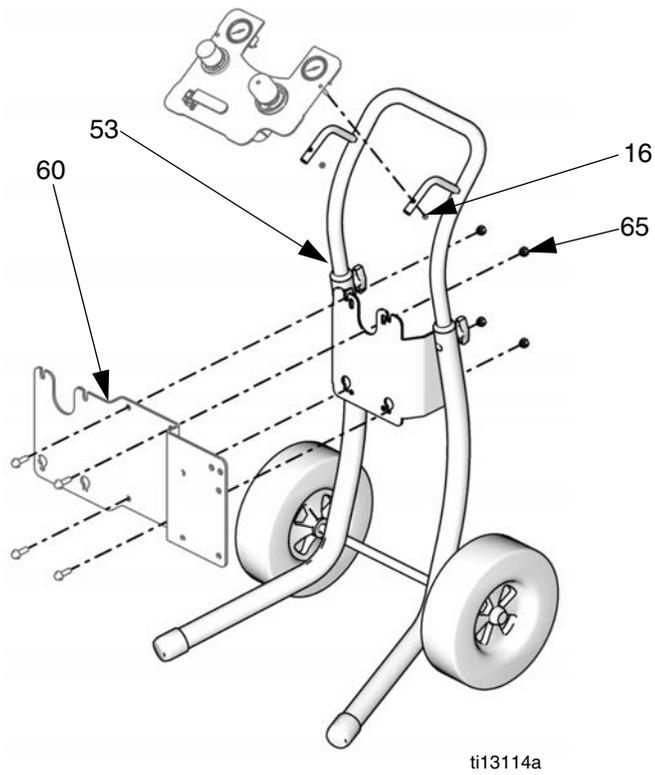
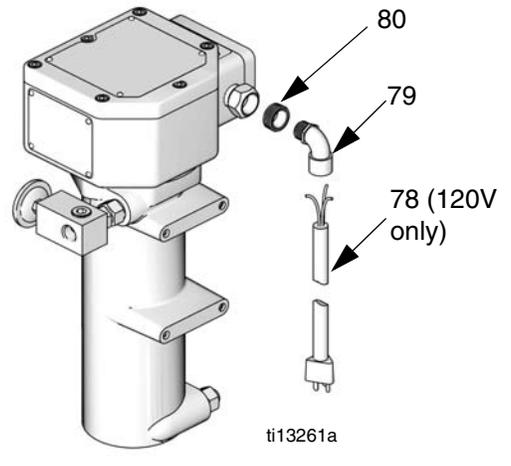
**NOTE:** Parts vary by model. See Parts Lists on pages 27 to 29.



ti13018a



**Non-Hazardous Location Electrical Cord Parts (120V Cart Mount Only)**



## G28xxx Models

Ref. No.	Part No.	Description	Qty.
1	W28EAS W28EBS	PUMP ASSEMBLY M18LN0 x LW125A M18LT0 x LW125A	1
2	24A583 24A581	PANEL, air controls Pump only, <i>see page 32</i> Pump and gun, <i>see page 31</i>	1
3a	24A576	DATATRAK, assembly, <i>see manual 313541</i> .	1
3b	-----	INSERT, panel (included with Part 2)	1
4	256422	HOSE, suction, assembly (includes Part 5)	1
5	-----	STRAINER, suction (included with Part 4)	1
6	239300	FILTER, fluid, sst, <i>see manual 307273</i>	1
8	189018	SWIVEL, fluid hose (packages with AA gun)	1
9	239342 239311	HOSE BUNDLE Packages with XTR gun Packages with G40 gun	1
10	XTR501 24C855	GUN XTR 5 G40	1
11	AAM413	GUN TIP (not shown, packages with G40 gun)	1
12	AAMxxx	TIP OPTION (not shown, packages with G40 gun)	1
16	-----	NUT, lock, M5 x 0.08 (included with Part 49)	2
22	239069	HOSE, fluid, whip, 2 ft (0.6 m)	1
32	-----	COVER, gauge, not shown, 12 per sheet (see page 31 for package of 5 sheets)	1
48	238909	GROUND WIRE, pump	1
49	24E883	AIR CONTROLS MOUNTING KIT, wall mount, (includes 16 and 51)	1
51	-----	SCREW, hex head, M8 x 16 mm (included with Part 49)	2
53	256427	CART MOUNTING KIT, <i>see page 30</i> (GxxCxx models only)	1
54	24A578	WALL MOUNTING KIT, <i>see page 30</i> (GxxWxx models only)	1
60	24A590	BRACKET, heated, kit, includes 64, 65, and 66)	1
61	245848 245863	HEATER, fluid 120V, <i>see manual 309524</i> 240V, <i>see manual 309524</i>	1
62	100022	CAPSCREW, hex hd, 1/4-20 x 3/4 in. (19mm)	2
63	100527	WASHER, 1/4 in.	2
64	-----	SCREW, M8 x 25	8
65	-----	NUT	4
66	-----	SCREW, M8 x 1.25	4
67	167002	INSULATOR, heat	4

Ref. No.	Part No.	Description	Qty.
68	239864	MANIFOLD, recirculating, 1/4 npsm	1
69	15V521	UNION, swivel	1
70	113834	BALL VALVE, 3 way, 1/4 npt(m), sst	1
71	239062	HOSE, drain, nylon, sst fittings, 1/4 in. (6 mm) ID; 1/4 npsm(f)	1
72	166866	ELBOW, 1/4 npt (m x f), sst	2
73	117627	FITTING, coupler	1
74	114190	UNION, swivel	1
75	239153	HOSE, fluid, nylon, sst fittings; 1/2 in (13 mm) ID, 1/2 npt (mbe), 19.5 in. (0.5 m) long	1
76	239108	HOSE, fluid, recirculation	1
77	166846	ADAPTER, 1/4-18 npsm x 1/4-18 npt	3
78	15W730	CORD, electrical (120V cart mount packages only)	1
79	112408	STRAIN RELIEF, 90° (120V cart mount packages only)	1
80	107219 185065	BUSHING For use with supplied cord (120V cart mount packages only), 3/4 npt(m) x 1/2 nptf Supplied with heater for conduit applications	1
81	113934	UNION, swivel, heater inlet, 90°, sst, 1/2 npt(fbe)	1
82	502265	BUSHING, reducer, pipe	1
83a	235207	UNION, swivel, sst, 3/8 npt(m) x 3/8 npsm(f), wall mount packages only	1
83b	207123	UNION, swivel, 90°, cart mount packages only	1
84	238926	REGULATOR, back pressure, sst, <i>see manual 306860</i>	1

----- Not sold separately.

**NOTE:** Replacement Warning labels, signs, tags, and cards are available at no cost.

## G30xxx Models

Ref. No.	Part No.	Description	Qty.
1	W30CAS W30CBS	PUMP ASSEMBLY M12LNO x LW075A M12LTO x LW075A	1
2	24A583 24A581	PANEL, air controls (includes 3b, 42, and 43) Pump only, <i>see page 32</i> Pump and gun, <i>see page 31</i>	1
3a	24A576	DATATRAK, assembly, <i>see manual 313541</i>	1
3b	-----	INSERT, panel (included with Part 2)	1
4	256423	HOSE, suction, assembly (includes Part 5)	1
5	-----	STRAINER, suction (included with Part 4)	1
6	239300	FILTER, fluid, sst, <i>see manual 307273</i>	1
8	189018	SWIVEL, fluid hose (packages with AA gun)	1
9	239342 239311	HOSE BUNDLE Packages with XTR gun Packages with G40 gun	1
10	XTR501 24C855	GUN XTR 5 G40	1
11	AAM413	GUN TIP (not shown, packages with G40 gun)	1
12	AAMxxx	TIP OPTION (not shown, packages with G40 gun)	1
16	-----	NUT, lock, M5 x 0.08 (included with Part 49)	2
22	239069	HOSE, fluid, whip, 2 ft (0.6 m)	1
32	-----	COVER, gauge, not shown, 12 per sheet (see page 31 for package of 5 sheets)	1
48	238909	GROUND WIRE, pump	1
49	24E883	AIR CONTROLS MOUNTING KIT, wall mount, (includes 16 and 51)	1
51	-----	SCREW, hex head, M8 x 16 mm (included with Part 49)	2
53	256427	CART MOUNTING KIT, <i>see page 30</i> (GxxCxx models only)	1
54	24A578	WALL MOUNTING KIT, <i>see page 30</i> (GxxWxx models only)	1
60	24A590	BRACKET, heated, kit, includes 64, 65, and 66)	1
61	245848 245863	HEATER, fluid 120V, <i>see manual 309524</i> 240V, <i>see manual 309524</i>	1
62	100022	CAPSCREW, hex hd, 1/4-20 x 3/4 in. (19mm)	2
63	100527	WASHER, 1/4 in.	2
64	-----	SCREW, M8 x 25	8
65	-----	NUT	4
66	-----	SCREW, M8 x 1.25	4

Ref. No.	Part No.	Description	Qty.
67	167002	INSULATOR, heat	4
68	239864	MANIFOLD, recirculating, 1/4 npsm	1
69	15V522	UNION, swivel	1
70	113834	BALL VALVE, 3 way, 1/4 npt(m), sst	1
71	239062	HOSE, drain, nylon, sst fittings, 1/4 in. (6 mm) ID; 1/4 npsm(f)	1
72	166866	ELBOW, 1/4 npt (m x f), sst	2
73	117627	FITTING, coupler	1
74	236892	UNION, swivel	1
75	239153	HOSE, fluid, nylon, sst fittings; 1/2 in (13 mm) ID, 1/2 npt (mbe), 19.5 in. (0.5 m) long	1
76	239108	HOSE, fluid, recirculation	1
77	166846	ADAPTER, 1/4-18 npsm x 1/4-18 npt	3
78	15W730	CORD, electrical (120V cart mount packages only)	1
79	112408	STRAIN RELIEF, 90° (120V cart mount packages only)	1
80	107219 185065	BUSHING For use with supplied cord (120V cart mount packages only), 3/4 npt(m) x 1/2 nptf Supplied with heater for conduit applications	1
81	113934	UNION, swivel, heater inlet, 90°, sst, 1/2 npt(fbe)	1
82	502265	BUSHING, reducer, pipe	1
83a	235207	UNION, swivel, sst, 3/8 npt(m) x 3/8 npsm(f), wall mount packages only	1
83b	207123	UNION, swivel, 90°, cart mount packages only	1
84	238926	REGULATOR, back pressure, sst, <i>see manual 306860</i>	1

----- Not sold separately.

**NOTE:** Replacement Warning labels, signs, tags, and cards are available at no cost.

## G48Wxx Models

Ref. No.	Part No.	Description	Qty.
1	W48CAS W48CBS	PUMP ASSEMBLY M18LNO x LW075A M18LT0 x LW075A	1
2	24A581	PANEL, air controls, pump and gun (includes 3b, 42, and 43; see <i>page 31</i> )	1
3a	24A576	DATATRAK, assembly, <i>see manual 313541</i>	1
3b	-----	INSERT, panel (included with Part 2)	1
16	-----	NUT, lock, M5 x 0.08 (included with Part 49)	2
32	-----	COVER, gauge, not shown, 12 per sheet (see <i>page 31</i> for package of 5 sheets)	1
48	238909	GROUND WIRE, pump	1
49	24E883	AIR CONTROLS MOUNTING KIT, wall mount, (includes 16 and 51)	1
51	-----	SCREW, hex head, M8 x 16 mm (included with Part 49)	2
54	24A578	WALL MOUNTING KIT, <i>see page 30</i>	1
60	24A590	BRACKET, heated, kit, includes 64, 65, and 66)	1
61	245848	HEATER, fluid, 120V, <i>see manual 309524</i>	1
62	100014	CAPSCREW, hex hd, 1/4-20 x 1.25 in. (31 mm)	2

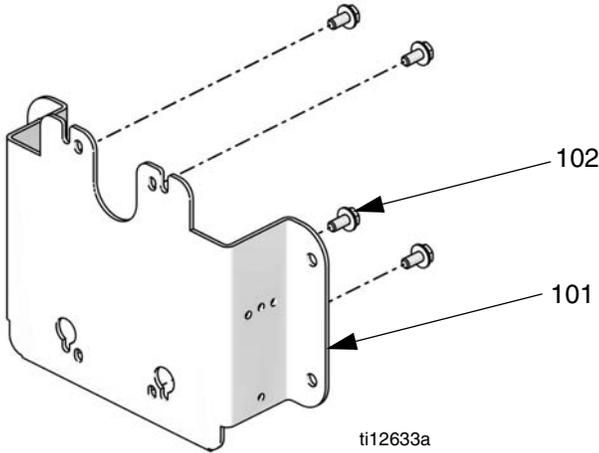
Ref. No.	Part No.	Description	Qty.
63	100527	WASHER, 1/4 in.	2
64	-----	SCREW, M8 x 25	8
65	-----	NUT	4
66	-----	SCREW, M8 x 1.25	4
67	167002	INSULATOR, heat	4
69	15V522	UNION, swivel	1
70	113834	BALL VALVE, 3 way, 1/4 npt(m), sst	1
71	239062	HOSE, drain, nylon, sst fittings, 1/4 in. (6 mm) ID; 1/4 npsm(f)	1
72	166866	ELBOW, 1/4 npt (m x f), sst	2
74	236892	UNION, swivel	1
75	24C406	HOSE, fluid, nylon, sst fittings; 1/2 in (13 mm) ID, 1/2-14 nps(m), 3 ft (0.9 m) long	1
76	239108	HOSE, fluid, recirculation	1
77	112494	ADAPTER, 3/8-18 nps(m) x 1/4-18 npt	1
81	114874	UNION, swivel, heater inlet, 90°, sst, 1/2-14 nps(m) x 1/2-14 npt	1
82	502265	BUSHING, reducer, pipe	1
84	222200	VALVE, back pressure, sst; <i>see manual 307892</i>	1
85	16A619	SPACER	2
86	114593	KNOB	1

----- Not sold separately.

**NOTE:** Replacement Warning labels, signs, tags, and cards are available at no cost.

# Kits

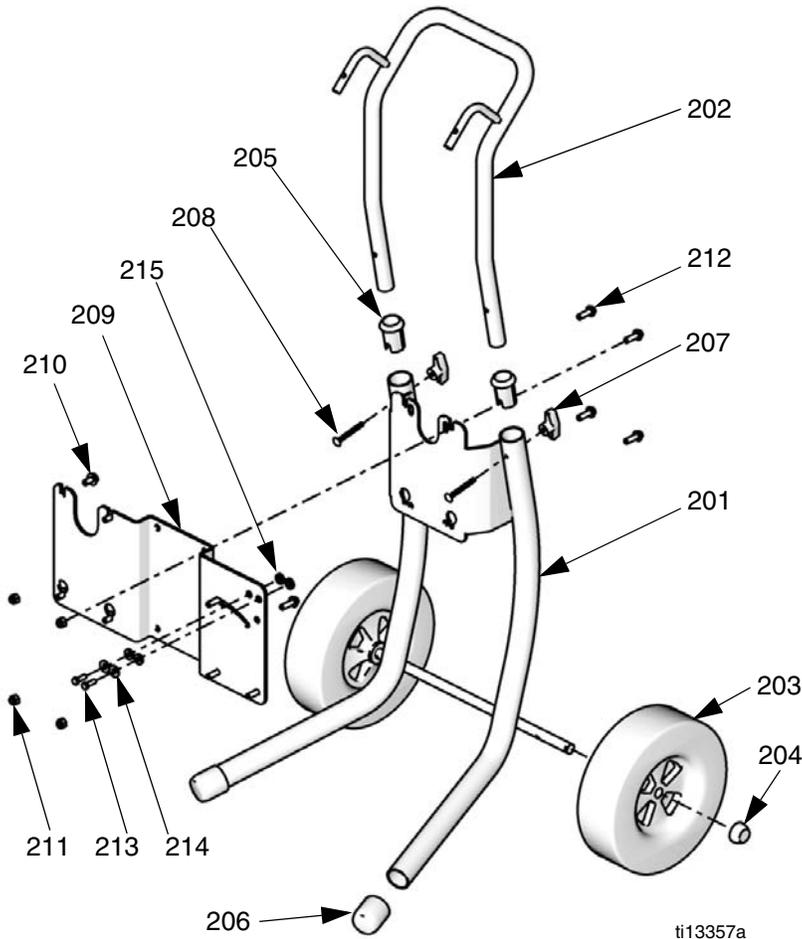
## Wall Mount Kit 24A578



Ref No.	Description	Qty.
101	WALL PLATE, kit, includes screws	1
102	SCREW (included with 101)	4

**NOTE:** Air Controls Mounting Kit 24E883 (Part 49, see page 27, 28, or 29) also is required for wall mounting a package that has a control panel.

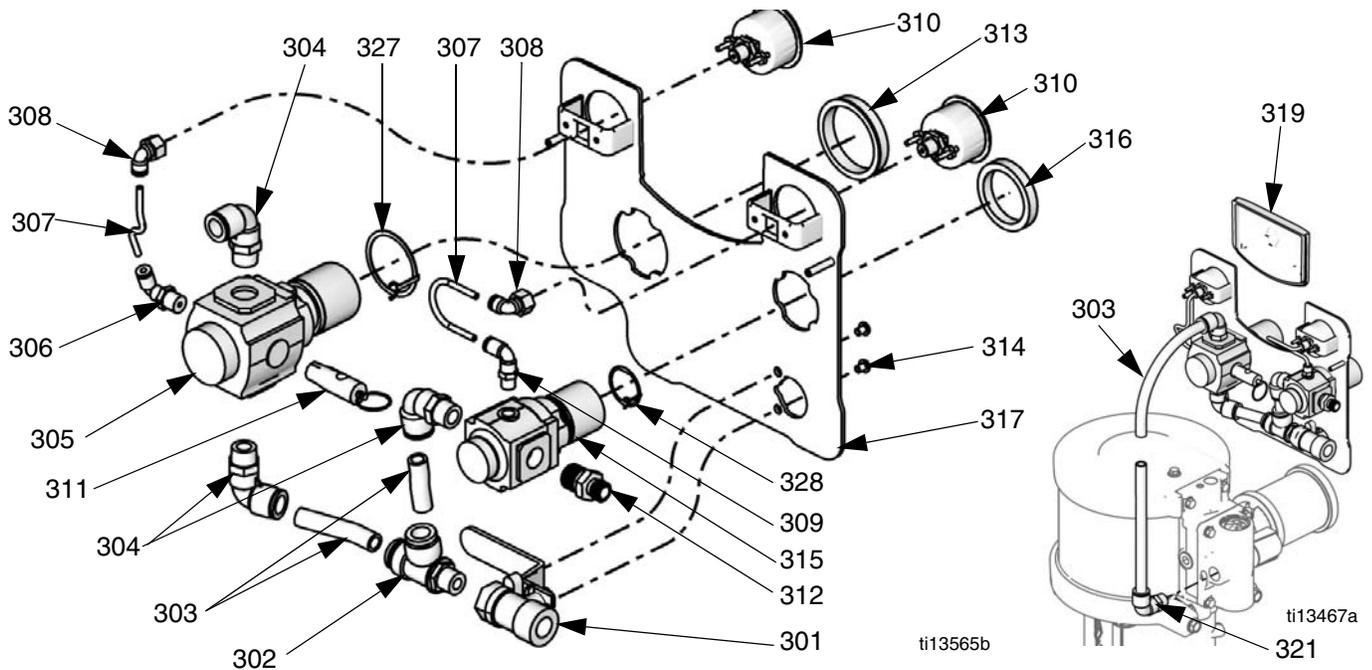
## Heated Cart Mount Kit 256427



Ref No.	Part No.	Description	Qty.
201	----	CART, frame	1
202	----	HANDLE, cart	1
203	119451	WHEEL, semi-pneumatic	2
204	119452	CAP, hub	2
205	----	SLEEVE, cart handle	1
206	15C871	CAP, leg	2
207	115480	KNOB, t-handle	2
208	116630	SCREW, carriage	2
209	----	BRACKET, heater, cart	1
210	111799	SCREW, cap, hex head	4
211	104541	NUT, lock	4
212	115643	SCREW, hex, washer head	8
213	100022	SCREW, cap, hex head	2
214	100527	WASHER, plain	2
215	167002	INSULATOR, heat	4

----- Not sold separately.

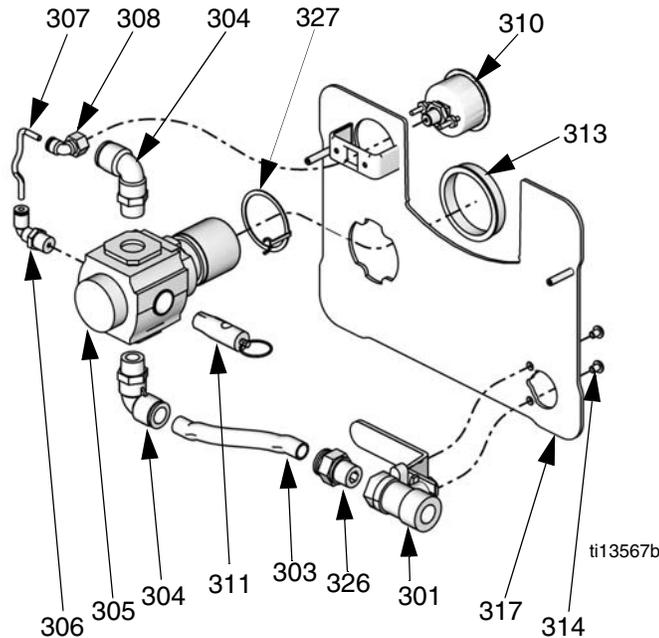
# Pump and Gun Control Panel Kit



## Kit 24A581

Ref.	Part	Description	Qty.
301	114362	VALVE, ball	1
302	15T643	SWIVEL, tee, 3/8 npt(m) x 1/2T	1
303	-----	TUBE, 1/2 OD, cut to fit, order Tubing Kit 24D496	1.3 ft.
304	121212	ELBOW, swivel, 1/2T x 3/8 npt(m)	3
305	15T536	REGULATOR, air, pump, 3/8 npt	1
306	-----	ELBOW, swivel, 5/32 T x 1/4 npt	1
307	-----	TUBE, black, cut to fit, order Tubing Kit 24D496	4 in.
308	15T498	SWIVEL, 90°, 5/32T x 1/8 npt(f)	2
309	15T866	ELBOW, swivel, 5/32T x 1/8 npt	1
310	15T500	GAUGE, pressure	2
311	113498	VALVE, safety	1
312	164672	ADAPTER	1
313	15T538	NUT, regulator	1
314	114381	SCREW, cap, button head	2
315	15T539	REGULATOR, air, gun, 3/8 npt	1
316	116514	NUT, regulator	1
317	-----	PANEL	1
318	-----	LABEL, panel (not shown)	1
319	-----	INSERT	1
320	105332	NUT, lock (not shown)	2
321	15V204	ELBOW, 1/2T x 1/2 npt	1
322	-----	COVER, lens, 12 sticker sheet (not shown), order Kit 24A540 for 5 sheets	1
327	16P814	RING, grounding	1
328	16P813	RING, grounding	1

## Pump Only Control Panel Kit



### Kit 24A583

Ref. Part	Description	Qty.
301	114362 VALVE, ball	1
303	----- TUBE, 1/2 OD, cut to fit, order Tubing Kit 24D496	1.5 ft.
304	121212 ELBOW, swivel, 1/2T x 3/8 npt(m)	2
305	15T536 REGULATOR, air, 3/8 npt	1
306	----- ELBOW, swivel, 5/32 T x 1/4 npt	1
307	----- TUBE, black, cut to fit, order Tubing Kit 24D496	5 in.
308	15T498 SWIVEL, 90°, 5/32T x 1/8 npt(f)	1
310	15T500 GAUGE, pressure	1
311	113498 VALVE, safety	1
313	15T538 NUT, regulator	1
314	114381 SCREW, cap, button head	2
317	----- PANEL	1
318	----- LABEL, panel (not shown)	1
319	----- INSERT (see inset illustration on page 31)	1
320	105332 NUT, lock (not shown)	2
321	----- ELBOW, 1/2T x 1/2 npt (see inset illustration on page 31)	1
322	----- COVER, lens, 12 sticker sheet (not shown), order Kit 24A540 for 5 sheets	1
326	----- FITTING, straight, 1/2T x 3/8 npt(m)	1
327	16P814 RING, grounding	1

# DataTrak

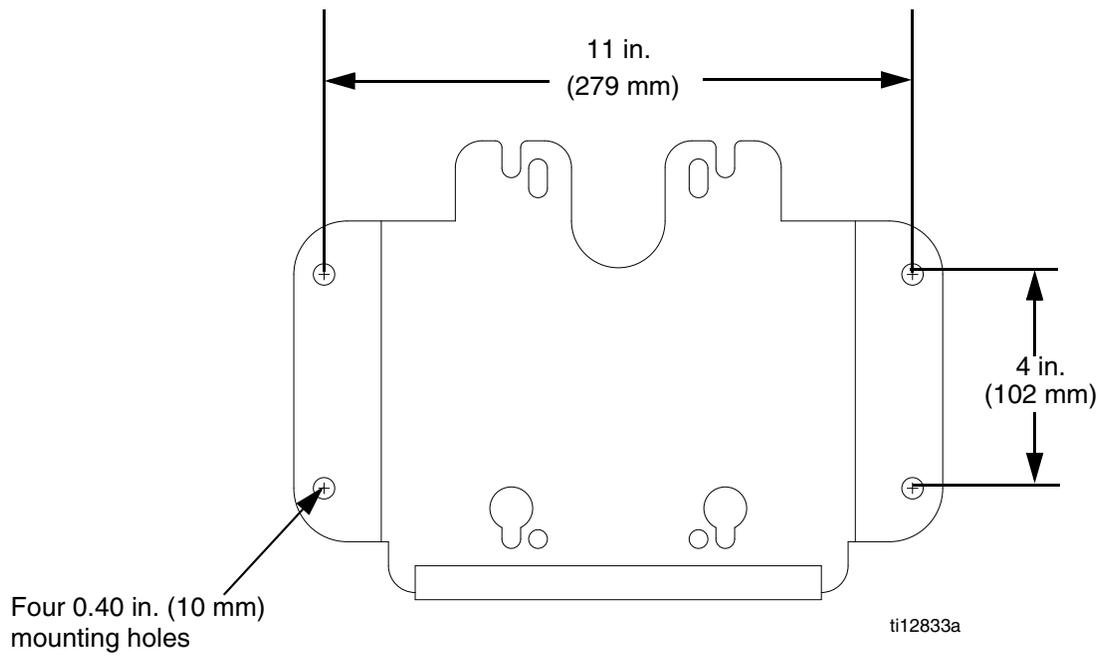
**NOTE:** See DataTrak manual, 313541, for all DataTrak related part numbers and kit information, including the reed switch and solenoid.

# PTFE Suction Hose Kits

**For pumping acid materials that are compatible with PTFE. Includes suction hose, swivel, and strainer.**

<b>Kit</b>	<b>Description</b>	<b>Wall/Cart</b>
<b>24B424</b>	3/4 in. hose, PTFE lined, with straight swivel	Wall
<b>24B425</b>	1 in. hose, PTFE lined, with straight swivel	Wall

# Wall Bracket Mounting Dimensions



## Technical Data

Maximum fluid working pressure . . . . .	See <b>Models</b> table on page 5.
Maximum pump air inlet pressure . . . . .	100 psi (0.7 MPa, 7.0 bar)
Maximum gun working pressure . . . . .	100 psi (0.7 MPa, 7.0 bar)
Ratio . . . . .	See <b>Models</b> table on page 5.
Ambient air temperature range . . . . .	35°F–120°F (2°C–49°C)
Maximum fluid temperature . . . . .	160°F (71°C)
Sound data . . . . .	See Technical Data in air motor manual 312796.
Wetted parts . . . . .	Displacement pump: Stainless steel, tungsten carbide with 6% nickel, UHMWPE, PTFE Spray gun: See Manual 3A0149 (AA guns) or Manual 312145 (XTR gun). Fluid hoses: nylon Suction assembly: stainless steel, nylon Fluid filter: See Manual 307273. Heater: Stainless steel Back pressure regulator: See Manual 306860. Back pressure valve: See Manual 307892. Drain valve: stainless steel, nylon

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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.

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