Supply Systems

For use with non-heated bulk supply of medium to high viscosity sealants and adhesive materials. For professional use only.

Not for use in European explosive atmosphere locations.

**L20c 2 inch single post elevator**
- 20 liter (5 gallon) size
- 100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure

**S20 3 inch single post**
- 20 liter (5 gallon) size
- 125 psi (0.9 MPa, 9 bar) Maximum Air Inlet Pressure

**D60 3 inch dual post**
- 60 liter (16 gallon) size, 30 liter (8 gallon),
- 20 liter (5 gallon) sizes
- 150 psi (1.0 MPa, 10 bar) Maximum Air Inlet Pressure

**D200 3 inch dual post**
- 200 liter (55 gallon), 115 liter (30 gallon),
- 60 liter (16 gallon) size, 30 liter (8 gallon),
- 20 liter (5 gallon) sizes
- 150 psi (1.0 MPa, 10 bar) Maximum Air Inlet Pressure

**D200S 6.5 inch dual post**
- 55 gallon (200 liter), 30 gallon (115 liter) sizes
- 125 psi (0.9 MPa, 9 bar) Maximum Air Inlet Pressure

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**Important Safety Instructions**

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

See page 6 for model information and approvals.

*The Graco Control Architecture Electric Components are Listed in Intertek's Directory of Listed Products.*
Contents

Related Manuals .................................. 3
Warnings ......................................... 4
Models ............................................ 6
Component Identification ....................... 10
  D200 3 in. and D200s 6.5 in. Dual Post ........ 10
  S20 3 in. Single Post and D60 3 in. Dual Post . 11
  L20c 2in. Elevator ............................... 13
  L20c 2 in. Air Controls .......................... 14
Installation ..................................... 15
  General Information ............................. 15
  Location ........................................ 15
  Grounding ....................................... 15
  Mechanical Setup ............................... 16
  Connect Remote DataTrak to Power .......... 16
  Attach and Adjust Drum Low/Empty Sensor . 17
  Light Tower Accessory ........................... 17
  Attach Drum Stops ............................... 18
Supply System Operation ......................... 19
  Pressure Relief Procedure ..................... 19
  Flush Before Using Equipment ................ 19
  Start and Adjust Ram ............................ 19
  Start and Adjust Pump ........................... 21
  Change Drums .................................... 21
  Shutdown and Care of the Pump ............... 22
  Replace Throat Seals ............................ 22
  Remote DataTrak Setup .......................... 23
Remote DataTrak Controls and Indicators ...... 24
Remote DataTrak Operation ....................... 25
  Startup ........................................ 25
  Run Mode ....................................... 25
  Prime Mode ..................................... 26
  Setup Mode ..................................... 26
  Diagnostic Mode ................................. 29
Dimensions ...................................... 34
Schematic ........................................ 36
  Remote DataTrak, Light Tower, Drum Low/Empty
    Sensor .......................................... 36
D200S, D200, S20, and D60 Supply Systems
  Point of Operation Instructions .............. 37
  Start and Adjust Ram ............................ 37
  Start and Adjust Pump ........................... 38
  Change Drums .................................... 38
  Remote DataTrak Operation ..................... 38

L20c Supply Systems
  Point of Operation Instructions .............. 39
  Start and Adjust Ram ............................ 39
  Start and Adjust Pump ........................... 40
  Change Drums .................................... 40
Technical Data .................................. 41
Graco Standard Warranty ......................... 42
Graco Information ............................... 42

Note: The D200s, D200, D60, S20, and L20c Operation
Quick Guides on page 37- 40 can be removed.
## Related Manuals

The following manuals are available at www.graco.com.

Component Manuals in English:

<table>
<thead>
<tr>
<th>Manual</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>313527</td>
<td>Supply Systems Repair-Parts</td>
</tr>
<tr>
<td>313528</td>
<td>Tandem Supply Systems Operation</td>
</tr>
<tr>
<td>313529</td>
<td>Tandem Supply Systems Repair-Parts</td>
</tr>
<tr>
<td>312375</td>
<td>Check-Mate® Displacement Pumps Instructions-Parts</td>
</tr>
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<td>312376</td>
<td>Check-Mate® Pump Packages Instruction-Parts</td>
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<td>Carbon Steel Displacement Pump (1000cc) Instructions-Parts Manual</td>
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<td>312889</td>
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<td>312468</td>
<td>200 cc Check-Mate Displacement Pump Repair Parts Manual</td>
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<td>250 cc Check-Mate Displacement Pump Repair Parts Manual</td>
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<td>500 cc Check-Mate Displacement Pump Repair Parts Manual</td>
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<td>NXT™ Air Motor (Mxxxxx models) Instructions-Parts</td>
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<td>Premier® Air Motor Instructions-Parts</td>
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<td>Air Controls Instructions-Parts</td>
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<td>312491</td>
<td>Pump Fluid Purge Kit</td>
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<td>312492</td>
<td>Drum Roller Kit Instruction</td>
</tr>
<tr>
<td>312493</td>
<td>Light Tower Kit Instruction</td>
</tr>
<tr>
<td>406681</td>
<td>Platen Cover Kit</td>
</tr>
</tbody>
</table>
## 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.

### WARNING

<table>
<thead>
<tr>
<th>SKIN INJECTION HAZARD</th>
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<tbody>
<tr>
<td>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. <strong>Get immediate surgical treatment.</strong></td>
</tr>
<tr>
<td>• Do not point gun at anyone or at any part of the body.</td>
</tr>
<tr>
<td>• Do not put your hand over the dispense outlet.</td>
</tr>
<tr>
<td>• Do not stop or deflect leaks with your hand, body, glove, or rag.</td>
</tr>
<tr>
<td>• Follow <strong>Pressure Relief Procedure</strong> in this manual, when you stop dispensing and before cleaning, checking, or servicing equipment.</td>
</tr>
</tbody>
</table>

### MOVING PARTS HAZARD

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

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

### FIRE AND EXPLOSION HAZARD

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

- Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.
### 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.
- Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the [Pressure Relief Procedure](#) in this manual when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your 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.

### ELECTRIC SHOCK HAZARD
This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock:
- Turn off and disconnect power cord before servicing equipment.
- Use only grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on power and extension cords.
- Do not expose to rain. Store indoors.

### SPLATTER HAZARD
Hot or toxic fluid can cause serious injury if splashed in the eyes or on skin. During blow off of platen, splatter may occur.
- Use minimum air pressure when removing platen from drum.

### TOXIC FLUID OR FUMES HAZARD
Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.
- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
- Always wear impervious gloves when spraying or cleaning equipment.
- If this equipment is used with isocyanate material, see additional information on isocyanites in Isocyanate Conditions Section of this manual.

### 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
Models

Check the identification plate (ID) for the 6-digit part number of the supply system. Use the following matrix to define the construction of the supply system, based on the six digits. For example, Part No. **CM14BA** represents a Check-Mate supply system (CM), a carbon steel Check-Mate 100 MaxLife® displacement pump with an NXT 2200 air motor with remote DataTrak (pump code 14), a 3 in. dual post ram with integrated air controls (B) and a 55-gallon, uncoated platen with a neoprene seal (A).

Systems with the GD as the first and second digits are Dura-Flo supply systems.
Some configurations in the following matrix cannot be built. See the Product Selection guide for available systems.

To order replacement parts, see Parts section in manual 313527. The digits in the matrix on the next page do not correspond to the Ref. Nos. in the Parts drawings and lists.

All supply systems with DataTrak and 24 Vdc or 100-240 Vac power supplies are ETL approved.
<table>
<thead>
<tr>
<th>CM (Supply System with Check-Mate displacement pump)</th>
<th></th>
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<tbody>
<tr>
<td><strong>First and Second Digit</strong></td>
<td><strong>Third and Fourth Digit</strong></td>
<td><strong>Pump Code</strong></td>
</tr>
<tr>
<td><strong>CM</strong></td>
<td><strong>(See Table 1 for 2-digit Check-Mate Pump Code)</strong></td>
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<tr>
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<tr>
<td>2</td>
<td>3 in.</td>
<td>S20c</td>
</tr>
<tr>
<td>3</td>
<td>3 in.</td>
<td>S20</td>
</tr>
<tr>
<td>4</td>
<td>3 in.</td>
<td>D60</td>
</tr>
<tr>
<td>5</td>
<td>3 in.</td>
<td>D200</td>
</tr>
<tr>
<td>6</td>
<td>3 in</td>
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<tr>
<td>7</td>
<td>6.5 in.</td>
<td>D200s</td>
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<tr>
<td>8</td>
<td>6.5 in.</td>
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<tr>
<td>10</td>
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<td>D60</td>
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<table>
<thead>
<tr>
<th>GD (Supply System with Dura-Flo displacement pump)</th>
<th><strong>(See Table 2 for 2-digit Dura-Flo Pump Code)</strong></th>
<th><strong>1 in.</strong></th>
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<td>25</td>
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**Models**

**Ram Options**

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<tr>
<td><strong>Fifth Digit</strong></td>
<td><strong>Platen and Seal Options</strong></td>
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<tr>
<td><strong>Ram Options</strong></td>
<td><strong>Platen Size</strong></td>
<td><strong>Platen Style</strong></td>
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<tr>
<td><strong>DataTrack Voltage</strong></td>
<td><strong>Air Controls</strong></td>
<td><strong>Platen Size</strong></td>
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<td>S20</td>
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<tr>
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</tr>
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<tr>
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</table>

**KEY:**

- **S** = Single post ram
- **i** = 2-Button Interlock
- **F** = Flat
- **SW** = Single wiper
- **c** = Cart mounted
- **s** = 6.5 inch
- **D** = D Style
- **DW** = Double wiper
- **D** = Dual post ram
- **INT** = Integrated air controls
- **DR** = Dual o-ring

*Other Available Models: 262868. This model is the same as CM-11-3-B models, such as CM-11-3-B, but uses Check-Mate Pump P40DCS (NXT2200/CM 100) instead of the other pumps listed on page 8.*
Table 1: Check-Mate Pump Identification Code/Part No. Index

<table>
<thead>
<tr>
<th></th>
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See manual 312376 or the ID plate on the pump to determine pump part number.
## Table 2: Dura-Flo Pump Identification Code/Part No. Index

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NR = Not released
Component Identification

D200 3 in. and D200s 6.5 in. Dual Post

CM14BA Model Shown

Lift Locations

(Note: Do not use motor lift ring to lift entire system.)

Fig. 1

Key:

A  Ram Assembly
B  Air Motor
C  Displacement Pump
D  Platen
E  Remote DataTrak (single ram systems) or Display Module (tandem systems)
G  Integrated Air Controls (see Fig. 3)
H  Air Motor Lift Ring
J  Platen Bleed Port
K  Power Supply Box
M  Blowoff Air Supply Line
N  Platen Lift Rod
P  Pump Bleeder Valve
R  Enclosed Wet Cup
S  Fluid Line (not supplied)
T  Main Air Line (not supplied)
U  Air Line Drain Valve (not supplied)
V  Air Filter (not supplied)
W  Bleed Type Air Shutoff Valve (not supplied)
X  Air Motor Solenoid
S20 3 in. Single Post and D60 3 in. Dual Post

**Model CM9HLB Shown**

**Model CM2MRY Shown**

(Note: Do not use motor lift ring to lift entire system.)

**FIG. 2**

**Key:**

A Ram Assembly
B Air Motor
C Displacement Pump
D Platen
F Remote DataTrak (single ram systems) or Display Module (tandem systems)
G Integrated Air Controls (see Fig. 3)
H Lift Ring
J Platen Bleed Port
K Power Supply Box (under shrouding)
P Pump Bleed Valve
R Enclosed Wet Cup
S Fluid Line (not supplied, see Fig. 1)
T Air Line (not supplied, see Fig. 1)
U Air Line Drain Valve (not supplied, see Fig. 1)
V Air Filter (not supplied, see Fig. 1)
W Bleed Type Air Shutoff Valve (not supplied, see Fig. 1)
X Air Motor Solenoid
Component Identification

Integrated Air Controls

D200, D200s, D60, and S20 Models

The integrated air controls include:

- **Main air slider valve (BA):** turns air on and off to the system. When closed, the valve relieves pressure downstream.

- **Ram air regulator (BB):** controls ram up and down pressure and blowoff pressure.

- **Ram director valve (BC):** controls ram direction.

- **Exhaust port with muffler (BD):**

- **Air motor regulator (BE):** Controls air pressure to motor.

- **Air motor slider valve (BF):** turns air on and off to the air motor. When closed, the valve relieves air trapped between it and the air motor. Push the valve in to shutoff. Remote DataTrak: The air solenoid (X, Fig. 1), the air motor slider valve (BF), and the main air slider valve (BA) must be open for air to flow. (See Remote DataTrak Setup, page 23.)

- **Blowoff button (BG):** turns air on and off to push the platen out of an empty drum.

Air Line Accessories

See Fig. 1.

- **Air line drain valve (U):**

- **Air line filter (V):** removes harmful dirt and moisture from compressed air supply.

- **Second bleed-type air valve (W):** isolates air line accessories and supply system for servicing. Locate upstream from all other air line accessories.

- **Air relief valve** (attached to ram air regulator, not visible): automatically relieves excessive pressure.

2-Button Interlock Air Controls

D60i, D200i, and D200si Models

Units that have 2-Button Interlock controls have the following additional components:

- **2-Button Module:** See manual 312374 for information.

- **Roller switch (CA):** shuts off air supply when it contacts the bracket actuator. Operator must push and hold the activation buttons simultaneously to resume ram movement.

- **Bracket actuator (CB):** attaches to the platen lift rod. When platen is outside of drum, actuator makes contact with the roller switch.
L20c 2in. Elevator

CM7B1G Model Shown

Key:
CA  Elevator Cart
CB  Air Motor
CC  Displacement Pump
CD  Platen
CE  Enclosed Wet Cup (behind air controls)
CF  Elevator and Pump Air Controls
J   Platen Bleed Port
P   Pump Bleed Valve
L20c 2 in. Air Controls

- **Air motor regulator (DA):** Controls air pressure to motor.

- **Blowoff button (DB):** Turns air on and off to push the platen out of an empty drum.

- **Air motor shutoff valve (DC):** Turns air on and off to the air motor.

- **Elevator director valve (DD):** Controls elevator direction.

![Diagram of Elevator Air Controls]

**Fig. 7: Elevator Air Controls**

### Air and Fluid Hoses

Be sure all air hoses (T) and fluid hoses (S) are properly sized and pressure-rated for your system. Use only electrically conductive hoses. Fluid hoses must have spring guards on both ends. Use of a short whip hose and a swivel between the main fluid hose and the gun/valve allows freer gun/valve movement.
Installation

General Information

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

Accessories are available from Graco. Make certain all accessories are adequately sized and pressure-rated to meet the system’s requirements.

FIG. 1, FIG. 2, and FIG. 6 are only guides for selecting and installing system components and accessories. Contact your Graco distributor for assistance in designing a system to suit your particular needs.

Location

<table>
<thead>
<tr>
<th>NOTICE</th>
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</thead>
<tbody>
<tr>
<td>Always lift supply system at proper lift locations (see Fig. 1, Fig. 2, and Fig. 6). Do not lift in any other way.</td>
</tr>
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</table>

Attach a lifting sling at the proper lift spots. Lift off the pallet using a crane or a forklift.

Position the ram so the air controls are easily accessible. Ensure that there is enough space overhead for the ram to raise fully. (See Dimensions, page 34.)

Using the holes in the ram base as a guide, drill holes for 1/2 in. (13 mm) anchors.

Ensure that the ram base is level in all directions. If necessary, level the base using metal shims. Secure the base to the floor using 1/2 in. (13 mm) anchors that are long enough to prevent the ram from tipping.

Grounding

<table>
<thead>
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<th>NOTICE</th>
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<tr>
<td>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.</td>
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</table>

Pump: use a ground wire and clamp. Loosen grounding lug locknut and washer. Insert one end of supplied ground wire into slot in lug and tighten locknut securely. Connect other end of wire to a true earth ground. See Fig. 8.

Air and fluid hoses: use only electrically conductive hoses with a maximum of 500 ft. (150 m) combined hose length to ensure grounding continuity. Check electrical resistance of hoses. If total resistance to ground exceeds 29 megohms, replace hose immediately.

Air compressor: follow manufacturer’s recommendations.

Spray gun/dispense valve: ground through connection to a properly grounded fluid hose and pump.

Fluid supply container: follow local code.

Object being sprayed: follow local code.

Solvent pails used when flushing: follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts grounding continuity.

To maintain grounding continuity when flushing or relieving pressure: hold metal part of the dispense valve firmly to the side of a grounded metal pail, then trigger the valve.
**Mechanical Setup**

1. Fill displacement pump wet cup 2/3 full with Graco Throat Seal Liquid (TSL).

2. Back-off air regulators to their full counterclockwise position and close all shutoff valves.

3. Connect air line from an air source to the system air inlet. See Fig. 1 or Fig. 2. Refer to the pump performance curves in manual 312376 to determine your air supply flow requirements. Use a supply hose capable of meeting the required flow.

Quick disconnects restrict flow for large air motors.

**Connect Remote DataTrak to Power**

**100-240 Vac**

The system has an IEC-C14 power input connection located on the back of the power supply box. The user must supply an appropriate adapter. The 100-240 Vac supply must be capable of sourcing at least 1.2 Amps and have supply current protection rated in accordance with the supply wire gauge provided.

<table>
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<tr>
<th>Frequency</th>
<th>Voltage</th>
<th>Max. Current</th>
<th>Phase</th>
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<tr>
<td>50-60 Hz</td>
<td>100-240 Vac</td>
<td>1.2 Amps</td>
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</table>

Have a trained electrician install and inspect power connection per local code. Plug power supply cord into the outlet on the back of the power supply box and into a properly grounded electrical outlet. Use a zip tie, if needed, to secure power cord in place.

**24 Vdc**

Attach 24V Class 2 power supply to terminals on the 24V assembly: +24 Vdc to terminal 2 (+) and -24 Vdc to terminal 5 (-). Attach protective earthing (PE) conductor to terminal marked PE.

The 24 Vdc supply must be capable of supplying at least 1.2 Amps and have supply current protection rated at no more than 2.5 Amps.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Max. Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 Vdc</td>
<td>1.2 Amps</td>
</tr>
</tbody>
</table>

Have a trained electrician install and inspect power connection per local code.
**Attach and Adjust Drum Low/Empty Sensor**

For supply systems with remote DataTrak, an optional kit can be purchased to indicate either when the drum is low or when it is empty. Order kit 255469 for a D60 or D200 3 in. ram, 255689 for a D200s 6.5 in. ram, or 257634 for a S20 3 in. ram.

1. Position ram at desired level (low or empty).
2. Attach low/empty sensor bracket (EA) to mounting bracket (EB).
3. To measure either drum low or drum empty, attach one sensor (EE) to the sensor bracket (EA).
4. **For D60, D200, and D200s supply systems:** Attach the actuator (ED) to the ram piston rod, near the top, so it passes in front of the sensor (EE) at the correct level for drum low or drum empty. See Fig. 9.
   - For D60 supply systems: Flip actuator bracket (ED) so that it points upwards instead of downwards to allow it to pass the sensor (EE).
5. **For S20 supply systems:** Attach the actuator (ED) to the ram cylinder endcap, so the sensor (EE) passes in front of the bracket (ED) at the correct level for drum low or drum empty. See Fig. 10.
6. Make precise adjustments by moving the sensor within the slot on the sensor bracket.
7. Attach the sensor to the corresponding connector on the D-Sub harness of the remote DataTrak.

**Light Tower Accessory**

Order the 255467 Light Tower Accessory as a diagnostic indicator for D200s, D200, D60, and S20 supply systems. See TABLE 3 for a description of light tower signals.

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<th>Signal</th>
<th>Description</th>
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<tr>
<td>Yellow flashing</td>
<td>A low priority error exists.</td>
</tr>
<tr>
<td>Yellow on</td>
<td>A medium priority error exists.</td>
</tr>
<tr>
<td>Red flashing</td>
<td>A high priority error exists.</td>
</tr>
<tr>
<td>Red on</td>
<td>The system is shut down due to error conditions.</td>
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**Fig. 9: D200 and D200s supply systems**

**Fig. 10: S20 supply systems**
Attach Drum Stops

Only D200s, D200, and D60 Supply systems are shipped with drum stops in place to help position the drum on the ram. For replacement parts, order Kit 255477. The kit includes 2 each of capscrews (FA), lock washers (not shown), and drum stops (FB).

1. Locate the correct set of mounting holes on the ram base.
2. Using the capscrews (FA) and lock washers (not shown), attach the drum stops (FB) to the ram base.
Supply System Operation

Pressure Relief Procedure

1. Lock the gun/valve trigger.

2. For D200s, D200, S20, and D60 Air Controls: See Fig. 3, page 12.
   a. Close the air motor slider valve (BF) and the main air slider valve (BA).
   b. Set the ram director valve (BC) to DOWN. The ram will slowly drop.
   c. Jog the director valve up and down to bleed air from ram cylinders.

3. For L20c Air Controls: See Fig. 7, page 14.
   a. Close the air motor valve (DC) and the elevator director valve (DD). The ram will slowly drop.

4. Unlock the gun/valve trigger.

5. Hold a metal part of the gun/valve firmly to the side of a grounded metal pail, and trigger the gun/valve to relieve pressure.

6. Lock the gun/valve trigger.

7. Open the fluid line drain valve and the pump bleeder valve (P). Have a container ready to catch the drainage.

8. Leave the pump bleeder valve (P) open until ready to spray again.

If you suspect that the spray tip/nozzle or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, very slowly loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. Now clear the tip/nozzle or hose.

Flush Before Using Equipment

The pump was tested with lightweight oil, which is left in the fluid passages to protect parts. To avoid contaminating fluid with oil, flush the pump with a compatible solvent before use. See pump manual for flushing directions.

Start and Adjust Ram

D200 3 in. and D200s 6.5 in. Dual Post

1. Refer to Fig. 1 and Fig. 3. Close all air regulators and air valves.

2. Open main air slider valve (BA) and set ram air regulator (BB) to 40 psi (0.28 MPa, 2.8 bar). Set director valve handle (BC) to UP and let the ram rise to its full height. 2-Button Interlock: If the system has this feature, ram will stop as it nears the top. Press and hold both buttons to raise ram completely. See Fig. 3 on page 12.

3. Lubricate the platen seals (D) with grease or other lubricant compatible with the fluid you will pump.

4. Remove the drum cover and smooth the surface of the fluid with a straightedge.

5. Put a full drum of fluid on the ram base, slide it back against the drum stops, and center it under the platen (D). An optional drum roller kit is available for D200 and D200s supply systems to make it easier to load the drum on the base. Order Kit 255627.

To avoid damage to the platen seals, do not use a drum that is dented or damaged.
6. Remove bleed stick from platen bleed port (J).
7. If drum has a plastic liner, pull it over edge of drum. Secure liner with tape wrapped around circumference of drum.

8. Set the director valve (BC) to DOWN and lower the ram until fluid appears at the top of the platen bleed port (J). Adjust ram air regulator (BB) as needed. Set the director valve (BC) to neutral and close the platen bleed port (J).

**2-Button Interlock:** If system has this feature, press and hold both buttons to start lowering the ram. See Fig. 3, page 12.

**L20c 2 in. Elevator, S20 3 in. Single Post, and D60 3 in. Single Post**

1. Raise ram:
   a. **For S20 and D60:** Open the main air slider valve (BA) and set the ram air regulator (BB) to 40 psi (0.28 MPa, 2.8 bar). Set director valve handle (BC) to UP and let the ram rise to its full height. **2-Button Interlock:** If the system has this feature, ram will stop as it nears the top. Press and hold both buttons to raise ram completely. See Fig. 3 on page 12.
   b. **For L20c:** Set elevator director valve (DD) to UP and let the ram rise to its full height.

2. Lubricate the platen seals (D) with grease or other lubricant compatible with the fluid you will pump.

3. Put a full drum on the ram base and center it under the platen (D).

4. Remove the drum cover and smooth the surface of the fluid with a straightedge. To prevent air from being trapped under the platen, scoop fluid from the center of the pail to the sides, to make the surface concave.

5. Adjust the pail to be sure it is aligned with the platen, and remove the bleed stick to open the platen bleed port (J).

6. With hands away from the pail and the platen, push down on the director valve (BC) handle, and lower the ram until the platen rests on the lip of the pail. **For S20 and D60 only:** Move the director valve handle to the horizontal position (neutral).

7. Lower ram:
   a. **For S20 and D60:** Set the director valve (BC) to DOWN and continue to lower the ram until fluid appears at the platen bleed port (J) and close the platen bleed port. Set the director valve to neutral, reinstall the vent handle, and tighten securely.
   b. **For L20c:** Turn elevator director valve (DD) to DOWN and continue to lower the ram until fluid appears at the platen bleed port (J). Close the platen bleed port (J).
Supply System Operation

Start and Adjust Pump

1. Connect pump outlet fittings and hose (not supplied).

   Be sure all components are adequately sized and pressure rated to meet the system's requirements.

2. Be sure the pump air valve is closed. Then set the ram air regulator (BB) to about 50 psi (0.35 MPa, 3.5 bar). Set the director valve (BC) or elevator director valve (DD) to DOWN. Remote DataTrak: If system has this feature, press the prime/flush key (see page 26).

3. Start the pump as explained in the separate pump instruction manual.

4. Keep the director valve (BC) or elevator director valve (DD) set to DOWN while pump is operating.

   Increase air pressure to the ram if the pump does not prime properly with heavier fluids. Decrease air pressure if fluid is forced out around the top seal or platen.

Change Drums

Excessive air pressure in the material drum could cause the drum to rupture, causing serious injury. The platen must be free to move out of the drum. Never use drum blowoff air with a damaged drum.

1. Stop the pump.

   a. For D200s, D200, S20, and D60: Push in the air motor slider valve (BF) to stop the pump.

   b. For L20c: Turn air motor valve (DC) off to stop the pump.

2. Raise the platen out of the drum.

   a. For D200s, D200, S20, and D60: Set ram director valve (BC) to UP to raise the platen (D) and immediately press and hold the blowoff air button (BG) until the platen (D) is completely out of drum. Use minimum amount of air pressure necessary to push the platen out of the drum.

   b. For L20c: Set elevator director valve (DD) to UP to raise the platen (D) and immediately press and hold the blowoff air button (DB) until the platen (D) is completely out of drum.

3. Follow steps 4-8.

4. Release the blowoff air button and allow the ram to rise to its full height. 2-Button Interlock: If system has this feature, the ram will stop as it nears the top. Press and hold both buttons to raise ram completely. See Fig. 4, page 12.

5. Remove empty drum.

6. Inspect platen and, if necessary, remove any remaining material or material build–up.

7. Place full drum on ram base.

8. Lower the ram and adjust the position of the drum relative to the platen. See Start and Adjust Ram on page 19.
Supply System Operation

Shutdown and Care of the Pump

1. Set the ram director valve (BC) or elevator director valve (DD) to DOWN.
2. Follow the **Pressure Relief Procedure** on page 19.
3. Follow the pump shutdown instructions in separate pump manual.

Replace Throat Seals

Quick Coupler

Remove wet cup from displacement pump while attached to the ram to replace throat seals.

1. Ensure displacement pump is at bottom of stroke.
2. Follow the **Pressure Relief Procedure** on page 19.
3. Remove Quick Coupler:
   Remove clip (GC), and slide coupling cover (GB) up to remove coupling (GA).

   ![Diagram of Quick Coupler]

4. Remove Threaded Coupler: (not shown)
   Loosen and remove coupling nut as described in pump packages manual 312376.

5. Lift air motor rod to bring rod to top of stroke.

6. Remove wet cup and packing cartridge according to instructions in displacement pump manual(s).
Remote DataTrak Setup

The remote DataTrak display unit comes fully assembled. Use the following instructions and figure to connect remote DataTrak to the supply system.

The system requires either 100-240 Vac, 50/60 Hz input, or 24 Vdc to the power supply. Ensure that the main disconnect rocker switch is set to OFF (O). Connect power to the DataTrak unit as detailed in Connect Remote DataTrak Units to Power, page 16.

1. Feed CAN cable (HB) and D-Sub cable (HA) under the remote DataTrak bracket and attach to corresponding connectors on remote DataTrak display.

   The CAN cable (HB) can connect to either of the two CAN style connectors on the remote DataTrak.

2. Snap remote DataTrak unit to mount on ram supply system.

3. Drum Low/Empty Sensor: If system has this feature, attach sensor cable to the corresponding connector on the D-Sub harness. See Drum Low/Empty Sensor, page 15.

4. Light Tower: If system has this feature, attach the connector on the light tower cable to the corresponding connector on the D-Sub harness. See manual 312493.

5. Solenoid: Attach the connector on the D-Sub harness to the corresponding connector on the solenoid (X).
Remote DataTrak Controls and Indicators

Key for Fig. 16

SC  Display Screen
LE  LED (diagnostic indicator when lit)
FR  Flow Rate Units, user settable to:

/min,  = cycles per minute

gpm [US] = gallons per minute, United States

gpm [UK] = gallons per minute, United Kingdom

oz/min [US] = ounces per minute United States

oz/min [UK] = ounces per minute United Kingdom

l/min = liters per minute

cc/min = cubic centimeters per minute

VU  Volume Units

PF  Prime/Flush Key
RK  Reset/Cancel Key (also used to scroll)
CF  Cycle/Flow Rate
JT  Job Total Counter, resettable
MC  Maintenance Counter
MS  Maintenance Counter Setpoint
DV  Drum Volume Remaining
DS  Drum Size
DF  Drum Fill Volume
RT  Runaway Protection (enable/disable)
RS  Runaway Cycle Rate
PV  Displacement Pump Volume

Run Mode

Setup Mode

Fig. 16. Remote DataTrak Controls and Indicators
Remote DataTrak Operation

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

Startup

1. Turn the air motor slider valve (BF) off before turning the remote DataTrak power on.

NOTICE
If the motor air valve is not turned off, the air supply to the motor will automatically turn on via activation of the air solenoid (X) when the display changes from the Splash screen to Run mode.

2. Turn on the remote DataTrak system using the rocker switch on the ram power supply.

3. The Splash screen (Fig. 18) will flash on while the progress bar fills from left to right. It will then go directly to Run mode (Fig. 19).


Run Mode

See Fig. 16 and Fig. 19.

The Run Mode screen displays the resettable job total counter (JT), maintenance counter (MC), cycle/flow rate (CF), and the remaining volume in the drum (DV) in both numeric and icon versions.

All items are displayed using the defined volume units (VU).

Fig. 19: Run Mode Screen

Key Functions When in Run Mode

1. To enter Prime Mode, press and release \( \text{\(\circlearrowleft\)} \).

2. To enter Setup Mode (page 26), press and hold \( \text{\(\circlearrowleft\)} \) for 3 seconds.

3. To enter Diagnostic Mode (page 29), press and release \( \text{\(\times\)} \). The system will enter Diagnostic Mode only if there are active warnings/alarms.

4. To reset the job total counter, press and hold \( \text{\(\times\)} \) from Run Mode for 3 seconds.

Fig. 18: Splash Screen

Fig. 17
Remote DataTrak Operation

Prime Mode

See Fig. 20.

1. Press \( \text{Prime} \) to enter Prime Mode screen. The Prime symbol (PS) will appear in the display and the LED (B, Fig. 16) will flash.

![Fig. 20: Prime Mode Screen]

2. While in Prime Mode, the job total counter (JT) is blank and will not count. However, the maintenance counter (MC) will continue to decrement.

3. When a new drum is installed, press and hold \( \text{Prime} \) while in Prime Mode to reset the drum volume remaining (DV) to the drum fill volume (DF).

4. To exit Prime Mode, press \( \text{Exit} \). The Prime symbol will disappear and the LED will stop flashing; the screen will return to Run Mode (Fig. 19).

5. To enter Setup Mode, press and hold \( \text{Setup} \) for 3 seconds.

Setup Mode

If a key is not pressed within one minute of entering a setup screen, the system will return to Run Mode (Fig. 19).

See Fig. 16. Press and hold \( \text{Setup} \) for 3 seconds.

- If a password has not been assigned (set to ‘0000’), the system will go directly to Setup screen 1.

Password Screen

If a password has been assigned (not set to ‘0000’), the Password screen will appear (Fig. 21). Enter the password to access the Setup screens.

![Fig. 21: Password Screen]

1. To enter a password, press \( \text{Password} \) to enter edit mode.

2. Once in edit mode, press \( \text{Scroll} \) to scroll through digits.

3. Press \( \text{Select} \) to select the correct digit and move on to the next.

4. When password is correct, press \( \text{Submit} \) on the rightmost digit to submit the password.

Setup Screen 1

Use Setup screen 1 to set runaway cycle rate (RS), enable/disable runaway protection (RT), select pump volume per cycle (PV), select flow rate units (FR), enter drum size (DS), and enter drum fill volume (DF). See Fig. 22.

1. Press \( \text{Field} \) to toggle from field to field through the screen.

- If you go past a field you want to edit, toggle through the remaining fields, exit the Setup mode, and reenter Setup. It is impossible to back up in the Setup screens.

2. Press \( \text{Scroll} \) to scroll through available values for each field.

3. Press \( \text{Select} \) again to set the value and move the cursor to the next data field.
Remote DataTrak Operation

Runaway Cycle Rate/Enable Runaway Protection

Graco recommends setting runaway cycle rate (RS) to 60 or less. Choose a value that is just above the maximum cycle rate of the application.

When runaway protection is enabled (RT), a ✓ will appear on the setup screen. See Fig. 22.

Displacement Pump Volume

Press \( \text{ } \) to scroll through the available displacement pump volumes (PV) in cc per cycle. Set the values to the pump size installed. Refer to manual 312375 or the marking on the displacement pump cylinder.

Flow Rate Units

Press \( \text{ } \) to scroll through the available flow rate units. See Key on page 24. The selected units will be used to display flow rate and volume on the main Run screen and most of the setup values.

Initially, choose units that will allow easy definition of the setup values (e.g. drum volume in gallons). Then, return and select the flow rate unit to display on the Run screen. The defined setup values will convert automatically.

Drum Size

Use DS to enter the size of the container.

Drum Fill Volume

Use the Drum Fill Volume field (DF) to enter the exact volume of material in the drum. Contact supplier for exact volume. This value is used to determine the remaining volume in the drum.

To move to Setup screen 2, move the cursor to the Drum Fill Volume field (DF), then press \( \) once more.

Setup Screen 2

Use Setup screen 2 to set the maintenance counter setpoint (MC), reset the maintenance counter, enable/disable diagnostic codes (EC), and choose whether the E7 drum icon (DL) will indicate when the drum is low or when the drum is completely empty.

Maintenance Counter

Use the maintenance counter setpoint (MS) to set the maintenance schedule based on the units displayed. Press and hold \( \text{ } \) for 3 seconds when the entire MS field is highlighted to reset the MC value.
4. See page 30 for a description of E1, E2, and E4 diagnostic codes.

When E1, E2, and E4 diagnostic options are enabled, a ✓ will appear on the setup screen. See Fig. 23.

**Drum Low/Empty Diagnostic Code**

The E7 drum icon can represent either a drum low or a drum empty.

**Drum Low:** A drum low setting will result in a warning condition. The icon will show as an almost empty drum. The light tower and diagnostic LED will signal a warning. The pump will continue to cycle.

**Drum Empty:** A drum empty setting will result in an alarm condition. The icon will show as a completely empty drum. The light tower and diagnostic LED will signal an alarm. The pump will stop cycling.

Press  while E7 is selected to toggle between these options.

5. To enter Setup screen 3, move the cursor to the E7 drum setting, then press  once more.

**Setup Screen 3**

Setup screen 3 displays a non-resettable grand total counter (GT) at the top. Use Setup screen 3 to set the password (PW), assign a time limit for the screensaver (SS), and adjust the LCD contrast (CS).

2. Press  to scroll through available values for each field.

3. Press  again to set the value and move the cursor to the next data field.

The screensaver turns off the backlight of the LCD after the specified time has elapsed. A **setting of 0 minutes is not recommended** because it turns off the screensaver, leaving the backlight on constantly.

When in the contrast setting field press  to adjust the contrast + (up) or - (down) respectively.

4. To return to the Run screen, move the cursor to the contrast setting, then press  once more. If you entered Setup Mode from Prime Mode, you will be returned to that screen.
Diagnostic Mode

Diagnostics
Remote DataTrak can diagnose several problems with the supply system. When the monitor detects a problem, the LED (B, Fig. 16) will flash and a diagnostic code will appear on the display. See Table 4, page 33.

If the accessory light tower kit is installed a light will illuminate or flash on the tower. See TABLE 4.

Diagnostic screens will become the active screen as soon as the diagnostic code condition is detected. See TABLE 4.

To acknowledge the diagnosis and return to the normal operating screen, press the button once. To clear a diagnostic code, see the section specific to the code.

See Fig. 16. Press and release the button to access the Diagnostic screens. The system will enter Diagnostic Mode only if active warnings/alarms are present.

Runaway Diagnostic Code Screen
See Fig. 25. If pump runaway occurs, the Runaway screen becomes active, stopping the pump.

3. To clear the Runaway diagnostic code:
   a. Press and release the button to enter Diagnostic Mode from Run Mode (Fig. 19).
   b. Press and release the button to scroll to the Runaway Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.
   c. Press and hold the button for 3 seconds while on the runaway Diagnostic screen to clear the diagnostic code and scroll to the next available Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.

| NOTICE |
| Clearing this diagnostic code will immediately cause the air solenoid to activate, applying air to the motor. |

To disable runaway monitoring, go to setup mode and set runaway value to 0 (zero) or toggle (RT) off. See Fig. 22.

Fig. 25: Runaway Diagnostic Code Screen

1. Correct the condition causing the diagnostic code. See TABLE 4, page 33.
2. Press and release the button to acknowledge the diagnostic code and return to the previous screen.
**Diving Up Diagnostic Code Screen**

See Fig. 26. If the pump shows diving up symptoms and the E1 Diagnostic Code is enabled, the Diving Up screen becomes active.

1. Press and release $\text{x}$ to exit the Diving Up screen. This will set the diagnostic code as a standing diagnostic code. A standing diagnostic code has not been cleared, simply acknowledged.

2. Correct the condition causing the diagnostic code. See TABLE 4, page 33.

3. To clear the diagnostic code, navigate to the Diving Up diagnostic screen.
   a. Press and release $\text{x}$ to enter Diagnostic Mode from Run Mode.
   b. Press and release $\text{x}$ to scroll to the Diving Up Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.
   c. Press and hold $\text{x}$ for 3 seconds while on the Diving Up Diagnostic screen to clear the diagnostic code and scroll to the next available Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.

**Diving Down Diagnostic Code Screen**

See Fig. 27. If the pump shows diving down symptoms and the E2 Diagnostic Code is enabled, the Diving Down screen becomes active.

1. Press and release $\text{x}$ to exit the Diving Down screen.

2. Correct the condition causing the diagnostic code. See TABLE 4, page 33.

3. To clear the diagnostic code, navigate to the Diving Down diagnostic screen.
   a. Press and release $\text{x}$ to enter Diagnostic Mode from Run Mode.
   b. Press and release $\text{x}$ to scroll to the Diving Down Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.
   c. Press and hold $\text{x}$ for 3 seconds while on the Diving Down Diagnostic Screen to clear the diagnostic code and scroll to the next available Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.
Disconnected Solenoid Diagnostic Code Screen

See Fig. 28. If the system detects a disconnected air motor solenoid and the E4 Diagnostic Code is enabled, the Disconnected Solenoid screen becomes active.

1. Press and release to exit the Disconnected Solenoid screen.
2. Correct the condition causing the diagnostic code; see TABLE 4, page 33.
3. This diagnostic code will automatically clear when the system detects that the solenoid is connected.

Drum Low/Empty Diagnostic Code Screen

See Fig. 29 and Fig. 30. If the drum low/empty sensor trips, the Drum Low or Drum Empty screen becomes active, depending on which sensor setting is chosen, see page 28.

1. Press and release to exit the Drum Low/Empty screen. This will set the diagnostic code as a standing diagnostic code. A standing diagnostic code has not been cleared, simply acknowledged.
2. Replace the low or empty drum with a full drum. When the sensor no longer detects a low or empty drum the diagnostic code will clear automatically.
Reed Switch Diagnostic Code Screen

See Fig. 31.

If the system detects an air motor reed switch error, the Reed Switch Diagnostic screen becomes active.

**Fig. 31. Reed Switch Diagnostic Code Screen**

1. Press and release 🆕 to exit the Reed Switch Diagnostic screen.
2. Correct the condition causing the diagnostic code. See TABLE 4, page 33.
3. To clear the diagnostic code, navigate to the Reed Switch diagnostic screen.
   a. Press and release 🆕 to enter Diagnostic Mode from Run Mode.
   b. Press and release ⬇️ to scroll to the Reed Switch Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.
   c. Press and hold 🆕 for 3 seconds while on the Reed Switch Diagnostic Screen to clear the diagnostic code and scroll to the next available Diagnostic screen, or return to the previous Run screen if no other Diagnostic screens are active.

Maintenance Counter Expired Screen

See Fig. 32.

If the system has counted down to 0 from the setpoint for number of cycles/gallons/liters, the Maintenance Counter Expired Screen becomes active.

**Fig. 32. Maintenance Counter Expired Screen**

1. Press and release 🆕 to exit the Maintenance Counter Expired screen.
2. Perform necessary maintenance.
## Table 4: Diagnostic Codes

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Code No.</th>
<th>Code Name</th>
<th>Diagnosis</th>
<th>Cause</th>
<th>LED Flash Code*</th>
<th>Accessory Light Tower Code</th>
</tr>
</thead>
</table>
| ![Runaway Pump](image) | Runaway | 30   | Runaway Pump running faster than set runaway limit. | • Increased air pressure.  
• Increased fluid output.  
• Exhausted fluid supply. | 2               | Red Solid                |
| ![Diving Up](image) | E1      | Diving Up      | Leak during upstroke.                               | Worn piston valve or packings.            | 7               | Yellow Solid             |
| ![Diving Down](image) | E2      | Diving Down    | Leak during downstroke.                             | Worn intake valve or priming rod seal.    | 6               | Yellow Solid             |
| ![Disconnected Solenoid](image) | E4      | Disconnected Solenoid | Solenoid is disconnected. | • Solenoid unplugged.  
• Damaged solenoid wires. | 3               | Red Solid                |
| ![Drum Empty](image) | E7      | Drum Empty     | Drum empty sensor has tripped.                      | Replace empty drum with full drum to clear. | 4               | Red Solid                |
| ![Drum Low](image) | E7      | Drum Low       | Drum low sensor has tripped.                        | Replace empty drum with full drum to clear. | 4               | Red Flashing             |
| ![Reed Switch](image) | E5      | Reed Switch    | The air motor has seen multiple up strokes without a down stroke, or vice versa. | Damaged or disconnected reed switches. | 8               | Yellow Solid             |
| ![Maintenance Counter Expired](image) | Maintenance Counter Expired | | Maintenance Counter has counted down to 0 from setpoint. | Number of cycles/gallons/liters specified by setpoint have passed since last reset. | 5               | Yellow Flashing          |

*LED (B, page 24) will flash a code, pause, then repeat.*
Dimensions

<table>
<thead>
<tr>
<th>Ram Model</th>
<th>A (in. (mm))</th>
<th>B (in. (mm))</th>
<th>C (in. (mm))</th>
<th>D (in. (mm))</th>
<th>E (in. (mm))</th>
<th>F (in. (mm))</th>
</tr>
</thead>
<tbody>
<tr>
<td>L20c</td>
<td>69 (1752.6)</td>
<td>44 (1117.6)</td>
<td>21 (533.4)</td>
<td>22 (558.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S20 (NXT)</td>
<td>84 (2133.6)</td>
<td>59 (1498.6)</td>
<td>19 (482.6)</td>
<td>11 (279.4)</td>
<td>17 (431.8)</td>
<td></td>
</tr>
<tr>
<td>S20</td>
<td>59.3 (1506)</td>
<td>35.8 (909)</td>
<td>19 (482.6)</td>
<td>11 (279.4)</td>
<td>17 (431.8)</td>
<td></td>
</tr>
<tr>
<td>S20c</td>
<td>90 (2286)</td>
<td>65 (1651)</td>
<td>26.0 (661)</td>
<td>22.1 (562)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D60</td>
<td>89 (2260.6)</td>
<td>59 (1498.6)</td>
<td>14 (355.6)</td>
<td>18 (457.2)</td>
<td>24 (609.6)</td>
<td>28 (711.2)</td>
</tr>
<tr>
<td>D200</td>
<td>102.3 (2599)</td>
<td>64.8 (1646)</td>
<td>21.0 (533)</td>
<td>25.0 (635)</td>
<td>38.0 (965)</td>
<td>42.0 (1067)</td>
</tr>
<tr>
<td>D200s</td>
<td>109 (2769)</td>
<td>68.2 (1732)</td>
<td>23.0 (584)</td>
<td>25.0 (635)</td>
<td>45.0 (1143)</td>
<td>48.0 (1219)</td>
</tr>
</tbody>
</table>

Weight

Use the table below to identify the maximum weight for each available platen size.

<table>
<thead>
<tr>
<th>Platen Size Gallons (Liters)</th>
<th>Maximum Weight lbs (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 (200)</td>
<td>51 (23)</td>
</tr>
<tr>
<td>30 (115)</td>
<td>44 (20)</td>
</tr>
<tr>
<td>16 (60)</td>
<td>25 (11.3)</td>
</tr>
<tr>
<td>8 (30)</td>
<td>21 (9.5)</td>
</tr>
<tr>
<td>5 (20)</td>
<td>19 (8.7)</td>
</tr>
</tbody>
</table>

See the identification plate (ID) for the weight of your supply system.
Schematic

Remote DataTrak, Light Tower, Drum Low/Empty Sensor

Schematic
D200S, D200, S20, and D60 Supply Systems
Point of Operation Instructions

For use with non-heated bulk supply of medium to high viscosity sealants and adhesive materials.
Not for use in hazardous locations.

Safety Practices: The instructions on this sheet are abbreviated and are provided only as a customer service. They are not meant to replace the Operation Manual. If you are unsure of the equipment’s safe and proper operation, request Graco Operation Manual 313526. It is important that you read and understand all instructions and hazards before operating this equipment.

WARNING

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

- Do not point gun at anyone or at any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Do not spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.

MOVING PARTS HAZARD
Moving parts can pinch or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.

SPLATTER HAZARD
During blowoff of platen splatter may occur.

- Use minimum drum removal air pressure.

PERSONAL PROTECTIVE EQUIPMENT
You must wear appropriate protective equipment when operating, servicing, or in the operating area of the equipment to help protect you from serious injury. This equipment includes but is not limited to:

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

Start and Adjust Ram

1. Close all air regulators and air valves.

2. Open main air slider valve and set ram air regulator to 40 psi (0.28 MPa, 2.8 bar). Set director valve handle to UP and let the ram rise to its full height. 2-Button Interlock: If the system has this feature, ram will stop as it nears the top. Press and hold both buttons to raise ram completely.

3. Lubricate the platen seals with grease or other lubricant compatible with the fluid you will pump.

4. Remove the drum cover and smooth the surface of the fluid with a straightedge.

5. Put a full drum of fluid on the ram base, slide it back against the drum stops, and center it under the platen.

6. Remove bleed stick from platen bleed port.

7. Set the director valve to DOWN and lower the ram until fluid appears at the top of the platen bleed port. Adjust ram air regulator as needed. Set the director valve to neutral and close the platen bleed port. 2-Button Interlock: If system has this feature, press and hold both buttons to start lowering the ram.
Start and Adjust Pump

1. Supply fluid to the pump, per the requirements of your system.

2. Close the air motor slider valve. Set the ram air regulator to about 50 psi (0.35 MPA, 3.5 bar). Set the director valve to DOWN.

3. Reduce the air motor regulator pressure and open the air motor slider valve.

4. Adjust air motor regulator until the pump starts.

5. Cycle the pump slowly until all air is pushed out and the pump and hoses are fully primed.

6. Release the gun/valve trigger and lock the trigger safety. The pump should stall against pressure.

7. If the pump fails to prime properly, open the pump bleed valve slightly. Use the bleed hole, on the underside of the valve, as a priming valve until the fluid appears at the hole. Close the bleed plug.

8. With the pump and lines primed, and with adequate air pressure and volume supplied, the pump will start and stop as you open and close the gun/valve.

9. Use the air motor regulator to control the pump speed and the fluid pressure. Always use the lowest air pressure necessary to get the desired results. Higher pressures cause premature tip/nozzle and pump wear.

Change Drums

1. Close the air motor slider valve to stop the pump.

2. Set ram director valve to UP to raise the platen and immediately press and hold the blowoff air button until the platen is completely out of drum. Use minimum amount of air pressure necessary to push the platen out of the drum.

3. Release the blowoff air button and allow the ram to rise to its full height. 2-Button Interlock: If system has this feature, the ram will stop as it nears the top. Press and hold both buttons to raise ram completely.

4. Remove empty drum.

5. Inspect platen and, if necessary, remove any remaining material or material build-up.

6. Go to Step 4 of Start and Adjust Ram.

Remote DataTrak Operation

Key Functions When in Run Mode

1. To enter Prime Mode, press and release .

   a. When a new drum is installed, press and hold while in Prime Mode to reset the drum volume remaining to the drum fill volume.

   b. To exit Prime Mode, press . The Prime symbol will disappear and the LED will stop flashing; the screen will return to Run Mode.

2. To reset the job total counter, press and hold from Run Mode for 3 seconds.

3. To enter Setup Mode, press and hold for 3 seconds.

4. To enter Diagnostic Mode, press and release . The system will enter Diagnostic Mode only if there are active warnings/alarms.
L20c Supply Systems
Point of Operation Instructions

For use with non-heated bulk supply of medium to high viscosity sealants and adhesive materials.
Not for use in hazardous locations.

Safety Practices: The instruction on this sheet are abbreviated and are provided only as a customer service. They are not meant to replace the Operation Manual. If you are unsure of the equipment’s safe and proper operation, request Graco Operation Manual 313526. It is important that you read and understand all instructions and hazards before operating this equipment.

WARNINGS

SKIN INJECTION HAZARD
High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.
• Do not point gun at anyone or at any part of the body.
• Do not put your hand over the spray tip.
• Do not stop or deflect leaks with your hand, body, glove, or rag.
• Do not spray without tip guard and trigger guard installed.
• Engage trigger lock when not spraying.
• Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.

MOVING PARTS HAZARD
Moving parts can pinch or amputate fingers and other body parts.
• Keep clear of moving parts.
• Do not operate equipment with protective guards or covers removed.

SPLATTER HAZARD
During blowoff of platen splatter may occur.
• Use minimum drum removal air pressure.

PERSONAL PROTECTIVE EQUIPMENT
You must wear appropriate protective equipment when operating, servicing, or in the operating area of the equipment to help protect you from serious injury. This equipment includes but is not limited to:
• Protective eyewear
• Clothing and respirator as recommended by the fluid and solvent manufacturer

Start and Adjust Ram

Moving parts can pinch or amputate fingers. When the pump is operating and when raising or lowering the ram, keep fingers and hands away from the pump intake, platen, and lip of the drum.

1. Close all air regulators and air valves.
2. Set elevator director valve to UP and let the ram rise to its full height.
3. Lubricate the platen seals with grease or other lubricant compatible with the fluid you will pump.
4. Remove the drum cover and smooth the surface of the fluid with a straightedge.
5. Put a full drum of fluid on the ram base, slide it back against the drum stops, and center it under the platen.

To avoid damage to the platen seals, do not use a drum that is dented or damaged.

6. Remove bleed stick from platen bleed port.
7. Turn elevator director valve to DOWN and continue to lower the ram until fluid appears at the platen bleed port. Close the platen bleed port.
Start and Adjust Pump

1. Supply fluid to the pump, per the requirements of your system.

2. Close the air motor valve. Set the director valve to DOWN.

3. Reduce the air motor regulator pressure and open the air motor shutoff valve.

4. Adjust air motor regulator until the pump starts.

5. Cycle the pump slowly until all air is pushed out and the pump and hoses are fully primed.

6. Release the gun/valve trigger and lock the trigger safety. The pump should stall against pressure.

7. If the pump fails to prime properly, open the pump bleed valve slightly. Use the bleed hole, on the underside of the valve, as a priming valve until the fluid appears at the hole. Close the plug.

8. With the pump and lines primed, and with adequate air pressure and volume supplied, the pump will start and stop as you open and close the gun/valve. In a circulating system, the pump will speed up or slow down on demand, until the air supply is shut off.

9. Use the air motor regulator to control the pump speed and the fluid pressure. Always use the lowest air pressure necessary to get the desired results. Higher pressures cause premature tip/nozzle and pump wear.

Change Drums

1. Turn the air motor valve off to stop the pump.

2. Set elevator director valve to UP to raise the platen and immediately press and hold the blowoff air button until the platen is completely out of drum. Use minimum amount of air pressure necessary to push the platen out of the drum.

3. Release the blowoff air button and allow the ram to rise to its full height.

4. Remove empty drum.

5. Inspect platen and, if necessary, remove any remaining material or material build–up.

6. Go to Step 4 of Start and Adjust Ram.

Excessive air pressure in the material drum could cause the drum to rupture, causing serious injury. The platen must be free to move out of the drum. Never use drum blowoff air with a damaged drum.
Technical Data

Max air input pressure (supply system) / Air inlet size
L20c - 2 in. elevator, 5 gal. (20 L) .......................... 100 psi (0.7 MPa, 7 bar) / 1/2 npsm(f)
S20 - 3 in. single post, 5 gal. (20 L) ........................ 125 psi (0.9 MPa, 9 bar) / 1/2 npt(f)
D60 - 3 in. dual post, 16 gal. (60 L), 5 gal. (20 L), 30 gal. (115 L) .......................... 150 psi (1.0 MPa, 10 bar) / 3/4 npt(f)
D200 - 3 in. dual post, 55 gal. (200 L), 30 gal. (115 L), 16 gal. (60 L), 8 gal. (30 L), 5 gal. (20 L) .......................... 150 psi (1.0 MPa, 10 bar) / 3/4 npt(f)
D200s - 6.5 in. dual post, 55 gal. (200 L), 30 gal. (115 L) .......................... 125 psi (0.9 MPa, 9 bar) / 3/4 npt(f)

Max fluid, air working pressure, and weight (displacement pump) .......................... For Check-Mate pump packages, see manual 312376.
For Dura-Flo pump packages, see manuals 311826, 311828, 311833.

Pump Wetted parts
For Check-Mate displacement pumps, see manual 312375.
For Dura-Flo displacement pumps, see manuals 311717, 311825, 311827.

Platen Codes (see page 7): Part number; Wetted parts
B : 257727, 5 gal. (20 L) Electroless nickel, polyurethane, nitrile, carbon steel, polyethylene, zinc plated carbon steel, buna, 316 sst, 17-4PH sst
J : 257732, 8 gal. (30 L)
S : 257737, 16gal. (60 L)...
C : 257728, 5 gal. (20 L)...
K : 257733, 8 gal. (30 L)...
T : 257740, 16gal. (60 L)...
F : 257729, 5 gal. (20 L) Stainless steel, polyurethane, PTFE coated nitrile, polyethylene, nitrile, PTFE, 303 sst, 304 sst, 316 sst, 17-4PH sst
L : 257734, 8 gal. (30 L)
U : 257738, 16gal. (60 L)...
G : 257730, 5 gal. (20 L) Electroless nickel, aramind reinforced elastomer, rubber-based PSA, nitrile, polyethylene, zinc plated carbon steel, buna, 1018 carbon steel, 304 sst, 316 sst, 17-4PH sst
M : 257735, 8 gal. (30 L)
W : 257739, 16gal. (60 L)...
H : 257731, 5 gal. (20 L) Electroless nickel, aramind reinforced elastomer, rubber-based PSA, polyurethane, polyethylene, nitrile, zinc plated carbon steel, buna, 1018 carbon steel, 304 sst, 316 sst, 17-4PH sst
R : 257736, 8 gal. (30 L)
Y : 257741, 16gal. (60 L)...
7 : 255661, 30 gal. (115 L) zinc plated carbon steel, EPDM, sst, fluoroelastomer
8 : 255662, 55 gal. (200 L) PTFE, EPDM, PTFE coated aluminum, zinc plated carbon steel, 316 sst
9 : 255663, 55 gal. (200 L) EPDM, aluminum, zinc plated carbon steel, 316 sst
A : 255664, 55 gal. (200 L) PTFE, neoprene, aluminum, zinc plated carbon steel, 316 sst

Ambient operating temperature range (supply system) 32-120 °F (0- 49°C)
Sound data .......................... See separate air motor manual.
External power supply requirements (DatraTrak)
AC power units .......................... 100-240 Vac, 50/60 Hz, single phase, 1.2 amps max draw
DC power units .......................... 24 Vdc, 1.2 amps max draw
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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For the latest information about Graco products, visit www.graco.com.

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