Instructions

G-MINI[®] Jockey Pump

3A9381A

ΕN

For dispensing NLGI Grades #000 to #2 greases with Grease Jockey[®] Injector system. For professional use only.

Not approved for use in explosive atmospheres or hazardous (classified) locations.

Model 25V700, 2 Liter, 12 VDC Model 25V701, 1 Liter, 12 VDC

2000 psi (14 MPa, 138 bar) Maximum Working Pressure



Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Be familiar with the proper control and usage of the equipment. Save these instructions.

Related Manuals

Find English manuals and any available translations at www.graco.com.

English Manual Number	Description
3A5082	Electric Grease Jockey [®] Automatic Lubrication System
334662	Grease Jockey Lubrication Controller
3A2960	GLC 2200 [™] Lubrication Controller





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Safety Symbols

The following safety symbols appear throughout this manual and on warning labels. Read the table below to understand what each symbol means.

Symbol	Meaning	Symbol	Meaning
	Cleaning Solvent Hazard	MPa/bar/PSI	Follow Pressure Relief Procedure
	Equipment Misuse Hazard		Read Manual
	Moving Parts Hazard		Wear Personal Protective Equipment
	Skin Injection Hazard		Do Not Place Hands or Other Body Parts Near Fluid Outlet
	Skin Injection Hazard		Do Not Stop Leaks with Hand, Body, Glove or Rag
	Splash Hazard		



Safety Alert Symbol

This symbol indicates: Attention! Become Alert! Look for this symbol throughout the manual to indicate important safety messages.

General Warnings

The following warnings apply throughout this manual. Read, understand, and follow the warnings before using this equipment. Failure to follow these warnings can result in serious injury.



	 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 Specifications in all equipment manuals. Use fluids and solvents that are compatible with equipment wetted parts. See Technical Specifications in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer. Turn off all equipment and follow the Pressure Relief Procedure 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. Alterations or modifications may void agency approvals and create safety hazards. Make sure all equipment is rated and approved for the environment in which you are using it. 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.
	 PLASTIC PARTS CLEANING SOLVENT HAZARD Many cleaning solvents can degrade plastic parts and cause them to fail, which could cause serious injury or property damage. Use only compatible solvents to clean plastic structural or pressure-containing parts. See Technical Specifications in all equipment manuals for materials of construction. Consult the solvent manufacturer for information and recommendations about compatibility.
MPa/bar/PSI	 MOVING PARTS HAZARD Moving parts can pinch, cut or amputate fingers and other body parts. Keep clear of moving parts. Do not operate equipment with protective guards or covers removed. Equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.
	 PERSONAL PROTECTIVE EQUIPMENT Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to: Protective eyewear, and hearing protection. Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Component Identification



Fig. 1

Key:

- A Reservoir
- B Reservoir Vent (1 L model only)
- C Pump Element
- D Zerk Inlet Fill Fitting
- E CPC Power Connector
- F Return to Reservoir
- G Stirring Paddle
- H Fluid Outlet
- J Vent Valve Solenoid
- K Pressure Bypass Valve
- L Controller
- M Wire Harness Power Connection
- N Wire Harness Pump Connection
- P Vent Valve
- R Injector

- S Bearing Feed Line
- T Wire Harness
- U Wire Harness Timer Connection*
- V Accessory Port (pressure switch)
- W Wire Harness Vent Valve Solenoid Connection

*25V702 timer kit for the Grease Jockey timer includes an all-in-one pre-wired harness.

* 25V703 timer kit for the GLC 2200 timer includes individual component harnesses that require wiring connections to be made to complete the harness. (See **System Configuration and Wiring**, page 8.)

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Typical Installation



Fig. 2

Key:

- A Reservoir
- E CPC Power Connector
- H Fluid Outlet
- L Controller
- M Wire Harness Power Connection
- N Wire Harness Pump Connection
- P Vent Valve
- R Injector
- S Bearing Feed Line
- T Wire Harness
- U Wire Harness Timer Connection
- Y Main Feed Line
- Z Pump
- AA T-Fitting

Installation

The reference letters in the following instructions refer to **Component Identification**, page 6.

Typical Installation

Follow the instructions in Electric Grease Jockey Automatic Lubrication System manual (see **Related Manuals**, page 1) for installation and operation of Electric Grease Jockey Automatic Lubrication systems.

Choose an Installation Location



AUTOMATIC SYSTEM ACTIVATION HAZARD

Unexpected activation of the system could result in serious injury, including skin injection and amputation.

This device has an automatic timer that activates the pump lubrication system when power is connected or when exiting the programming function. Before installation or removal of the lubrication pump from the system, disconnect and isolate all power supplies and relieve all pressure.

- Select a location that will support the weight of the pump and lubricant, as well as all plumbing and electrical connections.
- Refer to the two mounting hole layouts provided in the **Dimensions** section of this manual, page 21.
- Use designated mounting holes and provided configurations only.
- Use the two fasteners (included) to secure the pump to the mounting surface.

The 1 L pump has an internal bracket, and the 2 L pump includes a bracket.

Installations with injectors mounted to the pump base require an additional pump bracket. See Kit 25V705, page 20.

System Configuration and Wiring

Fuses

NOTICE

Fuses (user supplied) are required on all DC models. To avoid equipment damage:

- Never operate pump DC models without a fuse installed.
- A fuse of the correct current rating must be installed in line with the power entry to the equipment.

Graco Kit 26C916 10 A fuse kit is available from Graco.

Recommendations for Pump Usage in Harsh Environments

• Use a corrosion preventative electrical grease on all contacts.

Wiring and Installation Diagrams

NOTE: Wire colors provided on these pages refer only to the Graco power cable.

NOTICE

The stirring paddle should rotate clockwise (as viewed from the top) (FIG. 3, page 9) when power is applied. Allowing the stirring paddle to rotate counterclockwise damages the pump's internal components.

If the stirring paddle is rotating counterclockwise, stop the pump immediately. Check that the wiring is correct and make any necessary changes.

If the motor does not run after power is supplied, check the pump wiring.



FIG. 3

Refer to **Component Identification**, page 6 for the references in this section.

Power CPC DC - 5 Wire (Non-Controller)

Power Cable CPC DC Part No.: 127780 - 15 ft. (4.5 m), 127781 - 20 ft. (6.1 m), 127782 - 30 ft (9.1 m)

Pin Out

1	Not Used	Not Used
2	-VDC	Black
3	+VDC	Red
4	Low-Level	White
5	Low-Level	Orange
6	Not Used	Not Used
7	Not Used	Green



FIG. 4

All-In-One Grease Jockey Harness

The wire harness (T) is pre-wired. Connect to a power supply, the pump, and the vent valve (P). Kit 25V702 is a Grease Jockey timer kit with the all-in-one harness included.

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Power CPC DC - 5 Wire (Controller)

Power Cable CPC DC Part No.: 127780 - 15 ft. (4.5 m), 127781 - 20 ft. (6.1 m), 127782 - 30 ft (9.1 m)

Pin Out

1	Not Used	Not Used
2	-VDC	Black
3	+VDC	Red
4	LED+	White
5	Button	Orange
6	Not Used	Not Used
7	LED-	Green



Power CPC DC - 3 Wire (Non-Controller)

Power Cable CPC DC Part No.: 127783 - 15 ft. (4.5 m)

Pin Out

1	Not Used	Not Used
2	-VDC	Black
3	+VDC	White
4	Not Used	Not Used
5	Not Used	Not Used
6	Not Used	Not Used
7	Not Used	Not Used



FIG. 6

Setup

The reference letters in the following instructions refer to **Component Identification**, page 6.

Connect to Auxiliary Fittings



NOTICE

Do not attach unsupported equipment to auxiliary fittings such as fill ports and pump element. Attaching unsupported equipment to these fittings can result in irreparable housing damage.

- Always use two wrenches working in opposite directions when connecting anything to the pump element, fluid outlet or auxiliary fittings.
- Hand tighten the pump element (C), then torque to 50 in-lb (5.6 N•m).
- Torque fluid outlet fitting (H) to 30 to 35 ft-lb (40 to 47 N•m) using two wrenches in opposite directions to prevent excessive torque from being applied to the pump element.
- Connect system to fluid outlet, tighten fitting using two wrenches in opposite directions to prevent excessive torque from being applied to the pump element (C).

NOTE: Do not mount injector manifolds directly suspended from the outlet.

Pressure Relief Valves



To prevent over-pressurization, which can result in equipment rupture and serious injury, a pressure relief valve appropriate for the lubrication system must be installed close to each pump outlet to alleviate unintended pressure rises in the system and protect the pump from damage.

- Only use a pressure relief valve that is rated for no more than the working pressure of any component installed in the system.
- Install a pressure relief valve before any auxiliary fitting.
- Do not adjust the pressure relief valve.
- The pressure relief valve included with this kit can only be used with a Graco G-Mini Jockey Pump. It is not intended for use with any other product.
- Factory set to 2000 psi (14 MPa, 138 bar). Do not adjust the setting.

Installation of Optional Injector Bank Mounting Kit

Part No. 25V705

For installation of Grease Jockey Injector manifolds directly to a G-Mini Jockey pump.

The reference numbers in the following instructions refer to FIG. 7.

- 1. Remove the existing metal pump bracket and discard (Model 25V700 2 L pump only).
- 2. Install the new mounting bracket (6) to the pump using the new hardware.
- 3. Remove the nut (2), washer (3), and fitting (5) from the manifold (1).
- 4. Remove the plug (4) from the manifold (1) if not installed in the position shown in FIG. 7.

Setup

- 5. Reinstall the nut (2), washer (3), and fitting (5) into the manifold (1) and the mounting bracket (6) as shown in Fig. 7. Securely fasten into position.
- 6. Install plug (4) into manifold (1). Torque securely.
- 7. Plumb the pump outlet to the fitting (5) using fittings and tube (7) (see FIG. 7).



FIG. 7

8. Mount the pump to the vehicle frame following the installation instructions on page 8.

Load Grease

To ensure optimal performance from the pump:

- Use only NLGI #000 #2 greases appropriate for the application, automatic dispensing, and the equipment's operating temperature. Consult with the machine and lubrication manufacturers for details.
- Do not use Moly grease in systems without pressure switch system deactivation. Moly greases may cause abnormal wear in the pressure relief valve and are not recommended for use in injector based systems without a pressure switch to prevent pressure relief bypass.
- Fill the reservoir using a hand operated pump, pneumatic pump or electric transfer pump.
- Do not overfill.
- Do not operate the pump without having a reservoir attached.

NOTICE

- Always clean fitting (D) with a clean dry cloth prior to filling the reservoir. Dirt and/or debris can damage pump and/or lubrication system.
- Use care when filling the reservoir using a pneumatic or electric transfer pump to avoid pressurizing and breaking the reservoir.
- 1. Connect the fill hose to the Zerk Inlet Fitting (D) (FIG. 8).
- 2. Plug the outlet or energize the vent valve solenoid with a 12 V source. Skip this step for pumps that are installed and have injector main line tubing installed in the outlet.



Fig. 8

3. For higher viscosity fluids, start the pump, per the controller instructions, to rotate the stirring paddle during filling to prevent air pockets from forming in the grease.

Change Greases

Always use compatible greases when changing greases.

Prime the Pump

It is not necessary to prime the pump every time the pump is filled. The pump only requires to be primed the first time it is used, or if it is allowed to run dry.

- 1. Disconnect the system plumbing.
- 2. Run the pump until air is no longer dispensed with the lubricant out of the pump outlet.

Operation

The reference letters in the following instructions refer to **Component Identification**, page 6.

Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.



This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

- 1. Disconnect the pump power supply by removing the wire harness pump connection (N).
- Disconnect the wire harness vent valve solenoid connection (W). The vent valve automatically relieves system pressure.
- Relieve any residual pressure in the system using two wrenches working in opposite directions on the fluid outlet bolt (H) and the outlet fitting to slowly loosen the fitting only until the fitting is loose and no more lubricant or air is leaking from the fitting (FIG. 9).



Fig. 9

Non Controller Operation

The pump can be controlled using an external, user supplied, controller.

NOTE:

- When using an external controller, Pump ON (Run) Time should be set for no longer than 30 minutes.
- In most cases, Pump OFF (Rest) Time should be twice as long as Pump ON (Run) time. If alternative ON / OFF times are required, contact Graco Customer Service for assistance.

Low-Level Output Option

Pumps include a Low-Level Output Option for use with a GLC 2200 timer. The low-level signal is monitored across PINS 4 and 5. For the locations and wiring information for PINS 4 and 5, see **Wiring and Installation Diagrams**, page 8.

Typical Low-Level Output Response with Low-Level Fluid



Maintenance

Frequency	Component	Required Maintenance
Daily and at Refill	Fill Fittings	Keep all fittings clean using a clean dry cloth. Dirt and debris can damage the pump and the lubrication system.
Daily	Pump Unit and Reservoir	Keep pump unit and reservoir clean using a clean dry cloth.
Monthly	External Wiring Harness	Verify external harnesses are secure.

Recycling and Disposal

End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Perform the Pressure Relief Procedure, page 14.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove motors, batteries, circuit boards, LCDs (liquid crystal displays), and other electronic components. Recycle according to applicable regulations.
- Do not dispose of batteries or electronic components with household or commercial waste.
- Deliver remaining product to a recycling facility.

Troubleshooting



Follow **Pressure Relief Procedure**, page 14, before checking or repairing the equipment.

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

Problem	Cause	Solution
Unit does not power on.	Incorrect or loose wiring	Refer to wiring and installation diagrams, pages 9 to 10
	Tripped external fuse from using grease with an inadequate temperature rating in a cold environment.	Replace lubricant with a lubricant rated for environmental conditions and application. Replace fuse.
Lubricant leaks past the seal	Seal was not installed correctly.	Replace seal.
located on the bottom of the reservoir.	Reservoir is being pressurized during filling.	Ensure that the vent tube is not plugged.
The external controller is	Pump failure.	Replace the pump element.
functioning, but the unit is not pumping during the ON cycle.	Motor failure.	Replace the pump.
After wiring and installing the equipment, the pump is not working.	The pump is wired incorrectly.	Rewire the pump following Wiring and Installation Diagrams, page 8.

Parts



Part No./Description

Ref.	Part	Description	Qty
1a ♦		Reservoir, 1 L, included in kit 26C943, Model 25V701	1
1b*		Reservoir, 2 L, included in Kit 26D679, Model 25V700	1
2♦米		Label, max fill, included in kits 26C943 and 26D679, for I L and 2 L models, Models 25V700 and 25V701	1
3♦*		Label, branding, 1 L, included in kits 26C943 and 26D679, for I L and 2 L models, Models 25V700 and 25V701	1
5		Holder, Models 25V700 and 25V701	1
6		Shaft, square, Models 25V700 and 25V701	1
7		Baffle, Models 25V700 and 25V701	1
8		Element, pump, dia 6 mm, Models 25V700 and 25V701	1
9		Bolt, alignment, valve, vent, Models 25V700 and 25V701	1
10		Plug, pipe, Models 25V700 and 25V701	1
11		Fitting, zerk, 1/8 MP, Models 25V700 and 25V701	1
12		Packing, o-ring, Models 25V700 and 25V701	1
13		O-ring, 2-012 V75, Models 25V700 and 25V701	1
14		Label, overlay, black, Models 25V700 and 25V701	1
15		Assembly, sub, valve, vent, NPS, Models 25V700 and 25V701	1
16♦		Packing, o-ring, valve, Models 25V700 and 25V701	5/4
17		Motor, 12 VDC, Models 25V700 and 25V701	1
18		Seal, bottom cover, Models 25V700 and 25V701	1
19		Cover, bottom, Models 25V700 and 25V701	1
20		Screw, Mach pan hd, Models 25V700 and 25V701	10
21		Wiper, tube, I L, Models 25V701	1
25	1	Paddle, stirring, I L, Models 25V701	1
25		Paddle, stirring, 2 L, Models 25V700	1
26		Paddle, LL, Models 25V700 and 25V701	1

Ref.	Part	Description	Qty.
28		Nut, mach hex, Models 25V700 and 25V701	1
35*		O-ring, 258, buna-n, green, Model 25V700	1
36		Adapter, 2 L, Model 25V700	1
37♦		Seal, ring, Models 25V700 and 25V701	1
38		Base, pump, Models 25V700 and 25V701	1
39		Plug, M 20 x 1.5, with seal, Models 25V700 and 25V701	1
40		Bolt, mounting, valve, vent, Models 25V700 and 25V701	1
41		O-ring, 908 Viton, Models 25V700 and 25V701	1
42		Packing, o-ring, 015, Viton, Models 25V700 and 25V701	1
44		Identification label, Models 25V700 and 25V701	1
45♦		Tube, venting, long, Models 25V700 and 25V701	1
48		Harness, CPC to Motor &LL, non-ctrl, Models 25V700 and 25V701	1
49		Nut, lock, Models 25V700 and 25V701	2/4
50		Bracket, 2 L model, Model 25V700	1
51		Washer, plain, Model 25V700	4
52		Screw, cap, hex hd, Model 25V700	4
53▲		Label, safety	1
56♦		Screw, mach, pnh, Model 25V701	3

▲ Replacement safety labels, tags, and cards are available at no cost.

- ◆ Included in Reservoir Kit 25V706 (1 Liter)
- * Included in Reservoir Kit 26D679 (2 Liter)

Kits and Accessories

Fuse Kits

Kit 26C916

Description	
Fuse, 10A, 12 V	1
Holder, ATO Line Fuse	
Terminal, connector, butt splice	

Pump Element Kits

Kit 26C947

Description		
Element, dia 6 mm, repair kit	1	
Seal, combined, metal-rubber, M 18	1	
Label, safety, warning, pressure	1	

Accessory Kits

Kit 25V702 - Timer Kit, Grease Jockey

Description	
Control, Grease Jockey	2
Harness, wire, timer	1
Card, warranty	1

Kit 25V703 - Timer Kit, GLC 2200

Description		
Control, GLC 2200	2	
Cable, 15 ft, S00W w/7 pos, spin ra	1	
Cable, wiring harness, GLC 2200	1	
Cable, 6 ft, vent valve, 2 pin	1	

Kit 25V704 - Pressure Switch Kit

Description	Qty
Switch, press adj 5800	1
Harness, wiring, M12(F) to bare wire	1

Kit 25V705 - Injector Bracket Kit

Description	Qty
Bracket, mounting, manifold injector	1
Tube, manifold, injector	1
Fitting, elbow, 90 deg, 9/16 orb to sae	1
Screw, cap, hex hd	1
Washer, plain	1
Nut, lock	1

Dimensions

Model	Heig	ht - A	Widt	h - B	Dept	:h - C
	Inches	mm	Inches	mm	Inches	mm
1L	12.2	310	8.4	213	7.1	180
2L	14.29	363	9.2	234	8.1	206





1 L Pump Mount



2 L Pump Mount





Technical Specifications

G-Mini Pump				
	US	Metric		
Maximum fluid working pressure	2000 psi	14 MPa, 138 bar		
Power				
12 VDC	9-16 VDC; 4 A (cont) 48 W, 9.5 A (peak) 114 W, inrush/locked rotor 12 A			
Pump Outlet	9/16 in. SAE straight thread o-ring boss (female)			
Reservoir Size				
25V701	1.0 L			
25V700	2.0 L			
IP Rating	IP69K			
Working Temperature*	5°F to 158°F	-15°C to 70°C		
Weight	8.8 lb	4 kg		
Wetted parts	carbon steel, alloy steel, stainless steel, nitrile rubber (buna-N), bronze, nickel plated alnico, chemically lubricated acetal, aluminum, PTFE, amor- phous polyamide, nylon 6/6 (PA), fluoroelastomer and polyurethane			
Sound data	<60dB			
Outputs - Low Level				
Contact Rating	100 W maximum			
Switch Rating	200 VDC maximum			
Switching Current	0.5 A maximum			
Carry Current	1.2 A maximum			
Outputs - Manual Run Button				
Pump Voltage: 12 VDC	11 mA at 12 VDC			
Solenoid Coil	Resistance (DC) @ 68°F (20°C) (Ohms)	Initial Current Draw (Amps)		
12 Volt DC	7.2	1.67		

*Achieving the minimum working temperature is contingent on using a temperature compliant grease in an appropriately designed system.

California Proposition 65

CALIFORNIA RESIDENTS

WARNING: Cancer and reproductive harm – www.P65warnings.ca.gov.

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.

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For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

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

Phone: 612-623-6928 or Toll Free: 1-800-533-9655, Fax: 612-378-3590

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 3A9318

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