Instructions - Parts

Grease Jockey® Chassis Lubrication System

312054P

EN

For on-board, automatic lubrication of trucks and heavy use vehicles. For professional use only.

Maximum Working Pressure: See **Technical Specifications**, page 29

Important Safety Instructions

Read all warnings and instructions in this manual and in all related manuals before using the equipment. Save all instructions.

Related Manuals

Manual in English	Description
334662	Grease Jockey Lubrication Controller

ti26685a

Contents

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 symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

⚠WARNING





SKIN INJECTION HAZARD

High-pressure fluid from dispensing device, 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 dispensing device at anyone or at any part of the body.
- Do not put your hand over the fluid outlet.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.


FIRE AND EXPLOSION HAZARD

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

- Use equipment only in well-ventilated area.
- Eliminate all ignition sources, such as cigarettes and portable electric lamps.
- Ground all equipment in the work area.
- Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Use only grounded hoses.
- **Stop operation immediately** if static sparking occurs or you feel a shock**.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

⚠ WARNING

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical 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.

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 at main switch before disconnecting any cables and before servicing or installing equipment.
- Connect only to grounded power source.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

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.

BURN HAZARD

Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.

⚠WARNING

PRESSURIZED ALUMINUM PARTS HAZARD

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

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.

Installation

Mount the Pump

NOTE: A pump mounting bracket is available. Contact your Graco distributor.

The pump inlet is gravity fed, so the pump must be set up vertically.

Choose a location that is:

- visible
- accessible for filling the reservoir
- protected

NOTE: Mounting hole pattern is shown in FIG. 1.

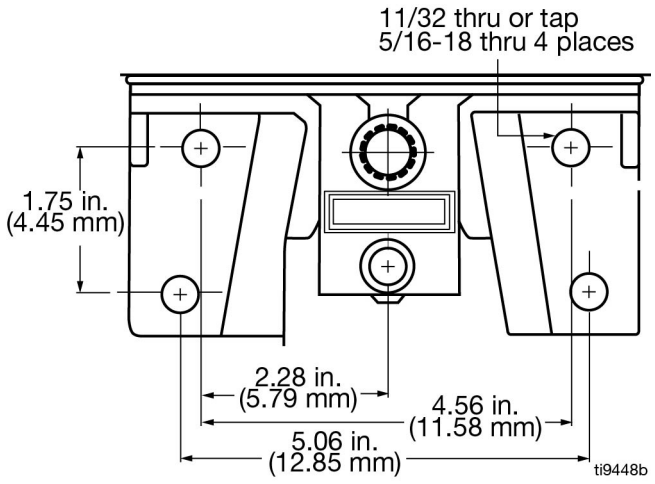


FIG. 1

Air Operated Pump

Solenoid Installation

Be sure that the voltage matches the electrical system of the vehicle.

Refer to FIG. 2 and FIG. 3 for this section.

1. Apply thread sealant to fitting threads (A).
2. Thread the fitting (A) to the bottom of the pump, hand tighten, only.
3. Using an open end wrench, tighten the fitting making sure that the side port of the fitting points toward the rear of the vehicle.
4. Apply thread sealant to the solenoid threads (B).
5. Thread solenoid (B) to the side port on fitting (A), wrench tighten.
6. Apply thread sealant to plug threads (C).
7. Thread the plug (C) to the bottom of fitting (A), wrench tighten.
8. Connect the air line to the air inlet (E).
9. Attach the electric connector (D) to timer harness.

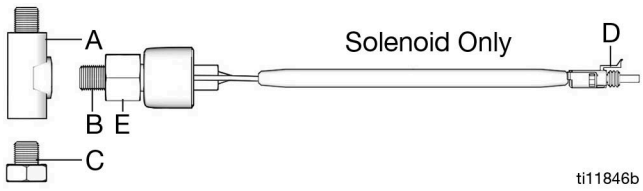


FIG. 2

10. The completed installation is shown in FIG. 3.

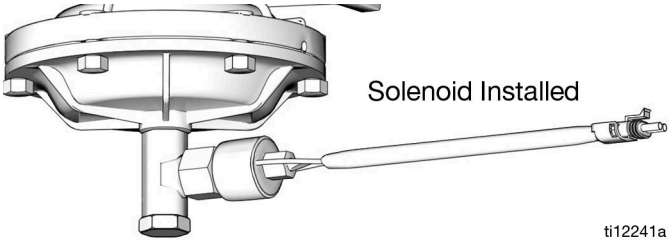


FIG. 3: Completed Installation

Timer Installation

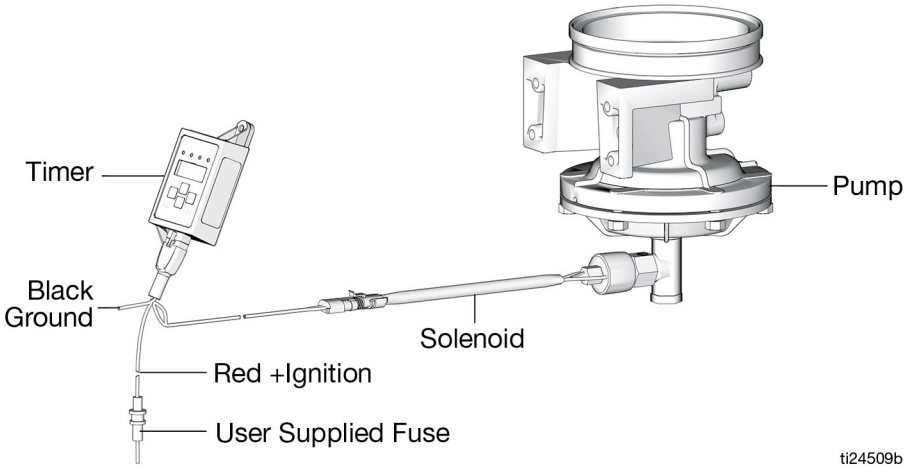


FIG. 4

Fill all lube points with grease before removing the zerk fittings to change to tube connector fittings to ensure that each lube point accepts grease.

All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

Grounding

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

1. Install the Lubrication Controller to a flat surface.
2. Drill mounting holes, see **Mounting Hole Layout**, page 28. A Grease Jockey timer retrofit kit is available from your Graco distributor, see **Installation Kits**, page 24.
3. Align the junction box with the holes drilled in step 2. Use screws (user supplied) to secure the junction box to the mounting surface (FIG. 5).

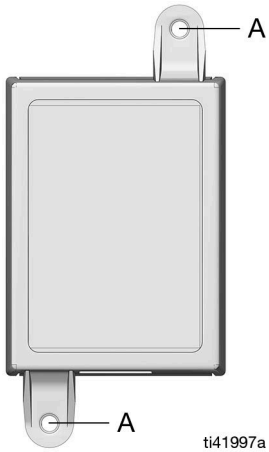


FIG. 5

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 Controller from the system, disconnect and isolate all power supplies and relieve all pressure.

4. Connect the timer leads to the solenoid (FIG. 4). A wiring harness kit with a mating connector is available from your Graco distributor. See **Mating Harness Kits**, page 24.

NOTE: All connections between the timer and the solenoid must be moisture-proof and safe from grounding.

NOTICE
Do not ground the pump to the solenoid. This could damage the timer.

5. Connect the red lead wire to the positive side of the vehicle ignition switch. Install a 5 A fuse at this connection.

6. Connect the black lead wire to the chassis ground.

7. Set up the Timer using the instructions from Manual 334662.

Wiring

Kits 25A118, Harness 24P314 Wiring Diagram

Pin	Color	Description
1	Blue	Solenoid (-) ... goes to WHITE solenoid wire
5	Black	Timer Power (-); Chassis Ground
6	Orange	Solenoid (+) ... goes to BLACK solenoid wire
10	Red	Timer Power Input (+); Ignition power

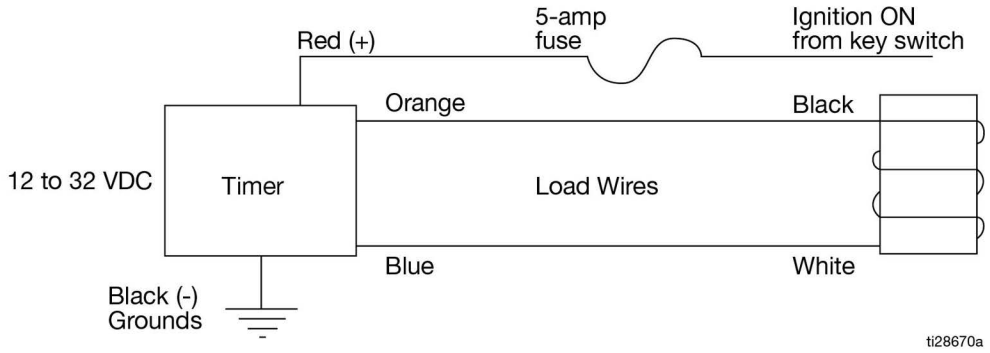


FIG. 6

Kits 24W479, Harness 127899 and Kit 24Q480, Harness 127900 Wiring Diagram

Pin Timer	Pin Delphi 56/280	Color	Description
1	D	Yellow	Solenoid (-) ... goes to WHITE solenoid wire
5	E	Black	Timer Power (-); Chassis Ground
6	C	Blue	Solenoid (+) ... goes to BLACK solenoid wire
10		Red	Timer Power Input (+); Ignition power

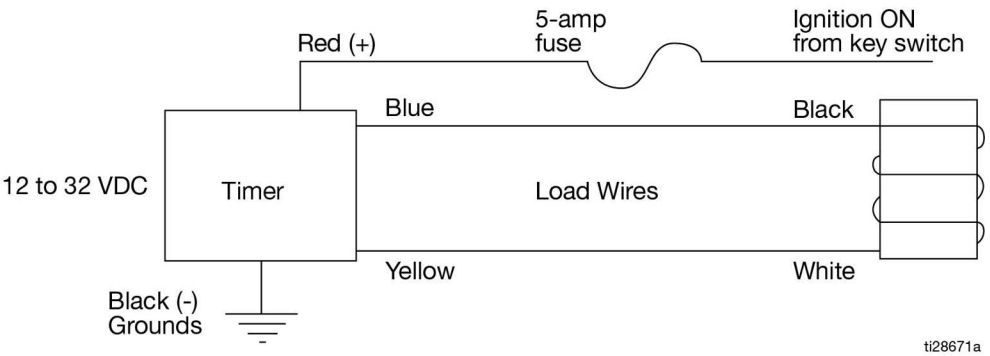


FIG. 7

Modules

- Modules (FIG. 8) are mounted with a ported stud (A) through a 5/8 in. (16 mm) hole.

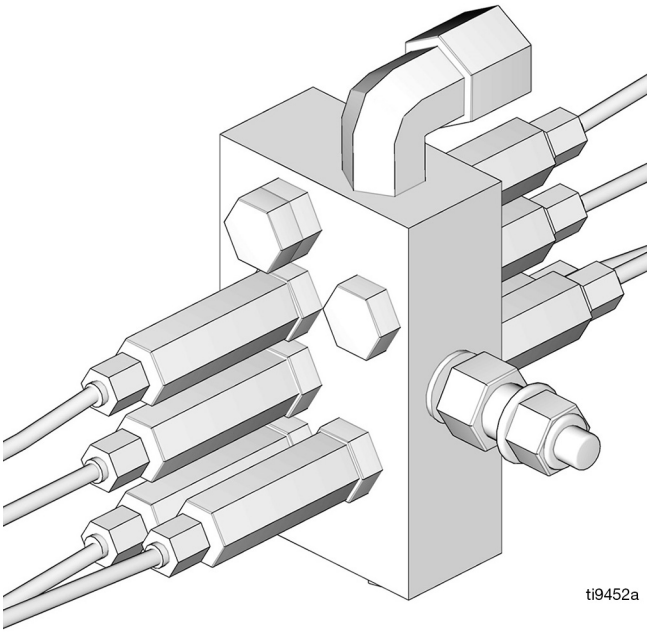


FIG. 8

- Mount all modules on the frame rail or a cross member close to the points being lubricated.
- Grease Jockey kits come with module assemblies for each strategic area of the chassis being lubricated: Left Front (FIG. 9), Right Front (FIG. 10), Rear Axle (FIG. 11), and Fifth Wheel (FIG. 12).
- The unused ports in the manifolds should have plugs in them. If additional lube points are needed, these plugs can be replaced with the appropriate sized meters and lines.

Left Front Module (FIG. 9)

The Left Front Module assembly contains meters, hardware, and tubing for:

- two king pins
- one spring pin
- two spring shackle pins
- one tie rod
- two drag links
- one S-cam
- one slack adjuster lube points
- Optional points from this module typically are linkage and steering box points

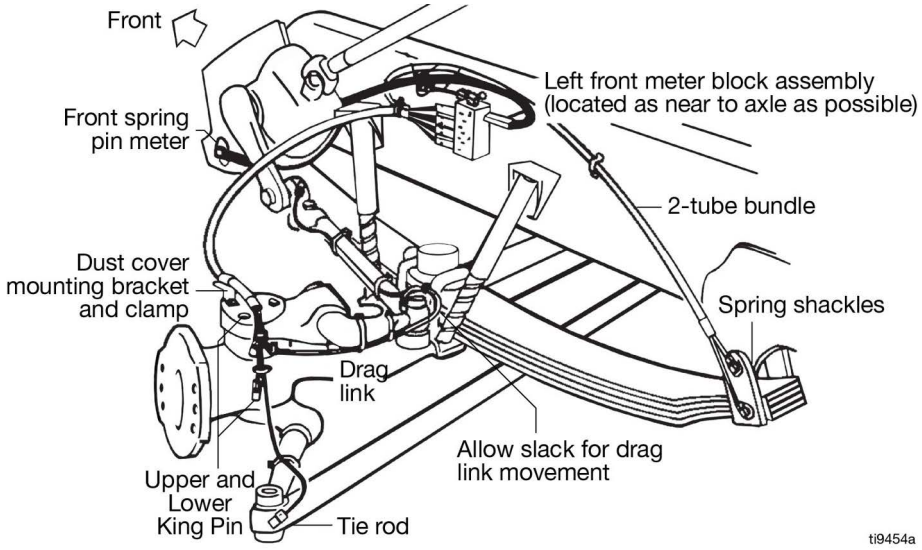


FIG. 9

Right Front Module (FIG. 10)

The Right Front Module assembly contains meters, hardware, and tubing for:

- two king pins
- one spring pin
- two spring shackles
- one tie rod
- two clutch cross shafts
- one S-cam
- one slack adjuster lube points
- Optional points from this module typically may be body pivot pins

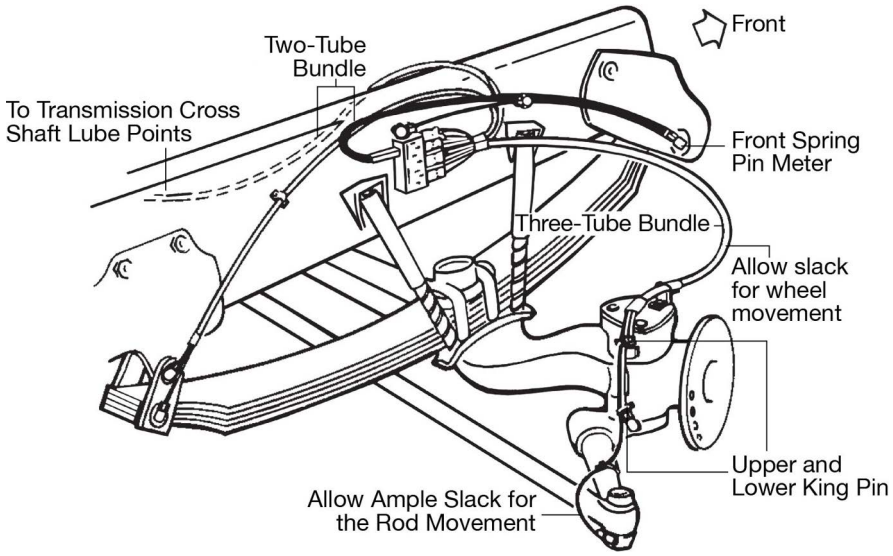


FIG. 10

Rear Axle (FIG. 11)

The assembly contains meters, hardware, and tubing for:

- two) or four S-cams
- two or four slack adjuster lube points. The number of points is determined by the application (single or tandem axle)
- Optional points from this module typically are linkage and steering box points

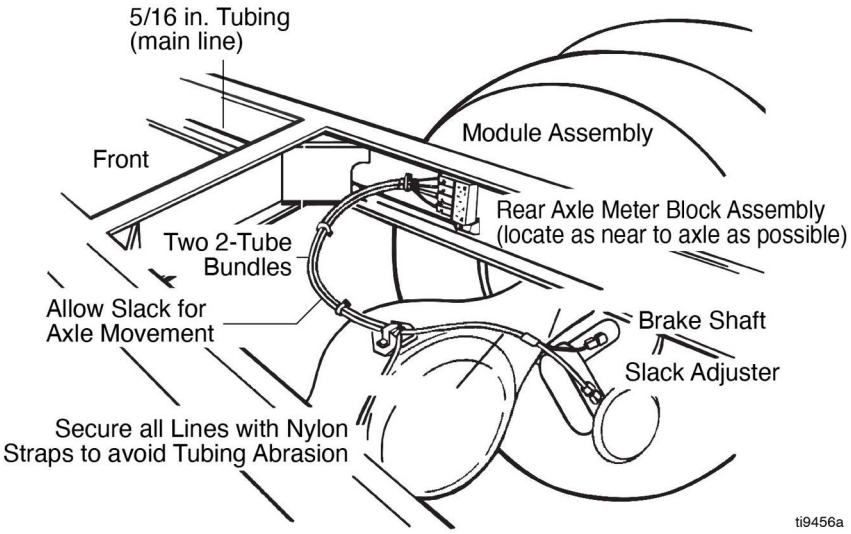


FIG. 11

Fifth Wheel (FIG. 12)

The assembly contains meters, hardware, and tubing for:

- four face plates
- two pivot pin lube points

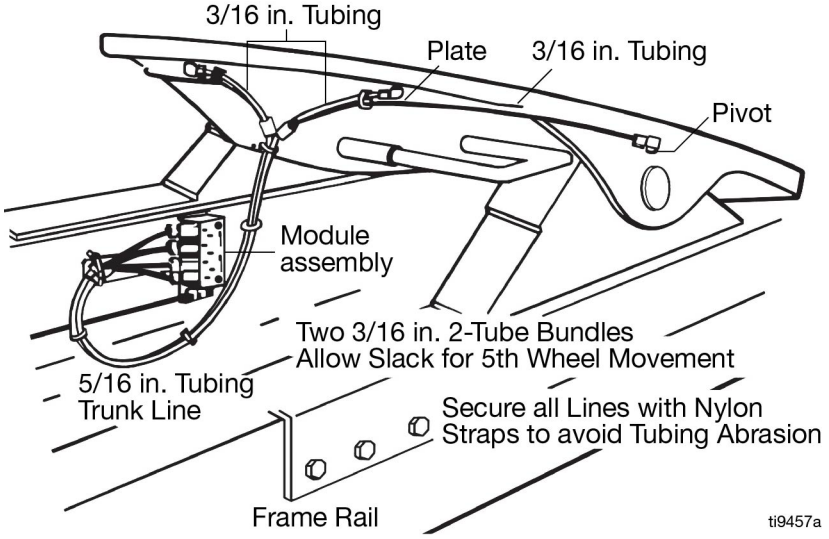


FIG. 12

Tubing

NOTE:

- When installing the tubing, avoid routing it close to a heat source such as an exhaust manifold, muffler, turbocharger.
- Non-approved nylon or air brake tubing should not be used.
- Only use approved 3/16 in. (5 mm) and 5/16 in. (8 mm) OD tubing. The 3/6 in. (5 mm) tubing comes in three configurations.
  - Single tubes: black or orange
  - Two (2) tube bundles: black with an orange tube inside a sheath
  - Three (3) tube bundle: black, blue, and orange tube inside a sheath
    - The orange tube connects to the highest output meter
    - The blue tube connects to a lessor or equal output meter
    - The black tube connects to the lowest or equal output meter of the bundle group

Preparation

1. Measure approximate lengths of tube bundles, being sure to leave extra length for trimming at the lube points.
2. Cut the outside sheath on tube bundles back to where the bundle meets the first lube point, being careful not to puncture or cut the tubes inside the bundle. Use a stripper to prevent damage.
3. Peel the outside sheath back upon itself to create a collar. Cut off the excess, being careful not to sever the remaining sheath or tubes.
4. Align the tubing with the fitting, making cuts square and clean with an anvil type cutter.
5. Allow ample slack for tube movement and ease of installation.

Installation

A self aligned ferrule is supplied with all 3/16 in. (5 mm) and 5/16 in. (8 mm) fittings. It is not necessary to remove the nut and ferrule to seat the tube into the fitting.

1. Ensure that the tube is well seated into each fitting. Brass inserts are supplied with kits for use with 5/16 in. (8 mm) tubing. These inserts must be used at every 5/16 in. (8 mm) connection.
2. Route the 5/16 in. (8 mm) main line tube from the pump to the manifolds.

NOTE: The 5/15 in. (8 mm) main line tube may also be used as the air supply line to the solenoid. Route inside of the frame for protection, and make sure it is secure.

Fill System and Start Up

NOTE:

- The Grease Jockey system is designed to pump lightweight fluid greases and oil over a wide range of conditions.
- Choose a lubricant that is compatible with the operating temperature of the system.
- Use lubricant part number 557941, or a quality NLGI 0 or 00 lithium base grease with an EP additive.
- Systems that use fluid grease:
  - must use NLGI grade 00 grease at temperatures below 50°F (10°C).
  - may use NLGI grade 0 or 00 at temperatures above 50°F (10°C)

Rigid Reservoir Fill and Refill

1. Fill the reservoir through the fill stud.
2. Pump output port should be connected to the system, or plugged to avoid spillage.
3. Fill the reservoir to the full line, being careful not to overfill.

How to Reduce Grease in the Reservoir when Overfilled

To reduce the grease in the reservoir if the pump is accidentally overfilled:

1. Disconnect the main line from the pump or at the first module.
2. Cycle the pump with the timer on Test for a few minutes, until the level of grease is acceptable making sure to capture the excess grease.
3. In a rigid reservoir, clean the breather tube of residual grease.
4. Return the timer to the original setting.
5. Reconnect the main line.

Pump Filter

The pump assembly contains a filter that removes impurities and dirt that may be present in the lubricant used to fill the reservoir.

Clean the filter after every four or five reservoir fills.

1. Remove the quick fill fluid fitting.
2. Remove the filter and clean with solvent or compressed air, as appropriate.
3. Replace the filter in the pump body, flanged end facing out.
4. Reassemble the quick fill fluid fitting.

A mating female quick disconnect is available. Order Part Number 557877.

Adjusting Grease Output Volume

If a meter is not producing the correct amount of lubricant for a specific location on a vehicle, or if a replacement meter of the correct size is not available, output spacer washers can be installed to adjust the meter's output volume.

Use the table to determine which size of meter is appropriate for the grease location.

Meter Identification and Usage				
Meter Size	**Number of Washers**	**Hex Flat**	**Output ($in.^3$)**	**Recommendations for Specific Lubrication Points**
0	0	No	0.002	Brake Shafts, transmissions, cross shafts, S cams
1	1	No	0.005	Slack adjusters, 5th wheel pivot, and miscellaneous points
2	2	No	0.009	Drag link, tie rod ends, power steering linkage
3	3	No	0.012	Kin pins, spring pins, spring shackles
4	4	No	0.015	Miscellaneous points
8*	4	Yes	0.026	5th Wheel plate
**Size 8 high output meters cannot be changed.*				

To change output volume:

1. Follow **Pressure Relief Procedure**, page 17.
2. If the meter is located on a manifold, use a 7/16 in. wrench to remove tubing (FIG. 13).

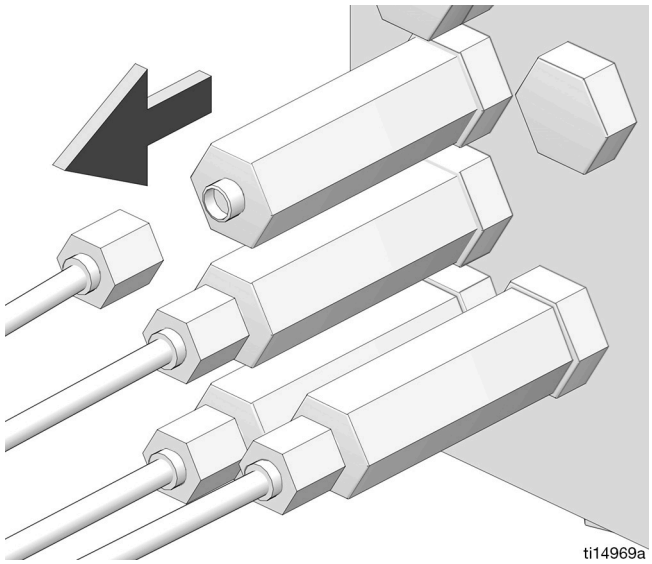


FIG. 13

3. Use a 5/8 in. deep well socket to remove the meter from the manifold (FIG. 14).

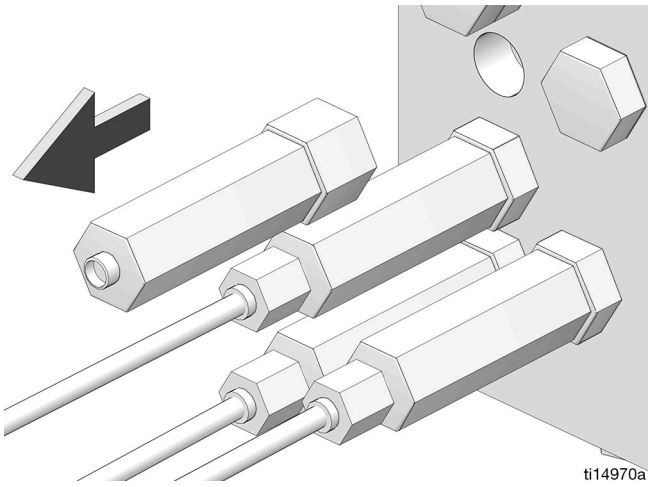


FIG. 14

4. Place the meter is a vise, with the output end (tube connector) facing up.
5. Use two 5/8 in. wrenches to separate the meter halves.
6. Separate the meter body from the valve assembly, being careful not to misplace or damage the springs or o-rings that may be attached (FIG. 15).
7. Add or remove output spacer washers from the meter valve assembly, as needed.

NOTE:

- Add output spacer washers to increase the output volume
- Remove output spacer washers to decrease the output volume

8. Reassemble the meter body on the meter valve assembly using a 5/8 in. wrench. Tighten using only enough force to seat the output washers firmly (FIG. 15).

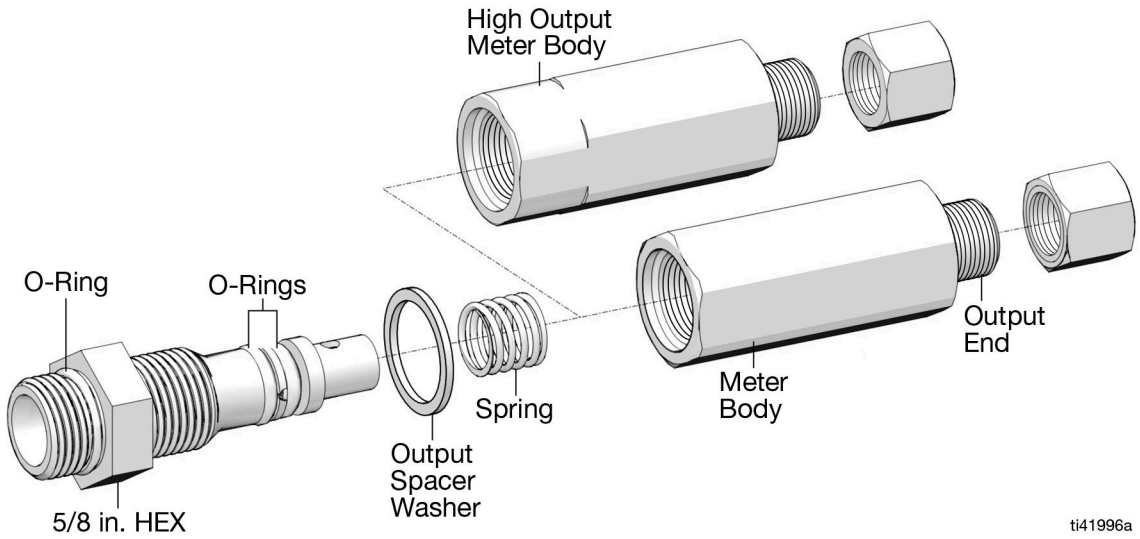


FIG. 15

9. Align the hex flats so that a deep well socket will slide down to the meter body for assembly onto the manifold.
10. Reassemble the meter onto the manifold using the 5/8 in. deep well socket, torque 2 to 13 ft-lb (2.7 to 4.1 N•m).

NOTICE
Do not exceed 12 ft-lb (16.3 N•m) torque or meter damage may occur.

11. Hand tighten the tube nut onto the meter and tighten 1/8 turn beyond hand tight.

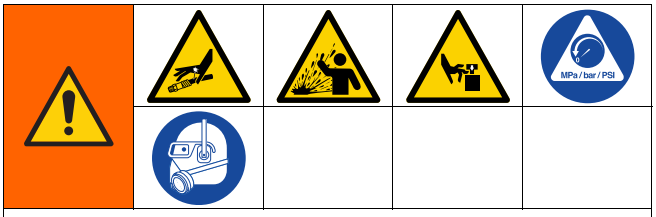
NOTE: Tube nuts can be reused a maximum of eight times after the initial tightening.

12. Reconnect the tubing to the manifold using a 7/16 in. wrench, to securely tighten the fitting.

Operation

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.

NOTE:

- Check the vehicle air supply. At least 100 psi (0.7 MPa, 7 bar) gauge pressure is required.
- All of the air must be removed from the main lines and manifolds.

1. Remove all 1/4 NPT end ports and 1/8 NPT stud plugs on the module manifolds.
2. With the vehicle ignition switch turned ON, set the timer to the test position and press MANUAL RUN.
3. As the pump cycles, check the open module ports for flow of grease with no air.
4. Check the open port closest to the pump first, proceeding to the port furthest from the pump last. This pushes out the air in the main line(s).
5. When the flow of grease from the port is free of air, close the port and continue this process until all of the ports have been checked.

NOTE: The 3/16 in. (5 mm) distribution lines are prefilled, and should not require purging of air.

6. Run the system in the test position for a few minutes.
7. Check that all line connections are holding pressure.
8. Check that all of the lube points in the system are receiving lubricant.
9. Reset the timer for the desired setting for the application, using the table as a starting point:

Recommended Timer Setting	
Timer Setting	**Driving Conditions**
1/2 or 1 hr	Off Highway
1 1/2 or 2 hr	Start and stop city, heavy salt, snow and ice, rough pavement, wet climate, heavy loads, dusty roads.
3 hr	Normal city or highway driving, normal climate, moderate loads.

NOTE: These settings are recommendations only. Individual application experience will determine actual time setting.

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 17.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove circuit boards, LCDs (liquid crystal displays), and other electronic components. Recycle according to applicable regulations. Only use this bullet for products with electronics.
- Deliver remaining product to a recycling facility.

Troubleshooting

Follow **Pressure Relief Procedure**, page 17, before checking or repairing the system.

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

Problem	Cause	Solution
Too much grease at all of the lube points	Timer cycle is too frequent	Adjust the time one (1) click to a higher time cycle (Example: move from 2 hours to 3 hours).
Too much grease at one lube point	Meter leakage	Remove and replace the meter
Not enough grease at all of the lube points	Timer cycle is too infrequent	Adjust the timer one click to a lower time cycle (Example, move from 3 hours to 2 hours).
No indication of fresh grease at all points	Lubricant reservoir is filled with a heavy grease that will not work in the system	Remove the reservoir, clean and refill with proper lubricant. Remove the main line plugs from the meter blocks, and cycle pump until all of the old lubricant is removed from the line, and replace main line plugs.
	Blown fuse or a break in the wiring circuit	Check for an electrical short circuit or a broken wire, and repair.
	Broken air line (air pump only)	Repair or replace the air line.
	Inoperative solenoid air valve (air pump only)	Check the electrical circuit from the timer to verify voltage is reaching the solenoid coil. Connect a meter from the supply black wire to the return white wire at the connector of the solenoid. Do not connect direct to ground. Repair or replace wiring as needed: check coil resistance for approximately 20 ohms. Check valve operation; repair or replace as needed.
	Inoperative air pump	See Troubleshooting, **Air operated pump is not working** page 20.
	Main line broken	See Troubleshooting, **Main tube line is damaged**, page 20.
	None of the above	Using a 2500 psi pressure gauge, check for pressure at the last module in the system. The minimum gauge reading should be 500 psi. If it is not, check pressure at the pump. The pressure should reach 1000 psi. If it does, check for blocked, broken, or collapsed main line. Otherwise, repair or replace the pump.
No indication of fresh grease at some of the lube points	Main line is broken	See Troubleshooting, **Main tube line is damaged**, page 20.
	There is an air lock in the main line	See **Pressure Relief Procedure**, step 9, page 17.

Problem	Cause	Solution
No indication of fresh grease at one lube point	Damage to secondary line	See Troubleshooting, **Secondary line is damaged**, page 20.
	Meter is inoperative	Replace the meter.
	Lube point fitting is broken	Remove broken fitting and replace.
Main tube line is damaged	Tube is trapped and broken, rubbed through	Replace or repair (re-route or protect the line to prevent future damage). Purge with grease to expel air before connecting a new main line into the system. Use a tube insert at all main line connections.
	The main line has popped out of the fitting	Use a new compression sleeve and a tube insert to refit the line to the fitting.
Secondary line is damaged	Tube is trapped and broken, rubbed through	Replace or repair (re-route or protect the line to prevent future damage).
	The main line has popped out of the fitting	Use a new compression sleeve and a tube insert to refit the line to the fitting.
	Lube point fitting is broken	Remove broken fitting and replace.
Air operated pump is not working	Solenoid valve is not working	See Troubleshooting, **No indication of fresh grease at all points**, **Inoperative solenoid air valve (air pump only)**, page 19.
	Air line is damaged	Repair or replace, if needed.
	Low air pressure	Build up air pressure in the truck system.
	Electrical circuit to timer or solenoid is damaged	Check connections; repair or replace if needed.
	Timer is not working	Repair or replace the timer.

Repair

Rebuild Grease Jockey Pump

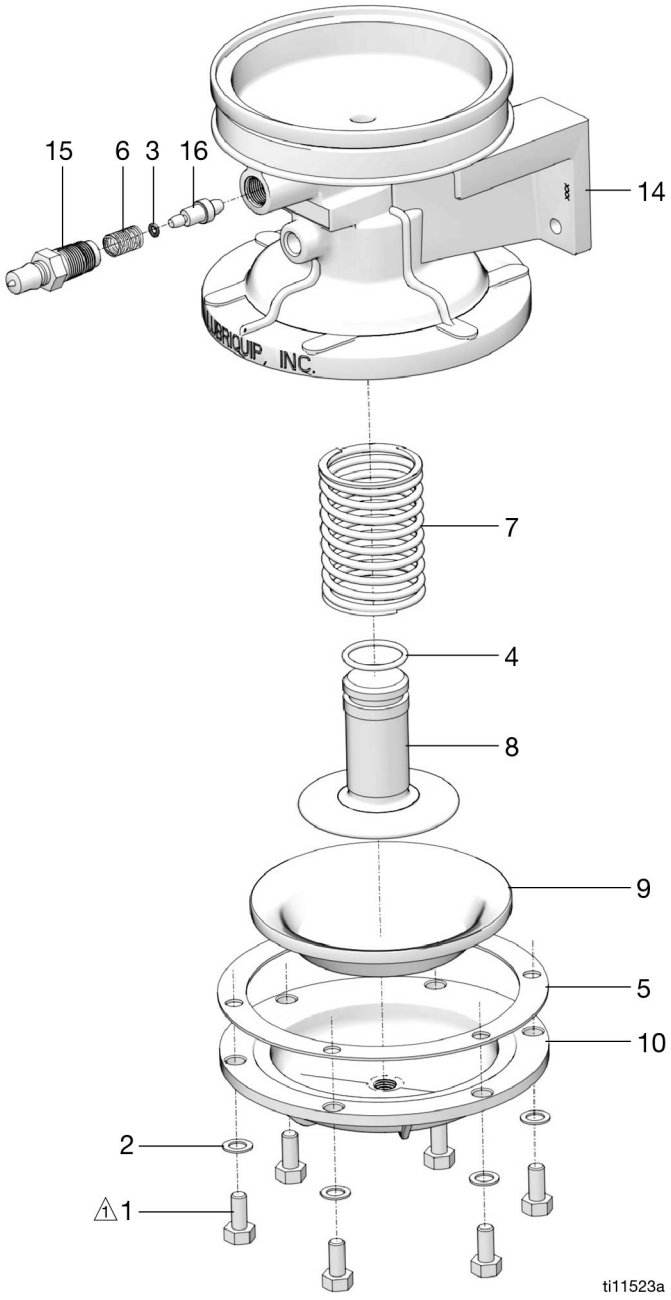


FIG. 16

Ref.	Description	Qty.
1	SCREW, 3/8 in. x 3/4 in.	6
2	WASHER, flat, 3/8 in.	6
3	O-RING, fluoroelastomer A, 70 DURO, 1/16 in.	1
4	O-RING, fluoroelastomer A, 70 DURO, 1/8 in.	1
5	GASKET, pump	1
6	SPRING, check valve	1
7	SPRING, return, piston	1
8	PISTON, lube	1
9	DIAPHRAGM	1
10	COVER, chamber	1
14	BODY, pump	*
15	FITTING, coupling 3/8 in. x 1/4 in.	*
16	PISTON, check valve	*

* For reference only. Not included in kit.

⚠1 Torque to 15-22 ft.-lbs (20-30 N.m) and apply Loctite® 242

Piston Chamber Repair

Use Pump Rebuild Kit 563762. The numbers in parenthesis refer to FIG. 16.

1. Remove the grease mainlines from the pump.
2. Follow the **Pressure Relief Procedure**, page 17.
3. Remove the air supply line and electrical connector from the solenoid valve.
4. Remove the pump from vehicle.

NOTE: It may be necessary to empty the reservoir of grease before the remaining steps.

5. Turn the pump upside down to remove the bottom air chamber cover screws.
6. Use a 9/16 in. wrench to remove the solenoid valve from the cover (10) by unscrewing the brass nipple from the pump body.
7. Use a 9/16 in. wrench to remove five of the hex screws (1) and washers (2) from the cover. Use care in removing the sixth screw because the internal components are under compression and the cover will pop off. Discard all of the screws (1) and washers (2).
8. Remove the diaphragm (9) and gasket (5), and discard.
9. Remove the piston (8) and spring (7) from the pump cavity, and discard.
10. Remove the o-ring (4) from the top of the piston and discard.
11. Clean the excess grease, grit, and dirt from inside of the pump with a clean paper or cloth towel.
12. Check the piston cavity for scoring or scrapes.
13. Clean the piston.
14. Make sure that no fibers from the paper or cloth towel are left behind.
15. Make sure that the flapper valve is visible and loose in the top of the piston cavity. If the flapper is not visible, or frozen in place, the pump will need to be replaced (Part Number 563625).
16. Apply a small amount of grease to the new o-ring, and assemble it and the new spring to the new piston, then insert into the pump.
17. Position the new diaphragm onto the piston, using the orientation shown in FIG. 16, page 21.
18. Position the new gasket and the cap back onto the pump and attach using the hex screws (1) and washers(2), torque 15 to 22 ft-lb (20.3 to 29.8 N•m), alternating tightening of the screws around the cover to avoid excessive tilting of the cover.

Check Valve Repair

1. Use a 3/4 in. wrench to remove fill stud fitting (15) from the pump body.
2. Use a 5/16 in. wrench to remove the check valve spring (6), the o-ring (3), and the check valve piston (16). Discard the spring and o-ring.
3. Clean the cavity with clean paper or cloth towel.
4. Make sure that no fibers from the paper or cloth towel are left behind.
5. Replace the o-ring (3) and reinstall the check valve piston (16) into the cavity making sure that the check valve piston (16) is properly oriented in the cavity with the o-ring (3) on the outside end.
6. Install the new check valve spring (6) into the cavity.
7. Apply pipe dope to fill stud fitting (15) and reinstall.

Assemble Pump Onto Vehicle

1. Attach the pump to the vehicle.

2. Connect the solenoid air supply line to the side port of the solenoid.

3. Reconnect the solenoid electrical harness.

4. If the reservoir was emptied, refill with the appropriate grease.

5. When the vehicle air pressures have reached a minimum of 100 psi (0.689 MPa, 6.89 bar):

- turn the ignition to ON
- set the timer to TEST position
- push the MANUAL RUN button

6. Watch the pump outlet for grease flow.

7. When grease begins flowing from the outlet:

- stop the cycling
- return the timer to the original setting
- reconnect the mainline to the pump

NOTE: Any tube nut can be removed and reconnected up to eight (8) times. To reattach, hand tighten up to original makeup position plus 1/16 turn to sear ferrule.

8. Pump can not be returned to service.

Kits and Accessories

Installation Kits

Part No.	Description
563762	Air pump repair/rebuild kit
24X606	Grease Jockey timer retrofit kit

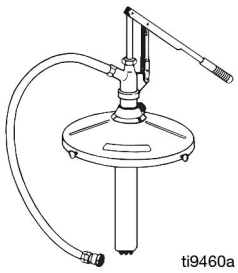
Manual Trailer Kits

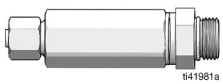
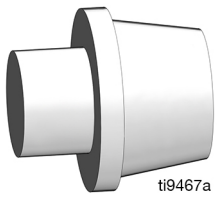
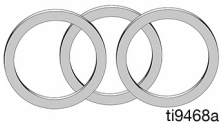
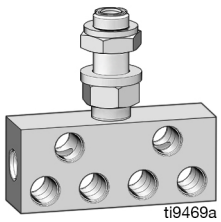
Part No.	Description
563805	6 pt single axle system
563806	12 pt tandem axle system
563807	5 pt landing gear system

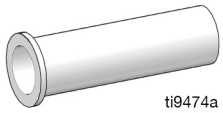
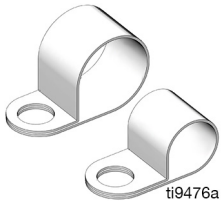
Mating Harness Kits

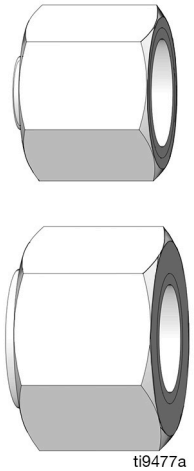
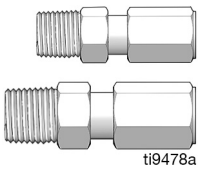
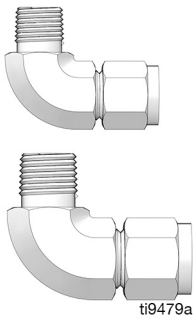
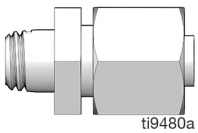
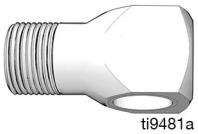
Part No.	Description
127899	8 in. harness with DELPHI 56 connector
127900	8 in. harness with DELPHI 280 connector
24P314	5 ft harness with flying leads

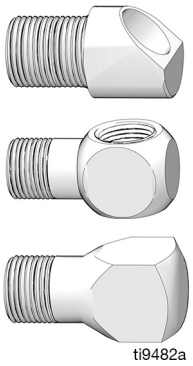
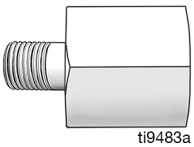
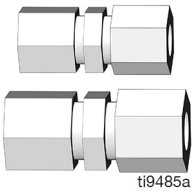
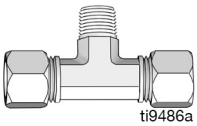
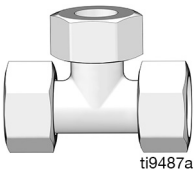
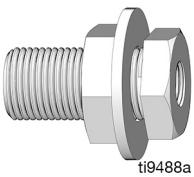
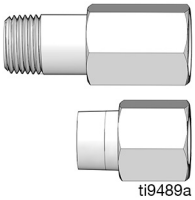
Miscellaneous Accessories

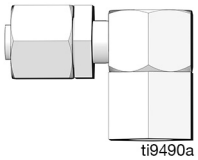
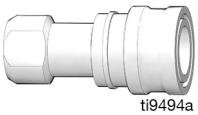
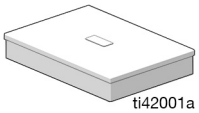
Filler Pump Assembly Fits 35 lb pail 247886	 ti9460a
35 lb Pail Grease NLGI “00” Non-Moly 557941	 ti9461a
Clamp 557878	 ti9462a
Air Pump Assembly W/6 lb Rigid Reservoir 563589 6 lb Reservoir Replacement Kit 24Z871	 ti9463a

Timer Only 24W482 Timer, with 5 ft Flying Lead 25A118 Timer with Cable, DELPHI 56 24W479 Timer with Cable, DELPHI 280 24W480	 ti41998a
Solenoid Valve Kit 24 VDC - 24E017 12 VDC - 563641 Wire Lead - 22 ft For Solenoid Valve 563642	 ti41999a
Meter Valves #0 = 24Z682 #1 = 24Z683 #2 = 24Z684 #3 = 24Z685 #4 = 24Z686 #8 = 24Z681	 ti41981a
Meter Output Port Plug 557901	 ti9467a
Meter Output Sizing Spacer 557898	 ti9468a
12 Port Manifold With Stud 563758 Replacement Stud 563946	 ti9469a

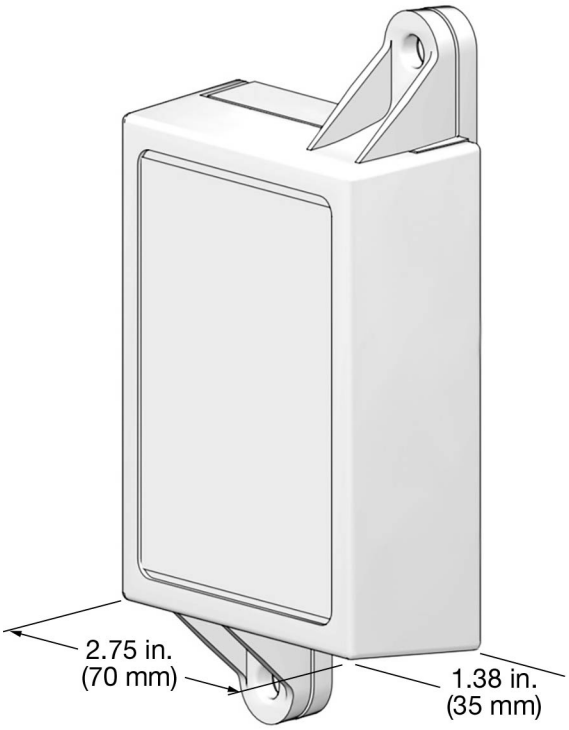
Manifold Meter Port Plug 24Z808	 ti41982a
Tube Stripper 558058	 ti9471a
Distribution Lines 3/16 In.OD Tubing x 15 Ft Bundles Prefilled 563786 = 1 Tube Black 563788 = 2 Tube Bundle 563783 = 3 Tube Bundle	 ti9472a
Main Line Tubing 5/16 in.OD X 60 ft 561132	 ti9473a
5/16 in. Tubing Insert Package of 20 557963	 ti9474a
Nylon Straps Packages of 100 563770 - Standard 17K063 - Heavy Duty	 ti9475a
Clamps 9/32 in. Hole 5/16 in. - 557943 3/8 in. - 557946 7/16 in. - 557944 5/8 in. - 557945	 ti9476a

Nut, Tube With Captive Sleeve 3/16 in.Tube - 556660 5/16 in.Tube - 556666	 ti9477a
Male Connector 1/8 NPT 3/16 in. Tube - 556644 5/16 in. Tube - 556645 1/4 NPT 5/16 in. Tube - 556646	 ti9478a
Male 90° Elbow 1/8 NPT 3/16 in. Tube - 556638 5/16 in. Tube - 556639 1/4 NPT 5/16 in. Tube - 556640	 ti9479a
Fitting Adapter - Straight 1/4 in. - 28 SAE x 3/16 in.Tube 562995	 ti9480a
Elbow, Street 1/8 NPT to 1/4 in. - 28 SAE Standard - 15K740 Short - 15K784	 ti9481a

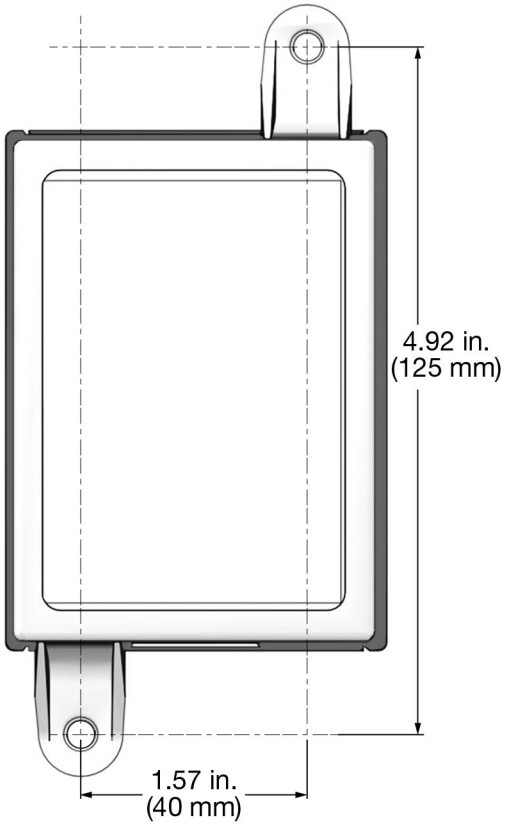
Elbow Street 1/8 NPT to 1/8 NPT 45 degree - 557395 3/8 NPT to 3/8 NPT 90 degree - 155699 1/8 PTF SAE Short Male to 1/8 NPT Female 90 degree - 15K783	 ti9482a
Adapter, Straight 1/8 NPT to 1/4 in - 28 SAE Male 557955	 ti9483a
Tube Union 3/16 in. Tube - 556647 5/16 in.Tube - 556648	 ti9485a
Tee Male Branch 1/8 NPT to 5/16 in. Tube 556636	 ti9486a
Tee, Tube Union 5/16 in. Tube - 556637	 ti9487a
Bulkhead Fitting 557950	 ti9488a
Extension, 1/8 NPT 1 1/4 in. - 557393 1/8 PTF SAE Short Male to 1/8 NPT Female 3/4 in. - 557392	 ti9489a

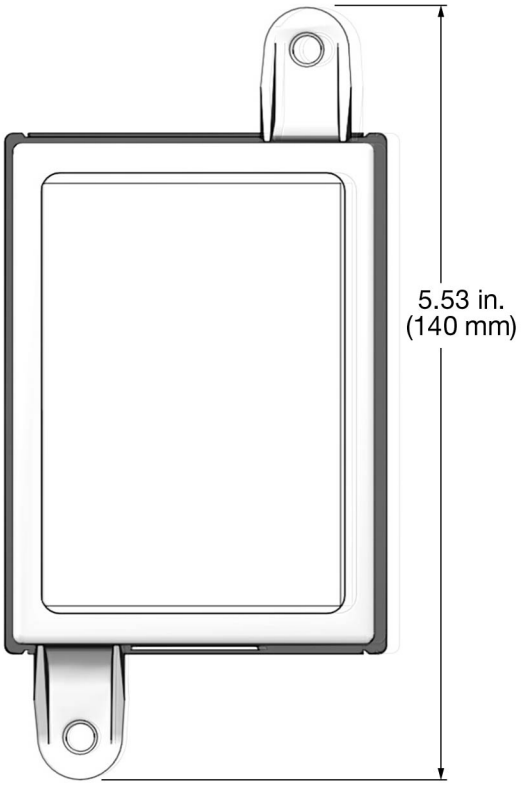
Zerk Adapter Press-on 3/16 in. Tube Connection Elbow - 563776	 ti9490a
Reservoir Fill Coupling Female 1/4 NPT Female 121474	 ti9494a
Reservoir Fill Coupling Male 3/8 NPT Male 557880 Dust Cap 557875	 ti9495a
Bracket, Mounting 128256	 ti42000a
Service Start-up Kit 25A044 Contains Solenoid, Tubes, Fittings, Inserts, and Pump Repair Kit	 ti42001a

Dimensions



Mounting Hole Layout





Technical Specifications

Grease Jockey Chassis Lubrication System		
	US	**Metric**
Timer (Air Operated Pump)		
Input power	12 - 32 VDC	
Air Solenoid		
Type	3-Way, Normally Closed, Free Venting	
Input Power	12 or 24 VDC, 9 W Continuous Duty Coil	
Inlet Port	1/8 NPT threads	
Outlet Port	1/4 NPT threads	
Maximum Working Pressure	150 psi	1.05 MPa, 10.5 bar
Air Operated Pump		
Ratio	9:1	
Output per Stroke	1.5 $in.^3$	24.58 cc
Inlet Pressure (air)	40 - 150 psi	0.28 - 0.35 MPa, 2.8 - 3.5 bar
Outlet Pressure (lubricant)	360 - 1350 psi	2.5 - 9.4 MPa, 25.2 - 94.5 bar
Operating Temperature	-4 to 135°F	-20 to 57.2°C
Fluid Compatibility	Oil and Grease, NLGI #0 or lighter	
Modules (includes tubing, manifolds, and meters)		
Manifold		
Maximum Working Pressure	2500 psi	17.5 MPa, 175 bar
Meters		
Maximum Working Pressure	2000 psi	13.7 MPa, 137 bar
Minimum Operating Pressure	450 psi	3.2 MPa, 31.5 bar
Vent Pressure	250 psi	1.72 MPa, 17.24 bar
Minimum Cycle On Time	30 seconds	
Minimum Cycle Off Time	3 minutes	
Tubing		
5/16 in. OD Main Line Maximum Working Pressure	375 psi	2.6 MPa, 25.8 bar
3/16 in. OD Distribution Line Maximum Working Pressure	800 psi	5.5 MPa, 55 bar

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.

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.

FOR GRACO CANADA CUSTOMERS
The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

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 312054
Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

www.graco.com
Revision P, October 2024