

333501D

Mobile Lubrication Library

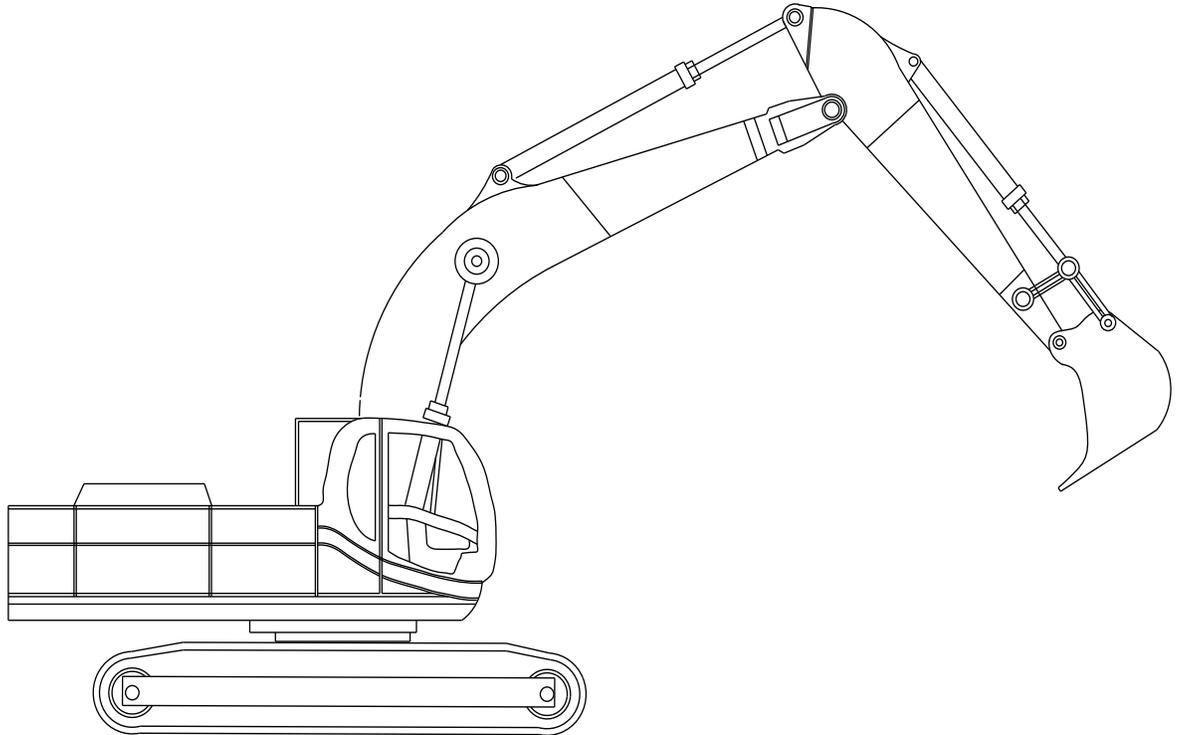
Excavators



Suggested automated lubrication system layout for 13-36 ton excavators.

Kit No.: 24N815, Excavator, G3, USP, 19PT

Maximum System Working Pressure: 3000 psi (206 bar, 20.7 MPa)



Important Safety Information

Read all warnings and instructions in all related manuals. Save all instructions.

Related Manuals	
Manual No.	Manual Title
332305	G3 Pump
3A0525	Pressure Relief Valve
3A0528	Remote Manual Run
3A0860	USP Valves

Fluid leaks from incorrectly installed or ruptured components, and/or failure to verify the components are properly installed and tested, can result in serious injury such as fluid spraying in the eyes or on skin and fluid injection, or equipment damage.						
To prevent injury or equipment damage, installation must be done by a professional and tested prior to use. Consult Parker literature for specific hose assembly instructions. These instructions are available from your Parker representative or at www.Parker.com/pdf .						

The information contained in this document is only a recommendation for an automatic lubrication system and is not intended to replace the installation and maintenance instructions provided by the original equipment manufacturer.

Off-Road Mobile Lubrication Systems

G3™ Pump Kits



Out-of-the-Box Lubrication Kits with Everything You Need for Installation

Each kit includes a 24 VDC pump, which is tested tough to withstand abuse from the elements. IP69K rated to handle the elements without an enclosure.

G3's Data Management System (DMS) makes it easy to transfer data to your PC via USB flash drive for further analysis using Excel® or Notepad®.

Each kit has the correct metering devices included. No need to figure out lubrication rates or calculate line lengths. Precision machined, honed and match-fit in our own factory for top performance.

Everything is included for faster installations with no special tools required. No more searching around for each adapter and connector—you get everything in one box ready for your installer.

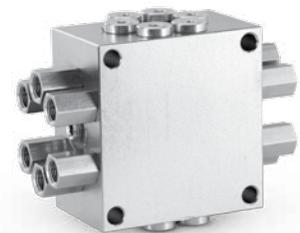
- Continually monitored on-board lubrication regardless of length of operational schedules.
- Protects equipment from contamination, over- or under-lubrication, and mechanical failure caused by improper lubrication.
- Allows longer time between scheduled maintenance.
- Avoid breakdowns on the job site, schedule your equipment repairs and regular maintenance in the shop.



G3 Max Model

Ordering Information

G3 Pump Lubrication Kits		Manual
24R376	Wheel Loader, 8L G3 DMS, USP, 22 point	333502
24R377	Wheel Loader, 8L G3 DMS, USP, 31 point	333503
24R378	Telehandler/Loadall, 4L G3 DMS, USP, 21 point	333504
24R379	Backhoe, 4L G3 DMS, USP, 43 point	333505
24N815	Excavator, 8L G3 DMS, USP, 19 point	333501



USP Metering Valve



Hoses



Fittings and Accessories

What's Included:

- G3 Max Pump with Data Management System and remote manual run button
- USP Mono Block metering valves
- Hose and hose guarding
- Field-installable hose ends
- Fittings
- Accessories

North America Customer Service **800-533-9655** Fax **800-533-9656**

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

Electric Pumps

G3™ Pumps

Versatile Design Helps Solve Today's Lubrication Challenges

Temperature changes, changing grease types and challenging installation requirements are no problem for the G3 electric lubrication pump. With its flexible design, including adjustable pump elements and an ability to work with both injector-based and series progressive systems, G3 is a rugged, cost-effective pump designed to serve multiple markets and applications. The pump features three control choices, which means added flexibility for easy lube system set-up, operation and troubleshooting. The pump extends machinery life, reduces operating costs and increases productivity for usage in a wide variety of markets, including in-plant manufacturing, mobile and wind turbines.

Features and Benefits

- Advanced flow dynamics—helps to prevent grease separation
- Load minimizing drive—for longer life
- Adjustable stroke pump—ensures a custom fit
- Five reservoir sizes to select from—provides a custom fit
- The most advanced user controls in its class—allows you to customize for your unique needs

Typical Applications

- On-Road
- Off-Road
- In-Plant Machine and Conveyor Lubrication
- Wind Energy

Lubrication Used

- Oil
- NLGI #000 to NLGI #2

Technical Specifications

Max Pressure5,100 psi (352 bar)
Power	12 VDC, 24 VDC, 90-240 VAC
Operating Temperature	-40° F to 158° F (-40° C to 70° C)
Reservoir Size	2, 4, 8, 12 or 16 liter
Maximum Run Time	30 minutes
Control Options	Standard, Pro or Max
Output per Element /Min.	0.12 in ³ , 0.18 in ³ , 0.25 in ³ (2 cm ³ , 3 cm ³ , 4 cm ³)
Certifications/Ratings	CE, ETL*, IP69K
	*Conforms to UL 73, certified to CSA 22.2 No 68-09
Instruction Manual	3A0414

G3 with Data Management System (DMS)

- Simple data transfer to your PC via USB flash drive for further analysis using Excel® or Notepad®
- Provides performance history for lube system events, such as cycle detection, error logs and allows a quick check of lubrication performance to meet your system requirements
- Preferred lube cycle program can be stored and transferred to other G3 pumps in your fleet for quick and accurate repeatability
- Provides you the comfort and security in knowing your pump is being properly maintained and your lube system is protecting your valuable asset



Standard Model



Pro Model



Max Model



Electric Pumps

G3™ Pumps



G3 Max

Built-in controller with selectable pump on/pump off timer has low level warning and shut-down alarm or set up faults to an external alarm. Comes with manual run and password protection with pre-lube function to initiate lube cycle on start-up. Mix and match up to three cycle and pressure switches for custom installations and feedback. Machine count input is ideally suited for inconsistently used equipment. Optional Data Management System™ (DMS) uses a common USB port to quickly configure, store and transfer error log history to Excel® or Notepad® for longer equipment life and performance.

	Voltage	Reservoir Size					Number of Cycle/ Pressure Input	Machine Count	Vent Valve Output*	DIN Alarm Output**	M12 Connection for Remote***	Wiper Arm	Follower Plate	Low Level	Power Connection	
		2 liter	4 liter	8 liter	12 liter	16 liter										
Application	Grease	12 VDC	96G030	96G141	96G142	-	-	1				•		•	CPC	
			96G021	96G096	96G097	-	-	1-3	•	•	•	•	•		•	DIN
			96G035	96G151	96G152	-	-	1		•			•			5 Wire CPC†
			-	96G159	-	-	-	1	•				•			5 Wire CPC†
		24 VDC	96G031	96G143	96G144	-	-	1					•		•	CPC
			96G017	96G088	96G089	-	-	1		•		•	•		•	CPC
			96G018	96G090	-	-	-	1		•		•		•	•	CPC
			96G036	96G155	96G156	96G164	96G168	1		•			•			5 Wire CPC†
	96G023		96G103	96G104	96G105	96G106	1-3	•	•	•	•	•		•	DIN	
	96G024		96G113	-	-	-	1-3	•	•	•	•		•	•	DIN	
	96G178		-	-	-	-	1			•		•		•	DIN	
	-	96G160	-	-	-	1	•				•			5 Wire CPC†		
	90-240 VAC	96G032	96G145	96G146	-	-	1					•		•	DIN	
		96G019	96G092	96G093	-	96G166	1		•			•		•	DIN	
		96G020	96G094	-	-	-	1		•				•	•	DIN	
		96G025	96G118	96G119	96G120	96G121	1-3	•	•	•	•	•		•	DIN	
		96G026	96G128	96G197	-	-	1-3	•	•	•	•		•	•	DIN	
		96G037	96G183	-	-	-	1			•		•		•	DIN	
	Oil	24 VDC	96G107	96G108	96G109	-	-	1-3	•	•	•	•			•	DIN
		90-240 VAC	96G122	96G123	96G124	-	-	1-3	•	•	•	•			•	DIN

*If not connected, use part number 16T854 to cover the Vent Valve Output and maintain IP69K rating.

**The DIN Alarm Output is a dry contact relay which opens or closes when a fault is detected. This relay acts as a switch but supplies no power. It requires external power to energize the circuit when closed. If not connected, use part number 24P731 to cover the DIN connector and maintain IP69K rating.

***G3 Max pumps with the M12 connection for Remote Manual Run/Monitoring Light use the kit with the connecting cable to provide external fault indication. Choose part number 571032 for 12 VDC pumps or 571033 for 24 VDC and AC pumps.

†G3 Max pumps with the 5 Wire CPC power connection are compatible with a Remote Manual Run/Monitoring Light Device to provide external fault indication. Choose part number 571030 for 12 VDC pumps or 571031 for 24 VDC pumps.

Electric Pumps

G3™ Pumps



G3 Max with Data Management System

	Voltage	Reservoir Size					Number of Cycle/ Pressure Input	Machine Count	Vent Valve Output*	DIN Alarm Output**	M12 Connection for Remote***	Wiper Arm	Follower Plate	Low Level	Power Connection	
		2 liter	4 liter	8 liter	12 liter	16 liter										
Application	Grease	12 VDC	-	96G161	-	-	-	1	•						DIN	
			-	96G153	-	-	-	1		•					5 Wire CPC†	
			96G098	96G099	96G100	-	-	1-2	•	•	•	•	•	•	DIN	
			-	-	96G154	-	-	1		•						5 Wire CPC†
		24 VDC	96G110	96G111	96G112	-	-	1-2	•	•	•	•	•	•	DIN	
			96G115	96G116	-	-	-	1-2	•	•	•	•		•	•	DIN
			-	96G162	-	-	-	1	•				•			5 Wire CPC†
	90-240 VAC	-	96G157	96G158	96G165	96G169	1		•				•		5 Wire CPC†	
		96G125	96G126	96G127	-	-	1-2	•	•	•	•	•	•	•	DIN	
	Oil	12 VDC	-	-	-	96G186	-	1	•					•	5 Wire CPC†	
			-	96G188	96G195	-	-	1	•					•	5 Wire CPC†	
		24 VDC	96G190	-	-	-	-	1-2	•	•	•	•	•	•	DIN	
			96G174	96G175	96G176	-	96G201	1-2	•	•	•	•	•	•	DIN	

*If not connected, use part number 16T854 to cover the Vent Valve Output and maintain IP69K rating.

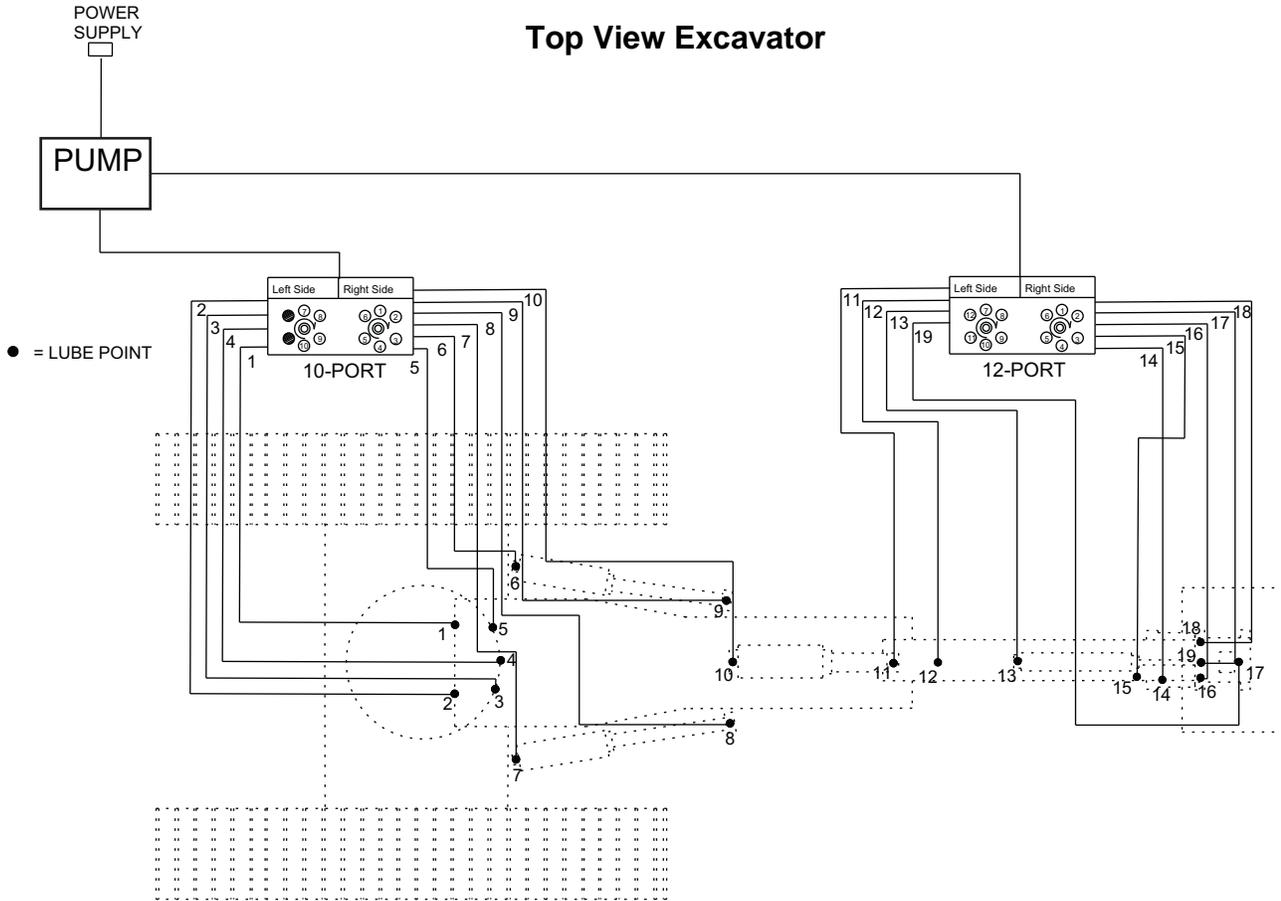
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†G3 Max pumps with the 5 Wire CPC power connection are compatible with a Remote Manual Run/Monitoring Light Device to provide external fault indication. Choose part number 571030 for 12 VDC pumps or 571031 for 24 VDC pumps.

Suggested Lube Points

USP Valve System



LUBE POINT INFORMATION		
Lube Point	Lube Point Location	USP Volume Dispense
1	Serving Swing Circle	0.2 CC
2	Serving Swing Circle	0.2 CC
3	Boom Foot	0.2 CC
4	Boom Foot	0.2 CC
5	Boom Foot	0.2 CC
6	Boom Cylinder (Head End)	0.2 CC
7	Boom Cylinder (Head End)	0.2 CC
8	Boom Cylinder Foot	0.2 CC
9	Boom Cylinder Foot	0.2 CC
10	Arm Cylinder (Head End)	0.2 CC
11	Arm Cylinder Foot	0.2 CC
12	Arm Link	0.4 CC

LUBE POINT INFORMATION		
13	Bucket Cylinder (Head End)	0.2 CC
14	Arm Bucket Pin	0.4 CC
15	Bushing	0.2 CC
16	H-link	0.2 CC
17	H-link	0.2 CC
18	Bucket Cylinder Foot	0.2 CC
19	Bucket Pin	0.4 CC
TOTAL		4.4 CC

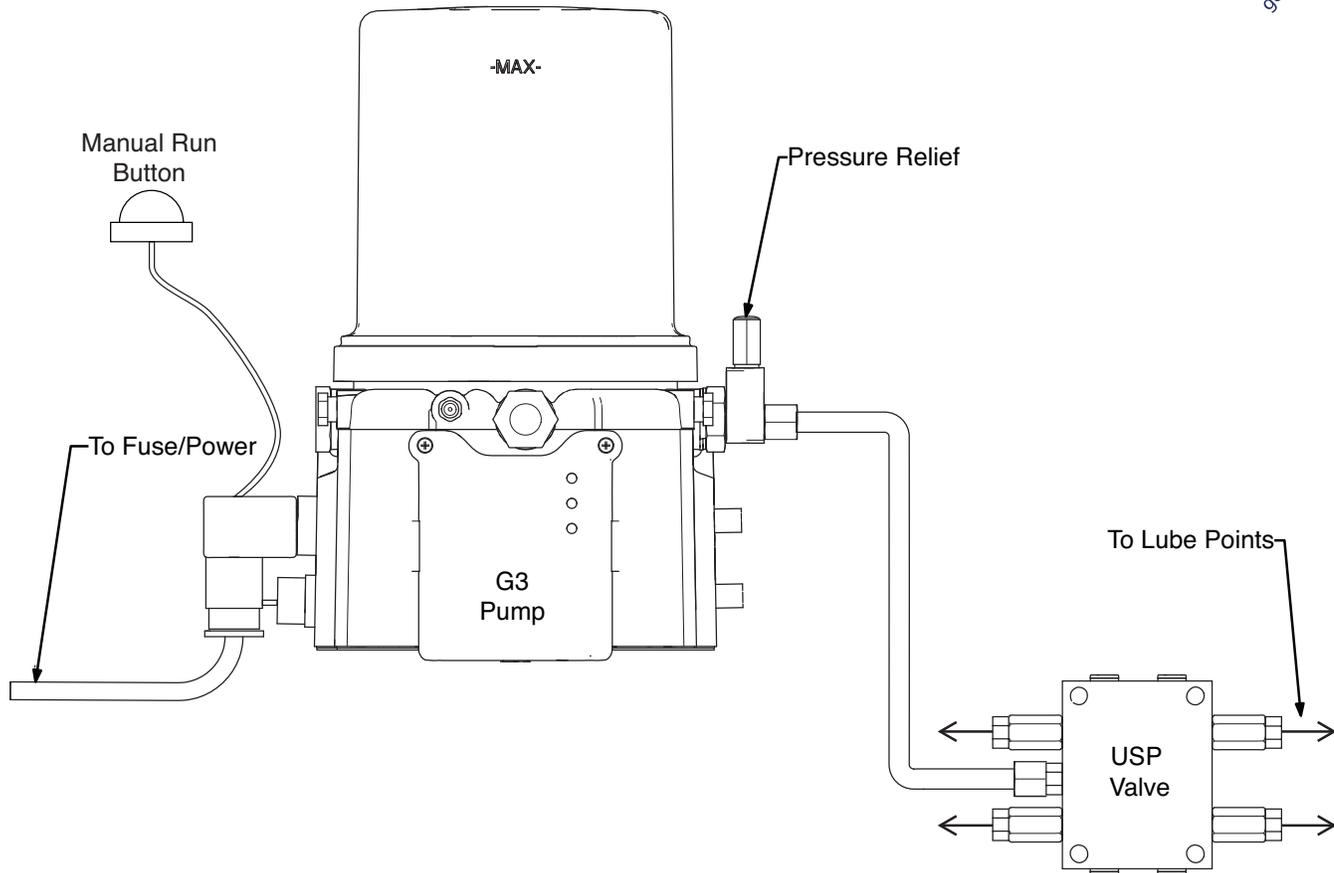


24N815: Kit Parts List		
Part No.	Description	Qty
96G112	PUMP, G3-G-24MX-8L0L00-UDMVA1R2 (see manual 3A0414)	1
571041	KIT, accessory, pump element	1
571036	KIT, accessory, cover	1
571028	KIT, accessory, pressure relief (see manual 3A0525)	2
24E408	KIT, valve, USP, 10 outlet	1
24E409	KIT, valve, USP, 12 outlet	1
571033	KIT, remote manual run, 24V, w/ cable (see manual 3A0528)	1
24N008	KIT, accessory, mounting, USP, 10-12	2
128572	KIT, hose, 100 ft	1
556773	HOSE, end female swivel SAE 4 JIC	4
556763	FITTING, 4 JIC 1/8 pm	31
555749	CONNECTOR, 4 JIC 1/8 pm	12
557393	COUPLING, 1/8 fp x 1/8 mp x 1-1/4 HEX	12
556402	FITTING, 1/4 x 1/8 nptf hex	2
557349	PLUG, dryseal 1/8 nptf	2
128581	KIT, accessory, guard, scuff, 80 ft	1
15K783	FITTING, elbow, street, 1/8	5
127009	TIE, cable, 14.75' x .31" black	4
128570	KIT, hose, 200 ft	1
128579	KIT, accessory, guard, 160 ft	1
24F467	PLUG, USP, doubling plug	2
557944	CLAMP, 7/16, tube 4TS6-14002	20
128006	CLAMP, hose, .375 OD hose	20
563178	COUPLING, extension 1/8 female to 1/8 male	5
127013	FITTING, swivel, JIC 37D size #4	38

ACCESSORIES	
Part Number	Description
24E406*	KIT, valve, USP, 6 outlet
24E407*	KIT, valve, USP, 8 outlet
24E410*	KIT, valve, USP, 14 outlet
24E411*	KIT, valve, USP, 16 outlet
24N007	KIT, mounting bracket, 6-8 outlets
24N009	KIT, mounting bracket, 14-16 outlets
*see manual 3A0860	



Typical Pump Installation



Graco Information

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.

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

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

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