

The Concept: GROCO Oil Change Kits are built to meet the demands of marine industry applications. A powerful gear pump provides positive evacuation of dirty oil and refill of fresh oil, and touch-pad operation is simple. Dry-run protection and over-current protection is provided, and a convenient maintenance log and plumbing schematic is included.

Installation: Choose a location that is out of the way of engine room traffic, is centrally located to keep hose runs as short as possible, and not more than 18" higher than the drain plugs. Remove the four (4) nylon thumb screws that hold the cover in place. Secure the pump base to the chosen platform with four (4) stainless steel screws.

Electrical: Full voltage is required for best results. Refer to the wire size selection chart included. Run the selected wire size to the location you have selected. Refer to figure-1. Run the wires to terminal block. Crimp on (2) ring terminals for #8 screw (not provided).

Protect your Oil Change System with a dedicated circuit breaker of the proper size:

MODEL	BREAKER
12VDC Systems	25-AMP
24VDC Systems	15-AMP

Plumbing, general: Use only oil resistant hose, 1/2" ID Minimum, for all plumbing connections. Hydraulic hose is a good choice because its reinforced construction will not collapse under suction.




Service hose: Decide whether you want the service hose to exit the cover to left or right, and snip out the opening in the side of the cover.

Oil Pan Connections: Changing oil will be faster and operation will be quieter with the use of larger hose ID between oil pans and oil change pump, but use minimum 1/2" ID. Oil pan connections will be determined by the engine model. If your engines have drain plugs only, go to our website (www.groco.net) to select the proper OPD Fitting for your model engines. The OPD fitting matches the engine oil pan thread on one side, and will provide 1/2" NPT thread on the other side. Into the OPD fitting a variety of fittings may be fitted to assist with the connections to the oil change pump, as shown in Figure-1.



IMPORTANT: When making connections to the valves on the Oil Change pump manifold, hold each valve securely with a 1" wrench to prevent it from turning while tightening connecting fittings. Use thread tape on threaded connections, and double-clamp hose connections.

Labels: Labels have been provided for your use in matching valves to engines, and for operating instructions. When the installation is complete, affix the component labels (Main Port, Gen-1, etc) to the schematic label, and then place the schematic label wherever you would like it to be for future reference. Affix the Operating Instructions Label where convenient.

Operation: Note: Some touchpad models are worded and some have symbols.

Before changing oil, run the engines for a few minutes to mix sludge and warm the oil. Apply power at the DC breaker panel. Place the service hose into an empty bucket and open the valve (turn CW) to one engine. Press the re-settable circuit breaker to "Reset"; the red light above "Stop" or  will illuminate indicating that power is present. Press "Empty" or  pointing to service hose to start the pump. When the oil flow ceases, press "Stop" or .

Place the service hose into a bucket with fresh oil, pre-measured with the correct amount of oil for the engine being serviced.

Press "Fill" or  pointing to the engine to pump fresh oil back into the engine. Allow the pump to run for a few seconds after the bucket is empty to allow oil in the hose to be pumped into the engine. Press "Stop" or .

Repeat this process for each engine. When all engines have been serviced, press the circuit breaker next to the touch-pad to "Off". Record the service date, engine hours, oil type and filter type on the Service Log label provided. Order "Service Log Label" refills from GROCO.

DISPOSE OF OLD OIL RESPONSIBLY.

Maintenance: If you are using G Series for oil change no regular maintenance is required.

Winterization: If you are using G Series for oil change, winterization is not required. If you are pumping fresh or saltwater you must protect the system from freezing by draining the pump, valves, manifold and hoses. To drain, remove all hose connections and open all valves.

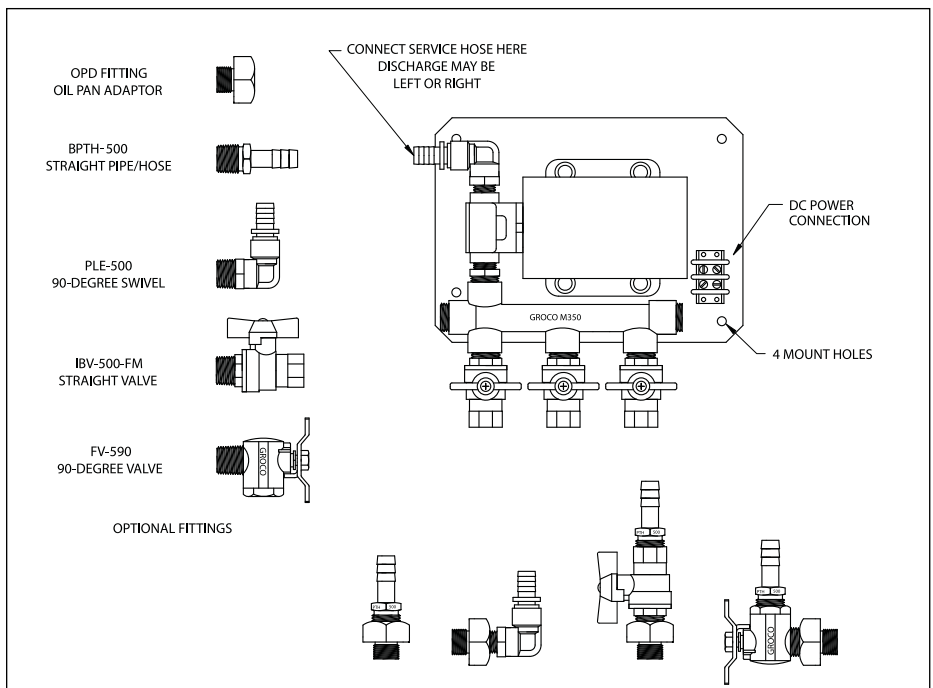
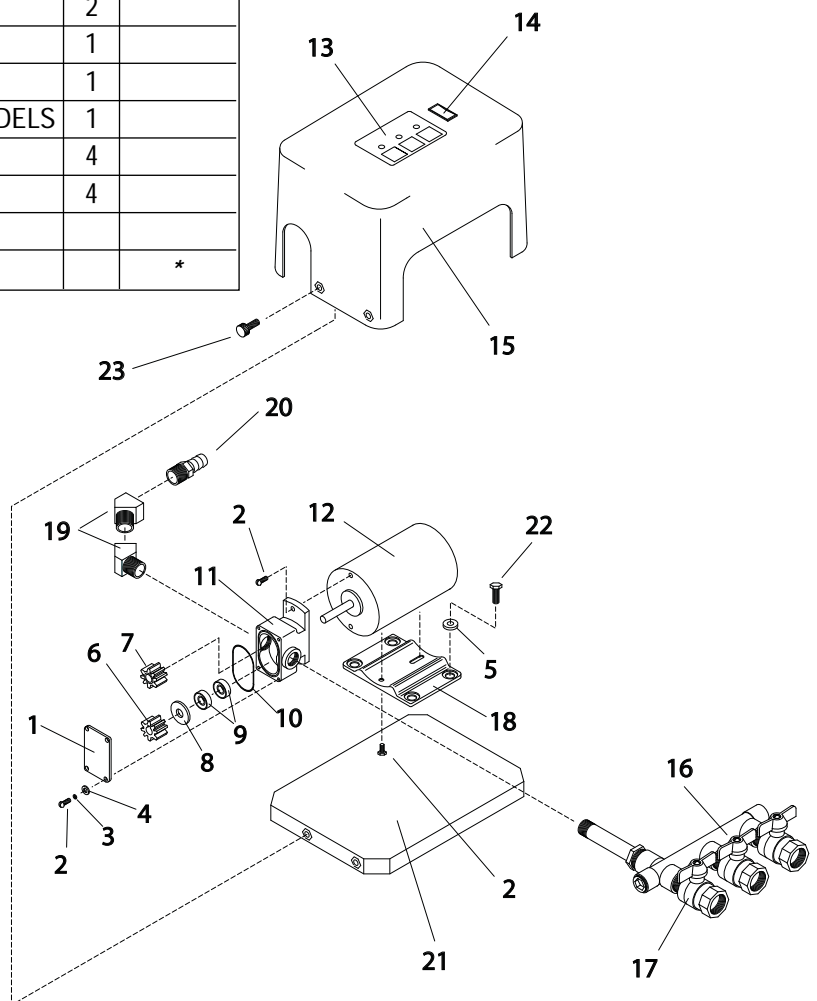


FIGURE 1

G-3, G-4, G-5 and G-6 Series Oil Change Systems

Installation, Operation, and Maintenance

ITEM	PART NUMBER	PART NAME	QTY	SERVICE KIT
1	GP-1-C	COVER	1	
2	1032X58HS	SCREW	6	
3	10S	WASHER	4	
5	B-200-G	GROMMETS SET (4)	1	
6	GPK-09-0938	GEAR, KEYED	1	
7	GP-09-0938	GEAR	1	
9	031-075-8	SEAL	2	*
10	2-029	O-RING	1	*
11	GP-1-375B	HOUSING	1	
12	(VOLTAGE)-F	MOTOR	1	
13	012-0038-00	TOUCHPAD, SYMBOLED	1	
	012-0032-00	TOUCHPAD, WORDED	1	
14	SWITCH-7	THERMAL BREAKER	1	
15	G3-C	COVER, 3-VALVE MODELS	1	
	G6-C	COVER, 4, 5, 6 VALVE MODELS	1	
16	M350-3	VALVE, 3-VALVE MODELS	1	
	M350-4	VALVE, 4-VALVE MODELS	1	
	M350-5	VALVE, 5-VALVE MODELS	1	
	M350-6	VALVE, 6-VALVE MODELS	1	
17	IBV-500-FM	1/2" VALVE (3 shown here)	1	
18	B-200-P	BASE	1	
19	ELBOW-3	3/8" 45-DEGREE ELBOW	2	
20	BPTH500	3/8" NPT X 1/2" BARB	1	
21	G3-B	BASE, 3-VALVE MODELS	1	
	G6-B	BASE, 4, 5, AND 6-VALVE MODELS	1	
22	1420X34HS	BOLT	4	
23	8X34PSSMS	SCREW	4	
	P-9	SERVICE KIT		*



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