5.0L 4V DOHC Proper Remote Filter Plumbing and Priming Procedures

5.0L DOHC typical oil flow diagram
Proper Plumbing of a Remote Mount Oil Filter

Warning: Oil filters have an internal one-way check valve. If oil lines are hooked up backward, oil flow to the engine is stopped. Engine failure will result.

M-6880-M50 Oil Line Adapter

Top hole is oil from the remote mount oil filter adapter INTO the engine. (Oil port A, IN)
Bottom hole is oil coming OUT of the engine going into the oil filter. (Oil port B, OUT)
Due to the high oil demands of this engine, do not use less than -10 lines and fittings!
Use only radius-type fittings if a bend is needed. A 45-degree radius bend creates less restriction than a 90-degree radius bend.
Use only a high-quality/high-flow remote filter adapter such as Canton Racing Products #22-623 or #22-625 or equivalent.
Center opening of the oil filter to block adapter port “A”. Oil exits out of the oil filter from the center opening. Oil flows from block adapter port “B” to outside holes. Oil enters the oil filter through the outside holes.

This picture shows the line attached to block adapter port “B” out to oil filter outside holes.
Proper Priming of the 5.0L DOHC Engine

The 5.0L DOHC engine must be primed with an engine pre-lube tank. Unlike the earlier pushrod engines, there is no oil pump driveshaft to rotate and prime the engine. Priming ensures that there is oil in all the critical areas when you start the engine. Do NOT prime the engine by cranking it!

![Engine pre-lube tank](image)

Priming the Engine with an Aftermarket Remote Mount Oil Filter

Check and note oil level on dipstick. With oil filter installed, remove lower line from block adapter oil port “B”. Using proper adapters, attach engine pre-lube tank to the oil line you removed from oil port “B”. Following the engine pre-lube tank manufacturer’s instructions, prime the engine.

Remove pre-lube tank from oil line and attach oil line to block adapter. Check oil level; if engine was properly primed, the level will have risen. It may take a few minutes for the oil to drain down to the pan. Drain excess oil if necessary.

You will notice in this configuration that you are filling the supply line from the block adapter to filter, the oil filter, the supply line from the filter to the adapter and the engine. This method confirms that the lines to the remote are hooked up correctly.
Priming the Engine with the Oil Filter in the Stock Location

Check and note oil level on dipstick. With oil filter installed and full of oil, remove oil pressure sending unit. Using proper adapters, attach engine pre-lube tank to the port that the sending unit was screwed into. Following the engine pre-lube tank manufacturer's instructions, prime the engine. Check oil level; if engine was properly primed, the level will have risen. It may take a few minutes for the oil to drain down to the pan. Drain excess oil if necessary. Remove engine pre-lube tank from filter adapter. Apply sealant to the threads of the oil pressure sending unit. Reinstall and torque to 14 Nm, then rotate an additional 180 degrees.