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88-91 Prelude K-Series Swap
Volvo Electric Power Steering Pump Mount Bracket

Installation Instructions

(V1)

These are the general supplies needed to hook everything up, it may vary depending on your exact install.

High Pressure Line:
M16x1.5 O-ring seal to 6an fitting (pump end)
M14x1.5 reverse flare to 6AN fitting (rack end)
6AN PTFE hose - 42” long
6AN PTFE 90 Degree fitting
6AN PTFE 45 Degree fitting

If you use a service to make this line for you then the length will be 44” seat-to-seat. We suggest using swivel fittings on either end.

Low Pressure Lines:
(Hose must be rated for oil/hydraulic!!)
3/8” 3-way splitter
3/8” hose, ~8ft
5/16” hose, ~1ft
1/4” hose, ~2ft
14-16mm hose clamp x8
13-15mm hose clamp x4
10-12mm hose clamp x3

Electrical:
80 amp fuse
8 gauge wire, ~8ft (varies)
20 gauge wire, ~8ft (varies)
8 gauge to M6 ring terminal
8 guage butt splice x2 (varies)
Heat shrink tubing

Other:
Blue (medium strength) Loctite

Install the bracket using 4 of the existing traction bar bolts as shown:

Install the 3 rubber vibration isolators, snug the nuts from below for now:

Install the M16x1.5 o-ring seal fitting on the pump. Drain any old fluid from the pump:

Set the pump on the rubber isolators, visually center it on them, then install the large washers and nuts.

Play with the pump position until it all looks centered. Put a dab of medium strength Loctite on the threads of each nut and tighten them.

Once the top nuts are tight remove the bottom nuts you snugged earlier then do the same for them with the Loctite:

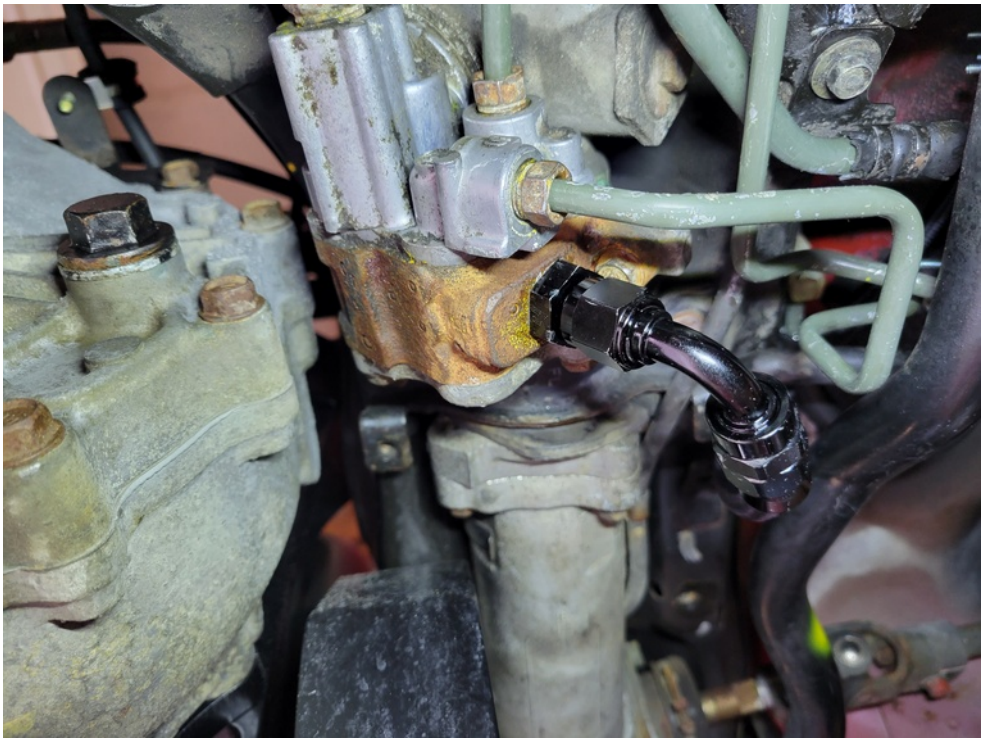
Hydraulic:

Install the M14x1.5 reverse flare to 6AN fitting into the pressure port on the rack. If it came with any sealing washers **DO NOT** use them. The seal must be made by the reverse flare seating into the rack:

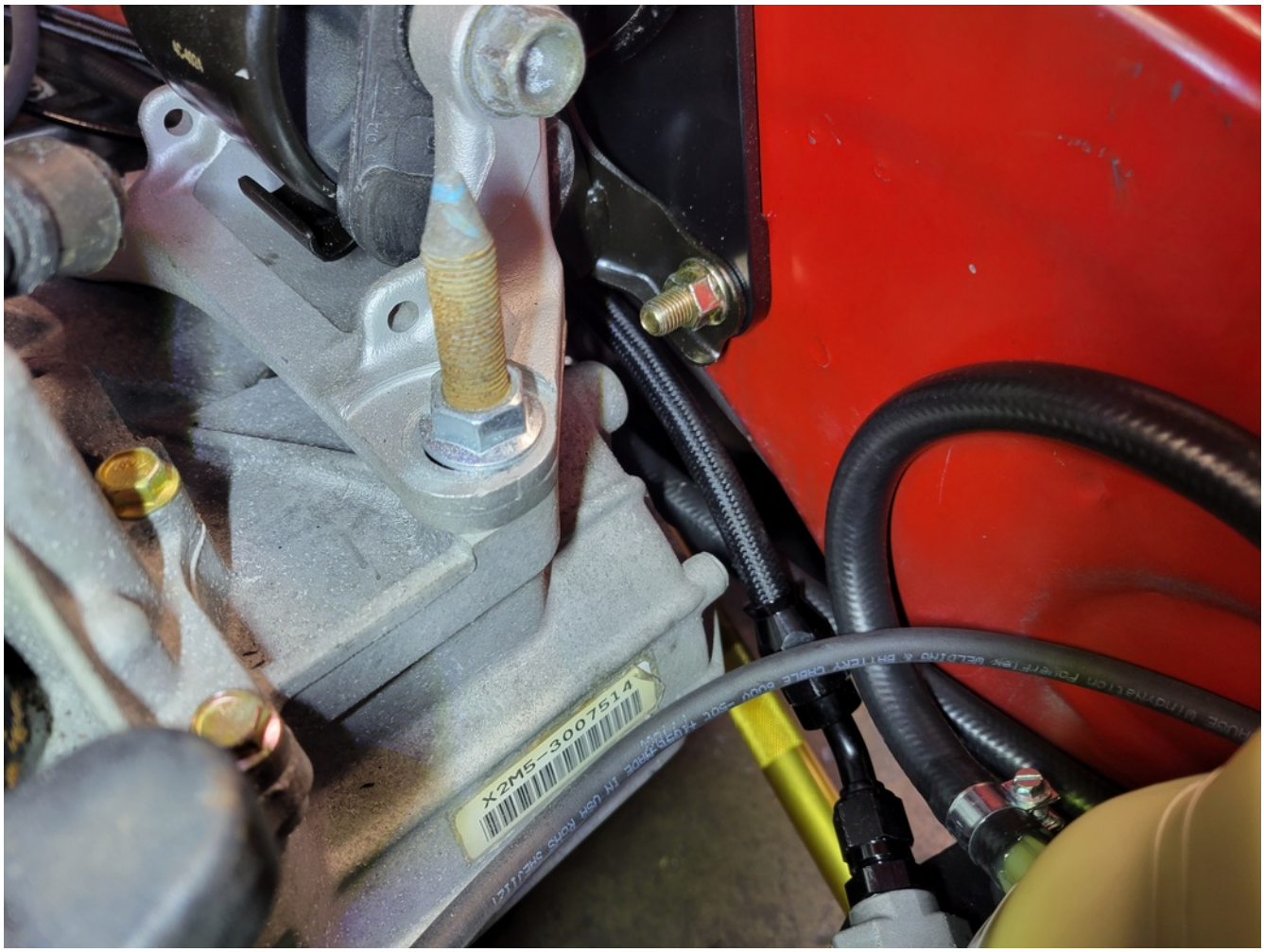
Cut the 6AN PTFE hose to 42”. Install a 90 degree fitting on one end and 45 degree fitting on the other.

Attach the 90 degree end to the rack, angling towards the passenger side to clear the sway bar.

Route the hose over the subframe, and along the left side of the chassis in the engine bay. The hose should pass under the transmission mount:



Attach the other end of the hose to the pump, using the 45 degree fitting to angle the hose upward:

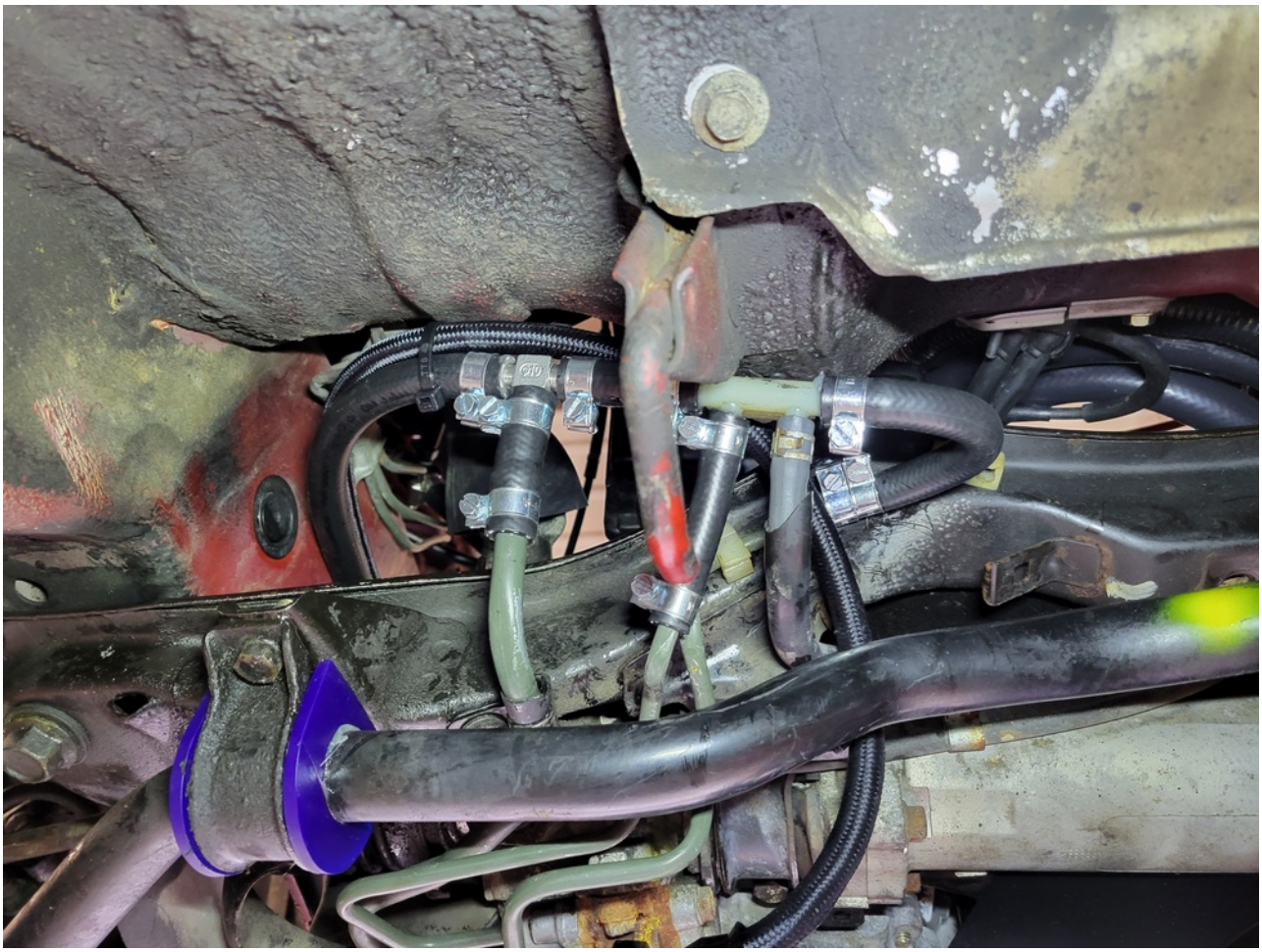


The low pressure lines seem complicated but are actually easy. They all get connected or looped into a single 3/8” hose which then runs forward to the P/S oil cooler.

The factory parts are sized for metric hoses and it will be tight to push on standard hoses. Try using a little silicone grease on the ports to help everything go together.

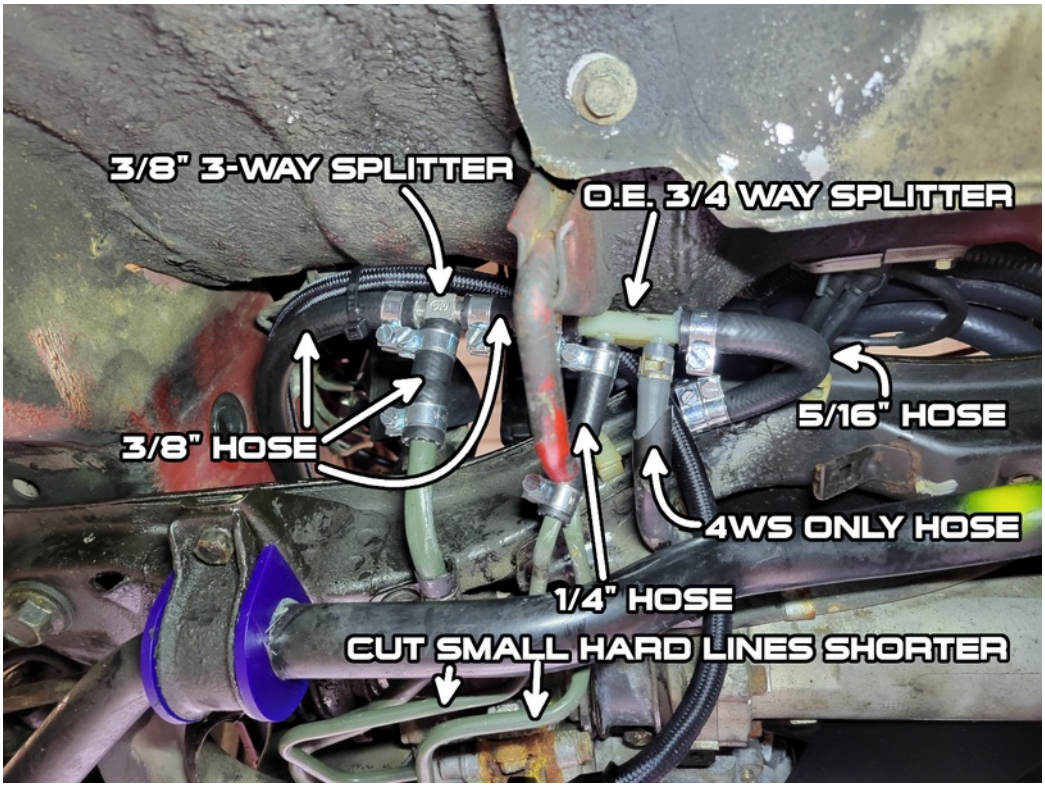
Make sure you use hose rated for oil/hydraulic, not general coolant hose!

Here is what the setup will look like after all hooked up:

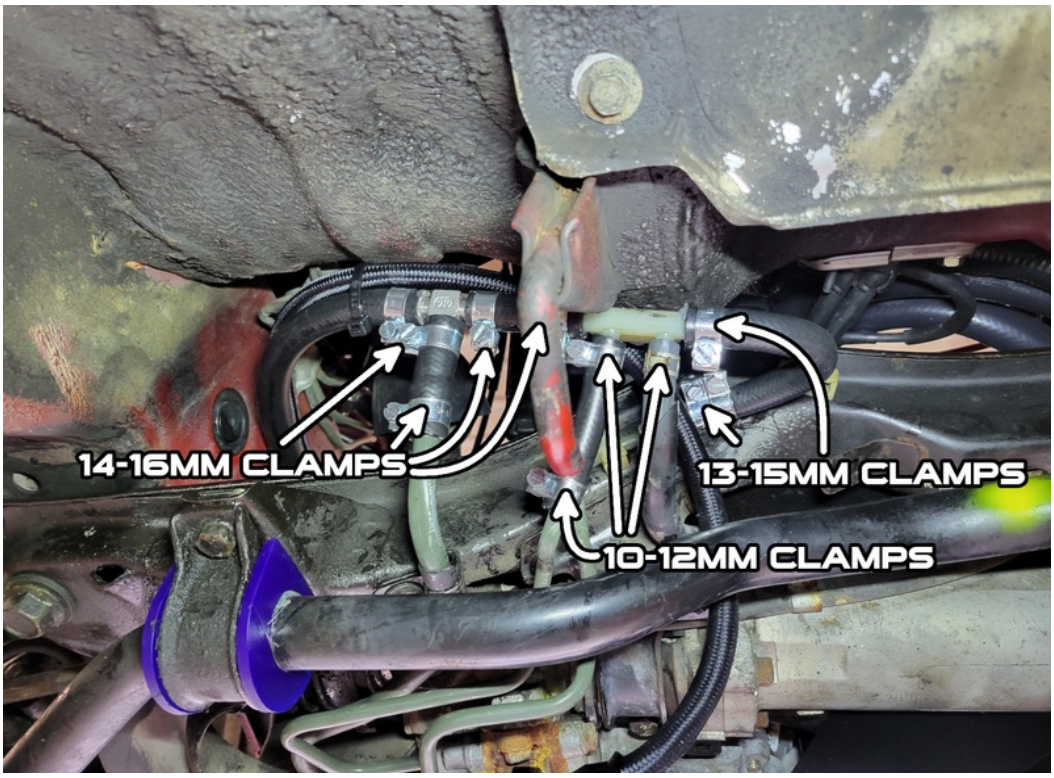


The two small hard lines coming from the rack should be cut shorter and bent slightly as needed.

The O.E. splitter is 3-way for 2WS and 4-way for 4WS.



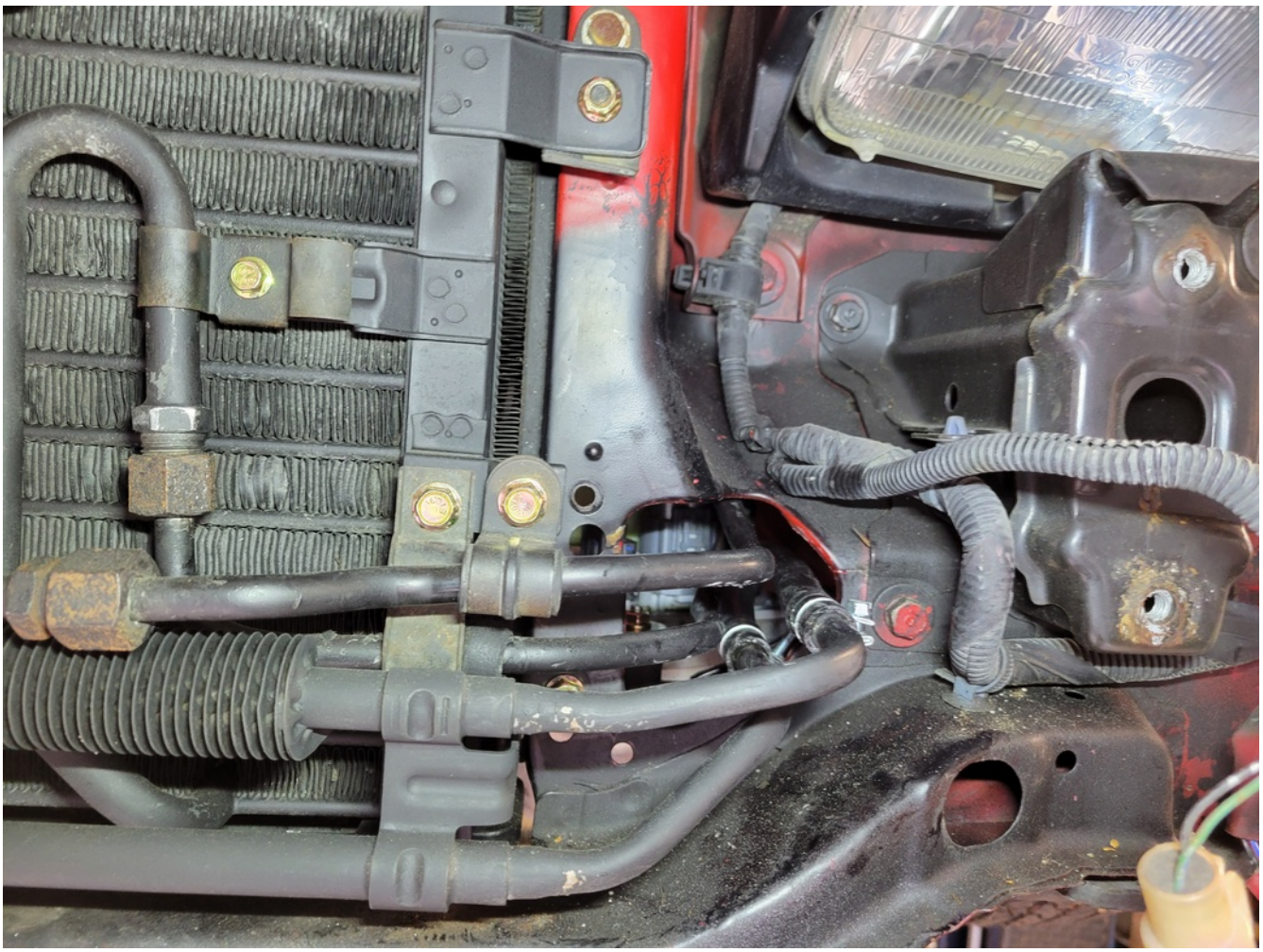
Here are the clamp sizes to use. You may want to double up clamps to reduce chance of leaks:



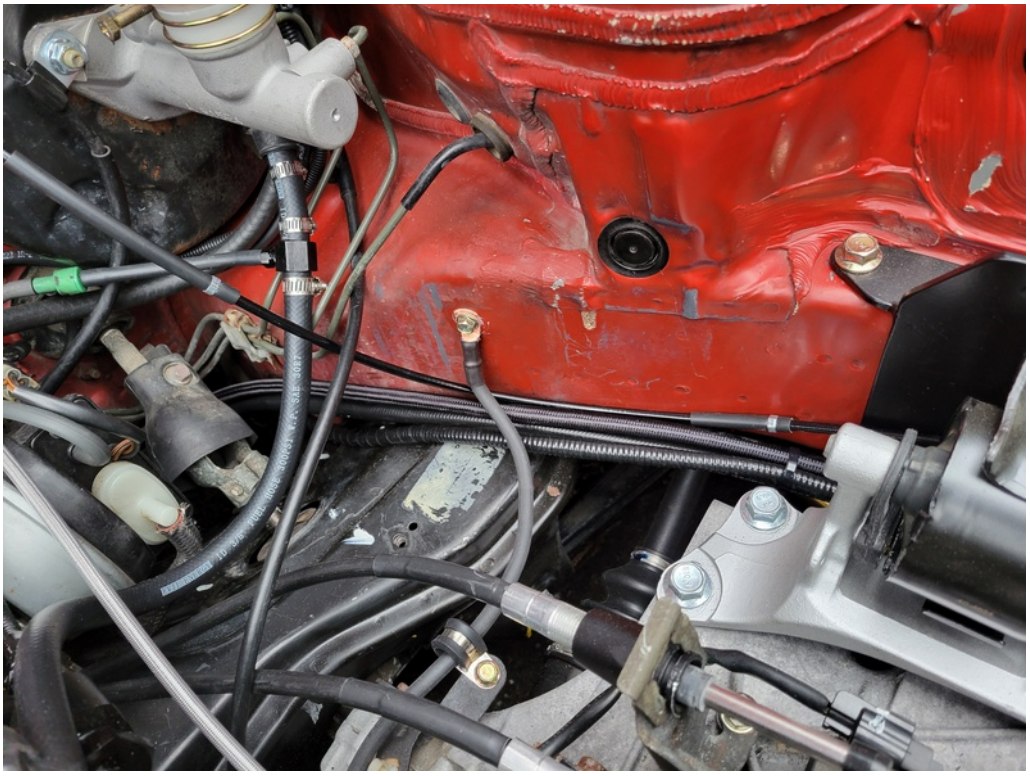
The single 3/8” hose running forward from the rack gets attached to the P/S oil cooler top port.

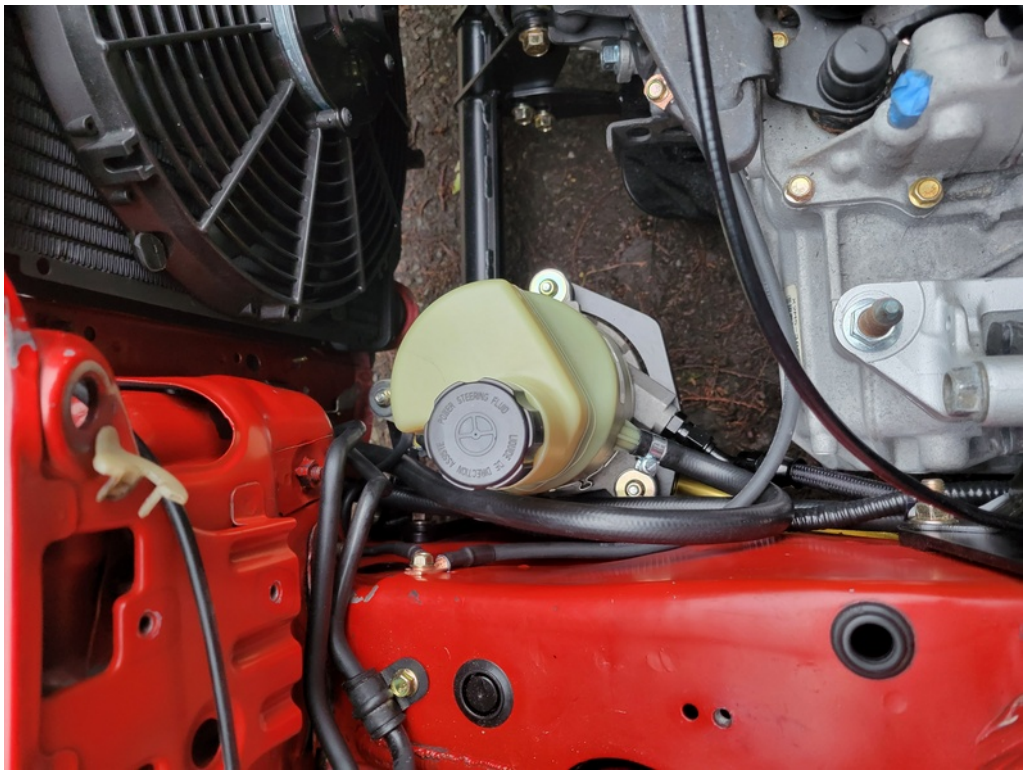
The bottom port has another 3/8” hose that runs to the reservoir.

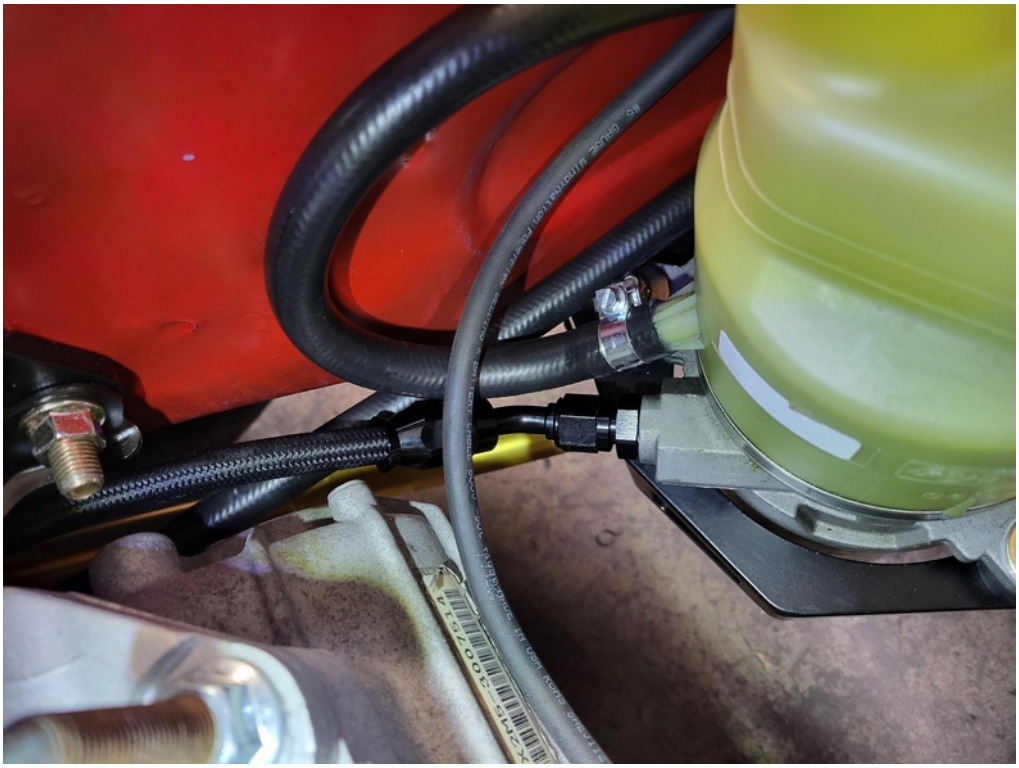
Use more 14-16MM clamps for these:

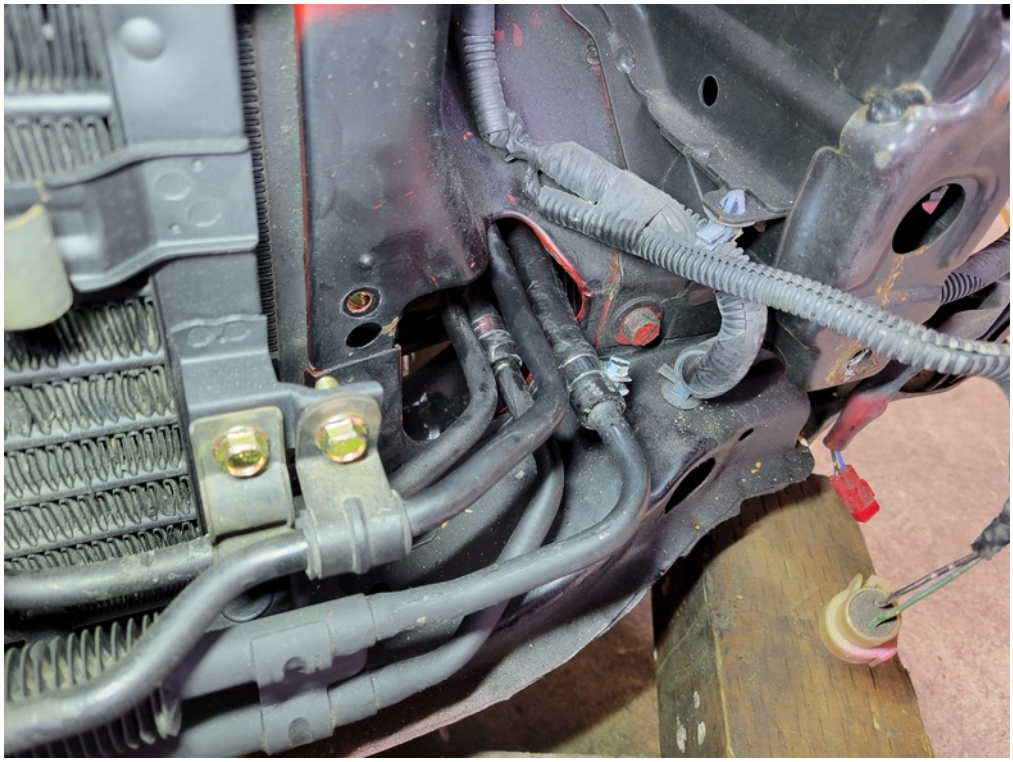


After this the hydraulic connections are done. Here are a some more pictures of the completed hydraulic lines:









Fill the reservoir with Genuine Honda power steering fluid:

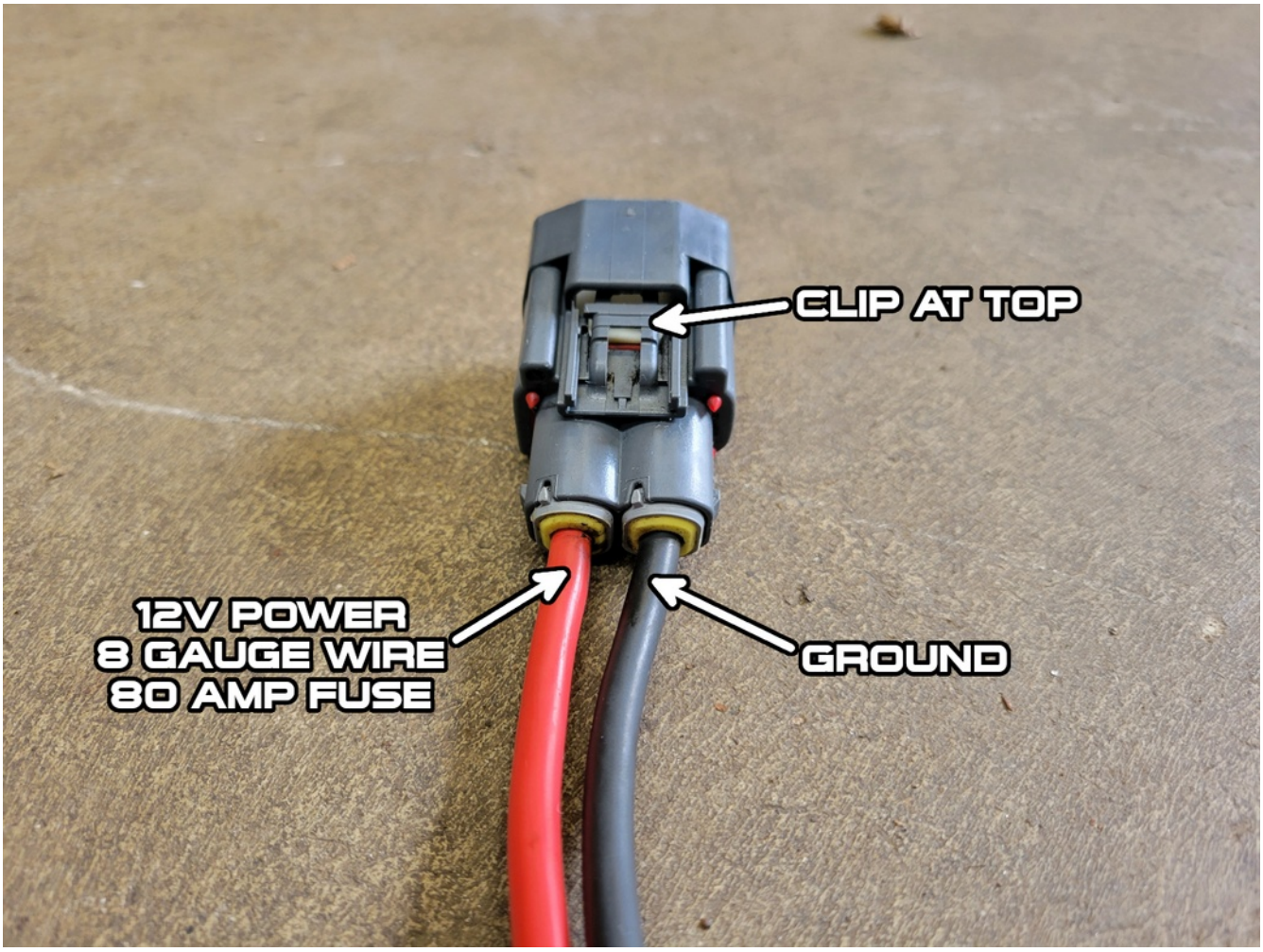
Electrical:

The pump has 2 connectors. How you hook everything up can vary a little depending on your setup. Here is how we do it.

The power wire needs an 80 amp fuse and 8 gauge wire.

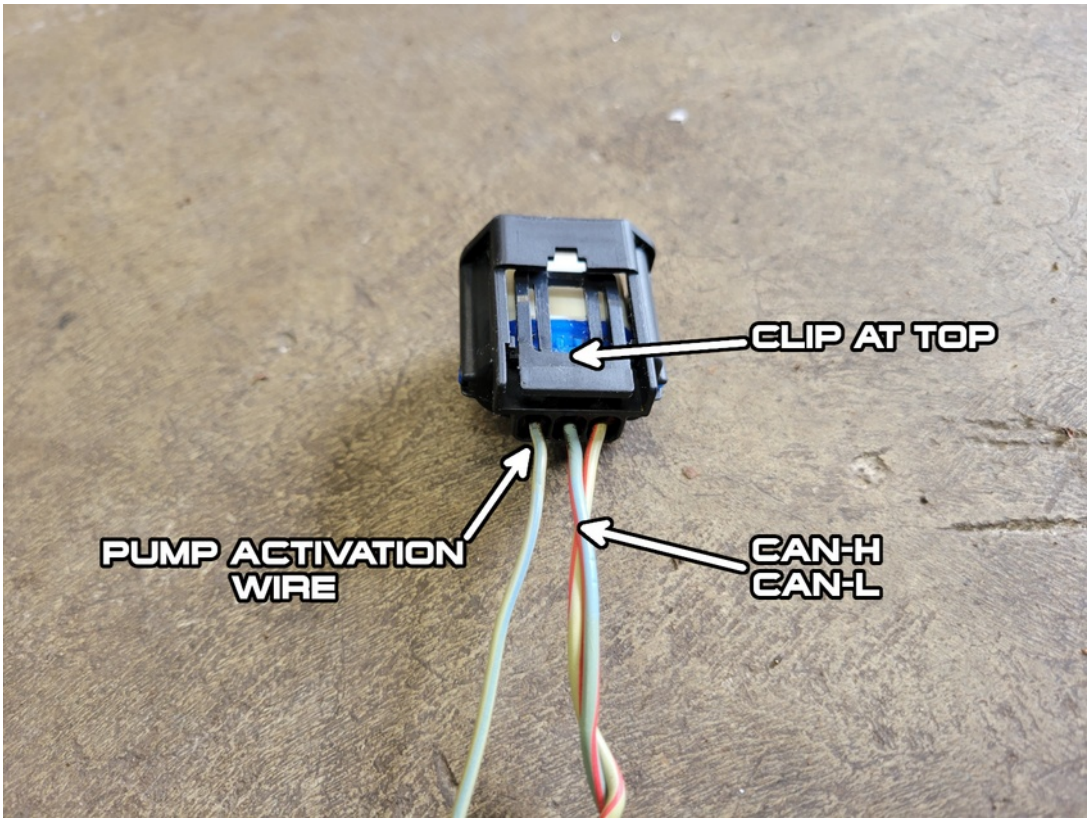
8 gauge for the ground and ground it well by scraping off any paint at the ground point.

Warning: If you buy aftermarket connectors for this sometimes the red/black wires may be switched! Ignore wire colors and only go by the pin location:



The 3 pin connector has 2 CAN wires and the trigger wire which tells the pump to turn on.

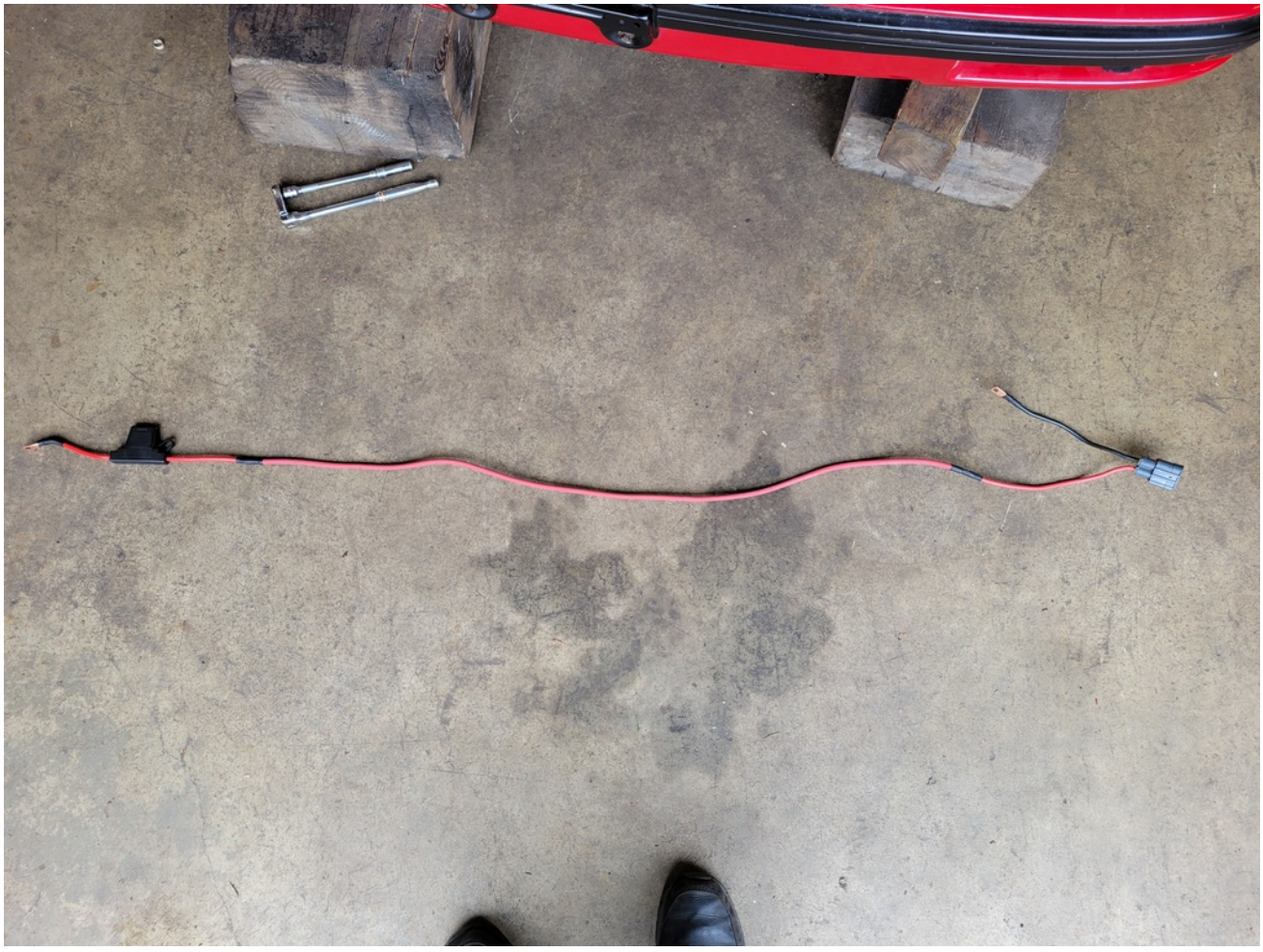
For this simple setup we will secure the CAN wires for possible use later and hook the trigger wire to any 12V which comes on with the ignition:



Heat shrink over CAN wires:

We highly suggest adding a switch in-line on the trigger wire so you can switch off the pump while the ignition is on.

Here is an example of a completed power harness. Coming right off the battery is a MAXI fuse holder with an 80 amp MAXI fuse. This runs around the bay to the pump:



The trigger wire was run into the cab to a switch mounted in the center console pocket. The wire coming off the switch is attached to the switched 12v wire of the radio.

Without a CAN signal the Volvo pump will default to 70% assist. The steering effort will be heavier than stock at very low speeds (parking lot). It is still much lighter than a car without power steering.

At speeds above 20 mph it is no different than stock.

We believe most people will be happy with this but there are some options if you want full assist out of the pump.

One option is an aftermarket harness with a simple dial which controls the assist:

A more advanced option is a harness with a built in GPS unit. This can vary the power assist depending on vehicle speed:

These options are offered by “ServTronic” and other companies.

We suggest trying the setup at the default 70% and only changing if you feel you need more assist.