

## DIY Sohn Adapter Reservoir

Loki @ RX8club

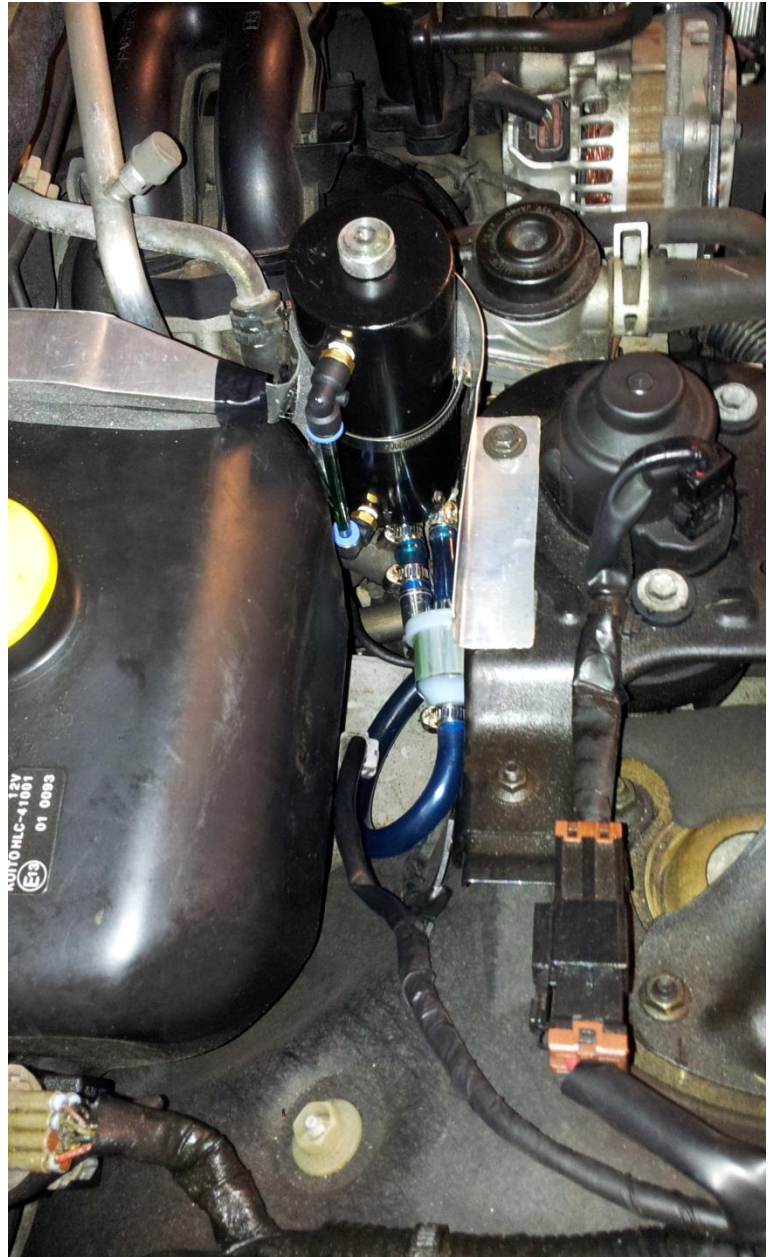
### Basic idea

Take a cheap catch can kit, turn the can upside-down and use it to hold 2-stroke oil.

### Materials

- 1 no-name catch can kit from eBay (\$30)
- 12x6 inch (or similar) sheet aluminium (\$5)
- Lawnmower fuel filter (\$5)
- Sticky foam or rubber strips : door insulation or similar (\$2)
- Small hose clamps (\$2)
- RTV or other automotive sealant/gasket material (\$2)

**Cost: \$46**



**DISCLAIMER:** follow or don't follow these instructions at your own risk. I make absolutely no guarantees that this procedure is safe or a good idea for your car. You are solely responsible for your actions in regard to this procedure.

However, if you do this, feel free to share your results and feedback on the RX8club forum!

## Prepare the catch can

Most cheap catch can kits will come with the metal can with 2 outlets and a drain plug, a length of hose and various clamps and fasteners. However, we will need to make some alterations.

- a. Unscrew all connectors from the can, including the level indicator tube if present, and thoroughly clean all the pieces and the inside of the can.

Deburr holes in the can if necessary. You don't want loose metal from manufacturing mixed in your oil 😊

- b. Using a drill or Dremel, make a  $1/16^{\text{th}}$  inch diameter hole through the drain plug.



This will feed air into the can as the oil drains. Not having this hole will lead to vacuum in the reservoir, and the OMP will not be able to get any oil from it. Do this away from the rest of the kit to avoid metal particles in the finished product.

- c. Reinstall all the connectors into the catch can, using RTV sealant around all junctions, and Teflon (plumbing) tape around the level indicator connectors.

Don't forget to put sealant around each of the bolts that hold the connectors, if your catch can is built as below.

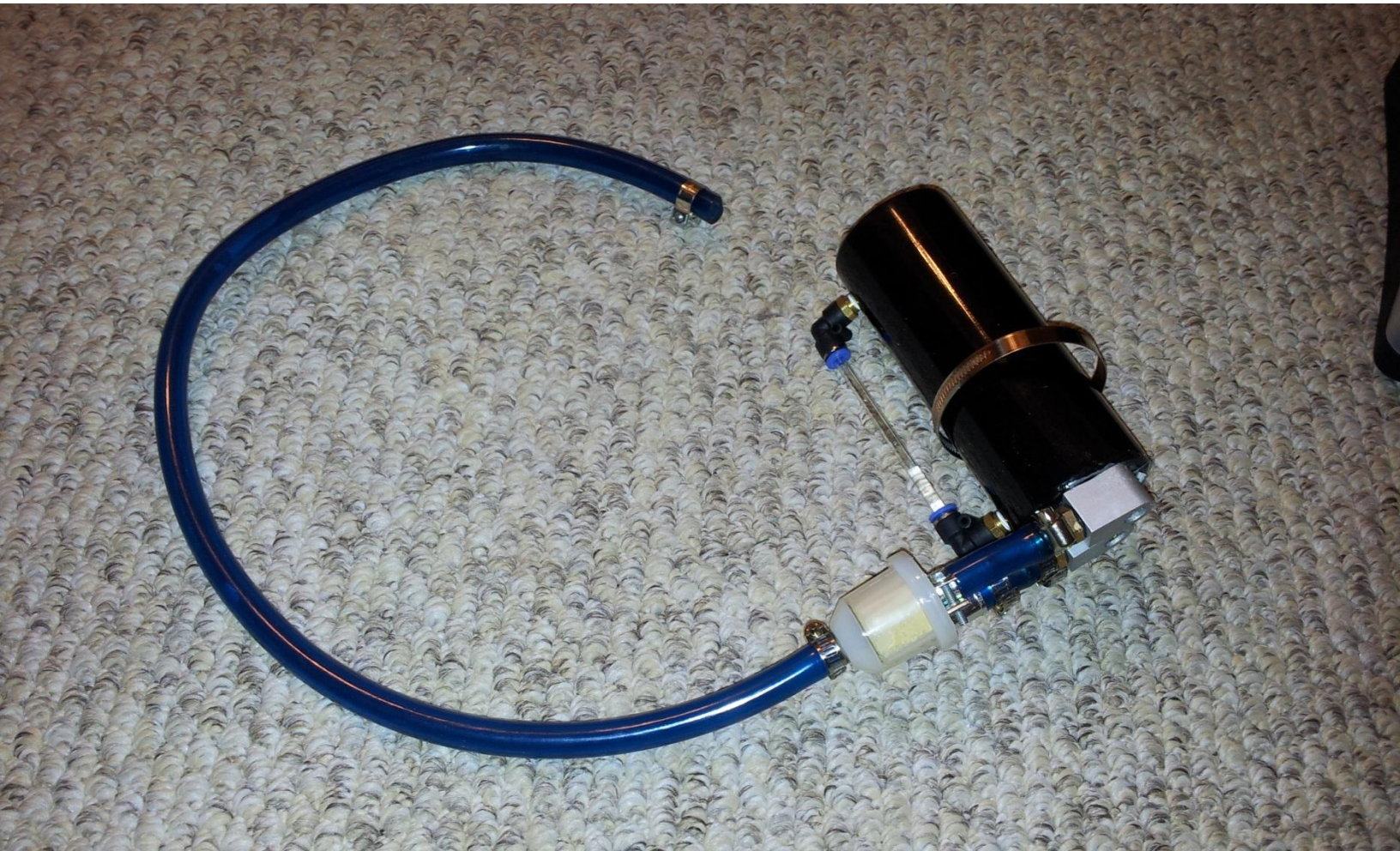
- d. Construct a plug for the connector that is at the center of the can.

In many cases, the kits come with an aluminium stopper. Simply use a short length of included hose to connect the stopper to the connector. We are blocking off the center connector because we will install the can at an angle, such that the other port, the one on the side, will be the lowest point at all times.





- e. Attach the remaining length of hose to the other, unblocked connector.  
You will need about 3 feet of hose, but be generous. You can always cut off any extras.
- f. Splice the lawnmower fuel filter into the long hose.  
Put this a few inches downstream from the can. Putting this at the engine end of the hose risks exposing the filter to heat it may not be able to tolerate. This filter will keep the oil feed clean.
- g. You should now have a complete reservoir like this:



- h. Before installation (but after building the bracket below) add some oil to the reservoir and let sit overnight in a warm place, then check carefully for leaks and repair as needed.  
This reservoir will sit over your exhaust manifold, which is not a place you want oil to drip, however slowly.



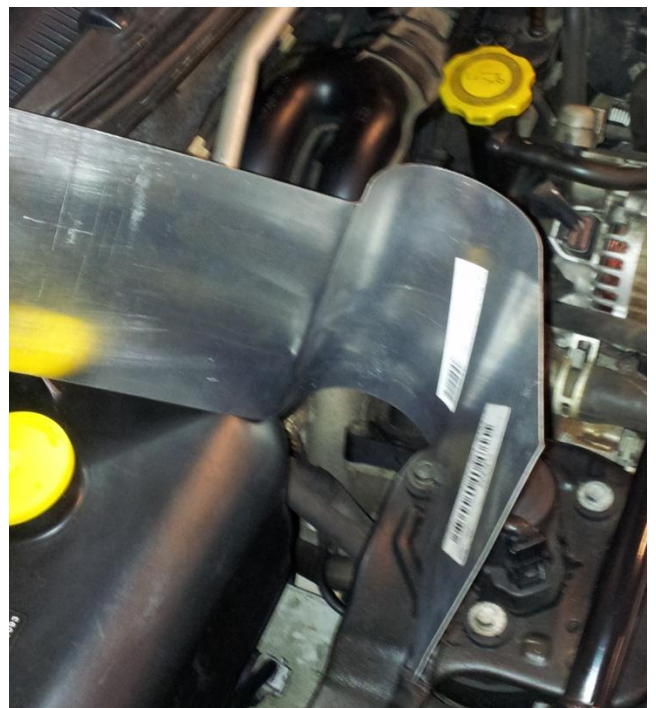
## Build the bracket

The can will be supported by an aluminum bracket that uses 2 stock bolt locations: one on the windshield washer tank and one on another thingamajig. I used light gauge roofing aluminium, but feel free to go with thicker gauge for a more rigid construction.

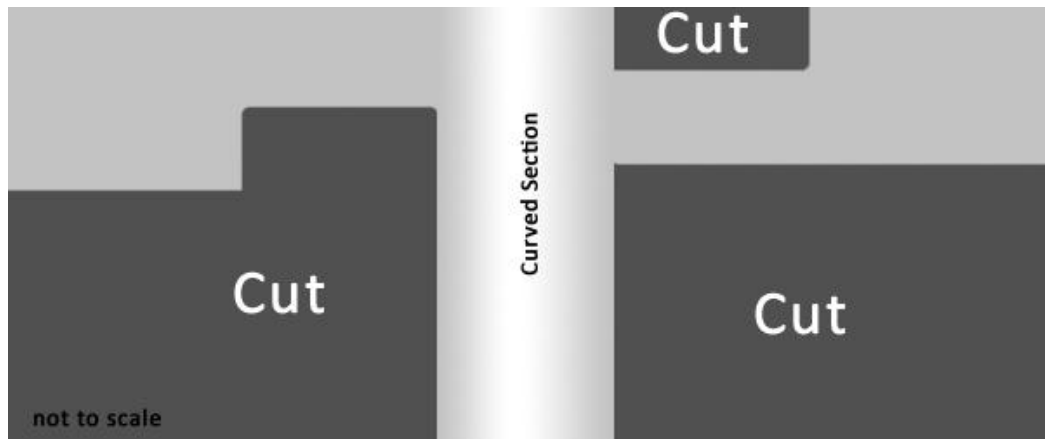
- a. Wrap the aluminium sheet around the catch can.



- b. Bend the aluminium sheet to make a “b” shape as below.  
The top of the “b” will eventually mount to the windshield washer tank.



c. Cut away the metal based on the following template.



d. Deburr the cut edges. You should end up with something like this:



e. Bend the bracket like so:





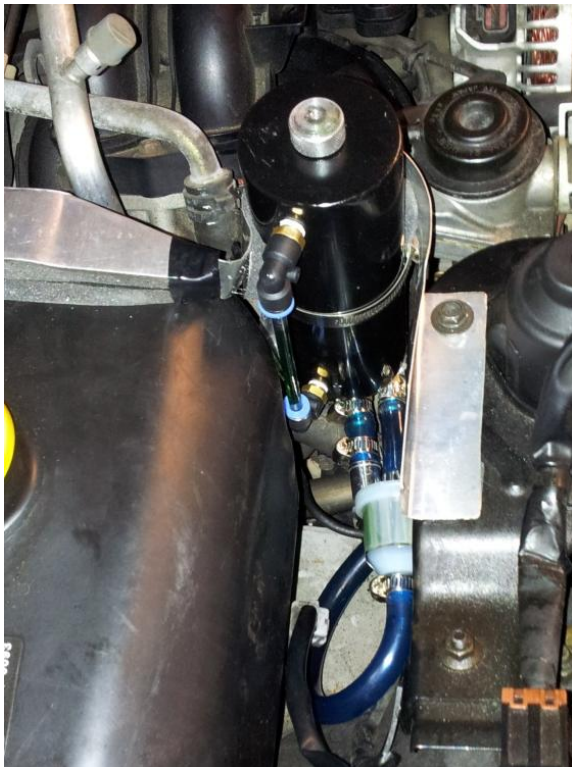
- f. This is a bit optional, but add insulating foam to absorb vibrations and keep the metal from rubbing on adjacent parts. Also test-fit the bracket and mark the locations of bolt holes.



## Install

Everything should be simple from here. There are no modifications to make on the vehicle itself.

- a. Loosely attach the catch can to the bracket using the band provided in the catch can kit. Bolt the whole assembly into the car so that the hoses point toward the passenger side fender, loop them back under toward the Sohn adapter.



- b. Tighten everything down, fill with oil and check for leaks. Be sure to fill the fuel filter completely, to avoid air bubbles. In the picture above, it's not full.

You're done! Check for leaks, go for a drive, get the engine up to temp and thrown the car around some to shake things down, and check for leaks again.

