1. ENGINE FAILURE MAY OCCUR IF THE AOS-R IS NOT PROPERLY ASSEMBLED

First, place the two provided O-rings into the two O-ring grooves shown.

2. Place the green coolant seal plate on top of the O-rings. This CANNOT go on upside down but it goes on in a VERY specific orientation. The outer fins and all 9 bolt holes should align perfectly, as shown.

3. Apply a high strength thread locker and secure all 9 included button head bolts using a 5/64” Allen hex wrench.

4. Using multi-purpose oil, lubricate the AOS-R lower O-ring.
5. Spin the bottom heating section to the AOS-R to complete the assembly of the canister.

6. Find a suitable mounting location for the AOS-R. It must be high enough where the collected oil can freely flow back into the oil pan with gravity. Do NOT mount the AOS-R horizontally. The AOS-R should be mounted vertically allowing oil to drain properly out of the bottom port. The AOS-R can be rotated 360 degrees around the mounting bracket’s slotted holes.

Sandwich the included rubber trim between the mounting bracket and the can. Apply a medium strength thread locker to the included M5x.8mm screws and torque to 68 in-lbs. Once properly clocked, the AOS-R can be bolted to the bracket. Using a 3mm Allen wrench, tighten the 7 included MS bolts to the AOS-R.

7. Find a water line connection on the engine that can be used to heat the AOS-R. Be sure that the coolant through this hose is circulated when the thermostat is both open and closed. A typical source is at the throttle body. The included 4AN ORB adapter fittings (shown) use barbs suitable for 5/16” (7-8mm) hose. When connecting to the AOS-R, be sure to use coolant rated “heater” hose.

Lubricate the O-rings on the 2 small hose barb adapters with oil. Next, fully tighten these fittings into the bottom cap of the AOS-R.

8. Shown is an example of how a typical engine’s crankcase ventilation would be plumbed in an AOS-R system. NOTE: The crankcase blow-by gas input and the filtered crankcase air output can be plumbed to either the top or side ports of the AOS-R.

If equipped, the OEM PCV valve is commonly removed and/or plugged.

A return to the oil pan will need to be sorted. Some engines may require the oil pan to be removed and a bung welded on.

See the next step to choose how to plumb the filtered crankcase air.

9. **Option1:** To run the AOS-R in a VTA (vent to atmosphere) configuration, simply install a breather filter, such as Radium P/N: 20-0050 (as shown) to the top or side port.

**Option2:** To recirculate all filtered crankcase gases back through the engine to be burned, connect a hose from the top or side port to the intake system upstream of the turbo or supercharger (if equipped).

**Note:** The oil return line out of the bottom of the AOS can also be used as a vent line for the crankcase.

Start the vehicle and check for leaks in the coolant system. Top off cooling system, if necessary.