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INSTALLATION MANUAL: GReddy Honda S2000 2000-2008 AP1/ AP2 Oil Cooler Kit with Filter Relocation and Shroud

Part Number: 12058005

Thank you for your purchase of this product. Please carefully read over the instructions prior to starting installation. We highly recommend this kit to be installed by a professional. We have made every effort to provide a thorough and accurate installation manual but if there are any questions or concerns please refer to OEM Honda S2000 Service Manual or contact us.

IMPORTANT NOTES:

1. This kit requires the removal of the OEM oil cooler which uses engine coolant.
2. This kit may NOT work with some intake kits especially those that retain the OEM intake box. If your vehicle retains use of the OEM intake box or an intake that does not allow for the oil filter relocation adapter to be mounted we offer an alternative kit WITHOUT oil filter relocation which may fit your vehicle better, PN 12058006.
3. This kit requires removal of one of two horns. The horn located in the engine bay near the passenger side shock tower must be removed. The second horn mounted in front of the radiator is not affected by this kit.
4. All components should be checked regularly especially the oil block adapter on the engine. The vibration from the motor may cause the oil block adapter to loosen over time.

ITEM	DESCRIPTION	QTY
1.	OIL COOLER CORE	1
2.	TYPE-I OIL FILTER RELOCATION ADAPTER	1
3.	TYPE-F OIL BLOCK ADAPTER	1
4.	OIL FILTER ADAPTER (OEM HONDA PART)	1
5.	FILTER RELOCATION MOUNTING BRACKET	1
6.	OIL COOLER CORE MOUNTING BRACKET 1	1
7.	OIL COOLER CORE MOUNTING BRACKET 2	1
8.	-10AN HOSE with STRAIGHT HOSE ENDS	1
9.	-10AN HOSE with STRAIGHT and 90degree HOSE ENDS	1
10.	-10AN HOSE with 30 and 90 degree HOSE ENDS (longer total length)	1
11.	-10AN HOSE with 30 and 90 degree HOSE ENDS (shorter total length)	1
12.	PLASTIC CORRUGATED SLEEVE (6inch length)	2
13.	ALUMINUM DUCTING PANEL TOP/BOTTOM	2
14.	ALUMINUM DUCTING PANEL SIDE	2
15.	OIL COOLER CORE SUPPORT BRACKET	2
16.	HEATER HOSE 13mm, 1/2” DIA.,	1
17.	HOSE CLAMPS, #8	2
18.	M3 BUTTONHEAD SCREW AND NYLON LOCKING NUT	6
19.	M6 HEX HEAD BOLT	12
20.	M6 FLANGE NUT	8
21.	M8 HEX HEAD BOLT	3
22.	M8 FLAT WASHER	2
23.	M8 LOCK WASHER	2
24.	M8 FLANGE NUT	1
25.	PLASTIC ZIP TIES	4
26.	GPP COOLING SYSTEM DECAL	1
27.	INSTALLATION CARD	1

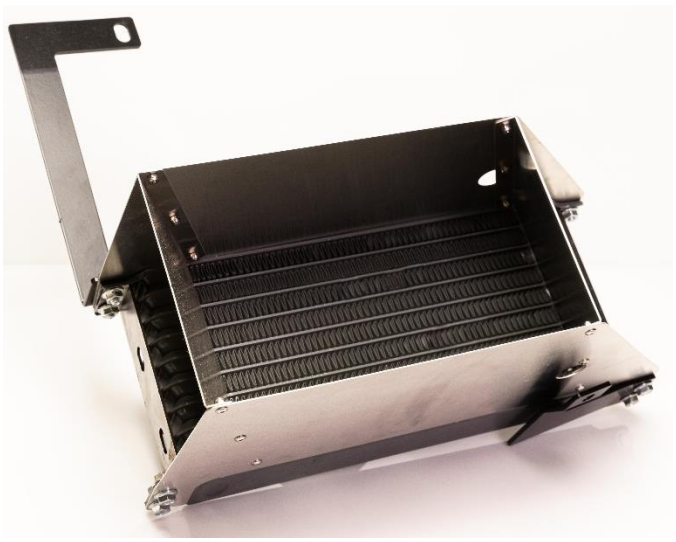
Instructions for Installation

IMPORTANT: Highly recommended for professional installation.

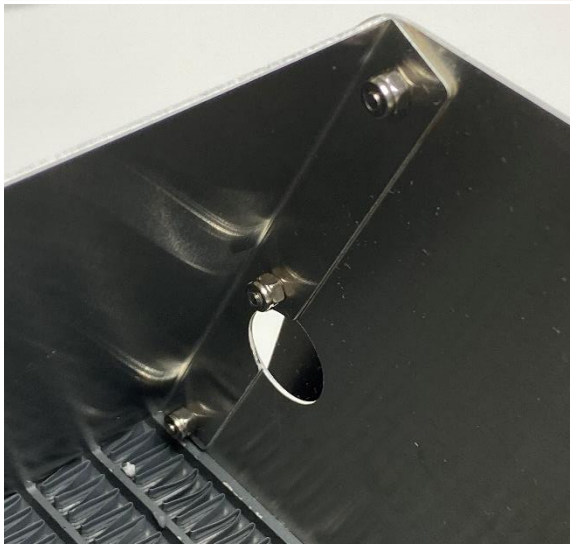
May have some slight variances between different model years.

1. Disconnect battery
2. Remove front bumper. See OEM Service Manual for instructions.
3. Drain a portion or all engine oil
4. Remove oil filter
5. Drain some engine coolant via the radiator drain plug OR disconnect hoses at the OEM oil cooler.
6. Remove OEM oil cooler. 30mm socket is required. Remove the OEM rubber hoses for the oil cooler from the engine block
7. Install supplied male-male thread adapter to engine block (ITEM #4). Lube the thread. This should thread in by hand. Use a rag to cover the threads while tightening as threads may cut bare skin.
   *DO NOT use pliers on threads.
8. Tighten all fittings, plugs, caps on both oil filter adapter and oil filter relocation block (ITEM #2, 3).
   IMPORTANT - the -10 male fittings have a small o-ring to seal. Make sure when tighten that the o-ring is properly seated and not pinched. Use Teflon tape or paste for the threaded plugs to ensure a proper seal. These adapters include 1/8PT ports which can be used for temperature or pressure sensors.
9. Attach the oil filter adapter (ITEM #3) to the engine block. Clock the adapter so that the gold -10 male fitting is at 3 o'clock. Tighten the center bolt to the engine using a 27mm deep socket to 16 ft-lbs.
   IMPORTANT – use a little bit of engine oil or engine lube on the o-ring on the back side of the adapter mating to engine block. While tightening, make sure the o-ring remains in the grove on the adapter and does not get pinched which can cause an oil leak.
10. Slip the two hose clamps onto the 13mm silicon hose (ITEM #16, 17)
11. Connect the 13mm heater hose to the two open ports left by removal of OEM oil cooler
12. Tighten both hose clamps
13. Remove the horn located near the passenger side shock tower
    Note: Another OEM horn remains in front of the radiator
14. Secure the oil filter relocation adapter to the mounting bracket with the supplied M8 bolt, lock washer and flat washer (ITEM #2,5,21,22,23)
    NOTE: This oil filter relocation block adapter comes equipped with a thermostat which begins to opens at 70 C/ 158 F and fully opens at 80 C/ 176 F.
15. Remove the OEM M6 bolts on the passenger side shock tower. One for heat shield and the other for insulated AC line bracket.
16. Slide the oil filter relocation bracket into place (ITEM #5)
17. Re-attach the M6 bolts for heat shield and AC line bracket (ITEM #19). Use supplied M6 bolt to secure the other end of the bracket to existing threaded hole along the chassis.

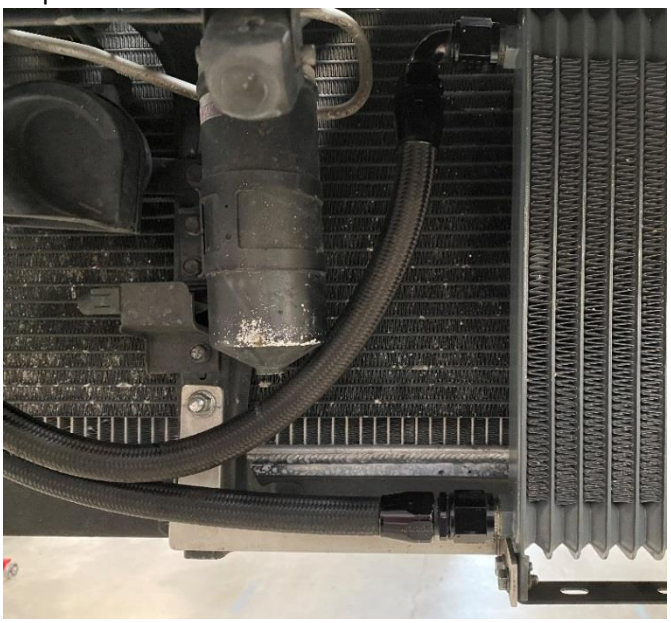
18. Assemble the oil cooler core, aluminum shrouds, core support brackets, and mounting brackets with supplied M3 and M6 hardware as shown (ITEM #1, 6, 7, 13, 14, 15, 18, 19, 20).
    The aluminum panels are the same from side to side and top to bottom.
    BE CAREFUL OF SHARP EDGES
    IF using this kit with our bolt-on turbo kit, do not install aluminum shrouds to cooler core.

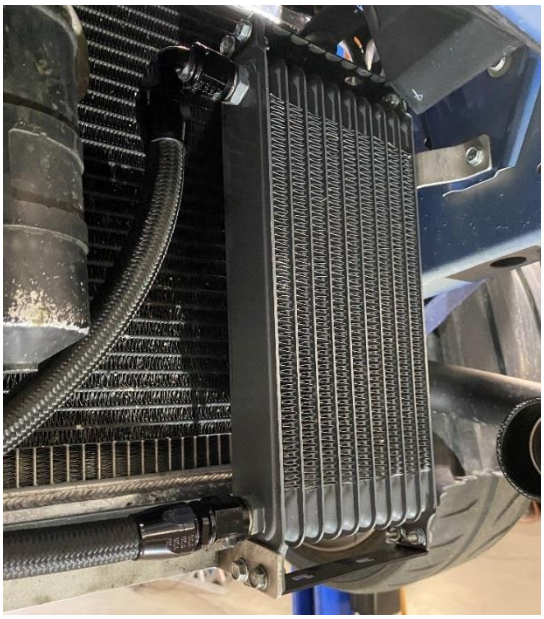




19. Mount the cooler core to the chassis as shown (ITEM #19, 21, 24).
    The shorter cooler core bracket mounts to the side rail with M6 bolt. The hole in the shroud will allow you access to install the hex bolt.
    The longer cooler core bracket mounts to the radiator support with M8 bolt and nut. The hex bolt head should be behind the radiator support bracket so that the bolt protrudes forward.
    NOTE: The following images were taken on a vehicle in which has GPP Turbo Kit, therefore the aluminum shroud was not installed. For cars without a front mount intercooler, please attach the shroud as shown in the previous step.



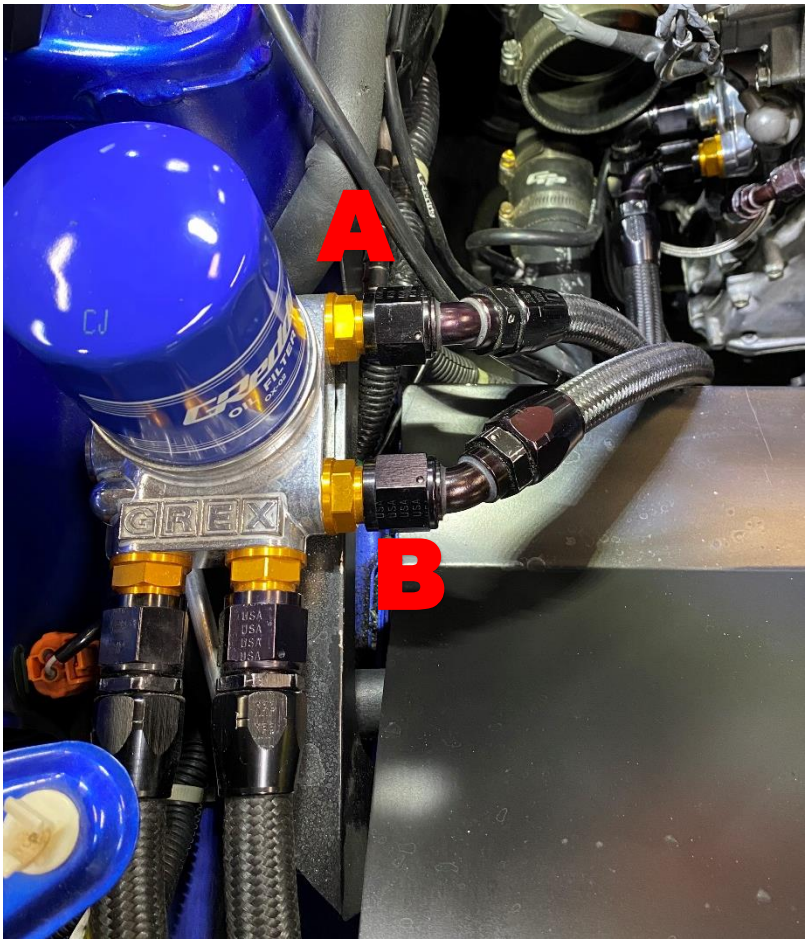


20. Attach hoses from engine block adapter to oil filter relocation adapter (ITEM #10, 11).
    IMPORTANT - When tightening the hose ends, use a wrench to support the fittings on the block adapters.

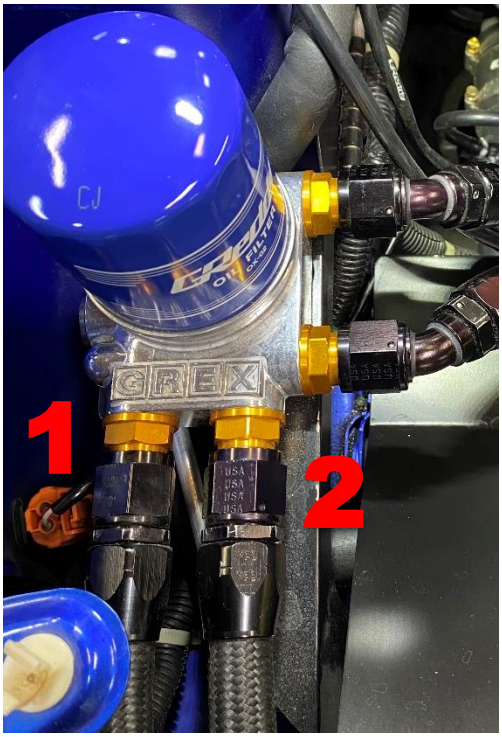
    The oil block adapter on the engine has a silver and gold -10AN male fitting.
    Hose #11, the shortest hose, connects by attaching the 30 degree hose end to PORT A on the oil filter relocation adapter, 90 degree side goes to the gold fitting on the engine block adapter

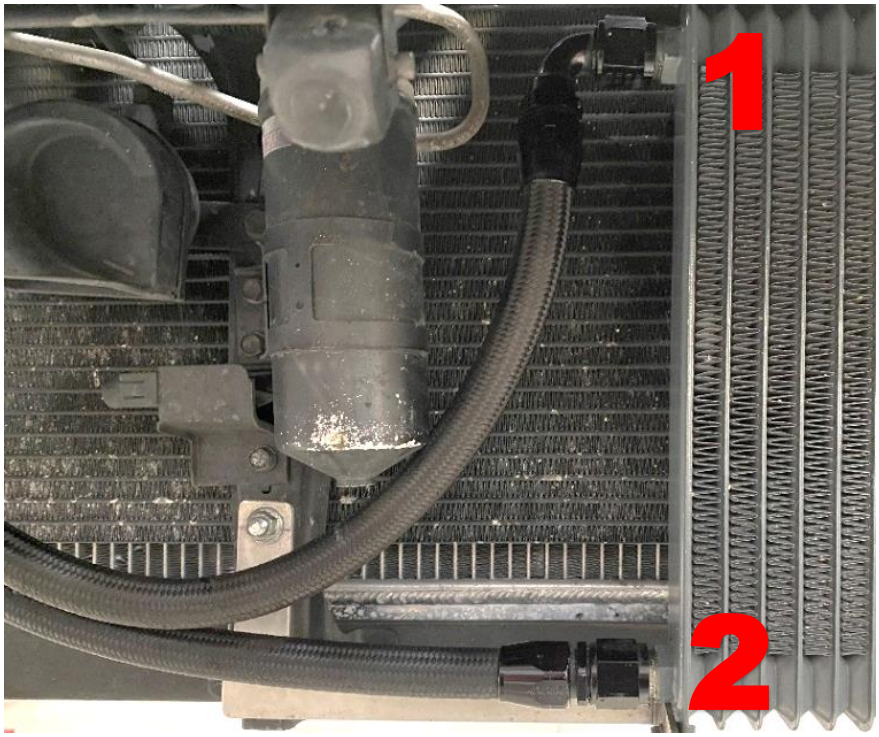
    Hose #10, the second shortest hose, connects by attaching the 30 degree hose end to PORT B on the oil filter relocation adapter, 90 degree side connects to the silver fitting on the engine block adapter

    NOTE: make sure to install as shown in images as each has a proper in and out for oil flow. See reference information in regards to direction of oil flow.



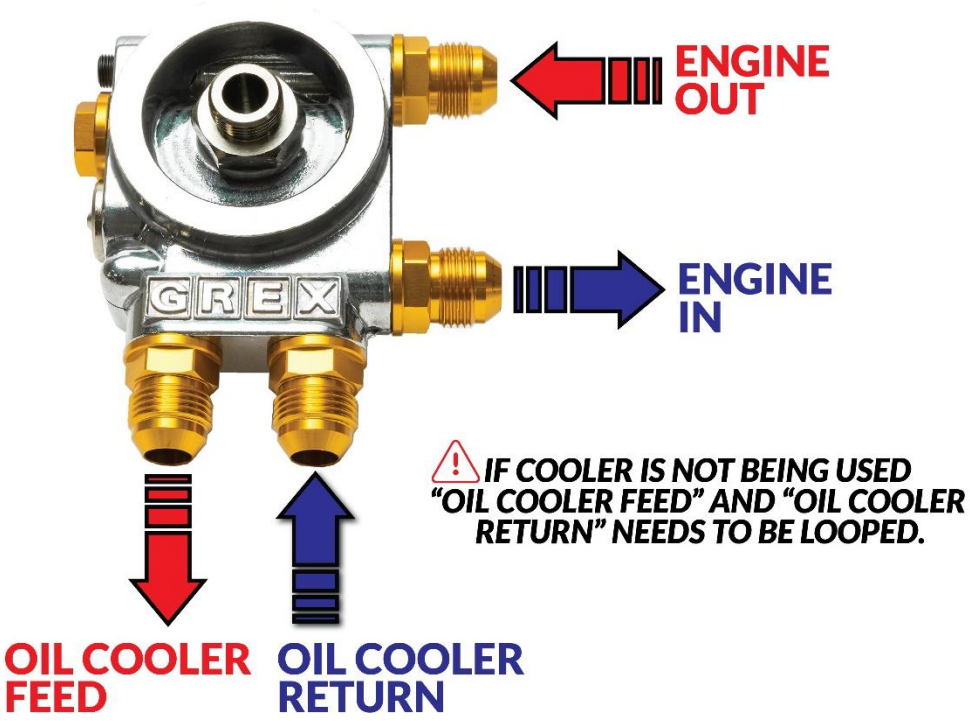
21. Slip on the supplied corrugated plastic tubing sections to the hoses from oil filter relocation block to oil cooler core.
    (ITEM #8, 9)
22. Attach -10AN hoses from filter adapter block to cooler core (ITEM #10, 11)
    IMPORTANT – When connecting/ tightening the hose ends to the block adapter or cooler core, MAKE SURE to use a tool to support the hexagonal base of the -10AN male fitting on the core. Failure to do so may result in damage to the core and an oil leak

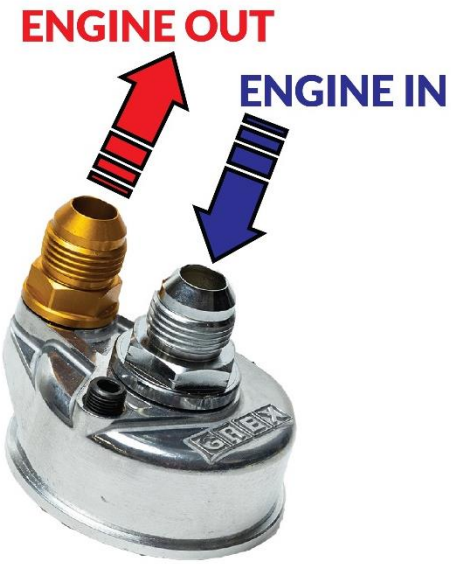




23. Adjust position of corrugated plastic tubing on each hose to protect the hose where the hoses pass the radiator and condenser. Secure with zip ties (ITEM #25)
24. Install new oil filter. Our adapter uses same thread pitch as factory Honda, M20 x P1.5. Our filter relocation adapter will work with OEM Honda S2000 Oil Filter, GReddy M20 x P1.50 oil filters and may work will other brand filters. Before installing any aftermarket filter, ensure the o-ring on the oil filter is correctly sized to fit the flat surface on the adapter block.
25. Re-fill oil. The core has an added capacity of .5 quart. Each foot of -10 hose has an oil capacity of about 1.5 fluid ounces.
    NOTE: The oil cooler core will not fill under cranking as the built-in thermostat is closed until 70 C/ 158 F at which the thermostat begins to open and fully opens at 80 C/ 176 F.
26. Re-connect battery
27. Crank engine without fuel and ignition spark to fill the filter, hoses, adapters, and cooler core with oil before starting the engine. This can be done by unplugging the harness on each ignition coil, and removing the fuel pump fuse under the dash or unplugging each injector.
28. Start the engine and check for oil or coolant leaks. Re-check engine oil level, top off as needed. After the engine has fully warmed up to where the oil temp exceeds 176 F, check the oil level again, refill as needed.
29. Re-install front bumper.
30. After heat cycling the engine we recommend checking to make sure all hardware, AN hose ends, and hose clamps are tight.

REFERENCE INFO





APPENDIX A – taken from XRP Product Catalog

TECHNICAL INFORMATION

STANDARD TORQUE LIMITS FOR HOSE AND TUBE COUPLING NUTS

*Inch Pounds Shown

TUBE O.D.	HOSE SIZE	NUT HEX	A	B	C
1/4"	-4	9/16"	50-65	135-150	100-120
3/8"	-6	11/16"	110-125	270-300	210-250
1/2"	-8	7/8"	210-250	400-500	340-420
5/8"	-10	1"	300-350	650-700	400-480
3/4"	-12	1-1/4"	425-500	900-1000	725-850
1"	-16	1-1/2"	600-700	1200-1400	900-1150
1-1/4"	-20	2"	680-800	1200-1400	900-1150

$$\frac{\text{*Inch Pounds}}{12} = \text{Foot Pounds}$$

Over tightening of hose and tube coupling nuts will cause **thread and seal damage** and can result in **leakage**. Torque values are for threads lubricated with hydraulic fluid, 30 weight motor oil or antiseize compound.

KEY

A - Steel or aluminum flared fitting nuts and tube sleeves, AN818 and AN819: used on aluminum tube.

B - Steel or aluminum flared fitting nuts and tube sleeves, AN818 and AN819: used on steel tube.

C - Steel or aluminum flared fitting hose coupling nuts.

Where use of a torque wrench is not feasible, use a conventional wrench to tighten the coupling nuts. Tighten until a distinct increase in the torque is noted. Continue tightening an additional 1/6 of a turn. Back off the nut. Again, tighten until a distinct increase in the torque is noted. Continue tightening an additional 1/6 to 1/3 of a turn.

NOTE: One hex flat = 1/6 of a turn

Flat
(shown in red)

1/6 Turn
(shown in red)

1/3 Turn
(shown in red)