

ASSEMBLY & INSTALLATION NOTES

JUBU gear oil cooling kit (JU00319PRD)

for Elise S3 1ZR / 2ZR

Please follow the instructions in this manual for a proper assembly & installation of the JUBU gear oil cooling kit for Elise S3 1ZR & 2ZR.

Please find in this document:

1. PART LIST
2. ASSEMBLY & INSTALLATION NOTES

1. PART LIST for product JU00319ART

#	ITEM	ART-NO.	UNITS
1	Gearbox heat exchanger	JPP620146	1
2	Gearbox oil pump	JU00254ART	1
3	Oil-filter	JPP620252	1
4	Heat exchanger adapter plate	JU00151ART	1
5	Heat exchanger bracket	JU01229ART	1
6	Oil pump bracket	JU01230ART	1
7	Oil filter bracket	JU01231ART	1
8	Clamp for gearbox oil return adapter	JU01404ART	1
9	Oil hose 1	JU01600ART	1
10	Oil hose 2	JU01601ART	1
11	Oil hose 3	JU01602ART	1
12	Water hose	JU01603ART	1
13	AN8 heat insulation	-	1
14	AN8 to AN8 90° fitting	JU00411ART	1
15	O-Ring Ø19x3 (Adapter plate)	-	2

#	ITEM	ART-NO.	UNITS
16	O-Ring Ø28x2.5 (hose 3)	-	6
17	Hose clamp Ø12 - Ø22	-	1
18	Spring band clamp Ø22	-	1
19	Spring band clamp Ø27	-	1
20	Pipe clamp Ø45 (filter)	-	1
21	DIN912 M5x10 head cap screws (filter)	-	1
22	DIN912 M6x12 head cap screws (heat exchanger)	-	4
23	DIN912 M6x16 head cap screws (return line)	-	1
24	DIN DIN912 M8x12 head cap screw (WT bracket)	-	3
25	DIN 7380-1 M8x30 lens head screw (pump bracket)	-	2
26	DIN 985 M6 self locking nut (pump)	-	4
27	DIN 125 M6 washer	-	6
28	DIN 125 M8 washer	-	3
29	DIN 137 M5 spring-washer	-	1
30	DIN 137 M6 spring-washer	-	1
31	DIN 137 M8 spring-washer	-	5
32	Adapter wiring harness gearbox oil cooling 2ZR	JU01604ART	1
33	20A fuse	-	1



Fig 1: Scope of delivery

2. ASSEMBLY & INSTALLATION NOTES

Level of difficulty: **MEDIUM**

Required time: **5h - 8h** (depends on experience, available tools & skills)

! **NOTE:** Unless otherwise specified, following torques are applied on the screws:

- M5: 6Nm
- M6: 10Nm
- M8: 25Nm
- M10: 50Nm

! **ATTENTION!** The AN8 fittings must NOT be tightened with more than 35Nm of torque! If the AN8 screwing fittings are tightened with too much torque, they might start to leak!

1. Bolt the heat exchanger bracket (5) to the shift cable bracket as shown in Fig. 2. using the OEM screws and fix them with *LOCTITE 243 screw locking lacquer*.

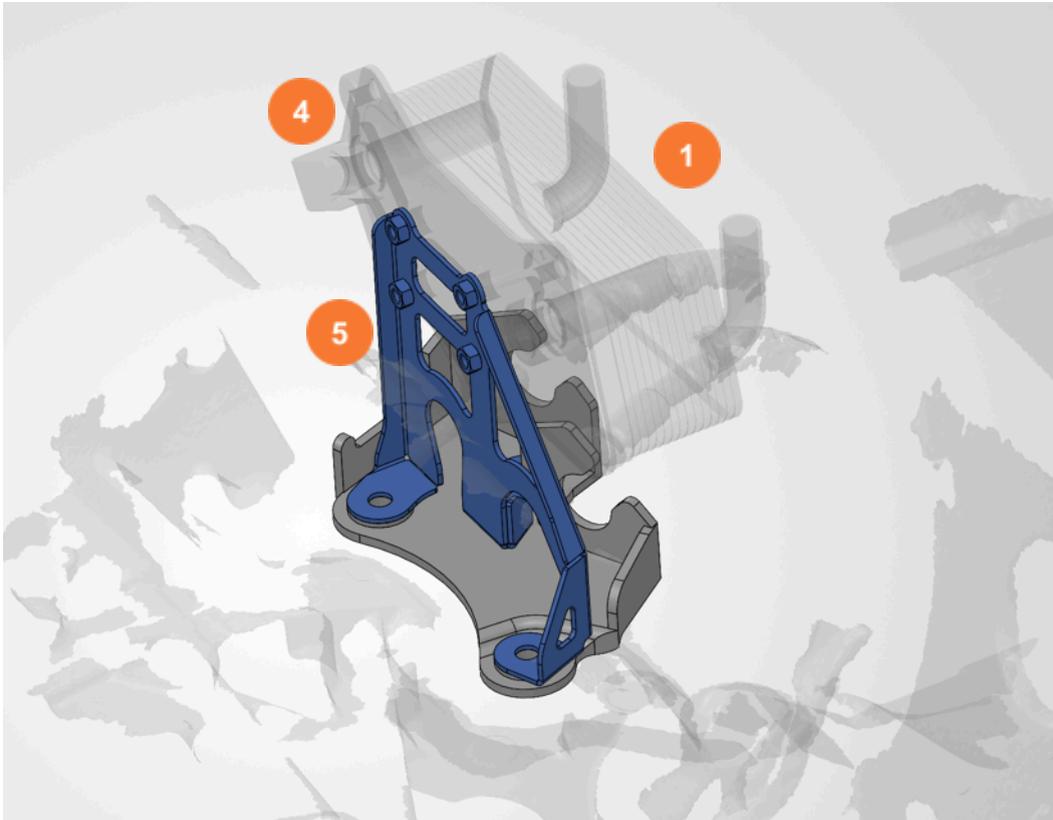


Fig. 2: Installing the heat exchanger bracket (5)

2. Bolt the heat exchanger adapter plate (4) to the heat exchanger bracket (5) using 4x M6x12 head cap screws (22) and fix them with *LOCTITE 243 screw locking lacquer*.
3. Double check if the Ø19x3 O-Ring (15) sit in their grooves of the heat exchanger adapter plate (4) and bolt the heat exchanger (1) to the adapter plate (4) using 3x M8x12 head cap screws (24) and 3x DIN137 M8 spring washers (30).
4. Bolt the pump bracket (6) to the gearbox as shown in Fig. 3 using 2x M8x30 lens head screws (25) with 2x M8 spring washers (31). Do not forget to connect the ground cable.



Fig. 3: Installing the gearbox pump bracket (6)

5. Install the oil filter bracket (7) as shown in Fig 4.

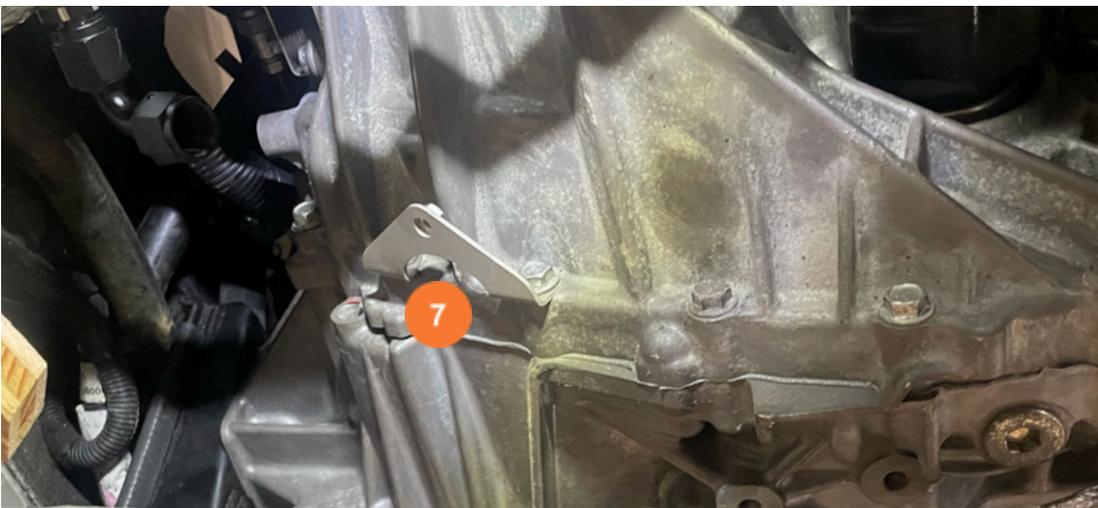


Fig. 4: Oil filter bracket (7)

6. Bolt the oil pump (2) to its bracket (6) using 4x M6 self locking nuts (26). Make sure the AN8 to AN8 90° fitting (14) is screwed to the inlet of the pump.



Fig. 5: Installing the oil pump (2).

7. Screw the filter (2) to the AN8 to AN8 90° fitting (14) and fix it to its bracket (6) using the Ø45 pipe clamp (20), 1x M5x10 head cap screw (21) and 1x M5 spring washer (29).

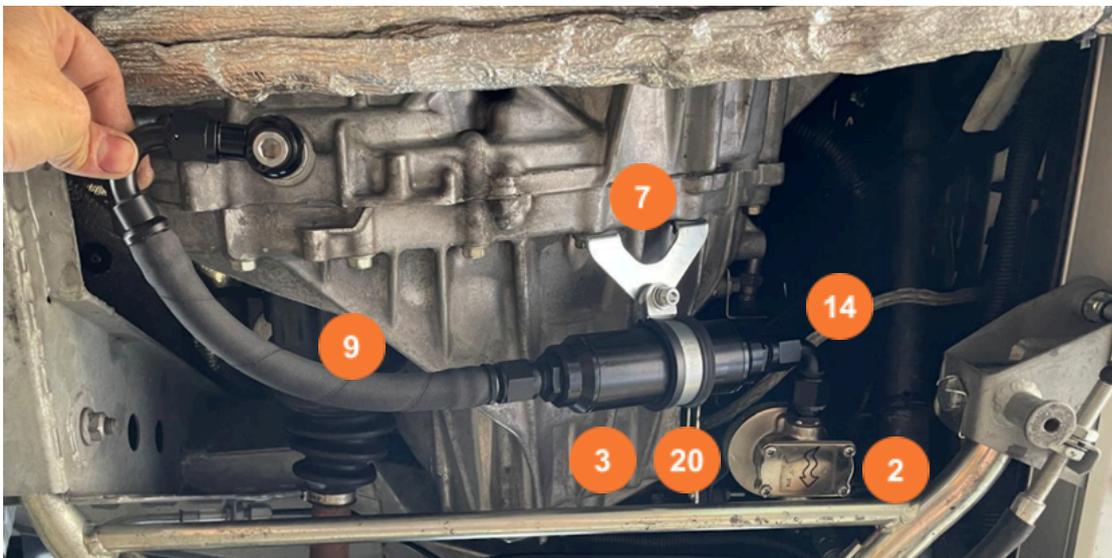


Fig. 6: Installing the oil filter (3) and its connection to the gearbox.

8. Connect the Gearbox outlet to the oil filter (3) using hose 1 (9).

9. Further connect the outlet of the oil pump (2) to the inlet of the heat exchanger adapter plate (4) with hose 2 (10).
10. And finally close the circuit by connecting the outlet of the adapter plate (4) to the filling plug using hose 3 (11). Check if the Ø28x2.5 O-Ring (16) is sitting properly on the plug which is being fixed to the gearbox using 1x screw DIN 912 M6x16 (23) and 1x spring washer DIN 137 M6 (30).



Fig. 7: Connecting the heat exchanger exit to the gearbox with hose 3 (11).

11. Unplug the water connection that is running to the engine and connect it to the heat exchanger water connection that is closer to the engine and fix it using 1x Ø12 - Ø22 hose clamp (17).

! **NOTE:** Make sure that the OEM heat insulation is still protecting the hose from the heat of the exhaust manifold.

12. Connect the second pipe of the heat exchanger (1) (the one that is further away from the engine) to the open water connection on the engine using the water hose (12), 1x Ø22 spring band clamp (18) and 1x Ø27 spring band clamp (19). Protect the area that is close to the exhaust manifold by using AN8 heat insulation (13).



Fig. 8: Connecting the heat exchanger (1) to the water circuit.

13. Disconnect the battery.
14. Disconnect the grey wiring connector below the ECU (marked in Fig. 9) and install the adapter harness (32) inline between the two ends.

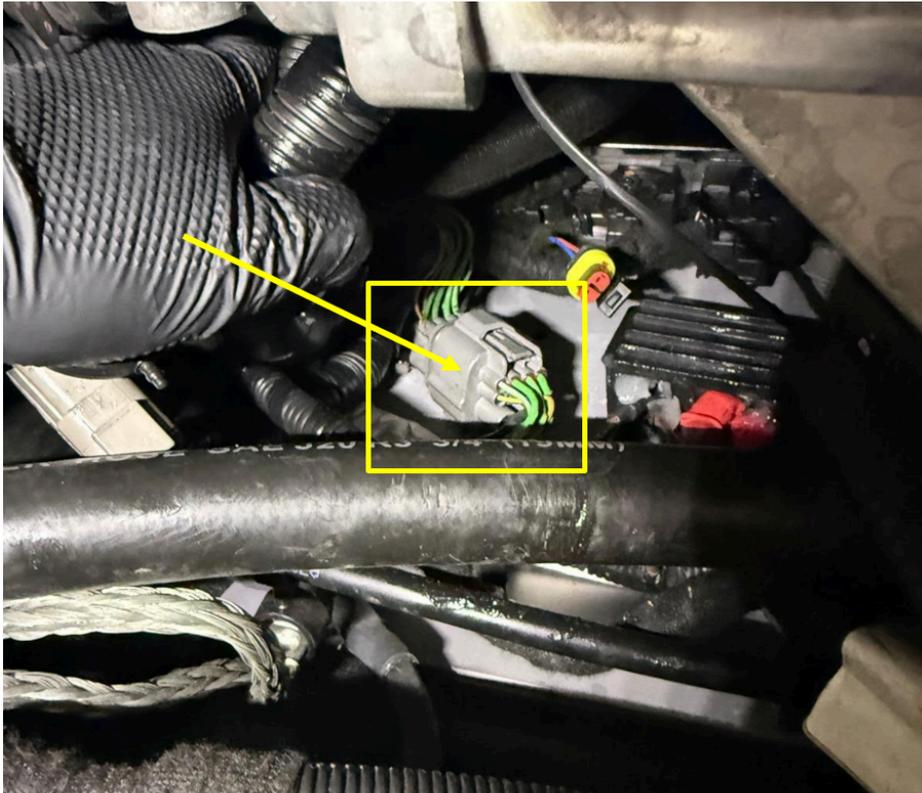


Fig. 9: Installation of the adapter wiring harness (32) between the two ends of this connector.

15. Connect the adaptor wiring harness (32) to the gearbox oil pump (2).
16. Replace the in Fig. 9 marked fuse R5 with the 20A fuse (33).

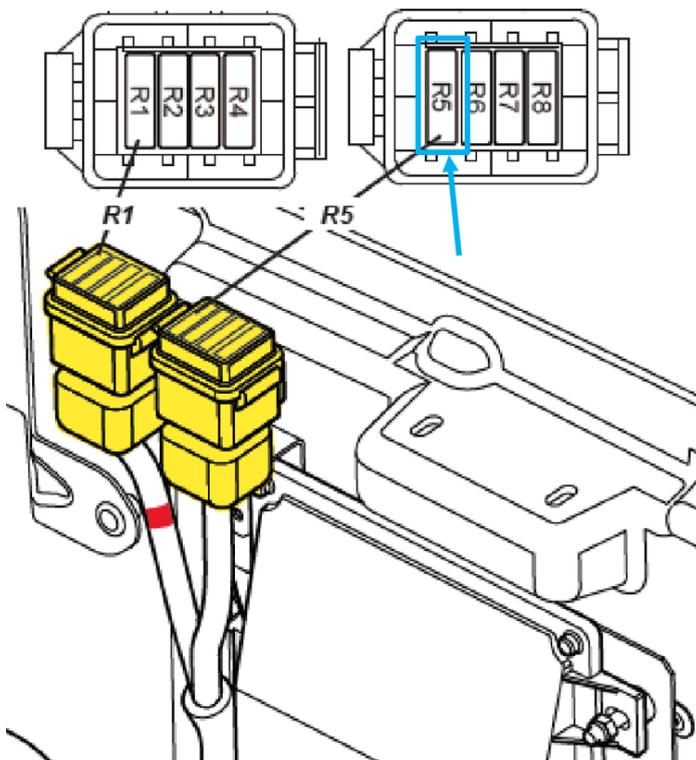


Fig. 9: Exchange the marked fuse - 2ZR

17. Reconnect the battery, refill the oil to OEM levels, vent the water circuit and check the system for leaks.
18. After a test drive double check all levels and the system for leaks.

If you have any questions or need additional information, please contact us by email:

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