OIL COOLER KIT INSTALLATION MANUAL



NAME OF PRODUCT	OIL COOLER KIT
PART NUMBER	15004-AM013
APPLICATION	MITSUBISHI LANCER EVOLUTION X / CBA-CZ4A (JDM)
ENGINE	4B11
YEAR	2007/10 -
REMARKS	 ** This kit was designed on a JDM vehicle and has not yet been tested in other markets. [ADVICE] For higher performance, use HKS Low Temp Oil Cooler Thermostat (P/N 15999-AM001) with this kit. The following item is required: Engine Oil (4.5 liters + 0.5 to 1.0 liter / 5-6 quarts)

NOTICE

This manual assumes that you have and know how to use the tools and equipment necessary to safely perform service operations on your vehicle. This manual assumes that you are familiar with typical automotive systems and basic service and repair procedures. Do not attempt to carry out the operations shown in this manual unless these assumptions are correct. Always have access to a factory repair manual. To avoid injury, follow the safety precautions contained in the factory repair manual.

REVISION OF MANUAL

Rev. Number	Date	Details
3-3.01	2008/10	1 st Edition

PARTS LIST

NO.	PART NUMBER	DESCRIPTION	QT	IMAGE	REMARKS
1	15006-AK004	Oil Cooler Core	1		
2	G99123-211801-DE	Banjo	1		
3	G99121-211801-DE	Banjo Bolt	1		
4	G09931-M30010-00	Oil Cooler Gasket	4		
5	15731-003132OB	Union AN10	1		
6	15620-002132	O-ring	1	0	
7	G15721-M40010-00	Oil Cooler Bracket #1	1	© Meloop (9)	
8	G15721-M40020-00	Oil Cooler Bracket #2	1		
9	G15721-M40030-00	Oil Cooler Bracket #3	1	() Minor	
10	G15731-M40010-00	Oil Cooler Duct #1	1		
11	G15731-M40020-00	Oil Cooler Duct #2	1		
12	G15731-M40030-00	Oil Cooler Duct #3	1		
13	G15731-M40040-00	Oil Cooler Duct #4	1		
14	G90311-082101-03	Collar	2		φ20-8 t=4
15	G15750-K00840-00	Oil Cooler Hose #1	1		90° -90°
16	G15750-K00850-00	Oil Cooler Hose #2	1		0° -45°
17	G99518-010001-00	Fire Sleeve	1		
18	91126-005372	Button Bolt M4	12		
19		Bolt M6 L=15	8		
20		Bolt M8 L=15	3		
21		Bolt M8 L=20	3		

PARTS LIST

NO.	PART NUMBER	DESCRIPTION	QT	IMAGE	REMARKS
22		Bolt M8 L=30	1		
23		Nut M4	12		
24		Flange Nut M6	8		
25		Flange Nut M8	7		
26		Flat Washer M4	24		
27		Flat Washer M6	8		
28		Flat Washer M8	6		
29		Flat Washer M8 (Major Dia.)	2		
30		Spring Washer M6	8		
31		Spring Washer M8	7		
32		Tie Wrap (Medium)	5		
33	G99551-007003-00	Colgate Tube	1		
34	G09353-Z60010-00	Sponge Tape	1		
35	93050-002100TP	Instruction Manual	1	以及使明者 IIII	
36	E04261-M40010-00	Installation Manual	1	以投級明者 工工	

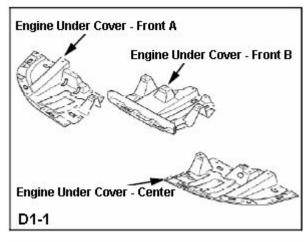
1. Removing Factory Parts

Before beginning removal of the factory parts, disconnect the negative cable from the battery terminal. Use this instruction manual and the manufacturer's service manual as a reference.

(1) Remove the following parts: Engine Under Cover-Front A, Engine Under Cover-Front B, and Engine Under Cover-Center. (Diagram D1-1)

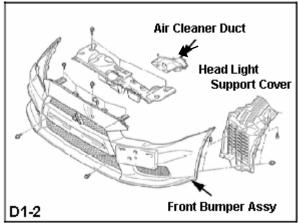
NOTE

- · Keep the removed covers for later use.
- (2) Remove the following parts: Air Cleaner Duct, Head Light Support Cover, and Front Bumper Assembly. (Diagram D1-2)



NOTE

· Keep the removed parts for later use.

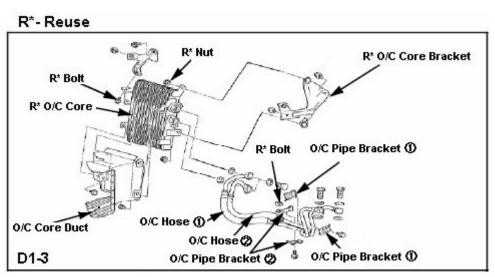


- (3) Remove the oil cooler duct. (Diagram D1-3)
- (4) Remove the oil cooler pipe bracket ① and ②. (Diagram D1-3)

NOTE • Keep oil cooler pipe bracket ② for later use.

- (5) Remove the oil cooler hose ①. (Diagram D1-3)
- (6) Remove the oil cooler core. (Diagram D1-3)
- (7) Remove the oil cooler core bracket. (Diagram D1-3)

NOTE • Keep the oil cooler core bracket for later use.

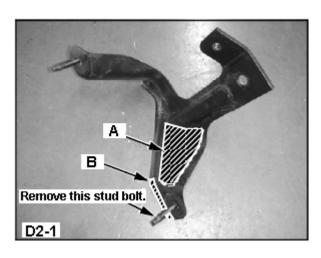


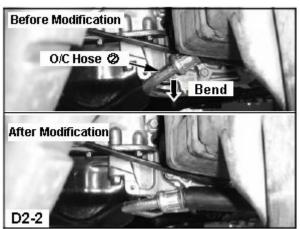
2. Modifying Factory Parts

- (1) Cut off portion "A" and "B" in Diagram D2-1 so the oil cooler core bracket does not come in contact with the factory oil cooler core. (Diagram D2-1)
- (2) Remove the stud bolt from the oil cooler core bracket. (Diagram D2-1)

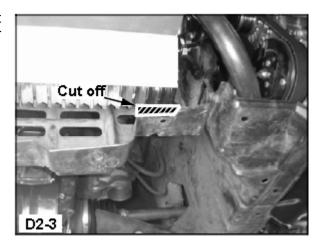
ADVICE

- Shaving the non-threaded top portion of the stud may be necessary to remove the stud bolt.
- (3) Reinstall the oil cooler core bracket back to the original location. (Diagram D1-3)
- (4) Bend the oil cooler hose ② as shown in Diagram D2-2.
- (5) Reinstall the oil cooler pipe bracket ② back to the original location. (Diagram D1-3)





(6) Cut off the portion indicated in Diagram D2-3 so it does not come in contact with the factory oil cooler core. (Diagram D2-3)

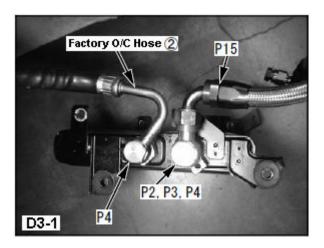


3. Installing Kit Parts

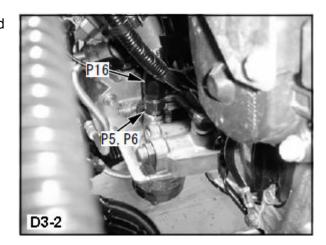
- ※ 3.(12) is only for vehicles equipped with the water spray.
- (1) Install the banjo to the factory oil cooler core using the provided bolt and gaskets; then, temporarily install Oil Cooler Hose #1. (Diagram D3-1)
 - Banjo (P2×1)
 - Banjo Bolt (P3×1)
 - Oil Cooler Gasket (P4×2)
 - Oil Cooler Hose #1 (P15×1)

NOTE

- Install the banjo vertically to the factory oil cooler core.
- (2) Install the factory oil cooler hose ② to the factory oil cooler core using the provided gaskets. (Diagram D3-1)
 - Oil Cooler Gasket (P4×2)



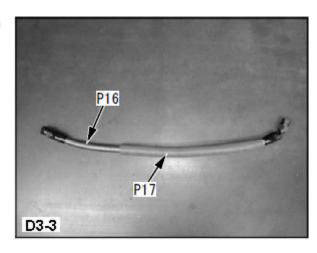
- (3) Install Union to the engine using the provided O-ring. (Diagram D3-2)
 - Union AN10 (P5×1)
 - O-ring (P6×1)



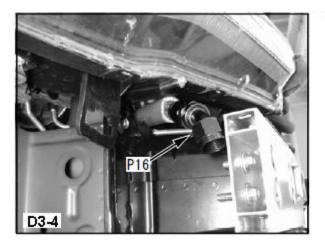
- (4) Install Fire Sleeve to Oil Cooler Hose #2. (Diagram D3-3)
 - Oil Cooler Hose #2 (P16x1)
 - Fire Sleeve (P17x1)

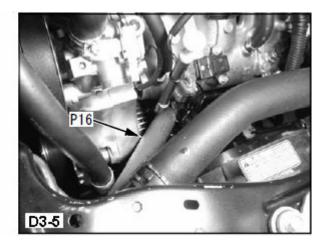
CAUTION

• Do not remove the vinyl protection cover on Fire Sleeve's ends when installing the sleeve to the Oil Cooler Hose #2.

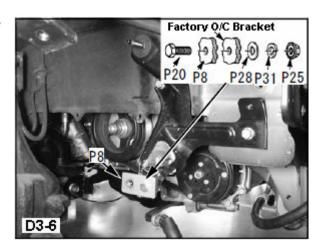


(5) Install Oil Cooler Hose #2 to Union AN10 that installed to the engine in 3.(3). (Diagram D3-2, D3-4, D3-5)

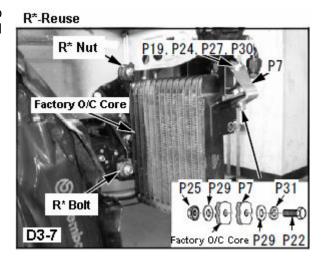




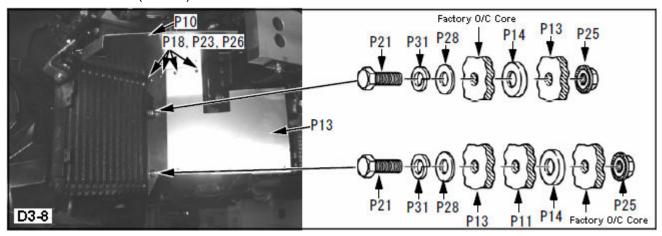
- (6) Temporarily install Oil Cooler Bracket #2 to the factory oil cooler bracket that was modified in 2.(1) using the provided bolt, nut, and washers. (Diagram D3-6)
 - Oil Cooler Bracket #2 (P8×1)
 - Bolt M8 L=15 (P20×1)
 - Flange Nut M8 (P25×1)
 - Flat Washer M8 (P28×1)
 - Spring Washer M8 (P31×1)



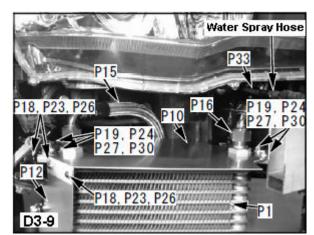
- (7) Temporarily install the factory oil cooler core to the vehicle using the provided bolts, nuts, and washers. (Diagram D3-7)
 - Oil Cooler Bracket #1 (P7×1)
 - Bolt M6 L=15 (P19×1)
 - Bolt M8 L=30 (P22×1)
 - Flange Nut Mô (P24×1)
 - Flange Nut M8 (P25×1)
 - Flat Washer M6 (P27×1)
 - Flat Washer M8 (Major Dia.) (P29×2)
 - Spring Washer M6 (P30×1)
 - Spring Washer M8 (P31×1)



- (8) Temporarily install Oil Cooler Duct #4 to the factory oil cooler core using the provided bolts, nuts, and washers. (Diagram D3-8)
 - Oil Cooler Duct #4 (P13×1)
 - · Collar (P14×2)
 - Bolt M8 L=20 (P21×2)
 - · Flange Nut M8 (P25×2)
 - Flat Washer M8 (P28×2)
 - Spring Washer M8 (P31×2)
- (9) Temporarily install Oil Cooler Duct #1 to Oil Cooler Duct #4 using the provided bolts, nuts, and washers. (Diagram D3-8)
 - Oil Cooler Duct #1 (P10×1)
 - Button Bolt M4 (P18×4)
 - Nut M4 (P23×4)
 - Flat Washer M4 (P26×8)



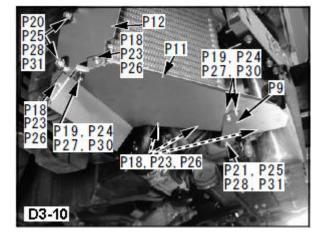
- (10) Temporarily install Oil Cooler Core to Oil Cooler Duct #1 using the provided bolts, nuts, and washers. (Diagram D3-9)
 - Oil Cooler Core (P1×1)
 - Bolt M6 L=15 (P19×4)
 - Flange Nut M6 (P24×4)
 - Flat Washer M6 (P27×4)
 - Spring Washer M6 (P30×4)
- (11) Temporarily install Oil Cooler Hose #1 and #2 to Oil Cooler Core. (Diagram D3-9)
 - Oil Cooler Hose #1 (P15)
 (The one temporarily installed to the factory O/C core in 3.(1))
 - Oil Cooler Hose #2 (P16)
 (The one installed to the engine in 3.(5))



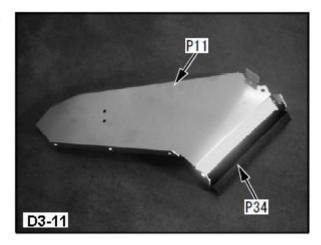
For vehicles equipped with the water spray.

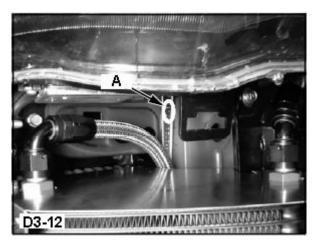
- (12) Install Colgate Tube to the water spray hose. (Diagram D3-9)
 - Colgate Tube (P33x1)

- (13) Temporarily install Oil Cooler Duct #3 to the factory oil cooler core and Oil Cooler Duct #1 using the provided bolts, nuts, and washers. (Diagram D3-9, D3-10)
 - Oil Cooler Duct #3 (P12×1)
 - Button Bolt M4 (P18×3)
 - Bolt M8 L=15 (P20×2)
 - Nut M4 (P23×3)
 - Flange Nut M8 (P25×2)
 - Flat Washer M4 (P26×6)
 - Flat Washer M8 (P28×2)
 - Spring Washer M8 (P31×2)



- (14) Affix Sponge Tape on Oil Cooler Duct #2 as shown in Diagram D3-11.
 - Oil Cooler Duct #2 (P11×1)
 - Sponge Tape (P34×1)
- (15) Temporarily install Oil Cooler Bracket #3 and Oil Cooler Duct #2 to Oil Cooler core, Oil Cooler Duct #3, and Oil Cooler Duct #4 using the provided bolts, nuts, and washers. (Diagram D3-8, D3-10)
 - Oil Cooler Bracket #3 (P9×1)
 - Oil Cooler Duct #2 (P11×1)
 - Button Bolt M4 (P18×5)
 - Bolt M6 L=15 (P19×3)
 - Bolt M8 L=20 (P21×1)
 - Nut M4 (P23×5)
 - Flange Nut M6 (P24×3)
 - · Flange Nut M8 (P25×1)
 - Flat Washer M4 (P26×10)
 - Flat Washer M6 (P27×3)
 - · Flat Washer M8 (P28×1)
 - Spring Washer M6 (P30×3)
 - Spring Washer M8 (P31×1)
- (16) Tighten all bolts and nuts on Oil Cooler Core and Oil Cooler Duct.
- (17) Tighten all bolts and nuts on Oil Cooler Hose #1 and #2.





ADVICE

 To tighten bolts and nuts on Oil Cooler Hose #1, insert the wrench behind the oil cooler as shown "A" in Diagram D3-12.

4. Inspection after Installation

- Reconnect the negative terminal to the battery.
- · Change the engine oil.

ADVICE • It is recommended to use HKS engine oil.

Check the following before starting the engine:

- Make sure pipes and hoses are routed and connected correctly.
- Make sure hoses are not twisted or bent.
- Make sure the negative cable terminal is securely attached to the battery.
- Make sure the engine oil level is between H (F) L.
- Make sure all bolts and nuts are tightened.
- Make sure all installed components do not come in contact with other parts.
- Make sure the oil cooler core is properly secured.
- Make sure oil is not leaking from the oil cooler core and/or hoses.

Start the engine and check the following:

- ➤ Do not raise the engine RPM right after the engine is started. (Let it idle.)
 - Make sure oil is not leaking.
 - Make sure the RPM rises smoothly after revving the engine 2-3 times while in neutral.
 - Make sure the installed parts do not come in contact with any other parts.
 - Make sure the oil pressure rises, and the oil circulates through the oil cooler.
 - Make sure all bolts are tight after turning off the engine. Re-tighten if necessary.
 - Make sure the engine oil level is between H (F) L.
- ➤ When the engine oil temperature exceeds 98°C (208° F), the thermostat is turned on, and the volume of oil circulating through the core increases. When this happens, stop the engine after circulating enough oil through the oil cooler core and hoses; then check the engine oil level. If the oil level is lower than the designated level, refill the engine oil.

5. Re-Installing Factory Parts

- (1) Reinstall the following parts: Air Cleaner Duct, Head Light Support Cover, and Front Bumper Assembly. (Diagram D1-2)
- (2) Reinstall the following parts: Engine Under Cover-Front A, Engine Under Cover-Front B, and Engine Under Cover-Center. (Diagram D1-1)