COOLMASTER OFFROAD

Fitting Instructions

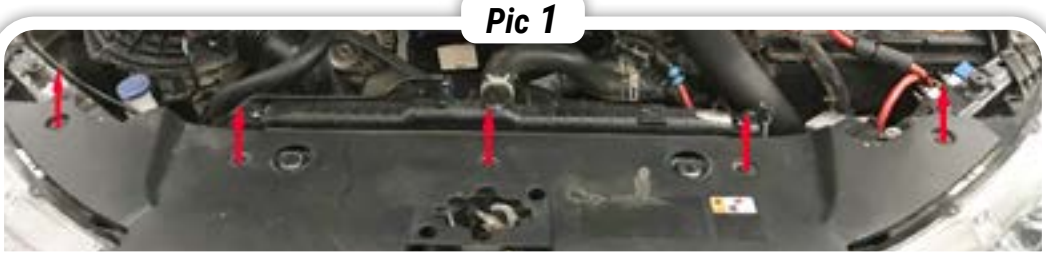
Part № 49491KDL

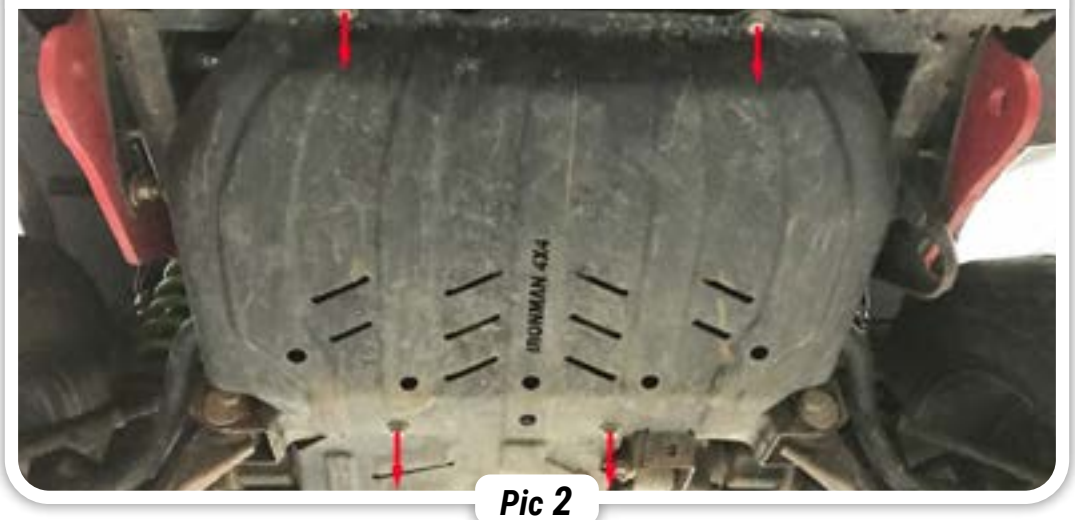
Kit contains:

- 2 x Mounted Coolers & Brackets
- 1 x J-Pipe with Rubber Lined P-Clamp
- 5m x High Temp Cooler Line Hose with Conduit
- 2 x Custom Cooler Unions with O-rings
- 2 x M6 x 20 SEMS Bolts
- 4 x Metal Self Tapping Screws
- 6 x 8-16 Hose Clamps
- 2 x 14-27 Hose Clamps
- 1 x Dual Cooler Connection Hose
- Instructions

1. *Remove the front grill of the vehicle and any bash plates that are covering/ protecting the transmission and radiator.* ***(Pic 1 & 2)***

Pic 1





Pic 2

2. *Fit the Dual Cooler Connector Hose to the left-hand union of each cooler. Secure with two (2) supplied 8-16 hose clamps.* ***(Pic 3)***

3. *Fit the two ends of the 5-meter length of the cooler line hose to the remaining cooler unions using 2 x stainless steel hose clamps. Do not cut the looped end of the hose yet.* ***(Pic 3)***

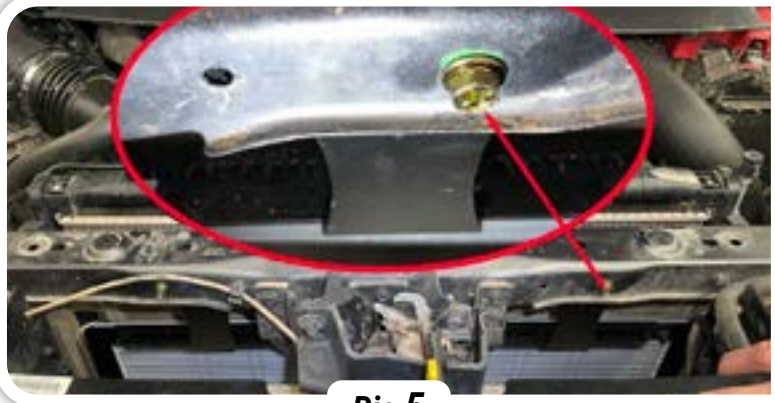
Pic 3

Pic 4

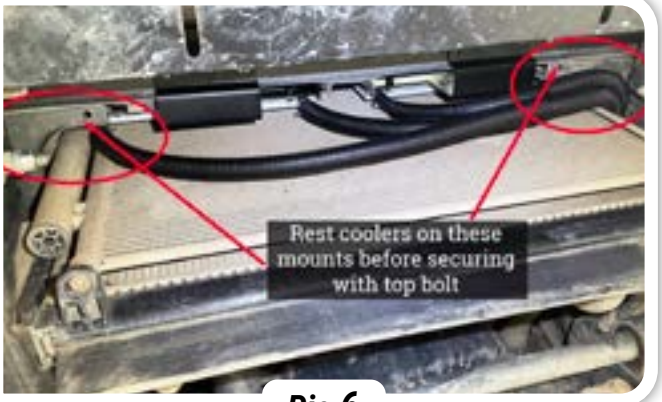
4. *Both brackets and coolers are identical and interchangeable. In the vehicle, orient the coolers so the brackets are closest to the front of the vehicle. Only 1 x M6x20 bolt is used to mount the top of each bracket. The mounting points will align with the holes shown in* ***Pic 4****.*

5. *Feed the two coolers up from under the car in front of the air conditioning condenser. Hold the coolers in place and use 1 x M6x20 to secure each bracket to the front cross member. Only finger tightened for now.* ***(Pic 5)***

6. *If completing solo, rest the coolers on the mounts while moving from under the car to above and secure the brackets. Do not tighten yet.* ***(Pic 6)***



Pic 5

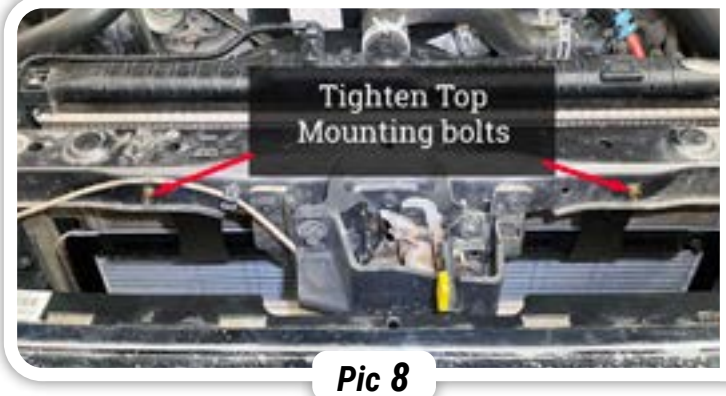


Pic 6

7. *From under the vehicle, secure the lower section of the bracket to the underside of the lower support panel using the 4 x Metal Self Tapping screws* ***(Pic 7)****. Before installing the screws, please make sure the cooler has clearance around it to prevent rubbing against any part of the car.*

Pic 7

8. *Top mounting bolts can now be tightened.* ***(Pic 8)***



Pic 8

Pic 9

9. *Feed the loop end of the lines through the gap directly above the chassis on the passenger side just behind the radiator support panel.* ***(Pic 9)***

10. *Cable tie the cooler lines to the support panel along the way. Some vehicle variants may have an existing factory line running through this location - for those vehicles you will need to route the cooler lines under the radiator.*

11. *In the passenger side wheel arch, remove the rubber splash protector by removing the plastic screw clips and move the protector out of the way.* ***(Pic 10)***

Pic 10

Pic 11

12. *Cable tie cooler lines firmly to the vehicle but not too firm that they cause flow restrictions and so that they are not too tight between tie points. Ensure the cooler lines do not prevent access to the engine oil filter by cable tying them to the air con lines above the engine oil filter.* ***(Pic 11)***

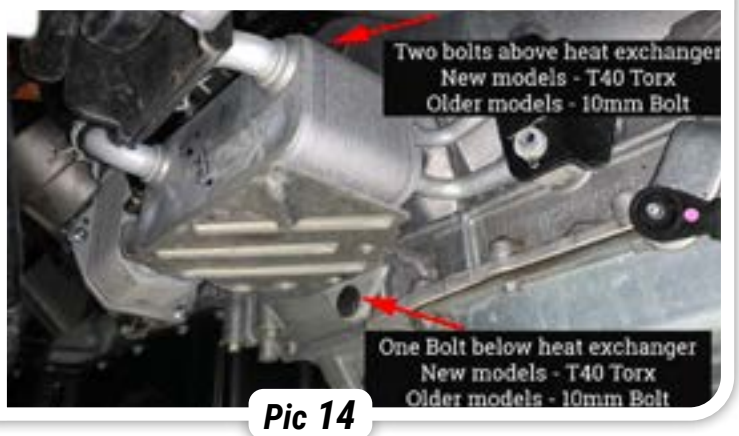
13. *The lines need to reach the area on the passenger side of the automatic, just above the front prop shaft (Do not cut the hose yet).*

14. *Using two hose clamps, clamp off the two coolant hoses that connect to the heat exchanger to prevent radiator fluid from draining out.* ***(Pic 12)***

15. *Remove the two split pins from the cooler union support bracket and unbolt the Torx bolt (10mm bolt on early models) holding the bracket in place. Remove the support bracket but don't discard it as we will reuse this bracket.* ***(Pic 13)***

Pic 12

Pic 13



Pic 14

16. *Unbolt the heat exchanger by removing the three bolts holding it to the transmission. Two bolts are above the heat exchanger and one bolt is below. All three bolts are either T40 Torx on newer models or 10mm hex heads on older models. Do not discard the bolts.* ***(Pic 14)***

17. *Remove the heat exchanger by gently removing the two union lines from the auto first, then the exchanger should be free from the auto. Have a drain tin or bucket underneath as some transmission fluid may come out. On 4WD models, it will require a bit of effort to squeeze it down past the driveshaft but it does fit.* ***(Pic 15)***

Check that both custom-made unions have two (2) o-rings fitted before installing. Run a small covering of transmission fluid around both o-rings on both unions to provide lubrication.

Install the unions by carefully inserting them into the openings left by the heat exchanger. Secure the new unions with the factory support bracket previously removed and secure using one of the T40 Torx bolts (or 10mm hex head bolts).

To prevent oil spilling you can use the rubber covers from the Oil Cooler outlets temporarily until you are ready to fit the lines.

Pic 15

Pic 16

18. *Fit J-Pipe* ***(Pic 16)*** *to coolant hoses and push in as far as possible. Test that you can easily maneuver the J-Pipe near one of the heat exchanger's vacant bolt holes for securing the J-Pipe after fitment. Clamp the coolant hoses using the two (2) supplied large hose clamps.*

Secure the J-Pipe to one of the heat exchanger vacant bolt holes using the previously removed T40 torx bolt (10mm hex head bolt).

Using two hose clamps, clamp off the two coolant hoses that connect to the heat exchanger to prevent radiator fluid from draining out.

19. *Measure where they need to be cut for the unions while allowing for some slack between the unions and the first cable tie point.*

20. *Cut rubber cooler lines to length and pull back the conduit. Slide the remaining small hose clamps onto the cooler hose and then insert the hoses onto the unions. Do not use any lubricant on the barbed fittings. Re-fit conduit into place, and trim if necessary.* ***(Pic 17)***

21. *Check clearance of hoses to the front prop shaft. Cable tie the coolant hoses to prevent rubbing.* ***(Pic 18)***

Pic 17

Pic 18

22. *Start the vehicle, check for oil leaks, and top up transmission oil (to the manufacturer's specification).*

23. *Check engine coolant level and top up if required.*

24. *Road-test the vehicle and recheck the above.*

25. *Replace all covers and ensure no rubbing on hoses and pipes.*

26. *This concludes fitment of the cooler kit, please adhere to the owner's manual in regard to service intervals.*