



# INSTALLATION INSTRUCTIONS

## Intercooler Kit

2004-2011 Lotus 2ZZ-GE

Support: [info@radiumauto.com](mailto:info@radiumauto.com)

Document # 19-0050

This intercooler kit requires relocating the factory coolant reservoir. Alternatively, Radium manufactures a remote-mounted coolant swirl tank which installs onto the firewall in front of the intake manifold.

1.1 Unbolt the coolant reservoir from its mounting bracket and disconnect the lines from the reservoir.

1.1.2 Remove the factory air intake system (not shown.)



1.2 This intercooler kit will interfere with the  $\frac{3}{4}$ " stainless steel water pipe that circles the intake side of the head. This pipe needs to be modified or removed and retrofitted with a hose. Note: Radium manufactures an alternative for this pipe. Please contact us if interested.

1.2.2 Remove the bolt that holds the coolant circulation pump to the coolant reservoir bracket.



1.3 Remove zip-ties and unclip all cables and hoses that fasten to the coolant reservoir bracket. Remove all bolts that hold the coolant reservoir bracket in place.



1.4 Remove the coolant reservoir bracket. This bracket will not be reused.

Note: Radium manufactures an aluminum water pump mounting bracket assembly that replaces the factory bracket. If interested, please contact Radium and save the rubber sleeve on the circulation pump bracket.



1.5 Install the 90-degree silicone elbow onto the throttle body with the hump side on the throttle body. Pair up with matching T-bolt clamps. Slide the coupler onto the throttle body as far as it will go. Orient the coupler so that the open end is parallel with the ground. Tighten the T-bolt clamp on the throttle body.

Note: For 04-05 (cable throttle) models, the throttle body PCV port will interfere with the intercooler. It is recommended to replace this unnecessary barb with a freeze plug, such as NAPA P/N: 381-3038.



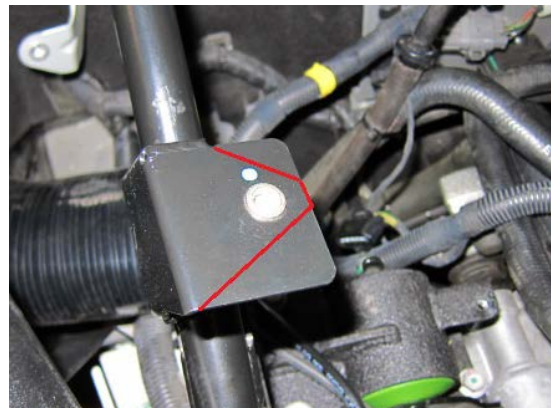
1.6 Slide the large silicone duct into the area behind the left side air duct. Position it until it fits around the duct.

This is simply used to direct the incoming air towards the intercooler fan.



1.7 Using a metal cutting tool, trim the excess material from the bracket on the roll bar support tube. Do not remove the threaded hole. Cut as shown in the picture. Deburr edges after cutting.

This helps for intercooler installation and positioning.



1.8 Install the small 90degree intercooler mounting bracket on to the valve cover as shown. Prepare the intercooler for installation:  
-Plug all holes that are not going to be used.  
-If not already, mount the blow-off valve to the intercooler.  
-Install the double-ended rubber isolated stud into the intercooler boss near the air inlet.

Place the intercooler into position and line up the rubber stud with the mount on the valve cover.



1.9 Position the intercooler inlet and outlets to line up with the silicone couplers. The intercooler should sit almost parallel with the ground. Referencing the picture to the right, find the included stainless steel bracket with the rubber grommet. Fasten this bracket to the intercooler mount using the 3 included stainless steel button head screws. Next, use the included washer hex bolt to secure to the roll-bar support bracket. When the intercooler is sitting fully in the silicone couplers and the brackets are lined up, tighten down all fasteners and T-bolt hose clamps.

