



# INSTALLATION INSTRUCTIONS

## COOLANT EXPANSION TANK

### REMOTE MOUNT, LOTUS 2ZZ-GE

Document: 19-0133

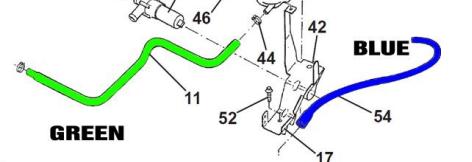
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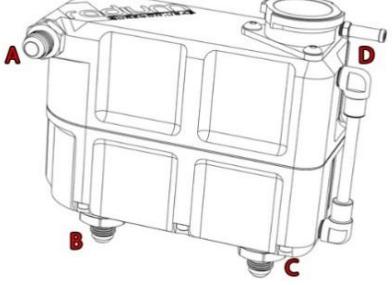
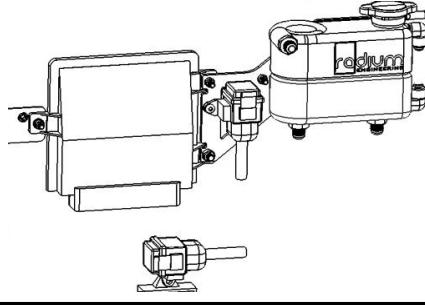
#### WARNINGS:

DO NOT WORK ON THE COOLANT SYSTEM WHEN THE ENGINE IS AT OPERATING TEMPERATURE.  
WAIT UNTIL THE ENGINE HAS COOLED AND THERE IS NO LONGER PRESSURE IN THE SYSTEM.

QUICKLY CLEAN UP ANY COOLANT THAT HAS SPILLED AS IT IS POISONOUS.

STEP	TOOLS NEEDED	INSTRUCTIONS	PHOTO
1	8mm wrench	Unwrap both halves of the coolant tank and clean out any residual packaging material. Grab the top half of the coolant tank (shown) and 1 of the push-to-connect NPT elbows provided in the kit.	
	PTFE thread paste	Apply PTFE thread paste then hand tighten the elbow fitting into the port shown. Now add an additonal 1.5 to 3 turns until it faces directly downwards, as shown.	
2	8mm wrench	Grab the bottom half of the coolant tank (shown) and the other push-to-connect NPT elbows provided in the kit.	
	PTFE thread paste	Apply PTFE thread paste then hand tighten the elbow fitting into the port shown. Now add an additonal 1.5 to 3 turns until it faces directly downwards, as shown. NOTE: The tapered pipe threads are preimpregnated with Teflon so no addition lubrication is required.	
3		Push-in and fully insert the clear sight tubing into the elbow fitting on the bottom half of the coolant tank.	
4	Anti-seize	Place the gasket between the 2 tank halves. Lineup and fully seat the opposite side of the clear sight tube into the opposing elbow. Install the 7 socket head bolts. It is recommended to use anti-seize on the threads to prevent galling. Tighten all screws evenly until snug in a crisscross sequence, then torque to 53 in-lbs (6 Nm).	
	4mm Allen wrench		
	Torque wrench		
		NOTE: After the tank is heat cycled, check the gasket for leaks and retorque if needed.	

5		<p>NOTE: if there is ever a leak from the threaded portion of an elbow, follow this procedure below.</p> <p>a. First, the 2 halves of the tank will need to be disassembled. To remove the clear sight tubing from the (push-to-connect) elbows, push and hold the retaining lock flush, then pull away to release the tube.</p> <p>b. Rotate (tighten) the leaking elbow fitting 360 degrees.</p> <p>c. Reassemble the coolant tank as described above.</p>	
		<p>Make sure the area shown in the picture is free of dirt and debris before proceeding.</p> <p>Place the included O-ring into the groove around the fill neck opening.</p>	
		<p>3mm Allen wrench</p> <p>Place the included fill neck receiver onto the tank, oriented to best fit the application.</p>	
		<p>Thread locker</p> <p>Apply a medium strength thread locker and install the 3 included socket head bolts using a 3mm Allen hex wrench, as shown. Torque to 48 in-lbs. (5.4Nm).</p>	
8	<p>Lubrication oil</p> <p>3/4" wrench</p> <p>1" wrench</p>	<p>Before installing the 3 included adapter fittings, lubricate the O-rings with light oil. Secure the two 10AN ORB to 6AN male fittings into the bottom ports and the 6AN ORB to 6AN male fitting to the side port.</p>	
		<p>NOTE: The tank's internal chambers are divided vertically down the middle for the swirl mechanism, but small passages on the top and bottom allow water to flow throughout the complete tank.</p>	
		<p>Thread locker</p> <p>4mm Allen wrench</p>	<p>The mounting bracket will be secured to the coolant tank using the 3 inner slotted bolts holes. Apply a medium strength thread-locker to the three M6 bolts. Secure the bracket to the coolant tank using a 4mm Allen hex wrench.</p>
			
10		<p>Before uninstalling, note the functions of the colored hoses shown.</p> <p><b>Red (14):</b> Hot water air-bleed coming out of the cylinder head.</p> <p><b>Green (11):</b> Coolant returning from the tank to the thermostat housing.</p> <p><b>Blue (54):</b> Radiator air-bleed and bypass when thermostat is closed.</p>	

11	<p><b>Swirl Pot Inlet (A):</b> This port is used as for hot incoming water.</p> <p><b>Drain Back Suction Outlet (B):</b> This port typically routes water back just upstream of the water pump.</p> <p><b>Air Bleed Inlet (C):</b> This port is commonly used to bleed air. It should connect to the highest point of the engine.</p> <p><b>Overflow Purge Outlet (D):</b> When the pressure of the coolant system exceeds the cap's rated pressure, hot coolant is released through this barbed fitting. Attach a hose down underneath the vehicle or install an overflow tank that can be used to catch and return the excess coolant.</p>	
12	<p>Cutting dikes</p> <p>If mounting in a 04-05 Elise/Exige, install the bracket on the two inboard ECU mounting studs. Mount the inboard most fuse holder between the ECU and the coolant tank, as shown.</p> <p>For the remaining fuse holder, clip the zip tie holding the fuse wiring harness to the firewall and install it in a horizontal position below the ECU on the factory stud.</p> <p>For 06-11 Elise/Exige, mount as described above but exclude rearrangement of fuses.</p>	
13	<p>Coolant</p> <p>Lotus recommends a 50/50 mix of Havoline XLC Extended Life.</p> <p>When filling the coolant tank, unscrew the rear air bleed plug (pictured). Note: If filling the entire system, there is also an air bleed plug near the radiator and is accessed under the front right removable panel. Opening these bleed screws alleviates a potential air lock.</p> <p>Fill slowly until each bleed location spews coolant.</p>	
14	<p>Fill slowly until each bleed location spews coolant. Only fill the tank until the sight tube registers half full. Note: The level will naturally rise from heat expansion.</p> <p>Start engine and monitor the coolant display on the dash. Note: There will be no coolant reading until the engine heats up. If temperature continues to climb towards 212F (100C), there are trapped air bubbles (not uncommon). Consider a coolant re-filler, such as OTC P/N: 75260 (pictured).</p>	