

sector 111

Super Charger

Rev. A

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Assembly Step

Tools/ Parts

Detailed Instructions

Picture/ Illustration

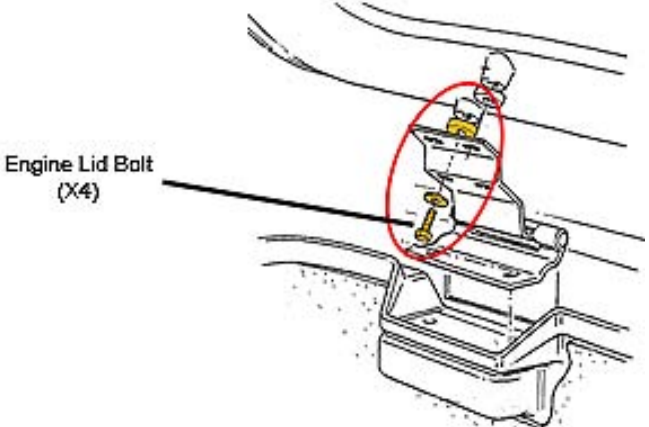
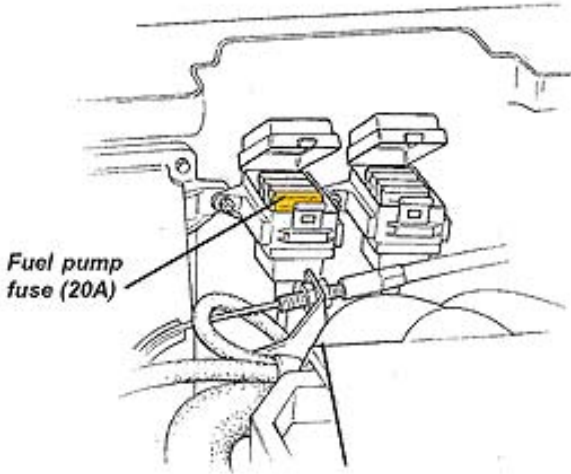
READ FITTING INSTRUCTIONS IN FULL BEFORE INSTALLATION

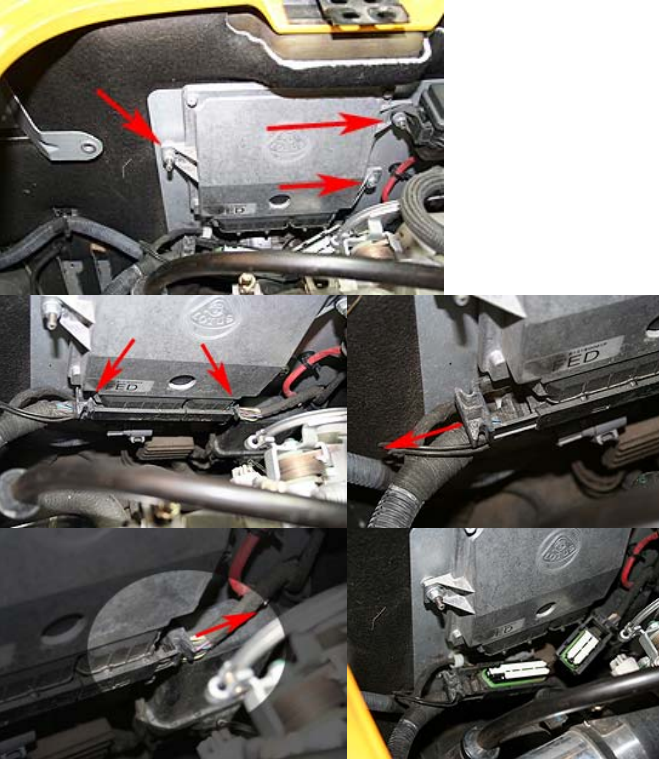

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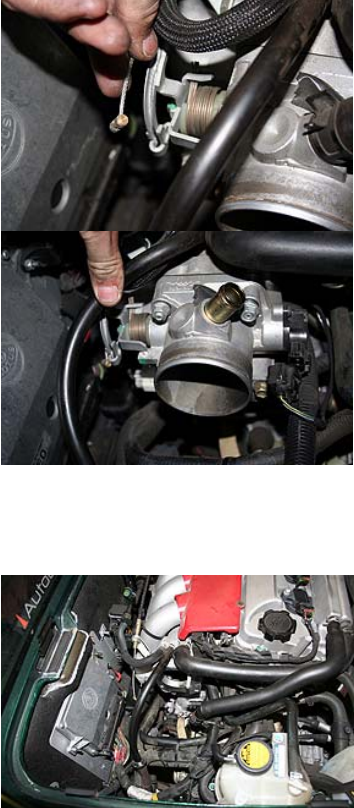
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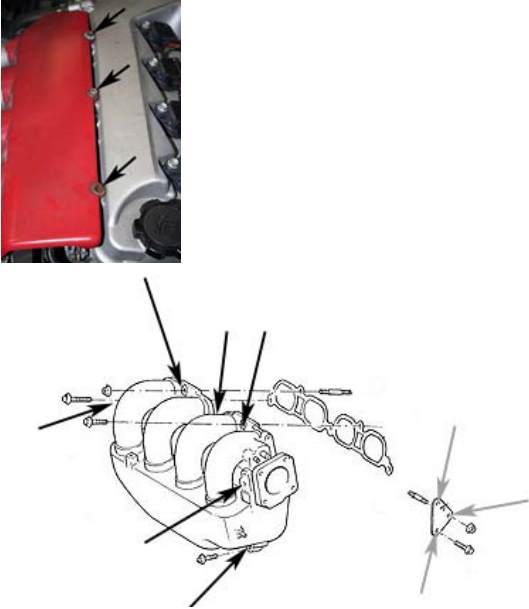
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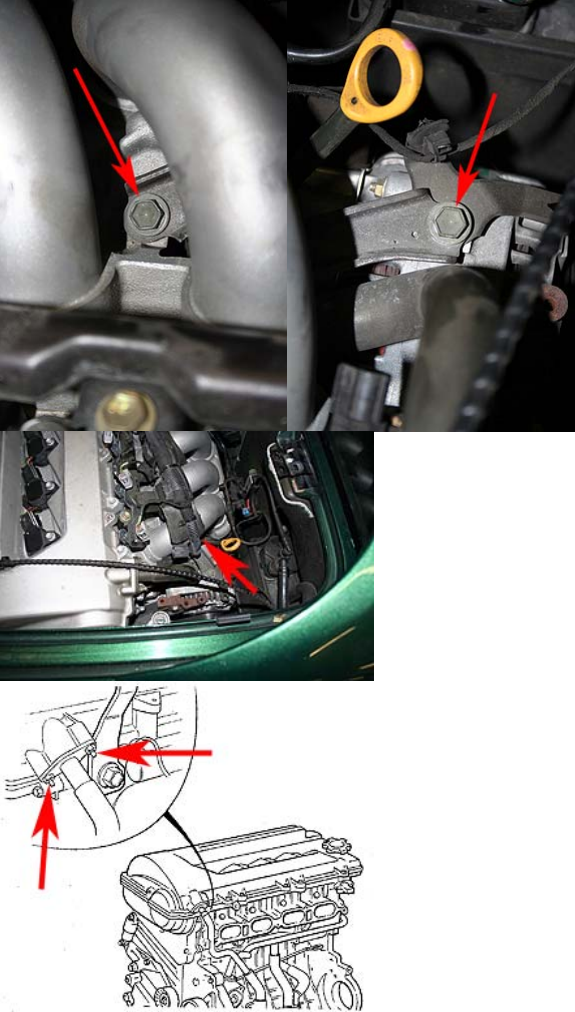
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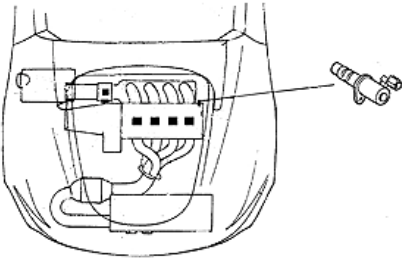


Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>1. Remove Engine Lid</p>	<ul style="list-style-type: none"> • 	<p>a. Open engine lid. b. Remove 4 bolts that attach engine lid to hinges. <i>Note: Engine lid bolts will hold washers and spacers in place. Use caution when removing bolts so that you do not loose hardware.</i></p>	
<p>2. Discharge Fuel System</p>	<ul style="list-style-type: none"> • 	<p>a. Open driver side fuse pod located near the ECU. b. Remove the 20 amp fuse (located closer to the back of the car) from fuse pod. c. Start the car and let it run until it dies. d. Re install fuse and put cap back on fuse pod.</p>	

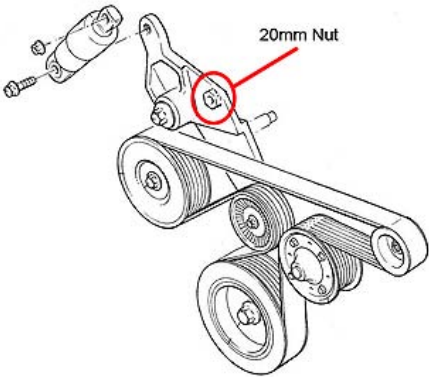
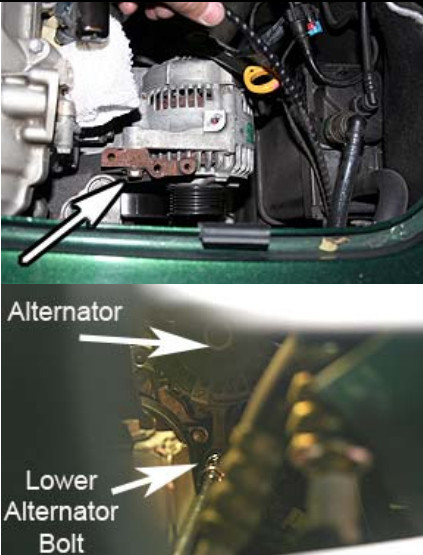
Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>3. Remove ECU</p>	<ul style="list-style-type: none"> • 10mm Socket • 13mm Socket • Ratchet • Phillips Head Screw Driver 	<p>a. Disconnect battery.</p> <p>b. Remove 3 nuts (Two 10mm and one 13mm) that hold ECU to firewall.</p> <p>c. Locate the two clips on the bottom of the ECU and pull the connector taps out then remove the plugs.</p> <p><i>Note: Clips on ECU plugs can become brittle over time. Use caution when removing plugs.</i></p>	
<p>4. Lift Car</p>	<ul style="list-style-type: none"> • 	<p>a. Secure the front end of the car and lift the back.</p>	


Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>7. Remove Throttle Body</p>	<ul style="list-style-type: none"> • 	<p>a. Disconnect throttle cable from throttle body.</p> <p>b. Disconnect top hose and wire connector.</p> <p>c. Disconnect coolant feed and return lines from bottom of throttle body.</p> <p>Note: <i>When disconnecting coolant lines, some coolant will leak out. Have a container and rags ready to prevent spillage and plug lines until reinstallation.</i></p> <p>d. Unbolt and remove throttle body.</p> <p>Note: <i>Take this time to clean the throttle body since you have it off the car already.</i></p>	



Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
8. Remove Fuse Pods	<ul style="list-style-type: none"> • 10mm Socket • Ratchet 	<p>a. Unbolt fuse pods and let hang.</p>	
9. Remove Intake Manifold	<ul style="list-style-type: none"> • 	<p>a. Remove 3 socket head cap screws that hold on intake manifold cover and remove cover.</p> <p>b. Remove 2 nuts and 4 bolts (indicated by black arrows) that connect the intake manifold to the block.</p> <p>Note: Five of the bolts will be along the inlet tubes, the 6th is on the bottom driver side of the manifold.</p> <p>c. Remove the three bolts on the driver side triangular bracket (indicated by gray arrows) that connects the manifold to the</p>	


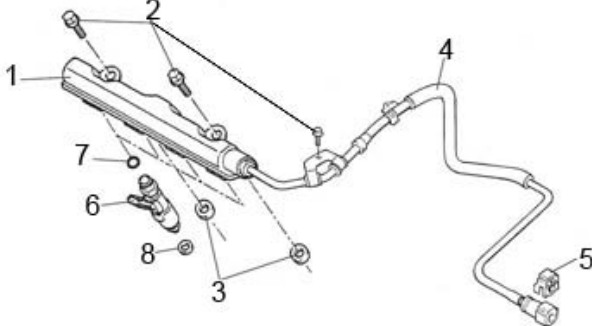
Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
		<p>engine head.</p> <p>d. On the passenger side, remove the upper alternator bracket.</p> <p>e. Unbolt dip stick from manifold.</p> <p>f. Unbolt crank case vent line and remove studs.</p>	 <p>The image block contains three distinct visual aids. The top image is a close-up photograph of an engine component, showing a bolt on a bracket with a red arrow pointing to it. The middle image is another photograph showing a dipstick being pulled from a manifold, with a red arrow pointing to the dipstick. The bottom image is a technical line drawing of an engine's crankcase, with a red arrow pointing to a vent line and another red arrow pointing to a stud on the crankcase.</p>

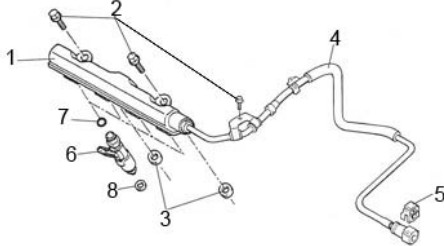

Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
		<p>g. Unbolt oil control valve. h. Pull crank case vent line out of the way enough to remove the oil control valve.</p> <p>i. Remove purge vent solenoid bracket from intake manifold. j. Disconnect all hoses. k. Remove intake manifold. <i>Note: Removal of manifold should not require use of pry bars or hammers. If it does not come loose when you remove all the bolts, check for additional bolts or ones you may have missed.</i></p>	 
<p>10. Modify Crank Case Vent Line</p>	<ul style="list-style-type: none"> • 	<p>a. Remove crank case vent hard line. b. Cut the mounting tab off of the vent line. c. Prep and paint to protect the line from rusting. d. Do not reinstall at this time.</p>	

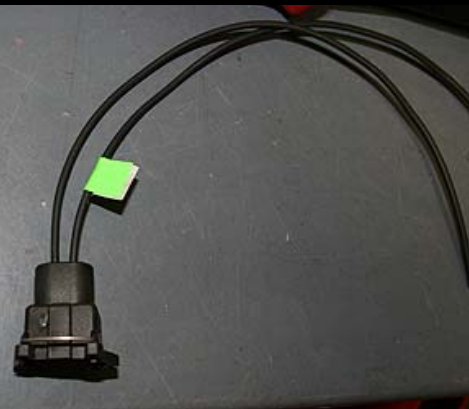

Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>11. Remove Drive Belt</p>	<ul style="list-style-type: none"> • 	<p>a. On the top of the drive belt tensioner bracket, there is a 20mm hex head casting.</p> <p>b. Using a 20mm wrench on the casting, remove tension from the belt by turning it clock wise and slip the belt off of the car.</p>	
<p>12. Remove Alternator</p>	<ul style="list-style-type: none"> • 	<p>a. Unbolt the remaining 2 bolts holding the alternator in place.</p> <p>b. Due to the awkward angle and high torque of the lower bolt, it is recommended to use an air impact gun for removal.</p>	




Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>13. Remove Charcoal Canister</p>	<ul style="list-style-type: none"> • 	<ol style="list-style-type: none"> Unclip purge clip solenoid from charcoal canister and remove from engine bay. Unclip large vent hose from charcoal canister and move to right side of the fender well. Unscrew fresh air solenoid from bracket. Unbolt charcoal canister from bracket. Remove charcoal canister and fresh air solenoid together. 	



Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>14. Remove Charcoal Canister Bracket</p>	<ul style="list-style-type: none"> • 	<p>a. Drill out 3 rivets holding bracket to firewall. <i>Note: The bottom rivet may require you to trim the fire wall padding to get access.</i> b. Once rivets are drilled out, remove bracket.</p>	
<p>15. Mount Lower Alternator Bracket</p>	<ul style="list-style-type: none"> • 	<p>a. Remove two lower bolts that hold the AC compressor to the engine block. b. Place lower alternator bracket in position with the spacers pointed towards the AC compressor. c. Using high strength thread locker and supplied hardware, bolt lower bracket in position. d. Leave bolts loose at this time.</p>	


Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>16. Mount Middle Alternator Bracket</p>	<ul style="list-style-type: none"> • 	<ol style="list-style-type: none"> Place middle alternator bracket in position. Bolt in place using high strength thread locker and supplied hardware. At this time tighten all the lower and middle alternator bracket bolts in this order: lower bracket to the compressor, middle alternator bracket to engine block, lower alternator bracket to the middle alternator bracket. 	
<p>17. Remove Fuel Injectors</p>	<ul style="list-style-type: none"> • 	<ol style="list-style-type: none"> Remove the gas cap to depressurize the fuel system. Unbolt the 3 (labeled “2” in pic) bolts that hold the fuel rail to the engine. Pull each fuel injector from the rail. <p>Note: Some fuel may leak from the rail when you remove the injectors. Be sure to contain all fuel from the fuel rail and clean all areas subject to spills.</p>	




Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
<p>18. Install New Fuel Injectors</p>	<ul style="list-style-type: none"> • 	<ol style="list-style-type: none"> Lubricate O-rings on the new injectors (labeled “7” in pic) with silicone grease. Inspect the OE insulators for damage (labeled “3” in pic). If not damaged reuse. If damaged, replace with new OE insulators. Rotate injectors so that the plug is closer to the front of the car (opposite of how the OE injectors were positioned). 	 
<p>19. Splice in New Injector Plugs</p>	<ul style="list-style-type: none"> • 	<ol style="list-style-type: none"> Cut off the old injector plugs. Note: Leave a little wire on the old plugs just in case you need to re-use them later. The new injector plugs are not color coated however polarity is important. Plug the connectors into the injectors. 	


Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
		<ul style="list-style-type: none"> d. The driver side wire will be the green wire. Label that wire on each plug appropriately. e. Solder your marked wires to the green wires on each connector and cover exposed wire with heat shrink wrap. f. Solder the remaining wires to their mate and cover with head shrink wrap. 	
<p>20. Mount Intake Manifold to Super Charger</p>	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> a. Using high strength thread locker, screw the provided studs into the super charger outlet flange. b. Apply a bead of silicone sealant to the flange surface. <i>Note: Try to prevent sealant from protruding to the inside of the manifold.</i> c. Bolt the manifold to the super charger using the supplied nuts and lock washers. d. Connect the actuator port to the intake manifold port using 	

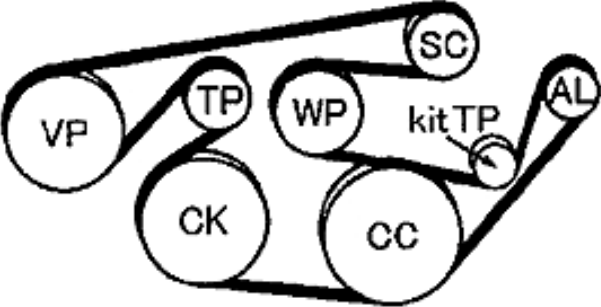
Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
		the 6mm hose provided. e. Secure hose ends with cable ties. <i>Note: When using a boost gauge, use this pressure source to monitor the intake manifold pressure.</i>	
21. Install Intake Manifold Head Studs	<ul style="list-style-type: none"> • 	a. Remove the 2 OE studs from the intake side of the head. b. Using high strength thread locker, install 5 new studs in cylinder head.	
22. Install New Dip Stick Guide	<ul style="list-style-type: none"> • 	a. Remove factory dip stick guide. b. Remove O-ring from factory dip stick guide and use it on the new dip stick guide. c. Install the new dip stick guide.	
23. Re-install Oil Regulator and Crank Case Vent	<ul style="list-style-type: none"> • 	a. Re-install oil regulator. b. Re-install crank case vent.	

Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
24. Attach New Manifold and Supercharger	•	a. Install manifold on engine and hold in place with supplied nuts and lock washers.	
25. Bolt Dip Stick Guide to Supercharger	•	a. Remove bolt from super charger and use it to hold the dip stick guide to the super charger.	
26. Re-install Alternator	•	a. Bolt alternator to middle alternator bracket using OE bolt and high strength thread locker. b. Do not tighten bolt yet. c. Rotate alternator so that it is touching the fire wall padding. d. Trim all padding that comes in contact with the alternator. e. Attach upper alternator bracket to alternator and engine block. Use supplied hardware and serviceable lock tight. f. Secure the bolt closer to the	

Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
		<p>the intake manifold side of the intake tube.</p> <p>c. Bolt intake tube on manifold.</p> <p>d. Use the supplied spacer and bracket on the lower bolt nearest the back of the car.</p>	 <p>The top photograph shows a silver metal intake tube with a red gasket. The bottom photograph shows the intake tube being bolted onto the engine manifold, with a metal spacer and bracket being used to secure it.</p>

Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
29. Install Throttle Body	•	a. Place OE throttle body gasket in place. b. Bolt throttle body to intake tube. c. Attach all hoses (including coolant lines under throttle body). d. Plug in electrical plugs and attach throttle cable.	
30. Re-install OE Intake	•	a. Re-install OE intake. b. Be sure to connect all hoses and electrical connections.	
31. Re-install Charcoal Canister	•	a. Bend bracket for fresh air solenoid and flip the screw clip so that it mounts the opposite direction. b. Mount fresh air solenoid to the	

Assembly Step	Tools/ Parts	Detailed Instructions	Picture/ Illustration
		<p>bracket and hold in place with screw.</p> <p>c. Mount the charcoal canister bracket on passenger side motor mount brace using the existing nut.</p> <p>d. Mount the charcoal canister on the bracket and tighten. Add foam where necessary to seal any gaps in the bracket.</p> <p>e. Install vent hose and purge valve solenoid hose to charcoal canister.</p>	

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32. Mount Belt	•	a. Mount supplied belt as shown.	 <p>The diagram shows a belt drive system with eight pulleys. The pulleys are arranged in a loop. The labels are: VP (left), TP (top-left), WP (top-middle), SC (top-right), CK (bottom-left), CC (bottom-middle), kitTP (bottom-right), and AL (far right). The belt is shown as a thick black line connecting all pulleys in a continuous loop.</p>
33. Re-install ECU	•	a. Install re-flashed ECU.	
34. Button Up	•	<p>a. Check car for loose wires and hoses.</p> <p>b. Play close attention to the belt area. Anything that may get caught in the drive belt should be secured prior to driving.</p> <p>c. Make sure all electrical plugs and hoses are plugged in.</p> <p>d. Top off coolant reservoir.</p> <p>e. Look for any other obvious problems that may affect the car or super charger.</p> <p>f. Once everything is looked over, reinstall wheel well, under tray, and rear wheels</p>	

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35. Start Car	•	and lower car. a. Turn key to number 2 position and wait 30 seconds. b. Start car. c. Let car idle and check for anything you may have missed in your pre start up inspection. Listen for any strange noises. d. Drive car in a reasonable fashion so that the ECU can settle before spirited driving takes place.	