



MAGNUSON
SUPERCHARGERS

Mercedes Benz AMG C63
MY08-MY15
Supercharger Kit Installation Guide

Please take a few moments to read this manual thoroughly before you begin work. Perform a parts check to make certain your kit is complete. If you discover shipping damage or an item is not included, please call your Magnuson dealer immediately.

Take a look at exactly what you are going to need in terms of tools, time, and experience. When unpacking the supercharger kit, only lift the supercharger unit by the metal castings and not by the coolant crossover tubes or bypass valve. These items are plastic and can be damaged if used as a lifting point.

This Magnuson supercharger kit is sensitive to corrosion. Take care of it by using anti-corrosion coolant and then filling with de-ionized water.

Relieve the fuel system pressure before servicing fuel system components in order to reduce the risk of fire and injury. Use caution as the fuel may be under pressure.

After relieving the system pressure, a small amount of fuel may still be released when servicing the fuel lines or connections. Take appropriate action to ensure risk of injury or fire is minimised. Ensure any spilled fuel is captured and residual fuel removed.

Use only premium fuel in supercharged vehicles.

Magnuson supercharger kits are designed for engines in good mechanical condition only. Installation on high mileage vehicles or damaged engines is not recommended and may result in engine failure, for which Magnuson is not responsible. Magnuson is not responsible for any consequential damages. Magnuson supercharger kits are designed for use on stock vehicles. To that end, the alteration or modification of the fuel system, drive train, engine, and/or supercharger outside of stock parameters in any way can result in damage or failure for which Magnuson is not responsible and will void your Magnuson warranty.

After you finish the installation and road test your vehicle, please complete and mail in the warranty card so there is a record of your installation (this is important for your protection).

Your warranty is only valid once your details are received .

The latest Magnuson warranty details for the USA can be viewed online at www.magnusonproducts.com. Please contact your country Magnuson Distributor for warranty details outside of the USA.

An abbreviated version of the responsibilities, liabilities and limited warranty can be found on page 168.

- Android device (phone or tablet) and USB cable
- Spanner Set — Metric
- Torx bits, sockets or keys
- Metric socket set including 1/4" and 3/8" drive
- Ratchet and extensions, 1/4" and 3/8" drive
- 12mm 1/4" drive swivel/universal socket
- 16mm spark plug socket, **outside diameter less than 20.7mm**
- Torque wrench
- 5mm in-hex drive (Allen key), ball-hex or short-leg
- Flat blade screwdriver
- Pick set
- Side and End cutters
- Pop Riveter
- Hose clamp pliers
- Utility Knife
- Die-grinder/Dremel or similar (rotary tool for trimming plastic)
- Heat Gun
- Steering fluid: MB#A001 989 24 03 10

Tools Required

Magnuson Superchargers

MAGNUSON

SUPERCHARGERS

<i>PREPARING THE VEHICLE</i>	<i>Steps 1 – 6 8</i>
<i>PREPARING THE SUPERCHARGER KIT</i>	<i>Steps 6 9 – 7 5</i>
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The first step is to use the provided dongle to read the vehicle ECU to prepare it for the new calibration for your Magnuson supercharger.

- a) Check the vehicle battery is in good condition & fully charged.
- b) Install the free app:
DroidPersonalFlasher
from Google Play (Google store) on to your Android device.
- c) Ensure you have a good internet connection and plug your device syncing/charging cable into the supplied Dongle.

Follow the instructions within the application.



Do this first!

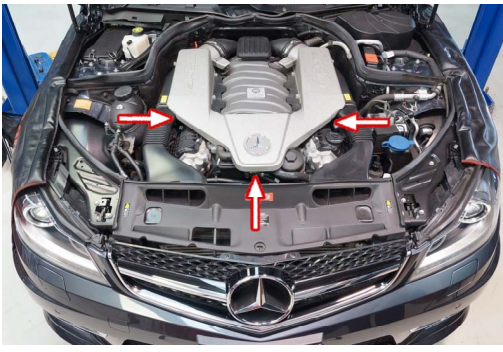
Upload the original file to the cloud before starting the install so the new calibration will be ready for downloading when the install is complete.

2. Locate the Battery compartment in the rear of the vehicle and disconnect the (-) negative battery cable using a 10mm spanner

Make sure the cable is far enough away from the battery that it does not accidentally touch the battery and make connection during the installation.



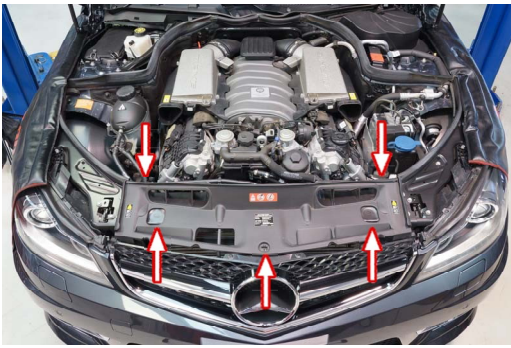
3 Remove the engine cover from the engine, held in by six (6) clips underneath, gently pull upwards in the shown locations. Check that all the clips are on the cover as they sometimes remain in the mounting brackets.



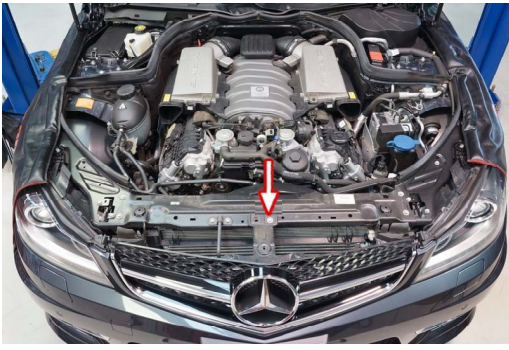
4 Remove both intake ducts by pulling back on the duct at the air box and unclipping from the front trim panel.



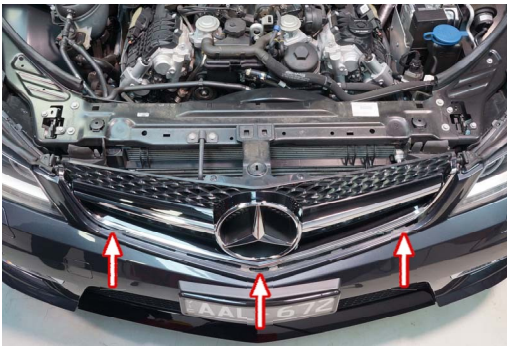
5 Remove the radiator cover panel cover by rotating the front Bayonet clip 90 degrees and unclipping the 4 clips holding the trim panel to the radiator support panel in the shown locations.



6 Remove the 10mm fastener holding the front grill to the radiator support panel.



7 Applying gentle but firm pressure, push the lower edge of the grill rearward to unclip from the front bar. Once unclipped, the grill can be lifted upwards and removed from the vehicle.



8 Loosen the two (2) air intake duct clamps securing the air box lids and undo all five (5) T25 screws holding each of the air box lids.

The clamps and three (3) of the screws from each lid will be reused at a later stage.



9 Unclip the MAF plug covers and disconnect the MAF connectors.



10 Remove the air box lids and air filter elements.

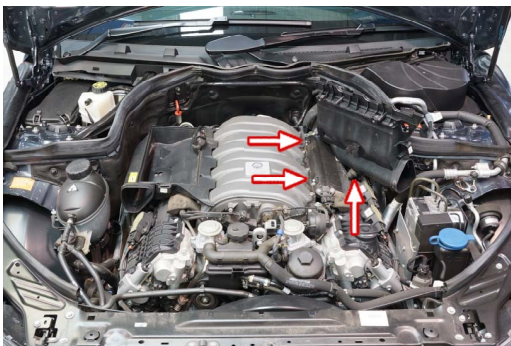
These will be reused at a later stage.



11 Remove the air inlet runner by reaching down and releasing the two (2) tabs shown by levering outwards.



12 Remove the lower air boxes by firmly lifting and dislodging them from their mounting tabs in the shown locations.



13 Remove the flexible sound-deadening panels that cover the fuel rails.



14. Disconnect the brake booster tube from the back of the manifold at the shown location by squeezing the retainer tabs while extracting the white connector.

(RHD vehicle shown)



15 If the vehicle is left hand drive (LHD), skip to step 17

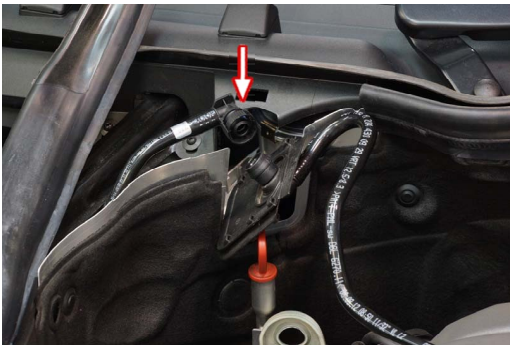
For RHD vehicles:

Unclip the firewall trim panel and slide upwards to remove from the firewall.



16 Compressing either side of the plastic locking ring, disconnect and remove the brake booster to manifold tube assembly.

(RHD Vehicle shown)

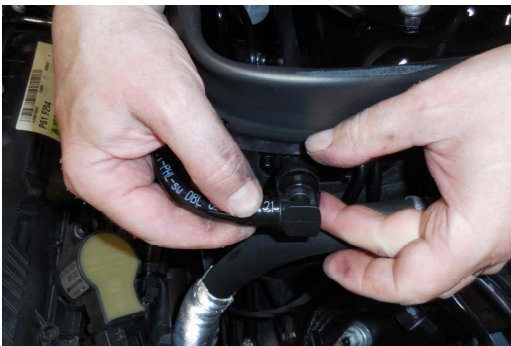


17 If the vehicle is right hand drive (RHD), go back to step 15.

For LHD vehicles:

Compressing either side of the plastic locking ring, disconnect and remove the brake booster to manifold tube.

(LHD Vehicle shown)



18 Disconnect the air valve hose as shown. If the vehicle has an electrical valve where the white joiner is shown, the valve stays on the long hose.



19 Disconnect and remove the moulded air valve hose connecting the air valves. The photo shows the hose removed.



20 Using a suction tool, remove as much power steering fluid as possible from the reservoir.

Additional fluid will be required on final assembly.

Steering fluid:
MB# A001 989 24 03 10

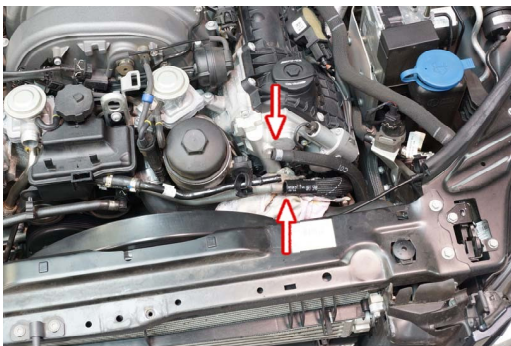


21 Disconnect the power steering supply hose and return hose from the hard lines leading to the reservoir as shown.

As there may be excess fluid still in the lines, place a rag underneath lines to prevent fluid running down the front of the engine.

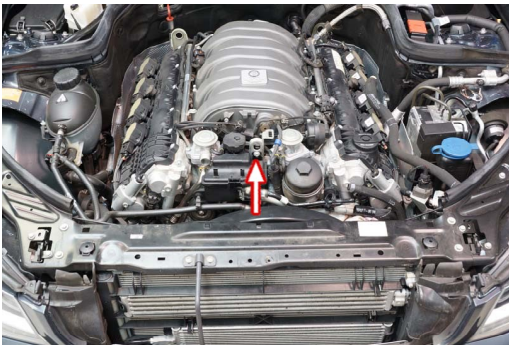
Temporarily plug the hoses so no debris can enter the hydraulic system.

The steel lines can remain attached to the reservoir.



22 Remove the T30 fastener securing the power steering reservoir to the front engine lift bracket.

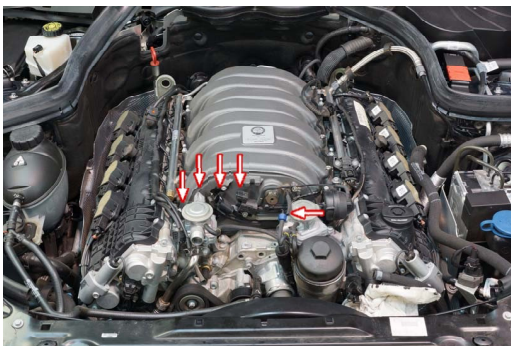
Remove reservoir — it will not be re-installed.



23 Remove the four (4) T45 fasteners holding the steering reservoir/lift bracket.



24. Disconnect the four (4) electrical connectors and the single vacuum line at the front of the manifold.

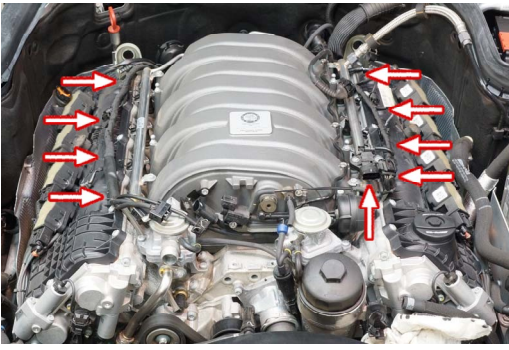


25 Remove the T27 fastener securing the PCV valve and extract the valve from the rear of the manifold.



26 Remove the cable ties securing the injector harness to the fuel rail and proceed to the fuel rail and proceed to disconnect each of the injector plugs from the injectors.

Remove the fuel pressure sensor as shown by the single vertical arrow.



27 At the rear left side of the engine, cut the PCV tube 60mm from the clamp (towards the manifold) as shown.

Use caution working with sharp blades.

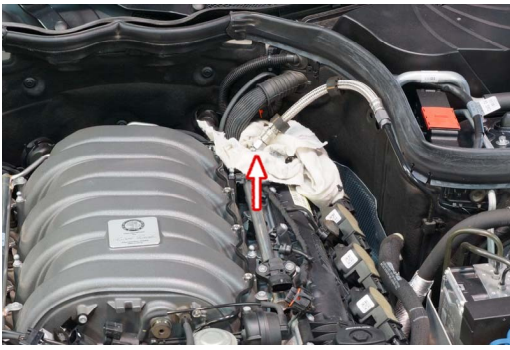


28 Disconnect the IAT sensor connector from the sensor, or remove the sensor from the manifold.



29 Detach the fuel supply hose from the fuel rail. Use caution as the fuel may be under pressure.

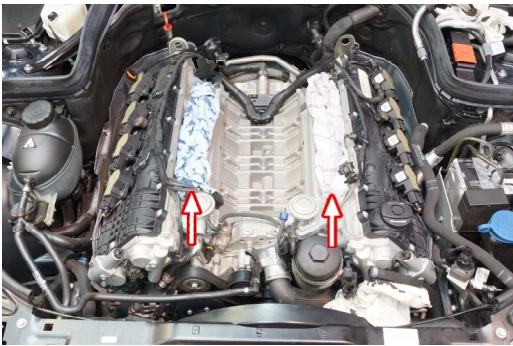
Ensure any spilled fuel is captured and residual fuel removed.



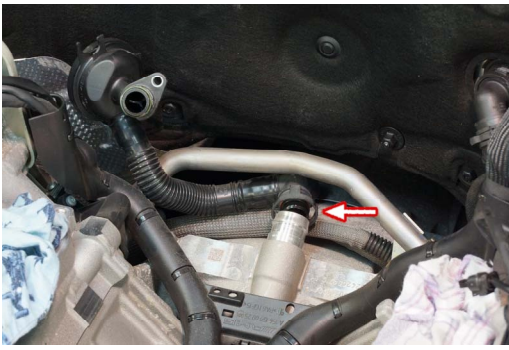
30 Making sure the manifold is clear of debris, remove the ten T45 manifold bolts, and proceed to remove the manifold from the engine.



31 Using clean rags or tape, cover the intake ports to prevent debris falling into the engine.



32 Compressing each side-clip of the connector, disconnect the PCV valve hose from the engine.



33 Both rear-lifting plates will need to be detached from the engine by removing the T45 fasteners.

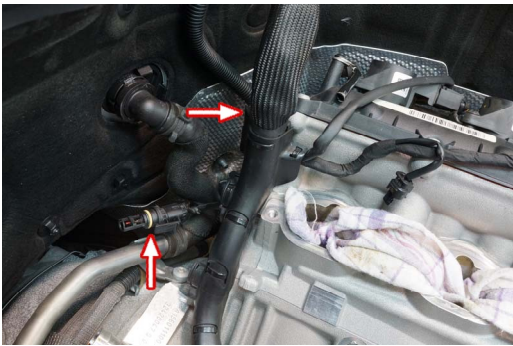


34 Reusing some of the T45 fasteners that mounted the lifting plate on the RH side of the engine, remount the transmission dipstick and wiring harness.



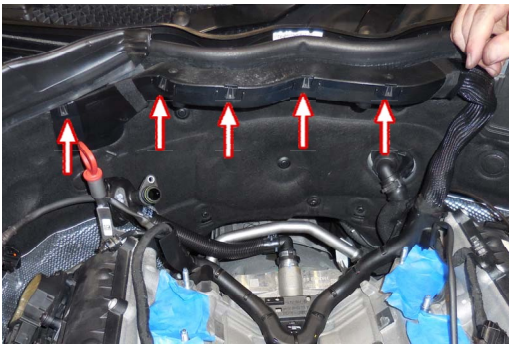
35 Reusing some of the T45 fasteners that mounted the lifting plate on the LH side of the engine, remount the wiring harness (horizontal arrow).

If not already complete, remove the IAT sensor from the harness (vertical arrow).



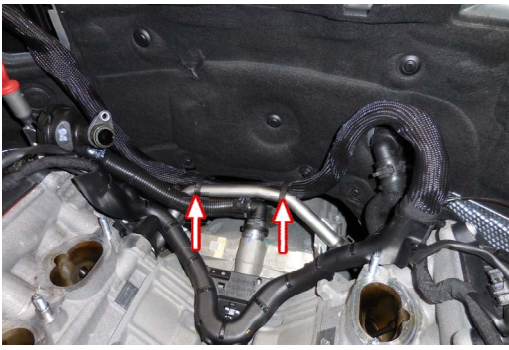
36 If the vehicle is right hand drive (RHD), skip to step 40

For LHD vehicles, unclip the harness from the plastic cover along the firewall.



37 For LHD vehicles, reroute and secure the harness as shown

(LHD vehicle only)



38 Remove the plastic insert from the panel, and route the harness through panel relief as shown.

(LHD vehicle only)

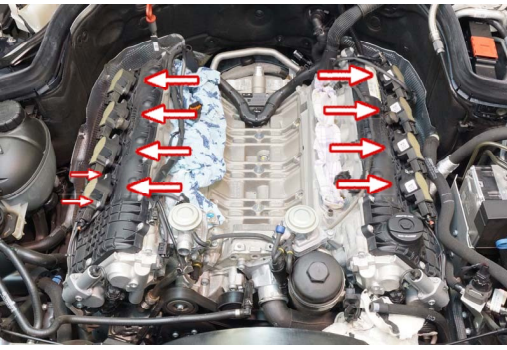


39 Using the supplied rubber edge protector (pinch-weld), cover the edge of the panel as shown to prevent harness damage.

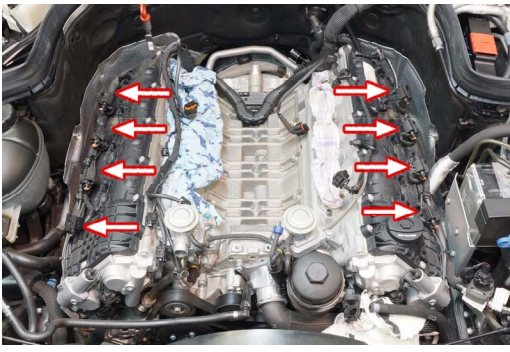
(LHD vehicle only)



40 Remove the two (2) T25 fasteners securing each of the eight (8) ignition coils.



41. Disconnect each of the ignition coil harnesses.



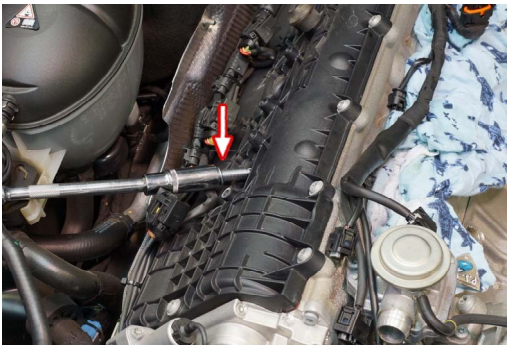
42 Remove the original spark plugs.

Install the new spark plugs supplied in the kit, using a small amount of lubricant/anti-seize.

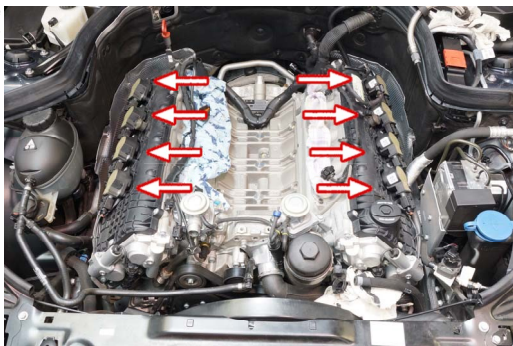
The new plugs have a 16mm hex that requires a socket that is 20.7mm or less in diameter.

The plugs are pre-gapped from factory (1.0mm / 0.040").

Torque 180" after the sealing washers seat.



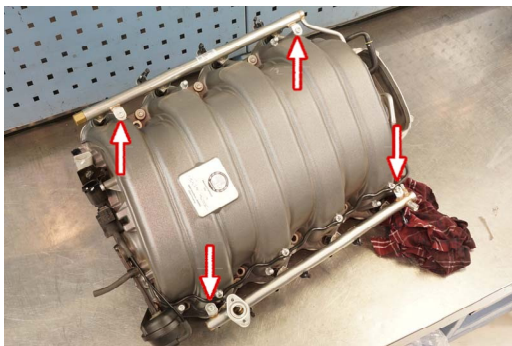
43 Reinstall and refasten the ignition coils, and reconnect the coil harnesses.



44. On a clean working area, remove the two (2) T25 fasteners and remove the fuel pressure sensor from the rail, this will be reused.

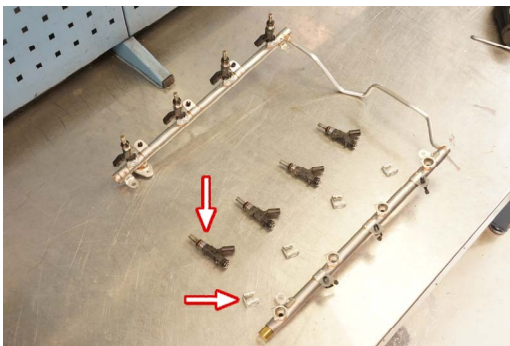


45 Remove the four (4) T30 fasteners securing the fuel rail, then remove the fuel rail assembly from the manifold.

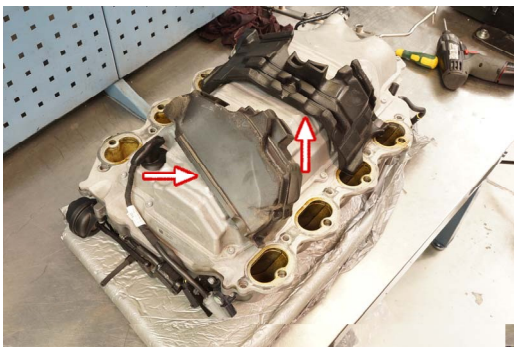


46 Remove the all the injectors from the rail by gently prying off the injector retaining clips and pulling the injectors out of the rail.

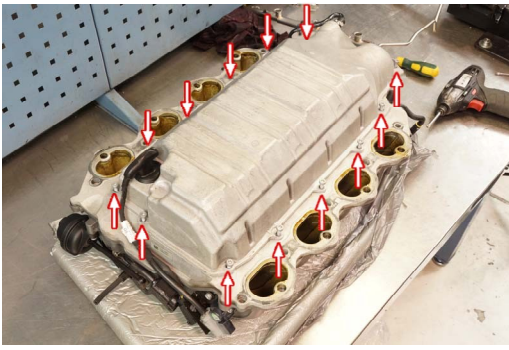
Check the injectors and o-rings for damage and/or foreign matter & carbon build-up. Clean or replace as necessary.



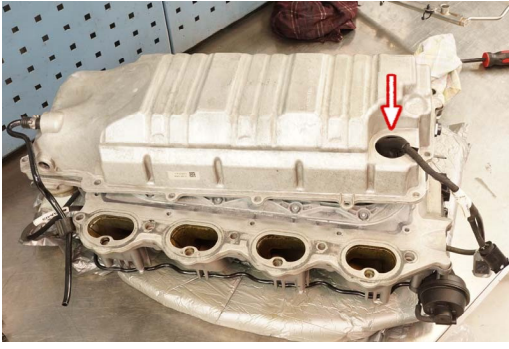
47 Turning the manifold over, remove the sound deadening panels & clean the manifold to enable disassembly to proceed.



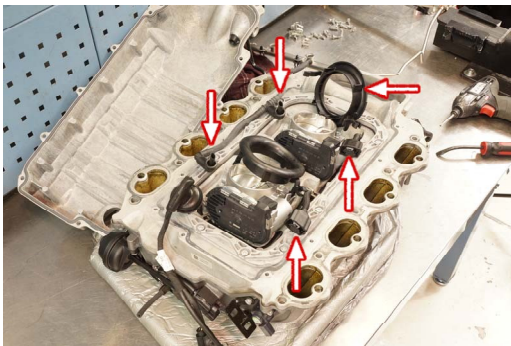
48 Undo the thirteen (13) T30 fasteners securing the lower manifold to the upper section.



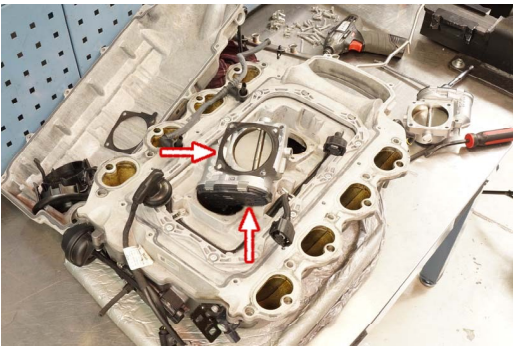
49 Releasing the harness grommet from the lower manifold, remove the lower manifold while feeding through the harness.



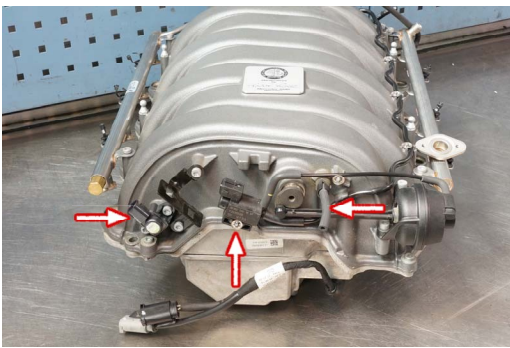
50 With the 2 throttle bodies revealed, remove both throttle body bell-mouths/ram-tubes (horizontal arrow), disconnect the breather lines (vertical down arrows) and disconnect the throttle body harnesses from the 2 throttle bodies (vertical up arrows).



51 Remove the eight (8) T30 fasteners securing the 2 throttle bodies from the manifold. The throttle body gaskets will not be reused.



52 Remove the MAP sensor, manifold runner activation solenoid, and the short vacuum hose shown. These items will be reused during the install.

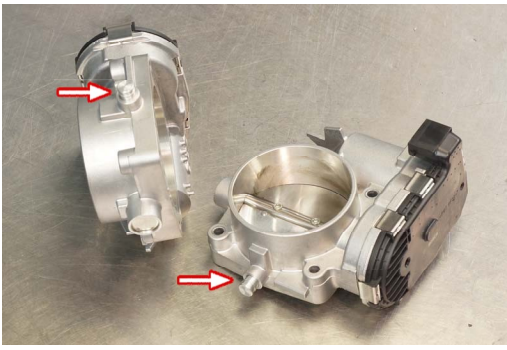


53 Using the supplied blanking plugs, the throttle body vacuum ports are to be sealed.

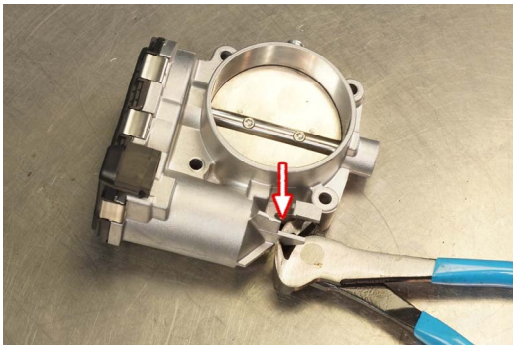


54. Using a soft mallet, gently but firmly tap in the plugs until they are firmly seated into the throttle body vacuum ports. A smear of Loctite or similar sealer may be used, but is not mandatory.

The plugs are tapered with a flanged head (for easy removal) and will not sit flush.



55 To allow enough clearance to fit the throttle bodies to the supercharger, the casting location tabs need to be trimmed as shown.



56 Gently slice off the factory brake booster plastic tube from the panel fitting.

Use caution working with sharp blades.

A rubber vacuum hose will be attached to the panel fitting and the original tube will no longer be used.

RHD version shown.

LHD is an elbow fitting, not a panel.



57 The PCV valve connection tube will require modification to work with the supercharger



58 Slice into the hose to release each fitting as shown. Take care not to cut too deep as there are o-rings.

Use caution working with sharp blades.



59 Using the supplied hose and shrink fit clamps, install the fittings on an approx. 90 degree angle from each other as shown. Secure into position by using a heat gun to shrink the clamps.

Take care not to overheat the plastic components with the heat gun.

Use caution working with hot items.



60 Install the upgraded PCV valve assembly onto engine.



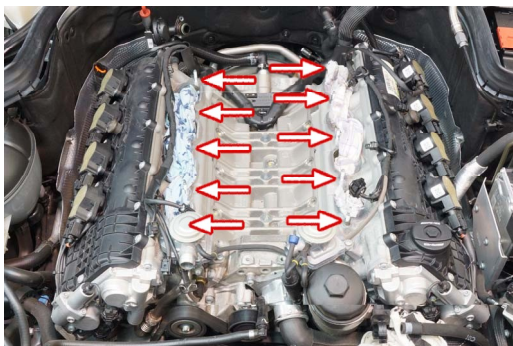
61 Reinstall the brake booster tube fitting assembly into panel and reconnect to the booster rear tube.

RHD vehicle shown

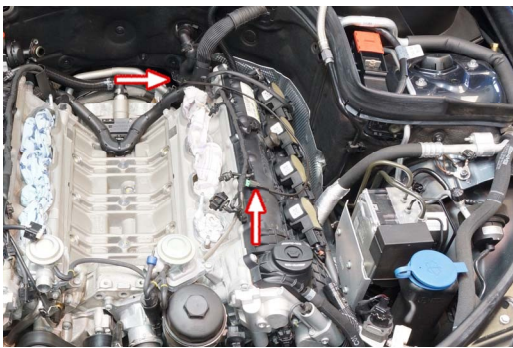


62 Ensure the cylinder head intake manifold faces are clean & free from debris, including all traces of original manifold gasket.

Install the supplied manifold studs using a E5 socket and torque to 15Nm.



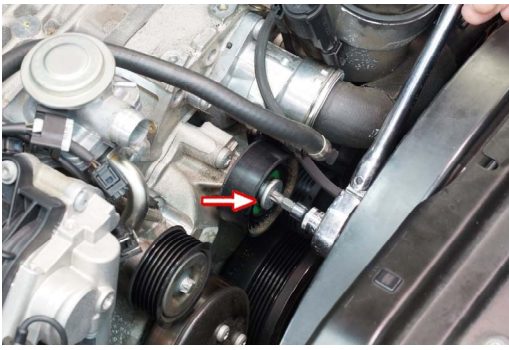
63 Connect the supplied IAT extension into the factory IAT plug at the rear of the engine and loosely route it forward as shown.



64 Remove the factory drive belt and the cover from the idler pulley shown.



65 Using a T50, remove the fastener securing the factory idler pulley.



66 Reusing the T50 fastener removed during the previous step, install the new supplied idler pulley and torque to 30Nm

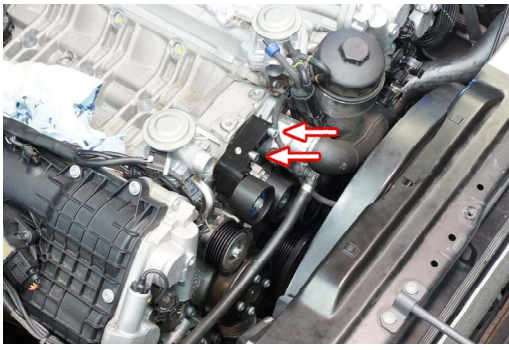


67 Prepare the new idler bracket and idler by using one of the lift hook fasteners in conjunction with the supplied washer to secure the idler to the bracket.

Install the supplied stud and lock nut as shown. Lightly tighten stud into position with minimal protrusion. This will be adjusted at a later stage.



68 Fit the new idler bracket assembly to the engine and loosely torque the two (2) fasteners. Do not tension completely as this will be adjusted after fitting the supercharger.

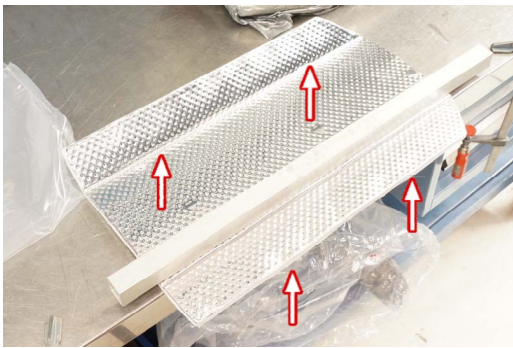


69 Remove Supercharger unit from packaging and sit on clean work area.

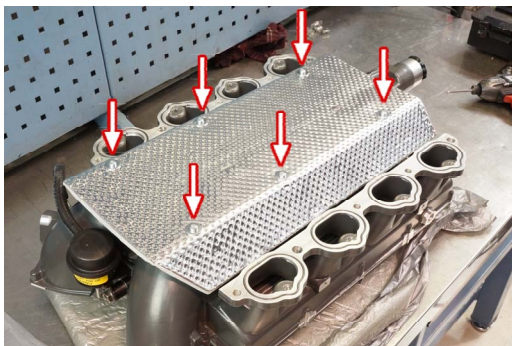
Inspect the supercharger for foreign matter, like packing foam, in the ports & clean if necessary.



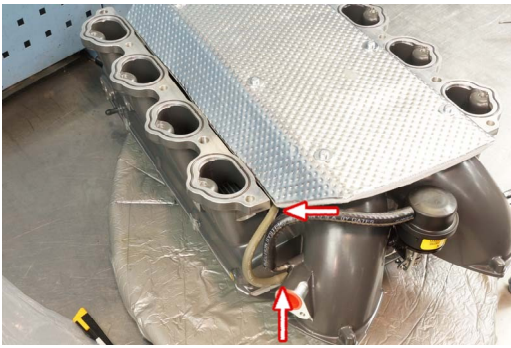
70 Locate the heat shield in the install kit and fold upwards along the creased lines to a 45° angle as shown. Use caution working with sharp edges.



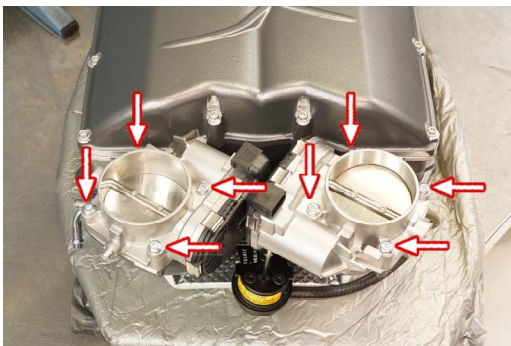
71 Invert the supercharger and install the heat shield as shown, using the supplied T25 fasteners and washers.



72 Connect the supplied vacuum hose to the port as shown and route towards the front of the supercharger between the heat shield and the supercharger body.



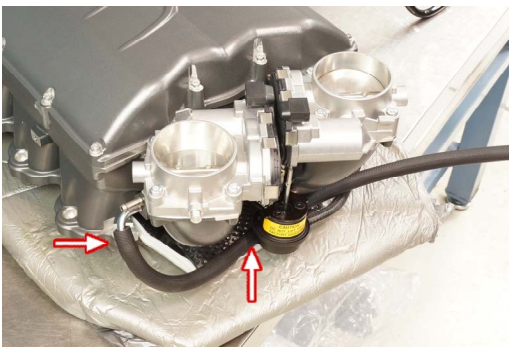
73 Using the supplied fasteners, mount the throttle bodies to the supercharger housing as shown. Torque to 15Nm.



74. Connect the supplied brake booster hose to the brake booster vacuum port.

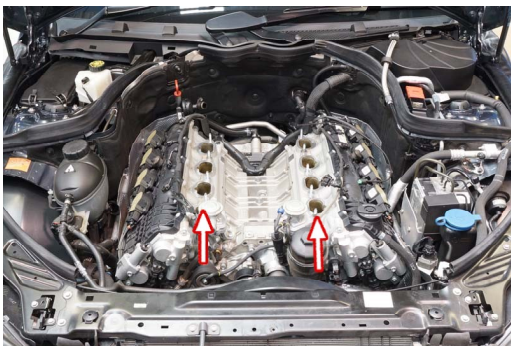
For RHD vehicles, temporarily route the hose as shown.

For LHD vehicles, temporarily route the hose forward on the left side.



75 Making sure the area and ports are clean of any debris, remove the rags or tape used to cover them.

Thoroughly clean (vacuum) any debris & ensure nothing enters the ports. Ensure there are no remnants of the original manifold gasket as it will not be re-used. The supercharger utilises an o-ring seal.



76 With assistance, lower the supercharger into position over the manifold studs making sure that all looms and harnesses are clear.

The supercharger will be a snug fit over the tube dowels in the cylinder head.



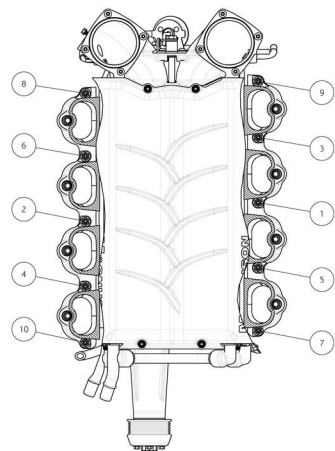
77 Install the supplied manifold nuts and progressively torque in the sequence shown.

First sequence to 10Nm

Second sequence to 18Nm

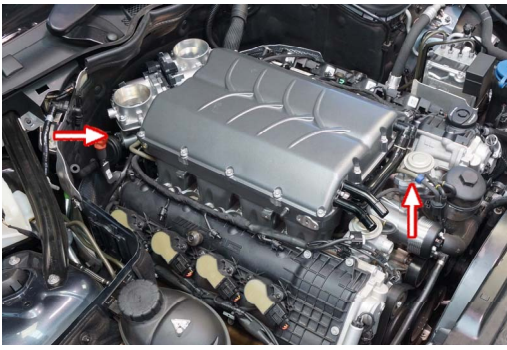
Once fully torqued, spin the front pulley to make sure the rotors spin freely. Incorrect torquing can cause the rotor group to bind.

If the rotors do not spin freely, remove the supercharger & check for debris (gasket remnants etc.), then re-install.



78 Connect the vacuum line previously routed under the housing, into the check valve as show (vertical arrow).

Install the PCV valve into the supercharger manifold and secure using the supplied T30 M6x16 fastener.



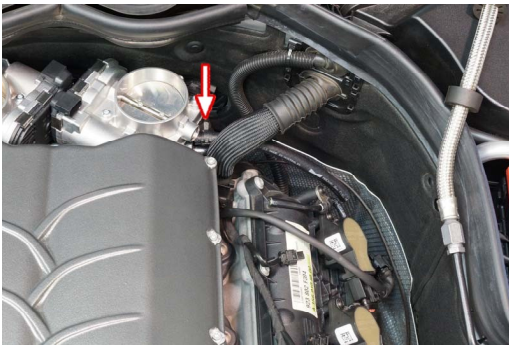
79 Route and connect the brake booster hose to the factory bulkhead fitting as shown.

RHD vehicle shown.



80. Using the supplied fuel emission hose, install and clamp onto the remaining manifold port as shown.

RHD vehicle shown



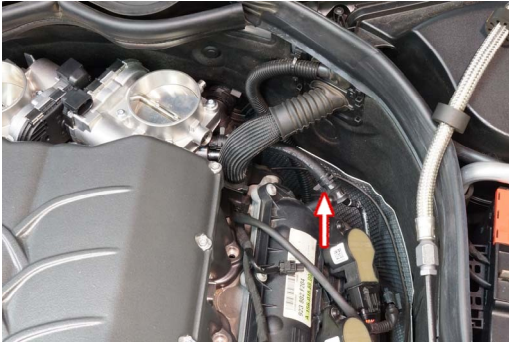
81 Remove the fastener securing the EVAP purge tube clamp and rearrange so the tube routes past the rear of the fastener as shown.

RHD vehicle shown



82 Trim the fuel emission hose to the appropriate length and clamp to purge tube as shown.

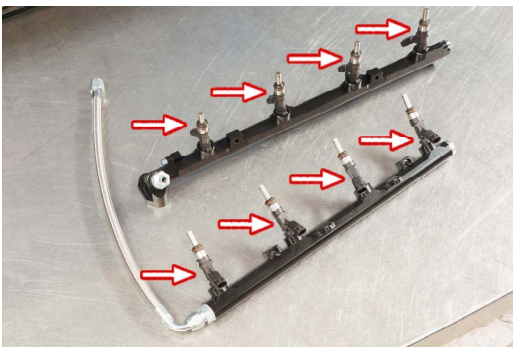
RHD vehicle shown



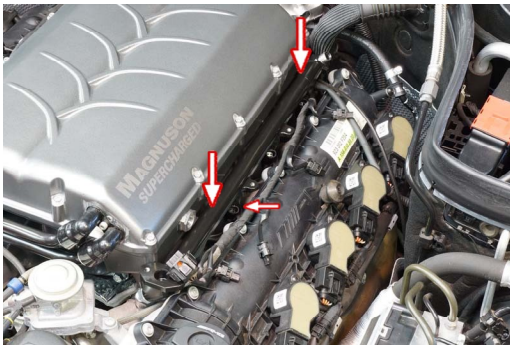
83 Unpack the fuel line assembly and remove the fuel crossover line from the left rail.



84 After ensuring they are free from any debris or damage, install the clean fuel injectors into the rail. The retention clips are not required.



85 Gently rotate the left fuel rail into position. Before fully seating, make sure the injectors are orientated to point forward as shown, and connect the injector harnesses to the injectors.



86 Once seated, using the supplied fasteners carefully secure the fuel rail to the supercharger.

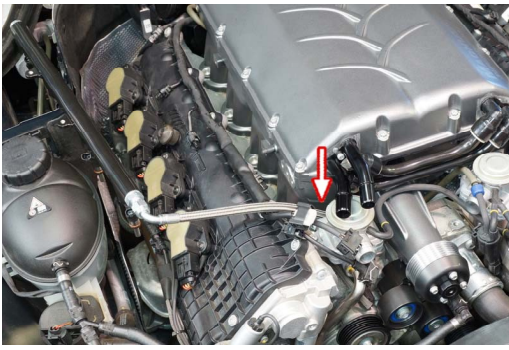
Take care not to cross-thread the fasteners.

Note that the injector connectors should be plugged into the injectors (not shown in the image). The injector connectors should be orientated forward on the left rail, rearward on the right rail, almost tucked under the rail.

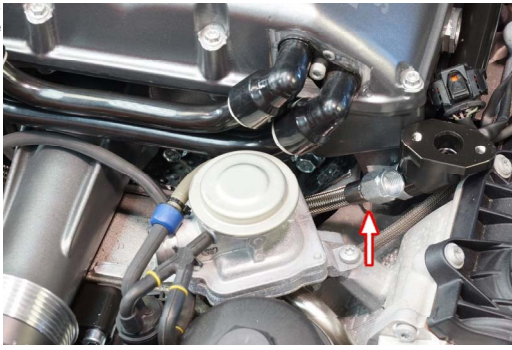


87 With the fuel crossover hose still attached to the rail, feed the hose downwards between the supercharger and the air valves until the fuel rail and injectors are into position, but do not fully seat.

Take care not to damage the injector tips.

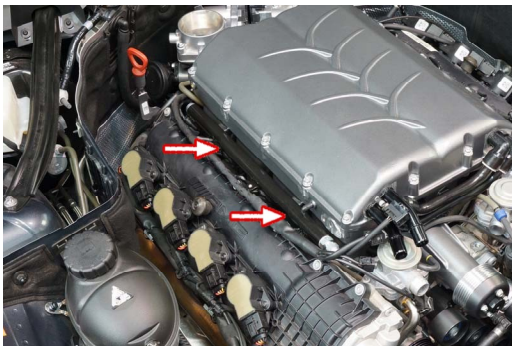


88 Feeding the crossover hose through, connect to the LH rail.

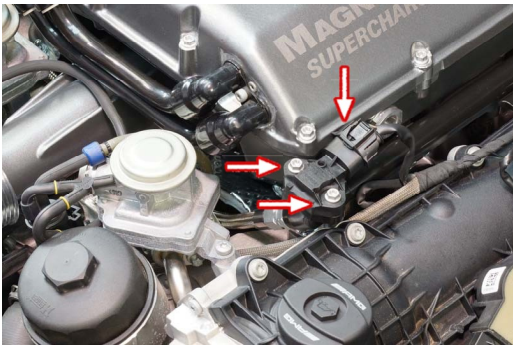


89 With the injectors orientated rearward (opposite to LH injectors and rail) fit the injector connectors, and then fully seat the rail into position and secure with the supplied fasteners.

The injector connectors should be orientated forward on the left rail, rearward on the right rail, almost tucked under the rail.



90 Reusing the factory fuel pressure sensor and supplied fasteners, install the sensor into the rail manifold and connect the electrical connector.



91 Install the factory IAT sensor into the supercharger manifold.



92 Connect the IAT extension harness to the IAT sensor and neatly route the IAT harness with the main injector harness.

If you have difficulty fully seating the connector refer to step the next step.

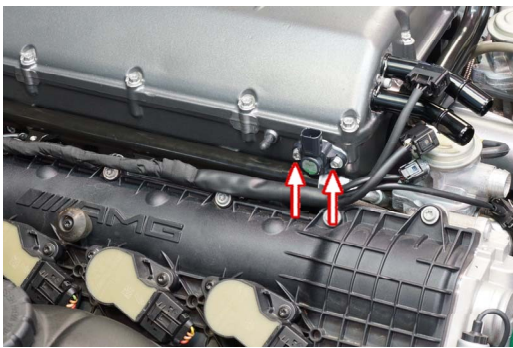


93 If the IAT connector is not fully seating correctly, the inside edge of the IAT sensor will be the cause. With care, the edge can be chamfered which will allow the connector seal to enter & the connector to fully seat.

Use caution working with sharp blades.



94. Install the factory MAP sensor with the supplied fasteners.

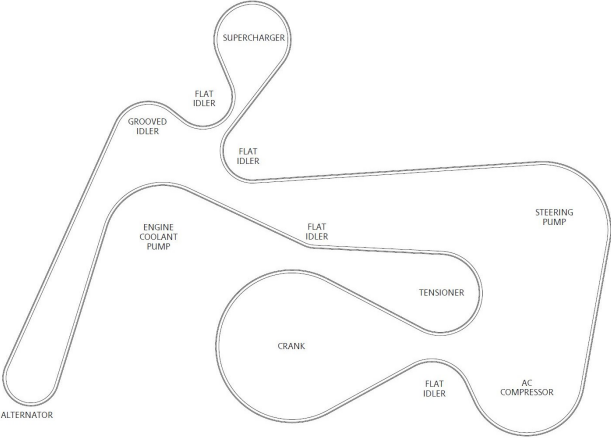


95 Tighten the two (2) idler bracket bolts and locknut the stud once in a position where it is just touching the drive cover. It may be necessary to temporarily remove the pulleys to see & access the stud and/or nut.

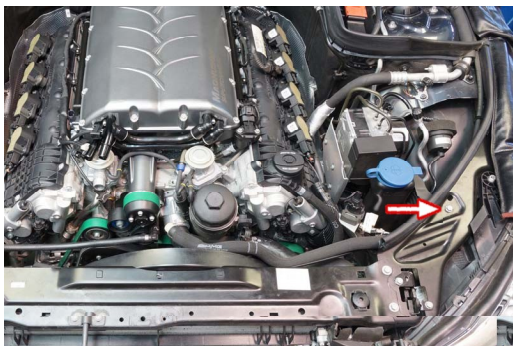
Proceed to install the supplied drive belt.

The drive belt routing is shown on next page.

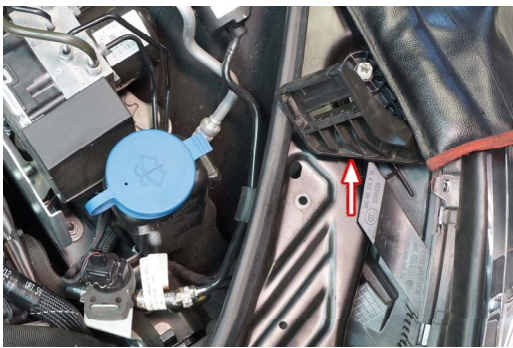




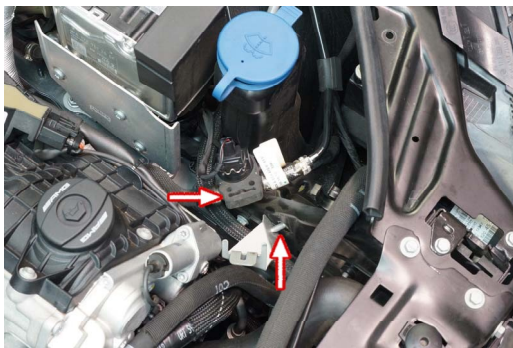
97 Remove the 10mm fastener securing the washer reservoir support bracket as shown.



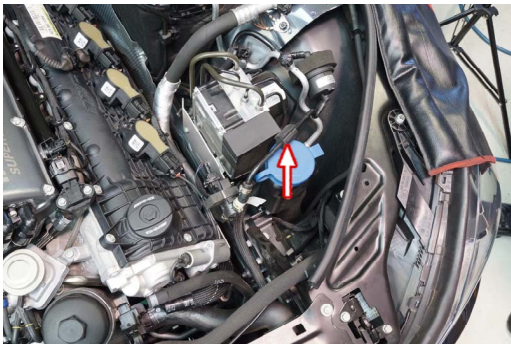
98 Unclip and remove the washer reservoir support bracket, this will be re-installed at a later stage.



99 Unclip the Evap purge solenoid from its mounting bracket and remove the bracket.



100 Gently pull the purge tube up over the washer bottle to allow access into the cavity behind the headlight.



101 Using the supplied heat shrink protective wrap, shrink into the position shown on the new power steering feed hose and return hose.

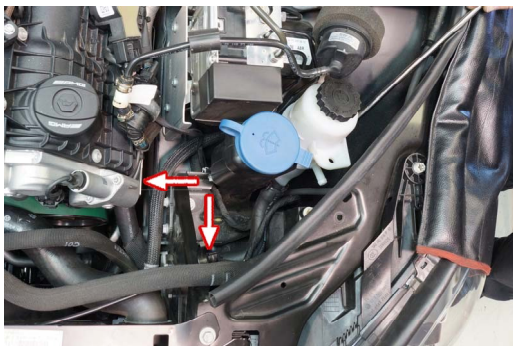
Use caution working with hot items.



102 Install and clamp the new power steering feed hose to the new power steering reservoir as shown.



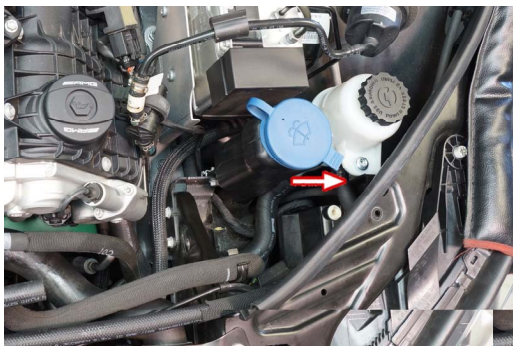
103 Being careful of excess power steering fluid remove the factory feed hose and install the new power steering reservoir assembly as shown, using the factory clamp leading to the pump. the hose will need to be routed down and through the radiator support panel brace as shown.



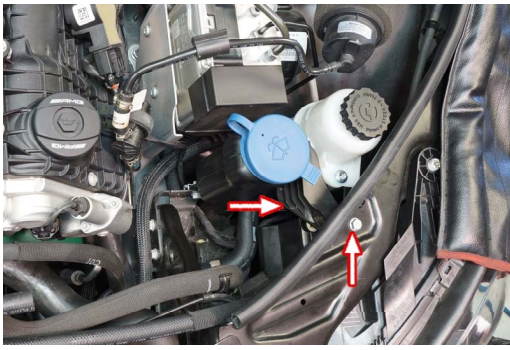
104 Install the supplied power steering return hose onto the new reservoir with the supplied clamp.



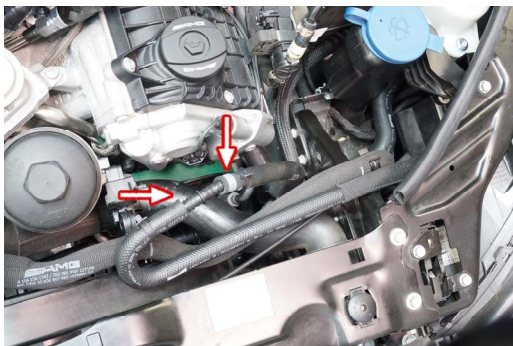
105 Attach the supplied power steering reservoir bracket as shown using the fastener supplied.



106 Remount the washer bottle support bracket to the washer bottle and include the power steering reservoir bracket, fastened to the radiator support panel with the original fastener.

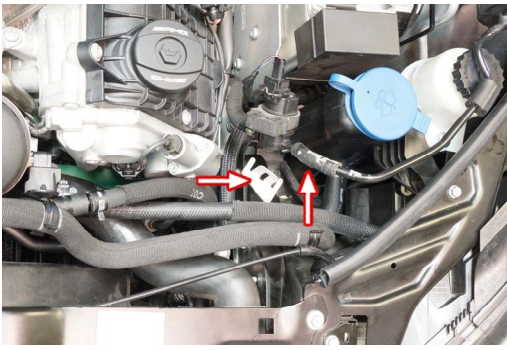


107 With the supplied joiner, connect the power steering return hoses together with the supplied clamps.



108 Remove the hose joiner from the purge solenoid (vertical arrow).

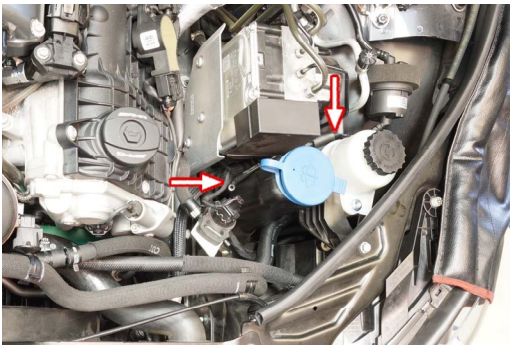
Remount the purge solenoid and bracket into its factory location.



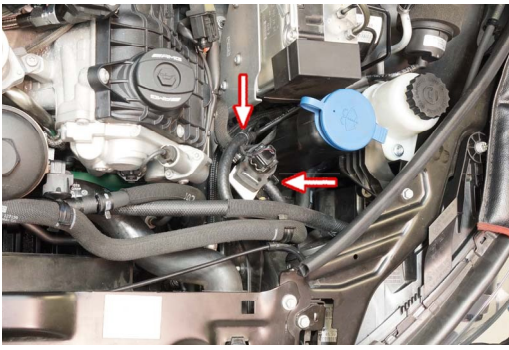
109 With the hose removed, route the purge line into the position shown between the ABS module and the new power steering reservoir.

Refill the steering fluid reservoir. Allow time for the fluid to enter the hoses, and re-check.

MB steering fluid part number is:
A001 989 24 03 10

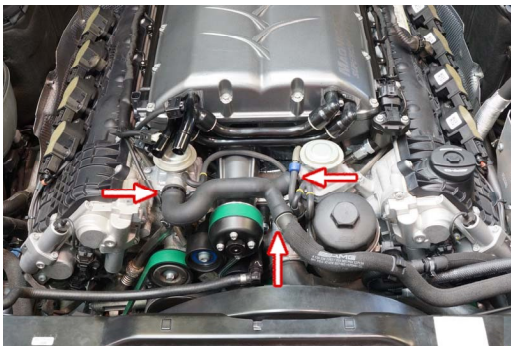


110 Using the supplied hose and clamps connect the purge hose to the purge solenoid as shown.



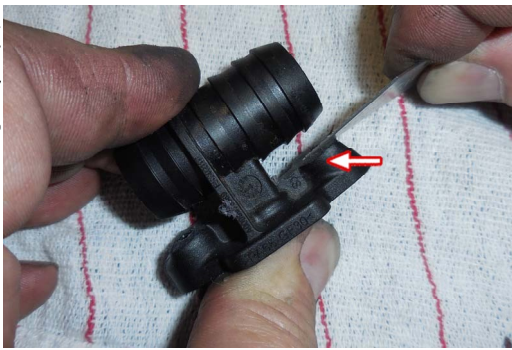
111 Install the new supplied air injection valve hose, securing with supplied cable ties as shown.

For vehicles fitted with an air injection valve, this needs to be refitted with a slight modification as seen in the next step.

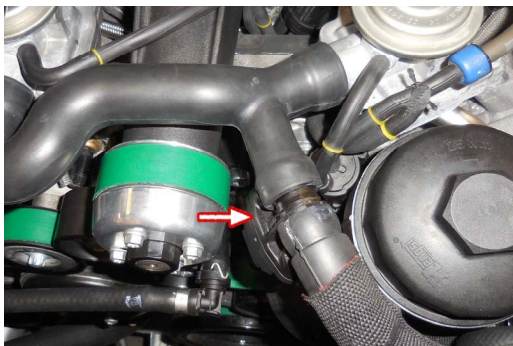


112 For vehicles fitted with an air injection valve; to allow clearance for the new air injection valve hose, the shown edge needs to be slightly trimmed with a suitable tool.

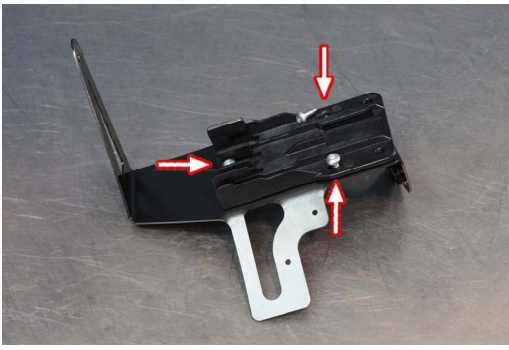
Use caution working with sharp blades.



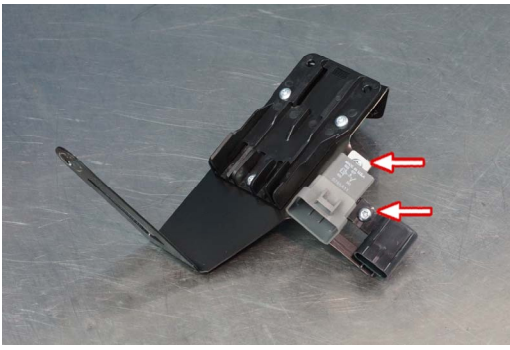
113 With the air hose valve modified, connect between the air injection valve hoses as shown.



114 Using three (3) of the supplied short T25 screws, attach the degas reservoir mount to the bracket as shown.

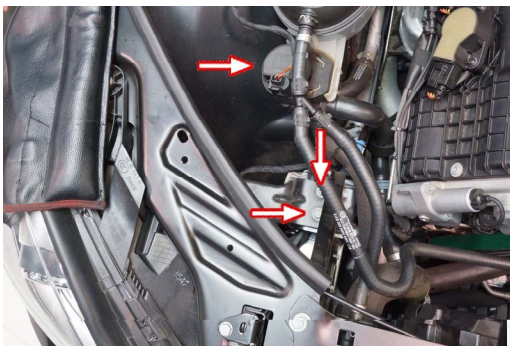


115 Using the remaining two (2) T25 short screws, mount the relay and fuse holder cover to the bracket as shown.



116 To mount the degas reservoir bracket, the rear most lower brace fastener will need to be removed (vertical arrow).

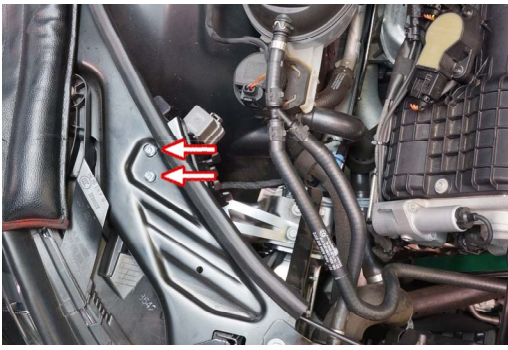
Some vehicles are fitted with a heater recirculation pump (top horizontal arrow). These models will require the removal of the forward most fastener instead (bottom horizontal arrow).



117 Position the degas mounting bracket down behind the RH headlight and secure using the supplied M6x16 T30 fasteners into the position shown.

Using the factory fastener from the previous step, secure the lower part of the bracket to the brace into position.

Note: Heater pump recirculation fitted vehicles use front position as shown. All other vehicles use rear position.



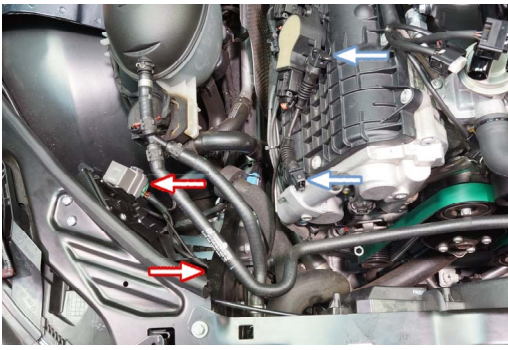
118 Install the earth wire of the Pump harness to the earth point on the RH side of the vehicle just beside the coolant reservoir as shown.



119 Connect the harness to the relay and fuse holder already mounted and route the remaining harness through the radiator support panel brace.

Pass the power cable and pump connector down beside the rail.

If the harness has both a male & female connector on the coolant pump trigger wire (blue arrows), use the supplied blanking plug to ensure moisture does not enter the extra connector.



120 Connect the coolant pump trigger wire extension and route towards the engine-bay fuse box (beside the brake booster).

Secure the connector & wire appropriately.



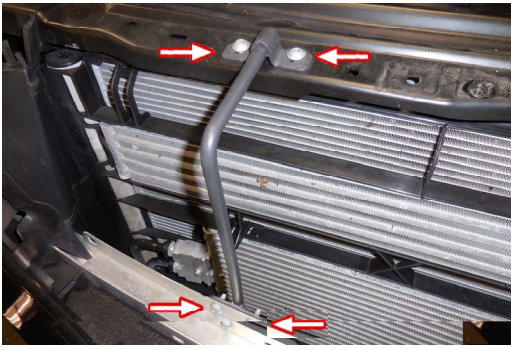
121 Route the coolant pump trigger wire into the fuse box via the rubber seal.

Insert the terminal into the connection shown, or an appropriate accessory-power receptacle.

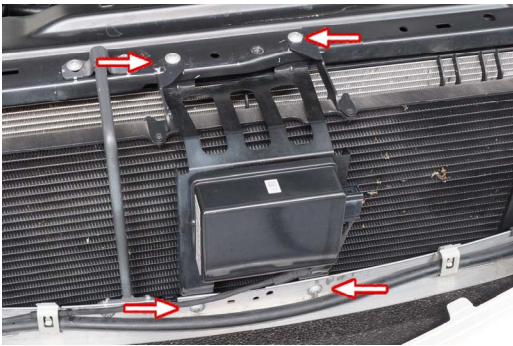
The harness is supplied to suit both RHD and LHD vehicles. For RHD vehicles (shown) the excess length can be trimmed and the terminal reconnected, or the excess can be coiled and secured appropriately with cable ties. Ensure the wire routing will not allow chaffing or damage from heat and movement.



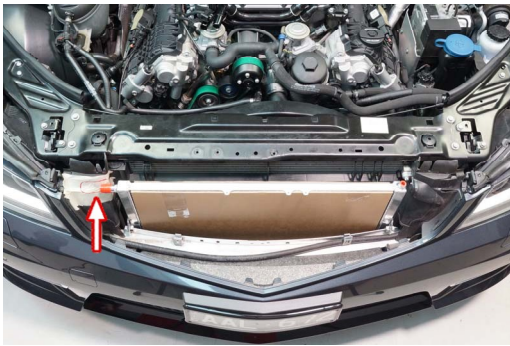
122 Remove the hood latch rod by removing the four (4) T30 fasteners.



123If fitted, detach the cruise control radar unit by removing the four (4) T30 fasteners and disconnecting the wiring harness.

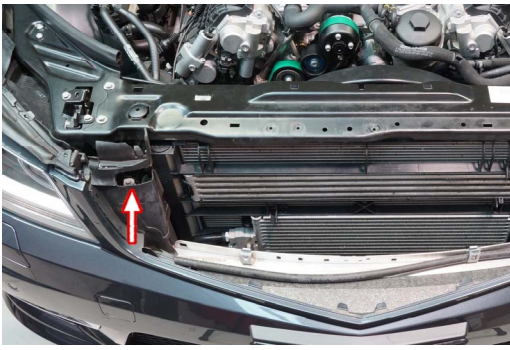


124 Taking care not to damage the Low Temperature Radiator (LTR), temporarily lower it into position and mark the position of the top inlet as shown.

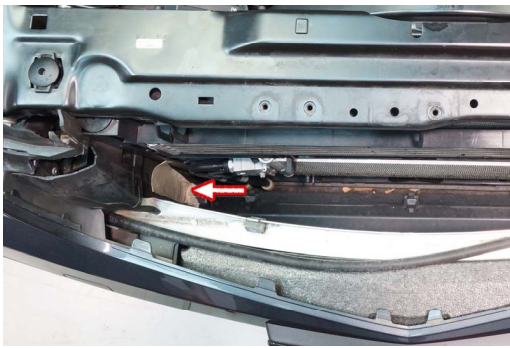


125 Remove the LTR and using a suitable tool, carefully trim out the marked area of the plastic trim for the LTR inlet pipe.

Use caution working with sharp blades or rotating tools.



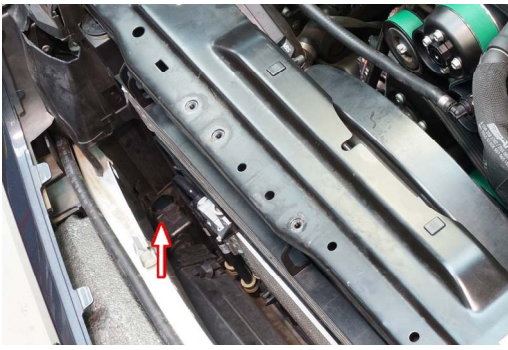
126 Repeat the same procedure for marking out the lower outlet for the LTR.



127 With a suitable tool, e.g. die-grinder, trim a hole (approximately 40mm/1-1/2" diameter) for the LTR outlet.

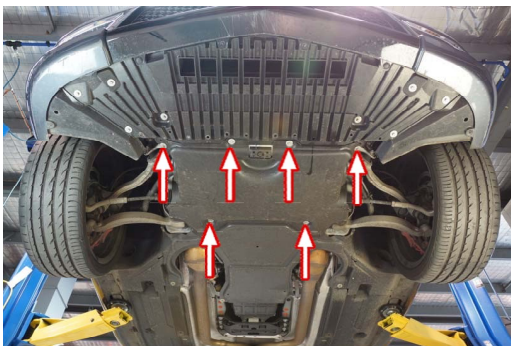
Note that there is a rib behind the panel that will also need trimming.

Take extreme care while using power tools in confined spaces near the engine cooling system.

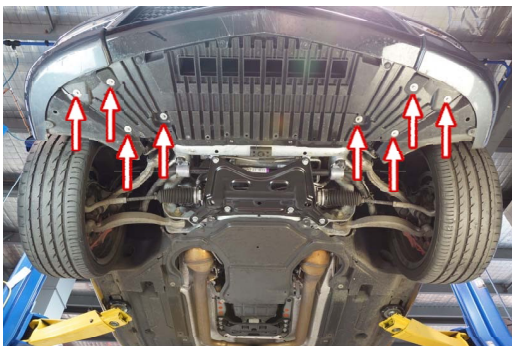


126 Safely raise the vehicle to allow access to the under trays at the front of the vehicle.

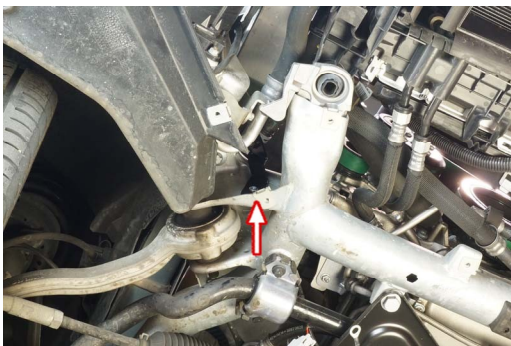
Remove the six (6) 8mm fasteners as shown holding the middle lower tray, and remove the tray from the vehicle.



129 Remove the remaining eight (8) 8mm fasteners securing the front lower tray as shown and remove the tray from the vehicle.

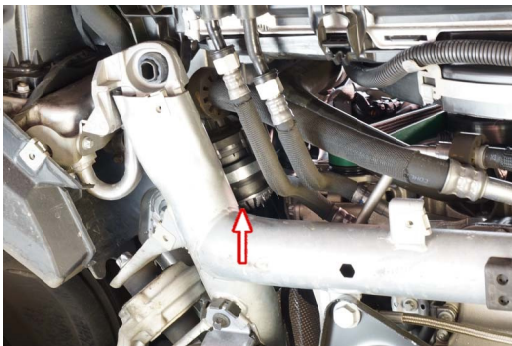


130 Install the supplied intercooler pump bracket and fastener to the front right lower control arm mount, as shown.



131 Install the pump with the inlet facing forward and the outlet pointing upwards at a 60° angle.

Use the supplied clamp and fastener to loosely hold the pump. Do not tighten at this stage.

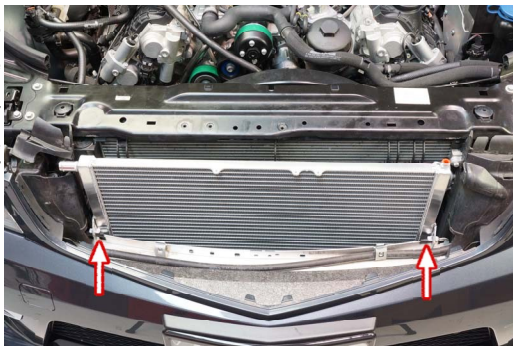


132 Fit the supplied hose to the LTR. Clamp the short side to the LTR outlet as shown.

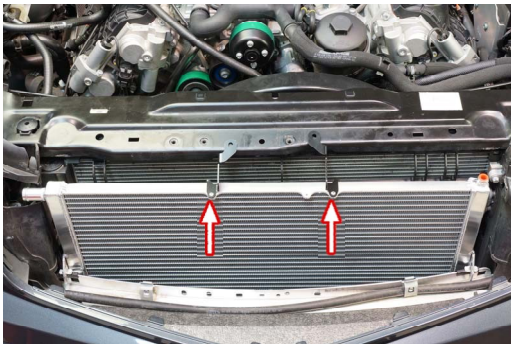


133 With the lower hose connected, lower the LTR into position while gently feeding the hose through the hole created in a previous step.

With the LTR loosely sitting in its final position, install the rubber seals on the edge of cross member under the feet of the LTR as shown.

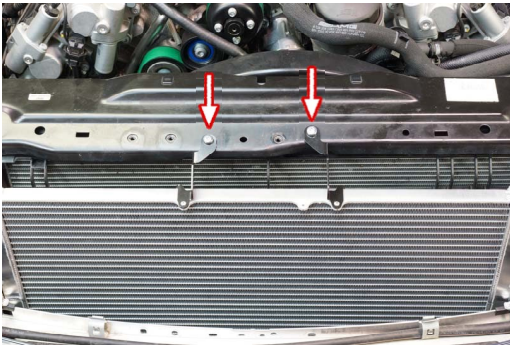


134 Install the two (2) top LTR brackets by using the supplied pop rivets to secure the brackets to the LTR as shown.



135 For vehicles not fitted with the Radar system:

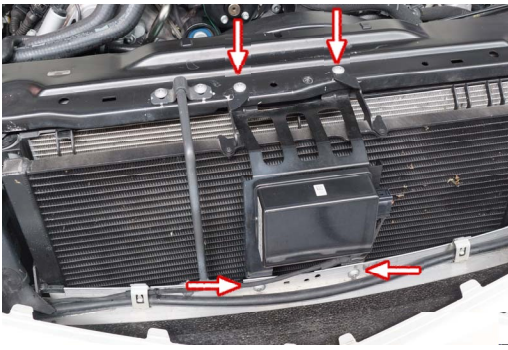
Mount the top LTR brackets to the radiator support panel with the supplied fasteners and nuts.



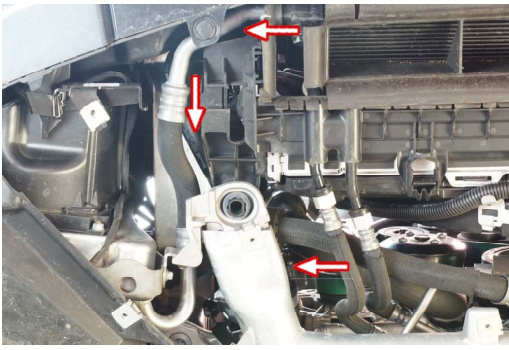
136 For vehicles fitted with the Radar system:

Position the radar unit in its factory position, using the factory fasteners remount the radar unit with the LTR top brackets as shown

To remove the radar unit or LTR after riveting, it is usually necessary to detach the upper radiator support panel.

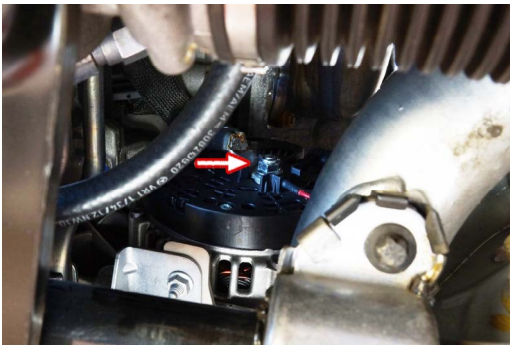


137 Using a supplied hose clamp, connect the lower LTR hose to the inlet of the intercooler pump.

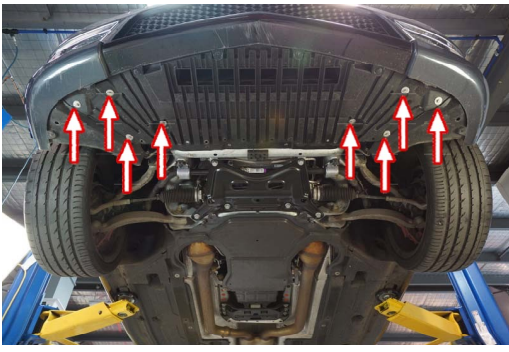


138 Remove the alternator terminal cap, remove the nut and route the pump harness power cable down and across to the terminal. Secure with the factory nut and reinstall the terminal cap.

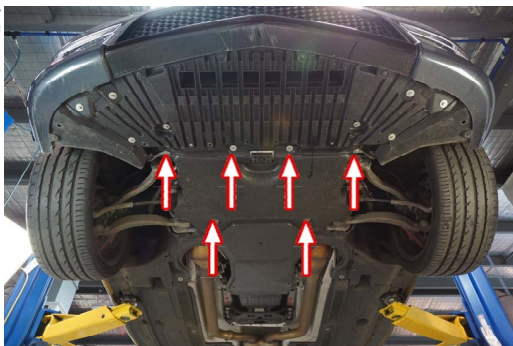
Make sure the power lead of the pump harness is away from any moving parts or extreme heat components of the engine, drive belt, exhaust etc.



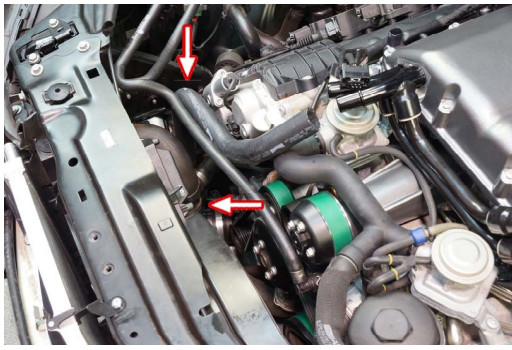
139 Reinstall the front lower tray with the original eight (8) 8mm fasteners.



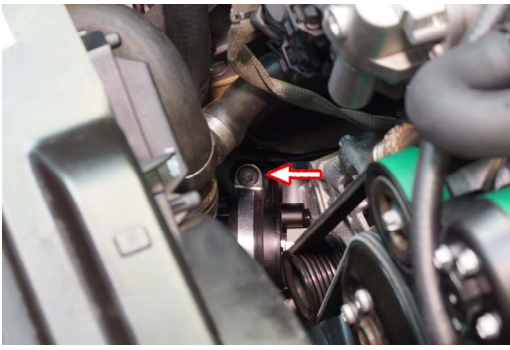
140 Reinstall the front lower tray with the original six (6) 8mm fasteners.



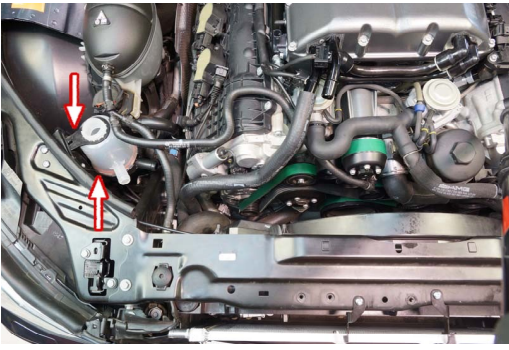
141 Using the supplied pump to charge air cooler (CAC) hose, lower into position beside the rail and connect to the pump with a supplied hose clamp as shown.



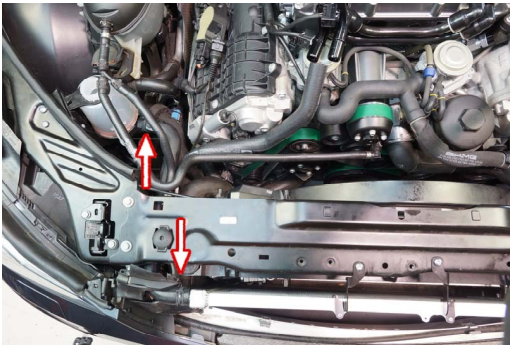
142 With the hose installed, make final orientation adjustments of the pump position and then complete torquing the clamp fastener.



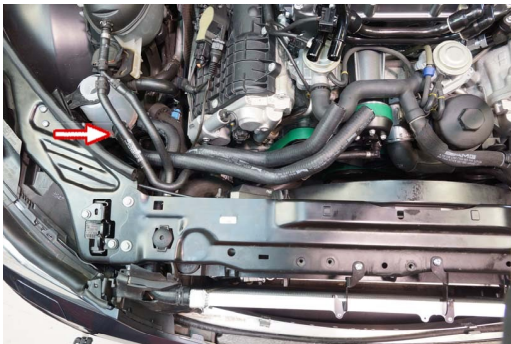
143 Slide the de-gas reservoir into its mounting bracket and securing with its top retaining clip.



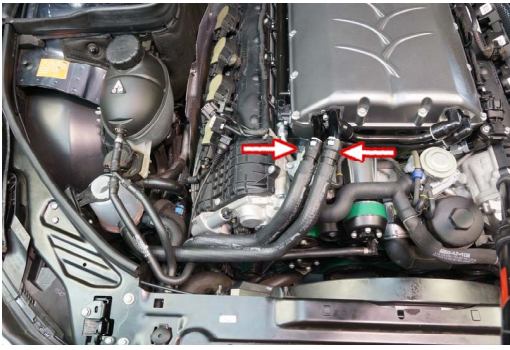
144 With the supplied clamps, fit the reservoir to LTR hose as shown.



145 Connect the CAC to reservoir hose to the De Gas bottle with a supplied clamp as shown.

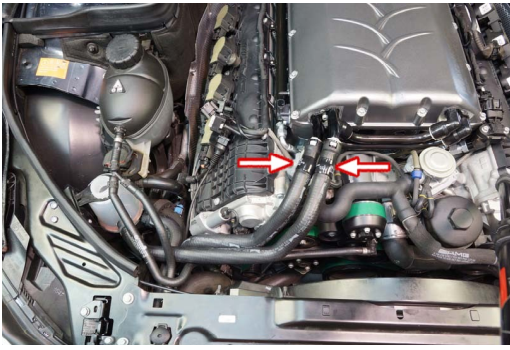


146 Install the supplied quick connect fittings to the coolant manifolds and the cooler hoses. Check the orientation of the fittings once the hoses are pushed on as shown.

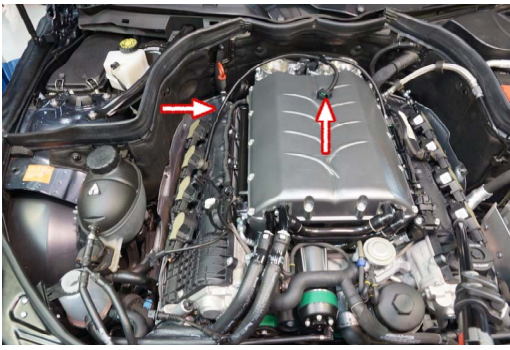


147 With the hoses correctly positioned onto the quick connect fittings, use the supplied shrink fit hose clamps and a heat gun to secure the hoses onto the fittings.

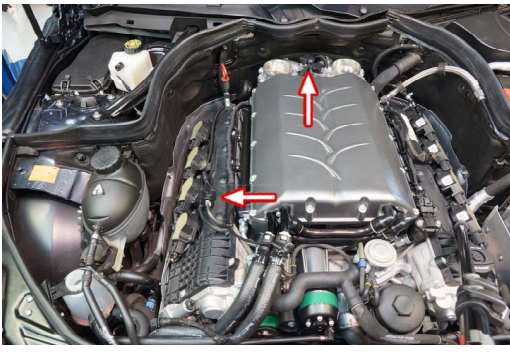
Use caution working with hot items.



148 Route the throttle body extension harness along the right hand side of the motor.



149 Connect the harness to the throttle bodies and to the original throttle body plugs and neatly route the harness as shown.

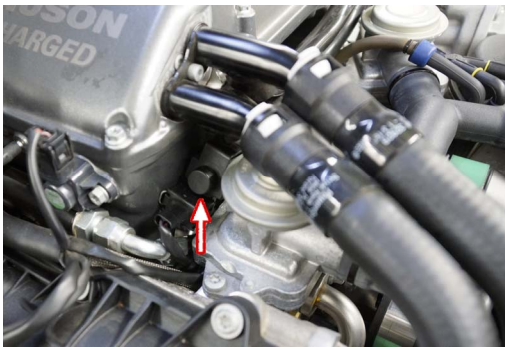


150 With the vacuum hose removed from the front of the factory manifold in step 52, loop the hose to connect each of end of the manifold runner activation solenoid.

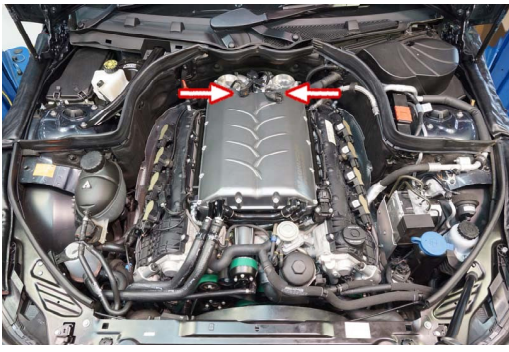
Connect the engine harness to the solenoid and secure under the solenoid the coolant cross-over tubes. The solenoid is redundant, but it remains connected to avoid ECU error codes.

Connect the MAP sensor plug to the MAP sensor.

Secure the harnesses with cable ties.



151 Place the MAF meter plugs in preparation to fit the intake ducts and air-boxes.

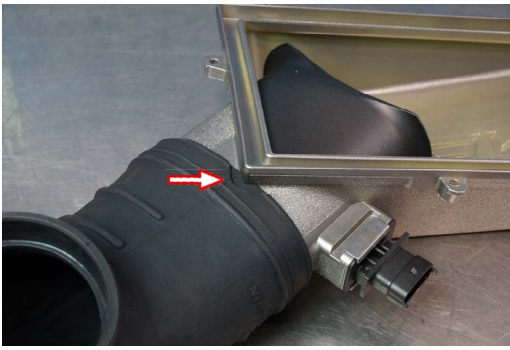


152 Install the new lower air boxes with the fasteners and washers supplied.



153 Install the new intake ducts to the factory air box lids.

Note that the intake ducts are marked left and right to align the notch with the corner of the air box lids as shown.



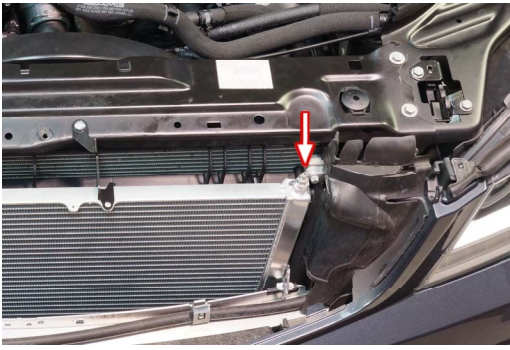
154 Fit the factory intake boot clamps to secure the ducts to the air box lids, once tensioned the clamp should just sit below the edge of the air box lids corner as shown.



155 Fitting the new intake duct clamps provided over the intake ducts, install onto the throttle bodies as shown and tension the clamps. The MAF sensors can also be reconnected and the plug covers reinstalled.



156 Fit the supplied LTR bleeder screw into the LTR. The bleeder screw is only required to be finger tight initially.



157 Using approved Magnuson or MB coolant, fill the reservoir.



158 With the reservoir settled with as much coolant and water as possible, slowly release the bleeder screw to allow any air inside the LTR to escape. Once coolant and no air starts flowing, secure the bleeder screw.

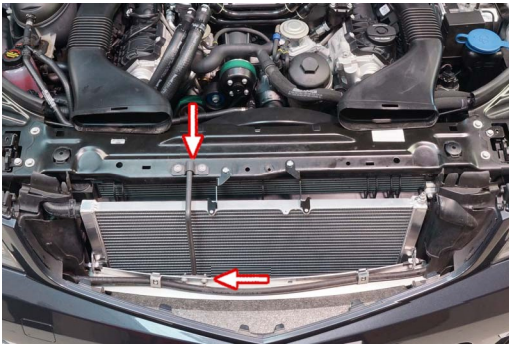
Make sure that you maintain the fluid level in the reservoir while releasing the air; failure to do so may introduce more air pockets into the LTR.



159 Reinstall the front air intake ducts to the lower air boxes.



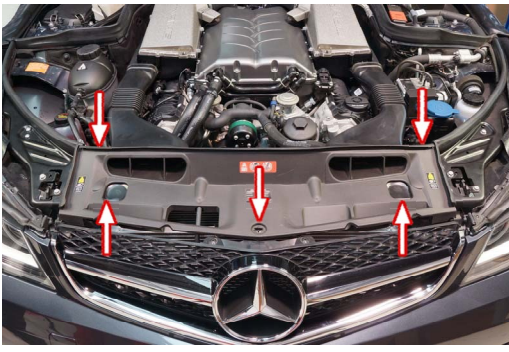
160 Refit the hood latch rod using the factory fasteners.



161 Reinstall the front grill in the reverse order of how it was removed, and reinstall the 10mm fastener to secure the grill to the radiator support panel.



162 Reinstall the radiator support panel cover in reverse order of removal, making sure all retaining clips have securely seated.



163 Reconnect the battery, making sure the battery terminals are secure.



164 **NOTE:** Before closing the hood, clearance between the hood safety latch and the LTR needs to be checked. See next step.



165 In some cases the bonnet latch may need to be adjusted rearwards to allow clearance to the LTR and allow the hood to completely close.



166 Load in your supercharged tune file by following the instructions within the application.

Start the vehicle & **check for fluid leaks**. Take special note & care of all fuel connections.

Check the steering fluid level & top up as required.

Top up the intercooler fluid. Note that the coolant pump does a sanity check before starting, and it has a soft-start feature. By design, **it does not start immediately after receiving power**. It can take up to 15 seconds.

During the first few hours of operation and heat cycles, it may be necessary to top up the fluid often as air is displaced. Check regularly.



167 Allow the engine to get to operating temperature and **re-check everything.**

After the initial test drive gradually work the vehicle to wide open throttle runs, listen for any engine detonation (pinging). If engine detonation is present let up on the throttle immediately. Most detonation causes are due to low octane fuel.



Installing the supercharger indicates your acceptance of the responsibility and liability associated with the fitment and use of this product. Please ensure the owner and drivers of the Magnuson supercharged vehicles are aware of their responsibilities and liabilities as indicated below.

The owners and drivers of the enhanced vehicle must be aware that, depending upon each Country or State legislation, fitment of a Magnuson supercharger may affect:

- The vehicle factory warranty.
- Insurance cover and associated liabilities.
- Compatibility with emission regulations and legislation.
- The validity of a driver's license for a supercharged vehicle.
- The handling and braking capability of the vehicle due to increased engine power & torque characteristics.
- The longevity of the engine.

It is the owner's and driver's responsibility to accept any consequences and liabilities of using the supercharger and any subsequent effect it may have. Magnuson shall not be liable for any direct and/or indirect/ consequential losses, costs, damages, expenses, injuries or liabilities whatsoever incurred by the owner/driver of the vehicle or other parties arising from this supercharger, its installation and/or its operation.

It is recommended that vehicles have completed 1,000 miles (1,600 km) and have been driven, serviced and maintained in accordance with the vehicle manufacturer handbook before fitting a supercharger. An engine should be deemed reliable and have delivered all reasonable expectations in line with the vehicle manufacturer specifications prior to fitting a Magnuson supercharger.

Warranty

The Magnuson warranty details for the USA can be viewed online at www.magnusonproducts.com. Please contact your country Magnuson Distributor for warranty details outside of the USA.

Magnuson warrants each new product to be free from defects in both workmanship and material for a period of 3 (three) years or 36,000 miles (58,000kms) from the date of purchase if installed by an authorized dealer and using the Magnuson calibration; or 1 (one) year unlimited mileage if using a non-Magnuson calibration or installed by someone other than an authorized Magnuson Dealer.

All electrical parts, e.g. Magna Volt, Fuel pumps, Intercooler Pumps, have a one (1) year (no mileage) warranty. Drive belts, spark plugs, and air filters have a three (3) month warranty.

All warranty items are extended from the date of purchase to the original consumer/purchaser of record for the original vehicle the product was installed on. The warranty is not transferrable.

Warranty covers only the product itself and not any consequential damages or claims.

The warranty is void if:

- The product is not installed by a Magnuson Warehouse Distributor, Dealer, or certified automotive technician.
- The product is used in an application that is inconsistent with the stated catalogued items, e.g. C53 kit used in a M163.
- Any components or assemblies are modified or substituted with alternative items e.g., drive pulleys, fuel injectors.
- Incorrect or contaminated fluids are used.
- The engine is modified, e.g. oversize crank, pulley, aftermarket camshaft, etc.
- The vehicle is driven or used in a manner inconsistent with the manufacturer's owner's manual.
- The vehicle is used in any form of racing or performance competition purposes.

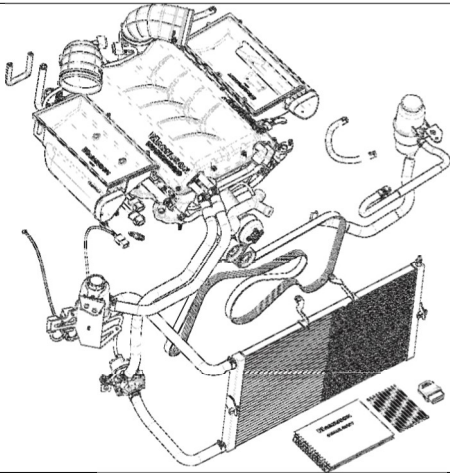
The warranty does not cover:

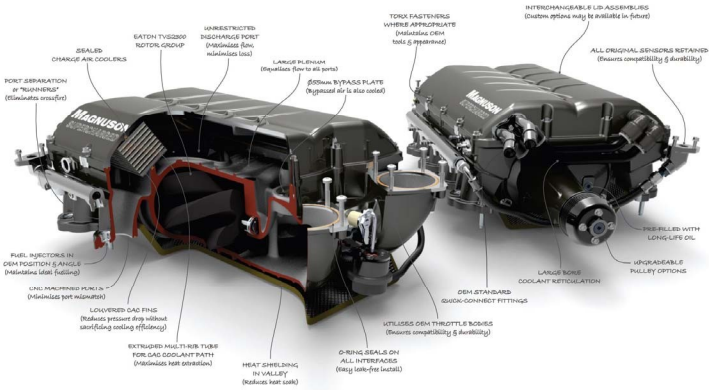
- The cost of vehicle diagnostics, product removal, or product installation.
- Any transport or ancillary costs, e.g. towing, rental car, accommodation.
- Failure of any related or interfaced components.
- Failure resulting from improper air filtration, alteration, misuse, exposure to chemicals, chrome or decorative plating.
- Damage caused by 'backfire', road hazards, accident damage, faulty installation, faulty repair, negligence by customer or installer.

Warranty returns must be inspected by an authorized factory representative (Dealer) prior to returning to Magnuson. Products being returned must be accompanied by a completed RMA form (available from the Dealer). Incomplete forms will cause delays in processing.

Warranty only applies to the original order and is not transferrable. By installing the supercharger you acknowledge that all conditions pertaining to this Magnuson supercharger and its operation have been read, understood and accepted.

AMG C63
M156 Supercharger Kit
Full Layout





MAGNUSON

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