



INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

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Stage 2

REMOVAL

**09 - Engine, 5.7L/Engine Block/
CAMSHAFT, Engine/Removal**

1. Remove both cylinder heads (2) (Refer to 09 - Engine/Cylinder Head - Removal).

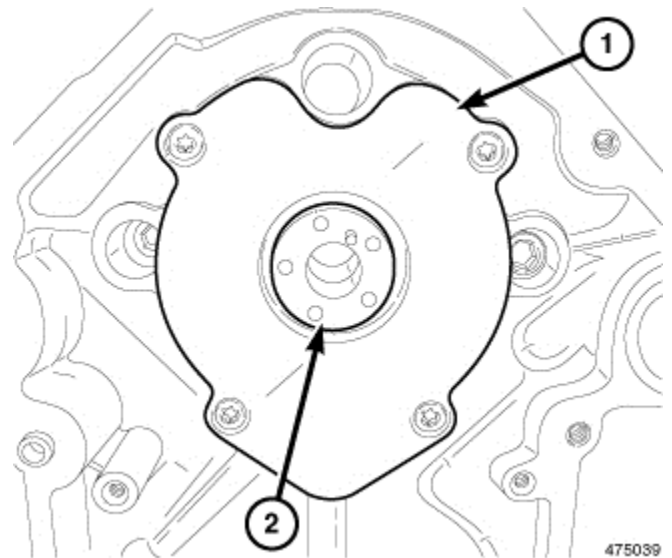
CAUTION: The 5.7L Multi Displacement System (MDS) engine uses both standard roller lifters and deactivating roller lifters. The deactivating roller lifters must be used in cylinders 1,4,6,7. The deactivating lifters can be identified by the two holes in the side of the lifter body, for the latching pins.

CAUTION: Whenever the camshaft is replaced, all lifters must be replaced. If the lifter and retainer assemblies are to be reused, identify the lifters to ensure installation in their original location or engine damage could result.

CAUTION: The lifter and retainer assembly must be installed as a unit.

2. Remove the lifters and retainer as an assembly (Refer to 09 - Engine/Engine Block/LIFTER(S), Hydraulic - Removal).
3. Remove the generator (Refer to 08 - Electrical/8F - Engine Systems/Charging/GENERATOR - Removal).
4. Remove the A/C compressor (Refer to 24 - Heating and Air Conditioning/Plumbing/COMPRESSOR, A/C - Removal).
5. Remove the radiator (Refer to 07 - Cooling/Engine/RADIATOR, Engine Cooling - Removal).

6. Remove the A/C condenser (Refer to 24 - Heating and Air Conditioning/Plumbing/CONDENSER, A/C - Removal).
7. Raise and support vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting/Standard Procedure).
8. Remove the oil pump pickup tube (1) (Refer to 09 - Engine/Lubrication/PAN, Oil - Removal).
9. Remove support and lower the vehicle.
10. Remove the timing chain and camshaft phaser (Refer to 09 - Engine/Valve Timing/CHAIN and SPROCKETS, Timing - Removal).



11. Remove the camshaft thrust plate (1).

CAUTION: Use care when removing the camshaft, do not damage the camshaft bearings with the camshaft lobes.



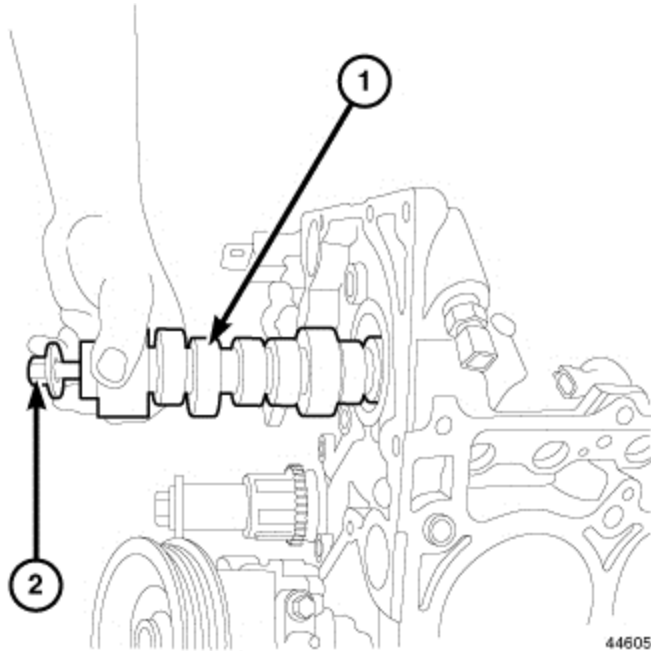
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12. Install a long bolt (2) into the front of the camshaft to aid in removal.
13. Remove the camshaft using care not to damage the camshaft bearings with the camshaft lobes (1).

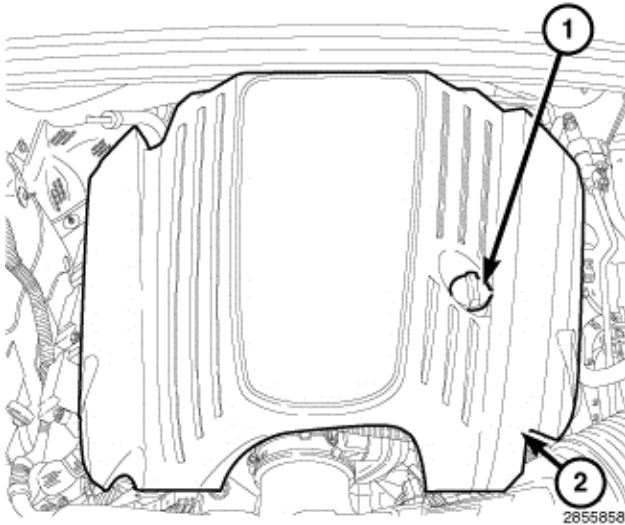


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**09 - Engine, 5.7L/Engine Block/
CYLINDER HEAD, Engine/Removal**

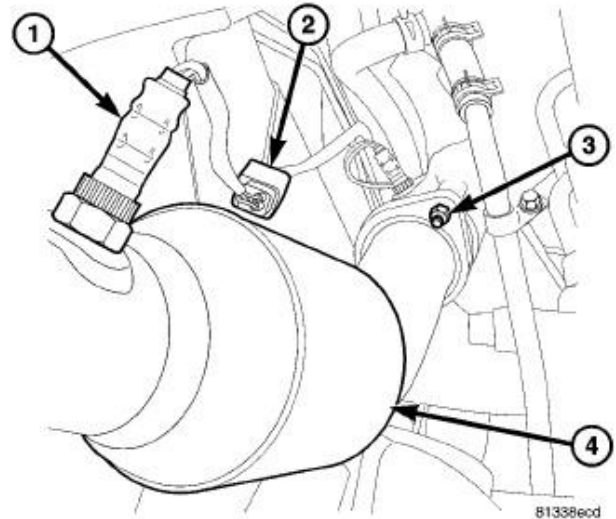
1. Perform the fuel system pressure release procedure (Refer to 14 - Fuel System/Fuel Delivery - Standard Procedure).
2. Disconnect and isolate the negative battery cable.

Remove the engine cover (2).



3. Remove the intake manifold (Refer to 09 - Engine/Manifolds/MANIFOLD, Intake - Removal).
4. Raise and support the vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting - Standard Procedure).
5. Remove retainers (1) and the belly pan.

6. Drain the cooling system (Refer to 07 - Cooling - Standard Procedure).



CAUTION: When separating the catalytic converters from the manifolds, disconnect the oxygen sensor connectors. Allowing the catalytic converters to hang from the oxygen sensor wires damages the harness and/or sensors.

NOTE: Left side shown, right side similar.

7. Disconnect all oxygen sensor wire harness connectors (2).
8. Saturate all exhaust bolts and nuts (3) with Mopar® Rust Penetrant. Allow five minutes for penetration.
9. Remove nuts (3) and separate the catalytic converters (4) from the exhaust manifolds.
10. Remove support and lower the vehicle.



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11. Remove the serpentine belt (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine/Removal).
12. Remove the cylinder head cover (Refer to 09 - Engine/Cylinder Head/COVER(S), Cylinder Head - Removal).
13. If removing the right cylinder head, remove nut and the oil dip stick tube.

CAUTION: Pushrods and rocker arm assemblies must be installed in their original locations or engine damage could result.

NOTE: Make sure to identify the original location of the rocker arms and push rods for correct assembly.

14. Remove the rocker arms and push rods (Refer to 09 - Engine/Cylinder Head/ROCKER ARM, Valve - Removal)

Left side shown, right side similar.

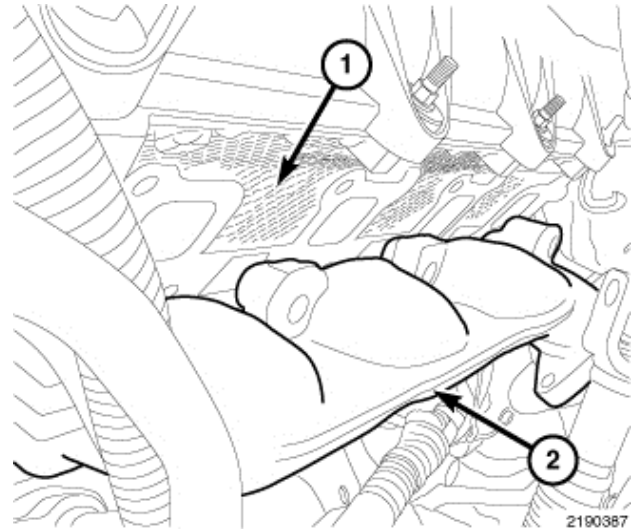
NOTE: It is not necessary to remove the exhaust manifolds to remove the cylinder heads.

15. Using the sequence shown, remove the cylinder head bolts and remove the cylinder head(s).



16. Remove and discard the cylinder head gasket.

17. Inspect and clean the cylinder head (2) mating surface.



18. If necessary, remove bolts and the manifold (2).



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14 - Fuel System / Fuel Delivery, Gas/Standard Procedure

FUEL SYSTEM PRESSURE RELEASE

WARNING: The fuel system is under constant high pressure even with engine off. Until the fuel pressure has been properly released from the system, do not attempt to open the fuel system. Do not smoke or use open flames/sparks when servicing the fuel system. Wear protective clothing and eye protection. Make sure the area in which the vehicle is being serviced is in a well ventilated area and free of flames/sparks. Failure to comply may result in serious or fatal injury.

1. Remove the fuel pump relay from the Power Distribution Center (PDC) (Refer to 04 - Vehicle Quick Reference/Fuse Locations and Types - Specifications). A relay location label can also be found on the underside of the PDC cover.
2. Start and run the engine until it stalls.
3. Attempt restarting engine until it will no longer run.
4. Turn the ignition to the OFF position.
5. Return fuel pump relay to the Power Distribution Center (PDC).

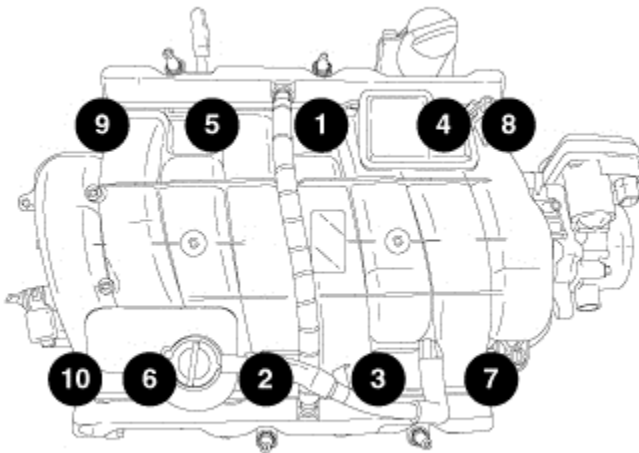
NOTE: After servicing the fuel system, one or more Diagnostic Trouble Codes (DTC's) may have been stored in the Powertrain Control Module (PCM) memory due to disconnecting the fuel pump module circuit. A diagnostic scan tool must be used to erase a DTC.



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09 - Engine, 5.7L / Manifolds / MANIFOLD, Intake/Removal

1. Perform the fuel system pressure release procedure (Refer to 14 - Fuel System/Fuel Delivery - Standard Procedure).
2. Disconnect and isolate the negative battery cable.
3. Remove the air cleaner body (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner/Removal).
4. Disconnect the fuel supply line (Refer to 14 - Fuel System/Fuel Delivery/FITTING, Quick Connect - Standard Procedure).
5. Disconnect the brake booster hose and the EVAP purge line.
6. Disconnect the following components wire harness connectors:
 - Manifold Absolute Pressure (MAP) Sensor
 - Fuel Injectors
 - Electronic Throttle Control (ETC).
7. Using the sequence shown, remove bolts and the intake manifold.

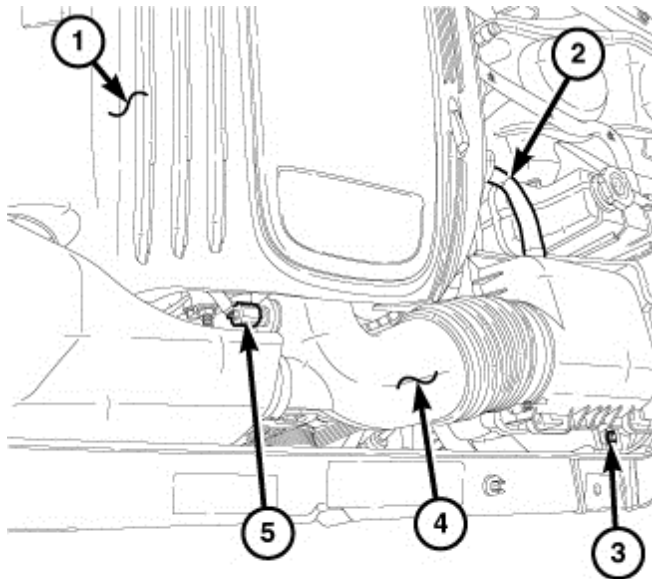


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**09 - Engine, 5.7L / Air Intake System / BODY,
Air Cleaner/Removal**



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1. Lift the engine cover retaining grommets off the ball studs and remove the engine cover (1).
2. Disconnect the intake air temperature (IAT) sensor (5) electrical connector.
3. Loosen the air duct retaining clamps at the throttle body and the air cleaner housing and remove the air duct (4).
4. Disconnect the make up air hose (MUA) (2).
5. Remove the air cleaner housing retaining bolt (3).
6. Remove the air cleaner housing from the vehicle.



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14 - Fuel System / Fuel Delivery, Gas / FITTING, Quick Connect/Standard Procedure

Redundant Latch Single Button Type Fitting:

QUICK-CONNECT FITTINGS

Different types of quick-connect fittings are used to attach the various fuel system components, lines and tubes. Some quick-connect fittings require the use of a special tool for disconnection and removal.

These are the quick-connect fittings:

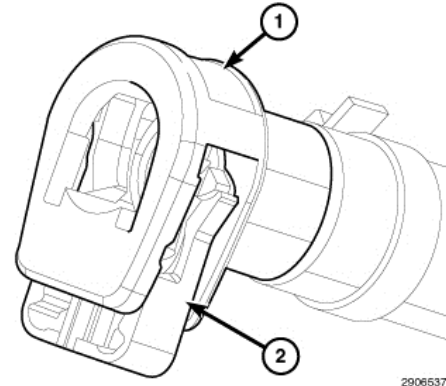
- Redundant Latch Single Button Type Fitting
- Single Button Type Fitting
- Pinch Type Fitting
- Single Tab Type Fitting
- Two Tab Type Fitting
- Plastic Retainer Ring Type Fitting
- Latch Clip Type 1 Fitting
- Latch Clip Type 2 Fitting
- Wing Type Fitting

DISCONNECTING

WARNING: The fuel system is under a constant pressure (even with engine off). Before servicing any fuel system hose, fitting or line, fuel system pressure must be released.

CAUTION: Before separating a Quick-Connect fitting, pay attention to what type of fitting is being used. This will prevent unnecessary fitting or fitting latch breakage.

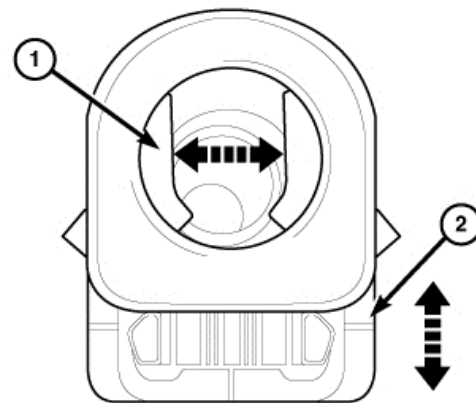
CAUTION: The interior components (O-rings, clips) of quick-connect fittings are not serviced separately, but new plastic spacers and latches are available for some types. If service parts are not available, do not attempt to repair the damaged fitting or fuel line (tube). If repair is necessary, replace the complete fuel line (tube) assembly.



This type of quick-connect fitting is equipped with a redundant latch (2) and a single push button (1) that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

CAUTION: Do not pry or pull up on the push button as damage to the latches of the quick-connect fitting will occur.

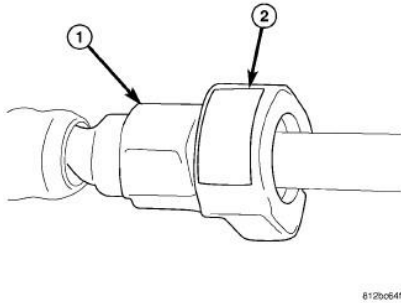
1. Pull the redundant latch (2) out, away from the quick-connect fitting.
2. Press on the push button with your thumb, which releases the internal latches (1) and remove the quick-connect fitting from the fuel system component.





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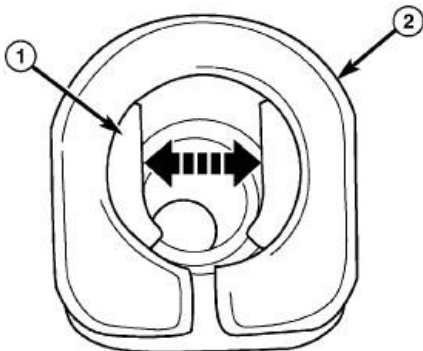
Single Button Type Fitting:



CAUTION: Do not pry or pull up on the push button as damage to the latches of the quick-connect fitting will occur.

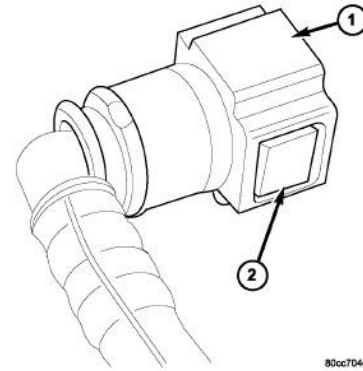
This type of quick-connect fitting is equipped with a single push button (2) that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

1. Press on the push button with your thumb, which releases the internal latches (1).



2. Remove the quick-connect fitting from the fuel system component.

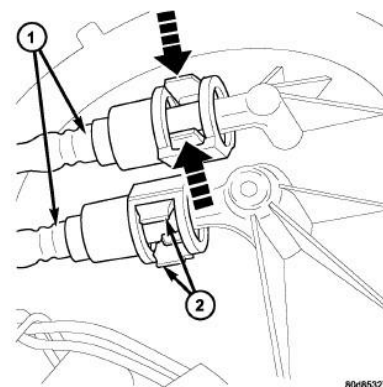
2 Button Type Fitting



This type of quick-connect fitting (1) is equipped with two push buttons (2) that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

1. Press on both push buttons with your thumb, which releases the internal latches.
2. While holding the two push buttons simultaneously, remove the quick-connect fitting from the fuel system component.

Pinch Type Fitting



This type of quick-connect fitting (1) is equipped with two finger tabs (2). Special tools are not required for removal.



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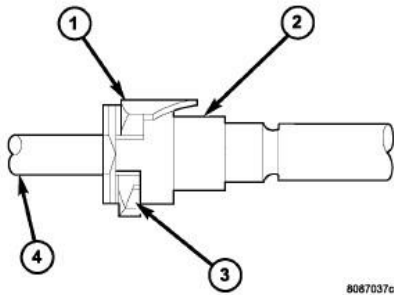
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1. Pinch both tabs (2) together and release the quick-connect fitting.
2. Remove the quick-connect fitting from the fuel system component.
3. Raise the pull tab until it separates from the quick-connect fitting.
4. Remove the quick-connect fitting from the fuel system component.

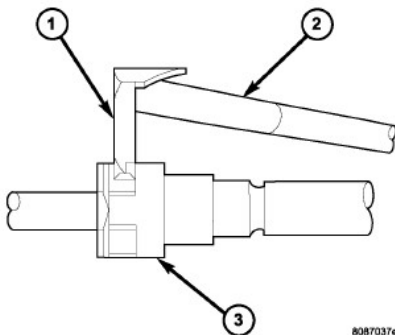
Single Tab Type Fitting



This type of quick-connect fitting (2) is equipped with a single pull tab (1). The tab is removable. After the tab is removed the quick-connect fitting can be separated from the fuel system component. Special tools are not required for removal.

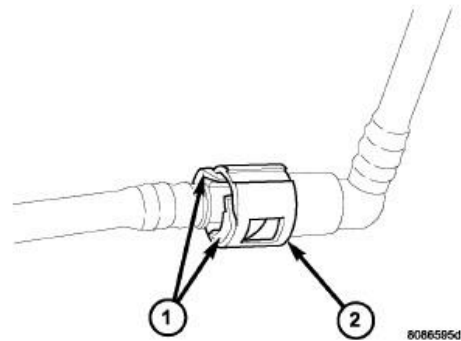
NOTE: If the release tab (3) is not pressed prior to releasing pull tab, the pull tab will be damaged

1. Press the release tab on the side of the fitting (3) to release the pull tab (1).



2. While pressing the release tab on the side of the quick-connect fitting use a screwdriver (2) to pry up the pull tab.

Two Tab Type Fitting



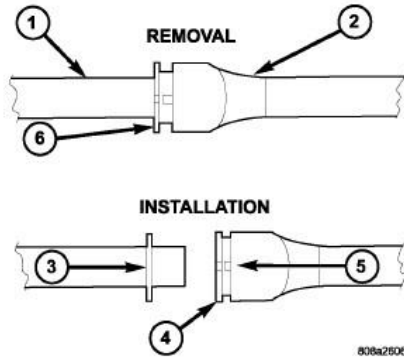
This type of quick-connect fitting (2) is equipped with tabs (1) located on both sides of the fitting (2). These tabs are integral to the fuel system component. The plastic tabs will remain on the component being serviced after the quick-connect fitting is removed. The O-ring and spacer will remain in the quick-connect fitting. Special tools are not required for removal.

1. Squeeze the plastic tabs (1) against the sides of component being serviced with your fingers.
2. Remove the quick-connect fitting from the fuel system component.



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Plastic Retainer Ring Type Fitting

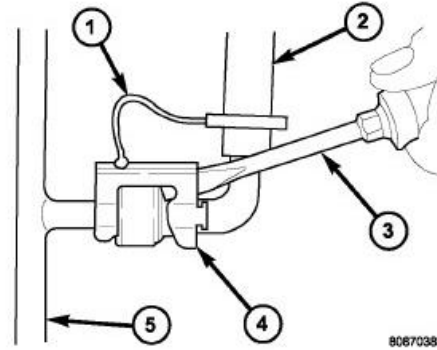


This type of fitting can be identified by the use of a round plastic retainer ring (4,6) usually black in color. Special tools are not required for removal.

NOTE: The round plastic retainer ring must be pressed squarely into the quick-connect fitting body. If this retainer is cocked during removal it will be difficult to disconnect the quick-connect fitting. Use an open-end wrench on the shoulder of the plastic retainer ring to aid in disconnection.

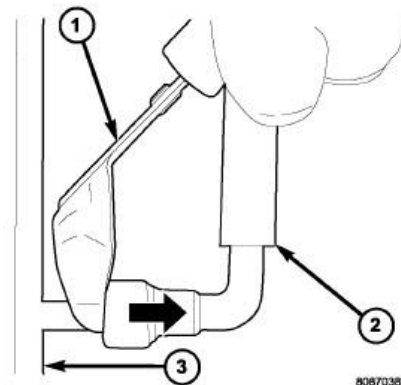
1. Firmly push the quick-connect fitting (5) towards the component being serviced while firmly pushing the round plastic retainer ring into the quick-connect fitting (6). With the round plastic ring depressed, remove the quick-connect fitting from the fuel system component.
2. After removal the plastic retainer ring will remain with the quick-connect fitting.

Latch Clip Type 1 Fitting



Depending on vehicle model and engine, two different types of safety latch clips are used. One is tethered (1) to fuel line and the other is not. A special tool will be necessary to disconnect the fuel line after latch clip is removed. The latch clip may be used on certain fuel line and fuel rail connections or to join fuel lines together.

1. Pry up on the latch clip (4) with a screwdriver (3).
2. Slide the latch clip away from the quick-connect fitting while lifting the screwdriver and position aside.
3. Insert an appropriate fuel line removal tool (1) into the quick-connect fitting and release the internal latches.



NOTE: After removal the internal latches will remain in the quick-connect fitting.



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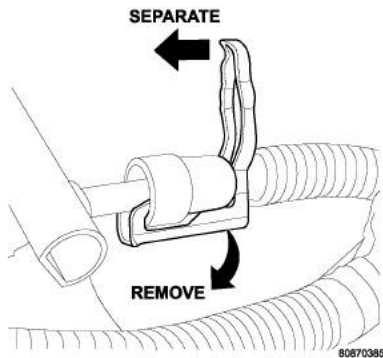
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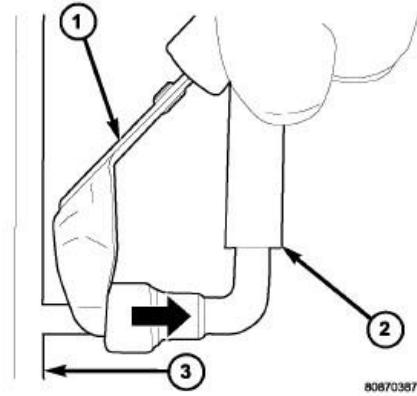
4. With the special tool still inserted, remove the quick-connect fitting from the fuel system component.

Latch Clip Type 2 Fitting



Depending on vehicle model and engine, two different types of safety latch clips are used. One is tethered to the fuel line and the other is not. A special tool will be necessary to disconnect the fuel line after the latch clip is removed. The latch clip may be used on certain fuel line and fuel rail connections or to join fuel lines together.

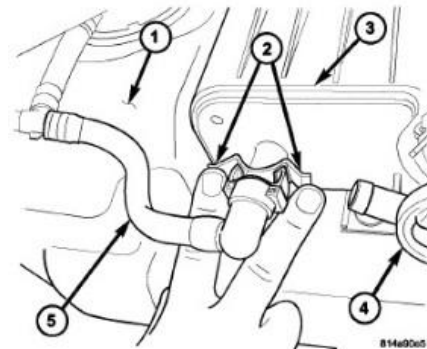
1. Unlatch the small arms on the end of clip, swing away and separate from the fuel system component.
2. Slide the latch clip away from the quick-connect fitting while lifting with a screwdriver and position aside.
3. Insert an appropriate fuel line removal tool (1) into the quick-connect fitting and release the internal latches.



NOTE: After removal the internal latches will remain in the quick-connect fitting.

4. With the special tool still inserted, remove the quick-connect fitting from the fuel system component.

Wing Type Fitting



The wing type fitting is used on fuel system and emission components. The wing type fitting is most commonly used on the EVAP canister (3). Special tools are not required for removal.



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1. Using two fingers, press both wings (2) and release the locking tabs.

NOTE: After removal the locking tabs will remain with the quick-connect fitting.

2. While holding the wings, remove the quick-connect fitting from the fuel system component.

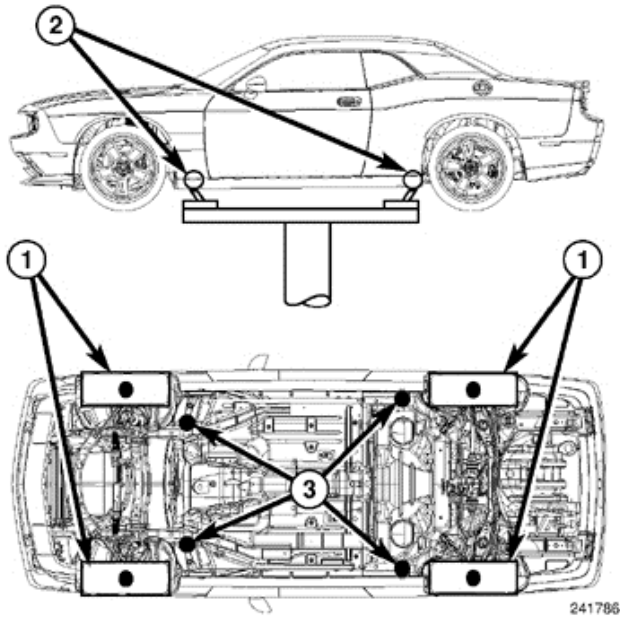
CONNECTING

1. Inspect the quick-connect fitting body and fuel system components for damage. Replace as necessary.
2. Prior to connecting any quick-connect fitting to components, check condition of fitting and components. Clean parts with a lint-free cloth. Lubricate with clean engine oil.
3. Insert the quick-connect fitting onto the fuel tube or fuel system component until the built-in stop on the fuel tube or component rests against the back of fitting.
4. Continue pushing until a click is felt.
5. If Equipped:
 - **Redundant Latch Single Button Type Fitting:** Push redundant latch until it locks into position in the quick-connect fitting.
 - **Single Tab Type Fitting:** Push new tab down until it locks into position in the quick-connect fitting.
 - **Latch Clip Type Fitting:** Install latch clip (snaps into position). **If latch clip will not snap into position, this indicates the quick-connect fitting is not properly installed onto fuel system component, recheck the connection.**
6. Verify a locked condition by firmly pulling on the quick-connect fitting connection of the fuel system component.



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04 - Vehicle Quick Reference /
Hoisting/Standard Procedure
**STANDARD PROCEDURE –
HOISTING**



CHALLENGER LIFTING POINTS

Refer to Owner's Manual provided with vehicle for proper emergency jacking procedures.

WARNING: The hoisting and jack lifting points provided are for a complete vehicle. When the engine or rear suspension is removed from a vehicle, the center of gravity is altered making some hoisting conditions unstable. Properly support or secure vehicle to hoisting device when these conditions exist. Failure to follow these instructions may result in serious or fatal injury.

CAUTION: Do not position hoisting device on any suspension component, including the front or rear suspension crossmembers. Do not hoist on the front and rear bumpers, the

lower radiator crossmember, or the front engine mount.
Do not attempt to raise one entire side of the vehicle by placing a floor jack midway between the front and rear wheels. This practice may result in permanent damage to the body.

When properly positioned, a floor jack can be used to lift the vehicle and support the raised vehicle with jack stands.

A floor jack or any lifting device must never be used on any part of the underbody other than the described areas.

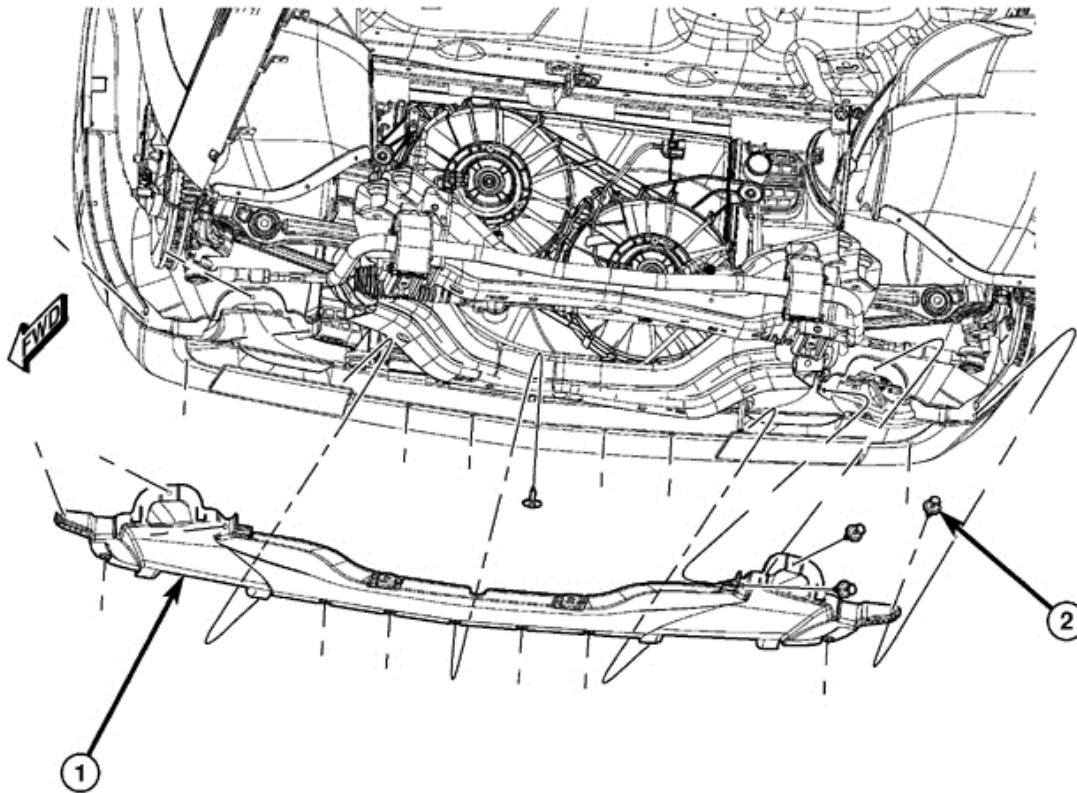
- 1 - DRIVE ON HOIST
- 2 - FLOOR JACK, VEHICLE EMERGENCY JACK
- 3 - FRAME CONTACT LIFT (SINGLE POST)
- 3 - CHASSIS LIFT (DUAL LIFT)
- 3 - OUTBOARD LIFT (DUAL LIFT)
- 3 - FLOOR JACK



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13 - Frame and Bumpers / Under Body Protection / BELLY PAN/Removal

1. Raise and support the vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting/Standard Procedure).
2. Remove the engine belly pan (Refer to 13 - Frame and Bumpers/Under Body Protection/BELLY PAN, Engine/Removal).
3. Remove the fasteners that secure the front belly pan to the front fascia.
4. Remove the fasteners (2) that secure the front belly pan (1) to the underside of the vehicle.
5. Remove the push pins that connect the front belly pan to the front splash shields.
6. Remove the front belly pan from the underside of the vehicle.



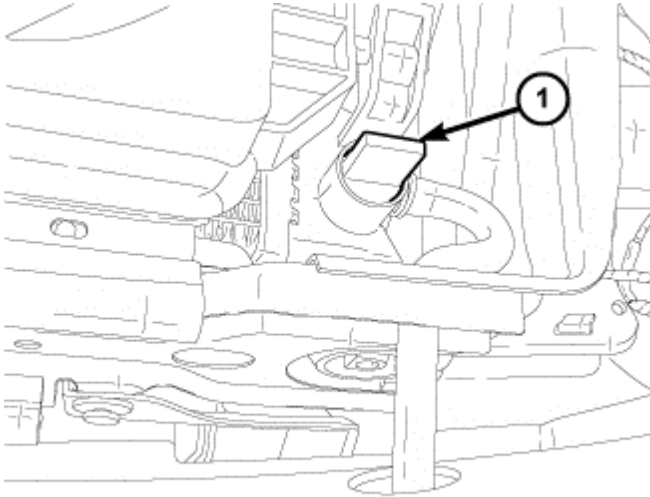
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07 - Cooling/Standard Procedure

DRAINING



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4. Loosen radiator petcock.
5. Drain coolant into a clean container.
6. If necessary, to perform a complete coolant drain of the engine, remove the drain plug from the engine block if equipped.

WARNING: Do not remove cylinder block drain plugs or loosen radiator draincock with system hot and under pressure. Serious burns from coolant can occur.

NOTE: Typical drain plug shown in illustration.

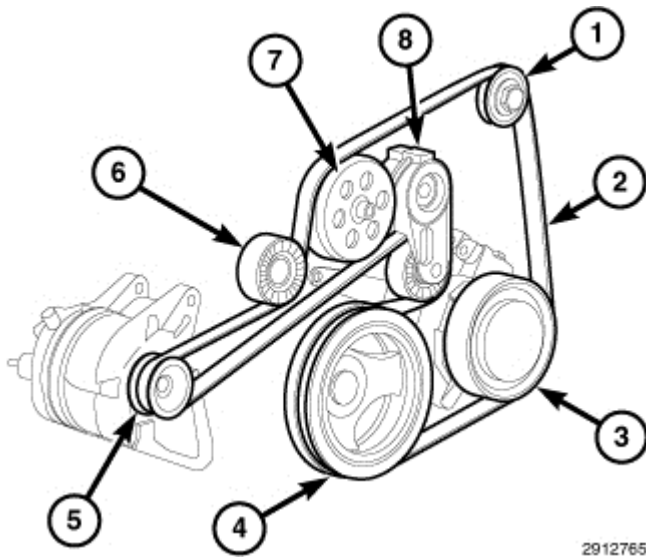
DO NOT WASTE reusable coolant. If solution is clean, drain coolant into a clean container for reuse.

1. Remove radiator pressure cap.
2. Raise and support the vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting/Standard Procedure).
3. If equipped, remove the underbody splash shield.



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**07 - Cooling / Accessory Drive / BELT,
Serpentine/Removal**



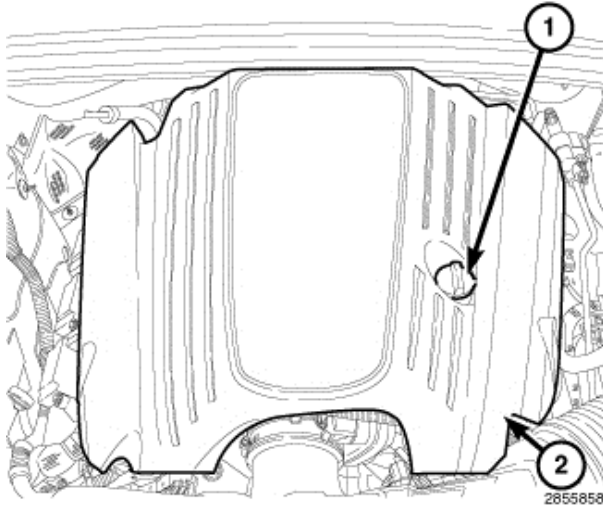
1. Disconnect and isolate the negative battery cable.
2. Remove the air intake tube between intake manifold and air cleaner body.
3. Using a suitable square drive tool, Rotate the belt tensioner (8) clockwise and remove the serpentine belt (2).
4. Gently release the tensioner (8).



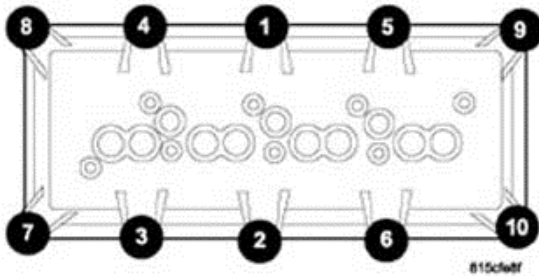
INSTALLATION INSTRUCTIONS
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**09 - Engine, 5.7L / Cylinder Head / COVER(S),
Cylinder Head/Removal**

1. Disconnect and isolate the negative battery cable.
2. Remove the engine cover (2).

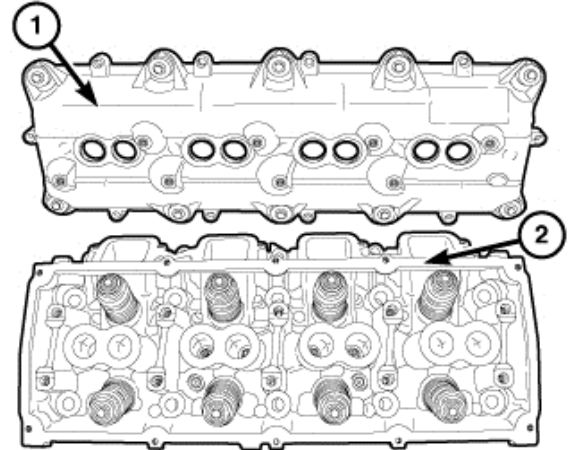


3. Remove the ignition coils (Refer to 08 - Electrical/Ignition Control/COIL, Ignition/Removal).
4. Using the sequence shown, remove the cylinder head cover bolts.



CAUTION: Do not use harsh cleaners to clean the cylinder head covers. Severe damage to covers may occur.

5. Remove the cylinder head cover (1).



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6. Clean the sealing surface of the cylinder head (2) and cover.

NOTE: The cylinder head cover gasket may be used again, provided no cuts, tears, or deformation have occurred.

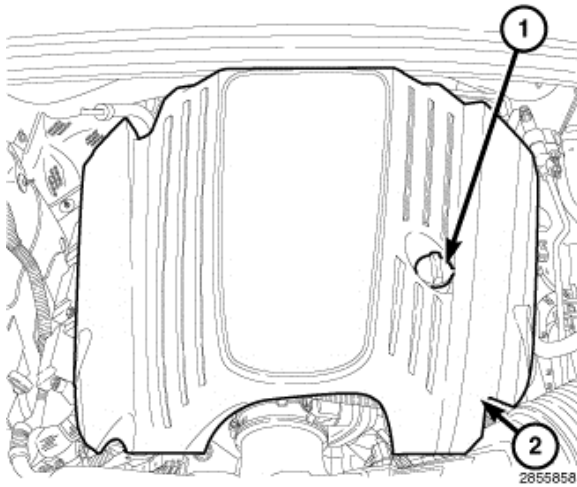


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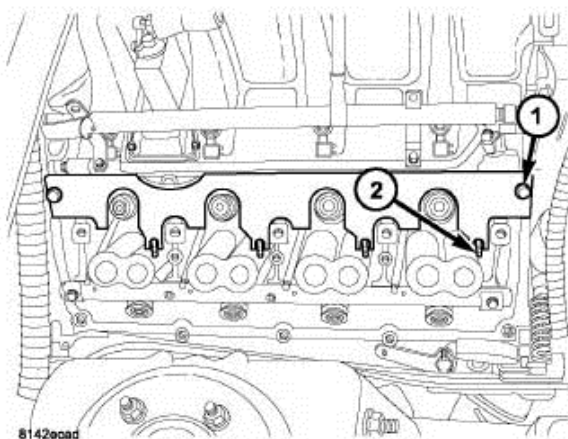
09 - Engine, 5.7L / Cylinder Head / ROCKER ARM, Valve/Removal

Special Tools: 9070 - Retainer, Push Rod

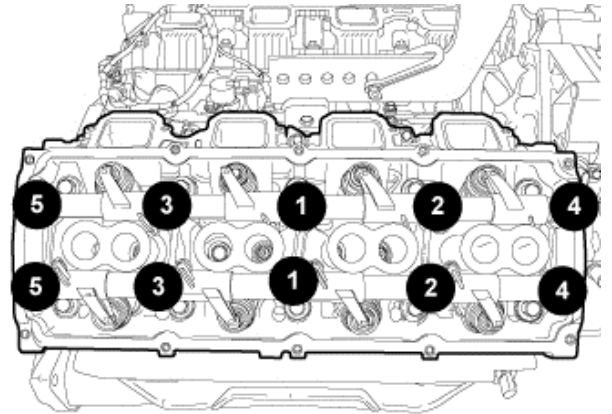
1. Disconnect and isolate the negative battery cable.
2. Remove the engine cover (2).



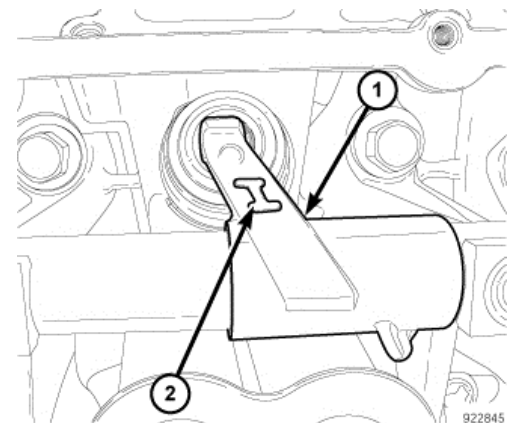
3. Remove the cylinder head cover (Refer to 09 - Engine/Cylinder Head/COVER(S), Cylinder Head - Removal).
4. Install the pushrod retainer 9070 (1).



5. Using the sequence shown, loosen the rocker arm shafts bolts.



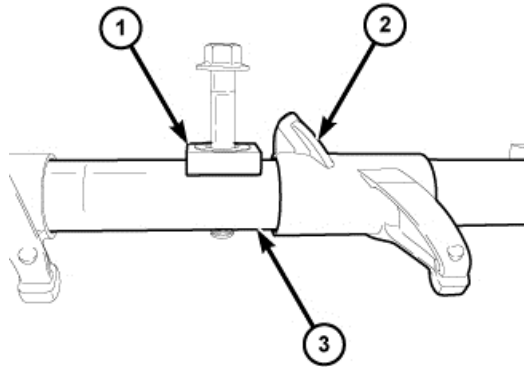
CAUTION: The rocker shaft assemblies are not interchangeable between the intake and the exhaust, failure to install them in the correct location could result in engine damage. The intake rocker arms (1) are marked with the letter "I" (2).





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CAUTION: Do not remove the retainers (1) from the rocker shaft (3).



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6. Remove the rocker arm shaft (3) and note the location for reassembly.

CAUTION: The longer pushrods are for the exhaust side and the shorter pushrods are for the intake side.

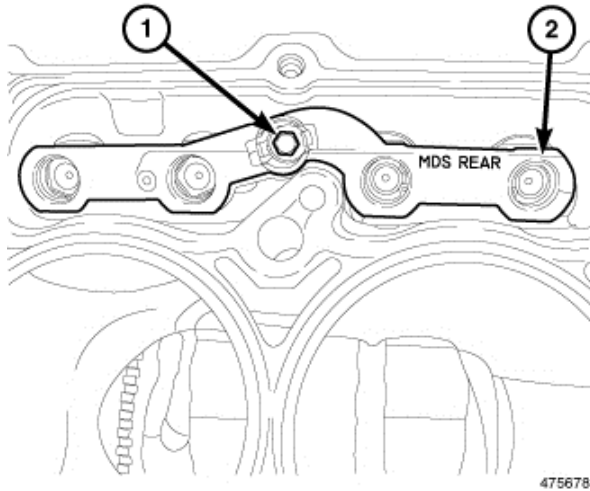
7. Remove the pushrods and note the location for reassembly.



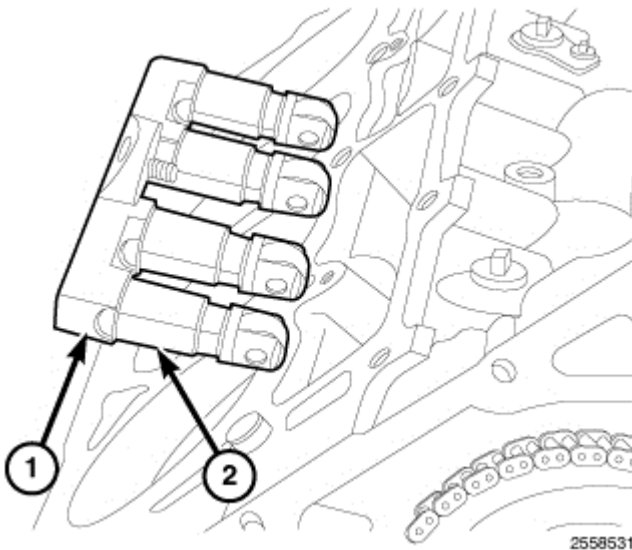
INSTALLATION INSTRUCTIONS
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09 - Engine, 5.7L / Engine Block / LIFTER(S), Hydraulic, Roller/Removal

1. Disconnect and isolate the negative battery cable.
2. Remove the cylinder head (Refer to 09 Engine/Cylinder Head - Removal).



3. Remove the tappet guide holder retaining bolt (1) from the tappet guide holder assembly (2).



CAUTION: The lifter and retainer assembly must be installed as a unit.

CAUTION: If the lifter and retainer assembly are to be reused, identify the lifters to ensure installation in their original location or engine damage could result.

5. Remove the tappet guide holder (1) and tappets (2) as an assembly.
6. Check the camshaft lobes for abnormal wear.



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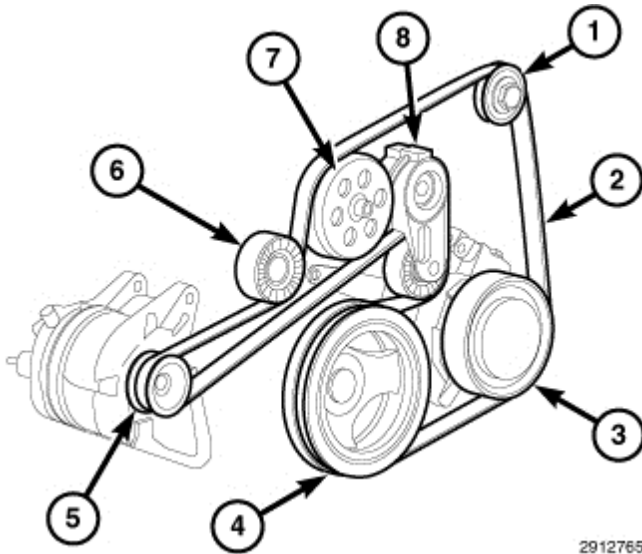
**8F - Engine Systems / Charging /
GENERATOR/Removal**

WARNING: Disconnect the negative battery cable before removing the battery output wire (B+ wire) from the generator. Failure to do so can result in injury or damage the electrical system.

1. Disconnect and isolate the negative battery cable.

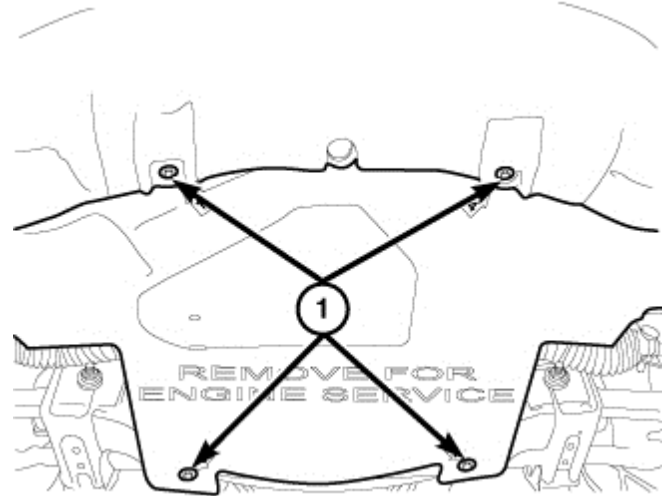
CAUTION: Do not let the tensioner arm snap back to the frearm position, sever damage may occur to the tensioner.

2. Rotate the accessory drive belt tensioner (8) clockwise until it contacts the stop and remove the accessory drive belt (2), then slowly rotate the tensioner into the frearm position.



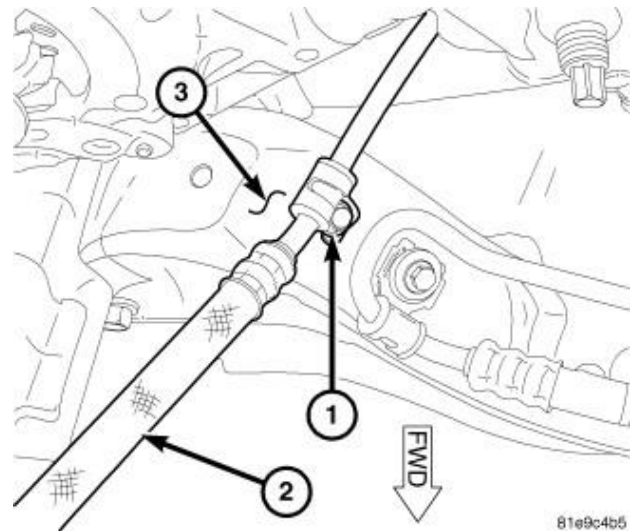
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3. Raise and support the vehicle.



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4. Remove the belly pan retainers (1) and remove the belly pan.



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5. Remove the transmission cooler line retaining clamp (1) at the right crossmember (3) and position the transmission cooler line (2) aside.



INSTALLATION INSTRUCTIONS

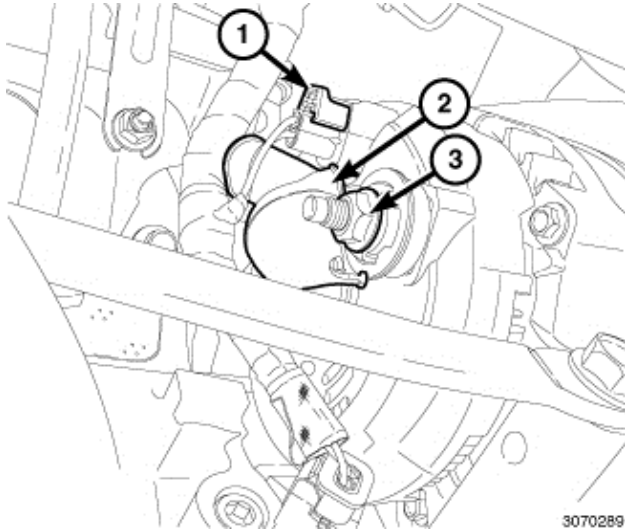
STAGE 2 KIT PART NUMBER 77072313AB

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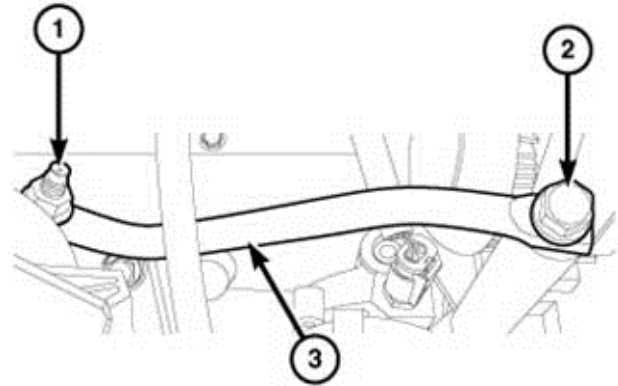
STAGE 2 KIT PART NUMBER 77072315AB

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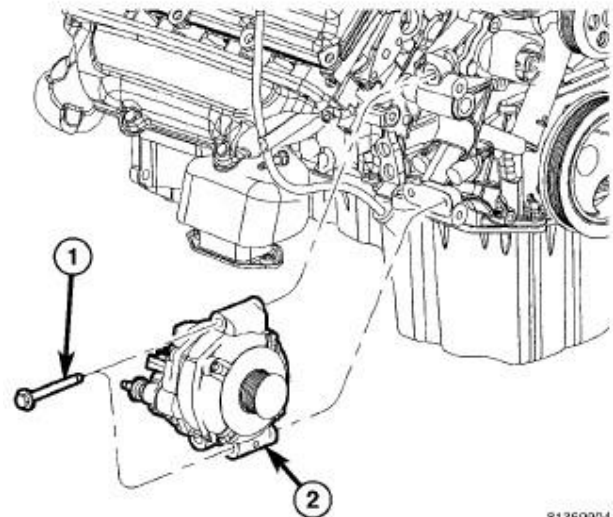
6. Depress the field wire connector tab (1) at the rear of the generator and disconnect the field wire connector.



7. Remove the insulator cover (2) from B+ output terminal at the rear of the generator.
8. Remove the B+ terminal retaining nut (3) at the rear of the generator and remove the B+ terminal.
9. Remove the generator support bracket to engine mount retaining nut (1).



10. Remove the generator support bracket retaining bolt (2) and remove the support bracket (3).
11. Remove the remaining lower generator retaining bolt (1).
12. Lower the vehicle.
13. Remove the upper generator retaining bolt (1) and remove the generator (2) from the vehicle.





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24 - Heating and Air Conditioning / Plumbing / COMPRESSOR, A/C/Removal

WARNING: Review the warnings and cautions for this system before performing the procedure. Failure to follow these instructions may result in serious injury or death.

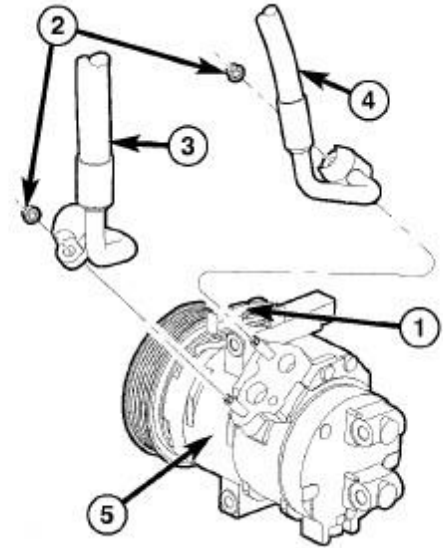
CAUTION: The A/C receiver/drier must be replaced if an internal failure of the A/C compressor has occurred. Failure to replace the A/C receiver/drier can cause serious damage to the replacement A/C compressor.

NOTE: The A/C compressor may be removed and repositioned without disconnecting the refrigerant lines or discharging the refrigerant system. Discharging is not necessary if servicing the A/C clutch, clutch coil or engine.

NOTE: Typical A/C compressor and refrigerant lines shown.

1. Disconnect and isolate the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.
2. Recover the refrigerant from the refrigerant system. (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
3. Remove the air cleaner body. (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner/Removal).
4. Remove the accessory drive belt. (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Removal).

5. On SRT models, position the power steering pump and reservoir out of the way. (Refer to 19 - Steering/Pump/RESERVOIR, Power Steering Pump - Removal).

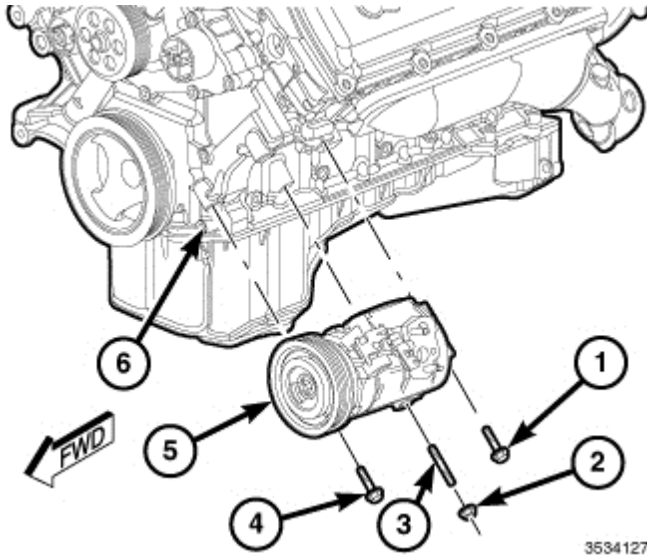


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6. Remove the nuts (2) that secure the A/C suction line (3) and A/C discharge line (4) to the A/C compressor (5).
7. Disconnect the suction and discharge lines from the A/C compressor and remove and discard the dual plane seals.
8. Disconnect the engine wire harness from the A/C clutch connector (1).
9. Install plugs in, or tape over all of the opened refrigerant line fittings and the compressor ports.
10. Remove the front belly pan. (Refer to 13 - Frame and Bumpers/Under Body Protection/BELLY PAN/Removal).



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11. Remove the two bolts (1 and 4) that secure the A/C compressor (5) to the engine (6).
12. Support the A/C compressor and remove the nut (2) and stud (3).
13. Remove the A/C compressor from the engine compartment.



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**24 - Heating and Air Conditioning /
Plumbing/Standard Procedure**

R-1234YF REFRIGERANT SYSTEM RECOVERY

WARNING: Review the safety precautions and warnings in this group before performing this procedure. Failure to follow these instructions may result in serious injury or death.

CAUTION: Various aftermarket manufacturers produce A/C system sealants that are designed to stop A/C refrigerant system leaks. The use of A/C system sealants may result in damage to A/C refrigerant recovery/evacuation/recharging equipment and/or the vehicle A/C system and are not recommended for use by Chrysler LLC.

When servicing the A/C system, an R-1234yf refrigerant recovery/recycling/charging station that meets SAE standard J2843 must be used. Per SAE standard J2843, refrigerant recovery stations must recover 95% of the refrigerant system within 30 minutes at 21.1°C (70°F) and be able to measure the amount of refrigerant removed from the system to an accuracy of 28 grams (1 oz.). See the operating instructions supplied by the equipment manufacturer for proper care and use of this equipment.



NOTE: A/C system should be tested prior to refrigerant recovery if the use of A/C system sealants are suspected. These sealants have the potential to clog refrigerant recovery equipment and cause vehicle A/C component damage. Various tool manufacturers make tool kits that detect A/C system sealants. See the operating instructions supplied by the equipment manufacturer for proper care and use of this equipment.

If sealants are detected in an A/C system, the system should be treated as contaminated and replacement of the entire A/C refrigerant system is recommended. A/C systems found to be contaminated with A/C system sealers, A/C stop-leak products or seal conditioners void the warranty for the A/C system.

R-1234YF RECOVERY PROCEDURE

WARNING: Review the safety precautions and warnings in this group before performing this procedure. Failure to follow these instructions may result in serious injury or death.

CAUTION: Various aftermarket manufacturers produce A/C system sealants that are designed to stop A/C refrigerant system leaks. The use of A/C system sealants may result in damage to A/C refrigerant recovery/evacuation/recharging equipment and/or the vehicle A/C system and are not recommended for use by Chrysler LLC.

CAUTION: A small amount of refrigerant oil is removed from the A/C system each time the refrigerant system is recovered and evacuated. Before charging the A/C system, you **MUST** replenish any oil lost during the recovery process. See the equipment manufacturer instructions for more information.



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1. If use of aftermarket A/C system sealant is suspected, the A/C system should be tested for sealant prior to refrigerant system recovery. See the operating instructions supplied by the equipment manufacturer for proper use and care of this equipment.
2. Connect an R-1234yf refrigerant recovery/recycling/charging station that meets SAE standard J2843 to the refrigerant system.
3. Recover the A/C refrigerant system following the operating instructions supplied by the recovery/recycling/charging station manufacturer.
4. Disconnect the refrigerant recovery/recycling/charging station from the refrigerant system service ports.
5. Reinstall the caps onto the refrigerant system service ports.

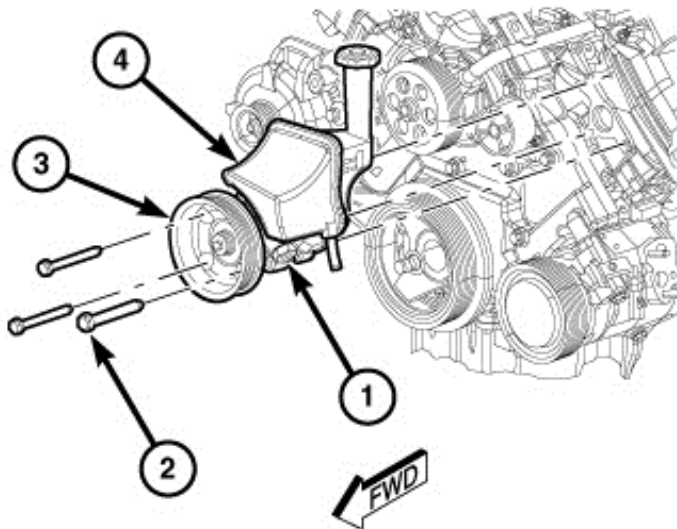


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**19 - Steering / Pump / RESERVOIR, Power
Steering Pump/Removal**

SRT

For the SRT Power Steering System, the power steering reservoir (4) is integrated with the power steering pump (1). To remove (Refer to 19 - Steering/Pump - Removal)

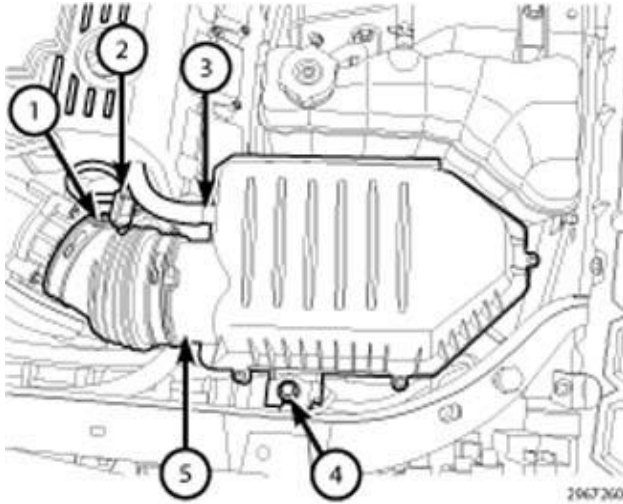


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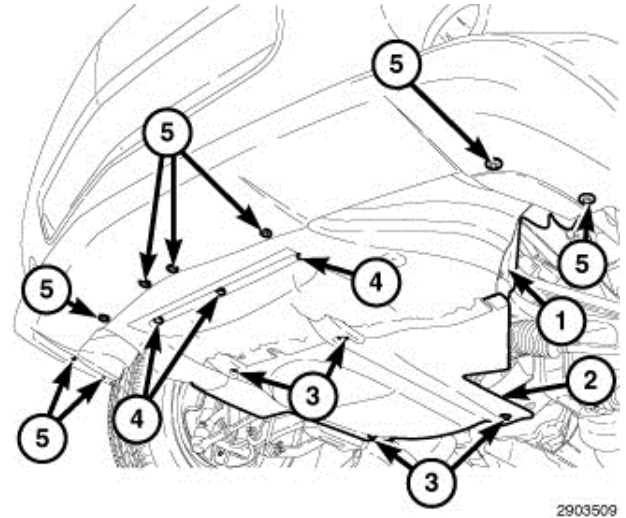


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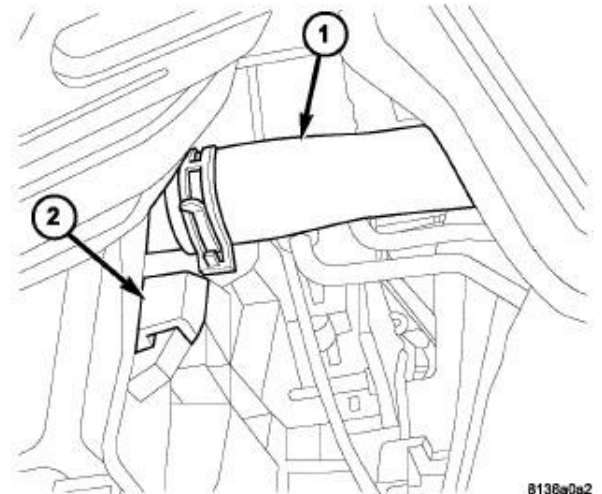
07 - Cooling / Engine / RADIATOR, Engine Cooling/Removal



1. Disconnect negative battery cable.
2. Remove the air intake assembly (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Removal).
3. Drain cooling system (Refer to 07 - Cooling - Standard Procedure).
4. Remove upper radiator hose.
5. Raise vehicle.

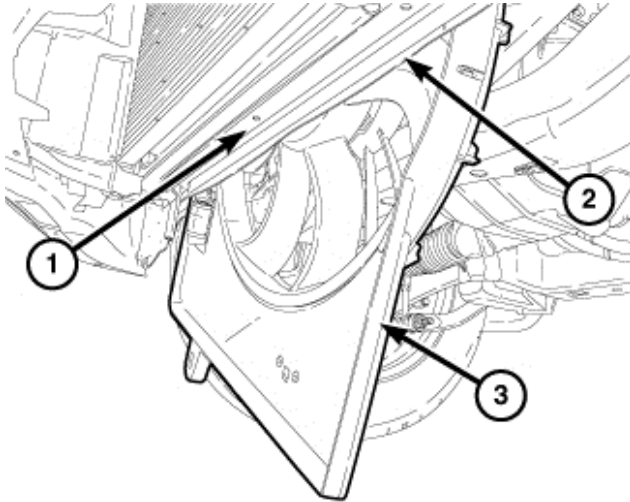


6. Remove the lower engine cover.
7. Remove lower radiator hose (1).



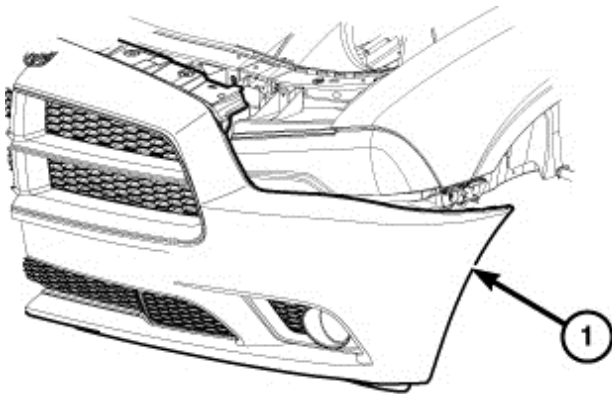


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8. Remove radiator fan assembly (3) (Refer to 07 - Cooling/Engine/FAN, Cooling - Removal).



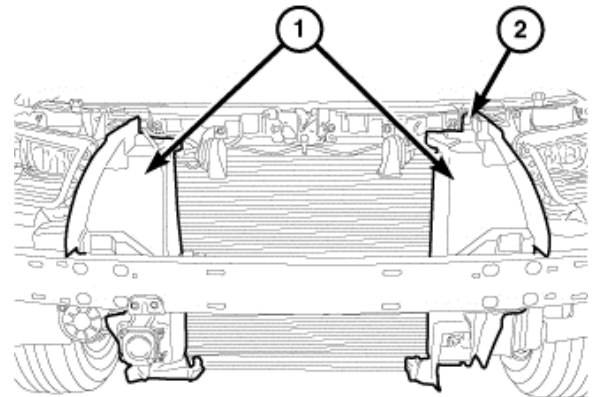
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9. Remove the front bumper fascia (Refer to 13 - Frame and Bumpers/Bumpers/FASCIA, Front - Removal).

10. Lower vehicle.

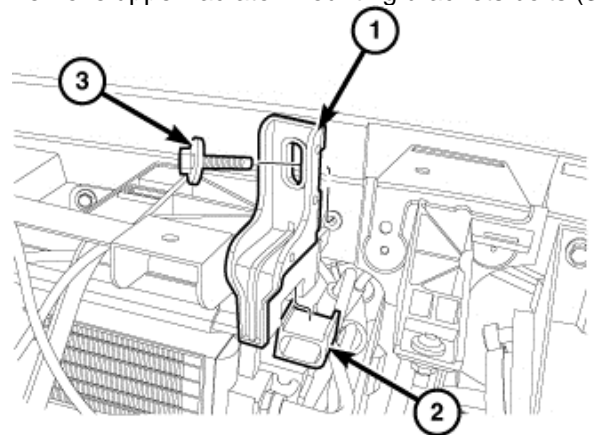
11. Remove the air deflectors (1).

CAUTION: Bolts are installed with threadlocker. Use hand tools to remove the upper radiator mounting bolts.



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12. Remove upper radiator mounting brackets bolts (3).



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13. Remove the upper radiator brackets (1) from the radiator supports (2)

14. Remove the lower condenser mounting bolts.



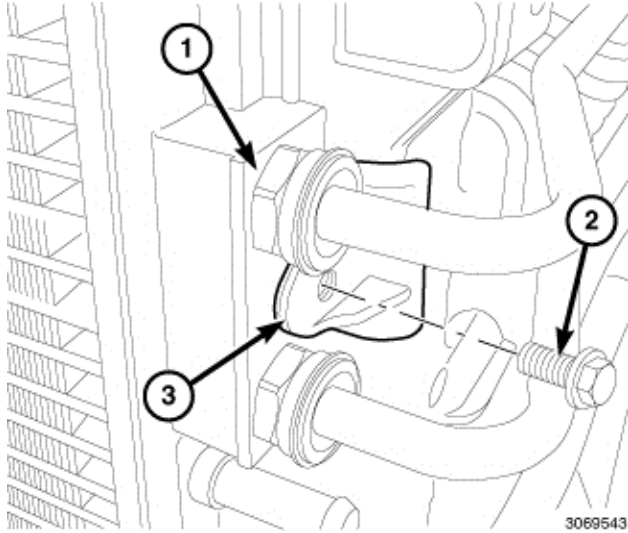
INSTALLATION INSTRUCTIONS

STAGE 2 KIT PART NUMBER 77072313AB

2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI

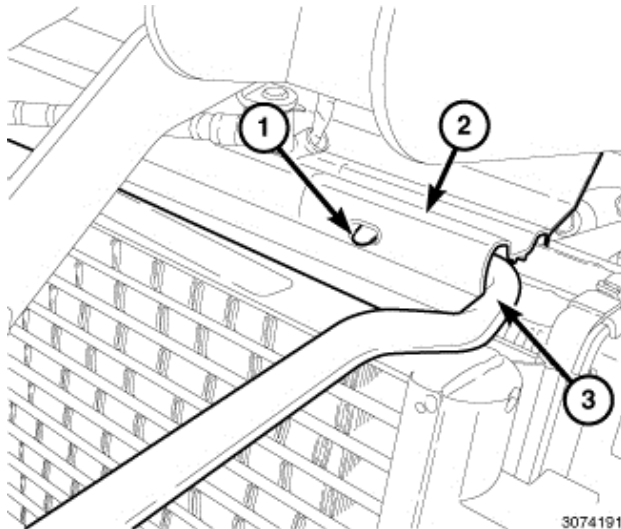
STAGE 2 KIT PART NUMBER 77072315AB

2011-2017 CHRYSLER 300 5.7 HEMI



15. Remove the support bolt (2) located between the cooler lines.

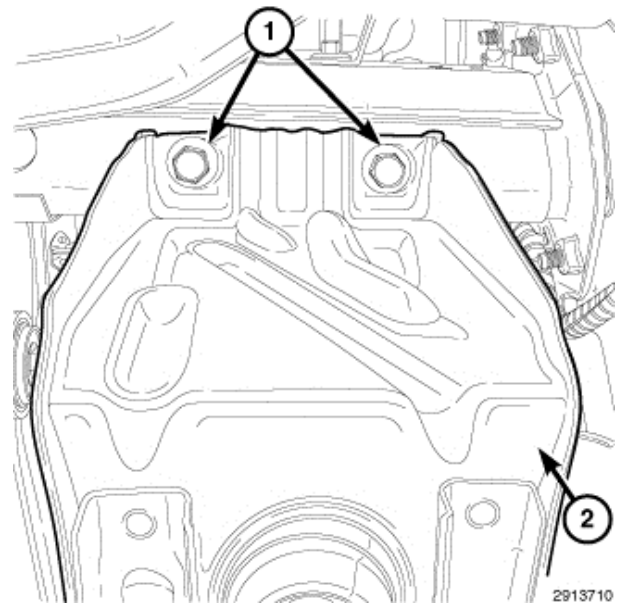
16. Using a suitable hanger. Support the condenser and remove the right side upper mounting bolt.



NOTE: To aid in removal. The upper shroud cover must be removed before the radiator. Leaving the cover on may cause the radiator to become jammed against the upper core support.

17. Carefully remove the upper shroud cover (2) by using a pick (3) to pull the cover retaining hole away from the clip (1) along the edge.

18. Tilt radiator toward engine for clearance from condenser.



19. Raise vehicle.

20. Using a suitable jack. Remove the lower radiator core support bolts (1).

21. Using care not to damage condenser or radiator fins. Lower the core support with the radiator.

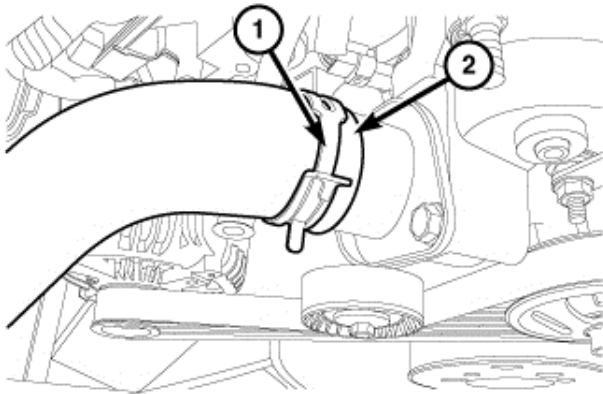
22. Remove the radiator from the core support.



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STAGE 2 KIT PART NUMBER 77072315AB
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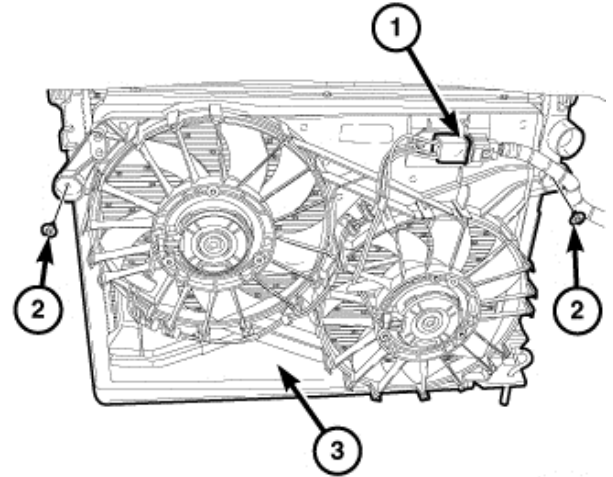
07 - Cooling / Engine / FAN, Cooling/Removal

1. Disconnect and isolate negative the battery cable.
2. Remove the air cleaner body (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Removal).
3. Raise and support vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting/Standard Procedure).
4. If equipped, remove the lower closeout panel.
5. Drain the cooling system (Refer to 07 - Cooling - Standard Procedure).
6. If equipped, install the lower closeout panel.
7. Remove support and lower vehicle.
8. Remove the upper radiator hose (2).



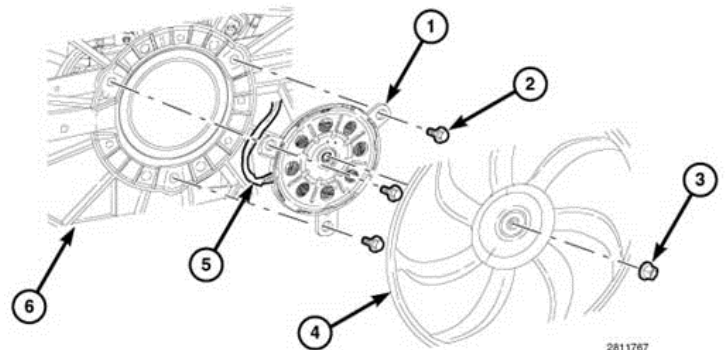
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9. Disconnect the cooling fan wire harness connector (1).



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10. Remove bolts (2) and the radiator cooling fan assembly (3).
11. Removing the fan motor wiring harness (5) from the fan shroud (6).



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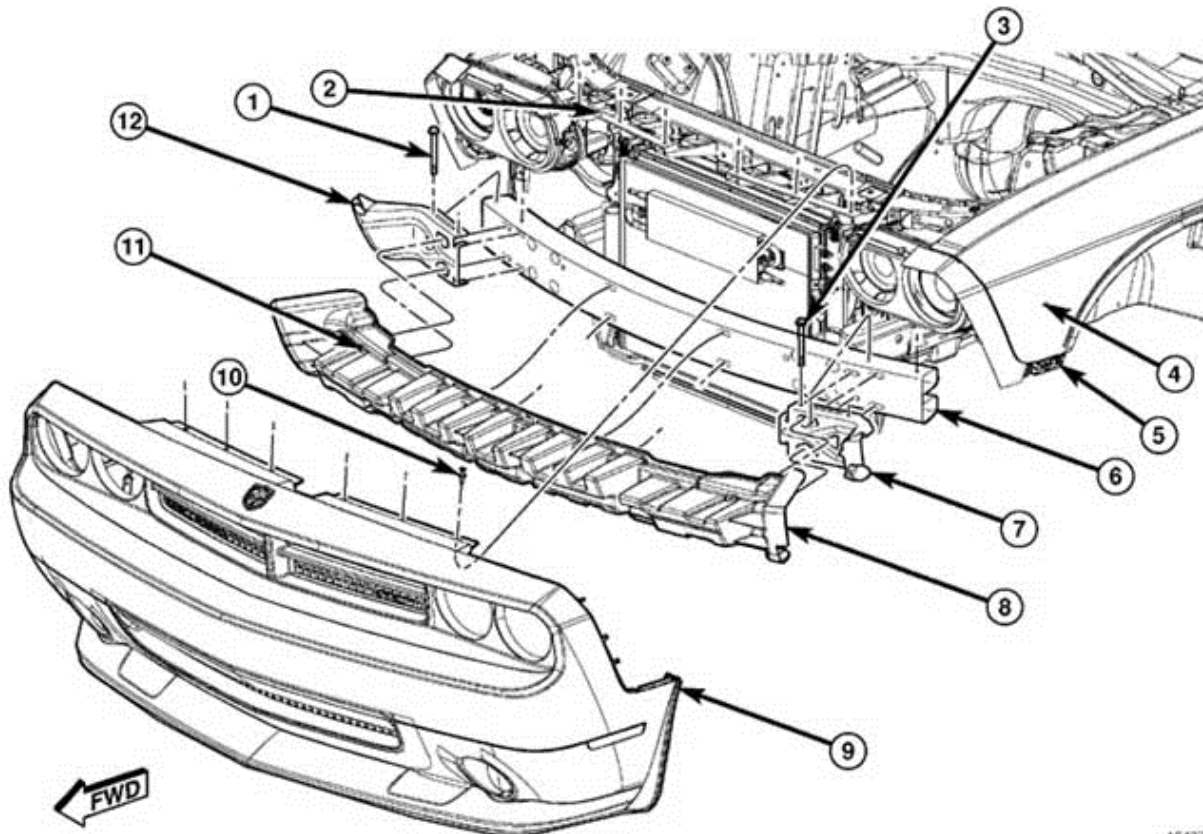
12. Remove the fan blade (4) from the fan motor.
13. Remove the bolts (2) that support the fan motor to the shroud.



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13 - Frame and Bumpers / Bumpers / FASCIA, Front/Removal

1. Raise and support the vehicle.
2. Remove the left and right front splash shields as necessary (Refer to 23 - Body/Exterior/SHIELD, Splash - Removal).
3. Remove the belly pan.
4. Remove the mounting fasteners that secures the front fascia assembly (9) to the inside of the front fender.
5. Partially lower the vehicle and remove the push-pin retainers (10) that secure the front fascia assembly to the upper radiator support.
6. Disconnect the Tire Pressure Monitoring (TPM) connector (Refer to 22 - Tires and Wheels/Tire Pressure Monitoring/MODULE, Tire Pressure Monitoring (TPM) - Removal).
7. Carefully pull the left and front side of the fascia out of the fender mounted fascia mounting brackets.
8. Carefully pull the front fascia assembly forward to disengage the push-pin retainer from the slot in each side of the fascia and disconnect the fog lamp wire harness connectors, if equipped.



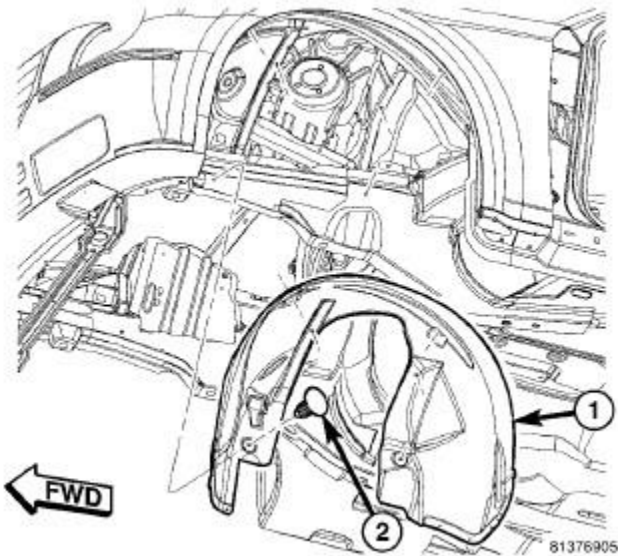
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23 - Body / Exterior / SHIELD, Splash, Front Wheelhouse/Removal

1. Raise and support the vehicle.
2. Remove the wheel from the side of the vehicle being serviced. (Refer to 22 - Tires and Wheels - Removal).
3. Remove the push-pins (2) that secure the front wheelhouse shield (1) to the body.
4. Remove the plastic rivets from the splash shield and discard.
5. Remove the front wheelhouse shield from the vehicle.

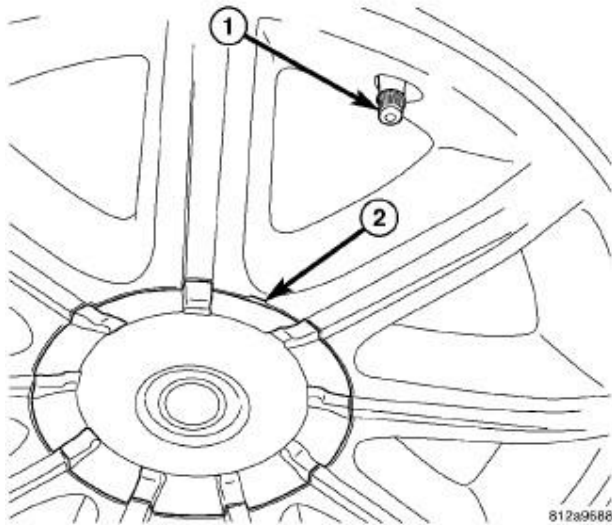




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2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
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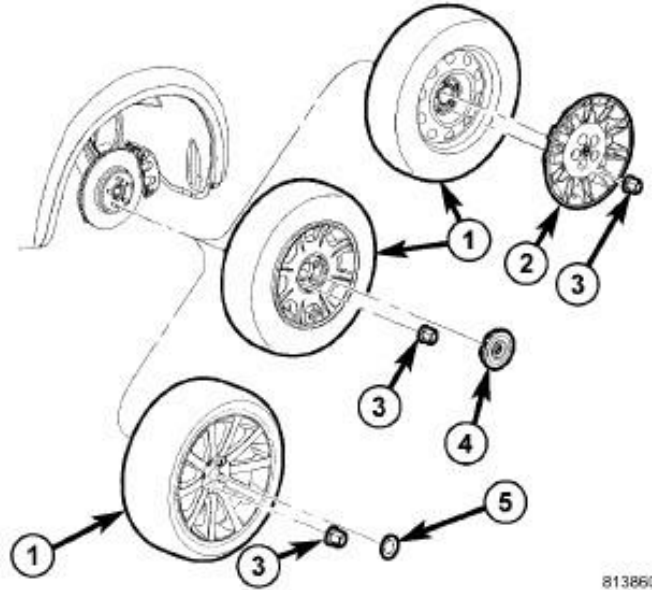
22 - Tires and Wheels/Removal

1. Raise vehicle so tire and wheel assembly clears ground level.
2. If vehicle is equipped with wheel center caps covering wheel nuts, remove cap with appropriate removal tool utilizing notch formed into wheel (2) near valve stem (1). Use care not to damage wheel coating.



3. Remove five wheel mounting (lug) nuts (3) from studs.

4. Remove tire and wheel assembly (1) from hub.

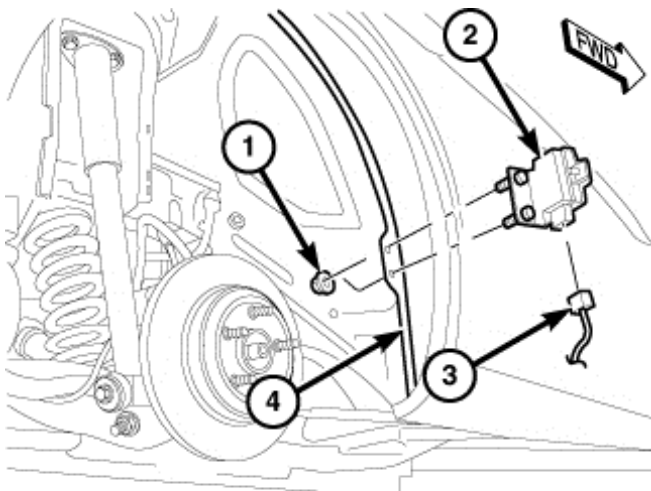




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22 - Tires and Wheels / Tire Pressure Monitoring / MODULE, Tire Pressure Monitoring (TPM)/Removal

1. Remove the right rear wheelhouse splash shield
(Refer to 23 - Body/Exterior/SIELD, Splash - Removal).
2. Disconnect wiring harness connector (3) at the Tire Pressure Monitoring (TPM) Module (2).
3. Remove mounting nuts (1), then remove TPM module (2) from body seam flange (4).



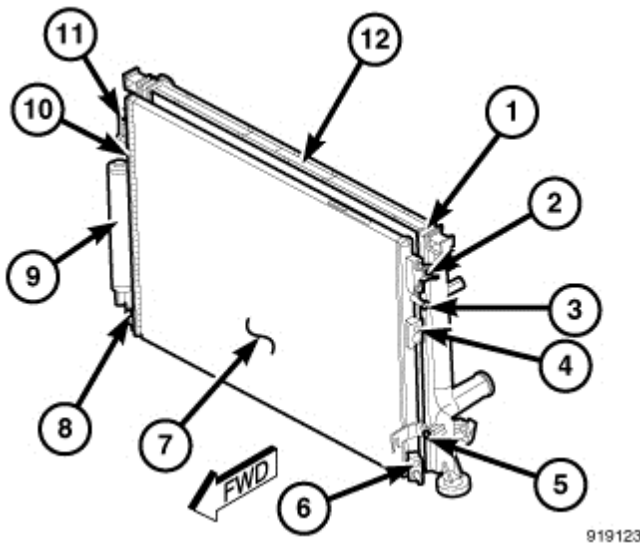
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24 - Heating and Air Conditioning / Plumbing / CONDENSER, A/C/Removal

WARNING: Review the warnings and cautions for this system before performing the procedure. Failure to follow these instructions may result in serious injury or death.



5. When equipped, disconnect the power steering hoses from the power steering cooler fittings (3 and 10) and install plugs in the cooler ports.
6. Disconnect the A/C discharge line and A/C liquid line from refrigerant line fittings (4 and 6) (Refer to 24 - Heating and Air Conditioning/Plumbing/LINE, A/C Liquid - Removal) and (Refer to 24 - Heating and Air Conditioning/Plumbing/LINE, A/C Discharge - Removal).
7. Install plugs in, or tape over, the opened refrigerant line fittings and condenser ports.
8. Remove the four bolts (2, 5, 8 and 11) that secure A/C condenser (7) to the radiator (12).
9. Carefully tilt the bottom of the A/C condenser forward and lower the condenser out of the vehicle.
10. If required, place the A/C condenser onto a workbench and remove the A/C receiver/drier (9) (Refer to 24 - Heating and Air Conditioning/Plumbing/DRIER, A/C Receiver - Removal).

NOTE: Illustration shown with A/C condenser and radiator removed from vehicle for clarity.

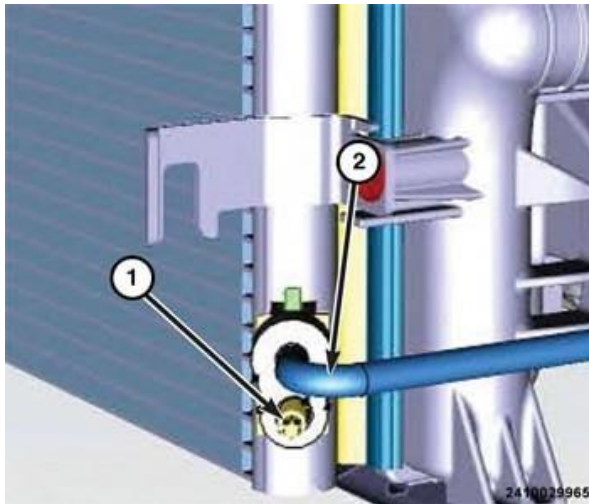
1. Disconnect and isolate the negative battery cable.
2. Recover the refrigerant from the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
3. Remove the front fascia (Refer to 13 - Frame and Bumpers/Bumpers/FASCIA, Front - Removal).
4. When equipped, disconnect the automatic transmission cooler lines from the automatic transmission cooler ports (1) and install plugs in the cooler ports.



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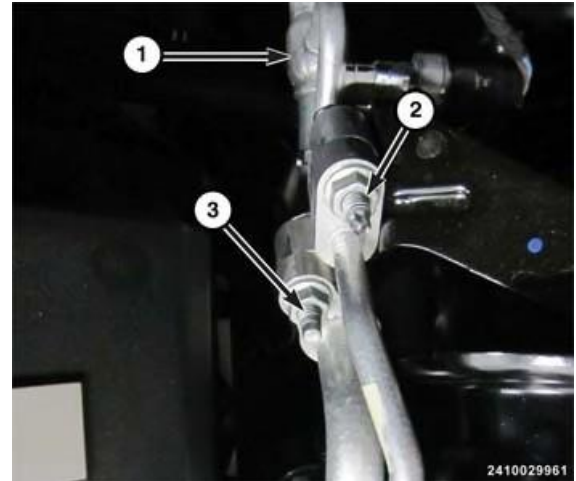
24 - Heating and Air Conditioning / Plumbing / LINE, A/C Liquid/Removal

1. Disconnect and isolate the negative battery cable.
2. Recover the refrigerant from the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
3. Remove the air cleaner housing (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Removal).
4. Raise and support the vehicle.
5. Remove the front belly pan (Refer to 13 - Frame and Bumpers/Under Body Protection/BELLY PAN - Removal).
6. Remove the nut (1) that secures the A/C liquid line (2) to the A/C condenser.



7. Disconnect the A/C liquid line from the A/C condenser and remove and discard the dual plane seal.
8. Install plugs in, or tape over the opened liquid line fitting and condenser outlet port.
9. Lower the vehicle.

10. Remove the nut (2) that secures the A/C liquid line to the Internal Heat Exchanger (1).



11. Disconnect the A/C liquid line from the Internal Heat Exchanger and remove and discard the dual plane seal.
12. Install plugs in, or tape over the opened liquid line fittings.
13. Remove the A/C liquid line from the engine compartment.



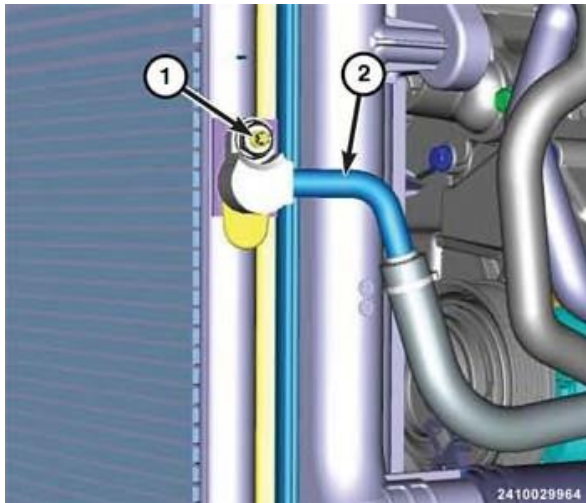
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24 - Heating and Air Conditioning / Plumbing / LINE, A/C Discharge/Removal

WARNING: Review the warnings and cautions for this system before performing the procedure. Failure to follow these instructions may result in serious injury or death.

NOTE: 3.6L A/C compressor and refrigerant lines shown.

1. Disconnect and isolate the negative battery cable.
2. Recover the refrigerant from the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
3. Remove the air cleaner housing (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Removal).
4. Reach through the headlamp opening in the upper radiator support and remove the nut (1) that secures the A/C discharge line (2) to the A/C condenser.



5. Disconnect the A/C discharge line from the A/C condenser and remove and discard the dual plane seal.
6. Install plugs in, or tape over the discharge line fitting and condenser inlet port.

7. Remove the nut (2) that secures the A/C discharge line (1) to the A/C compressor.
8. Disconnect the A/C discharge line from the A/C compressor and remove and discard the dual plane seal.
9. Install plugs in, or tape over the opened refrigerant line fitting and the compressor port.
10. Remove the A/C discharge line from the engine compartment.

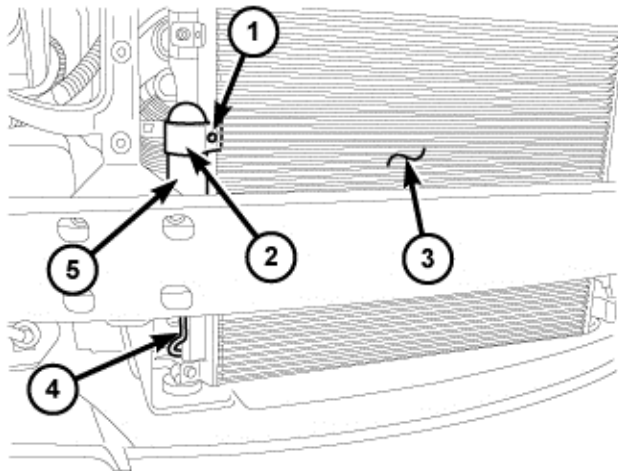


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24 - Heating and Air Conditioning / Plumbing / DRIER, A/C Receiver / Removal

WARNING: Review the warnings and cautions for this system before performing the procedure. Failure to follow these instructions may result in serious injury or death.

1. Disconnect and isolate the negative battery cable.
2. Recover the refrigerant from the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
3. Remove the front fascia (Refer to 13 - Frame and Bumpers/Bumpers/FASCIA, Front - Removal).
4. Remove the screw (1) that secures the receiver/drier mounting bracket (2) to the right end of the A/C condenser (3).



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5. Remove the bolt (4) that secures the receiver/drier (5) to the A/C condenser.
6. Disconnect the receiver/drier from the A/C condenser and remove and discard the dual-plane seal.
7. Install plugs in, or tape over the opened receiver/drier fitting and the condenser ports.



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**09 - Engine, 5.7L / Lubrication / PAN,
Oil/Removal**

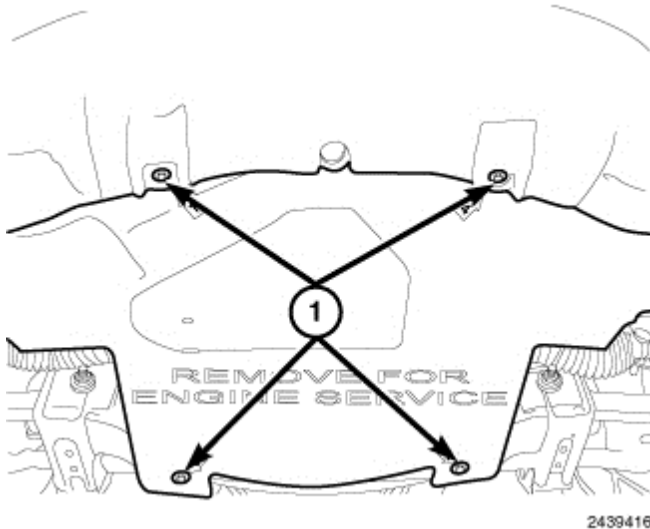
Special Tools:

[8984B - Fixture, Engine Lifting](#)

[8984-UPD - Adapter, Engine Lift](#)

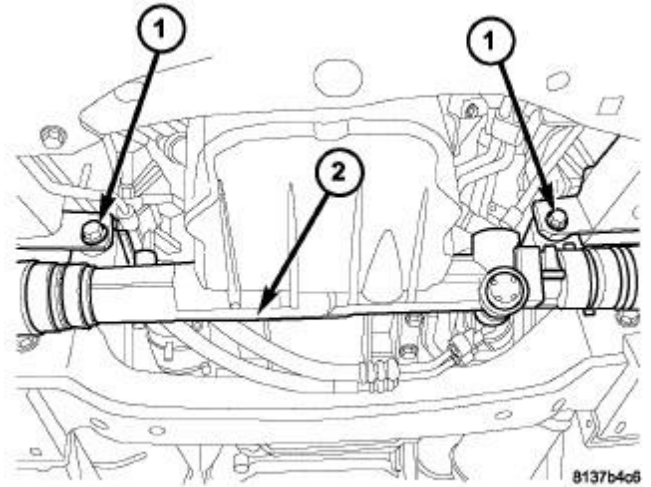
[8534B - Fixture, Driveline Support](#)

1. Disconnect and isolate the negative battery cable.
2. Remove the Variable Valve Timing Solenoid (VVTs) (Refer to 09 - Engine/Lubrication/SOLENOID, Variable Valve Timing (VVTs), Removal).
3. Raise and support the vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting/Standard Procedure).

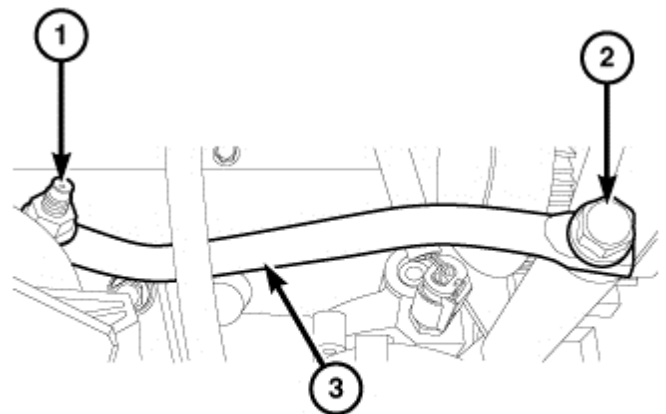


4. Remove bolts (1) and the belly pan.
5. Drain the engine oil and remove the oil filter.

NOTE: Do not remove P/S hoses, tie rod ends or disconnect steering column coupler.



6. Remove the steering gear mounting bolts (1) and lower the steering gear (2) to provide clearance to remove the oil pan.



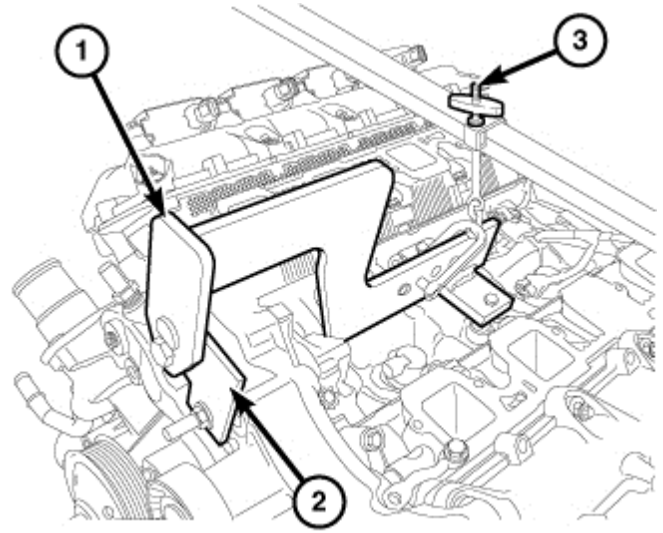
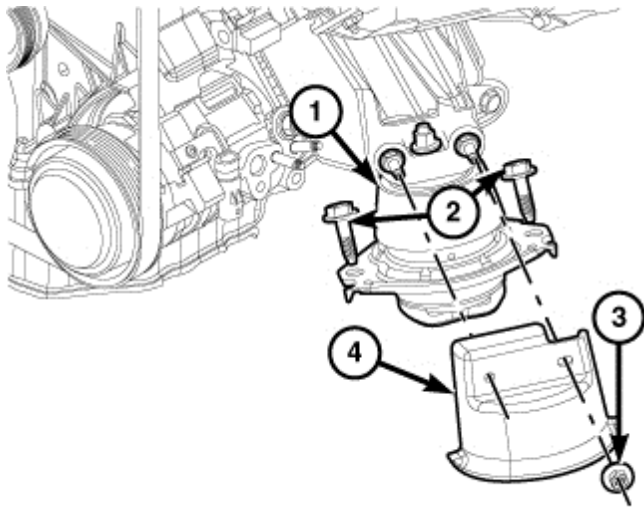


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7. Remove fasteners (1, 2) and the generator support bracket (3).

NOTE: Left side shown, right side similar.

8. Remove both left/right front engine mount heat shield retaining nuts (3) and remove the heat shields (4).



NOTE: Do not pry on the oil pan or oil pan gasket. The oil pan gasket is integral to the engine windage tray and does not come out with the oil pan.

NOTE: The horizontal M10 bolts (11, 12, 15, 18) are 5 mm longer in length than the vertical M10 bolts (20, 21, 22, 23) and must be reinstalled in their original locations.

9. Remove both left/right front engine mount lower retaining bolts (2).

10. Remove support and lower the vehicle.

NOTE: Do not use air tools to install engine lift fixture.

11. Install the Engine Lift Fixture [8984B](#) (1), Engine Lift Adapter [8984-UPD](#) (2) and the Engine Support Fixture [8534B](#) (3).

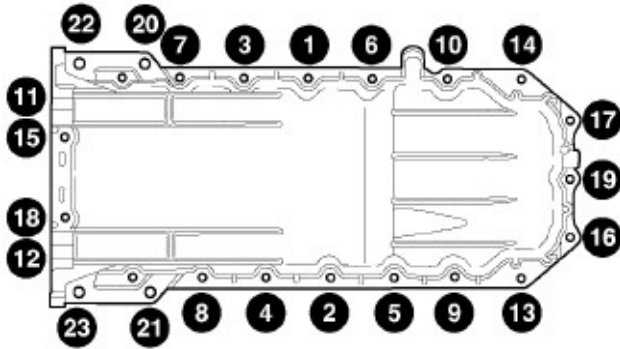
12. Raise the engine to provide clearance to remove the oil pan.

13. Raise and support the vehicle.

14. Remove the M10 bolts (horizontal 11, 12, 15, 18 and vertical 20, 21, 22, 23) from the rear of the oil pan to the transmission.



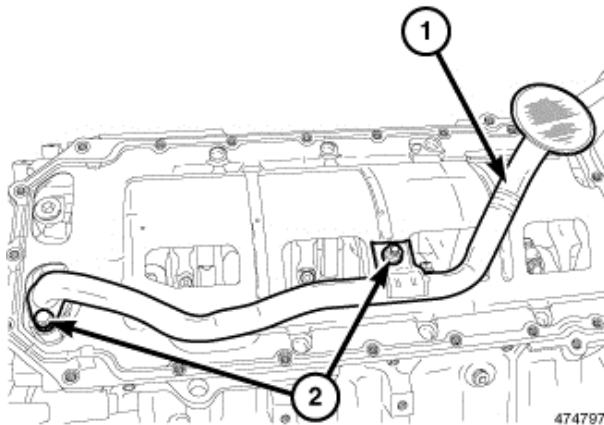
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15. Remove and discard the M6 bolts and the oil pan.

NOTE: When the oil pan is removed, a new oil pan gasket and the integral windage tray assembly must be installed, the old gasket cannot be reused.

16. Remove bolt, nut (2) and the oil pump pickup tube (1).



17. Remove and discard the oil pan gasket/windage tray.

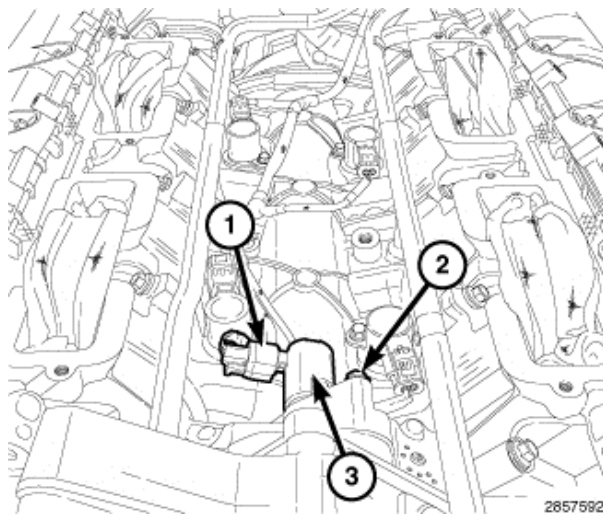


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09 - Engine, 5.7L / Lubrication / SOLENOID, Variable Valve Timing (VVTS), Exhaust/Removal

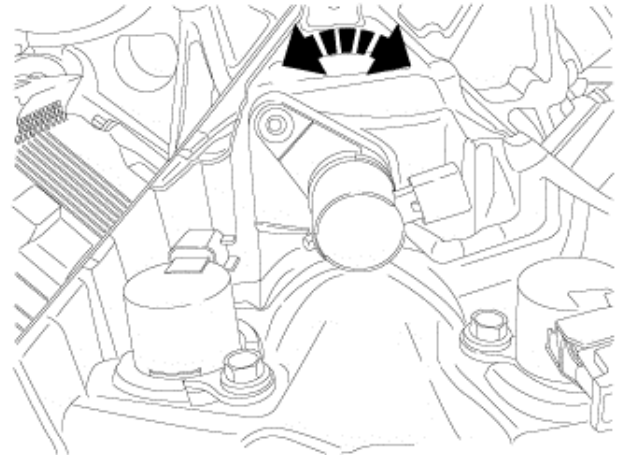
NOTE: The Variable Valve Timing Solenoid (VVTS) (3) is located under the intake manifold.

1. Remove intake manifold (Refer to 09 - Engine/Manifolds/MANIFOLD, Intake - Removal).



2. Disconnect VVTS wire harness connector (1).

3. Remove VVTS retaining bolt (2).



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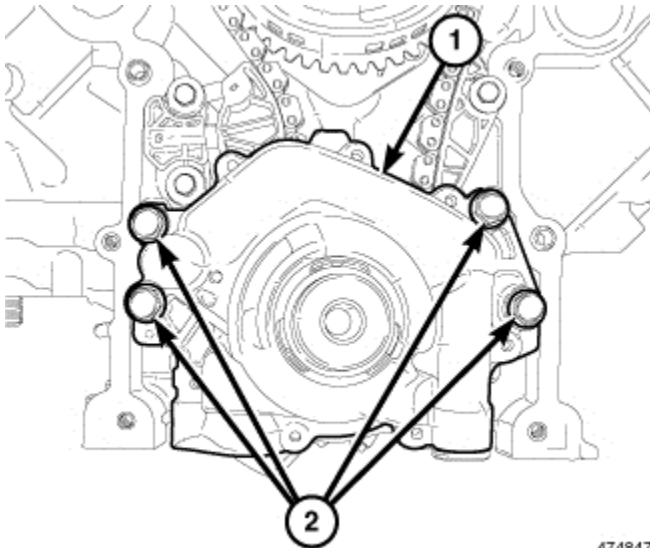
NOTE: To remove the VVTS, the engine must be at room temperature.

4. Rotate the VVTS to break the seal and remove.



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**09 - Engine, 5.7L / Lubrication / PAN, Oil,
AWD/Removal**



1. Remove the oil pan (Refer to 09 - Engine/Lubrication/PAN, Oil - Removal).
2. Remove the timing cover (Refer to 09 - Engine/Valve Timing/COVER(S), Engine Timing - Removal).
3. Remove the four bolts (2) and the oil pump (1).



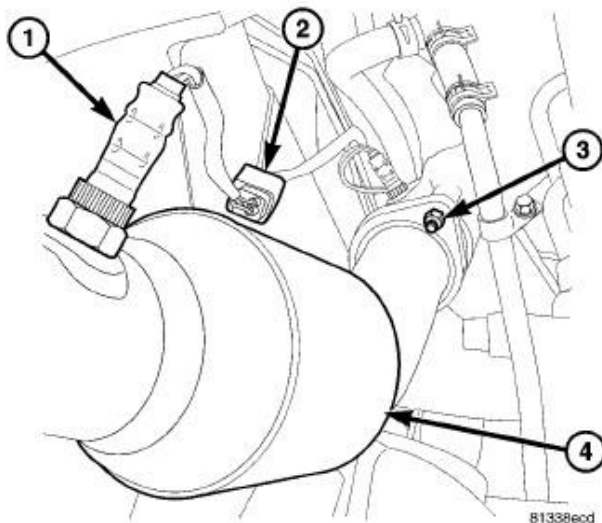
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11 - Exhaust System / CONVERTER, Catalytic/Removal

CAUTION: When separating the catalytic converters from the manifolds, disconnect the oxygen sensor connectors. Allowing the catalytic converters to hang from the oxygen sensor wires damages the harness and/or sensors.

NOTE: Left side shown, right side similar.

1. Disconnect the negative battery cable.
2. Raise and support the vehicle.
3. Saturate all exhaust bolts and nuts with Mopar® Rust Penetrant. Allow five minutes for penetration.
4. Disconnect the O2S sensor electrical connectors (2).
5. Remove the catalytic converter to manifold flange nuts (3) and separate the catalytic converters (4) from the exhaust manifolds.

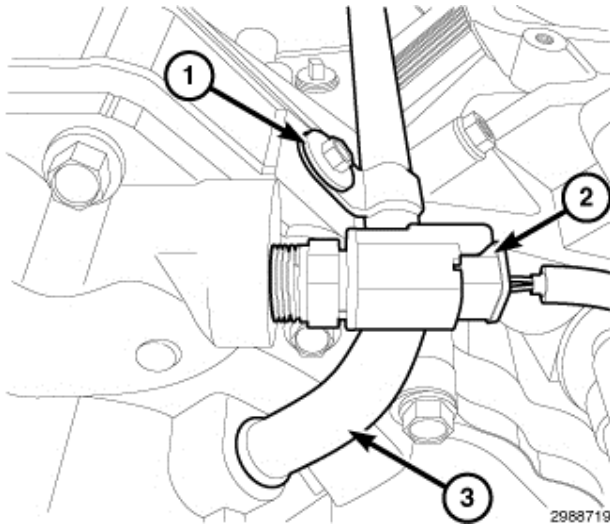




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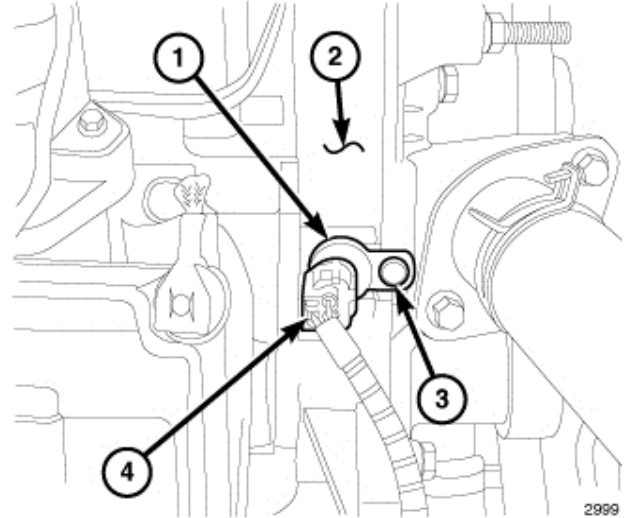
**09 - Engine, 5.7L / Valve Timing / COVER(S),
Engine Timing/Removal**

1. Disconnect and isolate the negative battery cable.
2. Remove the air cleaner assembly (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner/Removal)
3. Drain the cooling system (Refer to 07 - Cooling - Standard Procedure).
4. Remove the upper radiator hose.
5. Remove the power steering retaining bolts and place pump aside, without disconnecting the lines (Refer to 19 - Steering/Pump/Removal).
6. Remove the coolant temperature sensor electrical connector (2).

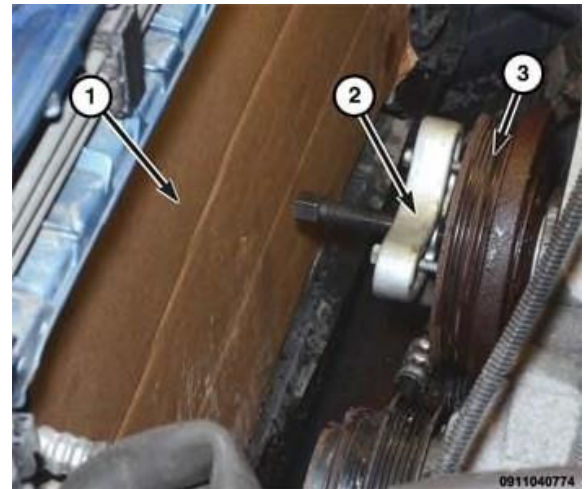


7. Remove the left heater tube bracket bolt from the rear of the left cylinder head.
8. Remove the heater tube retaining bolt (1) from the timing cover.
9. Lift the heater tube (3) out of the water pump and position tube aside for clearance.

10. Disconnect the camshaft position (CMP) sensor electrical connector (4).



11. Remove the crankshaft vibration damper (3) (Refer to 09 - Engine/Engine Block/DAMPER, Vibration/Removal).

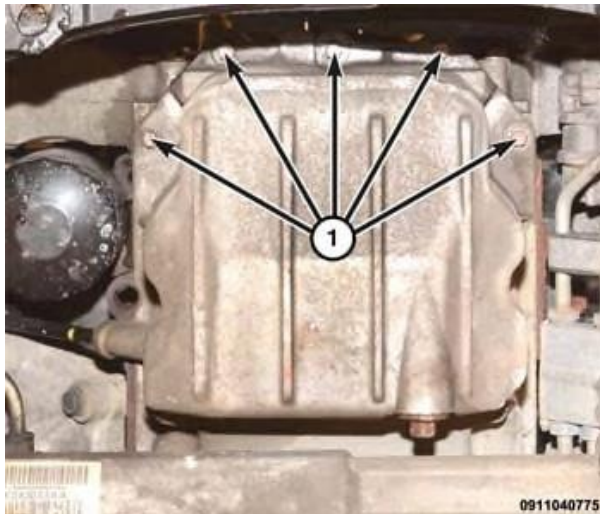


NOTE: Install a piece of cardboard (1) or equivalent to the radiator face to protect the radiator during the repair procedure.



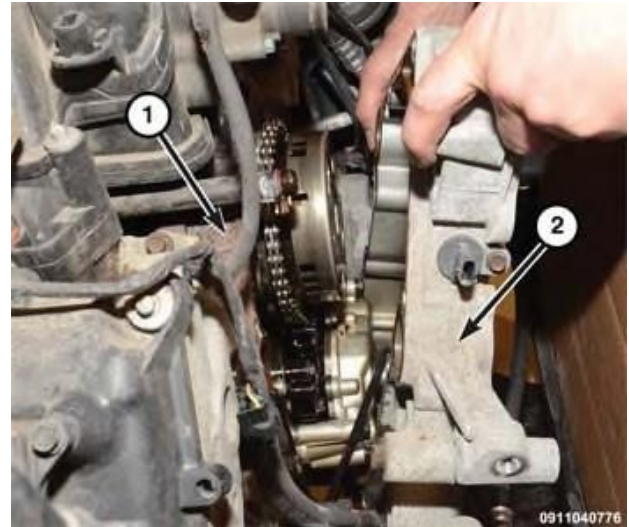
INSTALLATION INSTRUCTIONS
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12. Remove the accessory drive belt tensioner (Refer to 07 - Cooling/Accessory Drive/TENSIONER, Belt/Removal).
13. Remove the accessory drive belt idler pulley (Refer to 07 - Cooling/Accessory Drive/PULLEY, Idler/Removal).
14. Disconnect the lower radiator hose from the water pump.
15. Remove the generator mounting bolts and set aside without disconnecting any of the electrical connections (Refer to 08 - Electrical/8F - Engine Systems/Charging/GENERATOR - Removal).
16. Remove the A/C compressor mounting bolts and set compressor aside without disconnecting A/C lines (Refer to 24 - Heating and Air Conditioning/Plumbing/COMPRESSOR, A/C - Removal).



17. Drain and discard the engine oil.
18. Remove the five front oil pan retaining bolts (1).
19. Lower the vehicle.

20. Remove the six engine timing cover (2) retaining bolts and remove the engine timing cover from the engine (1).



21. Verify that the engine timing cover slide bushings remain located in the engine timing cover.

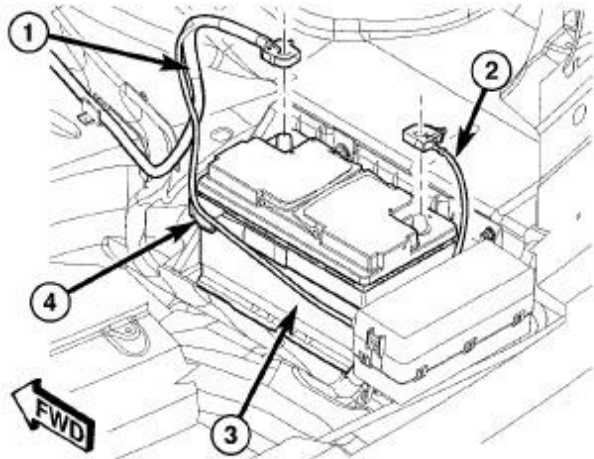


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2011-2017 CHRYSLER 300 5.7 HEMI

19 - Steering / Pump / Removal

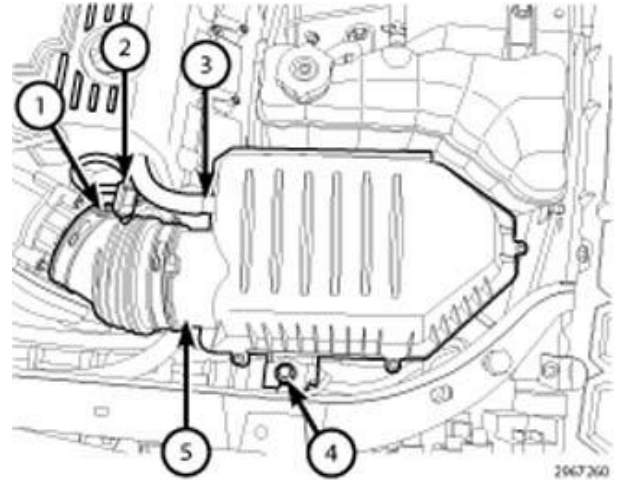
SRT

1. Disconnect and isolate battery negative cable (2) from battery post.
2. Siphon power steering fluid from pump reservoir.
3. Loosen the air duct retaining clamp (1) at the throttle body.



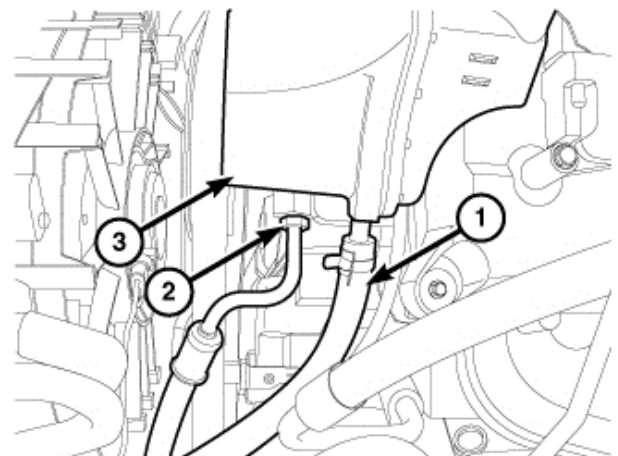
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4. Disconnect the intake air temperature sensor electrical connector (2).
5. Remove the makeup air hose (3) at the air cleaner housing.



2067260

6. Remove the air cleaner housing retaining bolt (4).
7. While lifting up the air cleaner housing (5), slide the air duct off the throttle body and remove the air cleaner housing from the vehicle.
8. Remove serpentine drive belt. (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Removal)
9. Remove hose clamp, then supply hose (1) from pump (3).

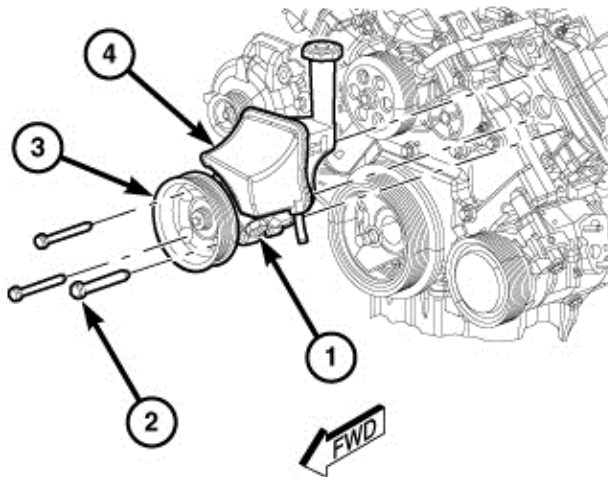


3002015



INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

10. Unthread tube nut, then remove pressure hose (2) from pump (3).
11. Remove three pump mounting bolts (2) through access holes in pulley (3).
12. Remove pump (1) from engine.
13. If pulley needs removal, (Refer to 19 - Steering/Pump/PULLEY, Power Steering Pump - Removal).



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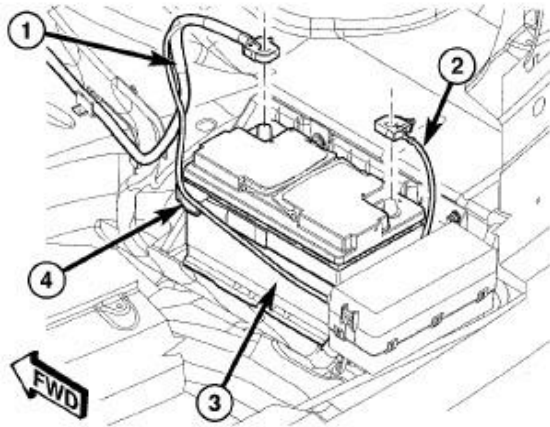


INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

19 - Steering / Pump / Removal

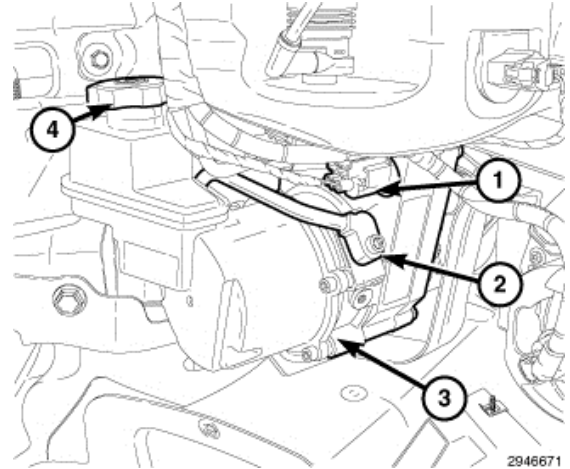
NON SRT

1. Disconnect and isolate battery negative cable (2) from battery post.



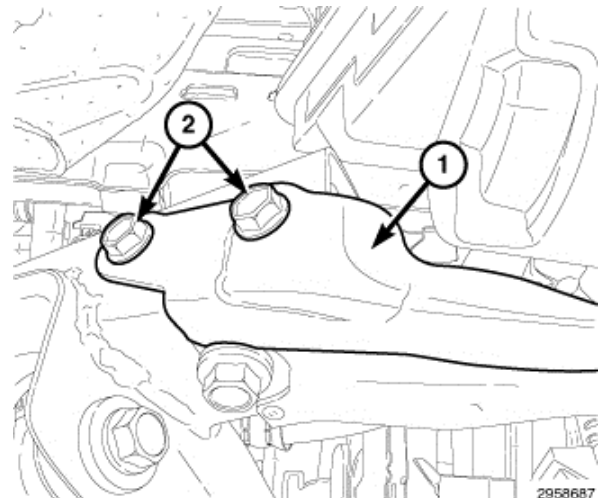
81330050

2. Raise and support vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting - Standard Procedure).
3. Remove right front wheel mounting nuts, then tire and wheel assembly.
4. Remove right front wheelhouse splash shield (Refer to 23 - Body/Exterior/SHIELD, Splash - Removal)
5. Siphon power steering fluid from pump reservoir (4).



2946671

6. Disconnect electrical connectors (1) from Electro Hydraulic Power Steering (EHPS) pump body (3).
7. Remove power steering pressure line bolt (2) and position the pressure line away from the EHPS pump.
8. Remove EHPS pump bracket (1) mounting bolts (2).

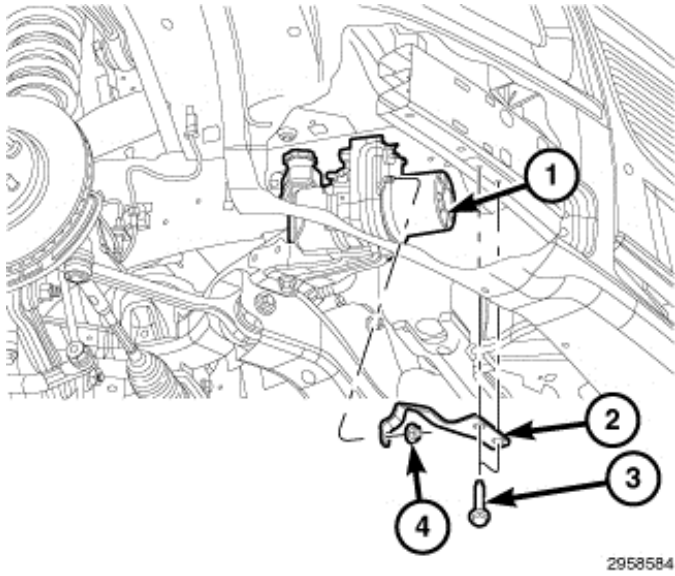


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INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

9. Remove EHPS pump bracket retaining nut (4) and remove the EHPS pump (1) from the vehicle.

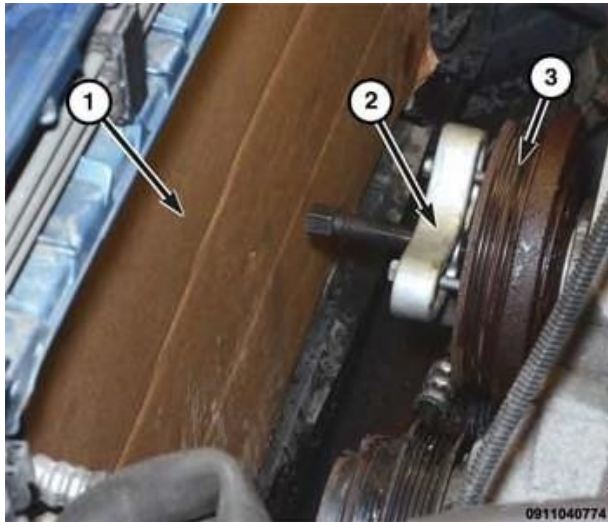




INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

09 - Engine, 5.7L / Engine Block / DAMPER, Vibration/Removal

1. Disconnect the negative battery cable.
2. Remove the serpentine belt (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Removal)
3. Remove the cooling fan (Refer to 07 - Cooling/Engine/FAN, Cooling - Removal).



NOTE: Install a piece of cardboard (1) or equivalent to the radiator face to protect the radiator during the repair procedure.

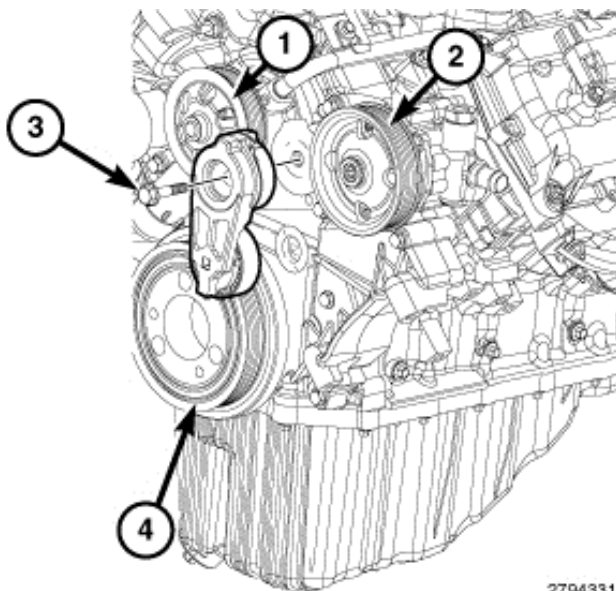
4. Remove the crankshaft damper bolt.
5. Install an appropriate flange puller (2) and remove the damper (3).



INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

**07 - Cooling / Accessory Drive / TENSIONER,
Belt/Removal**

1. Disconnect and isolate the negative battery cable.
2. Remove the air cleaner body (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Removal).
3. Remove the serpentine belt (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Removal)
4. Remove bolt (3) and the belt tensioner.



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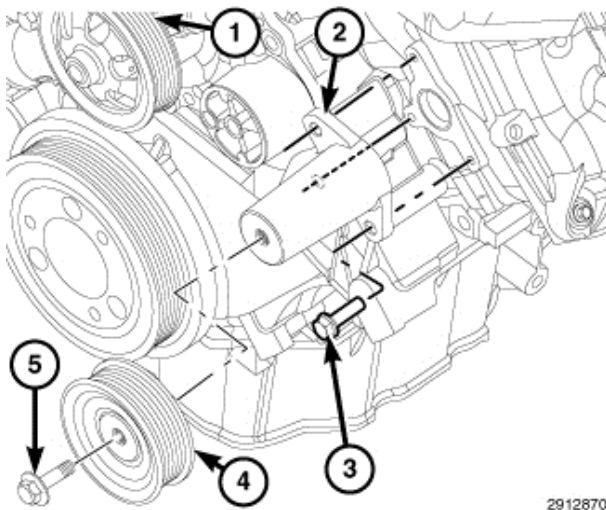


INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

**07 - Cooling / Accessory Drive / PULLEY,
Idler/Removal**

NOTE: The idler bracket takes the place of the power steering pump on the vehicles that use electronic power steering.

1. Remove the serpentine drive belt (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Removal)
2. Remove bolt (6) and the idler pulley (4) from bracket (2).



3. Remove bolts (3) and the idler pulley bracket (2).



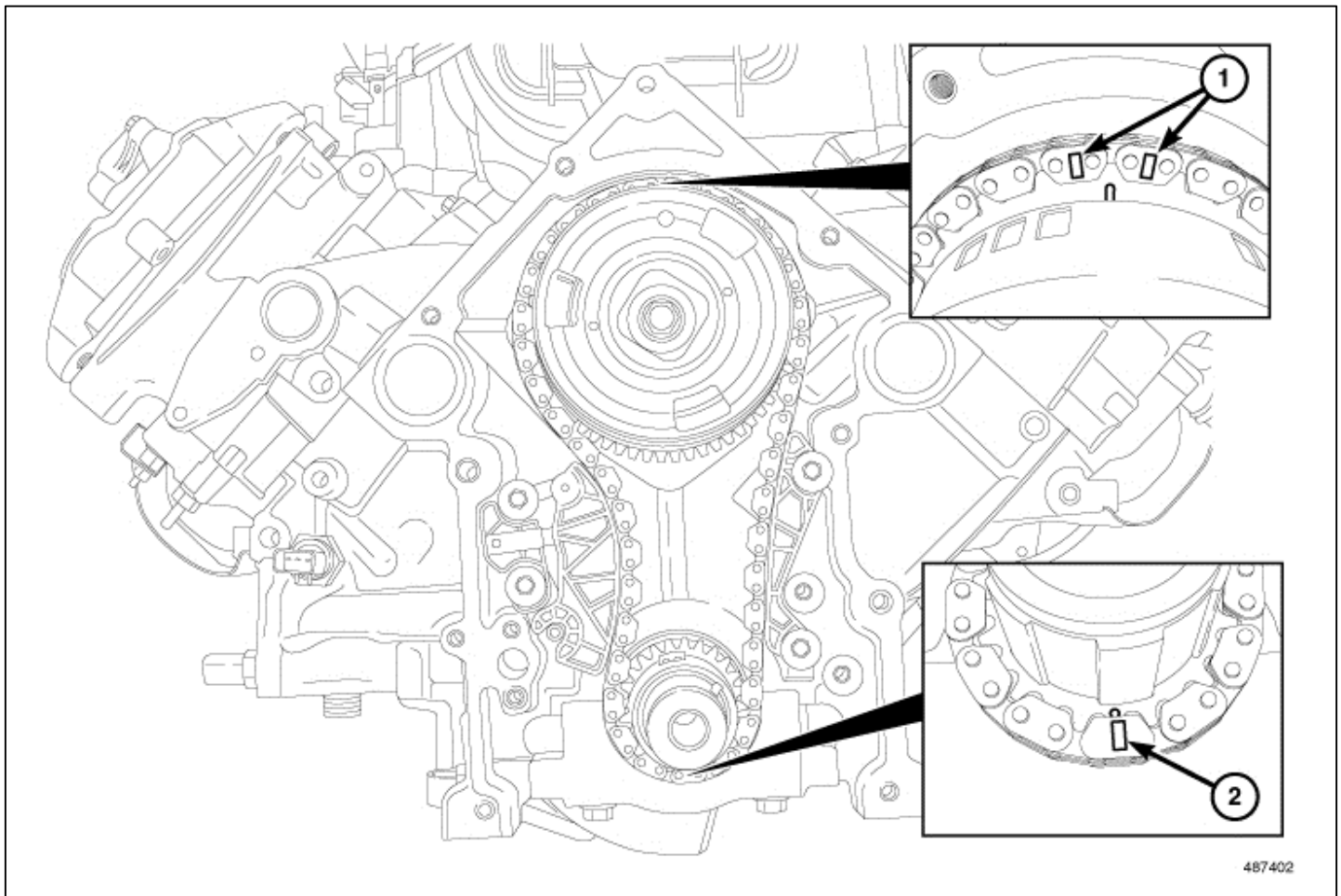
INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

09 - Engine, 5.7L / Valve Timing / CHAIN and SPROCKETS, Timing/Removal

Special Tools:

[8514 - Pins, Tensioner](#)

1. Remove the timing chain cover (Refer to 09 - Engine/Valve Timing/COVER(S) , Engine Timing - Removal).





INSTALLATION INSTRUCTIONS

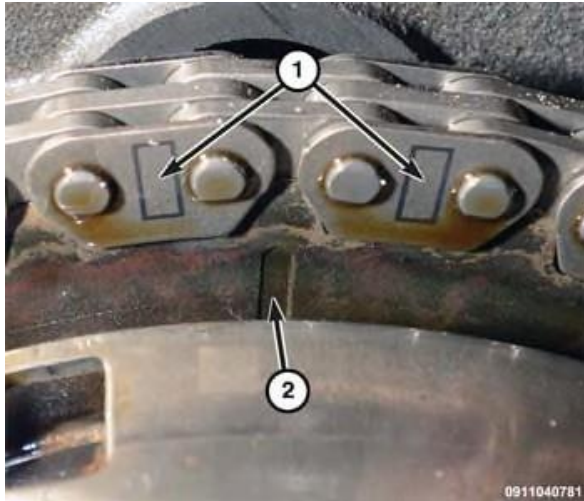
STAGE 2 KIT PART NUMBER 77072313AB

2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI

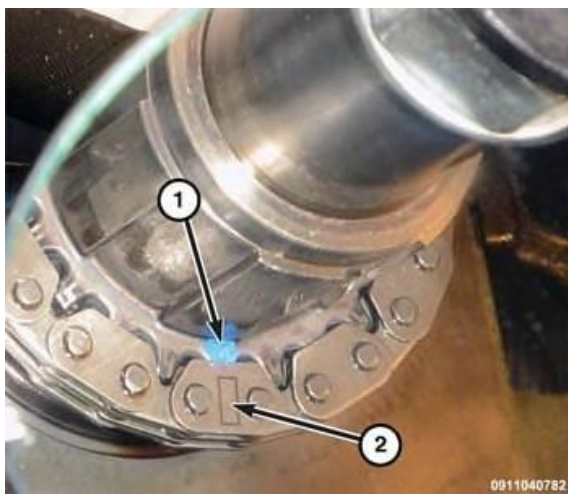
STAGE 2 KIT PART NUMBER 77072315AB

2011-2017 CHRYSLER 300 5.7 HEMI

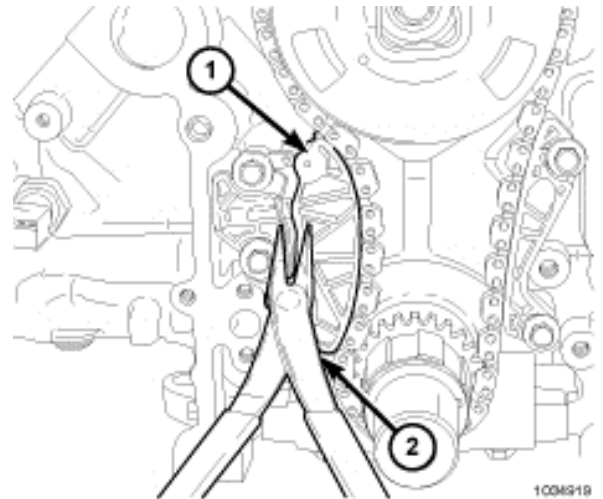
2. Install the vibration damper bolt finger tight. Using a suitable socket and breaker bar, rotate the crankshaft to align the timing marks with the timing chain sprockets (1, 2).
3. Ensure that the camshaft gear (2) is aligned with the camshaft timing chain marks (1) in the twelve O'clock position.



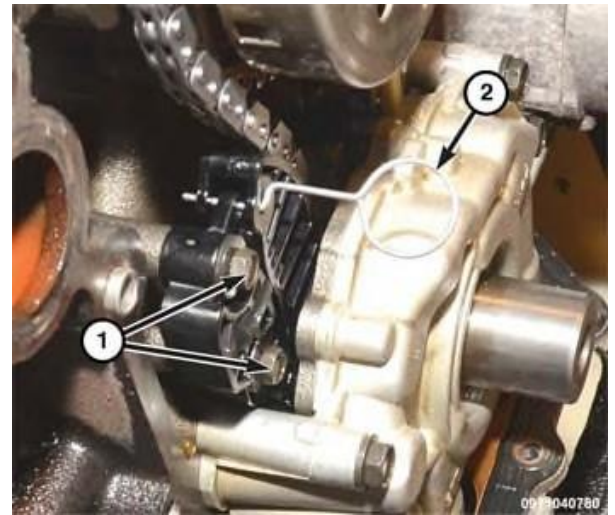
4. The crankshaft gear mark (1) should align with the timing chain mark (2) at the six O'clock position.



5. Retract the chain tensioner arm (1) until the hole in the arm lines up with the hole in the bracket.



6. Install the Tensioner Pin [8514](#) (2) into the chain tensioner holes.

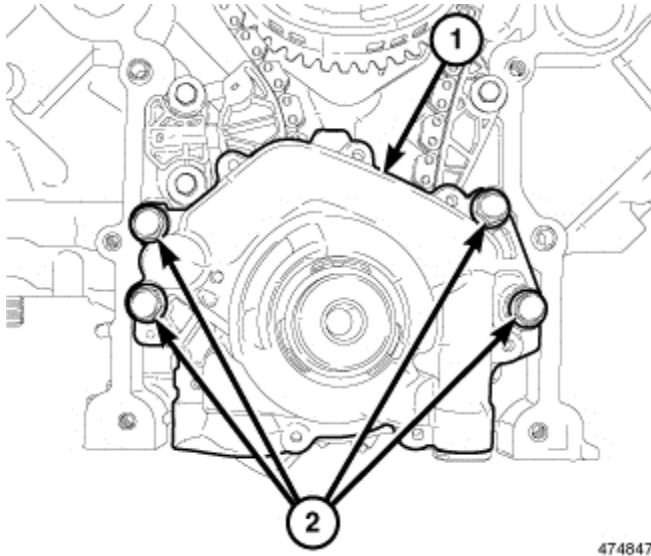


7. If the timing chain tensioner is being replaced, remove the retaining bolts (1) and remove the timing chain tensioner.

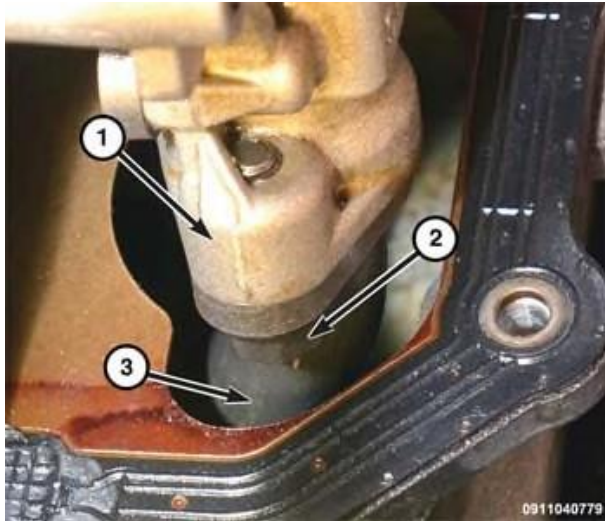


INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

8. Remove the four engine oil pump (1) retaining bolts (2).



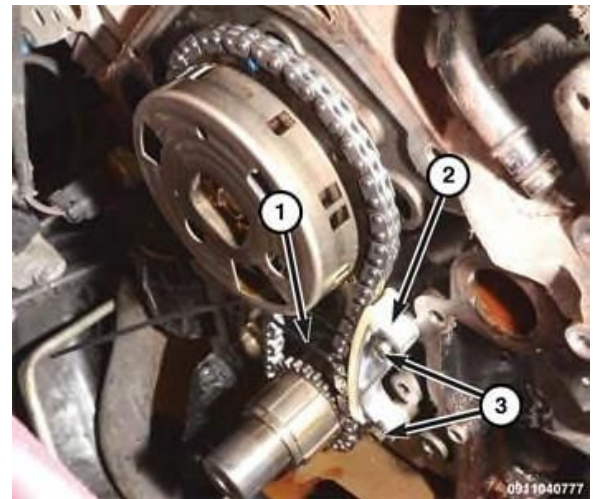
9. Rotate the engine oil pump body (1) clockwise to gain access to the oil pump pickup tube (3) retaining bolt (2).



10. Remove the engine oil pump pickup tube retaining bolt.
11. Remove the engine oil pump pickup tube from the engine oil pump body.

NOTE: There is an O-ring on the pickup tube. Be sure not to drop the O-ring into the engine oil pan.

12. Remove the oil pump from the engine.
13. If the timing chain guide (2) is being replaced, remove the retaining bolts (3) and remove the timing chain guide.



CAUTION: Never attempt to disassemble the camshaft phaser, severe engine damage could result.



INSTALLATION INSTRUCTIONS

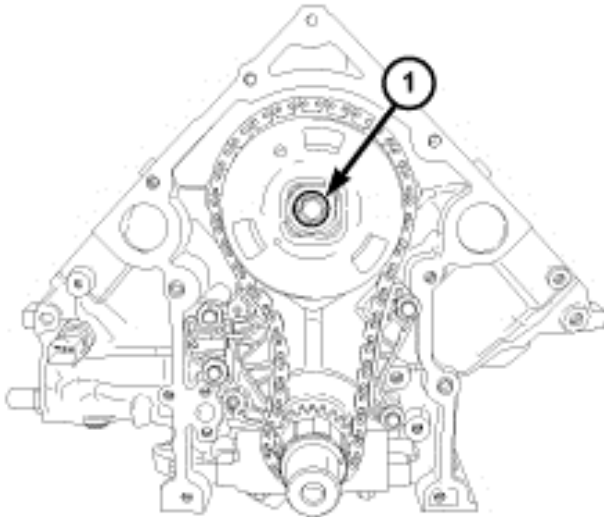
STAGE 2 KIT PART NUMBER 77072313AB

2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI

STAGE 2 KIT PART NUMBER 77072315AB

2011-2017 CHRYSLER 300 5.7 HEMI

14. Remove the camshaft phaser retaining bolt (1) and remove the timing chain with the camshaft phaser and crankshaft sprocket.



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NOTE: Do not rotate the crankshaft or camshaft after timing chain removal. The 5.7L engine has zero skipped tooth clearance. Catastrophic engine damage will result if the proper camshaft and crankshaft positions and not established during assembly.



INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
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Stage 2

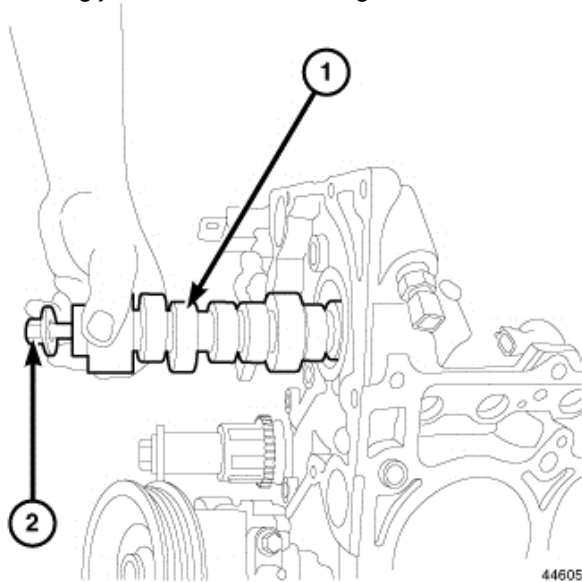
INSTALLATION

09 - Engine, 5.7L/Engine Block/CAMSHAFT, Engine/Installation

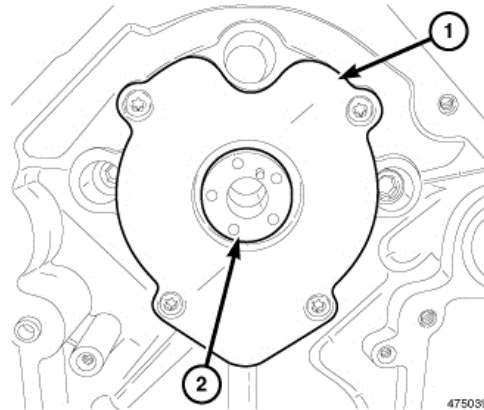
CAUTION: The 5.7L engine uses a unique camshaft for use with the Multi Displacement System (MDS). When installing a new camshaft, the replacement camshaft must be compatible with MDS.

CAUTION: Use care when installing the camshaft into the engine block, do not damage the camshaft bearings with the camshaft lobes.

1. Lubricate the camshaft lobes (1) and the camshaft bearing journals with clean engine oil.



2. Install a long bolt (2) into the front of the camshaft to aid in the installation, carefully install the camshaft into the engine block.
3. Install the camshaft thrust plate (1) and tighten retaining bolts to the proper (Torque Specifications).



4. Install the timing chain (5) and camshaft phaser (1) (Refer to 09 - Engine/Valve Timing/CHAIN and SPROCKETS, Timing - Installation).
5. Using a suitable dial indicator, measure the camshaft end play (Refer to 09 - Engine - Specifications). If not within specification, install a new thrust plate.
6. Install the oil pump (Refer to 09 - Engine/Lubrication/PUMP, Engine Oil - Installation).
7. Raise and support vehicle.
8. Install the oil pump pickup tube and oil pan (Refer to 09 - Engine/Lubrication/PAN, Oil - Installation).
9. Remove support and lower the vehicle.
10. Install the A/C condenser (Refer to 24 - Heating and Air Conditioning/Plumbing/CONDENSER, A/C - Installation).
11. Install the radiator (Refer to 07 - Cooling/Engine/RADIATOR, Engine Cooling - Installation).
12. Install the A/C compressor (Refer to 24 - Heating and Air Conditioning/Plumbing/COMPRESSOR, A/C - Installation).
13. Install the generator (Refer to 08 - Electrical/8F - Engine Systems/Charging/GENERATOR - Installation).



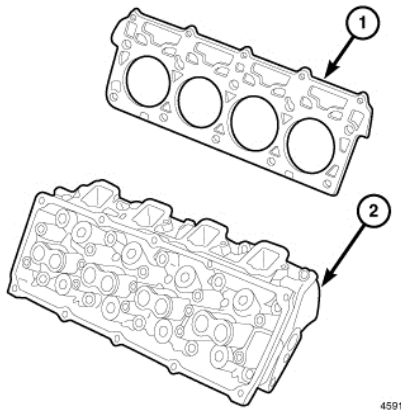
INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

CAUTION: The 5.7L Multi Displacement System (MDS) engine uses both standard roller lifters and deactivating roller lifters. The deactivating roller lifters must be used in cylinders 1,4,6,7. The deactivating lifters can be identified by the two holes in the side of the lifter body, for the latching pins.

CAUTION: Whenever the camshaft is replaced, all lifters must be replaced. If the lifter and retainer assemblies are to be reused, identify the lifters to ensure installation in their original location or engine damage could result.

CAUTION: The lifter and retainer assembly must be installed as a unit.

14. Install the lifters (2) and retainer (1) as an assembly into their original location (Refer to 09 - Engine/Engine Block/LIFTER(S), Hydraulic - Installation).
15. Install both cylinder heads (2) (Refer to 09 - Engine/Cylinder Head - Installation).



NOTE: The Cam/Crank Variation Relearn procedure must be performed using the scan tool anytime there has been a repair/replacement made to a powertrain system, for example: flywheel, valvetrain, camshaft and/or crankshaft sensors or components.

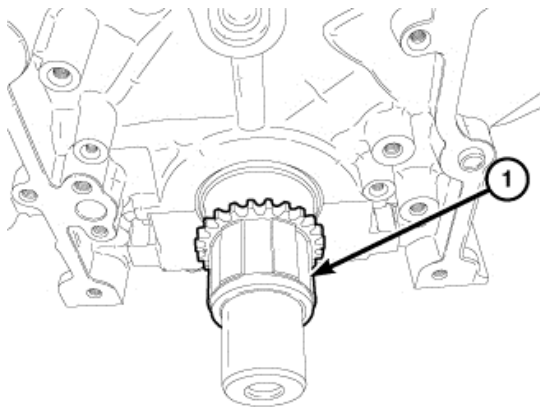


INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

09 - Engine, 5.7L / Valve Timing / CHAIN and SPROCKETS, Timing/Installation

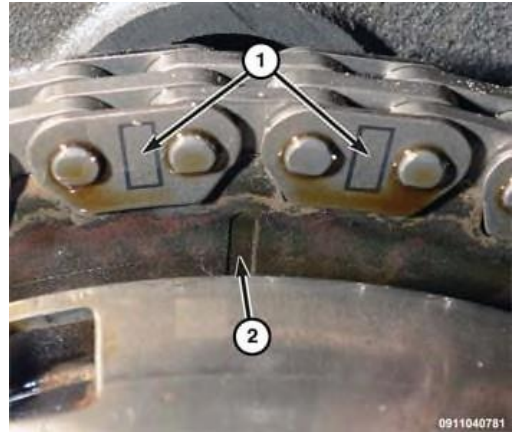
CAUTION: This is a Zero-Tolerance engine. Failure to properly align the timing chain to the timing gears will cause severe engine damage. It is imperative that the Timing Marks shown in the subsequent steps be properly aligned during assembly.

1. Install the crankshaft sprocket (1) and position halfway onto the crankshaft.

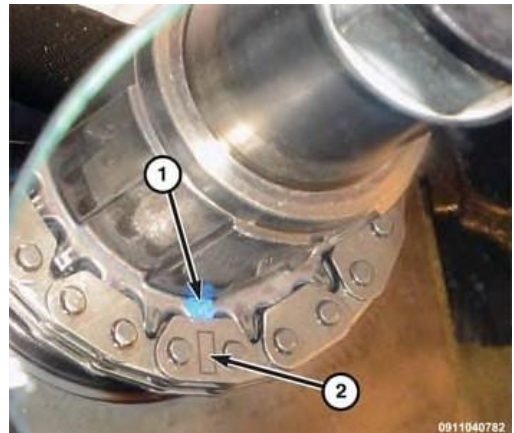


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2. While holding the camshaft phaser in hand, position the timing chain on the camshaft phaser and align the timing marks as shown. Ensure that the camshaft gear (2) is aligned with the camshaft timing chain marks (1) in the twelve O'clock position.



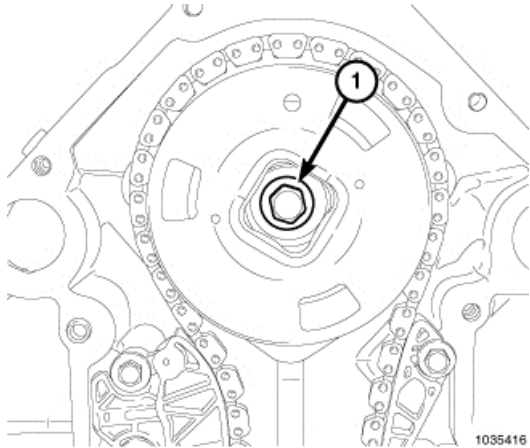
3. While holding the camshaft phaser and timing chain in hand, position the timing chain on the crankshaft sprocket and align the timing chain mark as shown. The crankshaft gear mark (1) should align with the timing chain mark (2) at the six O'clock position.



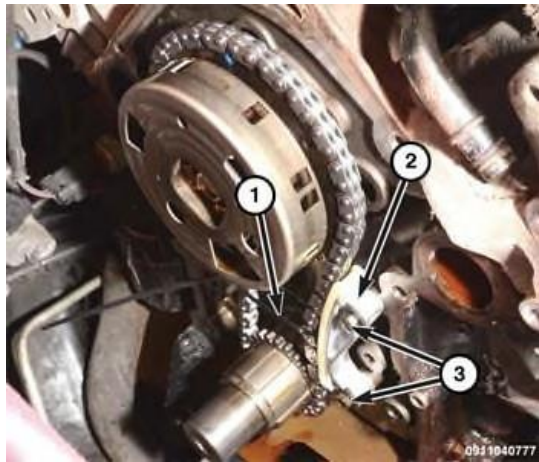
4. Align the slot in the camshaft phaser with the dowel on the camshaft and position the camshaft phaser on the camshaft while sliding the crankshaft sprocket into position.
5. Install the camshaft phaser retaining bolt (1) finger tight.



INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

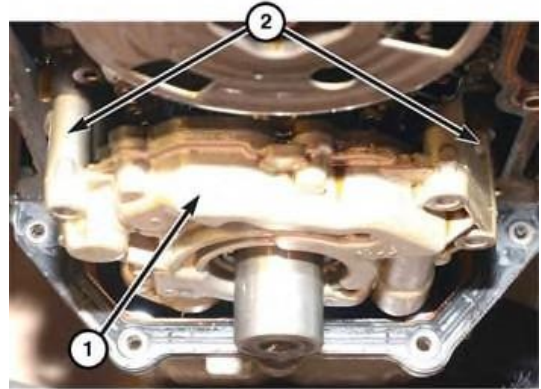


6. If removed, install the timing chain guide (2) and tighten the bolts (3) to 11 N·m (8 ft. lbs.).



7. Install a plastic tie strap (1) around the timing chain to hold tension on the timing chain.
8. Install a new O-ring on the oil pickup tube.
9. Install the engine oil pump (1) onto the crankshaft.

NOTE: The engine oil pump drive hub and inner gerotor must be aligned while installing the engine oil pump.

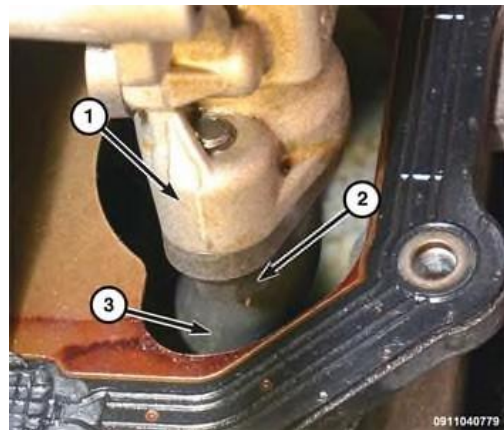


10. Ensure that the engine oil pump is flush (2) against the engine block.

NOTE: Do not use the engine oil pump bolts to draw the engine oil pump onto the crankshaft.

11. Insert the engine oil pickup tube (3) into the engine oil pump body (1).

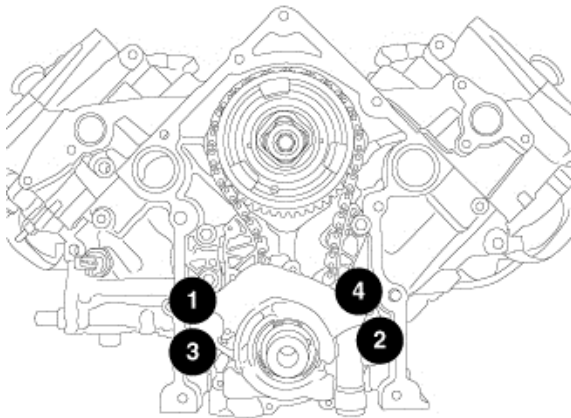
NOTE: Be sure the engine oil pickup tube flange is flush with the body of the engine oil pump. The O-ring should not be visible when the engine oil pump tube is fully seated.





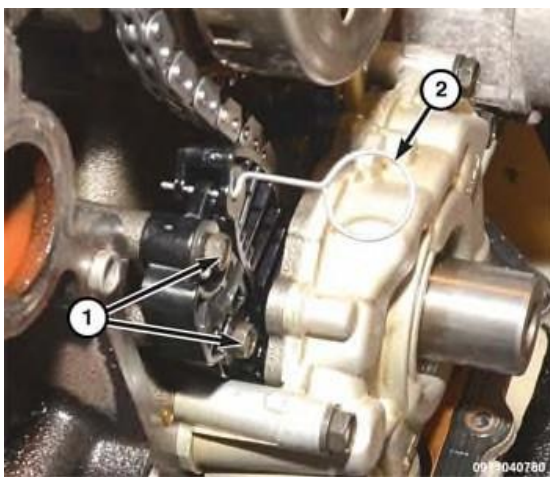
INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

12. Install the engine oil pickup tube retaining bolt (2) and tighten to 22 N·m (16 ft. in lbs.).
13. Turn the oil pump counter clockwise to align the oil pump body mounting holes to the engine bolt holes.
14. Install the four engine oil pump retaining bolts.
15. Using the sequence shown, tighten the oil pump retaining bolts to 28 N·m (21 ft. lbs.).

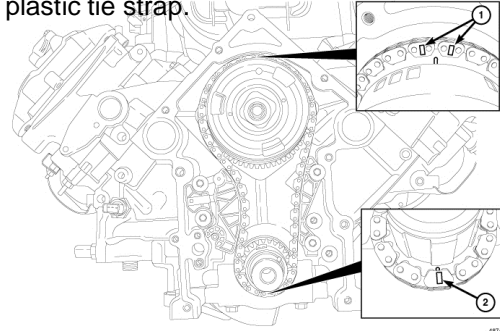


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16. If removed, install the timing chain tensioner and tighten the bolts (1) to 11 N·m (8 ft. lbs.).
17. Remove the tensioner pin 8514 (2).



18. Cut off and discard the timing chain tensioning plastic tie strap.

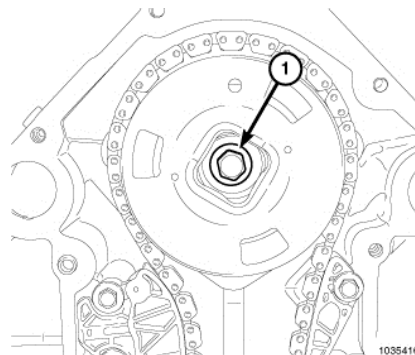


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19. **NOTE:** The timing mark located on the camshaft phaser must be properly centered between the dual marks on the timing chain while at the 12 O'clock position (1). The timing mark located on the crankshaft must be properly aligned with the single mark on the timing chain while at the 6 O'clock position (2).

20. Verify that the chains are operating smoothly. The chain must be replaced if:
 - Any kinks
 - Signs of binding
 - Damage to the links
 - Signs of wear or stretching

21. Tighten the camshaft phaser bolt (1) to 98 N·m (72 ft. lbs.).



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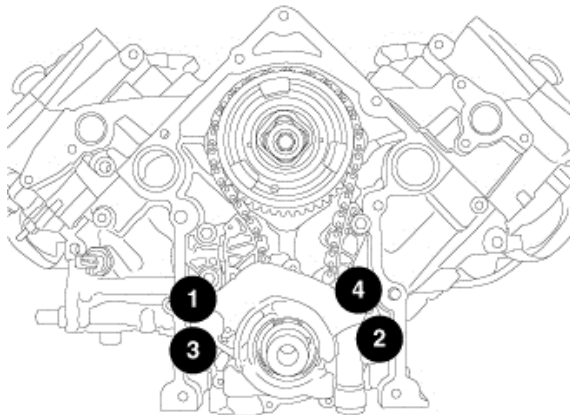
22. Install the timing chain cover (Refer to 09 - Engine/Valve Timing/COVER(S), Engine Timing - Installation).



INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

09 - Engine, 5.7L / Lubrication / PUMP, Engine Oil/Installation

1. Position the oil pump on the crankshaft and install the oil pump retaining bolts finger tight.



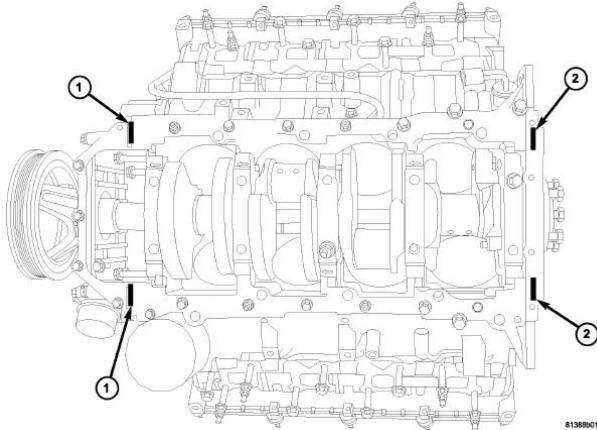
439119

2. Using the sequence shown, tighten the oil pump bolts to 28 N·m (21 ft. lbs.).
3. Install the timing cover (Refer to 09 - Engine/Valve Timing/COVER(S), Engine Timing - Installation).
4. Install the oil pan (Refer to 09 - Engine/Lubrication/PAN, Oil - Installation).



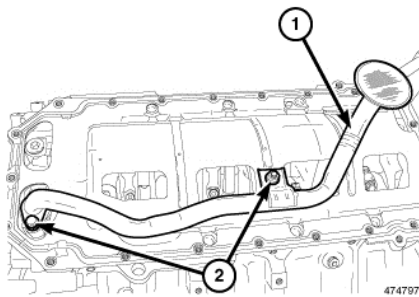
INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

09 - Engine, 5.7L / Lubrication / PAN, Oil/Installation



NOTE: Mopar® Engine RTV must be applied to the 4 T-joints (1, 2), the area where the front cover, rear retainer and oil pan gasket meet. The bead of RTV should cover the bottom of the gasket. This area is approximately 4.5 mm x 25 mm in each of the 4 T-joint (1, 2) locations.

1. Clean the oil pan gasket mating surface of the engine block and oil pan.
2. Apply Mopar® Engine RTV at the 4 T-joints (1,2).



NOTE: When the oil pan is removed a **NEW** oil pan gasket and the integral windage tray assembly must be installed, the old gasket cannot be reused.

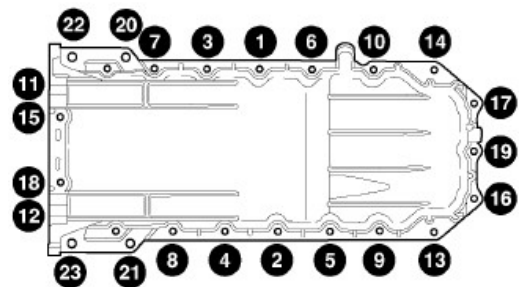
3. Install a **NEW** oil pan gasket/windage tray.

4. Using a **NEW** O-ring, install the oil pump pickup tube (1). Tighten bolt and nut (2) to the proper **(Torque Specifications)**.

NOTE: The horizontal M10 bolts (11, 12, 15, 18) are 5 mm longer in length than the vertical M10 bolts (20, 21, 22, 23) and must be reinstalled in their original locations.

NOTE: **NEW** M6 bolts must be used when reinstalling the oil pan. Do not reuse the old M6 bolts.

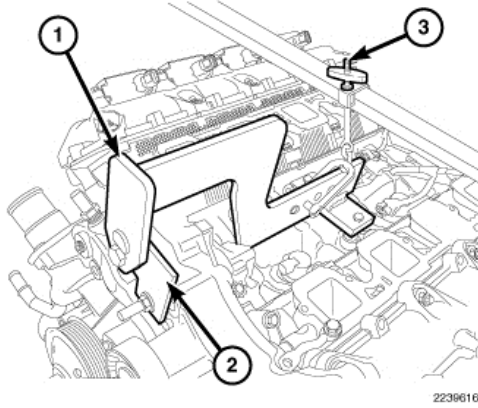
5. Align the rear of the oil pan with the rear face of the engine block and install the **NEW** M6 and M10 bolts finger tight.
6. Using the sequence shown, tighten the M6 retaining bolts to 5 N·m (44 in. lbs.).



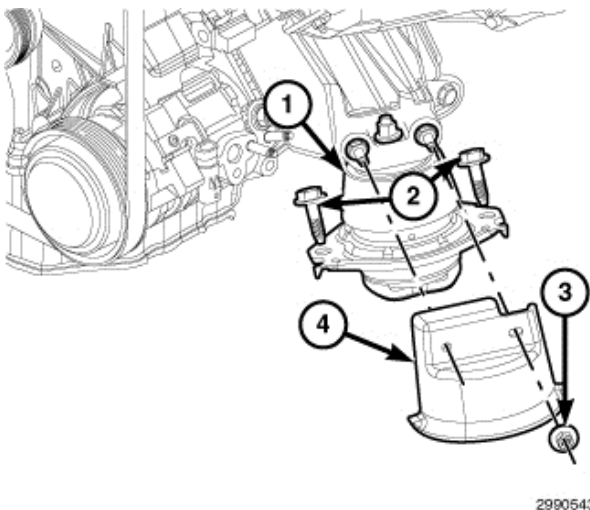
7. Using the sequence shown, tighten the M10 retaining bolts to 54 N·m (40 ft. lbs.).
8. Using the sequence shown, tighten the M6 retaining bolts to 12 N·m (106 in. lbs.).
9. Remove support and lower the vehicle.
10. Using the Engine Lift Fixture 8984B (1), Engine Lift Adapter 8984-UPD (2) and the Engine Support Fixture 8534B (3) lower the engine into position and remove.



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STAGE 2 KIT PART NUMBER 77072315AB
2011-2017 CHRYSLER 300 5.7 HEMI

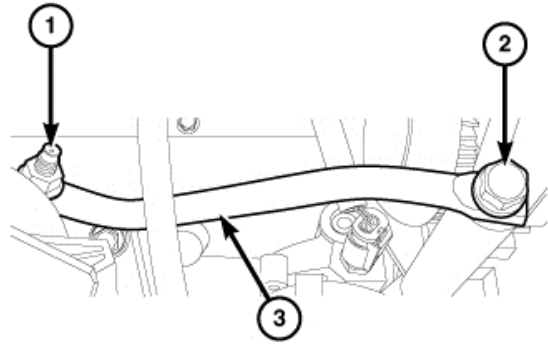


11. Install the engine oil dipstick tube and dipstick.
12. Raise and support the vehicle.
13. Install both engine mount lower retaining bolts (2) and tighten to the proper **(Torque Specifications)**.

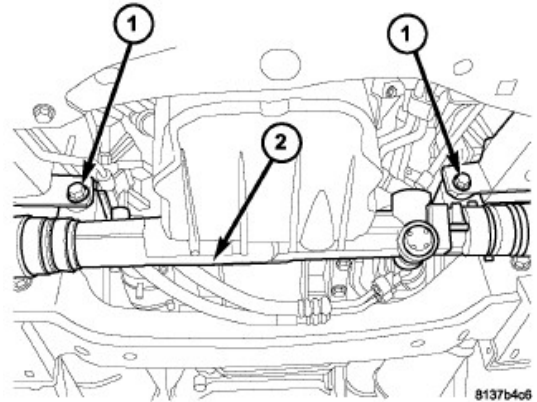


NOTE: Left side shown, right side similar.

14. Install both engine mount heat shields (4). Tighten nuts (3) to the proper **(Torque Specifications)**.
15. Install the generator support bracket (3). Tighten fasteners (1, 2) to the proper **(Torque Specifications)**.



16. Position the steering gear (2), install mounting bolts (1) and tighten to the proper **(Torque Specifications)**.



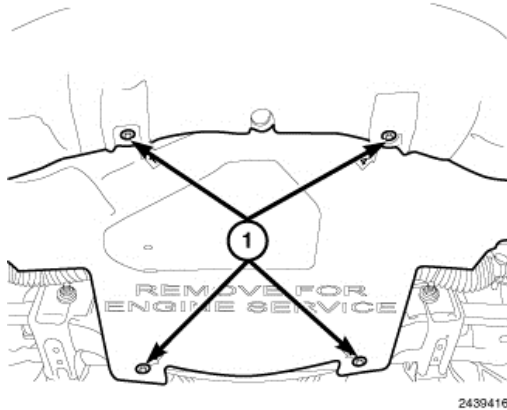
17. Lightly lubricate the oil filter gasket with clean engine oil.

NOTE: Do not over tighten the oil filter.

18. Install the oil filter **(Refer to 09 - Engine/Lubrication/FILTER, Engine Oil/Installation)**.



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STAGE 2 KIT PART NUMBER 77072315AB
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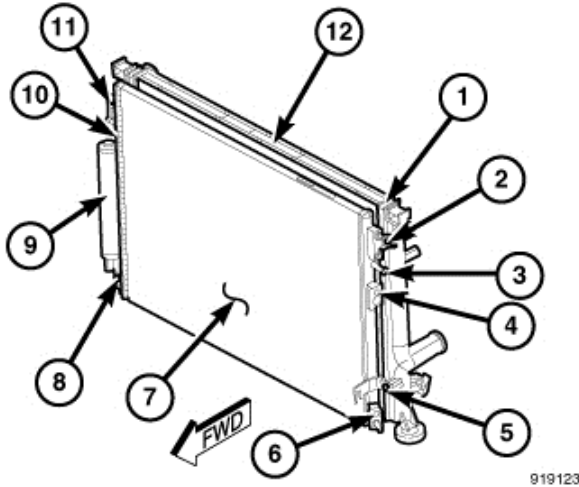


19. Install the belly pan and securely tighten bolts (1).
20. Remove support and lower the vehicle.
21. Install the Variable Valve Timing Solenoid (2) (Refer to 09 - Engine/Lubrication/SOLENOID, Variable Valve Timing (VVTs), Installation).
22. Fill the crankcase with the specified type of engine oil (Refer to 04 - Vehicle Quick Reference/Capacities and Recommended Fluids - Specifications).
23. Connect the negative battery cable.
24. Start engine and check for leaks.



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24 - Heating and Air Conditioning / Plumbing / CONDENSER, A/C/Installation



CAUTION: Be certain to adjust the refrigerant oil level when servicing the A/C refrigerant system . Failure to properly adjust the refrigerant oil level will prevent the A/C system from operating as designed and can cause serious A/C compressor damage.

NOTE: When replacing multiple A/C system components, see the Refrigerant Oil Capacities chart to determine how much oil should be added to the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).

NOTE: If the A/C condenser is being replaced, add 30 milliliters (1 fluid ounce) of refrigerant oil to the refrigerant system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.

NOTE: Replacement of the refrigerant line O-ring seals and gaskets is required anytime a refrigerant line is disconnected. Failure to replace the rubber O-ring seals and metal gaskets may result in a refrigerant system leak.

NOTE: Be certain that each of the radiator and

condenser air seals are installed in their proper locations. These air seals are required for the A/C and engine cooling systems to perform as designed.

NOTE: Illustration shown with A/C condenser and radiator removed from vehicle for clarity.

1. If required, install the A/C receiver/drier (9) onto the A/C condenser (7) (Refer to 24 - Heating and Air Conditioning/Plumbing/DRIER, A/C Receiver - Installation).
2. Carefully position the A/C condenser to the radiator (12).
3. Install the four bolts (2, 5, 8 and 11) that secure the A/C condenser to the radiator. Tighten the bolts to 5 N·m (44 in. lbs.).
4. Remove the tape or plugs from the opened refrigerant line fittings and condenser ports.
5. Connect the A/C discharge line and the A/C liquid line to the refrigerant line tapping blocks (4 and 6) (Refer to 24 - Heating and Air Conditioning/Plumbing/LINE, A/C Discharge - Installation) and (Refer to 24 - Heating and Air Conditioning/Plumbing/LINE, A/C Liquid - Installation).
6. When equipped, remove the plugs and connect the power steering cooler lines to the power steering cooler fittings (3 and 10). Make sure the retaining clamps are fully engaged.
7. When equipped, remove the plugs and connect the automatic transmission cooler lines to the cooler ports (1).
8. Install the front fascia (Refer to 13 - Frame and Bumpers/Bumpers/FASCIA, Front - Installation).
9. Reconnect the negative battery cable.
10. Evacuate the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).



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11. If the A/C condenser is being replaced, add 30 milliliters (1 fluid ounce) of refrigerant oil to the refrigerant system. When replacing multiple A/C system components, see the Refrigerant Oil Capacities chart to determine how much oil should be added to the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure). Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
12. Charge the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
13. When equipped, check the automatic transmission and power steering fluid level and fill as required.

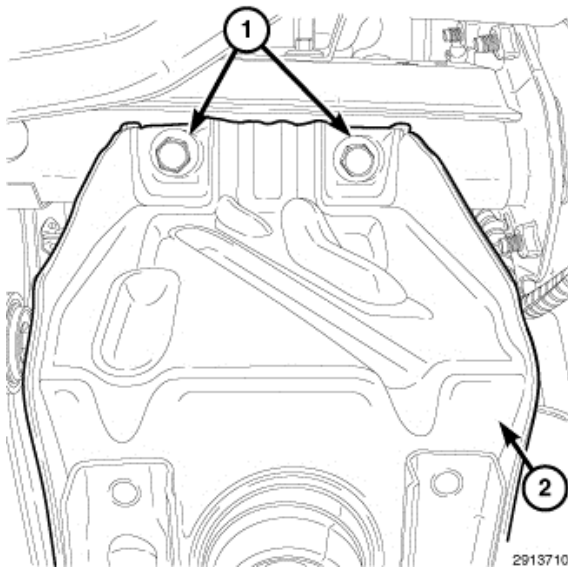


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2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI
STAGE 2 KIT PART NUMBER 77072315AB
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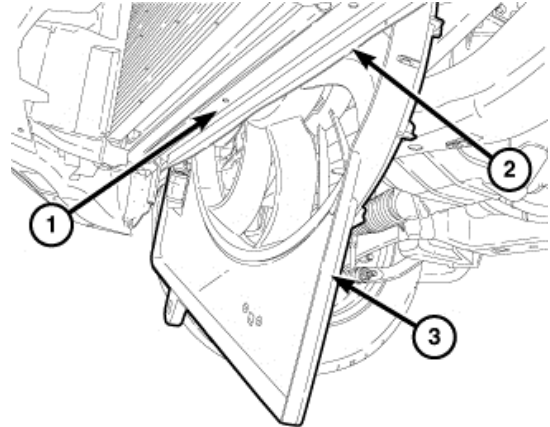
07 - Cooling / Engine / RADIATOR, Engine Cooling/Installation

NOTE: Assistance may be required for radiator placement into vehicle till the lower radiator core support has been installed.

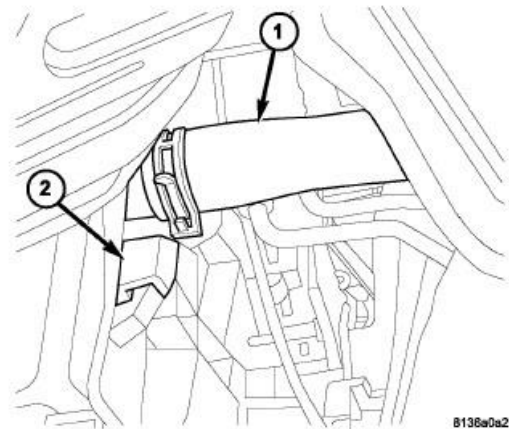
1. Position the radiator onto engine compartment.
2. Position the lower radiator core support in vehicle.
3. **Loosely** install the lower radiator core support (2) Bolts (1).



4. Seat the radiator assembly lower rubber isolators into the mounting holes in radiator lower support.
5. Install the radiator fan (Refer to 07 - Cooling/Engine/FAN, Cooling - Installation).



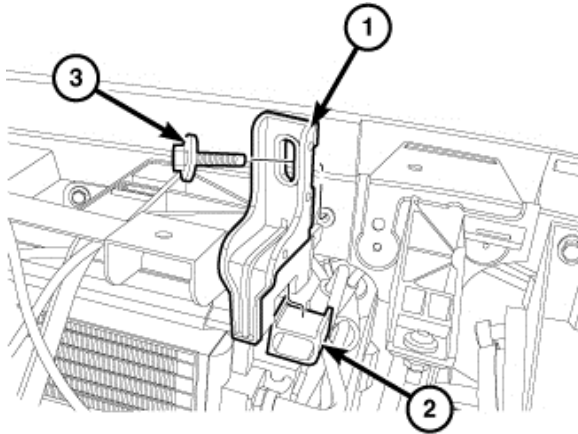
6. Install the lower radiator hose (1) and clamp.



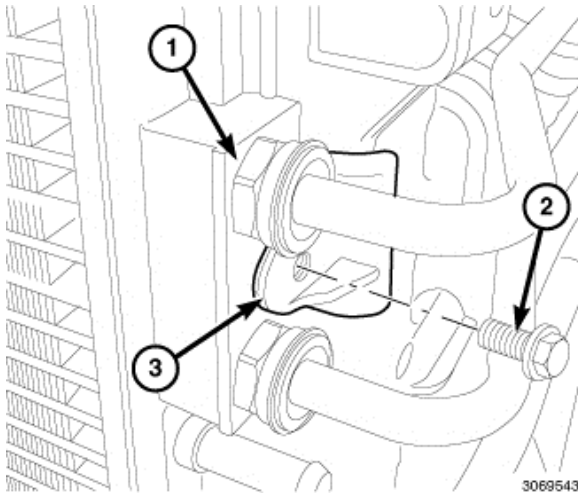
7. Install the lower engine cover.
8. Lower vehicle.
9. Install the upper shroud cover by applying pressure downwards till the snap into place.
10. Install the radiator mounting bracket (1) and bolts (2). Tighten to 12 N·m (106 in. lbs.).



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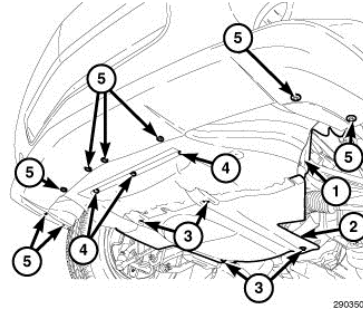


11. Position the condenser on radiator and loosely install the support bolt (3).

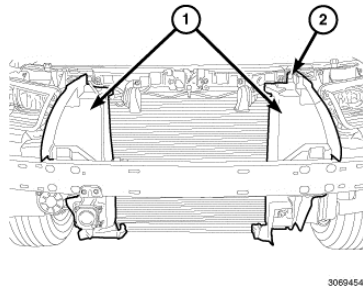


12. Install the condensers upper and lower mounting bolts. Tighten bolts to 10 N·m (88 in. lbs.).

13. Tighten the support bolt (3) to 10 N·m (88 in. lbs.).

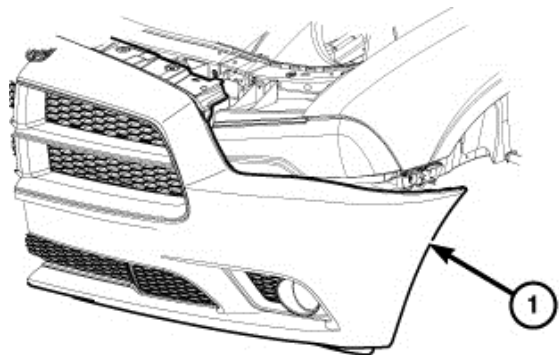


14. Install the air deflectors (1).



15. Position the hood latch release cable (2) through the notch in deflector.

16. Install the front bumper fascia (Refer to 13 - Frame and Bumpers/Bumpers/FASCIA, Front - Installation).



17. Install the upper radiator upper hose (2). Align hose so it does not interfere with the accessory drive belt or engine.



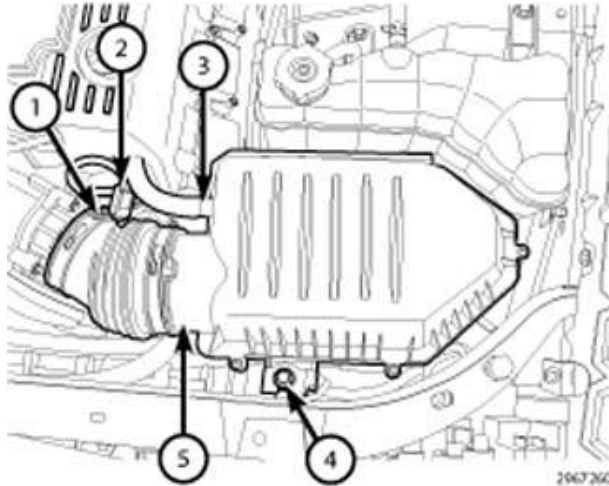
INSTALLATION INSTRUCTIONS

STAGE 2 KIT PART NUMBER 77072313AB

2011-2017 DODGE CHARGER/CHALLENGER 5.7 HEMI

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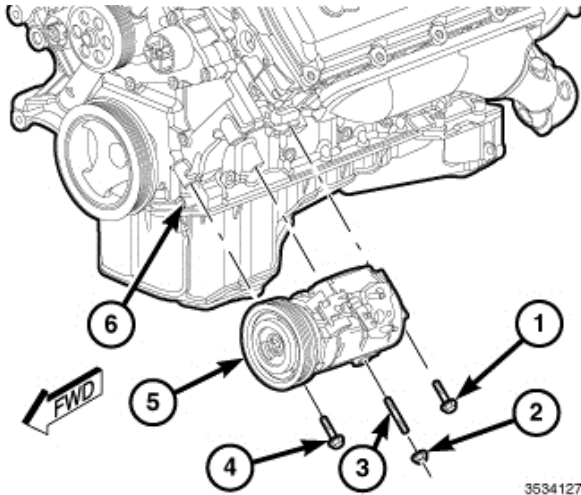


18. Connect the negative cable.
19. Install the air intake assembly (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Installation).
20. Fill the cooling system with coolant (Refer to 07 - Cooling - Standard Procedure).
21. Operate the engine until it reaches normal operating temperature. Check the cooling system and automatic transmission for the correct fluid levels.



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**24 - Heating and Air Conditioning / Plumbing /
COMPRESSOR, A/C/Installation**



CAUTION: If the A/C compressor is being replaced, be certain to adjust the refrigerant system oil level. Failure to properly adjust the refrigerant oil level will prevent the A/C system from operating as designed and can cause serious A/C compressor damage.

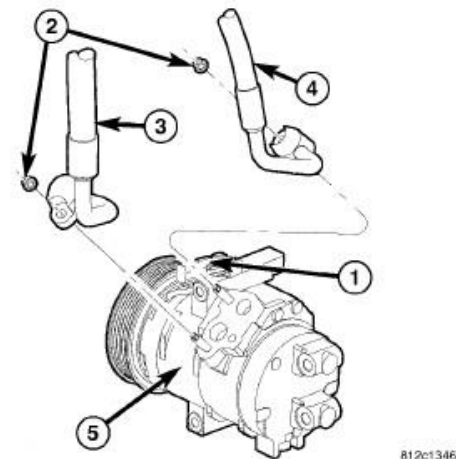
CAUTION: The A/C receiver/drier must be replaced if an internal failure of the A/C compressor has occurred. Failure to replace the A/C receiver/drier can cause serious damage to the replacement A/C compressor.

NOTE: When replacing multiple A/C system components, see the Refrigerant Oil Capacities chart to determine how much oil should be removed from the new A/C compressor. (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).

NOTE: Replacement of the refrigerant line O-ring seals and gaskets is required anytime a refrigerant line is disconnected. Failure to replace the rubber O-ring seals and metal gaskets could result in a refrigerant system leak.

1. If the A/C compressor (5) is being replaced, the refrigerant oil in the old compressor must be first drained and measured. Then the oil in the new A/C

compressor must be drained. Finally, the new compressor must be refilled with the same amount of new refrigerant oil that was drained out of the old compressor. When replacing multiple A/C system components, see the Refrigerant Oil Capacities chart to determine how much oil should be added to the refrigerant system. (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure). Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.



2. Position the A/C compressor to the engine (6) and install the stud (3). Tighten the stud to the proper (Torque Specifications).
3. Loosely install the two bolts (1 and 4) and one nut (2) that secure the A/C compressor to the engine.
4. Tighten the nut and bolts to 28 N·m (21 ft. lbs.) using the following sequence:
 - Nut at front of compressor.
 - Bolt at front of compressor.
 - Bolt at rear of compressor.
5. Install the front belly pan. (Refer to 13 - Frame and Bumpers/Under Body Protection/BELLY PAN/Installation).

NOTE: Typical A/C compressor and refrigerant lines shown.



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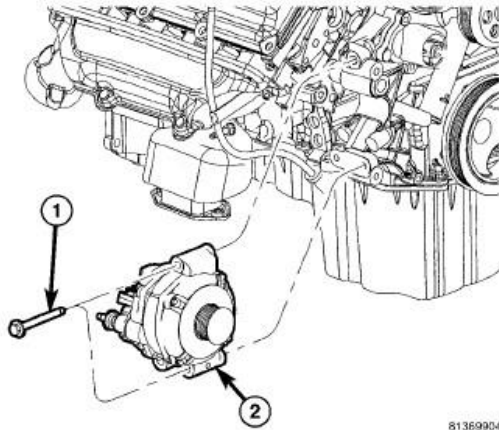
6. Connect the engine wire harness to the A/C clutch connector (1).
7. Remove the tape or plugs from the opened fittings on the A/C suction line (3) and the A/C discharge line (4) and the compressor ports.
8. Lubricate new dual plane seals with clean refrigerant oil and install them onto the suction and the discharge line fittings. Use only the specified seals as they are made of a special material for the specific refrigerant in the system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
9. Connect the A/C suction and discharge lines onto the A/C compressor (5).
10. Install the nuts (2) that secure the A/C suction and discharge lines to the A/C compressor and tighten to the proper **(Torque Specifications)**.
11. On SRT models, reposition the power steering pump and reservoir. **(Refer to 19 - Steering/Pump/RESERVOIR, Power Steering Pump - Installation)**.
12. Install the accessory drive belt. **(Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Installation)**.
13. Install the air cleaner body. **(Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner/Installation)**.
14. Connect the negative battery cable. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.
15. Evacuate and charge the refrigerant system. **(Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure)**.



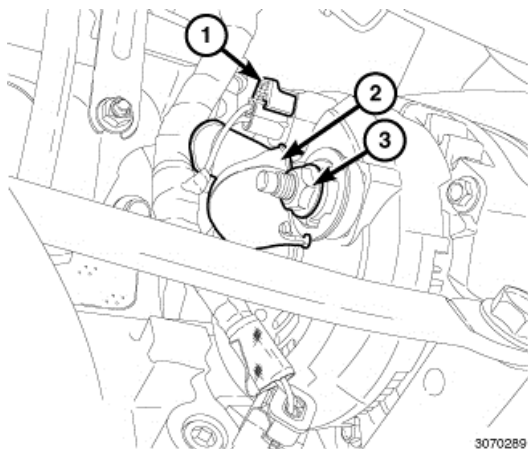
INSTALLATION INSTRUCTIONS
STAGE 2 KIT PART NUMBER 77072313AB
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**8F - Engine Systems / Charging /
GENERATOR/Installation**

1. Position the generator (2) and install the upper generator retaining bolt (1) finger tight.

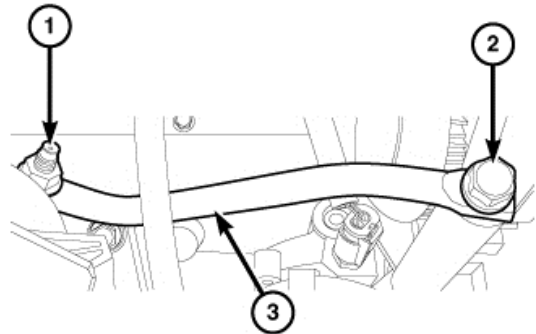


2. Raise and support the vehicle.
3. Position the generator B+ terminal eyelet to the generator output stud, install the retaining nut (3) and tighten to 14 N·m (10 ft. lbs.).

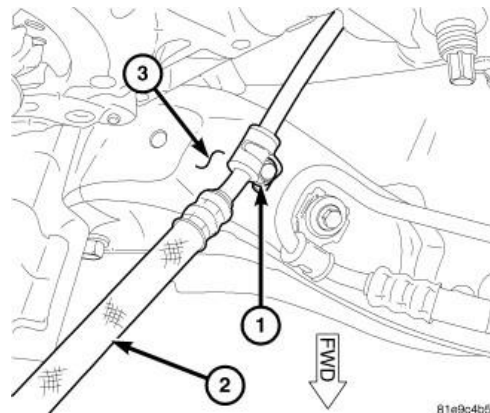


4. Install the insulator cover (2) onto the B+ output terminal.

5. Snap the field wire connector (1) into the rear of the generator.
6. Position the generator support bracket (3) to the engine mount, install the retaining nut (1) finger tight.



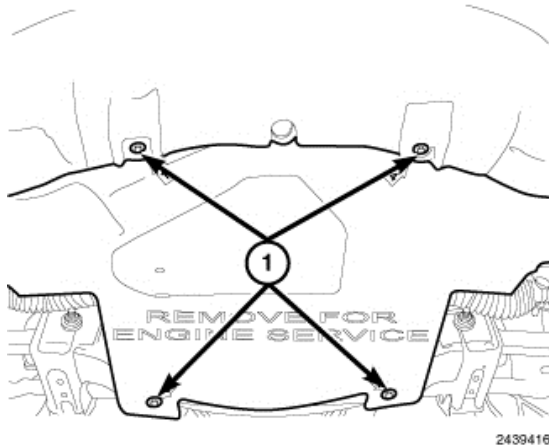
7. Position the generator support bracket (3) to the generator and install the retaining bolt (2) finger tight.
8. Install the remaining generator retaining bolt and tighten both lower retaining bolts to 54 N·m (40 ft. lbs.).
9. Tighten the generator support bracket (3) to engine mount retaining nut (1) to 28 N·m (21 ft. lbs.).
10. Position transmission cooler line (2) and install the transmission cooler line retainer clamp (1) to the right crossmember (3).





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11. Position the belly pan and install the belly pan retainers (1).



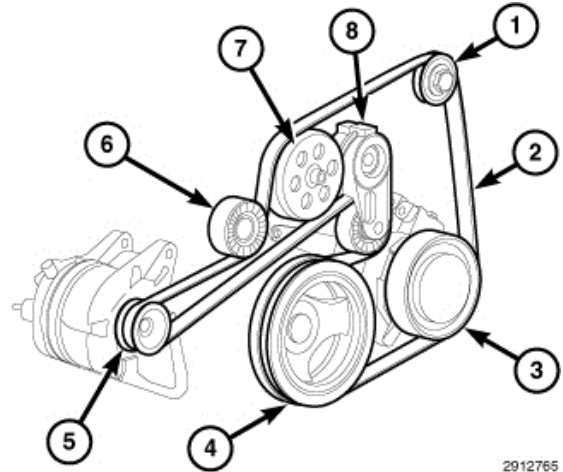
12. Lower the vehicle.

13. Tighten the generator upper retaining bolt to 54 N·m (40 ft. lbs.).

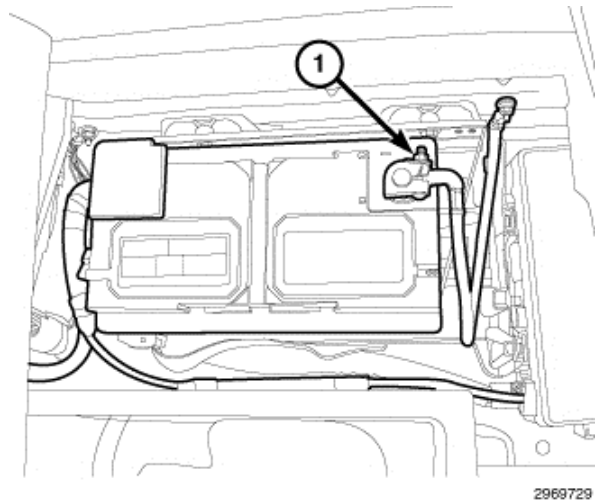
CAUTION: When installing a serpentine accessory drive belt, the belt **MUST** be routed correctly. The water pump may be rotating in the wrong direction if the belt is installed incorrectly, causing the engine to overheat.

CAUTION: Do not let the tensioner arm snap back to the frearm position, sever damage may occur to the tensioner.

14. Rotate the accessory drive belt tensioner (8) clockwise until it contacts the stop, install the accessory drive belt (2) onto the pulleys and slowly release the tensioner.



15. Connect the negative battery cable and tighten the nut (1) to 5 N·m (45 in. lbs.).

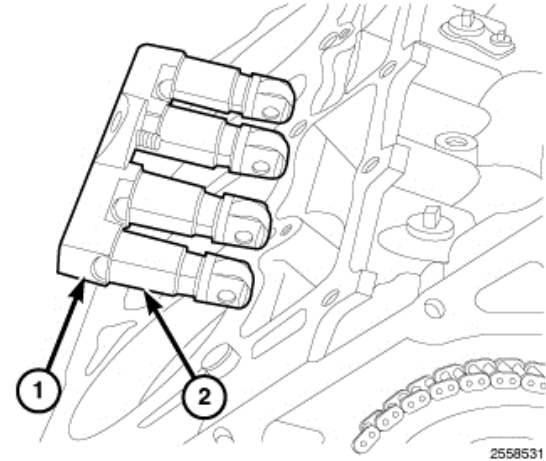
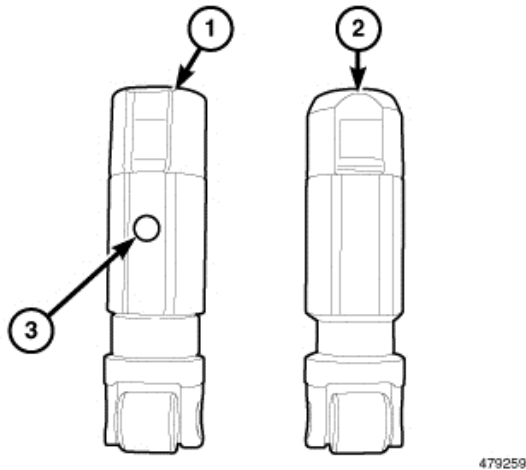




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09 - Engine, 5.7L / Engine Block / LIFTER(S), Hydraulic, Roller/Installation

The Multiple Displacement System (MDS) provides cylinder deactivation during steady speed, low acceleration and shallow grade climbing conditions to increase fuel economy.



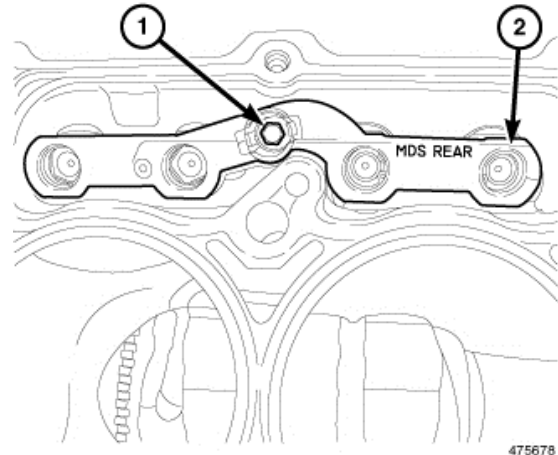
2. Install roller lifters and the lifter guide holder (2). Tighten bolt (1) to the proper (Torque Specifications).

CAUTION: Engines equipped with MDS use both standard roller lifters (2) and deactivating roller lifters (1). The deactivating roller lifters must be used in cylinders 1,4,6,7. The deactivating lifters can be identified by the two holes in the side of the lifter body (3), for the latching pins.

CAUTION: The lifter and retainer assembly must be installed as a unit.

1. Lubricate the tappet guide holder (1) and tappets (2).

CAUTION: If the lifters and guide holder assembly are to be reused, they must be installed in their original location.



3. Install the cylinder head (Refer to 09 - Engine/Cylinder Head - Installation).

4. Connect the negative battery cable.

CAUTION: To prevent damage to valve assemblies, do not run the engine above fast idle until all hydraulic lifters have filled with oil and have become quiet.

5. Start the engine and check for leaks.

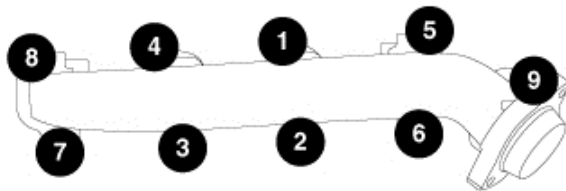
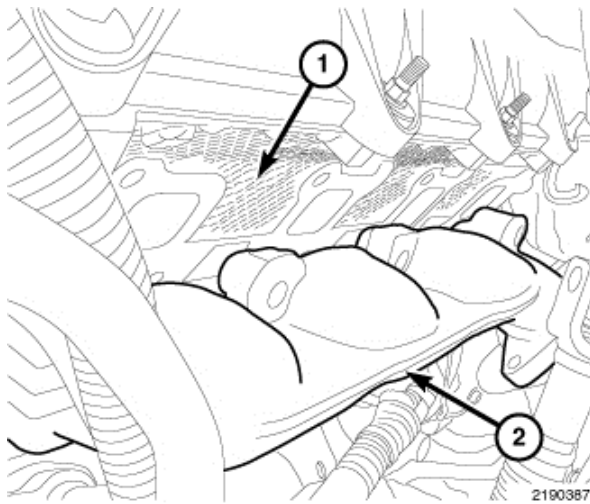
6. Road test the vehicle.



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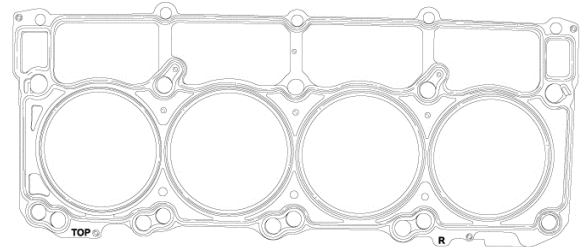
09 - Engine, 5.7L / Cylinder Head/Installation

1. If replacing the cylinder head, transfer the valves, valve seals and valve springs to the new cylinder head (Refer to 09 - Engine/Cylinder Head/VALVES, Intake and Exhaust - Installation), if valve re-facing is necessary (Refer to 09 - Engine/Cylinder Head/VALVES, Intake and Exhaust - Standard Procedure).
2. If replacing the cylinder head, transfer the spark plugs to the new cylinder head (Refer to 08 - Electrical/8I - Ignition Control/SPARK PLUG - Installation).
3. Using a new gasket, install the exhaust manifold. Using the sequence shown, tighten bolts/studs to 25 N·m (18 ft. lbs.).

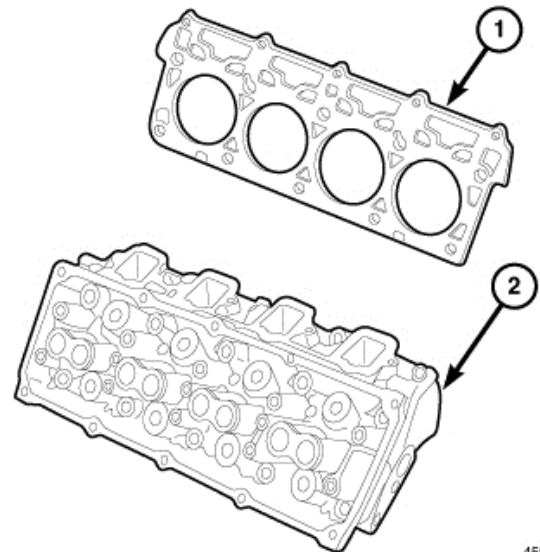


4. **CAUTION:** The cylinder head gaskets are not interchangeable between the left and right sides. They are marked with an "L" and "R" to indicate the left or right side and they are marked

"TOP" to indicate which side goes up.



5. Clean all gasket sealing surfaces of the cylinder block and cylinder heads using a suitable solvent.
6. Install the new cylinder head gaskets (1).

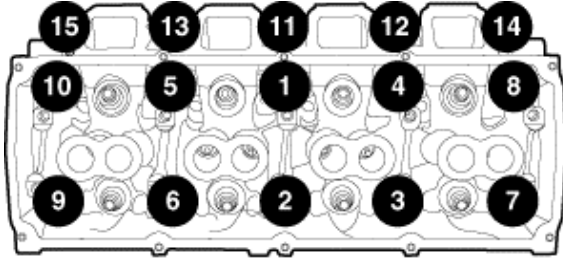


Left side shown, right side similar.

7. Install the cylinder heads (2).
8. Using the sequence shown, tighten the cylinder head bolts 1 through 10 to 34 N·m (25 ft. lbs.).

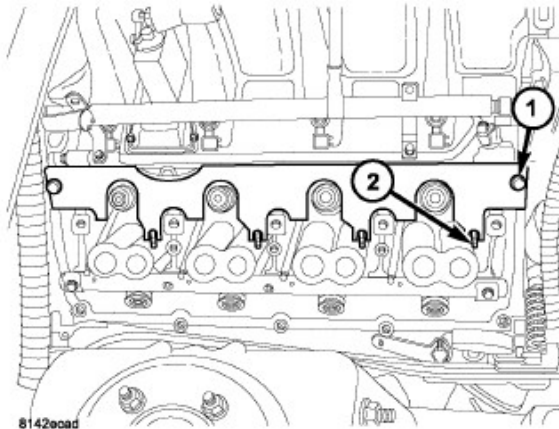


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STAGE 2 KIT PART NUMBER 77072313AB
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2011-2017 CHRYSLER 300 5.7 HEMI



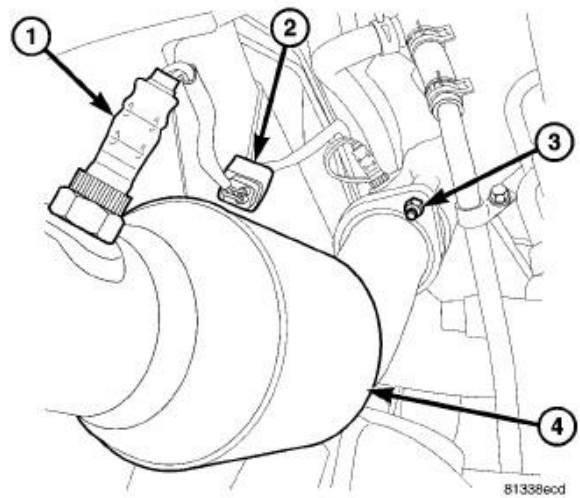
Left side shown, right side similar.

9. Using the sequence shown, tighten the cylinder head bolts 11 through 15 to 20 N·m (177 in. lbs.).
10. Using the sequence shown, tighten the cylinder head bolts 1 through 10 to 61 N·m (45 ft. lbs.).
11. Using the sequence shown, tighten the cylinder head bolts 11 through 15 to 28 N·m (21 ft. lbs.).
12. Using the sequence shown, rotate the cylinder head bolts 1 through 10 an additional 90° turn.
13. Install the push rods and rocker arm assemblies in their original position, using Pushrod Retainer 9070 (1) (Refer to 09 - Engine/Cylinder Head/ROCKER ARM, Valve - Installation).

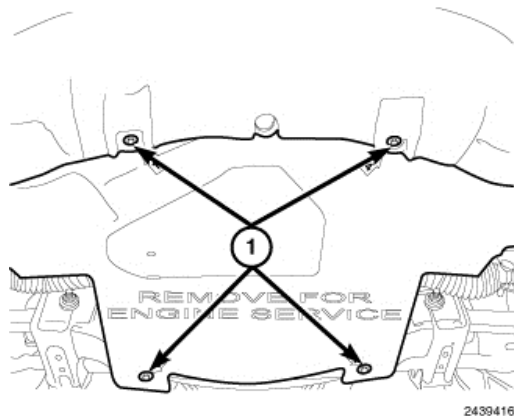


14. If Installing the right cylinder head, install the engine oil dip stick tube and nut.
15. Install the cylinder head covers (Refer to 09 - Engine/Cylinder Head/COVER(S), Cylinder Head/Installation).

16. Install the serpentine belt (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine/Installation).
17. Raise and support the vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting - Standard Procedure).
18. Install the catalytic converters (4) Tighten nuts (3) to the proper (Torque Specifications).



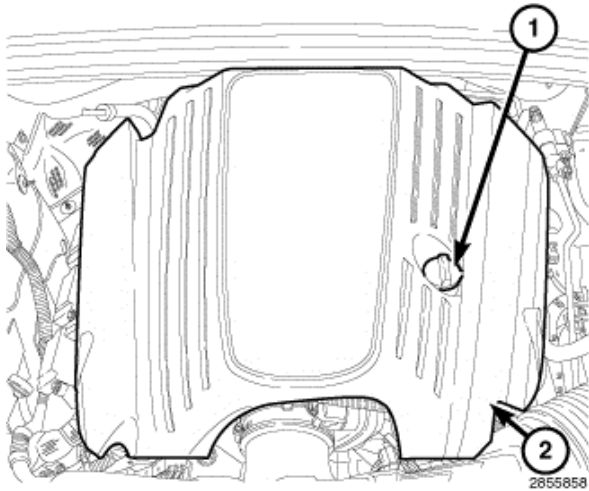
19. Connect the oxygen sensor wire harness connectors (2).
20. Install the belly pan and retainers (1).





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21. Remove support and lower the vehicle.
22. Install the intake manifold (Refer to 09 - Engine/Manifolds/MANIFOLD, Intake - Installation).
23. Change the engine oil and oil filter (Refer to 09 - Engine/Lubrication/OIL/Standard Procedure).
24. Fill the cooling system with the specified type and amount of engine coolant (Refer to 07 - Cooling - Standard Procedure).
25. Install the engine cover (2).



26. Connect the negative battery cable.
27. Start the engine and check for leaks.



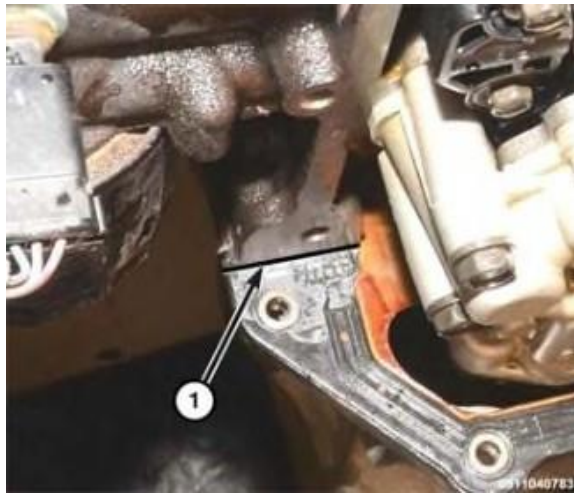
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**09 - Engine, 5.7L / Valve Timing / COVER(S),
Engine Timing/Installation**

1. Place a shop towel over the engine oil pan opening to catch any debris created while cleaning the sealing surfaces on the engine block.
2. Clean the engine timing cover and engine block surface.

NOTE: Always install new gaskets and seals when servicing the engine timing cover.

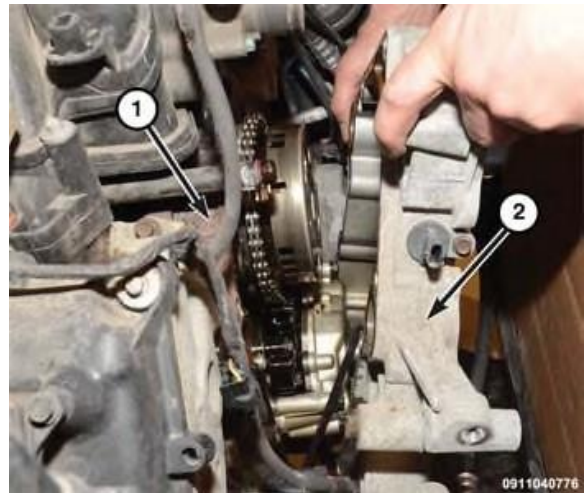
3. Apply a small bead of RTV sealant to right edge of the engine block, where the engine block meets the oil pan (1).



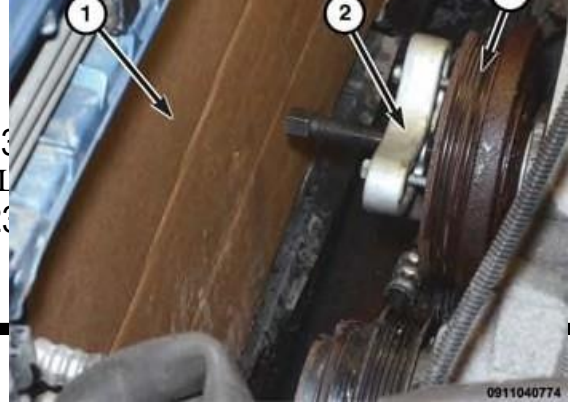
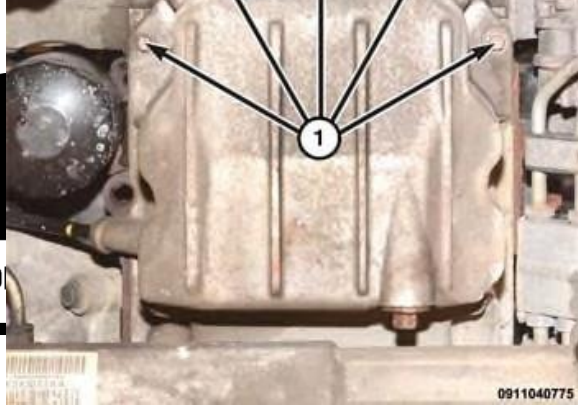
4. Apply a small bead of RTV sealant to the left edge of the engine block, where the engine meets the oil pan (1).



5. Verify that the engine timing cover slide bushings remain located in the engine timing cover.
6. Using a new gasket, install the engine timing cover (2) to the engine (1) and tighten the six retaining bolts to 28 N·m (21 ft. lbs.).



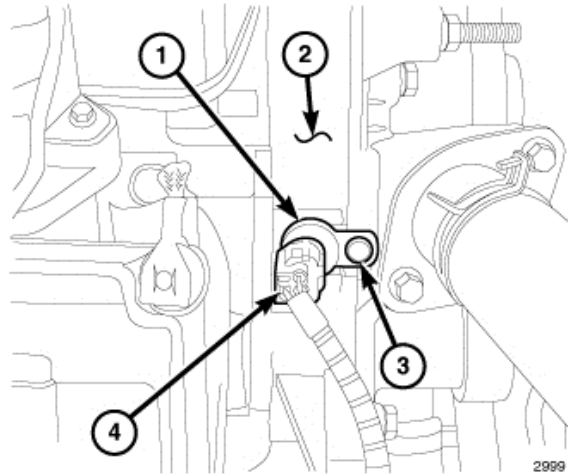
7. Raise the vehicle.
8. Install the five oil pan bolts and tighten the bolts to 12 N·m (108 in. lbs.).



9. Replace the oil filter.
10. Install the A/C compressor (Refer to 24 - Heating and Air Conditioning/Plumbing/COMPRESSOR, A/C - Installation).
11. Install the lower radiator hose and clamp.
12. Install the generator (Refer to 08 - Electrical/8F - Engine Systems/Charging/GENERATOR - Installation).
13. Lower the vehicle.
14. Install the accessory drive belt idler pulley (Refer to 07 - Cooling/Accessory Drive/PULLEY, Idler/Installation).
15. Install the accessory drive belt tensioner (Refer to 07 - Cooling/Accessory Drive/TENSIONER, Belt/Installation).
16. Install the crankshaft vibration damper (3) (Refer to 09 - Engine/Engine Block/DAMPER, Vibration/Installation).

NOTE: Remove the protective cover (1) from the radiator face.

17. Connect the camshaft position (CMP) sensor electrical connector (4).



18. Install the heater tube (3) into of the water pump.



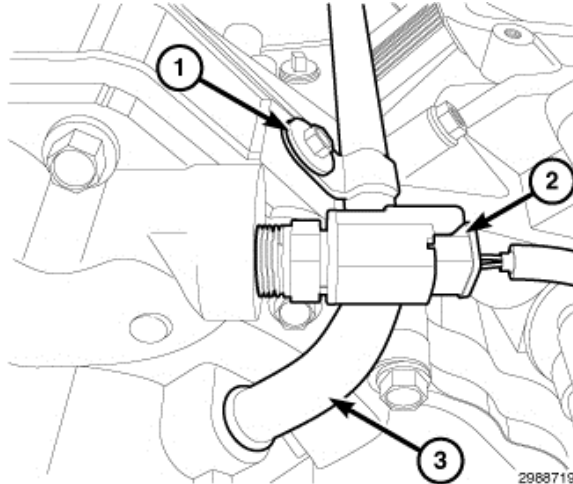
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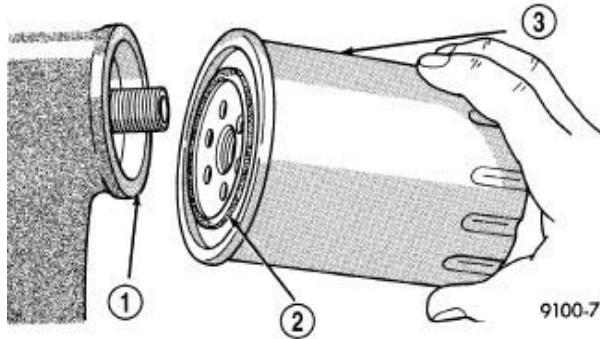
19. Install the heater tube bracket bolt located at the rear of the left cylinder head.
20. Install the heater tube retaining bolt (1) and tighten to 12 N·m (9 ft. lbs.).
21. Connect the coolant temperature sensor electrical connector (2).
22. Install the power steering pump (Refer to 19 - Steering/Pump/Installation).
23. Install the upper radiator hose and clamp.
24. Fill the cooling system with the specified type and amount of engine coolant (Refer to 07 - Cooling - Standard Procedure).
25. Install the air cleaner assembly (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner/Installation).
26. Connect the negative battery cable and tighten nut to 5 N·m (45 in. lbs.).
27. Fill the crankcase with the specified type and amount of engine oil (Refer to 09 - Engine/Lubrication/OIL - Standard Procedure).
28. Start the engine and check for leaks.



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**09 - Engine, 5.7L / Lubrication / FILTER,
Engine Oil/Installation**

1. Lightly lubricate oil filter gasket (2) with engine oil.



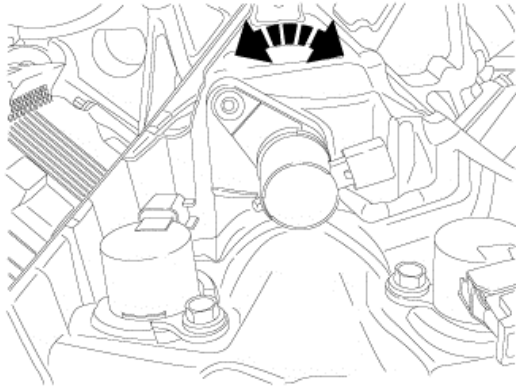
2. Thread filter (3) onto adapter nipple. When gasket makes contact with sealing surface (1), hand tighten filter one half turn, or 180°. Do not over tighten.
3. Add oil, verify crankcase oil level and start engine. Inspect for oil leaks.



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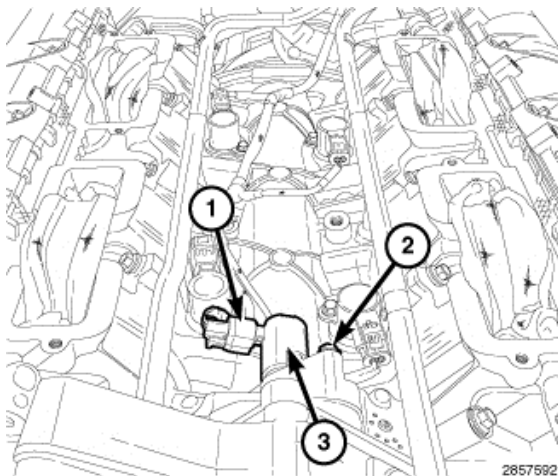
**09 - Engine, 5.7L / Lubrication / SOLENOID,
Variable Valve Timing (VVTs),
Exhaust/Installation**

1. Lubricate the Variable Valve Timing Solenoid (VVTs) rubber O-ring seal with clean engine oil.



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2. Install the VVTs and rotate into position.
3. Install the VVTs (3) retaining bolt (2) and tighten to the proper (**Torque Specifications**).
4. Connect the VVTs wire harness connector (1).
5. Install the intake manifold (**Refer to 09 - Engine/Manifolds/MANIFOLD, Intake - Installation**).



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24 - Heating and Air Conditioning / Plumbing / OIL, Refrigerant/Standard Procedure **STANDARD PROCEDURE - REFRIGERANT OIL LEVEL**

When an A/C system is assembled at the factory, all components except the A/C compressor are refrigerant oil free. After the refrigerant system has been charged and operated, the refrigerant oil in the A/C compressor is dispersed throughout the refrigerant system. The receiver/drier, A/C evaporator, A/C condenser and the A/C compressor will each retain a significant amount of the needed refrigerant oil.

It is important to have the correct amount of refrigerant oil in the A/C system. This ensures proper lubrication of the A/C compressor. Too little oil will result in damage to the A/C compressor, while too much oil will reduce the cooling capacity of the A/C system and consequently result in higher discharge air temperatures.

NOTE: The refrigerant oil in the A/C system is unique depending on the A/C compressor used. Use only PAG oils that are designed to work with the refrigerant type and A/C compressor in the vehicle. Always refer to the A/C Underhood Specification Label for the correct oil designation. The refrigerant oil container should be kept tightly capped until it is ready for use, and then tightly recapped after use to prevent contamination from dirt and moisture. Refrigerant oil will quickly absorb any moisture it comes in contact with, therefore, special effort must be used to keep all system components moisture-free. Moisture in the refrigerant oil is very difficult to remove and will cause a reliability problem with the A/C compressor.

NOTE: Most reclaim/recycling equipment will measure the lubricant being removed during recovery. This amount of lubricant should be added back into the system. Refer to the reclaim/recycling equipment manufacturers instructions.

It will not be necessary to check the oil level in the A/C compressor or to add oil, unless there has been an oil loss.

An oil loss may occur due to a rupture or leak from a refrigerant line, a connector fitting, a component, or a component seal. If a leak occurs, add 30 milliliters (1 fluid ounce) of refrigerant oil to the refrigerant system after the repair has been made. Refrigerant oil loss will be evident at the leak point by the presence of a wet, shiny surface around the leak.

Refrigerant oil must be added when an A/C condenser, A/C evaporator or A/C receiver/drier is replaced. See the Refrigerant Oil Capacities chart.

The refrigerant oil level in a new A/C compressor must first be adjusted prior to compressor installation.

REFRIGERANT OIL TYPE

A/C Compressor	Oil Type
Denso 10SRE18 - 5.7L/6.4L Engines	ND-12 PAG oil*
Visteon RS-18 - 3.6L Engine	VC-46 PAG oil*

*Always use the type of PAG oil listed for the model being serviced. See A/C Underhood Specification Label located in the engine compartment. Do not mix different types of PAG oils.

REFRIGERANT OIL CAPACITIES

COMPONENT	ml.	oz.
Total System Fill	120	4.1
A/C Condenser	30	1.0
A/C Evaporator	60	2.0
A/C Receiver/drier	30	1.0
A/C Compressor	Drain and measure the oil from the old compressor (See Compressor Oil Drain Procedure)	



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COMPRESSOR OIL DRAIN PROCEDURE

CAUTION: Be certain to adjust the refrigerant system oil level when replacing an A/C compressor. Failure to properly drain and measure the refrigerant oil from the A/C compressor can prevent the A/C system from operating as designed and cause serious compressor damage.

The A/C compressor is filled with refrigerant oil from the factory. Use the following procedure to drain and measure refrigerant oil from the A/C compressor.

1. Drain all of the refrigerant oil from the old A/C compressor into a clean measured container.
2. Drain all of the refrigerant oil from the new A/C compressor into a clean measured container.
3. Refill the new A/C compressor with the same amount of refrigerant oil that was drained out of the old compressor. Use only clean refrigerant oil of the type specified for the A/C compressor in the vehicle.
4. Install the new A/C compressor onto the engine.
(Refer to 24 - Heating and Air Conditioning/Plumbing/COMPRESSOR, A/C - Installation).



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**24 - Heating and Air Conditioning / Plumbing /
DRIER, A/C Receiver/Installation**

CAUTION: Be certain to adjust the refrigerant oil level when servicing the A/C refrigerant system. Failure to properly adjust the refrigerant oil level prevents the A/C system from operating as designed and can cause serious A/C compressor damage.

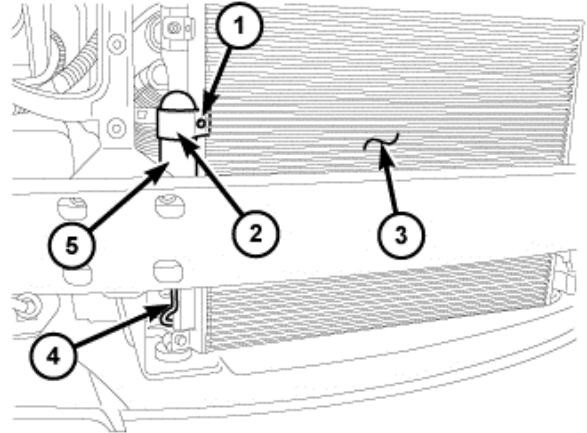
CAUTION: The A/C receiver/drier must be replaced if an internal failure of the A/C compressor has occurred. Failure to replace the A/C receiver/drier can cause serious damage to the replacement A/C compressor.

NOTE: When replacing multiple A/C system components, refer to the Refrigerant Oil Capacities chart to determine how much oil should be added to the refrigerant system. (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).

NOTE: If only the A/C receiver/drier is being replaced, add 30 milliliters (1 fluid ounce) of refrigerant oil to the refrigerant system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.

NOTE: Replacement of the refrigerant line O-ring seals and gaskets is required anytime a refrigerant line is disconnected. Failure to replace the rubber O-ring seals and metal gaskets could result in a refrigerant system leak.

1. Position the receiver/drier (5) into the engine compartment.



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2. Remove the tape or plugs from the receiver/drier fitting and the ports of the A/C condenser (3).
3. Lubricate a new dual-plane seal with clean refrigerant oil and install it onto the receiver/drier fitting. Use only the specified seal, as it is made of a special material for the system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
4. Connect the receiver/drier to the right end of the A/C condenser.
5. Install the bolt (4) that secures the receiver/drier to the A/C condenser. Tighten the bolt to 22 N·m (16 ft. lbs.).
6. Install the receiver/drier mounting bracket (2) onto the A/C condenser.
7. Install the screw (1) securing the receiver/drier mounting bracket onto the A/C condenser. Tighten the screw to to 5 N·m (44 in. lbs.).
8. Install the front fascia (Refer to 13 - Frame and Bumpers/Bumpers/FASCIA, Front - Installation).
9. Reconnect the negative battery cable.
10. Evacuate the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).



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11. If the A/C receiver/drier is being replaced, add 30 milliliters (1 fluid ounce) of refrigerant oil to the refrigerant system. When replacing multiple A/C system components, refer to the Refrigerant Oil Capacities chart to determine how much oil should be added to the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure). Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
12. Charge the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).



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24 - Heating and Air Conditioning / Plumbing / LINE, A/C Discharge/Installation

CAUTION: Be certain to adjust the refrigerant oil level when servicing the A/C refrigerant system. Failure to properly adjust the refrigerant oil level will prevent the A/C system from operating as designed and can cause serious A/C compressor damage.

NOTE: When replacing multiple A/C system components, refer to the Refrigerant Oil Capacities chart to determine how much oil should be added to the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).

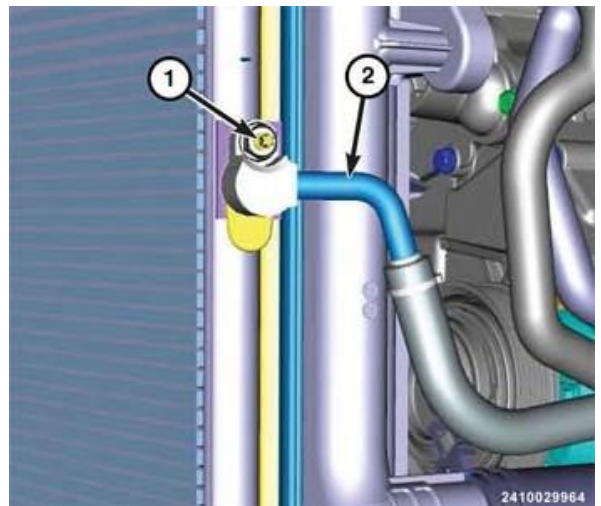
NOTE: Replacement of the refrigerant line O-ring seals and gaskets is required anytime a refrigerant line is disconnected. Failure to replace the rubber O-ring seals and metal gaskets could result in a refrigerant system leak.

1. Position the A/C discharge line (1) into the engine compartment.



2. Remove the tape or plugs from the opened fitting on the A/C discharge line and the outlet port on the A/C compressor.

3. Lubricate a new dual plane seal with clean refrigerant oil and install it onto the discharge line fitting. Use only the specified seal as it is made of a special material for the system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
4. Install the A/C discharge line onto the A/C compressor.
5. Install the nut (2) that secures the A/C discharge line to the A/C compressor. Tighten the nut to 23 N·m (17 ft. lbs.).
6. Remove the tape or plugs from the opened discharge line fitting and the inlet port on the A/C condenser.
7. Lubricate a new dual plane seal with clean refrigerant oil and install it onto the discharge line fitting. Use only the specified seal as it is made of a special material for the system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
8. Install the A/C discharge line (2) onto the A/C condenser.



9. Reach through the headlamp opening in the upper radiator support and install the nut (1) that secures the A/C discharge line to the A/C condenser.



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Tighten the nut to 22 N·m (16 ft. lbs.).

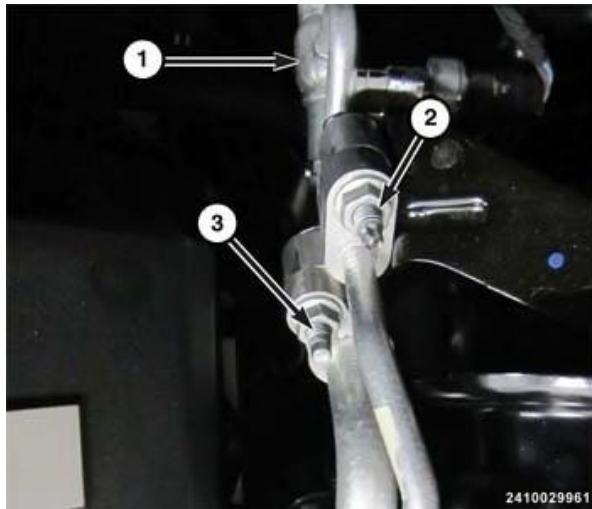
10. Install the air cleaner housing (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Installation).
11. Connect the negative battery cable.
12. Evacuate the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
13. Adjust the refrigerant oil level (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).
14. Charge the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).



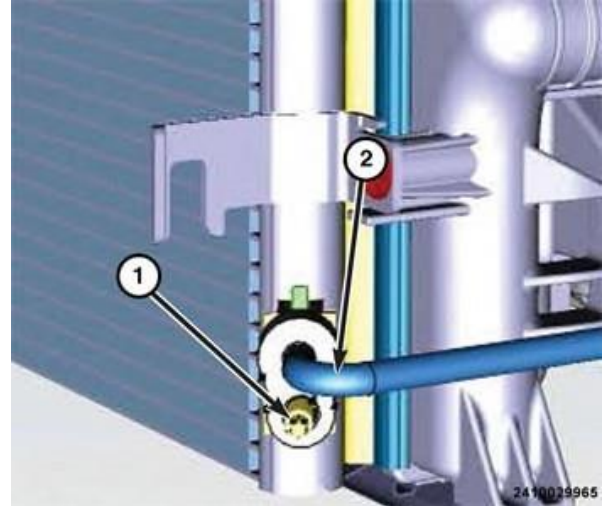
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24 - Heating and Air Conditioning / Plumbing /
LINE, A/C Liquid/Installation
LIQUID LINE

1. Position the liquid line into the engine compartment.
2. Remove the tape or plugs from the fittings that connect the liquid line to the Internal Heat Exchanger (1).



3. Lubricate a new dual plane seal with clean refrigerant oil and install it onto the liquid line fitting. Use only the specified seal as it is made of a special material for the system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
4. Connect the A/C liquid line to the Internal Heat Exchanger.
5. Install the nut (2) that secures the A/C liquid line to the Internal Heat Exchanger and tighten the nut to 22 N·m (16 ft. lbs.).
6. Raise and support the vehicle.
7. Remove the tape or plugs from the fitting on the liquid line (2) and the outlet port of the A/C condenser.



8. Lubricate a new dual plane seal with clean refrigerant oil and install it onto the liquid line fitting. Use only the specified seal as it is made of a special material for the system. Use only refrigerant oil of the type recommended for the A/C compressor in the vehicle.
9. Connect the A/C liquid line to the A/C condenser.
10. Install the nut (1) that secures the front section of the A/C liquid line to the A/C condenser and tighten the nut to 22 N·m (16 ft. lbs.).
11. Install the front belly pan (Refer to 13 - Frame and Bumpers/Under Body Protection/BELLY PAN - Installation).
12. Lower the vehicle.
13. Install the air cleaner housing (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Installation).
14. Connect the negative battery cable.
15. Evacuate the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).
16. Adjust the refrigerant oil level (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).



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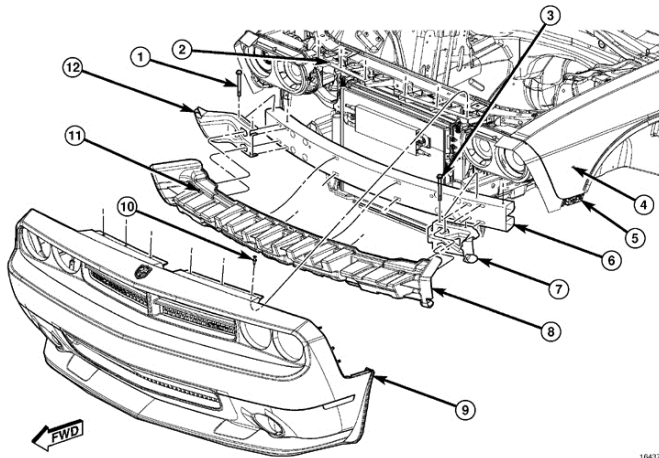
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17. Charge the refrigerant system (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).



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13 - Frame and Bumpers / Bumpers / FASCIA, Front/Installation



1. Place the front fascia assembly in position and connect the fog lamp wire harness connectors, if equipped.
2. Push the left and front side of the fascia in to the fender mounted fascia mounting brackets.
3. Connect the Tire Pressure Monitoring (TPM) connector.
4. If equipped, connect the headlamp washer system hose from washer reservoir.
5. Raise the vehicle.
6. Install the mounting fasteners that secures the front fascia assembly (9) to the inside of the front fender.
7. Install the belly pan.
8. Install the left and right front splash shields as necessary (Refer to 23 - Body/Exterior/SHIELD, Splash - Installation).
9. Lower the vehicle.



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**24 - Heating and Air Conditioning /
Plumbing/Standard Procedure**
**R-1234YF REFRIGERANT
SYSTEM EVACUATE**

If the A/C refrigerant system has been open to the atmosphere, it must be evacuated before the A/C system can be recharged with R-1234yf refrigerant.

NOTE: Special effort must be used to prevent moisture from entering the A/C system oil. Moisture in the oil is very difficult to remove and will cause a reliability problem with the A/C compressor.

Moisture and air in the A/C refrigerant system will raise the compressor head pressure above acceptable operating levels. This will reduce the performance of the A/C system and damage the A/C compressor. Moisture will boil at near room temperature when exposed to vacuum. Always use an R-1234yf refrigerant recovery/recycling/charging station with a vacuum pump that meets SAE standard J2843, or an R-1234yf compatible manifold gauge set and a stand alone vacuum pump.

If an A/C compressor is left open to the atmosphere for an extended period of time, it is recommended that the refrigerant oil in the compressor be drained and replaced with new refrigerant oil to reduce the possibility of contaminating the refrigerant system. (Refer to 24 - Heating and Air Conditioning/Plumbing/OIL, Refrigerant - Standard Procedure).

R-1234YF EVACUATION PROCEDURE

WARNING: Review the safety precautions and warnings in this group before performing this procedure. Failure to follow these instructions may result in serious injury or death.

CAUTION: A small amount of refrigerant oil is removed from the A/C system each time the refrigerant system is recovered and evacuated. Before charging the A/C system, you **MUST** replenish any oil lost during the recovery process. See the equipment manufacturer instructions for more information.

1. Recover the refrigerant system. (Refer to 24 - Heating and Air Conditioning/Plumbing - Standard Procedure).



NOTE: When connecting service equipment couplers to refrigerant line service ports, verify that the valve of each coupler is fully closed prior to connecting. This will reduce the amount of effort required to make the connections.

2. Connect an R-1234yf refrigerant recovery/recycling/charging station with a vacuum pump that meets SAE standard J2843 to the refrigerant system, or an R-1234yf compatible manifold gauge set and a stand alone vacuum pump (depending on available equipment).
3. Open the refrigerant recovery/recycling/charging station or manifold gauge set valves and start the vacuum pump. The vacuum pump should run a minimum of 45 minutes prior to recharge to eliminate all moisture in system. When the low-side gauge reads to the lowest degree of vacuum possible (approximately -88 kPa (-26 in. Hg or greater) for 30 minutes, close all valves and turn off vacuum pump. If the refrigerant system fails to reach specified vacuum, the refrigerant system likely has a leak that must be corrected. If the refrigerant system maintains specified vacuum for at least 30 minutes, start the vacuum pump, open the valves and allow the refrigerant system to evacuate an additional 10 minutes.



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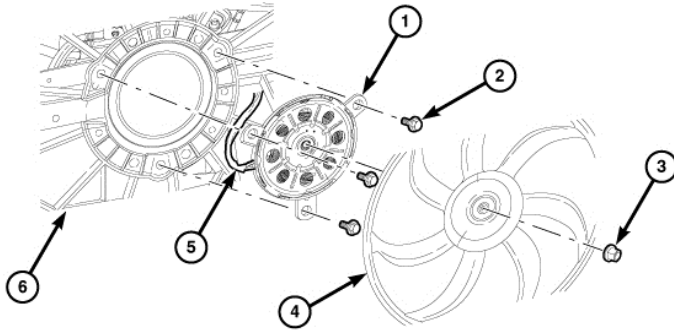
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4. Close the refrigerant recovery/recycling/charging station or manifold gauge set valves. Turn off and disconnect the vacuum pump.
5. Disconnect the refrigerant recovery/recycling/charging station or manifold gauge set from the refrigerant system service ports.
6. Install the caps onto the refrigerant system service ports.

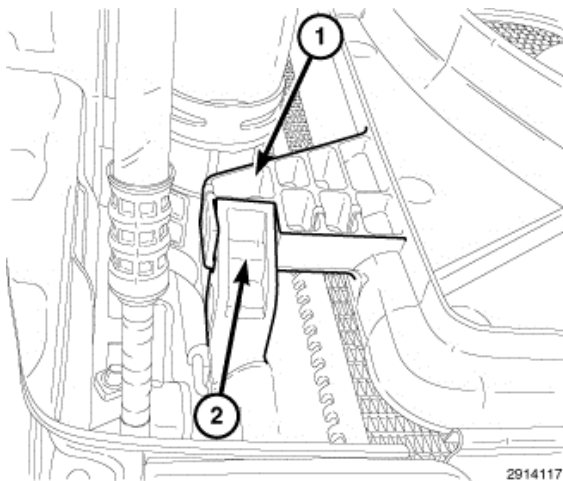


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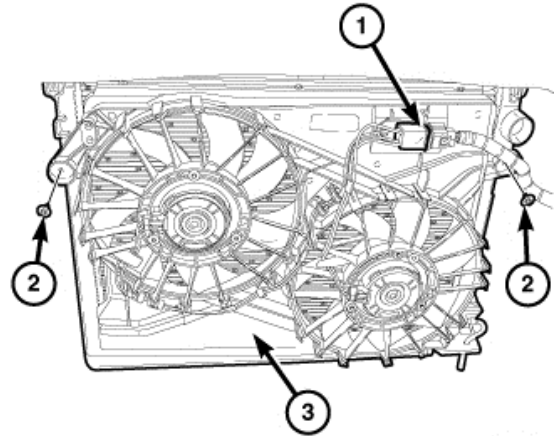
07 - Cooling / Engine / FAN,
Cooling/Installation
5.7L DUAL FAN



1. Install the fan blade (4) to the fan motor. Tighten the nut (3) to the proper **(Torque Specifications)**.
2. Install the fan motor assembly to the shroud (6). Tighten nut (3) to the proper **(Torque Specifications)**.
3. Route the fan motor wiring harness (5) through the fan shroud (6).
4. Install the cooling fan assembly (1) into the lower radiator mounts (2).

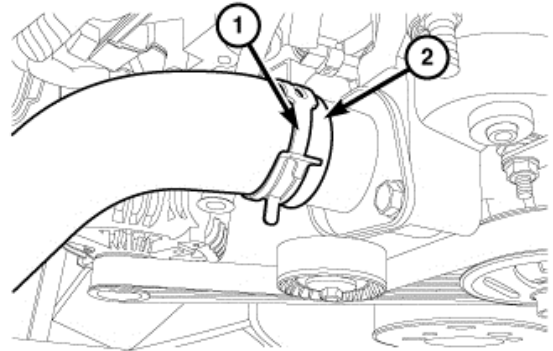


5. Install the cooling fan mounting bolts (2). Tighten bolts to the proper **(Torque Specifications)**.



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6. Connect the cooling fan wire harness connector (1).
7. Install the upper radiator hose.



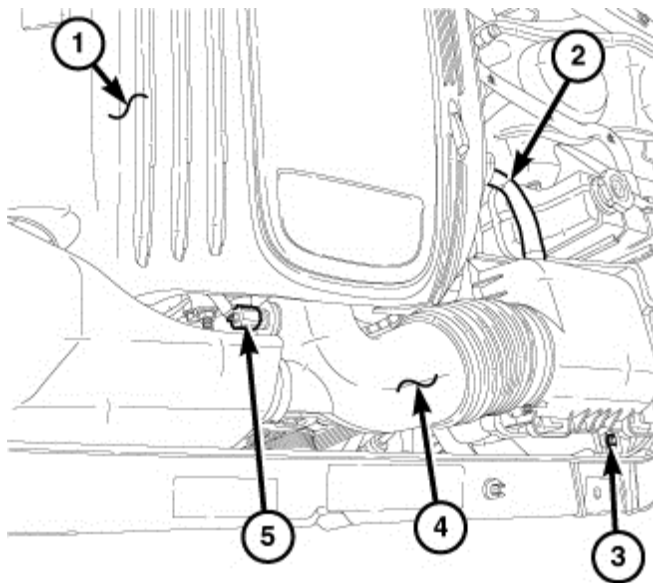
8. Install the air cleaner body **(Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Installation)**.
9. Fill the cooling system **(Refer to 07 - Cooling - Standard Procedure)**.
10. Operate the engine until it reaches normal operating temperature.



INSTALLATION INSTRUCTIONS
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**09 - Engine, 5.7L / Air Intake System / BODY,
Air Cleaner/Installation**

1. Position the air cleaner housing into the engine compartment.
2. Install the air cleaner housing retaining bolt (3) and tighten to 5 N·m (44 in. lbs.).



3. Connect the air duct to the throttle body and the air cleaner housing and tighten clamps to 3 N·m (30 in. lbs.).
4. Connect the make up air hose (MUA) (2).
5. Connect the intake air temperature (IAT) sensor (5) electrical connector.
6. Position the engine cover (1) and secure the retaining grommets onto the ball studs.



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07 - Cooling/Standard Procedure

ADDING ADDITIONAL COOLANT

When additional coolant is needed, it should be added to the Pressurized Coolant Bottle. With the engine cold, add enough coolant to set the level between the add and full indicators on the bottle.

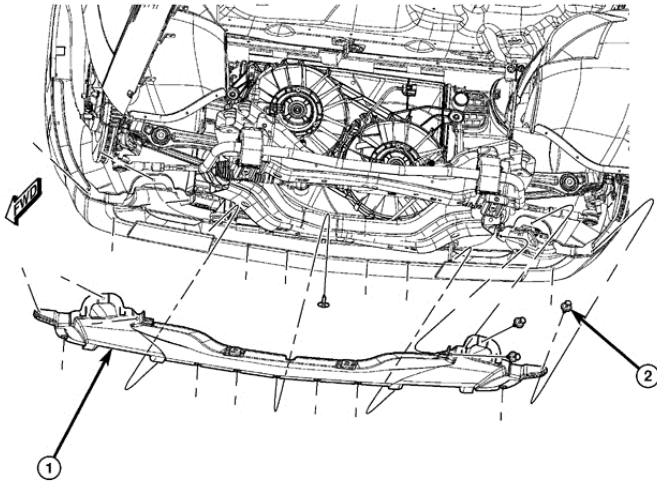
For the proper type of coolant (Refer to 04 - Vehicle Quick Reference/Capacities and Recommended Fluids - Description).

CAUTION: Do not use coolant additives that are claimed to improve engine cooling.



INSTALLATION INSTRUCTIONS
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**13 - Frame and Bumpers / Under Body
Protection / BELLY PAN/Installation**



NOTE: During installation, ensure engine belly pan is shingled underneath front belly pan. Failure to do so may result in damage to belly pan.

1. Position the front belly pan (1) to the underside of the vehicle.
2. Install the fasteners (2) that secure the front belly pan to the underside of the vehicle.
3. Install the fasteners that secure the front belly pan to the front fascia.
4. Install the push pins that connect the front belly pan to the front splash shields.
5. Install the engine belly pan (Refer to 13 - Frame and Bumpers/Under Body Protection/BELLY PAN, Engine/Installation).
6. Remove the support and lower the vehicle.

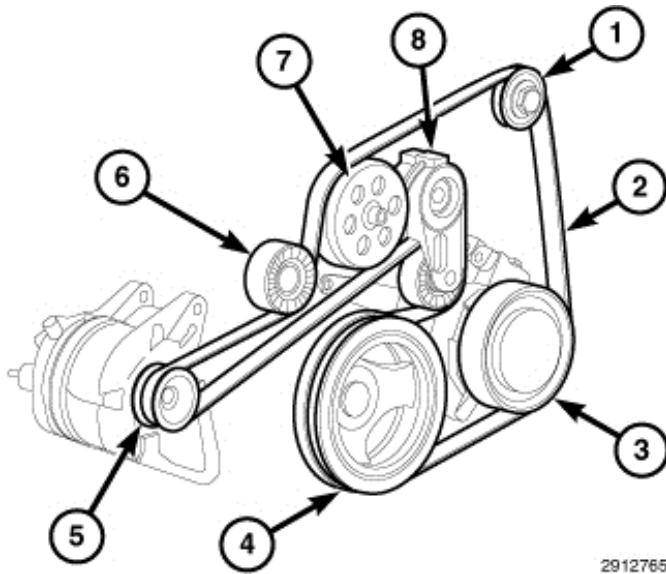


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**07 - Cooling / Accessory Drive / BELT,
Serpentine/Installation**
**5.7L/6.4L ELECTRONIC
POWER STEERING**

NOTE: When installing accessory drive belt onto pulleys, make sure that belt is properly routed and all V-grooves make proper contact with pulleys.

1. Position the drive belt (2) over all pulleys except for the water pump pulley (7).



2. Rotate the tensioner (8) **clockwise** and slip the belt (2) over the water pump pulley (7).
3. Gently release tensioner (8).
4. Install the air intake tube between intake manifold and the air cleaner body.
5. Connect the negative battery cable.



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08 - Electrical / 8I - Ignition Control / SPARK PLUG/Installation

CAUTION: Handle the spark plugs with care. Do not drop or force the spark plugs into the wells, damage to the electrodes and/or porcelain body may occur. Always start each spark plug by hand in order to avoid cross-threading the spark plug in the cylinder head.

Always tighten spark plugs to the specified torque. Too much or not enough torque will cause damage to the cylinder head and/or spark plug and may lead to poor engine performance.

1. To avoid cross threading, start the spark plug(s) into the cylinder head by hand.
2. Tighten the spark plugs as follows:
 - 5.7L Tighten to the proper (Torque Specifications).
 - 6.4L Tighten to the proper (Torque Specifications).
3. Install the ignition coil(s) (Refer to 08 - Electrical/Ignition Control/COIL, Ignition/Installation).
4. Install the engine cover.
5. Connect negative battery cable.

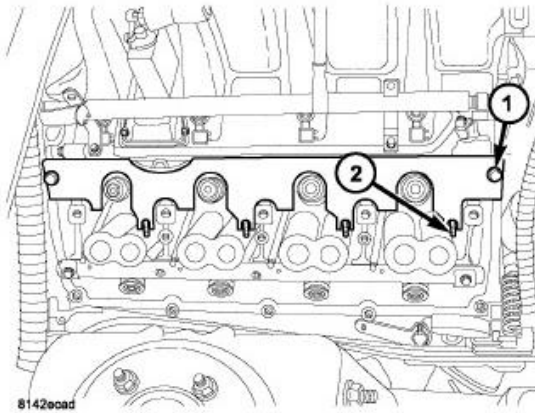


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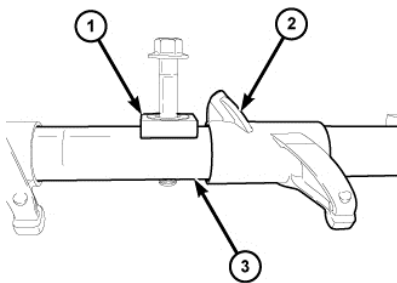
09 - Engine, 5.7L / Cylinder Head / ROCKER ARM, Valve/Installation

CAUTION: The longer pushrods are for the exhaust side and the shorter pushrods are for the intake side.

1. Install the push rods in the same order as removed.
2. Install the push rod retainer 9070 (1).



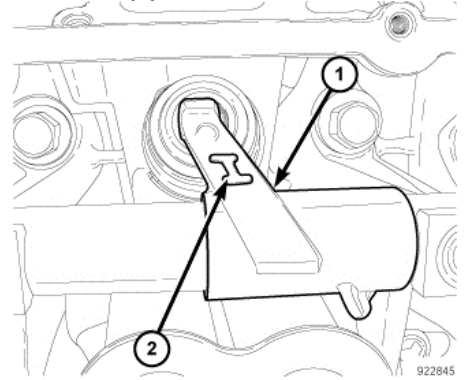
CAUTION: Make sure that the retainers (1) and the rocker arms (2) are not overlapped when tightening bolts or engine damage could result.



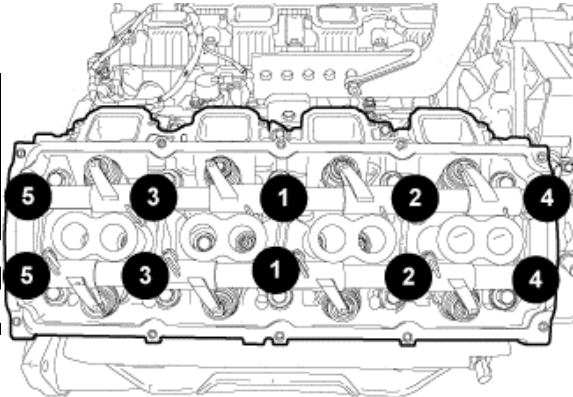
CAUTION: Due to the changes in the pushrod clearance holes in the Eagle 5.7L cylinder heads, close attention must be given when installing the pushrod(s) into the tappet(s). Once the pushrod(s) have been installed,

use a suitable light to look down through the pushrod hole(s). This will allow you to verify the pushrod(s) are centered properly in the tappet(s) and avoid engine damage. Recheck after the rocker shaft assembly has been installed and tightened to specification.

CAUTION: The rocker shaft assemblies are not interchangeable between the intake and the exhaust, failure to install them in the correct location could result in engine damage. The intake rocker arms (1) are marked with the letter "I" (2).



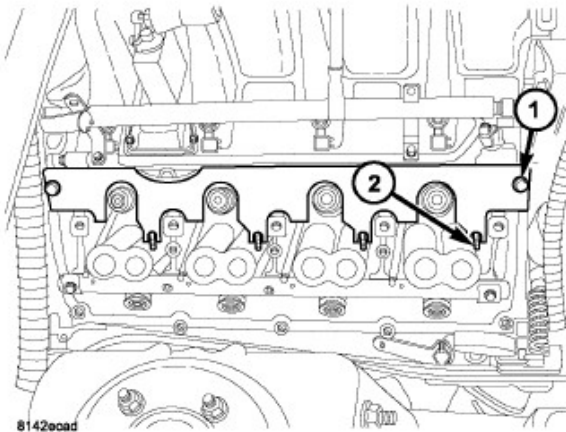
3. Install the rocker arm shaft assemblies in the same order as removed.
4. Using the sequence shown, tighten the rocker shaft bolts as follows:
 - Snug to 10 N·m (7 ft. lbs.)
 - Torque to 23 N·m (17 ft. lbs.)
 - Individually loosen by 1/2 turn and re-torque to 23 N·m (17 ft. lbs.)
 - Finally, Rotate 30 degrees



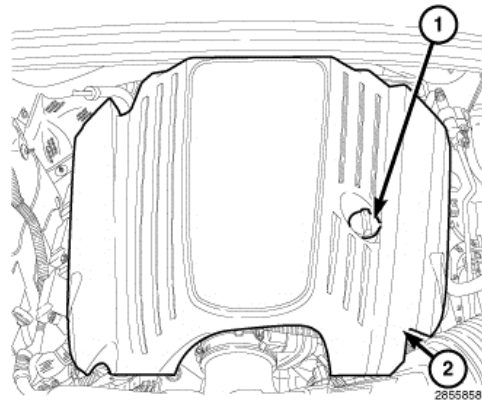
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PART NUMBER 77072313AB
DODGE/CHALLENGER 5.7 HEMI
PART NUMBER 77072315AB
DODGE/CHALLENGER 5.7 HEMI

CAUTION: Do Not rotate or crank the engine during or immediately after rocker arm installation. Allow the hydraulic roller tappets adequate time to bleed down (about five minutes).

5. Remove pushrod retainer 9070 (1).



8. Connect the negative battery cable (1).



6. Install the cylinder head cover (Refer to 09 - Engine/Cylinder Head/COVER(S) , Cylinder Head - Installation).
7. Install the engine cover (2).



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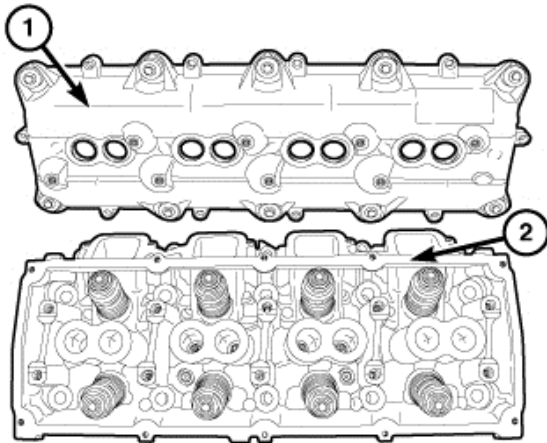
**09 - Engine, 5.7L / Cylinder Head / COVER(S),
Cylinder Head/Installation**

CAUTION: Do not use harsh cleaners to clean the cylinder head covers. Severe damage to covers may occur.

CAUTION: Do not allow other components including the wire harness to rest on or against the engine cylinder head cover. Prolonged contact with other objects may wear a hole in the cylinder head cover.

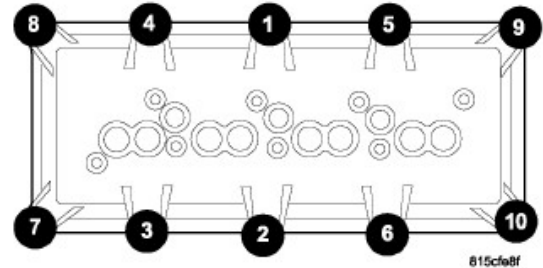
NOTE: The cylinder head cover gasket may be used again, provided no cuts, tears, or deformation have occurred.

1. Clean the cylinder head cover (1) and the sealing surface of the cylinder head (2). Inspect and replace gasket if necessary.



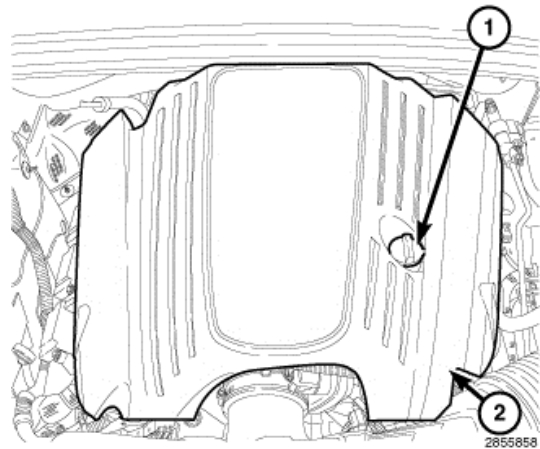
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2. Install the cylinder head cover (1) and tighten bolts finger tight.
3. Using the sequence shown, tighten the cylinder head cover bolts to 8 N·m (71 in. lbs.).



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4. Install the ignition coils (Refer to 08 - Electrical/Ignition Control/COIL, Ignition/Installation).
5. Install the engine cover (2).



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6. Connect the negative battery cable.



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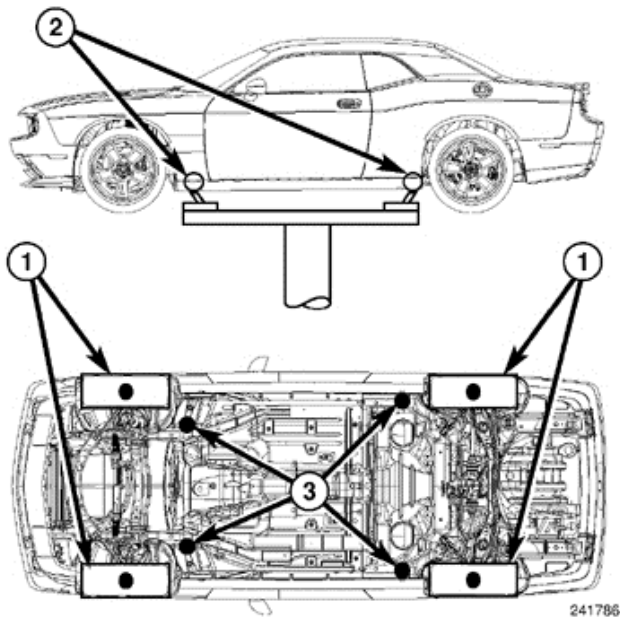
2011-2017 CHRYSLER 300 5.7 HEMI

04 - Vehicle Quick Reference / Hoisting/Standard Procedure **STANDARD PROCEDURE – HOISTING**

Do not attempt to raise one entire side of the vehicle by placing a floor jack midway between the front and rear wheels. This practice may result in permanent damage to the body.

When properly positioned, a floor jack can be used to lift the vehicle and support the raised vehicle with jack stands.

A floor jack or any lifting device must never be used on any part of the underbody other than the described areas.



CHALLENGER LIFTING POINTS

- 1 - DRIVE ON HOIST
- 2 - FLOOR JACK, VEHICLE EMERGENCY JACK
- 3 - FRAME CONTACT LIFT (SINGLE POST)
- 3 - CHASSIS LIFT (DUAL LIFT)
- 3 - OUTBOARD LIFT (DUAL LIFT)
- 3 - FLOOR JACK

Refer to Owner's Manual provided with vehicle for proper emergency jacking procedures.

WARNING: The hoisting and jack lifting points provided are for a complete vehicle. When the engine or rear suspension is removed from a vehicle, the center of gravity is altered making some hoisting conditions unstable. Properly support or secure vehicle to hoisting device when these conditions exist. Failure to follow these instructions may result in serious or fatal injury.

CAUTION: Do not position hoisting device on any suspension component, including the front or rear suspension crossmembers. Do not hoist on the front and rear bumpers, the lower radiator crossmember, or the front engine mount.

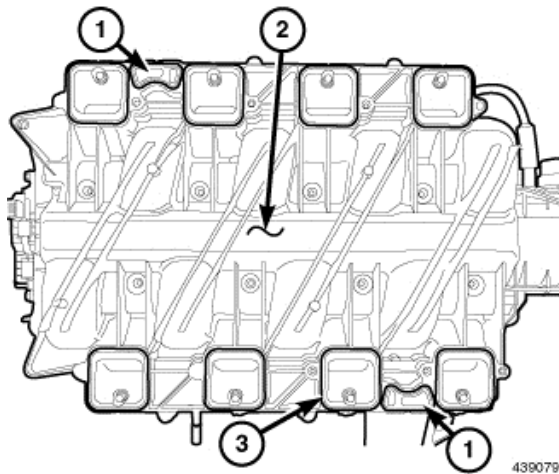


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09 - Engine, 5.7L / Manifolds / MANIFOLD, Intake/Installation

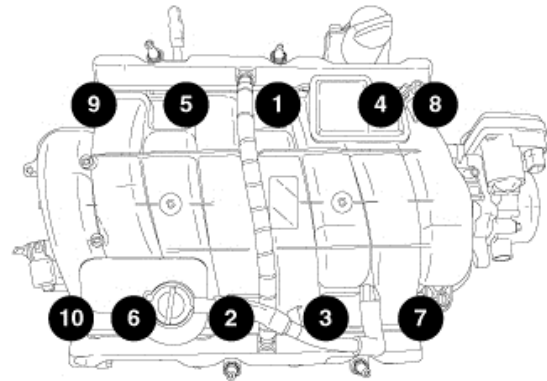
NOTE: The intake manifold seals (1,3) may be used again, provided no cuts, tears, or deformation have occurred.

1. Inspect the intake manifold seals and replace if necessary.



NOTE: If reinstalling the original manifold, apply Mopar® Lock & Seal Adhesive to the intake manifold bolts. Not required when installing a new manifold.

2. If required, apply Mopar® Lock & Seal Adhesive to the intake manifold bolts.
3. Position the intake manifold (2).
4. Using the sequence shown, tighten the bolts to 12 N·m (9 ft. lbs.).



5. Connect the fuel supply line (Refer to 14 - Fuel System/Fuel Delivery/FITTING, Quick Connect - Standard Procedure).
6. Connect the brake booster hose and the EVAP purge line.
7. Connect the following components wire harness connectors:
 - Manifold Absolute Pressure (MAP) Sensor
 - Fuel Injectors
 - Electronic Throttle Control (ETC).
8. Install the air cleaner body (Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner/Installation).
9. Connect the negative battery cable.
10. Start the engine and check for leaks.



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09 - Engine, 5.7L / Lubrication / OIL/Standard Procedure

STANDARD PROCEDURE - ENGINE OIL SERVICE

The engine oil level indicator is located at the left hand of the engine on the 5.7L engines.

CRANKCASE OIL LEVEL INSPECTION

CAUTION: Do not overfill crankcase with engine oil, pressure loss or oil foaming can result.

Inspect engine oil level approximately every 800 kilometers (500 miles). Unless the engine has exhibited loss of oil pressure, run the engine for about ten minutes before checking oil level. Checking engine oil level on a cold engine is not accurate.

To ensure proper lubrication of an engine, the engine oil must be maintained at an acceptable level. The acceptable levels are indicated between the ADD and SAFE marks on the engine oil dipstick.

It is recommended that the engine oil level should be checked when the engine is at operating temperature.

1. Position vehicle on level surface.
2. With engine OFF, allow approximately five minutes for oil to settle to bottom of crankcase, remove engine oil dipstick.
3. Wipe dipstick clean.
4. Install dipstick and verify it is seated in the tube.
5. Remove dipstick, with handle held above the tip, take oil level reading.
6. Verify the oil level to be at the top of the "SAFE" range +/- 1/4 of the total distance of the range.
7. Add oil only if level is below the ADD mark on dipstick.

ENGINE OIL CHANGE

Change engine oil at mileage and time intervals described in Maintenance Schedules ([Refer to 04 - Vehicle Quick Reference/Maintenance Schedules - Description](#)).

Run engine until achieving normal operating temperature.

1. Position the vehicle on a level surface and turn engine off.
2. Hoist and support vehicle on safety stands.
3. Remove oil fill cap.
4. Place a suitable drain pan under crankcase drain.
5. Remove drain plug from crankcase and allow oil to drain into pan. Inspect drain plug threads for stretching or other damage. Replace drain plug if damaged.
6. Install drain plug in crankcase. Torque to 34 N·m (25 ft. lbs.).
7. Lower vehicle and fill crankcase with specified type and amount of engine oil described in this section.
8. Install oil fill cap.
9. Start engine and inspect for leaks.
10. Stop engine and inspect oil level.

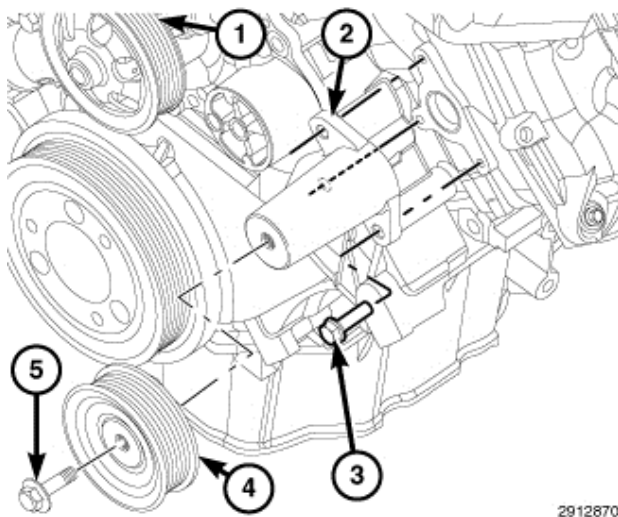
NOTE: Care should be exercised when disposing used engine oil after it has been drained from a vehicle engine. Refer to the **WARNING** at beginning of this section.



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**07 - Cooling / Accessory Drive / PULLEY,
Idler/Installation**
5.7L IDLER BRACKET

1. Install the idler bracket bolts (2). Tighten the idler bracket bolts (3) to the proper (Torque Specifications).



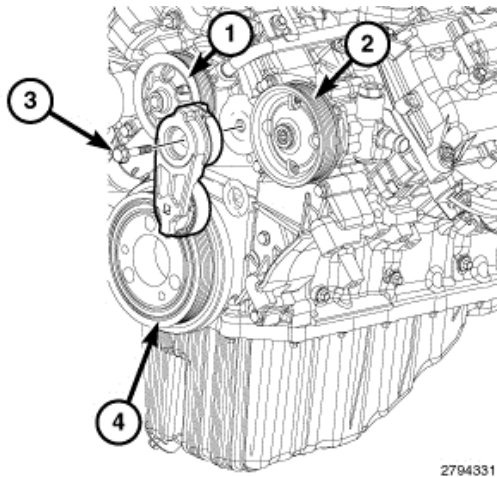
2. Install the idler pulley (4). Tighten the idler pulley bolt (5) to the proper (Torque Specifications).
3. Install the serpentine drive belt (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Installation).



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07 - Cooling / Accessory Drive / TENSIONER, Belt/Installation

1. Align the locator tang and install the belt tensioner. Tighten the bolt (3) to the proper (**Torque Specifications**).



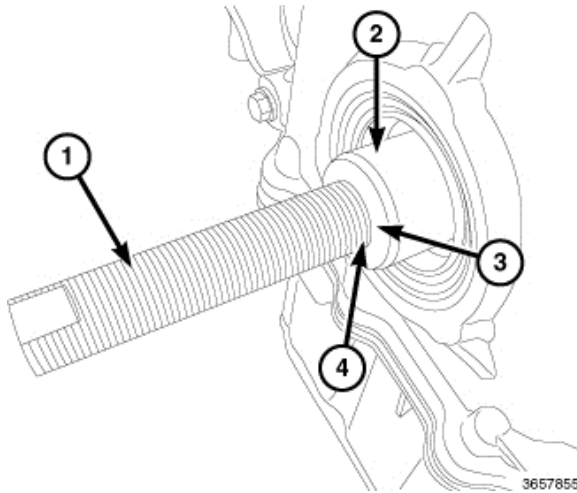
2. Install the serpentine belt (**Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Installation**).
3. Install the air cleaner body (**Refer to 09 - Engine/Air Intake System/BODY, Air Cleaner - Installation**).
4. Connect the negative battery cable.



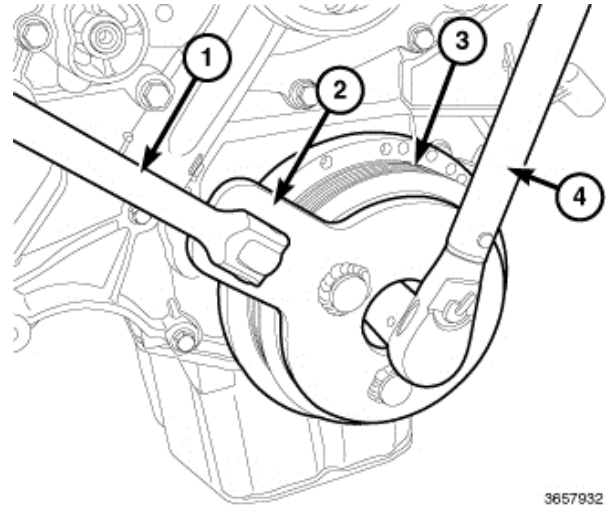
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09 - Engine, 5.7L / Engine Block / DAMPER, Vibration/Installation

1. Position damper onto crankshaft.
2. Using Installer, Vibration Damper 10387 , install the threaded rod (1) onto the crankshaft (2).



3. Tighten the threaded rod (4) until it is seated to the face (3) of the crankshaft.
4. Install the press washer, bearing, washer, and the press nut onto the threaded rod.
5. Press the vibration damper on till seated.
6. Install crankshaft damper bolt.
7. Position the Holder, Vibration Damper 10386 (2), onto the vibration damper (3).



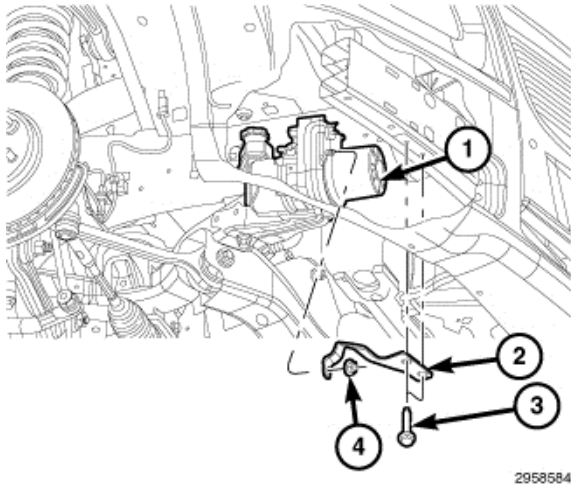
8. Tighten the bolt to the proper (Torque Specifications).
9. Remove the cardboard from radiator face.
10. Install the cooling fan (Refer to 07 - Cooling/Engine/FAN, Cooling - Installation).
11. Install the serpentine belt. (Refer to 07 - Cooling/Accessory Drive/BELT, Serpentine - Installation).
12. Refill the cooling system (Refer to 07 - Cooling - Standard Procedure).
13. Connect the negative battery cable.



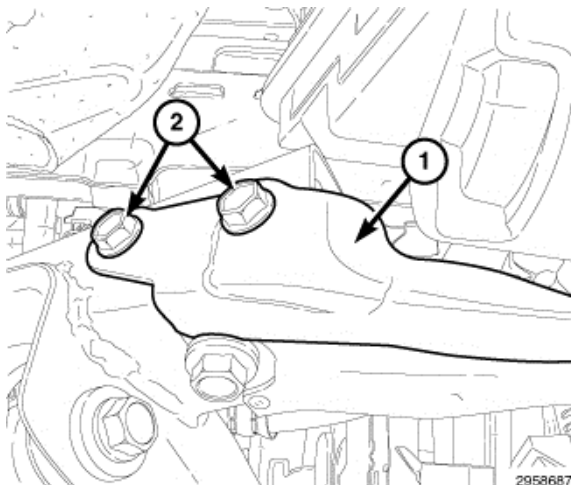
INSTALLATION INSTRUCTIONS
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19 - Steering / Pump/Installation
NON SRT

1. If Electro Hydraulic Power Steering (EHPS) pump bracket (2) has been removed, install the bracket to the vehicle and tighten fasteners to 12 N·m (9 ft. lbs.).

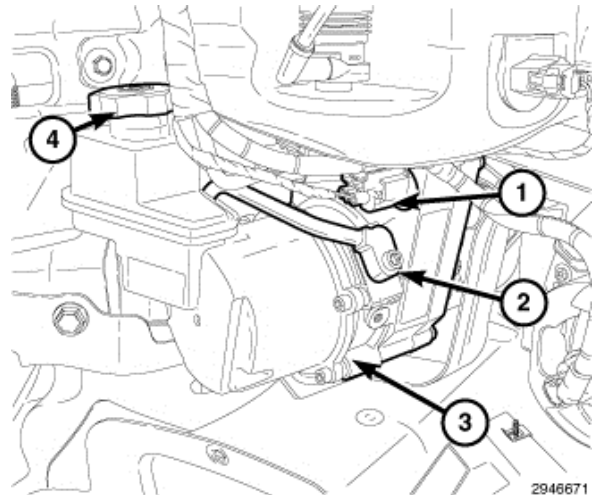


2. Install EHPS pump (1) into vehicle and install EHPS bracket retaining nut (4). Tighten retaining nut to 12 N·m (9 ft. lbs.).
3. Install EHPS pump bracket (1) mounting bolts (2) and tighten to 50 N·m (37 ft. lbs.).



NOTE: Always use a new O-ring on the end of the pressure line.

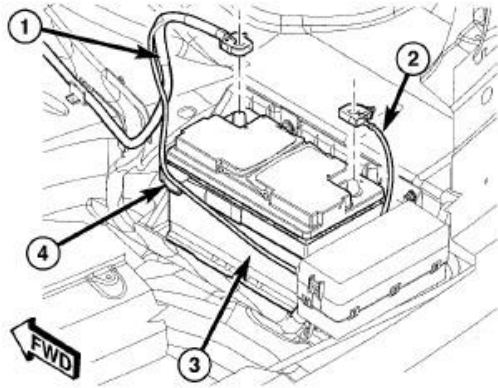
4. Lubricate the new O-ring on the end of the pressure line with clean power steering fluid.
5. Install power steering pressure line to EHPS Pump (3).



6. Install pressure line retaining bolt (2) and tighten to 10 N·m (89 in. lbs.).
7. Install EHPS pump electrical connectors (1).
8. Fill and bleed power steering system. (Refer to 19 - Steering - Standard Procedure)
9. Install right front wheelhouse splash shield (Refer to 23 - Body/Exterior/SHIELD, Splash - Installation)
10. Lower vehicle.
11. Connect battery negative cable (2) to battery post. It is important that this is performed properly.



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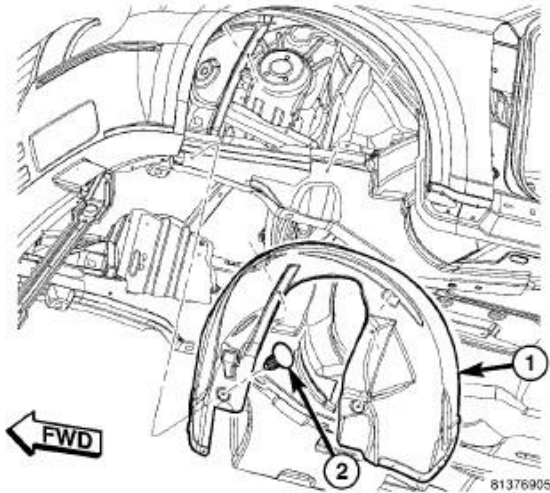
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23 - Body / Exterior / SHIELD, Splash, Front Wheelhouse/Installation

1. Position the front wheelhouse shield (1) into the front fenderwell.



2. Install the push-pin (2) that secure the front wheelhouse shield to the body.
3. Install the new plastic rivets to the splash shield.
4. Install the front wheel. (Refer to 22 - Tires and Wheels - Installation).
5. Lower the vehicle.



INSTALLATION INSTRUCTIONS

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04 - Vehicle Quick Reference / Capacities and Recommended Fluids/Description

ENGINE COOLANT

WARNING: Antifreeze is an ethylene-glycol base coolant and is harmful if swallowed or inhaled. If swallowed, drink two glasses of water and induce vomiting. If inhaled, move to fresh air area. Seek medical attention immediately. Do not store in open or unmarked containers. Wash skin and clothing thoroughly after coming in contact with ethylene-glycol. Keep out of reach of children. Dispose of glycol base coolant properly, contact your dealer or government agency for location of collection center in your area. Do not open a cooling system when the engine is at operating temperature or hot under pressure, personal injury can result. Avoid radiator cooling fan when engine compartment related service is performed, personal injury can result.

CAUTION: Mixing of engine coolant (antifreeze) other than specified Organic Additive Technology (OAT) engine coolant (antifreeze), may result in engine damage and may decrease corrosion protection. Organic Additive Technology (OAT) engine coolant is different and should not be mixed with Hybrid Organic Additive Technology (HOAT) engine coolant (antifreeze). If a non-OAT engine coolant (antifreeze) is introduced into the cooling system in an emergency, it should be replaced with the specified engine coolant (antifreeze) as soon as possible.

The cooling system is designed around the coolant. The coolant must accept heat from engine metal, in the cylinder head area near the exhaust valves and engine block. Then coolant carries the heat to the radiator where the tube/fin radiator can transfer the heat to the air.

The use of aluminum cylinder blocks, cylinder heads, and water pumps requires special corrosion protection. Mopar® Antifreeze/Coolant, or the equivalent ethylene-glycol base

coolant with organic corrosion inhibitors (called OAT, for Organic Additive Technology) is recommended. This coolant offers the best engine cooling without corrosion when mixed with 50% ethylene-glycol and 50% distilled water to obtain a freeze point of -37°C (-35°F). If it loses color or becomes contaminated, drain, flush, and replace with fresh properly mixed coolant solution.

COOLANT PERFORMANCE

The required ethylene-glycol and water mixture depends upon climate and vehicle operating conditions. The coolant performance of various mixtures follows:

Pure Water- Water can absorb more heat than a mixture of water and ethylene-glycol. This is for purpose of heat transfer only. Water also freezes at a higher temperature and allows corrosion.

100 percent Ethylene-Glycol - The corrosion inhibiting additives in ethylene-glycol need the presence of water to dissolve. Without water, additives form deposits in system. These act as insulation causing temperature to rise to as high as 149°C (300°F). This temperature is hot enough to melt plastic. The increased temperature can result in severe engine damage. In addition, 100 percent ethylene-glycol freezes at -22°C (-8°F).

50/50 Ethylene-Glycol and Water - Is the recommended mixture, it provides protection against freezing to -37°C (-34°F). The antifreeze concentration **must always** be a minimum of 44 percent, year-round in all climates. If percentage is lower, engine parts may be eroded by cavitation. Maximum protection against freezing is provided with a 68 percent antifreeze concentration, which prevents freezing down to -67.7°C (-90°F). A higher percentage will freeze at a warmer temperature. Also, a higher percentage of antifreeze can cause the engine to overheat because specific heat of antifreeze is lower than that of water.

OAT coolant is purple in color. It cannot be mixed with other types of coolant including Chrysler's existing HOAT coolant and only should only be mixed with approved OAT coolant of the same color. Maintenance of the cooling system is not required unless a repair has been made with loss of coolant or the coolant has been contaminated.

CAUTION: Richer antifreeze mixtures cannot be measured with normal field equipment and



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can cause problems associated with 100 percent ethylene-glycol.

CAUTION: Do not use coolant additives that are claimed to improve engine cooling.

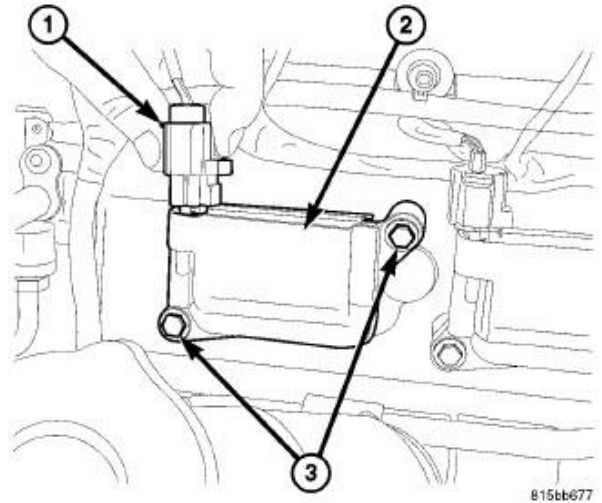
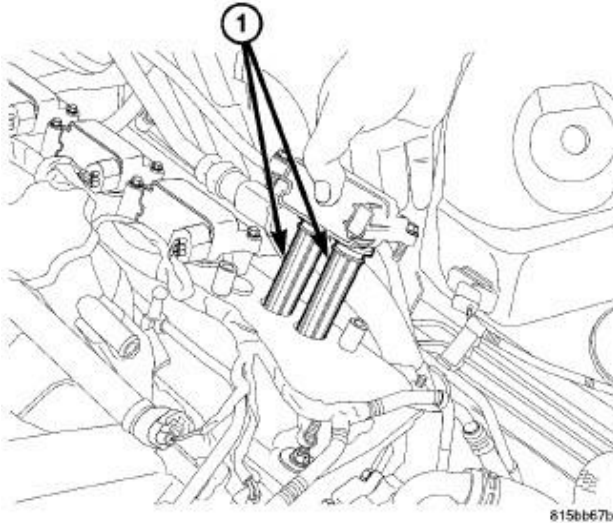


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08 - Electrical / 8I - Ignition Control / COIL, Ignition/Installation

CAUTION: Do not apply a silicone based grease such as Mopar® Dielectric Grease to the ignition coil rubber boot. The silicone based grease will absorb into the boot causing it to stick and tear.

1. Before installing coil(s), place a small, 360° bead of **Uniflor 8172** lubricant (1) along the inside opening of the spark plug boots (1).



4. Connect the ignition coil wire harness connector (1) to the coil and lock the connector.
5. Install the engine cover.
6. Connect the negative battery cable.

2. Install the ignition coil into cylinder head and push both spark plug boots onto each spark plug.
3. Install the two coil mounting bolts (3) and tighten to the proper **(Torque Specifications)**.



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14 - Fuel System / Fuel Delivery, Gas / FITTING, Quick Connect/Standard Procedure
QUICK-CONNECT FITTINGS

Different types of quick-connect fittings are used to attach the various fuel system components, lines and tubes. Some quick-connect fittings require the use of a special tool for disconnection and removal.

These are the quick-connect fittings:

- Redundant Latch Single Button Type Fitting
- Single Button Type Fitting
- Pinch Type Fitting
- Single Tab Type Fitting
- Two Tab Type Fitting
- Plastic Retainer Ring Type Fitting
- Latch Clip Type 1 Fitting
- Latch Clip Type 2 Fitting
- Wing Type Fitting

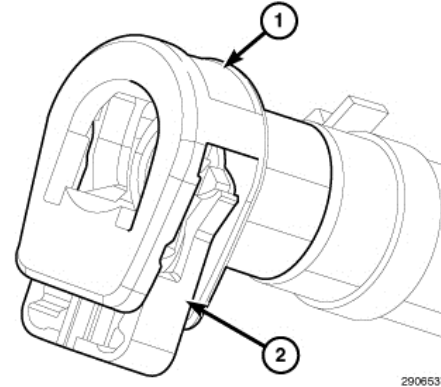
DISCONNECTING

WARNING: The fuel system is under a constant pressure (even with engine off). Before servicing any fuel system hose, fitting or line, fuel system pressure must be released.

CAUTION: Before separating a Quick-Connect fitting, pay attention to what type of fitting is being used. This will prevent unnecessary fitting or fitting latch breakage.

CAUTION: The interior components (O-rings, clips) of quick-connect fittings are not serviced separately, but new plastic spacers and latches are available for some types. If service parts are not available, do not attempt to repair the damaged fitting or fuel line (tube). If repair is necessary, replace the complete fuel line (tube) assembly.

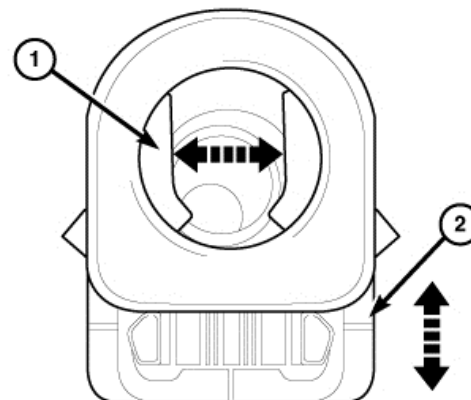
Redundant Latch Single Button Type Fitting:



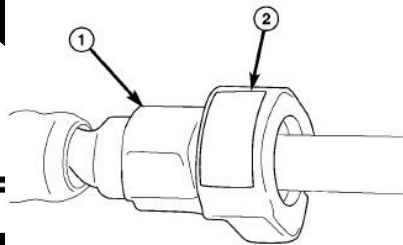
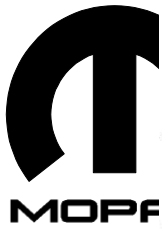
This type of quick-connect fitting is equipped with a redundant latch (2) and a single push button (1) that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

CAUTION: Do not pry or pull up on the push button as damage to the latches of the quick-connect fitting will occur.

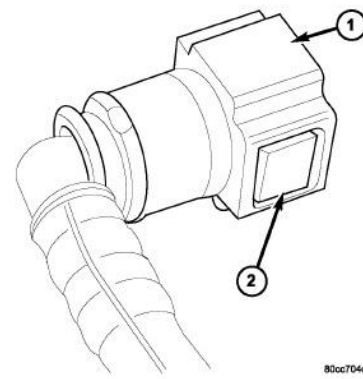
3. Pull the redundant latch (2) out, away from the quick-connect fitting.
4. Press on the push button with your thumb, which releases the internal latches (1) and remove the quick-connect fitting from the fuel system component.



Single Button Type Fitting:



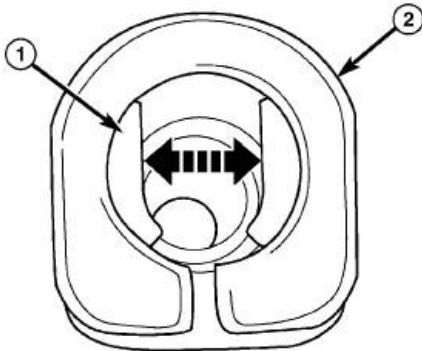
INSTRUCTIONS
PART NUMBER 77072313/
CHARGER/CHALLENGER
PART NUMBER 77072315/
CHALLENGER 300 5.7 HEMI



CAUTION: Do not pry or pull up on the push button as damage to the latches of the quick-connect fitting will occur.

This type of quick-connect fitting is equipped with a single push button (2) that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

3. Press on the push button with your thumb, which releases the internal latches (1).



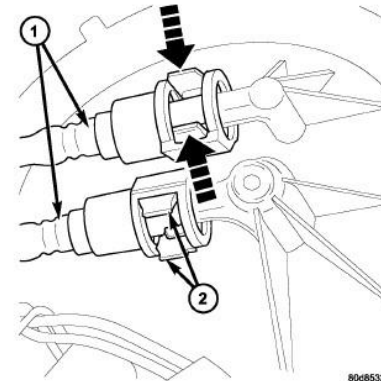
4. Remove the quick-connect fitting from the fuel system component.

2 Button Type Fitting

This type of quick-connect fitting (1) is equipped with two push buttons (2) that releases two internal latches located in the quick-connect fitting. Special tools are not required for removal.

3. Press on both push buttons with your thumb, which releases the internal latches.
4. While holding the two push buttons simultaneously, remove the quick-connect fitting from the fuel system component.

Pinch Type Fitting



This type of quick-connect fitting (1) is equipped with two finger tabs (2). Special tools are not required for removal.

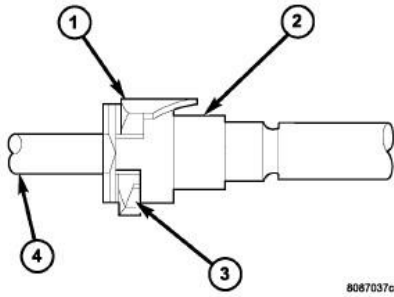
3. Pinch both tabs (2) together and release the quick-connect fitting.



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4. Remove the quick-connect fitting from the fuel system component.

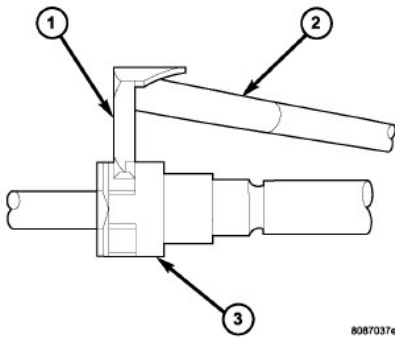
Single Tab Type Fitting



This type of quick-connect fitting (2) is equipped with a single pull tab (1). The tab is removable. After the tab is removed the quick-connect fitting can be separated from the fuel system component. Special tools are not required for removal.

NOTE: If the release tab (3) is not pressed prior to releasing pull tab, the pull tab will be damaged

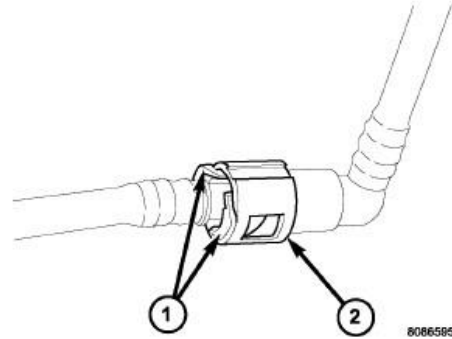
5. Press the release tab on the side of the fitting (3) to release the pull tab (1).



6. While pressing the release tab on the side of the quick-connect fitting use a screwdriver (2) to pry up the pull tab.
7. Raise the pull tab until it separates from the quick-connect fitting.

8. Remove the quick-connect fitting from the fuel system component.

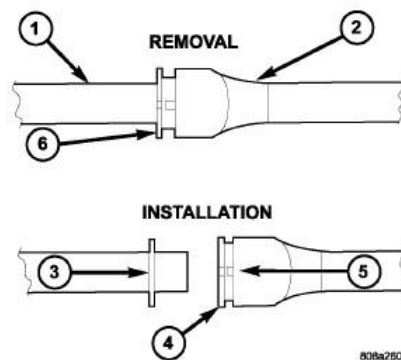
Two Tab Type Fitting



This type of quick-connect fitting (2) is equipped with tabs (1) located on both sides of the fitting (2). These tabs are integral to the fuel system component. The plastic tabs will remain on the component being serviced after the quick-connect fitting is removed. The O-ring and spacer will remain in the quick-connect fitting. Special tools are not required for removal.

3. Squeeze the plastic tabs (1) against the sides of component being serviced with your fingers.
4. Remove the quick-connect fitting from the fuel system component.

Plastic Retainer Ring Type Fitting





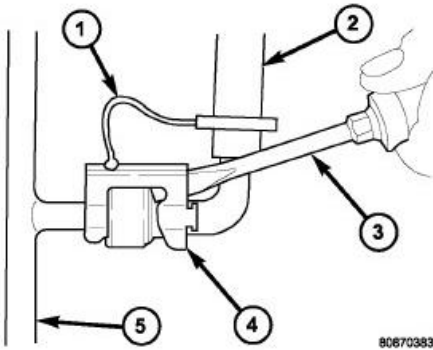
INSTALLATION INSTRUCTIONS
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This type of fitting can be identified by the use of a round plastic retainer ring (4,6) usually black in color. Special tools are not required for removal.

NOTE: The round plastic retainer ring must be pressed squarely into the quick-connect fitting body. If this retainer is cocked during removal it will be difficult to disconnect the quick-connect fitting. Use an open-end wrench on the shoulder of the plastic retainer ring to aid in disconnection.

3. Firmly push the quick-connect fitting (5) towards the component being serviced while firmly pushing the round plastic retainer ring into the quick-connect fitting (6). With the round plastic ring depressed, remove the quick-connect fitting from the fuel system component.
4. After removal the plastic retainer ring will remain with the quick-connect fitting.

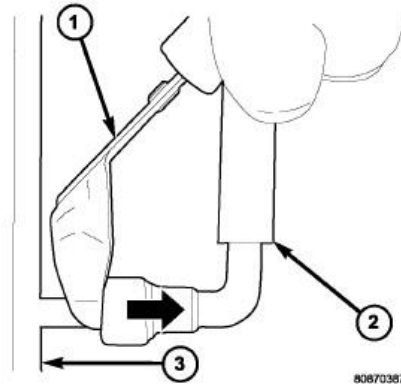
Latch Clip Type 1 Fitting



Depending on vehicle model and engine, two different types of safety latch clips are used. One is tethered (1) to fuel line and the other is not. A special tool will be necessary to disconnect the fuel line after latch clip is removed. The latch clip may be used on certain fuel line and fuel rail connections or to join fuel lines together.

5. Pry up on the latch clip (4) with a screwdriver (3).
6. Slide the latch clip away from the quick-connect fitting while lifting the screwdriver and position aside.

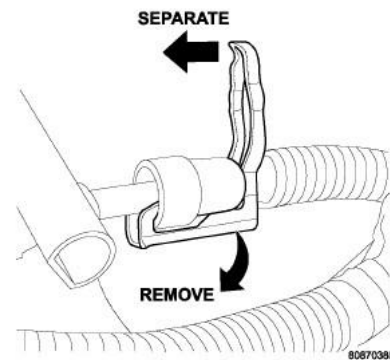
7. Insert an appropriate fuel line removal tool (1) into the quick-connect fitting and release the internal latches.



NOTE: After removal the internal latches will remain in the quick-connect fitting.

8. With the special tool still inserted, remove the quick-connect fitting from the fuel system component.

Latch Clip Type 2 Fitting



Depending on vehicle model and engine, two different types of safety latch clips are used. One is tethered to the fuel line and the other is not. A special tool will be necessary to disconnect the fuel line after the latch clip is removed. The latch clip may be used on certain fuel line and fuel rail connections or to join fuel lines together.



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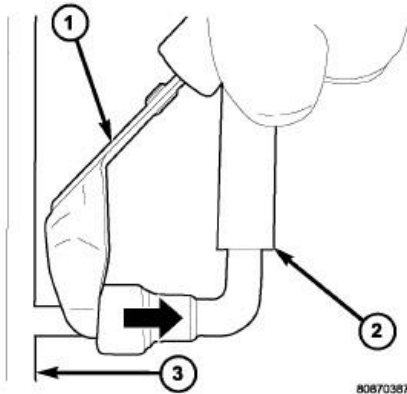
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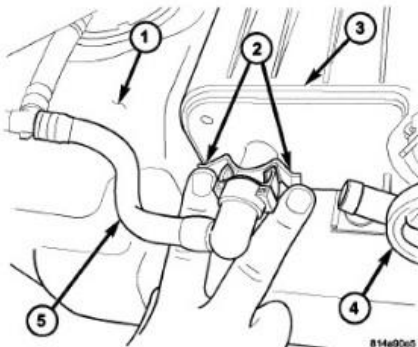
5. Unlatch the small arms on the end of clip, swing away and separate from the fuel system component.
6. Slide the latch clip away from the quick-connect fitting while lifting with a screwdriver and position aside.
7. Insert an appropriate fuel line removal tool (1) into the quick-connect fitting and release the internal latches.



NOTE: After removal the internal latches will remain in the quick-connect fitting.

8. With the special tool still inserted, remove the quick-connect fitting from the fuel system component.

Wing Type Fitting



The wing type fitting is used on fuel system and emission components. The wing type fitting is most commonly used on the EVAP canister (3). Special tools are not required for removal.

3. Using two fingers, press both wings (2) and release the locking tabs.

NOTE: After removal the locking tabs will remain with the quick-connect fitting.

4. While holding the wings, remove the quick-connect fitting from the fuel system component.

CONNECTING

7. Inspect the quick-connect fitting body and fuel system components for damage. Replace as necessary.
8. Prior to connecting any quick-connect fitting to components, check condition of fitting and components. Clean parts with a lint-free cloth. Lubricate with clean engine oil.
9. Insert the quick-connect fitting onto the fuel tube or fuel system component until the built-in stop on the fuel tube or component rests against the back of fitting.
10. Continue pushing until a click is felt.
11. If Equipped:

- **Redundant Latch Single Button Type Fitting:** Push redundant latch until it locks into position in the quick-connect fitting.
- **Single Tab Type Fitting:** Push new tab down until it locks into position in the quick-connect fitting.
- **Latch Clip Type Fitting:** Install latch clip (snaps into position). **If latch clip will not snap into position, this indicates the quick-connect fitting is not properly installed onto fuel system component, recheck the connection.**



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12. Verify a locked condition by firmly pulling on the quick-connect fitting connection of the fuel system component.



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19 - Steering/Standard Procedure
**STANDARD PROCEDURE -
POWER STEERING SYSTEM
BLEEDING**

WARNING: The fluid level should be checked with engine off to prevent injury from moving components.

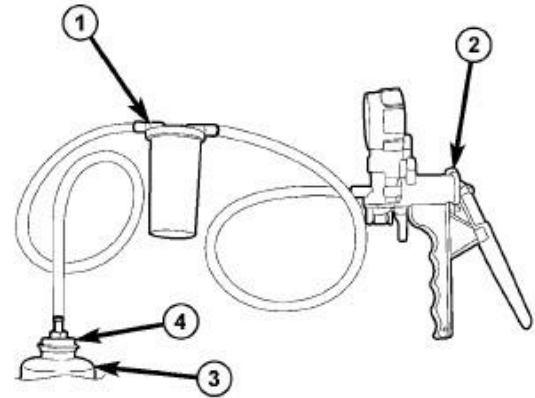
CAUTION: This vehicle features an Electro Hydraulic Power Steering (EHPS) pump which requires a different power steering fluid. Do not mix power steering fluid types. Damage may result to the power steering pump and system if any other fluid is used. The EHPS system uses fluid which meets material specification MS-11655 or equivalent.

CAUTION: If the air is not purged from the power steering system correctly, pump failure could result.

NOTE: Be sure the vacuum tool used in the following procedure is clean and free of any fluids.

1. Check the fluid level. As measured on the side of the reservoir, the level should indicate between ADD and FULL COLD when the fluid is at normal ambient temperature. Adjust the fluid level as necessary (Refer to 19 - Steering/Pump/FLUID - Standard Procedure).
2. For Electro Hydraulic Power Steering (EHPS) systems, cycle the steering wheel lock-to-lock three times with the **engine off**.
3. Tightly insert Power Steering Cap Adapter (4), Special Tool 9688A, into the mouth of the reservoir.

CAUTION: Failure to use a vacuum pump reservoir (1) may allow power steering fluid to be sucked into the hand vacuum pump.



4. Attach Hand Vacuum Pump (2), Special Tool C-4207-A or equivalent, with reservoir (1) attached, to the Power Steering Cap Adapter (4).

CAUTION: Do not run the engine while vacuum is applied to the power steering system. Damage to the power steering pump can occur.

NOTE: When performing the following step make sure the vacuum level is maintained during the entire time period.

5. Using Hand Vacuum Pump (2), apply 68-85 kPa (20-25 in. Hg) of vacuum to the system for a minimum of three minutes.
6. Slowly release the vacuum and remove the special tools.
7. Adjust the fluid level as necessary. Refer to **Step #1**.
8. Repeat **Step #1** through **Step #7** until the fluid no longer drops when vacuum is applied.
9. Start the engine and cycle the steering wheel lock-to-lock three times.

NOTE: Do not hold the steering wheel at the



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stops.

10. Stop the engine and check for leaks at all connections.
11. Check for any signs of air in the reservoir and check the fluid level. If air is present, repeat the procedure as necessary.

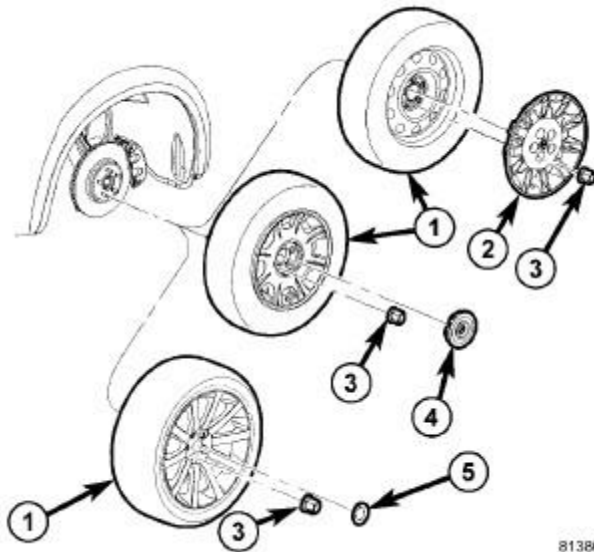


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22 - Tires and Wheels/Installation
TIRE AND WHEEL ASSEMBLY

WARNING: Installing wheels without good metal-to-metal contact with the mounting surface could cause loosening of the wheel mounting (lug) nuts. This could adversely affect the safety and handling of the vehicle.

NOTE: Never use oil or grease on studs or wheel mounting (lug) nuts.

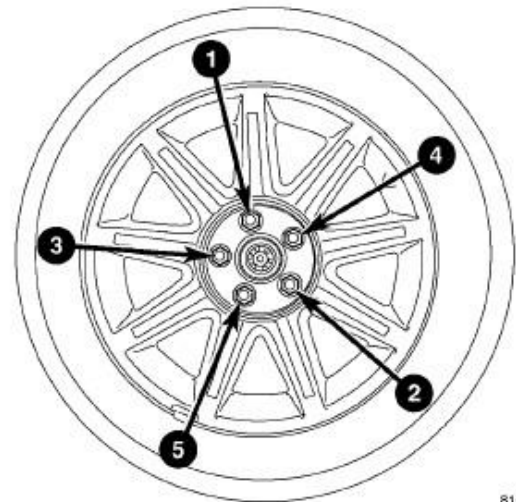


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1. Clean wheel mounting surfaces, removing any build-up of corrosion. It is important to have good metal-to-metal contact between wheel and vehicle.
2. Position tire and wheel assembly (1) on wheel mounting studs using hub pilot as guide. Place and hold wheel flush up against mounting surface.

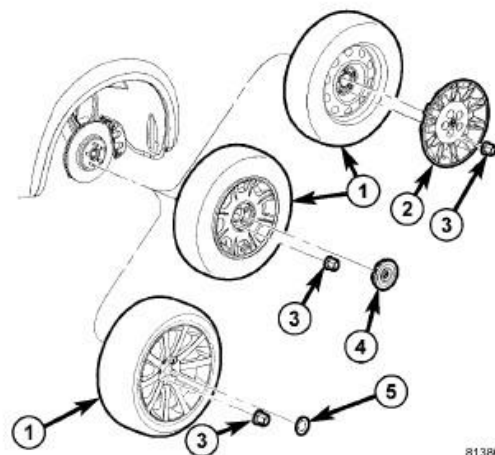
NOTE: Always use the original (OEM) style wheel mounting (lug) nuts. Do not use replacement parts of lesser quality or substitute design.

3. Loosely install all five wheel mounting (lug) nuts (3).



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4. Lightly snug all wheel mounting nuts, then progressively tighten them in proper sequence shown. Tighten wheel mounting nut to the proper (Torque Specifications).
5. If applicable, install wheel center cap (4).



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6. Lower vehicle.



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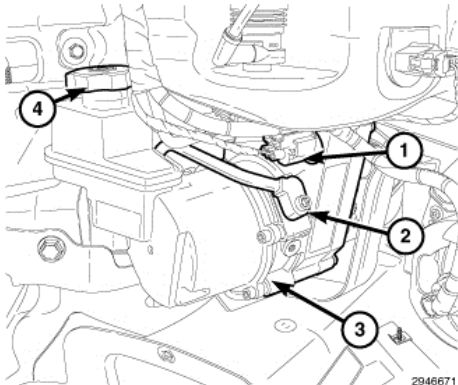
19 - Steering / Pump / FLUID/Standard Procedure

NON-SRT POWER STEERING FLUID LEVEL CHECKING

WARNING: Fluid level should be checked with the engine OFF to prevent personal injury from moving parts and to assure an accurate fluid level reading.

CAUTION: This vehicle features an Electro Hydraulic Power Steering (EHPS) pump which requires a different power steering fluid. Do not mix power steering fluid types. Damage may result to the power steering pump and system if any other fluid is used. The EHPS system uses fluid which meets material specification MS-11655 or equivalent.

NOTE: Although not required at specific intervals, the fluid level may be checked periodically. Check the fluid level anytime there is a system noise or fluid leak suspected.



NOTE: The power steering fluid reservoir (4) is integrated with the Electro Hydraulic Power Steering (EHPS) pump.

1. Raise and support vehicle (Refer to 04 - Vehicle Quick Reference/Hoisting - Standard Procedure).

2. Remove right front wheel mounting nuts, then tire and wheel assembly.
3. Remove right front wheelhouse splash shield (Refer to 23 - Body/Exterior/SHIELD, Splash - Removal)
4. Ensure that the fluid is at the correct level in the power steering reservoir (4).



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09 - Engine, 5.7L/Specifications
TORQUE SPECIFICATIONS

TORQUE CHART 5.7L ENGINE

DESCRIPTION	N-m	Ft. Lbs.	In. Lbs.
Block Pipe Plugs			
(1/4 – 18 NPT) Oil gallery Plug	20	15	—
(1/4 – 18 NPT) Coolant Drain Plug	34	25	—
(3/8 NPT)	27	20	—
Camshaft Phaser Bolt	98	72	—
Camshaft Tensioner Plate Bolts	28	21	—
Coil to Cylinder Head Cover Bolts	7	-	62
Timing Chain Case Cover Bolts	28	21	—
Lifting Stud	55	41	—
Connecting Rod Cap Bolts	21 plus 90° Turn	15 plus 90° Turn	—
Main Bearing Cap Bolts	(Refer to 09 - Engine/Engine Block/CRANKSHAFT - Installation)		
Cylinder Head Bolts	(Refer to 09 - Engine/Cylinder Head - Installation)		
Cylinder Head Cover Bolts	8	—	71
Exhaust Manifold-to-Cylinder Head	25	18	—

DESCRIPTION	N-m	Ft. Lbs.	In. Lbs.
Flexplate-to-Crankshaft Bolts	95	70	—
Front Engine Mount Bracket to Block	61	45	—
Flywheel-to-Crankshaft Bolts	75	55	—
Front Insulator Through Bolt/Nut	95	70	—
Through Bolt/Nut (4WD)	102	75	—
Stud Nut (4WD)	41	30	—
Front Insulator-to-Block Bolts (2WD)	61	45	—
Intake Manifold Bolts	(Refer to 09 - Engine/Manifolds/MANIFOLD, Intake - Installation)		
Lifter Guide Holder	12	9	—
Oil Pan Bolts	12	9	—
Oil Dipstick Tube	12	9	—
Oil Filter Adapter	12	9	—
Oil Pan Drain Plug	34	25	—
Oil Pump Attaching Bolts	28	21	—
Oil Pump Pickup Tube Bolt/Nut	28	21	—
Rear Seal Retainer Attaching Bolts	15	11	—
Rear Insulator-to-Bracket Bolt	68	50	—



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DESCRIPTION	N-m	Ft. Lbs.	In. Lbs.
Rear Insulator-to-Crossmember	41	30	—
Rear Insulator-to-Crossmember Bolt	68	50	—
Rear Insulator-to-Transmission Bolt	68	50	—
Rear Insulator Bracket Bolts	68	50	—
Rear Support Bracket Bolt	41	30	—
Rear Support Plate-to-Transfer Case Bolts	41	30	—
Rocker Arm Bolts	22	16	—
Thermostat Housing Bolts	28	21	—
Throttle Body Bolts	12	9	—
Transfer Case-to-Insulator Bolt	204	150	—
Transmission Support Bracket Bolt	68	50	—
Vibration Damper Bolt	180	133	—
Water Pump-to-Timing Chain Case Cover Bolts	28	21	—



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09 - Engine, 5.7L/Specifications
SPECIFICATIONS

Eagle Engine - 90° V-8 OHV

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Displacement	5.7 Liters	348 CID
Bore	99.5 mm	3.92 in.
Stroke	90.9 mm	3.58 in.
Compression Ratio	10.5:1	
Max. Variation Between Cylinders	25%	
Firing Order	1-8-4-3-6-5-7-2	
Lubrication	Pressure Feed - Full Flow Filtration	
Cooling System	Liquid Cooled	
Cylinder Block	Cast Iron	
Cylinder Head	Aluminum	
Crankshaft	Nodular Iron	
Camshaft	Cast Iron	
Pistons	Aluminum Alloy	
Connecting Rods	Powdered Metal	

CYLINDER BLOCK

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Cylinder Bore Diameter	99.50 mm	3.92 in.
Out of Round (MAX)	0.0076 mm	0.0003 in.
Taper (MAX)	0.0127 mm	0.0005 in.
Lifter Bore Diameter	21.45 - 21.425 mm	0.8444 - 0.8435 in.

PISTONS

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Clearance Measured at 38.0 mm (1.5 in.) Below Deck	0.031 - 0.058 mm	0.0012 - 0.0023 in.
Ring Groove Diameter		
Top Groove	90.4 - 90.6 mm	3.56 - 3.57 in.
Second Groove	88.4 - 88.7 mm	3.48 - 3.49 in.
Weight	413 grams	14.56 oz
Piston Length	53.3 mm	2.10 in.
Ring Groove Width		
No. 1	1.23 - 1.26 mm	0.048 - 0.0496 in.
No. 2	1.23 - 1.25 mm	0.048 - 0.0492 in.
No. 3	2.03 - 2.05 mm	0.079 - 0.080 in.



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PISTON PINS

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Clearance In Piston	0.005 - 0.014 mm	0.0001 - 0.0005 in.
Diameter	24.004 - 24.007 mm	0.945 - 0.9451 in.
Length	62.99 - 63.21 mm	2.47 - 2.48 in.

PISTON RINGS

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Ring Gap		
Top Compression Ring	0.40 - 0.55 mm	0.015 - 0.021 in.
Second Compression Ring	0.24 - 0.51 mm	0.009 - 0.020 in.
Oil Control Rails	0.15 - 0.66 mm	0.0059 - 0.0259 in.
Side Clearance		
Top Compression Ring	0.04 - 0.09 mm	0.002 - 0.004 in.
Second Compression Ring	0.04 - .08 mm	0.001 - 0.003 in.
Oil Control Rails	0.06 - 0.21 mm	0.002 - 0.008 in.
Ring Width		
Top Compression Ring	1.17 - 1.19 mm	0.0461 - 0.0469 in.
Second Compression Ring	1.17 - 1.19 mm	0.0461 - 0.0469 in.
Oil Control Rails	0.387 - 0.413 mm	0.015 - 0.016 in.

CONNECTING RODS

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Piston Pin Bore Diameter	24.014 - 24.024 mm	0.9454 - 0.9458 in.
Side Clearance	0.10 - 0.35 mm	0.003 - 0.0137 in.

CRANKSHAFT

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Main Bearing Journal Diameter	64.988 - 65.012 mm	2.5585 - 2.5595 in.
Bearing Clearance	0.023 - 0.051 mm	0.0009 - 0.002 in.
Out of Round (MAX)	0.005 mm	0.0002 in.
Taper (MAX)	0.003 mm	0.0001 in.
End Play	0.052 - 0.282 mm	0.002 - 0.011 in.
End Play (MAX)	0.282 mm	0.0111 in.
Connecting Rod Journal Diameter	53.992 - 54.008 mm	2.126 in.
Bearing Clearance	0.020 - 0.060 mm	0.0007 - 0.0023 in.
Out of Round (MAX)	0.005 mm	0.0002 in.
Taper (MAX)	0.003 mm	0.0001 in.



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CAMSHAFT

DESCRIPTION	SPECIFICATION		
	Metric	Standard	
Bearing Journal Diameter			
	No. 1	58.2 mm	2.29 in.
	No. 2	57.8 mm	2.28 in.
	No. 3	57.4 mm	2.26 in.
	No. 4	57.0 mm	2.24 in.
	No. 5	43.633 mm	1.72 in.
Bearing To Journal Clearance Standard			
	No. 1	0.040 - 0.080 mm	.0015 - .003 in.
	No. 2	0.050 - 0.090 mm	0.0019 - .0035 in.
	No. 3	0.040 - 0.080 mm	.0015 - .003 in.
	No. 4	0.050 - 0.090 mm	0.0019 - .0035 in.
	No. 5	0.040 - 0.080 mm	.0015 - .003 in.
Camshaft End Play	.080 - 0.290mm	0.0031 - 0.0114 in.	

VALVE TIMING

DESCRIPTION	SPECIFICATION
Intake	
Opens (BTDC)	21.7°
Closes (ATDC)	236.3°
Duration	258°
Exhaust	
Opens (BTDC)	270.2°
Closes (ATDC)	17.8°
Duration	288°
Valve Overlap	39.5°

CYLINDER HEAD

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Valve Seat Angle	44.5° - 45.0°	
Valve Seat Runout (MAX)	0.05 mm	0.0019 in.
Valve Seat Width (finish)		
	Intake	1.18 - 1.62 mm
Exhaust	1.48 - 1.92 mm	0.0583 - 0.0756 in.
Guide Bore Diameter (Std.)	7.975 - 8.00 mm	0.314 - 0.315 in.



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HYDRAULIC TAPPETS

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Body Diameter	21.387 - 21.405 mm	0.8420 - 0.8427 in.
Clearance (to bore)	0.020 - 0.063 mm	0.0008 - 0.0025 in.
Dry Lash	3.0 mm (at the valve)	0.1181 in. (at the valve)

VALVES

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Face Angle	45.0° - 45.5°	
Head Diameter		
Intake	51.94 - 52.20 mm	2.04 - 2.06 in.
Exhaust	39.27 - 39.53 mm	1.55 - 1.56 in.
Length (overall)		
Intake	130.87 - 131.51 mm	5.152 - 5.178 in.
Exhaust	130.101 - 130.741 mm	5.122 - 5.147 in.
Stem Diameter		
Intake	7.935 - 7.953 mm	0.312 - 0.313 in.
Exhaust	7.932 - 7.950 mm	0.312 - 0.313 in.
Stem - to - Guide Clearance		
Intake	0.022 - 0.062 mm	0.0009 - 0.0024 in.
Exhaust	0.025 - 0.058 mm	0.0010 - 0.0023 in.
Valve Lift (@ zero lash)		
Intake	12.0 mm	0.472 in.
Exhaust	11.70 mm	0.461 in.



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VALVE SPRING

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Spring Force (valve closed)	435.0 N +/- 22.0 N @ 45 mm	97.8 lbs +/- 5.0 lbs. @ 1.771 in.
Spring Force (valve open)	1077.0 N +/- 48.0 N @ 32.6 mm.	242.0 lbs. +/- 11 lbs. @ 1.283 in.
Free Length (approx).	55.6 mm	2.189 in.
Number of Coils	7.95	
Wire Diameter	4.95 x 4.1 mm	0.194 - 0.161 in.
Installed Height (spring seat to bottom of retainer)	46.0 mm	1.81 in.

OIL PUMP

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Clearance Over Rotors (MAX)	0.095 mm	0.0037 in.

DESCRIPTION	SPECIFICATION	
	Metric	Standard
Outer Rotor to Pump Body Clearance (MAX)	.235 mm	0.0093 in.
Tip Clearance Between Rotors (MAX)	0.150 mm	0.006 in.

OIL PRESSURE

DESCRIPTION	SPECIFICATION	
	Metric	Standard
At Curb Idle Speed (MIN)*	25 kPa	4 psi
@ 3000 rpm	170 - 758 kPa	25 - 110 psi
* CAUTION: If pressure is zero at curb idle, DO NOT run engine.		



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04 - Vehicle Quick Reference / Capacities and Recommended Fluids/Specifications
SPECIFICATIONS

ENGINE

Description	Type	Part Number	Capacities	
			U.S.	Metric
Cooling System				
◆ Engine Coolant (5.7L Engine)	MOPAR® Antifreeze/Coolant 10 Year/150,000 Mile Formula OAT (Organic Additive Technology) meeting the requirements of Chrysler Material Standard MS-12106	1 Gallon - 68163848AA (concentrate) 68163849AA (50/50)	14.7 Quarts	13.9 Liters
Engine Oil with Filter				
Engine Oil (5.7L Engines - Non ACEA Categories)	We recommend you use API Certified SAE 5W-20 engine oil, meeting the requirements of Chrysler Material Standard MS- 6395. Refer to your engine oil filler cap for correct SAE grade. SAE 5W-30 engine oil approved to FIAT 9.55535-S1 or FIAT 9.55535-S3 may be used when SAE 5W-20 engine oil is not available.	1 Quart - 04761872PA	7 Quarts	6.6 Liters
		5 Quarts- 04761851PA		
Engine Oil Filter (5.7L and 6.4L Engines)	MOPAR® Engine Oil Filter	04884 899AB	N/A	N/A
Fuel (approximate)				
Fuel Selection (5.7L Engine - Manual Transmission)	91 Octane	N/A	18.5 Gallons	70 Liters
A/C Refrigerant System				
A/C Refrigerant System	R-134a	82300101AB	1.50 Pounds	681 Grams
	R-1234yf	—	1.56 Pounds	709 Grams
◆ System fill capacity includes heater and coolant recovery bottle filled to MAX level.				
CAUTION: Nominal refill capacities are shown. A variation may be observed from vehicle to vehicle due to manufacturing tolerance and refill procedure.				



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SPARK PLUGS

Description	Type	Part Number	Gap	
			U.S.	Metric
Spark Plugs (3.6L ERB Engine)	We recommend you use MOPAR® Spark Plugs.	SP149125AD	0.043 in	1.10 mm
Spark Plugs (5.7L EZC; EZH Engine)	We recommend you use MOPAR® Spark Plugs.	SP143877AA	0.043 in	1.10 mm
Spark Plugs (6.4L ESG; ESH Engine)	We recommend you use MOPAR® Spark Plugs.	SP149212AC	0.043 in	1.10 mm

TRANSMISSION

Description	Type	Part Number	Capacities	
			U.S.	Metric
Automatic				
NAG 1 - Service Fill	MOPAR® ATF+4 Automatic Transmission Fluid	1 Quart - 05013457AA	5.3 Quarts	5.0 Liters
		1 Gallon - 05013458AA		
◆ NAG 1 - Overhaul Fill	MOPAR® ATF+4 Automatic Transmission Fluid	1 Quart - 05013457AA	8.1 Quarts	7.7 Liters
		1 Gallon - 05013458AA		
Manual				
◆◆ TREMEC TR6060	MOPAR® ATF+4 Automatic Transmission Fluid	1 Quart - 05013457AA	N/A	N/A
		1 Gallon - 05013458AA		
◆ Dry fill capacity. Depending on type and size of internal cooler, length and inside diameter of cooler lines, or use of an auxiliary cooler, these figures may vary. Refer to the appropriate service information for the correct procedures.				
◆◆ Approximate dry fill or fill to bottom edge of fill plug hole.				
CAUTION: Nominal refill capacities are shown. A variation may be observed from vehicle to vehicle due to manufacturing tolerance and refill procedure.				



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CHASSIS

Description	Type	Part Number	Capacities	
			U.S.	Metric
Axles (Rear)				
200mm RII Rear Axle	MOPAR® Synthetic Gear Lubricant SAE 75W-140	1 Quart - 04874469	1.2 Quarts	1.1 Liters
215MM RII Rear Axle	MOPAR® Synthetic Gear Lubricant SAE 75W-140	1 Quart - 04874469	1.3 Quarts	1.2 Liters
◆ 226mm RII Rear Axle	MOPAR® Synthetic Gear Lubricant SAE 75W-90	1 Quart - 05010320AA	1.4 Quarts	1.3 Liters
Chassis Systems				
◆◆ Brake Master Cylinder	MOPAR® Brake Fluid DOT 3, SAE J1703.	12 oz. Bottle - 04318080AB	N/A	N/A
		32 oz. Bottle - 04318081AB		
◆◆◆ Power Steering Reservoir (Belt Driven Pump)	MOPAR® Power Steering Fluid +4	1 Quart - 05013457AA	N/A	N/A
◆◆◆◆ Electro Hydraulic Power Steering (EHPS) Reservoir	We recommend you use MOPAR® Hydraulic Fluid or equivalent meeting MS-11655, such as Fuchs EG ZH 3044 or Pentosin CHF 11s	1 Quart - 68088485AA or 05127381AB	N/A	N/A
◆ Limited-Slip Rear Axles require the addition of 118 ml (4 oz.) MOPAR® Limited Slip Additive.				
◆◆ If MOPAR® Brake Fluid DOT 3 is not available, then MOPAR® Brake and Clutch Fluid DOT 4 (P/N 04549625AC), is acceptable.				
◆◆◆ If MOPAR® Power Steering Fluid +4 is not available, then MOPAR® ATF +4 Automatic Transmission Fluid (P/N 05166226AA), is acceptable.				
◆◆◆◆ CAUTION: There is an Electro Hydraulic Power Steering (EHPS) pump on Non-SRT vehicles which requires a different power steering fluid. Do not mix power steering fluid types. Damage may result to the power steering pump and system if any other fluid is used. The EHPS system uses fluid which meets material specification MS-11655 or equivalent. The mechanical power steering pump systems on SRT vehicles require the use of Power Steering Fluid +4, which meets material specification MS-9602 or equivalent. Do not overfill.				
CAUTION: Nominal refill capacities are shown. A variation may be observed from vehicle to vehicle due to manufacturing tolerance and refill procedure.				



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04 - Vehicle Quick Reference / Maintenance Schedules/Description

MAINTENANCE SCHEDULE

OIL CHANGE INDICATOR SYSTEM

This vehicle is equipped with an automatic oil change indicator system. The oil change indicator system reminds you that it is time to take your vehicle in for scheduled maintenance.

Based on engine operation conditions, the oil change indicator message will illuminate. This means that service is required for your vehicle. Operating conditions such as frequent short-trips, trailer tow, extremely hot or cold ambient temperatures, and E85 fuel usage will influence when the "Oil Change Required" message is displayed. Severe Operating Conditions can cause the change oil message to illuminate as early as 3,500 miles (5,600 km) since last reset. Have your vehicle serviced as soon as possible, within the next 500 miles (805 km).

On the Electronic Vehicle Information Center (EVIC) equipped vehicles "Oil Change Required" is displayed in the EVIC and a single chime sounds indicating that an oil change is necessary.

On non-EVIC equipped vehicles "Change Oil" flashes in the instrument cluster odometer and a single chime sounds indicating that an oil change is necessary.

NOTE: Under no circumstances should oil change intervals exceed 10,000 miles (16 000 km) or twelve months, whichever comes first.

Severe Duty All Models

Change Engine Oil at 4000 miles (6,500 km) if the vehicle is operated in a dusty and off road environment. This type of vehicle use is considered Severe Duty.

Once A Month Or Before A Long Trip:

- Check engine oil level
- Check windshield washer fluid level
- Check the tire inflation pressures and look for unusual wear or damage
- Check the fluid levels of the coolant reservoir, brake master cylinder, power steering and transmission as needed
- Check function of all interior and exterior lights

At Every Oil Change Interval As Indicated By Oil Change Indicator System:

- Change oil and filter.
- Rotate the tires. **Rotate at the first sign of irregular wear, even if it occurs before the oil indicator system turns on.**
- Inspect battery and clean and tighten terminals as required.
- Inspect automatic transmission fluid if equipped with dipstick.
- Inspect brake pads, shoes, rotors, drums, hoses and park brake.
- Inspect engine cooling system protection and hoses.
- Inspect exhaust system.
- Inspect engine air cleaner if using in dusty or off-road conditions.

CAUTION: Failure to perform the required maintenance items may result in damage to the vehicle.



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OIL CHANGE INDICATOR – RESET

Your vehicle is equipped with an engine oil change indicator system. The “Oil Change Required” message will display in the EVIC for five seconds after a single chime has sounded, to indicate the next scheduled oil change interval. The engine oil change indicator system is duty cycle based, which means the engine oil change interval may fluctuate, dependent upon your personal driving style.

Unless reset, this message continues to display each time you turn the ignition switch to the ON/RUN position. To turn off the message temporarily, press and release the OK button. To reset the oil change indicator system (after performing the scheduled maintenance) perform the following procedure:

1. Without pressing the brake pedal, press the ENGINE START/STOP button **or** turn the ignition switch to the ON/RUN position (do not start the engine).
2. Fully depress the accelerator pedal, slowly, three times within 10 seconds.
3. Without pressing the brake pedal, press the ENGINE START/STOP button once **or** turn the ignition switch to the OFF/LOCK position.

NOTE: If the indicator message illuminates when you start the vehicle, the oil change indicator system did not reset. If necessary, repeat this procedure.

REQUIRED MAINTENANCE INTERVALS

Mileage or time passed (whichever comes first) in thousands	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Or Years:	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Additional Inspections														
Inspect the CV joints.		X			X			X			X			X
Inspect front suspension, tie rod ends, boot seals and replace if necessary.	X		X		X		X		X		X		X	
Inspect the rear axle fluid.	X				X				X				X	
Inspect the manual transmission fluid (if equipped), add as necessary.	X				X				X				X	
Inspect the brake linings, parking brake function.	X		X		X		X		X		X		X	
Adjust park brake on vehicles equipped with four wheel disc brakes.	X		X		X		X		X		X		X	
Additional Maintenance														
Replace engine air filter.		X			X			X			X			X
Replace cabin/air conditioning filter.	X		X		X		X		X		X		X	



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Mileage or time passed (whichever comes first) in thousands	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Or Years:	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Replace spark plugs (3.6L engine). **									X					
Replace spark plugs (5.7L engine). **									X					
Flush and replace the engine coolant at 10 years or 150,000 miles whichever comes first.									X					X
Change the manual transmission fluid (if equipped) if using your vehicle for any of the following: Most of your driving is at sustained speeds during hot weather, above 90°F (32°C), driving in dusty conditions, or stop and go driving.			X				X				X			
Change the automatic transmission fluid and filter if using your vehicle for any of the following: police, taxi, fleet, or frequent trailer towing.					X									
Change automatic transmission fluid and filter.											X			
Change the rear axle fluid if using your vehicle for any of the following: police, taxi, fleet, off-road, or frequent trailer towing.			X				X				X			
Inspect and replace PCV valve if necessary.									X					

** The spark plug change interval is mileage based only, yearly intervals do not apply.



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04 - Vehicle Quick Reference / Fuse - Relay Locations and Types/Specifications
Integrated Power Module

The Integrated Power Module is located in the engine compartment. This module contains fuses and relays.

Cavity	Cartridge Fuse	Mini-Fuse	Description
1	—	15 Amp Blue	Washer Motor
2	—	25 Amp Natural	Powertrain Control Module (PCM)/NGS Module Feed (Batt)
3	—	25 Amp Natural	Ignition Run/Start
4	—	25 Amp Natural	EGR Solenoid/Alternator
5	—	15 Amp Blue	Powertrain Control Module
6	—	25 Amp Natural	Ignition Coils/Injectors
7	—	25 Amp Natural	Headlamp Washer Relay – If Equipped
8	—	30 Amp Green	Starter
9	—	—	—
10	30 Amp Pink	—	Windshield Wiper
11	30 Amp Pink	—	Anti-Lock Brake System (ABS) Valves
12	40 Amp Green	—	Radiator Fan Lo/High
13	50 Amp Red	—	Anti-Lock Brake System (ABS) Pump Motor
14	—	—	—
15	50 Amp Red	—	Radiator Fan
16	—	—	—
17	—	—	—
18	—	—	—
19	—	—	—



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Cavity	Cartridge Fuse	Mini-Fuse	Description
20	—	—	—
21	—	—	—
22	—	—	—

There is also a power distribution center located in the trunk under the spare tire access panel. This center contains fuses and relays.

Rear Power Distribution Center			
Cavity	Cartridge Fuse	Mini-Fuse	Description
1	60 Amp Yellow	—	Ignition Off Draw (IOD) Cavity 1 of the Rear Power Distribution Center contains a black IOD fuse needed for vehicle processing during assembly. The service replacement part is a 60 Amp yellow cartridge fuse.
2	40 Amp Green	—	Integrated Power Module (IPM)
3	—	—	—
4	40 Amp Green	—	Integrated Power Module (IPM)
5	30 Amp Pink	—	Heated Seats – If Equipped
6	—	20 Amp Yellow	Fuel Pump
7	—	15 Amp Blue	Audio Amplifier – If Equipped
8	—	15 Amp Blue	Diagnostic Link Connector (DLC)/Wireless Control Module (WCM)/Wireless Ignition Node (WIN)
9	—	20 Amp Yellow	Power Outlet
10	—	25 Amp Natural	Vacuum Pump – If Equipped
11 *	—	—	—



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Rear Power Distribution Center			
Cavity	Cartridge Fuse	Mini-Fuse	Description
12 *	—	—	—
13 *	—	—	—
14	—	10 Amp Red	AC Heater Control/Cluster/Security Module – If Equipped
15	—	20 Amp Yellow	Active Damper – If Equipped
16	—	20 Amp Yellow	Heated Seat Module – If Equipped
17	—	20 Amp Yellow	Instrument Cluster
18	—	20 Amp Yellow	Cigar Lighter (Instrument Panel)
19	—	10 Amp Red	Stop Lights
20	—	—	—
21	—	—	—
22	—	—	—
23	—	—	—
24	—	—	—
25	—	—	—
26	—	—	—
27	—	10 Amp Red	Occupant Restraint Controller (ORC)
28	—	15 Amp Blue	Ignition Run, AC Heater Control/Occupant Restraint Controller (ORC)
29	—	5 Amp Tan	Cluster/Electronic Stability Control (ESC)/Powertrain Control Module (PCM)/STOP LIGHT Switch



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Rear Power Distribution Center			
Cavity	Cartridge Fuse	Mini-Fuse	Description
30	—	10 Amp Red	Door Modules/Power Mirrors/Steering Control Module (SCM)
31	—	—	—
32	—	—	—
33	—	—	—
34	—	—	—
35	—	5 Amp Tan	Antenna Module – If Equipped/Power Mirrors
36	—	25 Amp Natural	Hands-Free Phone – If Equipped/Radio/Amplifier Feed
37	—	15 Amp Blue	Transmission
38	—	10 Amp Red	Cargo Light/Vehicle Information Module – If Equipped
39	—	10 Amp Red	Heated Mirrors – If Equipped
40	—	5 Amp Orange	Auto Inside Rearview Mirror/Heated Seats – If Equipped/Switch Bank
41	—	—	—
42	30 Amp Pink	—	Front Blower Motor
43	30 Amp Pink	—	Rear Window Defroster
44	20 Amp Blue	—	Amplifier/Sunroof – If Equipped