

1992 Corvette: Recall: Optispark Distributor

Subject: OPTI-SPARK DIST. (REPLACE WITH NEW P/N)

Model and Year: 1992 CHEVROLET CORVETTE W/ LT1 ENGINE

Source: Chevrolet Product Emission Campaign

Bulletin Number: 92C11 - (06/15/1992)

To: All Chevrolet Dealers

General Motors has determined that certain 1992 Chevrolet Corvettes with LT1 engines (VIN code "P") have been equipped with Opti-Spark distributors which may develop a faulty low-resolution pulse signal. This condition may cause a "no-start" engine stall condition, along with a "Service Engine Soon" light (Code 16).

To correct this condition, dealers are to replace the distributor.

Owners of SOLD vehicles involved in this campaign are being contacted by the Chevrolet Customer Assistance Center (CAC) on a branch-by-branch basis. Due to initial parts availability, campaign parts will only be made available as owners are contacted by CAC and only for their vehicles (see the parts information section for additional details).

INVOLVED VEHICLES

Involved are certain 1992 Chevrolet Corvettes with LT1 engines built within the following VIN breakpoints:

PLANT YEAR MODEL PLANT CODE FROM THROUGH

1992 Y-Car Bowling Green 11511 N5100001 N5107664

Involved vehicle listings have been identified by Vehicle Identification Number Computer Listings. Computer listings contain the complete Vehicle Identification Number, owner name and address data, and are furnished to involved dealers with the campaign bulletin. Dealers will be notified by DCS when contacts by CAC will begin in their branch. **DEALERS SHOULD NOT CONTACT OWNERS OR ORDER CAMPAIGN PARTS UNTIL DEALERS ARE NOTIFIED BY DCS.**

These listings may contain owner names and addresses obtained from State Motor Vehicle Registration Records. The use of such motor vehicle registration data for any other purpose is a violation of law in several states. Accordingly, you are urged to limit the use of this listing to the follow-up necessary to complete this campaign. Any dealer not receiving a computer listing with the campaign bulletin has no involved vehicles currently assigned.

OWNER NOTIFICATION

Owners will be notified of this campaign on their vehicles by Chevrolet Motor Division. As parts become available, Chevrolet Customer Assistance Center (CAC) will be contacting owners and instructing them to schedule an appointment for their vehicle. CAC may also inform customers of involvement in recall campaigns 92C08 (Oil Filter Adapter) and/or 92C10 (Lower Trim Panel/Brake Pedal Interference). Owner letters will also be sent after all branch contacts have been attempted by CAC within each branch (see copy of owner letters included with this bulletin).

DEALER CAMPAIGN RESPONSIBILITY

Dealers are to service all vehicles subject to this campaign at no charge to owners, regardless of mileage, age of vehicle, or ownership, from this time forward.

Whenever a vehicle subject to this campaign is taken into your new or used vehicle inventory, or it is in your dealership for service in the future, you

should take the steps necessary to be sure the campaign correction has been made before reselling or releasing the vehicle.

Owners of vehicles recently sold from your new vehicle inventory are to be contacted by the dealer according to DCS instructions, and arrangements made to make the required correction according to instructions contained in this bulletin.

PARTS INFORMATION

Due to initial limited parts availability, parts for this program will be made available as owners are contacted by the Chevrolet Customer Assistance Center (CAC) and only for their vehicles. Customer contacts by CAC will be made on a branch-by-branch basis related to the number of vehicles in that branch and the complaint rates being experienced by that branch. Dealers will be advised by DCS when the customers in their branch are being contacted by CAC. Parts will be made available to dealers in the contacted branch so customers may schedule appointments for their vehicles.

Parts required to complete this campaign are to be obtained from General Motors Service Parts operations (GMSPO). To ensure these parts will be obtained as soon as possible, they should be ordered from GMSPO as a CIO. **ALL ORDERS WILL REQUIRE A VIN NUMBER FOR PROCESSING.** Orders received without a VIN number will be cancelled automatically with the following message: "Order cancelled, VIN required".

Quantity/ Part Number Description Vehicle

10457158 Distributor Kit 1

Coolant 9 Quarts (Mix 50/50 to yield 18 quarts)

PART RETURN PROCEDURE

The removed Opti-Spark Distributor (with a copy of the repair order enclosed) must be returned in the original container via UPS, using the return label provided, to:

NABCO 639 Mill Street Marion, MI 49665

See the "Claim Information" section of this bulletin for UPS shipping cost reimbursement procedures.

SERVICE PROCEDURE

DISASSEMBLY PROCEDURE

1. Disconnect negative battery cable.
2. Disconnect intake air temperature (IAT) sensor harness connector.
3. Remove air intake duct and air cleaner assembly.
4. Drain coolant from engine as follows:
 - A. Remove pressure cap from radiator surge tank when engine is cool by:
 - (1) Slowly rotating cap counterclockwise to detent (do not press down while rotating).
 - (2) Wait until any residual pressure (indicated by a hissing sound) is relieved.
 - (3) After all hissing stops, press down on cap while continuing to rotate counterclockwise.
 - B. Open radiator drain valve located at bottom of right-hand radiator end tank.

C. Open air bleed valves on thermostat housing and throttle body unit (refer to Figure 1, page 6).

D. Remove engine knock sensors from lower right-hand and left-hand sides of block.

NOTICE: A large amount of coolant is still left in system after radiator petcock has been opened and coolant has been allowed to drain out. This fluid will drain out of the engine block when the knock sensors are removed during coolant drain, flush and refill procedures. Take proper precautions to avoid contact with excessive amounts of coolant during coolant drain, flush and refill procedures

E. Allow system to drain completely.

5. Disconnect upper and lower radiator hoses and heater hoses from coolant pump.

6. Relieve serpentine belt tension using long 5/8 inch box wrench to rotate tensioner. Belt need only be removed from alternator pulley.

7. Disconnect ECM coolant sensor connector and harness retainer on front of pump.

8. Remove drive belt tensioner bolt and tensioner.

9. Remove coolant pump by removing six bolts securing coolant pump to engine block.

10. Remove three crankshaft torsional damper bolts and damper (refer to Figure 2, page 6).

11. Disconnect spark plug (secondary) cables from distributor. Twist each boot 1/2 turn before removing, and pull only on boot to remove wire from

distributor.

12. Disconnect four-terminal connector from distributor.

13. Remove three distributor mounting bolts. Pull distributor forward until drive shaft disengages from engine. Mark top surface of shaft to denote location during re-assembly (refer to Figure 3, page 6).

RE-ASSEMBLY INSTRUCTIONS

1. Install distributor shaft into distributor. Turn shaft until mark is on top.

2. Install distributor and shaft assembly into engine. Tighten distributor bolts to 11 Nm (8 lb. ft.).

3. Connect four-terminal ECM connector to distributor.

4. Connect spark plug cables to distributor.

5. Install torsional damper to engine. Tighten damper bolts to 81 Nm (60 lb. ft.).

6. Install pump to engine (**DO NOT FORCE PUMP ONTO ENGINE**):

A. Clean engine block and coolant pump thoroughly.

B. Inspect O-rings on both pump shaft and drive assembly front cover for cracks and replace O-rings if damaged.

C. Apply light coat of grease to seals and splines before assembly of coupling to coolant pump. White band on coupling goes toward engine (refer to Figure 4, page 7).

D. Install new gaskets with tabs up.

E. Tighten coolant pump attaching bolts to 41 Nm (30 lb. ft.).

7. Install belt tensioner to engine. Tighten tensioner attaching bolt to 33 Nm (24 lb. ft.).

8. Install serpentine belt. Use long 5/8 inch box wrench to rotate tensioner.

9. Install coolant sensor wire harness retainer to front of coolant pump and connect ECM coolant sensor connection.

10. Connect upper and lower radiator hose and heater hose to pump.

11. Close radiator drain valve and install engine knock sensors after lightly applying a small amount of sealant to the threads of the knock sensors. **DO NOT DIP KNOCK SENSORS IN SEALANT OR PUT SEALANT ON ENDS OF KNOCK SENSORS AS THIS WILL PREVENT THE KNOCK SENSORS FROM FUNCTIONING PROPERLY.** Tighten knock sensors to 19 Nm (14 lb. ft.).

12. Open bleed valves on thermostat housing and throttle body.

13. Fill cooling system (using new coolant - 17.8 quarts 50/50 mix) through radiator surge tank until solid stream of coolant comes out bleed valves.

14. Close bleed valves and fill radiator surge tank until level is at the base of surge tank neck.

15. Install pressure cap.

16. Check level of coolant in recovery reservoir.

17. Install air cleaner and intake dust assembly.

18. Connect IAT electronic connection.

19. Clean off excess coolant from engine and compartment.
20. Connect negative battery cable. Tighten battery cable bolt to 15 Nm (11 lb. ft.).
21. Start engine, check for leaks and for proper coolant level.
22. Install Campaign Identification Label.
23. Repackage removed Opti-Spark Distributor in original shipping container and return to parts department.
24. Follow Opti-Spark Distributor Part Return Procedure as instructed in this bulletin.

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with the instructions outlined in this Product Campaign Bulletin will require a "Campaign Identification Label." Each label provides spaces to include the campaign number and the five (5) digit dealer code of the dealer performing the campaign service. This information may be inserted with a typewriter or a ball point pen.

Each "Campaign Identification Label" is to be located on the radiator core support in an area which will be visible when the vehicle is brought in for periodic servicing by the owner. Additional "Campaign Identification Labels" can be obtained from DAC.

Apply "Campaign Identification Label" only on a clean, dry surface.

CLAIM INFORMATION

Submit a Product Campaign Claim with the information indicated below: *
*** FAILED PARTS CC-FC LABOR LAB OTH NET REPAIR

PERFORMED PC PART NO. ALLOW OP HRS HRS AMT

----- Install New 10
10457158 ** SK-00 V7290 2.4 0.1 \$#.## Distributor

* Campaign Administrative Allowance.

** The "Parts Allowance" should be the sum total of the current GMSPD Dealer Net price plus 30% of all parts (distributor kit and 9 qts. coolant) required for the repair.

*** The \$#.## in the "Net Amount" column for labor operation V7290 should include the UPS shipping cost of returning the Opti-Spark Distributor plus any additional costs of providing alternate transportation or other services expenses authorized by Chevrolet Customer Assistance Center (CAC).

The removed Opti-Spark Distributor must be returned (with a copy of the repair order enclosed) immediately after removal using the original shipping container via UPS. A yellow and black return shipping label has been provided and should be placed over the original shipping label. Failure to return the removed unit within 15 working days from the repair order date will result in the dealership being debited \$160.00 (by Chevrolet Motor Division) for the unit furnished plus an administrative charge.

Dealers will automatically receive the correct labor and parts allowance based on the labor operation performed.

Refer to the Chevrolet Claims Processing Manual for details on Product Campaign Claim Submission.

Dear 1992 Chevrolet Corvette Owner:

This notice is sent to inform you that Chevrolet Motor Division is conducting an emission recall campaign which includes your vehicle.

REASON FOR THIS RECALL

General Motors has determined that some 1992 Chevrolet Corvettes with LT1 engines have been equipped with opti-spark distributors that may develop a faulty low resolution pulse signal. This condition may cause a "no-start" or engine stall condition, along with a "Service Engine Soon" light.

WHAT WE WILL DO

To correct this condition, the existing distributor in your vehicle will be replaced with a new updated part. This service will be performed for you at no charge. **WHAT YOU SHOULD DO** ----- Please contact your Chevrolet dealer as soon as possible to arrange a service date. Instructions for making this correction have been sent to your dealer. Please ask you dealer if you wish to know how much time will be needed to schedule, process and repair your vehicle.

The enclosed owner reply card identifies your vehicle. Presentation of this card to your dealer will assist in making the necessary correction in the shortest possible time. If you have sold or traded your vehicle, please let us know by completing the postage paid reply card and returning it to us. Should your dealer not schedule a service date within a reasonable time, you should contact the Chevrolet Customer Assistance Center by calling 1-800-222-1020. If your dealer and the Customer Assistance Center are unable to remedy this condition within a reasonable time, you may wish to advise the Environmental Protection Agency at the following address: Director, Manufacture's Operations Division (EN-340-F), United States Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

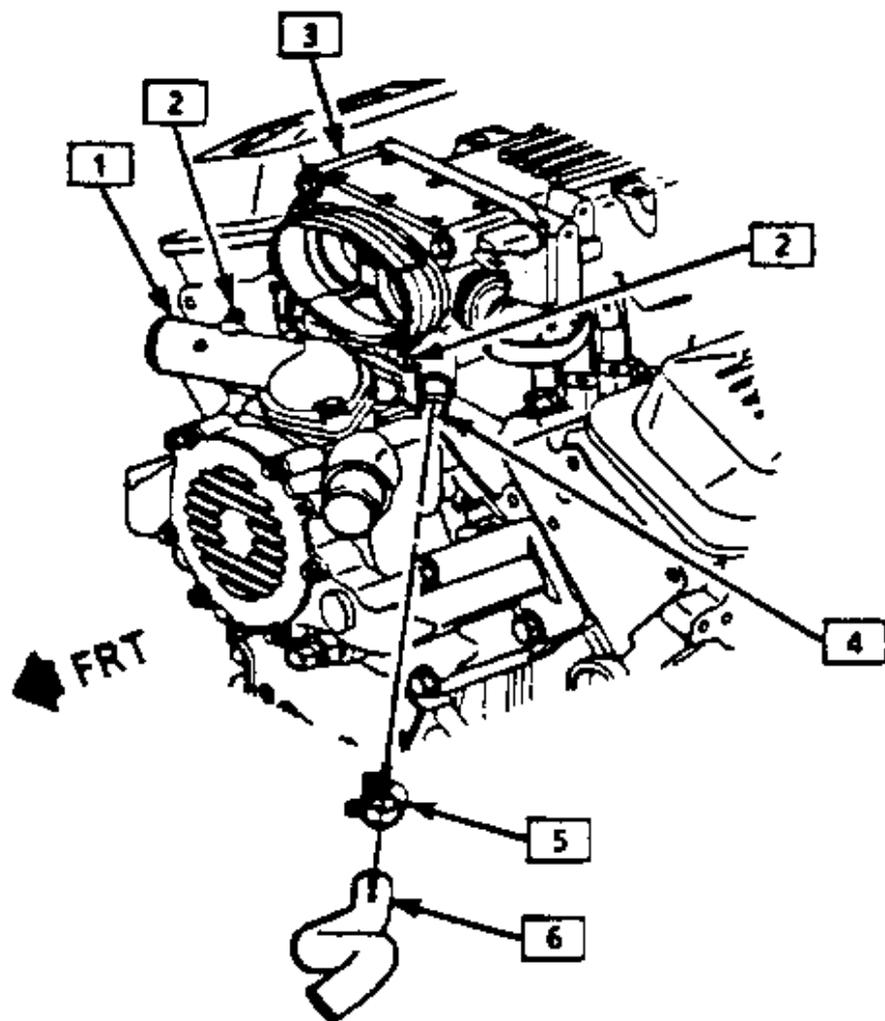
To ensure your full protection under the emission warranty made applicable to your vehicle by State or Federal Law, and your right to participate in future recalls, it is recommended that you have your vehicle serviced as soon as possible. failure to do so could legally be determined to be lack of proper maintenance of your vehicle. Also, your vehicle may fail a state or local

emission inspection if this recall is not accomplished

IMPORTANT MESSAGE FOR CALIFORNIA RESIDENTS

The California Air Resources Board (CARB) requires vehicle emission recall campaigns be completed prior to California registration renewal. Uncorrected emission recall campaigns will result in your not being able to renew your California vehicle registration. At the time of emission campaign completion, your California dealer will issue a "Campaign Certificate Of Completion". Keep this certificate and, if required, present it to the Department of Motor vehicles when renewing your California registration as proof of campaign completion.

We are sorry to cause you this inconvenience; however, we have taken this action in the interest of your continued satisfaction with our product.

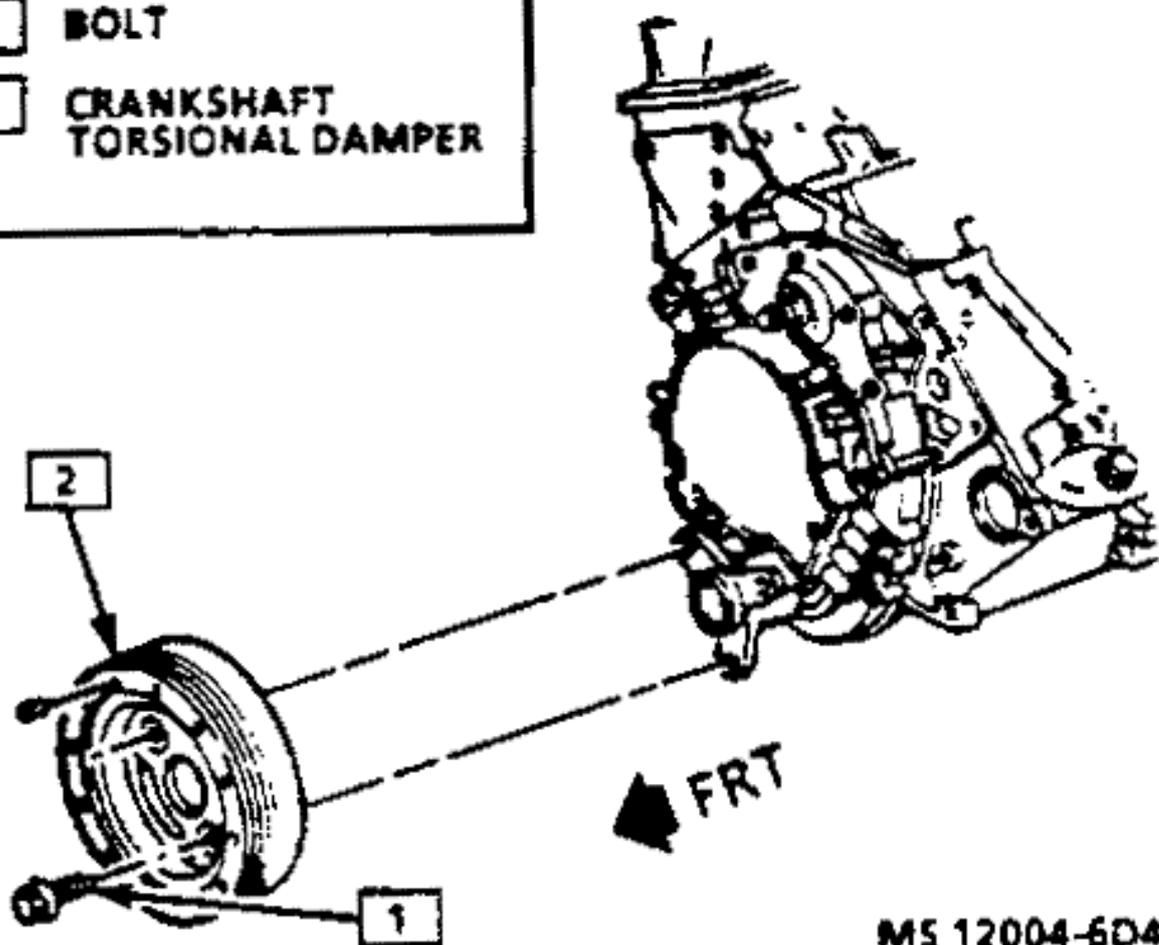


- 1** THERMOSTAT HOUSING
- 2** AIR BLEED VALVE
- 3** THROTTLE BODY ASSEMBLY
- 4** THROTTLE BODY NIPPLE
- 5** CLAMP - THROTTLE BODY
- 6** THROTTLE BODY HOSE

MS 12502-68

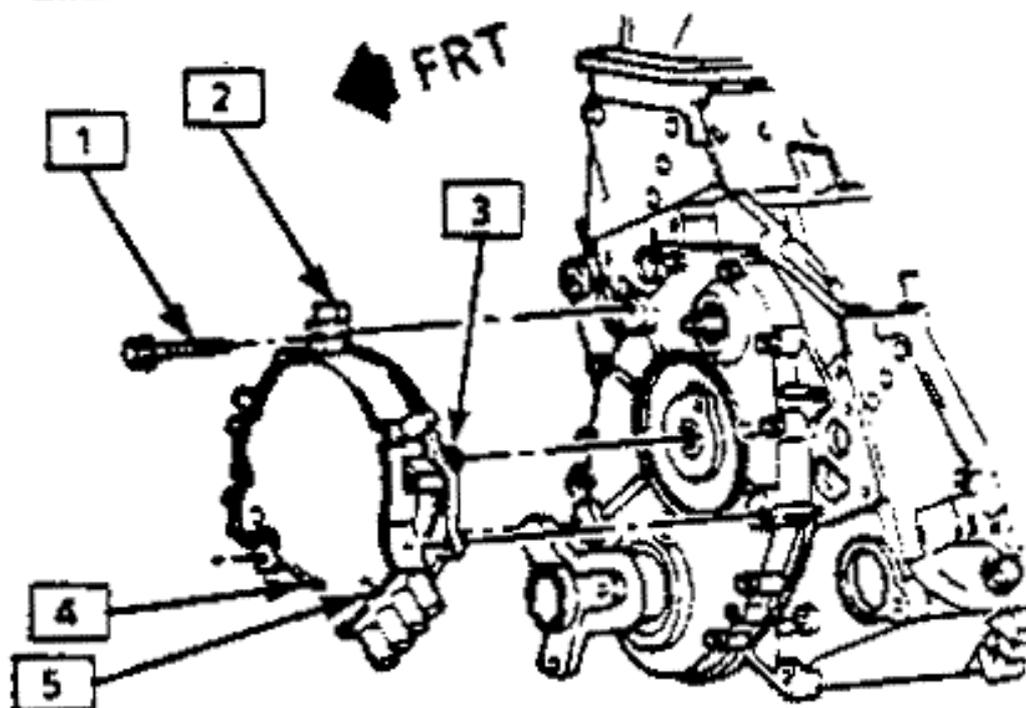
Figure 1 - Throttle Body Hose and Air Bleed Valves

- 1** BOLT
- 2** CRANKSHAFT TORSIONAL DAMPER



MS 12004-604

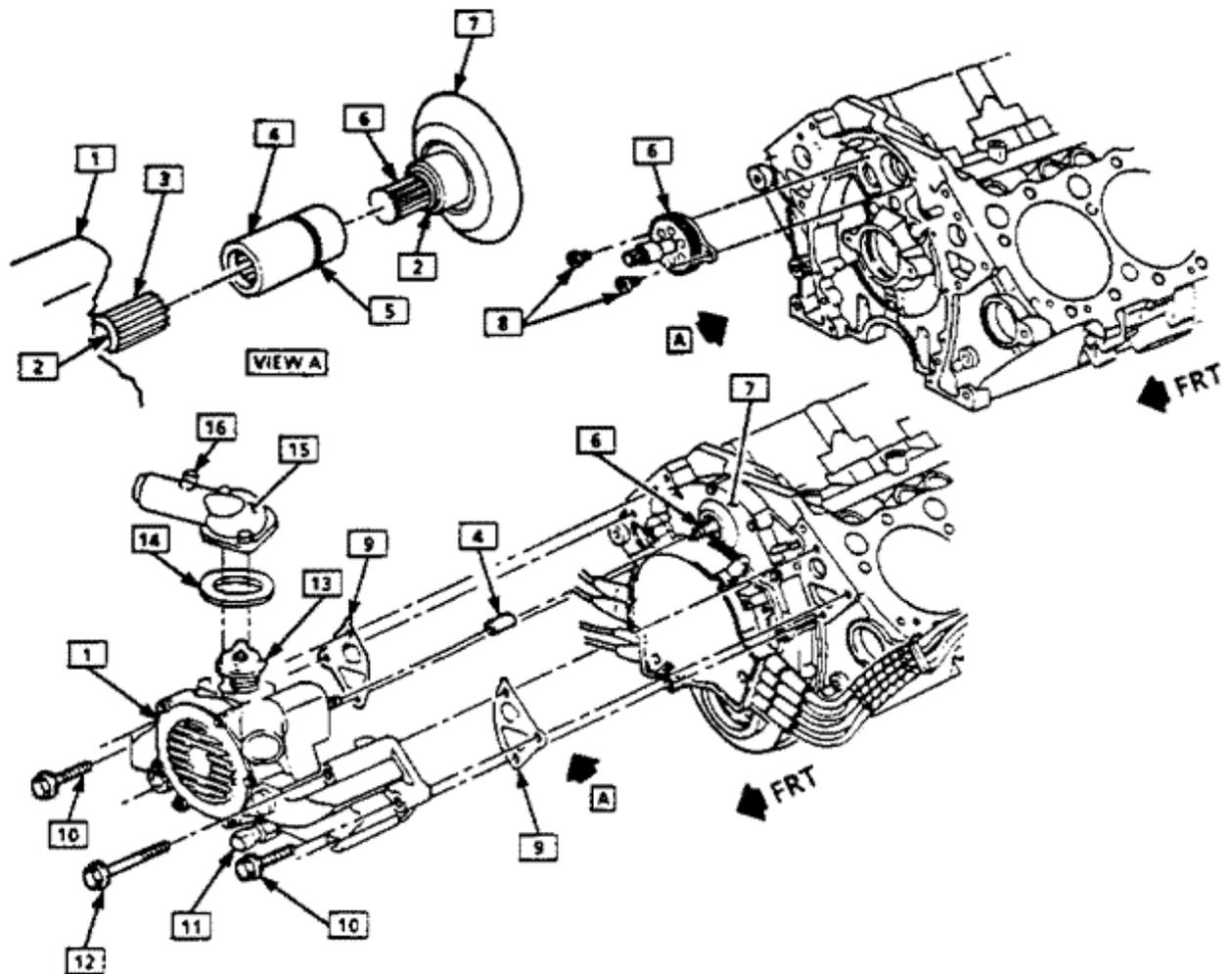
Figure 2 - Torsional Dampener - (VIN P)



- | | | | |
|---|---------------|---|-----------------|
| 1 | MOUNTING BOLT | 4 | DISTRIBUTOR CAP |
| 2 | DISTRIBUTOR | 5 | ATTACHING SCREW |
| 3 | DRIVESHAFT | | |

MS 12005-6D4

Figure 3 - Distributor - (VIN P)



- | | |
|-------------------------------------|-----------------------------------|
| 1 COOLANT PUMP | 9 GASKET (INSTALL TAB UP) |
| 2 O-RING SEAL | 10 BOLT (SHORT) |
| 3 COOLANT PUMP SHAFT | 11 COOLANT SENSOR |
| 4 COUPLING | 12 BOLT (LONG) |
| 5 WHITE BAND (TOWARD ENGINE) | 13 THERMOSTAT |
| 6 DRIVEN GEAR SHAFT | 14 SEAL (INSTALL TAPER UP) |
| 7 TIMING CHAIN FRONT COVER | 15 THERMOSTAT HOUSING |
| 8 BOLTS - RETAINER PLATE | 16 AIR BLEED VALVE |

MS 11900-6B

Figure 4 - Coolant Pump & Thermostat Installation (VIN P)

General Motors bulletins are intended for use by professional technicians, not a "do-it-yourselfer". They are written to inform those technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions and know-how to do a job properly and safely. If a condition is described, do not assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See a General Motors dealer servicing your brand of General Motors vehicle for information on whether your vehicle may benefit from the information.

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Online URL:

<https://www.corvetteactioncenter.com/tech/knowledgebase/article/1992-corvette-recall-optispark-distributor-554.html>