

Technical Service Bulletin (TSB)

Spark Plug Re-Gap to Resolve Misfire Symptoms

REFERENCE:	TSB: 09-016-24 GROUP: 09 - Engine	Date:	July 17, 2024	REVISION:	–
VEHICLES AFFECTED:	2023 (LA) Dodge Challenger This bulletin applies to vehicles equipped with a 6.2L V8 Supercharged HO Engine (Sales Code ESJ) or SRT Demon 170 (Sales Code AMM).			MARKET APPLICABILITY: ☒ NA ☐ MEA ☐ SA ☐ IAP ☐ EE ☐ CH	
CUSTOMER SYMPTOM:	Customers must experience a Malfunction Indicator Lamp (MIL) illumination and the vehicle must exhibit/set one or more of the following Diagnostic Trouble Codes (DTCs): • P0300 - Multiple Cylinder Misfire. • P0301 - Cylinder 1 Misfire. • P0302 - Cylinder 2 Misfire. • P0303 - Cylinder 3 Misfire. • P0304 - Cylinder 4 Misfire. • P0305 - Cylinder 5 Misfire. • P0306 - Cylinder 6 Misfire. • P0307 - Cylinder 7 Misfire. • P0308 - Cylinder 8 Misfire. • P0420 - Catalyst System Efficiency Below Threshold Bank 1. • P0430 - Catalyst System Efficiency Below Threshold Bank 2. The customer may also comment on one or more of the following: • Excessive vibration. • Engine runs rough. • Lack, or loss of power. • Engine misfire.				
CAUSE:	Incorrect spark plug gap				

REPAIR SUMMARY:

This bulletin involves checking the spark plug gaps and possibly inspecting/replacing both catalytic converters.

CLAIMS DATA:

Labor Operation No:	Labor Description	Skill Category	Labor Time
08-17-02-9C	Check and or Re-Gap All Sixteen Spark Plugs (1 - Semi-Skilled)	1 - Engine Repair and Performance	1.7 Hrs.
08-17-02-52	Catalytic Converters - Replace (1 - Semi-Skilled)	1 - Engine Repair and Performance	0.5 Hrs.
Failure Code	ZZ	Service Action	

SPARE PARTS:

Qty	Part No.	Description	Notes
(AR)	SP639106AB	Spark Plug	
1 (AR)	68623544AA	Converter, Exhaust	Left
1 (AR)	68623545AA	Converter, Exhaust	Right

DIAGNOSIS:

If the customer describes the symptom/condition listed above, perform the Repair Procedure.

SPECIAL TOOLS/EQUIPMENT:

Description	Ref. No.	Notes
wiTECH or Equivalent	–	
Spark Plug Gap or Feeler Gauge	NPN	

REPAIR PROCEDURE:

NOTE: This Repair Procedure does not involve the replacement of all sixteen spark plugs, or any ignition coils. Only replace spark plugs that cannot be gapped properly, have been dropped, or damaged.

1. Remove the spark plugs. Refer to the detailed service procedures available in DealerCONNECT>08 - Electrical / 8I - Ignition Control / Spark Plug / Removal.
2. Using a gap or feeler gauge, measure each spark plug gap.

NOTE: If any plug gap is lower than 0.55 mm (0.022 in.), replace the spark plug (plug gap should not be opened up again) and start the re-gap procedure. If the plug gap is greater than .75 mm (0.029 in.) then the spark plug needs to be re-gapped per the Repair Procedure.

3. With the spark plug held in hand and the terminal on the top side and electrode on the bottom side, lightly tap the electrode against a hard surface to reduce the gap.

CAUTION!!

- If any spark plug gap is lower than what's specified, replace the plug and start again – do not adjust. If at any point a spark plug is dropped, a new plug is required.
- Re-gapping should be done very carefully to ensure that the electrodes and the precious metal tips do not get damaged during the re-gapping procedure.

NOTE: After the first initial tap, if the measurement shows that the gap is not yet within the required specification, continue tapping and measuring till the specification is reached.

4. Using a gap or feeler gauge, measure each spark plug gap. Each spark plug gap should be between 0.55 - 0.65 mm (0.022 - 0.025 in.), with 0.60 mm (0.024 in.) being nominal.

NOTE: Each plug that is marked with a blue mark, signifies it was re-gapped correctly and cannot be re-gapped even if the gap is greater than .75 mm (0.029 in.). If the vehicle returns with DTCs, or symptom/conditions found in this Service Bulletin, further diagnostics should be performed. Refer to the detailed service procedures available in DealerCONNECT/Service Library.

5. Using a blue paint pen, mark each spark plug that was re-gapped [Fig. 1](#).



Fig. 1
Blue Mark On Re-Gapped Spark Plug

6. Install the spark plugs. Refer to the detailed service procedures available in DealerCONNECT>08 - Electrical / 8I - Ignition Control / Spark Plug / Installation.
7. Were either **DTC P0038 or P0058** set when the vehicle was brought in?
 - YES >>> Proceed to [Step 8](#).
 - NO >>> Proceed to [Step 10](#).
8. Inspect the catalytic converters. Refer to the detailed service procedures available in DealerCONNECT>11 - Exhaust System / Converter, Catalytic / Inspection.
9. Do the catalytic converters need to be replaced?
 - YES >>> Replace both catalytic converters. Refer to the detailed service procedures available in DealerCONNECT>11 - Exhaust System / Converter, Catalytic / Removal and Installation.
 - NO >>> Proceed to [Step 10](#).
10. Clear any DTCs that may have been set.

POLICY:

Reimbursable within the provisions of the warranty.

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