# Service Bulletin

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Category **01** 

Applicable Models

1999-2003 PROTEGÉ Subject

EGR VALVE SEIZED (DTC P0300, P0401)

Bulletin No.	07-17
Issued	06/07
Revised	

### **BULLETIN NOTE**

This bulletin supersedes the previous bulletin 01-05-24, issued 10/05. The PARTS INFORMATION / WARRANTY INFORMATION and REPAIR INSTRUCTION have been revised. Please discard the previous bulletin.

### **WARRANTY EXTENSION**

The warranty coverage for the EGR valve on the outlined models has been extended. The extended warranty is available for 7 years from the original warranty start date regardless of distance traveled.

### **APPLICABLE MODELS/VINS:**

1999-2003 Protegé (2.0 L & 1.8 L Engine)

### **DESCRIPTION**

Some vehicles may experience a rough engine idle when the vehicle is at a standstill and/or a malfunction indicator light (MIL) ON condition with diagnostic trouble codes (DTC) P0300 and/or P0401 stored in memory as a result of the EGR valve being seized.

### **CAUSE**

Damp conditions may eventually cause the EGR valve to seize, possibly causing poor idle and/or random misfires.

### REPAIR PROCEDURE

- 1. Verify customer concern.
- Inspect the function of the EGR valve, using the M-MDS if necessary. If the EGR control valve is seized, replace it with a modified one according to the repair procedures outlined in the attachment.
- 3. Verify repair.

#### PARTS INFORMATION

Part Number	Description	Qty.	Notes
FSY1 18 W00	EGR Control Valve Kit	1	Kit includes: 1 EGR valve, 10 tie-wraps, 2 clamps and 2
			gaskets.

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### **CUSTOMER REIMBURSEMENTS**

In the event that a customer has previously paid for the replacement of the EGR valve, and can present a copy of the customer paid Repair Order from a Mazda Dealer, clearly showing part number FSY1-20-300 \* (asterisk symbol "\*" can be any letter), please reimburse the owner for the EGR valve and replacement labour only, and submit as a net item with the warranty claim. The dealer must retain a copy of the previous repair order and proof of payment, and attach to the claim.

### **WARRANTY INFORMATION**

#### NOTE:

- This Warranty information only applies to verified customer complaints on vehicles eligible for warranty repair according to this bulletin.
- Additional diagnostic time cannot be claimed for this repair.
- The warranty coverage for the EGR valve on the outlined models has been extended. The
  extended warranty is available for 7 years from the original warranty start date regardless
  of distance traveled.

Warranty Type	0
Symptom Code	6X
Damage Code	90
Part Number Main Cause	FSY1 18 W00
Quantity	1
Operation Number	XXC047RX
Labour Hours	1.5 Hrs.
Coverage Period	7 years/unlimited kilometres
Net item Code XE (Only if Customer reimbursement is required)	All applicable Taxes paid by Warranty System must be Backed Out of Amount

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NATIONAL SERVICE DEPARTMENT

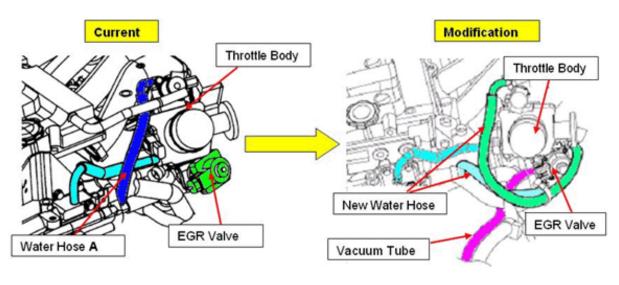
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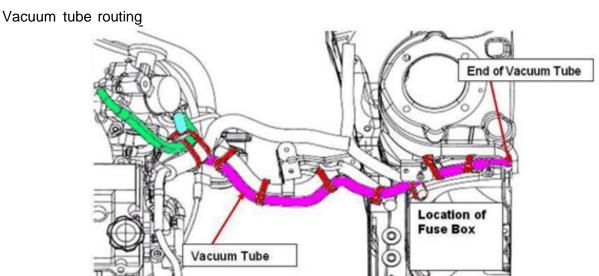
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## Attachment - EGR Control Valve Stuck (DTC P0300, P0401)

### **Outline**

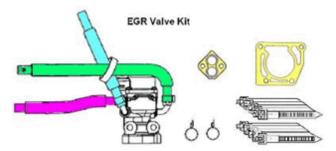
The EGR valve has been modified by the addition of a water hose and a vacuum tube. The original water hose 'A' will not be reused, so please discard it.





### **Parts Information**

The kit (FSY1 18 W00) should be inspected to ensure that all components are present.



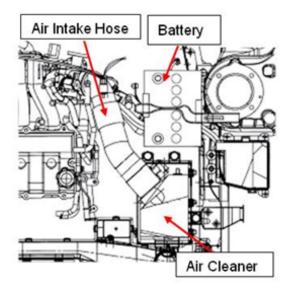
- 1 EGR valve
- 10 tie-wraps
- 2 clamps
- 1 EGR gasket
- 1 throttle body gasket

### **Repair Procedure**

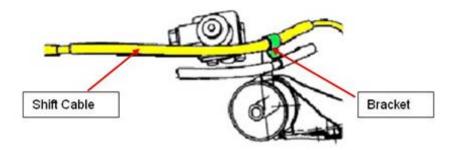
**WARNING:** Allow the engine to sufficiently cool down before performing this repair.

### **Disassembly**

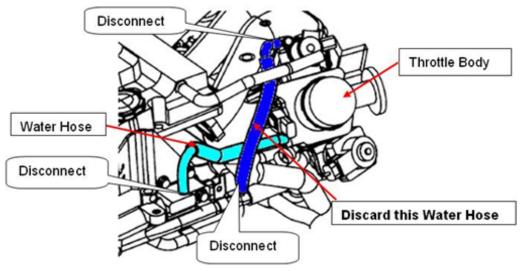
- 1. Record the customer's preset radio stations.
- 2. Drain 2 litres of coolant from the cooling system via the radiator drain, making sure to securely retighten the drain afterwards. Note: the drained coolant will be reused.
- 3. Remove the battery, the air cleaner case, the air intake hose and the battery tray.



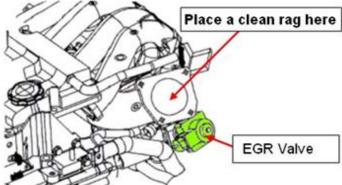
4. On automatic transmission vehicles - remove the shift cable from the bracket at top of the No. 1 engine mount to increase clearance around the EGR valve.



5. Remove the water hose from the throttle body, bypass pipe and water outlet pipe as per the illustration.



6. To prevent foreign material and dirt from entering the intake manifold, place a clean rag in the opening of the intake manifold.

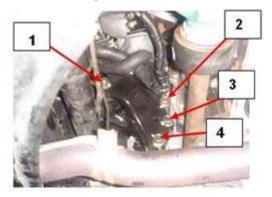


- 7. Remove the gasket from the mating surface between throttle body and intake manifold. **Note:** 
  - Make sure that the gasket has been removed from both the throttle body and intake manifold sides.
  - Do not allow the removed gasket to get into the throttle body or intake manifold.

8. Lift up the vehicle and support the transmission using transmission jack and then remove the No. 1 engine mount bracket in the following order.

### Note:

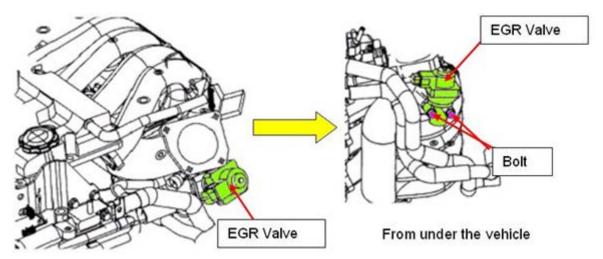
 Removal of the No. 1 engine mount will increase the clearance around the EGR valve, making it much easier to work.



9. From under the vehicle, loosen the two EGR valve securing bolts.

### Note:

 To prevent injuries from a falling EGR valve, the securing bolts should only be loosened at this time, not removed.



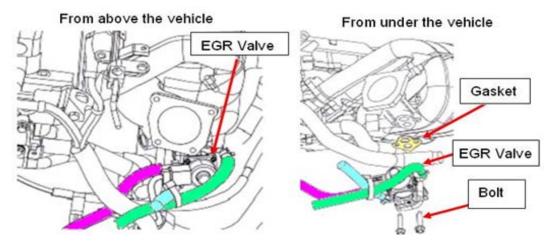
- 10. Lower the vehicle.
- 11. From above the vehicle, remove the EGR valve securing bolts, and then remove the EGR valve.

### Installation

 Apply glycerin to a new EGR gasket and fit the gasket to the EGR valve. From above the vehicle, position the EGR valve.

### Note:

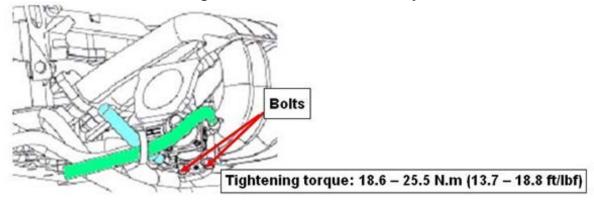
 The glycerin is applied to the EGR gasket to keep it positioned properly and securely on the EGR valve.



2. Lift up the vehicle, and lightly tighten the two bolts for the EGR valve from under the vehicle. Tightening torque: 18.6 – 25.5 Nm (13.7 – 18.8 ft/lbf)

#### Note:

Make sure that the EGR gasket has been fitted correctly.

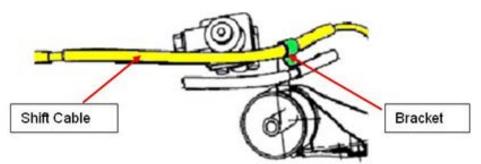


3. Support the transmission with a transmission jack and then reinstall the No. 1 engine mount bracket in the following order. Tightening torque: 67 – 93 Nm (49.4 – 68.6 ft/lbf)

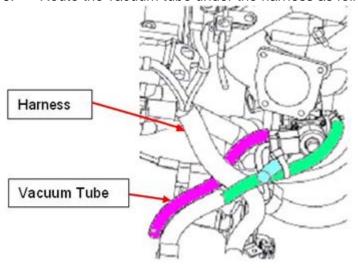


Tightening torque: 67 - 93 Nm (49.4 - 68.6 ft/lbf)

- 4. Lower the vehicle.
- 5. On automatic transmission vehicles secure the shift cable to the bracket at top of the No. 1 engine mount.



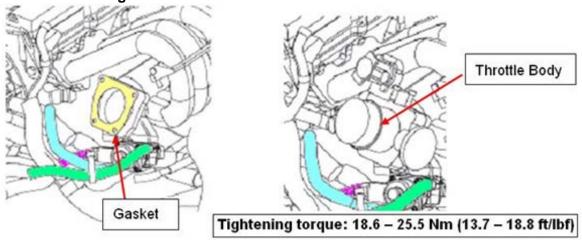
6. Route the vacuum tube under the harness as follows.



7. Install the throttle body and a new gasket to intake manifold. Tightening torque: 18.6 – 25.5 Nm (13.7 – 18.8 ft/lbf)

#### Note:

• Care must be taken to ensure that none of the old gasket is left in the throttle body and intake manifold when the clean rag is removed. Failure to do so may result in "rough idle" or "high idle" concerns.

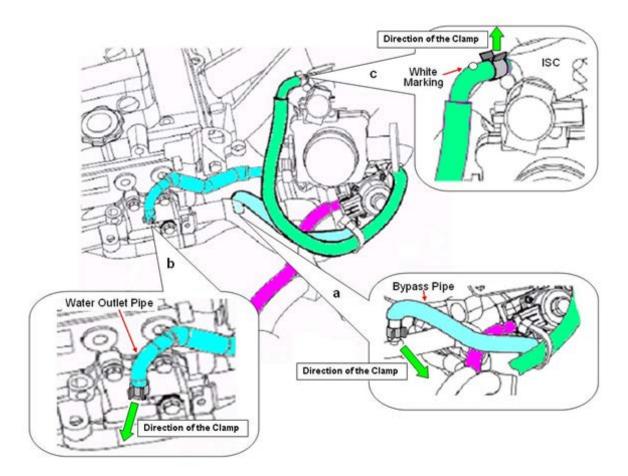


- 8. Install the water hoses in this sequence:
  - a) Insert the water hose to the bypass pipe.
  - b) Insert the water hose to the water outlet pipe.

c) Insert the water hose to the ISC.

#### Note:

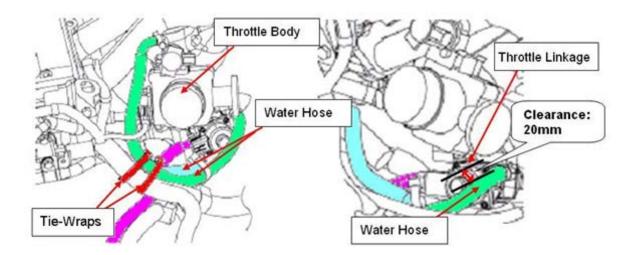
- Use the new clamps to secure the water hose in the bypass pipe and ISC.
- Once in position, in order for the clamps to be secure, the holders must be removed and the clamps released in the proper position as illustrated below.



9. Tie-wrap the water hose and harness together as shown in the following picture. (2 locations) Make sure there is approximately 20 mm clearance between the water hose and the throttle linkage.

### Note:

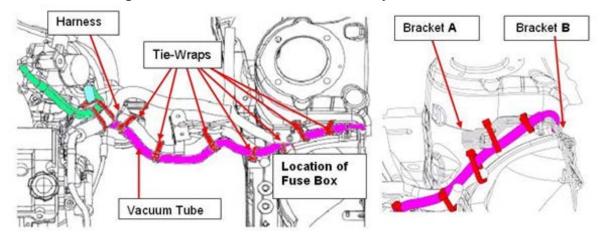
• If the water hose contacts the throttle linkage, it could potentially cause the throttle to stick open. Therefore it is extremely important to make sure that no interference exists between these parts.



10. Route the vacuum tube as shown below, and then secure the vacuum tube in the bracket using seven tie-wraps. (Cut off the surplus portion of the tie-wrap.) Insert the end of vacuum tube between the bracket **B** and left fender, and then face it downward.
Route the vacuum tube under the bracket **A**.

#### Note:

When routing the vacuum tube, it is not necessary to remove the fuse box.



- 11. Verify that the water hose is correctly secured using the clamp.
- 12. Re-install the battery tray, the air cleaner case, the air intake hose and the battery.
- 13. Refill the coolant which was drained from the radiator.
  - a) Refill the coolant and close the radiator cap.

### Note:

- Steps a) to h) will have to be repeated in order to completely fill the system.
- b) Allow the engine to warm up the engine, and then raise the RPM up for several minutes.
- c) Stop the engine and allow it to cool down, which will cause the coolant level to drop.
- d) Repeat step a) through d) until all of the drained coolant is back in the cooling system.
- e) Allow the engine to warm up the engine, and then raise the RPM up for several minutes.
- f) Stop the engine and allow it to cool down, which will cause the coolant level to drop.

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- g) Top-up the coolant into the radiator reservoir tank until the coolant level comes up to the "FULL" mark.
- h) Verify that the radiator drain is tight, all coolant hoses are secure and routed correctly and that there are no coolant leaks.
- 14. Confirm that the engine idle speed is correct. The idle speed should be stable at 700 rpm in neutral or park.

#### Note:

- When checking the idle speed, the engine must be warmed up, there should be no electrical loads and the A/C must be off.
- 15. If the idle speed is not at 700 rpm, this likely indicates the presence of an air leak, possibly an improperly installed throttle body, EGR valve, gasket and/or intake air hose. Check to see if these parts are fitted properly, making sure that the old gaskets have been completely removed.
- 16. Verify that no related PCM trouble codes are set.
- 17. Reset the customer's preset radio stations.