

TECHNICAL SERVICE BULLETIN

SUBJECT:		No: TSB-02-13-015REV	
PCM REPROGRAMMING FOR COLD ENGINE MISFIRE (V6 GALANT/ECLIPSE)		DATE: October, 2002	
		MODEL: See below	
CIRCULATE TO:	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY PROCESSOR	<input type="checkbox"/> SALES MANAGER

*This bulletin supercedes TSB-02-13-015, issued August 2002.
Revised information is indicated by ► .*

PURPOSE

Incorrect PCM software parameters may cause a misfire condition when the engine is cold, setting Diagnostic Trouble Code(s) P0300 through P0306 in the PCM. Reprogramming the PCM as described in this bulletin will eliminate this condition.

For **only Galant V6 vehicles produced before 11/1/00**, replace the spark plugs after reprogramming the PCM. (See Step 18 in this bulletin.)

AFFECTED VEHICLES

- 1999-2002 Galant models equipped with V6 engine
- 2000-2003 Eclipse models equipped with V6 engine, **except 2003 Eclipse GTS**
- 2001-2002 Eclipse Spyder models equipped with V6 engine

PROCEDURE

▲ CAUTION

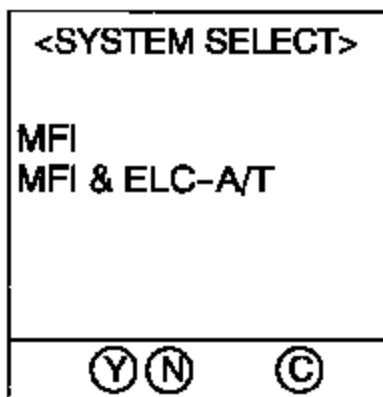
BATTERY VOLTAGE (AS MEASURED AT THE BATTERY POSTS WITHOUT ELECTRICAL LOAD) MUST BE 12.4V OR HIGHER IN ORDER TO REPROGRAM THE PCM.

1. Check the underside of the hood to verify that there is no label to indicate that this TSB reprogramming has already been done.
2. Use the MUT-II to erase all DTCs set in the PCM.
3. Use the MUT-II to read the ECU part number, **then refer to Attachment A to determine the appropriate ROM pack database number.**
 - a. With the MUT-II connected, turn the ignition key to ON.
 - b. At the MAIN MENU, select "1. System Select" and press Yes.
 - c. Select "MFI" and press Yes.
 - d. Select "Mitsubishi MFI" and press Yes.
 - e. At the OBD-II check code screen, press Yes.
 - f. At the Readiness Tests status screen, press Yes.
 - g. At the MFI Main Menu screen, press S.

FILE UNDER:

Group 13 Fuel In the Dealer Service Information Binder

(2509)



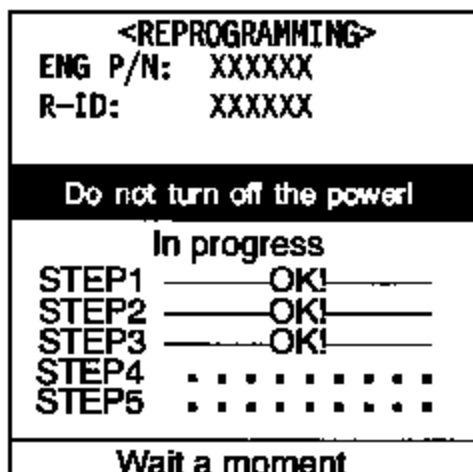
9. For **manual** transmission models, select "MFI".

For **automatic** transmission models, select "MFI & ELC-A/T." Then press "YES".

NOTE: The MUT-II will take a few seconds to verify the ROM-ID.

10. If the PCM has already been reprogrammed, the MUT-II will display "This ECU has already been reprogrammed." **If this message displays, STOP! Do not continue with this procedure.**

11. If the PCM is unable to be reprogrammed, the MUT-II will display "Reprogramming is not possible on this ECU." **If this message displays, verify that the correct ROM pack is installed. If the correct ROM pack is installed and this message displays, replace the PCM. Record this MUT-II screen information and the ROM pack database number on the repair order.**
- a. If you replace the PCM, be sure to verify that the new PCM has the latest software. After installing the new PCM, follow the instructions in Step 3 to read the ECU part number and ROM ID. Then compare this information with the latest PCM software database information on the Diamond Dealer Link and in MEDIC. Reprogram the new PCM if necessary.
12. If the PCM can be reprogrammed, the MUT-II will display, "Do you want to reprogram this ECU?" Press "YES".



13. The MUT-II will display this screen as it reprograms the PCM. It will take approximately 15 minutes to complete.

CAUTION

DO NOT DISTURB THE HARNESS CABLES OR CONNECTIONS. INTERRUPTION DURING THE PROGRAMMING PROCESS COULD CAUSE THE PCM TO LOSE DATA OR PREVENT FUTURE PCM REPROGRAMMING.

<REPROGRAMMING>

ENG P/N: XXXXXX
R-ID: XXXXXX

Completed!

Turn off IG, disconnect
MUT-II, then confirm
normal system operation

©

14. When the screen displays "Completed," press "C".


If reprogramming does not complete, turn the key off and repeat this process from Step 7.

To verify that the correct reprogramming has been made, the ROM ID number will display on the MUT-II screen. Note this number. The table in Attachment A lists the ECU part numbers and ROM ID numbers that should display after reprogramming, and their corresponding vendor numbers.

15. Turn the Ignition key to OFF and disconnect the MUT-II. Reprogramming is complete.

THE FOLLOWING STEPS ARE REQUIRED BY LAW.

16. Using a ball-point pen, enter the appropriate PCM part number, vendor number, ROM ID#, this TSB number (TSB-02-13-015), your dealer code, and the current date on the Engine Compartment Label (part no. MSSF-024G-00).

 MITSUBISHI <small>POWER SALES OF AMERICA, INC.</small>	AUTHORIZED MODIFICATIONS	<small>These Modifications Have Been Approved as Appropriate by EPA and CARB</small>	
THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:			
PART NUMBER	VENDOR CODE	ROM ID #	
TSB		ENG	
ENG		A/T	
A/T		DEALER CODE	DATE / /
<small>Engine Compartment Label</small>		<small>Control Module Label</small>	

The "Control Module" label will not be used for this bulletin. Discard this label. 

17. Carefully remove all dirt and oil from a vacant area near the VECI label on the underside of the hood, and affix the Engine Compartment label.

18. For only Galant V6 vehicles produced before 11/1/00, replace the spark plugs as follows:

CAUTION

Do not install these new spark plugs unless the PCM has already been reprogrammed. Engine damage could result, as these new spark plugs (all NGK) have a higher heat range.

Spark Plug Brand	Old Type	New Type	Part Number
NGK	PFR6G-11	PFR5G-11	MD313442
Champion	RC8PYP4	RC10PYP4	MD321878
Denso	PK20PR11	PK16PR11	MD322771

a. Owners of Galant V6 vehicles produced before 11/1/00 should be given an update for their owner's manual that lists the spark plug update. Attachment B contains the revised owner's manual information. Make copies as necessary to give to owners of these vehicles.

WARRANTY INFORMATION

PCM Reprogramming for Cold Engine Misfire

Nature Code: 99D

Cause Code: 990

Labor Operation No. 13850113

Time Allowance: 0.3 hr.

▶ *Warranty Coverage: 8 years / 80,000 miles.*

ROM Pack Update for PCM Reprogramming for Cold Engine Misfire (Use only if necessary to update the red label ROM pack)

Labor Operation No. 138501A1

Time Allowance: 0.3 hr.

For spark plug replacement, normal warranty procedures apply.

ATTACHMENT A

DATABASE NUMBER	ECU P/N TO BE UPDATED	MODEL YR	MODEL	T/M	DISPLAY ON THE MUT-II SCREEN AFTER REPROGRAMMING		
					ECU P/N	ROM ID	ECU (VENDOR NUMBER)
RN02063	MD367859	2001	Eclipse Spyder	4 A/T	MD367859	245828	E2T70285H3H
	MD367858	2001	Eclipse Spyder	5 M/T	MD367858	245728	E2T73079H3
	MR514023	2001	Galant	4 A/T	ENG: MR514023 A/T: MR614023	ENG: 877907 A/T: 846406	E2T70285H31
RN02064	MR560540	2001	Eclipse Spyder	4 A/T	ENG: MR560540 A/T: MR560540	ENG: 881309 A/T: 851201	E2T34178H31
	MR507904	2001	Eclipse Spyder	5 M/T	MR507904	978007	E2T73084H3
RN02065	MR507845	2001	Eclipse	4 A/T	ENG: MR507845 A/T: MR507845	ENG: 867110 A/T: 838408	E2T70291H31
	MR507844	2001	Eclipse	5 M/T	MR507844	987210	E2T73083H3
RN02066	MR578375	2002	Galant (before 4/13/02)	4 A/T	ENG: MR578375 A/T: MR578375	ENG: 871010 A/T: 841408	E8T34177H10
RN02067	MN132547	2002	Galant (since 4/13/02)	4 A/T	ENG: MN132547 A/T: MN132547	ENG: 827001 A/T: 876800	E5T34181H10
RN02068	MR578377	2002	Eclipse Spyder	4 A/T	ENG: MR578377 A/T: MR578377	ENG: 888610 A/T: 881803	E5T34178H20
	MR578380	2002	Eclipse Spyder	5 M/T	MR578380	988710	E2T73090H2
RN02069	MR578378	2002	Eclipse	4 A/T	ENG: MR578378 A/T: MR578378	ENG: 888410 A/T: 882008	E8T34178H20
	MR578379	2002	Eclipse	5 M/T	MR578379	988510	E2T73088H2
RN0206A	MR578714	2003	Eclipse	4 A/T	ENG: MR578714 A/T: MR578714	ENG: 809404 A/T: 868505	E5T34184H10
	MR578713	2003	Eclipse	5 M/T	MR578713	908504	E8T35871H1
RN0206B	MD355248	1999	Galant	4 A/T	MD355248	204121	E2T70271H8H2
	MD355249	1999	Galant	4 A/T	MD355249	204318	E2T70272H5H2
	MD365885	2000	Galant	4 A/T	MD365885	245526	E2T70281HCHA
	MD365888	2000	Galant	4 A/T	MD365888	245926	E2T70282HCHA
RN0206C	MD365886	2000	Eclipse	4 A/T	MD365886	218226	E2T70283HCHA
	MD365881	2000	Eclipse	6 M/T	MD365881	218028	E2T73077H9
RN0206D	MD365889	2000	Eclipse	4 A/T	MD365889	218323	E2T70284HCHA
	MD365883	2000	Eclipse	6 M/T	MD365883	218123	E2T73078H8

**ALWAYS CHECK THE CURRENT PCM SOFTWARE UPDATES LIST,
 WHICH CAN BE VIEWED IN MEDIC OR THE DIAMOND DEALER LINK.**

ATTACHMENT B

OWNER'S MANUAL PAGE UPDATE FOR 1999-2000 V6 GALANTS (BUILT BEFORE 11/1/00) AFTER SPARK PLUG REPLACEMENT

Engine specifications

Engine model	Specifications	
	4G64	6G72
Engine displacement	2.351 dm ³ (143.4 CID)	2.972 dm ³ (181.3 CID)
No. of cylinders and cylinder arrangement	4 in-line	6 - V60°
Bore	3.41 in (86.5 mm)	3.58 in (91.1 mm)
Stroke	3.94 in (100 mm)	2.99 in (76.0 mm)
Compression ratio	9.0	9.0
Controlled by-pass thermostat	88° C (190° F)	88° C (190° F)
Spark plugs		
NGK	BKR5E-11	PFR5G-11
Denso	K16PR-U11	RC10PYP4
Champion	RC10YC4	PK16PR11
Spark plug gap	.039 to .043 in (1.0 to 1.1 mm)	.039 to .043 in (1.0 to 1.1 mm)
Firing order	1-3-4-2	1-2-3-4-5-6
Ignition timing idle speed and mixture	Refer to the "Vehicle emission control information" label under the engine hood.	

NOTE

- (1) Your engine is equipped with intake and exhaust valve auto-lash adjusters that require no adjustment.
- (2) Your vehicle has one of the listed spark plugs. Use any one of the listed spark plugs for replacement.