MITSUBISHI MOTORS

SERVICE BULLETIN

SERVICE GROUP, WARRANTY & SERVICE DEP.
MITSUBISHI MOTOR SALES EUROPE BV

SERVICE BULLETIN	No.: ESB-97E13-501	
	Date: 1997-XX-XX	<Model> (EC, EXP) CARISMA / <M/Y> 97-10
Subject: CHANGES IN VEHICLE SPEED SENSOR AND IN ENGINE-ECU TERMINAL VOLTAGE		
Group: FUEL		
CORRECTION	O. Kai - E.V.P. & G.M. After Sales Service Dept.	

1. Description:

The interface circuit for the vehicle speed detection reed switch (vehicle speed sensor) in the engine-ECU has been changed. Accordingly, the vehicle speed sensor normal condition has been changed in inspection of the engine-ECU terminal voltage.

NOTE:
With the above change, the part number of the engine-ECU has been changed from MD341682 to MD345712.

2. Effective Period:

From the end of September 1996

3. Interchangeability:

The new engine-ECU is used for both the old and new cars.

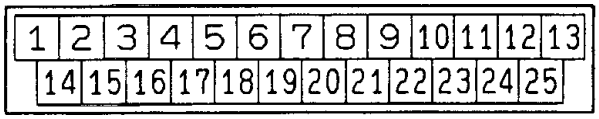
4. Applicable Manuals:

Manual	Pub. No.	Language	Page(s)	Engine Model
'97 CARISMA Workshop Manual chassis (SUPPLEMENT)	PWDE9502-A	(English)	13E-51	F8QT
	PWDS9503-A	(Spanish)		
	PWDF9504-A	(French)		
	PWDG9505-A	(German)		
	PWDD9506-A	(Dutch)		
	PWDW9507-A	(Swedish)		
	PWDI96E1-A	(Italian)		

5. Details:

Please refer to the attached page

Engine-ECU Connector Terminal Arrangement



RFU0003

Caution
Do not measure the terminal voltages of the needle lift sensor and crank angle sensor, as this may cause damage to the engine-ECU.

NOTE
*[1]: Varies depending on the engine coolant temperature and altitude when the engine is started.

Terminal No.	Check item	Check condition (Engine condition)		Normal condition
2	Vehicle speed sensor	• Ignition switch: ON • Move the vehicle slowly forward		**<Old>** ~~0 ↔ Approx 12 V (Change repeatedly)~~
3	A/C switch	Engine: idle speed	Turn the A/C switch: OFF	0 - 3 V
			Turn the A/C switch: ON (A/C compressor is operating)	System voltage
5	Glow indicator lamp	• Engine coolant temperature: 60 °C or less • Ignition switch: OFF → ON		0 - 3 V → System voltage (after 2 - 20 seconds have passed) *1
8	Timing control solenoid valve	Ignition switch: ON		System voltage
		Engine: Idle speed		8 - 12
9	EGR solenoid valve	Ignition switch: ON		System voltage
		Engine: Started, idle speed		From system voltage, drops after approx. 3 seconds have passed
10	Lever position sensor power supply	Ignition switch: ON		4.5 - 5.5 V
13	Power supply	Ignition switch: ON		System voltage
14	Engine coolant temperature sensor	Ignition switch: ON	Engine coolant temperature: 20 °C or less	3.6 - 4.2 V
			Engine coolant temperature: 80 °C or less	0.9 - 1.5 V
15	Intake air temperature sensor	Ignition switch: ON	Intake air temperature: 20 °C	3.6 - 4.2 V
			Intake air temperature: 80 °C	0.9 - 1.5 V

<New>
From the end of September 1996
0 ↔ 4-8 V
(Change repeatedly)