

#88-440-6E: STALL,TIP-IN HES. AND/OR STORED ENGINE CODES (PROMS) - (Jan 16, 1990)

Model and Year: 1987 J CAR AND 1987-88 A, L CARS WITH 2.8L (VIN CODE W) ENGINE



THIS BULLETIN CANCELS AND SUPERSEDES DEALER SERVICE BULLETIN NO. 90-132-6E, DATED JANUARY 1990. THE BULLETIN NUMBER HAS BEEN CHANGED TO REFLECT THE 1988 MODEL YEAR. ALL COPIES OF DEALER SERVICE BULLETIN NO. 90-132-6E SHOULD BE DISCARDED.

Some customers with an engine/vehicle combination listed below

1987 J-Car With a 2.8L Engine (VIN Code W)

1987-88 A and L Models With a 2.8L Engine (VIN Code W)

may comment that they have experienced one or more of the following conditions:

A cold start stall or sag,

A decel stall

A tip-in hesitation

A check engine light with stored Codes 23, 25, 33, 34 or

An engine speed flare during a declutch operation with a manual transmission equipped vehicle.

These conditions may be attributed to a number of components/interactions. In the interest of simplifying diagnosis and repair, the following procedure has been developed to reduce system sensitivity, thereby addressing a variety of potential causes simultaneously.

If a customer comment concerning an occasional engine stall or a drive hesitation is received, and/or a stored Code 33 or 34 is found, then complete the following procedure:

1. Perform diagnostic procedures per Section 6E of the Service Manual, and correct any faults except for Codes 33, 34, 23 or 25. If the diagnostics indicate the Mass Air Flow (MAF) is to be replaced or a Code 33 or 34 is present, DO NOT REPLACE THE MAF SENSOR! Proceed to Step #3. If a Code 23 or 25 is present, go to Step #2 below. PROCEED TO STEP #3 ONLY IF NORMAL DIAGNOSTIC CHECKS DID NOT IDENTIFY A CAUSE FOR THE CUSTOMER CONCERN.
2. If a Code 23 or 25 is stored, perform the model year diagnostics for the Manifold Air Temperature Sensor (MAT). If the diagnostics indicate that the MAT is faulty and replacement is required, replace the combination MAT/MAF sensor. Proceed to Step #3.
3. Install a new MEM-CAL into the Engine Control Module (ECM) per instructions below. The new MEM-CAL is available from GMSPO. See attached service part number chart. Install the identification label package to the ECM access door and to the left shock tower per label kit, P/N 10154725 instructions.

IMPORTANT: The new MEM-CAL to be installed does not need or use the existing MAF signal; however, it does need and use the MAT signal.

- A.) Pull the underhood ECM continous power fuse or disconnect the battery and leave it disconnected for at least 10 minutes.
- B.) Remove MAF relay, if applicable, and discard. Tape up connector to prevent water intrusion.
- C.) Remove current MEM-CAL and install a new service MEM-CAL.
- D.) Restore the battery power and place air conditioning controls (if equipped) in the "off" position.
- E.) Firmly apply the parking brake and block the drive wheels. Start the engine, and shift the transaxle to "drive" for automatics or "neutral" for manuals.
- F.) Allow the engine to run until the engine cooling fan has cycled once, or a maximum of 10 minutes.
- G.) Turn the ignition key to the "off" position for at least 5 seconds.
- H.) Start the engine, and shift the tranaxle to "drive" for automatics or "neutral" for manuals.
- I.) Allow engine to run for at least 5 minutes.

After a MEM-CAL replacement, the 1987-88 2.8L Speed Density Engine Driveability and Emissions Manual, ST399-87/88 SDM, must be used for Driveability and Emissions Diagnostics. To secure additional publications use order forms available to all dealers through Helm, Inc., or dial (313) 865-5000 and ask for Customer Service.

Use applicable labor operations and times.
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Labor Operation Number: J5670 for MAF/MAT replacement.

Labor Operation Number: T1492 repair procedures in Step 3.

A-Car = 1.0 Hour

J-Car = 0.9 Hour

1987 L-Car and 1988 L car prior to VIN sequence 500,000 = 0.9 Hr.

1988 L-Car (After VIN sequence 500,000) = 0.8 Hour

MEM-CAL SELECTION CHART - SERVICE PART NUMBERS

IMPORTANT: MEM-CAL MUST BE ORDERED WITH LABEL KIT, P/N 10154725

MODEL CODE	EMISSION	MEM-CAL	SCANNER	BROADCAST	YEAR	TYPE	TRANS.	CONFIG.	P/N	I.D.
87-88	L	AUTO	3-SPD.	FED	16140337	0341	ASMJ	87 J		
87-88	A	AUTO	3-SPD.	FED	16140342	0381	ASMN	87 A		
88	A	AUTO	3-SPD.	FED	16140350	0461	ASMY	88 A		
87-88	A	AUTO	4-SPD.	FED	16141555	1561	ASUZ	87 A		
88	A	AUTO	4-SPD.	FED	16140352	0471	ASMZ	88 A		
87-88	A	MAN.	5-SPD.	FED	16141556	1571	ASWA	87 J		
87-88	L	MAN.	5-SPD.	FED	16140355	0501	ASNC	87-88 L		
87-88	L	MAN.	5-SPD.	FED	16148227	8261	ATZA	87-88 A		
87-88	L	MAN.	5-SPD.	FED	16148340	8341	ATZD	87-88 L		
87	A	AUTO	3-SPD.	CAL	16140338	0351	ASMK	87 J		
87	A	AUTO	3-SPD.	CAL	16140343	0391	ASMP	87 A		
87	A	AUTO	3-SPD.	CAL	16140353	0481	ASNA	88 A		
87	A	AUTO	3-SPD.	CAL	16141558	1591	ASWC	87 A		
87	J	AUTO	4-SPD.	CAL	16140354	0491	ASNB	88 A		
87	J	MAN.	5-SPD.	CAL	16141559	1601	ASWD	87 J		
87-88	A	MAN.	5-SPD.	CAL	16148228	8271	ATZB	87-88 A		
87-88	L	MAN.	5-SPD.	CAL	16140356	0511	ASND	87-88 L		
					16148342	8351	ATZF			

Parts are currently available from GMSPO.

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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