From: Nicholson, Jeff (J.P.)
Sent: Wednesday, June 28, 2000 5:03 PM
Subject: Technical E- Mail, Restricted Performance

**********Jaguar Technical Information**********	
Technical Service Bulletin Section:	303
Model:	1999-2000 MY vehicles
Issue:	Restricted Performance warnings.
Action:	Follow all instructions as outlined below:

In the case of a car reported as having restricted performance on the message center, the following are the appropriate actions to take:

1: Get as much information as possible from the owner/driver:
What were all the messages on the message center, if more than one.
Was there a default to reverse throttle progression or limp home.
Was there a noticeable fault such as a misfire.
Did the gearbox default to 4th gear - ZF; or stay in a gear - Mercedes.
Was the J-gate light on or off.
Was the instrument pack working correctly (loss of tach, coolant temp, etc... may indicate CAN faults).
Speed prior to event.
Cruise selected or not.
Fuel level.
Type of driving.
Length of time after start.
Weather conditions.
Location of event.

2: Interrogate for temporary and permanent fault codes.
If present, download and print any freeze frame data.
Using GDS 500e, if available, or use PDU/Toolbox to interrogate each module for fault codes: ECM, TCM, ABS, Instrument pack.
If fault codes are present then follow the JTIS or PDU routines for rectification.

3: Contact the Technical Hotline to open a case. If there are no codes stored, they will instruct you to download the throttle data and fax to them.

*BE SURE TO FOLLOW THE HOTLINE'S INSTRUCTIONS EXPLICITELY AND INFORM THEM OF YOUR PROGRESS EACH DAY.

4: If the throttle data does not suggest a throttle related concern and there are no fault codes then SUBSTITUTE (not replace) the J-gate and the TCM. Check the setting of the linear switch and cable (check driver report: did the fault occur when using the shifter to manually select gears?). Test the original parts on the donor car.

*NOTE:

1. For supercharged vehicles, linear switch adjustment and operation, and shift cable adjustment need to be checked first. The majority of Restricted Performance failures on S/C vehicles are related to these areas.

2. Throttle bodies are not to be replaced as a precautionary repair if no faults are found.

3. Check all EMS and TCM connections and earths. Check that all relays are correctly inserted.

4. *Clear all faults codes and disconnect the battery to clear throttle data (*IMPORTANT).

5. Test the car. Ensure a PDU or GDS 500e is available in the car, and when an event takes place, with the engine running, interrogate for temporary codes and note all conditions on the questionnaire.

6. Educate the owner as to the questions that will be asked and also tell them to return the car to the dealer without stopping the engine if at all possible, road conditions etc. permitting.

Below are the 32 codes that are most likely to cause a Restricted Performance warning, without logging the code:

[Note: This means prior to historical DTC software, these faults will trigger the driver warning and not set a fault in memory. After historical software programming, these additional fault codes are recognized and stored as well.]
S. Petry 2/2/2003

1	**P0116** Engine coolant temp sensor	17	**P1251** DC motor relay
2	**P0101** Mass air flow meter	18	**P1631** DC motor relay driver
3	**P1240** Sensor power supply malfunction	19	**P1611** Sub CPU failure
4	**P1609** CPU to CPU comms failure	20	**P1633** Main CPU failure
5	**P1254** Throttle limp home spring broken	21	**P0327** A bank knock sensor low input
6	**P1224** Throttle control position error	22	**P0328** A bank knock sensor high input
7	**P1229** throttle control	23	**P0332** B bank knock sensor low input
8	**P1250** Limp home lever stop mal adjusted	24	**P0333** B bank knock sensor high input
9	**P1250** Throttle return spring broken	25	**P1648** CPU failure
10	**P1229** Throttle valve stop mal adjusted.	26	**P1601** Checksum error G box S/C
11	**P1122** Pedal demand sensor low input	27	**P1605** Checksum fault G box N/A
12	**P1123** Pedal demand sensor1high input	28	**P0702** High side sw. G box S/C + N/A
13	**P1222** Pedal demand sensor 2 low input	29	**P0706** Range Switch G Box S/C + N/A
14	**P1223** Pedal demand sensor 2 high input	30	**P0705** Trans range sensor malfunction
15	**P1121** Pedal demand sensor 1+2 range perf.	31	**P0730** Incorrect gear ratio S/C
16	**P0121** Throttle sensor 1(2) range performance	32	**P1797** CAN/ECM information distorted