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Technical Service Bulletin

EG-0096L-1112

Revision

Subject:
DTC P0731/P0732/P0867/P0990 - Hybrid warning lamp comes ON

Models:
 GS450H; LS600h
 Model codes:
 GWS191; UVF45; UVF46

Engine

Revision

INTRODUCTION

This Technical Service Bulletin is to inform you of the production change and repair method for the subject concern. Applicable to vehicles produced before the production change effective VIN's / frame numbers shown below. This TSB is a revised version of TSB CP-0078L-0209-##.

DESCRIPTION OF PHENOMENON

Some customers may experience and report that the hybrid warning light comes ON.

One of the following DTC might be triggered:

- P0731: Gear 1 Incorrect Ratio
- P0732: Gear 2 Incorrect Ratio
- P0867: Transmission Fluid Pressure
- P0990: Transmission Fluid Pressure Sensor / Switch "E" Circuit High

PRODUCTION CHANGE

The Hybrid ECU logic and transmission switches have been changed.

PRODUCTION CHANGE INFORMATION

Model	Model code	Plant	Production change effective frame number	Implementation date
GS450h	GWS191	Tahara	5016797	July 2008
LS600h	UVF45		5005118	May 2008
LS600hL	UVF46		5007500	

PARTS INFORMATION

Previous part number	Current part number	Part name	Quantity
N/A	83531-30011	Switch, Oil Pressure	2
N/A	83531-30021	Switch, Oil Pressure, No. 3	1
	83531-30022		
35330-30100	35330-30100	Strainer Assy, Oil	1
90301-26014	90301-26014	Ring, O (For Oil Strainer)	1
35618-30020	35168-30020	Gasket, Transmission Oil Pan	1
35178-30010	35178-30010	Gasket, Transmission Drain Pan	2
N/A	89685-20010	Authorised Modification Label	1
N/A	08886-80803	Toyota Genuine ATF WS (20 litre drum)	N/A



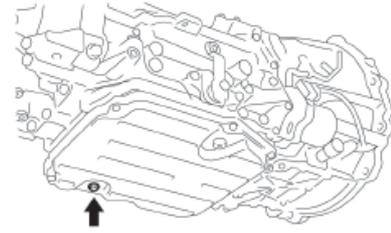
REPAIR PROCEDURE

STEP 1:

Remove the No.2 engine under cover.

STEP 2:

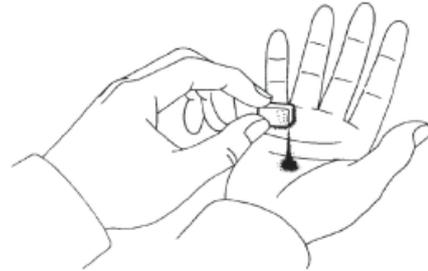
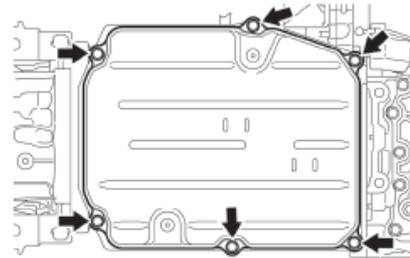
Drain the transmission fluid.



STEP 3:

Remove the transmission oil pan sub-assembly.

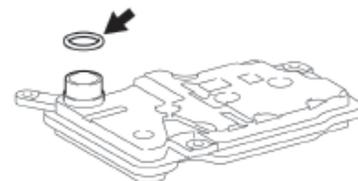
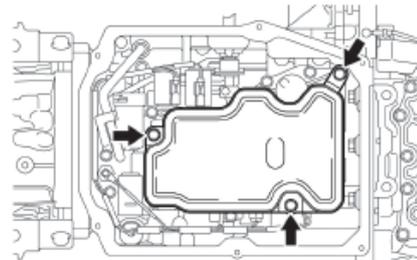
- Remove the 6 bolts, oil pan and gasket from the transmission.
- Remove the transmission oil cleaner magnets from the oil pan.
- Clean the oil cleaner magnets from the oil pan.



STEP 4:

Remove the oil strainer assembly.

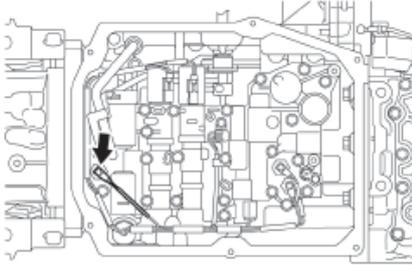
- Remove the 3 bolts and oil strainer from the valve body.
- Remove the O ring from the oil strainer.



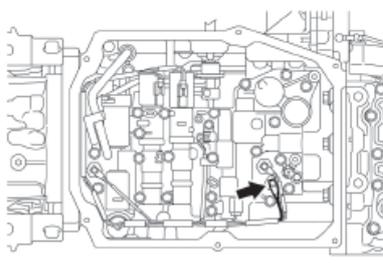
STEP 5:

Remove the oil pressure switches.

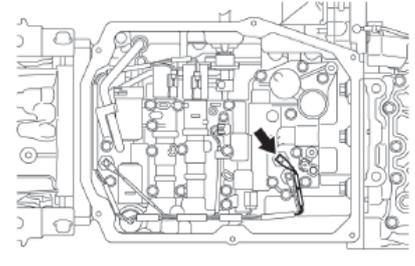
- Disconnect the oil pressure switch connector(s).



Oil Pressure Switch Connector for PB1

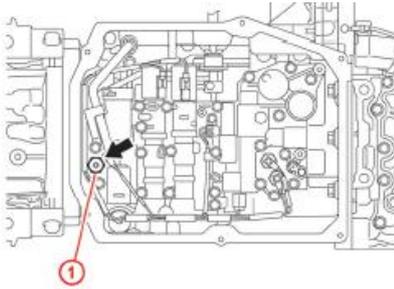


Oil Pressure Switch Connector for PB2

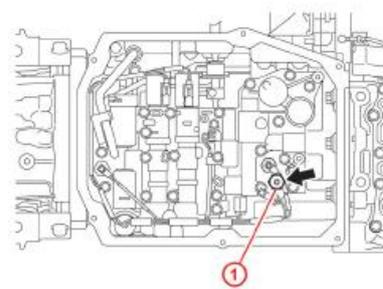


Oil Pressure Switch Connector for PB3

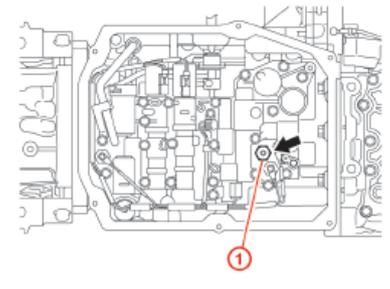
- Remove the oil pressure switches from the valve body



1: Oil Pressure Switch PB1



1: Oil Pressure Switch PB2



1: Oil Pressure Switch PB3

STEP 6:

Install the NEW oil pressure switches.

- Install the NEW oil pressure switches to the valve body.

Torque: 4.4 N*m (45 kgf*cm, 39 in*lbf)

Note:

Oil pressure switches PB1 and PB2 (part number 83531-30011) are marked with blue paint.

The oil pressure switch PB3 (part number 83531-3002#) is marked with purple paint.

- Connect the oil pressure switch connectors.

STEP 7:

Install the oil strainer assembly.

- Coat a new O-ring with ATF and install it to the new oil strainer
- Install the oil strainer to the valve body with the 3 bolts.

Torque: 10 N*m (102 kgf*cm, 7 ft*lbf)

STEP 8:

Install the transmission oil pan sub-assembly.

- Install the magnets in the oil pan.
- Install a new gasket to the oil pan.
- Install the oil pan to the transmission case with the 6 bolts.

Torque: 7.5 N*m (76 kgf*cm, 66 in*lbf)

STEP 9:

- Clean/rinse the automatic transmission fluid system by following TSB CP-0002.

(CP-0002: Subject – Fluid Replacement for Automatic Transmission/Transaxle with Overflow Type Fluid Level Detection).

STEP 10:

Install the No 2. engine under cover.

STEP 11:

Check / update the "Computer, Hybrid Vehicle Control" software to the latest calibration ID (at least to the new calibration ID version that's listed below), according to the procedure described in TSB EG-6003R.

Model	ECU P/N	Minimum Calibration ID version
GS450h	89981-30030	899833021100
	89981-30080 89981-30081	899833008300
LS600h LS600hL	89981-50020 89981-50021	899835002400