



AUTOMATIC GEARBOX - ZF4HP22 - 24

Fault effects and warning indications

Fault code, OBD II (TestBook)	Fault description	Effect	Warning lamp illumination	
			MIL	Sport/ Manual
P0705 (14, 23)	* Gear position switch, incorrect outputs	Maintains current gear in low range, limp home mode in high range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P0721 (21)	* Downshift safety monitor prevented downshift which would have caused engine overspeed	Maintains current gear in low range, limp home mode in high range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P0722 (22)	* Torque converter slipping	Maintains current gear in low range, limp home mode in high range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P0731 (29)	* Ratio monitoring, implausible 1st gear ratio	No apparent effect	On	On
P0732 (30)	* Ratio monitoring, implausible 2nd gear ratio	No apparent effect	On	Off
P0733 (31)	* Ratio monitoring, implausible 3rd gear ratio	No apparent effect	On	Off
P0734 (32)	* Ratio monitoring, implausible 4th gear ratio	No apparent effect	On	Off
P0741 (5)	* Torque converter lock-up clutch fault	May affect driveability.	On	Off
P0743 (7, 25)	* Torque converter lock-up solenoid (MV 3), open or short circuit	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P0748 (10, 28)	* Pressure regulating solenoid (MV 4), open or short circuit	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P0753 (8, 26)	* Shift solenoid (MV 1), open or short circuit	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P0758 (9, 27)	* Shift solenoid (MV 2), open or short circuit	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1562 (24)	* Battery supply below 9V while engine running	Maintains current gear in low range, limp home mode in range. Shift pressure to maximum, harsh gear shifts/engagement.	Off	On
P1601 (4)	* ECU, EEPROM checksum	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1606 (3)	* EEPROM	No apparent effect	On†	Off
P1606 (6)	* Watchdog	No apparent effect	On	On
P1612 (2)	* Solenoid valves power supply relay, sticking closed or open circuit	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On

AUTOMATIC GEARBOX - ZF4HP22 - 24

Fault code, OBD II (TestBook)	Fault description	Effect	Warning lamp illumination	
			MIL	Sport/Manual
P1613 (1)	* Solenoid valves power supply relay, sticking open or short circuit	Limp home mode in low and high ranges. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1705 (39)	Transmission high/low range, implausible input	No apparent effect	On	Off
P1810 (12, 13)	Sport/Manual warning lamp circuit fault	Lamp fails bulb check or is permanently illuminated. No effect on gearbox operation.	On	Off
P1841 (16)	* CAN bus fault	Maintains current gear in low range, limp home mode in high range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1842 (15)	* CAN level monitoring	Maintains current gear in low range, limp home mode in range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1843 (17)	* CAN time-out monitoring	Maintains current gear in low range, limp home mode in high range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1884 (11)	* CAN message: Engine friction invalid	No apparent effect.	On	Off
P1884 (18)	* CAN message: Throttle position invalid	Substitute throttle angle of 50% adopted. No kickdown. Operates in economy modes only.	On	On
P1884 (19)	CAN message: Engine temperature invalid	Substitute engine temperature derived from other inputs. No apparent effect.	On	Off
P1884 (20)	CAN message: Road speed invalid	No apparent effect	On	Off
P1884 (33, 34)	* CAN message: Engine torque invalid	Substitute engine torque of derived from other inputs. May affect shift quality.	On	Off
P1884 (35)	* CAN message: Engine speed invalid	Maintains current gear in low range, limp home mode in high range. Shift pressure to maximum, harsh gear shifts/engagement.	On	On
P1884 (37)	CAN message: Engine air intake temperature invalid	No apparent effect.	On	Off
P1844 (38)	Altitude shift control invalid	No reduced torque compensation, possible reduction in performance/ driveability at altitude or high ambient temperatures.	On	Off

* = Emissions (OBD II) relevant

†On = MIL illuminates immediately (in all other faults, MIL On = illuminates in the 2nd consecutive drive cycle if fault still present)