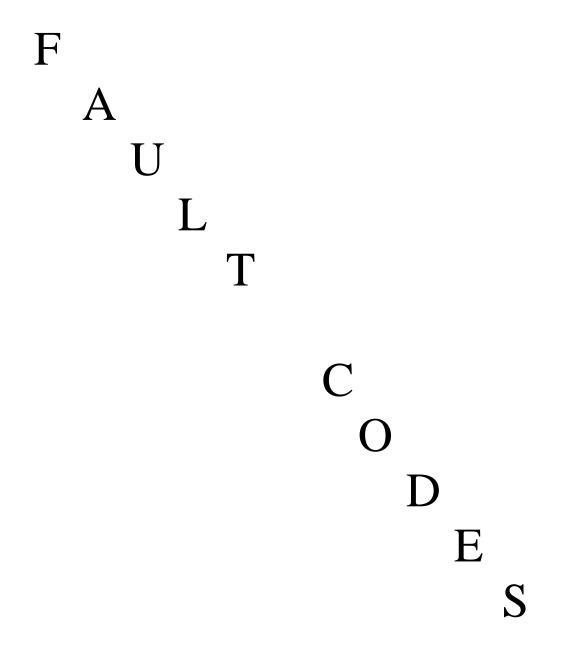
**Allison Trouble Codes** 

Full download: http://manualplace.com/download/allison-trouble-codes/



FOR:

ALLISON, CATERPILLAR, CUMMINS, ICU 3, ICU 3 C2, MERCEDES, WABCO, PCM-FS-65

This is the cut pages sample. Download all 116 page(s) at: ManualPlace.com

## CONTENTS

ALLISON 1000 & 2000page 5
ALLISON 3000 MHpage 8
ICU 3 J-1587 MID, PID, SID CODESpage 19
ICU 3 J1587 & J1939 FOR C2page 24
CATERPILLARpage 42
CUMMINSpage 64
MERCEDES 900page 72
WABCOpage 85
PCMpage 96

# A L L Ι S ()N FAULT CODES **1000 TRANSMISSIONS** 2000 TRANSMISSIONS

#### ALLISON 1000/2000/24000 SERIES ELECTRONIC CONTROLS TROUBLESHOOTING MANUAL

#### DIAGNOSTIC TROUBLE COPDES (DTC)

#### 5-5. DIAGNOSTIC TROUBLE CODES (DTCs)

#### DTC LIST AND DESCRIPTIONS INDEX

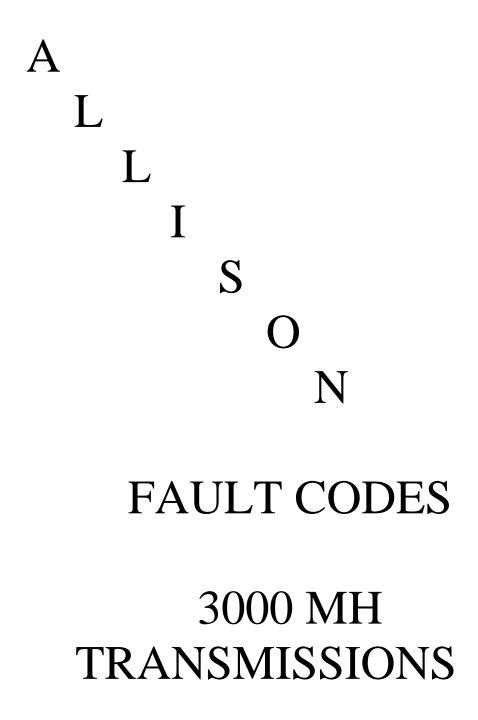
	Check		
		Trans	
DTC	Description	Light	Page
P0121	Pedal Postion Sensor Performance Problem	No	5-15
P0122	Pedal Postion Sensor Circuit Low Voltage	No	5-16
P0123	Pedal Postion Sensor Circuit High Voltage	No	5-19
P0218	Transmission Fluid Over Temperature	No	5-22
P0562	System Voltage Low	Yes	5-26
P0563	System Voltage High	Yes	5-29
P0602	TCM Not Programmed	Yes	5-33
P0606	Controller Internal Performance	Yes	5-34
P0701	Transmission Control System Performance	No	5-35
P0703	Brake Switch Circuit	No	5-37
P0705	Transmission Range Sensor Circuit (PRNDL Input)	No	5-41
P0706	Transmission Range Sensor Circuit Performance	Yes	5-45
P0708	Transmission Range Sensor Circuit High Input	Yes	5-49
P0710	Transmission Fluid Temperature Sensor Malfunction	No	5-53
P0711	Transmission Fluid Temperature Sensor Circuit Performance	Yes	5-57
P0712	Transmission Fluid Temperature Sensor Circuit Low Input (High Temperature)	Yes	5-61
P0713	Transmission Fluid Temperature Sensor Circuit Low Input (Low Temperature)	Yes	5-65
P0716	Turbine Speed Sensor Circuit Performance	Yes	5-69
P0717	Turbine Speed Sensor Circuit No Signal	Yes	5-73
P0721	Output Speed Sensor Circuit Performance	Yes	5-77
P0722	Output Speed Sensor Circuit No Signal	Yes	5-81
P0726	Engine Speed Input Circuit Performance	Yes	5-85
P0727	Engine Speed Sensor Circuit No Signal	Yes	5-89
P0731	Incorrect 1st Gear Ratio	Yes	5-93
P0732	Incorrect 2nd Gear Ratio	Yes	5-97
P0733	Incorrect 3rd Gear Ratio	Yes	5-101
P0734	Incorrect 4th Gear Ratio	Yes	5-105
P0735	Incorrect 5th Gear Ratio	Yes	5-109
P0736	Incorrect Reverse Ratio	Yes	5-113
P0741	Torque Converter Clutch System Stuck Off	Yes	5-117
P0742	Torque Converter Clutch System Stuck On	Yes	5-120
P0748	Pressure Control Solenoid A Electrical	Yes	5-123
P0763	Shift Solenoid C Electrical	Yes	5-127
P0768	Shift Solenoid D Electrical	Yes	5-131
P0773	Shift Solenoid E Electrical	Yes	5-135
P0778	Pressure Control Solenoid B Electrical	Yes	5-139
P0840	Transmission Pressure Switch Solenoid C Circuit	Yes	5-143
P0841	Transmission Pressure Switch Solenoid C Circuit Stuck Open	Yes	5-147

#### ALLISON 1000/2000/24000 SERIES ELECTRONIC CONTROLS TROUBLESHOOTING MANUAL

#### DIAGNOSTIC TROUBLE COPDES (DTC)

#### DTC LIST AND DESCRIPTIONS INDEX (cont'd)

		CHECK	
		TRANS	
DTC	Description	LIGHT	Page
P0842	Transmission Pressure Switch Solenoid C Circuit Stuck Closed	Yes	5-151
P0843	Transmission Pressure Switch Solenoid C Circuit High	Yes	5-155
P0845	Transmission Pressure Switch Solenoid D Circuit	Yes	5-159
P0846	Transmission Pressure Switch Solenoid D Circuit	Yes	5-163
P0847	Transmission Pressure Swtich Solenoid D Circuit	Yes	5-167
P0848	Transmission Pressure Switch Solenoid D Circuit	Yes	5-171
P1688	Unmanaged Engine Torque Delivered to TCM	Yes	5-175
P1709	Transmission Pressure Switch Solenoid E Circuit	Yes	5-177
P1710	Transmission Pressure Switch Solenoid E Circuit Stuck Open	Yes	5-181
P1711	Transmission Pressure Switch Solenoid E Circuit Stuck Closed	Yes	5-185
P1712	Transmission Pressure Switch Solenoid E Circuit High	Yes	5-189
P1713	Transmission Pressure Switch Reverse Circuit	Yes	5-193
P1714	Transmission Pressure Switch Reverse Circuit Stuck On	Yes	5-197
P1716	Transmission Pressure Switch Reverse Circuit High	no	5-201
P1718	Incorrect Neutral Gear Ration	No	5-205
P1720	Solenoid A Controlled Clutch Not Engaged	Yes	5-209
P1721	Solenoid B Controlled Clutch Not Engaged	Yes	5-213
P1723	Solenoid A Controlled Clutch Engaged	Yes	5-217
P1724	Solenoid B Controlled Clutch Engaged	Yes	5-221
P1726	Shift Solenoid D Controlled Clutch Engaged		5-225
P1727	Shift Controlled E Clutch Engaged	No	5-229
P1760	TCM Supply Voltage No		5-233
P1779	Engine Torque Delivered To ECM	Yes	5-236
P1835	Kickdown Circuit	Yes	5-238
P1860	Torque Converter Clutch PWM Solenoid CircuitElectrical	Yes	5-241
P1875	4WD Low Switch Circuit	Yes	5-245
P1891	Throttle Postion Sensor Pulse Width Modulation (PWM) Signal Low Input	No	5-249
P1892	Throttle Postion Sensor Pulse Width Modulation (PWM) Signal High Input	No	5-252
U1000	Serial Data Communication Link Malfunction (Class2)	No*	5-255
U1016	Class 2 Powertrain Controller State of Health Failure	No*	5-258
U1041	Class 2 ABS Controller State of Health Failure	No*	5-261
U1064	Class 2 TBC Controller State of Health Failure	No*	5-264
U1096	Class 2 IPC Controller State of Health Failure	No*	5-267
U1300	Serial Data Communication Link Low (Class2)	No	5-270
U1301	Serial Data Communication Link High (Class2)	No	5-273
U2104	Can Bus Rest Counter Overrun	Yes	5-276
U2105	Can Bus Error ECM	Yes	5-279



#### **Code Listings And Procedures**

CODES		QUICK CHECKS
MAIN CODE	SUB CODE	
13	12	Check:
ECU Input Voltage Low		a. Battery direct ground and power connections are tight and clean.
13	13	b. Vehicle batteries are charged.
ECU Input Voltage		c. Vehicle charging system is not over- or under-charging.
Medium	Low	d. VIM fuse is good.
13	23	e. VIM connections are tight, clean, and undamaged.
-	ut Voltage	f. Vehicle manufacturer supplied wiring is correct.
High		g. ECU connectors are tight, clean, and undamaged.
14	12, 23	Check:
		a. Is transmission equipped with oil level sensor?
Oil Level Sensor		<ul> <li>Engine speed sensor, output speed sensor, temperature sensor, and oil level sensor are working correctly.</li> </ul>
		c. Wiring harness has no opens, shorts to ground, or shorts to battery.
21	12, 23	Check:
		a. TPS connector is properly connected.
		b. End of TPS cable is pulled out properly.
		c. Engine fuel lever is in idle position.
Throttle Position Sensor		d. Engine fuel lever provides proper amount of stroke on TPS cable.
		e. Wiring harness to TPS has no opens, shorts between wires, or shorts to ground.
		f. TPS for proper operation and resistance readings.

### Code Listings And Procedures (cont'd)

CODES		QUICK CHECKS
MAIN CODE	SUB CODE	
22	14, 15, 16	Check:
		<ul> <li>Speed sensors and connectors are tight, clean, and undamaged.</li> </ul>
Speed Sensors		b. Wiring harness to sensors has no opens, shorts between wires, or shorts to ground.
23	12, 13, 14,	Check:
	15, 16	a. ECU connectors are tight, clean, and undamaged.
		<ul> <li>b. Shift selector connector is tight, clean, and undamaged.</li> </ul>
Shift Selectors		c. Wiring harness has no opens, shorts between wires, or shorts to ground.
		d. Shift selector(s) for proper operation.
24	12	Check:
		a. Air temperature is below $-32^{\circ}C(-25^{\circ}F)$
Sump Fluid		• If yes, this is a correct response for temperature.
Temperature Cold		• If no, check that main transmission connector is tight, clean, and undamaged.
		b. ECU connectors are tight, clean, and undamaged.
24	23	Verify the overheat situation. Check:
		a. Correct dipstick is installed.
		b. Fluid level is correct. Refer to CARE AND MAINTENANCE section.
Sump Fluid Temperature Hot		• If fluid level is incorrect—correct fluid level.
		• If fluid level is correct—check for cause of overheating.
		c. Check if ECU and transmission connectors are tight, clean, and undamaged.