

INTERPRETING J1587 DATALINK DIAGNOSTIC CODES

DIANOSTIC CODES ARE COMPRISED OF THE FOLLOWING IDENTIFIERS:

MID, PID, SID, FMI

MID: MESSAGE IDENTIFICATION
DEFINES THE SYSTEM ELECTRONIC CONTROL UNIT (ECU)
BROADCASTING THE DIAGNOSTIC CODE
136 = ABS SYSTEM
130 = TRANSMISSION SYSTEM
128 = ENGINE SYSTEM

PID: PARAMETER IDENTIFICATION
DEFINES THE PARAMETER CAUSING THE DIAGNOSTIC CODE

SID: SUBSYSTEM IDENTIFICATION
DEFINES SECTION OF SYSTEM CAUSING DIAGNOSTIC CODE
THAT DOES NOT HAVE A PID ASSIGNED

FMI: FAILURE MODE IDENTIFIER
DEFINES THE TYPE OF FAILURE
(EX. OPEN CIRCUIT, ABOVE NORMAL RANGE ETC.)

FAILURE MODE IDENTIFIERS (FMI)	
FMI NUMBER	FMI DESCRIPTION
0	DATA IS VALID, BUT ABOVE NORMAL OPERATIONAL RANGE
1	DATA IS VALID, BUT BELOW NORMAL OPERATIONAL RANGE
2	DATA ERRATIC, INTERMITTENT, OR INCORRECT
3	VOLTAGE ABOVE NORMAL OR SHORTED HIGH
4	VOLTAGE BELOW NORMAL OR SHORTED LOW
5	CURRENT BELOW NORMAL OR OPEN CIRCUIT
6	CURRENT ABOVE NORMAL OR GROUNDED CIRCUIT
7	MECHANICAL SYSTEM NOT RESPONDING PROPERLY
8	ABNORMAL FREQUENCY, PULSE WIDTH, OR PERIOD
9	ABNORMAL UPDATE RATE
10	ABNORMAL RATE OF CHANGE
11	FAILURE MODE NOT IDENTIFIABLE
12	BAD INTELLIGENT DEVICE OR COMPONENT
13	OUT OF CALIBRATION
14	SPECIAL INSTRUCTIONS
15	RESERVED FOR FUTURE ASSIGNMENT BY SAE

ANTI-LOCK BRAKE SYSTEM (ABS) DIAGNOSTIC CODES	
MESSAGE ID (MID) = 136	
SUBSYSTEM IDENTIFICATION (SID)	SID DESCRIPTION
1	LEFT FRONT WHEEL SENSOR
2	RIGHT FRONT WHEEL SENSOR
3	LEFT REAR WHEEL SENSOR
4	RIGHT REAR WHEEL SENSOR
7	LEFT FRONT MODULATOR VALVE
8	RIGHT FRONT MODULATOR VALVE
9	LEFT REAR MODULATOR VALVE
10	RIGHT REAR MODULATOR VALVE
13	RETARDER CONTROL RELAY
18	TRACTION CONTROL MODULATOR VALVE
21	ELECTRONIC ENGINE CONTROL
23	ABS WARNING LAMP
24	TRACTION CONTROL LAMP
54	HYDRAULIC MOTOR
231	J1939 DATALINK
248	PROPRIETARY DATA LINK
250	J1587 DATALINK
251	POWER SUPPLY
253 / 254	ECU / CONTROLLER / MEMORY FAULT

ACCESSING J1587 DATALINK DIAGNOSTIC CODES FROM ICU-03 INSTRUMENT CLUSTER

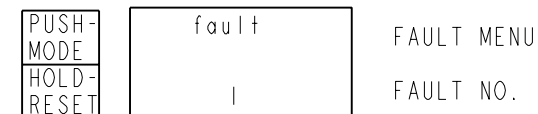
- IGNITION MUST BE ON (ENGINE CAN EITHER RUNNING OR NOT RUNNING)
- PARK BRAKE MUST BE APPLIED. (VERIFY WITH TELL-TELL LAMP)



- PRESS / RELEASE MODE BUTTON ON ICU UNITL DISPLAY INDICATES THE DIAGNOSTIC MENU, NUMBER OF CODES WILL BE INDICATED



- PRESS / HOLD MODE BUTTON UNTIL DISPLAY INDICATES FAULT 1



- PRESS / RELEASE MODE BUTTON TO DISPLAY MID



- PRESS / RELEASE MODE BUTTON TO DISPLAY PID / SID



- PRESS / RELEASE MODE BUTTON TO DISPLAY FMI



- PRESS / HOLD MODE BUTTON TO ADVANCE TO NEXT FAULT NO. THEN ADVANCE TO MID, PID/SID, AND FMI (STEPS 5 - 7)

- TO EXIT DIAGNOSTIC CODES AND RETURN TO ODOMETER:

CYLCE MODE BUTTON TO LAST FAULT CODE
PRESS / HOLD MODE BUTTON TO RETURN TO DIAGNOSTIC MENU (SHOWN IN STEP 3)
PRESS / RELEASE MODE BUTTON TO RETURN TO NORMAL ODOMETER DISPLAY

J1587 DATALINK DIAGNOSTIC CODES - EXAMPLES

MID=136 ABS SYSTEM: TRACTION CONTROL MODULATOR VALVE,
SID=18 OPEN CIRCUIT FAILURE
FMI=5

MID=130 TRANSMISSION SYSTEM: TURBINE SPEED SENSOR,
SID=17 DATA ERRATIC, INTERMITTENT, OR INCORRECT
FMI=2

MID=128 ENGINE SYSTEM: ENGINE COOLANT TEMPERATURE
PID=110 DATA IS VALID, BUT ABOVE NORMAL
FMI=0 OPERATIONAL RANGE (HIGH COOLANT TEMP)

- NOTES:
1. REFER TO MANUFACTURERES MANUAL FOR ADDITIONAL TROUBLESHOOTING INFORMATION.
2. ANY CODES NOT IDENTIFIED ON THIS DRAWING SHOULD BE REPORTED TO ENGINEERING.

B		ADDED CODES 136/13 AND 136/54			
		• REV A - ERN 56667-1			
		8/2/05	DSF	MIG	
		68936-1	JBF		
LET	REVISION	DATE	BY	CF	
THOMAS BUILT BUSES, INC.					
HIGH POINT, NC					
TOLERANCE UNLESS OTHERWISE NOTED					
THIRD ANGLE PROJECTION	DECIMAL .XXX .015 .XX .06 .X .1	FRACTIONAL ±1/32	ANGULAR ±1°		
J1587 DIAGNOSTIC CODES CROSS REFERENCE CHART					
DRN. 11/24/04	DSF	MATERIAL: SEE NOTE #1	PRO-E		
CK'D 11/22/04	JBF	SIZE	DWG. NO. SHEET 1 OF 2		
ENGR/DESIGNER	DSF	C	62204870		
DRAWING SCALE					

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TRANSMISSION DIAGNOSTIC CODES

MESSAGE ID (MID) = 130

Table with 3 columns: PARAMETER IDENTIFICATION (PID), SUBSYSTEM IDENTIFICATION (SID), and SID DESCRIPTION. Lists various transmission diagnostic codes and their descriptions.

ENGINE DIAGNOSTIC CODES

MESSAGE ID (MID) = 128

Table with 3 columns: PARAMETER IDENTIFICATION (PID), SUBSYSTEM IDENTIFICATION (SID), and PID / SID DESCRIPTION. Lists various engine diagnostic codes and their descriptions.

ENGINE DIAGNOSTIC CODES (CONTINUED)

ENGINE DIAGNOSTIC CODES

Table with 3 columns: PARAMETER IDENTIFICATION (PID), SUBSYSTEM IDENTIFICATION (SID), and PID / SID DESCRIPTION. Continuation of engine diagnostic codes and descriptions.

Technical drawing information block including revision history, manufacturer name (THOMAS BUILT BUSES, INC.), drawing title (J1587 DIAGNOSTIC CODES CROSS REFERENCE CHART), and drawing scale.

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