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Freightliner Business Class M2 Fault Codes List - Bulkhead Module

Bulkhead Module Fault Code Information

J1587 SIDs for Bulkhead Module (BHM) MID 164		
SID	Description	Possible FMI
000	Backlighting Dimmer Switch Fault	7
001	Clutch Switch Fault	7
002	Reserved for Future Use	—
003	Headlamp Switch Disagreement—Both park and on inputs are closed	7
004	Multifunction Turn Signal Switch High Beam Input Fault	2
005	Ignition Switch Fault	7
006	Marker Interrupt Switch Fault	7
007	Multifunction Turn Signal Switch Disagreement—Both wiper high and wiper low inputs are on.	2
008	Multifunction Turn Signal Switch Disagreement—Wiper on/off is off and wiper high or low input is on	2
009	Wiper Park Input Fault	7
010	ICU3-M2 Hazard Switch CAN Feedback Error	2
011	Multifunction Turn Signal Switch Left Turn Signal Input Fault	2
012	Multifunction Turn Signal Switch Right Turn Signal Input Fault	2
013	Multifunction Turn Signal Switch Washer Switch Input Fault	2
014	Multifunction Turn Signal Switch Wiper On/Off Input Fault	2

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J1587 SIDs for Bulkhead Module (BHM) MID 164		
SID	Description	Possible FMI
015	Multifunction Turn Signal Switch Wiper Low Input Fault	2
016	Multifunction Turn Signal Switch Wiper High Input Fault	2
017	Wheel-Based Vehicle Speed CAN Message Error	2
018	Wake-up Hardware Fault—Modules are kept awake	7
019	Unknown Keep Awake Fault—Modules are kept awake.	7
020	Extra Smart Switch	7
021	Duplicate Smart Switch	7
022	Missing Smart Switch	7
023	Fifth Wheel Solenoid Unexpected Pressure Feedback	7
024	Fifth Wheel Solenoid No Pressure Feedback	7
025	End of Frame Air Unexpected Pressure Feedback	7
026	End of Frame Air No Pressure Feedback	7
027	Axle Lift Unexpected Pressure Feedback	7
028	Axle Lift No Pressure Feedback	7
029	Suspension Dump Unexpected Pressure Feedback	7
030	Suspension Dump No Pressure Feedback	7
031	Suspension Proportioning Unexpected Pressure Feedback	7
032	Suspension Proportioning No Pressure Feedback	7
033	Cigar Lighter Output Fault	7
034	BHM/ICU3-M2 Ignition Mismatch	7
035	BHM/ICU3-M2 Hazard Switch Mismatch	2
036	BHM/ICU3-M2 Wiper Park Mismatch	2
037	Missing Transmission CAN Message	9
038	Missing Chassis Module CAN Message	9
039	Remote Bucket Switch Stuck Fault	7
040	Axle Lift 2 Unexpected Pressure Feedback	7
041	Axle Lift 2 No Pressure Feedback	7
042	PTO 1 Unexpected Pressure Feedback	7
043	PTO 1 No Pressure Feedback	7
044	PTO 2 Unexpected Pressure Feedback	7
045	PTO 2 No Pressure Feedback	7
046	CHM No PWM DRLs Fault	8
047–049	Reserved for Future Use	—
050	BHM B1.A—Fuel Level Input Fault (Not Used)	3, 4
051	BHM B1.F, B1.P, B2.K, B2.L, B6.A8—Ignition Power Output Fault	5, 6
052	BHM B1.J—Main BHM Power VBAT5 Input Fault	3, 4

J1587 SIDs for Bulkhead Module (BHM) MID 164		
SID	Description	Possible FMI
053	BHM B1.K, B5.C—Tail/Clearance Lamp Output Fault	5, 6
054	BHM B1.L—Left High Beam Output Fault	5, 6
055	BHM B1.N—Main BHM Power VBAT3 Input Fault	3, 4
056	BHM B1.R—Left Low Beam Output Fault	5, 6
057	BHM B2.M—A/C Clutch Output Fault	5, 6
058	BHM B3.D—Main BHM Power VBAT1 Input Fault	3, 4
059	BHM B3.E—Horn Output Fault	3, 4, 5, 6
060	BHM B3.F—Wiper High Speed Output Fault	5, 6
061	BHM B3.G—Washer Pump Output Fault	5, 6
062	BHM B3.H—Wiper Low Speed Output Fault	5, 6
063	BHM B4.B—Starter Relay Output Fault	5, 6
064	BHM B4.E, B4.F—Spare Output Fault	3, 4, 5, 6
065	BHM B4.G—Main BHM Power VBAT2 Input Fault	3, 4
066	BHM B4.K—Main BHM Power VBAT4 Input Fault	3, 4
067	BHM B4.M, B5.E—Spare Output Fault	3, 4, 5, 6
068	BHM B5.A, B7.A12—Dome Lamp Battery Power Output Fault	5, 6
069	BHM B6.A9, B6.A10—HVAC/Radio Ignition Power Output Fault	5, 6
070	BHM B5.B—Dome Lamp Switched Power Output Fault	5, 6
071	BHM B5.D—ICU Wake Output Fault	5, 6
072	BHM B5.F—Cigar Light Output Fault	3, 4, 5, 6
073	BHM B5.G—Spare Ignition Power Output Fault	3, 4, 5, 6
074	BHM B5.H, B7.A1—Panel Lamps Output Fault	3, 4, 5, 6
075	CHM C1.A, C1.H, C1.J—Backup Lamps/Alarm Output Fault	5, 6
076	CHM C1.G, C2.H, C3.N—Left Turn Signal Output Fault	5, 6
077	CHM C1.L—Right Stop Lamp Output Fault	5, 6
078	CHM C1.N—Left Stop Lamp Output Fault	5, 6
079	CHM C1.P, C2.E, C3.R—Right Turn Signal Output Fault	5, 6
080	CHM C2.A—Trailer Power Relay Output Fault	3, 4
081	CHM C2.F, C4.C, C4.D, C4.L, C4.M—Park/Marker Lamp Output	3, 4, 5, 6
082	CHM C3.A—Spare Output Fault	3, 4, 5, 6
083	CHM C3.C, C3.D—Spare Output Fault	5, 6
084	CHM C3.E—Low Air Pressure Input Fault	3, 4
085	CHM C3.F—Park Brake Input Fault	3, 4
086	CHM C3.J—Main CHM Power VBAT2 Input Fault	3, 4
087	CHM C3.K—Right DRL Output Fault	5, 6
088	CHM C3.L—Right Low Beam Output	5, 6

J1587 SIDs for Bulkhead Module (BHM) MID 164		
SID	Description	Possible FMI
089	CHM C4.F—Left DRL Output Fault	5, 6
090	CHM C4.J—Main CHM Power VBAT3 Input Fault	3, 4
091	CHM C4.K—Right High Beam Output	5, 6
092	CHM C4.P—Main CHM Power VBAT1 Input Fault	3, 4
093	CHM C5.A—Solenoid #0 Pressure Feedback Fault	3, 4
094	CHM C5.B—Solenoid #1 Pressure Feedback Fault	3, 4
095	CHM C5.F—Solenoid #2 Pressure Feedback Fault	3, 4
096	CHM C5.G—Solenoid #3 Pressure Feedback Fault	3, 4
097	CHM C5.H—Solenoid #0 Output Fault	3, 4
098	CHM C5.J—Solenoid #1 Output Fault	3, 4
099	CHM C5.L—Solenoid #2 Output Fault	3, 4
100	CHM C5.M—Solenoid #3 Output Fault	3, 4
101	EXM Fault (Fault in one of the EXM Outputs)	3, 4, 5, 6

J1939 SPNs for Bulkhead Module (BHM) SA 33		
SPN	Description	Possible FMI
70	Parking Brake Switch	2
80	Washer Fluid Level	2
84	Wheel-based Vehicle Speed	19
96	Fuel Level	19
97	Water In Fuel Indicator	19
163	Transmission Current Range	12, 19
177	Transmission Oil Temperature Sensor	3, 4
523	Transmission Current Gear	12, 19
524	Transmission Selected Gear	12, 19
597	ABS Service Brake Switch	2
598	Clutch Switch	7
879	Front Left Turn Signals Output Fault	5, 6
880	Trailer Stop Lamp Relay Output Fault	4
881	Front Right Turn Signals Output Fault	5, 6
882	Park/Marker Lights Output Fault	4, 5, 6
973	Engine Retarder Selection	19
1487	Backlighting Dimmer Switch Fault	7
1550	A/C Clutch Output Fault	5, 6
2003	Missing Transmission CAN Message	9

J1939 SPNs for Bulkhead Module (BHM) SA 33		
SPN	Description	Possible FMI
2071	Missing Chassis Module CAN Message	9
6890	CHM No PWM DRLs Fault	8
6897	Fuel Water Separator Heater Output Fault	6
6898	Brake Air Dryer Output Fault	6
6906	PTO 2 No Pressure Feedback	7
6907	PTO 2 Unexpected Pressure Feedback	7
6908	PTO 1 No Pressure Feedback	7
6909	PTO 1 Unexpected Pressure Feedback	7
6910	Axle Lift 2 No Pressure Feedback	7
6911	Axle Lift 2 Unexpected Pressure Feedback	7
6912	Remote Bucket Switch Stuck Fault	7
6915	Lamp and Gauge Ignition Output Fault	4, 5, 6
6916	BHM/ICU3-M2 Wiper Park CAN Message Mismatch	2
6917	BHM/ICU3-M2 Hazard Switch CAN Message Mismatch	2
6918	Missing Smart Switch	7
6919	Duplicate Smart Switch	7
6920	Extra Smart Switch	7
6921	Unknown Keep Awake Fault–Modules are kept awake	7
6922	Wake-up Hardware Fault–Modules are kept awake	7
6923	Wiper Parked Input Fault	7
6924	Multifunction Turn Signal Switch Disagreement–Wiper on/off input is off and wiper high or low input is on	2
6925	Multifunction Turn Signal Switch Disagreement–Both wiper high and wiper low inputs are on	2
6926	Marker Interrupt Switch Fault	7
6927	Utility Lamp Output Fault	3, 4, 5, 6
6928	Suspension Proportioning No Pressure Feedback	7
6929	Suspension Proportioning Unexpected Pressure Feedback	7
6930	Suspension Proportioning Solenoid Output Fault	3, 4, 5, 6
6931	Suspension Dump No Pressure Feedback	7
6932	Suspension Dump Unexpected Pressure Feedback	7
6933	Suspension Dump Solenoid Output Fault	3, 4, 5, 6
6934	Spotlights Output Fault	3, 4, 5, 6
6935	Snow Plow Relay Output Fault	3, 4, 5, 6
6936	Rear 2 Differential Lock Pressure Feedback Fault	7
6937	Rear 2 Differential Lock Solenoid Output Fault	3, 4, 5, 6
6938	Rear 1 Differential Lock Pressure Feedback Fault	7

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J1939 SPNs for Bulkhead Module (BHM) SA 33		
SPN	Description	Possible FMI
6939	Rear 1 Differential Lock Solenoid Output Fault	3, 4, 5, 6
6940	Optional Feature Output Fault	3, 4, 5, 6
6941	Heated Mirrors Output Fault	3, 4, 5, 6
6942	Interaxle Pressure Feedback Fault	7
6943	Interaxle Solenoid Output Fault	3, 4, 5, 6
6944	Fuel Water Separator Heater Output Fault	4, 5, 6
6945	Front Differential Lock Pressure Feedback Fault	7
6946	Front Differential Lock Solenoid Output Fault	3, 4, 5, 6
6947	Fog Lamp Output Fault	5, 6
6949	Fire Pump Pressure Feedback Fault	7
6950	Fire Pump Solenoid Output Fault	3, 4, 5, 6
6951	Fifth Wheel Slide No Pressure Feedback	7
6952	Fifth Wheel Slide Unexpected Pressure Feedback	7
6953	Fifth Wheel Slide Solenoid Output Fault	3, 4, 5, 6
6954	End of Frame Air No Pressure Feedback	7
6955	End of Frame Air Unexpected Pressure Feedback	7
6956	End of Frame Air Solenoid Output Fault	3, 4, 5, 6
6957	Daytime Running Lights (DRL) Output Fault	5, 6
6958	Brake Line Air Dryer Output Fault	3, 4, 5, 6
6959	Axle Shift Pressure Feedback Fault	7
6960	Axle Shift Solenoid Output Fault	3, 4, 5, 6
6961	Axle Lift No Pressure Feedback	7
6962	Axle Lift Unexpected Pressure Feedback	7
6963	Axle Lift Solenoid Output Fault	3, 4, 5, 6
6964	Air Horn Solenoid Output Fault	5, 6
6965	BHM VBAT 5 Input Fault	3, 4
6966	BHM VBAT 4 Input Fault	3, 4
6967	BHM VBAT 3 Input Fault	3, 4
6968	BHM VBAT 2 Input Fault	3, 4
6969	BHM VBAT 1 Input Fault	3, 4
6970	Wiper High Output Fault	5, 6
6971	Wiper Low Output Fault	5, 6
6972	Multifunction Turn Signal Switch Wiper High Input Fault	2
6973	Multifunction Turn Signal Switch Wiper Low Input Fault	2
6974	Multifunction Turn Signal Switch Wiper On/Off Input Fault	2

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6975	ICU3-M2 Wiper Park CAN Feedback Error	2
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J1939 SPNs for Bulkhead Module (BHM) SA 33		
SPN	Description	Possible FMI
6976	Washer Pump Output Fault	5, 6
6977	Multifunction Turn Signal Switch Washer Switch Input Fault	2
6978	Multifunction Turn Signal Switch Right Turn Signal Input Fault	2
6979	Multifunction Turn Signal Switch Left Turn Signal Input Fault	2
6980	Right Stop Lamp Output Fault	5, 6
6981	Left Stop Lamp Output Fault	5, 6
6982	Wake Up Hardware Fault	5, 6
6983	Starter Relay (mag switch) Output Fault	5, 6
6984	Ignition System, Accessory Power Outputs Fault	5, 6
6985	Ignition System, Ignition Power Outputs Fault	2, 5, 6
6986	Ignition Switch Fault	7
6987	Taillights, Clearance Lights, License Plate Lights Output Fault	5, 6
6988	Left Low Beam Output Fault	5, 6
6989	Right Low Beam Output Fault	5, 6
6990	Left High Beam Output Fault	5, 6
6991	Right High Beam Output Fault	5, 6
6992	Multifunction Turn Signal Switch High Beam Input Fault	2
6993	Headlamp Switch Disagreement—Both park and on inputs are closed.	7
6994	ICU3-M2 Hazard Switch CAN Feedback Error	19
6995	Horn Output Fault	3, 4, 5, 6
6996	Dome Lamps Switched Power Output Fault	5, 6
6997	Cigar Lighter Output Fault	3, 4, 5, 6
6998	Dome Lamps Battery Power Output Fault	5, 6
6999	Backup Lamps/Alarm Output Fault	5, 6
7000	Panel Lamp Backlighting PWM Output Fault	3, 4, 5, 6
524280	Component ID Mismatch	31
524281	Application to Parameter Incompatibility	31
524282	Parameter Checksum Failure	12
524283	Application Checksum Failure	12
524284	Boot Block Checksum Failure	12
524285	Boot Hold Line is Active	4
524286	Ram Failure	12

Failure Mode Identifiers		
FMI	J1939 Description	J1587 Description
00	Data valid but above normal operational range—Most severe level	Data valid but above normal operational range (engine overheating)
01	Data valid but below normal operational range—Most severe level	Data valid but below normal operational range (engine oil pressure too low)
02	Data erratic, intermittent, or incorrect	Data erratic, intermittent, or incorrect
03	Voltage above normal or shorted high	Voltage above normal or shorted high
04	Voltage below normal or shorted low	Voltage below normal or shorted low
05	Current below normal or open circuit	Current below normal or open circuit
06	Current above normal or grounded circuit	Current above normal or grounded circuit
07	Mechanical system not responding or out of adjustment	Mechanical system not responding properly
08	Abnormal frequency, pulse width, or period	Abnormal frequency, pulse width, or period
09	Abnormal update rate	Abnormal update rate
10	Abnormal rate of change	Abnormal rate of change
11	Root cause not known	Failure mode not identifiable
12	Bad intelligent device or component	Bad intelligent device or component
13	Out of Calibration	Out of Calibration
14	Special Instructions	Special Instructions
15	Data valid but above normal operational range—Least severe level	Reserved for future assignment by the SAE Subcommittee
16	Data valid but above normal operational range—Moderately severe level	—
17	Data valid but below normal operational range—Least severe level	—
18	Data valid but below normal operational range—Moderately severe level	—
19	Received network data in error	—
31	Condition Exists	—

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