

54.01.400 Specifications

Specifications

For an isometric view of the Bulkhead Module, see Fig. 1 .

For a side view of the Bulkhead Module with pinout assignments, see Fig. 2 .

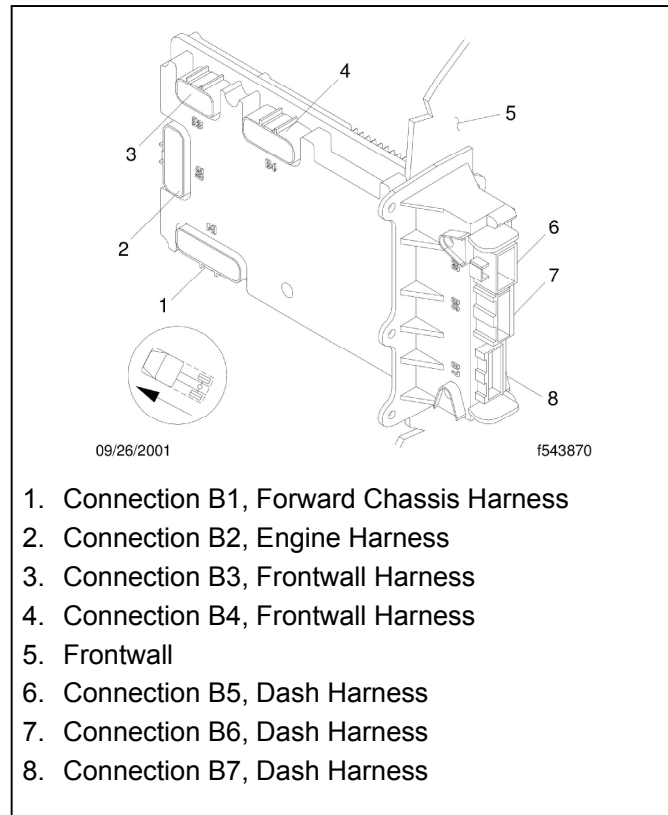


Fig. 1, Bulkhead Module (isometric view)

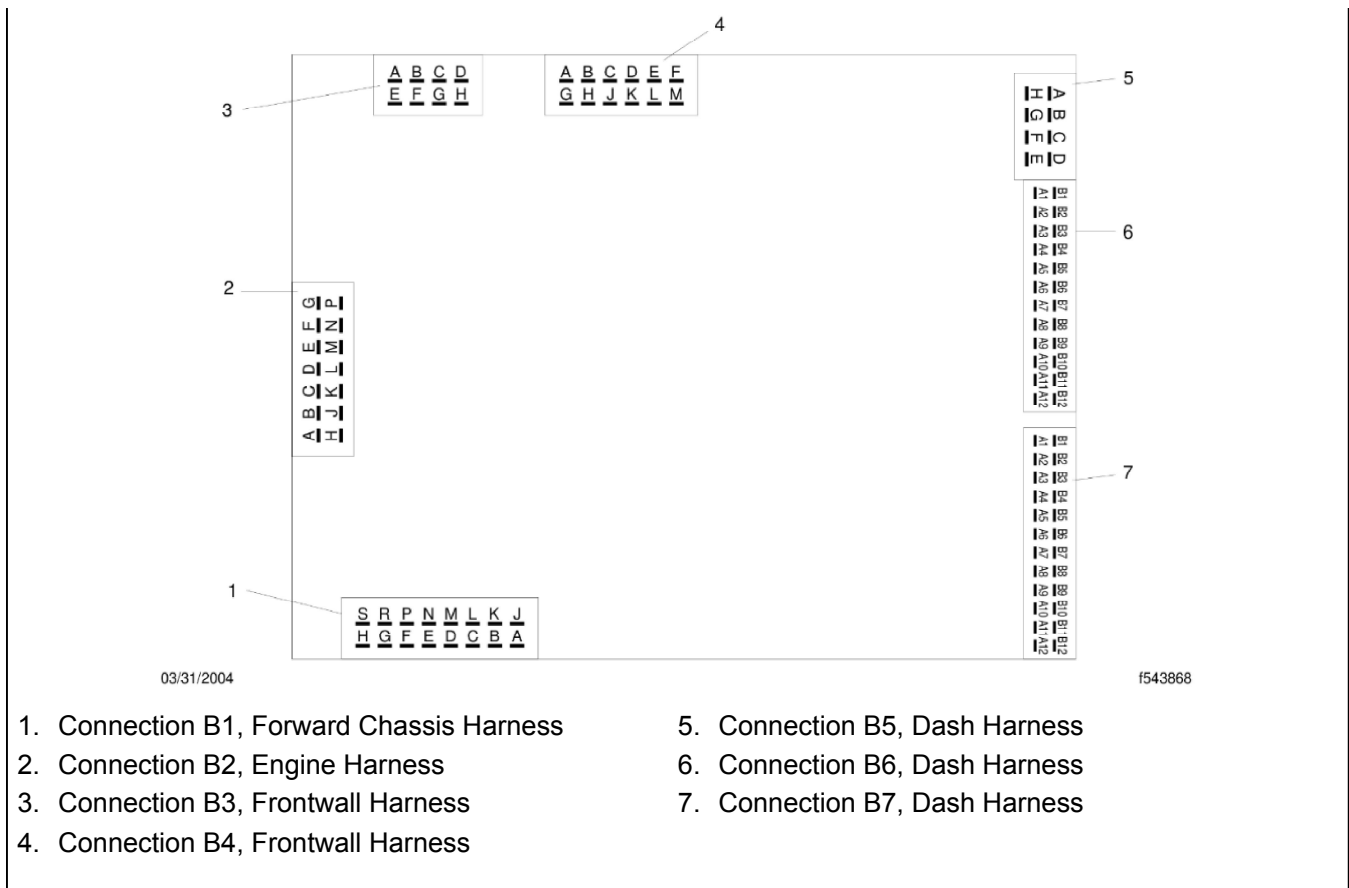


Fig. 2, Bulkhead Module (side view) With Pinout Assignments

For connector B1 forward chassis harness pinouts, see Table 1 .

For connector B2 engine harness pinouts, see Table 2 .

For connector B3 frontwall harness pinouts, see Table 3 .

For connector B4 frontwall harness pinouts, see Table 4 .

For connector B5 dash harness pinouts, see Table 5 .

For connector B6 dash harness pinouts, see Table 6 .

For connector B7 dash harness pinouts, see Table 7 .

For power supply fuses and associated outputs for the Bulkhead Module, see Table 8 .

Connector B1 Forward Chassis Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B1-A	Fuel Level Sensor Input	Analog Input
B1-B	Module Wake-up Signal	Digital Input/Output
B1-C	Driver's Side Window Sash Input	Digital Input
B1-D	—	—

Connector B1 Forward Chassis Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B1-E	Ground	Power Ground
B1-F	Fuel/Water Sensor Ignition Power	Digital Output
B1-G	Fuel Level Sensor Ground	Signal Ground
B1-H	J1587+ Data Bus	Data Bus
B1-J	Battery Power (VBAT5)	Power
B1-K	Heater Booster Pump	Digital Output
B1-L	Left High Beam	Digital Output
B1-M	Fuel/Water Separator (Spare Digital Input 5)	Digital Input
B1-N	Battery Power (VBAT3)	Power
B1-P	ABS Ignition Power	Digital Output
B1-R	Left Low Beam	Digital Output
B1-S	J1587– Data Bus	Data Bus

Table 1, Connector B1 Forward Chassis Harness Pinouts

Connector B2 Engine Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B2-A	J1587+ Data Bus	Data Bus
B2-B	J1939+ Data Bus	Data Bus
B2-C	J1587+ Data Bus	Data Bus
B2-D	J1587– Data Bus	Data Bus
B2-E	—	—
B2-F	—	—

Connector B2 Engine Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B2-G	Neutral Signal from Transmission	Digital Input
B2-H	J1587– Data Bus	Data Bus
B2-J	J1939– Data Bus	Data Bus
B2-K	Engine ECU Ignition Power	Digital Output
B2-L	Transmission ECU Ignition Power	Digital Output
B2-M	A/C Clutch	Digital Output
B2-N	—	—
B2-P	Alternator Charging	Digital Input

Table 2, Connector B2 Engine Harness Pinouts

Connector B3 Frontwall Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B3-A	J1939– Data Bus	Data Bus
B3-B	J1939+ Data Bus	Data Bus
B3-C	Wiper Parked Position	Digital Input
B3-D	Main Battery Power (VBAT1)	Power
B3-E	Horn	Digital Output
B3-F	Wiper Motor High Speed	Digital Output
B3-G	Washer Pump	Digital Output
B3-H	Wiper Motor Low Speed	Digital Output

Table 3, Connector B3 Frontwall Harness Pinouts

Connector B4 Frontwall Harness Pinouts		
Connector Pin	Signal Name	Signal Type

Connector B4 Frontwall Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B4-A	Air Filter Restriction/Spare Digital Input 9	Digital Input
B4-B	Starter Relay	Digital Output
B4-C	Ground	Ground
B4-D	Hydraulic Brake Lamp Signal	Digital Input
B4-E	Stepwell Light, Front Entrance Door	Digital Output
B4-F	—	—
B4-G	Main Battery Power (VBAT2)	Power
B4-H	Module Wake-up Signal	Digital Input/Output
B4-J	—	—
B4-K	Main Battery Power (VBAT4)	Power
B4-L	Washer Fluid Level (Spare Digital Input 8)	Digital Input
B4-M	—	—

Table 4, Connector B4 Frontwall Harness Pinouts

Connector B5 Dash Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B5-A	Buzzer, Rear Emergency Door	Digital Output
B5-B	Dome Lamps (PWM)	Digital Output
B5-C	—	—
B5-D	Instrument Cluster Wake-up	Digital Input/Output
B5-E	Left Rear Turn Lamp	Digital Output
B5-F	ID/Marker Lights	Digital Output

Connector B5 Dash Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B5-G	Right Rear Turn Lamp	Digital Output
B5-H	Panel Lamp Backlighting (PWM)	Digital Output

Table 5, Connector B5 Dash Harness Pinouts

Connector B6 Dash Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B6-A1	Ignition Switch ACCESSORY Position	Digital Input
B6-A2	Module Wake-up Signal	Digital Input/Output
B6-A3	Ignition Switch ON	Digital Input
B6-A4	—	—
B6-A5	Ignition Switch CRANK	Digital Input
B6-A6	Warning System Activation	Digital Input
B6-A7	Rear Emergency Door Latch	Digital Input
B6-A8	VCU Ignition Power	Digital Output
B6-A9	HVAC/Radio Accessory Power	Digital Output
B6-A10	Radio Accessory Power	Digital Output
B6-A11	J1587– Data Bus	Data Bus
B6-A12	J1587+ Data Bus	Data Bus
B6-B1	Horn Switch	Digital Input
B6-B2	Top of Clutch Switch (Spare Digital Input 7)	Digital Input
B6-B3	Bottom of Clutch Switch (Spare Digital Input 6)	Digital Input

Connector B6 Dash Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B6-B4	—	—
B6-B5	Panel Lamps Increase	Digital Input
B6-B6	Panel Lamps Decrease	Digital Input
B6-B7	A/C Clutch Request	Digital Input
B6-B8	Hazard Switch	Digital Input
B6-B9	Headlamp Switch PARK Position	Digital Input
B6-B10	Headlamp Switch ON Position	Digital Input
B6-B11	Headlamp Switch ON 2 Position	Digital Input
B6-B12	—	—

Table 6, Connector B6 Dash Harness Pinouts

Connector B7 Dash Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B7-A1	Panel Lamps (Smart Switch)	Digital Output
B7-A2	Smart Switch 3 ID 1	Analog Input
B7-A3	Smart Switch 3 ID 2	Analog Input
B7-A4	Smart Switch 3 Input	Analog Input
B7-A5	Smart Switch 3 Indicator	Digital Output
B7-A6	Smart Switch 4 ID 1	Analog Input
B7-A7	Smart Switch 4 ID 2	Analog Input
B7-A8	Smart Switch 4 Input	Analog Input
B7-A9	Smart Switch 4 Indicator	Digital Output
B7-A10	Smart Switch 5 ID 1	Analog Input

Connector B7 Dash Harness Pinouts		
Connector Pin	Signal Name	Signal Type
B7-A11	Smart Switch 5 ID 2	Analog Input
B7-A12	—	—
B7-B1	Smart Switch 1 ID 1	Analog Input
B7-B2	Smart Switch 1 ID 2	Analog Input
B7-B3	Smart Switch 1 Input	Analog Input
B7-B4	Smart Switch 1 Indicator	Digital Output
B7-B5	Smart Switch 2 ID 1	Analog Input
B7-B6	Smart Switch 2 ID 2	Analog Input
B7-B7	Smart Switch 2 Input	Analog Input
B7-B8	Smart Switch 2 Indicator	Digital Output
B7-B9	Ground	Signal Ground
B7-B10	Smart Switch 5 Indicator	Digital Output
B7-B11	Smart Switch 5 Input	Analog Input
B7-B12	—	—

Table 7, Connector B7 Dash Harness Pinouts

Power Supply Fuses and Associated Outputs for the Bulkhead Module				
BHM Power Input	BHM Power Input Pin	Fuse Supplying BHM Power Input	BHM Outputs Supplied	BHM Output Pin
Power In			Power Out	
VBAT1	B3.D	Fuse 22 (30A)	Buzzer for Emergency Doors	B5.A
			Battery (Smart Switches)	B7.A12
			Ignition (VCU)	B6.A8

Power Supply Fuses and Associated Outputs for the Bulkhead Module				
BHM Power Input	BHM Power Input Pin	Fuse Supplying BHM Power Input	BHM Outputs Supplied	BHM Output Pin
Power In			Power Out	
			Ignition (Engine)	B2.K
			Ignition (ABS)	B1.P
			Ignition (Trans)	B2.L
			Fuel Water Sensor Power	B1.F
			Dome Lamps Switched	B5.B
			Left Low Beam	B1.R
			A/C Clutch	B2.M
			Smart Switch 1 Indicator	B7.B4
			Smart Switch 2 Indicator	B7.B8
			Smart Switch 3 Indicator	B7.A5
VBAT2	B4.G	Fuse 20 (30A)	Accessory (HVAC)	B6.A9
			Accessory (Radio)	B6.A10
			Wake-up (Instrument Cluster)	B5.D
			Left High Beam	B1.L
			Wiper High	B3.F
			Horn	B3.E
VBAT3	B1.N	Fuse 18 (30A)	Wiper Low	B3.H
			Right Rear Turn Lamp	B5.G

Power Supply Fuses and Associated Outputs for the Bulkhead Module				
BHM Power Input	BHM Power Input Pin	Fuse Supplying BHM Power Input	BHM Outputs Supplied	BHM Output Pin
Power In			Power Out	
			Panel Lamps	B5.H
			Panel Lamps (Smart Switch)	B7.A1
VBAT4	B4.K	Fuse 15 (30A)	Clearance Lamps	B5.C
			Heater Booster Pump	B1.K*
			Washer Pump	B3.G
			ID/Marker/Clearance Lights	B5.F
VBAT5	B1.J	Fuse 7 (30A)	Left Rear Turn Lamp	B5.E / B4.M
			Stepwell Light, Front Entrance Door	B4.F
			Stepwell Light, Front Entrance Door	B4.E

* This output supplies power to the Chassis Module pass-through for the tail lamps, license plate lamp, and trailer tail lamp relay.

Table 8, Power Supply Fuses and Associated Outputs for the Bulkhead Module

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