SERVICE MANUAL

SERVICE MANUAL SECTION

BODY CONTROLLER DIAGNOSTIC TROUBLE CODES

Model: 3200, 4100, 4300, 4400, 7300, 7400, 7500, 7600, 7700, 8500, 8600, BE 200, CE Bus, CXT, DuraStar, LoneStar, MXT, ProStar, RXT, TranStar, WorkStar

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BODY CONTROLLER DIAGNOSTIC TROUBLE CODES

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BODY CONTROLLER DIAGNOSTIC TROUBLE CODES

1. DISPLAYING DIAGNOSTIC TROUBLE CODES

The ability to display diagnostic trouble codes (DTC) is an optional feature. Codes may be displayed on either the gauge cluster or an optional vehicle information display (VID). **The vehicle must be equipped with the option to display codes in both cases.** Codes will not be displayed on the gauge cluster if the vehicle is equipped with the VID.

1.1. VEHICLES EQUIPPED WITH OPTION TO DISPLAY CODES

1.1.1. Displaying Codes on the Gauge Cluster (Non-VID equipped vehicles)

To display codes on vehicles not equipped with a VID:

- 1. Set the parking brake.
- 2. Turn the key switch to the ACCESSORY position to view only previously active codes. Turn the key switch to the IGNITION position to view both active and previously active codes.
- 3. Momentarily press the Cruise "ON" switch and the Cruise "Resume" switch at the same time.

A gauge sweep will be performed on the gauges. The gauge cluster will then display the following information for 5 seconds:

Software Rev: XXX
Hardware Rev: XXX
Active Faults: XXX
Total Faults: XXX

NOTE – The gauge cluster will only display "Software Rev" and "Hardware Rev" for 5 seconds followed by the message "Diagnostic Trouble Codes are not available" if the vehicle is not equipped with the option to display codes.

If faults are present, the gauge cluster display will show each diagnostic trouble code for 10 seconds and then automatically scroll to the next entry and continue to cycle through the faults. Once all faults have been displayed the number of faults will be displayed again, then the cycle will repeat. To manually cycle through the fault list press and release the cluster display selector button. The following information will be displayed for each fault:

SPN: XXXX FMI: XX

Active

OC: XXX SA: XXX

SPN: XXXX FMI: XX Previously Active OC: XXX SA: XXX

NOTE – Turning the key switch off, turning the key switch to the CRANK position, or releasing the park brake will take the gauge cluster out of the diagnostic mode.

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2.1.1. Displaying Codes on the VID (if equipped)

The VID can be used to display all diagnostic trouble codes (DTC) on the vehicle. Suspect parameter number (SPN), failure mode indicator (FMI) and occurrence count numbers are listed. Source addresses and DTC descriptions are presented in plain text.

NOTE – The VID will display "Not Available" if a DTC description is not available for a particular fault.

Displaying codes will only be allowed if all of the following conditions are true:

- The key switch is in the IGNITION position.
- AND displaying codes is allowed due to vehicle orderable options
- AND the programmable parameter "Diagnostics" is enabled using Diamond Logic® Builder (DLB).
- The vehicle is not moving (the Vehicle Speed is equal to zero).
- The feature is not password protected to prevent unauthorized access. Refer to the Vehicle Information Display Owner's Manual for more information.

Perform the following steps if all of the above conditions are met:

1. Go to the main menu screen

NOTE – The following selections will not be available if the vehicle is not equipped with the option to display codes.

- 2. Select "DIAGNOSTIC CODES"
- 3. Select "ACTIVE" or "INACTIVE". The VID may initiate a password prompt if the VID has been password protected. Refer to the Vehicle Information Display Owner's Manual for more information.

The VID will indicate "NO FAULT DETECTED" if faults are not found. Scroll through the list of faults if faults are present.

The following information will be displayed for each fault:

SPN: FMI OC

SA

DTC Description

2. CLEARING DIAGNOSTIC TROUBLE CODES

Previously active diagnostic trouble codes can only be cleared by a service tool, such as Diamond Logic® Builder (DLB). Some previously active codes may not be cleared by this method.

3. DEFINITIONS

- "SPN" represents the Suspect Parameter Number. This number identif es the item for which diagnostics are being reported.
- "**FMI**" is the Failure Mode Indicator. This number represents the type of failure detected. Refer to Failure Mode Indicators (FMI) below for more information.

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BODY CONTROLLER DIAGNOSTIC TROUBLE CODES

- "Active" or "Previously Active" will be displayed to identify whether a fault is currently active or if the fault
 was previously active.
- "OC" is the Occurrence Count. This number represents the number of times a fault has gone from previously active to active.
- "SA" is the Source Address. This number identif es the module reporting the fault. Refer to Source Addresses (SA) for more information.

3.1. FAILURE MODE INDICATORS (FMI)

- FMI=0 Data Valid But Above Normal Operational Range Most Severe Level
- FMI=1 Data Valid But Below Normal Operational Range Most Severe Level
- FMI=2 Data Erratic, Intermittent Or Incorrect
- FMI=3 Voltage Above Normal, Or Shorted To High Source
- FMI=4 Voltage Below Normal, Or Shorted To Low Source
- FMI=5 Current Below Normal Or Open Circuit
- FMI=6 Current Above Normal Or Grounded Circuit
- FMI=7 Mechanical System Not Responding Or Out Of Adjustment
- FMI=8 Abnormal Frequency Or Pulse Width Or Period
- FMI=9 Abnormal Update Rate
- FMI=10 Abnormal Rate Of Change
- FMI=11 Root Cause Not Known
- FMI=12 Bad Intelligent Device Or Component
- FMI=13 Out Of Calibration
- FMI=14 Special Instructions
- FMI=15 Data Valid But Above Normal Operating Range Least Severe Level
- FMI=16 Data Valid But Above Normal Operating Range Moderately Severe Level
- FMI=17 Data Valid But Below Normal Operating Range Least Severe Level
- FMI=18 Data Valid But Below Normal Operating Range Moderately Severe Level
- FMI=19 Received Network Data In Error
- FMI=20 Data Drifted High
- FMI=21 Data Drifted Low
- FMI=31 Condition Exists

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3.2. SOURCE ADDRESSES (SA)

NOTE - The available source addresses will vary depending on each vehicle configuration.

NOTE – Diagnostic Trouble Codes listed in this document are Body Controller, Auxiliary Gauge Switch Pack, Secondary Instrument Cluster, Instrument Cluster, Rear HVAC Module, and Compass Module.

Table 1

Module Name	Source Address
Engine Control Module (ECM)	00
Transmission Control Module (TCM)	03
Shift Selector	05
Antilock Brake System (ABS)	11
Electronic Gauge Cluster (EGC)	23
Compass Module	28
Body Controller	33
Vehicle Sensor Module (VSM)	39
Vehicle Information Display (VID)	40
Tire Pressure Monitoring System (TPMS)	51
Rear HVAC	58
Aftertreatment Module	61
Telematics Module	74
Auxiliary Gauge Switch Pack (AGSP) 3	132
Secondary Instrument Cluster (SIC) 1	167
Hybrid Electric Vehicle (HEV) or Eaton Transmission Control Pad	239
Power Pack 3	247
Service Tool	249
Global	255

4. DIAGNOSTIC TROUBLE CODE (DTC) LIST

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SA 23	SPN 171	DTC Description Ambient Air Temperature	FMI 3	Message Fault on Analog Input 3 above normal when used for outside	Cause Voltage above normal, or shorted to high source	Comments	Pins	Logical Signal
23	171	Ambient Air Temperature	4	temperature Fault on Analog Input 3 below normal when used for outside	Voltage below normal, or shorted to low source			
22	coo	Dad Stan Laws	_	temperature	Comment below a comment on a commit			
23 23	623 624	Red Stop Lamp Amber Warning Lamp	5 5	Red stop light malfunction Amber Warning light malfunction	Current below normal or open circuit Current below normal or open circuit			
23	987	Protect Lamp	5	Protect warning light malfunction	Current below normal or open circuit			
23	1213	Malfunction Indicator Lamp	5	MIL warning light malfunction	Current below normal or open circuit			
23	1438	ABS/EBS Amber Warning Lamp	5	ABS warning light malfunction	Current below normal or open circuit			
23	1439	State (Powered Vehicle) EBS Red Warning Lamp State	5	Brake Pressure warning lamp	Current below normal or open circuit			
23	1725	Front Axle Above Pressure	3	malfunction Fault on Analog Input 2 above	Voltage above normal, or shorted to high			
23	1725	Front Axle Below Pressure	4	normal when used for axle load Fault on Analog Input 2 below normal when used for axle load	source Voltage below normal, or shorted to low source			
23	1727	Rear Axle Above Pressure	3	Fault on Analog Input 1 above	Voltage above normal, or shorted to high			
23	1727	Rear Axle Below Pressure	4	normal when used for axle load Fault on Analog Input 1 below	source Voltage below normal, or shorted to low			
23	1792	Tractor-Mounted Trailer ABS Warning Signal	5	normal when used for axle load Trailer ABS warning light malfunction	source Current below normal or open circuit			
23	1793	ATC/ASR Information Signal	5	Traction Control warning light malfunction	Current below normal or open circuit			
23	2000	Source Address 0	9	Loss of data link from Engine Controller	Abnormal update rate			
23	2003	Source Address 3	9	Loss of data link from the Transmission Controller	Abnormal updaterate			
23	2011	Source Address 11	9	Loss of data link from ABS controller	Abnormal update rate			
23	2033	Source Address 33	9	Loss of data linkfrom ESC	Abnormal updaterate			
23	2023	Gauge Cluster	3	Fault on Analog Input 4 above normal when used for ambient light	Voltage above normal, or shorted to high source			
23	2023	Gauge Cluster	4	Fault on Analog Input 4 below when used for ambient light	Voltage below normal, or shorted to low source			
23	2023	Gauge Cluster	11	Message ignition and switched ignition do not match.	Root cause not known			
23	2023	Gauge Cluster	12	Failure of non-volatile memory or checksum fault	Bad intelligent device or component			
23	2023	Gauge Cluster	6		Current above normal or grounded circuit			
28 28	165 630	Compass Bearing Calibration Memory	12 13	Sensor Fault/Compass Bearing Compass is out of Calibration	Faulty Compass module sensor Compass is out of calibration, need to			
28	639	Drivetrain Message Timeout	9	J1939 Communication Link Fault	Calibrate Faulty Compass or Drivetrain Datalink			
33 33	69 70	Two Speed Axle Switch Air Powered Park Brake	2 2	Two Speed Axle Switch Error The Auto apply portion with the Air Powered Park Brake is not Operating	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect	Occurs When the Park Brake Switch is not set within 5 seconds of the receipt of the Park as the requested gear. This failure would indicate a failure in the auto apply relay or in the air lines between the auto apply relay and the Park Brake switch.		Two_Spd_Axle_Switch
33	70	Air Powered Park Brake	7	Air Powered Park Brake is stuck	Mechanical system not responding or out of adjustment	Occurs when the park brake switch does not match the spring apply-air release (SAAR) chamber travel sensor. This indicates the park brake cannot be applied or cannot be released.	1	
33	70	Air Powered Park Brake	14	Air Powered Park Brake is stuck		Occurs when the park brake switch does not match the spring apply-air release (SAAR) chamber travel sensor. This indicates the park brake cannot be applied or cannot be released.		Park_Brake_SAAR_Travel_ Signal, Park_Brake_Switch_Signal
33	70	Air Powered Park Brake	14	The Auto Apply portion with the Air Powered Park Brake is not operating		Occurs When the Park Brake Switch is not set within 5 seconds of the receipt of the Park as the requested gear. This failure would indicate a failure in the auto apply relay or in the air lines between the auto apply relay and the Park Brake switch.		Park_Brake_Switch_Signal
33	77	Forward Rear Drive Axle Temperature	0	Front Rear Axle Temperature Sensor reading above normal range	Front Axle Temperature Sensor Shorted High or Open Circuit or faulty sensor system		1600-B10 F	rwd_RR_Axle_Oil_Temp_ Raw_Signal
33	77	Forward Rear DriveAxle Temperature	1	Front Rear Axle Temperature Sensor reading below normal range	Front Axle Temperature Sensor Short to Ground or faulty sensor system		1600-B10 F	rwd_RR_Axle_Oil_Temp_ Raw_Signal
33	78	Rear Rear Drive Axle Temperature	0	Rear Rear Axle Temperature Sensor reading above normal range	Rear Rear AxleTemperature Sensor Shorted High or Open Circuit or faulty sensor system		1600-B11 F	Rear_RR_Axle_Oil_Temp_ Raw_Signal
33	78	Rear Rear Drive Axle Temperature	1	Rear Rear Axle Temperature Sensor reading below normal range	Rear Rear Axle Temperature Sensor Short to Ground or faulty sensor system		1600-B11 F	Rear_RR_Axle_Oil_Temp_ Raw_Signal
33	84	Wheel-Based Vehicle Speed	9	Missing Wheel Based Vehicle Speed Message	J1939 Drivetrain Data Link Lost			Vehicle_Speed
33 33	94 94	Fuel Inlet Restriction Lamp Fuel Inlet Restriction Lamp	4 6	Fuel Inlet Restriction Lamp Fuel Inlet Restriction Lamp	Output shorted to ground Output overheat			
33	97	Water In Fuel Indicator	4	Water In Fuel Indicator	Output shorted to ground			
33	97	Water in Fuel Indicator Water In Fuel Indicator	6	Water in Fuel Indicator	Output shorted to ground Output overheat			
33	115	Alternator Current	2	Phase missing fault/alternator fault.	One or more of the three phase wire from the Dynamic Alternator to the Power Pack E module may be disconnected.			
						ignition cycle.		

33	116	Brake Application Pressure	0	Brake Application Pressure Sensor	Brake Application Sensor Shorted High or		1600-B14	Brake_App_Air_Sensor_Ra
33	116	Brake Application Pressure	1	reading above normal range Brake Application Pressure Sensor	faulty sensor system Brake Application Sensor Short To		1600-B14	w_Signal Brake_App_Air_Sensor_Ra
				reading below normal range	Ground or Open Circuit or faulty sensor system			w_Signal
33	158	Battery Potential (Voltage), Switched	2	Key State Ignition Signal Error	Open in Ignition Signal Input Circuit To BC		1600-A16	
33	168	Electrical Potential (Voltage)	2	Comm. fault from ESC/BC to PP3.	Datalink interrupted between ESC and Powerpack.	The Power Pack E Module has stopped receiving heart beet message from the ESC/BC.		
33	168	Electrical Potential (Voltage)	3	DC Module Overvoltage condition on Vehicle DC Bus.	An Over Voltage Condition in the DC regulator (Vehicle Battery Bus).	A High Battery Cutout fault has occurred and the source of the fault is the DC regulator (Vehicle Battery		
33	168	Electrical Potential (Voltage)	3	AC Module Overvoltage condition on High Voltage DC Bus.	An Over Voltage Condition in the AC module (Inverter High Voltage Bus).	Bus). A high Battery Cutout fault has occurred and the source of the fault is the AC module (inverter high voltage bus).		
33	168	Electrical Potential (Voltage)	4	DC Module Undervoltage condition on Vehicle DC Bus.	An Under Voltage Condition in the DC regulator (Vehicle Battery Bus).	A Low Battery Cutout fault has occurred and the source of the fault is the DC regulator (Vehicle Battery		
33	168	Electrical Potential (Voltage)	4	AC Module Undervoltage condition on High Voltage DC Bus.	An Under Voltage Condition in the AC module (Inverter High Voltage Bus).	Bus). A low Battery Cutout fault has occurred and the source of the fault is the AC module (inverter high voltage bus).		
33	168	Electrical Potential (Voltage)	6	AC Module has shutdown due to overload condition.	A Surge may have occurred for a while in the Vehicle AC bus for a long time (The inverter supplies additional current to the load).	An Overload condition has been detected in the AC module and the		
33	168	Electrical Potential (Voltage)	8	Phase missing fault/alternator fault.	One or more of the three phase wire from the Dynamic Alternator to the Power Pack E module may be disconnected.	wires from the alternator is disconnected. The Power Pack system is shutdown and requires an		
33	168	Electrical Potential (Voltage)	16	DC module over temperature condition.	An overcurrent condition in the Vehicle DC Bus might have caused an over temperature.	occurred and the source of the fault is the DC regulator (Vehicle Battery		
33	168	Electrical Potential (Voltage)	16	AC module over temperature condition.	An overcurrent condition in the Vehicle AC Bus might have caused an over temperature.	Bus). An Over temperature fault has occurred and the source of the fault is the AC module (inverter high voltage bus).		
33 33	168 175	Electrical Potential (Voltage) Engine Oil Temperature1	17 0	PPE3 Fuse Open. Engine Oil Temp Sensor reading above normal range	Load exceeded rating. Engine Oil Temperature Sensor Shorted High or Open Circuit or faulty sensor system	PPE3 module Fuse is Open.	1600-B6	Eng_Oil_Temp_Raw_Signal
33	175	Engine Oil Temperature 1	1	Engine Oil Temp Sensor reading	Éngine Oil Temperature Sensor Short to		1600-B6	Eng_Oil_Temp_Raw_Signal
33	177	Transmission Oil Temperature	0	below normal range Transmission Oil Temperature Sensor reading above normal range	Ground or faulty sensor system Transmission Oil Temperature Sensor Shorted High or Open Circuit or faulty		1600-B7	Trans_Oil_Temp_Raw_Sign al
33	177	Transmission Oil Temperature	1	Transmission Oil Temperature Sensor reading below normal range	sensor system Transmission Oil Temperature Sensor Short to Ground or faulty sensor system		1600-B7	Trans_Oil_Temp_Raw_Sign al
33	247	Total Engine Hours	9	Engine Total Hours Not Received	The Engine Control Module did send the Total Engine Hours or possible Data Link			Engine_Hours_Byte_1
33	564	Differential Lock State - Central	5	Transfer Case Lock Under Current	failure Current below normal or open circuit	Not available	Not	MATV_Xfer_Case_Lock_Sol
33	564	Differential Lock State - Central	6	Or Open Circuit Transfer Case Lock Relay Over	Current above normal or grounded circuit	Not available	available Not	_Cmd MATV_Xfer_Case_Lock_Sol
33	566			Current	Open Circuit in Power Divider Lock Circuit		available	_Cmd
		Differential Lock State - Central Rear		Power Divider Lock Relay Under Current Or Open Circuit				PDL_Lock_Solenoid_Cmd
33	566	Differential Lock State - Central Rear	6	Power Divider Lock Relay Over Current	Short To Ground in Power Divider Lock Circuit			PDL_Lock_Solenoid_Cmd
33	567	Differential Lock State - Front Axle 1	5	Forward Axle 1 Diff lock air solenoid output undercurrent or open circuit	Current below normal or open circuit	Not available	Not available	Diff_Lock_Fwd_Solenoid_C md, MATV_Diff_Lock_Front_Sol
33	567	Differential Lock State - Front Axle 1	6	Forward Axle 1 Diff lock air solenoid output overcurrent	Current above normal or grounded circuit	Not available	Not available	_Cmd Diff_Lock_Fwd_Solenoid_C md, MATV_Diff_Lock_Front_Sol
33	569	Differential Lock State - Rear Axle 1	5	Forward Rear Diff Lock Relay Under Current Or Open Circuit	Open Circuit in Forward Rear Diff Lock Circuit			_Cmd Diff_Lock_1_Solenoid_Cmd, Diff_Lock_Solenoid_Cmd, Diff_Lock_Rear_Solenoid_C md, MATV_Diff_Lock_Rear_Sol_ Cmd
33	569	Differential Lock State - Rear Axle 1	6	Forward Rear Diff Lock Relay Over Current	Short To Ground in Forward Rear Diff Lock Circuit			Diff_Lock_1_Solenoid_Cmd, Diff_Lock_Solenoid_Cmd, Diff_Lock_Rear_Solenoid_C md, MATV_Diff_Lock_Rear_Sol_
								Cmd
33	570	Differential Lock State - Rear Axle 2	5	Rear Rear Diff Lock Relay Under Current Or Open Circuit	Open Circuit in Rear Rear Diff Lock Circuit			Diff_Lock_2_Solenoid_Cmd
33	570	Differential Lock State - Rear Axle 2	6	Rear Rear Diff Lock Relay Over	Short To Ground in Rear Rear Diff Lock			Diff_Lock_2_Solenoid_Cmd
33	571	Retarder Enable - Brake Assist	2	Current Retarder Enable - Brake Assist	Circuit Data erratic, intermittent or incorrect			Comp_Brake_Switch,
33	576	Switch ASR Off-road Switch	2	On/Off switch failure Traction Disable panel mounted	Data erratic, intermittent or incorrect			Eng_Retarder_Switch Traction_Disable_SW
33	577	ASR "Hill Holder" Switch	2	switch is in an invalid position HSA Disable Switch error	Fault in HSA Disable Switch	Not available	Not	HSA_Disable_Switch
						I TOL AVAIIADIC	available	
33	596	Cruise Control Enable Switch	0	Cruise Control Switch reading above normal range	Shorted High or Open in Cruise Control Switches Circuit		1600-B16	Cruise_Switch_Raw_Signal
33	596	Cruise Control Enable Switch	1	Cruise Control Switch reading below normal range			1600-B16	Cruise_Switch_Raw_Signal

33	596	Cruise Control Enable Switch	2	Cruise Control Enable Switch error	Data erratic, intermittent or incorrect			BUS_Cruise_On_Switch, Cruise_Switch_Raw_Signal
33	597	Brake Switch	0		Brake Switch Shorted High or Open			Brake_Analog_Switch_Raw_
33	597	Brake Switch	1	range Brake Switch reading below normal	Circuit or faulty sensor system Brake Switch Short To Ground or faulty		E15 1602-E14 8	Signal Brake_Analog_Switch_Raw_
33	597	Brake Switch	2	range Brake Switch Inputs Do Not Match	sensor system High resistance in the wire harness,		E15 1602-E14 8	Signal Brake_Switch_Signal
					defective brake switch, or a defective Body Controller or defective ABS controller or Datalink		E15	
33	597	Brake Switch	7	Brake Switch Stuck Open Or Closed	Defective Brake Switch			Brake_Switch_Signal
33	597	Brake Switch	14	Brake switch is stuck in the open or closed position	Defective brake switch	Occurs if the wheel based vehicle speed increases from 0kph to 72kph two times without the brake switch opening or decreases from 72kph to 0kph two times without the brake switch closing.	E15	Brake_Switch_Signal
33	597	Brake Switch	14	Brake switch inputs do not match	Occurs if there is a high resistance in the wire harness, defective brake switch or a defective Electronic Systems Controller (ESC).	Occurs if the comparison of the		Brake_Switch_Signal
33	598	Clutch Switch	0	Clutch Switch reading above normal	Upper Clutch Switch Shorted High or		1600-B4	Clutch_Switch_Raw_Signal
33	598	Clutch Switch	1	range Clutch Switch reading below normal	Open Circuit or faulty sensor system Upper Clutch Switch Short To Ground or		1600-B4	Clutch_Switch_Raw_Signal
33	598	Clutch Switch	7	range Clutch Switch Stuck	faulty sensor system Defective Upper Clutch Switch		1600-B4	Clutch_Switch_Raw_Signal
33	598	Clutch Switch	14	Upper Clutch Switch stuck in the open or closed position	Defective upper clutch switch	Occurs if the vehicle speed increases from 0kph to 72kph without a change in state of the clutch switch.		Clutch_Switch_Raw_Signal
33	599	Cruise Control Set Switch	2		Data erratic, intermittent or incorrect			BUS_Cruise_Set_Switch
33	604	Transmission Neutral Switch	2	switch error Transmission Auto Neutral Enable D	ata erratic, intermittent or incorrect			Auto_Neutl_Switch
33	608	J1587/1708 Datalink	9	Switch Error J1708 (J1587) Switch Data Link Lost	Faulty BC or Switch Data Link			
33	611	Virtual Fuse	3	Unexpected Connection	A connection has been made to an output			
00	0	Tittaa Taoo	Ü	опохронов общовного	that has no functionality assigned.			
33	614	Gauge Cluster Checksum	14	Global Broadcast Messages, J1939, proprietary, public bus (drivetrain) (address 255) has an unknown checksum fault.				
33	623	Red Stop Lamp	4	Red Stop Lamp	Output shorted to ground			
33 33	623 623	Red Stop Lamp Red Stop Lamp	5 6	Red Stop Lamp Red Stop Lamp	Output open circuit Output overheat			
33	624	Amber Warning Lamp	4	Amber Warning Lamp	Output shorted to ground			
33	624	Amber Warning Lamp	5	Amber Warning Lamp	Output open circuit			
33 33	624 625	Amber Warning Lamp Switch and Door Pod	6 14	Amber Warning Lamp Global Broadcast Messages, J1708, proprietary messages (escape PID) (address 255) has an unknown fault.	Output overheat		1600-29, 1600-30	
33	626	Engine Start Enable Device 1	5	Fuel Heater Relay Under Current Or Open Circuit	Open Circuit in Fuel Heater Circuit			Fuel_Heater_Req
33	626	Engine Start Enable Device 1	6	Fuel Heater Relay Over Current	Short To Ground in Fuel Heater Circuit			Fuel_Heater_Req
33	639	Drivetrain Message Timeout	9	J1939 Drivetrain Data Link Lost	Faulty BC or Drivetrain Data Link			J1939DT_Root_Comm_Fail
33	639	Drivetrain Message Timeout	14	Failed to receive PGN 65535.				
33	639	Drivetrain Message Timeout	14	Communication fault (from PP3 to ESC)	Datalink interrupted between ESC and Powerpack.	Check for open circuit or short in J1939 datalink.		
33	685	Disengage Differential Lock Request	2		Data erratic, intermittent or incorrect	Not available	Not	Diff_Lock_1_Switch
		Front Axle 1			•		available	
33	687	Disengage Differential Lock Request Rear Axle 1			Faulty Switch Actuator or Microswitch for Forward Rear Diff Lock Switch			Diff_Lock_Switch, Diff_Lock_1_Switch
33	688	Disengage Differential Lock Request Rear Axle 2		Rear Rear Diff Lock Switch Error	Faulty Switch Actuator or Microswitch for Rear Rear Diff Lock Switch			Diff_Lock_2_Switch
33	691	Disengage Differential Lock Request Central Rear	2	Power Divider Lock Switch Error	Faulty Switch Actuator or Microswitch for Power Divider Lock Switch			PDL_Lock_Switch
33	829	Left Fuel Level Sensor	1	Fuel Tank 1 Sensor reading below normal range	Fuel Tank 1 Sensor Short To Ground or faulty sensor system		1600-B8	Fuel_Sensor1_Raw_Signal
33	830	Right Fuel Level Sensor	0	Fuel Tank 2 Sensor reading above normal range	Fuel Tank 2 Sensor Shorted High or Open Circuit or faulty sensor system		1600-B9	Fuel_Sensor2_Raw_Signal
33	830	Right Fuel Level Sensor	1	Fuel Tank 2 Sensor reading below normal range	Fuel Tank 2 Sensor Short To Ground or faulty sensor system		1600-B9	Fuel_Sensor2_Raw_Signal
33	871	Refrigerant Charge	1	AC - Service now Very low charge	Data valid but below normal operational range - most severe level			BC_RCD_Temp_In_Raw_Si gnal, BC_RCD_Temp_Out_Raw_ Signal
33	871	Refrigerant Charge	18	AC - Service now low charge	Data valid but below normal operating range - moderately severe level			BC_RCD_Temp_In_Raw_Si gnal, BC_RCD_Temp_Out_Raw_ Signal
33	876	Compressor Clutch Circuit	5	HVAC Compressor Clutch Engagement Undercurrent	Open in HVAC AC Compressor Clutch Circuit		1603-C	BC_RCD_AC_Comp_Clutch Cmd
33	876	Compressor Clutch Circuit	6	HVAC Compressor Clutch Engagement Overcurrent	Short to Ground or Overload in HVAC AC Compressor Clutch Circuit		1603-C	BC_RCD_AC_Comp_Clutch Cmd
33	878	Clearance, Side Marker, Identification Lamp Circuit (Black)	5	Trailer Marker Lamp Relay Under Current Or Open Circuit	Open Circuit in Trailer Marker Lamp Circuit		1601-F14	_cmd Trailer_Marker_Light
33	878	Clearance, Side Marker,	6	Trailer Marker Lamp Relay Over	Short To Ground in Trailer Marker Lamp		1601-F14	Trailer_Marker_Light
33	879	Identification Lamp Circuit (Black) Left Turn Lamp Circuit (Yellow)	5	Current Trailer Left Turn Lamp Relay Under Current Or Open Circuit	Circuit Open Circuit in Trailer Left Turn Lamp Circuit		1601-F13	Trailer_Left_Light
33	879	Left Turn Lamp Circuit (Yellow)	6	Trailer Left Turn Lamp Relay Over	Circuit Short To Ground in Trailer Left Turn		1601-F13	Trailer_Left_Light
33	880	Stop Lamp Circuit (Red)	5	Current Stop Lights Relay Under Current Or	Lamp Circuit Current below normal or open circuit		1601-E5	Stop_Relay_Cmd
33	880	Stop Lamp Circuit (Red)	6	Open Circuit Stop Lights Relay Overcurrent	Current above normal or grounded circuit		1601-E5	Stop_Relay_Cmd

33	881	Right Turn Lamp Circuit (Green)	5	Trailer Right Turn Lamp Relay Under Current Or Open Circuit	Open Circuit in Trailer Right Turn Lamp Circuit		1601-E15	Trailer_Right_Light
33	881	Right Turn Lamp Circuit (Green)	6		Short To Ground in Trailer Right Turn Lamp Circuit		1601-E15	Trailer_Right_Light
33	882		5	Trailer License Plate Lamp Relay	Open Circuit in Trailer License Plate		1601-E10	Trailer_Plate_Light
33	882		6	Under Current Or Open Circuit Trailer License Plate Lamp Relay	Lamp Circuit Short To Ground in Trailer License Plate		1601-E10	Trailer_Plate_Light
33	973	Circuit (Brown) Engine Retarder Selection	2	Over Current Engine Retarder Level Selection Switch Error	Lamp Circuit Faulty Switch Actuator or Microswitch for Engine Retarder Level Select Switch			Comp_Brake_3_Switch
33 33	980 986		2	Engine PTO Switch Error Engine Fan Switch Error	Data erratic, intermittent or incorrect Faulty Switch Actuator or Microswitch for			PTO_Enable_Switch Fan_Ovrd_Switch
33	1043	Internal Sensor Voltage Supply	0	Bias Voltage reading above normal	Engine Fan Switch Bias Voltage Circuit Shorted High			Bias_Voltage_Raw_Signal
33	1043	Internal Sensor Voltage Supply	1	range Bias Voltage reading below normal	Short To Ground in Bias Voltage Circuit			Bias_Voltage_Raw_Signal
33	1079	Vref Sensor Supply Voltage	0	range 5V Sensor Supply Above Normal	Data valid but above normal operational			Switched_5V_Sense_Raw_
33	1079	Vref Sensor Supply Voltage	1	Range 5V Sensor Supply Below Normal	range - most severe level Data valid but below normal operational			Signal Switched_5V_Sense_Raw_
33	1081	Wait to Start Lamp	4	Range Wait to Start Lamp	range - most severe level Output shorted to ground			Signal
33 33			6	Wait to Start Lamp	Output overheat		4000 DO	D
	1087	Service Brake Air Pressure Circuit #1		Primary Air Tank Sensor reading above normal range	Primary Air Tank Sensor Shorted High or faulty sensor system		1600-B2	Primary_Air_Sensor_Raw_Si gnal
33	1087	Service Brake Air Pressure Circuit #1		Primary Air Tank Sensor reading below normal range	Primary Air Tank Sensor Short To Ground or Open Circuit or faulty sensor system		1600-B2	Primary_Air_Sensor_Raw_Si gnal
33	1088	Service Brake Air Pressure Circuit #2	0	Secondary Air Tank Sensor reading above normal range	Secondary Air Tank Sensor Shorted High or faulty sensor system		1600-B3	Secondary_Air_Sensor_Raw _Signal
33	1088	Service Brake Air Pressure Circuit #2	1	Secondary Air Tank Sensor reading below normal range	Secondary Air Tank Sensor Short To Ground or Open Circuit or faulty sensor system		1600-B3	Secondary_Air_Sensor_Raw _Signal
33	1089	Auxiliary Equipment Supply Pressure	0	Auxiliary Air Tank Sensor Reading Above Normal	Short to High in Air Pressure Auxiliary Sensor Circuit		1600-B2	Auxiliary_Air_Sensor_Raw_S ignal
33	1089	Auxiliary Equipment SupplyPressure	1		Short to Ground or Open in Air Pressure Auxiliary Sensor Circuit		1600-B2	Auxiliary_Air_Sensor_Raw_S ignal
33	1231	Body Address Claim/Message Timeout	9		Faulty BC or Bodybuilder Data Link			J1939DT_Rcv_61441_xxx_0
33	1231		14	Global Broadcast Messages, J1939, proprietary, private bus (body builder) (address 255) has an unknown fault.				
33			2	ATC OFF-ROAD Switch Error	Faulty Switch Actuator or Micro switch for ATC OFF-ROAD Switch			ATC_Off_Road_Enable
33 33			4 6	Change Oil Lamp Change Oil Lamp	Output shorted to ground Output overheat			
33		Fuel Filter (suction side) Differential Pressure			Heavy build up of particulate matter in the fuel filter preventing fuel flow.	The detection has indicated a value of 51 on the fuel filter signal which indicates a severely restricted or plugged condition.		Fuel_Filter_Plugged_Ind_C md
33	1547	A/C Evaporator Temperature	0	HVAC Inlet Temp Sensor reading above normal range	HVAC Refrigerant Inlet Temperature Sensor Shorted High or Open Circuit or faulty sensor system	F535	1600-B5	BC_RCD_Temp_In_Raw_Si gnal
33	1547	A/C Evaporator Temperature	1	HVAC Inlet Temp Sensor reading below normal range	HVAC Refrigerant Inlet Temperature Sensor Short To Ground or faulty sensor system		1600-B5	BC_RCD_Temp_In_Raw_Si gnal
33	1548	HVAC Duct Temperature	0	HVAC Outlet Temp Sensor reading above normal range	HVAC Refrigerant Outlet Temperature Sensor Shorted High or Open Circuit or faulty sensor system		1600-B13	BC_RCD_Temp_Out_Raw_ Signal
33	1548	HVAC Duct Temperature	1	HVAC Outlet Temp Sensor reading below normal range	HVAC Refrigerant Outlet Temperature Sensor Short To Ground or faulty sensor system		1600-B13	BC_RCD_Temp_Out_Raw_ Signal
33	1552	Operator Input device for Cab Climate Control	2	HVAC Control Head Temperature Mix DM1	HVAC Motor in Wrong Position or Jammed			RCD_HVAC_Ctrl_Head_Dia g_Signal
33	1553		0	HVAC Blower Speed Analog Input reading above normal range	HVAC Blower Speed Control Shorted High or Open Circuit or faulty sensor		1600-B15	Front_AC_Blower_Speed_R aw
33	1553		1		system HVAC Blower Speed Control Short To		1600-B15	Front_AC_Blower_Speed_R
33	1660	Adjustment Engine Automatic Start Alarm	5		Ground or faulty sensor system Open Circuit in Remote Start Alarm			Remote_Start_Alarm_Buzze
33	1660	Engine Automatic Start Alarm	6		Buzzer Circuit Short To Ground in Remote Start Alarm			r_Relay Remote_Start_Alarm_Buzze
33	1709	Transmission Controller Power Relay	5	output Under Current Or Open	Buzzer Circuit Current below normal or open circuit		1601-E3	r_Relay PRNDL_Trans_Pseudo_Ignit ion_Cmd
33	1709		6		Current above normal or grounded circuit		1601-E3	PRNDL_Trans_Pseudo_Ignit
33	1716	Relay Retarder Selection, non-engine	2	output overcurrent Transmission Retarder Level	Data erratic, intermittent or incorrect			ion_Cmd Retarder_High_Switch
33	1741	Level Control Mode	0	Selection Switch Failure Mode Selection Switch Damaged or	Data Valid but Above Normal Range,	Not available	Not	SHCS_Switch_High_Position
33	1741	Level Control Mode	1	Not Connected Possible ECU Malfunction	Most Severe Data Valid, but Below Normal Range,	Not available	available Not	SHCS_Switch_High_Position
33	1747	Kneeling Control Mode Request	2	Suspension Dump Switch Error	Most Severe Faulty Switch Actuator or Microswitch for		available	Susp_Dump_Dump_Switch
33		-	5	Suspension Dump Solenoid B Relay Under Current Or Open Circuit	Suspension Dump Switch			Susp_Dump_Solenoid_B_C md
33	1755	Lowering Control Mode Rear Axle	6	·	Short To Ground in Suspension Dump			Susp_Dump_Solenoid_B_C
33		-	5	Over Current Suspension Dump Solenoid A Relay Under Current Or Open Circuit	Solenoid B Circuit			md Susp_Dump_Solenoid_A_C md
33	1756	Lifting Control Mode Rear Axle	6	·	Short To Ground in Suspension Dump			Susp_Dump_Solenoid_A_C
33	1820		5	Over Current Wheelchair Lift Solenoid Relay	Solenoid A Circuit Current below normal or open circuit		1601-E1	md BUS_WheelChair_Lift_Solen
33	1820	•	6	Under Current Or Open Circuit	Current above normal or grounded circuit		1601-E1	oid_Cmd BUS_WheelChair_Lift_Solen oid_Cmd

33	1837	Convoy Driving Lamp Select	6	BO Drive Overcurrent	Current above normal or grounded circuit Not available	1603-K	BO_Drive_Cmd
33	1840	Rear Black Out Marker Select	6	BO Marker Overcurrent	Current above normal or grounded circuit Not available	1603-F	BO_Marker_Cmd
33	1841	Black Out Brake/Stop Lamp Select	6	BO Stop Overcurrent	Current above normal or grounded circuit Not available	1603-J	BO_Stop_Cmd
33	2000	Source Address 0	9	ECM Data Link Comm. Failure	Faulty ECM or Drivetrain Data Link		J1939DT_Rcv_65265_xxx_0 00_Timer
33	2000	Source Address 0	19	PTC1 (PGN 64892) not Received from Engine	ECM not Programmed for Aftertreatment, Faulty ECM, or Faulty Drivetrain Data Link		
33	2003	Source Address 3	9	TCM Data Link Comm. Failure	Faulty TCM or Drivetrain Data Link		J1939DT_Rcv_61442_xxx_0 03_Timer
33	2011	Source Address 11	9	ABS Data Link Comm. Failure	Faulty ABS Module or Drivetrain Data Link		J1939DT_Rcv_61441_xxx_0 11_Timer
33	2023	Gauge Cluster	9	EGC Data Link Comm. Failure	Faulty EGC or Drivetrain Data Link		J1939DT_Rcv_61184_033_ 023_Timer
33	2040	Auxiliary Switch Pack #1	9	AGSP #1 Data Link Comm. Failure	Abnormal update rate		J1939DT_Rcv_61184_033_ 040 Timer
33	2058	Source Address 58	9	Rear HVAC Data Link Communication Failure	Faulty Rear HVAC or Body Builder Data Link		J1939BB_Rcv_61217_058_ 033_Timer
33	2058	Source Address 58	14	Rear HVAC Data Link Communication Failure	Faulty Rear HVAC or Body Builder Data Link		J1939BB_Rcv_61217_058_ 033_Timer
33	2062	Source Address 62	9		Faulty Meritor Wabco Brake Controller Not available Module Data Link	Not available	J1939DT_Rcv_65103_xxx_0 62_Timer
33	2225	Remote Power Module #1 Fuse	9	RPM #1 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2 25 Timer
33	2225	Remote Power Module #1 Fuse	14	Remote Power Module #1 (address 225) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		J1939BB_Rcv_65313_xxx_2 25_Timer
33	2226	Remote Power Module #2 Fuse	9	RPM #2 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2 26 Timer
33	2226	Remote Power Module #2 Fuse	14	Remote Power Module #2 (address 226) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		J1939BB_Rcv_65313_xxx_2 26_Timer
33	2227	Source Address227	9	RPM #3 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2 27_Timer
33	2227	Source Address227	14	Remote Power Module #3 (address 227) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		J1939BB_Rcv_65313_xxx_2 27_Timer
33	2228	Remote Power Module #4 Fuse	9	RPM #4 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2 28_Timer
33	2228	Remote Power Module #4 Fuse	14	Remote Power Module #4 (address 228) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		J1939BB_Rcv_65313_xxx_2 28_Timer
33	2229	Source Address229	9	RPM #5 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2
33	2229	Source Address229	14	Remote Power Module #5 (address 229) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		29_Timer J1939BB_Rcv_65313_xxx_2 29_Timer
33	2230	Source Address230	9	RPM #6 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2 30_Timer
33	2230	Source Address230	14	Remote Power Module #6 (address 230) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		J1939BB_Rcv_65313_xxx_2 30_Timer
33	2231	Remote Power Module #7 Fuse	9	RPM #7 Data Link Comm. Failure	Abnormal update rate		J1939BB_Rcv_65313_xxx_2 31 Timer
33	2231	Remote Power Module #7 Fuse	14	Remote Power Module #7 (address 231) has an address problem.	Drivetrain J1939 data link, an improperly addressed RPM module, or a missing RPM module that the BC is expecting		J1939BB_Rcv_65313_xxx_2 31_Timer
33	2233	Source Address 233	9	Rear Driver Door Pod Data Link	Faulty Rear Driver Door Pod Module or		Door_Pod_Rear1_Status_M
33	2234	Remote Air Solenoid #2 Fuse	9		Switch Data Link Faulty Rear Passenger Door Pod Module		sg_Timer Door_Pod_Rear2_Status_M
33	2236	Source Address 236	9	Comm. Failure Driver Door Pod Data Link Comm.	or Switch Data Link Faulty Driver Door Pod Module or Switch		sg_Timer Door_Pod_Master_Status_M
33	2237	Source Address 237	9	Failure Passenger Door Pod Data Link	Data Link Faulty Passenger Door Pod Module or		sg_Timer Door_Pod_Front_Status_Ms
33	2239	Source Address 239	9	Comm. Failure HCM Data Link Comm. Failure	Switch Data Link Faulty HCM or Drivetrain Data Link		g_Timer J1939DT_Rcv_65241_xxx_0
33	2239	Source Address 239	14	HCM Address Conflict	Drivetrain J1939 data link, an improperly addressed HCM, or a missing HCM that the BC is expecting		03_Timer J1939DT_Rcv_65241_xxx_0 03_Timer
33	2247	Source Address 247	9	Communication fault from PP3 to BC.	Private J1939 datalink problem (exceeded BC has failed to receive heartbeat bandwidth). message from PowerPackE module.		
33	2361	Tractor Rear High Mounted Work Lights Command	2	Work Light Switch Error	Faulty Switch Actuator or Microswitch for Work Light Switch		Work_Light_On_Switch
33	2362	Tractor Rear High Mounted Work Lights	5	Work Light Undercurrent	Open in Work Light Circuit	1603-G	Work_Light_Cmd
33	2362	Tractor Rear High Mounted Work Lights	6	Work Light Overcurrent	Short To Ground or Overload in Work Light Circuit	1603-G	Work_Light_Cmd
33 33	2368 2368	Left Turn Signal Lights Left Turn Signal Lights	5 6	Left Front Turn Lamp Undercurrent Left Front Turn Lamp Overcurrent	Open in Left Front Turn Signal Circuit Short To Ground or Overload in Left Front Turn Signal Circuit	1603-B 1603-B	LT_FT_Turn_Cmd LT_FT_Turn_Cmd
33	2370	Right Turn Signal Lights	5	Right Front Turn Lamp Undercurrent	Open in Right Front Turn Signal Circuit	1603-A	RT_FT_Turn_Cmd
33	2370	Right Turn Signal Lights	6	Right Front Turn Lamp Overcurrent	Short To Ground or Overload in Right Front Turn Signal Circuit	1603-A	RT_FT_Turn_Cmd
33 33	2372 2372	Left Stop Light Left Stop Light	5 6	Left Rear Turn Lamp Undercurrent Left Rear Turn Lamp Overcurrent	Open in Left Rear Turn Signal Circuit Short To Ground or Overload in Left Rear Turn Signal Circuit	1603-D 1603-D	LT_RR_Turn_Cmd LT_RR_Turn_Cmd
33	2374	Right Stop Light	5	Right Rear Turn Lamp Undercurrent	Open in Right Rear Turn Signal Circuit	1603-M	RT_RR_Turn_Cmd
33	2374	Right Stop Light	6	Right Rear Turn Lamp Overcurrent	Short To Ground or Overload in Right Rear Turn Signal Circuit	1603-M	RT_RR_Turn_Cmd

33 33	2378 2378	Tractor Marker Light Tractor Marker Light	5 6	Park Lights Undercurrent Park Lights Overcurrent	Open in Park Lights Circuit Short To Ground or Overload in Park Lights Circuit		1604-G 1604-G	Park_Light_Cmd Park_Light_Cmd
33	2387	Tractor Front Fog Lights Command	2	Fog Light Switch Error	Faulty Switch Actuator or Microswitch for Fog Lights Switch			Fog_Light_Switch, Front_Fog_Light_Switch
33	2388	Fog Light 1 command	5	Fog Lights Relay Under Current Or Open Circuit	Current below normal or open circuit		1603-F	Fog_Light_Cmd
33	2388	Fog Light 1 command	6	Fog Lights Relay Overcurrent	Current above normal or grounded circuit		1603-F	Fog_Light_Cmd
33	2389	Rear Fog Light Command	2	Rear Fog Light Switch error	Faulty Switch Actuator or Microswitch for		Not	Rear_Fog_Light_Switch_On
33	2390	Rear Fog Lights	5			Not available	available Not	Rear_Fog_Light_Cmd
33	2390	Rear Fog Lights	6	Or Open Circuit Rear Fog Lights Relay Overcurrent		Not available	available Not	Rear_Fog_Light_Cmd
33	2392	Back Up Light and Alarm Horn	5		Driver Current below normal or open circuit		available 1601-E4	Ext_Lamp_Test_Reverse_L
33	2392	Back Up Light and Alarm Horn	6	Or Open Circuit Reverse Lights Relay Overcurrent	Current above normal or grounded circuit		1601-E4	amp Ext_Lamp_Test_Reverse_L
33	2404	Running Light	5	Running Light Control relay Under	Open Circuit in Running Lights Circuit		1601-F16	amp Skirt_Light_Req
33	2404	Running Light	6	Current Or Open Circuit Running Light Control relay Over	Short To Ground in Running Lights Circuit		1601-F16	Skirt_Light_Req
33	2609	Cab A/C Refrigerant Compressor	0	Current HVAC Pressure Sensor reading	HVAC Pressure Sensor Shorted High or		1600-B12	BC_RCD_Pressure_Raw_Si
33	2609	Outlet Pressure Cab A/C Refrigerant Compressor	1	above normal range HVAC Pressure Sensor reading	faulty sensor system HVAC Pressure Short To Ground or Open		1600-B12	gnal BC_RCD_Pressure_Raw_Si
33	2609	Outlet Pressure Cab A/C Refrigerant Compressor	7	below normal range AC - Service Now. Fan	Circuit or faulty sensor system At the current operating ambient			gnal BC_RCD_Pressure_Raw_Si
		Outlet Pressure		Problem/Clogged Pipe	temperature the engine fan isn't working, one of the AC lines has become plugged or the system is over-charged. The compressor is shut off to prevent damage.			gnal
33	2609	Cab A/C Refrigerant Compressor Outlet Pressure	16	HVAC High Pressure Protection	HVAC Head Pressure exceeded 480 psi. Compressor shut off until next key cycle for system protection			
33	2636	Windshield Wiper Motor ON/OFF	5	Wiper On/Off Relay Under Current Or Open Circuit	Open Circuit in Wiper On/Off Circuit		1601-E7	Wiper_Low_Speed_Relay_C md
33	2636	Windshield Wiper Motor ON/OFF	6	Wiper On/Off Relay Over Current	Short To Ground in Wiper On/Off Circuit		1601-E7	Wiper_Low_Speed_Relay_C md
33	2637	Windshield Wiper Motor Speed	5	Wiper High/Low Relay Under Current Or Open Circuit	Open Circuit in Wiper High/Low Circuit		1601-E6	Wiper_High_Speed_Relay_ Cmd
33	2637	Windshield Wiper Motor Speed	6	Wiper High/Low Relay Over Current	Short To Ground in Wiper High/Low Circuit		1601-E6	Wiper_High_Speed_Relay_ Cmd
33 33	2641 2641	Horn Horn	5 6	Electric Horn Undercurrent Electric Horn Overcurrent	Open in Electric Horn Circuit Short To Ground or Overload in City Horn		1603-E 1603-E	Elec_City_Horn_Cmd
33			5		Circuit			Elec_City_Horn_Cmd
33	2642 2642	Mirror Heat 1	6	Left Mirror Heat Undercurrent Left Mirror Heat Overcurrent	Open in Left Mirror Heat Circuit Short to Ground or Overload in Left Mirror Heat Circuit		1603-H 1603-H	Left_Mirror_Heat_Cmd Left_Mirror_Heat_Cmd
33 33	2653 2653		5 6	Left Low Beam Under Current Left Low Beam Short To Ground	Open in Left Low Beam Circuit Short To Ground or Overload in Left Low Beam Circuit		1604-B 1604-B	Left_Lowbeam_Cmd Left_Lowbeam_Cmd
33 33	2655 2655		5 6	Right Low Beam Open Circuit Right Low Beam Short To Ground	Open in Right Low Beam Circuit Short to Ground or Overload in Right Low Beam Circuit		1604-H 1604-H	Right_Lowbeam_Cmd Right_Lowbeam_Cmd
33	2796	Transfer Case Selector Switch	2	Front Axle Switch Error	Data erratic, intermittent or incorrect			Xfer_Case_Fwd_Axle_Eng_ Switch
33	2819	Park Interlock Error	5	Park Position Interlock Solenoid Output is Under Current Or Open	Current below normal or open circuit		1601-E8	Park_Pos_Unlock_Solenoid _Cmd
33	2819	Park Interlock Error	6	Circuit. Park Position Interlock Solenoid	Current above normal or grounded circuit		1601-E8	Park_Pos_Unlock_Solenoid
33	3313		5	Output is overcurrent. Fifth Wheel Jaw Unlock Solenoid 1	Open Circuit or Defective Solenoid			_Cmd
		Indicator		output is Under Current Or Open Circuit				Fifth_Wheel_Jaw_Unlock_S olenoid_Cmd
33	3313	Fifth Wheel Lock Couple Status Indicator	6	Fifth Wheel Jaw Unlock Solenoid 1 output is Overcurrent	Short To Ground or Defective Solenoid			Fifth_Wheel_Jaw_Unlock_S olenoid_Cmd
33	3314	Fifth Wheel Release Control	2	is invalid	Data erratic, intermittent or incorrect			Fifth_Wheel_Jaw_Unlock_S witch
33	3316	Fifth Wheel Slider Lock Indicator	5	Fifth Wheel Slide Under Current Or Open Circuit	Open Circuit in Fifth Wheel Slide Circuit			Fifth_Wheel_Slide_Cmd
33	3316	Fifth Wheel Slider Lock Indicator	6	Fifth Wheel Slide Over Current	Short To Ground in Fifth Wheel Slide Circuit			Fifth_Wheel_Slide_Cmd
33	3412		7	Driver Door Lock Motor Failure	Driver Door Pod Module Has Shorted, Opened, or Jammed Solenoid			
33	3415	Lock Status of Door 2	7	Passenger Door Lock Motor Failure	Passenger Door Pod Module Has Shorted, Opened, or Jammed Solenoid			
33	3418	Lock Status of Door 3	7	Rear Driver Door Lock Motor failure	Rear Driver Door Pod Module Has Shorted, Opened, or Jammed Solenoid			
33	3421	Lock Status of Door 4	7	Rear Passenger Door Lock Motor failure	Rear Passenger Door Pod Module Has Shorted, Opened, or Jammed Solenoid			
33	3452	Enable Switch - Transmission input shaft PTO 1	2	Transmission PTO A Switch Error	Faulty Switch Actuator or Microswitch for Transmission PTO A Switch			PTOa_On_Switch
33	3452	Enable Switch - Transmission input shaft PTO 1	2	PTO Engagement Switch Error	Faulty Switch Actuator or Microswitch for Transmission PTO A Switch			TEM_PTO_Engagement_S witch On
33	3453	Enable Switch - Transmission input shaft PTO 2	2	Transmission PTO B Switch Error	Faulty Switch Actuator or Microswitch for Transmission PTO B Switch			PTOb_On_Switch
33	3455	Enable Switch - Transfer case output shaft PTO	2	Transfer Case Switch Error	Data erratic, intermittent or incorrect			Transfer_Case_Blower_Swit
33	3455	Enable Switch - Transfer case output shaft PTO	2	Transfer Case PTO Switch Error	Data erratic, intermittent or incorrect			Xfer_Case_PTO_Eng_Switc
33	3456	Engagement Consent - Transmission input shaft PTO 1	5	Transmission PTO A Solenoid Relay Under Current Or Open Circuit	Open Circuit in Transmission PTO A Solenoid Circuit			PTO1_Air_Solenoid_Cmd,P TOa_Air_Solenoid_Cmd
33	3456	Engagement Consent -	6		Short To Ground in Transmission PTO A			PTO1_Air_Solenoid_Cmd,P
33	3457	Transmission input shaft PTO 1 Engagement Consent - Transmission input shaft PTO 2	5		Solenoid Circuit Open Circuit in Transmission PTO B Solenoid Circuit			TOa_Air_Solenoid_Cmd PTOb_Air_Solenoid_Cmd
33	3457	Transmission input shaft PTO 2 Engagement Consent - Transmission input shaft PTO 2	6	Under Current Or Open Circuit Transmission PTO B Solenoid Relay Over Current	Solenoid Circuit Short To Ground in Transmission PTO B Solenoid Circuit			PTOb_Air_Solenoid_Cmd
				J. Ganon				

33	3461	Engagement Status - Transmission input shaft PTO 2	5	PTO Air Solenoid Under Current Or Open Circuit	Current below normal or open circuit		TEM_PTO_Air_Solenoid_C md
33	3461	Engagement Status - Transmission input shaft PTO 2	6	PTO Air Solenoid Overcurrent	Current above normal or grounded circuit		TEM_PTO_Air_Solenoid_C md
33	3695	Regen Inhibit Switch Indicator	2	Regen Inhibit Switch Error	Faulty Switch Actuator or Microswitch for Regen Inhibit Switch		
33	3696	Parked Regen Switch Indicator	5	Open Circuit in Regen Inhibit Switch Indicator Circuit.	Open Circuit in the Regen Inhibit Switch Indicator Circuit.		Regen_Switch_Ind_Cmd
33	3696	Parked Regen Switch Indicator	6	Over current for Parked Regen Switch Indicator	Over current or Short to Battery for the Parked Regen Switch Indicator.		Regen_Switch_Ind_Cmd
33	3696	Parked Regen Switch Indicator	2	Parked Regen Switch Error	Faulty Switch Actuator or Microswitch for Parked Regen Switch		Regen_Switch_On
33 33	3697 3697	Particulate Trap Lamp Command Particulate Trap Lamp Command	5	Particulate Trap Lamp Relay Under Current Or Open Circuit Particulate Trap Lamp Relay Over	Open Circuit in Particulate Trap Lamp Circuit Short to Ground in Particulate Trap Lamp		Particulate_Trap_Ind_Cmd
33	3698	Exhaust System High Temperature		Current	Circuit Open Circuit in Exhaust System High		Particulate_Trap_Ind_Cmd Exhaust_High_Temp_Ind_C
33	3030	Lamp Command	5	Lamp Command Under Current Or Open Circuit	Temperature Circuit		md
33	3698	Exhaust System High Temperature Lamp Command	6	Exhaust System High Temperature Lamp Command Over Current	Short to Ground in Exhaust System High Temperature Circuit		Exhaust_High_Temp_Ind_C md
33 33	3950 3950	Air Horn Air Horn	5 6	Air Horn Undercurrent Air Horn Overcurrent	Open in Air Horn Circuit Short To Ground or Overload in Air Horn	1602-E12 1602-E12	Air_Horn_Cmd Air_Horn_Cmd
33	3952	Air Shield Light	6	Air Shield Lighting Overcurrent	Circuit Short To Ground or Overload in Air Shield	1604-F	Air_Shield_Lights_Cmd
33	3957	Auxiliary Transmission Constant	5	Auxiliary Transmission Solenoid B	Light Circuit Current below normal or open circuit		Aux_Xmsn_Solenoid_B_Cm
		Supply Actuator		(Constant Supply) output is Under Current Or Open Circuit.			d
33	3957	Auxiliary Transmission Constant Supply Actuator	6	Auxiliary Transmission Solenoid B (Constant Supply) output is overcurrent.	Current above normal or grounded circuit		Aux_Xmsn_Solenoid_B_Cm d
33	3958	Auxiliary Transmission High Range Actuator	5	Auxiliary Transmission Solenoid C (High) Output is Under Current Or	Current below normal or open circuit		Aux_Xmsn_Solenoid_C_Cm d
33	3958	Auxiliary Transmission High Range	6	Open Circuit. Auxiliary Transmission Solenoid C	Current above normal or grounded circuit		Aux_Xmsn_Solenoid_C_Cm
33	3959	Actuator Auxiliary Transmission Neutral	5	(High) output is overcurrent. Auxiliary Transmission Solenoid A	Current below normal or open circuit		d Aux_Xmsn_Solenoid_A_Cm
22	2050	Actuator		(Neutral) output is Under Current Or Open Circuit.	Connect about a second or second of size it		d Aux Xmsn Solenoid A Cm
33 33	3959 3960	Auxiliary Transmission Neutral Actuator Auxiliary Transmission Range Switch	6	Auxiliary Transmission Solenoid A (Neutral) output is overcurrent. Auxiliary Transmission High/Low	Current above normal or grounded circuit Data erratic, intermittent or incorrect		d
33	3961		5	Switch state is invalid. TEM Epump Inhibit Relay Under	Current below normal or open circuit	1601-E1	Aux_Xmsn_Hi_Switch TEM_EPump_Inhibit_Relay
33	3961	Auxiliary Pump Inhibit Command Body Equipment Hydraulic Power	6	Current Or Open Circuit TEM Epump Inhibit Relay Over	Current above normal or grounded circuit	1601-E1	TEM_EPump_Inhibit_Relay
33	3962	Auxiliary Pump Inhibit Command Bus Amber Signal Light 1	5	Current	Current below normal or open circuit	1603-C	BUS_LF_Amber_PWL_Cmd
33	3962	Bus Amber Signal Light 1	6		Current above normal or grounded circuit	1603-C	BUS_LF_Amber_PWL_Cmd
33	3963	Bus Amber Signal Light 2	5	Right Front Amber PWL	Current below normal or open circuit	1604-J	BUS_RF_Amber_PWL_Cm
33	3963	Bus Amber Signal Light 2	6	Undercurrent	Current above normal or grounded circuit	1604-J	d BUS_RF_Amber_PWL_Cm
33	3964	Bus Amber Signal Light 3	5		Current below normal or open circuit	1603-G	d BUS_LR_Amber_PWL_Cm
33	3964	Bus Amber Signal Light 3	6	Left Rear Amber PWL Overcurrent	Current above normal or grounded circuit	1603-G	d BUS_LR_Amber_PWL_Cm
33	3965	Bus Amber Signal Light 4	5	Right Rear Amber PWL	Current below normal or open circuit	1603-K	d BUS_RR_Amber_PWL_Cm
33	3965	Bus Amber Signal Light 4	6	Undercurrent Right Rear Amber PWL Overcurrent	Current above normal or grounded circuit	1603-K	d BUS_RR_Amber_PWL_Cm
33	3966	Bus Crossing Gate	5	Crossing Gate output is	Current below normal or open circuit	1602-E12	d BUS_Crossing_Gate_Cmd
33	3966	Bus Crossing Gate	6	undercurrent. Crossing Gate output is overcurrent.	Current above normal or grounded circuit	1602-E12	BUS_Crossing_Gate_Cmd
33	3967	Bus Passenger Door Close Relay	5	Bus Entrance Door Close Relay	Current below normal or open circuit	1601-E9	BUS_Door_Close_Cmd
33	3967	Bus Passenger Door Close Relay	6	Driver Output is Under Current Or Open Circuit Bus Entrance Door Close Relay	Current above normal or grounded circuit	1601-E9	BUS_Door_Close_Cmd
33	3969	Bus Passenger Door Control Switch		Driver Output is overcurrent Bus Entrance Door Steering Wheel	Bus Door Control Switches Circuit Open	1600-B16	BUS PWL And Door Switc
00	0000	2		Switch Input Above Normal Range	or Shorted High	1000 210	h_Raw_Signal
33	3969	Bus Passenger Door Control Switch 2	1	Bus Entrance Door Steering Wheel Switch Input Below Normal Range	Short To Ground in Bus Door Control Switches Circuit	1600-B16	BUS_PWL_And_Door_Switc h_Raw_Signal
33	3970	Bus Passenger Door Open Relay	5	Bus Entrance Door Open Relay Driver Output is Under Current Or Open Circuit	Current below normal or open circuit	1601-E13	BUS_Door_Open_Cmd
33	3970	Bus Passenger Door Open Relay	6	Bus Entrance Door Open Relay Driver Output is overcurrent	Current above normal or grounded circuit	1601-E13	BUS_Door_Open_Cmd
33 33	3971 3971	Bus Red Signal Light 1 Bus Red Signal Light 1	5 6	Left Front Red PWL Undercurrent Left Front Red PWL Overcurrent	Current below normal or open circuit Current above normal or grounded circuit	1603-H 1603-H	BUS_LF_Red_PWL_Cmd BUS_LF_Red_PWL_Cmd
33	3972	Bus Red Signal Light 2	5		Current below normal or open circuit	1603-F	BUS_RF_Red_PWL_Cmd
33	3972	Bus Red Signal Light 2	6	Right Front Red PWL Overcurrent	Current above normal or grounded circuit	1603-F	BUS_RF_Red_PWL_Cmd
33	3973	Bus Red Signal Light 3	5	Left Rear Red PWL Undercurrent	Current below normal or open circuit	1603-J	BUS_LR_Red_PWL_Cmd
33	3973	Bus Red Signal Light 3	6	Left Rear Red PWL Overcurrent	Current above normal or grounded circuit	1603-J	BUS_LR_Red_PWL_Cmd
33 33	3974 3974	Bus Red Signal Light 4 Bus Red Signal Light 4	5 6	Right Rear Red PWL Undercurrent Right Rear Red PWL Overcurrent	Current below normal or open circuit Current above normal or grounded circuit	1603-L 1603-L	BUS_RR_Red_PWL_Cmd BUS_RR_Red_PWL_Cmd
33	3975	Bus Stop Arm	5	Bus Stop Arm Output is Under	Current below normal or open circuit	1601-E2	BUS_Stop_Arm_Cmd
33	3975	Bus Stop Arm	6	Current Or Open Circuit Bus Stop Arm Output is over current	Current above normal or grounded circuit	1601-E2	BUS_Stop_Arm_Cmd
33	3976	Cab Dome Light 1	5	Cab Dome Light Open Circuit	Open in Cab Dome Light Circuit	1604-J	Dome_Light_Cmd

33	3976	Cab Dome Light 1	6	Cab Dome Light Short To Ground	Short To Ground or Overload in Cab Dome Light Circuit	1604-J	Dome_Light_Cmd
33	3977	Cab Dome Light 2	5	Sleeper Dome Light Relay Under Current Or Open Circuit	Open Circuit in Sleeper Dome Light Circuit	1601-F2	Sleeper_Cab_Dome_Light_ Req
33	3977	Cab Dome Light 2	6	Sleeper Dome Light Over Current	Short To Ground in Sleeper Dome Light Circuit	1601-F2	Sleeper_Cab_Dome_Light_ Reg
33	3978	Cab Dome Light 2 Switch	2	Sleeper Dome / Floor Search Light Switch Error	Faulty Switch Actuator or Microswitch for Sleeper Dome / Floor Search Light Switch		Floor_Lights_Cab_Switch
33	3979	Cab Floor Light	5	Floor Lights Relay Under Current Or Open Circuit	Open Circuit in Floor Light Circuit	1601-E5	Floor_Search_Lights_Req
33 33	3979 3981	Cab Floor Light Cab HVAC Mode Control Actuator	6 2	Floor Lights Relay Over Current HVAC Control Head Mode Fault	Short To Ground in Floor Light Circuit HVAC Motor in Wrong Position or	1601-E5	Floor_Search_Lights_Req
33	3982	Cab HVAC Rear Blower Speed Control Switch	2	DM1 HVAC Rear Blower Speed Control Switch Error	Jammed Faulty Switch Actuator or Microswitch for HVAC Rear Blower Speed Control Switch		Rear_HVAC_Blower_UP
33	3983	Cab HVAC Rear Temperature Control Switch	2	Rear HVAC Temperature Control Switch Error	Faulty Switch Actuator or Microswitch for Rear HVAC Temperature Control Switch		Rear_HVAC_Temp_UP
33	3984	Cab HVAC Recirculation Door	2	HVAC Control Head Air Inlet DM1	HVAC Motor in Wrong Position or		
33	3985	Control Actuator Cab HVAC System Controller	9	HVAC Control Head Circuit Failed To Communicate With the Body	Jammed Abnormal update rate		RCD_HVAC_Ctrl_Head_Dia
33	3987	Compression Brake Enable Switch Indicator Lamp	5	Controller	Current below normal or open circuit	1601-E4	g_Signal Comp_Brake_LED_Ind_Cm
33	3987	Compression Brake Enable Switch	6	•	Current above normal or grounded circuit	1601-E4	Comp_Brake_LED_Ind_Cm
33	3988	Indicator Lamp Door 1 Control Module	7	current Driver Door Pod Module Failure	Defective Driver Door Pod Module	1001 24	d Door Pod Master MF Sign
33	3989	Door 1 Window Motor	7	Driver Window Motor Failure	Driver Door Pod Module Window Motor		al Door_Pod_Master_WMF_Si
					Has Short or Open or Window is Jammed		gnal
33	3990	Door 2 Control Module	7	Passenger Door Pod Module Failure	Defective Passenger Door Pod Module		Door_Pod_Front_MF_Signal
33	3991	Door 2 Window Motor	7	Passenger Window Motor Failure	Passenger Door Pod Module Window Motor Has Short or Open or Window is Jammed		Door_Pod_Front_WMF_Sign al
33	3992	Door 3 Control module	7	Rear Driver Door Pod Module Failure	Defective Rear Driver Door Pod Module		Door_Pod_Rear_1_MF_Sign al
33	3993	Door 3 Window Motor	7	Rear Driver Window Motor Failure	Rear Driver Door Pod Module Window Motor Has Short or Open or Window is Jammed		Door_Pod_Rear_1_WMF_Si gnal
33	3994	Door 4 Control Module	7	Rear Passenger Door Pod Module Failure	Defective Rear Passenger Door Pod Module		Door_Pod_Rear_2_MF_Sign
33	3995	Door 4 Window Motor	7	Rear Passenger Window Motor Failure	Rear Passenger Door Pod Module Window Motor Has Short or Open or Window is Jammed		Door_Pod_Rear_2_WMF_Si gnal
33	3997	Electrical Accessory Power Relay	5	Electrical Accessory Request Relay Under Current Or Open Circuit	Open Circuit in Electrical Accessory Request Circuit	1601-E11	Electrical_Accessory_Reque st
33	3997	Electrical Accessory Power Relay	6	Electrical Accessory Request Relay Over Current	Short To Ground in Electrical Accessory	1601-E11	Electrical_Accessory_Reque
33	3998	Electrical Load Shed OFF	5	Load Shed OFF Relay Under Current Or Open Circuit	Request Circuit Open Circuit in Load Shed OFF Circuit	1601-F7	st Load_Shed_Power_Off_RD Cmd
33	3998	Electrical Load Shed OFF	6		Short To Ground in Load Shed OFF Circuit	1601-F7	Load_Shed_Power_Off_RD Cmd
33	3999	Electrical Load Shed ON	5	Load Shed ON Relay Under Current Or Open Circuit	Open Circuit in Load Shed ON Circuit	1601-F6	Load_Shed_Power_On_RD Cmd
33	3999	Electrical Load Shed ON	6		Short To Ground in Load Shed ON Circuit	1601-F6	Load_Shed_Power_On_RD _Cmd
33	4000	Engine Exhaust Brake Enable Switch	h 2	Retarder Enable - Brake Assist On/Off switch failure	Data erratic, intermittent or incorrect		Exhaust_Brake_Switch
33	4002	Engine Remote Start	6	TEM Engine Crank Relay Over Current	Current above normal or grounded circuit		TEM_Engine_Crank_Cmd
33	4003	Engine Remote Stop	5	TEM Engine Stop Relay Under Current Or Open Circuit	Current below normal or open circuit	1601-E2	TEM_Engine_Stop_Relay_C md
33	4003	Engine Remote Stop	6	TEM Engine Stop Relay Over Current	Current above normal or grounded circuit	1601-E2	TEM_Engine_Stop_Relay_C
33 33	4004 4007	Exterior Lamp Check Switch Fifth Wheel Slide Lock Switch	2	Exterior Lamp Check Switch Error Fifth Wheel Slide Switch Error	Data erratic, intermittent or incorrect Faulty Switch Actuator or Microswitch for Fifth Wheel Slide Switch		BUS_ELC_On_Switch Fifth_Wheel_Slide_Switch
33	4008	Fog Light 2	5	Right Fog Light Undercurrent	Open in Right Fog Light Circuit	1603-K	Right_Gen2_Fog_Light_Cm d
33	4008	Fog Light 2	6	Right Fog Light Overcurrent	Short To Ground or Overload in Right Fog Light Output Circuit	1603-K	Right_Gen2_Fog_Light_Cm
33	4009	Fuel Filter Fuel Heater Relay	5	Fuel Heater Relay Under Current Or Open Circuit		1601-F12	Fuel_Heater_Req
33 33	4009 4010	Fuel Filter Fuel Heater Relay Fuel Tank Transfer Pump	6 5	Fuel Heater Relay Over Current Fuel Transfer Pump Relay Under Current Or Open Circuit	Short To Ground in Fuel Heater Circuit Open Circuit in Fuel Transfer Pump Circuit	1601-F12 1601-F11	Fuel_Heater_Req Fuel_Transfer_Pump_Relay Cmd
33	4010	Fuel Tank Transfer Pump	6			1601-F11	Fuel_Transfer_Pump_Relay _Cmd
33 33	4011 4011	Headlamp 1 High Beam Headlamp 1 High Beam	5 6	Left High Beam Open Circuit Left High Beam Short To Ground	Open in Left High Beam Circuit Short To Ground or Overload in Left High Beam Circuit	1604-C 1604-C	Left_Highbeam_Cmd Left_Highbeam_Cmd
33 33	4012 4012	Headlamp 2 High Beam Headlamp 2 High Beam	5 6	Right High Beam Open Circuit Right High Beam Short To Ground	Open in Right High Beam Circuit Short To Ground or Overload in Right	1604-K 1604-K	Right_Highbeam_Cmd Right_Highbeam_Cmd
33	4014	High Current Auxiliary Load Switch	1 2	High Current Load Switch Error	High Beam Circuit Data erratic, intermittent or incorrect		High_Current_Load_Switch
33	4016	High Current Auxiliary Power Relay 1	1 5	High Current Load Under Current Or Open Circuit	Current below normal or open circuit	1601-E16	High_Current_Load_Cmd
33	4016	High Current Auxiliary Power Relay 1	1 6	High Current Load Overcurrent	Current above normal or grounded circuit	1601-E16	High_Current_Load_Cmd
33 33	4022 4022	Lift Gate Power Control Enable Lift Gate Power Control Enable	5 6	Lift Gate Enable Undercurrent Lift Gate Enable Overcurrent	Current below normal or open circuit Current above normal or grounded circuit	1603-J 1603-J	Lift_Gate_Enable_Cmd Lift_Gate_Enable_Cmd
33 33	4023 4024	Lift Gate Power Control Switch Marker Light Interrupt Switch	2 2	Lift Gate Switch Error Marker Light Interrupt Switch Failure	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect		Lift_Gate_Enable_Switch Marker_Interrupt_Switch

33 33	4026 4026	Mirror Heat 2 Mirror Heat 2	5 6	Right Mirror Heat Undercurrent Right Mirror Heat Overcurrent	Open in Right Mirror Heat Circuit Short To Ground or Overload in Right Mirror Heat Circuit		1603-L 1603-L	Right_Mirror_Heat_Cmd Right_Mirror_Heat_Cmd
33	4028	Service Brake Circuit 1 Air Tank Drain Valve	5	Service Brake Circuit 1 Air Tank Drain Valve Solenoid Under Current	Current below normal or open circuit			Hmphry_VIve_Prim_Tk_Sol _Cmd
33	4028	Service Brake Circuit 1 Air Tank Drain Valve	6	Or Open Circuit Service Brake Circuit 1 Air Tank Drain Valve Solenoid Short To	Current above normal or grounded circuit			Hmphry_Vlve_Prim_Tk_Sol _Cmd
33	4029	Service Brake Circuit 1 Air Tank	2	Ground Service Brake Circuit 1 Air Tank	Data erratic, intermittent or incorrect			Hmphry_Vlve_Prim_Tk_Ope
33	4030	Drain Valve Switch Service Brake Circuit 2 Air Tank	5	Drain Switch Error Service Brake Circuit 2 Air Tank	Current below normal or open circuit			n Hmphry_Vlve_Sec_Tk_Sol_
		Drain Valve		Drain Valve Solenoid Under Current Or Open Circuit				Cmd
33	4030	Service Brake Circuit 2 Air Tank Drain Valve	6	Service Brake Circuit 2 Air Tank Drain Valve Solenoid Short To Ground	Current above normal or grounded circuit			Hmphry_VIve_Sec_Tk_Sol_ Cmd
33	4031	Service Brake Supply Air Tank Drain Valve	5	Service Brake Supply Air Tank Drain Valve Solenoid Under Current Or	Current below normal or open circuit			Hmphry_Vlve_Wet_Tk_Sol_ Cmd
33	4031	Service Brake Supply Air Tank Drain Valve	6	Open Circuit Service Brake Supply Air Tank Drain Valve Solenoid Short To Ground	Current above normal or grounded circuit			Hmphry_Vlve_Wet_Tk_Sol_ Cmd
33	4032	Service Brake Supply Air Tank Drain	2		Data erratic, intermittent or incorrect			Hmphry_Vlve_Wet_Tk_Ope
33	4033	Valve Switch Sleeper Remote - Start/Stop Enable	5		Current below normal or open circuit			n
33	4033	Command Sleeper Remote - Start/Stop Enable	6	Current or Open Circuit Sleeper Control Enable Relay Over	Short To Ground in Sleeper Control			
33		Command		Current	Enable Circuit		1601-F16	Pight Play Lights Palay P
	4038	Snow Plow Forward Lighting Relay 2		Right Plow Light Relay Under Current Or Open Circuit	Current below normal or open circuit			Right_Plow_Lights_Relay_R eq
33	4038	Snow Plow Forward Lighting Relay 2	6	Right Plow Light Relay Circuit Short To Ground	Current above normal or grounded circuit		1601-F16	Right_Plow_Lights_Relay_R eq
33	4039	Snow Plow Forward Lighting Relay 1	5	Left Plow Light Relay Circuit Under Current Or Open Circuit	Current below normal or open circuit		1601-F12	Left_Plow_Lights_Relay_Re
33	4039	Snow Plow Forward Lighting Relay 1	6	Left Plow Light Relay Circuit Short	Current above normal or grounded circuit		1601-F12	Left_Plow_Lights_Relay_Re
33	4040		2	To Ground Snow Plow Switch Error	Data erratic, intermittent or incorrect			q Plow_Lights_Switch
33	4041	Software Loop Time Exceeded	14	Software Loop Time Exceeded in the Body Controller, Internal Fault	Software Configuration Too Big			LoopTime_OK
33	4042	Trailer Auxiliary Power Switch	2	Trailer Auxiliary Power Switch Error	Faulty Switch Actuator or Microswitch for Auxiliary Trailer Switch			EGC_Digital_Input_1
33	4043	Transfer Case Front Driveline Actuator	5	Transfer Case Front Driveline Solenoid Under Current Or Open Circuit	Current below normal or open circuit			Xfer_Case_Sol_D_Cmd
33	4043	Transfer Case Front Driveline	6	Transfer Case Front Driveline	Current above normal or grounded circuit			Xfer_Case_Sol_D_Cmd
33	4044	Actuator Transfer Case High Range Actuator	5	Solenoid Short To Ground Transfer Case High Range Solenoid Under Current Or Open Circuit	Current below normal or open circuit			Xfer_Case_Sol_C_Cmd, MATV_Xfer_Case_High_Sol
33	4044	Transfer Case High Range Actuator	6	Transfer Case High Range Solenoid Short To Ground	Current above normal or grounded circuit			_Cmd Xfer_Case_Sol_C_Cmd, MATV_Xfer_Case_High_Sol Cmd
33	4045	Transfer Case Low Range Actuator	5	Transfer Case Low Range Solenoid Under Current Or Open Circuit	Current below normal or open circuit			CITIO Xfer_Case_Sol_A_Cmd, MATV_Xfer_Case_Low_Sol Cmd
33	4045	Transfer Case Low Range Actuator	6	Transfer Case Low Range Solenoid Short To Ground	Current above normal or grounded circuit			Cind Xfer_Case_Sol_A_Cmd, MATV_Xfer_Case_Low_Sol Cmd
33	4046	Transfer Case Neutral Actuator	5	Transfer Case Neutral Solenoid Under Current Or Open Circuit	Current below normal or open circuit			Xfer_Case_Sol_B_Cmd, MATV_Xfer_Case_Neutral_ Sol_Cmd
33	4046	Transfer Case Neutral Actuator	6	Transfer Case Neutral Solenoid Short To Ground	Current above normal or grounded circuit			Xfer_Case_Sol_B_Cmd, MATV_Xfer_Case_Neutral_ Sol_Cmd
33	4047	Transfer Case Output Shaft PTO Actuator	5	Transfer Case Output Shaft PTO Actuator Under Current Or Open Circuit	Current below normal or open circuit			SSpd_Xfer_Case_NC_Sol_ Cmd
33	4047	Transfer Case Output Shaft PTO Actuator	6	Transfer Case Output Shaft PTO Actuator Over Current	Current above normal or grounded circuit			SSpd_Xfer_Case_NC_Sol_ Cmd
33	4048	Transfer Case Range Switch	2	Transfer Case Range Switch Error				Xfer_Case_High_Switch
33	4049	Actuator	э	Under Current Or Open Circuit	Current below normal or open circuit			Cmd Cmd
33	4049	Transfer Case Rear Driveline	6	Transfer Case Rear Driveline Relay	Current above normal or grounded circuit			SSpd Xfer Case NO Sol
33	4053	Actuator Transmission Input Shaft PTO 2	5	Over Current Transmission Input Shaft PTO	-	Not available	Not	Cmd TEM PTO Engagement Re
33	4000	Actuator	3	Engagement Actuator Circuit Under Current Or Open Circuit	Current below normal of open circuit	Not available	available	lay_Cmd, TEM_PTO_Relay_Driver_C
33	4053	Transmission Input Shaft PTO 2 Actuator	6	Transmission Input Shaft PTO Engagement Actuator Circuit Overcurrent	Current above normal or grounded circuit	Not available	Not available	TEM_PTO_Engagement_Re lay_Cmd, TEM_PTO_Relay_Driver_C md
33	4055		2	Transmission Retarder On/Off switch	Data erratic, intermittent or incorrect			Retarder_Switch
33	4056	Switch Two Speed Axle Actuator	5	Failure Two Speed Axle Solenoid Relay	Current below normal or open circuit			Two_Spd_Axle_Solenoid_C
33	4056	Two Speed Axle Actuator	6	Under Current Or Open Circuit Two Speed Axle Solenoid Relay	Current above normal or grounded circuit			md Two_Spd_Axle_Solenoid_C
33	4057	Wiper Motor	5	Short To Ground Wiper Motor Undercurrent	Open in Wiper Motor Circuit		1604-A	md Wipers Cmd
33	4057	Wiper Motor	6	Wiper Motor Overcurrent	Short To Ground or Overload in Wiper		1604-A	Wipers_Cmd
33	4058	Cab Dome Light 1 Switch	2		Motor Circuit Faulty Switch Actuator or Microswitch for			Dome_Light_ON_Switch
33	520461	Switch 6-Pack #1 Data Link	9	an error. Switch 6-Pack #1 Data Link Comm.	Cab Dome Light Switch Faulty Switch Pack #1 or Switch Data Link			SwitchPack_1_IN_Timer
33		Switch 6-Pack #2 Data Link	9	Failure	Faulty Switch Pack #2 or Switch Data Link			SwitchPack_2_IN_Timer
		Switch 6-Pack #3 Data Link	9	Failure	•			
33	J2U4b3	Switch o-Fack #3 Data LINK	y	Switch 6-Pack #3 Data Link Comm. Failure	Faulty Switch Pack #3 or Switch Data Link			SwitchPack_5_IN_Timer

33	520464	Electrical Accessory Request	5	Electrical Accessory Request Relay Under Current Or Open Circuit	Open Circuit in Electrical Accessory Request Circuit	Electrical_Accessory_Reque st
33	520464	Electrical Accessory Request	6		Short To Ground in Electrical Accessory Request Circuit	Electrical_Accessory_Reque
33	520465	HVAC Control Head Multiple Motor	2		HVAC Motor in Wrong Position or	RCD_HVAC_Ctrl_Head_Dia
33	520467	Faults Comm. Loss from BC to Power Pack	c 9	Comm. fault from BC to PP3.	Jammed Private J1939 datalink problem (exceeded The Power Pack E Module has bandwidth). stopped receiving heart beat	g_Signal
33	520468	RPM 1 Channel 1 Cab Switch	2	RPM 1 Channel 1 Switch Error	message from the BC. Data erratic, intermittent or incorrect	PwrMod1_Swch1_ON_Switc
33	520469	RPM 1 Channel 1 Overcurrent	6	RPM 1 Channel 1 Overcurrent	Current above normal or grounded circuit	h PwrMod1_Output1_Current_
33	520469	RPM 1 Channel 1 Overcurrent	14		RPM 1 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value of FFh	Signal PwrMod1_Output1_Current_ Signal
33	520469	RPM 1 Channel 1 Overcurrent	19	RPM 1 Channel 1 Analog Input Invalid Data	RPM 1 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value in	PwrMod1_Output1_Current_
33	520470	RPM 1 Channel 2 Cab Switch	2		the range of FCh to FEh Data erratic, intermittent or incorrect	Signal PwrMod1_Swch2_ON_Switc
33	520471	RPM 1 Channel 2 Overcurrent	6	RPM 1 Channel 2 Overcurrent	Current above normal or grounded circuit	h N/A - Handled by translator. PwrMod1_Output2_Current_ Signal
33	520471	RPM 1 Channel 2 Overcurrent	14		RPM 1 Channel 2 Analog Input Data (PGN 65313 , Byte 4) indicates a value of FFh	N/A - Handled by translator. PwrMod1_Output2_Current_ Signal
33	520471	RPM 1 Channel 2 Overcurrent	19	Invalid Data	RPM 1 Channel 2 Analog Input Data (PGN 65313 , Byte 4) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod1_Output2_Current_ Signal
33	520472	RPM 1 Channel 3 Cab Switch	2	RPM 1 Channel 3 Switch Error	Data erratic, intermittent or incorrect	PwrMod1_Swch3_ON_Switc
33	520473	RPM 1 Channel 3 Overcurrent	6	RPM 1 Channel 3 Overcurrent	Current above normal or grounded circuit	h
		BB11101 110				PwrMod1_Output3_Current_ Signal
33		RPM 1 Channel 3 Overcurrent	14		(PGN 65313 , Byte 5) indicates a value of FFh	PwrMod1_Output3_Current_ Signal
33	520473	RPM 1 Channel 3 Overcurrent	19	Invalid Data	RPM 1 Channel 3 Analog Input Data (PGN 65313 , Byte 5) indicates a value in	PwrMod1_Output3_Current_
33	520474	RPM 1 Channel 4 Cab Switch	2		the range of FCh to FEh Data erratic, intermittent or incorrect	Signal PwrMod1_Swch4_ON_Switc
33	520475	RPM 1 Channel 4 Overcurrent	6	RPM 1 Channel 4 Overcurrent	Current above normal or grounded circuit	h PwrMod1_Output4_Current_
33	520475	RPM 1 Channel 4 Overcurrent	14		(PGN 65313, Byte 6) indicates a value of	Signal PwrMod1_Output4_Current_ Signal
33	520475	RPM 1 Channel 4 Overcurrent	19	RPM 1 Channel 4 Analog Input Invalid Data	FFh RPM 1 Channel 4 Analog Input Data (PGN 65313 , Byte 6) indicates a value in	PwrMod1_Output4_Current_ Signal
33	520476	RPM 1 Channel 5 Cab Switch	2	RPM 1 Channel 5 Switch Error	the range of FCh to FEh Data erratic, intermittent or incorrect	PwrMod1_Swch5_ON_Switc
33	520477	RPM 1 Channel 5 Overcurrent	6	RPM 1 Channel 5 Overcurrent	Current above normal or grounded circuit	h PwrMod1_Output5_Current_
33	520477	RPM 1 Channel 5 Overcurrent	14	RPM 1 Channel 5 Analog Input Data Unavailable	RPM 1 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value of	Signal PwrMod1_Output5_Current_ Signal
33	520477	RPM 1 Channel 5 Overcurrent	19	RPM 1 Channel 5 Analog Input	FFh RPM 1 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value in	PwrMod1_Output5_Current_ Signal
33	520478	RPM 1 Channel 6 Cab Switch	2		the range of FCh to FEh Data erratic, intermittent or incorrect	PwrMod1 Swch6 ON Switc
33		RPM 1 Channel 6 Overcurrent	6		Current above normal or grounded circuit	h N/A - Handled by translator.
30	020473	TATION TO CHARMET O CACACATION	Ü	TA W T Grammer o Gvereanen	Control above homal or greatest creat	PwrMod1_Output6_Current_ Signal
33	520479	RPM 1 Channel 6 Overcurrent	14		RPM 1 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value of FFh	N/A - Handled by translator. PwrMod1_Output6_Current_ Signal
33	520479	RPM 1 Channel 6 Overcurrent	19	Invalid Data	RPM 1 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod1_Output6_Current_ Signal
33	520480	RPM 2 Channel 1 Cab Switch	2	RPM 2 Channel 1 Switch Error	Data erratic, intermittent or incorrect	PwrMod2_Swch1_ON_Switc
33	520481	RPM 2 Channel 1 Overcurrent	6	RPM 2 Channel 1 Overcurrent	Current above normal or grounded circuit	h PwrMod2 Output1 Current
33	520481	RPM 2 Channel 1 Overcurrent	14		(PGN 65313, Byte 3) indicates a value of	Signal PwrMod2_Output1_Current_
33	520481	RPM 2 Channel 1 Overcurrent	19	RPM 2 Channel 1 Analog Input Invalid Data	FFh RPM 2 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value in	Signal PwrMod2_Output1_Current_
33	520482	RPM 2 Channel 2 Cab Switch	2		the range of FCh to FEh Data erratic, intermittent or incorrect	Signal PwrMod2_Swch2_ON_Switc
33	520483	RPM 2 Channel 2 Overcurrent	6	RPM 2 Channel 2 Overcurrent	Current above normal or grounded circuit	h N/A - Handled by translator. PwrMod2_Output2_Current_
33	520483	RPM 2 Channel 2 Overcurrent	14		RPM 2 Channel 2 Analog Input Data (PGN 65313 , Byte 4) indicates a value of FFh	Signal N/A - Handled by translator. PwrMod2_Output2_Current_ Signal

33	520483	RPM 2 Channel 2 Overcurrent	19	RPM 2 Channel 2 Analog Input Invalid Data	RPM.2 Channel 2 Analog Input Data (PGN 65313, Byte 4) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod2_Output2_Current_ Signal
33	520484	RPM 2 Channel 3 Cab Switch	2	RPM 2 Channel 3 Switch Error	Data erratic, intermittent or incorrect	PwrMod2_Swch3_ON_Switc
33	520485	RPM 2 Channel 3 Overcurrent	6	RPM 2 Channel 3 Overcurrent	Current above normal or grounded circuit	h N/A - Handled by translator. PwrMod2_Output3_Current_ Signal
33	520485	RPM 2 Channel 3 Overcurrent	14	RPM 2 Channel 3 Analog Input Data Unavailable	RPM 2 Channel 3 Analog Input Data (PGN 65313 , Byte 5) indicates a value of FFh	N/A - Handled by translator. PwrMod2_Output3_Current_ Signal
33	520485	RPM 2 Channel 3 Overcurrent	19	RPM 2 Channel 3 Analog Input Invalid Data	RPM 2 Channel 3 Analog Input Data (PGN 65313 , Byte 5) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod2_Output3_Current_ Signal
33	520486	RPM 2 Channel 4 Cab Switch	2	RPM 2 Channel 4 Switch Error	Data erratic, intermittent or incorrect	PwrMod2_Swch4_ON_Switc
33	520487	RPM 2 Channel 4 Overcurrent	6	RPM 2 Channel 4 Overcurrent	Current above normal or grounded circuit	n N/A - Handled by translator. PwrMod2_Output4_Current_ Signal
33	520487	RPM 2 Channel 4 Overcurrent	14	RPM 2 Channel 4 Analog Input Data Unavailable	RPM 2 Channel 4 Analog Input Data (PGN 65313 , Byte 6) indicates a value of FFh	N/A - Handled by translator. PwrMod2_Output4_Current_ Signal
33	520487	RPM 2 Channel 4 Overcurrent	19	RPM 2 Channel 4 Analog Input Invalid Data	RPM 2 Channel 4 Analog Input Data (PGN 65313 , Byte 6) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod2_Output4_Current_ Signal
33	520488	RPM 2 Channel 5 Cab Switch	2	RPM 2 Channel 5 Switch Error	Data erratic, intermittent or incorrect	PwrMod2_Swch5_ON_Switc
33	520489	RPM 2 Channel 5 Overcurrent	6	RPM 2 Channel 5 Overcurrent	Current above normal or grounded circuit	n N/A - Handled by translator. PwrMod2_Output5_Current_ Signal
33	520489	RPM 2 Channel 5 Overcurrent	14	RPM 2 Channel 5 Analog Input Data Unavailable	RPM 2 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value of FFh	N/A - Handled by translator. PwrMod2_Output5_Current_ Signal
33	520489	RPM 2 Channel 5 Overcurrent	19	RPM 2 Channel 5 Analog Input Invalid Data	RPM 2 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod2_Output5_Current_ Signal
33	520490	RPM 2 Channel 6 Cab Switch	2	RPM 2 Channel 6 Switch Error	Data erratic, intermittent or incorrect	PwrMod2_Swch6_ON_Switc
33	520491	RPM 2 Channel 6 Overcurrent	6	RPM 2 Channel 6 Overcurrent	Current above normal or grounded circuit	PwrMod2_Output6_Current_ Signal
33	520491	RPM 2 Channel 6 Overcurrent	14	RPM 2 Channel 6 Analog Input Data Unavailable	RPM 2 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value of	PwrMod2_Output6_Current_ Signal
33	520491	RPM 2 Channel 6 Overcurrent	19	RPM 2 Channel 6 Analog Input Invalid Data	FFh RPM 2 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value in the range of FCh to FEh	PwrMod2_Output6_Current_ Signal
33	520504	RPM 4 Channel 1 Cab Switch	2	RPM 4 Channel 1 Switch Error	Data erratic, intermittent or incorrect	PwrMod4_Swch1_ON_Switc
33	520505	RPM 4 Channel 1 Overcurrent	6	RPM 4 Channel 1 Overcurrent	Current above normal or grounded circuit	PwrMod4_Output1_Current_
33	520505	RPM 4 Channel 1 Overcurrent	14	RPM 4 Channel 1 Analog Input Data Unavailable	RPM 4 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value of FFh	Signal PwrMod4_Output1_Current_ Signal
33	520505	RPM 4 Channel 1 Overcurrent	19	RPM 4 Channel 1 Analog Input Invalid Data	RPM 4 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value in	PwrMod4_Output1_Current_
33	520506	RPM 4 Channel 2 Cab Switch	2	RPM 4 Channel 2 Switch Error	the range of FCh to FEh Data erratic, intermittent or incorrect	Signal PwrMod4_Swch2_ON_Switc
33	520507	RPM 4 Channel 2 Overcurrent	6	RPM 4 Channel 2 Overcurrent	Current above normal or grounded circuit	h PwrMod4_Output2_Current_
33	520507	RPM 4 Channel 2 Overcurrent	14	RPM 4 Channel 2 Analog Input Data Unavailable	RPM 4 Channel 2 Analog Input Data (PCN 65313 , Byte 4) indicates a value of	Signal PwrMod4_Output2_Current_ Signal
33	520507	RPM 4 Channel 2 Overcurrent	19	RPM 4 Channel 2 Analog Input Invalid Data	FFh RPM 4 Channel 2 Analog Input Data (PGN 65313 , Byte 4) indicates a value in the range of FCh to FEh	PwrMod4_Output2_Current_ Signal
33		RPM 4 Channel 3 Cab Switch	2	RPM 4 Channel 3 Switch Error	Data erratic, intermittent or incorrect	PwrMod4_Swch3_ON_Switc h
33		RPM 4 Channel 3 Overcurrent	6	RPM 4 Channel 3 Overcurrent	Current above normal or grounded circuit	PwrMod4_Output3_Current_ Signal
33	520509	RPM 4 Channel 3 Overcurrent	14	RPM 4 Channel 3 Analog Input Data Unavailable	RPM 4 Channel 3 Analog Input Data (PGN 65313 , Byte 5) indicates a value of FFh	PwrMod4_Output3_Current_ Signal
33	520509	RPM 4 Channel 3 Overcurrent	19	RPM 4 Channel 3 Analog Input Invalid Data	RPMI Channel1 Analog Input Data (PGN 65313 , Byte 5) indicates a value in the range of FCh to FEh	PwrMod4_Output3_Current_ Signal
33	520510	RPM 4 Channel 4Cab Switch	2	RPM 4 Channel 4Switch Error	Data erratic, intermittent or incorrect	PwrMod4_Swch4_ON_Switc h
33	520511	RPM 4 Channel 4 Overcurrent	6	RPM 4 Channel 4 Overcurrent	Current above normal or grounded circuit	PwrMod4_Output4_Current_
33	520511	RPM 4 Channel 4 Overcurrent	14	RPM 4 Channel 4 Analog Input Data Unavailable	RPM 4 Channel 4 Analog Input Data (PGN 65313 , Byte 6) indicates a value of FFh	Signal PwrMod4_Output4_Current_ Signal
33	520511	RPM 4 Channel 4 Overcurrent	19	RPM 4 Channel 4 Analog Input Invalid Data	RPM 4 Channel 4 Analog Input Data (PGN 65313, Byte 6) indicates a value in the range of PCh to FEh	PwrMod4_Output4_Current_ Signal
33	520512	RPM 4 Channel 5 Cab Switch	2	RPM 4 Channel 5 Switch Error	Data erratic, intermittent or incorrect	PwrMod4_Swch5_ON_Switc
33	520513	RPM 4 Channel 5 Overcurrent	6	RPM 4 Channel 5 Overcurrent	Current above normal or grounded circuit	PwrMod4_Output5_Current_ Signal

33	520513	RPM 4 Channel 5 Overcurrent	14	RPM 4 Channel 5 Analog Input Data Unavailable	RPM 4 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value of FFh	PwrMod4_Output5_Current_ Signal
33	520513	RPM 4 Channel 5 Overcurrent	19	RPM 4 Channel 5 Analog Input Invalid Data	RPM 4 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value in the range of FCh to FEh	PwrMod4_Output5_Current_ Signal
33	520514	RPM 4 Channel 6 Cab Switch	2	RPM 4 Channel 6 Switch Error	Data erratic, intermittent or incorrect	PwrMod4_Swch6_ON_Switc
33	520515	RPM 4 Channel 6 Overcurrent	6	RPM 4 Channel 6 Overcurrent	Current above normal or grounded circuit	N/A - Handled by translator. PwrMod4_Output6_Current_ Signal
33	520515	RPM 4 Channel 6 Overcurrent	14	RPM 4 Channel 6 Analog Input Data Unavailable	RPM 4 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value of FFh	N/A - Handled by translator. PwrMod4_Output6_Current_ Signal
33	520515	RPM 4 Channel 6 Overcurrent	19	RPM 4 Channel 6 Analog Input Invalid Data	RPM 4 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod4_Output6_Current_ Signal
33	520540	RPM 7 Channel 1 Cab Switch	2	RPM 7 Channel 1 Switch Error	Data erratic, intermittent or incorrect	PwrMod7_Swch1_ON_Switc
33	520541	RPM 7 Channel 1 Overcurrent	6	RPM 7 Channel 1 Overcurrent	Current above normal or grounded circuit	N/A - Handled by translator. PwrMod7_Output1_Current_ Signal
33	520541	RPM 7 Channel 1 Overcurrent	14	RPM 7 Channel 1 Analog Input Data Unavailable	RPM 7 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value of FFh	N/A - Handled by translator. PwrMod7_Output1_Current_ Signal
33	520541	RPM 7 Channel 1 Overcurrent	19	RPM 7 Channel 1 Analog Input Invalid Data	RPM 7 Channel 1 Analog Input Data (PGN 65313 , Byte 3) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod7_Output1_Current_ Signal
33	520542	RPM 7 Channel 2 Cab Switch	2	RPM 7 Channel 2 Switch Error	Data erratic, intermittent or incorrect	PwrMod7_Swch2_ON_Switc
33	520543	RPM 7 Channel 2 Overcurrent	6	RPM 7 Channel 2 Overcurrent	Current above normal or grounded circuit	N/A - Handled by translator. PwrMod7_Output2_Current_ Signal
33	520543	RPM 7 Channel 2 Overcurrent	14	RPM 7 Channel 2 Analog Input Data Unavailable	RPM 7 Channel 2 Analog Input Data (PGN 65313 , Byte 4) indicates a value of FFh	N/A - Handled by translator. PwrMod7_Output2_Current_ Signal
33	520543	RPM 7 Channel 2 Overcurrent	19	RPM 7 Channel 2 Analog Input Invalid Data	RPM 7 Channel 2 Analog Input Data (PGN 65313 , Byte 4) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod7_Output2_Current_ Signal
33	520544	RPM 7 Channel 3 Cab Switch	2	RPM 7 Channel 3 Switch Error	Data erratic, intermittent or incorrect	PwrMod7_Swch3_ON_Switc
33	520545	RPM 7 Channel 3 Overcurrent	6	RPM 7 Channel 3 Overcurrent	Current above normal or grounded circuit	N/A - Handled by translator. PwrMod7_Output3_Current_ Signal
33	520545	RPM 7 Channel 3 Overcurrent	14	RPM 7 Channel 3 Analog Input Data Unavailable	RPM 7 Channel 3 Analog Input Data (PGN 65313 , Byte 5) indicates a value of FFh	N/A - Handled by translator. PwrMod7_Output3_Current_ Signal
33	520545	RPM 7 Channel 3 Overcurrent	19	RPM 7 Channel 3 Analog Input Invalid Data	RPM 7 Channel 3 Analog Input Data (PGN 65313 , Byte 5) indicates a value in the range of FCh to FEh	N/A - Handled by translator. PwrMod7_Output3_Current_ Signal
33	520546	RPM 7 Channel 4 Cab Switch	2	RPM 7 Channel 4 Switch Error	Data erratic, intermittent or incorrect	PwrMod7_Swch4_ON_Switc h
33	520547	RPM 7 Channel 4 Overcurrent	6	RPM 7 Channel 4 Overcurrent	Current above normal or grounded circuit	PwrMod7_Output4_Current_
33	520547	RPM 7 Channel 4 Overcurrent	14	RPM 7 Channel 4 Analog Input Data Unavailable	RPM 7 Channel 4 Analog Input Data (PGN 65313 , Byte 6) indicates a value of	Signal PwrMod7_Output4_Current_
33	520547	RPM 7 Channel 4 Overcurrent	19	RPM 7 Channel 4 Analog Input Invalid Data	FFh RPM 7 Channel 4 Analog Input Data (PGN 65313 , Byte 6) indicates a value in the range of FCh to FEh	Signal PwrMod7_Output4_Current_ Signal
33	520548	RPM 7 Channel 5 Cab Switch	2	RPM 7 Channel 5 Switch Error	Data erratic, intermittent or incorrect	PwrMod7_Swch5_ON_Switc
33	520549	RPM 7 Channel 5 Overcurrent	6	RPM 7 Channel 5 Overcurrent	Current above normal or grounded circuit	PwrMod7_Output5_Current_ Signal
33	520549	RPM 7 Channel 5 Overcurrent	14	RPM 7 Channel 5 Analog Input Data Unavailable	RPM 7 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value of FFh	PwrMod7_Output5_Current_ Signal
33		RPM 7 Channel 5 Overcurrent	19	RPM 7 Channel 5 Analog Input Invalid Data	RPM 7 Channel 5 Analog Input Data (PGN 65313 , Byte 7) indicates a value in the range of FCh to FEh	PwrMod7_Output5_Current_ Signal
33	520550	RPM 7 Channel 6 Cab Switch	2	RPM 7 Channel 6 Switch Error	Data erratic, intermittent or incorrect	PwrMod7_Swch6_ON_Switc h
33	520551	RPM 7 Channel 6 Overcurrent RPM 7 Channel 6 Overcurrent	6	RPM 7 Channel 6 Overcurrent	Current above normal or grounded circuit	PwrMod7_Output6_Current_ Signal
33	520551 520551	RPM 7 Channel 6 Overcurrent	14	Unavailable RPM 7 Channel 6 Analog Input	RPM 7 Channel 6 Analog Input Data (PGN 65313 , Byte 8) indicates a value of FFh RPM 7 Channel 6 Analog Input Data	PwrMod7_Output6_Current_ Signal
				Invalid Data	(PGN 65313 , Byte 8) indicates a value in the range of FCh to FEh	PwrMod7_Output6_Current_ Signal
33 33		TEM Aux 1 Int Switch TEM Aux 1 Switch	2	TEM Aux 1 Int Switch Error TEM Aux 1 Switch Error	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect	TEM_Aux1_Int_Switch_On TEM_Aux1_Switch
33		TEM Aux 1 With Interlocks Switch	2	TEM Aux 1 With Interlocks Switch	Data erratic, intermittent or incorrect	TEM_Aux1_w_Interlocks_Sw itch
33 33	520555 520556	TEM Aux 10 Switch TEM Aux 11 Switch	2 2	TEM Aux 10 Switch Error TEM Aux 11 Switch Error	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect	TEM_Aux10_Switch TEM_Aux11_Switch
33	520557	TEM Aux 12 Switch	2	TEM Aux 12 Switch Error	Data erratic, intermittent or incorrect	TEM_Aux12_Switch
33 33		TEM Aux 13 Switch TEM Aux 14 Switch	2	TEM Aux 13 Switch Error TEM Aux 14 Switch Error	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect	TEM_Aux13_Switch TEM_Aux14_Switch
			-			

33		TEM Aux 15 Switch	2	TEM Aux 16 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux15_Switch
33 33		TEM Aux 16 Switch TEM Aux 17 Switch	2	TEM Aux 16 Switch Error TEM Aux 17 Switch Error	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect			TEM_Aux16_Switch TEM_Aux17_Switch
33		TEM Aux 17 Switch	2	TEM Aux 18 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux18_Switch
33	520564	TEM Aux 2 Int Switch	2	TEM Aux 2 Int Switch Error	Data erratic, intermittent or incorrect			TEM_Aux2_Int_Switch_On
33		TEM Aux 2 Switch	2	TEM Aux 2 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux2_Switch
33	520566	TEM Aux 2 With Interlocks Switch	2	TEM Aux 2 With Interlocks Switch Error	Data erratic, intermittent or incorrect			TEM_Aux2_w_Interlocks_Sw itch
33	520567	TEM Aux 3 Int Switch	2	TEM Aux 3 Int Switch Error	Data erratic, intermittent or incorrect			TEM Aux3 Int Switch On
33		TEM Aux 3 Switch	2	TEM Aux 3 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux3_Switch
33	520569	TEM Aux 3 With Interlocks Switch	2	TEM Aux 3 With Interlocks Switch	Data erratic, intermittent or incorrect			TEM_Aux3_w_Interlocks_Sw
22	F20F70	TEM A 4 Controls	_	Error	Data			itch
33 33		TEM Aux 4 Switch TEM Aux 4 With Interlocks Switch	2	TEM Aux 4 Switch Error TEM Aux 4 With Interlocks Switch	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect			TEM_Aux4_Switch TEM_Aux4_w_Interlocks_Sw
00	020011	12m/tax 17mm monooko omton	-	Error	Data orialo, intornitori or incorrect			itch
33		TEM Aux 5 Switch	2	TEM Aux 5 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux5_Switch
33 33		TEM Aux 6 Switch TEM Aux 7 Switch	2	TEM Aux 6 Switch Error TEM Aux 7 Switch Error	Data erratic, intermittent or incorrect Data erratic, intermittent or incorrect			TEM_Aux6_Switch TEM_Aux7_Switch
33		TEM Aux 8 Switch	2	TEM Aux 8 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux8_Switch
33		TEM Aux 9 Switch	2	TEM Aux 9 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux9_Switch
33	520577	TEM Aux Solenoid 1	5		Current below normal or open circuit			TEM_Aux_Open_Solenoid_1
				Or Open Circuit				_Cmd, TEM_Aux_Solenoid_1_Cmd
								TEM_Aux_Soleriold_T_Cirid
33	520577	TEM Aux Solenoid 1	6	TEM Aux Solenoid 1 Overcurrent	Current above normal or grounded circuit			TEM_Aux_Open_Solenoid_1
								_Cmd,
								TEM_Aux_Solenoid_1_Cmd
33	520578	TEM Aux Solenoid 1 Switch	2	TEM Aux Solenoid 1 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux_Solenoid_1_Switc
								h_On
33	520579	TEM Aux Solenoid 2	5	TEM Aux Solenoid 2 Under Current	Current below normal or open circuit			TEM_Aux_Open_Solenoid_2
				Or Open Circuit				_Cmd, TEM Aux Solenoid 2 Cmd
								TEM_Aux_SoleHold_2_Citid
33	520579	TEM Aux Solenoid 2	6	TEM Aux Solenoid 2 Overcurrent	Current above normal or grounded circuit			TEM_Aux_Open_Solenoid_2
								_Cmd,
								TEM_Aux_Solenoid_2_Cmd
33	520580	TEM Aux Solenoid 2 Switch	2	TEM Aux Solenoid 2 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux_Solenoid_2_Switc
								h_On
33	520581	TEM Aux Solenoid 3	5	TEM Aux Solenoid 3 Under Current	Current below normal or open circuit			TEM_Aux_Open_Solenoid_3
				Or Open Circuit				_Cmd, TEM_Aux_Solenoid_3_Cmd
								TEM_Aux_Soletiola_5_Citia
33	520581	TEM Aux Solenoid 3	6	TEM Aux Solenoid 3 Overcurrent	Current above normal or grounded circuit			TEM_Aux_Open_Solenoid_3
								_Cmd,
								TEM_Aux_Solenoid_3_Cmd
33	520582	TEM Aux Solenoid 3 Switch	2	TEM Aux Solenoid 3 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux_Solenoid_3_Switc
								h_On
33	520583	TEM Aux Solenoid 4	5	TEM Aux Solenoid 4 Under Current	Current below normal or open circuit			TEM_Aux_Open_Solenoid_4
				Or Open Circuit				_Cmd, TEM_Aux_Solenoid_4_Cmd
								TEM_Aux_Soletiola_4_Citia
33	520583	TEM Aux Solenoid 4	6	TEM Aux Solenoid 4 Overcurrent	Current above normal or grounded circuit			TEM_Aux_Open_Solenoid_4
								_Cmd,
								TEM_Aux_Solenoid_4_Cmd
33	520584	TEM Aux Solenoid 4 Switch	2	TEM Aux Solenoid 4 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux_Solenoid_4_Switc
								h_On
33	520585	TEM Aux Solenoid 5	5	TEM Aux Solenoid 5 Under Current Or Open Circuit	Current below normal or open circuit			TEM_Aux_Open_Solenoid_5 Cmd
33	520585	TEM Aux Solenoid 5	6	TEM Aux Solenoid 5 Overcurrent	Current above normal or grounded circuit			TEM_Aux_Open_Solenoid_5
					· ·			_Cmd
33	520586	TEM Aux Solenoid 5 Switch	2	TEM Aux Solenoid 5 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux_Solenoid_5_Switc
33	520587	TEM Aux Solenoid 6	5	TEM Aux Solenoid 6 Under Current	Current below normal or open circuit			h_On TEM_Aux_Open_Solenoid_6
55	020001	TEM Nax Goldhold 6		Or Open Circuit	Current below normal or open circuit			Cmd
33	520587	TEM Aux Solenoid 6	6	TEM Aux Solenoid 6 Overcurrent	Current above normal or grounded circuit			TEM_Aux_Open_Solenoid_6
33	E20E00	TEM Aux Solenoid 6 Switch	2	TEM Aux Salanaid & Switch Error	Data arratic intermittant or incorrect			_Cmd
33	320300	TEIN Aux Soleriold 6 Switch	2	TEM Aux Solenoid 6 Switch Error	Data erratic, intermittent or incorrect			TEM_Aux_Solenoid_6_Switc h On
33	520589	TEM Dual 1 Switch	2	TEM Dual 1 Switch Error	Data erratic, intermittent or incorrect			TEM_Dual1_Switch
33	520590	Data Link - Switch 12 Pack top	9	Switch 12-Pack Top Data Link	Abnormal update rate			SwitchPack_3_IN_Timer
33	520591	Data Link - Switch 12 Pack bottom	9	Comm. Failure Switch 12-Pack Bottom Data Link	Abnormal update rate			SwitchPack_4_IN_Timer
33	320391	Data Link - Switch 12 Fack bottom	9	Comm. Failure	Abriorniai upuaterate			SwitchFack_4_IN_Timer
33	520604	5V Sensor Supply	0	5V Sensor Supply Above Normal	Data valid but above normal operational			Switched_5V_Sense_Raw_
				Range	range - most severe level			Signal
33	520604	5V Sensor Supply	1	5V Sensor Supply Below Normal	Data valid but below normal operational			Switched_5V_Sense_Raw_ Signal
33	520605	EGC Gauge Calibration	13	Range Electronic Gauge Cluster checksum	range - most severe level Defective EGC			Cluster_cal_status
				error.				
33		AGSP Gauge Calibration	13	AGSP checksum error.	Defective AGSP			AGSP_cal_status
33			13	SIC checksum error.	Defective SIC	A high Battery Cutout fault has		SIC1_Calibration_Status
33	520644	PPE3 AC Module Input Voltage	3	High Voltage DC Bus.	An Over Voltage Condition in the AC module (Inverter High Voltage Bus).	occurred and the source of the fault		
				riigii voltage Do Das.	module (inverter riight voltage bus).	is the AC module (inverter high		
						voltage bus).		
33	520644	PPE3 AC Module Input Voltage	4	AC Module Undervoltage condition	An Under Voltage Condition in the AC	A low Battery Cutout fault has		
				on High Voltage DC Bus.	module (Inverter High Voltage Bus).	occurred and the source of the fault is the AC module (inverter high		
						voltage bus).		
33		Air Horn Solenoid Command	5	Air Horn Undercurrent	Open in Air Horn Circuit			
33	520649	Air Horn Solenoid Command	6	Air Horn Overcurrent	Short To Ground or Overload in Air Horn			
33	520650	Air Horn Switch / Headlight Interrupt	0	Headlight Interrupt, Marker Interrupt	Circuit AMH Request Circuit Open or Shorted		1600-B1	Steering_Wheel_Switches_
		Switch	-	and Air Horn Switch reading above				Raw_Signal
-	F0.22			normal range	-		1000 5	-
33	520650	Air Horn Switch / Headlight Interrupt	1		Short To Ground in AMH Request Circuit		1600-B1	Steering_Wheel_Switches_
		Switch		and Air Horn Switch reading below normal range				Raw_Signal
				-				

33	520651	Air Shield Lights Command	6	Air Shield Lighting Overcurrent	Short To Ground or Overload in Air Shield	Air_Shield_Lights_Cmd
33	520652	Auxiliary High Current Load Relay	5	High Current Load Under Current Or	Light Circuit Current below normal or open circuit	High_Current_Load_Cmd
33		Command Auxiliary High Current Load Relay		Open Circuit High Current Load Overcurrent	Current above normal or grounded circuit	High_Current_Load_Cmd
33		Command Auxiliary High Current Load Switch		High Current Load Switch Error	Data erratic, intermittent or incorrect	High_Current_Load_Switch
33		Auxiliary Transmission Constant	5	Auxiliary Transmission Solenoid B	Current below normal or open circuit	Aux_Xmsn_Solenoid_B_Cm
33	320034	Supply Air Solenoid Command	5	(Constant Supply) output is Under Current Or Open Circuit.	Current below normal or open circuit	d
33	520654	Auxiliary Transmission Constant Supply Air Solenoid Command	6	Auxiliary Transmission Solenoid B (Constant Supply) output is overcurrent.	Current above normal or grounded circuit	Aux_Xmsn_Solenoid_B_Cm d
33	520655	Auxiliary Transmission High Range Air Solenoid Command	5	Auxiliary Transmission Solenoid C (High) output is Under Current Or Open Circuit.	Current below normal or open circuit	Aux_Xmsn_Solenoid_C_Cm d
33	520655	Auxiliary Transmission High Range	6	Auxiliary Transmission Solenoid C	Current above normal or grounded circuit	Aux_Xmsn_Solenoid_C_Cm
33	520656	Air Solenoid Command Auxiliary Transmission Neutral Air Solenoid Command	5	(High) output is overcurrent. Auxiliary Transmission Solenoid A (Neutral) output is Under Current Or	Current below normal or open circuit	Aux_Xmsn_Solenoid_A_Cm
33	520656	Auxiliary Transmission Neutral Air	6	Open Circuit. Auxiliary Transmission Solenoid A	Current above normal or grounded circuit	Aux_Xmsn_Solenoid_A_Cm
33	520657	Solenoid Command Auxiliary Transmission Range Switch	n 2	(Neutral) output is overcurrent. Auxiliary Transmission High/Low	Data erratic, intermittent or incorrect	d Aux_Xmsn_Hi_Switch
33	520658	Body Equipment Hydraulic Power	5	Switch state is invalid. TEM Epump Inhibit Relay Under	Current below normal or open circuit	TEM_EPump_Inhibit_Relay
33	520658	Auxiliary Pump Inhibit Command Body Equipment Hydraulic Power	6	Current Or Open Circuit TEM Epump Inhibit Relay Over	Current above normal or grounded circuit	TEM_EPump_Inhibit_Relay
33	520659	Auxiliary Pump Inhibit Command Bus Amber Signal Light 1 Command	5	Current Left Front Amber PWL Undercurrent	Current below normal or open circuit	BUS_LF_Amber_PWL_Cmd
33	520659	Bus Amber Signal Light 1 Command	1 6	Left Front Amber PWL Overcurrent	Current above normal or grounded circuit	BUS_LF_Amber_PWL_Cmd
33	520660	Bus Amber Signal Light 2 Command	5	Right Front Amber PWL	Current below normal or open circuit	BUS_RF_Amber_PWL_Cm
33	520660	Bus Amber Signal Light 2 Command	6	Undercurrent Right Front Amber PWL Overcurrent	Current above normal or grounded circuit	d BUS_RF_Amber_PWL_Cm
33	520661	Bus Amber Signal Light 3 Command	1 5	Left Rear Amber PWL Undercurrent	Current below normal or open circuit	d BUS_LR_Amber_PWL_Cm
33	520661	Bus Amber Signal Light 3 Command	1 6	Left Rear Amber PWL Overcurrent	Current above normal or grounded circuit	d BUS_LR_Amber_PWL_Cm
33	520662	Bus Amber Signal Light 4 Command	1 5	Right Rear Amber PWL	Current below normal or open circuit	d BUS_RR_Amber_PWL_Cm
33	520662	Bus Amber Signal Light 4 Command	16	Undercurrent Right Rear Amber PWL Overcurrent	Current above normal or grounded circuit	d BUS_RR_Amber_PWL_Cm
33		Bus Red Signal Light 4 Command			Current below normal or open circuit	d BUS_RR_Red_PWL_Cmd
33		Bus Red Signal Light 4 Command		Right Rear Red PWL Overcurrent	Current above normal or grounded circuit	BUS_RR_Red_PWL_Cmd
33	520664	Bus Crossing Gate Command	5	Crossing Gate output is undercurrent.	Current below normal or open circuit	BUS_Crossing_Gate_Cmd
33	520664	Bus Crossing Gate Command	6		Current above normal or grounded circuit	BUS_Crossing_Gate_Cmd
33	520665	Bus Passenger Door Close Relay Command	5	Bus Entrance Door Close Relay Driver Output is Under Current Or	Current below normal or open circuit	BUS_Door_Close_Cmd
33	520665	Bus Passenger Door Close Relay	6	Open Circuit Bus Entrance Door Close Relay	Current above normal or grounded circuit	BUS_Door_Close_Cmd
33	520667	Command Bus Passenger Door Control Switch 2	0	Driver Output is overcurrent Bus Entrance Door Steering Wheel Switch Input Above Normal Range	Bus Door Control Switches Circuit Open or Shorted High	BUS_PWL_And_Door_Switc h_Raw_Signal
33	520667	Bus Passenger Door Control Switch 2	1	Bus Entrance Door Steering Wheel Switch Input Below Normal Range	Short To Ground in Bus Door Control Switches Circuit	BUS_PWL_And_Door_Switc h_Raw_Signal
33	520668	Bus Passenger Door Open Relay Command	5	Bus Entrance Door Open Relay Driver Output is Under Current Or Open Circuit	Current below normal or open circuit	BUS_Door_Open_Cmd
33	520668	Bus Passenger Door Open Relay	6	Bus Entrance Door Open Relay Driver Output is overcurrent	Current above normal or grounded circuit	BUS_Door_Open_Cmd
33		Command Bus Red Signal Light 1 Command		Left Front Red PWL Undercurrent	Current below normal or open circuit	BUS_LF_Red_PWL_Cmd
33		Bus Red Signal Light 1 Command		Left Front Red PWL Overcurrent	Current above normal or grounded circuit	BUS_LF_Red_PWL_Cmd
33		Bus Red Signal Light 2 Command		-	Current below normal or open circuit	BUS_RF_Red_PWL_Cmd
33		Bus Red Signal Light 2 Command	6	Right Front Red PWL Overcurrent	Current above normal or grounded circuit	BUS_RF_Red_PWL_Cmd
33 33	520671	Bus Red Signal Light 3 Command Bus Red Signal Light 3 Command	5 6	Left Rear Red PWL Undercurrent Left Rear Red PWL Overcurrent	Current below normal or open circuit Current above normal or grounded circuit	BUS_LR_Red_PWL_Cmd BUS_LR_Red_PWL_Cmd
33		Bus Stop Arm Command	5	Bus Stop Arm Output is Under Current Or Open Circuit	Current below normal or open circuit	BUS_Stop_Arm_Cmd
33		Bus Stop Arm Command	6		Current above normal or grounded circuit	BUS_Stop_Arm_Cmd
33 33	520673	Cab Dome Light 1 Command Cab Dome Light 1 Command	5 6	Cab Dome Light Open Circuit Cab Dome Light Short To Ground	Open in Cab Dome Light Circuit Short To Ground or Overload in Cab Dome Light Circuit	Dome_Light_Cmd Dome_Light_Cmd
33		Cab Dome Light 1 Switch	2	Cab Dome Light Switch is reporting an error.	Faulty Switch Actuator or Microswitch for Cab Dome Light Switch	Dome_Light_ON_Switch
33	520675	Cab Dome Light 2 Command	5	Sleeper Dome Light Relay Under Current Or Open Circuit	Open Circuit in Sleeper Dome Light Circuit	Sleeper_Cab_Dome_Light_ Req
33	520675	Cab Dome Light 2 Command	6	Sleeper Dome Light Over Current	Short To Ground in Sleeper Dome Light Circuit	Sleeper_Cab_Dome_Light_ Req
33	520676	Cab Dome Light 2 Switch	2	Sleeper Dome / Floor Search Light Switch Error	Faulty Switch Actuator or Microswitch for Sleeper Dome / Floor Search Light Switch	Floor_Lights_Cab_Switch
33	520677	Cab Floor Light Command	5	Floor Lights Relay Under Current Or Open Circuit	Open Circuit in Floor Light Circuit	Floor_Search_Lights_Req
33 33		Cab Floor Light Command Cab Window Motor 1 Status	6 7	Floor Lights Relay Over Current Driver Window Motor Failure	Short To Ground in Floor Light Circuit Driver Door Pod Module Window Motor	Floor_Search_Lights_Req Door_Pod_Master_WMF_Si
-	525010	/ indom motor i diatas		and	Has Short or Open or Window is Jammed	gnal

33	520679	Cab Window Motor 2 Status	7	Passenger Window Motor Failure	Passenger Door Pod Module Window Motor Has Short or Open or Window is Jammed	Door_Pod_Front_LMF_Sign al
33	520680	Cab Window Motor 3 Status	7	Rear Driver Window Motor Failure	Rear Driver Door Pod Module Window Motor Has Short or Open or Window is Jammed	Door_Pod_Rear_1_WMF_Si gnal
33	520681	Cab Window Motor 4 Status	7		Rear Passenger Door Pod Module Window Motor Has Short or Open or	Door_Pod_Rear_2_WMF_Si gnal
33	520682	Compression Brake Switch Indicator Lamp Command	5		Window is Jammed Current below normal or open circuit	Comp_Brake_LED_Ind_Cm
33	520682	Compression Brake Switch Indicator	6		Current above normal or grounded circuit	Comp_Brake_LED_Ind_Cm
33	520683	Lamp Command Door Control Module 1 Status	7	current Driver Door Pod Module Failure	Defective Driver Door Pod Module	d Door_Pod_Front_MF_Signal
33	520684	Door Control Module 2 Status	7	Passenger Door Pod Module Failure	Defective Passenger Door Pod Module	Door_Pod_Front_MF_Signal
33		Door Control Module 3 Status	7	-	Defective Rear Driver Door Pod Module	Door Pod Rear 1 MF Sign
33		Door Control Module 4 Status	7		Defective Rear Passenger Door Pod	al Door_Pod_Rear_2_MF_Sign
33				Failure	Module	al
		Engine Remote Start Command	5	Or Open Circuit	Open Circuit in Remote Bunk Start Circuit	Remote_Start_Relay
33		Engine Remote Start Command	6	•	Short To Ground in Remote Bunk Start Circuit	Remote_Start_Relay
33		Engine Remote Stop Command	5	Or Open Circuit	Open Circuit in Remote Bunk Stop Circuit	Remote_Stop_Relay
33	520688	Engine Remote Stop Command	6		Short To Ground in Remote Bunk Stop Circuit	Remote_Stop_Relay
33 33		Exterior Lamp Check Switch Fifth Wheel Slide Latch Solenoid Command	2		Data erratic, intermittent or incorrect Faulty Switch Actuator or Microswitch for Fifth Wheel Side Switch	BUS_ELC_On_Switch
33		Fog Light 2 Command	5		Open in Right Fog Light Circuit	
33		Fog Light 2 Command	6		Short To Ground or Overload in Right Fog Light Output Circuit	
33		Fuel Transfer Pump Command	5	Current Or Open Circuit	Open Circuit in Fuel Transfer Pump Circuit	
33		Fuel Transfer Pump Command	6	Ground	Short To Ground or Overload in Fuel Transfer Pump Circuit	
33	520693	Headlamp High Beam Command 1	5	Left High Beam Open Circuit	Open in Left High Beam Circuit	
33	520693	Headlamp High Beam Command 1	6	Left High Beam Short To Ground	Short To Ground or Overload in Left High Beam Circuit	
33	520694	Headlamp High Beam Command 2	5	Right High Beam Open Circuit	Open in Right High Beam Circuit	
33	520694	Headlamp High Beam Command 2	6	Right High Beam Short To Ground	Short To Ground or Overload in Right High Beam Circuit	
33	520695	HVAC Mode Control Actuator	2	HVAC Control Head Mode Fault DM1	HVAC Motor in Wrong Position or Jammed	
33	520696	HVAC Recirculation Door Control Actuator	2		HVAC Motor in Wrong Position or Jammed	
33	520697	HVAC System Controller	9	HVAC Control Head Circuit Failed To		
33	520698	Ignition Signal	2	Communicate With The BC Key State Ignition Signal Error	Open in Ignition Signal Input Circuit To BC	
33	520703	Lift Gate Power Control Enable	5	Lift Gate Enable Undercurrent	Current below normal or open circuit	
33	520703	Command Lift Gate Power Control Enable Command	6	Lift Gate Enable Overcurrent	Current above normal or grounded circuit	
33		Lift Gate Power Control Switch	2		Data erratic, intermittent or incorrect	
33		Load Shed OFF Command	5	Current Or Open Circuit	Open Circuit in Load Shed OFF Circuit	
33		Load Shed OFF Command	6	Load Shed OFF Relay Over Current	Circuit	
33	520706	Load Shed ON Command	5	Load Shed ON Relay Under Current Or Open Circuit	Open Circuit in Load Shed ON Circuit	
33	520706	Load Shed ON Command	6	Load Shed ON Relay Over Current	Short To Ground in Load Shed ON Circuit	
33	520707	Loop Time Exceeded	14	BC Internal Fault, Main Loop Time Exceeded	Software Configuration Too Big	
33 33		Marker Interrupt Switch Mirror Heat 2 Command	2 5	Marker Interrupt Switch Failure Right Mirror Heat Undercurrent	Data erratic, intermittent or incorrect Open in Right Mirror Heat Circuit	Marker_Interrupt_Switch
33	520709	Mirror Heat 2 Command	6	Right Mirror Heat Overcurrent	Short To Ground or Overload in Right Mirror Heat Circuit	
33	520711	Primary Air Tank Drain Valve Actuator Command	5		Current below normal or open circuit	
33	520711	Primary Air Tank Drain Valve Actuator Command	6		Current above normal or grounded circuit	
33	520712	Primary Tank Drain Valve Switch	2	Humphrey Valve Primary Tank	Data erratic, intermittent or incorrect	Hmphry_Vlve_Prim_Tk_Ope
33	520713	Rear HVAC Blower Speed Control Switch	2	Switch Error Rear HVAC Blower Speed Control Switch Error	Faulty Switch Actuator or Microswitch for Rear HVAC Blower Speed Control Switch	n Rear_HVAC_Blower_UP
33	520714	Rear HVAC Temperature Control Switch	2		Faulty Switch Actuator or Microswitch for Rear HVAC Temperature Control Switch	Rear_HVAC_Temp_UP
33	520715	Secondary Tank Drain Valve Actuator Command	5	Solenoid Under Current Or Open	Current below normal or open circuit	
33	520715	Secondary Tank Drain Valve	6		Current above normal or grounded circuit	
33	520716	Actuator Command Secondary Tank Drain Valve Switch	2		Data erratic, intermittent or incorrect	Hmphry_VIve_Sec_Tk_Ope
33	520720	Snow Plow Light Left Forward	5		Current below normal or open circuit	n Left_Plow_Lights_Relay_Re
33	520720	Lighting Relay Command Snow Plow Light Left Forward	6	Or Open Circuit Left Plow Light Relay Circuit Short	Current above normal or grounded circuit	q Left_Plow_Lights_Relay_Re
33		Lighting Relay Command Snow Plow Light Right Forward	5	To Ground Right Plow Light Relay Under	Current below normal or open circuit	q Right_Plow_Lights_Relay_R
33		Lighting Relay Command Snow Plow Light Right Forward	6	Current Or Open Circuit	Current above normal or grounded circuit	eq Right_Plow_Lights_Relay_R
-		Lighting Relay Command		To Ground	•	eq

33 33		Snow Plow Lighting Mode Switch Supply Air Tank Drain Valve Actuate Command	2 or 5	Snow Plow Switch Error Humphrey Valve Wet Tank Solenoid Under Current Or Open Circuit	Data erratic, intermittent or incorrect Current below normal or open circuit		Plow_Lights_Switch Hmphry_Vlve_Wet_Tk_Sol_ Cmd
33	520725	Supply Air Tank Drain Valve Actuate Command	or 6	Humphrey Valve Wet Tank Solenoid Short To Ground	Current above normal or grounded circuit		Hmphry_Vlve_Wet_Tk_Sol_ Cmd
33	520726	Supply Air Tank Drain Valve Switch	2	Humphrey Valve Wet Tank Switch Error	Data erratic, intermittent or incorrect		Hmphry_Vlve_Wet_Tk_Ope
33	520727	Trailer Auxiliary Power Switch	2	Auxiliary Switch Error	Faulty Switch Actuator or Micro switch for Auxiliary Trailer Switch		EGC_Digital_Input_1
33	520728	Trailer Left Turn Light Relay Command	5	Trailer Left Turn Lamp Relay Under Current Or Open Circuit	Open Circuit in Trailer Left Turn Lamp Circuit		Trailer_Left_Light
33	520728	Trailer Left Turn Light Relay Command	6	Trailer Left Turn Lamp Relay Over Current	Short To Ground in Trailer Left Turn Lamp Circuit		Trailer_Left_Light
33	520729	Trailer License Plate Light Relay	5	Trailer License Plate Lamp Relay	Open Circuit in Trailer License Plate		Trailer_Plate_Light
33	520729	Command Trailer License Plate Light Relay	6	Under Current Or Open Circuit Trailer License Plate Lamp Relay	Lamp Circuit Short To Ground in Trailer License Plate		Trailer_Plate_Light
33	520730	Command Trailer Marker Light Relay Comman	nd 5	Over Current Trailer Marker Lamp Relay Under	Lamp Circuit Open Circuit in Trailer Marker Lamp		Trailer_Marker_Light
33	520730	Trailer Marker Light Relay Comman	nd 6	Current Or Open Circuit Trailer Marker Lamp Relay Over	Circuit Short To Ground in Trailer Marker Lamp		Trailer_Marker_Light
33	520731	Trailer Right Turn Light Relay	5	Current Trailer Right Turn Lamp Relay Under	Circuit Open Circuit in Trailer Right Turn Lamp		Trailer_Right_Light
33	520731	Command Trailer Right Turn Light Relay	6	Current Or Open Circuit Trailer Right Turn Lamp Relay Over	Circuit Short To Ground in Trailer Right Turn		Trailer_Right_Light
33	520732	Command Trailer Stop Light Relay Command 5	5	Current Trailer Stop Lamp Relay Under	Lamp Circuit Open Circuit in Trailer Stop Lamp Circuit		Trailer_Stop_Light
33		Trailer Stop Light Relay Command 6		Current Or Open Circuit Trailer Stop Lamp Relay Over	Short To Ground in Trailer Stop Lamp		Trailer_Stop_Light
33		Transfer Case Blower Switch	2	Current Transfer Case Switch Error	Circuit Data erratic, intermittent or incorrect		Transfer_Case_Blower_Swit
		Transfer Case Front Driveline	5	Transfer Case Solenoid D Under			ch
33		Solenoid Command		Current Or Open Circuit	Current below normal or open circuit		Xfer_Case_Sol_D_Cmd
33		Transfer Case Front Driveline Solenoid Command	6	Ground	Current above normal or grounded circuit		Xfer_Case_Sol_D_Cmd
33	520735	Transfer Case High Range Solenoid Command	d 5	Transfer Case Solenoid C Under Current Or Open Circuit	Current below normal or open circuit		Xfer_Case_Sol_C_Cmd
33	520735	Transfer Case High Range Solenoid Command	d 6	Transfer Case Solenoid C Short To Ground	Current above normal or grounded circuit		Xfer_Case_Sol_C_Cmd
33	520736	Transfer Case Low Range Solenoid Command	15	Transfer Case Solenoid A Under Current Or Open Circuit	Current below normal or open circuit		Xfer_Case_Sol_A_Cmd
33	520736	Transfer Case Low Range Solenoid Command	16		Current above normal or grounded circuit		Xfer_Case_Sol_A_Cmd
33	520737	Transfer Case Neutral Solenoid Command	5	Transfer Case Solenoid B Under Current Or Open Circuit	Current below normal or open circuit		Xfer_Case_Sol_B_Cmd
33	520737	Transfer Case Neutral Solenoid	6	Transfer Case Solenoid B Short To	Current above normal or grounded circuit		Xfer_Case_Sol_B_Cmd
33	520738	Command Transfer Case PTO Solenoid	5		Current below normal or open circuit		SSpd_Xfer_Case_NO_Sol_
33	520738	Command Transfer Case PTO Solenoid	6		Current above normal or grounded circuit		Cmd SSpd_Xfer_Case_NO_Sol_
33	520739	Command Transfer Case PTO Solenoid Relay	5	Current Transfer Case PTO Solenoid Under	Current below normal or open circuit		Cmd Xfer_Case_PTO_Solenoid_
33	520739	Command Transfer Case PTO Solenoid Relay	6	Current Or Open Circuit Transfer Case PTO Solenoid Short	Current above normal or grounded circuit		Cmd Xfer_Case_PTO_Solenoid_
33	520740	Command Transfer Case PTO Switch	2	To Ground Transfer Case PTO Switch Error	Data erratic, intermittent or incorrect		Cmd Xfer_Case_PTO_Eng_Switc
33		Transfer Case Range Switch	2	Transfer Case Switch Error	Data erratic, intermittent or incorrect		n Xfer_Case_High_Switch
33		Transfer Case Rear Driveline Solenoid Command	5	Air Solenoid A Packs Relay Under Current Or Open Circuit	Current below normal or open circuit		SSpd_Xfer_Case_NC_Sol_ Cmd
33		Transfer Case Rear Driveline Solenoid Command	6	Air Solenoid A Packs Relay Over Current	Current above normal or grounded circuit		SSpd_Xfer_Case_NC_Sol_ Cmd
33	520743	Transmission PTO Engagement Actuator Command	5	TEM PTO Engagement Relay Under Current Or Open Circuit	Current below normal or open circuit		TEM_PTO_Engagement_Re lay_Cmd
33	520743	Transmission PTO Engagement Actuator Command	6	TEM PTO Engagement Relay Overcurrent	Current above normal or grounded circuit		TEM_PTO_Engagement_Re lay Cmd
33	520744	Transmission PTO Retention Actuator Command	5	TEM PTO Retaining Solenoid Undercurrent	Current below normal or open circuit		TEM_PTO_Retaining_Solen
33	520744	Transmission PTO Retention Actuator Command	6	TEM PTO Retaining Solenoid Overcurrent	Current above normal or grounded circuit		TEM_PTO_Retaining_Solen oid_Cmd
33	520745	Transmission PTO Switch	2		Data erratic, intermittent or incorrect		TEM_PTO_Engagement_S witch_On
33	520746	Transmission Retarder Enable Switch	2	Transmission Retarder On/Off switch Failure	Data erratic, intermittent or incorrect		Retarder_Switch
33	520747	Two Speed Axle Actuator	5	Two Speed Axle Solenoid Relay	Current below normal or open circuit		Two_Spd_Axle_Solenoid_C
33	520747	Two Speed Axle Actuator	6	Under Current Or Open Circuit Two Speed Axle Solenoid Relay	Current above normal or grounded circuit		md Two_Spd_Axle_Solenoid_C
33		Wiper Motor Power	5	Short To Ground Wiper Motor Undercurrent	Open in Wiper Motor Circuit		md Wipers_Cmd
33		Wiper Motor Power	6	Wiper Motor Overcurrent	Short To Ground or Overload in Wiper Motor Circuit		Wipers_Cmd
33	520749	Mirror Heater	2	Mirror Heat Switch Error	Faulty Switch Actuator or Microswitch for Mirror Heat Switch		Mirror_Heat_On_Switch
33 33		Fog Lights Left Command Fog Lights Left Command	5 6	Left Fog Light Undercurrent Left Fog Light Overcurrent	Open in Left Fog Light Circuit Short To Ground or Overload in Left Fog		
33		ICON Freedomline Gear Indicator	5	ICON Freedomline Gear Indicator	Light Circuit Open Circuit in ICON Freedomline Gear	1601-F9	Freedomline_Gear_Indicatio
33		ICON Freedomline Gear Indicator 6		Relay Under Current ICON Freedomline Gear Indicator	Indicator Circuit Short To Ground in ICON Freedomline	1601-F9	n_Relay_Cmd Freedomline_Gear_Indicatio
33		Electrical Accessory Power Switch 2		Relay Over Current	Gear Indicator Circuit Faulty Switch Actuator or Microswitch for	.00119	n_Relay_Cmd Sw_Acc_Load_On_Switch
33		Transmission Economy Mode Switch		Error	Faulty Switch Actuator or Microswitch for Electrical Accessory Power Switch Faulty Switch Actuator or Microswitch for		
33	320/33	rransmission Economy Mode SWIC	A1 Z	Error	Transmission Economy Mode Switch		Bus_Econ_Mode_Switch
33	520754	Universal Air Solenoid Relay Driver 2	2 5	Universal Air Solenoid Relay Driver 2 Under Current Or Open Circuit	Open Circuit or Defective Solenoid		Univ_Air_Relay_Driver_2
33	520754	Universal Air Solenoid Relay Driver 2	2 6	Universal Air Solenoid Relay Driver 2	Short To Ground or Defective Solenoid		Univ_Air_Relay_Driver_2
33	520755	Universal Air Solenoid Relay Driver 3	3 5	Over Current Universal Air Solenoid Relay Driver 3 Under Current Or Open Circuit	Open Circuit or Defective Solenoid		Univ_Air_Relay_Driver_3
				•			

33	520755	Universal Air Solenoid Relay Driver 3	3 6	Universal Air Solenoid Relay Driver 3 Over Current	Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_3
33	520756	Universal Air Solenoid Relay Driver 4	1 5	Universal Air Solenoid Relay Driver 4 Under Current Or Open Circuit	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_4
33	520756	Universal Air Solenoid Relay Driver 4	1 6		Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_4
33	520757	Universal Air Solenoid Relay Driver 5	5 5	Universal Air Solenoid Relay Driver 5	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_5
33	520757	Universal Air Solenoid Relay Driver 5	6		Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_5
33	520758	Universal Air Solenoid Relay Driver 6	5 5	Over Current Universal Air Solenoid Relay Driver 6	Open Circuit or Defective Solenoid			
33	520758	Universal Air Solenoid Relay Driver 6	6		Short To Ground or Defective Solenoid			
33	520759	Universal Air Solenoid Relay Driver 7	5	Over Current Universal Air Solenoid Relay Driver 7	Open Circuit or Defective Solenoid			
33	520759	Universal Air Solenoid Relay Driver 7	6		Short To Ground or Defective Solenoid			
33	520760	Universal Air Solenoid Relay Driver 8	3 5	Over Current Universal Air Solenoid Relay Driver 8	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_8
33	520760	Universal Air Solenoid Relay Driver 8	8 6		Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_8
33	520761	Universal Air Solenoid Relay Driver 9	5	Over Current Universal Air Solenoid Relay Driver 9	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_9
33	520761	Universal Air Solenoid Relay Driver 9	9 6		Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_9
33	520762	Universal Air Solenoid Relay Driver	5	Over Current Universal Air Solenoid Relay Driver	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_10
33	520762	10 Universal Air Solenoid Relay Driver	6	10 Under Current Or Open Circuit Universal Air Solenoid Relay Driver	Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_10
33	520763	10 Universal Air Solenoid Relay Driver	5	10 Over Current Universal Air Solenoid Relay Driver	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_11
33	520763	11 Universal Air Solenoid Relay Driver	6		Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_11
33	520764	11 Universal Air Solenoid Relay Driver	5	11 Over Current Universal Air Solenoid Relay Driver	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_12
33	520764	12 Universal Air Solenoid Relay Driver	6	12 Under Current Or Open Circuit Universal Air Solenoid Relay Driver	Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_12
33	520765	12 Universal Air Solenoid Relay Driver	5	12 Over Current Universal Air Solenoid Relay Driver	Open Circuit or Defective Solenoid			BUS_Spare_Relay_Driver_F
		13		13 or Spare Relay Driver 4 Under Current Or Open Circuit				our_Cmd, Univ_Air_Relay_Driver_13
33	520765	Universal Air Solenoid Relay Driver 13	6	Universal Air Solenoid Relay Driver 13 or Spare Relay Driver 4 Over	Short To Ground or Defective Solenoid			BUS_Spare_Relay_Driver_F our_Cmd,
33	520766	Universal Air Solenoid Relay Driver 14	5	Current Universal Air Solenoid Relay Driver 14 or Spare Relay Driver 3 Under	Open Circuit or Defective Solenoid			Univ_Air_Relay_Driver_13 BUS_Spare_Relay_Driver_T hree_Cmd,
33	520766	Universal Air Solenoid Relay Driver	6	Current Or Open Circuit	Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_14 BUS_Spare_Relay_Driver_T
00		14		14 or Spare Relay Driver 3 Over Current				hree_Cmd, Univ_Air_Relay_Driver_14
33		Universal Air Solenoid Relay Driver 15		Universal Air Solenoid Relay Driver 15 Under Current Or Open Circuit	•			Univ_Air_Relay_Driver_15
33		Universal Air Solenoid Relay Driver 15		15 Over Current	Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_15
33		Universal Air Solenoid Relay Driver 16		Universal Air Solenoid Relay Driver 16 Under Current Or Open Circuit	•			Univ_Air_Relay_Driver_16
33		Universal Air Solenoid Relay Driver 16		16 Over Current	Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_16
33		BUS Spare Relay Driver One	5	Spare Relay Driver One Under Current Or Open Circuit	Open Circuit			BUS_Spare_Relay_Driver_ One_Cmd
33		BUS Spare Relay Driver One	6	Spare Relay Driver One Over Current	Short To Ground			BUS_Spare_Relay_Driver_ One_Cmd
33		BUS Spare Relay Driver Two	5	Spare Relay Driver Two Under Current Or Open Circuit	Open Circuit			BUS_Spare_Relay_Driver_T wo_Cmd
33		BUS Spare Relay Driver Two	6	Spare Relay Driver Two Over Current	Short To Ground			BUS_Spare_Relay_Driver_T wo_Cmd
33	520771	PPE3 AC Module Output Current	6	AC Module has shutdown due to overload condition.	A Surge may have occurred for a while in the Vehicle AC bus for a long time (The d inverter supplies additional current to the load).	etected in the AC module and the		
33 33		PPE3 Fuse Open PPE3 AC Module Temperature	31 0	PPE3 Fuse Open. AC module over temperature condition.	Load exceeded rating. An overcurrent condition in the Vehicle Al Bus might have caused an over	occurred and the source of the fault		
33	520774	PPE3 DC Module Temperature	0	DC module over temperature condition.	temperature. An overcurrent condition in the Vehicle Dibus might have caused an over	is the AC module (inverter high voltage bus). C An Over Temperature fault has occurred and the source of the fault		
					temperature.	is the DC regulator (Vehicle Battery Bus).		
33	520775	Anti Theft Ignition Relay	5	Anti Theft Ignition Relay Under Current Or Open Circuit	Open circuit in Anti Theft Ignition Circuit		1601-E4	Anti_Theft_Ignition_Relay
33		Anti Theft Ignition Relay	6		Short to Ground in Anti Theft Ignition Circuit		1601-E4	Anti_Theft_Ignition_Relay
33	520776	Anti Theft Engine Stop Switch	2	Anti Theft Engine Stop Switch Error	Faulty Switch Actuator or Microswitch for Anti Theft Engine Stop Switch			Anti_Theft_Engine_Stop_Sw itch
33	520777	Anti Theft Switch 0	2	Anti Theft Switch 0 Error	Faulty Switch Actuator or Microswitch for Anti Theft Switch 0			Anti_Theft_Switch_0
33	520778	Anti Theft Switch 1	2	Anti Theft Switch 1 Error	Faulty Switch Actuator or Microswitch for Anti Theft Switch 1			Anti_Theft_Switch_1
33		Anti Theft Switch 2	2	Anti Theft Switch 2 Error	Faulty Switch Actuator or Microswitch for Anti Theft Switch 2			Anti_Theft_Switch_2
33	520780	Anti Theft Switch 3	2	Anti Theft Switch 3 Error	Faulty Switch Actuator or Microswitch for Anti Theft Switch 3			Anti_Theft_Switch_3
33	520781	Anti Theft Switch 4	2	Anti Theft Switch 4 Error	Faulty Switch Actuator or Microswitch for Anti Theft Switch 4			Anti_Theft_Switch_4
33		TEG Aux Relay Driver 1	5	TEG Aux Relay Driver Output 1 Under Current Or Open Circuit	Current below normal or open circuit		1601-E16	TEG_Aux_Relay_Driver_1_ RD13_Cmd
33		TEG Aux Relay Driver 1	6	TEG Aux Relay Driver Output 1 Overcurrent	Current above normal or grounded circuit		1601-E16	TEG_Aux_Relay_Driver_1_ RD13_Cmd
33		TEG Aux Relay Driver 2	5	TEG Aux Relay Driver Output 2 Under Current Or Open Circuit	Current below normal or open circuit		1601-E12	TEG_Aux_Relay_Driver_2_ RD14_Cmd
33	520799	TEG Aux Relay Driver 2	6	TEG Aux Relay Driver Output 2 Overcurrent	Current above normal or grounded circuit		1601-E12	TEG_Aux_Relay_Driver_2_ RD14_Cmd

33	520800	Transmission Economy Mode output	5	Transmission Economy Mode Relay Driver Output Under Current Or Open Circuit	Current below normal or open circuit		1601-F11	Econ_Mode_Enable_Cmd
33	520800	Transmission Economy Mode output	6		Current above normal or grounded circuit		1601-F11	Econ_Mode_Enable_Cmd
33	520801	Transmission Auto Neutral Output	5	Transmission Auto Neutral Relay Driver Output Under Current Or Open Circuit	Current below normal or open circuit		1601-E3	Auto_Neutl_Relay_Cmd
33	520801	Transmission Auto Neutral Output	6	Transmission Auto Neutral Relay	Current above normal or grounded circuit		1601-E3	Auto_Neutl_Relay_Cmd
33	520802	Aux Air Susp Solenoid Command	5	Driver Output Overcurrent Aux Air Suspension Solenoid Under	Open Circuit or Defective Solenoid		1602-E12	Aux_Air_Susp_Solenoid_Cm
33	520802	Aux Air Susp Solenoid Command	6		Short To Ground or Defective Solenoid		1602-E12	d Aux_Air_Susp_Solenoid_Cm
33	520803	Park Brake Relay Command	5	Over Current Park Brake Relay Under Current or Open Circuit	Open Circuit or Defective Solenoid		1601-E7 1601-F1	d Park_Brake_Relay_Cmd
33	520803	Park Brake Relay Command	6	Park Brake Relay Over Current	Short To Ground or Defective Solenoid		(BUS) 1601-E7 1601-F1	Park_Brake_Relay_Cmd
33	520804	RKE Option Door Pod Not Present	14	Missing Remote Keyless entry door pod	Expected RKE door pod is not present or in the wrong slot or bad door pod harness		(BUS) Not available	RKE_Option_Front_Passeng er_Byte6
33	520806	Fifth Wheel Jaw Unlock Sol2 Command	5	Fifth Wheel Jaw Unlock Solenoid2 output Under Current or Open Circuit	Open Circuit or Defective Solenoid			Fifth_Wheel_Jaw_Unlock_S ol2_Cmd
33	520806	Fifth Wheel Jaw Unlock Sol2	6		Short To Ground or Defective Solenoid			Fifth_Wheel_Jaw_Unlock_S
33	520807	Command Engine RPM Interrupt Output	5	output Overcurrent Engine RPM Interrupt Relay Driver Output Under Current Or Open	Current below normal or open circuit		1601-F3	ol2_Cmd Engine_RPM_Interrupt
33	520807	Engine RPM Interrupt Output	6	Circuit Engine RPM Interrupt Relay Driver	Current above normal or grounded circuit		1601-F3	Engine_RPM_Interrupt
33	520813	Aux_Relay_Driver_3	5	Output Overcurrent Relay Driver 3 Undercurrent	Open in Relay Driver 3 Circuit		1601-E3	Aux_Relay_Driver_3
33	520813	Aux_Relay_Driver_3	6	Relay Driver 3 Overcurrent	Short To Ground or Overload in Relay Driver 3 Output Circuit		1601-E3	Aux_Relay_Driver_3
33 33		Aux_Relay_Driver_4 Aux_Relay_Driver_4	5 6	Relay Driver 4 Undercurrent Relay Driver 4 Overcurrent	Open in Relay Driver 4 Circuit Short To Ground or Overload in Relay		1601-E4 1601-E4	Aux_Relay_Driver_4 Aux_Relay_Driver_4
33		Sixth Gear Disable Relay	5	Sixth Speed Disable Relay is	Driver 4 Output Circuit Open Circuit on the Sixth Gear Disable		1601-E4	/tax_rtclay_bilvcl_4
33		Sixth Gear Disable Relay	6	Undercurrent or Open Circuit	Relay Short to Battery on the Sixth Speed		1001 24	
		•		Overcurrent	Disable Relay			
33		Sixth Gear Disable LED	5	Output is Under Current or Open Circuit	Open Circuit on the Sixth Gear Disable LED Relay Driver			
33		Sixth Gear Disable LED	6	Sixth Gear Disable LED Relay Driver Output is Over Current	Disable LED Relay			
33		Sixth Gear Disable Switch	2	invalid	Fault Switch Actuator or Micro switch for Sixth Gear Disable Switch			
33	520818	HEV ePTO Pressure Feedback	0	HEV ePTO Pressure Feedback Sensor reading above normal range	HEV ePTO Pressure Feedback Shorted High or faulty sensor system			HEV_ePTO_Pressure_Feed back_Raw
33	520818	HEV ePTO Pressure Feedback	1	HEV ePTO Pressure Feedback Sensor reading below normal range	HEV ePTO Pressure Feedback Shorted to Ground or Open Circuit or faulty sensor system			HEV_ePTO_Pressure_Feed back_Raw
33	520819	Universal Air Solenoid Relay Driver 1	5	Universal Air Solenoid Relay Driver 1 Under Current Or Open Circuit				Univ_Air_Relay_Driver_1
33	520819	Universal Air Solenoid Relay Driver 1	6		Short To Ground or Defective Solenoid			Univ_Air_Relay_Driver_1
33	520820	Wig-Wag Switch	2	Wig-Wag Switch Error	Faulty Switch Actuator or Microswitch for Wig-Wag Switch			Wig_Wag_Enable_Switch
33	520822	Remote Condenser Electric Fan	5		Open Circuit in Electric Fan A output	Not available	Not available	RMC_Fan_Control_A_Cmd
33	520822	Control A Remote Condenser Electric Fan Control A	6	or Open Circuit Electric Fan A output Short-Circuit	Short circuit detected in Electric Fan A output	two different outputs: Low Side Driver RD4 - Fault is reported when Short to Battery condition is detected High Side Driver RD31 - Fault is	Not available	RMC_Fan_Control_A_Cmd
33	F20022	Remote Condenser Electric Fan	5	Florida Foo Doubout Hadas Coment	Open Circuit in Electric Fan B output	reported when Short to Ground condition is Detected Not available	Not	RMC_Fan_Control_B_Cmd
33		Control B Remote Condenser Electric Fan	6	or Open Circuit			available	RMC Fan Control B Cmd
33	520823	Control B	0	Electric Fan B output Short-Circuit	Short circuit detected in Electric Fan B output	Electric Fan B can be configured for two different outputs: Low Side Driver RD7 - Fault is reported when Short to Battery condition is detected High Side Driver RD32 - Fault is reported when Short to Ground condition is Detected	Not available	RMC_Fa1_CONIO_B_CING
33	520839	Transfer Case Output Shaft Odometer Shutoff Relay	5	Transfer Case Output Shaft Odometer Shutoff Relay Undercurrent	Open in Odometer Shutoff Relay Circuit	condition is believed		SSpd_Xfer_Case_Odo_Shut off_Cmd
33	520839	Transfer Case Output Shaft Odometer Shutoff Relay	6	Transfer Case Output Shaft Odometer Shutoff Relay Overcurrent	Short or Overload in odometer Shutoff Relay Circuit		1601-E4	SSpd_Xfer_Case_Odo_Shut off_Cmd
33	520840	Switch 12-Pack Location 7	13	Unexpected switch in 12-pack (MID 5) bottom row position 1 from left (Switch 7 of 12)	Switch actuator installed or bad microswitch in location configured as empty		Not available	P_J1708IN_5_254_164_2_1 _1
33	520841	Switch 12-Pack Location 8	13		Switch actuator installed or bad microswitch in location configured as empty	Not available	Not available	P_J1708IN_5_254_164_2_1 _3
33	520842	Switch 12-Pack Location 9	13	Unexpected switch in 12-pack (MID	Switch actuator installed or bad microswitch in location configured as empty	Not available	Not available	P_J1708IN_5_254_164_2_1 _5
33	520843	Switch 12-Pack Location 10	13	Unexpected switch in 12-pack (MID	Switch actuator installed or bad microswitch in location configured as empty	Not available	Not available	P_J1708IN_5_254_164_2_1 _7
33	520844	Switch 12-Pack Location 11	13	Unexpected switch in 12-pack (MID	Switch actuator installed or bad microswitch in location configured as empty	Not available	Not available	P_J1708IN_5_254_164_2_2 _1

33	520845	Switch 12-Pack Location 12	13		microswitch in location configured as	Not available	Not available	P_J1708IN_5_254_164_2_2 _3
33	520846	Switch 12-Pack Location 1	13		microswitch in location configured as	Not available	Not available	P_J1708IN_6_254_164_2_1 _1
33	520847	Switch 12-Pack Location 2	13		empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_6_254_164_2_1 _3
33	520848	Switch 12-Pack Location 3	13	2 of 12) Unexpected switch in 12-pack (MID 6) top row position 3 from left (Switch	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_6_254_164_2_1 _5
33	520849	Switch 12-Pack Location 4	13		empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_6_254_164_2_1 _7
33	520850	Switch 12-Pack Location 5	13	4 of 12) Unexpected switch in 12-pack (MID 6) top row position 5 from left (Switch	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_6_254_164_2_2 1
33	520851	Switch 12-Pack Location 6	13	5 of 12) Unexpected switch in 12-pack (MID	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_6_254_164_2_2 _3
33	520852	Switch 6-Pack #2 Location 1	13	6 of 12) Unexpected switch in switchpack 2	empty	Not available	Not available	P_J1708IN_7_254_164_2_1 1
33	520853	Switch 6-Pack #2 Location 2	13	of 6) Unexpected switch in switchpack 2	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_7_254_164_2_1 _3
33	520854	Switch 6-Pack #2 Location 3	13	of 6) Unexpected switch in switchpack 2	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_7_254_164_2_1 _5
33	520855	Switch 6-Pack #2 Location 4	13	of 6) Unexpected switch in switchpack 2	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_7_254_164_2_1 _7
33	520856	Switch 6-Pack #2 Location 5	13	of 6) Unexpected switch in switchpack 2	empty	Not available	Not available	P_J1708IN_7_254_164_2_2
33	520857	Switch 6-Pack #2 Location 6	13	of 6) Unexpected switch in switchpack 2	empty Switch actuator installed or bad	Not available	Not	_1 P_J1708IN_7_254_164_2_2
33	520858	Switch 6-Pack #1 Location 1	13	of 6) Unexpected switch in switchpack 1	microswitch in location configured as empty Switch actuator installed or bad	Not available	Not	_3 P_J1708IN_15_254_164_2_
	500050	O data O Bart #41 control O	40	1 of 6)	microswitch in location configured as empty	Not as a Solida	available	1_1
33			13	2 of 6)	Switch actuator installed or bad microswitch in location configured as empty	Not available	Not available	P_J1708IN_15_254_164_2_ 1_3
33	520860	Switch 6-Pack #1 Location 3	13	(MID 15) position 3 from left (Switch	Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_15_254_164_2_ 1_5
33	520861	Switch 6-Pack #1 Location 4	13	(MID 15) position 4 from left (Switch	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_15_254_164_2_ 1_7
33	520862	Switch 6-Pack #1 Location 5	13	(MID 15) position 5 from left (Switch	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_15_254_164_2_ 2_1
33	520863	Switch 6-Pack #1 Location 6	13	(MID 15) position 6 from left (Switch	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_15_254_164_2_ 2_3
33	520864	Rear Axle Load Distribution Switch	2		empty Faulty Switch Actuator or Microswitch for	Not available	Not	Rear_Axle_Load_Distributio
33	520865	Rear Axle Load Distribution Solenoid A	5	Error Rear Axle Load Distribution A Relay Under Current Or Open Circuit	Rear Axle Load Distribution Switch Open Circuit or Defective Solenoid	Not available	available Not available	n_Switch Axle_Load_Distribution_Sole noid_A_Cmd
33	520865	Rear Axle Load Distribution Solenoid	6		Short To Ground or Defective Solenoid	Not available	Not	Axle_Load_Distribution_Sole
33	520866	A Rear Axle Load Distribution Solenoid B	5	Short To Ground Rear Axle Load Distribution B Relay Under Current Or Open Circuit	Open Circuit or Defective Solenoid	Not available	available Not available	noid_A_Cmd Axle_Load_Distribution_Sole noid_B_Cmd
33	520866	Rear Axle Load Distribution Solenoid	6		Short To Ground or Defective Solenoid	Not available	Not	Axle_Load_Distribution_Sole
33	520867	B Snow Valve Motor Relays	6		Short to Ground or Defective Relay(s)	Not available	available Not	noid_B_Cmd Snow_Valve_Motor_Cmd
33	520868	HVAC Condenser Pusher Fan Relay	5	Over Current HVAC Condenser Pusher Fan Output Under Current or Open	Open Circuit on HVAC Condenser Pusher Fan circuit	Not available	available Not available	HVAC_Pusher_Fan_Cmd
33	520868	HVAC Condenser Pusher Fan Relay	6	Circuit HVAC Condenser Pusher Fan	Short to Ground in the HVAC Condenser	Not available	Not	HVAC_Pusher_Fan_Cmd
33	520869	Trailer BO Stop	6	Output Over Current Trailer BO Stop Overcurrent	Pusher Fan circuit Current above normal or grounded circuit	Not available	available 1601-F9	TRLR_BO_Stop_Cmd
33	520870	Trailer BO Marker	6	Trailer BO Marker Overcurrent	Current above normal or grounded circuit	Not available	1601-E14	TRLR_BO_Marker_Cmd
33	520871	BO Ignition_1	6	BO Ignition_1 Overcurrent	Current above normal or grounded circuit	Not available	1601-E16	BO_Ignition_1_Cmd
33	520872	BO Ignition_2	6	BO Ignition_2 Overcurrent	Current above normal or grounded circuit	Not available	1601-F1	BO_Ignition_2_Cmd
33	520873	BO Ignition_3	6	BO Ignition_3 Overcurrent	Current above normal or grounded circuit	Not available	1601-E1	BO_Ignition_3_Cmd
33	520874	BO Ignition_4	6	BO Ignition_4 Overcurrent	Current above normal or grounded circuit	Not available	1601-E2	BO_Ignition_4_Cmd
33	520875	Winch IN / OUT Switch	2	Winch IN OUT Switch Error	Faulty Switch Actuator or Microswitch for Winch IN OUT Switch	Not available	Not available	Winch_Dir_In_Switch
			5		Current below normal or open circuit	Not available	Not available	Winch_In_Cmd
33	520876	Winch IN Command		or open circuit				
33 33			6		Current above normal or grounded circuit	Not available	Not available	Winch_In_Cmd
	520876	Winch IN Command	6 5	Winch IN relay driver over current Winch OUT relay driver under	Current above normal or grounded circuit Current below normal or open circuit	Not available Not available	available Not	Winch_In_Cmd Winch_Out_Cmd
33	520876 520877	Winch IN Command Winch OUT Command		Winch IN relay driver over current Winch OUT relay driver under current or open circuit	_	Not available	available	
33 33	520876 520877 520877	Winch IN Command Winch OUT Command Winch OUT Command	5	Winch IN relay driver over current Winch OUT relay driver under current or open circuit	Current below normal or open circuit Current above normal or grounded circuit	Not available	available Not available Not	Winch_Out_Cmd

33		NEC Service Door Command	5	NEC Service DoorCommand is Under Current Or Open Circuit	Open Circuit or Defective Solenoid	Not available	Not available	NEC_Service_Door_Cmd
33		NEC Service Door Command	6	NEC Service DoorCommand is overcurrent	Short To Ground or Defective Solenoid No	ot available	Not available	NEC_Service_Door_Cmd
33	520880	NEC Post Trip Inspection Command	15	NEC Post Trip Inspection Command is Under Current Or Open Circuit	Open Circuit or Defective Sciencia	Not available	Not available	NEC_PTI_Cmd
33	520880	NEC Post Trip Inspection Command	16		Short To Ground or Defective Solenoid N	lot available	Not available	NEC_PTI_Cmd
33	520881	TEM Interlocked Switch Relay 1	5	is overcurrent TEM Switch Interlocked Output	Open circuit in TEM Interlocked circuit 1 N	Notavailable	Not	TEM_Aux1_w_Interlocks_R
33	520881	TEM Interlocked Switch Relay 1	6	Circuit 1 undercurrent TEM Switch Interlocked Output	Short circuit in TEM Interlocked circuit 1 N	Not available	available Not	D_Output_Cmd TEM_Aux1_w_Interlocks_R
33	520882	TEM Interlocked Switch Relay 2	5	Circuit 1 overcurrent TEM Switch Interlocked Output	Open circuit in TEM Interlocked circuit 2 N	Notavailable	available Not	D_Output_Cmd TEM_Aux2_w_Interlocks_R
33	520882	TEM Interlocked Switch Relay 2	6	Circuit 2 undercurrent TEM Switch Interlocked Output	Short circuit in TEM Interlocked circuit 2 N	Not available	available Not	D_Output_Cmd TEM_Aux2_w_Interlocks_R
33	520883	Transfer Case Low Indicator	5	Circuit 2 overcurrent Transfer case low indicator high side	Not available	Not available	available 1601-F7	D_Output_Cmd Xfer_Case_Low_Ind
33	520883	Transfer Case Low Indicator	6	output exhibits an undercurrent condition or is open Transfer case low indicator high side output exhibits an overcurrent	Not available	Not available	1601-F7	Xfer_Case_Low_Ind
33	520884	Transfer Case Neutral Indicator	5	condition or is short to ground Transfer case neutral indicator high side output exhibits an undercurrent	Not available	Not available	1601-F6	Xfer_Case_Neutral_Ind
33	520884	Transfer Case Neutral Indicator	6	condition or is open Transfer case neutral indicator high side output exhibits an overcurrent	Not available	Not available	1601-F6	Xfer_Case_Neutral_Ind
				condition or is short to ground				
33	520885	Windshield Heat Left Output	5	Windshield Heat Left output Under Current or Open Circuit	Open Circuit in Windshield Heat Left Output	Not available	Not available	Windshield_Heat_Left_Cmd
33	520885	Windshield Heat Left Output	6		Short Circuit detected in Windshield Heat N Left Output	ot available	Not available	Windshield_Heat_Left_Cmd
33	520886	Windshield Heat Right Output	5	Windshield Heat Right Output Under	Open Circuit detected in Windshield Heat	Not available	Not available	Windshield_Heat_Right_Cm
33	520886	Windshield Heat Right Output	6		Right Output Short Circuit detected in Windshield Heat	Not available	Not	d Windshield_Heat_Right_Cm
33	520887	Windshield Heat Left Temp Sensor ()		Right Output eft Windshield Heat Temperature Sensor N Shorted High or Open Circuit or faulty	lot available	available Not available	d Left_Windshield_Temperatu re_Raw_Signal
33	520887	Windshield Heat Left Temp Sensor 1	1		sensor system Left Windshield Heat Temperature Sensor I Short to Ground or faulty sensor system	Not available	Not available	Left_Windshield_Temperatu re_Raw_Signal
33	520888	Windshield Heat Right Temp Sensor	r 0	Right Windshield Heat Temperature Sensor reading above normal range	Right Windshield Heat Temperature Sensor Shorted High or Open Circuit or faulty sensor system	Not available	Not available	Right_Windshield_Temperat ure_Raw_Signal
33	520888	Windshield Heat Right Temp Sensor	r 1	Right Windshield Heat Temperature Sensor reading below normal range		Not available	Not available	Right_Windshield_Temperat ure_Raw_Signal
33	520889	Relay Driver 9, Channel 1	13	Connector J4 Pin E11 has a load on this pin that has been configured as unused	Connector J4 Pin E11 is drawing current N	lot available	Not available	P_SSC_RD9
33	520890	Relay Driver 10, Channel 2	13	Connector J4 Pin E10 has a load on this pin that has been configured as unused	Connector J4 Pin E10 is drawing current N and it is configured as unused check configuration and or wiring harness	lot available	Not available	P_SSC_RD10
33	520891	Relay Driver 11, Channel 3	13	Connector J4 Pin E15 has a load on this pin that has been configured as unused	Connector J4 Pin E15 is drawing current N and it is configured as unused check configuration and or wiring harness	lot available	Not available	P_SSC_RD11
33	520892	Relay Driver 12, Channel 4	13	Connector J4 Pin E14 has a load on this pin that has been configured as unused	Connector J4 Pin E14 is drawing current N and it is configured as unused check configuration and or wiring harness	lot available	Not available	P_SSC_RD12
33	520893	Relay Driver 13, Channel 5	13	Connector J4 Pin E16 has a load on this pin that has been configured as a unused	Connector J4 Pin E16 is drawing current N and it is configured as unused check configuration and or wiring harness	lot available	Not available	P_SSC_RD13
33	520894	Relay Driver 14, Channel 6	13	Connector J4 Pin E12 has a load on this pin that has been configured as a unused	Connector J4 Pin E12 is drawing current N and it is configured as unused check configuration and or wiring harness	lot available	Not available	P_SSC_RD14
33	520895	Relay Driver 15, Channel 7	13	Connector J4 Pin E13 has a load on this pin that has been configured as a unused	Connector J4 Pin E13 is drawing current N and it is configured as unused check configuration and or wiring harness	lot available	Not available	P_SSC_RD15
33	520896	Relay Driver 16, Channel 8	13	Connector J4 Pin E9 has a load on C this pin that has been configured as a		t available	Not available	P_SSC_RD16
33	520897	Relay Driver 17, Channel 9	13	Connector J4 Pin F6 has a load on C this pin that has been configured as	configuration and or wiring harness Connector J4 Pin F6 is drawing current Not and it is configured as unused check	available	Not available	P_SSC_RD17
33	520898	Relay Driver 18, Channel 10	13	this pin that has been configured as	configuration and or wiring harness connector J4 Pin F7 is drawing current Not and it is configured as unused check	available	Not available	P_SSC_RD18
33	520899	Relay Driver 19, Channel 11	13		configuration and or wiring harness connector J4 Pin F2 is drawing current Not and it is configured as unused check configuration and or wiring harness	available	Not available	P_SSC_RD19
33	520900	Relay Driver 20, Channel 12	13	Connector J4 Pin F3 has a load on C	configuration and or writing namess connector J4 Pin F3 is drawing current Not and it is configured as unused check configuration and or wiring harness	available	Not available	P_SSC_RD20
33	520901	Relay Driver 21, Channel 13	13		Connector J4 Pin F1 is drawing current Not	available	Not available	P_SSC_RD21
33	520902	Relay Driver 22, Channel 14	13		Connector J4 Pin F5 has a load on this pin I	Not available	Not available	P_SSC_RD22
33	520903	Relay Driver 23, Channel 15	13		Connector J4 Pin F4 is drawing current Not and it is configured as unused check configuration and or wiring harness	available	Not available	P_SSC_RD23

33	520904	Relay Driver 24, Channel 16	13	this pin that has been configured as	and it is configured as unused check	Not available	Not available	P_SSC_RD24
33	520905	Relay Driver 25, Channel 17	13		configuration and or wiring harness Connector J4 Pin F10 is drawing current and it is configured as unused check configuration and or wiring harness	Not available	Not available	P_SSC_RD25
33	520906	Relay Driver 26, Channel 18	13		Connector J4 Pin F11 is drawing current and it is configured as unused check configuration and or wiring harness	Not available	Not available	P_SSC_RD26
33	520907	Relay Driver 27, Channel 19	13		Connector J4 Pin F14 is drawing current and it is configured as unused check configuration and or wiring harness	Not available	Not available	P_SSC_RD27
33	520908	Relay Driver 28, Channel 20	13			Not available	Not available	P_SSC_RD28
33	520909	Relay Driver 29, Channel 21	13	Connector J4 Pin F13 has a load on this pin that has been configured as unused	Connector J4 Pin F13 is drawing current and it is configured as unused check configuration and or wiring harness	Not available	Not available	P_SSC_RD29
33	520910	Relay Driver 30, Channel 22	13	this pin that has been configured as		Not available	Not available	P_SSC_RD30
33	520911	Relay Driver 31, Channel 23	13			Not available	Not available	P_SSC_RD31
33	520912	Relay Driver 32, Channel 24	13		Connector J4 Pin F12 is drawing current and it is configured as unused check configuration and or wiring harness	Not available	Not available	P_SSC_RD32
33	520913	Relay Driver 1, Channel 25	13	this pin that has been configured as	Connector J4 Pin E7 is drawing current and it is configured as unused check configuration and or wiring harness	Not available	Not available	P_SSC_RD1
33	520914	Relay Driver 2, Channel 26	13		Connector J4 Pin E6 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD2
33	520915	Relay Driver 3, Channel 27	13		configuration and or wiring harness Connector J4 Pin E3 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD3
33	520916	Relay Driver 4, Channel 28	13		configuration and or wiring harness Connector J4 Pin E2 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD4
33	520917	Relay Driver 5, Channel 29	13	unused Connector J4 Pin E4 has a load on this pin that has been configured as	configuration and or wiring harness Connector J4 Pin E4 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD5
33	520918	Relay Driver 6, Channel 30	13	unused Connector J4 Pin E8 has a load on this pin that has been configured as	configuration and or wiring harness Connector J4 Pin E8 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD6
33	520919	Relay Driver 7, Channel 31	13	unused Connector J4 Pin E1 has a load on this pin that has been configured as	configuration and or wiring harness Connector J4 Pin E1 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD7
33	520920	Relay Driver 8, Channel 32	13	unused Connector J4 Pin E5 has a load on this pin that has been configured as	configuration and or wiring harness Connector J4 Pin E5 is drawing current and it is configured as unused check	Not available	Not available	P_SSC_RD8
33	520922	Switch 6-Pack #3 Location 1	13	unused Unexpected switch in switchpack 3 (MID 3) position 1 from left (Switch 1	configuration and or wiring harness Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_3_254_164_2_1 _1
33	520923	Switch 6-Pack #3 Location 2	13	of 6) Unexpected switch in switchpack 3	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_3_254_164_2_1 _3
33	520924	Switch 6-Pack #3 Location 3	13	of 6) Unexpected switch in switchpack 3	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_3_254_164_2_1 _5
33	520925	Switch 6-Pack #3 Location 4	13	of 6) Unexpected switch in switchpack 3	empty Switch actuator installed or bad microswitch in location configured as	Not available	Not available	P_J1708IN_3_254_164_2_1 _7
33	520926	Switch 6-Pack #3 Location 5	13	of 6) Unexpected switch in switchpack 3	empty Switch actuator installed or bad imicroswitch in location configured as	Not available	Not available	P_J1708IN_3_254_164_2_2
33	520927	Switch 6-Pack #3 Location 6	13	of 6) Unexpected switch in switchpack 3	empty Switch actuator installed or bad imicroswitch in location configured as	Not available	Not	_1 P_J1708IN_3_254_164_2_2
33	520928	Daytime Running Light Tell Tale	5	of 6) DRL Tell Tale Relay Command is Under Current Or Open Circuit	empty Open Circuit or Defective Solenoid	Not available	Not available	_3 DRL_Tell_Tale_Relay_Cmd
33	520928	Command Daytime Running Light Tell Tale	6	DRL Tell Tale Relay Command is	Short To Ground or Defective Solenoid	Not available	Not	DRL_Tell_Tale_Relay_Cmd
58	109	Command Coolant Pressure	14	Overcurrent High Refrigerant Pressure	High refrigerant pressure in system or pressure sensor unplugged or faulty Pressure sensor		available	
58	168	Electrical Potential (Voltage)	3	Battery Voltage High	Battery voltage above 16VDC			
58	168	Electrical Potential (Voltage)	4	Battery Voltage Low	Battery voltage below 12.1VDC			
58	1547	A/C EvaporatorTemperature	0	Duct Inlet Sensor High	Recirc sensor wire shorted to power or Recirc sensor missing or open circuit or faulty Recirc sensor			
58	1547	A/C EvaporatorTemperature	1	Duct Inlet sensor Low	Recirc sensor wire shorted to ground or			
58	1548	HVAC Duct Temperature	3	Duct temperature sensor voltage high	fault Recirc sensor Duct temperature sensor wire shorted to power or open circuit or faulty sensor			
58	1548	HVAC Duct Temperature	4	Duct temperature sensor voltage low	Duct temperature sensor shorted to			
58	2058	Source Address 58	9	Rear HVAC Data Link	ground or faulty sensor Faulty Rear HVAC or Body Builder Data			
58		HVAC Blower Output	3	Communication Failure Blower output circuit over voltage	Link Voltage above normal, or shorted to high			
58	520210	HVAC Blower Output	4	Blower output circuit under voltage	source Voltage below normal, or shorted to low			
58		HVAC Blower Output	6	Blower output short circuit	source Current above normal or grounded circuit			
55	J2J2 10	Diorect Galput	Ü	2.5 output short theuit	Sansar above normal or grounded circuit			

58	520211	HVAC actuator position	7	Actuator position not responding	Mechanical system not responding or out of adjustment	
58	520212	HVAC Dimmer Output	3	Dimmer output voltage high	Voltage above normal, or shorted to high source	
58	520212	HVAC Dimmer Output	4	Dimmer output voltage low	Voltage below normal, or shorted to low source	
58	520213	Evaporator Sensor	3	Evaporator Sensor High	Voltage above normal, or shorted to high source	Evaporator Sensor High or short to Battery
58	520213	Evaporator Sensor	4	Evaporator Sensor Low	Evaporator Sensor Low or bad sensor	ballery
58		No-Idle Compressor Relay	14	No-Idle Compressor Relay open	Evaporator Serisor Low or bad serisor	
30	320000	No-lule Compressor Relay	14	circuit or shorted circuit		
58	520800	No-Idle CHS relay	14	No-Idle Coolant Heater System relay		
30	320009	No-lule Chio relay	14	has an open circuit or a shorted		
				circuit		
58	520810	No-Idle Condenser Fan Relay	14	Condenser fan relay has a short or		
				open circuit		
58	520811	No-Idle valve B relay	14	Valve B relay has an open circuit or a		
				short circuit		
58	520812	No-Idle datalink error	9	J1939 Body Builder Data link error	Abnormal update rate	
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3	Loss of drive-train data link.	Loss of communication in excess of
				(address 132), lost communication		10 seconds.
				with ESC.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		
				(address 132). Datalink ignition		
				signal does not match the hardwired		
				ignition signal.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		There is a problem with the sensor
				(address 132) gauge location 1,		that provides data for this gauge.
				sensor fault.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		The data for this gauge should be,
				(address 132) gauge location 1, data		but is not available.
				unavailable.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		The data for this gauge is not being
				(address 132) gauge location 1, data		transmitted.
				missing.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		There is a problem with the sensor
				(address 132) gauge location 2,		that provides data for this gauge.
				sensor fault.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		The data for this gauge should be,
				(address 132) gauge location 2, data		but is not available.
				unavailable.		
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		The data for this gauge is not being
				(address 132) gauge location 2, data		transmitted.
400	0000	0		missing.		The second secon
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		There is a problem with the sensor
				(address 132) gauge location 3,		that provides data for this gauge.
132	2023	Course Chustes	14	sensor fault.		The data facthic access about the
132	2023	Gauge Cluster	14	Auxiliary Gauge Switch Pack #3		The data for this gauge should be,
				(address 132) gauge location 3, data		but is not available.
132	2023	Gauge Cluster	14	unavailable. Auxiliary Gauge Switch Pack #3		The data for this gauge is not being
132	2023	Gauge Cluster	14	(address 132) gauge location 3, data		transmitted.
						transmitted.
132	2033	Communication Loss	9	missing. Loss of data link from ESC	Abnormal update rate	
132	2132	Auxiliary Switch Pack #3	11	Message accessory and switched	Root cause not known	
102	2102	Addition of the state of the st		accessory do not match for AGSP 3	Noot cause not known	
132	2132	Auxiliary Switch Pack #3	12	Failure of non-volatile memory or	Bad intelligent device or component	
				checksum fault in AGSP 3		
167	2033	Communication Loss	9	Loss of data link from ESC	Abnormal update rate	
167	2167	Source Address167	11	Message ignition and switched	Root cause not known	
				ignition do not match for SIC 1.		
167	2167	Source Address167	12	Failure of non-volatile memory or	Bad intelligent device or component	
				checksum fault in SIC 1		