



# Service Memorandum

## SM2202 - EV Maintenance & Service Documentation

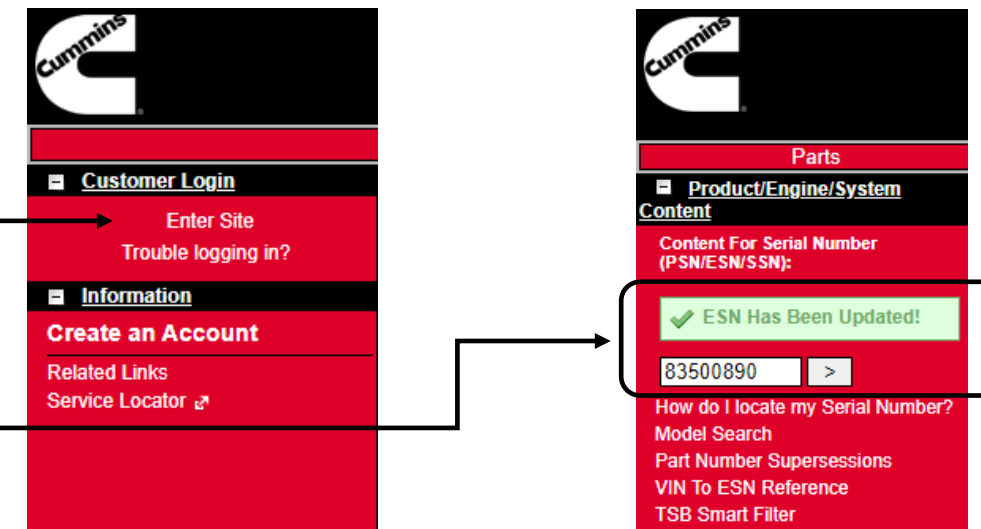
This Service Memorandum is to announce information on **Cummins Power Electric** buses now available at Quickservice Online. Dealer must have access to Quickservice to obtain these service maintenance and repair procedures.

Steps to obtain access to Cummins Quickservice are following: (if your dealership has access to Quickservice, the following step does not apply)

- Go to <https://quickservice.cummins.com/info/index.html>
- Click on Create an Account
- Choose from the plan that fits your Dealership needs
- Follow instructions on the Cummins Quickservice website to account

Access into Cummins Quickservice then steps to EV service suit.

- Log in with user name and password
- Enter System Serial Number into Content Box (SSN) and select 
  - You will see a green notification when a valid SSN/ESN is provided
  - To locate your SSN, Go to page 3
- Once your SSN is updated, along the header, there are several tabs. Select the "Service" tab
- The Service Information tabs functions in the same manner as diesel engines.
  - Use these to find applicable TSB, Campaigns, Data plate, etc.
- Click the applicable Service Suite link



**Service Information ( 83500890 - BES CM2450 EV107B)**

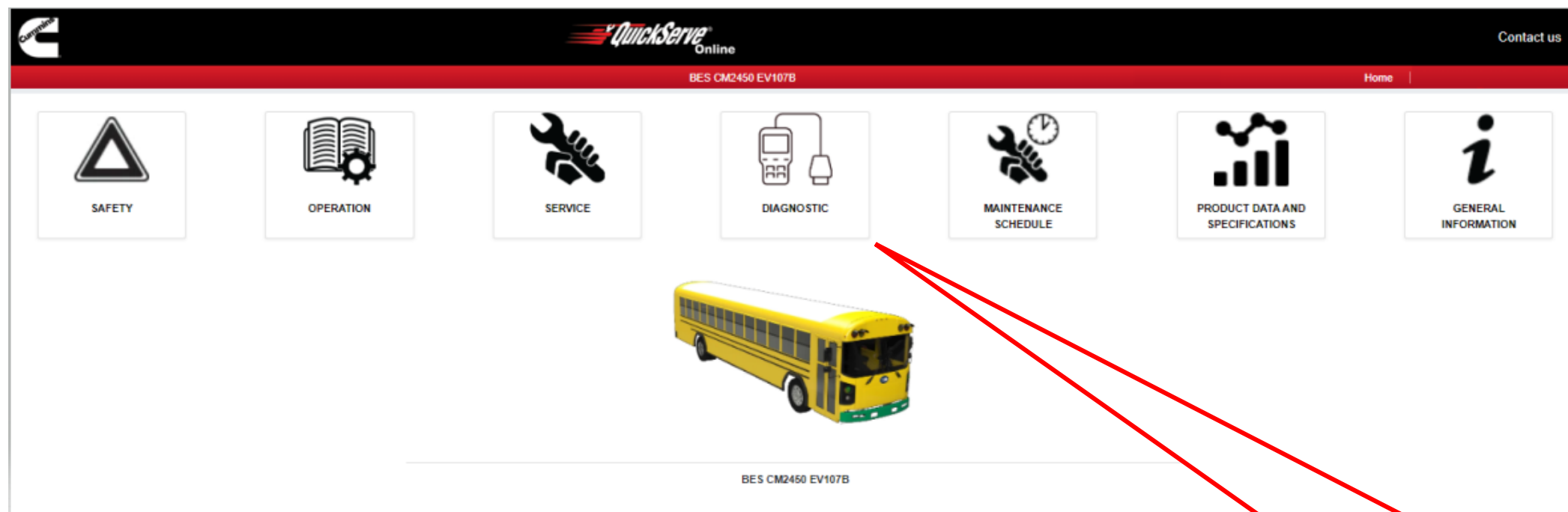
Category	Item	Date
Service Suite	[UPDATED] BES CM2450 EV107B Service Suite	Jul 18, 2022
	[UPDATED] BES CM2450 EV107B French Service Suite	Jan 28, 2022
Wiring Diagrams	(5723302) BES CM2450 EV107B Wiring Diagram	
Service Manuals	(5411406) Fluids for Cummins® Products Service Manual	[Change History]



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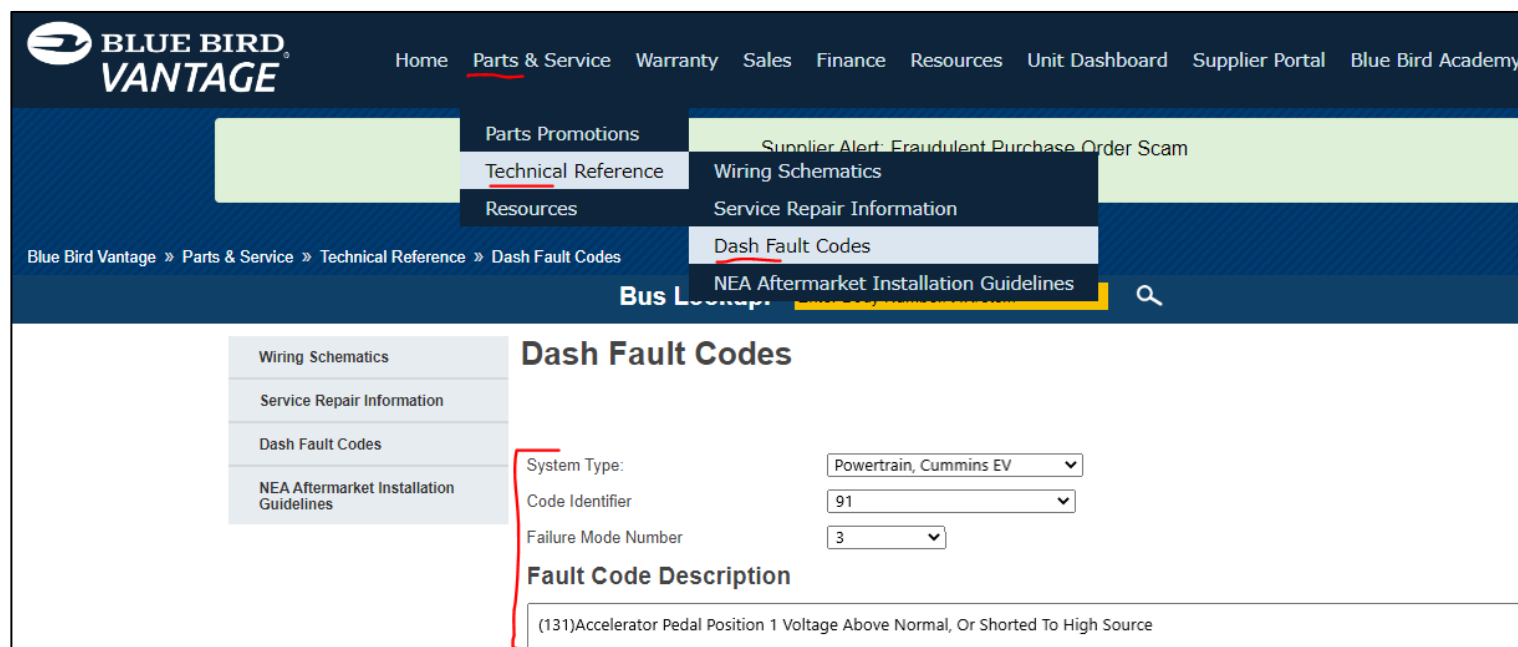
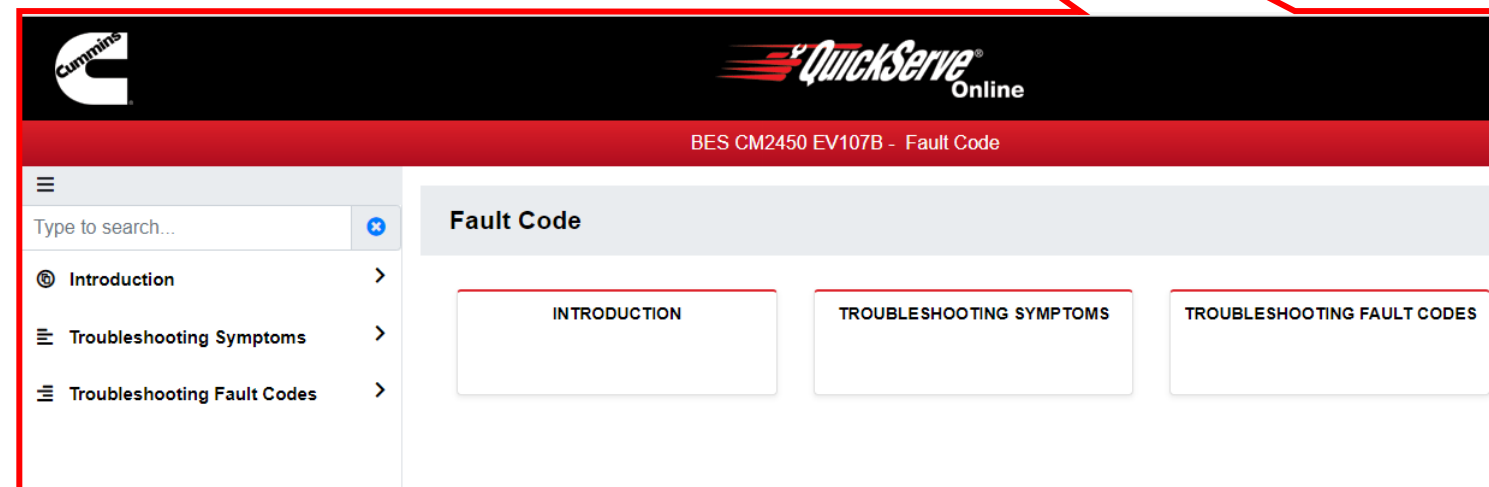
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- Here you can select the item you need information on such as
  - Safety
  - Operation
  - Service
  - Diagnostic
  - Maintenance Schedule
  - Specifications
  - Information



NOTE – While viewing diagnostic codes from the instrument cluster, they will display the SPN/FMI number and message, not the Cummins specific fault code. Use the cross-reference sheet at the end of this document to locate the Cummins fault code, then access the Online Service Suite to get the fault code diagnostic steps.

- Online Service Suite
  - Following the steps listed above to enter the Service Suite and select “Diagnostic”
    - Search by key work in Search Field
    - Search by Symptom
    - Search by Fault code



The codes can also be cross-referenced on Vantage at <http://vantage.blue-bird.com/Portal/dashFaultCodes.aspx>. This is a public site and login is not required.

- Select *Powertrain, Cummins EV* from the drop-down menu.
- Select the *Code Identifier*
- Select *Failure Mode Number*.



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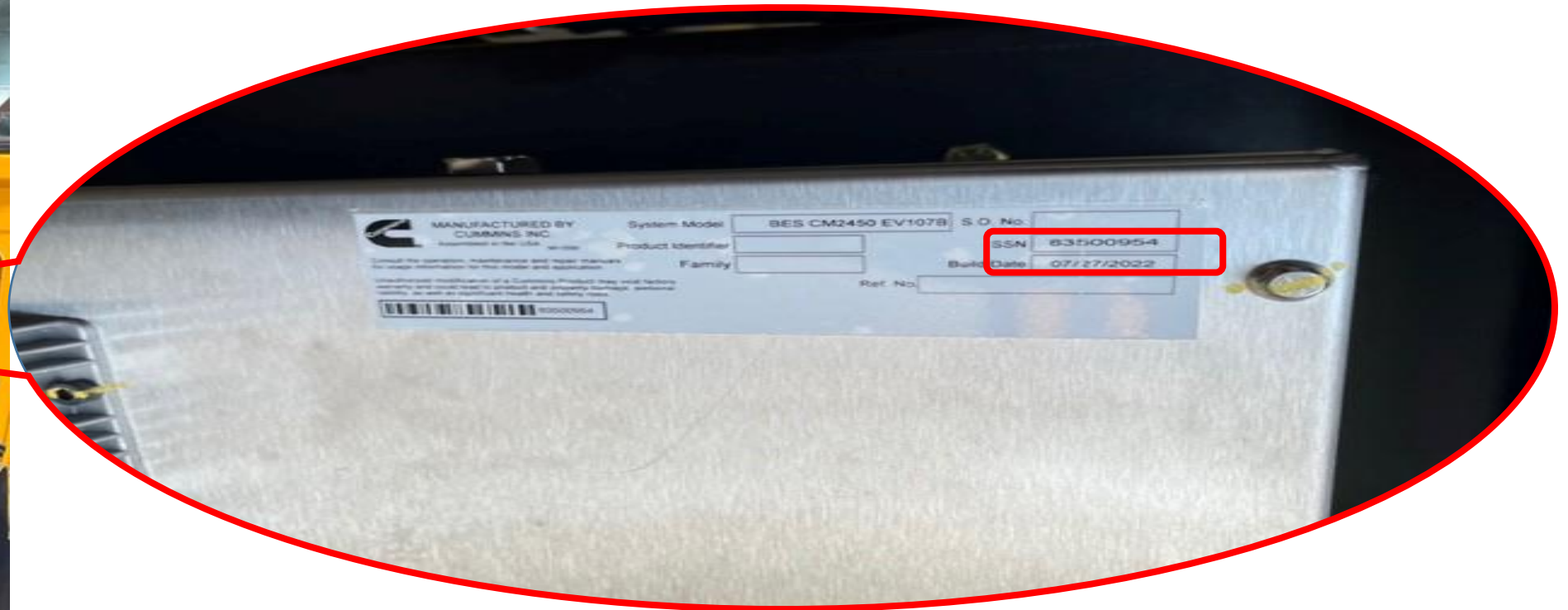
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The System Serial Number (SSN) identifies the powertrain specific to the vehicle, similar to the Engine Serial Number (ESN) on Internal Combustion Engines (ICE).

The SSN is on the Cummins identification tag located on the Low Voltage Control Module (LVCM). This is an eight-digit number that starts with "835".

The LVCM is located the same as ICE engines:

- On T3RE units, it is inside the rear engine compartment, driver side
- On BBCV units, it is under the hood, driver side – see below for example





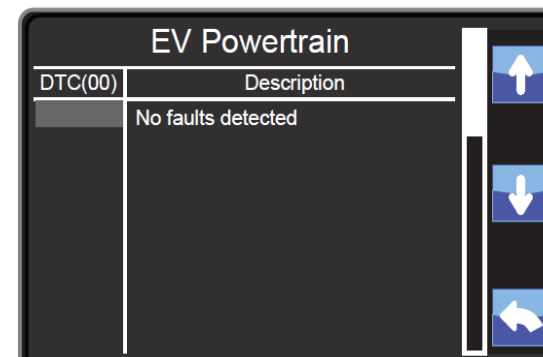
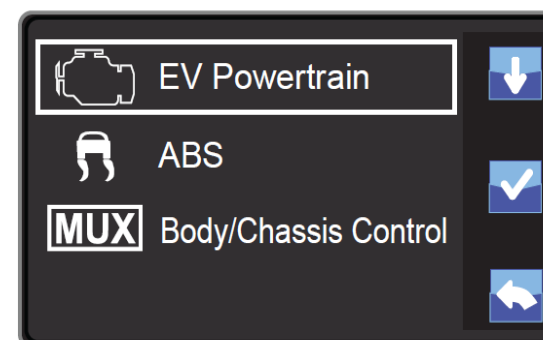
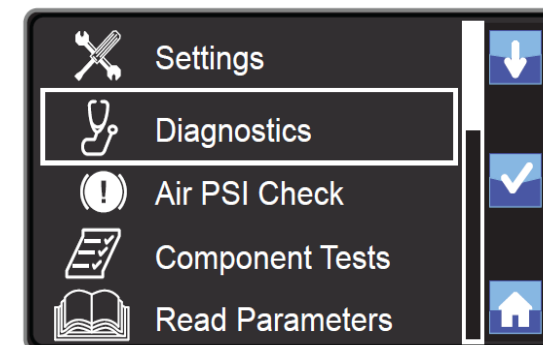
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In the event technical assistance and/or service repair is required:

- Electric Vehicle Customer reasonability
  - Contact your local Blue Bird Dealer with bus issue or complaint.
  - Details of the issue or complaint.
    - When the issue happened
    - Symptoms / Indicators / Observations
    - Fault codes from dash cluster if applicable.
- Blue Bird Dealer Action
  - Collect all failure information from Customer.
  - Contact Blue Bird via Online Vantage Support Ticket.
    - Service ticket to include but not limited to: Fault codes, or symptoms.
    - Blue Bird EV FSE will review and advise dealer next step diagnostics for repair
- Blue Bird EV FSE will work with the BB dealer and if necessary, local Cummins facility to determine the responsible OE facility.
  - Blue Bird failure, the Blue Bird dealer will be the repair location and lead with customer contact on bus repair status.
- Cummins Failure the Cummins Service Center Action
  - Cummins will set up towing if needed
  - Cummins service center will lead with dealer and customer contact on bus repair status.

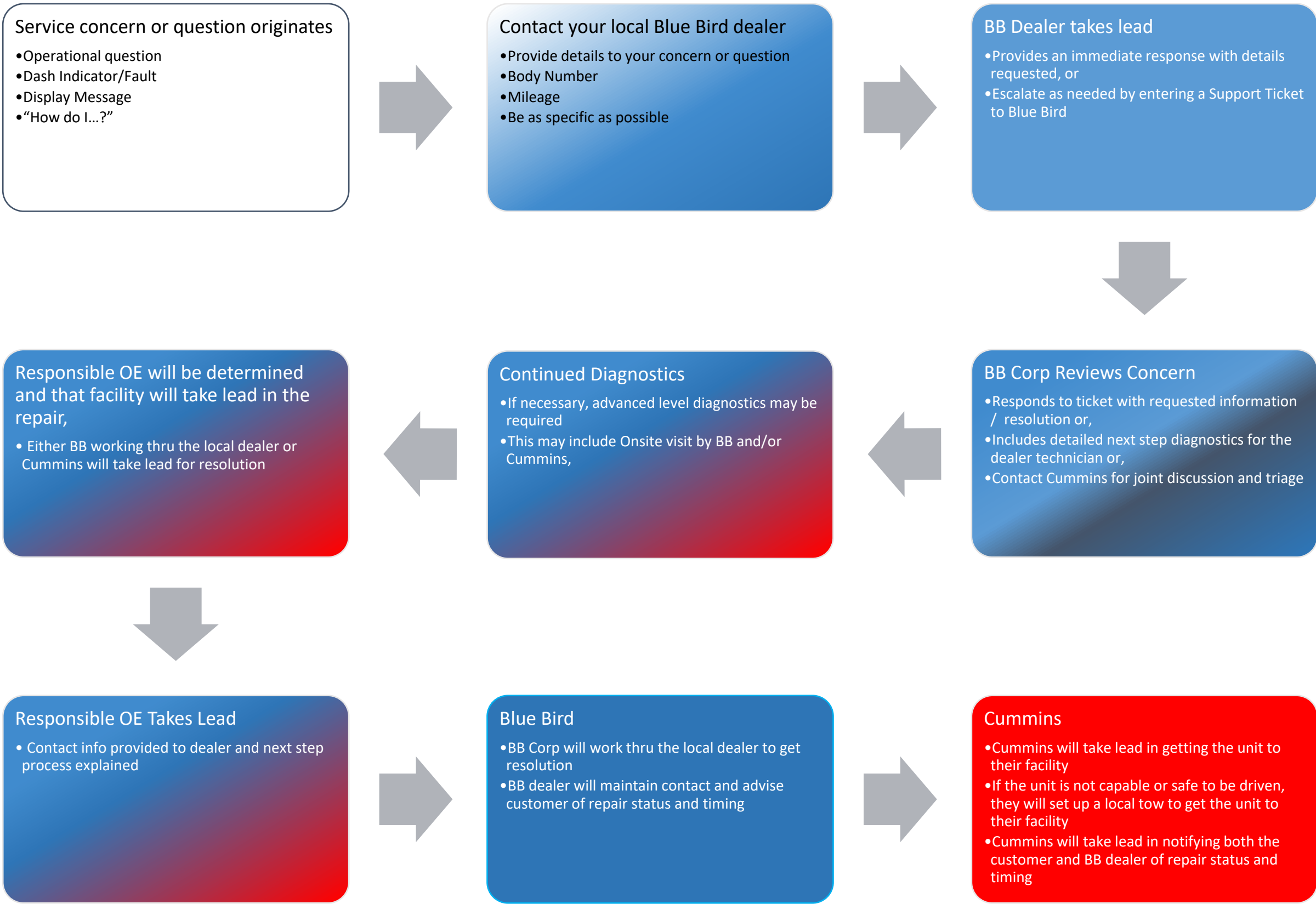
Reference the following flowchart





# Service Memorandum

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Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
111	Stop (Solid)	629	12	Engine Control Module Critical Internal Failure - Bad Intelligent Device or Component	Control Module Critical Failure
131	Stop (Solid)	91	3	Accelerator Pedal or Lever Position Sensor 1 Circuit - Voltage Above Normal or Shorted to High Source	Accel Pedal Sensor 1 - Voltage High
132	Stop (Solid)	91	4	Accelerator Pedal or Lever Position Sensor 1 Circuit - Voltage Below Normal or Shorted to Low Source	Accel Pedal Sensor 1 - Voltage Low
238	Warning (Solid)	3511	4	Sensor Supply 3 Circuit - Voltage Below Normal or Shorted to Low Source	Sensor Supply 3 Circuit - Voltage Low
239	Warning (Solid)	3511	3	Sensor Supply 3 Circuit - Voltage Above Normal or Shorted to High Source	Sensor Supply 3 Circuit - Voltage High
285	Warning (Solid)	639	9	SAE J1939 Multiplexing PGN Timeout Error - Abnormal Update Rate	SAE J1939 Multiplexing Timeout Error
286	Warning (Solid)	639	13	J1939 Network #1 - Out of Calibration	J1939 Network #1 - Out of Calibration
343	Warning (Solid)	629	12	Engine Control Module Warning Internal Hardware Failure - Bad Intelligent Device or Component	Control Module Warning Internal Failure
352	Warning (Solid)	3509	4	Sensor Supply 1 Circuit - Voltage Below Normal or Shorted to Low Source	Sensor Supply 1 Circuit - Voltage Low
386	Warning (Solid)	3509	3	Sensor Supply 1 Circuit - Voltage Above Normal or Shorted to High Source	Sensor Supply 1 Circuit - Voltage High
441	Warning (Solid)	168	18	Battery 1 Voltage - Data Valid But Below Normal Operating Range - Moderately Severe Level	12V Battery Low - Mod Severe
442	Warning (Solid)	168	16	Battery 1 Voltage - Data Valid But Above Normal Operating Range - Moderately Severe Level	12V Battery High - Mod Severe
515	Warning (Solid)	3514	3	Sensor Supply 6 Circuit - Voltage Above Normal or Shorted to High Source	Sensor Supply 6 Circuit - Voltage High
516	Warning (Solid)	3514	4	Sensor Supply 6 Circuit - Voltage Below Normal or Shorted to Low Source	Sensor Supply 6 Circuit - Voltage Low
784	None	1590	2	Adaptive Cruise Control Mode - Data Erratic, Intermittent, or Incorrect	Adaptive Cruise Control - Data Error
1117	None	3597	2	Power Supply Lost With Ignition On - Data Erratic, Intermittent, or Incorrect	Power Supply Lost With Ignition On
1239	Warning (Solid)	2623	3	Accelerator Pedal or Lever Position Sensor 2 Circuit - Voltage Above Normal or Shorted to High Source	Accel Pedal Sensor 2 - Voltage High
1241	Warning (Solid)	2623	4	Accelerator Pedal or Lever Position Sensor 2 Circuit - Voltage Below Normal or Shorted to Low Source	Accel Pedal Sensor 2 - Voltage Low
1242	Stop (Solid)	91	2	Accelerator Pedal or Lever Position Sensor 1 - Data Erratic, Intermittent, or Incorrect	Accel Pedal Sensor 1 - Data Error
1515	Stop (Solid)	91	19	Accelerator Pedal Position 1 - Received Network Data in Error	Accel Pedal Pos 1 -Data Error
1695	Warning (Solid)	3513	3	Sensor Supply 5 Circuit - Voltage Above Normal or Shorted to High Source	Sensor Supply 5 Circuit - Voltage High
1696	Warning (Solid)	3513	4	Sensor Supply 5 Circuit - Voltage Below Normal or Shorted to Low Source	Sensor Supply 5 Circuit - Voltage Low
2185	Warning (Solid)	3512	3	Sensor Supply 4 Circuit - Voltage Above Normal or Shorted to High Source	Sensor Supply 4 Circuit - Voltage High
2186	Warning (Solid)	3512	4	Sensor Supply 4 Circuit - Voltage Below Normal or Shorted to Low Source	Sensor Supply 4 Circuit - Voltage Low
3326	Stop (Solid)	91	9	Accelerator Pedal Position 1 - Abnormal Update Rate	Accel Pedal Pos 1 - Update Rate
3374	None	1818	31	Roll Over Protection Brake Control Active - Condition Exists	Roll Over Prot Brake Cntrl - Cond Exists
3488	Warning (Solid)	563	9	Anti-Lock Braking (ABS) Controller - Abnormal Update Rate	Anti-Lock Braking - Update Rate
3527	Stop (Solid)	558	19	Accelerator Pedal or Lever Idle Validation Switch - Received Network Data in Error	Accel Pedal or Idle Switch - Data Error
3528	Stop (Solid)	558	9	Accelerator Pedal or Lever Idle Validation Switch - Abnormal Update Rate	Accel Pedal or Idle Switch - Update Rate

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
3697	Stop (Solid)	630	12	Engine Control Module Calibration Memory - Bad Intelligent Device or Component	Control Module Calibration Memory
3843	None	5603	9	Cruise Control Disable Command - Abnormal Update Rate	Cruise Control Disable Cmd - Update Rate
3845	None	5603	31	Cruise Control Disable Command - Condition Exists	Cruise Control Disable Cmd - Cond Exists
4149	Warning (Solid)	2623	8	Accelerator Pedal or Lever Position Sensor 2 Circuit Frequency - Abnormal Frequency or Pulse Width or Period	Accel Pedal Sensor 2 Freq - Signal Error
4215	None	563	31	Anti-Lock Braking (ABS) Active - Condition Exists	Anti-Lock Braking - Cond Exists
4289	Stop (Solid)	91	8	Accelerator Pedal or Lever Position Sensor 1 Circuit Frequency - Abnormal Frequency or Pulse Width or Period	Accel Pedal Sensor 1 Freq - Signal Error
4491	Warning (Solid)	520675	3	Power System Cooler Outlet Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source	Power Sys Out Temp Sensor - Voltage High
4492	Warning (Solid)	520675	4	Power System Cooler Outlet Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source	Power Sys Out Temp Sensor - Voltage Low
4497	Warning (Solid)	520677	3	Power System Cooling Fan Drive Output Circuit - Voltage Above Normal or Shorted to High Source	Power System Cooling Fan - Voltage High
4498	Warning (Solid)	520677	4	Power System Cooling Fan Drive Output Circuit - Voltage Below Normal or Shorted to Low Source	Power System Cooling Fan - Voltage Low
4555	Stop (Solid)	520636	31	Battery Control Module - Condition Exists	Batt Control Module - Cond Exists
6874	Warning (Solid)	5982	14	SLI Battery Pack Capacity - Special Instructions	SLI Batt Pack Capacity - Special Notes
6919	Warning (Solid)	91	13	Accelerator Pedal Position 1 - Out of Calibration	Accel Pedal Pos 1 - Out of Calibration
7898	Stop (Solid)	9436	13	Propulsion Inverter 1 Control Module - Out of Calibration	Propulsion Inverter Cntrl - Out of Cal
7899	Stop (Solid)	9436	9	Propulsion Inverter 1 Control Module - Abnormal Update Rate	Propulsion Inverter Cntrl - Update Rate
7911	Stop (Solid)	9059	11	Propulsion Motor 1 Temperature - Root Cause Not Known	Motor 1 Temp - Root Cause Not Known
7912	Stop (Solid)	9067	2	Propulsion Motor 1 Speed Sensors - Data Erratic, Intermittent, or Incorrect	Motor Speed Sensors - Data Quality Error
7913	Stop (Solid)	9061	1	Propulsion Motor 1 Torque - Data Valid But Below Normal Operating Range - Most Severe Level	Motor Torque High - Severe
7914	Stop (Solid)	9059	12	Propulsion Motor 1 Temperature - Bad Intelligent Device or Component	Motor 1 Temp - Bad Device
7915	Stop (Solid)	9107	0	Propulsion Motor 1 Inverter Power Module Switch Temperature - Data Valid But Above Normal Operating Range - Most Severe Level	Motor Inverter Temp High - Severe
7916	Stop (Solid)	9107	12	Propulsion Motor 1 Inverter Power Module Switch Temperature - Bad Intelligent Device or Component	Motor 1 Inverter Temp - Bad Device
7917	Stop (Solid)	9115	9	Propulsion Motor 1 Inverter Phase Current Imbalance - Abnormal Update Rate	Motor Inverter Phase Current Imbalance
7918	Stop (Solid)	9099	31	Propulsion Motor 1 Inverter AC Current Output - Condition Exists	Motor Inverter Current Out - Cond Exists
7919	Stop (Solid)	9099	6	Propulsion Motor 1 Inverter AC Current Output - Current Above Normal or Grounded Circuit	Motor Inverter AC Current - Above Normal
7921	Stop (Solid)	9101	0	Propulsion Motor 1 Inverter DC High Voltage Bus Input - Data Valid But Above Normal Operating Range - Most Severe Level	Motor Inverter HV Input High - Severe
7922	Stop (Solid)	9101	1	Propulsion Motor 1 Inverter DC High Voltage Bus Input - Data Valid But Below Normal Operating Range - Most Severe Level	Motor HV Input Low - Severe
7923	Stop (Solid)	9436	12	Propulsion Inverter 1 Control Module - Bad Intelligent Device or Component	Propulsion Inverter Cntrl - Bad Device

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
7953	Warning (Solid)	8569	9	DC/DC 1 Operational Status - Abnormal Update Rate	DC/DC 1 Operational Status - Update Rate
7956	Warning (Solid)	8569	3	DC/DC 1 Operational Status - Voltage Above Normal or Shorted to High Source	DC/DC 1 Operation Status - Voltage High
7961	Warning (Solid)	8585	4	DC/DC 1 Low Side Voltage - Voltage Below Normal or Shorted to Low Source	DC/DC 1 Low Side Voltage - Voltage Low
7964	Warning (Solid)	8586	2	DC/DC 1 Low Side Current - Data Erratic, Intermittent, or Incorrect	DC/DC 1 Low Side Current - Data Error
7966	Warning (Solid)	8587	3	DC/DC 1 High Side Voltage - Voltage Above Normal or Shorted to High Source	DC/DC 1 High Side Voltage - Voltage High
7967	Warning (Solid)	8588	6	DC/DC 1 High Side Current - Current Above Normal or Grounded Circuit	DC/DC 1 High Side Current - Above Normal
7969	Warning (Solid)	8592	0	DC/DC 1 Converter Temperature - Data Valid But Above Normal Operating Range - Most Severe Level	DC/DC 1 Temp High - Severe
7972	Warning (Solid)	8820	3	DC/DC 1 Low Side Power - Voltage Above Normal or Shorted to High Source	DC/DC 1 Low Side Power - Voltage High
7976	Warning (Solid)	8895	9	DC/DC 2 Operational Status - Abnormal Update Rate	DC/DC 2 Operational Status - Update Rate
7979	Warning (Solid)	8895	3	DC/DC 2 Operational Status - Voltage Above Normal or Shorted to High Source	DC/DC 2 Operation Status - Voltage High
7983	Warning (Solid)	8911	4	DC/DC 2 Low Side Voltage - Voltage Below Normal or Shorted to Low Source	DC/DC 2 Low Side Voltage - Voltage Low
7986	Warning (Solid)	8912	2	DC/DC 2 Low Side Current - Data Erratic, Intermittent, or Incorrect	DC/DC 2 Low Side Current - Data Error
7988	Warning (Solid)	8913	3	DC/DC 2 High Side Voltage - Voltage Above Normal or Shorted to High Source	DC/DC 2 High Side Voltage - Voltage High
7989	Warning (Solid)	8914	6	DC/DC 2 High Side Current - Current Above Normal or Grounded Circuit	DC/DC 2 High Side Current - Above Normal
7992	Warning (Solid)	8918	3	DC/DC 2 Low Side Power - Voltage Above Normal or Shorted to High Source	DC/DC 2 Low Side Power - Voltage High
7995	Warning (Solid)	8936	0	DC/DC 2 Converter Temperature - Data Valid But Above Normal Operating Range - Most Severe Level	DC/DC 2 Temp High - Severe
8154	None	521209	12	Connectivity Module - Bad Intelligent Device or Component	Connectivity Module - Bad Device
8156	None	521209	9	Connectivity Module - Abnormal Update Rate	Connectivity Module - Update Rate
8161	Warning (Solid)	8587	1	DC/DC 1 High Side Voltage - Data Valid But Below Normal Operating Range - Most Severe Level	DC/DC 1 High Side Voltage Low - Severe
8162	Warning (Solid)	8913	1	DC/DC 2 High Side Voltage - Data Valid But Below Normal Operating Range - Most Severe Level	DC/DC 2 High Side Voltage Low - Severe
8173	Stop (Solid)	8098	3	HVESS HVIL Status - Voltage Above Normal or Shorted to High Source	HVESS HVIL Status - Voltage High
8174	Stop (Solid)	8098	4	HVESS HVIL Status - Voltage Below Normal or Shorted to Low Source	HVESS HVIL Status - Voltage Low
8175	Stop (Solid)	8098	31	HVESS HVIL Status - Condition Exists	HVESS HVIL Status - Cond Exists
8176	Stop (Solid)	8098	11	HVESS HVIL Status - Root Cause Not Known	HVESS HVIL Status - Root Cause Not Known
8212	None	521217	3	Connectivity Module Cellular External Antenna - Voltage Above Normal or Shorted to High Source	Connectivity Antenna - Voltage High
8231	Stop (Solid)	9101	3	Propulsion Motor 1 Inverter DC High Voltage Bus Input - Voltage Above Normal or Shorted to High Source	Motor Inverter HV Input - Voltage High
8232	Stop (Solid)	9101	4	Propulsion Motor 1 Inverter DC High Voltage Bus Input - Voltage Below Normal or Shorted to Low Source	Motor Inverter HV Input - Voltage Low
8267	Warning (Solid)	521235	3	Battery TMS Coolant Inlet Temperature Sensor - Voltage Above Normal or Shorted to High Source	Batt Coolant Inlet Temp - Voltage High
8268	Warning (Solid)	521235	4	Battery TMS Coolant Inlet Temperature Sensor - Voltage Below Normal or Shorted to Low Source	Batt TMS Coolant In Temp - Voltage Low
8329	Warning (Solid)	5113	9	Charge Control Unit 1 Time Out - Abnormal Update Rate	CCU 1 Time Out - Update Rate

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
8338	Warning (Solid)	681	9	Transmission Gear Shift Inhibit Request - Abnormal Update Rate	Trans Gear Shift Inhibit - Update Rate
8341	Warning (Solid)	9842	9	Momentary Operator Key Switch - Abnormal Update Rate	Momentary Operator Key Sw - Update Rate
8456	Warning (Solid)	521242	3	Plug-In Port 1 Positive Charge Contactor Circuit	Plug-In Port 1 Pos Charge Contactor
8457	Warning (Solid)	521242	4	Plug-In Port 1 Positive Charge Contactor Circuit	Plug-In Port 1 Pos Charge Contactor
8527	Warning (Solid)	2912	9	Hill holder mode - Abnormal Update Rate	Hill holder mode - Update Rate
8528	Warning (Solid)	2912	13	Hill holder mode - Out of Calibration	Hill holder mode - Out of Calibration
8571	Warning (Solid)	521260	4	Charger Controller Unit 1 DC Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 DC Temp Sensor - Voltage Low
8572	Warning (Solid)	521260	3	Charger Controller Unit 1 DC Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 DC Temp Sensor - Voltage High
8573	Warning (Solid)	521260	5	Charger Controller Unit 1 DC Temperature Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 DC Temp Sensor - Current Low
8574	Warning (Solid)	521261	4	Charger Controller Unit 1 Proximity Pin Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 Proximity Pin Sensor - Voltage Low
8575	Warning (Solid)	521261	3	Charger Controller Unit 1 Proximity Pin Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 Prox Pin Sensor - Voltage High
8576	Warning (Solid)	521261	5	Charger Controller Unit 1 Proximity Pin Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 Proximity Pin Sensor - Current Low
8577	Warning (Solid)	521262	4	Charger Controller Unit 1 Inlet Lock Feedback Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 Inlet Lock Feedback - Voltage Low
8578	Warning (Solid)	521262	3	Charger Controller Unit 1 Inlet Lock Feedback Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 Inlet Lock Feedback - Voltage High
8579	Warning (Solid)	521262	5	Charger Controller Unit 1 Inlet Lock Feedback Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 Inlet Lock Feedback - Current Low
8581	Warning (Solid)	521263	4	Charger Controller Unit 1 Plug Lock Output 1 Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 Plug Lock Output 1 - Voltage Low
8582	Warning (Solid)	521263	3	Charger Controller Unit 1 Plug Lock Output 1 Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 Plug Lock Output 1 - Voltage High
8583	Warning (Solid)	521263	5	Charger Controller Unit 1 Plug Lock Output 1 Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 Plug Lock Output 1 - Current Low
8584	Warning (Solid)	521263	31	Charger Controller Unit 1 Plug Lock Output 1 Sensor Circuit - Condition Exists	CCU 1 Plug Lock Output 1 - Cond Exists
8585	Warning (Solid)	521264	4	Charger Controller Unit 1 Connection Lamp Driver Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 Connection Lamp - Voltage Low
8586	Warning (Solid)	521264	3	Charger Controller Unit 1 Connection Lamp Driver Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 Connection Lamp - Voltage High
8587	Warning (Solid)	521264	5	Charger Controller Unit 1 Connection Lamp Driver Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 Connection Lamp - Current Low
8588	Warning (Solid)	521265	4	Charger Controller Unit 1 Charging Status Lamp Driver Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 Charging Status Lamp - Voltage Low
8589	Warning (Solid)	521265	3	Charger Controller Unit 1 Charging Status Lamp Driver Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 Charging Status Lamp - Voltage Hi
8591	Warning (Solid)	521265	5	Charger Controller Unit 1 Charging Status Lamp Driver Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 Charging Status Lamp - Current Low
8592	Warning (Solid)	521266	4	Charger Controller Unit 1 AC Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 AC Temp Sensor - Voltage Low

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
8593	Warning (Solid)	521266	3	Charger Controller Unit 1 AC Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 AC Temp Sensor - Voltage High
8594	Warning (Solid)	521266	5	Charger Controller Unit 1 AC Temperature Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 AC Temp Sensor - Current Low
8631	Warning (Solid)	525	9	Transmission Requested Gear - Abnormal Update Rate	Trans Requested Gear - Update Rate
8635	Warning (Solid)	521271	5	High Voltage Measurement Port Interlock Loop ( HVMPIL) - Current Below Normal or Open Circuit	HV Meas Port Interlock - Current Low
11113	Stop (Solid)	521241	7	Plug-In Port 1 Negative Charge Contactor Circuit	Plug-In Port 1 Neg Charge Contactor
11114	Warning (Solid)	521241	12	Plug-In Port 1 Negative Charge Contactor Circuit	Plug-In Port 1 Neg Charge Contactor
11115	Stop (Solid)	521242	7	Plug-In Port 1 Positive Charge Contactor Circuit	Plug-In Port 1 Pos Charge Contactor
11116	Warning (Solid)	521242	12	Plug-In Port 1 Positive Charge Contactor Circuit	Plug-In Port 1 Pos Charge Contactor
11128	None	8234	7	HVESS Thermal Management System Heater Status - Mechanical System Not Responding or Out of Adjustment	Batt TMS Heater Status - Not Responding
11219	Warning (Solid)	521288	4	Charger Controller Unit 1 Plug Lock Output 2 Sensor Circuit - Voltage Below Normal or Shorted to Low Source	CCU 1 Plug Lock Output 2 - Voltage Low
11221	Warning (Solid)	521288	3	Charger Controller Unit 1 Plug Lock Output 2 Sensor Circuit - Voltage Above Normal or Shorted to High Source	CCU 1 Plug Lock Output 2 - Voltage High
11222	Warning (Solid)	521288	5	Charger Controller Unit 1 Plug Lock Output 2 Sensor Circuit - Current Below Normal or Open Circuit	CCU 1 Plug Lock Output 2 - Current Low
11223	Warning (Solid)	521288	31	Charger Controller Unit 1 Plug Lock Output 2 Sensor Circuit - Condition Exists	CCU 1 Plug Lock Output 2 - Cond Exists
11229	Warning (Solid)	8234	31	HVESS Thermal Management System Heater Status - Condition Exists	HV Batt TMS Heater Status - Cond Exists
11356	Warning (Solid)	8334	3	DC/AC Accessory Inverter 1 Device 1 Status - Voltage Above Normal or Shorted to High Source	Accessory Inverter 1 Stat - Voltage High
11357	Warning (Solid)	8334	4	DC/AC Accessory Inverter 1 Device 1 Status - Voltage Below Normal or Shorted to Low Source	Accessory Inverter 1 Stat - Voltage Low
11393	Warning (Solid)	9436	11	Propulsion Inverter 1 Control Module - Root Cause Not Known	Propulsion Inverter Cntrl - Unknown
11394	Warning (Solid)	2913	9	Halt Brake mode - Abnormal Update Rate	Halt Brake mode - Update Rate
11472	Warning (Solid)	11093	9	HVESP1 Module 1 Operational Status - Abnormal Update Rate	HVESP1 Module 1 Status - Update Rate
11473	Warning (Solid)	11094	9	HVESP1 Module 2 Operational Status - Abnormal Update Rate	HVESP1 Module 2 Status - Update Rate
11474	Warning (Solid)	11095	9	HVESP1 Module 3 Operational Status - Abnormal Update Rate	HVESP1 Module 3 Status - Update Rate
11475	Warning (Solid)	11096	9	HVESP1 Module 4 Operational Status - Abnormal Update Rate	HVESP1 Module 4 Status - Update Rate
11476	Warning (Solid)	11097	9	HVESP1 Module 5 Operational Status - Abnormal Update Rate	HVESP1 Module 5 Status - Update Rate
11477	Warning (Solid)	11098	9	HVESP1 Module 6 Operational Status - Abnormal Update Rate	HVESP1 Module 6 Status - Update Rate
11478	Warning (Solid)	11099	9	HVESP1 Module 7 Operational Status - Abnormal Update Rate	HVESP1 Module 7 Status - Update Rate
11561	Warning (Solid)	11209	9	HVESP2 Module 1 Operational Status - Abnormal Update Rate	HVESP2 Module 1 Status - Update Rate
11562	Warning (Solid)	11210	9	HVESP2 Module 2 Operational Status - Abnormal Update Rate	HVESP2 Module 2 Status - Update Rate
11563	Warning (Solid)	11211	9	HVESP2 Module 3 Operational Status - Abnormal Update Rate	HVESP2 Module 3 Status - Update Rate

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
11564	Warning (Solid)	11212	9	HVESP2 Module 4 Operational Status - Abnormal Update Rate	HVESP2 Module 4 Status - Update Rate
11565	Warning (Solid)	11213	9	HVESP2 Module 5 Operational Status - Abnormal Update Rate	HVESP2 Module 5 Status - Update Rate
11566	Warning (Solid)	11214	9	HVESP2 Module 6 Operational Status - Abnormal Update Rate	HVESP2 Module 6 Status - Update Rate
11567	Warning (Solid)	11215	9	HVESP2 Module 7 Operational Status - Abnormal Update Rate	HVESP2 Module 7 Status - Update Rate
11649	Warning (Solid)	11325	9	HVESP3 Module 1 Operational Status - Abnormal Update Rate	HVESP3 Module 1 Status - Update Rate
11651	Warning (Solid)	11326	9	HVESP3 Module 2 Operational Status - Abnormal Update Rate	HVESP3 Module 2 Status - Update Rate
11652	Warning (Solid)	11327	9	HVESP3 Module 3 Operational Status - Abnormal Update Rate	HVESP3 Module 3 Status - Update Rate
11653	Warning (Solid)	11328	9	HVESP3 Module 4 Operational Status - Abnormal Update Rate	HVESP3 Module 4 Status - Update Rate
11654	Warning (Solid)	11329	9	HVESP3 Module 5 Operational Status - Abnormal Update Rate	HVESP3 Module 5 Status - Update Rate
11655	Warning (Solid)	11330	9	HVESP3 Module 6 Operational Status - Abnormal Update Rate	HVESP3 Module 6 Status - Update Rate
11656	Warning (Solid)	11331	9	HVESP3 Module 7 Operational Status - Abnormal Update Rate	HVESP3 Module 7 Status - Update Rate
11938	Warning (Solid)	521331	9	Water Pump 1 - Abnormal Update Rate	Water Pump 1 - Update Rate
11939	Warning (Solid)	521332	9	Water Pump 2 - Abnormal Update Rate	Water Pump 2 - Update Rate
11941	Warning (Solid)	521333	9	Water Pump 3 - Abnormal Update Rate	Water Pump 3 - Update Rate
11942	Warning (Solid)	521334	9	Water Pump 4 - Abnormal Update Rate	Water Pump 4 - Update Rate
11943	Warning (Solid)	521335	9	Water Pump 5 - Abnormal Update Rate	Water Pump 5 - Update Rate
11944	Warning (Solid)	521336	9	High Voltage AC Battery Charger 1 - Abnormal Update Rate	HV AC Batt Charger 1 - Update Rate
11945	Warning (Solid)	521337	9	High Voltage AC Battery Charger 2 - Abnormal Update Rate	HV AC Batt Charger 2 - Update Rate
11946	Warning (Solid)	521338	9	High Voltage AC Battery Charger 3 - Abnormal Update Rate	HV AC Batt Charger 3 - Update Rate
11947	Stop (Solid)	521339	9	Power Steering Pump High Voltage DC/AC Inverter - Abnormal Update Rate	P/S Pump Inverter - Update Rate
11948	Stop (Solid)	521340	9	Air Compressor High Voltage DC/AC Inverter - Abnormal Update Rate	Air Compressor Inverter - Update Rate
11949	Warning (Solid)	521341	9	Air-Conditioner Compressor High Voltage DC/AC Inverter - Abnormal Update Rate	TMS A/C Comp Inverter - Update Rate
12141	Stop (Solid)	11089	12	HVESP1 Operational Status - Bad Intelligent Device or Component	HVESP1 Operational Status - Bad Device
12142	Stop (Solid)	11205	12	HVESP2 Operational Status - Bad Intelligent Device or Component	HVESP2 Operational Status - Bad Device
12143	Stop (Solid)	11321	12	HVESP3 Operational Status - Bad Intelligent Device or Component	HVESP3 Operational Status - Bad Device
12144	Stop (Solid)	521382	1	Battery Distribution Unit 1 - Data Valid But Below Normal Operating Range - Most Severe Level	HV BDU 1 - Below Normal - Most Severe
12145	Warning (Solid)	521382	18	Battery Distribution Unit 1 - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV BDU 1 - Below Normal - Mod Severe
12146	Stop (Solid)	521383	1	Battery Distribution Unit 2 - Data Valid But Below Normal Operating Range - Most Severe Level	HV BDU 2 - Below Normal - Most Severe
12147	Warning (Solid)	521383	18	Battery Distribution Unit 2 - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV BDU 2 - Below Normal - Mod Severe
12148	Stop (Solid)	521384	1	Battery Distribution Unit 3 - Data Valid But Below Normal Operating Range - Most Severe Level	HV BDU 3 - Below Normal - Most Severe
12149	Warning (Solid)	521384	18	Battery Distribution Unit 3 - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV BDU 3 - Below Normal - Mod Severe

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
12151	Stop (Solid)	521385	31	HVIL Segment 1 Status - Condition Exists	HVIL Segment 1 Status - Cond Exists
12152	Stop (Solid)	521386	31	HVIL Segment 2 Status - Condition Exists	HVIL Segment 2 Status - Cond Exists
12153	Stop (Solid)	521387	31	HVIL Segment 3 Status - Condition Exists	HVIL Segment 3 Status - Cond Exists
12154	Stop (Solid)	521388	31	HVIL Segment 4 Status - Condition Exists	HVIL Segment 4 Status - Cond Exists
12155	Stop (Solid)	521389	31	High voltage Bus Control Circuit - Condition Exists	HV Bus Control Circuit - Cond Exists
12156	Warning (Solid)	521389	31	High voltage Bus Control Circuit - Condition Exists	Hv Bus Control Circuit - Cond Exists
12157	Stop (Solid)	521390	31	High-Voltage Bus Active Isolation Test Results - Condition Exists	HV Bus Active Isolation - Cond Exists
12158	Warning (Solid)	521390	31	High-Voltage Bus Active Isolation Test Results - Condition Exists	HV Bus Active Isolation - Cond Exists
12159	Stop (Solid)	521391	13	Battery Distribution Unit - Out of Calibration	HV Batt Dist Unit - Out of Calibration
12161	Stop (Solid)	521392	1	High voltage Battery Pack Cell Voltage - Data Valid But Below Normal Operating Range - Most Severe Level	HV Batt Pack Cell Voltage Low - Severe
12162	Warning (Solid)	521392	18	High voltage Battery Pack Cell Voltage - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV Batt Cell Voltage Low - Mod Severe
12163	Stop (Solid)	521393	1	High voltage Battery Pack Cell Current - Data Valid But Below Normal Operating Range - Most Severe Level	HV Batt Pack Cell Current Low - Severe
12164	Warning (Solid)	521393	18	High voltage Battery Pack Cell Current - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV Batt Cell Current Low - Mod Severe
12165	Stop (Solid)	521394	1	High voltage Battery Pack Cell Temperature - Data Valid But Below Normal Operating Range - Most Severe Level	HV Batt Pack Cell Temp - Severe
12166	Warning (Solid)	521394	18	High voltage Battery Pack Cell Temperature - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV Batt Pack Cell Temp - Mod Severe
12194	Warning (Solid)	516100	3	Coolant Heater Outlet Temperature Sensor - Voltage Above Normal or Shorted to High Source	Coolant Heater Out Temp - Voltage High
12195	Warning (Solid)	516100	4	Coolant Heater Outlet Temperature Sensor - Voltage Below Normal or Shorted to Low Source	Coolant Heater Out Temp - Voltage Low
12196	Warning (Solid)	516101	3	Power Electronics Coolant Level Sensor - Voltage Above Normal or Shorted to High Source	Pwr Elect. Coolant Level - Voltage High
12197	Warning (Solid)	516101	4	Power Electronics Coolant Level Sensor - Voltage Below Normal or Shorted to Low Source	Power Elect. Coolant Level- Voltage Low
12198	Warning (Solid)	12897	3	HVESS Thermal Management System Coolant Level - Voltage Above Normal or Shorted to High Source	HV Batt Coolant Level - Voltage High
12199	Warning (Solid)	12897	4	HVESS Thermal Management System Coolant Level - Voltage Below Normal or Shorted to Low Source	Battery Coolant Level - Voltage Low
12534	Warning (Solid)	6019	7	Fused Output #1 - Mechanical System Not Responding or Out of Adjustment	Fused Output #1 - Not Responding
12584	Warning (Solid)	1677	31	Auxiliary Heater Mode - Condition Exists	Auxiliary Heater - Cond Exists
12974	Warning (Solid)	516106	19	High Voltage Isometer Battery Voltage - Received Network Data in Error	HV Isometer Batt Voltage - Data Error
12975	Warning (Solid)	516107	19	High Voltage Isometer Error Flags - Received Network Data in Error	HV Isometer Error Flags - Data Error
12976	Warning (Solid)	516108	19	High Voltage Isometer Isolation Capacitances - Received Network Data in Error	HV Isometer Capacitances - Data Error
12977	Warning (Solid)	516109	19	High Voltage Isometer Isolation Resistances - Received Network Data in Error	HV Isometer Resistances - Data Error
12978	Warning (Solid)	516110	19	High Voltage Isometer Isolation State - Received Network Data in Error	HV Isometer Isolation State - Data Error

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
12979	Warning (Solid)	516111	19	High Voltage Isometer Voltages Measurement - Received Network Data in Error	HV Isometer Volt Measure - Data Error
12983	Warning (Solid)	7549	18	Hybrid System Propulsion Coolant Level Switch - Data Valid But Below Normal Operating Range - Moderately Severe Level	Propulsion Coolant Level Sw - Mod Severe
13335	Warning (Solid)	516133	18	EVSE High-Voltage Bus Active Isolation Test Status - Data Valid But Below Normal Operating Range - Moderately Severe Level	EVSE HV Bus Isolation - Mod Severe
13336	Stop (Solid)	516133	1	EVSE High-Voltage Bus Active Isolation Test Status - Data Valid But Below Normal Operating Range - Most Severe Level	EVSE HV Bus Isolation Low - Severe
13337	Warning (Solid)	516133	17	EVSE High-Voltage Bus Active Isolation Test Status - Data Valid But Below Normal Operating Range - Least Severe Level	EVSE HV Bus Isolation - Least Severe
13498	Stop (Solid)	521339	12	Power Steering Pump High Voltage DC/AC Inverter - Bad Intelligent Device or Component	P/S Pump Inverter - Bad Device
13499	Warning (Solid)	521339	11	Power Steering Pump High Voltage DC/AC Inverter - Root Cause Not Known	P/S Pump Inverter - Root Cause Not Known
13511	Warning (Solid)	521339	13	Power Steering Pump High Voltage DC/AC Inverter - Out of Calibration	P/S Pump Inverter - Out of Calibration
13512	Stop (Solid)	521339	10	Power Steering Pump High Voltage DC/AC Inverter - Abnormal Rate of Change	P/S Pump Inverter - Rate of Change
13513	Warning (Solid)	521339	14	Power Steering Pump High Voltage DC/AC Inverter - Special Instructions	P/S Pump Inverter - Special Instructions
13514	Stop (Solid)	521339	16	Power Steering Pump High Voltage DC/AC Inverter - Data Valid But Above Normal Operating Range - Moderately Severe Level	P/S Pump Inverter - Mod Severe
13515	Warning (Solid)	521339	15	Power Steering Pump High Voltage DC/AC Inverter - Data Valid But Above Normal Operating Range - Least Severe Level	P/S Pump Inverter - Least Severe
13516	Warning (Solid)	521339	17	Power Steering Pump High Voltage DC/AC Inverter - Data Valid But Below Normal Operating Range - Least Severe Level	P/S Pump Inverter - Least Severe
13517	Stop (Solid)	521339	7	Power Steering Pump High Voltage DC/AC Inverter - Mechanical System Not Responding or Out of Adjustment	P/S Pump Inverter - Not Responding
13518	Warning (Solid)	521339	8	Power Steering Pump High Voltage DC/AC Inverter - Abnormal Frequency or Pulse Width or Period	P/S Pump Inverter - Abnormal Signal
13519	Warning (Solid)	521339	31	Power Steering Pump High Voltage DC/AC Inverter - Condition Exists	P/S Pump Inverter - Cond Exists
13521	Stop (Solid)	521340	12	Air Compressor High Voltage DC/AC Inverter - Bad Intelligent Device or Component	Air Compressor Inverter - Bad Device
13522	Warning (Solid)	521340	11	Air Compressor High Voltage DC/AC Inverter - Root Cause Not Known	Air Compressor Inverter - Cause Unknown
13523	Warning (Solid)	521340	13	Air Compressor High Voltage DC/AC Inverter - Out of Calibration	Air Compressor Inverter - Out of Cal
13524	Stop (Solid)	521340	10	Air Compressor High Voltage DC/AC Inverter - Abnormal Rate of Change	Air Compressor Inverter - Rate of Change
13525	Warning (Solid)	521340	14	Air Compressor High Voltage DC/AC Inverter - Special Instructions	Air Compressor Inverter - Special Notes
13526	Stop (Solid)	521340	16	Air Compressor High Voltage DC/AC Inverter - Data Valid But Above Normal Operating Range - Moderately Severe Level	Air Compressor Inverter - Mod Severe
13527	Warning (Solid)	521340	15	Air Compressor High Voltage DC/AC Inverter - Data Valid But Above Normal Operating Range - Least Severe Level	Air Compressor Inverter - Least Severe
13528	Warning (Solid)	521340	17	Air Compressor High Voltage DC/AC Inverter - Data Valid But Below Normal Operating Range - Least Severe Level	Air Compressor Inverter - Least Severe

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
13529	Stop (Solid)	521340	7	Air Compressor High Voltage DC/AC Inverter - Mechanical System Not Responding or Out of Adjustment	Air Compressor Inverter - Not Responding
13531	Warning (Solid)	521340	8	Air Compressor High Voltage DC/AC Inverter - Abnormal Frequency or Pulse Width or Period	Air Comp Inverter - Abnormal Signal
13532	Warning (Solid)	521340	31	Air Compressor High Voltage DC/AC Inverter - Condition Exists	Air Compressor Inverter - Cond Exists
13533	Stop (Solid)	521341	12	Air-Conditioner Compressor High Voltage DC/AC Inverter - Bad Intelligent Device or Component	TMS A/C Comp Inverter - Bad Device
13534	Warning (Solid)	521341	11	Air-Conditioner Compressor High Voltage DC/AC Inverter - Root Cause Not Known	TMS A/C Comp Inverter - Cause Unknown
13535	Warning (Solid)	521341	13	Air-Conditioner Compressor High Voltage DC/AC Inverter - Out of Calibration	TMS A/C Comp Inverter - Out of Cal
13536	Stop (Solid)	521341	10	Air-Conditioner Compressor High Voltage DC/AC Inverter - Abnormal Rate of Change	TMS A/C Comp Inverter - Rate of Change
13537	Warning (Solid)	521341	14	Air-Conditioner Compressor High Voltage DC/AC Inverter - Special Instructions	TMS A/C Comp Inverter - Special Notes
13538	Stop (Solid)	521341	16	Air-Conditioner Compressor High Voltage DC/AC Inverter - Data Valid But Above Normal Operating Range - Moderately Severe Level	TMS A/C Comp Inverter - Mod Severe
13539	Warning (Solid)	521341	15	Air-Conditioner Compressor High Voltage DC/AC Inverter - Data Valid But Above Normal Operating Range - Least Severe Level	TMS A/C Comp Inverter - Least Severe
13541	Warning (Solid)	521341	17	Air-Conditioner Compressor High Voltage DC/AC Inverter - Data Valid But Below Normal Operating Range - Least Severe Level	TMS A/C Comp Inverter - Least Severe
13542	Stop (Solid)	521341	7	Air-Conditioner Compressor High Voltage DC/AC Inverter - Mechanical System Not Responding or Out of Adjustment	TMS A/C Comp Inverter - Not Responding
13543	Warning (Solid)	521341	8	Air-Conditioner Compressor High Voltage DC/AC Inverter - Abnormal Frequency or Pulse Width or Period	TMS A/C Comp Inverter - Abnormal Signal
13544	Warning (Solid)	521341	31	Air-Conditioner Compressor High Voltage DC/AC Inverter - Condition Exists	TMS A/C Comp Inverter - Cond Exists
13776	Warning (Solid)	1684	3	Auxiliary Heater Coolant Pump Request - Voltage Above Normal or Shorted to High Source	Aux Heater Coolant Pump - Voltage High
13777	Warning (Solid)	1684	4	Auxiliary Heater Coolant Pump Request - Voltage Below Normal or Shorted to Low Source	Aux Heater Coolant Pump - Voltage Low
13778	Warning (Solid)	1557	3	Fan 2 Drive State - Voltage Above Normal or Shorted to High Source	Fan 2 Drive State - Voltage High
13779	Warning (Solid)	1557	4	Fan 2 Drive State - Voltage Below Normal or Shorted to Low Source	Fan 2 Drive State - Voltage Low
13812	Warning (Solid)	516230	7	Charge port receptacle port 1 - Mechanical System Not Responding or Out of Adjustment	Charge Port Receptacle1 - Not Responding
14164	Warning (Solid)	8234	15	HVESS Thermal Management System Heater Status - Data Valid But Above Normal Operating Range - Least Severe Level	HV Batt Heater Status - Above Normal
14165	Warning (Solid)	8234	17	HVESS Thermal Management System Heater Status - Data Valid But Below Normal Operating Range - Least Severe Level	HV Batt Heater Status - Below Normal
14166	Warning (Solid)	1683	15	Auxiliary Heater Mode Request - Data Valid But Above Normal Operating Range - Least Severe Level	Aux Heater Mode Request - Above Normal
14167	Warning (Solid)	1683	17	Auxiliary Heater Mode Request - Data Valid But Below Normal Operating Range - Least Severe Level	Aux Heater Mode Request - Below Normal
14169	Warning (Solid)	1677	17	Auxiliary Heater Mode - Data Valid But Below Normal Operating Range - Least Severe Level	Aux Heater Mode - Below Normal
14186	Warning (Solid)	13159	18	EVSE DC Charging Voltage Maximum - Data Valid But Below Normal Operating Range - Moderately Severe Level	EVSE DC Charging Volt Max - Mod Severe

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
14188	Warning (Solid)	520192	9	CAN IVT RESULT - Abnormal Update Rate	CAN IVT RESULT - Update Rate
14189	Warning (Solid)	520193	9	CAN IVT RESULT U1 - Abnormal Update Rate	CAN IVT RESULT U1 - Update Rate
14252	None	875	18	Refrigerant Low Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe Level	Refrigerant Low Press Sw - Below Normal
14253	None	605	18	Refrigerant High Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe Level	Refrigerant High Press Sw - Below Normal
14254	Stop (Solid)	520749	3	Master Power Relay driver - Voltage Above Normal or Shorted to High Source	Master Power Relay driver - Voltage High
14255	Stop (Solid)	520749	4	Master Power Relay driver - Voltage Below Normal or Shorted to Low Source	Master Power Relay driver - Voltage Low
14256	Warning (Solid)	520750	31	High Voltage Active Discharge driver - Condition Exists	HV Active Discharge Driver - Cond Exists
14257	Warning (Solid)	520750	3	High Voltage Active Discharge driver - Voltage Above Normal or Shorted to High Source	HV Act. Discharge Driver - Voltage High
14258	Warning (Solid)	520750	4	High Voltage Active Discharge driver - Voltage Below Normal or Shorted to Low Source	HV Active Discharge driver - Voltage Low
14259	Stop (Solid)	520751	20	Propulsion Motor 1 - Data Not Rational - Drifted High	Propulsion Motor 1 - Drifted High
14261	Stop (Solid)	520751	21	Propulsion Motor 1 - Data Not Rational - Drifted Low	Propulsion Motor 1 - Drifted Low
14262	Stop (Solid)	520752	9	Propulsion Motor 1 Control Module - Abnormal Update Rate	Propulsion Motor Cntrl - Update Rate
14263	Stop (Solid)	520752	13	Propulsion Motor 1 Control Module - Out of Calibration	Propulsion Motor Cntrl - Out of Cal
14264	Stop (Solid)	520751	3	Propulsion Motor 1 - Voltage Above Normal or Shorted to High Source	Propulsion Motor 1 - Voltage High
14265	None	520753	18	Low SOC Error - Data Valid But Below Normal Operating Range - Moderately Severe Level	Low SOC Error - Mod Severe
14266	Stop (Solid)	520753	1	Low SOC Error - Data Valid But Below Normal Operating Range - Most Severe Level	Low SOC Error - Most Severe
14267	Stop (Solid)	520754	3	DC Charger Contactor Feedback Signal -- Voltage Above Normal or Shorted to High Source	DC Charger Contactor Fdbk - Voltage High
14268	Stop (Solid)	520754	4	DC Charger Contactor Feedback Signal - Voltage Below Normal or Shorted to Low Source	DC Charger Contactor Fdbk - Voltage Low
14279	Warning (Blinking)	521209	14	Connectivity Module - Special Instructions	Connectivity Module - Special Notes
14284	Warning (Solid)	13177	31	EVSE1 Status - Condition Exists	EVSE1 Status - Condition Exists
14313	Stop (Solid)	516107	6	High Voltage Isometer Error Flags - Current Above Normal or Grounded Circuit	HV Isometer Error Flags - Current Normal
14314	Stop (Solid)	516107	3	High Voltage Isometer Error Flags - Voltage Above Normal or Shorted to High Source	HV Isometer Error Flags - Voltage High
14315	Stop (Solid)	516107	2	High Voltage Isometer Error Flags - Data Erratic, Intermittent, or Incorrect	HV Isometer - Data Quality Error
14316	Stop (Solid)	516107	18	High Voltage Isometer Error Flags - Data Valid But Below Normal Operating Range - Moderately Severe Level	HV Isometer Error Flags - Mod Severe
14317	Stop (Solid)	516107	16	High Voltage Isometer Error Flags - Data Valid But Above Normal Operating Range - Moderately Severe Level	HV Isometer Error Flags - Mod Severe
14318	Stop (Solid)	516107	7	High Voltage Isometer Error Flags - Mechanical System Not Responding or Out of Adjustment	HV Isometer Error Flags - Not Responding
14319	Stop (Solid)	516109	1	High Voltage Isometer Isolation Resistances - Data Valid But Below Normal Operating Range - Most Severe Level	HV Isometer Resistances Low - Severe
14321	Warning (Solid)	516096	3	Isometer Enable - Voltage Above Normal or Shorted to High Source	Isometer Enable - Voltage High
14322	Stop (Solid)	516096	4	Isometer Enable - Voltage Below Normal or Shorted to Low Source	Isometer Enable - Voltage Low
14323	Warning (Solid)	516097	12	High Voltage Sensor - Bad Intelligent Device or Component	HV Sensor - Bad Device
14324	Warning (Solid)	520702	18	BTMS Coolant Level - Data Valid But Below Normal Operating Range - Moderately Severe Level	Batt Coolant Level - Mod Severe Level
14325	Stop (Solid)	516098	12	DCDC System - Bad Intelligent Device or Component	DCDC System - Bad Device
14523	None	520200	9	Powersteering Pump - Abnormal Update Rate	Powersteering Pump - Update Rate
14524	None	520201	9	Air Compressor - Abnormal Update Rate	Air Compressor - Update Rate

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
14525	None	520233	9	Smart Heater Datalink Message - Abnormal Update Rate	Smart Heater Datalink - Update Rate
15234	Stop (Solid)	520200	6	Powersteering Pump - Current Above Normal or Grounded Circuit	Powersteering Pump - Current High
15235	Stop (Solid)	520200	3	Powersteering Pump - Voltage Above Normal or Shorted to High Source	Powersteering Pump - Voltage High
15236	Stop (Solid)	520200	4	Powersteering Pump - Voltage Below Normal or Shorted to Low Source	Powersteering Pump - Voltage Low
15237	Stop (Solid)	520200	16	Powersteering Pump - Data Valid But Above Normal Operating Range - Moderately Severe Level	Powersteering Pump High - Mod Severe
15238	Stop (Solid)	520200	15	Powersteering Pump - Data Valid But Above Normal Operating Range - Least Severe Level	Powersteering Pump High - Least Severe
15239	Stop (Solid)	520200	1	Powersteering Pump - Data Valid But Below Normal Operating Range - Most Severe Level	Powersteering Pump Low - Most Severe
15241	Stop (Solid)	520200	0	Powersteering Pump - Data Valid But Above Normal Operating Range - Most Severe Level	Powersteering Pump High - Most Severe
15242	Stop (Solid)	520200	12	Powersteering Pump - Bad Intelligent Device or Component	Powersteering Pump - Bad Device
15243	Stop (Solid)	520201	6	Air Compressor - Current Above Normal or Grounded Circuit	Air Compressor - Current High
15244	Stop (Solid)	520201	3	Air Compressor - Voltage Above Normal or Shorted to High Source	Air Compressor - Voltage High
15245	Stop (Solid)	520201	4	Air Compressor - Voltage Below Normal or Shorted to Low Source	Air Compressor - Voltage Low
15246	Stop (Solid)	520201	16	Air Compressor - Data Valid But Above Normal Operating Range - Moderately Severe Level	Air Compressor High - Mod Severe
15247	Stop (Solid)	520201	15	Air Compressor - Data Valid But Above Normal Operating Range - Least Severe Level	Air Compressor High - Least Severe
15248	Stop (Solid)	520201	1	Air Compressor - Data Valid But Below Normal Operating Range - Most Severe Level	Air Compressor Low - Most Severe
15249	Stop (Solid)	520201	31	Air Compressor - Condition Exists	Air Compressor - Condition Exists
15251	Stop (Solid)	520201	12	Air Compressor - Bad Intelligent Device or Component	Air Compressor - Bad Device
15252	Warning (Solid)	517148	12	Battery Heater 1 - Bad Intelligent Device or Component	Battery Heater 1 - Bad Device
15253	Warning (Solid)	517148	31	Battery Heater 1 - Condition Exists	Battery Heater 1 - Condition Exists
15254	Warning (Solid)	517148	15	Battery Heater 1 - Data Valid But Above Normal Operating Range - Least Severe Level	Battery Heater 1 High - Least Severe
15255	Warning (Solid)	517148	16	Battery Heater 1 - Data Valid But Above Normal Operating Range - Moderately Severe Level	Battery Heater 1 High - Mod Severe
15256	Warning (Solid)	517148	7	Battery Heater 1 - Mechanical System Not Responding or Out of Adjustment	Battery Heater 1 - Not Responding
15257	Warning (Solid)	517149	12	Cabin Heater 1 - Bad Intelligent Device or Component	Cabin Heater 1 - Bad Device
15258	Warning (Solid)	517149	31	Cabin Heater 1 - Condition Exists	Cabin Heater 1 - Condition Exists
15259	Warning (Solid)	517149	15	Cabin Heater 1 - Data Valid But Above Normal Operating Range - Least Severe Level	Cabin Heater 1 High - Least Severe
15261	Warning (Solid)	517149	16	Cabin Heater 1 - Data Valid But Above Normal Operating Range - Moderately Severe Level	Cabin Heater 1 High - Mod Severe
15262	Warning (Solid)	517149	7	Cabin Heater 1 - Mechanical System Not Responding or Out of Adjustment	Cabin Heater 1 - Not Responding
15263	Warning (Solid)	517150	12	Cabin Heater 2 - Bad Intelligent Device or Component	Cabin Heater 2 - Bad Device
15264	Warning (Solid)	517150	31	Cabin Heater 2 - Condition Exists	Cabin Heater 2 - Condition Exists
15265	Warning (Solid)	517150	15	Cabin Heater 2 - Data Valid But Above Normal Operating Range - Least Severe Level	Cabin Heater 2 High - Least Severe
15266	Warning (Solid)	517150	16	Cabin Heater 2 - Data Valid But Above Normal Operating Range - Moderately Severe Level	Cabin Heater 2 High - Mod Severe
15267	Warning (Solid)	517150	7	Cabin Heater 2 - Mechanical System Not Responding or Out of Adjustment	Cabin Heater 2 - Not Responding
15268	Warning (Solid)	520233	12	Smart Heater Datalink Message - Bad Intelligent Device or Component	Smart Heater Datalink - Bad Device

Cummins Fault Code #	Lamp (Service Indicator)	J1939 SPN	J1939 FMI	SPN / FMI Cummins Description	SPN / FMI Cummins Description (for Blue Bird Diagnostic display)
15269	Warning (Solid)	520233	3	Smart Heater Datalink Message - Voltage Above Normal or Shorted to High Source	Smart Heater Datalink - Voltage High
15271	Warning (Solid)	520233	4	Smart Heater Datalink Message - Voltage Below Normal or Shorted to Low Source	Smart Heater Datalink - Voltage Low
15291	Warning (Solid)	517148	13	Battery Heater 1 - Out of Calibration	Battery Heater 1 - Out of Calibration
15292	Warning (Solid)	517148	14	Battery Heater 1 - Special Instructions	Battery Heater 1 - Special Instructions
15293	Warning (Solid)	517149	13	Cabin Heater 1 - Out of Calibration	Cabin Heater 1 - Out of Calibration
15294	Warning (Solid)	517149	14	Cabin Heater 1 - Special Instructions	Cabin Heater 1 - Special Instructions
15295	Warning (Solid)	517150	13	Cabin Heater 2 - Out of Calibration	Cabin Heater 2 - Out of Calibration
15296	Warning (Solid)	517150	14	Cabin Heater 2 - Special Instructions	Cabin Heater 2 - Special Instructions