

Diagnostic Trouble Code Priorities

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Diagnostic Trouble Code Priorities

Each Diagnostic Trouble Code (DTC) has a priority. The priority of the DTC is indicated in the way the DTC is displayed to the operator:

- Priority 1 - The Cornerpost Display will stop normal function and the DTC will be displayed. This indicates a problem that requires the combine be stopped, the engine turned off immediately and the problem corrected. The Cornerpost Display will show the DTC until the problem is resolved.
- Priority 2 - The Cornerpost Display Diagnostic Indicator comes on. This indicates a problem that should be checked immediately.
- Priority 3 - DTC's will be stored, but it is not indicated to the operator.

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NOTE: Some codes may be activated that are not addressed in this book. These codes are of low severity. Contact your John Deere dealer at your convenience.

A00 - Engine Control Unit Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
A00	94	1	1	Fuel pressure too low - less than 300 kPa / 44 PSI.
A00	94	3	2	Fuel Pressure Sensor (cc# 135) voltage out of range high.
A00	94	4	2	Fuel Pressure Sensor (cc# 135) voltage out of range low.
A00	94	16	2	Fuel pressure is too high - above 820 kPa (119 PSI) at 900 RPM or above 890 kPa (129 PSI) at 2100 RPM.
A00	94	18	2	Fuel pressure too low - less than 400 kPa / 58 PSI.
A00	97	3	2	Water in Fuel Sensor (cc# 136) voltage out of range high.
A00	97	4	2	Water in Fuel Sensor (cc# 136) voltage out of range low.
A00	97	31	2	Water is detected in fuel. Drain water separator bowl.
A00	97	31	1	Water is detected in fuel. Drain water separator bowl.

A00	100	1	1	Oil Pressure Sensor is open after engine RPM is above cranking speed.
A00	100	4	2	Oil Pressure Sensor is closed when engine is not running.
A00	105	3	2	Engine Manifold Air Temperature Sensor voltage is out of range high. The device or wiring is faulty.
A00	105	4	2	Engine Manifold Air Temperature Sensor voltage is out of range low. The device or wiring is faulty.
A00	105	16	2	Engine manifold air temperature above 88°C / 190°F (moderately severe level). Maximum power level is derated. Power boost is disabled.
A00	107		2	Air Filter Restricted Switch indicates a plugged air filter.
A00	110		1	Engine coolant temperature above 113°C / 235°F (most severe level). Maximum power level is derated. Power boost is disabled.
A00	110	3	2	Engine Coolant Temperature Sensor voltage is out of range high. The device or wiring is faulty.
A00	110	4	2	Engine Coolant Temperature Sensor voltage is out of range low. The device or wiring is faulty.
A00	110	16	2	Engine coolant temperature above 108°C / 226°F. Maximum power level is derated. Power boost is disabled.
A00	158	17	2	Controller not powered down properly.
A00	174	3	2	Engine Fuel Temperature Sensor voltage is out of range high. The device or wiring is faulty.
A00	174	4	2	Engine Fuel Temperature Sensor voltage is out of range low. The device or wiring is faulty.
A00	611	3	2	The injector driver has detected a short to battery in the injector wiring.
A00	611	4	2	The injector driver has detected a short to ground in the injector wiring.
A00	620	3	2	Engine Control Unit internal 5 Volts DC Supply out of range or incorrect high.
A00	620	4	2	Engine Control Unit internal 5 Volts DC Supply out of range or incorrect low.

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A00	627	1	2	All injector currents are out of specification. The injector pull-in current is too low or the injector hold-in current is incorrect.
A00	636	2	2	Electrical noise detected on Pump Position Sensor + (cc# 172) and/or Pump Position Sensor - (cc# 173).
A00	636	8	2	Pump Position Sensor signal is missing.

A00	636	10	2	Pump Position Sensor signal has incorrect pulse pattern.
A00	637	2	2	Electrical noise detected on Engine Speed Sensor + (cc# 174) and/or Engine Speed Sensor - (cc# 175).
A00	637	7	2	Position relationship between Engine Speed Sensor and Pump Position Sensor not correct.
A00	637	8	2	Engine Speed Sensor signal is missing.
A00	637	10	2	Engine Speed Sensor signal has incorrect pulse pattern.
A00	651	5	2	The current to Injector #1 is less than expected.
A00	651	6	2	The current to Injector #1 increases too rapidly.
A00	652	5	2	The current to Injector #2 is less than expected.
A00	652	6	2	The current to Injector #2 increases too rapidly.
A00	653	5	2	The current to Injector #3 is less than expected.
A00	653	6	2	The current to Injector #3 increases too rapidly.
A00	654	5	2	The current to Injector #4 is less than expected.
A00	654	6	2	The current to Injector #4 increases too rapidly.
A00	655	5	2	The current to Injector #5 is less than expected.
A00	655	6	2	The current to Injector #5 increases too rapidly.
A00	656	5	2	The current to Injector #6 is less than expected.
A00	656	6	2	The current to Injector #6 increases too rapidly.
A00	1569	31	2	Engine protection - power derated due to other faults. This code occurs in conjunction with 105.16, 110.00, 110.03, 110.04, and 110.16.
A00	2000	13	1	Engine Control Unit security violation.

C00 - Armrest Control Unit Diagnostic Trouble Codes

C00	627	3	1	Delayed Power (cc# 006) voltage is above 16 VDC. High voltage situation must be resolved.
C00	628	12	1	Controller cannot exit boot block program. Disconnect Armrest Control Unit connectors X653 and X654. Reconnect connectors. Replace Armrest Control Unit if condition persists.
C00	630	11	1	Controller failed EEPROM test at power-up. Replace Armrest Control Unit if condition persists.
C00	1490	8	2	Backshaft speed unknown. Damage could occur to feeder house if direction is changed while feeder house is turning.
C00	1499	12	2	The separator engage fault detection circuit indicates a failure. This is an important

				disengagement override system. Replace the Armrest Control Unit if condition persists.
C00	1504	11	1	The Seat Switch has been closed continuously for 6 hours. The switch or the wiring harness is shorted. The header will not disengage when the operator has left the seat. This must be corrected.

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C03 - Cornerpost Control Unit Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
C03	628	12	1	Controller cannot exit boot block program. Disconnect Cornerpost Control Unit connector X500. Reconnect connector. Replace Cornerpost Control Unit if condition persists.
C03	630	11	1	EEPROM failed test at power up. Replace Cornerpost Control Unit if condition persists.

E00 - Tailings Master Sensor Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
E00	628	12	2	Controller cannot exit boot block program. Turn Key Switch to the OFF position. Wait 30 seconds. Replace Master Tailings Sensor if condition persists.
E00	630	11	2	EEPROM failed test at power up. Replace the Master Tailings Sensor if condition persists.

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E01 - Header Control Unit Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
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E01	627	3	1	Controller supply voltage out of range high - greater than 16 VDC.
E01	628	12	1	Controller cannot exit boot block program. Disconnect Header Control Unit connector X205. Reconnect connector. Replace Header Control Unit if condition persists
E01	1079	3	2	Height Sensor Power (cc# 481) voltage is too high - greater than 5.25VDC. Height Sensor Power is used to power the Return To Cut Sensor, Reel Fore/Aft Position Sensor, Deck Plate Position Sensor, Right Header Height Sensor, Center Header Height Sensor and Left Header Height Sensor. The voltage regulator of the Header Control Unit is bad or there is a short in the wiring.
E01	1079	4	2	Height Sensor Power (cc# 481) voltage is too low - less than 4.75VDC. Height Sensor Power is used to power the Return To Cut Sensor, Reel Fore/Aft Position Sensor, Deck Plate Position Sensor, Right Header Height Sensor, Center Header Height Sensor and Left Header Height Sensor. The voltage regulator of the Header Control Unit is bad or there is a short in the wiring.
E01	1080	3	2	Height Sensor Power 2 (cc# 471) voltage is too high - greater than 5.25VDC. Height Sensor Power 2 is used to power the CONTOUR MASTER Angle Sensor and the Header Raise Pressure Sensor. The voltage regulator of the Header Control Unit is bad or there is a short in the wiring.
E01	1080	4	2	Height Sensor Power 2 (cc# 471) voltage is too low - less than 4.75VDC. Height Sensor Power 2 is used to power the CONTOUR MASTER Angle Sensor and the Header Raise Pressure Sensor. The voltage regulator of the Header Control Unit is bad or there is a short in the wiring.
E01	1515	13	2	Active Header Height Control system or CONTOUR MASTER system not calibrated for currently attached header. Perform the calibration procedure.
E01	1516	13	2	Header Float system not calibrated for currently attached header. Perform the calibration procedure.
E01	1517	4	2	Header Raise Pressure (cc# 706) voltage is too low - less than 0.25VDC.
E01	1519	11	2	Header raise valve driver detects an open, short, over voltage, or over temperature condition. The Header Control Unit will not actuate the Header Raise Valve until the fault condition is removed.

E01	1520	11	2	Header lower valve driver detects an open, short, over voltage, or over temperature condition. The Header Control Unit will not actuate the Header Lower Valve until the fault condition is removed.
E01	1521	11	2	Tilt left valve driver detects an open, short, over voltage, or over temperature condition. The Header Control Unit will not actuate the CONTOUR MASTER Tilt Left Valve until the fault condition is removed.
E01	1522	11	2	Tilt right valve driver detects an open, short, over voltage, or over temperature condition. The Header Control Unit will not actuate the CONTOUR MASTER Tilt Right Valve until the fault condition is removed.

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E01	1523	11	2	HYDRAFLEX diverter valve driver detects an open, short, over voltage, or over temperature condition. The Header Control Unit will not actuate the HYDRAFLEX Diverter Valve until the fault condition is removed.
E01	1531	6	2	Reel speed increase driver detects an open, short, over voltage, over temperature condition. The Header Control Unit will not actuate the Reel Speed Actuator in the increase speed mode until the fault condition is removed
E01	1532	6	2	Reel speed decrease driver detects an open, short, over voltage, over temperature condition. The Header Control Unit will not actuate the Reel Speed Actuator in the decrease speed mode until the fault condition is removed
E01	1533	3	2	Height Resume Sensor (cc# 828) voltage is too high - greater than 4.5VDC. Faulty device or wiring.
E01	1533	4	2	Height Resume Sensor (cc# 828) voltage is too low - less than 0.5 VDC. Faulty device or wiring.
E01	1534	3	2	Left Header Height Sensor (cc# 412) voltage is too high - greater than 4.5 VDC. Faulty device or wiring.
E01	1534	4	2	Left Header Height Sensor (cc# 412) voltage is too low less than 0.5VDC. Faulty device or wiring.

E01	1535	3	2	Right Header Height Sensor (cc# 454) voltage is too high - greater than 4.5 VDC). Faulty device or wiring.
E01	1535	4	2	Right Header Height Sensor (cc# 454) voltage is too low - less than 0.5 VDC). Faulty device or wiring.
E01	1536	3	2	Center Header Height Sensor (cc# 414) voltage is too high - greater than 4.5 VDC or shorted pads of the DIAL-A-MATIC Sensor. Faulty device or wiring.
E01	1536	4	2	Center Header Height Sensor (cc# 414) voltage is too low - less than 0.5 VDC or no signal from DIAL-A-MATIC Sensor. Faulty device or wiring.
E01	1541	2	2	Reel speed unknown.
E01	298618	7	2	Reel raise/lower or fore/aft resume system has malfunctioned.
E01	298621	7	2	HYDRAFLEX system has malfunctioned.

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E02 - Right Control Unit Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
E02	627	3	1	Electronic Power (cc# 021) voltage is too high - greater than 16VDC.
E02	628	12	1	Controller cannot exit boot block program. Turn Key Switch to the OFF position. Wait for 30 seconds. Replace Right Control Unit if condition persists.
E02	630	11	2	EEPROM failed test on power up. Replace the Right Control Unit if condition persists.
E02	639	19	2	CAN Bus messages are not being transmitted or received correctly. Possible effects are none, slow response, or machine down.
E02	1508	3	2	Hydraulic Oil Temperature Sensor (cc# 775) voltage is too high - greater than 4.97 VDC. The device or wiring is faulty.
E02	1508	4	2	Hydraulic Oil Temperature Sensor (cc# 775) voltage is too low - less than 0.29 VDC. The device or wiring is faulty.

E02	1509	3	2	Main Gear Case Oil Temperature Sensor (cc# 774) voltage is too high -greater than 4.97 VDC. The device or wiring is faulty.
E02	1509	4	2	Main Gear Case Oil Temperature Sensor (cc# 774) voltage is too low -less than 0.29 VDC. The device or wiring is faulty.

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E03 - Left Control Unit Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
E03	627	3	1	Electronic Power (cc# 021) voltage is too high - greater than 15.5 VDC.
E03	628	12	1	Controller cannot exit boot block program. Disconnect Left Control Unit connector X213. Reconnect connector. Replace Left Control Unit if condition persists.
E03	876	11	2	CLIMATRAK compressor driver detects an open, short, over voltage, or over temperature condition.
E03	200132	11	1	Left brake light driver detects an open, short, over voltage, or over temperature condition. Only active in the ROAD mode.
E03	200133	11	1	Right brake light driver detects an open, short, over voltage, or over temperature condition. Only active in the ROAD mode.
E03	200134	11	1	Left marker light driver detects an open, short, over voltage, or over temperature condition. Only active in the ROAD mode.
E03	200135	11	1	Right marker light driver detects an open, short, over voltage, or over temperature condition. Only active in the ROAD mode.
E03	200137	11	2	Feeder house reverser driver detects an open, short, over voltage, or over temperature condition.
E03	200140	3	2	12VDC detected on Power Ground (cc# 010) of Control Relay Board. Indicates problem with ground connections.
E03	200141	4	2	12VDC not detected on Unswitched Electronic Power (cc# 022) of Control Relay Board. Indicates problem with Unswitched Electronic Power connection, wiring or Fuse F20 of the Engine Compartment Relay Panel.

E03	200142	4	2	12VDC not detected on Light Power (cc# 014) of Control Relay Board. Indicates problem with Light Power connection, wiring or Fuse F18 of the Engine Compartment Relay Panel.
E03	200143	4	2	12VDC not detected on Control Power (cc# 016) of Control Relay Board. Indicates problem with Control Power connection, wiring, Fuse F8 or Relay K4 of the Engine Compartment Relay Panel.
E03	200144	4	2	12VDC not detected on Light Power 2 (cc# 046) of Control Relay Board. Indicates problem with Light Power 2 connection, wiring or Fuse F5 of the Engine Compartment Relay Panel.
E03	200145	4	2	12VDC not detected on Light Power 3 (cc# 047) of Control Relay Board. Indicates problem with Light Power 3 connection, wiring or Fuse F3 of the Engine Compartment Relay Panel.
E03	200147	4	2	12VDC not detected on Fan Speed Adjust Power (cc# 051) of Control Relay Board. Indicates problem with Fan Speed Adjust Power connection, wiring or Fuse F11 or Relay K5 of the Engine Compartment Relay Panel.
E03	200148	4	2	12VDC not detected on Light Power 5 (cc# 049) of Control Relay Board. Indicates problem with Light Power 5 connection, wiring or Fuse F9 of the Engine Compartment Relay Panel.
E03	200149	11	2	Indicates a problem in the serial communication link between the Left Control Unit and the Control Relay Board.

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E04 - Left Control Unit 2 Diagnostic Trouble Codes

Control Unit	SPN	FMI	Pri.	Description
E04	627	03	1	Delayed Power (cc# 006) voltage is too high - greater than 15.5 VDC.
E04	628	12	2	Controller cannot exit boot block program. Disconnect Left Control Unit 2 connectors X314 and X315. Reconnect connectors. Replace Armrest Control Unit if condition persists.
E04	1388	03	2	Rotor Drive Pressure (cc# 723) voltage is too high - greater than 4.98 VDC.

E04	1388	04	2	Rotor Drive Pressure (cc# 723) voltage is too low - less than 0.20 VDC.
E04	1503	09	2	CAN Bus message(s) missing from Armrest Control Unit

WARNING Messages and Fault Codes Displayed on GREENSTAR™ Display

HARVEST DOC and HARVEST MONITOR Warning messages:

Messages generated by a problem controller(s) are sent to the GREENSTAR Display over the CAN Bus network.

A WARNING message is displayed on the GREENSTAR Display as a full page message. Cancelling the WARNING message by pressing the button next to the word CANCEL will cause the message to disappear.

CAUTION messages located in section "G" of the GREENSTAR Display will be displayed following the canceling of the WARNING message. When the problem is fixed or no longer exists the CAUTION message in section "G" will no longer be displayed.

HARVEST DOC and HARVEST MONITOR Internal Fault Codes:

Fault Codes can be viewed by pressing the INFO button on the GREENSTAR Display. Then pressing the button next to the entry **GREENSTAR Display** followed by pressing the button next to the words **Recent Problems**. The codes will be displayed on this page with a short description following the code. To clear these Fault Code(s), press the button next to the words **Fault Codes**.

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GREENSTAR Display Warning Messages and Fault Codes

Control Unit	SPN	FMI	WARNING Messages /	Pri.	Description
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			Fault Codes		
0x80			200/20		CAN Bus Problem The indicated device(s) are no longer communicating with the GREENSTAR Display. Check the indicated device(s) and CAN Bus wiring.
0x80			201/21		CAN Bus Problem Two Devices are requesting the same Run Page section. Perform Run Page Layout to correct the conflict.
0x80			210/30		CAN Bus Problem Too many devices are attempting to communicate with the GREENSTAR Display. Remove 1 or more devices.
0x80			211/31		CAN Bus Problem CAN Bus communications overload. Reset the display or turn the power off and then back on.
0x80			213/33		Internal Error. A failure has been detected in the GREENSTAR Display's internal memory. Replace GREENSTAR Display if problem persists
0x80			220/40		Parallel Tracking Problem Parallel tracking is not receiving data from the GPS receiver. Check GPS receiver connection Wiring harness
0x80			221/41		Parallel Tracking Problem The GPS Receiver is not able to acquire a differential correction signal.
0x80			224/44		Parallel Tracking Problem No Parallel Tracking Key on KeyCard or no KeyCard present. Install KeyCard with Parallel Tracking key in Mobile Processor.
0x80			225/45		Parallel Tracking Problem The GPS receiver must be set to report at the 5 Hz. rate. Confirm: STARFIRE Receiver report rate License Level SFire2
0x80			226/46		Parallel Tracking Problem The GPS receiver has no GPS signal.
0x80			227/50		Automatic Steering Problem. No communication with the steering controller.
0x80			230/47		Display Address Change. You are about to change the address of the GREENSTAR Display. Selection of the wrong address will cause loss of communication with implements.

0x80			231/52		CAN Bus Problem Multiple primary GREENSTAR Displays detected on the bus. Only one primary display is allowed on the bus.
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Control Unit	SPN	FMI	WARNING Messages / Fault Codes	Pri.	Description
0x80			232/52		CAN Bus Problem No primary GREENSTAR Display detected. All systems require a primary display.
0x80			233/22		Language Selection Problem. The following device(s) do not support the selected language. They will continue to use the previously selected language.
0x80			234/53		CAN Bus Problem This display is on the CCD bus. It must be the primary address. Switch your display addresses.
0x80			235/54		CAN Bus Problem The auto-detected CAN layer differs from the current layer selected. Please change the selected layer.
0x80			236/55		AutoTrac Problem The operator is responsible for the machine path. Turn AutoTrac OFF before entering roadways.
0x80			/60		Flash Erase Failed. GREENSTAR Display having problems erasing contour paths from memory Replace GREENSTAR Display if problem persists
0x80			/61		Contour Write Error - GREENSTAR Display having problems writing contour paths to memory Replace GREENSTAR Display if problem persists
0x80			/110		Check Wiring (CAN Bus) Wiring problem with Harness
0x80			/111		Check Wiring (CCD) CAN to CCD Queue Overflow

0x80			/113	Incompatible mon/cntrl. Check for compatible controllers on CAN Bus
0x80			/120	NO GPS GPS receiver unable to communicate with satellites Tracking disabled
0x80			/121	No Differential GPS The GPS Receiver is not able to acquire a differential correction signal. Tracking disabled
0x80			/122	WAAS in use. Tracking inaccurate
0x80			/123	SF1 in use. Tracking inaccurate
0x80			/124	GPS Updates are 1 Hz. Tracking inaccurate
0x80			/126	AutoTrac disabled. Using a version of Mobile Processor Application Code that is not using secure CAN. Occurs with versions released before July 2002.

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Moisture Sensor Warning Messages

Control Unit	SPN	FMI	Warning Messages	Pri.	Description
0XD3			1		Plunger initialization failure - Plunger could not be initialized. Moisture disabled. Call dealer for service.
0XD3			2		Actuator shorted - moisture disabled. Call dealer for service.
0XD3			3		Relay failure - moisture disabled. Call dealer for service.
0XD3			4		Motor failure - moisture disabled. Call dealer for service.
0XD3			6		Low voltage - Electronic Power (cc# 21) voltage at Moisture Sensor is too low. Please check wiring cc# 21 and cc# 20
0XD3			7		Low voltage - Delayed power (cc# 6) voltage at Moisture Sensor is too low. Data will be lost when vehicle turned off. Moisture disabled. Call dealer for service.

0XD3			8	Low voltage - Mass Flow Sensor power (cc# 971) voltage is too low. Mass Flow disabled. Call dealer for service.
0XD3			9	High voltage - Mass Flow Sensor power (cc# 971) voltage is too high. Mass Flow disabled. Call dealer for service.
0XD3			10	Low voltage - Analog voltage is too low. x Volts Moisture disabled. Call dealer for service.
0XD3			11	High voltage - Analog voltage is too high. X volts Moisture disabled. Call dealer for service.
0XD3			12	You are about to delete a Farm Name and all Field Names and Field totals associated with the selected Farm.
0XD3			13	You are about to delete a Field Name and all Field Totals for the selected Field.
0XD3			14	Moisture Curve Modify - You are about to modify a moisture curve.
0XD3			15	Moisture Curve Invalid - The digits entered are not valid. Check the data and try again.
0XD3			16	Moisture Curve Conflict - Moisture disabled. Verify Curve 1 and Curve 2 data from the Info Diagnostic page for the currently selected crop.
0XD3			18	Mass Flow out of range - Mass Flow Sensor Signal (cc# 972) voltage is too low. Mass Flow disabled. Please check wiring CC970, CC971, and CC972. Call dealer for service.
0XD3			19	Mass Flow out of range - Mass Flow Sensor Signal (cc# 972) voltage is too high. Please check wiring CC970, CC971, and CC972. Mass Flow disabled. Call dealer for service.

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Control Unit	SPN	FMI	Warning Messages	Pri.	Description
0XD3			20		Offset out of range - The calculated offset is out of range. It must be >-10.1 and < +10.1 Offset not modified.

0XD3			21		Mass Flow calibration is running. Cannot change crop until calibration is stopped.
0XD3			22		You are about to clear the Field Totals for the selected Field.
0XD3			23		You are about to clear all Crop Totals for the selected crop.
			24		You are about to clear all Field and Crop Totals.
0XD3			25		The selected crop is: CORN Empty grain tank before proceeding.
0XD3			26		Yield Estimator Step X Harvest at: Y mph/kph
0XD3			28		Combine in transport mode. Check farm, field and crop selection.
0XD3			29		The mapping processor is not working. moisture and Mass flow will only be available. (No Mapping)
0XD3			30		You are about to clear flash records. (except the hardware records)
0XD3			32		Motor Stalled - The motor has stalled during initialization. Clean GREENSTAR Moisture Sensor. Moisture will be disabled until initialization is successful.