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There are numerous pieces of construction equipment and machinery that can prove to be essential for the job. One such piece of machinery is the JLG Boom Lift, which has become an indispensable tool for many construction and maintenance projects. However like any piece of machinery it is not immune to problems and malfunctions. In this article we will be discussing the most common JLG boom lift problems and how to troubleshoot them. What Is A JLG Boom Lift? A JLG boom lift is a type of aerial work platform that is used to provide access to elevated areas. It consists of a platform or bucket that is mounted on a hydraulic arm, which can be extended or retracted to reach various heights. The platform can also be rotated, allowing workers to access hard-to-reach areas. JLG boom lifts come in different types, including electric, diesel, and hybrid models. They are commonly used in construction sites, industrial facilities, and maintenance projects. JLG Boom Lift Problems 1. Electrical Problems One of the most common problems with JLG boom lifts is electrical issues. When the machine experiences electrical problems it can cause the lift to stop functioning making it impossible to reach elevated areas. These problems are usually caused by; A faulty battery Blown out fuses Troubleshooting Electrical Problems The first thing to check when you encounter electrical problems is the battery. Ensure that the battery is fully charged, and all the connections are tight and secure. Check the fuses and circuit breakers. Replace any blown fuses and reset any tripped circuit breakers. If you have checked the battery, fuses, and circuit breakers, and the issue persists, then it might be a problem with the electrical system's wiring. In this case then it is best to call a certified JLG technician to troubleshoot and fix the issue. 2. Hydraulic Issues Another common problem with JLG boom lifts is hydraulic issues. The hydraulic system is responsible for extending and retracting the boom arm and if it malfunctions then it can cause the lift to stop working. These issues include; A low hydraulic fluid level Faulty hydraulic hoses A faulty hydraulic pump Troubleshooting Hydraulic Issues The first step in troubleshooting hydraulic issues is to check the hydraulic fluid level. Ensure that the hydraulic fluid level is at the recommended level and that it is not contaminated. If the hydraulic fluid level is low then add more hydraulic fluid to the reservoir. If the hydraulic fluid level is not the issue then check the hydraulic hoses and fittings for any leaks or damage. Replace any damaged hoses and tighten any loose fittings. If you have checked the hydraulic fluid level, hoses and fittings and the problem persists then it might be an issue with the hydraulic pump. In this case then it is best to call a certified JLG technician to troubleshoot the issue. 3. Motor Or Engine Issues JLG boom lifts come in electric, diesel and hybrid models and each has its unique motor or engine. Motor or engine issues can cause the lift to stop functioning, making it impossible to reach elevated areas. Issue with the motor are caused by; A faulty battery A faulty fuel tank Troubleshooting Motor Or Engine Issues The first thing to check is the battery. Ensure that the battery is fully charged and all the connections are tight and secure. If the battery is not the issue then check the motor for any damage or wear and tear. Replace any damaged parts. Check the fuel tank for any contamination or water and replace the fuel filter. Also check the air filter and replace it if it is dirty or clogged. 4. Mechanical Malfunctions Mechanical malfunctions can also cause JLG boom lifts to stop functioning. These malfunctions can be caused by; Wear and tear Lack of maintenance Environmental factors Troubleshooting Mechanical Malfunctions The first step in troubleshooting mechanical malfunctions is to inspect the lift's components for any damage or wear and tear. Check the pins, bushings and bearings for any signs of damage or excessive wear and replace any damaged parts. Check the leveling system and adjust it accordingly. 5. Overheating And Cooling Problems Overheating and cooling problems can cause JLG boom lifts to malfunction especially during hot weather conditions. The lift's engine or motor can overheat causing it to stop functioning. Troubleshooting The Overheating And Cooling Problems The first step in troubleshooting overheating and cooling problems is to check the coolant level and ensure that it is at the recommended level. If the coolant level is low then add more coolant to the reservoir. If the coolant level is not the issue then check the radiator for any debris or obstructions. Clean the radiator thoroughly and ensure that there are no clogs. Check the fan and fan belt for any damage or wear and tear. Replace any damaged parts. How To Prevent Problems With The JLG Boom Lift Regularly inspect the lift's components for any damage or wear and tear. Replace any damaged or worn-out parts. Clean the lift thoroughly and ensure that it is free of debris and contaminants. Check the hydraulic fluid level regularly and top it up if necessary. Change the hydraulic fluid and filters as recommended by JLG. Check the battery regularly and ensure that it is fully charged. Check the tires for any damage or wear and tear and replace them if necessary. Keep the lift's engine or motor clean and free of debris. How High Can A JLG Boom Lift Reach? JLG boom lifts can reach heights of up to 185 feet depending on the model. Do JLG Boom Lifts Have Weight Limits? Yes, JLG boom lifts have weight limits and it is essential to adhere to them to avoid accidents and damage to the lift. Conclusion JLG boom lifts are essential pieces of machinery in the construction and maintenance industry. However they are not immune to problems and malfunctions. Electrical problems, hydraulic issues, motor or engine issues, mechanical malfunctions and overheating and cooling problems are some of the most common problems associated with JLG boom lifts. It is essential to troubleshoot and fix these problems as soon as possible to avoid downtime and delays in your project. Effective troubleshooting and timely maintenance of JLG mobile elevating work platforms (MEWPs) and telehandlers are essential for ensuring operational safety and longevity of the equipment. By following the structured approach to diagnosing and resolving DTCs as outlined, technicians can maintain the lifts in optimal working condition and prevent unexpected downtime. This guide provides a comprehensive reference for Diagnostic Trouble Codes (DTC) that can be read from the Multifunction Digital Indicator (MDI) on JLG elevating work platforms, scissor lifts and telehandlers. The DTCs are crucial for diagnosing and troubleshooting issues within the lift's systems. Understanding these codes ensures timely and accurate maintenance, enhancing the safety and efficiency of the equipment. What is a JLG Error / Fault Code (DTC)? Fault codes, or DTCs, are digital codes used to diagnose issues in a machine. Each JLG DTC corresponds to a specific malfunction, whether it's a generic issue or a manufacturer-specific error. These codes provide more detailed information than a general machine alert or indicator symbol, such as a check engine light. Understanding and acting on these codes is essential for addressing issues in your boom lift, mobile elevating work platform or other JLG equipment. The JLG DTCs are systematically sorted into groups based on their first two digits, which also correspond to the system distress lamp flash code. This methodical grouping facilitates easier identification and troubleshooting of the specific systems or components affected. The groups allow technicians to quickly locate the relevant codes and understand the underlying issues. How Do I Read JLG Error / Fault DTC Codes? When a MEWP or telehandler detects a component or system operating outside acceptable limits, the machine activates the corresponding DTC, storing it in its memory. You can retrieve these codes using various methods, including machine analyzers, the ground display on newer equipment models, and telematics portals. 1. Battery Charge; 2. State of Charge Percentage; 3. Scrolling DTC Error Messages; 4. Capacity Zone Indicator; 5. System Distress; 6. Platform Overload; 7. Scroll Page Right Button; 8. Right Navigation Button; 9. Menu Select Button; 10. Left Navigation Button; 11. Scroll Page Left Button; 12. Battery Timer. The most common way to read a fault code is with a machine analyzer reader. JLG offers three types of analyzers for its equipment: a tethered cable option, a mobile version, a Bluetooth-enabled version (for select models), and a remote option through JLG's ClearSky fleet management platform. These tools allow you to search for fault codes, enable/disable machine options, and adjust machine parameters for service repairs. With this actionable data, you can make informed decisions about your equipment. JLG MEWPs, Lifts & Telehandlers Error List Although preventive and predictive maintenance tasks are crucial to the long-term health and productivity of mobile elevating work platforms (MEWPs) and telehandlers, sometimes machinery stops functioning properly. When that happens, immediate action is necessary. A scissor lift error code is helpful, but only if you take action based on it. To resolve the issue, you need to identify the exact malfunction within the machine. One way to do this is by looking at Diagnostic Trouble Codes (DTCs), commonly referred to as fault codes. DTC Error Message Error Description Check Error (Displayed on MDI) The MDI is powered, but cannot communicate with the control system. Check the MDI Multifunctional Digital Indicator) connector. Check the diagnostic connector. Refer problem to a qualified JLG mechanic. 001 EVERYTHING OK The normal help message in platform mode. Displays on the analyzer only. 002 GROUND MODE OK The normal help message in ground mode. Displays on the analyzer only. 003 ALARM SOUNDING – TILTED & ABOVE ELEVATION Control system senses that the platform is elevated and the vehicle is tilted, and the machine not configured to cutout. Check that the machine is tilted. If so, lower the platform and reposition the machine to a level surface. Fully stow the platform. The tilt sensor is part of the ground control box. Check that the ground control box is secured to the machine. Check that the pothole protection switches are securely mounted. Check that the elevation angle sensor is securely mounted. 004 DRIVING AT CUTBACK – ABOVE ELEVATION The platform is elevated and the machine is driving. Fully stow the platform. Check that the elevation angle sensor is securely mounted. Check that the pothole protection switches are securely mounted. 005 DRIVE & LIFT UP PREVENTED – TILTED & ELEVATED Driving is not possible since the platform is elevated and the chassis is not level. Check that the machine is tilted. If so, lower the platform and reposition the machine to a level surface. Fully stow the platform. The tilt sensor is part of the ground control box. Check that the ground control box is secured to the machine. Check that the pothole protection switches are securely mounted. Check that the elevation angle sensor is securely mounted. 006 LIFT UP PREVENTED – MAX HEIGHT ZONE A The vehicle has reached the maximum height and further lift up motion is not possible. Applicable to 2630ES or 3246ES. Check that the zone is set appropriately for the platform load. Check that the platform height is at the rated maximum height specification (20' for 2630 or 26' for the 3246). Check that the elevation angle sensor is securely mounted. If there are any elevation sensor faults (DTC 251, 252, 2511, or 2512), troubleshoot those first. 007 DRIVING AT CUTBACK – POTHOLE STILL ENGAGED While stowed, drive speed is reduced since the control system detected that the pothole protection mechanism failed to retract. Check for obstructions around the pot-hole protection mechanisms. Check that the PHP switches are securely mounted. 008 FUNCTIONS LOCKED OUT – SYSTEM POWERED DOWN After 2 hours without activity, the control system enters a low-power state to preserve battery charge. Normal operation should resume after power is cycled off then back on. Check batteries charge, condition, etc. 009 DRIVE PREVENTED – ELEVATED ABOVE DRIVE CUTOUT HEIGHT The platform is elevated above the calibrated cutout height. Check that the elevation angle sensor is securely mounted. 0018 UNDER MOMENT – HYDRAULICS SUSPENDED The system has detected too little force on the moment pin. If the engine is running, the system suspends all jib, lift up, telescope in, drive, steer and swing functions until the under-moment violation clears In APU mode, the system suspends swing functions only, but flashes the BCS lamp and sounds the alarm during any command of the jib, lift up, telescope in or swing functions. If the platform is stuck in the air call JLG for help. JLG DTCs 211 – 212 (2-1 Power-Up) DTC Error Message Error Description Check 211 POWER CYCLE This help message is issued at each power cycle. Displays on the analyzer only. Normal operation. No check necessary. 212 KEYSWITCH FAULTY Both platform and ground modes are selected simultaneously. Defaults to ground mode. Refer problem to a qualified JLG mechanic. JLG DTCs 221 – 2232 (2-2 Platform Controls) DTC Error Message Error Description Check 221 FUNCTION PROBLEM – HORN PERMANENTLY SELECTED The horn switch was closed during power-up in platform mode. Check if the horn switch is damaged, obstructed or jammed. 222 FUNCTION PROBLEM – INDOOR / OUTDOOR PERMANENTLY SELECTED The indoor / outdoor (zone A / zone B) switch was closed during power-up in platform mode. Check if the indoor/outdoor (zone A / zone B) capacity switch is damaged, obstructed or jammed. 223 FUNCTION PROBLEM – DRIVE & LIFT ACTIVE TOGETHER The drive and lift inputs are closed simultaneously in platform mode. Check drive/lift switch for visible damage. 224 FUNCTION PROBLEM – STEER LEFT PERMANENTLY SELECTED The steer left switch was closed during power-up in platform mode. Check if the steer left switch is obstructed or jammed. 225 FUNCTION PROBLEM – STEER RIGHT PERMANENTLY SELECTED The steer right switch was closed during power-up in platform mode. Check if the steer right switch is obstructed or jammed. 226 ACCELERATOR FAULTY – WIPER OUT OF RANGE There is a problem with the joystick. Center joystick and check to see if a power cycle will clear DTC. 227 STEER SWITCHES FAULTY The steer left and steer right inputs were closed simultaneously. Check if the steer switches are damaged, obstructed or jammed. 228 FUNCTION LOCKED OUT – ACCELERATOR NOT CENTERED The joystick was not centered at power-up. Release joystick and allow to center. Check if the joystick is obstructed or jammed. 229 FUNCTION PROBLEM – TRIGGER PERMANENTLY CLOSED The trigger switch was closed during power-up in platform mode. Check if the trigger switch is obstructed or jammed. 2210 TRIGGER CLOSED TOO LONG WHILE IN NEUTRAL The trigger switch was closed for more than five seconds while the joystick was centered. Check if the trigger switch is obstructed or jammed. 2232 FUNCTION PROBLEM – DRIVE & LIFT BOTH OPEN The drive and lift inputs are both de-energized in platform mode. Check if either function is active, if Yes; Refer problem to a qualified JLG mechanic. JLG DTCs 231 – 233 (2-3 Ground Controls) DTC Error Message Error Description Check 231 FUNCTION PROBLEM – LIFT PERMANENTLY SELECTED The ground control box lift switch was closed up or down, during power-up in ground mode. Check if the lift switch is obstructed or jammed. 232 GROUND LIFT UP / DOWN ACTIVE TOGETHER The lift up / down inputs are closed simultaneously. Check if the lift switch is obstructed or jammed. 233 FUNCTION PROBLEM – BRAKE RELEASE PERMANENTLY SELECTED The manual brake release switch was closed during power-up. Check if the brake release switch is obstructed or jammed. JLG DTCs 251 – 2512 (2-5 Function Prevented) DTC Error Message Error Description Check 251 ELEV ANGLE SENSOR FAULTY – VOLTAGE OUT OF RANGE There is a problem with the elevation angle sensor input. Check that the platform elevation sensor is securely mounted and undamaged. 252 ELEV ANGLE SENSOR HAS NOT BEEN CALIBRATED The elevation angle sensor has not been calibrated. Refer problem to a qualified JLG mechanic. 253 DRIVE PREVENTED – CHARGER CONNECTED Driving is not possible while the vehicle is charging. Check if the charger is connected to off board power source and disconnect if desired. 254 DRIVE & LIFT UP PREVENTED – CHARGER CONNECTED Drive or lift is not possible while the vehicle is charging AND is configured to prevent all motion. Check if the charger is connected to off board power source and disconnect if desired. 255 PLATFORM OVERLOADED The load sensing system measured platform load is excessive. Remove excess weight from the platform. Check that the platform is not caught on something, preventing up or down movement. 256 DRIVE PREVENTED – POTHOLE NOT ENGAGED Driving is not possible while elevated since the pot-hole protection system failed to deploy. Check for obstructions or mechanical problems around the pot-hole protection mechanisms. Check that the PHP switches are securely mounted. 257 ELEV PROX PERMANENTLY CLOSED – CHECK PROX AND ANGLE ADJUSTMENT The elevation proximity switch shows the platform to be stowed, while the elevation angle sensor shows the platform to be raised. The elevation proximity switch is only found on certain older lifts. This switch is not used on current machines so this DTC should not occur. 258 DRIVE & LIFT PREVENTED – BRAKES ELECTRICALLY RELEASED FOR TOWING Manual brake release mode is activated with the switch in the battery box near the ground control box. Push manual brake release switch again or cycle power to clear manual brake release mode. Check if the brake release switch is obstructed or jammed. 259 MODEL CHANGED – HYDRAULICS SUSPENDED – CYCLE EMS The model selection has been changed. Refer problem to a qualified JLG mechanic. 2510 DRIVE PREVENTED – BRAKES NOT RELEASING There is a problem with the drive or brake system. Ensure vehicle is not stuck on something preventing movement. 2511 ELEV ANGLE SENSOR FAULTY – NOT MOUNTED The input voltage from the elevation angle sensor indicates the elevation angle sensor is not mounted. Check that the elevation angle sensor is securely mounted. 2512 ELEV ANGLE SENSOR NOT DETECTING CHANGE The input voltage from the elevation angle sensor did not change while vehicle was lifting up. Check that the elevation angle sensor is securely mounted. DTC Error Message Error Description Check 311 OPEN CIRCUIT LINE CONTACTOR There is a problem with the line contactor. Refer problem to a qualified JLG mechanic. 312 CONTACTOR DRIVER PERMANENTLY OFF There is a problem with the power module line contactor control. – DTC Error Message Error Description Check 321 LINE CONTACTOR MISWIRED ON OR WELDED There is a problem with the line contactor. Refer problem to a qualified JLG mechanic. 322 CONTACTOR DRIVER PERMANENTLY ON There is a problem with the power module line contactor control. – 326 AUXILIARY RELAY – SHORT TO BATTERY There is a problem with the auxiliary relay contacts or wiring. – JLG DTCs 331 – 33407 (3-3 Ground Output Driver) DTC Error Message Error Description Check 331 BRAKE SHORT TO BATTERY A problem has been detected in this function. Refer problem to a qualified JLG mechanic. 332 BRAKE OPEN CIRCUIT A problem has been detected in this function. – 333 LIFT UP SHORT TO BATTERY A problem has been detected in this function. – 334 LIFT UP OPEN CIRCUIT A problem has been detected in this function. – 335 LIFT DN SHORT TO BATTERY A problem has been detected in this function. – 336 LIFT DN OPEN CIRCUIT A problem has been detected in this function. – 337 STEER LEFT SHORT TO BATTERY A problem has been detected in this function. – 338 STEER LEFT OPEN CIRCUIT A problem has been detected in this function. – 339 STEER RIGHT SHORT TO BATTERY A problem has been detected in this function. – 3310 STEER RIGHT OPEN CIRCUIT A problem has been detected in this function. Refer problem to a qualified JLG mechanic. 3311 GROUND ALARM SHORT TO BATTERY A problem has been detected in this function. – 3312 LEFT BRAKE SHORT TO BATTERY A problem has been detected in this function. – 3313 RIGHT BRAKE SHORT TO BATTERY A problem has been detected in this function. – 3314 LEFT BRAKE OPEN CIRCUIT A problem has been detected in this function. – 3315 RIGHT BRAKE OPEN CIRCUIT A problem has been detected in this function. – 33297 LEFT BRAKE – SHORT TO GROUND A problem has been detected in this function. – 33298 STEER LEFT VALVE – SHORT TO GROUND A problem has been detected in this function. – 33299 LINE CONTACTOR COIL – SHORT TO BATTERY A problem has been detected in this function. Refer problem to a qualified JLG mechanic. 33302 NEGATIVE SUPPLY – SHORT TO BATTERY A problem has been detected in this function. – 33303 NEGATIVE SUPPLY – SHORT TO GROUND A problem has been detected in this function. – 33304 RIGHT BRAKE – SHORT TO GROUND A problem has been detected in this function. – 33305 STEER RIGHT VALVE – SHORT TO GROUND A problem has been detected in this function. – 33406 LIFT UP VALVE – SHORT TO GROUND A problem has been detected in this function. – 33407 LIFT DN VALVE – SHORT TO GROUND A problem has been detected in this function. – JLG DTCs 421 – 423 (4-2 Thermal Limit / SOA) DTC Error Message Error Description Check 421 POWER MODULE TOO HOT – PLEASE WAIT The power module has reached thermal cutout. Power down and allow to cool. Do not operate in ambients over 140°F (60°C). 422 DRIVING AT CUTBACK – Power MODULE CURRENT LIMIT The drive portion of the power module has reached thermal limit. Refer problem to a qualified JLG mechanic. 423 LIFT UP AT CUTBACK – Power MODULE CURRENT LIMIT The lift up portion of the power module has reached thermal limit. – 431 FUEL SENSOR SHORT TO BATTERY Fuel sensor short to battery. Indicates that the fuel sensor signal [X002.25] may be shorted to battery. See DTC 33xx – COMMON STB OR OC PROCEDURE 437 ENGINE TROUBLE CODE Engine trouble code. This fault text is followed by the engine's specific fault code. This code could represent engine faults like low oil pressure warning, high coolant temperature warning, etc. JLG DTCs 441 – 33407 (4-4 Battery Supply) DTC Error Message Error Description Check 441 BATTERY VOLTAGE TOO LOW – SYSTEM SHUTDOWN A problem has been detected with the batteries or power module. Recharge batteries or check for damaged batteries. Check battery charger function. 442 BATTERY VOLTAGE TOO HIGH – SYSTEM SHUTDOWN A problem has been detected with the batteries or power module. May be due to improper battery charging or incorrect voltage batteries being used. 443 LSS BATTERY VOLTAGE TOO HIGH A problem has been detected with the load sense system. May be due to improper battery charging or incorrect voltage batteries being used. 444 LSS BATTERY VOLTAGE TOO LOW A problem has been detected with the load sense system. Recharge batteries or check for damaged batteries. 446 LOGIC SUPPLY VOLTAGE OUT OF RANGE The System Module logic supply voltage was measured to be out of normal operating range. Check for severely discharged battery, loose cables, or for damaged battery. 4421 LOGIC SUPPLY VOLTAGE OUT OF RANGE The System Module logic supply voltage was measured to be out of normal operating range. Refer problem to a qualified JLG mechanic. 4422 LOGIC SUPPLY VOLTAGE OUT OF RANGE The System Module logic supply voltage was measured to be out of normal operating range. – JLG DTCs 661 – 6635 (6-6 Communication) DTC Error Message Error Description Check 661 CANBUS FAILURE – Power MODULE The control system failed to receive messages from the power module. Refer problem to a qualified JLG mechanic. 662 CANBUS FAILURE – PLATFORM MODULE In platform mode, the control system failed to receive messages from the platform board. – 663 CANBUS FAILURE – LOAD SENSING SYSTEM MODULE With load sensing system enabled, the control system failed to receive messages from the load sensing system module. – 664 CANBUS FAILURE – ACCESSORY MODULE An accessory module has stopped communication. See accessory module documentation for troubleshooting. 6635 CANBUS FAILURE – CHASSIS TILT SENSOR Machine control system lost communication with the machine's tilt sensor. Refer problem to a qualified JLG mechanic. JLG DTCs 671 (6-7 Accessory) DTC Error Message Error Description Check 671 ACCESSORY FAULT An accessory module is reporting a fault. See accessory module documentation for troubleshooting. JLG DTCs 771 – 7742 (7-7 Electric Motor) DTC Error Message Error Description Check 771 OPEN CIRCUIT DRIVE MOTOR WIRING The power module detected a problem in the drive motors' power circuit wiring. Refer problem to a qualified JLG mechanic. 772 STALLED TRACTION MOTOR OR Power WIRING ERROR The power module detected a problem in the drive motors' power circuit wiring. – 773 CAPACITOR BANK FAULT – CHECK Power CIRCUITS The power module detected a problem in the pump or drive motors' power circuit wiring. – 774 SHORT CIRCUIT FIELD WIRING The power module detected a problem in the drive motors' power circuit wiring. – 775 OPEN CIRCUIT FIELD WIRING The power module detected a problem in the drive motors' power circuit wiring. – 776 STALLED PUMP MOTOR OR Power WIRING ERROR The power module detected a problem in the drive motors' power circuit wiring. – 777 OPEN CIRCUIT PUMP MOTOR WIRING The power module detected a problem in the drive motors' power circuit wiring. – 778 TRACTION T HIGH – CHECK Power CIRCUITS The power module detected a problem in the drive motors' power circuit wiring. – 779 TRACTION T LOW – CHECK Power CIRCUITS The power module detected a problem in the drive motors' power circuit wiring. – 7710 PUMP P HIGH – CHECK Power CIRCUITS The power module detected a problem in the drive motors' power circuit wiring. – 7711 PUMP P LOW – CHECK Power CIRCUITS The power module detected a problem in the drive motors' power circuit wiring. – 7741 ARMATURE BRAKING CURRENT TOO HIGH The power module has detected excessive braking current. This can be caused by transporting an excessive load on a steep grade. 7742 FIELD VOLTAGE IMPROPER The power module detected a problem in the drive motors' power circuit wiring. Recycle power on/off, if problem persists; refer problem to a qualified JLG mechanic. JLG DTCs 811 – 812 (8-1 Tilt Sensor) DTC Error Message Error Description Check 811 TILT SENSOR NOT CALIBRATED The tilt sensor calibration has not been performed. Refer problem to a qualified JLG mechanic. 812 NO DATA FROM TILT SENSOR – NOT CONNECTED OR FAULTY No signal from tilt sensor. – JLG DTCs 821 – 825 (8-2 Platform Load Sense) DTC Error Message Error Description Check 821 LSS CELL #1 ERROR A problem has been detected with the load sense system. Refer problem to a qualified JLG mechanic / official dealer 822 LSS CELL #2 ERROR A problem has been detected with the load sense system. – 823 LSS CELL #3 ERROR A problem has been detected with the load sense system. – 824 LSS CELL #4 ERROR A problem has been detected with the load sense system. – 825 LSS HAS NOT BEEN CALIBRATED The load sensing system module has not been calibrated. – 874 MAINTENANCE INTERVAL The machine Electronic Control Module (ECM) is programmed with a machine maintenance reminder The factory default interval for the machine maintenance reminder is 500 hours. The reminder interval can be changed via the "Operator Tools" menu using the handheld analyzer. The reminder interval ranges from 100 hours to 500 hours. JLG DTCs 991 – 99149 (9-9 Hardware) DTC Error Message Error Description Check 991 LSS WATCHDOG RESET A problem has been detected with the load sense system. Refer problem to a qualified JLG mechanic 992 LSS EEPROM ERROR A problem has been detected with the load sense system. – 993 LSS INTERNAL ERROR – PIN EXCITATION A problem has been detected with the load sense system. – 994 LSS INTERNAL ERROR – DRDY MISSING FROM A/D A problem has been detected with the load sense system. – 995 POWER MODULE FAILURE – PERSONALITY RANGE ERROR A problem has been detected with the power module. – 996 POWER MODULE FAILURE – INTERNAL ERROR A problem has been detected with the power module. – 997 POWER MODULE FAILURE – CHECK Power CIRCUITS OR MOSFET SHORT CIRCUIT A problem has been detected with the power module. – 998 EEPROM FAILURE – CHECK ALL SETTINGS A problem has been detected with the ground board. – 999 FUNCTION LOCKED OUT – Power MODULE SOFTWARE VERSION IMPROPER The power module software version is not compatible with the rest of the system. – 9910 FUNCTION LOCKED OUT – PLATFORM MODULE SOFTWARE VERSION IMPROPER The platform board software version is not compatible with the rest of the system. – 9911 FUNCTION LOCKED OUT – LSS MODULE SOFTWARE VERSION IMPROPER The load sensing system module software version is not compatible with the rest of the system. – 9912 POWER MODULE FAILURE – SYSTEM MONITOR A problem has been detected with the power module. – 9924 FUNCTIONS LOCKED OUT – MACHINE NOT CONFIGURED A new ground board was installed but not configured. – 9950 9951 9952 9953 9954 9955 9956 9957 9958 9960 9962 9963 9964 9969 9971 9970 99143 99144 99145 99146 99147 99148 99149 POWER MODULE FAILURE – INTERNAL ERROR A problem has been detected with the power module. Cycle machine power on/off a few times if this doesn't clear the DTC, refer problem to a qualified JLG mechanic. JLG Errors DTC to SPN/FMI Cross Reference Chart This table presents the JLG DTCs (Diagnostic Trouble Codes), along with their descriptions, Suspect Parameter Number (SPN) codes, and Failure Mode Identifier (FMI) codes. DTC Description SPN Code FMI Code 16 Crank Never Synced at Start 636 8 91 Fuel Pump Low Voltage 94 4 92 Fuel Pump High Voltage 94 3 107 MAP Low Voltage 106 4 108 MAP High Pressure 106 16 111 IAT Higher Than Expected 105 15 112 IAT Low Voltage 105 4 113 IAT High Voltage 105 3 116 ECT Higher Than Expected 110 15 117 ECT Low Voltage 110 4 118 ECT High Voltage 110 3 121 TPS 1 Lower Than TPS 2 51 1 122 TPS 1 Signal Voltage Low 51 4 123 TPS 1 Signal Voltage High 51 3 127 IAT Higher Than Expected 105 0 129 BP Low Pressure 108 1 134 EGO 1 Open/Inactive 724 10 154 EGO 2 Open/Inactive 520208 10 171 Adaptive Learn High Gasoline 520200 0 172 Adaptive Learn Low Gasoline 520200 1 182 Fuel Temp Gasoline Low Voltage 174 4 183 Fuel Temp Gasoline High Voltage 174 3 187 Fuel Temp LPG Low Voltage 520240 4 188 Fuel Temp LPG High Voltage 520240 3 217 ECT Higher Than Expected 110 0 219 Max Govern Speed Override 515 15 221 TPS 2 Signal Voltage Low 51 0 222 TPS 2 Signal Low Voltage 520251 4 223 TPS 2 Signal High Voltage 520251 3 261 Injector Driver 1 Open 651 5 262 Injector Driver 1 Shorted 651 6 264 Injector Driver 2 Open 652 5 265 Injector Driver 2 Shorted 652 6 267 Injector Driver 3 Open 653 5 268 Injector Driver 3 Shorted 653 6 270 Injector Driver 4 Open 654 5 271 Injector Driver 4 Shorted 654 6 336 Crank Sync Noise 636 2 337 Crank Loss 636 4 341 Cam Sync Noise 723 2 342 Cam Sensor Loss 723 4 420 Gasoline Cat Monitor 520211 10 524 Oil Pressure Low 100 1 562 System Voltage Low 168 17 563 System Voltage High 168 15 601 Flash Checksum Invalid 628 13 604 RAM Failure 630 12 606 COP Failure 629 31 642 External 5V Reference Low 1079 4 643 External 5V Reference High 1079 3 685 Power Relay Open 1485 5 686 Power Relay Shorted 1485 4 687 Power Relay Short to Power 1485 3 1111 Fuel Rev Limit 515 16 1112 Spark Rev Limit 515 0 1151 Closed Loop Multiplier High 520206 0 1152 Closed Loop Multiplier Low 520206 1 1155 Closed Loop Multiplier High Gasoline 520204 0 1156 Closed Loop Multiplier Low Gasoline 520204 1 1161 Adaptive Learn High LPG 520202 0 1162 Adaptive Learn Low LPG 520202 1 1165 LPG Cat Monitor 520213 10 1171 LPG Pressure Higher Than Expected 520260 0 1172 LPG Pressure Lower Than Expected 520260 1 1173 EPR Comm Lost 520260 31 1174 EPR Voltage Supply High 520260 3 1175 EPR Voltage Supply Low 520260 4 1176 EPR Internal Actuator Fault 520260 12 1177 EPR Internal Circuitry Fault 520260 12 1178 EPR Internal Comm Fault 520260 12 1612 RTI 1 loss 629 31 1613 RTI 2 Loss 629 31 1614 RTI 3 Loss 629 31 1615 A/D Loss 629 31 1616 Invalid Interrupt 629 31 1625 Shutdown Request 1384 31 1626 CAN Tx Failure 639 12 1627 CAN Rx Failure 639 12 1628 CAN Address Conflict Failure 639 13 1629 Loss of TSC 1 639 31 2111 Unable to Reach Lower TPS 51 7 2112 Unable to Reach Higher TPS 51 2135 TPS 1/2 Simultaneous Voltages 51 31 2229 BP Pressure High 108 0 JLG Scissor Lift Troubleshooting Procedure When multiple DTCs are present, it is recommended to prioritize the troubleshooting process by addressing the DTC with the highest first two digits first. This approach ensures that the most critical or advanced issues are resolved before addressing other less severe codes. Here is a step-by-step procedure for troubleshooting: Identify the DTCs: Read the codes displayed on the MDI and note them down. Prioritize by Group: Start with the JLG DTC group having the highest first two digits. Analyze the Error Message: Refer to the detailed table to understand the specific error message, description, and suggested checks for each code. Perform the Recommended Checks: Follow the guidance provided for each DTC, which may include visual inspections, component testing, or specific corrective actions. Cycle Machine Power: After performing a check and making any necessary corrections, conclude the process by cycling the machine power using the emergency stop switch. This step is crucial to reset the system and verify if the issue has been resolved. Recheck for DTCs: After cycling the power, check the MDI again to see if the JLG DTC persists or if new codes have appeared. Repeat the troubleshooting process if necessary. A JLG error / DTC lookup code will not be cleared until the issue has been resolved and the machine is restored to good working order. There are two main ways to get information on the issues and how to resolve them: Machine's Service & Maintenance Manual: Refer to the specific details in the manual on how to properly service the machine. Access JLG MEWP and telehandler machine manuals and reference guides online to view the necessary information anytime and anywhere. JLG's Knowledge Base: Search the Knowledge Base article library by DTC or symptom to find solutions to common issues. The Knowledge Base provides DTC descriptions, possible causes, troubleshooting steps, required special tools, and helpful documents to quickly get your JLG machine back in working order. By understanding and using DTCs effectively, you can promptly address malfunctions and maintain the optimal performance of your MEWPs and telehandlers. Skip to main content Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. So your JLG boom lift isn't functioning properly? Well that's alright because we've come up with a troubleshooting page for you, this one specifically for JLG boom lifts. Written below are some highly popular JLG boom lifts and their corresponding error codes, although not restricted to these models. If you ever need or accessories, you can visit our website by – JLG 400S – JLG 800's – JLG 450A's – JLG 860SJ – JLG 460SJ – JLG E300's – JLG 600's – JLG E400's – JLG 660SJ's – JLG E450's Listed below are various Diagnostic Trouble Codes and their corresponding descriptions along with the best action to take to resolve it. Fault Message: ECT higher than expected stage 1 Description: Engine Coolant Temperature reading or estimate greater than the stage 1 limit when operating at a speed greater than defined in the diagnostic calibration. Corrective Action: Sound audible warning or illuminate secondary warning lamp, disable adaptive learning fuel correction during active fault. Fault Message: ECT Voltage Low Description: Sensor voltage less than the limit defined in the diagnostic calibration. Corrective Action: Sound audible warning or illuminate secondary warning lamp, disable adaptive learning fuel correction during active fault. Fault Message: ECT Voltage High Description: Sensor voltage higher than the limit defined in the diagnostic calibration. Corrective Action: Sound audible warning or illuminate secondary warning lamp, disable adaptive learning fuel correction during active fault. Fault Message: TPS 1 Low Voltage Description: TPS sensor voltage lower than the limit defined in the diagnostic calibration. Corrective Action: Sound audible warning or illuminate secondary warning lamp, shut down engine Fault Message: TPS 1 High Voltage Description: TPS sensor voltage higher than the limit defined in the diagnostic calibration. Corrective Action: Sound audible warning or illuminate secondary warning lamp, shut down engine Fault Message: ECT higher than expected stage 2 Description: Engine coolant temperature reading greater than the stage 2 limit when operating at a speed greater than defined. Corrective Action: Sound audible warning or illuminate secondary warning lamp, disable adaptive learning fuel correction during active fault. Fault Message: RPM higher than max allowed Description: Engine speed greater than the max governor override speed as defined. Corrective Action: Sound audible warning or illuminate secondary warning lamp, reduce throttle to limit speed. Fault Message: Crank signal input noise Description: Electrical noise or irregular crank pattern detected causing x number of crank resynchronization events Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp and disable fueling correction for remainder of key cycle. Fault Message: Loss of Crank Input Signal Description: loss of crankshaft position signal while valid camshaft position signals continue for x number of cam pulses. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp. Fault Message: Oil pressure high Description: Oil pressure is indicating high when the engine has been stopped for more than x seconds. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp, possibly configure for power derate 1 or low rev limit. Fault Message: Oil pressure low Description: Engine oil pressure lower than expected while engine has been running for a minimum amount of time Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp, generally configured to derate the engine and trigger an engine shutdown. Fault Message: Battery voltage low Description: Battery voltage to ECM less than x volts while the engine is operating at y RPM or greater Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp, disable adaptive fueling correction for remainder of key cycle. Fault Message: Battery voltage high Description: Battery voltage to ECM greater than x volts while the engine is running. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp, disable adaptive fueling correction for remainder of key cycle. Fault Message: Sensor supply voltage 1 low Description: ECM 5 volt output is below the acceptable limit. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp. Fault Message: Sensor supply voltage 1 high Description: ECM 5 volt output is above the acceptable limit. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp. Fault Message: Microprocessor failure RTI 1 Description: Internal microprocessor error Fault Message: Microprocessor failure RTI 2 Description: Internal microprocessor error Fault Message: Microprocessor failure RTI 3 Description: Internal microprocessor error Fault Message: Microprocessor failure A/D Description: Internal microprocessor error Fault Message: Microprocessor failure Interrupt Description: Internal microprocessor error Fault Message: CAN J1939 shutdown request Description: ECM has received shutdown message from another CAN device and is shutdown on request. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp. Fault Message: TPS1 loss of communications Description: ECM is expecting to receive throttle position information from the throttle actuator and is not. Corrective Action: Illuminate MIL and/or sound audible warning or illuminate secondary warning lamp. Shut down engine. Fault Message: Unable to reach lower TPS Description: Throttle command is 20% less than throttle position for 200ms or longer. Corrective Action: Engine shut down Fault Message: Unable to reach higher TPS Description: Throttle command is 20% more than actual throttle