

ELECTRICAL TROUBLESHOOTING

FAULT CODE	FLASH SEQUENCE	FAULT CAUSE	STARTING TEST POINT	RESET ACTION
11	- / • / • Machine does not drive	Controller sees a forward and neutral input at the same time	F-N-R Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
12	- / • / • • Machine does not drive	Controller sees a reverse and neutral input at the same time	F-N-R Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
13	- / • / • • • Machine does not drive	Controller sees a forward and reverse input at the same time	F-N-R Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
14	- / • / • • • • Machine does not drive	Controller does not see a forward, reverse or neutral input	F-N-R Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
15	- / • / • • • • • Machine does not drive	Controller does not see neutral input when power is turned on	F-N-R Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
16	- / • / • • • • • • Machine does not drive	Controller does not see BOT input from clutch switch when power is turned on	Clutch Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
21	- / • • / • Machine does not drive	Controller sees forward input but does not receive a feedback from forward pressure transducer	Forward Proportional solenoid and Forward Pressure Transducer	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test forward proportional solenoid and wiring. Test forward pressure transducer and wiring. Test hydraulic system.
22	- / • • / • • Machine does not drive	Controller sees reverse input but does not receive a feedback from reverse pressure transducer	Reverse Proportional solenoid and Reverse Pressure Transducer	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test reverse proportional solenoid and wiring. Test reverse pressure transducer and wiring. Test hydraulic system.

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23	- / ●● / ●●● Engine stops, Power cut to fuel shutoff circuit.	Controller sees forward or neutral input but receive a feedback from reverse pressure transducer	Reverse Proportional solenoid and Reverse Pressure Transducer	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test reverse proportional solenoid and wiring. Test reverse pressure transducer and wiring. Test hydraulic system.
24	- / ●● / ●●●● Engine stops, Power cut to fuel shutoff circuit.	Controller sees reverse or neutral input but receive a feedback from forward pressure transducer	Forward Proportional solenoid and Forward Pressure Transducer	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test forward proportional solenoid and wiring. Test forward pressure transducer and wiring. Test hydraulic system.
25	- / ●● / ●●●●● Engine stops, Power cut to fuel shutoff circuit.	Clutch pedal is press to bottom and controller does not see a BOT input but does see feedback from forward pressure transducer	Clutch Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test clutch switch.
26	- / ●● / ●●●●●● Engine stops, Power cut to fuel shutoff circuit.	Clutch pedal is press to bottom and controller does not see a BOT input but does see feedback from reverse pressure transducer	Clutch Switch	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test clutch switch.
27	- / ●● / ●●●●●●● Machine does not drive	System pressure drops below 100 psi for longer than 5 seconds. This is an indicator that the hydraulic system filter may be clogged.	Hydraulic filter Hydraulic system	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Change hydraulic filter. Test hydraulic system.
31	- / ●●● / ● Machine does not drive	Inch pedal potentiometer is out of range on the low end.	Clutch Position Potentiometer	Adjust clutch position potentiometer to within specification. See ePowrReverser Potentiometer Calibration.
32	- / ●●● / ●● Machine does not drive	Inch pedal potentiometer is out of range on the high end.	Clutch Position Potentiometer	Adjust clutch position potentiometer to within specification. See ePowrReverser Potentiometer Calibration.

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41	- / • • • • • / • Machine does not drive	Seat switch open (no operator present) longer than 1 second.	Seat Switch	Seat switch closed (operator present), Correct fault. F-N-R switch placed in neutral to clear error status.
42	- / • • • • • / • • Machine does not drive	Clutch BOT switch reads as closed (pressed) and clutch position potentiometer shows pedal as being pressed less than half way to full travel.	Clutch Switch Clutch Position Potentiometer	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
51	- / • • • • • / • Machine does not drive	Controller sees forward input but does not receive a feedback from forward proportional solenoid	Forward proportional solenoid	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test forward proportional solenoid and wiring.
52	- / • • • • • / • • Machine does not drive	Controller sees reverse input but does not receive a feedback from reverse proportional solenoid	Reverse proportional solenoid	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status. Test forward proportional solenoid and wiring.
53	- / • • • • • / • • • Machine does not drive	Controller sees feedback from either forward or reverse proportional solenoid greater than 1.17 volts for more than 50ms. Possible extremely high magnetic interference.	Proportional solenoids	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.
61	- / • • • • • • / • Machine does not drive	Controller does not see relay logic after startup	K4 engine run relay, K6 fuel solenoid timer module, and K13 neutral relay	Correct fault. Clutch pressed to BOT, and F-N-R switch placed in neutral to clear error status.