

ELECTRICAL TROUBLESHOOTING

eHydro Electronic Operating System Fault Code Chart

The long flash “—” = 1.0 second

The short flash “•” = 0.5 second

OFF period = 3 to 4 seconds.

The flash code begins after the off period.

Whenever reading a fault flash code be sure to let the code cycle several times while reading the code to be sure you are at the beginning of the code.

| FAULT CODE | FLASH SEQUENCE | STARTING TEST POINT | FAULT CAUSE | MACHINE RESPONSE | RESET ACTION |
|------------|----------------|---------------------------------|---|---|--|
| 1 | •••• | Forward Pedal Potentiometer | Normal Operation: | | |
| | | | Voltage signal is out of range. Input is not calibrated. | No drive in either direction. | Power recycled through off to clear error status. Sensor has to be re-calibrated. |
| | | | Calibration Routine: | | |
| | | | Voltage signal is out of range. | Calibration routine stops. | Power recycled through off to clear error status. Calibration repeated after signal is back within range. |
| 2 | --••• | Reverse Pedal Potentiometer | Normal Operation: | | |
| | | | Voltage signal is out of range. Input is not calibrated. | No drive in either direction. | Power recycled through off to clear error status. Sensor has to be re-calibrated. |
| | | | Calibration Routine: | | |
| | | | Voltage signal is out of range. | Calibration routine stops. | Power recycled through off to clear error status. Calibration repeated after signal is back within range. |
| 3 | ••••- | Throttle Position Potentiometer | Normal Operation: | | |
| | | | Voltage signal is out of range. Input is not calibrated. | Load Match is disabled; loss of performance. | Power recycled through off to clear error status. Sensor has to be re-calibrated. |
| | | | Calibration Routine: | | |
| | | | Voltage signal is out of range. | Calibration routine stops. | Power recycled through off to clear error status. Calibration repeated after signal is back within range. |

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| 4 | •••• | Flywheel Speed Sensor | Normal Operation: | | |
| | | | Output current exceeds a certain value without detecting an engine speed. MFWD speed must also be available at same time. | Load Match and cruise control will be disabled; loss of performance. | Power recycled through off to clear error status. |
| | | | Calibration Routine: | | |
| | | | Missing engine speed or signal exceeds rpm tolerance. | Load Match is disabled. | Engine speed has to be adjusted. Calibration repeated. |
| 5 | •••• | MFWD Speed Sensor | Normal Operation: | | |
| | | | Output current exceeds a certain value without detecting an MFWD speed. Engine speed must also be available at same time. | Cruise control will be disabled; loss of performance. | Power recycled through off to clear error status. |
| | | | Calibration Routine: | | |
| | | | Missing MFWD speed or signal exceeds rpm tolerance. | Calibration routine stops. | MFWD signal has to be available. Calibration repeated. |
| 6 | -••• | Cruise Control/Max Speed Switch | Normal Operation: | | |
| | | | Both inputs are active at the same time. | Load Match and cruise control will be disabled; loss of performance. | Power recycled through off to clear error status. |
| 7 | -••• | Res/+ Set/- Switch | Normal Operation: | | |
| | | | Both inputs are active at the same time. | Load Match and cruise control will be disabled; loss of performance. | Power recycled through off to clear error status. |
| 8 | -••• | Off-Seat Command | Normal Operation: | | |
| | | | Drive command selected while the seat switch is in open position. | No drive in either direction. | Error status will reset when seat switch is placed in on position. |
| | | | Calibration Routine: | | |
| | | | Threshold calibration while the seat switch in open position. | No drive in either direction. | Error status will reset when seat switch is placed in on position. Calibration can then be continued. |

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| 9 | - • • • | Simultaneous command from Forward and Reverse | Normal Operation: | | |
| | | | Controller receives a command from both pedals at the same time. | No drive in either direction. | Error status will reset when both pedal commands return to zero. |
| | | | Calibration Routine: | | |
| | | | No fault situation. | Flash code will be present, no other machine response. | None |
| 10 | • - - - | Valve output to Forward or Reverse coil | Normal Operation: | | |
| | | | The calculated value for the coil resistance exceeds the valid range due to open or short circuit. | No drive in either direction. | Power recycled through off to clear error status. |
| | | | Calibration Routine: | | |
| | | | The calculated value for the coil resistance exceeds the valid range due to open or short circuit. | No drive in either direction. | Power recycled through off to clear error status. Calibration repeated. |
| 11 | - • - - (S/N - H120712 - H131963 - H141271 | Sensor supply voltage | Normal Operation: | | |
| | | | Voltage is out of range. | No drive in either direction. | Power recycled through off to clear error status. |
| 11 | • • - - (S/N H120713 - H131964 - H141272 - | Sensor supply voltage | Normal Operation: | | |
| | | | Voltage is out of range. | No drive in either direction. | Power recycled through off to clear error status. |
| 12 | • • • • • • • • • • • • • (continuous) | Software | Normal Operation: | | |
| | | | No application software loaded into the microprocessor. | No machine operation. | Replace Controller. Download correct software. |
| 13 | - • - • (S/N H120713 - H131964 - H141272 - | Brake switch input | Normal Operation: | | |
| | | | Brake engaged | Cruise not available to set. | Release brake. Adjust or replace brake switch. |