

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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FAULT CODE	FLASH SEQUENCE	STARTING TEST POINT	FAULT CAUSE	MACHINE RESPONSE	RESET ACTION
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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FAULT CODE	FLASH SEQUENCE	STARTING TEST POINT	FAULT CAUSE	MACHINE RESPONSE	RESET ACTION
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.