

Fault Finding

The MillipaK controller includes a number of features designed to help the user track down operational faults, wiring faults or internal controller faults.

The Diagnostic LED mounted next to the calibrator connectors on the front of the controller serves as a simple diagnostic tool as explained below:

ON	No fault, normal condition
OFF	Internal controller fault
1 flash	Personality out of range
2 flashes	Not used
3 flashes	MOSFET Short Circuit
4 flashes	Not used
5 flashes	Not used
6 flashes	Not used
7 flashes	Low battery voltage
8 flashes	Over temperature or timed cutback

In addition to the LED indication a more detailed description of any faults detected may be found by using the calibrator. Menu item number 13.01 gives a code which corresponds to the following detected faults:

ID	Fault	Description	Flash Fault
0	System OK		On
1	Thermal Cutback	Maximum power available to the motor has been reduced due to excessive Heatsink temperature.	8
2	Timed Current Limit Cutback	Maximum power available to the motor has been reduced by the Timed Current Limit Cutback function.	8
3	Low Battery Fault	Battery voltage is too low.	7
9	Seat Fault	Seat Switch Fault has occurred	2
4	Configuration Range Fault	A personality is out of range.	1
5	Configuration CRC Fault	The personality CRC is incorrect	1
6	MOSFET On	MOSFETs pulsed during power on failsafe checks (failsafe circuit disabled).	0
7	MOSFET Short Circuit	Short circuit MOSFETs detected.	3
8	MOSFET Short Circuit during Power Up	Short circuit MOSFETs detected during power on failsafe checks.	3
10	Drive 1 On	Contactors 1 pulsed during power on failsafe checks (failsafe circuit disabled).	0
11	Drive 1 Off	Contactors 1 did not pulse during power on failsafe checks (failsafe circuit enabled).	0
12	Drive 2 On	Contactors 2 pulsed during power on failsafe checks (failsafe circuit disabled)	0
13	Drive 2 Off	Contactors 2 did not pulse during power on failsafe checks (failsafe circuit enabled).	0