

LER Status

Table 8-1. LER Status Register

BIT	NO.	STATUS	DESCRIPTION	COMMENT
0	1	C	Controller temperature failure Single electronic: resonator and SHG or q-switch Double electronic Master: resonator or q-switch Slave: SHG	Check status register CCE for more detailed information
1	2	S	Trigger input	The flag status is high when a trigger signal is applied or the laser operates in continuous pulsing.
2	4	I	Command error	An unknown command was sent to the controller.
3	8	C	Laser disable pin of the utility connector open	Laser disable shuts down the pump diodes. For safety reasons, this flag has to be reset by the user (LER 0) to restart the laser, also at the slave controller if present
4	16	C	Internal hardware failure	Contact Coherent
5	32	C	Over voltage laser diode	Can be caused by open circuit or voltage spikes
6	64	C	Internal hardware failure	Contact Coherent
7	128	C	Controller temperature failure at pump diodes	Check status LCE for more detailed information
8	256	S	Laser start delay	After the controller has been powered on, this bit is set for the first 60 s and the laser cannot be started. The status error LED will flash during this time.
9	512	C	Internal hardware failure	Check environment for sources of strong EMI. Contact Coherent for more information.
10	1024	C	Internal hardware failure	
11	2048	C	Internal hardware failure	
12	4096		Remote input	The flag status is high when the slave controller has an error. Valid only for master controllers coupled with a slave.
C: critical error S: status I: input error				

Table 8-1. LER Status Register (Continued)

BIT	NO.	STATUS	DESCRIPTION	COMMENT
13	8192		Laserhead not found	Laser head not connected / not found. Check environment for sources of strong EMI. Ignore for slave controller of the double electronic.
14	16384		Laserhead I ² C acknowledge status	Laser head I ² C acknowledge status error. Check environment for sources of strong EMI. Ignore for slave controller of the double electronic.
15	32768	S	Range-Error (not critical)	Input value out of range
C: critical error S: status I: input error				

LCE Status

Table 8-2. LCE Status Register

BIT	NO.	STATUS	DESCRIPTION	COMMENT
0	1	C	Pump diode over / under temperature failure	The lower or upper limit is exceeded (<10°C or >60°C). Check if the head is properly cooled.
1	2	C	Internal hardware failure	Contact Coherent
2	4	C	Pump diode temperature out of range	Actual temperature was more than 2°C off set temperature for more than 1min
3	8	C	Pump diode current critical	The pump current is set too close to the current limit
4	16	C	Pump diode temperature out of limit	The pump diode temperature is out of limit
5	32	S	Door switch open (status flag)	Close utility connector pin 2 permanently to pin 9 (GND). The door switch has to be closed at master and slave controller of the double electronic
6	64		Not used	
7	128	C	Pump diode NTC Error	Invalid pump diode temperature measured or NTC broken
8	256	C	Laser diode power stage over temperature	The error is present when temperature is <10°C or >65°C at the external controller. Check if the controller is properly cooled
9	512	C	Internal hardware failure	Check environment for sources of strong EMI. Contact Coherent for more information.
10	1024	C	Internal hardware failure	
11	2048	C	Internal hardware failure	
12	4096		Not used	
13	8192		Not used	
14	16384		Not used	
15	32768	S	Range-Error (not critical)	Input value out of range
C: critical error S: status I: input error				

CCE Status

Table 8-3. CCE Status Register

BIT	NO.	STATUS	DESCRIPTION	COMMENT
0	1	C	Under / over temperature occurred Single electronic: resonator and SHG Double electronic Master: resonator Slave: SHG	The lower or upper limit is exceeded (<10°C or >60°C). Check if the head is properly cooled. Temperature controller is deactivated.
1	2	C	NTC failure occurred Single electronic: resonator and SHG Double electronic Master: resonator Slave: SHG	Temperature sensor broken or disconnected.
2	4	C	Temperature out of range Single or electronic: resonator and SHG Double electronic Master: resonator Slave: SHG	Actual temperature was more than 2 °C off set temperature for more than 1 min
3	8	C	Analog/ Digital converter error Single or master electronic: Q-switch temperature readout failure Double electronic slave: ignore	Internal hardware error or no NTC connected
4	16	C	Temperature out of range Single or master electronic: q-switch Double electronic slave: ignore	Actual temperature was more than 2°C off set temperature for more than 1min
5	32	C	Under / Over temperature Single or master electronic: q-switch affected Double electronic slave: ignore	The lower or upper limit is exceeded (<10°C or >60°C). Check if the head is properly cooled. Temperature controller is deactivated.
C: critical error S: status I: input error				

Table 8-3. CCE Status Register (Continued)

BIT	NO.	STATUS	DESCRIPTION	COMMENT
6	64	C	Not used	
7	128	C	Single or master electronic: Q-switch NTC failure Double electronic slave: ignore	Internal hardware error or no NTC connected.
8	256	C	Internal hardware failure	Contact Coherent
9	512		Not used	-
10	1024		Not used	-
11	2048		Not used	-
12	4096		Not used	-
13	8192		Not used	-
14	16384		Not used	-
15	32768	S	Range-Error (not critical)	Input value out of range
C: critical error S: status I: input error				