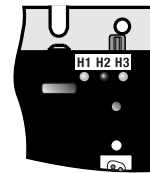


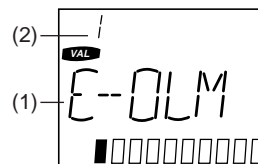
## Appendix B Error rectification

Errors in operation are signalled as follows:

- CDD3000: Red LED (H1) flashes (flash code see Table A.2 "LEDs")



- DRIVEMANAGER Possible causes of the error and measures to remedy it are displayed in a window.
- KEYPAD KP200: The display is backlit in red and indicates the error (1) and an error location number (2). The error location number provides detailed localization of the cause of the error.



### Error response

When an error occurs the servocontroller responds with a specific function sequence. This is allocated to a corresponding **response number**.

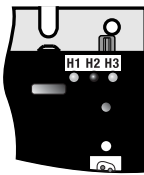
Response no.	Function
0	Signal error only, no further response (warning).
1	Signal error and disable power stage.
2	Signal error, quick-stop and wait for cancellation of start signal.
3	Signal error, disable power stage and secure against restarting <sup>1)</sup> .
4	Signal error, quick-stop, wait for cancellation of start signal and secure against restarting <sup>1)</sup> .
5	Signal error, disable power stage and wait for error reset; error reset only possible by complete cutting of power.

1) Only relevant with programmed autostart function.

Table A.1 Error response

### LEDs

At the top right of the servocontroller there are three status LEDs colored red (H1), yellow (H2) and green (H3).



Device status	Red LED (H1)	Yellow LED (H2)	Green LED (H3)
Power on	○	○	●
Servocontroller ready (ENPO set)	○	●	●
Control enabled	○	*	●
Error	* (flash code)	○	●
Warning (in "ready" condition)	●	●	●
Warning (in "control enabled" condition)	●	*	●

○ LED off, ● LED on, \* LED flashing

Table A.2 Meanings of LEDs

### Error messages

If an error occurs in operation it is indicated by a flash code from LED H1 (red) on the servocontroller. If a KP200 is connected the KP200 indicates the error type as an abbreviation. When the DRIVEMANAGER is active the error is additionally reported in plain text.

Flash code of red LED H1	Display KeYPAD	Response No.	Explanation	Cause/Remedy
1x	Various messages	0-5	see Table A.2	
2x	E-OFF	1	Undervoltage shut-off	Check power supply. Also occurs briefly in response to normal power-off.
3x	E-OC	3	Current overload shut-off	Short-circuit, ground fault: Check cabling of connections, check motor coil, check neutral conductor and grounding (see also section 3, Installation). Device setup not correct: Check parameters of control loops. Check ramp setting.
4x	E-OV	3	Voltage overload shut-off	Voltage overload from mains: Check mains voltage. Restart device. Voltage overload resulting from feedback from motor (regenerative operation): Slow down braking ramps. If not possible, use a braking resistor.
5x	E-OLM	3	Motor protection shut-off	Motor overloaded (after I x t monitoring): Slow down process cycle rate if possible. Check motor dimensioning.
6x	E-OLI	3	Device protection shut-off	Device overloaded: Check dimensioning. Possibly use a larger device.
7x	E-OTM	3	Motor temperature too high	Motor PTC correctly connected? Motor PTC evaluation correctly set? Motor overloaded? Allow motor to cool down. Check dimensioning.
8x	E-OTI	3	Overheating in servocontroller	Ambient temperature too high: Improve ventilation in switch cabinet. Load too high during driving/braking: Check dimensioning. Possibly use a braking resistor.

Table A.1 Error messages/flash code

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Bus	DM/KP	Error location no.	Meaning	Comment
0			No error	
1	E-CPU		Processor defective	1
2	E-OFF	1	Undervoltage in DC link	
3	E-OC	19	Max. permissible output current exceeded (software shut-off)	
3	E-OC	34	Current overload shut-off of servo resulting from fast lxt, effective to 5Hz output frequency	
3	E-OC	35	Short-circuit detected during self-test	
3	E-OC	41	Max. permissible output current exceeded (hardware shut-off)	
4	E-OV	1	Overvoltage in DC link	
5	E-OLM	1	Current overload shut-off: lxlxt monitoring of motor, dependent on parameter MOI2T	
6	E-OLI	1	Current overload shut-off: lxt monitoring of servo	
7	E-OTM	1	Motor overheating	
8	E-OTI	31	Servo heat sink overheating	
8	E-OTI	32	Servo interior overheating	
9	E-PLS		Plausibility check detected invalid parameter or program sequence	1
10	E-PAR	7	Value range infringement of a parameter setting detected. Parameter ERPAR contains number of incorrect parameter	1
10	E-PAR	8	After reinitialization of the parameter list in the device startup phase an invalid parameter value was found. Parameter ERPAR contains the number of this parameter.	1
10	E-PAR	9	Error initializing a parameter with its permanent memory value. Parameter ERPAR contains the number of the parameter.	1
10	E-PAR	13	The combination of function selector settings for one of the analog inputs and the reference selector are mutually contradictory.	1
10	E-PAR	16	Error initializing factors for analog output to digital outputs.	1
10	E-PAR	101	Setting of number of resolver pole pairs not possible	1
11	E-FLT		Global error in floating point calculation	1
12	E-PWR	6	No power stage, or power stage unknown: No valid power stage ID detected	1
12	E-PWR	8	No power stage, or power stage unknown: No valid power stage ID detected	1
13	E-EXT	1	Error request received via digital input with function E-EXT	

**Note:**  
 1 = If this error is repeated please contact your local Service Partner  
 2 = See description of field bus (user manual)

Table A.2 Error messages

Bus	DM/KP	Error location no.	Meaning	Comment
14	E-USR	1	Error executing a customer-specific software function	
15	E-OP1		Error in option module at slot 1 (X8)	2
16	E-OP2		Error in option module at slot 2 (X9)	2
18	E-SIO	11	SIO watchdog tripped (LustBus)	
19	E-EEP		Error accessing EEPROM	1
25	E-HWE	47	Hardware limit switches interchanged	
30	E-ENC	1	Encoder wire break detection	
30	E-ENC	123	Hiperface: Communication error signalled by encoder	
30	E-ENC	124	Hiperface: Communication error signalled by dSMC	
30	E-ENC	125	Hiperface: Unknown encoder type	
30	E-ENC	126	Hiperface: Error signalled by encoder (but communication is OK)	
30	E-ENC	127	Hiperface: Communication parameters not found	
31	E-TIM		Runtime monitor error	1
32	E-FLW	1	Tracking error	
34	E-VEC		Initialization error	1
35	E-BRK	1	Monitoring unit for brake output (OSD03) signals error	
36	E-POS	210	Pos. hardware limit switch approached	
36	E-POS	211	Neg. hardware limit switch approached	
36	E-POS	212	Pos. software limit switch approached	
36	E-POS	213	Neg. software limit switch approached	
36	E-POS	214	Positioning job with no defined reference point	
36	E-POS	215	Error accessing optional hardware	
36	E-POS	216	Selected program not available	
36	E-POS	217	Jump to non-existent record number	
36	E-POS	218	Called subroutine not available	
36	E-POS	219	Position outside positioning range	
36	E-POS	220	Division by zero	
36	E-POS	221	Max. subroutine nesting depth exceeded	
36	E-POS	223	Destination position not reached	
36	E-POS	224	No feed hold (only positioning commands)	
<b>Note:</b>				
1 = If this error is repeated please contact your local Service Partner				
2 = See description of field bus (user manual)				

Table A.2 Error messages

Bus	DM/KP	Error location no.	Meaning	Comment
36	E-POS	225	Selection (Auto/Referencing/Jog) not permitted	
36	E-POS	226	<b>ProgPos:</b> Index overflow in indexed addressing, <b>TabPos:</b> table index faulty (1<=Index<=31)	
36	E-POS	233	Error writing a parameter in sequence program	
36	E-POS	234	Error executing a positioning command with positioning travel by Touchprobe	
36	E-POS	235	Impermissible command in this status	
36	E-POS	236	Hardware limit switches interchanged	
37	E-FLH		Error in data flash memory	1
38	E-HW	45	Hardware limit switch left (all control modes)	
38	E-HW	46	Hardware limit switch right (all control modes)	
39	E-HWE	47	Hardware limit switches interchanged (all control modes)	
40	E-WRN	59	Torque limit (TCMMX) automatically limited	
40	E-WRN	60	Cycle time of status report via field bus too short	
40	E-WRN	61	Position reference / travel scaling outside value range	
40	E-WRN	62	Speed limit (SCSMX) automatically limited	
40	E-WRN	63	Position reference / velocity or acceleration scaling outside value range	
<b>Note:</b>				
1 = If this error is repeated please contact your local Service Partner				
2 = See description of field bus (user manual)				

*Table A.2 Error messages*

*Service Hotline*

If you need further assistance, our specialists at the LUST Service Center will be glad to help.

You can reach us:

Mon.-Thur.: 8 a.m. - 5 p.m. Tel. +49-6441/966-136, Fax -211

Fri.: 8 a.m. - 4 p.m. Tel. +49-6441/966-136, Fax -211

E-mail: [service@lust-tec.de](mailto:service@lust-tec.de)

*Resetting errors  
(after eliminating the cause)*

### Resetting errors with response number 1 to 4:

- In control via terminals: rising edge at **input ENPO** (attention: control is shut off!)  
or:  
with input Ixxx, to which the function Flxxx = RSERR (Reset Error) is assigned.
- In control via KEYPAD: press **stop/return** key on KEYPAD for approx. 3 seconds
- In control via DRIVEMANAGER: click on "Reset error" button.
- In control via field bus: set "Reset error" bit in bus control word.

*Starting the drive after an error*

- Cancel start signal and reapply it.
- With programmed auto-start function:
  - In error responses 1 and 2 the drive automatically restarts when the error is reset.
  - In error responses 3 and 4 the drive does not restart until the start signal has been withdrawn and re-sent.

### Resetting errors with response number 5:

Errors with response number 5 are serious device errors. They can only be reset by switching all supply voltages (mains, possibly 24V) off and back on again.

*Errors in power switching*

Error	Cause	Remedy
Power on. Servocontroller shows no response (LEDs off).	If switching is too frequent, the device protects itself by means of high-resistance isolation from the system.	After a rest phase of a few minutes the device is ready to start once again.

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### User errors in KEYPAD operation

Error	Cause	Remedy
ATT1	Parameter cannot be changed at current user level or is not editable.	Select user level 1-MODE higher.
ATT2	Motor must not be controlled via the CTRL menu.	Cancel start signal from a different control location.
ATT3	Motor must not be controlled via the CTRL menu because of error state.	Reset error.
ATT4	New parameter value impermissible	Change value.
ATT5	New parameter value too high	Reduce value.
ATT6	New parameter value too low	Increase value.
ATT7	Card must not be read in current state.	Reset start signal.
ERROR	Invalid password	Enter correct password.

Table A.3 KEYPAD user error

### User errors in SMARTCARD operation

Error	Meaning	Remedy
ERR91	SMARTCARD write-protected	Use different SMARTCARD
ERR92	Error in plausibility check	
ERR93	SMARTCARD not readable, wrong servocontroller type	
ERR94	SMARTCARD not readable, parameter not compatible	
ERR96	Connection to SMARTCARD broken	
ERR97	SMARTCARD DATA invalid (checksum)	
ERR98	Insufficient memory on SMARTCARD	
ERR99	Selected area not present on SMARTCARD, no parameters transferred to SMARTCARD	

Table A.4 SMARTCARDerror



**Note:** KeyPad user errors can be reset with **start/enter**.  
SMARTCARD user errors can be reset with **stop/return**.