



Installation and Operating Instructions **ECOVARIO®114 D**

7.3.2 Error messages

If the loadware recognizes an error, it is displayed. In bootloader mode the error display can be interrupted by pressing a key, afterwards errors can be shown with the display of the error memory (cf. chap. 7.3.3 „Key operation“). It is always the last error that is displayed.

Note: For the groups D and E the error code on the display is preceded by an axis code („1.“ or „2.“). In ECO Studio the error messages of groups D and E are related to the axis which is connected to the individual ECO Studio session.

Table 7.1: Error messages

Code	Error	Countermeasure
Group A General errors		
A00	Incorrect checksum of a bootloader section or overall checksum	Repeat action, if the error reoccurs, send in device to manufacturer
A01	Error during deleting a flash section	Repeat action, if the error reoccurs, send in device to manufacturer
A03	Error during programming the flash memory	Repeat action, if the error reoccurs, send in device to manufacturer
A04	Error during addressing the flash memory	Repeat action, if the error reoccurs, send in device to manufacturer
A10	Error during reading/writing the EEPROM	If the error reoccurs send in the device to manufacturer
A11	Incorrect checksum of an EEPROM section	Communication and/or application parameters have not (yet) been stored. This behaviour is normal with new devices and has been implemented for signalling this to the user.
A20	Incorrect calibration data	Send in device to manufacturer
A21	Watchdog error of standard loadware	If the error reoccurs send in the device to manufacturer
A24	Firmware/Loadware does not fit to device	Load appropriate firmware/loadware. First letter of the file name has to be „D“. If in doubt, contact service hotline of Jenaer Antriebstechnik GmbH.
A25	FPGA could not be started	Contact service hotline of Jenaer Antriebstechnik GmbH
A26	Device could not be started	Contact service hotline of Jenaer Antriebstechnik GmbH
Group B Bus errors		
B00	CAN Nodeguarding error. No messages are sent. Synchronisation window in interpolated mode exceeded.	Check bus connection and device function, check supply voltage of the CAN bus
B01	CAN bus parameters not available, incorrect saving of parameters. No messages are sent	Enter parameters again, check node ID and Baud rate
Group D Device and axis errors: The error code on the display is preceded by an axis code („1.“ or „2.“)		
D00	Restart lock blocks switch on	Check function of the restart lock
D01	No external enable	Check ENABLE signal
D02	Heat sink temperature >85 °C	Switch off unit and let it cool down. Check whether the device is mounted in the correct mounting position. Make sure that no heat accumulation can occur in the cabinet.
D03	Device temperature >60 °C	
D04	Temperature error motor	Let motor cool down. Check temperature sensor connectors.
D06	Negative limit reached	Reset if an error message is raised
D07	Positive limit reached	Reset if an error message is raised
D10	Short circuit of motor phases or ground fault of the power stage resp.	Check motor and supply cables. Check whether the shield wires are connected correctly.
D11	Overvoltage in the supply cables	
D12	Exceeding $i^2 \times t$ limitation of device	Check parameters and operating conditions. Check if axis is freely movable.
D13	Exceeding $i^2 \times t$ limitation of motor	

Code	Error	Countermeasure
D20	External 24 V supply at X1 has fallen below 17 V	Check 24 V power supply. Are there disturbances on the supply line? Check output power specification of power supply whether it is dimensioned sufficiently.
D21	DC link voltage too high, short circuit of ballast circuit	Check DC link and ballast circuit. Is the ballast resistor connected correctly? Check supply voltage (might be too high).
D22	DC link voltage too low	Check power supply and connections. Check output power specification of power supply whether it is dimensioned sufficiently.
D23	Overload ballast circuit	Check dimensioning of ballast resistor. Is the ballast resistor connected correctly? Error cause might be a defective ballast resistor (high-resistance).
D25	Short circuit or overload of the digital outputs or the brake control resp.	Check the digital outputs and brake output. Check whether the shield wire of the motor cable is connected correctly.
D30	Following error too high	Check axis parameters and operating conditions. Check whether the axis is freely movable. Check whether the (second) position measuring system still counts correctly.
D31	Commutation not found	Check if axis is freely movable. Check whether the motor phases are connected correctly, whether the encoder counts and whether the commutation settings are correctly.
D32	Internal software reset	If error reoccurs send in device to manufacturer
D33	Error controller watchdog	If error reoccurs send in device to manufacturer
D34	Error supervision of external position measuring system	Check adjustment of the machine. If error reoccurs send in device to manufacturer.
D35	Gantry system only: Error of an axis in the gantry interconnection	
Gruppe E Encoder errors: The error code on the display is preceded by an axis code („1.“ or „2.“)		
E00	- Antivalence error of 1st incremental encoder of the axis or - No encoder has been selected, however the power stage is switched on	Check encoder and supply cables for wire breakage. If no encoder is configured, select encoder. Check whether the correct encoder port has been selected. In case of externally powered encoders check supply voltage.
E01	Capture error of 1st incremental encoder of the axis	Check whether the monitoring is set correctly. Error reasons might also be disturbances on the lines or a defective encoder.
E02	Interpolation error SINCOS encoder (circle monitoring)	Check encoder and supply cables. Error reason might be strong electromagnetic interferences.
E03	Too high speed of encoder or cannot be read	Check parameters (limit speed of the motor). Error reason might be contamination or damage of the measuring system
E10	Signal error absolute value encoder	Check encoder and supply cables for wire breakage. Check whether the correct encoder port has been selected. In case of externally powered encoders check supply voltage.
E14	Selected encoder type is wrong or not supported	Check configuration, enter appropriate encoder type
E17	Invalid user data or motor and servo amplifier do not fit	Error occurs upon initial commissioning of a new encoder because no user data has been stored yet in the encoder EEPROM. Writing to the object 0x607C „home_offset“ removes the error cause. User data is only stored in JAT motors with multiturn absolute value encoders.
E21	Incorrect multiturn value	Error cause is a contamination or a defect of the revolution counter of the multiturn absolute value encoder.
E23	Quadrant correction error of SINCOS encoder	Check encoder and supply cables for wire breakage. If no encoder is configured, select encoder. Check whether the correct encoder port has been selected. In case of externally powered encoders check supply voltage.