

8.7.4 Cause & possible remedies

This chapter contains all error messages of the controller operating system in numerical order of the error numbers. The list provides detailed information on the response to the error message as well as information on the cause & possible remedies.



Note!

For the sake of legibility, the [Logbook](#) and [C165](#) display the error number with the following syntax:

[Error type].[Error subject area no.].[Error ID]

In this documentation, "xx", a wildcard, stands for the error type since it is configurable for many error messages.



Tip!

A list of all error messages of the controller operating system in alphabetical order can be found in the previous chapter "[Short overview \(A-Z\)](#)" ([159](#)).

Su02: One mains phase is missing [xx.0111.00002]

Response (Lenze setting printed in bold)	Setting: C565 (<input checked="" type="checkbox"/> Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked	
Cause	Remedy
One mains phase of a three-phase supply has failed.	Check mains connection (terminal X100).

OH: Heatsink overtemperature [xx.0119.00001]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
The heatsink temperature is higher than the fixed limit temperature (90 ° C). Maybe the ambient temperature of the controller is too high or the fan or its ventilation slots are dirty.	<ul style="list-style-type: none"> • Check control cabinet temperature. • Clean filter. • Clean controller. • If required, clean or replace the fan. • Provide for sufficient cooling of the device.

OC5: Ixt overload [xx.0119.00050]

Response (Lenze setting printed in bold)	Setting: C604 (<input checked="" type="checkbox"/> Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked	
Cause	Remedy
The Ixt overload check has tripped. <ul style="list-style-type: none"> • Operating threshold = 100 % Ixt (adjustable in C123) Possible causes: <ul style="list-style-type: none"> • Wrong dimensioning of the device with regard to its motor load. • Load cycles are not complied with. 	<ul style="list-style-type: none"> • Check and, if required, correct dimensioning of the device and the motor load with regard to technical data. • Reduce motor load cycles (observe load cycles according to documentation).

OC9: Ixt overload - shutdown limit [xx.0119.00052]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
<p>The Ixt overload check has tripped.</p> <ul style="list-style-type: none"> Operating threshold = 110 % Ixt (fixed) <p>Possible causes:</p> <ul style="list-style-type: none"> Wrong dimensioning of the device with regard to its motor load. Load cycles are not complied with. 	<ul style="list-style-type: none"> Check and, if required, correct dimensioning of the device and the motor load with regard to technical data. Reduce motor load cycles (observe load cycles according to documentation).

OU: DC bus overvoltage [xx.0123.00014]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
<p>The device has detected an overvoltage in the DC bus. To protect the device hardware, the inverter control is switched off.</p> <ul style="list-style-type: none"> Depending on the configuration of the auto-start lock function, C142 serves to set that, if this error has been tripped, the controller only starts after the controller inhibit is switched. If this error message remains active longer than the time set in C601 a "Fault" is tripped. 	<ul style="list-style-type: none"> Reduce load in generator mode. Use a brake resistor. Use a regenerative power supply unit. Establish a DC-bus connection.

LU: DC bus undervoltage [xx.0123.00015]

Response (Lenze setting printed in bold)		Setting: C600/1 (<input checked="" type="checkbox"/> Adjustable response)
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked		
Cause	Remedy	
<p>The device has detected a DC bus undervoltage. The inverter control is switched off because the drive properties of the motor control cannot be provided anymore due to the DC bus undervoltage.</p> <ul style="list-style-type: none"> Depending on the configuration of the auto-start lock function, C142 serves to set that, if this error has been tripped, the controller only starts after the controller inhibit is switched. 	<ul style="list-style-type: none"> Switch on mains supply or ensure sufficient supply via DC bus. Adjust setting in C142 if required. 	

OC1: Power section - short circuit [xx.0123.00016]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
<p>The device has recognised a short circuit of the motor phases. To protect the device electronics, the inverter control is switched off.</p> <ul style="list-style-type: none"> Mostly, incorrectly executed motor connections are the cause. If the device is inappropriately dimensioned with regard to the motor load and the current limitation in the controller (I_{max} controller) is set incorrectly, this error message may also occur. <p>► Motor control: Defining current limits</p>	<ul style="list-style-type: none"> Check motor connections and the corresponding plug connector on the device. Only use permissible combinations of device power and motor power. Do not set the dynamics of the current limitation controller too high.

OC2: Power section - earth fault [xx.0123.00017]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
<p>The device has recognised an earth fault at one of the motor phases. To protect the device electronics, the inverter control is switched off.</p> <ul style="list-style-type: none"> Mostly, incorrectly executed motor connections are the cause. If motor filter, motor cable length, and cable type (shielding capacity) are dimensioned incorrectly, this error message may occur due to leakage currents to PE. 	<ul style="list-style-type: none"> Check motor connections and the corresponding plug connector on the device. Use motor filters, cable lengths, and cable types recommended by Lenze.

ID1: Motor data identification error [xx.0123.00057]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input type="checkbox"/> Fault <input type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked	
Cause	Remedy
<p>The device has detected an error during the motor data identification.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> Interrupted motor cable. Switched-off power section during the identification. Implausible start parameter settings. 	<ul style="list-style-type: none"> Check the motor connections and the corresponding plug connector on the device and, if necessary, the motor terminal box. Correct start parameters for the motor parameter identification (motor nameplate data). Stable power supply of the device.

OC12: I2xt overload - brake resistor [xx.0123.00065]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Too frequent and too long braking processes.	Check drive dimensioning.

OC6: I2xt overload - motor [xx.0123.00105]

Response (Lenze setting printed in bold)	
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked	
Cause	Remedy
Thermal overload of the motor.	<ul style="list-style-type: none"> Observe load requirements. Correct dimensioning if necessary. In case of VFCplus operation: Check Vmin boost (C016). <p>► Set Vmin boost</p>

An01: AIN1_I < 4 mA [xx.0125.00001]

Response (Lenze setting printed in bold)	
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked	
Cause	Remedy
<p>Open-circuit monitoring for analog input has tripped.</p> <ul style="list-style-type: none"> Only if the analog input has been configured as a current loop of 4 ... 20 (C034/1 = 2). 	<ul style="list-style-type: none"> Check wiring of the analog X4/A1U input terminal for open circuit. Check connection of the external 250-Ω load resistor between the terminals A1U and GND. Check minimum current values of the signal sources.

CE4: CAN bus off [xx.0131.00000]

Response (Lenze setting printed in bold)	Setting: C592/2 (☑ Adjustable response)
☑ None ☑ Fault ☑ Trouble ☑ WarningLocked	
Cause	Remedy
CAN on board : "Bus off" status <ul style="list-style-type: none"> Received too many faulty telegrams. Damaged cable (e.g. loose contact). Two nodes have the same ID. 	<ul style="list-style-type: none"> Check wiring and bus terminating resistor. Set identical baud rate for each bus node. Assign different IDs to nodes. Eliminate electrical interference (e.g. EMC).

CA06: CAN CRC error [xx.0131.00006]

Response (Lenze setting printed in bold)	Setting: C592/1 (☑ Adjustable response)
☑ None ☑ Fault ☑ Trouble ☑ WarningLocked	
Cause	Remedy
CAN on board : A faulty CAN telegram has been detected.	<ul style="list-style-type: none"> Check wiring and bus terminating resistor. Eliminate electrical interference (e.g. EMC).

CA07: CAN bus warning [xx.0131.00007]

Response (Lenze setting printed in bold)	Setting: C592/3 (☑ Adjustable response)
☑ None ☑ Fault ☑ Trouble ☑ WarningLocked	
Cause	Remedy
CAN on board : Incorrect transmission or reception of more than 96 CAN telegrams. <ul style="list-style-type: none"> The current number of incorrectly transmitted CAN telegrams is displayed in C372/1. The current number of incorrectly received CAN telegrams is displayed in C372/2. The current CAN error status is displayed in C345. 	<ul style="list-style-type: none"> Check wiring and bus terminating resistor. Set identical baud rate for each bus node. Assign different IDs to nodes. Eliminate electrical interference (e.g. EMC).

CA08: CAN bus stopped [xx.0131.00008]

Response (Lenze setting printed in bold)	Setting: C592/4 (☑ Adjustable response)
☑ None ☑ Fault ☑ Trouble ☑ WarningLocked	
Cause	Remedy
CAN on board : The device has received the "Stop Remote Node" NMT telegram.	Check CAN master (NMT master).

CA0b: CAN bus live time [xx.0131.00011]

Response (Lenze setting printed in bold)	Setting: C592/5 (☑ Adjustable response)
☑ None ☑ Fault ☑ Trouble ☑ WarningLocked	
Cause	Remedy
CAN on board : Cyclic node monitoring <ul style="list-style-type: none"> Being a Heartbeat consumer, the device has not received a Heartbeat telegram from Heartbeat producer 1 ... 7 within the defined time. The current states of the Heartbeat producers are displayed in C347/1...7. 	<ul style="list-style-type: none"> Reactivate Heartbeat producers by mains switching, restarting the controller, or a CAN Reset Node. Reparameterise CAN Heartbeat producer time or switch off consumer monitoring and reset error status if latched. <p>► System bus "CAN on board": Heartbeat protocol</p>

8 Diagnostics & error management

8.7 Error messages of the operating system

CA0F: CAN control word [xx.0131.00015]

Response (Lenze setting printed in bold)		Setting: C594/2 (☑ Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked		
Cause	Remedy	
Bit 14 ("SetFail") in the wCANControl control word of the system block LS_DriveInterface has been set.	Trace back signal source on the CAN bus that sets bit 14 ("SetFail").	

CE1: CAN RPDO1 [xx.0135.00001]

Response (Lenze setting printed in bold)		Setting: C593/1 (☑ Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked		
Cause	Remedy	
CAN on board : Time monitoring for RPDO1 has tripped. <ul style="list-style-type: none">RPDO1 has not been received within the monitoring time set in C357/1 or was faulty.	<ul style="list-style-type: none">Set the correct telegram length at the CAN master (transmitter).Eliminate electrical interference (e.g. EMC).Adjust monitoring time in C357/1 or switch off time monitoring.	

CE2: CAN RPDO2 [xx.0135.00002]

Response (Lenze setting printed in bold)		Setting: C593/2 (☑ Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked		
Cause	Remedy	
CAN on board : Time monitoring for RPDO2 has tripped. <ul style="list-style-type: none">RPDO2 has not been received within the monitoring time set in C357/2 or was faulty.	<ul style="list-style-type: none">Set the correct telegram length at the CAN master (transmitter).Eliminate electrical interference (e.g. EMC).Adjust monitoring time in C357/2 or switch off time monitoring.	

PS01: No memory module [xx.0144.00001]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Memory module is either not available or not snapped into place correctly.	<ul style="list-style-type: none">If a memory module has been provided: Plug the memory module into the slot of the standard device intended for this purpose.If a memory module has been provided: Check if the memory module has been plugged-in correctly.

PS02: Par. set invalid [xx.0144.00002]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
The parameter set saved to the memory module is invalid because it has not been saved completely. <ul style="list-style-type: none">This can be due to voltage failure or caused by removing the memory module while saving the parameter set.	Ensure voltage supply during the storage process and that the module remains plugged into the slot.

PS03: Par. set device invalid [xx.0144.00003]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
The parameter set in the device is invalid.	Consultation with Lenze required.

PS04: Par. set device incompatible [xx.0144.00004]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> No Reaction <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> Warning	
Cause	Remedy
<p>The parameter set saved to the memory module is incompatible to the standard device.</p> <ul style="list-style-type: none"> An incompatibility of the parameter set is caused e.g. when the memory module of an 8400 StateLine is plugged into an 8400 BaseLine or the parameter set in the memory module has a higher version than expected by the standard device. 	<p>When the memory modules are exchanged, observe the downward compatibility:</p> <ul style="list-style-type: none"> OK: BaseLine V2.0 to BaseLine V3.0 Not OK: StateLine Vx.x to BaseLine Vx.x Not OK: BaseLine V3.0 to BaseLine < V3.0

PS31: Ident. error [xx.0144.00031]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Incompatible or unknown HW components have been found.	<ul style="list-style-type: none"> Check which HW components are faulty (C203/x: Product type code). Check temperature range of the device at the start. Check whether a software update at Lenze is possible.

dF01: Internal error 01 [xx.0145.00001]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> Reduce switching frequency (C018) to 4 kHz. If the problem occurs again, you need to consult Lenze.

dF02: Internal error 02 [xx.0145.00002]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> Mains switching or restart of the controller, respectively. If the problem occurs again, you need to consult Lenze.

dF03: Internal error 03 [xx.0145.00003]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF04: Internal error 04 [xx.0145.00004]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF05: Internal error 05 [xx.0145.00005]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF06: Internal error 06 [xx.0145.00006]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF07: Internal error 07 [xx.0145.00007]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF08: Internal error 08 [xx.0145.00008]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF09: Internal error 09 [xx.0145.00009]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dF10: Internal error 10 [xx.0145.00010]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	<ul style="list-style-type: none"> • Mains switching or restart of the controller, respectively. • If the problem occurs again, you need to consult Lenze.

dH69: Adjustment fault [xx.0400.00105]

Response (Lenze setting printed in bold)	
<input type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input type="checkbox"/> Trouble <input type="checkbox"/> WarningLocked	
Cause	Remedy
Device error	Consultation with Lenze required.

US01: User error 1 [xx.0980.00000]

Response (Lenze setting printed in bold)		Setting: C581/1 (☑ Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked		
Cause	Remedy	
User error 1 has been tripped via the <i>bSetError1</i> input of the LS_SetError_1 system block.	User-defined.	

US02: User error 2 [xx.0981.00000]

Response (Lenze setting printed in bold)		Setting: C581/2 (☑ Adjustable response)
<input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Fault <input checked="" type="checkbox"/> Trouble <input checked="" type="checkbox"/> WarningLocked		
Cause	Remedy	
User error 2 has been tripped via the <i>bSetError2</i> input of the LS_SetError_1 system block.	User-defined.	