

## Error list

## Reach Truck Control Unit RCU (A)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A1201	Internal process error	Parameter set cannot be read out	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1205	Internal process error	Checksum not OK after reading the EEPROM data	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1206	Internal process error	No consistent EEPROM data set available	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1210	Internal process error	Checksum not OK after reading the EEPROM data	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1211	Internal process error	No consistent EEPROM data set available	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1215	<ul style="list-style-type: none"> <li>Error during alignment of the parameters</li> <li>Error during calibration</li> </ul>	Checksum not OK after reading the EEPROM data	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file.</li> <li>Re-calibrate the previously calibrated transmitter</li> <li>Re-calibrate the configurable transmitters via diagnostics</li> </ul>	(1)
A1216	<ul style="list-style-type: none"> <li>Error during alignment of the parameters</li> <li>Error during calibration</li> </ul>	No consistent EEPROM data set available	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Re-calibrate the previously calibrated transmitter</li> <li>Re-calibrate the configurable transmitters via diagnostics</li> </ul>	(1)
A1220	Internal process error	Checksum not OK after reading the EEPROM data	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1221	Internal process error	No consistent EEPROM data set available	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1225	Internal process error	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1226	Internal process error	No consistent EEPROM data set available	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1230	Internal process error	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	Reload the parameter file	(1)
A1231	Internal process error	No consistent EEPROM data set available	System operates using the default parameters	–	Reload the parameter file	(1)
A1250	Internal process error	Checksum not OK after reading the EEPROM data	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1260	Internal process error	Checksum not OK after reading the EEPROM data	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameter file</li> <li>Replace the RCU</li> </ul>	(1)
A1281	Invalid parameter combination	–	–	–	Check the parameters	(1)
A1291	Incorrect parameter combination	Implausible truck parameters	–	–	Check the parameters	–
A1401	Memory test error	Faulty memory cell detected	No contactor activation	Not possible	Replace the RCU	(2)
A1405	DPRAM parity error	–	–	–	Replace the RCU	(1)
A1431	Memory test	Faulty memory cell detected in the controller	No contactor activation	None	Replace the RCU	(2)
A1435	DPRAM parity error	–	–	–	Replace the RCU	(1)
A1443	Memory test	Faulty memory cell detected	Drive unit and hydraulic drive blocked	–	Replace the RCU	(2)
A1444	DPRAM parity error	–	–	–	Replace the RCU	(1)

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A	<b>Reach truck control unit (RCU)</b>					(1) Error memory only (2) Error memory + display (3) Display only
A2229	13-V CAN: voltage too low	13-V control unit supply is too low	–	–	<ul style="list-style-type: none"> <li>• Check the power supply of the DC/DC converter</li> <li>• Check the wiring to the RCU X1:3</li> </ul>	(1)
A2230	13-V CAN: voltage too high	13-V control unit supply is too high	–	–	<ul style="list-style-type: none"> <li>• Check the power supply of the DC/DC converter</li> <li>• Check the wiring to the RCU X1:3</li> </ul>	(1)
A2237	Short circuit at the 10-V power supply for external components	Transmitter supply short circuit	The truck will not move, pressing the accelerator has no effect, the hydraulics are no longer working, the setpoint values have no effect	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the accelerator wiring and plugs for short circuits</li> <li>• Check the accelerator</li> <li>• Replace the accelerator</li> </ul>	(2)
A2239	Undervoltage at the 10-V power supply for external components	External load on the supply too high	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the accelerator wiring and plugs for short circuits/check the connection</li> <li>• Check the accelerator</li> <li>• Replace the accelerator</li> </ul>	(1)
A2240	Excess voltage at the 10-V power supply for external components	Possible VCC overload due to RCU VCC source not being controllable	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the sensor system</li> <li>• External infeed of external voltage</li> <li>• Replace the RCU</li> </ul>	(1)
A2292	<ul style="list-style-type: none"> <li>• Intermediate circuit: supply voltage too low</li> <li>• The intermediate circuit voltage is falling so low that the required contactor traction force is no longer guaranteed</li> </ul>	Supply of 3+48 V to main contactor is too low	Contactor is opened	–	<ul style="list-style-type: none"> <li>• Check the supply to RCU XB:1</li> <li>• Measured voltage on XA:49 is too low</li> <li>• Check the wiring of K1 coil/brake</li> <li>• Check the K1 power supply</li> <li>• Replace the RCU</li> </ul>	(1)
A2294	Intermediate circuit: preload error	The intermediate circuit cannot be pre-charged	Contactor cannot be connected	–	<ul style="list-style-type: none"> <li>• Check fuse F5</li> <li>• Check the power supply to RCU XB:1 via the key switch</li> <li>• Check the wiring from XA:49 to the main contactor</li> <li>• Replace the converter</li> <li>• Replace the RCU</li> </ul>	(1)
A2295	Main contactor error	<ul style="list-style-type: none"> <li>• If the safety relay is not activated, a voltage greater than 18 V is measured at RCU output X:A30 and XA:5</li> <li>• If the safety relay is activated, no voltage is measured at RCU output X:A30 and XA:5</li> </ul>	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the main contactor/brake wiring</li> <li>• Replace the RCU</li> </ul>	(2)
A2303	Error memory overloaded	More than 128 active error messages	–	Switch the truck off and on again	Rectify the error	(1)
A2403	DISPLAY software version is incompatible	DISPLAY software version (DOD) is incompatible with the RCU software	–	Switch the truck off and on again	Flash the truck software	(1)
A2501	Lifting valve faulty (impedance measurement)	Lifting valve is drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the lifting valve and wiring</li> <li>• Replace the valve coil</li> </ul>	(2)
A2504	Lifting valve short circuit (bridge)	Valve test when the truck is switched on; lifting valve has a short circuit to the truck's negative terminal	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the lifting valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2505	Lifting valve breakdown	Lifting valve has broken down. The breakdown test performed during start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the lifting valve and wiring; replace if necessary	(2)
A2506	Lowering valve faulty	Lowering valve is drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check lowering valve and wiring; replace if necessary	(2)

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A2509	Lowering valve short circuit	Lowering valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the lowering valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2510	Lowering valve breakdown	Lowering valve has broken down. The breakdown test performed at start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check lowering valve and wiring; replace if necessary	(2)
A2511	Tilt valve faulty	Forwards tilt valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the tilt valve and wiring; replace if necessary	(2)
A2514	Tilt valve short circuit	Forwards tilt valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the tilt valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test to find the faulty component.</li> </ul>	(2)
A2515	Tilt valve breakdown	Forwards tilt valve has broken down. The breakdown test performed during truck start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the tilt valve and wiring; replace if necessary	(2)
A2516	General actuator error 4	Backwards tilt valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the tilt valve and wiring; replace if necessary	(2)
A2519	Tilt valve short circuit	Backwards tilt valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the tilt valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2520	Tilt valve breakdown	Backwards tilt valve has broken down. The breakdown test performed during truck start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the tilt valve and wiring; replace if necessary	(2)
A2521	Auxiliary 1 valve error	Auxiliary 1 positive valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check auxiliary 1 valve and wiring; replace if necessary	(2)
A2524	Auxiliary 1 valve short circuit	Auxiliary 1 positive valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check auxiliary 1 valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2525	Auxiliary 1 valve breakdown	Auxiliary 1 positive valve has broken down. The breakdown test performed at truck start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check auxiliary 1 valve and wiring; replace if necessary	(2)
A2526	Auxiliary 1 valve error	Auxiliary 1 negative valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check auxiliary 1 valve and wiring; replace if necessary	(2)
A2529	Auxiliary 1 valve short circuit	Auxiliary 1 negative valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check auxiliary 1 valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2530	Auxiliary 1 valve breakdown	Auxiliary 1 negative valve has broken down. The breakdown test performed at truck start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check auxiliary 1 valve and wiring; replace if necessary	(2)
A2531	Auxiliary 2 valve error	Auxiliary 2 positive valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check auxiliary 2 valve and wiring; replace if necessary	(2)
A2534	Auxiliary 2 valve short circuit	Auxiliary 2 positive valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check auxiliary 2 valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)

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A	<b>Reach truck control unit (RCU)</b>					(1) Error memory only (2) Error memory + display (3) Display only
A2535	Auxiliary 2 valve breakdown	Auxiliary 2 positive valve has broken down. The breakdown test performed during start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check auxiliary 2 valve and wiring; replace if necessary	(2)
A2536	Auxiliary 2 valve error	Auxiliary 2 negative valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check auxiliary 2 valve and wiring; replace if necessary	(2)
A2539	Auxiliary 2 valve short circuit	Auxiliary 2 negative valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check auxiliary 2 valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2540	Auxiliary 2 valve breakdown	Auxiliary 2 negative valve has broken down. The breakdown test performed at truck start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check auxiliary 2 valve and wiring; replace if necessary	(2)
A2541	Switch valve error	Forward reach valve is drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the reach valve and wiring; replace if necessary	(2)
A2544	Switch valve short circuit	Forward reach valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the reach valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test to find the faulty component.</li> </ul>	(2)
A2545	Switch valve breakdown	Forward reach valve has broken down. The breakdown test performed at truck start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the reach valve and wiring; replace if necessary	(2)
A2546	Enabling valve error	Reverse reach valve is drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the reach valve and wiring; replace if necessary	(2)
A2549	Enabling valve short circuit	Reverse reach valve has a short circuit. The short circuit test performed at truck start-up detected a short circuit. Collective hardware message: BLOCK	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the reach valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2550	Enabling valve breakdown	Reverse reach valve has broken down. The breakdown test performed at start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the reach valve and wiring; replace if necessary	(2)
A2551	Service lowering valve error	LEFT crosswise valve is drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the crosswise valve and wiring; replace if necessary	(2)
A2554	Service lowering valve short circuit	LEFT crosswise valve has a short circuit. Short circuit test performed during start-up or after a BLOCK collective hardware message has detected a short circuit on the valve, i.e. the valve output has short-circuited to +power supply	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the crosswise valve and wiring; replace if necessary</li> <li>• Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2555	Service lowering valve breakdown	Left crosswise valve has broken down. The breakdown test performed during start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the crosswise valve and wiring; replace if necessary	(2)
A2556	General actuator error 12	RIGHT crosswise valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the crosswise valve and wiring; replace if necessary	(2)

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A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A2559	Actuator error 12: actuator short circuit	RIGHT crosswise valve has a short circuit. Short circuit test performed during start-up or after a BLOCK collective hardware message has detected a short circuit on the valve, i.e. the valve output has short-circuited to +power supply	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the crosswise valve and wiring; replace if necessary</li> <li>Swap the valve plug with the neighbouring valve as a test in order to find the faulty component</li> </ul>	(2)
A2560	Actuator error 12: actuator breakdown	RIGHT crosswise valve has broken down. The breakdown test performed during start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the crosswise valve and wiring; replace if necessary	(2)
A2561	General actuator error 13	Enabling valve drawing excess current. The current in the valve is more than 2 A	Working hydraulics not active	Switch the truck off and on again	Check the enabling valve and wiring; replace if necessary	(2)
A2564	Actuator error 13: actuator short circuit	Enabling valve has a short circuit. Short circuit test performed at start-up or after a "BLOCK" collective hardware message has detected a short circuit on the valve, i.e. the valve output has short-circuited to +power supply.	The affected valve is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the enabling valve and wiring; replace if necessary</li> <li>Swap the valve plug with the neighbouring valve as a test to find the faulty component.</li> </ul>	(2)
A2565	Actuator error 13: actuator breakdown	Enabling valve has broken down. The breakdown test performed at start-up detected a breakdown at this valve	The affected valve is blocked	Switch the truck off and on again	Check the enabling valve and wiring; replace if necessary	(2)
A2577	Actuator error: VCC breakdown	Supply voltage breakdown during the breakdown test	No hydraulic function	–	Check the enabling valve and wiring; replace if necessary	(1)
A2578	Actuator error: VCC short circuit	Supply voltage breakdown during the short circuit test	No hydraulic function	–	Check the enabling valve and wiring; replace if necessary	(1)
A2600	Joystick/fingertip switch CAN bus error	<ul style="list-style-type: none"> <li>CAN communication with the CAN converter disrupted after communication had started up</li> <li>Possible loose contact in the CAN connection or supply to the CAN converter</li> </ul>	Working hydraulics not active	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Check the wiring</li> <li>Replace the joystick/CAN converter</li> </ul>	(1)
A2601	Battery controller communication error	Control unit detects a timeout in the communication with the battery controller	None	–	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Replace the RCU</li> </ul>	(1)
A2603	Joystick/fingertip switch CAN bus error	<ul style="list-style-type: none"> <li>CAN communication with the CAN converter disrupted after communication had started up</li> <li>Possible loose contact in the CAN connection or supply to the CAN converter</li> </ul>	Working hydraulics not active	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Check the wiring</li> <li>Replace the joystick/CAN converter</li> </ul>	(1)
A2621	Joystick/fingertip switch CAN bus error	CAN converter not sending a start message via CAN	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Check the wiring</li> <li>Replace the joystick/CAN converter</li> </ul>	(1)
A2622	Joystick/fingertip switch CAN bus error	<ul style="list-style-type: none"> <li>CAN communication with the CAN converter disrupted after communication had started up</li> <li>Possible loose contact in the CAN connection or supply to the CAN converter</li> </ul>	Working hydraulics not active	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Check the wiring</li> <li>Replace the joystick/CAN converter</li> </ul>	(1)
A2624	Joystick/fingertip switch CAN bus error	<ul style="list-style-type: none"> <li>CAN communication with the CAN converter disrupted after communication had started up</li> <li>Possible loose contact in the CAN connection or supply to the CAN converter</li> </ul>	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Check the wiring</li> <li>Replace the joystick/CAN converter</li> </ul>	(1)
A2650	Incorrect type of GPRS module configured	"Modem type" parameter set incorrectly	–	Switch the truck off and on again	Correct the "modem type" parameter	(1)
A2651	Remote data transfer network login	The GPRS module cannot log into the relevant network	–	Automatically if error is rectified	<p>GPRS:</p> <ul style="list-style-type: none"> <li>Is the SIM card present?</li> <li>Is the SIM card GPRS-capable?</li> <li>Is the PIN code correct?</li> <li>Check the GPRS module parameters</li> <li>Check the device is ready to receive</li> </ul>	(1)

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A2652	GPRS module transmission timeout	GPRS module not confirming transmission of data prior to timeout	–	Switch the truck off and on again	Switch the truck off and on again	(1)
A2653	Communication server not available	GPRS module cannot establish a connection with the communication server	–	Automatically if error is rectified	Check the communication server to ensure it is functioning correctly	(1)
A2730	Calibration of the battery voltage	No valid parameter set available or no adjustment of the battery voltage	Default parameters are used	–	Replace the RCU	(2)
A2801	Internal process error in accelerator signal	Accelerator signal voltage difference CP<-->MP outside limit	Drive unit is disabled	Release the accelerator	If the error persists, replace the RCU	(2)
A2802	Run-up error in controllers when switching on	The control processor failed to complete the testing of the KSI internal safety relay for switching on the main contactor without error	Internal safety relay (KSI): main contactor controller is opened	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Switch the truck off and on again</li> <li>• Upload the latest software</li> <li>• Defective power supply (key switch)</li> <li>• Check the K1 activation</li> <li>• Check the K1 power contacts</li> <li>• Rear feed of 48 V to K1</li> <li>• Safety relay (KSI) sticking in the RCU</li> <li>• Replace the RCU</li> </ul>	(2)
A2806	Error in safety function "6 km/h limit in main lift"	Mast switch switching signals are implausible	Safety function is activated	Once the error has been rectified	<ul style="list-style-type: none"> <li>• Check the switching sequence and signals from mast damping/free lift/reference height switches</li> <li>• Check the switching sequence and signals of the mast damping/free lift/reference height switches</li> <li>• Check the reference switch height using the reference switch parameter</li> <li>• Calibrate the height measurement</li> </ul>	
With the LED sensor: switching signals + lift height are implausible						
A2807	Internal process error	Implausible processing of nominal speed and nominal number of revolutions when driving	Drive unit is disabled	Release the accelerator	If the error persists, replace the RCU	(2)
A2808	Internal process error	No reaction to a control signal during truck acceleration	Drive unit is disabled	Release the accelerator	<ul style="list-style-type: none"> <li>• Clear the error list</li> <li>• If the error persists, replace the RCU</li> </ul>	(2)
A2809	Internal process error in the accelerator	Calculated speed exceeds the maximum permissible speed.	Drive unit is disabled	Release the accelerator	<ul style="list-style-type: none"> <li>• Clear the error list</li> <li>• If the error persists, replace the RCU.</li> </ul>	(2)
A2810	Internal process error in the accelerator	Calculated speed does not match the drive direction	Drive unit is disabled	Release the accelerator	<ul style="list-style-type: none"> <li>• Clear the error list</li> <li>• If the error persists, replace the RCU</li> </ul>	(2)
A2811	Internal process error in the converter (traction)	Converter (driving): set converter torque is outside the permitted range	Drive unit is disabled, no drive function	Release the accelerator	<ul style="list-style-type: none"> <li>• Clear the error list</li> <li>• If the error persists, replace the converter</li> </ul>	(2)
A2813	Internal process error in the converter (traction)	Converter (driving): faulty torque specification check, different setpoint value/actual value	Drive unit is disabled, no drive function	Release the accelerator	<ul style="list-style-type: none"> <li>• Clear the error list</li> <li>• If the error persists, replace the RCU</li> </ul>	(2)
A2815	The setpoint speed and actual speed of the traction motor between the RCU and converter are different	Faulty rev counting in the converter or RCU	Drive unit is disabled, no drive function	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the driving rev sensor wiring</li> <li>• Check the converter</li> <li>• Check the RCU</li> </ul>	(2)
A2817	Internal process error	No reaction from truck components after error	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Clear the error list.</li> <li>• Note other error messages</li> <li>• Check the safety components, e.g. main contactor</li> <li>• Replace the RCU</li> </ul>	(2)
A2860	Valve current measurement error	Current measurement at control input detects current without the valve being activated	Working hydraulics not active	Transmitter zero position	Replace the RCU	(1)
A2861	Internal process error in the valve block	Valve processor and control processor receive different setpoint values	Working hydraulics not active	Transmitter zero position	Flash the truck software	(1)
A2862	Internal process error in the valve block	The current calculated and the current measured for the valves have different values or the current is activated in the wrong direction	Working hydraulics not active	Transmitter zero position	<ul style="list-style-type: none"> <li>• Flash the truck software</li> <li>• Check the valve wiring</li> <li>• Replace the RCU</li> </ul>	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A2863	Internal process error in the valve block	The control processor transmits implausible pump setpoint values to the valve processor	Working hydraulics not active	Transmitter zero position	Flash the truck software	(1)
A2864	Monitoring of the pump motor impulse transmitter	Setpoint speed >800 rpm and actual speed <100 rpm for 30 sec	Low pump speed	Once the error has been rectified	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter</li> <li>• Check the impulse transmitter</li> <li>• Replace the impulse transmitter</li> <li>• Replace the converter</li> </ul>	(2)
A2870	Pulsed output: implausible current value	An invalid current was measured at one of the pulsed valve connections	-	-	<ul style="list-style-type: none"> <li>• Note other error messages</li> <li>• Check the valve wiring</li> </ul>	(1)
A2880	Error in safety function, 6 km/h main lift	Implausible switching signals	-	-	• Check the switching sequence and signals of the mast damping/free lift/reference height switches	-
A2882	Error in safety function, 6 km/h main lift	Lift mast is in main lift mode (reference switch is active) but the free lift switch reports that the free lift is active	6 km/h	Switch the truck off and on again	• Check the switching sequence and signals of the mast damping/free lift/reference height switches	(2)
A2890	Implausible emergency off signal	Implausible voltage on the RCU when the emergency off switch is not open	-	-	<ul style="list-style-type: none"> <li>• Check the battery</li> <li>• Check the battery setting</li> <li>• Check the wiring from the battery via emergency off to RCU XB:1</li> </ul>	(1)
A2902	Internal process error	Synchronous serial interface could not be initialised.	No contactor activation	Switch the truck off and on again	Replace the RCU	(1)
A2903	Internal process error	Synchronous serial interface cannot send or receive	Reset	-	Replace the RCU	(1)
A2904	Internal process error	Checksum or watchdog error	Reset	-	Replace the RCU	(1)
A2912	Internal process error	Synchronous serial interface could not be initialised.	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A2913	Internal process error	Synchronous serial interface cannot send or receive	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A2914	Internal process error	Checksum or watchdog error	Reset	-	<ul style="list-style-type: none"> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A2930	Communication not possible between the control processor and monitoring processor when the truck is switched on	Synchronous serial interface could not be initialised.	None	-	Replace the RCU	(1)
A2931	Communication not possible between the control processor and monitoring processor	Synchronous serial interface cannot send or receive	-	-	Replace the RCU	(1)
A2932	Faulty data transfer between the control processor and monitoring processor	Checksum or watchdog error	-	-	Replace the RCU	(1)
A2962	Communication with the valve processor not possible	Synchronous serial interface could not be initialised.	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A2963	Valve processor cannot send messages to the control processor	Synchronous serial interface cannot send or receive	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A2964	Faulty data transfer between the control processor and valve processor	Checksum or watchdog error	Reset	–	<ul style="list-style-type: none"> <li>Flash the truck software</li> <li>Replace the RCU</li> </ul>	(1)
A3002	Accelerator 1R20 track1: breakdown 0 V	<ul style="list-style-type: none"> <li>Voltage on RCU XB:20 = 10 V</li> <li>Accelerator 1R20 X1:4 interrupted after RCU XB:43</li> <li>Short circuit between RCU XB:21 and RCU XB:20</li> </ul>	<ul style="list-style-type: none"> <li>Truck does not move</li> <li>Accelerator is ignored</li> </ul>	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the accelerator</li> <li>Check the wiring between accelerator 1R20 X1:4 and RCU XB:43</li> <li>Check the power supply wiring between RCU XB:21 and 1R20 X1:8 against signal line RCU XB:20 to 1R20 X1:2</li> </ul>	(2)
A3003	Accelerator 1R20 track1: breakdown 10 V	<ul style="list-style-type: none"> <li>Voltage on RCU XB:20 = 0 V</li> <li>Accelerator 1R20 X1:8 interrupted after RCU XB:21</li> <li>Short circuit between RCU XB:43 and RCU XB:20</li> </ul>	<ul style="list-style-type: none"> <li>Truck does not move</li> <li>Accelerator is ignored</li> </ul>	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the accelerator</li> <li>Check the wiring between accelerator 1R20 X1:8 and RCU XB:21</li> <li>Check the power supply wiring between RCU XB:43 and 1R20 X1:4 against signal line RCU XB:20 to 1R20 X1:2</li> </ul>	(2)
A3004	Accelerator 1R20 track2: breakdown 0 V	<ul style="list-style-type: none"> <li>Voltage on RCU XB:42 = 10 V</li> <li>Accelerator 1R20 X1:4 interrupted after RCU XB:43</li> <li>Short circuit between RCU XB:21 and RCU XB:42</li> </ul>	<ul style="list-style-type: none"> <li>Truck does not move</li> <li>Accelerator is ignored</li> </ul>	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the accelerator</li> <li>Check the wiring between accelerator 1R20 X1:4 and RCU XB:43</li> <li>Check the power supply wiring between RCU XB:21 and 1R20 X1:8 against signal line RCU XB:42 to 1R20 X1:3</li> </ul>	(2)
A3005	Accelerator 1R20 track2: breakdown 10 V	<ul style="list-style-type: none"> <li>Voltage on RCU XB:42 = 0 V</li> <li>Accelerator 1R20 X1:8 interrupted after RCU XB:21</li> <li>Short circuit between RCU XB:43 and RCU XB:42</li> </ul>	<ul style="list-style-type: none"> <li>Truck does not move</li> <li>Accelerator is ignored</li> </ul>	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the accelerator</li> <li>Check the wiring between accelerator 1R20 X1:8 and RCU XB:21</li> <li>Check the power supply wiring between RCU XB:43 and 1R20 X1:4 against signal line RCU XB:42 to 1R20 X1:3</li> </ul>	(2)
A3008	Accelerator error	Accelerator voltages of track 1 and track 2 are incompatible	Truck does not move. • Accelerator is ignored	Release the accelerator	<ul style="list-style-type: none"> <li>Check the accelerator</li> <li>Check the wiring</li> <li>Replace the accelerator</li> </ul>	(2)
A3009	Brake switch is open • Accelerator pedal is active	Brake pedal and accelerator pedal are operated at the same time	Display of errors only	If fault corrected	<ul style="list-style-type: none"> <li>Operating error: the driver is using the accelerator and foot brake simultaneously</li> <li>Check the brake sensor and accelerator</li> <li>Check the wiring</li> </ul>	(2)
i 3009	=A3009	–	–	–	–	–
A3010	Dead man switch plausibility	Switch evaluation for the monitoring processor and control processor returns implausible values	Drive unit is blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Flash the software &gt; 0.34</li> <li>Check the dead man switch</li> <li>Check the wiring</li> <li>Check whether the mat is blocking the foot switch</li> <li>Install an intermediate plate (order number 51904312212) (raise)</li> </ul>	(2)
A3016	Cable break, brake sensor 0 V	–	–	–	Check the wiring	(2)
A3017	Cable break, supply to the brake sensor	–	–	–	Check the wiring	(2)
A3019	Brake pedal actuated for longer than 5 minutes (from software version 0.37_1)	Brake pedal actuated for longer than 5 minutes	Beeper+ creep speed, drive programme 5	Errors rectified	<ul style="list-style-type: none"> <li>Driver depressing the brake pedal for too long</li> <li>Defective brake pressure switch</li> <li>Check the wiring</li> </ul>	(2)
A3020	Drive direction switch error	An error was detected in an input device for the drive direction	Drive direction set to "Neutral"	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Note other error messages</li> <li>Check the wiring of the drive direction switch/joystick; replace if necessary</li> </ul>	(2)



Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	<b>Reach truck control unit (RCU)</b>					<b>(1) Error memory only (2) Error memory + display (3) Display only</b>
A3021	Drive direction switch error	–	–	–	<ul style="list-style-type: none"> <li>• Check the wiring</li> <li>• Check the switch</li> </ul>	(1)
A3027	Seat switch error	Seat switch does not release	Configurable: limit the hydraulics and/or speed	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the seat switch</li> <li>• Check the wiring</li> </ul>	(2)
A3035	Brake fluid reservoir: collective fault	Brake fluid level too low or switch faulty	Truck can only be driven at emergency mode speed	Release the accelerator	Check the brake fluid and switch	(2)
A3127	Pressure sensor, negative cable break	GND breakdown	No calculation of the pressure measured value (display value: 9999 kg)	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the pressure sensor</li> <li>• Check the wiring from RCU XB:44 to 2B31 X1:1</li> <li>• Replace the pressure sensor</li> <li>• Replace the RCU</li> </ul>	(1)
A3128	Pressure sensor: supply voltage cable break	Supply voltage breakdown	No calculation of the pressure measured value (display value: 9999 kg)	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the pressure sensor</li> <li>• Check the wiring from RCU XB:22 to 2B31 X1:3</li> <li>• Replace the pressure sensor</li> <li>• Replace the RCU</li> </ul>	(1)
A3136	Tilt sensor error	Tilt sensor signal < 0.5 V or > 10.5 V	Tilt centre position locked	–	<ul style="list-style-type: none"> <li>• Check the wiring</li> <li>• Check the sensor</li> </ul>	(2)
A3140	Height measurement sensor (belt sensor)	Implausible height measurement signals (incremental transducer tracks and/or signal from the reference switch/free lift switch are incompatible)	Functions dependent on the height measurement are locked	Switch the truck off and on again	Check the height measurement and sensors	(2)
		Additional from software version 0.39: reference value not within the valid range	–	–	Recalibrate the height measurement	
A3148	Lift height detection: process error	Model calculation for the lift height detects an error	Reference drive required	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> <li>• Parameters for the pump/mast are incorrectly configured</li> <li>• Perform reference drive for the height measuring system</li> </ul>	(1)
A3149	Drive direction switch error	A plausibility error for the drive direction switch was detected in the fingertip switch	Drive unit is disabled	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Clear the error list</li> <li>• Check the wiring</li> <li>• Replace the drive direction switch</li> </ul>	(1)
A3150	F button error	A plausibility error for the F button was detected in the fingertip switch	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the F button</li> <li>• Check the wiring</li> <li>• Replace the F button</li> </ul>	(1)
A3166	Internal processing error: raise/lower the joystick axis	An error is detected in the joystick	Hydraulic drive is disabled	Switch the truck off and on again	Replace the joystick	(1)
A3167	Internal processing error: move the joystick axis	An error is detected in the joystick	Working hydraulics not active	Switch the truck off and on again	Replace the joystick	(1)
A3168	Internal processing error: TILT the joystick rocker	An error is detected in the joystick	Working hydraulics not active	Switch the truck off and on again	Replace the joystick	(1)
A3169	Hardware error in the EEPROM or voltage drop during the joystick/fingertip switch calibration process	Hardware error in the EEPROM or voltage drop in the CAN converter during the calibration process	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Recalibrate the joystick/fingertip switch</li> <li>• Replace the joystick</li> <li>• Fingertip switch: replace the CAN converter</li> </ul>	(1)
A3170	Internal processing error in the joystick/fingertip switch	General error from the joystick/fingertip switch	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Note other error messages</li> <li>• Replace the joystick/fingertip switch</li> </ul>	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
<b>A</b>	<b>Reach truck control unit (RCU)</b>					<b>(1) Error memory only (2) Error memory + display (3) Display only</b>
A3171	Joystick/fingertip switch: X axis plausibility error	Joystick/fingertip switch: X axis plausibility error	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Joystick/fingertip switch: check the X axis</li> <li>Replace the joystick/fingertip switch X axis</li> </ul>	(1)
A3172	Joystick/fingertip switch: Y axis plausibility error	Joystick/fingertip switch: Y axis plausibility error	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Joystick/fingertip switch: check the Y axis</li> <li>Replace the joystick/fingertip switch Y axis</li> </ul>	(1)
A3173	Joystick/fingertip switch: W axis plausibility error	Joystick/fingertip switch: W axis plausibility error	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Joystick/fingertip switch: check the W axis</li> <li>Replace the joystick/fingertip switch W axis</li> </ul>	(1)
A3174	Joystick/fingertip switch: Z axis plausibility error	Joystick/fingertip switch: Z axis plausibility error	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Joystick/fingertip switch: check the Z axis</li> <li>Replace the joystick/fingertip switch Z axis</li> </ul>	(1)
A3180	Joystick/fingertip switch: plausibility error from the input device for the hydraulic setpoint value	Joystick/fingertip switch CAN converter transmits an operating lever error	Working hydraulics not active	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Note other error messages</li> <li>Check the joystick/fingertip switch levers and replace if necessary</li> </ul>	(1)
A3181	Joystick/fingertip switch: drive direction plausibility error	Input device for the drive direction reports an error	Drive unit is disabled	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Note other error messages</li> <li>Check the joystick/fingertip drive direction switch and replace if necessary</li> </ul>	(1)
A3186	LED: clamp display faulty	LED: clamp display faulty	Message only	–	Replace the operating unit	(2)
A3187	Push button for the transition shift centre position bridged	<ul style="list-style-type: none"> <li>Short-circuit in the push button wiring</li> <li>0-V short circuit after RCU XA:41</li> </ul>	Failure of the transition shift centre position function	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Release the push button</li> <li>Check the wiring for the push button for the transition shift centre position</li> <li>Check the push button for the transition shift centre position</li> </ul>	(2)
A3188	Push button for the tilt centre position bridged	<ul style="list-style-type: none"> <li>Short-circuit in the push button wiring</li> <li>0-V short circuit after RCU XA:56</li> </ul>	Failure of the tilt centre position function	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Release the push button</li> <li>Check the wiring for the push button for the tilt centre position</li> <li>Check the push button for the tilt centre position</li> </ul>	(2)
A3190	Valve processor error, collective fault	<ul style="list-style-type: none"> <li>The safety relay for supplying the output stage is switched off but the voltage behind the safety relay (RCU XA:45) does not diminish</li> <li>Undervoltage 2 +48 V</li> <li>Note: the test is performed once during run-up and again at regular intervals during operation</li> </ul>	Hydraulic drive is disabled	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Note other error messages</li> <li>Check the valve wiring</li> <li>Replace the RCU</li> </ul>	(1)
A3191	Error: 48 V power supply to the valves	The 48 V are present at the RCU XB:1 device input and the safety relay hydraulics are closed but the voltage in the power circuit is < 35 V or >65 V	Working hydraulics not active	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the battery voltage</li> <li>Check the supply for the valves at output XA:45</li> <li>Replace the RCU</li> </ul>	(1)
A3192	Supply voltage is outside the valid range	The supply voltage for the driver stages is outside the tolerance range of 10.5 V to 13.5 V.	Working hydraulics not active	Automatically if error is rectified	Replace the RCU	(1)
A3193	Valve processor overtemperature	Output stage temperature has exceeded 80°C	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Restart the truck</li> <li>Check the valve currents (each valve &lt; 1.6 A).</li> <li>Replace the RCU</li> </ul>	(1)
A3195	The safety relay for the hydraulics is sticking	<ul style="list-style-type: none"> <li>Monitoring processor cannot block the safety relay for valves</li> <li>Rear infeed of 48 V to RCU XA:45</li> </ul>	Hydraulic functions stop working	Restart	<ul style="list-style-type: none"> <li>Check the wiring</li> <li>Check the resistance between RCU XA:45 and XB:1 (around 50 kOhm)</li> <li>Replace the RCU</li> </ul>	(2)
A3196	Valve relay undervoltage	Short to ground between valve relay and MOSFETs <ul style="list-style-type: none"> <li>Short circuit from RCU XA:45 after 0 V</li> </ul>	Hydraulic functions stop working	Restart	<ul style="list-style-type: none"> <li>Check the wiring</li> <li>Replace the RCU</li> </ul>	(1)
A3197	Valve relay output error	Output voltage at RCU XA:45 too large or too small	Failure of the hydraulic functions.	Restart	<ul style="list-style-type: none"> <li>Check the wiring</li> <li>Check the battery voltage</li> <li>Replace the RCU</li> </ul>	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A3198	Valve relay undervoltage	Short to ground between valve relay and MOSFETs • Short circuit from RCU XA:45 after 0 V	Failure of the hydraulic functions.	Restart	<ul style="list-style-type: none"> <li>• Check the battery setting</li> <li>• Check the battery</li> <li>• Replace the RCU</li> </ul>	(1)
A3199	The safety relay for the hydraulics is sticking	<ul style="list-style-type: none"> <li>• Valve processor cannot block the safety relay for valves</li> <li>• Rear infeed of 48 V to RCU XA:45</li> </ul>	Hydraulic functions stop working	Restart	<ul style="list-style-type: none"> <li>• Check the wiring</li> <li>• Check the resistance between RCU XA:45 and XB:1 (around 50 kOhm)</li> <li>• Replace the RCU</li> </ul>	(1)
A3305	CIO error	<ul style="list-style-type: none"> <li>• CIO hardware and parameters are incompatible</li> <li>• 12-V power supply not present</li> </ul>	–	–	<ul style="list-style-type: none"> <li>• Check the parameters</li> <li>• Check the 12-V power supply</li> <li>• Short circuit/undervoltage at analogue input</li> </ul>	(2)
A3400	Load measurement error	Error in the load measurement (sensor breakdown, configuration, hardware conflicts)	None	–	<ul style="list-style-type: none"> <li>• Load sensor parameterising</li> <li>• Check the pressure sensor function</li> <li>• Check the wiring</li> </ul>	(2)
A3404	Handbrake switch error	Handbrake has not been actuated for a long time, sensor faulty, wiring faulty	Parameterisable: limit hydraulics and/or speed	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Apply/release the handbrake</li> <li>• Replace the switch on the handbrake</li> </ul>	(1)
A3420	Invalid load measurement offset	<ul style="list-style-type: none"> <li>• Offset of the load measurement is outside the valid range</li> <li>• Load measurement calibration is incomplete</li> </ul>	Vibration damping and load measurement functions do not work	–	<ul style="list-style-type: none"> <li>• Repeat the calibration</li> <li>• Check the sensor value</li> <li>• Check the wiring</li> <li>• Replace pressure sensor 2B31</li> </ul>	(2)
A3421	Valid measured value and reach travel sensor has incorrect value at reference point	<ul style="list-style-type: none"> <li>• Mechanical cause:</li> <li>• Sensor position incorrect</li> <li>• Sensor ridge deformed</li> <li>• Sensor or sensor connection faulty</li> <li>• Electrical effect:</li> <li>• Reach travel position does not have the reference value at the reference point (520 mm)</li> <li>• Reach travel position has reached the reference value of 520 mm but no reference signal</li> </ul>	<ul style="list-style-type: none"> <li>• Hydraulic functions are limited</li> <li>• No damping of the stop slide</li> </ul>	–	<ul style="list-style-type: none"> <li>• Pass the reference point 2x</li> <li>• Check the sensor setting</li> <li>• Inspect the sensor ridge for metallic foreign bodies and remove if necessary</li> <li>• Check the sensor signals</li> </ul>	(2)
A3422	Valid measured value is present but reach travel direction is implausible	<ul style="list-style-type: none"> <li>• Reach direction is opposite to the intended direction</li> </ul>	Hydraulic function reduced	Automatically if error status is resolved	<ul style="list-style-type: none"> <li>• Check the connections of the hydraulic hoses for correct assignment</li> <li>• Check the electrical connections of the slider valves</li> <li>• Check the wiring</li> </ul>	(2)
A3423	Valid measured value but reach speed too high	<ul style="list-style-type: none"> <li>• Reach travel sensor reports implausible values</li> <li>• Calculated reach speed does not match the setpoint value</li> </ul>	Hydraulic function reduced	Automatically if error status is resolved	<ul style="list-style-type: none"> <li>• Check the sensor setting</li> <li>• Check the pump parameterising</li> </ul>	(2)
A3424	<ul style="list-style-type: none"> <li>• Valid measured value but reach speed too low</li> <li>• Reach carriage stuck despite selection</li> </ul>	Up to RCU 0.30: No speed when deflecting if: <ul style="list-style-type: none"> <li>• Trigger setpoint value 30 -&gt; 60% for more than 1.2 seconds</li> <li>• Trigger setpoint value 61 -&gt; 80% for more than 0.6 seconds</li> <li>• Trigger setpoint value 81 -&gt; 100% for more than 0.3 seconds</li> </ul> Otherwise: <ul style="list-style-type: none"> <li>• Reach carriage stuck</li> <li>• Slow raising of the fork carriage without load in free lift with subsequent slide</li> </ul>	Hydraulic function reduced	Automatically if error status is resolved	<ul style="list-style-type: none"> <li>• Check the reach travel sensor and wiring</li> <li>• Check the joystick</li> <li>• Check the rev sensor</li> <li>• Check the pump output</li> <li>• Check the roll guide</li> <li>• Remove the cause of the blockage</li> </ul>	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
<b>A</b>	<b>Reach truck control unit (RCU)</b>					<b>(1) Error memory only (2) Error memory + display (3) Display only</b>
A3425	Valid measured value and lift direction implausible (calculated from height measurement)	Lifting/lowering movement contrary to the intended direction	Hydraulic function reduced	Automatically if error status is resolved	<ul style="list-style-type: none"> <li>• Check the lifting/lowering valves</li> <li>• Check the pump motor actuation</li> </ul>	(2)
A3426	Lifting speed is too high	Lift height sensor reports implausible values	Hydraulic function reduced	Automatically if error status is resolved	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> <li>• Replace the sensor</li> </ul>	(2)
A3427	Lifting speed is too slow	Vertical travel sensor reporting implausible values	Hydraulic function reduced	Automatically if error status is resolved	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> <li>• Replace the sensor</li> </ul>	(2)
A3430	DMS signal: value range exceeded	Vertical travel sensor reporting implausible values	Working hydraulics are locked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> <li>• Replace the sensor</li> </ul>	(2)
A3431	DMS filtered signal: value range invalid	–	Working hydraulics are locked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> <li>• Replace the sensor</li> </ul>	(2)
A3432	DMS: signal pattern gradient implausible	Sensor curve does not correspond to expectations (signal jumps)	Working hydraulics are disabled.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the DMS mounting</li> <li>• Check the wiring</li> <li>• Replace the DMS sensor</li> <li>• Lift mast bearing clearance too high</li> </ul>	(2)
A3433	DMS not responding/implausible	Sensor signal does not correspond to expectations (signal jumps/signal dropout)	Working hydraulics are disabled.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the DMS mounting</li> <li>• Check the wiring</li> <li>• Replace the DMS sensor</li> <li>• Lift mast bearing clearance too high</li> </ul>	(2)
A3434	DMS: sensor fault	–	Working hydraulics are disabled.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the DMS mounting</li> <li>• Check the wiring</li> <li>• Replace the DMS sensor</li> <li>• Lift mast bearing clearance too high</li> </ul>	(2)
A3440	Operator error during load measurement	<ul style="list-style-type: none"> <li>• Button pressed for more than 2 minutes</li> <li>• Short circuit in the wiring</li> </ul>	–	–	<ul style="list-style-type: none"> <li>• Release the button</li> <li>• Check the button</li> <li>• Check the wiring</li> </ul>	Hidden
A3441	Q-button permanently actuated	Q-button actuated > 2 min.	–	–	<ul style="list-style-type: none"> <li>• Operator error</li> <li>• Check the wiring</li> <li>• Replace the switch</li> </ul>	(2)
A3442	Push button for the transition shift centre position permanently actuated	<ul style="list-style-type: none"> <li>• Button pressed for more than 2 minutes</li> <li>• Short circuit in the wiring</li> </ul>	–	–	<ul style="list-style-type: none"> <li>• Release the button</li> <li>• Check the button</li> <li>• Check the wiring</li> </ul>	(2)
A3443	Push button for the tilt centre position permanently actuated	<ul style="list-style-type: none"> <li>• Button pressed for more than 2 minutes</li> <li>• Short circuit in the wiring</li> </ul>	–	–	<ul style="list-style-type: none"> <li>• Release the button</li> <li>• Check the button</li> <li>• Check the wiring</li> </ul>	(2)
A3500	Error during the calibration of the load measurement	Supply voltage of the RCU exceeded or not reached	Calibration aborted	–	<ul style="list-style-type: none"> <li>• Repeat the calibration</li> <li>• Check the wiring and sensor system</li> <li>• Replace the RCU</li> </ul>	(1)
A3563	Error during the calibration of the load measurement	<ul style="list-style-type: none"> <li>• Pressure value outside the permitted range</li> <li>• Error when writing to EEPROM</li> </ul>	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> <li>• Bleed the system</li> </ul>	(2)
A3501	Accelerator fault (collective fault)	<ul style="list-style-type: none"> <li>• Potentiometer voltage outside the permitted range</li> <li>• During calibration: error whilst writing to EEPROM</li> </ul>	Drive unit is disabled	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the accelerator</li> <li>• Check the wiring</li> <li>• Recalibrate the accelerator</li> <li>• Replace the RCU</li> </ul>	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A3504	Parameter error in dual-pedal accelerator	Calibration invalid	Drive unit is disabled	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the dual-pedal accelerator and wiring</li> <li>Switch the truck off/on and recalibrate the accelerator</li> <li>Reload the original parameters</li> </ul>	(2)
A3505	Parameter error in dual-pedal accelerator	<ul style="list-style-type: none"> <li>Potentiometer voltage outside the permitted range</li> <li>Error when writing to EEPROM</li> </ul>	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the dual-pedal accelerator and wiring</li> <li>Switch the truck off/on and recalibrate the accelerator</li> <li>Reload the original parameters</li> </ul>	(2)
A3506	Single-pedal accelerator error	Calibration invalid	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the single-pedal accelerator</li> <li>Check the wiring</li> <li>Recalibrate the zero position</li> <li>Reload the original parameters</li> </ul>	(1)
A3510	Brake sensor error	<p>A) During calibration:</p> <ul style="list-style-type: none"> <li>Potentiometer voltage outside the permitted range.</li> <li>Error when writing to EEPROM</li> </ul> <p>B) During system start-up</p> <ul style="list-style-type: none"> <li>Calibration invalid</li> </ul>	–	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the brake sensor</li> <li>Check the wiring</li> <li>Replace the RCU</li> </ul>	(1)
A3560	Error during calibration of the mast's vertical position	<p>A) During calibration</p> <ul style="list-style-type: none"> <li>Potentiometer voltage outside the permitted range</li> <li>Error when writing to EEPROM</li> </ul> <p>B) During system start-up</p> <ul style="list-style-type: none"> <li>Calibration invalid</li> </ul>	<ul style="list-style-type: none"> <li>Calibration is cancelled/invalid</li> <li>No end position damping during tilting</li> <li>Use of setpoint values for the zero position</li> </ul>	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the sensor</li> <li>Check the wiring</li> <li>Replace the RCU</li> </ul>	(2)
A3561	Error during calibration of the tilt sensor	<p>A) During calibration</p> <ul style="list-style-type: none"> <li>Potentiometer voltage outside the permitted range</li> <li>Error when writing to EEPROM</li> </ul> <p>B) During system start-up</p> <ul style="list-style-type: none"> <li>Calibration invalid</li> </ul>	–	Automatically if error is rectified	Check the sensors and wiring	(2)
A3562	Error during calibration of the reach valves	Calibration of the reach valves was not completed	–	–	Recalibrate the reach valves	(2)
A3563	Error during calibration of the load measurement	<ul style="list-style-type: none"> <li>Pressure measurement outside the permitted range</li> <li>Error when writing to EEPROM</li> </ul>	<ul style="list-style-type: none"> <li>Calibration is cancelled/invalid</li> <li>No load measurement</li> <li>No functions dependent on load measurement</li> </ul>	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the sensor</li> <li>Check the wiring</li> <li>Replace the RCU</li> </ul>	(2)
A3564	Error during calibration of the height measurement	Calibration of the height measurement was not completed	–	–	Recalibrate the height measurement	(2)
A3702	Internal processing error in the hour meter	No valid data set available for the hour meter	Hour meter reinitialises to 0	–	<ul style="list-style-type: none"> <li>Reset the operating hours</li> <li>Replace the RCU</li> </ul>	(1)
A3801	<ul style="list-style-type: none"> <li>Internal truck configuration error</li> <li>EEPROM data does not correspond to associated software</li> </ul>	Incorrect parameterising: truck type/truck geometry/lift mast type	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the truck configuration</li> <li>Check the parameterising</li> <li>Flash the truck software</li> </ul>	(2)
A3811	Internal process error in the accelerator	<ul style="list-style-type: none"> <li>Configuration of the accelerator and drive direction switch is invalid.</li> <li>Double pedal configured with 360° steering</li> </ul>	Truck will not drive, accelerator is ignored	Switch the truck off and on again/error has been rectified	<ul style="list-style-type: none"> <li>Check the accelerator parameterising</li> <li>Check drive direction parameterising</li> <li>Steering parameterising</li> </ul>	(2)
A3812	Internal error in drive programme parameters	Drive programme parameters are outside the permitted range	–	Switch the truck off and on again	Check the drive programme parameterising	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A3832	Internal process error in additional electrical installation	Plausibility monitoring has detected that the parameters of at least one additional electrical installation function have not been fully configured	–	Switch the truck off and on again	Check the parameterising of the additional electrical installations	(1)
A3840	Internal process error in CPP	Plausibility monitoring: • Multiple function blocks are using the same output channel • One function block is using a non-existent output channel • One output channel cannot be actuated (e.g. CPP not configured)	–	Switch the truck off and on again	• Check the function blocks • Check the CPP parameterising	(1)
A3861	Internal processing error in the joystick/fingertip switch setting	• Parameter error: joystick/fingertip switch parameters outside the defined range • Joystick/fingertip switch parameter points to own element (recursion)	–	Switch the truck off and on again	Check joystick/fingertip switch parameterising	(1)
A3862	Parameterisation error: input characteristic curves for setpoint device	Parameterisation error: input characteristic curves for setpoint device	–	Switch the truck off and on again	Check the setpoint device characteristic curve parameterising	(1)
A3863	Parameterisation error in the pump characteristic curve	• Parameterisation error: pump characteristic curves • Minimum or maximum pump speed exceeded or not reached	–	Switch the truck off and on again	• Check the pump/lift mast parameterising • Contact Service	(1)
A3864	Parameterisation error in the valve characteristic curve	Parameterisation error in valve characteristic curves	–	Switch the truck off and on again	Check the parameterisation of the valve characteristic curve	(1)
A3865	Parameterisation error in the valve regulator	Parameterisation error in valve regulator	–	Switch the truck off and on again	• Contact Service	(1)
A3867	Configuration. Proportional technology setpoint device	The configuration of the proportional technology setpoint device is not plausible	–	Switch the truck off and on again	• Contact Service	(1)
A3890	Internal processing error in the parameterising of the lift height measurement	Parameter limits exceeded	None	Switch the truck off and on again	Check the parameterising of the lift height detection	(1)
A3902	Steering does not communicate with the RCU when the truck is switched on	–	–	–	• Check the power supply to the steering • Check the CAN bus • Note other CAN error messages • Check whether steering is available using diagnostics • Load the basic parameters • Recalibrate • Replace the steering	(1)
A3907	Converter (traction) login error	No communication with converter (traction)	No contactor activation	Switch the truck off and on again	• Check the power supply • Check the CAN bus • Flash the truck software • Replace the converter • Replace the RCU	(1)
A3908	Converter (traction) login error	CP cannot send PDOs on time	Drive unit is locked, no drive function	Release the accelerator	• Check the power supply • Check the CAN bus • Flash the truck software • Replace the converter • Replace the RCU	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A3909	Converter (traction) login error	CP cannot receive PDOs on time	Drive unit is locked, no drive function	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the converter</li> <li>• Replace the RCU</li> </ul>	(1)
A3917	Converter (hydraulics) login error	No communication with converter (hydraulics)	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the converter</li> <li>• Replace the RCU</li> </ul>	(1)
A3918	Converter (hydraulics) login error	CP cannot send PDOs on time	Drive unit and hydraulic drive are blocked	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the converter</li> <li>• Replace the RCU</li> </ul>	(1)
A3919	Converter (hydraulics) login error	CP cannot receive PDOs on time	Drive unit and hydraulic drive are blocked	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the converter</li> <li>• Replace the RCU</li> </ul>	(1)
A3920	SDO communication faulty	Can occur when saving parameters	–	–	<ul style="list-style-type: none"> <li>• Save the parameters again</li> <li>• Check the CAN bus</li> </ul>	(1)
A3922	DISPLAY login error	No communication with DISPLAY	Drive unit is disabled, no drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the display</li> <li>• Replace the RCU</li> </ul>	(1)
A3923	DISPLAY login error	CP cannot send PDOs on time	Drive unit is disabled, no drive function	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the display</li> <li>• Replace the RCU</li> </ul>	(1)
A3924	DISPLAY login error	CP cannot receive PDOs on time	Drive unit is disabled, no drive function	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the display</li> <li>• Replace the RCU</li> </ul>	(1)
A3927	Operating device login error	No communication with joystick or single lever	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the operating device</li> <li>• Replace the RCU</li> </ul>	(1)
A3928	Joystick/fingertip switch login error	CP cannot send PDOs on time	Hydraulic drive is disabled	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3929	Joystick/fingertip switch login error	CP cannot receive PDOs on time	Hydraulic drive is disabled	Release the accelerator	<ul style="list-style-type: none"> <li>• Only appears when the truck is switched on</li> <li>• Undervoltage 13 V/third-party components connected to 13 V?</li> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A3942	CPP login error	No communication with CPP3	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the CPP</li> <li>• Replace the RCU</li> </ul>	(1)
A3943	CPP login error	CP cannot send PDOs on time	Electrical consumers are partially inactive	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software.</li> <li>• Replace the RCU</li> </ul>	(1)
A3944	CPP login error	CP cannot receive PDOs on time	Electrical consumers are partially inactive	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3967	FMID login error	No communication with card reader	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the FMID</li> <li>• Replace the RCU</li> </ul>	(1)
A3968	FMID login error	CP cannot send PDOs on time	Drive unit and hydraulic drive are blocked	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3969	FMID login error	CP cannot receive PDOs on time	Drive unit and hydraulic drive are blocked	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3972	Acceleration sensor login error	No communication with CAN	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3973	Acceleration sensor login error	CP cannot send PDOs on time	–	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3974	Acceleration sensor login error	CP cannot receive PDOs on time	–	Release the accelerator	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3977	Remote data transfer unit login error	No communication with remote data transfer component	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A3978	Remote data transfer unit login error	CP cannot send PDOs on time	None	Automatically if error is rectified	Check the CAN bus wiring if necessary	(1)
A3979	Remote data transfer unit login error	CP cannot receive PDOs on time	None	Automatically if error is rectified	Check the CAN bus wiring if necessary	(1)
A4170	Valve collective fault	One of the registered valves has a defective power supply when the truck is switched on	–	–	<ul style="list-style-type: none"> <li>• Read out the affected valve in the error memory</li> <li>• Valve plug slipped</li> <li>• Check the power supply to the valves</li> </ul>	(2)
A4200	PAN process not activated	PAN is switched off	None	–	Contact service to activate the PAN process	(1)
A4212	Compatibility error between RCU and converter (traction)	<ul style="list-style-type: none"> <li>• Communication error</li> <li>• Incompatible component</li> <li>• Faulty access to the EEPROM</li> </ul>	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Load the original parameters</li> <li>• Replace the RCU</li> <li>• Replace the converter</li> </ul>	(1)



Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A4213	RCU compatibility error <=> converter (drive): memory area not initialised	The RCU and converter (drive area) datasets are both invalid. Both controllers are new	Drive unit and hydraulic drive are blocked	–	<ul style="list-style-type: none"> <li>• Load the original parameters</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> <li>• Replace the converter</li> </ul>	(1)
A4222	Compatibility error between RCU and converter (hydraulics)	<ul style="list-style-type: none"> <li>• Communication error</li> <li>• Incompatible component</li> <li>• Faulty access to the EEPROM</li> </ul>	Drive unit and hydraulic drive are blocked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Load the original parameters</li> <li>• Replace the RCU</li> <li>• Replace the converter</li> </ul>	(1)
A4223	Compatibility error between RCU and converter (hydraulics)	The RCU and converter (drive area) datasets are both invalid. Both controllers are new	Drive unit and hydraulic drive are blocked	–	<ul style="list-style-type: none"> <li>• Load the original parameters.</li> <li>• Check the CAN bus</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> <li>• Replace the converter</li> </ul>	(1)
A4242	"RCU PIN code" parameter does not match "the converter PIN code parameter"	<ul style="list-style-type: none"> <li>• RCU and converter datasets [PIN code area] are different</li> <li>• Faulty access to the EEPROM</li> </ul>	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Start calibration of the parameters</li> <li>• Set and save the PIN code parameter</li> <li>• Note other error messages</li> <li>• Check the CAN bus wiring</li> <li>• Replace the RCU</li> <li>• Replace the converter</li> </ul>	(1)
A4243	The RCU parameters are different to the converter parameters, memory area not initialized	<ul style="list-style-type: none"> <li>• Both datasets are invalid</li> <li>• Both devices are installed as spare parts</li> </ul>	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reload the parameter set</li> <li>• Flash the truck software</li> </ul>	(1)
A4280	Internal RCU error	EEPROM error	None	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Start the calibration of the parameters between the converter and RCU</li> <li>• Flash the truck software</li> <li>• Replace the RCU</li> </ul>	(1)
A4522	CAN login, optical height sensor faulty	Height sensor does not report when the truck is switched on	–	–	<ul style="list-style-type: none"> <li>• Is the sensor installed?</li> <li>• Check the parameterising</li> <li>• Check the wiring</li> <li>• Replace the sensor</li> </ul>	(1)
A4524	Optical height sensor: login not OK	–	–	–	<ul style="list-style-type: none"> <li>• Is the sensor installed?</li> <li>• Check the parameterising</li> <li>• Check the wiring</li> <li>• Replace the sensor</li> </ul>	(1)
A5022	Traction motor overtemperature	Traction motor too hot	Drive unit power reduction	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the traction motor fan</li> <li>• Check the temperature sensor</li> <li>• Check the wiring</li> </ul>	(2)
A5031	Pump motor temperature error	Temperature outside the valid range	None	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> </ul>	(2)
A5034	Pump motor overtemperature	Pump motor too hot	Limitation of phase current in converter (emergency hydraulic function is retained)	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> </ul>	(2)
A5041	Traction motor temperature error	Temperature outside the valid range	None	Automatically if error is rectified	<ul style="list-style-type: none"> <li>• Check the sensor</li> <li>• Check the wiring</li> </ul>	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A5300	Drive converter overtemperature	Converter is too hot	Phase 1: Regulation of acceleration and speed Phase 2: Limitation of the phase current in the converter (emergency driving function is retained) Phase 2 should not be reached	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the converter fan</li> <li>Check the heat sink is clean</li> <li>Check the acceleration parameters</li> <li>Replace the converter</li> </ul>	(2)
A5301	Drive converter overtemperature	Temperature outside the valid range	None	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the converter fan</li> <li>Check the heat sink is clean</li> <li>Replace the converter</li> </ul>	(2)
A5361	Hydraulics converter overtemperature	Temperature outside the valid range	None	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the converter fan</li> <li>Check the heat sink is clean</li> <li>Replace the converter</li> </ul>	(2)
A5364	Hydraulics converter overtemperature	Temperature outside the valid range	Limitation of phase current in converter (emergency hydraulic function is retained)	Automatically if error is rectified	<ul style="list-style-type: none"> <li>Check the converter fan</li> <li>Check the heat sink is clean</li> <li>Replace the converter</li> </ul>	(2)
A6005	Buffer capacitor clock discharged	<ul style="list-style-type: none"> <li>Internal buffer capacitor of the RCU is discharged</li> <li>Truck was stored without a battery for a long time</li> </ul>	–	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Leave the truck switched on for 5 minutes</li> <li>Replace the RCU</li> </ul>	(1)
A6020	RFID: general collective fault	An error has occurred in the RFID module	Truck can only be driven at emergency mode speed	Switch the truck off and on again	Note other error messages	(2)
A6030	RFID: breakage to antenna	A breakage in the wire to the antenna was detected	Truck can only be driven at emergency mode speed	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the wire to the antenna</li> <li>Check the input configuration</li> </ul>	(1)
A6101	Internal safety relay (KSI) for K1 and brake sticking	Monitoring processor cannot open the safety relay	–	–	<ul style="list-style-type: none"> <li>Short circuit from 48 V to XA:30</li> <li>Short circuit from 48 V to XA:5</li> <li>Replace the RCU</li> </ul>	(1)
A6102	Internal safety relay: internal short circuit	Short to ground between the safety relay and MOSFETs	–	–	Replace the RCU	(1)
A6103	KSI output error	Power supply not at operating point (too high/too low)	–	–	Check the power supply	(1)
A6104	Internal safety relay KSI is sticking	Safety relay cannot be switched or safety relay is sticking	No main contactor	If fault corrected	<ul style="list-style-type: none"> <li>Short circuit from 48 V to XA:30</li> <li>Short circuit from 48 V to XA:5</li> <li>Measure the resistance between RCU XB1 and XA:30/XA:5</li> <li>Replace the RCU</li> </ul>	(1)
A6141	Strain gauge login error	CAN bus faulty	ALS system is not available	–	<ul style="list-style-type: none"> <li>Check the CAN bus</li> <li>Replace the DMS</li> </ul>	(1)
A6142	Strain gauge communication error	–	ALS system is not available	–	Check the CAN bus	(1)
A6421	FleetManager server not accessible for aligning the time	–	–	–	<ul style="list-style-type: none"> <li>Approach the area with reception</li> <li>Error in the GPRS module</li> </ul>	(1)
A6452	FleetManager server not accessible, no response	FleetManager server does not respond before timeout. Set to error after third unsuccessful attempt	–	Automatically if error is rectified	Have the communication server and FleetManager server checked to ensure they are functioning correctly	(1)
A6460	FleetManager error in driver table	The "Driver Table" file is defective: <ul style="list-style-type: none"> <li>CRC sum</li> <li>Truck serial number does not match</li> <li>No drivers</li> </ul>	–	–	Load new "Driver Table" file. See the FleetManager documentation	(1)
A6461	Write FMID/TDU EEPROM	Failed to write the EEPROM parameters.	–	–	–	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A6462	TDM data loss in remote data transfer unit main memory	1. TDM main memory overflow • Unable to send all data via remote data transfer. The oldest data was discarded 2. The internal memory management is in disarray • All data to be transmitted via remote data transfer will be deleted	–	–	Check the RCU buffer battery	(1)
A6463	TDM data loss in FMID main memory	1. TDM main memory overflow. Unable to send all data to the FMID. The oldest data was discarded 2. The internal memory management is in disarray • All data to be transmitted to the FMID will be deleted.	–	–	Check the RCU buffer battery	(1)
A6464	Data loss in TDM priority memory	1. TDM priority memory overflow • Unable to send all data via remote data transfer. The oldest data was discarded 2. The internal memory management is in disarray • All data to be transmitted via remote data transfer will be deleted.	–	–	Check the RCU buffer battery	(1)
A6513	Parking brake: breakdown	RCU cannot energise the brake	Drive unit active but does not accept the accelerator setpoint value	Switch the truck off and on again	• Check the wiring of RCU XA:5 to brake 1Y44 • Wiring of brake 1Y44 to RCU XA:20	(2)
A6514	Brake current measurement error	Measured brake current different to target current	–	–	• Check the power supply • Check the brake wiring • Check the coil resistance • Check the battery parameters • Check the battery voltage under load	(2)
A6515	Brake failure detection	Parking brake is applied whilst driving • Brake coil resistance has changed, e.g. due to heating • Battery undervoltage	Brake is automatically re-opened	–	• Check the coil resistance • Check the battery • Check the battery parameters • Restriction if "battery flat" is active? • Replace the brake	(1)
A6610	Fatal converter error (drive) [collective fault]	The converter is reporting a fatal error	Truck not ready for operation	Switch the truck off and on again	Note other error messages	(2)
A6612	Fatal converter error (hydraulics) [collective fault]	The converter is reporting a fatal error	No hydraulic function	Switch the truck off and on again	Note other error messages	(2)
A6710	ALS: Slight swinging 1	ALS function generates a slight swing	–	–	• Check the strain gauge • Calibrate the strain gauge • Bleed the reach cylinder • Calibrate the reach valves • Calibrate the load measurement • Check the hydraulic oil level	(1)
A6711	ALS: Slight swinging 2	ALS function generates a slight swing	–	–	• Check the strain gauge • Calibrate the strain gauge • Bleed the reach cylinder • Calibrate the reach valves • Calibrate the load measurement • Check the hydraulic oil level	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
A	Reach truck control unit (RCU)					(1) Error memory only (2) Error memory + display (3) Display only
A6712	ALS: Moderate swinging 1	ALS function generates a moderate swing	Working hydraulics are locked	Zero position for hydraulic operation	<ul style="list-style-type: none"> <li>• Check the strain gauge</li> <li>• Calibrate the strain gauge</li> <li>• Bleed the reach cylinder</li> <li>• Calibrate the reach valves</li> <li>• Calibrate the load measurement</li> <li>• Check the hydraulic oil level</li> </ul>	(1)
A6713	ALS: Moderate swinging 2	ALS function generates a moderate swing	Working hydraulics are locked	Zero position for hydraulic operation	<ul style="list-style-type: none"> <li>• Check the strain gauge</li> <li>• Calibrate the strain gauge</li> <li>• Bleed the reach cylinder</li> <li>• Calibrate the reach valves</li> <li>• Calibrate the load measurement</li> <li>• Check the hydraulic oil level</li> </ul>	(1)
A6714	ALS: Pronounced swinging 1	ALS function generates a pronounced swing	Working hydraulics are locked	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the strain gauge</li> <li>• Calibrate the strain gauge</li> <li>• Bleed the reach cylinder</li> <li>• Calibrate the reach valves</li> <li>• Calibrate the load measurement</li> <li>• Check the hydraulic oil level</li> </ul>	(2)
A6715	ALS: Pronounced swinging 2	ALS function generates a pronounced swing	Working hydraulics are disabled.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the strain gauge</li> <li>• Calibrate the strain gauge</li> <li>• Bleed the reach cylinder</li> <li>• Calibrate the reach valves</li> <li>• Calibrate the load measurement</li> <li>• Check the hydraulic oil level</li> </ul>	(2)
A6716	ALS: Swinging during movement	ALS response while the truck is in motion generates swinging	–	–	<ul style="list-style-type: none"> <li>• Check the strain gauge</li> <li>• Calibrate the strain gauge</li> <li>• Bleed the reach cylinder</li> <li>• Calibrate the reach valves</li> <li>• Calibrate the load measurement</li> <li>• Check the hydraulic oil level</li> </ul>	(2)
A6717	ALS: Activation error	–	Working hydraulics are disabled.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Flash the software &gt; 0.37</li> <li>• Check the ALS parameters</li> </ul>	(2)
A6718	ALS: Incorrect prefix	–	Working hydraulics are disabled.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the DMS signal</li> <li>• Calibrate DMS</li> <li>• Bleed the reach cylinder</li> </ul>	(2)
A6719	ALS: High phase lag	The effect in the truck does not correspond to the ALS reaction	Working hydraulics are disabled.	Zero position for hydraulic operation	<ul style="list-style-type: none"> <li>• Check the strain gauge</li> <li>• Calibrate the strain gauge</li> <li>• Bleed the reach cylinder</li> <li>• Calibrate the reach valves</li> <li>• Calibrate the load measurement</li> </ul>	(1)
A6720	Height preselection: Parameter error	<ul style="list-style-type: none"> <li>• Faulty parameterising of the cut-off limits</li> <li>• Height parameter greater than maximum lift height</li> </ul>	Lift height preselector not available	After reset	<ul style="list-style-type: none"> <li>• Check the parameters</li> </ul>	(1)
A6721	Height preselection: Collective fault	Sensors or hydraulics faulty/not available	Lift height preselector not available	After reset	<ul style="list-style-type: none"> <li>• Check the parameters</li> <li>• Check the sensors</li> <li>• Note other error messages</li> </ul>	(2)
A4170	General valve fault [collective fault]	–	–	–	<ul style="list-style-type: none"> <li>• Note other error messages</li> </ul>	(2)
A3902	Steering could not be registered.	–	–	–	<ul style="list-style-type: none"> <li>• Check the CAN bus</li> <li>• Check the power supply to the steering</li> <li>• Replace the steering</li> </ul>	(1)

## Converter (D, F)

The converter is a dual converter. The two areas ("Traction" and "Hydraulics") are covered by two error lists (D, F).

### Traction converter (D)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
D	<b>Converter (traction)</b>					(1) Error memory only (2) Error memory + display (3) Display only
D1201	Parameters cannot be read out	Parameter set cannot be read out (error message from EEPROM driver)	<ul style="list-style-type: none"> <li>No drive function</li> <li>No lifting function</li> </ul>	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Update the software</li> <li>Replace the hardware</li> </ul>	(1)
D1205	Parameter checksum not OK	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Reload the truck parameters</li> <li>Replace the converter</li> </ul>	(1)
D1206	Incorrect standard parameters loaded	An attempt was made to load a non-existent standard parameter set.	<ul style="list-style-type: none"> <li>Info</li> <li>Standard parameters are being used</li> </ul>	–	–	(1)
D1210	Checksum error	Checksum not OK after reading the EEPROM data	System operates using the default adjustment values	–	Replace the converter	(1)
D1460	RAM memory test [control processor]	Cyclical RAM memory test: RAM cell faulty	Fatal error status	Switch the truck off and on again	Replace the converter	(1)
D1461	ROM memory test [control processor]	Flash cell faulty	Fatal error status	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Flash the truck</li> <li>Replace the converter</li> </ul>	(1)
D1462	RAM memory test [monitoring processor]	Cyclical RAM memory test: RAM cell faulty	Fatal error status	Switch the truck off and on again	Replace the converter	(1)
D1463	ROM memory test [monitoring processor]	Cyclical ROM memory test. Flash cell faulty	Fatal error status	Switch the truck off and on again	Replace the converter	(1)
D2011	Current sensor error	–	Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the power supply to the converter</li> <li>Replace the converter</li> </ul>	(1)
D2012	Current sensor offset	Current sensor offset: alignment returns implausible values	Error status	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Frequent occurrence: replace the converter</li> </ul>	(1)
D2121	Invalid parameter combination [collective fault]	Two EDA parameters for selecting the motor type are not identical	Converter reports an error status and is not operable. Failure of the drive function or lift function.	Load the parameter set then switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameters</li> </ul>	(1)
D2204	Internal power supply [5 V] too low	Error in voltage regulator	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Replace the converter</li> </ul>	(1)
D2205	Internal power supply [5 V] too high	Error in voltage regulator	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Replace the converter</li> </ul>	(1)
D2214	Internal power supply [12 V] too low	<ul style="list-style-type: none"> <li>Error in the voltage regulator</li> <li>Short circuit to external components</li> </ul>	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check that there is not a short circuit between the power supply wire to the rev sensors and the 0 V wire to the rev sensors (U6 X1:23 / U6 X1:29)</li> <li>Check the rev sensors</li> <li>Replace the converter</li> </ul>	(1)
D2215	Internal power supply [12 V] too high	<ul style="list-style-type: none"> <li>Error in the voltage regulator</li> <li>External supply from external power sources</li> <li>Short circuit to external components</li> </ul>	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the power supply of the rev sensors for short circuit at 13 V/48 V voltage (U6 X1:23 / U6 X1:29)</li> <li>Check the rev sensors</li> <li>Replace the converter</li> </ul>	(1)
D2219	Internal power supply [15 V] too low	Error in voltage regulator	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the power supply of the temperature sensors for short circuit at 0 V/13 V [U6 X1:12 / X1:25]</li> <li>Replace the converter</li> </ul>	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
D	<b>Converter (traction)</b>					(1) Error memory only (2) Error memory + display (3) Display only
D2220	Internal power supply [15 V] too high	Error in voltage regulator	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply of the temperature sensors for short circuit at 48 V [U6 X1:12 / X1:25]</li> <li>• Replace the converter</li> </ul>	(1)
D2292	Supply voltage in the intermediate circuit too low	Battery voltage too low	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the battery voltage</li> <li>• Check the battery male connector</li> <li>• Battery power connection</li> <li>• Check the converter</li> <li>• Check the emergency off switch</li> <li>• Replace the converter</li> </ul>	(1)
D2293	Supply voltage in the intermediate circuit too high	Intermediate circuit voltage too high	No drive function	Switch the truck off and on again	Supply voltage in the intermediate circuit too high	(1)
D2296	Supply voltage in the intermediate circuit too high	–	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the battery</li> <li>• Battery power connection</li> <li>• Check the converter</li> <li>• Check the converter</li> <li>• Replace the converter</li> </ul>	(1)
D2500	General driver error	Release switch faulty	No drive function	Switch the truck off and on again	Replace the converter	(1)
D2501	General driver error	Power module not working	No drive function	Switch the truck off and on again	If this occurs frequently: replace the converter	(1)
D2801	Monitoring: safety-related process 1	CAN PDO1 RX message is received by both processors. This error is set if the two sets of data content differ from one another or if the reception timeout has elapsed	Converter is blocked	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the converter configuration/parameters</li> <li>• Check the CAN bus</li> </ul>	(2)
D2802	Monitoring: safety-related process 2	CAN PDO1 TX message is received from the other processor and compared with the transmitted data. This error is set if the two sets of data content differ from one another or if the reception timeout has elapsed	Converter is blocked	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the converter configuration/parameters</li> <li>• Check the CAN bus</li> </ul>	(2)
D2803	5-V power supply not OK	Monitoring of the power supply [5 V] in the processors returns different voltage values	No drive function	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
D2804	Speed monitoring reports an error	Monitoring of the speeds in the processors returns different speed values	No drive function	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
D2805	Speed monitoring reports an error	The motor is activated but the impulse transmitter does not deliver any signals	No drive function No lifting	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
D2806	Speed monitoring reports an error	The processors return different speeds from the traction motor	No drive function No lifting	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
D2807	Speed monitoring reports an error	Excessive torque leads to the specified speed being exceeded	No drive function No lifting	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
D2808	Torque monitoring reports an error	Torque acts in the incorrect direction	No drive function No lifting	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
D	<b>Converter (traction)</b>					(1) Error memory only (2) Error memory + display (3) Display only
D2809	Torque monitoring reports an error	Torque too high	No drive function No lifting	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
D2810	Speed monitoring reports an error	Calculation of speed settings in both processors returns different values	No drive function No lifting	Set the accelerator to the zero position when the truck is stationary	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Flash the truck</li> <li>• Replace the converter</li> </ul>	(2)
D2901	RN1: General error, serial IF 1	Waiting for other SSC participants is taking too long. Node allocation for the other processor unsuccessful	None	–	–	(1)
D2903	Internal communication error	Communication error between the two processors	No drive function No lifting	Restart, reset	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Flash the truck</li> <li>• Replace the converter</li> </ul>	(1)
D2916	Internal communication error	Communication error between the two processors	No drive function No lifting	Restart, reset	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Flash the truck</li> <li>• Replace the converter</li> </ul>	(1)
D3702	Hour meter error	Hour meter was set to 0 internally	–	–	<ul style="list-style-type: none"> <li>• Reset the operating hours</li> <li>• Replace the converter</li> </ul>	(1)
D3903	Emergency stop message cannot be sent	<ul style="list-style-type: none"> <li>• CAN bus error</li> <li>• Error status was sent to the RCU but not received by the RCU</li> </ul>	An emergency message is sent. Converter is not operable. Failure of the drive function or lift function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Note other error messages</li> <li>• Check the CAN bus</li> <li>• Replace the converter</li> </ul>	(1)
D3904	Emergency stop message cannot be sent	<ul style="list-style-type: none"> <li>• CAN bus error</li> <li>• Error status was sent to the RCU but not received by the RCU</li> </ul>	An emergency message is sent. Converter is not operable. Failure of the drive function or lift function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Note other error messages</li> <li>• Check the CAN bus</li> <li>• Replace the converter</li> </ul>	(1)
D5054	Traction motor overtemperature	Traction motor too hot	<ul style="list-style-type: none"> <li>• Save the error</li> <li>• Converter function: no limitation</li> </ul>	–	<ul style="list-style-type: none"> <li>• Check the wiring of the temperature sensor</li> <li>• Check the traction motor temperature sensor</li> <li>• Replace the converter</li> </ul>	(1)
D5056	Error in the rev sensor power supply	Rev sensor breakdown	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the wiring of the traction motor rev sensor</li> <li>• Check the rev sensor</li> <li>• Replace the converter</li> </ul>	(1)
D5060	Rev counting signal error	Impulses were lost (rev sensor faulty)	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the wiring of the traction motor rev sensor</li> <li>• Check the rev sensor</li> <li>• Replace the converter</li> </ul>	(1)
D5063	Impulse transmitter signal loss	Impulse transmitter sporadically delivers no signals	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the wiring of the traction motor rev sensor</li> <li>• Check the rev sensor</li> <li>• Replace the converter</li> </ul>	(1)
D6066	Converter [driving] has excess current	Converter [driving] has been shut down due to excess current	No drive function	Via CAN	<ul style="list-style-type: none"> <li>• Check the wiring of the traction motor rev sensor</li> <li>• Check the rev sensor</li> <li>• Replace the converter</li> </ul>	(1)
D6083	Converter [driving] overtemperature	The temperature in the converter [driving] is too high	No drive function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the fan function</li> <li>• Check the air ducts</li> <li>• Check the acceleration settings</li> <li>• Check the truck for permitted use</li> </ul>	(1)
D6105	Driver supply power card is faulty	Driver supply voltage on power card faulty	No drive function	Switch the truck off and on again	Replace the converter	(1)
D6123	Data exchange between the processors is incorrect when the truck is switched on	Communication error or incompatible software versions on the processors	No drive function	Restart, reset	<ul style="list-style-type: none"> <li>• Switch the truck off and on again</li> <li>• Flash the truck</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
D	<b>Converter (traction)</b>					(1) Error memory only (2) Error memory + display (3) Display only
D6124	Incorrect reconciliation data	Reconciliation data was configured incorrectly	Error status	Configure the reconciliation data correctly	Configure the reconciliation data correctly	(1)
D6134	Data exchange between the processors is incorrect when the truck is switched on	Communication error or incompatible software versions on the processors.	Fatal error status	Restart, reset	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Flash the truck</li> <li>Reload the parameters</li> <li>Replace the converter</li> </ul>	(1)

## Hydraulic converter (F)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
F	<b>Converter (hydraulic)</b>					(1) Error memory only (2) Error memory + display (3) Display only
F1201	Parameter read errors	Parameter set cannot be read out (error message from EEPROM driver)	No drive function No lifting	Restart, reset	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Flash the truck</li> <li>Reload the parameters</li> <li>Replace the converter</li> </ul>	(1)
F1205	Parameter checksum not OK	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Reload the truck parameters</li> <li>Replace the converter</li> </ul>	(1)
F1206	Incorrect standard parameters loaded	An attempt was made to load a non-existent default parameter set.	<ul style="list-style-type: none"> <li>Info</li> <li>Standard parameters are being used</li> </ul>	–	–	(1)
F1210	Checksum error	Checksum not OK after reading the EEPROM data	System operates using the default adjustment values	–	Replace the converter	(1)
F1460	RAM memory test [control processor]	Cyclical RAM memory test: RAM cell faulty	Fatal error status	Switch the truck off and on again	Replace the converter	(1)
F1461	ROM memory test [control processor]	Flash cell faulty	Fatal error status	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Flash the truck</li> <li>Replace the converter</li> </ul>	(1)
F1462	RAM memory test [monitoring processor]	Cyclical RAM memory test: RAM cell faulty	Fatal error status	Switch the truck off and on again	Replace the converter	(1)
F1463	ROM memory test [monitoring processor]	Cyclical ROM memory test. Flash cell faulty	Fatal error status	Switch the truck off and on again	Replace the converter	(1)
F2011	Current sensor error	–	Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the power supply to the converter</li> <li>Replace the converter</li> </ul>	(1)
F2012	Current sensor offset	Reconciliation of current sensor offset provides implausible values	Error status	Restart	<ul style="list-style-type: none"> <li>Frequent occurrence: replace the converter</li> </ul>	(1)
F2121	Invalid parameter combination [collective fault]	Two EDA parameters for selecting the motor type are not identical	Converter reports an error status and is not operable. Failure of the drive function or lift function.	Load the parameter set then switch the truck off and on again	<ul style="list-style-type: none"> <li>Reload the parameters</li> </ul>	(1)
F2204	Internal power supply [5 V] too low	Error in voltage regulator	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Replace the converter</li> </ul>	(1)
F2205	Internal power supply [5 V] too high	Error in voltage regulator	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Switch the truck off and on again</li> <li>Replace the converter</li> </ul>	(1)
F2214	Internal power supply [12 V] too low	<ul style="list-style-type: none"> <li>Error in the voltage regulator</li> <li>Short circuit to external components</li> </ul>	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the power supply of the rev sensors for short circuit at 13 V/48 V voltage (U6 X1:23 / U6 X1:29)</li> <li>Check the rev sensors</li> <li>Replace the converter</li> </ul>	(1)



Error	Description	Cause	Response	Acknowledgement	Remedy	Display
F	<b>Converter (hydraulic)</b>					(1) Error memory only (2) Error memory + display (3) Display only
F2215	Internal power supply [12 V] too high	<ul style="list-style-type: none"> <li>• Error in the voltage regulator</li> <li>• External supply from external power sources</li> <li>• Short circuit to external components</li> </ul>	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply of the rev sensors for short circuit at 13 V/48 V voltage (U6 X1:23 / U6 X1:29)</li> <li>• Check the rev sensors</li> <li>• Replace the converter</li> </ul>	(1)
F2219	Internal power supply [15 V] too low	Error in voltage regulator	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply of the temperature sensors for short circuit at 0 V/13 V [U6 X1:12 / X1:25]</li> <li>• Replace the converter</li> </ul>	(1)
F2220	Internal power supply [15 V] too high	Error in voltage regulator	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply of the temperature sensors for short circuit at 48 V [U6 X1:12 / X1:25]</li> <li>• Replace the converter</li> </ul>	(1)
F2292	<ul style="list-style-type: none"> <li>• Supply voltage in the intermediate circuit too low</li> </ul>	Battery voltage too low	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the battery voltage</li> <li>• Check the battery male connector</li> <li>• Battery power connection</li> <li>• Check the converter</li> <li>• Check the emergency off switch</li> <li>• Replace the converter</li> </ul>	(1)
F2293	<ul style="list-style-type: none"> <li>• Supply voltage in the intermediate circuit too high</li> </ul>	Intermediate circuit voltage too high	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Supply voltage in the intermediate circuit too high</li> </ul>	(1)
F2296	<ul style="list-style-type: none"> <li>• Supply voltage in the intermediate circuit too high</li> </ul>	-	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the battery</li> <li>• Battery power connection</li> <li>• Check the converter</li> <li>• Check the converter</li> <li>• Replace the converter</li> </ul>	(1)
F2500	General driver error	Enable switch faulty	No lifting	Switch the truck off and on again	Replace the converter	(1)
F2501	General driver error	Power module not working	No lifting	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• If this occurs frequently: replace the converter</li> </ul>	(1)
F2801	Monitoring: safety-related process 1	CAN PDO1 RX message is received by both processors. This error is set if the two sets of data content differ from one another or if the reception timeout has elapsed	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>• Check the converter configuration/parameters</li> <li>• Check the CAN bus</li> </ul>	(2)
F2802	Monitoring: safety-related process 2	CAN PDO1 TX message is received from the other processor and compared with the transmitted data. This error is set if the two sets of data content differ from one another or if the reception timeout has elapsed	Converter is blocked	With the accelerator edge, when the truck is stationary	<ul style="list-style-type: none"> <li>• Check the converter configuration/parameters</li> <li>• Check the CAN bus</li> </ul>	(2)
F2803	5-V power supply not OK	Monitoring of the power supply [5 V] in the processors returns different voltage values	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
F2804	Speed monitoring reports an error	Monitoring of the speeds in the processors returns different speed values	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
F2805	Speed monitoring reports an error	The motor is activated but the impulse transmitter does not deliver any signals	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)
F2806	Speed monitoring reports an error	The processors return different speeds from the traction motor	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>• Check the wiring of the impulse transmitter on the traction motor</li> <li>• Check the drive impulse transmitter</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
F	<b>Converter (hydraulic)</b>					(1) Error memory only (2) Error memory + display (3) Display only
F2807	Speed monitoring reports an error	<ul style="list-style-type: none"> <li>Excessive torque leads to the specified speed being exceeded</li> </ul>	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>Check the wiring of the impulse transmitter on the traction motor</li> <li>Check the drive impulse transmitter</li> <li>Reload the parameters</li> <li>Replace the converter</li> </ul>	(2)
F2808	Torque monitoring reports an error	Torque acts in the incorrect direction	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>Check the wiring of the impulse transmitter on the traction motor</li> <li>Check the drive impulse transmitter</li> <li>Reload the parameters</li> <li>Replace the converter</li> </ul>	(2)
F2809	Torque monitoring reports an error	Torque too high	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>Check the wiring of the impulse transmitter on the traction motor</li> <li>Check the drive impulse transmitter</li> <li>Reload the parameters</li> <li>Replace the converter</li> </ul>	(2)
F2810	Speed monitoring reports an error	Calculation of speed settings in both processors returns different values	Converter is blocked	With the accelerator in the zero position and the truck stationary	<ul style="list-style-type: none"> <li>Reload the parameters</li> <li>Flash the truck</li> <li>Replace the converter</li> </ul>	(2)
F2901	RN1: General error, serial IF 1	Wait for other SSC participants taking too long. Node allocation for the other processor potentially unsuccessful.	None	–	–	(1)
F2903	Internal communication error	Communication error between the two processors	Fatal error status	Restart, reset	<ul style="list-style-type: none"> <li>Reload the parameters</li> <li>Flash the truck</li> <li>Replace the converter</li> </ul>	(1)
F2916	Internal communication error	Communication error between the two processors	Fatal error status	Restart, reset	<ul style="list-style-type: none"> <li>Reload the parameters</li> <li>Flash the truck</li> <li>Replace the converter</li> </ul>	(1)
F3702	Hour meter error	Hour meter was set to 0 internally	–	–	<ul style="list-style-type: none"> <li>Reset the operating hours</li> <li>Replace the converter</li> </ul>	(1)
F3903	Emergency stop message cannot be sent	<ul style="list-style-type: none"> <li>CAN bus error</li> <li>Error status was sent to the RCU but not received by the RCU</li> </ul>	An emergency message is sent. Converter is not operable. Failure of the drive function or lift function	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Note other error messages</li> <li>Check the CAN bus</li> <li>Replace the converter</li> </ul>	(1)
F3904	Emergency stop message cannot be sent	<ul style="list-style-type: none"> <li>CAN bus error</li> <li>Error status was sent to the RCU but not received by the RCU</li> </ul>	An emergency message is sent. Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Note other error messages</li> <li>Check the CAN bus</li> <li>Replace the converter</li> </ul>	(1)
F5054	Hydraulic motor overtemperature	Hydraulic motor too hot	Error logged; no restriction to converter function	Not necessary	<ul style="list-style-type: none"> <li>Check the wiring of the temperature sensor on the hydraulic motor</li> <li>Check the hydraulic motor temperature sensor</li> <li>Replace the converter</li> </ul>	(1)
F5056	Error in the rev sensor power supply	Rev sensor breakdown	Fatal error. Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the wiring of the traction motor rev sensor</li> <li>Check the rev sensor</li> <li>Replace the converter</li> </ul>	(1)
F5060	Rev counting signal error	Pulses lost (rev sensor faulty).	Fatal error. Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the wiring of the traction motor rev sensor</li> <li>Check the rev sensor</li> <li>Replace the converter</li> </ul>	(1)
F5063	Impulse transmitter signal loss	Impulse transmitter sporadically delivers no signals	Fatal error. Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the wiring of the traction motor rev sensor</li> <li>Check the rev sensor</li> <li>Replace the converter</li> </ul>	(1)
F6066	Converter [hydraulics] has excess current	Converter [hydraulics] has been shut down due to excess current	Error status	Via CAN	–	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
F	<b>Converter (hydraulic)</b>					(1) Error memory only (2) Error memory + display (3) Display only
F6083	Converter [hydraulics] overtemperature	The temperature in the converter [hydraulics] is too high	Fatal error. Converter is not operable. Failure of the drive function or lift function.	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the fan function</li> <li>• Check the air ducts</li> <li>• Check the acceleration settings</li> <li>• Check the truck for permitted use</li> </ul>	(1)
F6105	Driver supply voltage on power card	Driver supply voltage on power card faulty	Fatal error. Converter is not operable. Drive function failure.	Switch the truck off and on again	Replace the converter	(1)
F6123	Data exchange between the processors is incorrect when the truck is switched on	Communication error or incompatible software versions on the processors.	Fatal error status	Restart, reset	<ul style="list-style-type: none"> <li>• Switch the truck off/on</li> <li>• Flash the truck</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(1)
F6124	Incorrect reconciliation data	Reconciliation data was configured incorrectly	Error status	Configure the reconciliation data correctly	Configure the reconciliation data correctly	(1)
F6134	Data exchange between the processors is incorrect when the truck is switched on	Communication error or incompatible software versions on the processors.	Fatal error status	Restart, reset	<ul style="list-style-type: none"> <li>• Switch the truck off/on</li> <li>• Flash the truck</li> <li>• Reload the parameters</li> <li>• Replace the converter</li> </ul>	(1)

## Error list

## Card reader (G)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
<b>G</b>	<b>Card reader</b>					(1) Error memory only (2) Error memory + display (3) Display only
G1201	Parameters cannot be read out	Parameter set cannot be read out (error message from EEPROM driver)	System operates using the default parameters	–	–	(1)
G1205	Checksum for parameter range	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	Delete and then reload the parameter set	(1)
G1206	Default parameters activated	No consistent EEPROM data set available	Main contactor cannot be activated for safety reasons	–	Delete and then reload the parameter set	(1)
G1210	Checksum adjustment values faulty	Checksum not OK after reading the EEPROM data	System operates using the default adjustment values	–	Replace the card reader	(1)
G1211	Default adjustment values activated	No consistent EEPROM data set available	System operates using the default parameters	–	Replace the card reader	(1)
G2140	Incompatible operating mode	The "FleetManager" operating mode selected by the truck control unit is not compatible with the hardware configured in the FMID	Card reader or PIN reader does not work	–	Check FleetManager and/or the TDM configuration. Install the appropriate FMID if necessary	(1)
G2242	External short circuit 13 V	Dip in power supply	–	–	Check the wiring	(1)
G2635	Internal error	Internal communication with the RFID module could not be established	Card reader reports an error status, signalled via the red LED	–	<ul style="list-style-type: none"> <li>• Switch the truck off/on</li> <li>• If the error persists, replace the component</li> </ul>	(1)
G6410	Internal error	RFID module is missing or is not connected	Card reader reports an error status, signalled via the red LED	–	<ul style="list-style-type: none"> <li>• Switch the truck off/on</li> <li>• If the error persists, replace the component</li> </ul>	(1)
G6411	CAN communication error	CAN bus messages received at irregular intervals	None	–	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Check the CAN bus</li> <li>• Replace the card reader</li> </ul>	(1)

## Joystick 4Plus/fingertips (I)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
I	<b>Joystick 4 Plus/fingertips</b>					(1) Error memory only (2) Error memory + display (3) Display only
11201	Internal error	Parameter set cannot be read out (error message from EEPROM driver)	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>• Switch the truck off and on again</li> <li>• Replace the component</li> </ul>	(1)
11205	Internal error	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>• Flash the controller</li> <li>• Replace the component</li> </ul>	(1)
11206	Default parameters activated	No consistent EEPROM data set available	Main contactor cannot be activated for safety reasons	–	<ul style="list-style-type: none"> <li>• Flash the controller</li> <li>• Replace the component</li> </ul>	(1)
11210	Checksum adjustment values faulty	Checksum not OK after reading the EEPROM data	System operates using the default adjustment values	–	<ul style="list-style-type: none"> <li>• Replace the component</li> </ul>	(1)
11211	Default adjustment values activated	No consistent EEPROM data set available	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>• Replace the component</li> </ul>	(1)
11216	Default calibration values activated	Error during the EEPROM parameter transfer	Controlled via the error " Default parameters activated"	–	<ul style="list-style-type: none"> <li>• Switch the truck off and on again</li> <li>• Check the CAN communication</li> <li>• Replace the component</li> </ul>	(1)
11217	Checksum for the EEPROM back-up copy	Checksum for the back-up copy not OK after reading the EEPROM data	Write back-up copy using CP parameter set	–	–	(1)
11230	Checksum parameter faulty	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>• Flash the controller</li> <li>• Replace the component</li> </ul>	(1)
11231	Parameter faulty	No consistent EEPROM data set available	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>• Flash the controller</li> <li>• Replace the component</li> </ul>	(1)
11322	RN1: CAN controller node B BusOff	–	–	–	–	(1)
11352	MP: CAN controller node B BusOff	–	–	–	–	(1)
11401	Memory test not OK	Faulty memory cell detected	Drive unit and hydraulic drive blocked	–	Replace the control unit	(2)
11405	RN1: DPRAM parity error	–	–	–	–	(1)
11431	Memory test not OK	Faulty memory cell detected	Drive unit and hydraulic drive blocked	–	Replace the control unit	(2)
11435	Memory test not OK	–	–	–	Replace the control unit	(1)
12120	Invalid hardware coding	Drive direction switch connection implausible	Operation is not possible	–	–	(2)
12125	MP: Invalid hardware coding	Drive direction switch connection implausible	Operation is not possible	–	–	(2)
12270	Internal intermediate voltage too high	Joystick 4Plus internal fault	Only zero setpoint values are issued.	–	–	(1)
12270	Internal intermediate voltage too high	Joystick 4Plus internal fault	Only zero setpoint values are issued.	–	–	(1)
12271	Internal intermediate voltage too low	Joystick 4Plus internal fault	Only zero setpoint values are issued.	–	–	(1)
12271	Internal intermediate voltage too low	Joystick 4Plus internal fault	Only zero setpoint values are issued.	–	–	(1)
12625	CAN setpoint values implausible	The setpoint values in the CAN setpoint value telegram received by the parallel computer differ from the actual setpoint values	No hydraulic function	–	<ul style="list-style-type: none"> <li>• Check the CAN bus</li> <li>• Replace the component</li> </ul>	(1)
12626	CAN setpoint values implausible	The setpoint values in the CAN setpoint value telegram received by the parallel computer differ from the actual setpoint values	No hydraulic function	–	<ul style="list-style-type: none"> <li>• Check the CAN bus</li> <li>• Replace the component</li> </ul>	(1)
12902	Controller run-up faulty	Synchronous serial interface could not be initialised.	No contactor activation	Switch the truck off and on again	Replace the operating device	(1)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
I	<b>Joystick 4 Plus/fingertips</b>					(1) Error memory only (2) Error memory + display (3) Display only
I2903	RN1: control processor - monitoring processor (transmission error) IF 1	Synchronous serial interface cannot send or receive	Reset	–	Replace the operating device	(1)
I2904	RN1: control processor - monitoring processor (reception error) IF 1	Checksum or watchdog error	Reset	–	Replace the operating device	(1)
I2912	MP: login and run-up IF 1	Synchronous serial interface could not be initialised.	No contactor activation	Switch the truck off and on again	Replace the operating device	(1)
I2913	MP: control processor - monitoring processor (transmission error) IF 1	Synchronous serial interface cannot send or receive	Reset	–	Replace the operating device	(1)
I2914	MP: control processor - monitoring processor (reception error) IF 1	Checksum or watchdog error	Reset	–	Replace the operating device	(1)
I3022	RN1: drive direction switch	The digital drive direction switch is delivering implausible data	–	–	–	(1)
I3023	MP: drive direction switch	The digital drive direction switch is delivering implausible data	–	–	–	(1)
I3150	Fifth function plausibility	Switch is reporting an error	–	–	Replace the fingertip switch	(1)
I3155	MP: fifth function plausibility	Switch is reporting an error	–	–	Replace the fingertip switch	(1)
I3171	Lever 1 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3172	Lever 2 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3173	Lever 3 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3174	Lever 4 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3175	MP: Lever 1 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3176	MP: Lever 2 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3177	MP: Lever 3 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3178	MP: Lever 4 error	Signal processing error	–	–	Recalibrate levers, replace fingertip switch/fingertip switch if necessary	(1)
I3179	Lever: no zero position during start-up	Lever zero position not detected during start-up	–	–	Replace the joystick	(1)
I3179	Lever: no zero position during start-up	Lever zero position not detected during start-up	–	–	Replace the joystick	(1)
I3304	Drive direction switch monitoring system	Drive direction switch monitoring system	–	–	Replace the fingertip switch	(1)
I3306	F button error	Switch is reporting an error	–	–	Replace the fingertip switch	(1)
I3306	F button error	Switch is reporting an error	–	–	Replace the fingertip switch	(1)
I3308	Clamping function LED error	LED is not activated	–	–	<ul style="list-style-type: none"> <li>• Does the LED light up briefly when the truck is switched on?</li> <li>• Replace the joystick</li> </ul>	(1)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
I	<b>Joystick 4 Plus/fingertips</b>					(1) Error memory only (2) Error memory + display (3) Display only
I3314	MP: Drive direction switch monitoring system	Drive direction switch monitoring system	–	–	Replace the fingertip switch	(1)
I3702	Joystick/fingertip switch hour meter	No valid dataset available for the hour meter	Hour meter reinitialises to 0	–	Replace the operating device	(1)
I4490	Internal data synchronisation faulty	Error while reconciling the CANopen data between the two processors	The unit sends reliable values and goes into pre-operational mode	–	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Replace the component</li> </ul>	(1)
I4491	Internal data synchronisation faulty	Error while reconciling the CANopen data between the two processors	The unit sends reliable values and goes into pre-operational mode	–	<ul style="list-style-type: none"> <li>• Check the CAN bus wiring</li> <li>• Replace the component</li> </ul>	(1)

## Error list

## Display and operating unit (J)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
J	Display and operating unit					(1) Error memory only (2) Error memory + display (3) Display only
J1201	Parameters cannot be read	Parameter set cannot be read out (error message from EEPROM driver)	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Flash the controller</li> <li>Replace the controller</li> </ul>	(1)
J1205	Internal process error	Checksum not OK after reading the EEPROM data	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Flash the controller</li> <li>Replace the controller</li> </ul>	(1)
J1206	Internal process error	No consistent EEPROM data set available	The main contactor cannot be switched on for safety reasons	–	<ul style="list-style-type: none"> <li>Flash the controller</li> <li>Replace the controller</li> </ul>	(1)
J1210	Internal process error	Checksum not OK after reading the EEPROM data	System is using the default adjustment values	–	<ul style="list-style-type: none"> <li>Replace the controller</li> </ul>	(1)
J1211	Internal process error	No consistent EEPROM data set available	System operates using the default parameters	–	<ul style="list-style-type: none"> <li>Replace the controller</li> </ul>	(1)
J2421	Card reader DISPLAY error	Communication interrupted	–	–	Insert the card; replace the DISPLAY if necessary	(1)
J2422	Card reader DISPLAY error	Card did not respond in specified time	–	–	Insert the card; replace the DISPLAY if necessary	(1)
J2423	Card reader DISPLAY error	–	–	–	Insert the card; replace the DISPLAY if necessary	(1)
J3902	–	–	–	–	–	(1)
J3907	Converter (traction) login error	No communication with converter (traction)	No contactor activation	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the CAN bus wiring</li> <li>Check the CAN bus</li> <li>Flash the truck software</li> </ul>	(1)
J3908	Login error	CP cannot receive PDOs on time	None	–	<ul style="list-style-type: none"> <li>Check the CAN bus wiring</li> <li>Check the CAN bus.</li> <li>Flash the truck software. Replace the DISPLAY.</li> </ul>	(1)
J6060	Internal process error	No current in at least one of the drive direction LEDs	Fatal PDO error sent to the control unit. This then switches off the drive unit	Restart the truck	Replace the DISPLAY	(1)



## Battery controller (S)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
<b>S</b>	<b>Battery controller</b>					<b>(1) Error memory only (2) Error memory + display (3) Display only</b>
S3601	Traction battery error	Battery controller sends "General error" status	None	–	Check the traction battery and battery controller	(2)
S3631	Traction battery deep-discharged	Battery controller sends "Battery deep-discharged" status	None	–	Check the traction battery and battery controller	(2)
S3632	Traction battery overtemperature	Battery controller sends "Battery temperature too high" status	None	–	Check the traction battery and battery controller	(2)

## Error list

## Electric steering (Z)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
<b>Z</b>	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0200	Internal error	-	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Note other error messages</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0201	Internal error	-	-	Switch the truck off and on again		(2)
Z0202	Internal error	-	-	Switch the truck off and on again		(2)
Z0203	Internal error	-	-	Switch the truck off and on again		(2)
Z0204	Internal error	-	-	Switch the truck off and on again		(2)
Z0205	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)
Z0206	Internal error	-	-	Switch the truck off and on again		(2)
Z0207	Internal error	-	-	Switch the truck off and on again		(2)
Z0208	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)
Z0209	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)
Z0210	Internal error	-	-	Switch the truck off and on again		(2)
Z0211	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)
Z0212	Internal error	-	-	Switch the truck off and on again		(2)
Z0213	Internal error when switching on	-	EMERGENCY STOP	Switch the truck off and on again	(2)	
Z0214	Setpoint device or actual value device not successfully initialised	-	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Teach the setpoint device/actual value device</li> <li>• Check the setpoint device/actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0215	Hardware/software not compatible	Incorrect hardware/software	EMERGENCY STOP	Switch the truck off and on again	Check hardware/software versions	(2)
Z0216	Motor cannot be activated	-	-	Switch the truck off and on again	Replace the steering unit	(2)
Z0217	Impermissible actual value deviation	<ul style="list-style-type: none"> <li>• Teach-in for steering not performed/completed</li> <li>• Actual value device faulty</li> <li>• Internal error</li> </ul>	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Perform teach-in for steering</li> <li>• Check the actual value device</li> <li>• Check the parameters</li> <li>• Load the basic parameters</li> </ul>	(2)
Z0218	Internal error when switching on	Internal initialisation incorrect	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Switch the truck off/on</li> <li>• Check the software versions</li> <li>• Replace the steering unit</li> <li>• Note other error messages</li> </ul>	(2)
Z0219	Internal motor error	<ul style="list-style-type: none"> <li>• Incorrect motor model</li> <li>• Motor incorrectly installed</li> <li>• Internal converter faulty</li> </ul>	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0220	Internal motor error	Current sensor defective	EMERGENCY STOP	Switch the truck off and on again		(2)
Z0221	Excess current in the motor	Motor or internal converter faulty	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the power supply</li> <li>• Replace the steering unit</li> </ul>	(2)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display	
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only	
Z0222	Internal error	-	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Replace the steering unit</li> </ul>	(2)	
Z0223	Internal error	-	-	Switch the truck off and on again		(2)	
Z0224	Internal error	-	-	Switch the truck off and on again		(2)	
Z0225	Internal error	-	-	Switch the truck off and on again		(2)	
Z0226	Internal error	Internal 5-V voltage not OK	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0229	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0230	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0231	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0232	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0233	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0234	Internal error	-	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0235	Internal error when switching on	<ul style="list-style-type: none"> <li>• Teach-in for steering not performed/completed</li> <li>• Actual value device faulty</li> </ul>	EMERGENCY STOP	Switch the truck off and on again		<ul style="list-style-type: none"> <li>• Perform teach-in</li> <li>• Check the actual value device</li> <li>• Check the parameters</li> <li>• Load the basic parameters</li> </ul>	(2)
Z0236	Internal error	Control processor or vector processor faulty	EMERGENCY STOP	Switch the truck off and on again		Replace the steering unit	(2)
Z0237	Internal error	Teach-in for steering not performed/completed	EMERGENCY STOP	Switch the truck off and on again		<ul style="list-style-type: none"> <li>• Perform teach-in for steering</li> <li>• Check the software version</li> </ul>	(2)
Z0240	Internal error when switching on	Parameters not transferred to vector processor correctly	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Load the basic parameters</li> <li>• Perform teach-in for steering</li> <li>• Replace the steering unit</li> </ul>	(2)	
Z0241			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0242			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0243			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0244			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0245			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0246			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0247			EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0248	Internal error when switching on	Hardware/software versions not compatible	EMERGENCY STOP	Switch the truck off and on again	Check the hardware model and software version	(2)	
Z0249	Internal error when switching on	<ul style="list-style-type: none"> <li>• Motor type not detected</li> <li>• Incorrect parameters entered</li> </ul>	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Load the basic parameters</li> <li>• Perform teach-in for steering</li> </ul>	(2)	
Z0250	Internal error when switching on	<ul style="list-style-type: none"> <li>• Current sensor type not detected</li> <li>• Incorrect parameters entered</li> </ul>	EMERGENCY STOP	Switch the truck off and on again		(2)	
Z0251	Internal error	Internal data transfer failed	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Replace the steering unit</li> </ul>	(2)	
Z0252	Difference between setpoint and actual speed is too great	<ul style="list-style-type: none"> <li>• Steering torque is too low</li> <li>• Drivetrain stuck</li> <li>• Four-point bearing worn</li> <li>• Gearbox in the steering motor is faulty</li> </ul>	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Short start-up and steering test</li> <li>• Check the drivetrain</li> <li>• Check/lubricate/replace the four-point bearing</li> <li>• Replace the steering unit</li> </ul>	(2)	
Z0253	Internal intermediate circuit voltage too low (<24 V)	<ul style="list-style-type: none"> <li>• Battery discharged</li> <li>• Power supply interrupted</li> </ul>	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Charge the battery, check the battery voltage</li> <li>• Check the wiring</li> </ul>	(2)	
Z0254	Temperature of the internal steering converter is too high (> 115°C)	Load moment on the steering motor too high for a prolonged period	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Allow the steering unit to cool down</li> <li>• Check the temperature at the steering unit</li> <li>• Replace the steering unit</li> </ul>	(2)	

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0255	Position regulator output value: control processor does not match vector processor control value	Teach-in for neutral steering wheel position not performed/completed	EMERGENCY STOP	Switch the truck off and on again	Perform teach-in for steering	(2)
Z0256	Impermissible jump in position regulator difference	Jump in position regulator deviation	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0257	Internal error	Deviation in actual value device signals between control processor and vector processor too great (+/-15.0°)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the actual value device</li> <li>• Check the wiring</li> <li>• Perform teach-in for steering</li> <li>• Replace the steering controller</li> </ul>	(2)
Z0258	Actual value device error (track A)	Actual value device: short circuit between channel A and 12-V supply (voltage channel A >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the actual value device</li> <li>• Check the wiring</li> </ul>	(2)
Z0259	Actual value device error (track B)	Actual value device: short circuit between channel B and 12-V supply (voltage channel B >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the actual value device</li> <li>• Check the wiring</li> </ul>	(2)
Z0260	Actual value device error (track A)	Actual value device: short circuit between channel A and earth or cable break (voltage channel A <0.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the actual value device</li> <li>• Check the wiring</li> </ul>	(2)
Z0261	Actual value device error (track B)	Actual value device: short circuit between channel B and earth or cable break (voltage channel B <0.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the actual value device</li> <li>• Check the wiring</li> </ul>	(2)
Z0262	Actual value device error	Actual value device: difference between channel A and channel B too great	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Perform teach-in for steering</li> <li>• Check the actual value device</li> <li>• Check the wiring</li> </ul>	(2)
Z0263	Internal intermediate circuit voltage too high	Battery voltage too high (>70 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the battery voltage</li> </ul>	(2)
Z0264	Setpoint device error	Setpoint device speed value too high	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0265	Internal error	Deviation in setpoint device signals between control processor and vector processor too great (+/-15.0°)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> <li>• Perform setpoint device teach-in</li> <li>• Replace the steering controller</li> </ul>	(2)
Z0266	Setpoint device error (track A)	Setpoint device: short circuit between channel A and 12-V supply (voltage channel A >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0267	Setpoint device error (track B)	Setpoint device: short circuit between channel B and 12-V supply (voltage channel B >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0268	Setpoint device error (track A)	Setpoint device: short circuit between channel A and earth or cable break (voltage channel A <0.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0269	Setpoint device error (track B)	Setpoint device: short circuit between channel B and earth or cable break (voltage channel B <0.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0270	Setpoint device error	Setpoint value difference between channel A and channel B too great	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Perform setpoint device teach-in</li> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0271	Steering angle configuration error	Steering angle configuration different between control processor and vector processor	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reset by switching truck off and on again</li> <li>Load the basic parameters</li> <li>Perform setpoint device teach-in</li> <li>Replace the steering unit</li> </ul>	(2)
Z0272	Internal error	Position setpoint value different between control processor and vector processor	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reset by switching truck off and on again</li> <li>Perform teach-in for steering</li> <li>Replace the steering unit</li> </ul>	(2)
Z0273	Actual value device collective fault	-	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Note other error messages</li> </ul>	(2)
Z0274	Setpoint device collective fault	-	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Note other steering error messages</li> </ul>	(2)
Z0276	Internal error	-	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reset by switching truck off and on again</li> <li>Replace the steering unit</li> </ul>	(2)
Z0277				Switch the truck off and on again		(2)
Z0278				Switch the truck off and on again		(2)
Z0279				Switch the truck off and on again		(2)
Z0280				Switch the truck off and on again		(2)
Z0281				Switch the truck off and on again		(2)
Z0282				Switch the truck off and on again		(2)
Z0283				Switch the truck off and on again		(2)
Z0285				Switch the truck off and on again		(2)
Z0286				Switch the truck off and on again		(2)
Z0287				Switch the truck off and on again		(2)
Z0288				Switch the truck off and on again		(2)
Z0289				Switch the truck off and on again		(2)
Z0290				Switch the truck off and on again		(2)
Z0291				Switch the truck off and on again		(2)
Z0292	Switch the truck off and on again	(2)				
Z0294	Internal error when switching on	-	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reset by switching truck off and on again</li> <li>Replace the steering unit</li> </ul>	(2)
Z0295				Switch the truck off and on again		(2)
Z0296				Switch the truck off and on again		(2)
Z0298	Internal error	-	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reset by switching truck off and on again</li> <li>Replace the steering unit</li> </ul>	(2)
Z0299	Hardware/software not compatible	Incorrect software/hardware	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the hardware/software versions</li> <li>Reload the parameters</li> </ul>	(2)
Z0300	Internal error	Internal memory test	<ul style="list-style-type: none"> <li>Only shown in the display</li> <li>From software version 9.16: EMERGENCY STOP</li> </ul>	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Replace the steering unit</li> <li>If software version 9.15 --&gt; update to version 9.16</li> </ul>	(2)
Z0301	Internal error	Internal memory test	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Replace the steering unit</li> </ul>	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0302	Internal error when switching on	Error in the parameter memory	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0303				Switch the truck off and on again		(2)
Z0304				Switch the truck off and on again		(2)
Z0305				Switch the truck off and on again		(2)
Z0306				Switch the truck off and on again		(2)
Z0307				Switch the truck off and on again		(2)
Z0308				Switch the truck off and on again		(2)
Z0309				Switch the truck off and on again		(2)
Z0310				Switch the truck off and on again		(2)
Z0311				Switch the truck off and on again		(2)
Z0312				Switch the truck off and on again		(2)
Z0313				Switch the truck off and on again		(2)
Z0317	Internal error when switching on	Motor parameter invalid	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Load the basic parameters</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0318				Switch the truck off and on again		(2)
Z0319				Switch the truck off and on again		(2)
Z0320				Switch the truck off and on again		(2)
Z0321				Switch the truck off and on again		(2)
Z0322				Switch the truck off and on again		(2)
Z0323				Switch the truck off and on again		(2)
Z0324				Switch the truck off and on again		(2)
Z0325				Switch the truck off and on again		(2)
Z0326				Switch the truck off and on again		(2)
Z0327				Switch the truck off and on again		(2)
Z0328				Switch the truck off and on again		(2)
Z0329	Internal error when switching on	Teach-in parameter invalid	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Perform teach-in for steering</li> </ul>	(2)
Z0330				Switch the truck off and on again		(2)
Z0331				Switch the truck off and on again		(2)
Z0332				Switch the truck off and on again		(2)
Z0333				Switch the truck off and on again		(2)
Z0334				Switch the truck off and on again		(2)
Z0335				Switch the truck off and on again		(2)
Z0336				Switch the truck off and on again		(2)
Z0337				Switch the truck off and on again		(2)
Z0338				Switch the truck off and on again		(2)
Z0339				Switch the truck off and on again		(2)
Z0340				Switch the truck off and on again		(2)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0341	Internal error when switching on	Truck parameter invalid	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Load the basic parameters</li> <li>• Perform teach-in for steering</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0342				Switch the truck off and on again		(2)
Z0343				Switch the truck off and on again		(2)
Z0344				Switch the truck off and on again		(2)
Z0345				Switch the truck off and on again		(2)
Z0346				Switch the truck off and on again		(2)
Z0347				Switch the truck off and on again		(2)
Z0348				Switch the truck off and on again		(2)
Z0349				Switch the truck off and on again		(2)
Z0350				Switch the truck off and on again		(2)
Z0351				Switch the truck off and on again		(2)
Z0352				Switch the truck off and on again		(2)
Z0353				Internal error when switching on		Parameter invalid
Z0354	Switch the truck off and on again	(2)				
Z0355	Switch the truck off and on again	(2)				
Z0356	Switch the truck off and on again	(2)				
Z0357	Switch the truck off and on again	(2)				
Z0358	Switch the truck off and on again	(2)				
Z0359	Switch the truck off and on again	(2)				
Z0360	Switch the truck off and on again	(2)				
Z0361	Switch the truck off and on again	(2)				
Z0362	Switch the truck off and on again	(2)				
Z0363	Switch the truck off and on again	(2)				
Z0364	Switch the truck off and on again	(2)				
Z0365	Switch the truck off and on again	(2)				
Z0366	Switch the truck off and on again	(2)				
Z0367	Switch the truck off and on again	(2)				
Z0368	Switch the truck off and on again	(2)				
Z0369	Switch the truck off and on again	(2)				
Z0370	Switch the truck off and on again	(2)				
Z0371	Switch the truck off and on again	(2)				
Z0372	Switch the truck off and on again	(2)				
Z0373	Switch the truck off and on again	(2)				
Z0374	Switch the truck off and on again	(2)				
Z0375	Switch the truck off and on again	(2)				
Z0376	Switch the truck off and on again	(2)				
Z0377	Switch the truck off and on again	(2)				
Z0378	Switch the truck off and on again	(2)				
Z0379	Switch the truck off and on again	(2)				
Z0380	Switch the truck off and on again	(2)				
Z0381	Switch the truck off and on again	(2)				
Z0382	Switch the truck off and on again	(2)				
Z0383	Switch the truck off and on again	(2)				

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0384				Switch the truck off and on again		(2)
Z0385				Switch the truck off and on again		(2)
Z0386				Switch the truck off and on again		(2)
Z0387				Switch the truck off and on again		(2)
Z0388				Switch the truck off and on again		(2)
Z0389				Switch the truck off and on again		(2)
Z0390				Switch the truck off and on again		(2)
Z0391				Switch the truck off and on again		(2)
Z0392				Switch the truck off and on again		(2)
Z0393				Switch the truck off and on again		(2)
Z0394				Switch the truck off and on again		(2)
Z0395				Switch the truck off and on again		(2)
Z0396				Switch the truck off and on again		(2)
Z0397				Switch the truck off and on again		(2)
Z0398				Switch the truck off and on again		(2)
Z0399				Switch the truck off and on again		(2)
Z0400				Switch the truck off and on again		(2)
Z0403	Internal error	-	EMERGENCY STOP	Switch the truck off and on again	• Reset by switching truck off and on again • Replace the steering unit	(2)
Z0404				Switch the truck off and on again		(2)
Z0405				Switch the truck off and on again		(2)
Z0406				Switch the truck off and on again		(2)
Z0407				Switch the truck off and on again		(2)
Z0408	Internal error	Error while transferring parameters	EMERGENCY STOP	Switch the truck off and on again	• Reset by switching truck off and on again • Replace the steering unit	(2)
Z0409				Switch the truck off and on again		(2)
Z0410				Switch the truck off and on again		(2)
Z0411				Switch the truck off and on again		(2)
Z0412				Switch the truck off and on again		(2)
Z0415	Battery supply excess voltage	Battery voltage $U > 70$ V)	EMERGENCY STOP	Switch the truck off and on again	• Reset by switching the truck on and off again • Check the battery	(2)
Z0416	Battery supply under voltage	• Battery discharged ( $U < 24$ V) • Power supply interrupted	EMERGENCY STOP	Switch the truck off and on again	• Reset by switching the truck on and off again • Check the battery voltage • Charge the battery • Check the wiring	(2)
Z0417	Steering unit intermediate circuit could not be discharged	• Emergency off switch activated • Steering contactor sticking	EMERGENCY STOP	Switch the truck off and on again	• Check the emergency off switch • Check the steering contactor • Check the wiring	(2)
Z0419	Internal error	-	EMERGENCY STOP	Switch the truck off and on again	• Reset by switching truck off and on again • Replace the steering unit	(2)
Z0420				Switch the truck off and on again		(2)
Z0421				Switch the truck off and on again		(2)
Z0424				Switch the truck off and on again		(2)
Z0425				Switch the truck off and on again		(2)
Z0426	Error detected when testing steering contactor	Steering contactor failing to open	EMERGENCY STOP	Switch the truck off and on again	• Check the steering contactor • Check the wiring	(2)



Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0427	Excess current switch-off at steering contactor output	-	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the steering contactor</li> <li>• Check the wiring</li> </ul>	(2)
Z0428	Error detected at steering contactor safety output	-	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the steering contactor</li> <li>• Check the wiring of the safety output</li> </ul>	(2)
Z0430	Steering configuration incorrect during switch-on (master-slave steering)	Parameterisation and/or digital input do not match	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Load the basic parameters</li> <li>• Perform teach-in for steering</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0433	Error in CAN message received (internal error)	Error in internal process monitoring	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Check the RCU</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0434	Error when receiving CAN messages (internal error)	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Check the RCU</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0435	Internal error	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Check the RCU</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0437	CAN bus communication disrupted between the RCU and the electric steering	Controller not receiving data from the RCU	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• 24-V supply not OK (e.g. voltage transformer faulty, direction indicator short circuit)</li> <li>• Replace the RCU</li> </ul>	(2)
Z0438	CAN bus communication disrupted between the RCU and the electric steering	Controller not receiving data from the RCU	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• 24-V supply not OK (e.g. voltage transformer faulty, direction indicator short circuit)</li> <li>• Replace the RCU</li> </ul>	(2)
Z0441	Internal error (error in CAN message received from automatic unit; only in driverless systems)	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Check the automatic unit controller</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0442	Internal error (error when sending CAN messages)	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0443	Internal error	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0444	Internal error (CAN start message not received)	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck off and on again</li> <li>• Check the power supply to the RCU</li> <li>• Check the CAN bus wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0446	Internal error	Error in internal process monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching truck off and on again</li> <li>• Check the CAN bus wiring</li> <li>• Replace the steering unit</li> </ul>	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0454	Voltage monitoring: supply for setpoint device/actual value device too low	Setpoint device/actual value device supply voltage <10.7 V	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the setpoint device/actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0455	Voltage monitoring: supply for setpoint device/actual value device too high	Setpoint device/actual value device supply voltage <13.22 V	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the setpoint device/actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0456	Internal error	Error in internal voltage monitoring	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0457				Switch the truck off and on again		
Z0458	Voltage monitoring: supply for setpoint device/actual value device too low	Setpoint device/actual value device supply voltage <10.7 V	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the setpoint device/actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0459	Voltage monitoring: supply for setpoint device/actual value device too high	Setpoint device/actual value device supply voltage <13.22 V	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the setpoint device/actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0460	Voltage monitoring: supply for setpoint device/actual value device too low	Setpoint device/actual value device supply voltage <10.4 V	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the setpoint device/actual value device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0462	Supply voltage at power supply unit too high	Supply voltage at power supply unit > 65 V	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Check the battery voltage</li> <li>• Check the wiring</li> </ul>	(2)
Z0463	Steering wheel initialisation error when switching on	Teach-in for steering (setpoint device) not performed/completed	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Perform teach-in for steering</li> <li>• Note other error messages</li> </ul>	(2)
Z0464	Timeout during setpoint device teach-in	Setpoint device teach-in took too long	-	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Reset by switching the truck on and off again</li> <li>• Perform setpoint device teach-in faster</li> </ul>	(2)
Z0465	Setpoint device error (track A)	Setpoint device: short circuit between channel A and 12-V supply (voltage channel A >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> <li>• Check voltage input without setpoint device</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0466	Setpoint device error (track B)	Setpoint device: short circuit between channel B and 12-V supply (voltage channel B >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> <li>• Check voltage input without setpoint device</li> <li>• Replace the steering unit</li> </ul>	(2)
Z0467	Initialisation of actual value device failed	Teach-in for steering not performed/completed or incorrect	EMERGENCY STOP	Switch the truck off and on again	Perform/repeat teach-in for steering	(2)
Z0469	Track A sensor input = 0 V (track A setpoint device error)	Setpoint device: short circuit between channel A and earth or cable break	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0470	Track B sensor input = 0 V (track B setpoint device error)	Setpoint device: Short circuit between channel B and earth or cable break	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> </ul>	(2)
Z0471	Setpoint device error	Setpoint device speed value too high	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>• Check the setpoint device</li> <li>• Check the wiring</li> <li>• Replace the steering unit</li> </ul>	(2)

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0473	Internal error	Deviation in setpoint device signals between control processor and vector processor too great (+/-15.0°)	EMERGENCY STOP	Switch the truck off and on again	• Replace the steering unit	(2)
Z0474	Setpoint device error	Setpoint value difference between channel A and channel B too great	EMERGENCY STOP	Switch the truck off and on again	• Perform teach-in for steering • Check the setpoint device • Check the wiring	(2)
Z0477	Emergency off was signalled (2+48 V interrupted)	Emergency off switch was actuated	EMERGENCY STOP	Switch the truck off and on again	• Operate the emergency off switch • Check the wiring • Reset by switching the truck on and off again	(2)
Z0480	Difference between setpoint and actual speed is too great	• Steering torque is too low • Drive wheel sticking • Internal impulse transmitter error	EMERGENCY STOP	Switch the truck off and on again	• Drive truck into an open space and restart • Replace the steering unit	(2)
Z0482	Impermissible deviation in the actual value compared to the internal incremental transducer	• Teach-in for steering not performed/completed • Actual value device faulty • Internal error	EMERGENCY STOP	Switch the truck off and on again	• Perform teach-in for steering • Check the actual value device • Check the parameters • Load the basic parameters	(2)
Z0483	Internal error	Deviation in actual value device signals between control processor and vector processor too great (+/-10.0°)	EMERGENCY STOP	Switch the truck off and on again	• Check the actual value device • Check the wiring • Perform teach-in for steering • Replace the steering unit	(2)
Z0484	Actual value device error (track A)	Actual value device: short circuit between channel A and 12-V supply (voltage channel A >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	• Check the setpoint device • Check the wiring • Check the voltage input without the actual value device • Replace the steering unit	(2)
Z0485	Actual value device error (track B)	Actual value device: short circuit between channel B and 12-V supply (voltage channel A >4.5 V)	EMERGENCY STOP	Switch the truck off and on again	• Check the setpoint device • Check the wiring • Check the voltage input without the actual value device • Replace the steering unit	(2)
Z0486	Actual value device error (track A)	Actual value device: short circuit between channel A and earth or cable break (voltage channel A <0.5 V)	EMERGENCY STOP	Switch the truck off and on again	• Check the actual value device • Check the wiring	(2)
Z0487	Actual value device error (track B)	Actual value device: short circuit between channel B and earth or cable break (voltage channel B <0.5 V)	EMERGENCY STOP	Switch the truck off and on again	• Check the actual value device • Check the wiring	(2)
Z0488	Actual value device error	Actual value difference between channel A and channel B too great	EMERGENCY STOP	Switch the truck off and on again	• Perform teach-in for steering • Check the setpoint device • Check the wiring	(2)
Z0490	Internal error	Deviation in actual value device signals between control processor and vector processor too great (+/-15.0°)	EMERGENCY STOP	Switch the truck off and on again	• Check the actual value device • Check the wiring • Perform teach-in for steering • Replace the steering unit	(2)
Z0491	Impermissible jump in position regulator difference	Jump in position regulator deviation	EMERGENCY STOP	Switch the truck off and on again	• Check the setpoint device • Check the actual value device • Check the wiring • Replace the steering unit	(2)
Z0492	Internal error when switching on	• Teach-in for steering not performed/completed • Actual value device faulty	EMERGENCY STOP	Switch the truck off and on again	• Perform teach-in for steering • Check the actual value device • Check the parameters • Load the basic parameters	(2)

## Error list

Error	Description	Cause	Response	Acknowledgement	Remedy	Display
Z	<b>Electric steering</b>					(1) Error memory only (2) Error memory + display (3) Display only
Z0493	Internal error when switching on	<ul style="list-style-type: none"> <li>Teach-in for steering not performed/completed</li> <li>Actual value device faulty</li> </ul>	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Perform teach-in for steering</li> <li>Check the actual value device</li> <li>Check the parameters</li> <li>Load the basic parameters</li> </ul>	(2)
Z0497	Steering unit overtemperature (power unit)	Too much torque needed	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Check the steering system for ease of movement</li> <li>Allow the steering unit to cool down</li> <li>Avoid overloading</li> <li>Replace the steering unit</li> </ul>	(2)
Z0498	Parameter error	Incorrect parameter for gearbox transmission	EMERGENCY STOP	Switch the truck off and on again	<ul style="list-style-type: none"> <li>Reset by switching truck off and on again</li> <li>Check the gearbox parameters</li> <li>Load the basic parameters</li> <li>Replace the steering unit</li> </ul>	(2)

### Additional error numbers

Error numbers without prefixed code letters appear in the display together with the symbol "i" for information.



Error	Description	Cause	Response	Acknowledgement	Remedy	Display
<b>Info i</b>	<b>Additional error numbers</b>					(1) Error memory only (2) Error memory + display (3) Display only
i (display) 0640	FleetManager CRASH triggered	FleetManager CRASH triggered	After parameterisation	Using master CHIP	Using master CHIP	(3)
i (display) 0300	Intermediate lift/final lift limit active after switching on the truck	–	No lifting	–	Select lowering	(3)
i (display) 0400	LED height sensor is dirty	–	No restriction; in the event of further contamination, hydraulics emergency operation	–	<ul style="list-style-type: none"> <li>• Clean the sensor</li> <li>• If the sensor is scratched, replace the sensor</li> </ul>	(3)
i (display) and maintenance key flashing	Different parameters in the RCU and the converter	–	Truck not working	–	Align the parameters	(3)
i (display) 3009	See A3009	–	–	–	–	(3)