

DS150 - ERROR CODE TABLE

Error Code	Error	Cause	Elimination
E01	Fallen below radius range or angle range exceeded	<ul style="list-style-type: none"> • Fallen below the minimum radius or gone past the maximum angle specified in the respective load chart due to luffing up the boom too far 	<ul style="list-style-type: none"> • Luff down the boom to a radius or angle specified in the load chart.
E02	Radius range exceeded or fallen below angle range	<ul style="list-style-type: none"> • Gone past the maximum radius or fallen below the minimum angle specified in the respective load chart due to luffing down the boom too far 	<ul style="list-style-type: none"> • Luff up the boom to a radius or angle specified in the load chart.
E03	Non-permitted slewing zone (no load area)	<ul style="list-style-type: none"> • The slewing zone with load is not permitted 	<ul style="list-style-type: none"> • Slew to permitted area
E04	Operating mode not acknowledged or non permitted slewing zone	<ul style="list-style-type: none"> • A non existing operating mode has been selected • The boom is in a non-permitted slewing zone 	<ul style="list-style-type: none"> • Set the correct operating mode for the operating state in question • Slew the boom to a permitted area.
E05	Prohibited length range	<ul style="list-style-type: none"> • Boom has been extended either too far or not far enough, e.g. if it is prohibited to go beyond a certain maximum boom length or with load curves for jibs where the main boom has to be extended to a certain length 	<ul style="list-style-type: none"> • Extend/retract boom to the correct length
		<ul style="list-style-type: none"> • Length sensor adjustment has changed, e.g. the cable slid off the length sensor reel. 	<ul style="list-style-type: none"> • Retract boom. Check the pre-stress of the cable reel (cable must be taut). Open the length sensor and carefully turn the length sensor pot counter clockwise until loosened by using a screw driver

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		<ul style="list-style-type: none"> • Clutch between length sensor pot and drive is defective • Failure of +5V supply of analog part of analog board • Cable between central unit and length sensor is defective or disconnected. • Defective length potentiometer 	<ul style="list-style-type: none"> • Replace the complete clutch including drive wheel and adjust length sensor pot as described above • Check +5 V supply. Exchange main board in case of voltage failure or breakdown when loaded with 50 ohms approx. • Check cable and plugs, replace, if need be. • Replace length potentiometer.
E06	Radius range exceeded or fallen below angle range with luffing jib operation	<ul style="list-style-type: none"> • Maximum radius as specified in the load chart exceeded or fallen below minimum angle due to luffing down the luffing jib too far 	<ul style="list-style-type: none"> • Luff the jib to a radius or angle specified in the load chart.
E07	Faulty acknowledgment of the overload relay on the main board. The relay should be energized, the 2nd contact however is indicated to be off, or the 2nd contact is indicated to be on while the relay should be de-energized.	<ul style="list-style-type: none"> • Overload relay or main board are defective • Processor board defective 	<ul style="list-style-type: none"> • Replace main board • Replace processor board.
E08	No acknowledgement from the anti-two-block relay	<ul style="list-style-type: none"> • Refer to E07 	<ul style="list-style-type: none"> • Refer to E07

Error Code	Error	Cause	Elimination
E11	Fallen below lower limit value for measuring channel "length main boom"	<ul style="list-style-type: none"> • Cable between central unit and length sensor is defective or disconnected. Water inside the plug of the length/angle sensor • Length potentiometer is defective • Electronic component in the measuring channel is defective 	<ul style="list-style-type: none"> • Check cable as well as plugs, replace, if need be. • Replace length potentiometer • Replace LMI main board or processor board.
E12	Fallen below the lower limit value in the measuring channel "pressure piston side"	<ul style="list-style-type: none"> • Cable between the central unit and pressure transducers defective or water inside the plugs • Pressure transducer is defective. • Electronic component in the measuring channel is defective. 	<ul style="list-style-type: none"> • Check cable as well as plugs, replace, if need be. • Replace pressure transducer • Replace LMI main board or processor board.
E13	Fallen below lower limit value in the measuring channel "pressure rod side"	<ul style="list-style-type: none"> • Refer to E12 	<ul style="list-style-type: none"> • Refer to E12
E15	Fallen below lower limit value in measuring channel "angle main boom"	<ul style="list-style-type: none"> • Cable between central unit and the length/angle sensor defective or loose. Water inside the plug of the length/angle sensor. • Angle potentiometer defective • Electronic component in the measuring channel defective. 	<ul style="list-style-type: none"> • Check cable as well as plugs, replace, if need be. • Replace angle sensor • Replace LMI main board or processor board.
E16	Fallen below lower limit value in measuring channel "angle 2"	<ul style="list-style-type: none"> • Cable between the central unit and the angle sensor defective or loose. Water inside the plug of the angle sensor. • Angle potentiometer defective • Electronic component in the measuring channel defective. 	<ul style="list-style-type: none"> • Check cable as well as plugs, replace, if need be. • Replace angle sensor • Replace LMI main board or processor board.

Error Code	Error	Cause	Elimination
E19	Reference and/or supply voltage defective	<ul style="list-style-type: none"> • The supply voltage is falsified by one of the sensors (DAV, LWG) • Electronic component is defective 	<ul style="list-style-type: none"> • Check the voltages on the LMI main board. Check sensors, plugs and cable, replace, if need be. • Replace LMI main board
E20	Analog and/or supply voltage defective	<ul style="list-style-type: none"> • The analog voltage is falsified by one of the sensors • Electronic component is defective 	<ul style="list-style-type: none"> • Check the voltages on the LMI main board. Check sensors, plugs and cable, replace, if need be. • Replace LMI main board
E21	Upper limit value in measuring channel "main boom length" has been exceeded.	<ul style="list-style-type: none"> • Refer to E11 	<ul style="list-style-type: none"> • Refer to E11
E22	Upper limit value in measuring channel "pressure piston side" has been exceeded	<ul style="list-style-type: none"> • Refer to E12 	<ul style="list-style-type: none"> • Refer to E12
E23	Upper limit value in measuring channel "pressure rod side" has been exceeded.	<ul style="list-style-type: none"> • Refer to E12 	<ul style="list-style-type: none"> • Refer to E12
E25	Upper limit value in measuring channel "main boom angle" has been exceeded.	<ul style="list-style-type: none"> • Refer to E15 	<ul style="list-style-type: none"> • Refer to E15
E26	Upper limit value in measuring channel "angle 2" has been exceeded.	<ul style="list-style-type: none"> • Refer to E16 	<ul style="list-style-type: none"> • Refer to E16
E29	Reference and/or supply voltage defective.	<ul style="list-style-type: none"> • Refer to E19 	<ul style="list-style-type: none"> • Refer to E19
E31 E37	Error in the system program	<ul style="list-style-type: none"> • The system program PROM is defective. 	<ul style="list-style-type: none"> • Replace system program PROM (PROM No. 0)
E38	System program and data EPROM do not match.	<ul style="list-style-type: none"> • The system program in the LMI does not match to the programming in the data EPROM 	<ul style="list-style-type: none"> • Replace the system program PROM or the data EPROM (PROM No. 1)

Error Code	Error	Cause	Elimination
E41	Error in the internal write/read memory (RAM) of the computer component 80C537	<ul style="list-style-type: none"> • Computer component 80C537 defective • CPU module defective • Processor board defective. 	<ul style="list-style-type: none"> • Replace computer component 80C537. • Replace CPU module. • Replace processor board with CPU module.
E42	Error in the external write/read memory, 1st part (RAM)	<ul style="list-style-type: none"> • Write/read memory (CMOS RAM) or processor board defective. 	<ul style="list-style-type: none"> • Replace processor board with CPU module.
E43	Error in the external write/read memory, 2nd part (RAM)	<ul style="list-style-type: none"> • Refer to E42 	<ul style="list-style-type: none"> • Refer to E42
E45	Redundancy error in the A/D conversion	<ul style="list-style-type: none"> • The A/D converter on the processing board and the redundant A/D converter in the CPU 80C537 provide different results. 	<ul style="list-style-type: none"> • Replace processor board.
E46	Error in the A/D converter uPD 7004 of the processor board.	<ul style="list-style-type: none"> • No acknowledgment of the A/D converter uPD 7004 	<ul style="list-style-type: none"> • Replace processor board.
E48 E49	Cyclic RAM test: error in the internal write/read memory (RAM) of the computer component 80C537	<ul style="list-style-type: none"> • Computer component 80C537 defective • CPU module defective • Processor board defective. 	<ul style="list-style-type: none"> • Replace computer component 80C537. • Replace CPU module • Replace processor board with CPU module.
E51	Error in the crane data EPROM or EEPROM.	<ul style="list-style-type: none"> • No valid data in the crane data EEPROM. • Memory module wrongly bridged. • Crane data EPROM defective 	<ul style="list-style-type: none"> • Load crane data EEPROM containing valid data. • Bridge memory module acc. to memory type • Replace crane data EPROM
E80	Short circuit in the Anti-two Block (A2B) switch.	<ul style="list-style-type: none"> • Short circuit in the A2B switch • Short circuit in the cable to the A2B switch 	<ul style="list-style-type: none"> • Replace A2B switch • Replace cable to the A2B switch

Error Code	Error	Cause	Elimination
E91	No data transmission from the console to the central unit	<ul style="list-style-type: none"> • 24 V supply of the console is interrupted • Interruption or accidental ground in the line between console electronics and central unit • Transmitter/receiver module is defective 	<ul style="list-style-type: none"> • Check 24 V at terminal X1 of the console electronics • Check the main console electronics - central unit. In case of an accidental ground, the transmitter module of the console electronics might be damaged. Therefore, replaces the console electronics. • Exchange console electronics or LMI main board
E92	Error in the data transmission from console to central unit	<ul style="list-style-type: none"> • Loose connection in the line between console electronics and central unit • Transmitter/receiver module is defective 	<ul style="list-style-type: none"> • Check the connection between console electronics and central unit • Exchange console electronics or LMI main board
E93	Error in the data transmission from the central unit to the console	<ul style="list-style-type: none"> • Refer to E92 	<ul style="list-style-type: none"> • Refer to E92
E94	No data transmission from the central unit to the console	<ul style="list-style-type: none"> • Interruption or accidental ground in the line central unit - console • 5 V supply of the computer in the central unit is missing • 5 V supply is too low • Transmitter/receiver module is defective • Computer module is defective • Electro-magnetic interferences (e.g. when switching contacts or valves) 	<ul style="list-style-type: none"> • Check line to the console (in case of accidental ground, replace console electronics, too). • Check connection to the power unit • Exchange the LMI main board • Replace console electronics or LMI main board • Replace processor board. • Eliminate the source of interference by inverse diodes or varistors.

Note: If an error message is displayed which is not contained in above list, please contact PAT America, Inc. service department.