

ICS Error Codes via R-net System

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Error ID	Function	Help	LCD Text	Remedy # (see doc end)
2011	Master	Model or UI has incorrect checksum or doesn't work with this firmware	Master Error	1
2012	Master	Over current in idle mode	Master Error	2
2013	Master	Problems with internal SPI communication	Master Error	3
2014	Master	Cannot write to internal flash	Master Error	4
2015	Master	Cannot update node parameters	Master Error	5
2017	Master	ICS System needs to be restarted, please cycle wheelchair power	Master Error	6
201D	Master	Unused actuator or module attached to ICS system	Master Error	7
2021	Main switchbox	Switches are activated at start up	Switchbox Error	8
2029	Main switchbox	Cannot communicate on the LIN bus	Switchbox Error	9
202A	Main switchbox	Node is required but not present	Switchbox Error	10
202D	Main switchbox	Flash parameters have been updated in the node	Switchbox Error	11
2031	Second switchbox	Switches are activated at start up	Switchbox Error	8
2039	Second switchbox	Cannot communicate on the LIN bus	Switchbox Error	9
203A	Second switchbox	Node is required but not present	Switchbox Error	10
203D	Second switchbox	Flash parameters have been updated in the node	Switchbox Error	11
2041	Third switchbox	Switches are activated at start up	Switchbox Error	8
2049	Third switchbox	Cannot communicate on the LIN bus	Switchbox Error	9
204A	Third switchbox	Node is required but not present	Switchbox Error	10
204D	Third switchbox	Flash parameters have been updated in the node	Switchbox Error	11
2051	Fourth switchbox	Switches are activated at start up	Switchbox Error	8
2059	Fourth switchbox	Cannot communicate on the LIN bus	Switchbox Error	9
205A	Fourth switchbox	Node is required but not present	Switchbox Error	10
205D	Fourth switchbox	Flash parameters have been updated in the node	Switchbox Error	11
2071	Left Leg	Sensor; Cable between sensor and General Module; or GM is not working	Legs Error	12
2072	Left Leg	No motor can be detected, check motor and cable	Legs Error	13
2073	Left Leg	Over current when operating function, might be overload	Legs Error	14
2074	Left Leg	Pinch protection activated	Legs Error	15
2075	Left Leg	Actuator is not moving or moving too slow	Legs Error	16
2076	Left Leg	Too high speed detected on actuator, check sensor	Legs Error	17
2077	Left Leg	Drive electronics for the actuator overheated	Legs Error	22
2078	Left Leg	Fault mode has triggered	Legs Error	18
2079	Left Leg	Cannot communicate on the LIN bus	Legs Error	19
207A	Left Leg	Node is required but not present	Legs Error	20
207D	Left Leg	Flash parameters have been updated in the node	Legs Error	21
2081	Right Leg	Sensor; Cable between sensor and General Module; or GM is not working	Legs Error	12
2082	Right Leg	No motor can be detected, check motor and cable	Legs Error	13
2083	Right Leg	Over current when operating function, might be overload	Legs Error	14
2084	Right Leg	Pinch protection activated	Legs Error	15
2085	Right Leg	Actuator is not moving or moving too slow	Legs Error	16
2086	Right Leg	Too high speed detected on actuator, check sensor	Legs Error	17
2087	Right Leg	Drive electronics for the actuator overheated	Legs Error	22
2088	Right Leg	Fault mode has triggered	Legs Error	18
2089	Right Leg	Cannot communicate on the LIN bus	Legs Error	19
208A	Right Leg	Node is required but not present	Legs Error	20
208D	Right Leg	Flash parameters have been updated in the node	Legs Error	21
2091	Legs	Sensor; Cable between sensor and General Module; or GM is not working	Legs Error	12
2092	Legs	No motor can be detected, check motor and cable	Legs Error	13
2093	Legs	Over current when operating function, might be overload	Legs Error	14
2094	Legs	Pinch protection activated	Legs Error	15
2095	Legs	Actuator is not moving or moving too slow	Legs Error	16
2096	Legs	Too high speed detected on actuator, check sensor	Legs Error	17
2097	Legs	Drive electronics for the actuator overheated	Legs Error	22
2098	Legs	Fault mode has triggered	Legs Error	18
2099	Legs	Cannot communicate on the LIN bus	Legs Error	19
209A	Legs	Node is required but not present	Legs Error	20
209D	Legs	Flash parameters have been updated in the node	Legs Error	21

Error ID	Function	Help	LCD Text	Remedy #
20A1	Tilt	Sensor; Cable between sensor and General Module; or GM is not working	Tilt Error	12
20A2	Tilt	No motor can be detected, check motor and cable	Tilt Error	13
20A3	Tilt	Over current when operating function, might be overload	Tilt Error	14
20A4	Tilt	Pinch protection activated	Tilt Error	15
20A5	Tilt	Actuator is not moving or moving too slow	Tilt Error	16
20A6	Tilt	Too high speed detected on actuator, check sensor	Tilt Error	17
20A7	Tilt	Drive electronics for the actuator overheated	Tilt Error	22
20A8	Tilt	Fault mode has triggered	Tilt Error	18
20A9	Tilt	Cannot communicate on the LIN bus	Tilt Error	19
20AA	Tilt	Node is required but not present	Tilt Error	20
20AD	Tilt	Flash parameters have been updated in the node	Tilt Error	21
20B1	Back	Sensor; Cable between sensor and General Module; or GM is not working	Back Error	12
20B2	Back	No motor can be detected, check motor and cable	Back Error	13
20B3	Back	Over current when operating function, might be overload	Back Error	14
20B4	Back	Pinch protection activated	Back Error	15
20B5	Back	Actuator is not moving or moving too slow	Back Error	16
20B6	Back	Too high speed detected on actuator, check sensor	Back Error	17
20B7	Back	Drive electronics for the actuator overheated	Back Error	22
20B8	Back	Fault mode has triggered	Back Error	18
20B9	Back	Cannot communicate on the LIN bus	Back Error	19
20BA	Back	Node is required but not present	Back Error	20
20BD	Back	Flash parameters have been updated in the node	Back Error	21
20C1	Seat lift	Sensor; Cable between sensor and General Module; or GM is not working	Seat Lift Error	12
20C2	Seat lift	No motor can be detected, check motor and cable	Seat Lift Error	13
20C3	Seat lift	Over current when operating function, might be overload	Seat Lift Error	14
20C4	Seat lift	Pinch protection activated	Seat Lift Error	15
20C5	Seat lift	Actuator is not moving or moving too slow	Seat Lift Error	16
20C6	Seat lift	Too high speed detected on actuator, check sensor	Seat Lift Error	17
20C7	Seat lift	Drive electronics for the actuator overheated	Seat Lift Error	22
20C8	Seat lift	Fault mode has triggered	Seat Lift Error	18
20C9	Seat lift	Cannot communicate on the LIN bus	Seat Lift Error	19
20CA	Seat lift	Node is required but not present	Seat Lift Error	20
20CD	Seat lift	Flash parameters have been updated in the node	Seat Lift Error	21
20D1	Stand	Sensor; Cable between sensor and General Module; or GM is not working	Seat Stand Error	12
20D2	Stand	No motor can be detected, check motor and cable	Seat Stand Error	13
20D3	Stand	Over current when operating function, might be overload	Seat Stand Error	14
20D4	Stand	Pinch protection activated	Seat Stand Error	15
20D5	Stand	Actuator is not moving or moving too slow	Seat Stand Error	16
20D6	Stand	Too high speed detected on actuator, check sensor	Seat Stand Error	17
20D7	Stand	Drive electronics for the actuator overheated	Seat Stand Error	22
20D8	Stand	Fault mode has triggered	Seat Stand Error	18
20D9	Stand	Cannot communicate on the LIN bus	Seat Stand Error	19
20DA	Stand	Node is required but not present	Seat Stand Error	20
20DD	Stand	Flash parameters have been updated in the node	Seat Stand Error	21
20F1	Alt switchbox	Switches are activated at start up	Alt Switchbox Error	8
20F9	Alt switchbox	Cannot communicate on the LIN bus	Alt Switchbox Error	9
20FA	Alt switchbox	Node is required but not present	Alt Switchbox Error	10
20FD	Alt switchbox	Flash parameters have been updated in the node	Alt Switchbox Error	11
2101	Option1	Sensor; Cable between sensor and General Module; or GM is not working	Extra Function Error	12
2102	Option1	No motor can be detected, check motor and cable	Extra Function Error	13
2103	Option1	Over current when operating function, might be overload	Extra Function Error	14
2104	Option1	Pinch protection activated	Extra Function Error	15
2105	Option1	Actuator is not moving or moving too slow	Extra Function Error	16
2106	Option1	Too high speed detected on actuator, check sensor	Extra Function Error	17
2107	Option1	Drive electronics for the actuator overheated	Extra Function Error	22
2108	Option1	Fault mode has triggered	Extra Function Error	18
2109	Option1	Cannot communicate on the LIN bus	Extra Function Error	19
210A	Option1	Node is required but not present	Extra Function Error	20
210D	Option1	Flash parameters have been updated in the node	Extra Function Error	21

Error ID	Function	Help	LCD Text	Remedy #
2111	Option2	Sensor; Cable between sensor and General Module; or GM is not working	Extra Function Error	12
2112	Option2	No motor can be detected, check motor and cable	Extra Function Error	13
2113	Option2	Over current when operating function, might be overload	Extra Function Error	14
2114	Option2	Pinch protection activated	Extra Function Error	15
2115	Option2	Actuator is not moving or moving too slow	Extra Function Error	16
2116	Option2	Too high speed detected on actuator, check sensor	Extra Function Error	17
2117	Option2	Drive electronics for the actuator overheated	Extra Function Error	22
2118	Option2	Fault mode has triggered	Extra Function Error	18
2119	Option2	Cannot communicate on the LIN bus	Extra Function Error	19
211A	Option2	Node is required but not present	Extra Function Error	20
211D	Option2	Flash parameters have been updated in the node	Extra Function Error	21
2121	Option3	Sensor; Cable between sensor and General Module; or GM is not working	Extra Function Error	12
2122	Option3	No motor can be detected, check motor and cable	Extra Function Error	13
2123	Option3	Over current when operating function, might be overload	Extra Function Error	14
2124	Option3	Pinch protection activated	Extra Function Error	15
2125	Option3	Actuator is not moving or moving too slow	Extra Function Error	16
2126	Option3	Too high speed detected on actuator, check sensor	Extra Function Error	17
2127	Option3	Drive electronics for the actuator overheated	Extra Function Error	22
2128	Option3	Fault mode has triggered	Extra Function Error	18
2129	Option3	Cannot communicate on the LIN bus	Extra Function Error	19
212A	Option3	Node is required but not present	Extra Function Error	20
212D	Option3	Flash parameters have been updated in the node	Extra Function Error	21
2131	Option4	Sensor; Cable between sensor and General Module; or GM is not working	Extra Function Error	12
2132	Option4	No motor can be detected, check motor and cable	Extra Function Error	13
2133	Option4	Over current when operating function, might be overload	Extra Function Error	14
2134	Option4	Pinch protection activated	Extra Function Error	15
2135	Option4	Actuator is not moving or moving too slow	Extra Function Error	16
2136	Option4	Too high speed detected on actuator, check sensor	Extra Function Error	17
2137	Option4	Drive electronics for the actuator overheated	Extra Function Error	22
2138	Option4	Fault mode has triggered	Extra Function Error	18
2139	Option4	Cannot communicate on the LIN bus	Extra Function Error	19
213A	Option4	Node is required but not present	Extra Function Error	20
213D	Option4	Flash parameters have been updated in the node	Extra Function Error	21
2141	Option5	Sensor; Cable between sensor and General Module; or GM is not working	Extra Function Error	12
2142	Option5	No motor can be detected, check motor and cable	Extra Function Error	13
2143	Option5	Over current when operating function, might be overload	Extra Function Error	14
2144	Option5	Pinch protection activated	Extra Function Error	15
2145	Option5	Actuator is not moving or moving too slow	Extra Function Error	16
2146	Option5	Too high speed detected on actuator, check sensor	Extra Function Error	17
2147	Option5	Drive electronics for the actuator overheated	Extra Function Error	22
2148	Option5	Fault mode has triggered	Extra Function Error	18
2149	Option5	Cannot communicate on the LIN bus	Extra Function Error	19
214A	Option5	Node is required but not present	Extra Function Error	20
214D	Option5	Flash parameters have been updated in the node	Extra Function Error	21
2151	Option6	Sensor; Cable between sensor and General Module; or GM is not working	Extra Function Error	12
2152	Option6	No motor can be detected, check motor and cable	Extra Function Error	13
2153	Option6	Over current when operating function, might be overload	Extra Function Error	14
2154	Option6	Pinch protection activated	Extra Function Error	15
2155	Option6	Actuator is not moving or moving too slow	Extra Function Error	16
2156	Option6	Too high speed detected on actuator, check sensor	Extra Function Error	17
2157	Option6	Drive electronics for the actuator overheated	Extra Function Error	22
2158	Option6	Fault mode has triggered	Extra Function Error	18
2159	Option6	Cannot communicate on the LIN bus	Extra Function Error	19
215A	Option6	Node is required but not present	Extra Function Error	20
215D	Option6	Flash parameters have been updated in the node	Extra Function Error	21

Error ID	Function	Help	LCD Text	Remedy #
2161	Articulation legs	Sensor; Cable between sensor and General Module; or GM is not working	Articul. Legs Error	12
2162	Articulation legs	No motor can be detected, check motor and cable	Articul. Legs Error	13
2163	Articulation legs	Over current when operating function, might be overload	Articul. Legs Error	14
2164	Articulation legs	Pinch protection activated	Articul. Legs Error	15
2165	Articulation legs	Actuator is not moving or moving too slow	Articul. Legs Error	16
2166	Articulation legs	Too high speed detected on actuator, check sensor	Articul. Legs Error	17
2167	Articulation legs	Drive electronics for the actuator overheated	Articul. Legs Error	22
2168	Articulation legs	Fault mode has triggered	Articul. Legs Error	18
2169	Articulation legs	Cannot communicate on the LIN bus	Articul. Legs Error	19
216A	Articulation legs	Node is required but not present	Articul. Legs Error	20
216D	Articulation legs	Flash parameters have been updated in the node	Articul. Legs Error	21
2171	Support Wheels	Sensor; Cable between sensor and General Module; or GM is not working	Support Wheels Error	12
2172	Support Wheels	No motor can be detected, check motor and cable	Support Wheels Error	13
2173	Support Wheels	Over current when operating function, might be overload	Support Wheels Error	14
2174	Support Wheels	Pinch protection activated	Support Wheels Error	15
2175	Support Wheels	Actuator is not moving or moving too slow	Support Wheels Error	16
2176	Support Wheels	Too high speed detected on actuator, check sensor	Support Wheels Error	17
2177	Support Wheels	Drive electronics for the actuator overheated	Support Wheels Error	22
2178	Support Wheels	Fault mode has triggered	Support Wheels Error	18
2179	Support Wheels	Cannot communicate on the LIN bus	Support Wheels Error	19
217A	Support Wheels	Node is required but not present	Support Wheels Error	20
217D	Support Wheels	Flash parameters have been updated in the node	Support Wheels Error	21

Remedies	
1	The ICS master is not correctly updated or there is a memory error. An UI or Model checksum error is detected. - Try reprogramming the master configuration. If that doesn't help, replace the ICS Master Module..
2	This error comes when the Master has detected that the LIN-bus current was unexpectedly high when no actuator movement was ordered. Reason is probably that the output transistor in an actuator node (GM or Smart actuator) is constantly active. - Turn the system off and on and see if any actuator moves for a second before the error is indicated again. Note: If the faulty unit is trying to drive the system into a hard stop no movement will be possible.
3	Problems with internal SPI communication, that means the communication between the URIB and the Master Main-PCB in the ICS Master Module. - For old versions, try to update Master Firmware and/or the URIB-software. If this doesn't help or if the error is constantly repeated the Master Module needs to be replaced.
4	This error indicates that the CPU in the Master Module can not write to the internal flash memory. - If this error is repeated the Master Module needs to be replaced.
5	ICS Master is not able to update parameters in a node memory. Read data doesn't match the data written to the node. - Replace the node. - If that doesn't help, replace the ICS Master Module.
6	Restart system by cycling power. Use the Rnet system ON/OFF button.
7	This error comes when the Master has detected that there is a Smart actuator or a General Module that has no defined function connected to the LIN-bus. This can happen for example if a system that is equipped with a special adaptation is reprogrammed using a standard config-file. - Try to use the factory back-up file (custom shop) to reprogram the system. Contact Permobil Customer Support for help if needed.
8	If a switch/button on the switchbox is activated/pressed when system is starting-up will not generate any error-code. But the system will ignore the button until it is released and activated again. This error code not reported on display or in log.
9	Switchbox is detected on the LIN-bus but the messages from it has the wrong checksum. - Replace the Switchbox.
10	Not implemented. This error code will never occur.
11	- Restart is required. Switch OFF/ON system.
12	- Check the cables and the connectors between the General Module and the sensor
13	- Check the cables and the connector between the motor and the General Module or the Smart Actuator Electronics.
14	Overcurrent is detected when the current to the actuator motor exceeds a predefined value a short time. This can be due that the actuator hits the actuator hard end stop or any other hard stop. It could also be due to overload from the user weight or from that something is not moving as easy as it should. - Find out where in the movement the over current occurs. - Check that the actuator do not move into a hard end stop. - Check that the seat function can do a full movement as expected without user. - Replace actuator if no other reason for the overcurrent is found.
15	- Check if the Pinch Protection switch is activated. - Check cable and connector between the Pinch Protection switch and the General Module. - Check if possible the function of the switch using a voltage meter or ohm-meter. - Replace the switch or/and the General Module.
16	This error can only occur if the movement of the actuator is monitored. The node detects no or too little/slow changes of the position feedback signal. - For external position feedbacks (e.g. SoftPot) check wiring and connectors. - Check that the actuator position (length) shown in WB corresponds to the physical position/length. - Change feedback sensor/Smart Actuator if no other reason found.
17	This error can only occur if the movement of the actuator is monitored. The node detects too fast changes of the position feedback signal. - For external position feedbacks (e.g. SoftPot) check wiring and connectors. - Check that the actuator position (length) shown in WB corresponds to the physical position/length. - Change feedback sensor/Smart Actuator if no other reason found.
18	The node has detected an internal fault, for example a faulty voltage level. - Replace the node. When an actuator with REAC DigPot is used this error code indicates a short-circuit on the DigPot's output (motor connections)
19	The node is detected on the LIN-bus but the messages from it has the wrong checksum. - Replace the General Module or Smart Actuator.
20	Master can't detect that the node is connected. - Check connections to the General Module or Smart Actuator. - If connections are ok replace the General Module or Smart Actuator.
21	- Restart is required. Switch OFF/ON system.
22	The Smart Actuator or General Module has detected a too high temperature on the PCB. This is probably caused by heavy load (current) during a longer time, probably when the actuator has been used with reduced speed. - Wait for unit to cool down