No.	Description	Possible Reasons
F.000	Door position too far up	The encoder sees the current increment count to be higher than the open position increment count. If the brake has been pulled, the door could have been manually moved past its open limit. If it keeps occuring, try resetting limits by setting P.210 to a value of 5. If it still comes back, check the brake for proper adjustment and confirm the door is not drifting up. Counterweight and/or strap issues can also cause this fault.
F.005	Door position too far down	The encoder sees the current increment count to be lower than the close position increment count. If the brake has been pulled, the door could have been manually moved past its closed limit. If it keeps occuring, try resetting limits by setting P.210 to a value of 5. If it still comes back, check the brake for proper adjustment and confirm the door is not drifting up. Counterweight and/or strap issues can also cause this fault.
F.020	Run time exceeded (during opening, closing or deadman)	The door did not reach the end position before the run timer expired. If the open or close speeds have been slowed down too far, this fault can occur. This can also occur if the door is binding. On intrinsic doors or other mechanical limit applications (some older fast seals) the limit switch may not have tripped or been recognized by the controller. P.410 is the open run time, P.415 is the close run time, and P. 419 is the jog run time. The default time for all of these is 60 seconds.
F.021	Emergency opening wrong testing	This is the same as an F020.
F.030	Lag error (position change of the door is less than expected)	The encoder does not see the door moving as expected. Refer to motor stall flow chart.
F.031	Detected rotational direction deviates from expected	The motor is rotating in a direction that is opposite from what the encoder is expecting it to be. This typically occurs on start up after phasing has been swapped. Try resetting limits by setting P.210 to a value of 5. If it occurs after start up, confirm your incoming power voltage. If the door is counter-balanced, confirm the belts are intact. This can also occur after photo eye or edge reversals. Confirm all 3 legs of incoming power to ground reference.
F.033	Bad position transmitter protocol	The controller has not received data from the encoder for an extended period. Try resetting the encoder per bulletin 154. Confirm there is no high voltage near or crossing the conduit with the encodercable. Keep high voltage spacing to at least 2" at all points.
F.035	Lag error during closing (position change of the gate is less than expected)	This fault is typically associated with a motor stall. Follow the motor stall flow chart for correction procedures.
F.036	Gate crash detected	The encoder sees the door moving much faster than expected. Check for broken couterweight in mid-travel.
F.040	Defective brake	The brake was engaged and the encoder saw the door move. Confirm the counterweights/springs are not broken or bottoming out/hitting on top. On SEW motors, confirm the brake gap to be between .010020
F.043	Pre-limit switch fault (light barrier)	There is a limit issue with the light curtains. Try resetting limits. P.210-5
F.050	Reference switch position deviates from permissible range during cyclical synchronization	The encoder settings are outside the possible range. Try restting limits. P.210-5 and take note of the total increment count at full open. If the fault comes back, try adjusting the encoder resolution at P.202. A larger number will decreaase the total increment count. A smaller number will increase the increment count. Depending on the height of the door, the full open should generally be between 1200-2500inc.
F.051	Reference switch position deviates from permissible range.	This is the same as an F.050
F.052	Reference switch not recognized	This fault will occur with a side column limit on fast seals or Sychronizing spiral doors. If it has the mechanical limit, confirm it is working and set correctly. If it is a Spiral, try and reset the limits. P.210-5.
F.060	Breakaway recognized	The controller thinks the door has been knocked out of the guides. Make sure any breakaway features are reset. Run the door full open and hold the reset button for 3-5 seconds. If it does not clear, confirm the breakaway switches have coninuity and follow the signal to either the mobile unit or the control board if there is a coil cord.
F.063	Balance error on loop 3	There is a Loop Error for the expansion board detector channel 3. Check the loop wires with a megohm meter. You can also try adjusting the loop sensitivity settings at P.BC3

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F.064	Balance error on loop 4	There is a Loop Error for the expansion board detector channel 4. Check the loop wires with a megohm meter. You can also try adjusting the loop sensitivity settings at P.BD3
F.067	Error on loop 3	There is a Loop Error for the expansion board detector channel 3. Check the loop wires with a megohm meter. You can also try adjusting the loop sensitivity settings at P.BC3
F.068	Error on loop 4	There is a Loop Error for the expansion board detector channel 4. Check the loop wires with a megohm meter. You can also try adjusting the loop sensitivity settings at P.BD3
F.070	"Clean"-Position reached	The door is in clean mode. If it will not change back, check the push button or clean mode activation switch. If it is not a clean roll, the controller will need to be defaulted.
F.080	Fault: Maintenance is required	The maintenance counter has expired and needs to be reset. Set P.005 to -1 to deactivate the counter. Also confirm P.970 is set to 0.
F.090	Controller not parameterized	The controller has no default programming set. It will need a factory default. The motor parameters P100-P.103 will need to be set first, then a factory default can take place. Contact Rytec Technical Support for the default settings.
F.201	Internal E-Stop "push-button" tripped or Watchdog (computer monitor)	There is an internal E-stop failure. Typically this is a 24v short. If the controller is a system 3 confirm there are no wires in the watchdog jumper. Mark and remove all low voltage wiring, including the USB stick and the overlay key pad, and reset power to the controller. If the issue clears, reconnect low voltage wiring one wire at a time to find the shorting circuit. If the issue persists, contact technical support.
F.211	External E-Stop 1 tripped	The controller sees a break in the closed E-Stop 1 circuit. If there are wires in the E-Stop (terminals 1-2 on system 3 or terminals 240-241 on system 4) confirm the attached device has continuity.
F.212	External E-Stop 2 tripped	The controller sees a break in the closed E-Stop 2 circuit. If there are wires in the E-Stop (terminals 2-3 on system 3 or terminals 250-251 on system 4) confirm the attached device has continuity.
F.320	Obstacle during opening	An obstacle has been detected during opening. This will only come on if P.480-2 and P.481 is set other than 0. If this has been turned on, check for dragging or binding on the door.
F.325	Obstacle during closing	An obstacle has been detected during closing. This will only come on if P.480-2 and P.485 is set other than 0. If this has been turned on, check for dragging or binding on the door.
F.360	Short circuit detected on edge input	The controller is seeeing a constant trip coming from the reversing edge. Check the Edge LED Status. Run the door open and hold the reset for 3-5 seconds. If it does not clear, confirm the edge switch is set open and there is the proper resistance on the resistor. Follow the normally open signal and resistance back to the mobile unit or to the controller if there is a coil cord.
F.361	Number of edge trips for closing has reached set limit	The controller sees the egde has tripped the maximum number of times. Check the Edge LED Status. Run the door open and hold the reset for 3-5 seconds. If it does not clear, confirm the edge switch is set open and there is the proper resistance on the resistor. Follow the normally open signal and resistance back to the mobile unit or to the controller if there is a coil cord.
F.362	Redundancy error with short circuit	There is a reversing edge fault. If the controller has other edge fault messages, follow the procedures for those messages. If the F.362 is the only edge message on the display, replace the control board.
F.363	Interruption on edge input	The controller does not see the correct resistance from the edge circuit. Check the Edge LED Status. Confirm the edge resistance and follow the resistance to the mobile unit or to the controller if there is a coil cord.
F.364	Safety edge testing failed	There was a timeout on information from the edge at the open testing. Check and confirm 8200ohms on the resistor and follow it to the mobile unit connections. Depending on wireless software, P.40E may need to be adjusted.
F.365	Redundancy error with interruption	There is a reversing edge fault. If the controller has other edge fault messages, follow the procedures for those messages. If the F.365 is the only edge message on the display, replace the control board.

F.366	Too high a pulse frequency for optical safety edge	This fault only applies with an optical edge. Our doors do not use an optical edge. If this fault is on the display try a default on the controller.
F.369	Internal safety edge incorrectly parameterized	The edge is turned off in programming but there is a wire in the edge input. This fault should only come on if the door has no edge (Turbo Sldie, Arctec, or Fast Fold). If the door does have an edge, the door sill need to have the edge parameters checked and possibly a default.
F.385	Fault in pre-limit switch for safety edge	The edge is tripped in the full open position. Try clearing the edge trip as if it were a 361. If the issue stays if the edge is ok, try resetting limits.
F.400	Controller hardware reset detected	There is an incoming supply voltage issue. Check the incoming power each leg to ground and from phase to phase. Confirm the ferrite filters are also installed and the incoming line is grounded properly.
F.40B	Communication error expansion board	Communication between the expansion board and main board is interrupted. Check the cable connections between the 2 control boards. Confirm no foreign voltage is on the expansion board.
F.40C	Unknown extension board (CAN connection)	Communication issue on the expansion board. Check the ribbon cables on all levels of the control board. Confirm no foreign voltage is on the expansion board.
F.410	Over-current (motor current or DC-bus)	The controller is putting to much current to the motor. Confirm the door is not sticking or binding. Confirm the brake is working. If the door is counter-balanced, confirm the straps are intact. The current boost settings (P.140 and P.145) may be set to high. Consult factory for actual settings.
F.413	The brake chopper under heavy load	Check the brake resistor (50ohms on the black and white wire on the left hand side of the lower/back control board on System 4, 50ohms on the brown and white wire in the upper left hand corner on 230v System 3 controllers or 100ohms on 460v System 3 controllers). The resistance must be checked with the wires disconnected. If the resistance is incorrect, replace the controller.
F.420	Overvoltage in DC-bus Limit 1	The controller sees too much voltage in the DC bus. Check the brake resistor (500hms on the black and white wire on the left hand side of the lower/back control board on System 4, 500hms on the brown and white wire in the upper left hand corner on 230v System 3 controllers or 1000hms on 460v System 3 controllers). The resistance must be checked with the wires disconnected. If the resistance is incorrect, replace the controller.
F.425	Overvoltage line supply	The controller sees either too much incoming voltage or fluctuating voltage to the controller. Confirm the incoming voltage and monitor for one minute. Cross reference this by checking P.940 and P.941. If the voltage readings fluctuate constantly, install a line reactor to regulate the current.
F.426	Undervoltage line supply	The controller sees the incoming voltage too low or fluctuating too rapidly. Confirm the incoming voltage each elg to ground and phase to phase. Cross-reference with what is displayed at. P.940. It is either too low or fluctuating to rapidly in the lower range for the controller to operate.
F.430	Temperature cooler outside of working range Limit 1	The temperature of the heat sink is too low. If there is a control box heater, wait 30-45 minutes after power up for the controller to get warm inside. If there is no control box heater, you may need one.
F.435	Housing temperature high	The controller housing is too hot to function. The controller will need to be mounted in a cooler environment or protected from the heat. If there is control box heat, the thermostat may be damged. If the temperature is not hot near the controller and it does not have a control box heater, it will most likely need to be repalced.
F.440	Overcurrent in DC-bus Limit 1	The controller is putting too much current to the motor. Confirm door is not sticking or binding. Confirm the brake is working. If the door is counter-balanced, confirm the straps are intact. The current boost settings (P.140 and P.145) may be set to high. Consult factory for actual settings.
F.510	Motor / DC-bus overcurrent Limit 2	The controller is putting too much current to the motor. Confirm the door is not sticking or binding. Confirm the brake is working. If the door is counter-balanced, confirm the straps are intact. The current boost settings (P.140 and P.145) may be set to high. Consult the factory for the actual settings.

F.511	No DC supply	No DC supply can be sent top the motor. This typically occurs when the door is ordered with motor heat and the parameters are not set correctly or the thermostat was not installed or placed correctly. Check the motor heat settings per handout OPT-0013
F.512	Offset motor current / DC-bus current faulty	This fault has only been seen with damaged componenets on the control board. The controller will need to be repalced.
F.513	Brake chopper overloaded, not installed or defective	Check the brake resistor (50ohms on the black and white wire on the left hand side of the lower/back control board on System 4, 50ohms on the brown and white wire in the upper left hand corner on 230v System 3 controllers or 100ohms on 460v System 3 controllers). The resistance must be checked with the wires disconnected. If the resistance is incorrect, replace the controller.
F.515	Motor protection function detected overcurrent	The controller is putting to much current to the motor. Confirm the door is not sticking or binding. Confirm the brake is working. If the door is counter-balanced, confirm the straps are intact. The current boost settings (P.140 and P.145) may be set to high. Consult the factory for the actual settings.
F.518	Earth fault recognized	The motor or motor cable is shorting to ground. Ohm out the motor cable and motor. If the results are inconclusive with a standard multimeter, a megohm meter may be needed.
F.519	IGBT driver chip detected overcurrent	The controller sees an overcurrent to the IGBT chip. Remove the motor and brake leads from the controller. Try running the door with the motor and brake unhooked. If the 519 comes back with the motor unhooked, replace the controller. Check the motor windings with megohm meter and confirm the motor cable and windings are ok. If you do not have access to a megohm meter, a multimeter can confirm the cable is ok but not necessarily that the motor is ok. It can confirm if the winding is shorted at that point it is resting on.
F.520	Overvoltage in DC-bus Limit 2	The controller sees too much voltage in the DC bus. Check the brake resistor (500hms on the black and white wire on the left hand side of the lower/back control board on System 4, 500hms on the brown and white wire in the upper left hand corner on 230v System 3 controllers or 1000hms on 460v System 3 controllers). The resistance must be checked with the wires disconnected. If the resistance is incorrect, replace the controller.
F.521	Overvoltage in DC-bus	The controller sees low incoming voltage on the load of the controller. Check incoming power each leg to ground and across phases. Cross refernce this with what is displayed at P.940. Check the phase jumpers on the rear board and confirm all connections are good and tight.
F.524	Ext. 24 V supply missing or too low	The controller sees a low 24v supply. Check the controller for 24v short.
F.525	Overvoltage at the line supply input	The controller sees either too much voltage or fluctuating voltage to the controller. Confirm the incoming voltage and monitor for one minute. If the voltage readings fluctuate constantly, install a line reactor to regulate the current.
F.530	Heatsink temperature outside of working range Limit 1	The temperature of the heat sink is too low. If there is a control box heater, wait 30-45 minutes after power up for the controller to get warm inside. If there is no control box heater, you may need one.
F.535	Housing temperature high	The controller housing is too hot to function. The controller will need to be mounted in a cooler environment or protected from the heat. If there is control box heat, the thermostat may be damged. If the temperature is not hot near the controller and it does not have a control box heater, it will most likely need to be repalced.
F.540	Overcurrent in DC-bus Limit 2	The controller is putting to much current to the motor. Confirm the door is not sticking or binding. Confirm the brake is working. If the door is counter-balanced, confirm the straps are intact. The current boost settings (P.140 and P.145) may be set to high. Consult the factory for the actual settings.
F.700	Position sensing defective	The controller doesn't see any set limit positions. Confirm the programming switch is on and press the reset button for 3-5 seconds to clear the fault. If it does not clear, try resetting P.210-5. If the fault continues, contact technical support.
F.720	Synchronization error in position sensing with incremental encoder	The limits are outside of tolerance. If there is a partial limit, it may have been set too close to the close limit. If this is not the case, check the encoder magnet and shaft. Try then resetting P. 210-5.

#### **Rytec High-Performance Door - Error Codes**

# **Sylvester's Maintenance & Mechanical**

F.752	Timeout with protocol transmission	The controller does not see any information from the encoder. Check all encoder connections, including the quick connect and the internal plug in. If it is a system 3 controller, confirm the correct encoder jumper positions and confirm the odd terminals are on top and the evens are on bottom. Check P205 and 200. They should both match and be set to 8 for the Feig (black rectangle) encoder and 5 for the Dynapar (round) encoder. Try and reset the encoder.
F.760	Position outside of window	The encoder count is outside of the possible window. Check the resolution settings at P.202. Increase or decrease as needed so the full open is between 1000-3000inc.
F.761	Distance Channel 1 <-> Channel 2 outside allowed window	There is a faulty interference on the encoder. Try an encoder reset. If the fault does not clear, repalce the encoder.
F.762	Electronic limit switch positions incorrect	See solutions for 700 and 752
F.766	Internal error TST PD/PE	The encoder has seen a reset. Press and hold the controller reset button for 3-5 seconds and reset limits by setting P.210-5.
F.767	Overtemperature TST PD	The temperature in the encoder housing is to high. Check for a loose encoder magnet or shaft. Confirm the encoder mounting itself is not loose. If the encoder is in direct sunlight and the ambient temperature is above 100 degrees, the encoder may need to be shaded from the sun.
F.768	Battery voltage	The battery on the positioning encoder is dead. Any time the power is turned off, the door will lose limits. Replace the encoder battery.
F.769	Rotation speed of PD shaft to high	The rotation speed of the shaft where the encoder is mounted is to high. Typically this only happens when the shaft the encoder magnet is mounted on has come loose or the main shaft of the drum is broken. Confirm the encoder, encoder magnet, and encoder shaft is tight.
F.770	Door way is to high for the parameter set Encoder resolution	The door position is above the maximum resolution setting. This usually happens when the encoder has been removed and put back on but the limits have not been reset. First try resetting the limits. P.210-5. If this does not clear the issue try adjusting the resolution settings at P.202.
F.7A2	Timeout with protocol transmission by ASC1	The controller does not see any information from the encoder. Check all encoder connections, including the quick connect and the internal plug in. If it is a System 3 controller, confirm the correct encoder jumper positions and confirm the odd terminals are on top and the evens are on bottom. Check P205 and 200. They should both match and be set to 8 for the Feig (black rectangle) encoder and 5 for the Dynapar (round) encoder. Try and reset the encoder. Also confirm the encoder is shielded and grounded correctly. Confirm there is no high voltage crossing or running next to the encoder cable.
F.801	Wrong Test of input 1 of the mobile unit TST FSx	The mobile unit is seeing a fault on input 1 (terminals 1-2) of the mobile unit. Confirm 8200ohms in the wires and Normally open on the switch. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
F.802	Wrong Test of input 2 of the mobile unit TST FSx	Input 2 of the mobile unit (terminals 3-4) are shorted. We do not have anything connected to terminals 3-4 and it is showing a short across the terminals. This almost always happens when there is condensation, ice, or water on the mobile unit. Remove all the wires from the mobile unit and dry out the mobile unit and terminal blocks.
F.803	Wrong Test of input 3 of the mobile unit TST FSx	The mobile unit is seeing a fault on input 3 (terminals 5-6) of the mobile unit. Confirm the two wires on 5-6 have a closed circuit. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
F.811	Wrong Test of output 1 of the stationary unit TST FSx	The mobile unit is seeing a fault on input 1 (terminals 1-2) of the mobile unit. Confirm 8200ohms in the wires and Normally open on the switch. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
F.812	Wrong Test of output 2 of the stationary unit TST FSx	Input 2 of the mobile unit (terminals 3-4) are shorted. We do not have anything connected to terminals 3-4 and it is showing a short across the terminals. This almost always happens when there is condensation, ice, or water on the mobile unit. Remove all the wires from the mobile unit and dry out the mobile unit and terminal blocks.
F.813	Wrong Test of output 3 of the stationary unit TST FSx	The mobile unit is seeing a fault on input 3 (terminals 5-6) of the mobile unit. Confirm the two wires on 5-6 have a closed circuit. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.

F.821	Wrong parameter setting input 1 of mobile unit	The mobile unit is seeing a fault on input 1 (terminals 1-2) of the mobile unit. Confirm 8200ohms in the wires and Normally open on the switch. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
F.822	Wrong parameter setting input 2 of mobile unit	Input 2 of the mobile unit (terminals 3-4) are shorted. We do not have anything connected to terminals 3-4 and it is showing a short across the terminals. This almost always happens when there is condensation, ice, or water on the mobile unit. Remove all the wires from the mobile unit and dry out the mobile unit and terminal blocks.
F.823	Wrong parameter setting input 3 of mobile unit	The mobile unit is seeing a fault on input 3 (terminals 5-6) of the mobile unit. Confirm the two wires on 5-6 have a closed circuit. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
F.831	Disturbed input 1 of mobile unit TST FSx	The edge is reading open at the mobile unit and does not see the required 8200ohms. Confirm the resistance on the 2 wires. Redo the resistor connection on the air switch. Strip back and reland the connections on the air switch and the mobile unit. If the bottom bar looks damaged, replace the edge wire running through the bottom bar.
F.832	Disturbed input 2 of mobile unit TST FSx	Input 2 of the mobile unit (terminals 3-4) are shorted. We do not have anything connected to terminals 3-4 and it is showing a short across the terminals. This almost always happens when there is condensation, ice, or water on the mobile unit. Remove all the wires from the mobile unit and dry out the mobile unit and terminal blocks.
F.833	Disturbed input 3 of mobile unit TST FSx	The mobile unit is seeing a fault on input 3 (terminals 5-6) of the mobile unit. Confirm the two wires on 5-6 have a closed circuit. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
F.851	Max. Number of allowed Reversings, because of bad WiCAB radio, exceeded.	The encoder sees interruption in the wireless signal. Confirm the antenna is not damaged.
F.852	Communication error between TST FSx and controller	The controller does not see any information from the wireless. Check all encoder connections, including the quick connect and the internal plug in. If it is a system 3 controller, confirm the correct encoder jumper positions and confirm the odd terminals are on top and the evens are on bottom. Check P205 and 200. They should both be set to 8. Try and reset the encoder. Confirm that there is no damage to the antenna.
F.853	TST PE_FSBS operating voltage too low	The operating voltage of encoder TST PE_FSBS is too low (less than 8V). As a result, the calculation of the position must be terminated.
F.856	Communication error between mobile and stationary unit	Confirm that the wireless battery is 3.60vdc or higher while plugged in. 3.59vdc is not enough voltage to communicate effectively. Also confirm the mobile address on the wireless matches PF07. Depending on controller software, check P92B. If its 3.79, make sure the mobile unit has a 3.79 sticker. If its 4.02, make sure the mobile unit has a 250kbit sticker. Confirm there is no damage to the antenna. Try unplugging the battery from teh mobile unit, wait a minute or two, and reconnect the battery.
F.857	Battery empty	The battery monitoring function needs to be disabled. To deactivate this error message, set P.F09 and P.F0B to 0
F.859	Software version	The software versions of the stationary and the mobile unit are not compatible. No safe trip possible.
F.860	Internal fault stationary unit	Internal system fault on the stationary unit.
F.861	Internal fault mobile unit	The mobile unit has had an internal error. Unplug the mobile unit for a full minute and plug the battery back in.
F.862	Internal positioning system error	Internal error of the positioning system. Presumably, the magnet is not attached properly.
F.867	Adresse of mobile unit not set	The wireless address has not been set. Either manually enter the wireless address at P.F07 or attempt to auto program the mobile address.
F.910	No communication to expansion board possible	There is no communication to the expansion board. Confirm P.800-5. Typically the expansion board needs to be removed and the parameters set with the main board. The expansion board must then be installed after the parameter is set.
F.912	RAM error	Check for foreign voltage to the control board by removing all low voltage conntections. If there is an expansion board with a freezer package, make sure AC voltage (24v or 110v) isn't backfeeding to the controller.

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Communication error between main processor and I/O processor	This fault message will occasionally show in the history. If the fault is not constantly on the display, pay no attention to the fault. If it is constantly on the display, try reseating the front and back ribbon cables. Also try clearing a 24v short.
Error reading USB stick	The USB storage is full or loose. Contact rytec support to disable the USB drive.
Internal 2.5 V reference voltage incorrect	There is a hardware fault on the main board. Try reseatting the ribbon cables and check for a 24v short. Also confirm no foreign voltage has been brought to the controller.
Internal 15 V voltage incorrect	There is a hardware fault on the main board. Try reseatting the ribbon cables and check for a 24v short. Also confirm no foreign voltage has been brought to the controller.
E-Stop chain not complete	Confirm the wiring to any of the e-stops on the controller. Make sure the estops are NC and showing a closed signal returning to the controller. Confirm the return signal is 24v.
DC-bus voltage measuring not plausible	There is a hardware fault on the main board. Try reseatting the ribbon cables and check for a 24v short. Also confirm no foreign voltage has been brought to the controller.
Testing of the third shutdown method failed	Confirm the wiring to any of the e-stops on the controller. Make sure the estops are NC and showing a closed signal returning to the controller. Confirm the return signal is 24v.Try reseatting the ribbon cables and check for a 24v short. Also confirm no foreign voltage has been brought to the controller.
Bad braking current	Excessive current on the bake. Check the ohms on the brake coils. Confirm the brake wire is not shorting to ground. If there is motor heat, double check the heat parameter settigns per OPT-0013 and confirm there is no short in the motor or motor windings.
Faulty input testing	The controller did not see a successful test of the photo eyes. Confirm the front and rear eyes are not cross talking. Also confirm if there are multiple doors next to each other, confirm the eyes are not cross talking with the door next to it. Confirm the brown wires on 221 and 231 are coming from the emitters. If there are sunlight issues, contact Rytec tech support.
External watchdog incorrect	Confirm there is no 24v short by disconnecting all low voltage wiring and the USB drive. Confirm no foreign voltage is being brought into the controller. Contact Rytec tech support if the issue persists.
RAM error	Hardware fault. Try resetting power to the controller. If it does not clear, repalce the controller.
Wrong frequency of CPU	Internal fault of the CPU. Confirm incoming voltage on the controller each leg to ground. This fault typically occurs when there is an ungrounded or open delta incoming power situation.
Stack error	Programming stack error. Contact Rytec support for a factory default of the controller.
ROM Error des IO Prozessors	Defective ROM processor. Replace the control board.
RAM Error des IO Prozessors	Defective RAM processor. Replace the control board.
Wrong parameter checksum	The controller has no default package. Contact Rytec tech support to default the controller.
Checksum from calibration values etc.	The controller has no default package. Contact Rytec tech support to default the controller.
Converter parameters not plausible	The controller has no default package. Contact Rytec tech support to default the controller.
Ramp parameters not plausible	The controller has no default package. Contact Rytec tech support to default the controller.
Program version / manufacturer code	The controller has no default package. Contact Rytec tech support to default the controller.
Hardware unknown	There is a software conflict. Check P.925. This typically occurs when some parts of the control board are repalced but not the complete controller. Contact technical support for a default and additional software may need to be sent.
	Error reading USB stick Internal 2.5 V reference voltage incorrect Internal 15 V voltage incorrect E-Stop chain not complete DC-bus voltage measuring not plausible Testing of the third shutdown method failed Bad braking current Faulty input testing External watchdog incorrect RAM error Wrong frequency of CPU Stack error ROM Error des IO Prozessors RAM Error des IO Prozessors Wrong parameter checksum Checksum from calibration values etc. Converter parameters not plausible Ramp parameters not plausible Program version / manufacturer code

Internal error Real time clock	The controller sees a loss of time on the internal clock. Reset P.C01 through C06 to the correct time, date, and year.
Plausibility Param.block error	The controller has no default package. Contact Rytec tech support to default the controller.
Edge Trip at Mobile Unit	The mobile unit is seeing an edge trip on input 1 (terminals 1-2) of the mobile unit. Confirm 8200ohms in the wires and Normally open on the switch. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
Door Ajar at Mobile Unit	The mobile unit is seeing a door ajar fault on input 3 (terminals 5-6) of the mobile unit. Confirm the two wires on 5-6 have a closed circuit. If there is water on the mobile unit, remove all the wires and dry the mobile unit and terminal blocks.
Self resetting crash is active	The controller thinks the door has been knocked out of the guides. Make sure any breakaway features are reset. Run the door full open and hold the reset button for 3-5 seconds. If it does not clear, confirm the breakaway switches have coninuity and follow the signal to either the mobile unit or the control board if there is a coil cord.
Speed in open position to high	The door is trying to calibrate and is seeing an error going open. If it persists and will not calibrate, contact Rytec tech support.
Speed in close position to high	The door is trying to calibrate and is seeing an error going closed. If it persists and will not calibrate, contact Rytec tech support.
Permanent open comand still aktiv	The controller is seeing a constant open signal while trying to set limits. Check all of the inputs for the open signal.
Forced opening active	The force open timer is active. P.018 has been set to activate the door after a certain time.
Wait for foil key command	The door is set for jog mode from the buttons and cannot calibrate. Confirm P630 and P. 650 are set to 2 and calibrate the door. Otherwise turn off the autocalibration at P216-0.
Door counter wrong	There is an internal error of the cycle counter. Contact Rytec Support to default the controller.
New reference position taken over	There is an internal issue with the positioning encoder. Confirm P.200 and P.205 match and are correct for the encoder type. Also confirm the correct encoder wiring.
Limit switch not plausible	The door has mechanical limits and more than one is being tripped at the same time. Check the limit switches and limit wiring.
Limit switch not plausible	The door has mechanical limits and more than one is being tripped at the same time. Check the limit switches and limit wiring.
Open command to door 2	The door is sending a signal to another controller to open for an auto airlock.
Disturbed N.O. safety edge	The edge showed open in mid travel. Confirm edge and resistor connections. If the door has a coil cord or energy chain check the connections and replace the controller.
Airlock not active	The controller is not seeign the hard door limit or hard door limit jumper on a freezer package. Confirm the jumper is in 330-331 if there is no hard door limit switch. If there is a hard door switch, confirm the hard door is open and there is continuity through the switch back to the controller.
Defrost not active	
Correction drive finished	The door has finished calibration and is ready for regular operation.
Active correction drive	The door is preforming a calibration run. The door will run 2-12 cycles on its own. Do not allow traffic through the opening or allow any activators to be triggered during this time.
Pre set speed for open or close drive not reached	The door is having difficulty achieving calibration speeds in either the open or close directions. Contact Rytec tech support to help fine tune the calibration.
	Edge Trip at Mobile Unit  Door Ajar at Mobile Unit  Self resetting crash is active  Speed in open position to high  Speed in close position to high  Permanent open comand still aktiv  Forced opening active  Wait for foil key command  Door counter wrong  New reference position taken over  Limit switch not plausible  Limit switch not plausible  Open command to door 2  Disturbed N.O. safety edge  Airlock not active  Defrost not active  Correction drive finished  Active correction drive

#### **Rytec High-Performance Door - Error Codes**

# **Sylvester's Maintenance & Mechanical**

1.555	Measuring rotation factor not ready	The door has finished calibration and is ready for regular operation.
1.901	Wait for USB-stick	The controller is waiting for the USB drive. Remove the USB stick and contact Rytec Technical Support to turn off the USB
1.001		message.
1.908	The Boot Loader was started and is waiting for a connection via the	The controller is waiting for the USB drive. Remove the USB stick and contact Rytec Technical Support to turn off the USB
	RS485 encoder interface	message.
1.915	Testing successful	The USB storage is full or loose. ContactRytec Technical Support to disable the USB drive.
1.916	Error reading USB stick (data storage)	The USB storage is full or loose. Contact Rytec Technical Support to disable the USB drive.
1.917	Log function is being initialized. The controller is halted until the	The USB logfile is initiating during power-up. If the controller stays in initialization more than 2 minutes, remove the USB and
	initialization is complete.	restart the controller.