

SERVICE MESSAGES FRONIUS SYMO 3.0-8.2 SERIES 16TH OF JULY 2014



Dear Fronius customer!

These state codes will help you to ascertain errors of the FRONIUS Symo inverters, the photovoltaic system as well as installation and operation errors, and – if possible – how to repair on site.

Service class 1

These errors usually occur only temporarily and are caused by the public mains. The inverter reacts by disconnecting from the public mains and attempts to switch on again after the specified mains monitoring period. If there is a further grid fault, the monitoring counter will be reset. The error code is displayed whilst the public mains is being checked.

102	Grid voltage above permitted limit	<ol style="list-style-type: none"> 1. Mains voltage error 2. Incorrect values in the Service Menu / Wrong Setup 3. Measuring error on the power stack 4. Old SW on Power Stack 	<ol style="list-style-type: none"> 1. Check mains voltage 2. Check values in the Service Menu / Check Setup 3. Change power stack 4. Update inverter
103	Grid voltage below permitted limit	<ol style="list-style-type: none"> 1. Mains voltage error 2. Wrong AC cabling 3. Incorrect values in the Service Menu / Wrong Setup 4. Bad contact Wallbracket – Filter board 5. Measuring error on Filter Board 	<ol style="list-style-type: none"> 1. Check mains voltage 2. Check AC cabling 3. Check values in the Service Menu / Check Setup 4. Check AC wall bracket 5. Change Filter Board
105	Mains frequency above permitted limit	<ol style="list-style-type: none"> 1. Mains Voltage error 2. Incorrect values in the Service Menu / Wrong Setup 3. Reconnect limit 4. Ripple Control signal 5. Measuring error on the Filter Board 	<ol style="list-style-type: none"> 1. Check Mains Voltage 2. Check values in the Service Menu / Check Setup 3. normal legal requirement (f reconnect 50,05 Hz) 4. Inform your Fronius Technical Support 5. Change Filter Board
106	Mains frequency below permitted limit	<ol style="list-style-type: none"> 1. Mains Voltage error 2. Incorrect values in the Service Menu / Wrong Setup 3. Ripple Control signal 3. Measuring error on the Filter Board 	<ol style="list-style-type: none"> 1. Check mains Voltage 2. Check values in the Service Menu / Check Setup 3. Inform your Fronius Technical Support 3. Change Filter Board
107	Synchronisation with the public mains supply not possible	<ol style="list-style-type: none"> 1. Incorrect values in the Service Menu / Wrong Setup 2. Bad contact of the power stack with AC 3. Bad AC connection 4. Measuring error on the filter board 	<ol style="list-style-type: none"> 1. Check values in the Service Menu / Check Setup 2. Check AC connector screws 3. Check mains connection 4. Change filter board
108	Islanding detected	<ol style="list-style-type: none"> 1. Islanding detected 2. Severe disturbances in public mains 3. Bad contact Wallbracket – Filter board 4. Grid Impedance out of permitted values 5. Bad AC connection 6. Ripple Control signal 7. Measuring error on the filter 	<ol style="list-style-type: none"> 1. Automatic correction 2. Automatic correction 3. Check AC wall bracket 4. Contact Utility 5. Check AC connection 6. Inform your Fronius Technical Support 7. Change filter board

Service class 3

This group summarises Fronius Symo error states that can occur during feed in operation. However these do not indicate damaged electronics and do not lead to a remaining interruption of the feed in operation. After switching off and passing the grid monitoring period, the Fronius Symo starts feed in operation again. In case of a temperature excess, an additional cooling down phase is maintained.

301	Current peak on the mains supply detected	<ol style="list-style-type: none"> 1. Voltage drop on the public mains 2. Grid Impedance out of permitted values 3. Bad contact of the power stack with AC 4. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Automatic correction 2. Contact Utility 3. Check AC connector screws 4. Change power stack
302	Current peak on the PV generator detected	<ol style="list-style-type: none"> 1. Voltage drop on the public mains 2. Bad contact of the power stack with DC 3. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Automatic correction 2. Check DC connector screws 3. Change power stack
303	Temperature high Ch1 (DC overtemperature)	<ol style="list-style-type: none"> 1. Ventilation opening blocked 2. Too high ambient temperature 3. In- or Outside fan cable not connected 4. In- or Outside fan defect 5. bad contact Power module <-> heat sink 6. Measuring error on the power stack 7. Fan output on Recerbo defect 	<ol style="list-style-type: none"> 1. Clean openings 2. Change mounting place 3. Connect fan cable 4. Change fan 5. check phase change paste 6. Change power stack 7. Change Recerbo
304	Temperature high Ch2 (AC overtemperature)	<ol style="list-style-type: none"> 1. Ventilation opening blocked 2. Too high ambient temperature 3. In- or Outside fan cable not connected 4. In- or Outside fan defect 5. bad contact Power module <-> heat sink 6. Measuring error on the power stack 7. Fan output on Recerbo defect 	<ol style="list-style-type: none"> 1. Clean openings 2. Change mounting place 3. Connect fan cable 4. Change fan 5. check phase change paste 6. Change power stack 7. Change Recerbo
305	Feed-in process not possible, even though public mains parameters within limits	<ol style="list-style-type: none"> 1. Intermediate voltage asymmetric or undervoltage 	<ol style="list-style-type: none"> 1. Change Power Stack
306	POWER LOW	<ol style="list-style-type: none"> 1. DC main switch open 2. DC-power is too low for feeding in 3. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Close DC main switch 2. Wait for more irradiance or check modules 3. Change power stack
307	DC LOW	<ol style="list-style-type: none"> 1. DC main switch open 2. PV generator not connected 3. DC-voltage too low for feeding in 4. reversal voltage of PV generator 4. DC operating mode: fix voltage + wrong voltage 5. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Close DC main switch 2. connect DC generator 3. Wait for more irradiance or check modules 4. change polarity of PV generator 4. DC operating mode: fix voltage + wrong voltage 5. Change power stack

308	The intermediate circuit voltage has exceeded the max. permissible range	<ol style="list-style-type: none"> 1. Voltage drop on AC grid 2. Bad contact of the wall bracket to inverter 3. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Automatic correction 2. Check AC wall bracket screws 3. Change power stack
309	Too high DC1 voltage	<ol style="list-style-type: none"> 1. PV generator voltage too high in MPP 1 2. wrong DC cabling in MPP 1 3. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Check PV configuration 2. check DC cabling 3. Change power stack
313	Too high DC2 voltage	<ol style="list-style-type: none"> 1. PV generator voltage too high in MPP 2 2. wrong DC cabling in MPP 2 3. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Check PV configuration 2. check DC cabling 3. Change power stack

Service class 4 & 6

Errors from this class require intervention from a technician to remedy them. They are either temporary or lasting and are triggered by faulty hardware or a software problem.

401	Communication error between Recerbo and power stack	<ol style="list-style-type: none"> 1. internal monitoring system stop feeding in 2. Ribbon cable between power stack and filter board faulty or not connected properly 3. Ribbon cable defect 4. Recerbo not plugged in correctly 5. Power stack defect 6. Recerbo defect 7. Filter board defect 	<ol style="list-style-type: none"> 1. do a SW update (fro25210.upd) 2. Check ribbon cable between Recerbo and power stack 3. Change Ribbon Cable 4. check Recerbo plug 5. Change power stack 6. Change Recerbo 7. Change Filter board
406	Temperature sensor in DC semiconductor module defect	<ol style="list-style-type: none"> 1. Defective temperature sensor in DC module 2. Defective circuit on the power stack 	<ol style="list-style-type: none"> 1. Change power stack 2. Change power stack
407	Temperature sensor in AC semiconductor defect	<ol style="list-style-type: none"> 1. Defective temperature sensor in AC module 2. Defective circuit on the power stack 	<ol style="list-style-type: none"> 1. Change power stack 2. Change power stack
408	On the inverter an unacceptably high DC injection was detected	<ol style="list-style-type: none"> 1. Asynchronous AC grid 2. Power stack defect 	<ol style="list-style-type: none"> 1. Check AC grid 2. Change power stack
412	Adjusted Fix-voltage beyond the accessible MPP range	<ol style="list-style-type: none"> 1. Fix voltage was adjusted too high or too low 	<ol style="list-style-type: none"> 1. Check adjustments in the Service menu
416	Communication error between power stack and Recerbo	<ol style="list-style-type: none"> 1. Occurs once – communication error 	<ol style="list-style-type: none"> 1. Automatically corrected
417		<ol style="list-style-type: none"> 2. Ribbon cable between Recerbo and power stack defect 	<ol style="list-style-type: none"> 2. Change ribbon cable
419		<ol style="list-style-type: none"> 3. Recerbo defect 	<ol style="list-style-type: none"> 3. Change Recerbo
421 425		<ol style="list-style-type: none"> 4. Power stack defect 	<ol style="list-style-type: none"> 4. Change power stack
427	Power stack Timeout Error	<ol style="list-style-type: none"> 1. Software error 2. Measuring error on power stack 	<ol style="list-style-type: none"> 1. Update software 2. Change power stack

431	Power stack is in boot mode	<ol style="list-style-type: none"> 1. Power stack will be programmed by the Recerbo automatically 2. Power stack can't be programmed automatically 3. Filter board defect 4. Recerbo defect 5. Power Stack defect 	<ol style="list-style-type: none"> 1. Automatically corrected 2. Software update 3. Change Filter board 4. Change Recerbo 5. Change power stack
432	Consistent error in power stack management	<ol style="list-style-type: none"> 1. Power stack couldn't communicate with the Recerbo 2. Power stack defect 3. Recerbo defect 	<ol style="list-style-type: none"> 1. Restart inverter or do a software update 2. Change power stack 3. Change Recerbo
433	Allocation error of dynamic addresses	<ol style="list-style-type: none"> 1. Power stack couldn't communicate with the Recerbo 2. Power stack defect 3. Recerbo defect 	<ol style="list-style-type: none"> 1. Restart inverter or do a software update 2. Change power stack 3. Change Recerbo
436	Problem while error transmitting of the power stack	<ol style="list-style-type: none"> 1. Power stack can't communicate with the Recerbo 2. Power stack defect 3. Recerbo defect 	<ol style="list-style-type: none"> 1. Restart inverter or software update 2. Change power stack 3. Change Recerbo
437	Problem with the internal error handling	<ol style="list-style-type: none"> 1. Power stack can't communicate with the Recerbo 2. Power stack defect 3. Recerbo defect 	<ol style="list-style-type: none"> 1. Restart inverter or software update 2. Change power stack 3. Change Recerbo
438	Problem while error transmission from power stack to Recerbo	<ol style="list-style-type: none"> 1. Power stack can't communicate with the Recerbo 2. Power stack defect 3. Recerbo defect 	<ol style="list-style-type: none"> 1. Restart inverter or software update 2. Change power stack 3. Change Recerbo
445	Country setup information faulty	<ol style="list-style-type: none"> 1. Country setup information faulty 2. Old software (eg. after board exchange) 3. Recerbo defect 	<ol style="list-style-type: none"> 1. Do a software update and reload country setup from Setup menu 2. Do a software update and reload country setup from Setup menu 3. Change Recerbo
447	Isolation failure detected	<ol style="list-style-type: none"> 1. PV generator grounded 2. PV generator grounding Error 3. Measuring circuit on Power Stack defect 	<ol style="list-style-type: none"> 1. use only ungrounded modules 2. Check PV generator 3. Change Power Stack
448	Neutral Wire fault	<ol style="list-style-type: none"> 1. no neutral detected 2. wrong Setup 3. Bad contact of the wall bracket to inverter 4. Filter Board defect 	<ol style="list-style-type: none"> 1. check wiring 2. check Country Setup 3. Check AC wall bracket screws 4. Change Filter Board
450	No Guard Controller detected	<ol style="list-style-type: none"> 1. Loose/defect cable between PS and FIL 2. Defective Filter board 	<ol style="list-style-type: none"> 1. Check wiring between Filter and PS 2. Change Filter board
451	Flash of the Guard defect	<ol style="list-style-type: none"> 1. Grid problem 2. Defective AC Guard on Filterboard 3. Defective AC Guard on Power stack 	<ol style="list-style-type: none"> 1. Automatically corrected 2. Change Filter board 3. Change power stack
452	Communication between Filter & power stack faulty	<ol style="list-style-type: none"> 1. communication Problem caused by temporary enviromental disturbances (grid, EMC, ...) 2. Ribbon cable between Filter and Power Stack defect 3. Defective AC Guard on Filter Board 4. Defective AC Guard on Power Stack 	<ol style="list-style-type: none"> 1. Automatically corrected 2. Change ribbon cable 3. Change Filter Board 4. Change power stack

453	Deviation on Voltage measurement between FIL and PS	<ol style="list-style-type: none"> 1. Measuring Error on Filter print 2. Grid problem 3. AC Connector to Filterprint wrong connected? (PS SW <9.04) 4. Defective AC Guard on Filterboard 5. Defective AC Guard on Power stack 	<ol style="list-style-type: none"> 1. SW update (corrected in version FIL 5.04 and higher) 2. Automatically corrected 3. Exchange AC cables order from PowerStack to Filterprint/ SW update 4. Change Filter board 5. Change power stack
454	Deviation on frequency measurement between FIL and PS	<ol style="list-style-type: none"> 1. Measuring Error 2. Grid problem 3. Defective AC Guard on Filterboard 4. Defective AC Guard on Power stack 	<ol style="list-style-type: none"> 1. SW update (corrected in version FIL 5.04 and higher) 2. Automatically corrected 3. Change Filter board 4. Change power stack
456	Error in the Anti - Islanding monitoring detected	<ol style="list-style-type: none"> 1. Occurs once 2. SW Problem 3. Measuring error on Filter board 4. Measuring circuit for Anti - Islanding defect 	<ol style="list-style-type: none"> 1. Restart Symo 2. Update Software 3. Change Filter board 4. Change power stack
457	Grid Relais don't release	<ol style="list-style-type: none"> 1. Occurs once 2. Grid test time is too low 3. Neutral wire not grounded, or ground not connected 4. Relais stuck 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change settings 3. Check grounding 4. Change power stack
458	RCMU selfcheck failed	<ol style="list-style-type: none"> 1. RCMU measurement defect 	<ol style="list-style-type: none"> 1. Change Filter Board
459	faulty Isolation Measurement	<ol style="list-style-type: none"> 1. Occurs once 2. Isoaltion Measuremenet defective 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change power stack
460	Reference voltage outside permitted limits	<ol style="list-style-type: none"> 1. Occurs once 2. Measuring circuit on power stack defect 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change Power stack
461	Defective data memory	<ol style="list-style-type: none"> 1. Defective power stack 	<ol style="list-style-type: none"> 1. Change power stack
462	Failure on the DC injection monitoring detected	<ol style="list-style-type: none"> 1. Occurs once 2. Old Update 3. Defective power stack 	<ol style="list-style-type: none"> 1. Restart Symo 2. Update Software and reload Setup 3. Change power stack
463	AC pole reversed	<ol style="list-style-type: none"> 1. AC Connector between PS and FIL mounted in wrong direction/twisted (L1 and L2 exchanged) 	<ol style="list-style-type: none"> 1. Connect in correct orientation, not twisted
474	RCMU sensor error	<ol style="list-style-type: none"> 1. Quick radiation changes (occurs once) 2. Sensor defect 	<ol style="list-style-type: none"> 1. Automatically corrected 2. Change Filter Board
475	Isolation failure detected (isolation below Country Setup limit)	<ol style="list-style-type: none"> 1. Wrong setting 2. PV generator grounding error 3. Measuring circuit on power stack defect 	<ol style="list-style-type: none"> 1. Check Country Setup 2. Check PV generator 3. Change Power stack
476	Internal Power supply missing	<ol style="list-style-type: none"> 1. Grid voltage too low 2. Grid test time is too low 3. Defective internal power supply 4. Defective internal power supply 	<ol style="list-style-type: none"> 1. Check wiring 2. Grid failure 3. Change power stack 4. Change power stack

480	Power Stack software incompatible to display software	<ol style="list-style-type: none"> 1. Old power stack software 2. Old Software 3. Incompatible HW combinations 	<ol style="list-style-type: none"> 1. Software update 2. reload setup 3. Check HW components
481	Cerbo has old SW version	<ol style="list-style-type: none"> 1. Old Cerbo software 2. Old software 3. Incompatible HW combinations 	<ol style="list-style-type: none"> 1. Software update and reload setup 2. reload Setup 3. Check HW components
482	inverter switched off during commissioning	<ol style="list-style-type: none"> 1. Startup Procedure not succesful 	<ol style="list-style-type: none"> 1. Restart inverter
484, 485	Data transfer Error	<ol style="list-style-type: none"> 1. Communication Problem caused by temporary enviromental disturbances (grid, EMC, ...) 2. Ribbon cable between Filter and Power Stack defect 3. Defective AC Guard on FilterBoard 4. Defective AC Guard on Power Stack 	<ol style="list-style-type: none"> 1. Automatically corrected 2. Change ribbon cable 3. Change Filter Board 4. Change Power Stack

Service class 5

Generally this class does not stop the feed in operation of the Fronius Symo. The state codes will be displayed until the message is acknowledged by pushing a button on the display (the inverter will work in feed in operation during this time).

502	An isolation fault between DC+ or DC- to earth has been detected	<ol style="list-style-type: none"> 1. Isolation fault at the solar generator 	<ol style="list-style-type: none"> 1. Check cables and solar generator
509	No feed in operation for 24 hours	<ol style="list-style-type: none"> 1. Snow covered or very dirty modules 2. Insufficient power from the modules for feed in operation 	<ol style="list-style-type: none"> 1. Clean modules or remove snow 2. Check other service codes
515	EEPROM communcation failure	<ol style="list-style-type: none"> 1. Occurs once 2. Filter calibration value not correct / Communcation Error 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change power stack
516	Communication error inside the power stack	<ol style="list-style-type: none"> 1. Occurs once 2. Power stack defect 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change power stack
517	Power stack Derating caused by too high temperature	<ol style="list-style-type: none"> 1. Ventilation opening blocked 2. Too high ambient temperature 3. Fan cables not connected 4. Fans defect 5. Bad contact semiconductor module <-> heat sink 6. Filter board defect 7. Recerbo defect 8. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Clean openings 2. Change mounting place 3. Connect fan cables 4. Change fans 5. Check phase change paste 6. Change filter board 7. Change recerbo 8. Change power stack
519	Communication error inside the power stack	<ol style="list-style-type: none"> 1. Occurs once 2. Filter board defect 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change Filter board
520	No feed in operation for 24 hours from DC Input 1	<ol style="list-style-type: none"> 1. Snow covered or very dirty modules 2. Insufficient power from the modules for feed in operation 3. Input not used 	<ol style="list-style-type: none"> 1. Clean modules or remove snow 2. Check other service codes 3. Configure Symo as Monostring (Service Menu Basic)

521	No feed in operation for 24 hours from DC Input 2	<ol style="list-style-type: none"> 1. Snow covered or very dirty modules 2. Insufficient power from the modules for feed in operation 3. Input not used 	<ol style="list-style-type: none"> 1. Clean modules or remove snow 2. Check other service codes 3. Configure Symo as Monostring (Service Menu Basic)
522	DC LOW Ch1	<ol style="list-style-type: none"> 1. DC main switch open (in combination with State 523&306) 2. PV generator not connected 3. DC-voltage too low for feeding in 4. reversal voltage of PV generator 5. DC operating mode: fix voltage + wrong voltage 6. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Close DC main switch 2. connect DC generator 3. Wait for more irradiance or check modules 4. change polarity of PV generator 5. Check MPP settings / voltage 6. Change power stack
523	DC LOW Ch2	<ol style="list-style-type: none"> 1. DC main switch open (in combination with State 522&306) 2. PV generator not connected 3. DC-voltage too low for feeding in 4. reversal voltage of PV generator 5. DC operating mode: fix voltage + wrong voltage 6. Measuring error on the power stack 	<ol style="list-style-type: none"> 1. Close DC main switch 2. connect DC generator 3. Wait for more irradiance or check modules 4. change polarity of PV generator 5. Check MPP settings / voltage 6. Change power stack
558	Country setup not supported	<ol style="list-style-type: none"> 1. Old software 2. Old Software 3. Incompatible HW combinations 	<ol style="list-style-type: none"> 1. Software update 2. Reload Setup 3. Check HW components
559	Feature nor supported by recerbo	<ol style="list-style-type: none"> 1. Old software 2. Old Software 3. Incompatible HW combinations 	<ol style="list-style-type: none"> 1. Software update 2. Reload Setup 3. Check HW components
560	Power reduction because of over frequency	<ol style="list-style-type: none"> 1. Too high grid frequency 2. Grid disturbances 3. Wrong settings 	<ol style="list-style-type: none"> 1. Automatically corrected 2. SW update 3. Check settings
567	GVDPR active	<ol style="list-style-type: none"> 1. Too high grid voltage 2. Grid disturbances 3. Wrong settings 	<ol style="list-style-type: none"> 1. Automatically corrected 2. SW update 3. Check settings
568	The switch that is connected to the Signal Input ("S0-Input") on the RECERBO was opening/closing ("Warning" function)	<ol style="list-style-type: none"> 1. Device that is connected opened or closed 2. Cabling between RECERBO and ext. device is wrong/broken 3. Wrong settings in Service Menu Basic 4. Wrong settings in Service Menu Basic 5. Input circuit on the RECERBO faulty 	<ol style="list-style-type: none"> 1. Check the device that is connected (e.g. surge arrester) 2. Check cabling, check if the plug is connected 3. Check settings - maybe "Ext Sig." mode is chosen instead of "S0-Meter" mode, etc. 4. Check settings - maybe N/C mode is chosen instead of N/O mode (or vice versa), etc. 5. Change RECERBO

Service class 4 & 6

Errors from this class require intervention from a technician to remedy them. They are either temporary or lasting and are triggered by faulty hardware or a software problem.

601	internal communication fault	<ol style="list-style-type: none"> 1. Occurs once 2. occurs permanently 	<ol style="list-style-type: none"> 1. Restart Symo 2. Change Symo
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602	Autotest IT failed	1. Auto test Italy was started and not finished or failed	1. a: Restart Autotest (Code 11111) until the test is successful 1. b: any different country: State code doesn't appear Try other country setup for test purpose just to ensure that the inverter is ok
603	Temperature sensor in μC defect (ch 3 CPU/Board Temp)	1. Defective temperature sensor in μC 2. Defective circuit on the Power Stack	1. Change Power Stack 2. Change Power Stack
668	The switch that is connected to the Signal Input ("S0-Input") on the RECERBO was opening/closing	1. Device that is connected opened or closed 2. Cabling between RECERBO and ext. device is wrong/broken 3. Wrong settings in Service Menu Basic 4. Wrong settings in Service Menu Basic 5. Input circuit on the RECERBO faulty	1. Check the device that is connected (e.g. surge arrester) 2. Check cabling, check if the plug is connected 3. Check settings - maybe "Ext Sig." mode is chosen instead of "S0-Meter" mode, etc. 4. Check settings - maybe N/C mode is chosen instead of N/O mode (or vice versa), etc. 5. Change RECERBO

Service class 7

State codes of the class 7 affect the controlling, the configuration and the data logging of the inverter. It can affect the feeding in directly or indirectly.

701*	LN Nodetype out of range	1. wrong LN number 2. EEPROM defect	1. Insert LN number again 2. Change inverter
702*	Recerbo Buffer full	1. Problems with LN ring 2. Recerbo defect	1. Check LN ring 2. Change Recerbo
703*	LN Send Buffer full	1. Problems with LN ring 2. Recerbo defect	1. Check LN ring 2. Change Recerbo
705	LN number exists 2 times	1. LN number exists 2 times	1. Change LN number
706*	key controller communication failed	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Recerbo
707*	EEPROM communication failed	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Inverter
711*	EEPROM Error	1. Recerbo defect	1. Change Recerbo
712*	failure while writing on EEPROM	1. Occurs once – communication error	1. Automatically corrected
714*	failure while reading from EEPROM	1. Occurs once – communication error	1. Automatically corrected
715*		2. Recerbo defect	2. Change Recerbo
721	Failure while writing on EEPROM	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Recerbo
722*	failure while reading from reading to EEPROM	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Recerbo
727*	EEPROM backup defective	1. Occurs once – communication error	1. Automatically corrected
730*		2. Recerbo defect	2. Change Recerbo

731	Failure while initialising, USB Stick wasn't detected	<ol style="list-style-type: none"> 1. USB Stick Read/Write protected 2. USB Stick not detected 3. USB Stick not supported 4. Access time of the inverter too fast 	<ol style="list-style-type: none"> 1. Remove Read/Write protection 2. Format USB Stick 3. Use another USB Stick 4. Update software
732	Failure while initialising, USB Stick has a too high current	<ol style="list-style-type: none"> 1. USB Stick ineligible due to too high current 	<ol style="list-style-type: none"> 1. Use another USB Stick
733	No USB Stick inserted, although there should be	<ol style="list-style-type: none"> 1. No USB Stick inserted 2. Unplugged USB Stick while updating 	<ol style="list-style-type: none"> 1. Insert USB Stick 2. Reconnect USB Stick and start update again
734	Update file not identified Read or write error appeared	<ol style="list-style-type: none"> 1. Update file has wrong format 2. Update in the wrong file 	<ol style="list-style-type: none"> 1. Name update file correctly (correct : Froxxxx.upd, xx.... Continuously number) 2. Store update on outer directory
735	For this inverter no fitting update is on the Stick	<ol style="list-style-type: none"> 1. Old or defective update on the USB Stick 2. Updatefile from Agilo or TL inverter 3. Compatibility Error of at least one board, in combination with State 743 	<ol style="list-style-type: none"> 1. Load new update on the Stick 2. Use the correct updatefile 3. Check boards
736	Read or write error appeared	<ol style="list-style-type: none"> 1. Incorrectly formatted USB Stick 2. USB Stick secured with a password 3. Read or write protection on the USB Stick 4. Defective flash memory 	<ol style="list-style-type: none"> 1. Format USB Stick with FAT 32 2. Delete password protection 3. Delete read or write protection 4. Change Recerbo
737	Update file couldn't be opened	<ol style="list-style-type: none"> 1. Defective update file 2. Failure while formatting 	<ol style="list-style-type: none"> 1. Load new update on USB Stick 2. Format USB Stick
738	Creating a Logfile is not possible	<ol style="list-style-type: none"> 1. Incorrectly formatted USB Stick 2. USB Stick secured with a password 3. Read or write protection on the USB Stick 	<ol style="list-style-type: none"> 1. Format USB Stick with FAT 32 2. Delete password protection 3. Delete read or write protection
740	Failure while initialising	<ol style="list-style-type: none"> 1. Failure in the USB Stick format 2. Defective USB Stick 	<ol style="list-style-type: none"> 1. Format USB Stick 2. Use another USB Stick
741	Failure while writing on USB Stick	<ol style="list-style-type: none"> 1. Memory on USB Stick full 2. Memory on USB Stick too small 3. USB Stick unplugged while writing 4. Mains voltage drop out while writing 5. Invalid data 	<ol style="list-style-type: none"> 1. Delete data from USB Stick 2. Use a bigger USB Stick 3. Reconnect USB Stick and start update again 4. Check grid 5. Format USB Stick
743	Update failed	<ol style="list-style-type: none"> 1. Unplugged USB Stick while updating 2. Update failed 3. Read or write protection on the USB Stick 4. Compatibility Error of at least one board, in combination with State 735 5. Defective flash memory 	<ol style="list-style-type: none"> 1. Reconnect USB Stick and start update again 2. Restart update 3. Delete read or write protection 4. Check print 5. Change Recerbo
745	Checksum test failed	<ol style="list-style-type: none"> 1. File on USB Stick is defective 2. Defective flash memory 	<ol style="list-style-type: none"> 1. Format USB Stick 2. Change Recerbo
746	one or more Boards couldn't be identified during SW update	<ol style="list-style-type: none"> 1. Some Boards haven't started completely yet 2. Some Boards haven't started completely yet 3. Print data of some Boards are incompatible 	<ol style="list-style-type: none"> 1. Wait 1 minute with the update 2. Device -> info menu: All versions available? 3. Send Symo back to Fronius

751	Lost real time clock	1. Symo had no AC connection for longer than 5 days 2. Memory on the Recerbo defective	1. Set time 2. Change Recerbo
752	No response from real time clock	1. Occurs once – communication error 2. Defective Recerbo	1. Automatically corrected 2. Change Recerbo
754* 755*	time /date has been set	time /date has been set	
757	Time can't be stored, due to safety reasons the inverter doesn't feed in	1. Defective real time clock	1. Change Recerbo
758	RTC Quarz in emergency operation	1. Occurs once – communication error 2. Defective Recerbo	1. Automatically corrected 2. Change Recerbo
760	systemquartz defect	1. Occurs once – communication error 2. Defective Recerbo	1. Automatically corrected 2. Change Recerbo
761*	Reading error of onboard storage print	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Recerbo
760	Systemquartz defect	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Recerbo
761*	Reading error of onboard storage print	1. Onboard storage print is missing 2. Defective ribbon cable 3. Onboard storage print defect 4. Recerbo defect	1. fix OnBoard storage print on Recerbo 2. Change ribbon cable 3. Change Symo 4. Change Recerbo and fix original OnBoard print
762*	Reading error of attached storage print	1. Attached storage print is missing 2. Attached storage print is defective 3. Recerbo defect	1. a.Usage of original Recerbo: State Code is insignificant!!!! b.Usage of exchange Recerbo: attach the original storage print 2. Change Symo 3. Change Recerbo
763*	Power limitation of the Onboard storage print not readable	1. Onboard storage print is missing 2. Onboard storage print defect 3. Recerbo defect (in combination with State 761)	1.attach the original storage print 2. Change Symo 3. Change Recerbo
765*	Recerbo can't read power limitation	1. Recerbo defect	1. Change Recerbo
766	No Power limitation found	1. Recerbo defect 2. Onboard or attached storage print defect	1. Change Recerbo 2. Change Symo
767*	Power limitation not readable	1. Occurs once – communication error 2. Recerbo defect	1. Automatically corrected 2. Change Recerbo
768	Power Limitation while feeding in operation changed	1. Attached storage print is being connected or disconnected during feeding in operation	1. Automatically corrected (State code must be confirmed)
772	Memory on the storage print not available, due to safety reasons the inverter doesn't feed in	1.Ribbon cable defect 2.Memory on Interface board defect	1. Check ribbon cable between Recerbo and Interface board 2. Change Interface board
773	Memory on the storage print not initialised, due to safety reasons the inverter doesn't feed in	1. Memory not programmed or memory lost 2. Defective Recerbo	1. Reload setup 2.Change Recerbo



775	Faulty programming of the power stack (no PCM found)	1. Power Stack not programmed or memory lost 2. Filter Board not programmed	1. Change Power stack (see device, Info menu, if version in Power stack is missing) 2. Change Filter Board (see device, Info menu, if version in Power stack is missing)
781	invalid buffer ID	1. Occurs once – communication error 2. Inverter type on storage print and Recerbo lost	1. Update inverter 2. Change Recerbo
782*	error during update	1. Occurs once – communication error 2. Inverter type on storage print and Recerbo lost	1. Update inverter 2. Change Recerbo
783*	error during update	1. Occurs once – communication error 2. Inverter type on storage print and Recerbo lost	1. Update inverter 2. Change Recerbo
784*	waiting for flash/busy	1. Occurs once – communication error 2. Inverter type on storage print and Recerbo lost	1. Update inverter 2. Change Recerbo
789*	Setup-CRC failed	1. Occurs once – communication error 2. Inverter type on storage print and Recerbo lost	1. Update inverter 2. Change Recerbo
794*	Disheader address impossible	1. Occurs once – communication error 2. Inverter type on storage print and Recerbo lost	1. Update inverter 2. Change Recerbo
1000* - 1210*	Servicemessages	Are harmless for a faultless feeding in process and gives information about the internal Processor Status.	

*.....Code appears only with Eventlogging and in the Error Counter

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