6.4 Error codes for dispenser-calculator Sandpiper II (Valid until software version E29-04.20)

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
Error codes, flashing in the money display						
E 1	SU	W&M RAM database corrupted		Warm start (F1, F2)		
E 4	SU	One or more tasks not started		Warm start (F1, F2)	Check hardware and configuration	
E 5	SU	Software cold start	Command code 59.1 executed	Warm start (F1, F2)		
E 6	SU	Configuration error	Data memory is not the same (CPU and ECAL Board)	Warm start (F1, F2)	F1, 0, 1, 2, 8, Enter then F2	Recover the configuration
E 7	SU	ECAL Board memory error	Software- or hardware error at the ECAL board	Open the security switch + warm start (F1, F2)	Change the ECAL board a	Change the CPU board
E 8	SU	Database not compatible with previous version	Ram database	Warm start (F1, F2)	Recover the configuration	
E 9	SU	Hardware cold start	Jumper 5 was set	Power down, remove jumper and power up		
E 10	SU	New software version detected	Comes up after a software update	Open the security switch + warm start (F1, F2)	Recover the configuration	
E 60	SU	Internal totalizer error	Totalizer will become zero with a warm start or power down	Warm start (F1, F2)		
Error codes, flashing in the unit price display						
20	ME	Pulser not connected	After nozzle out, the CPU checks the pulser current, current below 5mA generates error	Read out the event log and test/change the pulser	Check pulser connection on the IS-HUB	Change the IS-HUB
26	ME	Invalid calibration factor0	Normal calibration factors: Ecometer --> 054XXX C+ Meter --> 153XXX	Error can happen, e.g. after an ECAL-board exchange	Read out the event log	Set the factor to value 1 and calibrate with CC76

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
33	ME	Stop-button activated	Option Scandinavia	Information only		
44	ME	Nozzle out during power up	Error happens after a restart of the dispenser	Check the function of the nozzle switches	Nozzle out = contact closed	Check the event log for the position of the nozzle switch
46	ME	Minimum preset limit	Threshold value = 1 liter	Enter an increased preset value		
50	ME	POS communication lost (disconnected)		Check the wiring to the POS system	Check the shielding of the cable connection	Contact POS manufacturer
58	ME	Battery backup status low	Option England	Check battery backup voltage (>11V)	Check connections	
99	MA	W&M database CRC incorrect		Cold start and re-program parameters		
4322	ME	Prop.-valve board not connected		Change the board with another valve board for a test	Exchange the valve board	Exchange the CPU board
5034	SU	Software cold start	Command code 59.1 executed, identic to E5	Warm start (F1, F2)		
5035	SU	Hardware cold start	Jumper 5 was set, identic to E9	Warm start (F1, F2)		
5036	SU	Database corrupted	Identic to E1, E4 or E6.	Warm start (F1, F2)		
5037	SU	Internal totalizer error	Totalizers will become zero with a warm start or power down, identic to E60	Warm start (F1, F2)		
5047	ME	Reverse flow detected		Check the event log for the position of the pulser	Check the check valve in front of the meter	Check the hydraulic for leakages (air)

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
5049	ME	Unauthorized fuel flow detected	Fuel flow on a meter which is not in use for the active hose; could happen if one prop. valve from a 40/140 product stays open	Disconnect the valve coil and start a fuelling, if it possible to fuel one prop. valve is detect	Exchange the prop. valve	
5050	ME	Invalid pulser pattern	Pulser channel 1 and 2 are not 90 degree phase shifted	Read out and analyse the event log	In combination with error 5047 this error could come up caused by air or dirt in the system	Change the pulser
5054	ME	Security Switch on serial pulser open	Modbus and SIP (Serial Interface Pulser)	Check the position of the switch		
5055	ME	Calibration switch is open	ECAL-board	Check the switches		
5056	ME	Security switch is open	CPU-board	Check the position of the switch		
5065	ME	Motor switching board (AC1 connector) not connected	Name of the board's: STP connector (3 phase) or single phase AC connector PCA (1 Phase)	Check connection (AC1 plug at the CPU)	Change the board	
5081	ME	Air sensor not connected but option enabled	Sensor is only used in Blackmer pumps	Check the event log for the position of the sensor	Check command code 98	
5084	ME	TCP/IP interface not connected	IFSF over TCP/IP			
5087	ME	Ethernet-cable not connected	IFSF over TCP/IP			
5088	SU	IFSF/LON-interface board not connected but option enabled		Check connection	Check command code 24	Check/change board
5089	ME	IFSF/LON-Interface board error		Check connection	Check/change board	
5091	SU	ATC hub board not connected but option enabled	ATC = Automatic Temperature Compensation	Check connection	Check/change board	Check command code 91.6

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
5092	MA	ATC hub board connected but option disabled	ATC = Automatic Temperature Compensation	Check command code 91.6		
5099	MI	Number of ATC-probes exceeds number of grades	ATC = Automatic Temperature Compensation	Check command code 75 and 90	Check probe connections and wiring	
5100	ME	Number of grades exceeds number of ATC-probes	ATC = Automatic Temperature Compensation	Check command code 75 and 90	Check probe connection and wiring	
5111	MA	Display board communication failure	In single sided dispenser, this fault is generated in the event log, during booting session (not a real error)	Check all boards and connections	Check command code 92	
5113	MA	Display board not present	Wrong or double display addressing	Check display and address jumper		
5120	ME	Fiscal printer release lost	Additional release signal from printer (option Poland), transaction fault	Check transaction records	Check printer	
5130	MA	Display board error		Warm start (F1, F2)	Check the event log	Change the display
5131	ME	Preset keypad enabled but not connected		Check connection	Check command code 22.1	Check/change keypad
5139	MA	Stop-button stuck	Option Scandinavia	Check the button and wiring		
5183	ME	Totalizer connected but not return pulse control		Check connection	Check totalizer	Check display board
5211	MA	Slave display communication fault	In use for satellite with display and dispenser with 4 displays	Check command code 92 and 91.4	Check connections	
5230	ME	Totalizer CRC per nozzle corrupted	CRC-checksum test	Open the security switch + Warm start (F1, F2)		
5413	ME	Unit price on zero		Check POS setting	Check command code 20	Check command code 94

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
5600	SU	Fuel density not set but vapour recovery and/or ATC is set		Check command code 75		
5601	ME	ATC temperature out of range	ATC = Automatic Temperature Compensation, PT100 (0°C = 100Ohm), resistor values don't change proportional	Range: -50°C to +70°C Typical measuring values: 5°C = 101,95 Ohm, 10°C = 103.9 Ohm, 15°C = 105,85 Ohm, 20°C = 107,79 Ohm	Check connections	Change ATC hub and/or probe
5603	MA	Display board software error or version changed	Comes up after display change	F1, 0, 1, 2, 8, Enter then F2	Open the security switch + Warm start (F1, F2)	Check display board and CPU
5604	ME	ATC probe short cut	ATC = Automatic Temperature Compensation, PT100 (0°C = 100Ohm), resistor values don't change proportional	Check connections	Change probe among each other	Change probe
5700	MA	Multi wire board (pulse output interface) communication failure		Check board and connections	Check command code 24	
5701	MA	Multi wire board (pulse output interface) not configured		Check command code 24	Check command code 40.6 - 40.13	
5702	MA	Multi wire board (pulse output interface) device error		Check board and connections	Check connections to OPT (Outdoor Payment Terminal)	
5703	ME	Multi wire board (pulse output interface) cash pulses overrun	Frequency to high	Check board and connections	Check calibration factor with command code 76.2 or 99	
5704	ME	Multi wire board (pulse output interface) volume pulse overrun	Frequency to high	Check board and connections	Check calibration factor with command code 76.2 or 99	

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
5801	MA	CNG: Over pressure signal detected	Signal is transmitted by limit pressure gauge, setting 267 bar, in the future maybe 277 bar	Check the adjustment of the limit pressure gauge	Check boards and connections	Check command code 89, 49
5802	SU	CNG: Knock over protection (shock sensor) active	Switch open if active	Check knock over protection	Check boards and connections	Check command code 89, 50
5804	ME	CNG*: No flow detected	Last bank and less than 1,5Kg filled	Start button and nozzle signal detected but nozzle not connected		
5805	ME	CNG*: Maximal tank pressure to high	Default max tank pressure setting 195bar	Car tank full	Check command code 89.4 and 89.5	
5806	ME	CNG: Maximum flow rate reached		Hose breakaway or pipe burst	Check command code 89.26 and 89.27	
5807	ME	CNG*: Maximum mass exceeded	Calculation failure, second pressure value lower than the first pressure value	Pressure-temperature- and mass values illogical		
5808	ME	CNG*: Calculated delta pressure is negative value	Measuring failure, pressure values illogical	Check pressure transmitter	Till SW E29-04.16 set CC89.29 to"0"	
5809	ME	CNG*: Maximum pressure limit reached	Default setting 250bar	Check pressure transmitter	Check command code 89.32	
5811	ME	CNG*: Temperature sensor short circuit	Temperature sensor (PT100) is located on the CNG/combi hub	Check boards and connections		
5812	ME	CNG*: Temperature sensor disconnected	Temperature sensor (PT100) is located on the CNG/combi hub	Check boards and connections		
5814	ME	CNG*: Pressure transmitter short circuit		Check pressure transmitter connection	Check CNG/combi hub	

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
5815	ME	CNG*: Pressure transmitter disconnected		Check pressure transmitter connection	Check CNG/combi hub	
5816	ME	CNG*: CNG/combi hub disconnected		Check boards and connections	Check IS-interface	
5820	MA	CNG*: Failure during leak test	Active for Switzerland only			
5823	ME	CNG*: Pressure transmitter fault		Check CNG/combi hub and connections		
5825	ME	CNG*: Temperature sensor fault	Temperature sensor (PT100) is located on the CNG/combi hub	Check CNG/combi hub		
5827	MA	CNG*: Failure during leak test	CNG tank detection Austria			
5828	ME	Coriolis meter communication problem	Modbus only			
5829	ME	Coriolis meter mapping problem	Modbus only	Check meter addresses		
5830	MA	Coriolis meter not connected	Modbus only			
5831	ME	Internal Coriolis meter failure	Modbus only			
6001	ME	IS-hub 1 disconnected		Check board and connections	Check jumper setting (short cut pin 1 and 2)	Check the 230V power on the IS-interface
6002	SU	IS-interface disconnected		Check board and connections		
6003	ME	IS-hub 2 disconnected		Check boards and connections	Check jumper setting (short cut pin 3 and 4)	Check the 230V power on the IS-interface
6006	MA	AAB / PIB not connected but option enabled	Option Italy	Check connections	Check command code 82 and 83	

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
6014	MA	ECAL-board not connected but option enabled		Check connections	Check command code 91.18	
6027	ME	Motor switching board (AC2 connector) for product 5/6 not connected	Name of the board's: STP connector (3 phase) or single phase	Check connection (AC2 plug at the CPU)	Change the board	
6030	MA	Hose leak test failed	Option Italy	Check hydraulics	Check command code 83.1	
6031	MA	Hose leak test failed	Option France	Check hydraulics	Check command code 83.1	
6032	MA	Hose leak test interrupted	Option France	Check hydraulics	Check command code 83.1	
6035	MA	Tank low level error	Option Italy	Check connections	Check tank sensor	
6036	MA	ABB/PIB not detected but tank low level sensor enabled	Option Italy	Check connections to AAB/PIB	Check command code 91.21	
6037	SU	Nozzle out during power up and hose leak test not possible	Option France	Replace nozzle and power up or warm start (F1, F2)		
6039	MA	Kiosk switch not connected but option enabled	Option Italy	Check connections	Check command code 91.22	
6040	ME	VRC board not connected but option enabled		Check connections	Check VRB board	Check command code 91.14
6042	ME	VR monitoring stop		Reset with service terminal FB1 (Gilbarco VMC and Fafnir Vaporix) or Vaporix service dongle	Prevent leakages and check power of the gas pumping unit	Check/repair the vapour recovery with service terminal and gas meter

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
6048	ME	Service terminal FB1 connected		Disconnect service terminal from CPU board		
6058	ME	AAB/PIB not connected but satellite option enabled	Satellite is an option for ultra-high flow dispensers	Check connections	Check command code 91.17	
6081	ME	Maximum flow rate exceeded	Maximum flow = 85 l/min	Check command code 80 and 76.2	Check flow rate	Check hydraulic
6082	ME	High speed pulser out of range	One of the twin meter pulsers is not counting or too slow	Check meters and pulsers	Check solenoid valves	
6084	ME	Hose leak test failed	Option Italy	Check hydraulic	Check command code 83.1	
6086	SU	New software version detected	Security switch on the CPU was not open	Open the security switch + warm start (F1, F2)	Recover the configuration if configuration was lost	
6088	ME	SIP/IS pulser communication lost		Check the connection between pulser and IS hub or IS buss		
6089	ME	SIP/IS pulser enable state error	Pulser already enabled for transaction and enabled again	Check pulser	Check IS hub or buss and CPU board	
6090	ME	SIP/IS to many pulsers enabled		Check the whole installation		
8022	ME	SIP encryption failure on enable		Check SIP pulser	Check SIP address CC76.6	
8023	ME	SIP encryption failure on disable		Check SIP pulser	Check SIP address CC76.6	
8024	ME	SIP/IS command mismatch		Check SIP address CC76.6	For non-SIP, address is 000000 000000	

Code	Priority	Meaning	Comment	Hint 1	Hint 2	Hint 3
8025	ME	SIP serial number mismatch	Serial number programmed in SIP does not match pump programming	Check SIP address CC76.6		
8026	ME	SIP configured but not detected		Check SIP installation	Remove serial number programming	
8027	ME	SIP device busy	SIP writing calibration date	Information only		
8029	ME	SIP lift-off detection active		Put the SIP back to the bracket		

INFO 1: The errors have different priorities which are: INFO (IN), MINOR (MI), MEDIUM (ME), MAJOR (MA) and SUPERMAJOR (SU) (second column in the error table). **INFO and MINOR** are not real errors and will not blink in the PPU display, but will be saved in the event log. **MEDIUM and MAJOR** events are real errors and will flash in the PPU display, if they appear. **SUPERMAJOR** events are real errors as well, but they will flash in the money display and will be indicated with an E (Example: E10).

MEDIUM events will get a reset by nozzle out and will not appear again, if the causer was eliminated. **MAJOR and SUPERMAJOR** events will get a reset by power reset or warm start (press F1+F2, one after another) and will not appear again, if the causer was eliminated.

INFO 2: Errors which are indicated by **CNG*:** will flash in the PPU display and generate an error signal for the compressor control system, when the error appeared 3 times. This must not be 3 times the same error. Example 1: three times error 5804 = error signal. Example 2: one time error 5804, one time error 5807 and one time error 5808 = error message. Errors which are indicated by **CNG**: will generate immediately an error signal for the compressor system.