13. Error numbers

13.1. Error classification

All possible messages of the error log are classified in 4 categories:

- Fatal Error
- Non fatal Error
- Warning
- Message

Via the XSCOPE-menu *Program manual/ DIAGNOST/ System/ Logging level* the error log can be programmed for entries from a certain category onwards.

Standard setting: Warning

The error log can store a maximum of about 1000 error messages.

It is recommended that the error log be cleared after the system has been installed and after completion of a service action.

Example of an entry:

00009 97/03/25 08:15:01 -M- 01054202 NVRAM version changed .....

Entry number 00001 ... 99999
Date: YY:MM:DD
Time: HH:MM:SS
Error level: F - E - W - M
Error number including unit code
Error text

Certain error messages are assigned to customer information that is indicated on a display in the user interface. The display takes place in the respective language that has been programmed.

system_error:	”CALL SERVICE! System error”
stand_error:	”CALL SERVICE! Stand error”
collimator_error:	”CALL SERVICE! Collimation error”
scopo_error:	”CALL SERVICE! Scopo error”
SOC_error:	”CALL SERVICE! Scopo–UI error”
TSO_error:	”CALL SERVICE! TSO error”
footswch_error:	”CALL SERVICE! Footswitch error”
x_ray_error:	”CALL SERVICE! No X–ray”
generator_error:	”CALL SERVICE! Generator error”
iitv_error:	”CALL SERVICE! II–TV error”
bucky_error:	”CALL SERVICE! Overtable error”

13.2. Error list system controller

Valid for application software – release 3.xx

Abbreviations used for the functional groups:

- SYS: System controller
- SIA: Subsystem interface adapter
- CAN: CAN bus
- SB: Signal bus
- UI: User interface
- SOC: SCOPO operation control (SCOPO user interface)
- TSO: Table side operation
- FSW: Footswitch
- GEO: Geometry control
- GEST: Geometry stand
- STD: Stand
- SFD: Geometry SCOPO
- BLD-UT: Geometry collimator undertable
- CS: Ceiling suspension
- HW: Hardware
- SW: Software

Number	Type	Error text	Possible reasons
01001xxx	E / W	SYS: SW: internal error: <detail error description>	- Transient: Data corruption/illegal action - Permanent: upgrade (HW/SW) failure
01002001	W	SYS: SW: performance check: performance is low	- SW related error
01003xxx	E	SYS: SW: application error: <detail error description>	- SW related error
01004xxx	E	SYS: SW: SYAC: internal error: <detail error description>	- SW related error
01051xxx	E	SYS: SW: NVRAM: internal error: <detail error description>	- SW related error
01052xxx	E	SYS: SW: NVRAM: access error: < detail error description >	- SW related error
01053101	E	SYS: SW: NVRAM: checksum error: static system data	- NVRAM data loss - battery of buffered CMOS is empty
01053102	E	SYS: SW: NVRAM: checksum error: static user interface data	- NVRAM data problem - battery of buffered CMOS is empty
01053103	E	SYS: SW: NVRAM: checksum error: static stand data	- NVRAM data problem - battery of buffered CMOS is empty
01053104	E	SYS: SW: NVRAM: checksum error: static scopo data	- NVRAM data problem - battery of buffered CMOS is empty
01053105	E	SYS: SW: NVRAM: checksum error: static bucky data	- NVRAM data problem - battery of buffered CMOS is empty
01053106	E	SYS: SW: NVRAM: checksum error: static digital camera data	- NVRAM data problem - battery of buffered CMOS is empty
01053201	E	SYS: SW: NVRAM: checksum error: dynamic bucky data	- NVRAM data problem - battery of buffered CMOS is empty
01053202	E	SYS: SW: NVRAM: checksum error: dynamic user interface data	- NVRAM data problem - battery of buffered CMOS is empty
01053203	E	SYS: SW: NVRAM: checksum error: dynamic stand data	- NVRAM data problem - battery of buffered CMOS is empty
01053204	E	SYS: SW: NVRAM: checksum error: dynamic scopo data	- NVRAM data problem - battery of buffered CMOS is empty
01053205	E	SYS: SW: NVRAM: checksum error: dynamic bucky data	- NVRAM data problem - battery of buffered CMOS is empty

Number	Type	Error text	Possible reasons
01053206	E	SYS: SW: NVRAM: checksum error: dynamic digital camera data	- NVRAM data loss/interference - battery of buffered CMOS is empty
01054101	M	SYS: SW: NVRAM: version changed: static system data	- SW version with incompatible NVRAM data loaded
01054102	M	SYS: SW: NVRAM: version changed: static user interface data	- SW version with incompatible NVRAM data loaded
01054103	M	SYS: SW: NVRAM: version changed: static stand data	- SW version with incompatible NVRAM data loaded
01054104	M	SYS: SW: NVRAM: version changed: static scopo data	- SW version with incompatible NVRAM data loaded
01054105	M	SYS: SW: NVRAM: version changed: static bucky data	- SW version with incompatible NVRAM data loaded
01054106	M	SYS: SW: NVRAM: version changed: static digital camera data	- SW version with incompatible NVRAM data loaded
01054201	M	SYS: SW: NVRAM: version changed: dynamic system data	- SW version with incompatible NVRAM data loaded
01054202	M	SYS: SW: NVRAM: version changed: dynamic user interface	- SW version with incompatible NVRAM data loaded
01054203	M	SYS: SW: NVRAM: version changed: dynamic stand data	- SW version with incompatible NVRAM data loaded
01054204	M	SYS: SW: NVRAM: version changed: dynamic scopo data	- SW version with incompatible NVRAM data loaded
01054205	M	SYS: SW: NVRAM: version changed: dynamic bucky data	- SW version with incompatible NVRAM data loaded
01054206	M	SYS: SW: NVRAM: version changed: dynamic digital camera	- SW version with incompatible NVRAM data loaded
01091xxx	E	SYS: SW: internal error: <detail error description>	- Internal SW error, data loss/interference
01101xxx	E	SYS: CAN: SW: internal error: <detail error description>	- internal SW error, data loss/interference
01102001	E	SYS: CAN: CAN controller chip overrun	- CAN network error - internal SW error, data loss/interference
01102002	F	SYS: CAN: controller chip bus off	- CAN network faulty / component failure
01102003	E	SYS: CAN: controller chip error status	- CAN network faulty / component failure
01102004	E	SYS: CAN: SW: rx queue overrun	- CAN network faulty / component failure - internal SW error, data loss/interference
01102005	F	SYS: CAN: SW: tx queue overrun	- CAN network error (cable on system controller disconnected) - internal SW error, data loss/interference
01102005	E	SYS: CAN: SW: inhibit time queue overrun	- transient failure / illegal operation. - internal SW error
011100xx	E	SYS: CAN: network error: Node *<nodename>* disconnected	- CAN network error (cabling / component fail
011110xx	M	SYS: CAN: network error: Node *<nodename>* restarted	- CAN network error disappeared
011120xx	F	SYS: CAN: network error: Node *<nodename>* absent	- CAN network error (cabling / connection - CAN Node not responding
01201xxx	E	SYS: SB: SW: internal error: <detail error description>	- Internal SW error
01202000	E	SYS: SB: unknown signal bus interrupt	- interference on hardware line or CU4
01902001	F	SIA: HW: fatal error: missing watchdog	- output watchdog failure
01902002	F	SIA: HW: missing external power supply	- low or no voltage supply at input
01902003	F	SIA: HW: CAN chip initialization failed	- CAN chip failure
01902004	F	SIA: HW: missing SIA bucky / SIA CS2 rack	- no response from SIA CS2 rack
01902005	F	SIA: HW: configuration detection undefined	- configuration changed/failed
01902005	E	SIA: HW: missing SIA - CS2	- SIA - CS2 failed - RD 108 not operating
01902006	E	SIA : HW : SIA - CS2 : RD 108 : Card missing	- RD 108 not operating
01903001	W	SIA: SW: invalid status	- status discrepancy

Number	Type	Error text	Possible reasons
01903002	W	SIA: SW: CAN communication initialization failed	- no response during initialising
01903003	E	SIA: HW: RB110: NVRAM write failure	- Data corrupt, jumper W8 inhibits write - NVRAM defect
01903004	E	SIA: RA 129: AD-converter overrun	- SIA-BUCKY: RA 129 defective.
01903005	W	SIA: SW: programming value out of range	- programming limits exceeded
01903006	E	SIA: HW: RB 110: programming data corrupt	- data corrupt, programming failed
01903007	M	SIA: SW: RB 110: programming default data loaded	- default data are in use
01903008	E	SIA: HW: RB110: adjustment data corrupt	- data corrupt / adjustment failed
01903009	M	SIA: SW: RB 110: adjustment default data loaded	- default data are in use
01903010	E	SIA: HW: RBB 110: APR data corrupt	- data corrupt / APR failed
01903011	M	SIA: SW: RB 110: APR default data loaded	- default data are in use
01904001	W	SIA: SW: RB 110: CAN: CHIP buffer overrun	- CAN network faulty - (Connection / cabling / component)
01904002	W	SIA: SW: RB 110 CAN: rx queue overrun	- ditto
01904003	W	SIA: SW: RB 110: CAN: tx queue overrun	- ditto
01910001	E	SIA: SW: XRG: Parameter of function invalid	- Subsystem configuration invalid
01910002	E	SIA: HW: XRG: no reply on function reqest	- response missing, - cabling / power at XRG
01910003	E	SIA: HW: XRG: invalid subsystem status	- SIA 1 / Generator error
01910004	E	SIA: HW: RB 135: XRG: invalid RGDV	- SIA 2- Basis: faulty RB135/ Generator programming / connection
01910005	E	SIA: HW: RB 135: XRG: invalid PSC	- SIA 2- Basis: faulty RB135/ Generator connection / cabling
01910009	E	SIA: HW: RD 143: XRG: invalid tomo time	- faulty XRG programming - PCB RD 143 defective
01910010	E	SIA: XRG: unexpected RGDV, CS 62 configuration incorrect	- incorrect configuration CS 62 - Bucky - faulty XRG programming
01910011	E	SIA: XRG: invalid function request	- distorted or unknown request
01910012	E	SIA: XRG: no reply from XRG	- response missing. cabling/power at XRG
01910013	E	SIA: XRG: invalid subsystem status	- unregistered status detected
01910014	E	SIA: XRG: BUCO request not possible card RD 108 inactive	- compare to contents of error buffer bucky
01910015	E	SIA: XRG: BUCO request not possible card RD 133 inactive	- compare to contents of error buffer bucky
01910016	E	SIA: XRG: BUCO request not possible card RD 143 inactive	- compare to contents of error buffer bucky
01920001	E	SIA: II/TV: invalid function request	- distorted or unknown request
01920002	E	SIA: II/TV: no reply on function request	- response missing. cabling/power at II/TV
01920003	E	SIA: II/TV: invalid subsystem status	- unregistered status detected
01920011	E	SIA: PUFCO: invalid function request	- distorted or unknown request
01920012	E	SIA: PUFCO: no reply from PUFCO	- response missing. cablel/power PUFCO
01920013	E	SIA: PUFCO: invalid subsystem status	- unregistered status detected
01930001	E	SIA: CS62: invalid function request	- distorted or unknown request
01930002	E	SIA: CS62: no reply from CS62	- response missing. cabling/power at CS62
01930003	E	SIA: CS62: invalid subsystem status	- unregistered status detected
01930004	W	SIA: CS62: vertical SID not adjusted	- adjustment not done or failed
01930005	W	SIA: CS62: horiz. SID to long. table bucky not adjusted	- adjustment not done or failed
01930006	W	SIA: CS62: horiz. SID to long. wall bucky not adjusted	- adjustment not done or failed
01930007	W	SIA: CS62: horiz. SID to lateral wall bucky not adjusted	- adjustment not done or failed
01940001	E	SIA: table bucky: invalid function request	- distorted or unknown request
01940002	E	SIA: table bucky: no reply table bucky	- response missing. cabling/power at table
01940003	E	SIA: table bucky: invalid subsystem status CS62	- unregistered status detected / PCB RA154
01940004	W	SIA: table bucky: cassette detection not adjusted	- adjustment not done or failed

Number	Type	Error text	Possible reasons
01950001	E	SIA: wall bucky: invalid function request	- distorted or unknown request
01950002	E	SIA: wall bucky: no reply from wall bucky CS62	- response missing. cabling/power at bucky
01950003	E	SIA: wall bucky: invalid subsystem status CS62	- unregistered status detected / PCB RA 154 / VT SWITCH
01950004	W	SIA: wall bucky: cassette detection not adjusted	- adjustment not done or failed
01960001	E	SIA: CS collimator: invalid function request	- distorted or unknown request / configuration loss
01960002	E	SIA: CS collimator: no reply from collimator	- response missing. cabling/power at BLD
01960003	E	SIA: CS collimator: invalid subsystem status	- unregistered status detected
01960004	W	SIA: CS collimator: installation incomplete	- installation not registered/wrong data
01970001	E	SIA: DSI: invalid function request	- distorted or unknown request / configuration loss
01970002	E	SIA: DSI: no reply from DSI	- response missing. cabling/power at DSI
01970003	E	SIA: DSI: invalid subsystem status	- unregistered status detected
01999000	W	SIA: SW: unknown error <xx/yy> received	- SW-versions incompatible - data loss / interference
02001xxx	E	UI: SYS: SW: internal error: <detail error description>	- data loss / interference
02201000	F	UI: SOC: HW: general error	- SOC is defect
02201001	F	UI: SOC: HW: RAM test failed	- SOC is defect
02201002	F	UI: SOC: HW: watchdog test failed	- SOC is defect
02201003	F	UI: SOC: HW: power supply error	- SOC is defect
02202001	F	UI: SOC: SW: general communication error	- component error
02202001	F	UI: SOC: SW: CAN chip communication error	- component error
02210001 02210162	E	UI: SOC: HW: key <xxx> pressed during startup	- specific key is defect - specific key is pressed during startup
02211001	F	UI: SOC: HW: tilting joystick pressed during startup	- specific joystick is defect - specific joystick is pressed during startup
02212001	F	UI: SOC: HW: longitudinal force sensor active during startup	- longitudinal force sensor is defect - longitudinal force sensor is active during startup
02212002	F	UI: SOC: HW: compression force sensor active during startup	- compression force sensor is defect / active during startup
02212003	F	UI: SOC: HW: EN movement faulty	- SOC is defect
02220001	E	UI: SOC: HW: tilting joystick out of range	- specific joystick is defect
02221001	E	UI: SOC: HW: longitudinal force sensor out of range	- longitudinal force sensor is defect
02221002	E	UI: SOC: HW: compression force sensor out of range	- compression sensor is defect
02250001	E	UI: SOC: SW: internal error: unknown para. request <xx>	- component error
02290000	E	UI: SOC: selection bit mask timeout	- timeout of the selection bit mask / transient interrupt
02299000	W	UI: SOC: unknown error <xx/yy> received	- SW-versions incompatible - internal SW error data loss
02401000	F	UI: TSO: HW: general error	- TSO is defect
02401001	F	UI: TSO: HW: RAM test failed	- TSO is defect
02401002	F	UI: TSO: HW: watchdog test failed	- TSO is defect
02401003	F	UI: TSO: HW: power supply error	- TSO is defect
02402000	E	UI: TSO: SW: general communication error	- component error
02402001	E	UI: TSO: SW: CAN Chip communication error	- component error

Number	Type	Error text	Possible reasons
02410007 02410018	E	UI: TSO: HW: key <xxx>pressed during startup	- specific key is defect - specific key is pressed during startup
02450001 02450002	E	UI: TSO: SW: internal error: unknown para. request <xx>	- Component design error
02290000	E	UI: TSO: selection bit mask timeout	- timeout of the selection bit mask
02499000	W	UI: TSO: unknown error <xx/yy> received	- SW-versions incompatible - Internal SW error
02917001	E	UI: FSW: fluoro footswitch pressed during startup	- Specific switch is defect - Specific switch is pressed during startup
02917002	E	UI: FSW: expo footswitch pressed during startup:	- Specific switch is defect - Specific switch is pressed during startup
03001xxx	E	GEO: SYS: SW: internal error: <detail error description>	- Internal SW error
03010xxx	W	GEO: SYS: SW: internal application error: <detail error description>	- Internal SW error
03020xxx	E	GEO: SYS: SW: internal application error: <detail error description>	- Internal SW error
03031xxx	E	GEO: SYS: SW: internal error: <detail error description>	- Internal SW error
03041xxx	E	GEO: SYS: SW: internal error: <detail error description>	- Internal SW error
03101001	F	GEO: STD: HW: ROM test failed	- SGCU PCB is defect
03101002	F	GEO: STD: HW: RAM test failed	- SGCU PCB is defect
03101003	F	GEO: STD: HW: watchdog timeout	- SGCU PCB is defect
03101004	F	GEO: STD: HW: unexpected interrupt	- SGCU PCB is defect
03101005	F	GEO: STD: HW: unexpected interrupt	- SGCU PCB is defect
03101006	F	GEO: STD: HW: unexpected interrupt	- SGCU PCB is defect
03101007	F	GEO: STD: HW: NVRAM defect	- SGCU PCB is defect
03102001	F	GEO: STD: SW: watchdog timeout	- Internal STD-SW error
03102002	F	GEO: STD: SW: stack underflow	- Internal STD-SW error
03102003	F	GEO: STD: SW: stack overflow	- Internal STD-SW error
03103001	F	GEO: STD: HW: no operation of AD-converter	- ADC is defect - shortcut of reference voltage (Uref) to ground
03110000	F	GEO: STD: watchdog test failed during startup	- no signal from watchdog-output
03111001	F	GEO: STD: NVRAM test failed during startup: configuration section	- nonresettable error /HW defect
03111002	F	GEO: STD: NVRAM test failed during startup: adjustment section	- nonresettable error / HW defect
03111003	F	GEO: STD: NVRAM test failed during startup: application section	- nonresettable error / HW defect
03112001	F	GEO: STD: K1 relay: stuck on during startup	- mechanically stuck or sluggish
03112002	F	GEO: STD: K1 relay: stuck off during startup	- contacts welded or jammed
03113001	F	GEO: STD: K2 relay: stuck on during startup	- mechanically stuck or sluggish
03114001	F	GEO: STD: K3 relay: stuck on during startup	- mechanically stuck or sluggish
03115001	F	GEO: STD: K4 relay: stuck on during startup	- mechanically stuck or sluggish
03116001	F	GEO: STD: K5 relay: stuck on during startup	- mechanically stuck or sluggish
03120000	E	GEO: STD: scopo long axis: steel band broken	- supervision of steelband activated
03121000	E	GEO: STD: table tilt axis: frequency converter error	- converter frequency outside limits
03122001	E	GEO: STD: brake output monitor error: table tilt brake off	- supply for relay/contactor failed. SC.
03122002	E	GEO: STD: brake output monitor error: spider brake off	- supply for relay/contactor failed. SC.
03122003	E	GEO: STD: brake output monitor error: table long brake off	- supply for relay/contactor failed. SC.
03123001	F	GEO: STD: power supply U2: voltage too high	- excess voltage U2 is detected.

Number	Type	Error text	Possible reasons
03129001	E	GEO: STD: spider axis: no sync signal from thyristor interface	- circuit breaker SCF2 is off, no input - PCB SC110 or SC100 is defect - defect in cabling / connection
03129002	E	GEO: STD: table long axis: no sync signal from thyristor interface	- circuit breaker SCF3 is off - PCB SC210 or SC100 is defect - defect in cabling / connections
03130000	E	GEO: STD: table tilt axis: overspeed detected	- mismatch of actual speed to limits
03130001	E	GEO: STD: spider axis: overspeed detected:	- mismatch of actual speed to limits
03130002	E	GEO: STD: table long axis: overspeed detected	- mismatch of actual speed to limits
03131000	E	GEO: STD: table tilt axis: jam error	- excess friction/blockage/powerfail/motor
03131001	E	GEO: STD: spider axis: jam error	- excess friction/blockage/powerfail/motor
03131002	E	GEO: STD: table long axis: jam error	- excess friction/blockage/powerfail/motor
03131003	E	GEO: STD: table lateral axis: jam error	- excess friction/blockage/powerfail/motor
03131006	E	GEO: STD: geomat axis: jam error	- excess friction/blockage/powerfail/motor
03132000	E	GEO: STD: table long axis: position mismatch	- position change without feedback
03133000	E	GEO: STD: spider tilt position tracking error	- loss of position info from pot /line fail
03134000	E	GEO: STD: AD-input out of range: tilting position	- signal at AD-input noisy or too high / low
03134001	E	GEO: STD: AD-input out of range: spider position	- signal at AD-input noisy or too high /low
03134002	E	GEO: STD: AD-input out of range: table long position	- signal at AD-input noisy or too high / low
03134003	E	GEO: STD: AD-input out of range: table long safety position	- signal at AD-input noisy or too high / low
03134004	E	GEO: STD: AD-input out of range: table lateral position	- signal at AD-input noisy or too high / low
03134005	E	GEO: STD: AD-input out of range: scopo long position	- signal at AD-input noisy or too high / low
03134006	E	GEO: STD: AD-input out of range: scopo compress position	- signal at AD-input noisy or too high / low
03134007	E	GEO: STD: AD-input out of range: tilting velocity	- signal at AD-input noisy or too high / low
03134008	E	GEO: STD: AD-input out of range: spider velocity	- signal at AD-input noisy or too high / low
03134009	E	GEO: STD: AD-input out of range: table long velocity:	- signal at AD-input noisy or too high / low
03135000	F	GEO: STD: table tilt axis: movement into wrong direction	- signal at AD-input noisy or too high / low
03135001	F	GEO: STD: spider axis: movement into wrong direction	- signal detected in standby. noise/o-line
03135002	F	GEO: STD: table long axis: movement into wrong direction	- signal detected in standby. noise/o-line
03135003	F	GEO: STD: table lateral axis: movement into wrong direction:	- signal detected in standby. noise/o-line
03135004	F	GEO: STD: scopo long axis: movement into wrong direction	- signal detected in standby. noise/o-line
03135005	F	GEO: STD: scopo compression axis: m'mt into wrong direction	- signal detected in standby. noise/o-line
03135006	F	GEO: STD: geomat axis movement into wrong direction	- signal detected in standby. noise/o-line
03136000	F	GEO: STD: table tilt axis: undemanded movement	- signal detected in standby. noise/o-line
03136001	F	GEO: STD: spider axis: undemanded movement	- signal detected in standby. noise/o-line
03136002	F	GEO: STD: table long axis: undemanded movement	- signal detected in standby. noise/o-line
03136003	F	GEO: STD: table lateral axis: undemanded movement	- signal detected in standby. noise/o-line
03136004	F	GEO: STD: scopo long axis: undemanded movement	- signal detected in standby. noise/o-line
03136005	F	GEO: STD: scopo compression axis: undemanded movement	- signal detected in standby. noise/o-line
03136006	F	GEO: STD: geomat axis: undemanded movement	- wrong signal on input at A/D during start
03137000	E	GEO: STD: tacho monitoring error: table tilt	- wrong signal on input at A/D during start
03137001	E	GEO: STD: tacho monitoring error: spider	- wrong signal on input at A/D during start
03137002	E	GEO: STD: tacho monitoring error: table long	- wrong signal on input at A/D during start
03138001	E	GEO: STD: geomat position unknown: no switch active	- microswitch/connection opened/displaced
03138002	E	GEO: STD: geomat position unknown: both switches active	- microswitch permanent closed / line-short
03140001	F	GEO: STD: K1 relay: active but disabled by SW	- start up irregularity
03140002	F	GEO: STD: K1 relay: inactive but enabled by SW	- supply fail / interrupt of line feeder
03140003	F	GEO: STD: K1 relay: active but disabled by emergency stop	- panic button is operated/connector opened
03141001	F	GEO: STD: K2 relay: active but disabled by SW	- start up irregularity
03141002	F	GEO: STD: K2 relay: disabled by EN_MV	- inhibit by movement circuit
03141003	F	GEO: STD: K2 relay: active but disabled by EN_MV	- inhibit by movement circuit
03141004	F	GEO: STD: K2 relay: active but disabled by K4	- Hardware interruption by K4 fault detected

Number	Type	Error text	Possible reasons
03141005	F	GEO: STD: K2 relay: inactive due to safety circuit	- safety interrupt by peripheral supervision
03142001	F	GEO: STD: K3 relay: active but disabled by SW	- start up irregularity
03142002	F	GEO: STD: K3 relay: disabled by EN_MV	- inhibit by movement circuit
03142003	F	GEO: STD: K3 relay: active but disabled by EN_MV	- inhibit by movement circuit
03142004	F	GEO: STD: K3 relay: active but disabled by K4	- Hardware interruption by K4 fault det.
03142005	F	GEO: STD: K3 relay: inactive due to safety circuit	- safety interrupt by peripheral supervision
03150000	W	GEO: STD: SW: function request not configured: ID=<xx>	- Internal SW error
03151000	W	GEO: STD: SW: function request ignored: function <xx> is active	- Internal SW error
03152000	W	GEO: STD: SW: function request ignored: function <xx> is in install mode	- Internal configuration error, incompatible status
03160000	E	GEO: STD: SW: internal buffer overflow: buffer-ID <xx>	- Internal SW error / data loss / interference
03170001	E	GEO: STD: NVRAM is not write protected	- Wpr. switch is not set to 'write protection'
03171000	W	GEO: STD: table tilt axis: frequency converter reset	- Reset was done, heavy tilt load axis jammed
03172001	E	GEO: STD: NVRAM data overwritten with default data: configuration section	- Change in configuration occured
03172002	E	GEO: STD: NVRAM data overwritten with default data: adjustment section	- Change in adjustment data occured
03172003	E	GEO: STD: NVRAM data overwritten with default data: application section	- Change in application data occured - customised application data missing
03198000	E	GEO: STD: no selection mask received, axis <xx>	- SW-versions incompatible - Internal SW error
03199000	W	GEO: STD: SW: unknown error <xx/yy> received	- SW-versions incompatible - Internal SW error
03201001	F	GEO: SFD: HW: RAM test failed	- Scopo PCB AF1 is defect
03201002	F	GEO: SFD: HW: CAN init failed	- CAN-chip on AF1 is defect
03202001	E	GEO: SFD: HW: watchdog test failed	- Scopo PCB AF1 is defect
03202002	E	GEO: SFD: HW: scopo center-switches unequal	- Hardware error in scopo: switch/lever
03203001	E	GEO: SFD: no communication to slave 1	- PCB AF1 defect (V16 / V11)
03203002	E	GEO: SFD: no communication to slave 2	- PCB AF1 defect (V6 / V1)
03203003	E	GEO: SFD: no communication to slave 3	- connection of AF3 not ok - PCB AF1 defect - PCB AF3 defect
03204001	E	GEO: SFD: cassette X: command execution timeout	- response failed between modules
03204002	E	GEO: SFD: shutter Y: command execution timeout	- response failed between modules
03204003	E	GEO: SFD: cassette Y: command execution timeout	- response failed between modules
03204004	E	GEO: SFD: shutter X: command execution timeout	- response failed between modules
03204005	E	GEO: SFD: grid: command execution timeout	- response failed between modules
03205001	E	GEO: SFD: drive error: cassette X three times calibrated	- change of position not recognized
03205002	E	GEO: SFD: drive error: shutter Y three times calibrated	- change of position not recognized
03205003	E	GEO: SFD: drive error: cassette Y three times calibrated	- change of position not recognized
03205004	E	GEO: SFD: drive error: shutter X three times calibrated	- change of position not recognized
03205005	E	GEO: SFD: drive error: grid drive three times calibrated	- change of position not recognized
03206000	E	GEO: SFD: invalid cassette format detected	- cassette size is invalid - hardware of casette size detection is defect
03299000	W	GEO: SFD: unknown error <xx/yy> received	- SW-versions incompatible - Internal SW error
03301001	F	GEO: BLD-UT: HW: ROM test failed	- hardware error in collimator controller
03301002	F	GEO: BLD-UT: HW: RAM test failed	- hardware error in collimator controller
03301003	F	GEO: BLD-UT: HW: HW watchdog test	- hardware error in collimator controller
03301004	F	GEO: BLD-UT: HW: CAN test	- hardware error in collimator controller - CAN-chip is defect

Number	Type	Error text	Possible reasons
03301005	F	GEO: BLD-UT: HW: Power supply test failed	- hardware error in collimator controller - internal reference 11v is exeed. 0.5tol.
03302001	F	GEO: BLD-UT: HW: watchdog timeout	- hardware error in collimator controller - internal error
03302002	F	GEO: BLD-UT: SW: unexpected interrupt	- hardware error in collimator controller - sporadic HEAVY interference
03302003	F	GEO: BLD-UT: SW: unexpected interrupt	- hardware error in collimator controller - sporadic HEAVY interference
03302004	F	GEO: BLD-UT: SW: unexpected interrupt	- hardware error in collimator controller - sporadic HEAVY interference
03302005	F	GEO: BLD-UT: SW: watchdog timeout	- hardware error in collimator controller - internal error
03302006	F	GEO: BLD-UT: SW: stack underflow	- internal error
03302007	F	GEO: BLD-UT: SW: stack overflow	- internal error
03303001	E	GEO: BLD-UT: SW: CAN: RX-overrun indication	- internal error
03303002	E	GEO: BLD-UT: SW: CAN: TX-overrun indication	- internal error
03305001	F	GEO: BLD-UT: HW: X-motor: test max. voltage failed	- hardware error in collimator controller
03305002	F	GEO: BLD-UT: HW: Y-motor: test max voltage failed	- hardware error in collimator controller
03305003	F	GEO: BLD-UT: HW: IRIS-motor: test max voltage failed	- hardware error in collimator controller
03305004	F	GEO: BLD-UT: HW: Filter-motor: test max voltage failed	- hardware error in collimator controller
03306001	F	GEO: BLD-UT: HW: X-motor: test min. voltage failed	- hardware error in collimator controller
03306002	F	GEO: BLD-UT: HW: Y-motor: test min. voltage failed	- hardware error in collimator controller
03306003	F	GEO: BLD-UT: HW: IRIS-motor: test min. voltage failed	- hardware error in collimator controller
03306004	F	GEO: BLD-UT: HW: Filter-motor: test min. voltage failed	- hardware error in collimator controller
03307001	F	GEO: BLD-UT: HW: X-motor: test zero voltage failed	- hardware error in collimator controller
03307002	F	GEO: BLD-UT: HW: Y-motor: test zero voltage failed	- hardware error in collimator controller
03307003	F	GEO: BLD-UT: HW: IRIS-motor: test zero voltage failed	- hardware error in collimator controller
03307004	F	GEO: BLD-UT: HW: Filter-motor: test zero voltage failed	- hardware error in collimator controller
033100xx	E	GEO: BLD-UT: AD-conversion error (raw data): AD-channel <xx>	- hardware error in collimator controller
033110xx	E	GEO: BLD-UT: AD-actual value error: AD-channel <xx>	- hardware error in collimator controller
03320001	E	GEO: BLD-UT: invalid auto configuration	- selected hardware configuration is invalid
03321001	E	GEO: BLD-UT: X-shutter: motor error	- motor / cabling of X-shutter is defect
03321002	E	GEO: BLD-UT: X-shutter: poti error	- poti / cabling of X-shutter is defect
03321003	E	GEO: BLD-UT: X-shutter: position timeout	- motor, poti or cabling of X-shutter is defect
03321004	E	GEO: BLD-UT: X-shutter: Offset out of range	- poti / cabling of X-shutter is defect - internal reference voltage error
03321005	E	GEO: BLD-UT: X-shutter: Shutters not detected	- cabling error - configuration error
03322001	E	GEO: BLD-UT: Y-shutter: motor error	- motor / cabling of Y-shutter is defect
03322002	E	GEO: BLD-UT: Y-shutter: poti error	- poti / cabling of Y-shutter is defect
03322003	E	GEO: BLD-UT: Y-shutter: position timeout	- motor, poti or cabling of Y-shutter is defect
03322004	E	GEO: BLD-UT: Y-shutter: offset out of range	- poti / cabling of Y-shutter is defect - internal reference voltage error
03322005	E	GEO: BLD-UT: Y-shutter: shutters not detected	- cabling error / connecting error - configuration error
03323001	E	GEO: BLD-UT: IRIS-shutter: motor error	- motor / cabling of IRIS-shutter is defect
03323002	E	GEO: BLD-UT: IRIS-shutter: poti error	- poti / cabling of IRIS-shutter is defect
03323003	E	GEO: BLD-UT: IRIS-shutter: position timeout	- motor, poti or cabling of IRIS-shutter is defect

Number	Type	Error text	Possible reasons
03323004	E	GEO: BLD-UT: IRIS-shutter: offset out of range	- poti / cabling of IRIS-shutter is defect - internal reference voltage error
03323005	E	GEO: BLD-UT: IRIS-shutter: shutters not detected	- cabling error / connecting error - configuration error
03324001	E	GEO: BLD-UT: filter: motor error	- motor / cabling of Filter-shutter is defect
03324002	E	GEO: BLD-UT: filter: poti error	- poti / cabling of Filter-shutter is defect
03324003	E	GEO: BLD-UT: filter: position timeout	- motor, poti or cabling of Filter-shutter is defect
03324004	E	GEO: BLD-UT: filter: offset out of range	- poti / cabling of Filter-shutter is defect - internal reference voltage error
03324005	E	GEO: BLD-UT: filter: shutters not detected	- cabling error / connecting error - configuration error
03399000	W	GEO: BLD-UT: unknown error <xx/yy> received	- incomportible data / interference
0350xxxx	E	GEO: CS2: see bucky CS2 error buffer	- see bucky CS2 error buffer