

## 1. General Description

This Document contains the log data of a read out logfile. It shows what happened with the specified vbar unit during the latest time

Version of PC Software	<b>5.3.2 07.07.2012</b>
Date	<b>Tue Sep 08 23:51:31 EEST 2015</b>
Serial	<b>1510000000</b>
Prod Date	<b>24.9.2010 13:38</b>
Firmware	<b>5.3</b>
Patchlevel	<b>4</b>

## 2. Chronological List of Events

✔	0:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	1:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	1:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
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✔	2:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✔	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
▶	0:05	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✔	0:15	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:25	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
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✔	0:45	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:55	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	1:05	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
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✔	0:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
⚠	0:48	High Vibration Level	The control loop suffers from a high vibration level, that starts to render the sensors blind. Save flying is possible, but the stability will be degraded. Additionally slow drifts that happen may be caused by vibrations.
▶	0:57	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
▶	1:07	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
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▶	2:05	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
▶	2:14	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
▶	2:24	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
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▶	3:02	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
▶	3:12	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.
▶	3:21	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeditly very often, check the heli for vibration sources.

▶	3:31	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	3:41	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	3:50	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
✔	4:00	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:10	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✔	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
▶	0:06	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
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✔	0:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	0:57	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	1:07	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
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✔	1:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	1:55	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:05	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:14	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:24	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.

▶	2:33	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:43	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:53	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
✔	3:03	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	3:12	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	3:21	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	3:31	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	3:41	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
⚠	3:50	High Vibration Level	The control loop suffers from a high vibration level, that starts to render the sensors blind. Safe flying is possible, but the stability will be degraded. Additionally slow drifts that happen may be caused by vibrations.
✔	4:00	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:10	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✔	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
▶	0:05	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✔	0:15	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:25	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:35	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:45	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
⚠	0:48	High Vibration Level	The control loop suffers from a high vibration level, that starts to render the sensors blind. Safe flying is possible, but the stability will be degraded. Additionally slow drifts that happen may be caused by vibrations.
▶	0:57	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	1:07	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	1:16	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	1:26	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.



▶	1:36	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
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▶	1:55	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
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▶	2:24	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:33	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	2:43	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
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▶	3:02	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
▶	3:12	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
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✔	3:42	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
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▶	4:10	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and this is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repeatedly very often, check the heli for vibration sources.
✔	4:20	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:30	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:40	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
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[illegible]

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⚠	3:50	High Vibration Level	The control loop suffers from a high vibration level, that starts to render the sensors blind. Safe flying is possible, but the stability will be degraded. Additionally slow drifts that happen may be caused by vibrations.
✓	4:00	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	4:10	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✓	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
⚠	0:01	Init Failed, retrying...	The Init process of the sensors is very sensitive to movements of the heli or from other external disturbances, i.e. Voltage jumps and glitches. This can lead to a failed initialization. In this Case it is repeated. If this repeats itself all the time, this can point to a defective sensors.
▶	0:06	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✓	0:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.



✓	3:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✓	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
▶	0:06	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✓	0:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	1:07	Raised Vibration Level	There was detected a raised level of Vibration. Since the vibration detector has to decide which signal is vibration and chis is the intended measurement signal, this can happen sometimes on hard 3d moves. It shall not happen all the time. If this error is reported repedidly very often, check the heli for vibration sources.
✗	1:12	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	1:12	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	1:12	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:12	The Cyclic Ring is active	If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fulfill the pilots needs. So this limiter is in action dependant on the flight actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time.
✗	1:12	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:12	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:12	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:12	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:12	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	1:12	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.

✖	1:13	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:13	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	1:13	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:13	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:13	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:13	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:14	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:14	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	1:14	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:14	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:14	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:14	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:15	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:15	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
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✖	1:15	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:16	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:16	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	1:16	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
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✗	1:16	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:16	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:16	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	1:16	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	1:17	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	1:17	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	1:17	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:17	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✗	1:17	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	1:17	Extreme Vibration Level	Vibrations are extreme. That means, that the measurement signal is much lower than the signal level of the vibrations. No usable flying is possible with this level. Everything has to be checked and extended tests are needed to isolate and eliminate the source of vibrations.
✗	1:17	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	1:17	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	1:18	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	1:18	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:18	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
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✗	1:18	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	1:18	Tail Sensor shows no actual Signal	This is a plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✗	1:19	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	1:19	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:19	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✗	1:19	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.

✖	1:19	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
⚠	1:19	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:20	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:20	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:20	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:20	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:20	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
⚠	1:20	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:21	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:21	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:21	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:21	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:21	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:22	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:22	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	1:22	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:22	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:22	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:22	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:23	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:23	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:23	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:23	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.



✖	1:24	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:24	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:24	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:24	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:24	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:25	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:25	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:25	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:25	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	1:25	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:26	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:26	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:26	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:26	Extreme Vibration Level	Vibrations are extreme. That means, that the measurement signal is much lower than the signal level of the vibrations. No usable flying is possible with this level. Everything has to be checked and extended tests are needed to isolate and eliminate the source of vibrations
✖	1:26	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	1:26	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	1:26	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:27	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:27	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:27	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:27	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:27	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.



✖	1:27	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
⚠	1:27	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:28	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:28	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:28	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:28	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:28	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
⚠	1:28	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:29	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:29	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:29	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:29	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:29	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
⚠	1:29	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:30	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:30	Low Voltage of 2.5V Rail	The Voltage is to small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	1:30	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:30	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:30	RC Input of Channel 3 out of Range	Channel 3 actively recived a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:30	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:30	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:31	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.

✖	1:31	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:31	RC Input of Channel 4 out of Range	Channel 4 actively recived a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:31	RC Input of Channel 6 out of Range	Channel 6 actively recived a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:31	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:31	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:32	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:32	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	1:32	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error pints to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	1:32	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
✖	1:32	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handleed on ground, or on very hard landings or very extreme Vibrations.
⚠	1:32	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	1:33	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:33	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:33	RC Input of Channel 6 out of Range	Channel 6 actively recived a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:34	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:34	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:34	RC Input of Channel 4 out of Range	Channel 4 actively recived a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	1:35	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	1:35	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:36	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	1:36	Extreme Vibration Level	Vibrations are extreme. That means, that the measurement signal is much lower than the signal level of the vibrations. No usable flying is possible with this level. Everything has to be checked and extended tests are needed to isolate and eliminate the source of vibrations

✓	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✗	0:00	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✓	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered by manual backswitch from the user interface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
▶	0:05	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✗	0:05	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:05	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	0:05	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:05	The Cyclic Ring is active	If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fulfill the pilots needs. So this limiter is in action dependant on the flown actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time.
✗	0:05	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	0:05	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	0:05	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✗	0:06	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:06	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	0:06	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:06	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:06	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✗	0:06	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	0:06	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✗	0:07	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:07	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:08	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:08	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	0:08	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.



	0:08	Sensor Data Checksum Error	Each Data packed from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
	0:08	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:08	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:08	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:08	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
	0:08	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
	0:08	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
	0:09	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
	0:09	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
	0:09	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
	0:09	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:09	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:09	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:09	Extreme Vibration Level	Vibrations are extreme. That means, that the measurement signal is much lower than the signal level of the vibrations. No usable flying is possible with this level. Everything has to be checked and extended tests are needed to isolate and eliminate the source of vibrations
	0:10	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
	0:10	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
	0:10	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
	0:10	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:10	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
	0:10	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.

✖	0:11	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:11	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:11	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:11	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	0:11	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:11	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:11	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:11	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:11	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:12	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:12	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:12	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:12	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
⚠	0:12	The Cyclic Ring is active	If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fulfill the pilots needs. So this limiter is in action dependant on the flown actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time.
✖	0:12	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:12	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:13	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:13	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:13	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:13	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	0:13	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.



✖	0:13	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:13	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:13	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	0:13	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	0:14	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:14	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:14	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:14	Tail Sensor shows no actual Signal	This is an plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	0:15	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:15	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:15	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:15	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control lost. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	0:15	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:15	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:15	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:15	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:15	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:15	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:16	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:16	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:16	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total lost of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.

✖	0:16	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:17	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:17	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:17	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:17	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
⚠	0:17	The Cyclic Ring is active	If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot set high enough to fulfill the pilots needs. So this limiter is in action dependant on the flown actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time.
✖	0:17	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:17	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	0:17	Tail Sensor shows no actual Signal	This is a plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	0:18	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:18	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:18	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	0:18	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:18	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:19	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:19	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:19	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	0:19	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:19	Extreme Vibration Level	Vibrations are extreme. That means, that the measurement signal is much lower than the signal level of the vibrations. No usable flying is possible with this level. Everything has to be checked and extended tests are needed to isolate and eliminate the source of vibrations.
✖	0:20	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:20	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:20	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.

✖	0:20	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:20	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:20	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:21	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:21	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:21	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
⚠	0:21	The Cyclic Ring is active	If the agility of a Heli is set to the possibilities of the mechanic and aerodynamic limits, this did not happen. However in 3D Flying the agility cannot be set high enough to fulfill the pilots needs. So this limiter is in action dependant on the flight actions. If it is active very often, there is a potential problem with the mechanics. Using lighter blades will help increasing the natural agility preventing hitting the cyclic ring all the time.
✖	0:21	Aileron Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
✖	0:21	Elevator Sensor Value out of Range	The Sensor delivers Values that are not trustful. Rotational rates, that will create this values are usually not possible in air. The Sensor may be defective. This can happen in certain cases if the heli is handled on ground, or on very hard landings or very extreme Vibrations.
⚠	0:21	Tail Sensor shows no actual Signal	This is a plausibility check. If the Heli starts to vibrate, this shall at least have effect to all sensors. If one of the Sensors do not show the Signal, it may point to a specific problem, not necessary with this sensor, but a general problem.
✖	0:22	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:22	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:22	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	0:22	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:22	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:22	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:22	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:23	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:23	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:23	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✖	0:23	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.



✖	0:23	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:24	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:24	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:24	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halted, to calm down the control a bit and make a landing possible.
✖	0:24	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:25	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:25	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:25	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halted, to calm down the control a bit and make a landing possible.
✖	0:25	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:25	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:25	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:25	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:26	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:26	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:26	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halted, to calm down the control a bit and make a landing possible.
⚠	0:26	Sensor Data Checksum Error	Each Data packet from the sensor carries a checksum. If this checksum does not match with the calculated checksum, this error is thrown. Since packets are repeated very fast, this is not a complete control loss. The sensor data is going to hold until a valid checksum is calculated. This error points to some wiring problems of the sensor. It also may occur if static discharges hit the sensor or the connection to the sensor.
✖	0:26	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✖	0:27	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✖	0:27	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✖	0:27	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halted, to calm down the control a bit and make a landing possible.

✗	0:28	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:28	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	0:28	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:29	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:29	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:29	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:29	Extreme Vibration Level	Vibrations are extreme. That means, that the measurement signal is much lower than the signal level of the vibrations. No usable flying is possible with this level. Everything has to be checked and extended tests are needed to isolate and eliminate the source of vibrations
✗	0:30	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:30	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	0:30	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:30	RC Input of Channel 2 out of Range	Channel 2 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:30	RC Input of Channel 3 out of Range	Channel 3 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:30	RC Input of Channel 4 out of Range	Channel 4 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:30	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:31	Low Voltage of 3.3V Rail	The Controller is no longer able to perform reliable IO Operations. This is not necessary the reason for a complete reset, but this is a strong hint to take a close look at the power supply. This shall not happen in flight. If you see this error, the problem has to be fixed before the next flight.
✗	0:31	Low Voltage of 2.5V Rail	The Voltage is too small, to let the controller run safely. This error will appear only very seldom, because it is followed by a reset after a few milliseconds. This time will not be sufficient to store the error in the error storage flash area.
✗	0:31	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:31	RC Input of Channel 6 out of Range	Channel 6 actively received a Signal that is out of the specified Signal range of 0.8ms .. 2.2ms. These Signals are ignored, but point to a serious problem with the configuration. Make sure you never leave the valid signal range of the inputs. Invalid inputs will trigger the missing signal error as well, because there is no usable signal anymore. This has to be done in this way, because bad connections tend to create invalid signals because of glitches.
✗	0:32	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.
✗	0:33	Sensor Connection broken	Data is transmitted in very short sequence from the sensor. The packets arrive multiple times each frame. This Error is issued, if in a time of 50ms no Data packets did arrive. This is probably a total loss of the sensor connection. In this case, the VBar goes into emergency mode, where control is still possible, but there is no more additional stability from the sensors. The Throw is halved, to calm down the control a bit and make a landing possible.



✓	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✓	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
▶	0:05	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✓	0:15	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:25	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	0:26	Testmode Started	The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentally. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.
▶	0:29	Testmode Started	The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentally. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.
✓	0:39	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:49	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	0:59	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:09	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:19	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:29	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:39	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:49	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	1:59	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:09	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:19	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	2:26	Testmode Started	The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentally. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.
✓	2:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	2:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✓	3:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.

✔	3:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	3:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:06	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
▶	4:17	Testmode Started	The testmode ist entered intentionally by the user with the command on a Controlpanel or any other control terminal. The Entering command is checksum tested, so it cannot happen accidentally. In Testmode the normal control loop algorithm is not running, so its important to leave the Testmode prior flight. Its only can happen to fly in testmode with bluetooth.
✔	4:27	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:37	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:47	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	4:57	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	5:07	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	5:17	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:00	Coldstart	A Coldstart is done on the beginning of each switch on time. A Coldstart can happen only, if the VBar Units is disconnected from power for more than 5 Seconds.
✔	0:00	Reset Reason: Power On	This happens if power is applied to the VBar unit. Usually this is ok, but it shall never happen in operational mode. So if a reset happens during flight, this points to a power problem. During flight the power on reset results in a warmstart. If a coldstart happens during flight, the power loss was more than 5 Seconds
▶	0:00	Bank 0 Loaded	Bank 0 was loaded from the non volatile memory. This can be triggered my manual backswitch from the userinterface as well as in flight if bank switch is programmed to the aux channel. On Startup the Bank 0 is loaded by default.
⚠	0:01	Init Failed, retrying...	The Init process of the sensors is very sensitive to movements of the heli or from other external disturbances, i.e. Voltage jumps and glitches. This can lead to a failed initialization. In this Case it is repeated. If this repeats itself all the time, this can point to a defective sensors.
▶	0:06	Calibration Finished	At each Coldstart, the sensor and RC Values are calibrated to the actual seen values. If the calibration is finished, this message confirms the storage of data into the internal non volatile calibration memory
✔	0:16	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:26	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:36	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:46	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.
✔	0:56	Good Health Message (10sec)	This Message describes the good health state. That means, that the VBar unit does not see any error or Info Message in the last 10 Seconds.