

## 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>5.1.6a (FFT Fix) 16.02.2011</b>  |
| Date                   | <b>Sat Jun 04 12:30:30 BST 2011</b> |
| Serial                 | <b>1510002254</b>                   |
| Prod Date              | <b>20.7.2010 8:2</b>                |
| Firmware               | <b>5.1</b>                          |
| Patchlevel             | <b>6</b>                            |

## 2. Chronological List of Events

[illegible]



[illegible]

|   |      |                             |   |
|---|------|-----------------------------|---|
| ▶ | 3:13 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:15 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:16 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:17 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:19 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:20 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:21 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:22 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:23 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:25 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:26 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:27 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:28 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:29 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:30 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:31 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:32 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:33 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:34 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:35 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ⚠ | 3:36 | 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. Additinally slow drifts that happen may be caused by vibrations.  |
| ▶ | 3:38 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 3:46 | 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. |
| ✔ | 3:56 | 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.   |
| ✔ | 4:26 | 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.   |
| ✔ | 4:36 | 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.   |
| ▶ | 4:38 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 4:39 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 4:41 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 4:44 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 4:47 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✔ | 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.  |
| ✓ | 5:27 | 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.  |
| ✓ | 5:37 | 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.  |
| ✓ | 5:47 | 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.  |
| ✓ | 5:57 | 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.  |
| ✓ | 6:07 | 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.  |
| ✓ | 6:17 | 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.  |
| ✓ | 6:27 | 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.  |
| ✓ | 6:37 | 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.  |
| ✓ | 6:47 | 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.  |
| ✓ | 6:57 | 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.  |
| ✓ | 7:07 | 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.  |
| ⚠ | 7:11 | Antenna Switched                           | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ✓ | 7:21 | 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.  |
| ⚠ | 7:22 | Antenna Switched                           | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ✓ | 7:32 | 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.  |
| ⚠ | 7:40 | Antenna Switched                           | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ✓ | 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  |
| ✗ | 0:05 | Ambiguous Value on Aileron Sensor at Init  | The Sensors are calibrated to their centers at each startup. Thsi gives a center value depending on some serial deviation, but they shall stay in 10% of the ideal center. If this is not met, the sensor may be defective. Check the Live display of the sensor for visible deviation. Even it is is possible to fly with a decentered sensor, it is recommended to contact the support |
| ✗ | 0:05 | Ambiguous Value on Elevator Sensor at Init | The Sensors are calibrated to their centers at each startup. Thsi gives a center value depending on some serial deviation, but they shall stay in 10% of the ideal center. If this is not met, the sensor may be defective. Check the Live display of the sensor for visible deviation. Even it is is possible to fly with a decentered sensor, it is recommended to contact the support |
| ✗ | 0:05 | Ambiguous Value on Tail Sensor at Init     | The Sensors are calibrated to their centers at each startup. Thsi gives a center value depending on some serial deviation, but they shall stay in 10% of the ideal center. If this is not met, the sensor may be defective. Check the Live display of the sensor for visible deviation. Even it is is possible to fly with a decentered sensor, it is recommended to contact the support |
| ✓ | 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.  |
| ✓ | 0:00 | 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  |
| ✖ | 0:05 | Ambiguous Value on Aileron Sensor at Init  | The Sensors are calibrated to their centers at each startup. Thsi gives a center value depending on some serial deviation, but they shall stay in 10% of the ideal center. If this is not met, the sensor may be defective. Check the Live display of the sensor for visible deviation. Even it is is possible to fly with a decentered sensor, it is recommended to contact the support |
| ✖ | 0:05 | Ambiguous Value on Elevator Sensor at Init | The Sensors are calibrated to their centers at each startup. Thsi gives a center value depending on some serial deviation, but they shall stay in 10% of the ideal center. If this is not met, the sensor may be defective. Check the Live display of the sensor for visible deviation. Even it is is possible to fly with a decentered sensor, it is recommended to contact the support |
| ✖ | 0:05 | Ambiguous Value on Tail Sensor at Init     | The Sensors are calibrated to their centers at each startup. Thsi gives a center value depending on some serial deviation, but they shall stay in 10% of the ideal center. If this is not met, the sensor may be defective. Check the Live display of the sensor for visible deviation. Even it is is possible to fly with a decentered sensor, it is recommended to contact the support |
| ✔ | 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.  |
| ▶ | 0:07 | 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  |
| ✔ | 0:17 | 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.  |
| ✔ | 0:27 | 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.  |
| ✔ | 0:37 | 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.  |
| ✔ | 0:47 | 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.  |
| ✔ | 0:57 | 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.  |
| ✔ | 1:07 | 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.  |
| ▶ | 1:11 | 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.                |
| ▶ | 1:16 | 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.                |
| ✔ | 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.  |
| ▶ | 1:53 | Antenna Switched                           | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:57 | Testmode Ended                             | Testmode has been switched off intentially. Normal control loop is in action now   |
| ✔ | 2:07 | 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.  |
| ✔ | 2:17 | 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.  |
| ✔ | 2:27 | 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.  |
| ✔ | 2:37 | 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.  |
| ✔ | 2:47 | 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.  |

|   |      |                             |   |
|---|------|-----------------------------|---|
| ✓ | 2:57 | 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.   |
| ✓ | 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.   |
| ▶ | 0:49 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✓ | 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.   |
| ▶ | 1:07 | 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. |
| ✗ | 1:16 | 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   |
| ▶ | 1:18 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:24 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ⚠ | 1:26 | 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. Additinally slow drifts that happen may be caused by vibrations.  |
| ▶ | 1:28 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:29 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:32 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✗ | 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   |
| ▶ | 1:37 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:40 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:44 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:45 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✗ | 1:45 | 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   |
| ▶ | 1:51 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:53 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✓ | 2:03 | 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.   |
| ⚠ | 2:05 | 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. Additinally slow drifts that happen may be caused by vibrations.  |
| ⚠ | 2:14 | 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. Additinally slow drifts that happen may be caused by vibrations.  |



|   |      |                             |  |
|---|------|-----------------------------|--|
| ✓ | 2:24 | 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.  |
| ✓ | 2:34 | 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.  |
| ✓ | 2:44 | 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.  |
| ✓ | 2:54 | 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.  |
| ✓ | 3:04 | 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.  |
| ✓ | 0:55 | 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.  |
| ▶ | 0:56 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:00 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ⚠ | 1:07 | 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. Additinally slow drifts that happen may be caused by vibrations.   |
| ⚠ | 1:16 | 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. Additinally slow drifts that happen may be caused by vibrations.   |
| ▶ | 1:18 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:19 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:21 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:24 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:25 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ⚠ | 1:26 | 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. Additinally slow drifts that happen may be caused by vibrations.   |
| ▶ | 1:27 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:30 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:33 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:34 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ▶ | 1:35 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |
| ⚠ | 1:36 | 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. Additinally slow drifts that happen may be caused by vibrations.   |
| ▶ | 1:37 | Antenna Switched            | The Signal from one of the sattelites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.  |

[illegible]

[illegible]

[illegible]



|   |      |                             |   |
|---|------|-----------------------------|---|
| ✓ | 5:37 | 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.   |
| ✓ | 5:47 | 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.   |
| ✓ | 5:57 | 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.   |
| ✓ | 6:07 | 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.   |
| ✓ | 6:17 | 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.   |
| ✓ | 6:27 | 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.   |
| ✓ | 6:37 | 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.   |
| ✓ | 6:47 | 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.   |
| ✓ | 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.   |
| ✓ | 0:55 | 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.   |
| ⚠ | 0:57 | 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.   |
| ⚠ | 1:07 | 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.   |
| ▶ | 1:09 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 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 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. |
| ▶ | 1:18 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:19 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 1:23 | Antenna Switched            | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 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 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. |
| ✗ | 0:00 | Warmstart                   | Warmstart is an indication for a short power loss, or any other reset reason. If the CPU comes up, and detects, that the power loss was less than 5 seconds, this causes a warmstart. This can happen also, if power is applied and removed in a short sequence. When bining a Spektrum Sattelite, this will occur and is intended.   |
| ✓ | 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.   |
| ✔ | 0:00 | 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.   |
| ▶ | 0:09 | 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   |
| ⚠ | 0:14 | 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.                                       |
| ✔ | 0:24 | 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.   |
| ✔ | 0:34 | 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.   |
| ▶ | 0:38 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✖ | 0:38 | RC Input of Pitch Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| ✖ | 0:38 | RC Input of Aileron Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| ✖ | 0:38 | RC Input of Elevator Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| ✖ | 0:38 | RC Input of Tail Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ▶ | 0:39 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✖ | 0:39 | RC Input of Pitch Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| ✖ | 0:39 | RC Input of Aileron Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| ✖ | 0:39 | RC Input of Elevator Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| ✖ | 0:39 | RC Input of Tail Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ▶ | 0:40 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✖ | 0:40 | RC Input of Pitch Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| ✖ | 0:40 | RC Input of Aileron Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |

|   |      |                                     |   |
|---|------|-------------------------------------|---|
| ✖ | 0:40 | RC Input of Elevator Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| ✖ | 0:40 | RC Input of Tail Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ▶ | 0:41 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✖ | 0:41 | RC Input of Pitch Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| ✖ | 0:41 | RC Input of Aileron Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| ✖ | 0:41 | RC Input of Elevator Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| ✖ | 0:41 | RC Input of Tail Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ▶ | 0:42 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ✖ | 0:42 | RC Input of Pitch Channel missed    | The Pitch Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems    |
| ✖ | 0:42 | RC Input of Aileron Channel missed  | The Aileron Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems  |
| ✖ | 0:42 | RC Input of Elevator Channel missed | The Elevator Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems |
| ✖ | 0:42 | RC Input of Tail Channel missed     | The Tail Input Signal ist updated with each Frame recived from the reciver. This Error is raised, if for 50ms no new signal arrives from the reciver. Depending on the hardware connection this can point to a problem with the connection to the reciver/satellite. In case of satellite recivers used, all channels will be accused at the same time. In case of single channels, this can happen seperately on each channel. Closely check your wiring for broken wires or connection problems     |
| ✔ | 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   |
| ▶ | 0:07 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:08 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:09 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:11 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:12 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:13 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:14 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |
| ▶ | 0:15 | Antenna Switched                    | The Signal from one of the satellites was missing. The Main reciver is switched over to the other connector. In Case of a single reciver connected, one frame was lost.   |

[illegible]