

# Troubleshoot U 114 / U 115



## Error messages, reasons and possible approaches for troubleshoot

<b>Messages concerning power supply, temperature and fans</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
PowerFanTemp fail	<ul style="list-style-type: none"> <li>• Mainboard temperature too high</li> <li>• Power supply defect or wrong configuration</li> <li>• fan RPM too low or not working</li> </ul>	<ul style="list-style-type: none"> <li>• provide cool air supply</li> <li>• exchange power supply or check the configuration of power supply</li> <li>• check fan function and exchange fan if necessary</li> </ul>
PowerFanTemp good	information	---

<b>Messages concerning copy protection</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
Copyprot fail	<ul style="list-style-type: none"> <li>• Hardware error</li> </ul>	<ul style="list-style-type: none"> <li>• Hardware defective, please send device to ASTRO</li> </ul>
Copyprot good	information	---

<b>Messages concerning the functionality of management interfaces mgmt A and mgmt B</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
Mgmt A / B link fail	<ul style="list-style-type: none"> <li>• Linkloss at the displayed port</li> <li>• stated port is not used but not deactivated in Web GUI</li> </ul>	<ul style="list-style-type: none"> <li>• check the network cable, check the port configuration at the switch</li> <li>• deactivate the displayed port at the Web GUI. If the U 100-C will be used, the affected module has to be removed from configuration first to get direct access to the module</li> </ul>
Mgmt A / B link good	information	---
Mgmt A / B switched to 100M	information	---
Mgmt A / B switched to 1G	information	---

<b>Messages concerning the functionality of data interfaces data A and data B</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
Data A / B link fail	<ul style="list-style-type: none"> <li>• Linkloss at the displayed port</li> <li>• stated port is not used but not deactivated in Web GUI</li> </ul>	<ul style="list-style-type: none"> <li>• check the network cable, check the port configuration at the switch</li> <li>• deactivate the displayed port at the Web GUI</li> </ul>
Data A / B link good	information	---
Data A / B switched to 100M	information	---
Data A / B switched to 1G	information	---

<b>Messages concerning the IP receiving channels</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>

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IP RX x A Data loss	<ul style="list-style-type: none"> <li>• &gt; 2s no practical data rate</li> </ul>	<ul style="list-style-type: none"> <li>• IP-network misconfiguration, check IP settings in transmitter and receiver</li> </ul>
IP RX x A Data ok	information	---
IP RX x B Data loss	<ul style="list-style-type: none"> <li>• &gt; 2s no practical data rate</li> </ul>	<ul style="list-style-type: none"> <li>• IP-network misconfiguration, check IP settings in transmitter and receiver</li> </ul>
IP RX x B Data ok	information	---
IP RX x A Sec Data loss	<ul style="list-style-type: none"> <li>• &gt; 2s no practical data rate</li> </ul>	<ul style="list-style-type: none"> <li>• IP-network misconfiguration, check IP settings in transmitter and receiver</li> </ul>
IP RX x A Sec Data ok	information	---
IP RX x B Sec Data loss	<ul style="list-style-type: none"> <li>• &gt; 2s no practical data rate</li> </ul>	<ul style="list-style-type: none"> <li>• IP-network misconfiguration, check IP settings in transmitter and receiver</li> </ul>
IP RX x B Sec Data ok	information	---
IP RX x select primary	<ul style="list-style-type: none"> <li>• information, switching is done</li> </ul>	---
IP RX x select secondary	<ul style="list-style-type: none"> <li>• information, switching is done</li> </ul>	---
IP RX x is RTP	information	---
IP RX x is UDP	information	---
IP RX x is VBR	information	---
IP RX x is CBR	information	---
IP RX x Missing 1	<ul style="list-style-type: none"> <li>• RTPone frame is missing (warning)</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs often, the IP infrastructure has to be checked</li> </ul>
IP RX x Missing	<ul style="list-style-type: none"> <li>• RTP &gt;1 frame is missing (error)</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs often, the IP infrastructure has to be checked</li> </ul>
IP RX x Fixed	<ul style="list-style-type: none"> <li>• FEC was able to recover frame</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs often, the IP infrastructure has to be checked</li> </ul>
IP RX x Duplicate	<ul style="list-style-type: none"> <li>• RTP frame duplicated</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs often, the IP infrastructure has to be checked</li> </ul>
IP RX x Reordered	<ul style="list-style-type: none"> <li>• RTP frame reordered</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs often, the IP infrastructure has to be checked</li> </ul>
IP RX x OutOfRange x	<ul style="list-style-type: none"> <li>• RTP frame reordering not possible (buffer depth too small)</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs often, the IP infrastructure has to be checked</li> </ul>
IP RX x got flushed	<ul style="list-style-type: none"> <li>• buffer error caused by too much or too little data, too big jitter or burst</li> </ul>	<ul style="list-style-type: none"> <li>• if this occurs in standard operation: check the input IP data stream</li> <li>• message can occur at the beginning of operation and will disappear after the receiver has locked to the clock</li> </ul>
IP RX x Switching to Data A	<ul style="list-style-type: none"> <li>• Device changes the data reception to data interface Data A</li> </ul>	---
IP RX x Switching to Data B	<ul style="list-style-type: none"> <li>• Device changes the data reception to data interface Data B</li> </ul>	---
IP RX x Switching back to Data A	<ul style="list-style-type: none"> <li>• Device changes the data reception back to data interface Data A</li> </ul>	---
IP RX x Switching back to Data B	<ul style="list-style-type: none"> <li>• Device changes the data reception back to data interface Data B</li> </ul>	---

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## Error messages, reasons and possible approaches for troubleshoot

<b>Messages concerning the status of the modulators</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
MOD x.y data rate mismatch	<ul style="list-style-type: none"> <li>● IP_RX data ratio and modulator data ratio don't fit to another</li> <li>● no steady state of the IP buffer</li> <li>● could be the cause as well</li> </ul>	<ul style="list-style-type: none"> <li>● Adaption of the data ratio or checking the IP configuration on possible</li> <li>● network jitter</li> </ul>
MOD x.y data rate ok	<ul style="list-style-type: none"> <li>● information</li> </ul>	---
MOD x.y no input stream selected	<ul style="list-style-type: none"> <li>● no input TS chosen</li> </ul>	<ul style="list-style-type: none"> <li>● choose an input TS or switch off MOD x.y</li> </ul>
MOD x.y input stream selected	<ul style="list-style-type: none"> <li>● information</li> </ul>	---
MOD x.y no input stream	<ul style="list-style-type: none"> <li>● no input TS available (data rate = 0)</li> </ul>	<ul style="list-style-type: none"> <li>● check if the chosen TS is available in the chosen multicast group</li> </ul>
MOD x.y input stream present	<ul style="list-style-type: none"> <li>● information</li> </ul>	---
MOD x.y TS-Sync loss	<ul style="list-style-type: none"> <li>● Sync Byte &gt; 3 times not available</li> </ul>	<ul style="list-style-type: none"> <li>● analyse the input TS</li> </ul>
MOD x.y TS-Sync ok	<ul style="list-style-type: none"> <li>● information, 5 times Sync Byte available</li> </ul>	---
MOD x.y sync byte error	<ul style="list-style-type: none"> <li>● 1-3 Sync Byte not available</li> </ul>	<ul style="list-style-type: none"> <li>● analyse the input TS</li> </ul>
MOD x.y PAT error	<ul style="list-style-type: none"> <li>● 100 ms no PAT, PAT scrambling control bit set, wrong table ID (not 00, which is used for PAT in standard TS)</li> </ul>	<ul style="list-style-type: none"> <li>● analyse the input TS</li> </ul>
MOD x.y transport error	<ul style="list-style-type: none"> <li>● TEI (Transport Error Indicator) set in MPEG header</li> </ul>	<ul style="list-style-type: none"> <li>● analyse the input TS (Transport Error Indicator will be set in case that the demux recognizes a not-correctable error in the TS)</li> </ul>
MOD x.y SID-Filter cleared	<ul style="list-style-type: none"> <li>● information</li> </ul>	---

<b>Messages concerning the status of the RF outputs</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
RF x.y security switch off	<ul style="list-style-type: none"> <li>● output level deviation &gt; 3dB of reference level</li> </ul>	<ul style="list-style-type: none"> <li>● coaxial cable not connected? Amplifier defective, if yes exchange device</li> </ul>
RF x.y security switch retry z	<ul style="list-style-type: none"> <li>● attempt to switch RF on again</li> </ul>	---
RF x.y level too high	<ul style="list-style-type: none"> <li>● warning at output level deviation &gt; 2,5 dB</li> </ul>	<ul style="list-style-type: none"> <li>● coaxial cable not connected? Amplifier defective, if yes exchange device</li> </ul>
RF x.y level too low	<ul style="list-style-type: none"> <li>● warning at output level deviation &lt; 2,5 dB</li> </ul>	<ul style="list-style-type: none"> <li>● coaxial cable not connected? Amplifier defective, if yes exchange device</li> </ul>
RF x.y level good	<ul style="list-style-type: none"> <li>● information</li> </ul>	---
Reference RFx set to y	<ul style="list-style-type: none"> <li>● information</li> </ul>	---

<b>Messages concerning the system</b>		
<b>Message text</b>	<b>Possible causes</b>	<b>Measurements for troubleshoot, if necessary</b>
Login	<ul style="list-style-type: none"> <li>● information, login to the module successful</li> </ul>	---

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## Error messages, reasons and possible approaches for troubleshoot

Login timeout	information, login finished after timeout	• login again in submenu "Login"
2nd settings saved	information, actual status saved to 2nd settings	---
2nd settings loaded	information, config loaded which was saved in 2nd settings	---
Default settings loaded	information	---
Reboot initiated	information	---
Log file cleared	information	---
Config load started	information	---
Config load ok	information	---
Config load failed	• (T)FTP error in loading the configuration	• log information in log file of the device
Config save started	information	---
Config save ok	information	---
Config save failed	• (T)FTP error in saving the configuration	• log information in log file of the device (wrong server config, config file not available on the server...)
Firmware download from server started	information	---
Firmware download from server ok	information	---
Firmware download from server failed	• (T)FTP error at the download of the firmware	• log information in log file of the device (wrong server config, file not available on server...)
Firmware archive unpack started	information	---
Firmware archive unpack ok	information	---
Firmware archive unpack failed	• firmware archive could not be unpacked	• upload archive again and retry the unpacking
Firmware update from SD-Card started	information	---
Firmware update from SD-Card ok	information	---
Firmware update from SD-Card failed	• update from SD card failed	• upload archive again to SD card and retry the update
Backup firmware differs!	• version of the backup firmware differs from the version of the operating software	• choose the option "overwrite backup firmware"
Overwrite backup firmware started	information	---
Overwrite backup firmware ok	information	---
Overwrite backup firmware failed	• writing error on flash	• try again, if no success → hardware error
Firmware expert update started	information	---
Firmware expert update ok	information	---
Firmware expert update failed	• (T)FTP error or flash error	• log information in log file of the device

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## Error messages, reasons and possible approaches for troubleshoot

Firmware corrupt	<ul style="list-style-type: none"> <li>FPGA could not be loaded, mount failure SD card</li> </ul>	<ul style="list-style-type: none"> <li>SD card OK? Repeat update procedure</li> </ul>
Firmware version mismatch	<ul style="list-style-type: none"> <li>the parts of the firmware don't fit to each other</li> </ul>	<ul style="list-style-type: none"> <li>Repeat update procedure</li> </ul>
NO-SD Card	<ul style="list-style-type: none"> <li>no SD card in the device</li> </ul>	<ul style="list-style-type: none"> <li>insert SD card and make an update</li> </ul>
Modulator fail	<ul style="list-style-type: none"> <li>modulator FPGA could not be loaded</li> </ul>	<ul style="list-style-type: none"> <li>Update or SD card error</li> </ul>
Modulator setting fail	<ul style="list-style-type: none"> <li>BUS connection to the modulator doesn't work</li> </ul>	<ul style="list-style-type: none"> <li>Software update or downgrade if the message occurs after update</li> </ul>
HTTP Watchdog	<ul style="list-style-type: none"> <li>Webserver is unreachable</li> </ul>	<ul style="list-style-type: none"> <li>Send the device to ASTRO</li> </ul>
Logout	information, logout done	---
alive - free: x	information, debug message	---
Mgmt A changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
Mgmt B changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
Data A changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
Data B changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
DNS changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
SNTP changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
SNMP changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
Test Gen changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
Output Mux x changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
TS_RX changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
MOD x.y TS changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
RTP RX x changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
IP RX A x changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
IP RX B x changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
RF x.y changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
RFx.y switched off	<ul style="list-style-type: none"> <li>output channel switched off</li> </ul>	---
MOD x.y changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
MOD x.y SID/PID-Filter changed	<ul style="list-style-type: none"> <li>settings changed or different PMT</li> </ul>	---
MOD x.y PID-Remapping changed	<ul style="list-style-type: none"> <li>settings changed</li> </ul>	---
System description	information system name / version	---
SD-Card is write protected	<ul style="list-style-type: none"> <li>write protected SD card inserted</li> </ul>	<ul style="list-style-type: none"> <li>remove copy protection of SD card or exchange SD card</li> </ul>
Time is not synced	<ul style="list-style-type: none"> <li>time is not synchronized</li> </ul>	<ul style="list-style-type: none"> <li>check timeserver settings or choose TS as time source</li> </ul>
Time is synced	information	---