

ELIUM

Operating Manual

MP 360 UHD

We thank you for your confidence in our product and congratulate you to the purchase of your Digital Receiver of ELIUM GmbH.

As this product is provided with an immense array of features, we recommend you to review the contents of this manual before proceeding.

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1.1 Accessories

- ◆ MP 360 UHD Ultra High Definition content streaming player
- ◆ Remote Control / Batteries (optional)
- ◆ Operating Manual (E-Manual)

1.2 Safety Regulations

Pay attention to the following before using this unit. To be sure read these instructions carefully and use the set properly. Be sure to keep this manual for future reference, should any question or problem arise.



Opening the unit

Do not open, try to disassemble or modify the unit in any way. There are no user serviceable parts inside. Refer servicing to qualified service personnel only. No liability for electric shock to persons or accident damage of user when cover of unit was removed or opened.

!!! Please refer servicing to qualified staff !!!

Insolation

Do not install the unit near any heat sources. Avoid direct insolation. Keep care that the unit is not used in too low temperature.

The ideal temperature is between 10°C – 45°C.

Moisture

Keep the unit free from moisture, water and dust. The unit should not be used in moist rooms, wet rooms or near a bath.

The ideal humidity is between 10% – 70%.

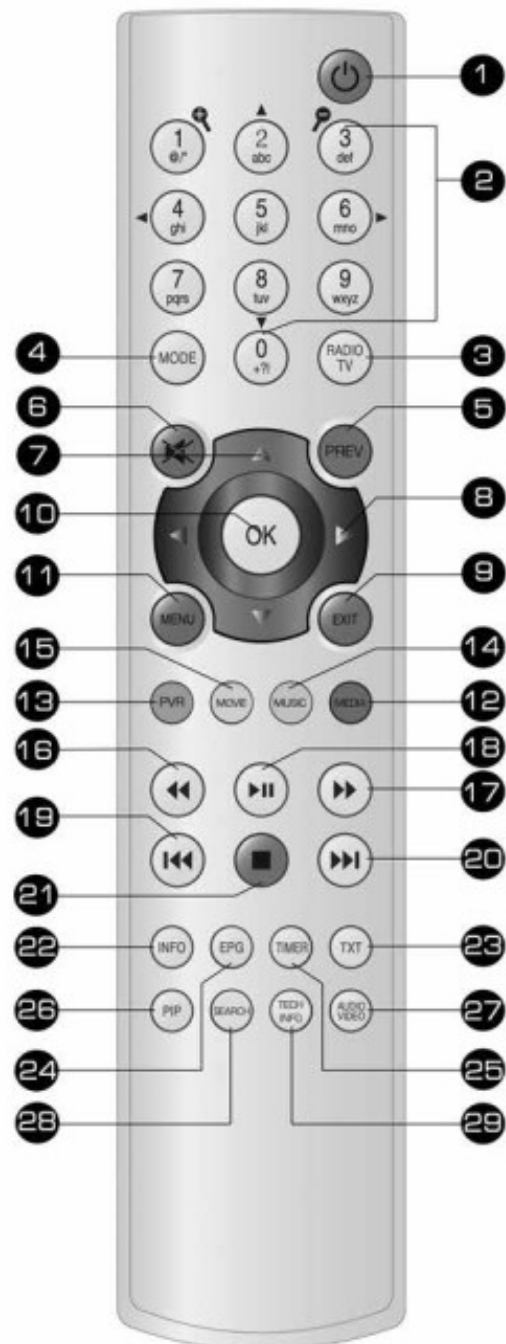
Earthing

Please observe the relevant regulations.

1.3 Remote Control

The remote control enables the interaction with the receiver. Therefore it is very important to know about the main functionality.

- 1 - On / Off (StandBy)
- 2 - Channel selection, data input, scroll in App Mode, seek in Media Player
- 3 - Switch between TV and Radio mode
- 4 - Data input: toggle upper/lower case, toggle +/- sign in numeric input
- 5 - Return to the last playback
- 6 - Mute
- 7 - Up and Down navigation, switch prev/next program in TV/Radio mode
- 8 - Left/Right navigation, changes in menu, +/- volume adjustment in playback
- 9 - Exit (return to last menu)
- 10 - OK (confirm or select)
- 11 - Setup menu
- 12 - Apps Selection
F4 (context dependent)
- 13 - Recordings browser
F1 (context dependent)
- 14 - F3 (context dependent)
- 15 - F2 (context dependent)
- 16 - Rewind, move -10 in channellist
- 17 - Fast forward, move +10 in channellist
- 18 - Play / Pause, start Timeshifting
- 19 - Go Prev, move to the top in channellist
- 20 - Go Next, move to bottom in channellist
- 21 - Start / Stop recording, stop Timeshifting / Media Player playback
- 22 - Program information
- 23 - Not active (Teletext)
- 24 - Not active (EPG)
- 25 - Timer menu
- 26 - Not active
- 27 - Multifeed and multilanguage
- 28 - Search
- 29 - Technical information



1.4 Device Bootup

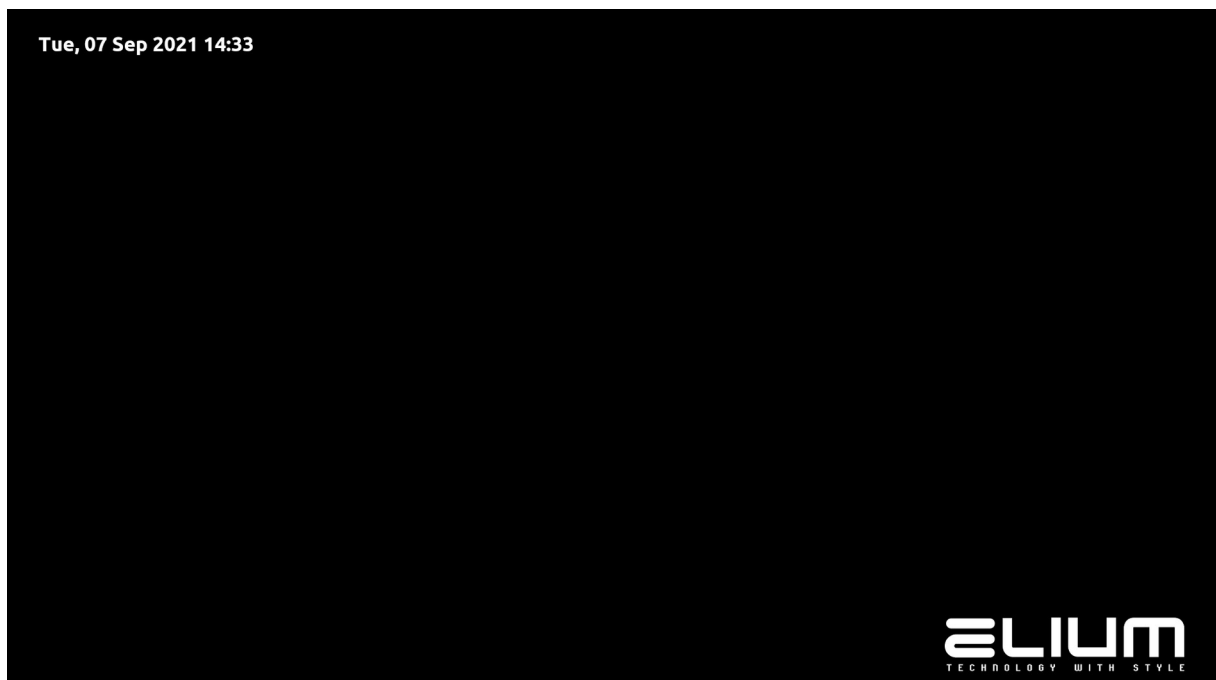
You'll see the following screen indicating boot up progress after device is switched on with the power switch.



After some few time (approx. 20 seconds) device boots and is ready for the operation.

In the case when no TV/Radio programs and no Media Player stream playback available (factory defaults) the device goes into IDLE mode.

The following scene appears on the screen:



You'll need to setup device for the operation: set appropriate network settings, apply the required audio/video settings, perform MPEG-TS channels search or add requested streams via the device HTTP control panel or via the device remote control communication protocol commands (which is not the scope of this document) and/or start network streaming content playback via the external automation system.

In the case when device setup is already complete (TV/Radio programs or Media Player stream playback previously started via the external automation system available) device will start the last program or stream playback.

Note: Device can be also explicitly set into IDLE mode (displaying the above screen) by the external automation system with the remote control commands.

1.5 Standby

Use On / Off remote control button to toggle device standby.

Device will start the last program or stream playback when it leaves standby.

Device can wake up from standby by previously stored Recording or Playback Timer events - when recording or program zapping should be performed.

Device is accessible over its remote control interfaces during standby.

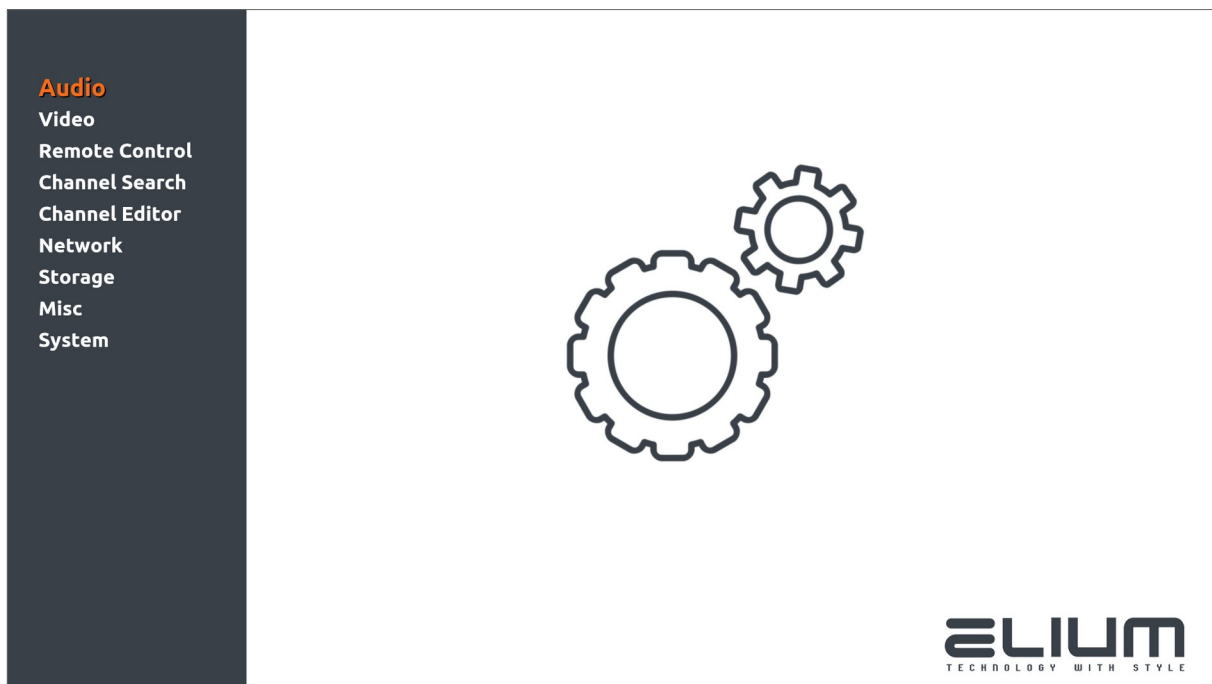
2.1 Setup Menu

Use MENU button to enter device setup menu.

Setup menu mode can be activated from any device operation mode except Standby mode. Setup menu is also not available during firmware update.

Use EXIT button to leave setup menu and return to the operation mode – device will start the last program or stream playback in the case when the program or stream playback is available.

The following scene appears on the screen when setup menu is active.



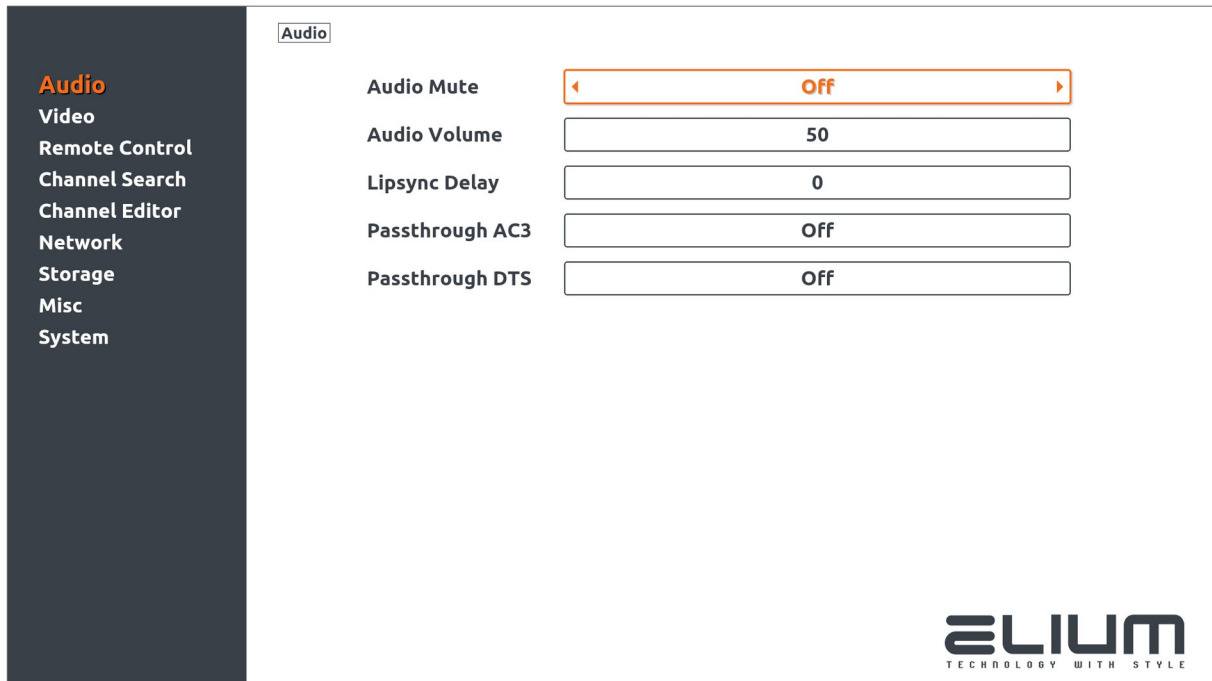
The following guidelines can be applied to operate in setup menu:

- ◆ Use UP and DOWN buttons to navigate between menu options.
- ◆ Use OK button to select submenu option or to perform action.
- ◆ Use EXIT button to save changes and leave submenu.
- ◆ Use LEFT and RIGHT buttons to change the values.
- ◆ Use 0..9 buttons to insert the values into text or numeric input fields.
- ◆ Use LEFT button to delete the last character from text or numeric field.
- ◆ Use MODE button to toggle between upper and lower case in text input.
- ◆ Use MODE button to toggle sign (`+` or `-') in respective numeric input fields where signed value is supported (e.g. Lipsync or Volume adjustments).

2.2 Audio Settings

Press OK button when Audio option from setup menu (main menu) is selected to activate audio settings submenu.

The following scene will be displayed on the screen.



Audio Mute

Audio output mute status: set the value to „On“ to enable audio mute or to „Off“ to disable mute.

Audio Volume

Change this value to set audio output volume level [0..100].

Lipsync Delay

Audio lipsync delay adjustment value in ms [-4500..+4500]:
value = 0 means audio lipsync delay adjustment is disabled;
negative audio lipsync delay value means audio is earlier;
positive audio lipsync delay value means audio is later.

Note: The setting makes sense only in the case of IPTV channels or Media Player playback for the programs/streams/containers containing video streams (to adjust audio/video lipsync).

Passthrough AC3

AC3 audio streams passthrough status:

Off - AC3 passthrough is disabled;

On - AC3 passthrough is enabled.

Warning: AC3 passthrough audio streams will only work with the capable AC3 decoder equipment (e.g. AVR which supports AC3).

Note: The setting makes sense only in the case of IPTV channels or Media Player playback where AC3 streams are available.

Passthrough DTS

DTS audio streams passthrough status:

Off - DTS passthrough is disabled;

On - DTS passthrough is enabled.

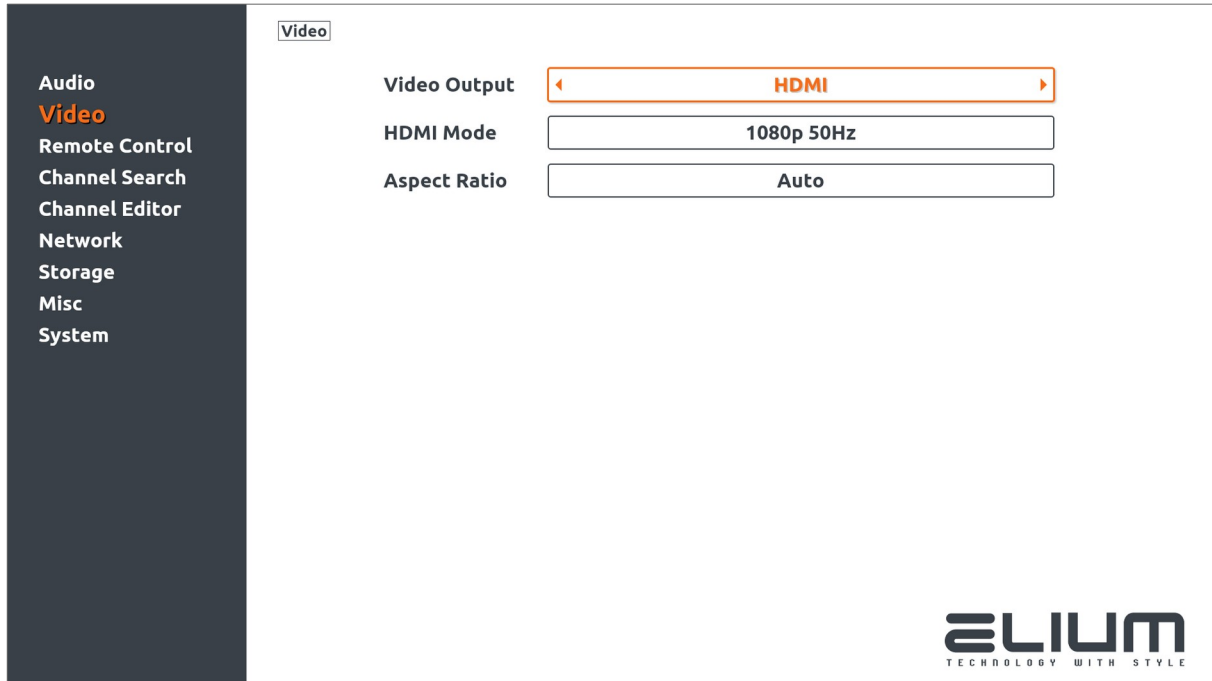
Warning: DTS passthrough audio streams will only work with the capable DTS decoder equipment (e.g. AVR which supports DTS).

Note: The setting makes sense only in the case of IPTV channels or Media Player playback where DTS streams are available.

2.3 Video Settings

Press OK button when Video option from setup menu (main menu) is selected to activate video settings submenu.

The following scene will be displayed on the screen.



Video Output

Select video output here. The following video output settings available:

- HDMI

HDMI Mode

Here you can select HDMI output mode (resolution). Available values:

- 480i 60Hz (720x480)
- 576i 50Hz (720x576)
- 480p 60Hz (720x480)
- 576p 50Hz (720x576)
- 720p 50Hz (1280x720)
- 720p 60Hz (1280x720)
- 1080i 50Hz (1920x1080)
- 1080i 60Hz (1920x1080)
- 1080p 24Hz (1920x1080)
- 1080p 50Hz (1920x1080)
- 1080p 60Hz (1920x1080)
- 2160p 50Hz 420 (3840x2160 - additional license required)
- 2160p 60Hz 420 (3840x2160 - additional license required)
- 2160p 24Hz 422 (3840x2160 - additional license required)
- 2160p 25Hz 422 (3840x2160 - additional license required)
- 2160p 30Hz 422 (3840x2160 - additional license required)
- 2160p 50Hz 422 (3840x2160 - additional license required)
- 2160p 60Hz 422 (3840x2160 - additional license required)

Note: UHD 4:2:0 / UHD 4:2:2 additional licenses are required to activate the respective UHD video display modes.

Aspect Ratio

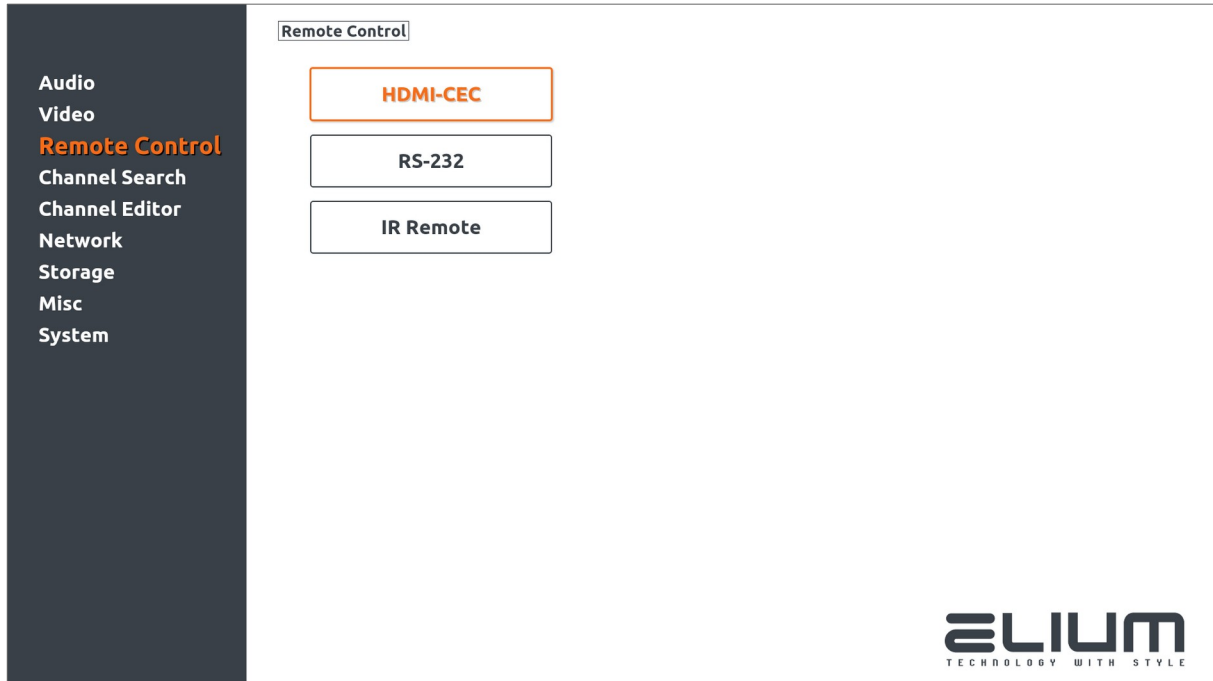
Video aspect ratio adjustment mode. Possible values:

- Auto (automatic adjustment)
- Full Stretch
- 4:3
- 16:9
- Non-Linear
- Original Size
- 4:3 Ignore
- 4:3 Letterbox
- 4:3 Pan&Scan
- 4:3 Combined
- 16:9 Ignore
- 16:9 Letterbox
- 16:9 Pan&Scan
- 16:9 Combined

2.4 Remote Control Settings

Press OK button when Remote Control option from setup menu (main menu) is selected to activate remote control settings submenu.

The following scene will be displayed on the screen.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

➤ **HDMI-CEC**

Here you can change HDMI-CEC settings to use device with CEC capable TV equipment.

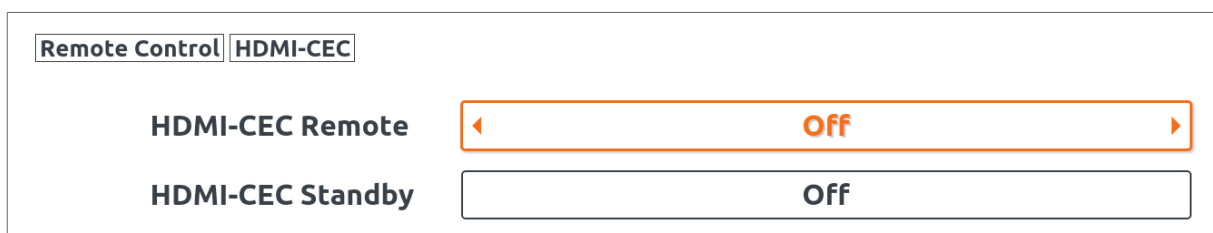
➤ **RS-232**

Here you can setup device RS-232 connection settings (baud rate) to manage device with the compatible remote control equipment.

➤ **IR Remote**

Here you can change IR remote control unit settings (IR address).

HDMI-CEC Settings



HDMI-CEC Remote

Enable/Disable HDMI-CEC remote control:

Off - Remote control via HDMI-CEC is disabled;

On - Remote control via HDMI-CEC is enabled.

HDMI-CEC remote control feature enables remote control commands to be passed through HDMI from other CEC-enabled devices within the system (e.g. from TV remote control).

HDMI-CEC Standby

Enable/Disable HDMI-CEC automatic standby:

Off - Standby via HDMI-CEC is disabled;

On - Standby via HDMI-CEC is enabled.

HDMI-CEC automatic standby feature enables multiple CEC-enabled devices to switch to or from standby synchronously through HDMI.

Turning the device on/off will also turn on/off CEC-enabled TV.

The device will be turned on/off when TV will send turn-on/-off signal.

RS-232 Settings

Remote Control RS-232
RS-232 Baudrate

RS-232 Baudrate

Set device RS-232 connection baud rate.

Supported values are: 9600, 19200, 38400, 115200.

IR Remote Settings

Remote Control IR Remote
IR Address

IR Address

Setup IR Remote Control unit address.

Off - any IR Address accepted;

IR 1 - only IR-1 Address accepted from remote control;

IR 2 - only IR-2 Address accepted from remote control;

IR 3 - only IR-3 Address accepted from remote control;

IR 4 - only IR-4 Address accepted from remote control;

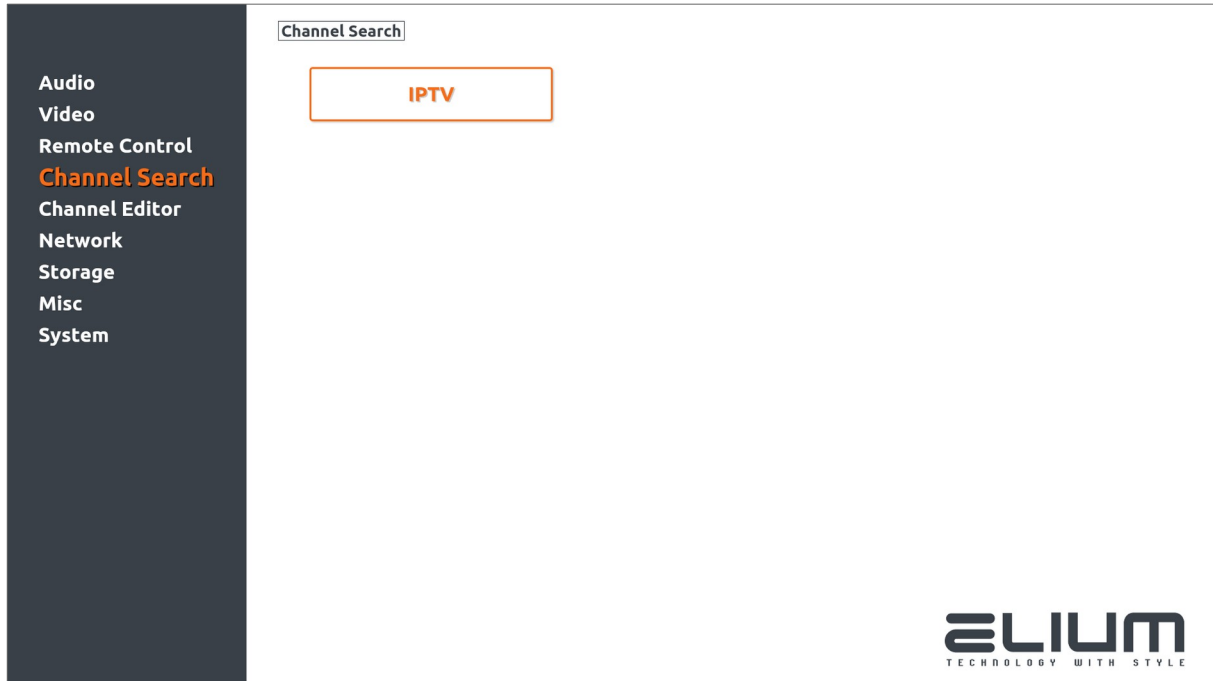
Note: Remote Control unit should be set to the same address in the case when the setting is others than Off. Otherwise remote control unit will not work with device.

Press the remote control Blue button together with 1..4 button at least for 5 seconds to set the respective IR Address (button `1` for IR-1 Address, button `2` for IR-2 Address etc).

2.5 Channel Search

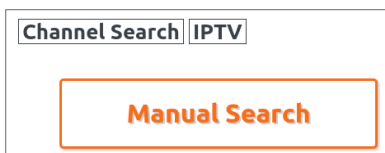
Press OK button when Channel Search option from setup menu (main menu) is selected to activate channel search submenu.

The following scene will be displayed on the screen.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

➤ IPTV



The following Channel Search modes are available:

◆ Manual Search

Searching for all channels of a particular IPTV MPEG-TS stream, new programs inserted at the end of the channellist.

Press OK to start the search. Wait until search is complete.

The indicator with the currently found programs will be displayed while search is running and when the search is complete.

After the search is complete use EXIT button to leave search submenu and return to parent menu.

IPTV Manual Search

Channel Search	IPTV	Manual Search
Stream Proto	UDP	
Stream Address	239.035.010.055	
Stream Port	1234	
Scan Type	TV & Radio	
FTA Only	Off	
Press 'OK' to start search		

Stream Proto

IPTV stream proto used for the search. The possible option values are:

- UDP – raw UDP broadcast/multicast
- RTP – RTP via UDP broadcast/multicast
- HTTP – MPEG-TS via HTTP unicast

Stream Address

IPTV stream multicast/broadcast/unicast address used for IPTV search. Incoming IPTV stream IP, in format e.g. '239.035.010.231'

Stream Port

IPTV stream port number (e.g. 1234) used for IPTV search.

Scan Type

Scan type option used for the search. The possible option values are:

- TV & Radio - scan for TV & Radio services
- TV Only - scan for TV only services
- Radio Only - scan for Radio only services
- All Services - scan for all services (including marked as data)

FTA Only

Scan only free programs:

- Off - scan also for scrambled programs
- On - FTA only (skip scrambled programs)

Note: IPTV search is suitable only for MPEG-TS streams carried over network. It's not possible to use the search with the other types of network media streams or protos.

2.6 Channel Editor

Press OK button when Channel Editor option from setup menu (main menu) is selected to activate channel editor submenu.

The following scene will be displayed on the screen.



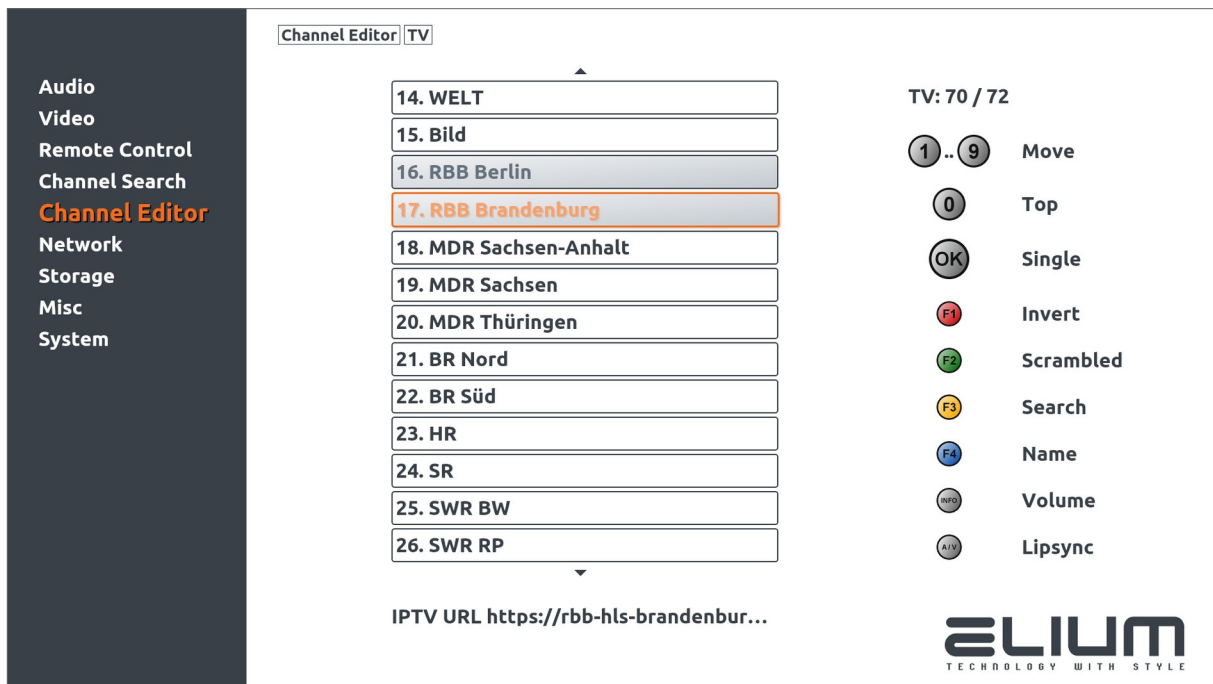
You can select to edit TV channels or Radio channels.

Channels can be removed from the list. Position/number and channel name can be changed. Also you can edit the volume and lipsync adjustment values of each channel separately.

The below description covers both TV and Radio list (is the same for both).

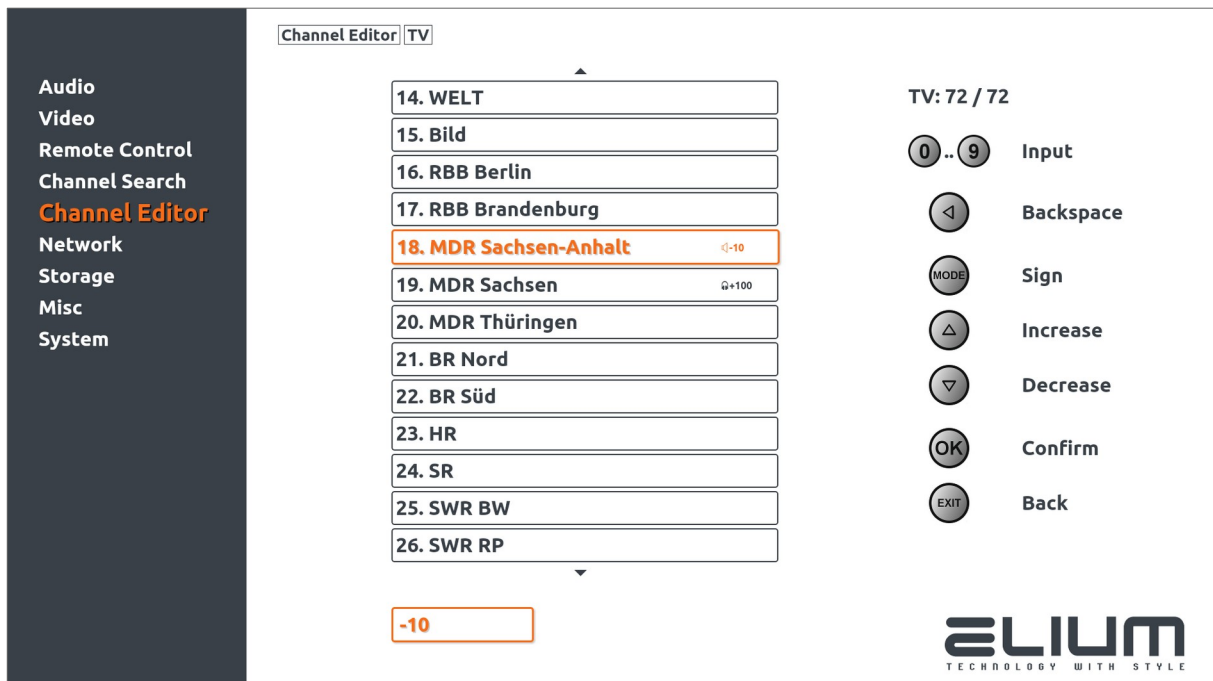
The following controls are used to operate in channel editor:

- ◆ 1..9 – move channel to the given position (edit number)
- ◆ 0 – move channel to top position
- ◆ OK – select to delete
- ◆ Red (F1) – invert selection
- ◆ Green (F2) – select (invert) all scrambled channels
- ◆ Yellow (F3) – search for the channels by name
- ◆ Blue (F4) – edit channel name
- ◆ INFO – edit channel volume adjustment value
- ◆ A / V – edit channel lipsync adjustment value
- ◆ MODE - toggle upper and lower case or +/- sign in text or numeric input



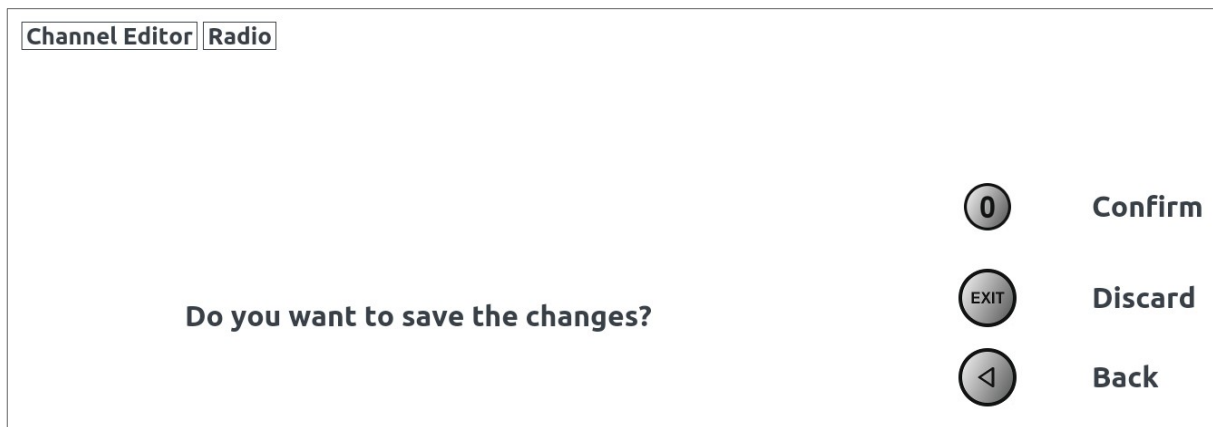
Volume and Lipsync

It's possible to preset the volume or lipsync adjustment values for each program independently.



Delete selected channels

To select the channels you want to delete, navigate with the UP and DOWN buttons and mark each channel by pressing the OK button. The selected channels are shown grey coloured. To delete the selected channels you have to press EXIT button and confirm saving changes.



Move a channel

Select a channel to move it (marked orange). Now just enter the number, using the numeric buttons, you want the channel to be and press the OK button.

The position „0“ is the first position in the list. If you want to move a specific channel you can search for it by using the Yellow (F3) button.

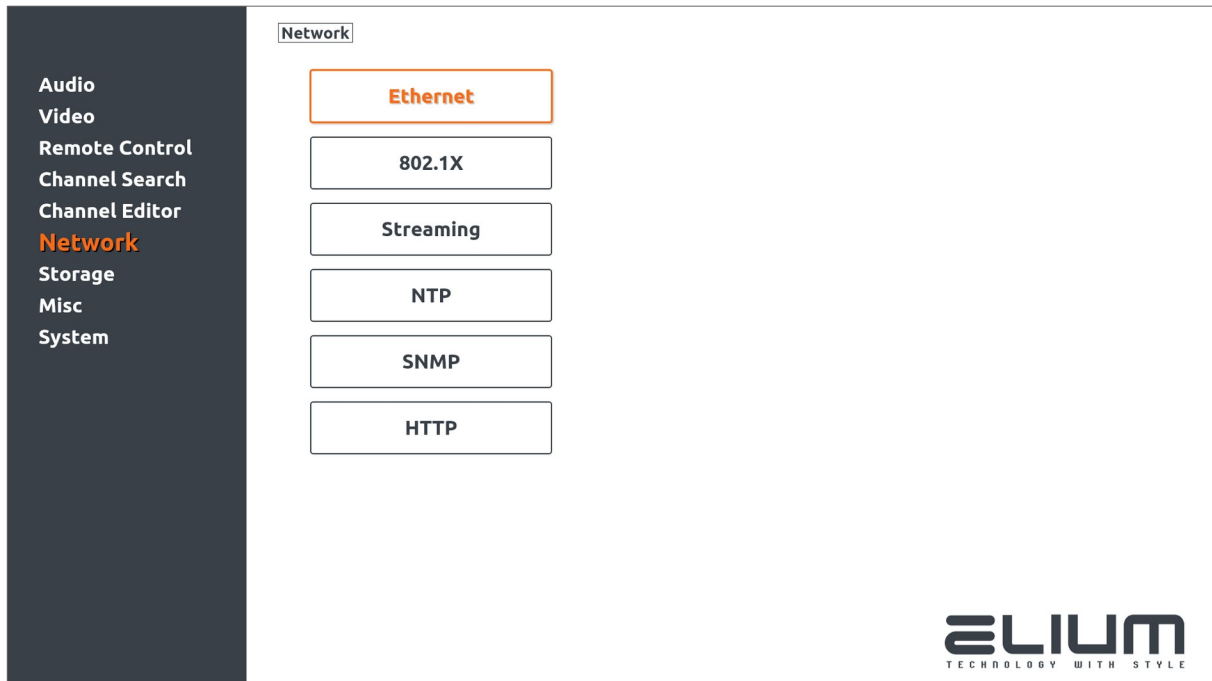
Delete all channels

To delete all channels mark them (invert) by pressing the Red (F1) button. You can also unmark all channels using that button. To save this set up you have to press EXIT button and confirm saving changes.

2.7 Network Settings

Press OK button when Network option from setup menu (main menu) is selected to activate network settings submenu.

The following scene will be displayed on the screen.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

➤ **Ethernet**

Here you can setup network ethernet interface settings.

➤ **802.1X**

Here you can setup network 802.1X security settings.

➤ **Streaming**

Here you can setup IPTV live streaming settings to broadcast currently played programs over network.

➤ **NTP**

Here you can setup network time synchronization via NTP.

➤ **SNMP**

Here you can setup device SNMP settings.

Device is fully compliant and can be managed via SNMP. Both SNMP agent and trap notifications are implemented.

➤ **HTTP**

Here you can setup device HTTP control panel access settings to manage device via HTTP (by web browser).

Ethernet Settings

Ethernet interface can be configured in the following ways:

- DHCP (factory default)

IP configuration is obtained automatically from a network router.

Make sure that the router supports DHCP and the DHCP server is enabled on the router.

- Static network configuration

Ethernet interface parameters are set manually.

DHCP option changes are applied immediately.

Static network configuration changes are applied by pressing EXIT button (on menu close).

DHCP

You can see the received automatic IP configuration in the case when DHCP is enabled and DHCP lease is obtained from the DHCP server.

All other menu options (IP Address, Netmask, Gateway, DNS 1/2) are read only in that case.

Empty menu option fields mean that there is something wrong with network connection or DHCP server (automatic IP configuration cannot be obtained).

The screenshot shows a configuration menu with two tabs: 'Network' and 'Ethernet'. The 'Ethernet' tab is selected. The settings are as follows:

Setting	Value
DHCP	On
IP Address	192.168.178.181
Netmask	255.255.255.000
Gateway	192.168.178.001
DNS 1	192.168.178.001
DNS 2	

Note: It will take some time (a few seconds) to assign IP parameters after DHCP is enabled.

Enabling DHCP:

The previously configured static network configuration parameters are stored and can be still used after disabling DHCP.

Disabling DHCP:

The previously stored static network configuration parameters are used for networking.

Static network configuration

Network	Ethernet
DHCP	Off
IP Address	192.168.178.059
Netmask	255.255.255.000
Gateway	192.168.175.001
DNS 1	192.168.178.001
DNS 2	008.008.008.008

Use numeric buttons 0..9 to enter settings values and LEFT/RIGHT buttons to move caret inside IP input field.

DHCP

Enable/disable DHCP for a network configuration.

IP Address

Set up ethernet interface IP address.

Netmask

Set up network subnet mask.

Gateway

Set up default gateway IP address.

DNS 1

Primary DNS nameserver IP.

DNS 2

Secondary DNS nameserver IP (optional).

802.1X Settings

You can activate and setup 802.1X security for ethernet interface.

Network 802.1X	
802.1X Security	Off
Authentication	PEAP
Username	elium
Password	elium
TTLS Inner Auth	MSCHAPv2
PEAP Inner Auth	MSCHAPv2

802.1X Security

Here you can enable or disable 802.1X security.

Authentication

Select EAP authentication method:

- MD5
- PWD
- TTLS
- PEAP

Username

Set EAP identity/username string.

Password

Set EAP password string.

TTLS Inner Auth

Select Phase 2 authentication method for EAP-TTLS:

- PAP
- CHAP
- MSCHAP
- MSCHAPv2
- MD5
- GTC

Applicable only for EAP-TTLS, i.e. when EAP authentication method is set to TTLS respectively.

TTLS Inner Auth

Select Phase 2 authentication method for EAP-PEAP:

- MSCHAPv2
- MD5
- GTC

Applicable only for EAP-PEAP, i.e. when EAP authentication method is set to PEAP respectively.

Note: 802.1X security is disabled by default.

The 802.1X setup should be made before the device is connected to the secure environment. Otherwise the device will be inaccessible in 802.1X network until the appropriate 802.1X setup is performed.

Streaming Settings

You can activate IPTV live streaming function to broadcast a single program over network.

You can switch between RTP, UDP, HTTP and HLS streaming protos and select destination address to utilize unicast, broadcast and multicast streams.

Unicast: Stream is sent to a single host (one-to-one transmission).

Broadcast: Stream is sent to entire local area network (LAN).

Multicast: Stream is sent to a selected subscribers in LAN.

Multicast address area: 224.0.0.0 – 239.255.255.255

Network	Streaming
Streaming	Off
Stream Mode	SPTS
Stream Proto	UDP
UDP/RTP Address	239.035.010.055
UDP/RTP Port	1234
HTTP Port	31339
SAP for RTP	Off
SAP Address	239.255.255.255

Streaming

Here you can enable or disable IPTV live streaming function.

Stream Mode

Select IPTV streaming mode:

- SPTS - Single Program Transport Stream

Streaming only one selected program (currently played program).

- MPTS - Multi Program Transport Stream

RFU. Same as SPTS for now: streaming a single program (currently played)

Stream Proto

Select IPTV streaming proto:

- UDP - raw UDP (broadcast/multicast)
- RTP - RTP via UDP (broadcast/multicast)
- HTTP – streaming over HTTP (unicast)
- HLS – streaming HLS over HTTP (unicast)

UDP/RTP Address

Set up UDP/RTP stream destination IP address.

Applicable only for the case when streaming proto set to UDP or RTP.

Multicast address (recommended) from the multicast address area or a broadcast address of your subnet can be used as a stream destination. Unicast destination (IP address of the destination host – i.e. the address of media player or PC) can be also used to stream to a single host only.

UDP/RTP Port

Set up UDP/RTP stream destination port.

Applicable only for the case when streaming proto set to UDP or RTP.

Note: Please take care that the selected port is available and not used by the other services in the network.

HTTP Port

Set up HTTP stream destination port.

Applicable only for the case when streaming proto set to HTTP or HLS.

SAP for RTP

Enable/disable Session Announcement Protocol (SAP) for RTP streaming:

- Off - SAP for RTP disabled (no announces sent)
- On - SAP for RTP enabled (SAP announces sent to network)

Applicable only for the case when streaming proto set to RTP.

SAP Address

Session Announcement Protocol (SAP) destination address.

Applicable only for the case when streaming proto set to RTP.

Note: The default SAP destination multicast address 239.255.255.255 should be used for the common cases. Change the setting only for some specific reasons – e.g. if you want SAP announcements to be sent to a single host (unicast RTP stream destination selected).

Important:

Device have to be in the same local area network for broadcast/multicast streaming over RTP/UDP.

Device should be accessible from the client host (media player or PC) for unicast streaming over HTTP. Note that the streaming over HTTP uses separate one-to-one connection for each client so the entire amount of connections is limited with the bandwidth of your network and by device ethernet interface capacity.

NTP Settings

You can activate network time synchronization via NTP and select custom NTP server.

Network	NTP
NTP Time Sync	<input checked="" type="checkbox" value="On"/>
NTP Server	<input type="text" value="de.pool.ntp.org"/>

NTP Time Sync

Here you can enable or disable NTP network time synchronization.

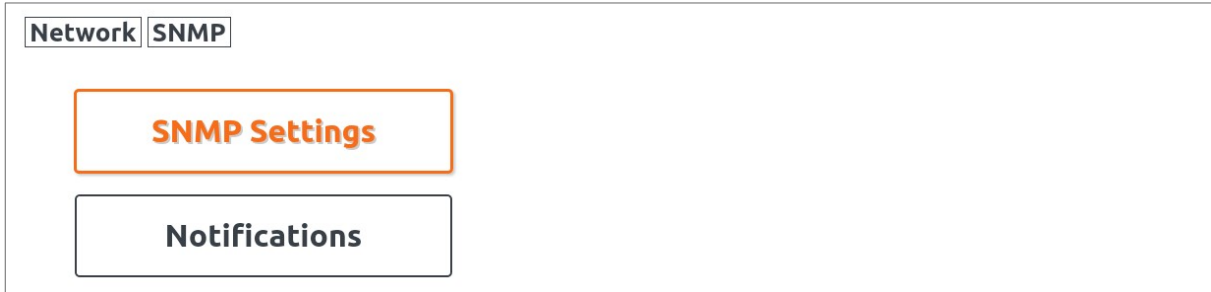
NTP Server

Set NTP Server address used for time sync (IP address or hostname).

SNMP Settings

Device is fully compliant and can be managed via SNMP. Both SNMP agent and trap notifications are implemented.

When SNMP option from the Network Settings is selected, you'll see the following submenu:

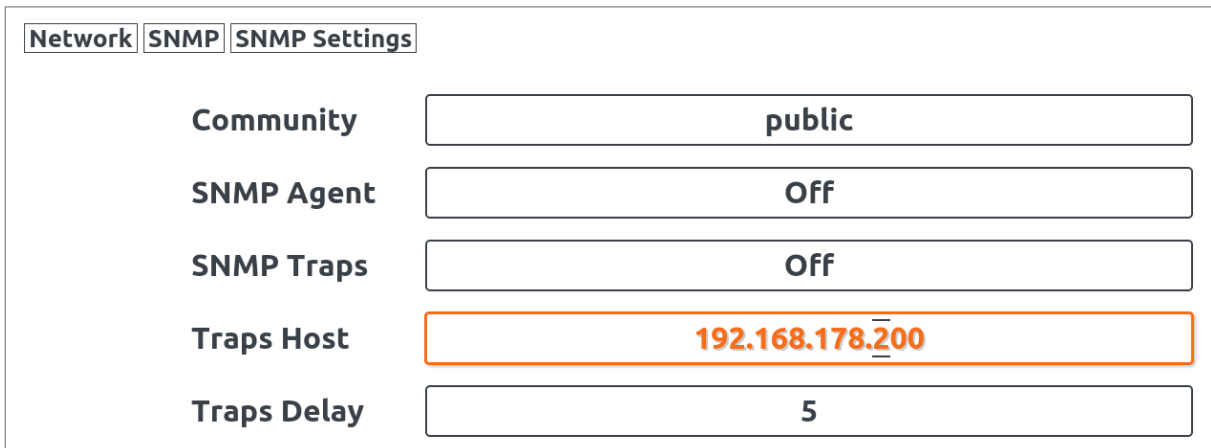


The screenshot shows a submenu with two items: 'SNMP Settings' (highlighted with an orange border) and 'Notifications' (in a standard grey border). Above the items are two tabs: 'Network' and 'SNMP'.

Use UP/DOWN buttons to navigate between submenu items and OK button to select the desired submenu.

➤ SNMP Settings

Here you can change general SNMP settings: enable/disable SNMP Agent and Traps, set SNMP community name and Traps host address.



The screenshot shows the 'SNMP Settings' configuration page. It has three tabs: 'Network', 'SNMP', and 'SNMP Settings'. The settings are as follows:

Community	public
SNMP Agent	Off
SNMP Traps	Off
Traps Host	192.168.178.200
Traps Delay	5

Community

Set up SNMP community name (to authenticate for read-write operations).

SNMP Agent

Here you can enable SNMP agent to allow interrogating device via SNMP.

Note: SNMP Trap notifications still can be used when SNMP agent is disabled.

SNMP Traps

Here you can enable SNMP Trap notifications to allow the device informing selected host with it's events via SNMP.

Note: SNMP Trap host IP address should be also set up to get notifications working.

Traps Host

Set SNMP Trap host IP address here.

Use numeric buttons 0..9 to enter setting value and LEFT/RIGHT buttons to move caret inside the IP input field.

Traps Delay

Set SNMP Trap notifications delay value which represents the delay in minutes between two consecutive alarm notifications of the same type.

➤ Notifications

Here you can activate required SNMP Trap notification events.

Network	SNMP	Notifications
Alarms	<input type="checkbox"/>	On
Firmware Events	<input type="checkbox"/>	Off
Standby Events	<input type="checkbox"/>	Off
Playback Events	<input type="checkbox"/>	Off
Recording Events	<input type="checkbox"/>	Off
Streaming Events	<input type="checkbox"/>	Off
App Mode Events	<input type="checkbox"/>	Off

Alarms

Enable/Disable SNMP Trap alarm notifications.

Device alarm notifications are generated continuously with respective delay between two consecutive notifications until alarm disappears.

Alarms can be sent in the following cases:

- neither audio nor video streams found in the incoming TS
- incoming stream is scrambled or corrupted

Firmware Events

Enable/Disable SNMP Trap firmware events.

Firmware event notifications are generated once pro each event indicating basis device status, e.g. startup initialization, firmware update etc.

Standby Events

Enable/Disable SNMP Trap standby events.

Standby event notifications are generated once pro each event indicating device standby status changes (i.e. entering/leaving standby).

Playback Events

Enable/Disable SNMP Trap playback events.

Playback event notifications are generated once pro each event indicating playback status changes (start/stop playback).

Recording Events

Enable/Disable SNMP Trap recording events.

Recording event notifications are generated once pro each event to notify recording state change (start/stop recording).

Streaming Events

Enable/Disable SNMP Trap streaming events.

Streaming event notifications are generated once pro each event to inform with the IPTV live streaming status (start/stop streaming).

App Mode Events

Enable/Disable SNMP Trap App Mode events.

App Mode event notifications are generated once pro each event to indicate App Mode status changes (entering/leaving AppMode).

HTTP Settings

To manage device via HTTP (by web browser) you need set up it's HTTP control panel access settings.

By default HTTP remote access is enabled without authentication.

For security reasons it's strictly recommended to change the default authentication settings in the case when device is accessed from the public network.

Network HTTP	
HTTP Server	On
HTTP Port	80
Authentication	Off
Username	elium
Password	elium

HTTP Server

Enable/Disable remote control via HTTP (HTTP control panel access).

HTTP Port

Here you can change default HTTP incoming port.

Authentication

Enable/Disable HTTP authentication.

Username

Set HTTP authentication login username.

Password

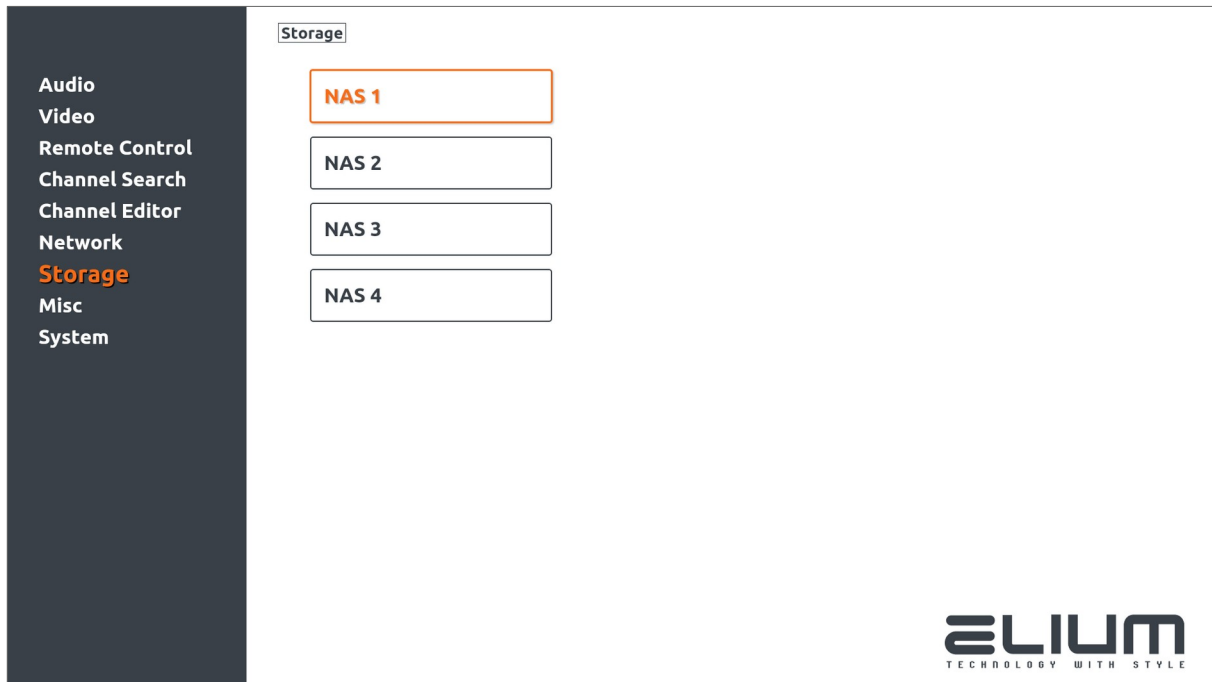
Set HTTP authentication login password.

2.8 Storage Settings

To perform recordings, to play audios and movies on your device you'll need to connect external storage.

Press OK button when Storage option from setup menu (main menu) is selected to activate device storage settings submenu.

The following scene will be displayed on the screen.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

➤ **NAS 1 .. 4**

Here you can setup NAS / file server access to store media content.

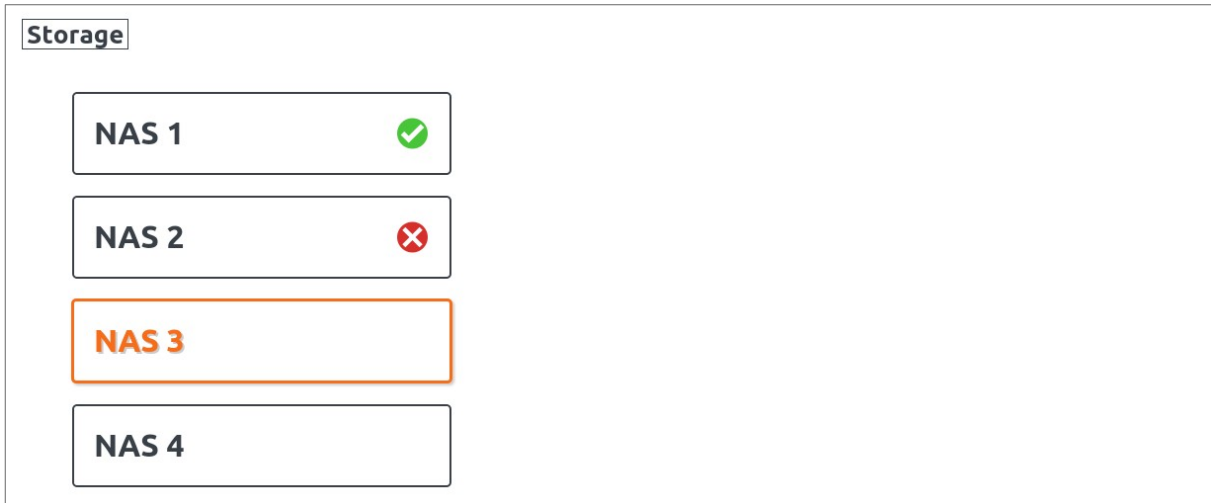
The following filesystem structure is used by device on each storage root:

- recordings - used to store the recordings
- movies - used to store video files
- music - used to store audio files

If the storage is not write protected (accessible for writing) the device creates the above structure (movies, music and recording folders) in the root of the storage filesystem.

NAS Management

You can setup up to four NAS / file server storage connections.



The screenshot shows a 'Storage' menu with four items: 'NAS 1' with a green checkmark, 'NAS 2' with a red 'X', 'NAS 3' with an orange border, and 'NAS 4' with no icon.

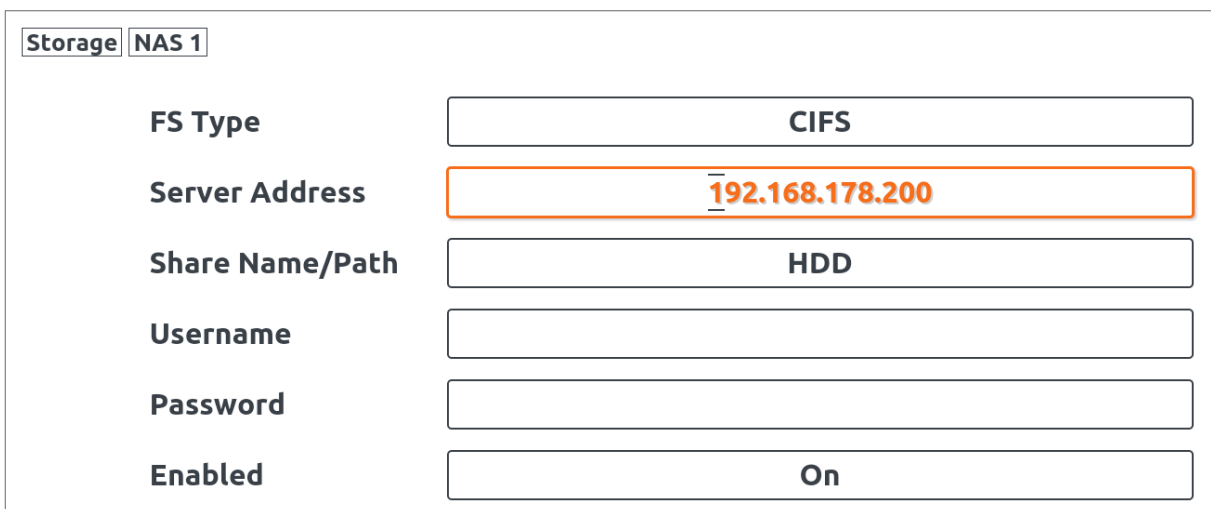
The storages are ordered by a recording priority. When several NAS storages are connected successfully and available for writing the storage with the lower number has a priority for recording and will be selected to store recordings.

Connection status of the enabled NAS storage is indicated on each menu item with the respective icon:

- ✓ NAS storage available and ready to use
- ⊘ NAS storage mounted but without write permissions
- ↻ NAS storage connection is currently processed (applying changes)
- ✗ NAS storage currently unavailable

Menu item without indication means that the respective NAS storage is disabled (not used).

Use UP/DOWN buttons to navigate between NAS storage menu items and OK button to edit the selected NAS storage settings.



The screenshot shows the configuration for 'NAS 1' with the following fields: 'FS Type' (CIFS), 'Server Address' (192.168.178.200), 'Share Name/Path' (HDD), 'Username' (empty), 'Password' (empty), and 'Enabled' (On).

FS Type

Filesystem type of the given NAS network drive:

- CIFS - Samba (Windows) network file server
- NFS - NFS (Linux/Unix) network file server

Server Address

IP address of the given NAS network drive / file server.

Use numeric buttons 0..9 to enter the setting value and LEFT/RIGHT buttons to move caret inside the IP input field.

Share Name/Path

Network shared resource name.

CIFS shared folder name or the path in the case of NFS.

Username

NAS network drive / file server login username (applicable only for CIFS).

Leave empty for anonymous/guest login.

Password

NAS network drive / file server login password (applicable only for CIFS).

Leave empty for anonymous/guest login.

Enabled

Enable/Disable the given NAS network drive:

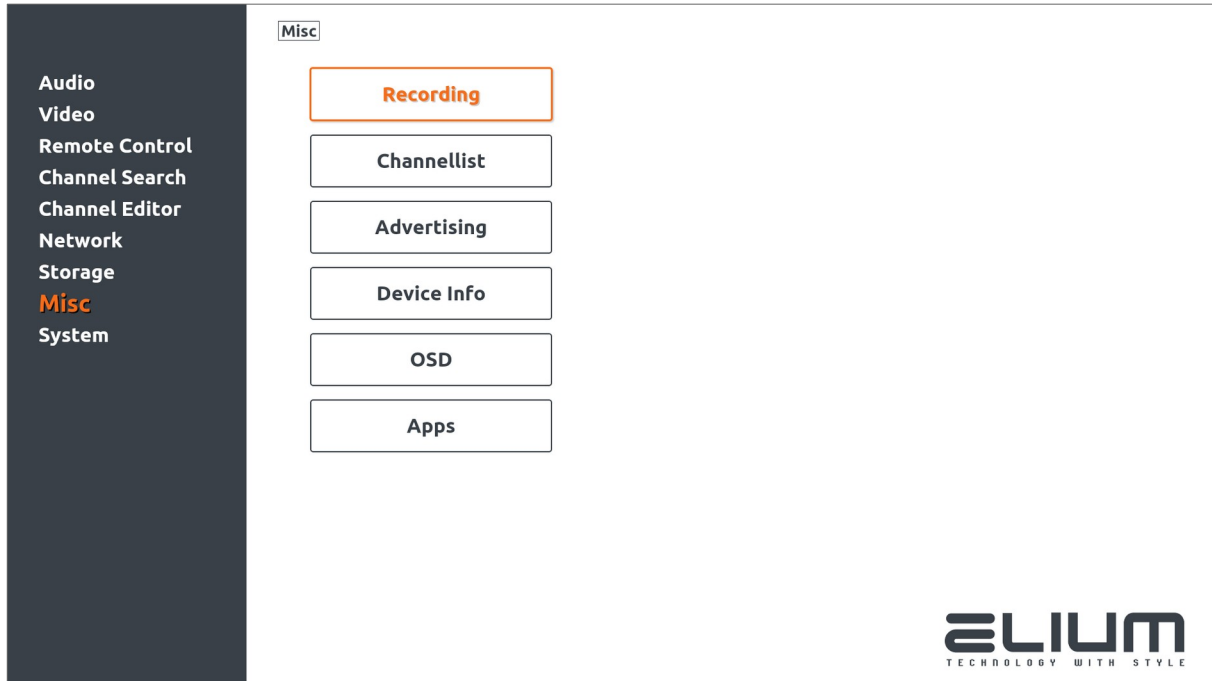
Off - NAS storage is disabled (not used)

On - NAS is enabled (used by automounter)

2.9 Misc Settings

Press OK button when Misc option from setup menu (main menu) is selected to activate device misc (extra) settings submenu.

The following scene will be displayed on the screen.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

➤ **Recording**

Here you can change various recording settings.

➤ **Channellist**

Here you can change device channellist settings.

➤ **Advertising**

Here you can change Advertising WebView settings.

Advertising WebView can be used to display some informative/advertising content with alpha channel (transparent colors) over of playback video.

➤ **Device Info**

Here you can set up Device Information related settings.

➤ **OSD**

Here you can set up OSD related settings.

➤ **Apps**

Here you can set up App Mode related settings.

Recording Settings



The screenshot shows a settings panel with two tabs: 'Misc' and 'Recording'. The 'Recording' tab is selected. There are two settings: 'Autoremove Days' with an empty text input field, and 'Show Icon' with a dropdown menu currently set to 'Off'.

Autoremove Days

Set up automatic recordings removal setting to automatically remove recordings older than the given amount of days ago (how long the recording files should be stored). Leave empty to disable automatic removal (keep all recordings).

Show Icon

Enable/Disable REC icon (permanent during recording).

When the setting is enabled the REC icon is shown permanently during active recording.

When the setting is disabled the REC icon icon is not shown permanently and only appears within the respective OSD GUI elements.

Channellist Settings



The screenshot shows a settings panel with two tabs: 'Misc' and 'Channellist'. The 'Channellist' tab is selected. There is one setting: 'LCN Numbering' with a dropdown menu currently set to 'Off'.

LCN Numbering

Enable/Disable channellist LCN Numbering setting:

Off - disabled (programs are enumerated in a row without any spaces)

On - enabled (the spaces inside the list are allowed)

Disabling LCN Numbering will result in immediate renumbering of TV and Radio channels with the removal of spaces.

Advertising Settings

Advertising WebView can be used to display some informative/advertising content with alpha channel (transparent colors) over of playback video.

It's asumed that Advertising WebView is managed via remote control commands with the external automation system. But you can also contol and change the settings here.

Misc Advertising	
Ads View	◀ Off ▶
Ads URL	<input type="text"/>
Video Scaling	Off
Video X	0
Video Y	0
Video Width	1920
Video Height	1080

Ads View

Status of the Advertising WebView:

Off - disabled (WebView is not used and hidden);

On - enabled (WebView become visible after the page loading)

Ads URL

Advertising WebView web page URL.

Video Scaling

Enable/Disable video scaling for Advertising WebView:

Off - disabled (video is cropped by WebView)

On - enabled (video is scaled into the specified region)

Video X

Left edge of a positioned video region for scaling. The value in 1920x1080 screen size units. Applicable only when video scaling setting is enabled.

Video Y

Top edge of a positioned video region for scaling. The value in 1920x1080 screen size units. Applicable only when video scaling setting is enabled.

Video Width

Width of a positioned video region for scaling. The value in 1920x1080 screen size units. Applicable only when video scaling setting is enabled.

Video Height

Height of a positioned video region for scaling. The value in 1920x1080 screen size units. Applicable only when video scaling setting is enabled.

The screen size for the given web page is assumed to be 1920x1080 units.

The colors transparency is supported by the View to show content above the video (in the case of cropped video). Real size of the scaled video rect is automatically recalculated in the case when display is configured to some other mode than those with 1920x1080 pixel resolution.

Advertising WebView becomes visible after the page loading is complete.

Device Info Settings

Misc **Device Info**

Device Name

Device Name

Here you can change device name (visible e.g. in HTTP control panel).

OSD Settings

Misc **OSD**

Program Info

Program Info

Here you can enable or disable OSD Program Info (on channels switching etc).

Apps Settings

Misc **Apps**

Restore Last App

Hide System Apps

Restore Last App

Restore App Mode (Launch last running app) after Standby, Setup Menu or on Bootup.

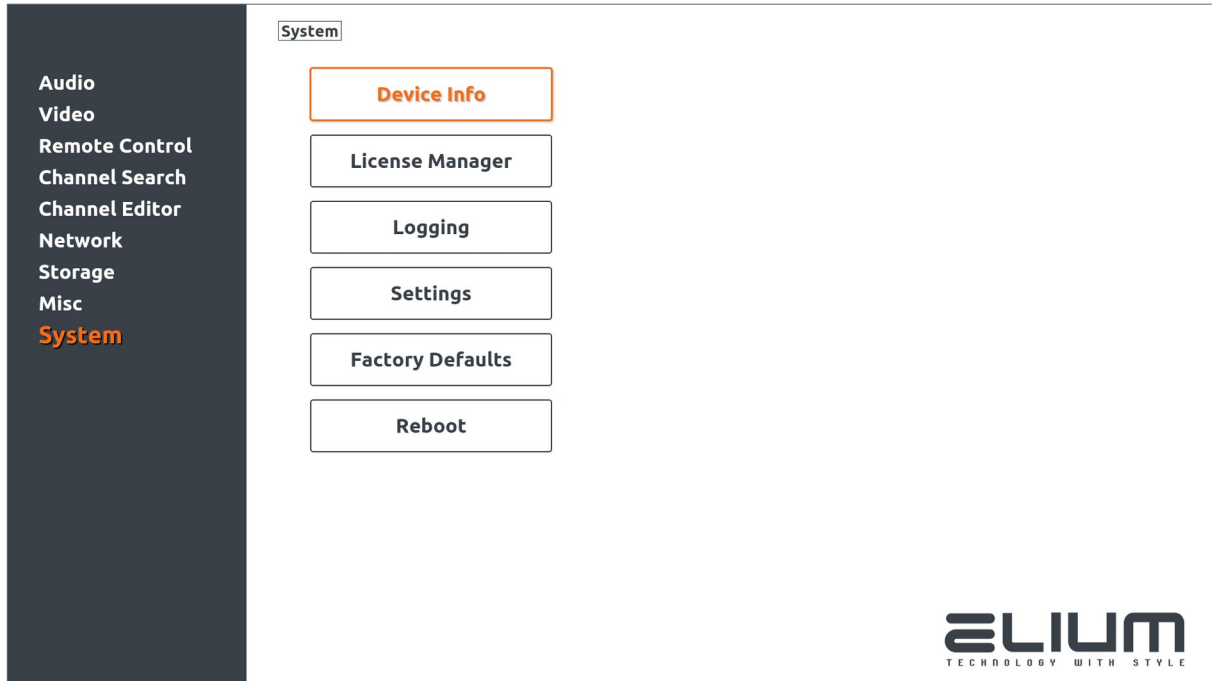
Hide System Apps

Hide system apps from the available apps list and show only the apps installed by the user.

2.10 System Settings

Press OK button when System option from setup menu (main menu) is selected to activate device system settings submenu.

The following scene will be displayed on the screen.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

➤ **Device Info**

Here you can view various device info: firmware and hardware version etc.

➤ **License Manager**

Here you can manage device licensing: add or view available licenses.

➤ **Logging**

Here you can change device logging settings.

➤ **Settings**

Here you can backup and restore device settings via USB drive.

➤ **Factory Defaults**

Select this action to reset device settings to factory defaults.

➤ **Reboot**

Select this action to rebote device.

Device Info

The following scene will be displayed on the screen.

The screenshot shows a user interface for 'Device Info'. On the left is a dark sidebar menu with options: Audio, Video, Remote Control, Channel Search, Channel Editor, Network, Storage, Misc, and System (highlighted in orange). The main content area has two tabs: 'System' and 'Device Info'. Under 'Device Info', there are two sections: 'Software Information' and 'Hardware Information'. The 'Software Information' section lists 'Firmware Version' as 00.70 with a build date of 01 (22.08.2023 19:37). The 'Hardware Information' section lists: Serial Number (14200309009320), MAC Address (00:E0:4C:01:0B:29), IP Address (192.168.178.85), Mainboard (EL 13240 Rev.01), CPU Temperature (51°C), and GSF Device ID (4155693208779424250). The ELIUM logo is in the bottom right corner.

Software Information	
Firmware Version	00.70
	Build 01 (22.08.2023 19:37)

Hardware Information	
Serial Number	14200309009320
MAC Address	00:E0:4C:01:0B:29
IP Address	192.168.178.85
Mainboard	EL 13240 Rev.01
CPU Temperature	51°C
GSF Device ID	4155693208779424250

Technical support

If you need any technical support, please make sure you have at least the following information from the Device Info screen (Hardware / Software Information) at a hand:

- Firmware Version
- Mainboard

License Manager

Here you can manage device licensing: view available license feature and add purchased license keys.

Feature	Status
UHD 4Kx2K	Inactive (X)
UHD 4:2:2	Inactive (X)
AC3 Downmix	Active (✓)
H.265/HEVC	Active (✓)
Apps	Active (✓)
Custom WebApp GUI	Inactive (X)
Custom GUI IdleScreen	Inactive (X)
Custom HTTP Views	Inactive (X)

1.	7564722966276857	✓
2.	7565272755644665	✓

S/N: 09210102009526
License: 1 / 2
0..9 Add License
F1 Remove

ELIUM
TECHNOLOGY WITH STYLE

Use UP/DOWN buttons to navigate between existing licenses.

Use numeric 0..9 buttons to insert new license key and Red (F1) button to remove the existing licenses.

Each license feature status is indicated with the following icons:

- ✓ License is active
- ✗ License is inactive (no license keys available for the feature)

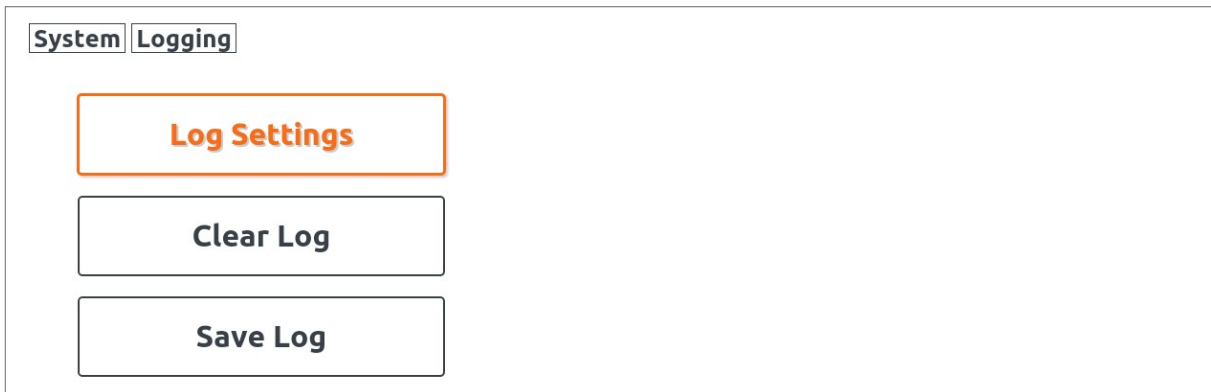
Each selected license key shows the features which it covers with orange.

To obtain/purchase license:

Please provide device S/N (serial number – in top right corner of screen).

Logging

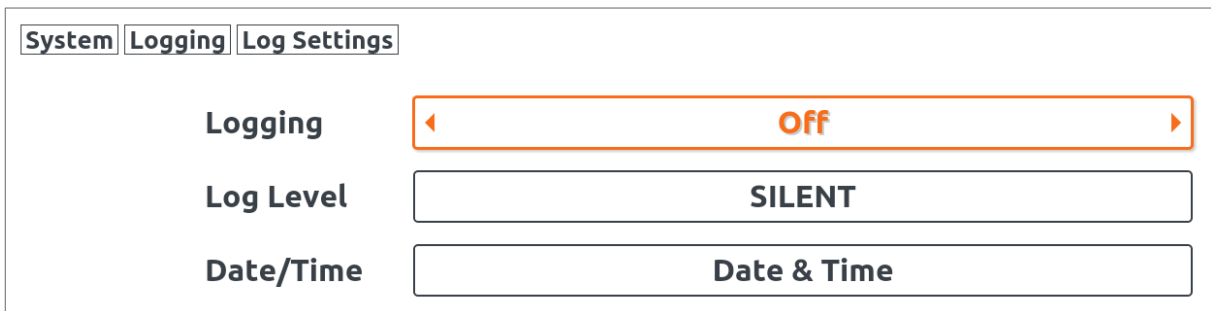
Here you can setup device logging settings, clear existing log and save log files into USB drive connected to device.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required action.

➤ Log Settings

Here you can change device logging settings.



Logging

Enable/Disable device logging.

Logs are stored inside device internal storage.

Log Level

Setup device log level (logging verbosity):

- SILENT - no log messages
- ERROR - log errors only
- WARNING - log errors, warnings and some important messages
- INFO - log also info messages, e.g. some details
- VERBOSE - verbose logging with very detailed information intended mostly for debug

Note: Log Level = INFO should be good enough for the most purposes.

Date/Time

Set log messages date/time info setting:

- None - no date/time info in log messages
- Time Only - time only shown in log messages (default setting value)
- Date & Time - date and time shown in log messages

➤ **Clear Log**

Select this action to clear the existing logs inside device internal storage.

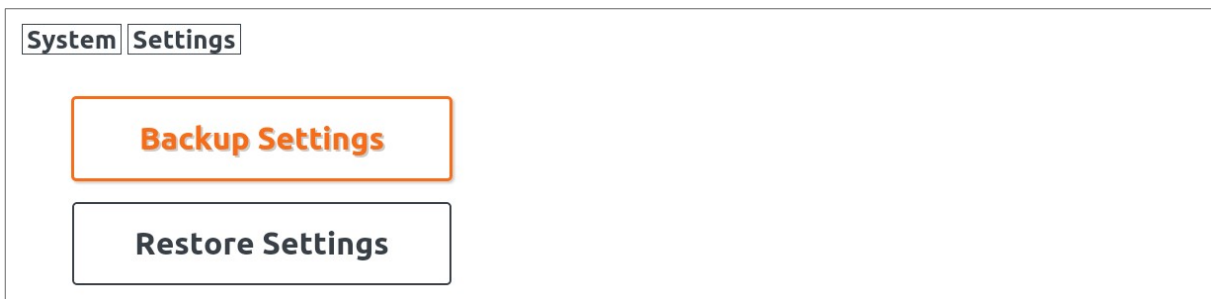
➤ **Save Log**

Select this action to save (copy) existing logs into USB drive connected to device.

The FAT32 formatted USB drive with a minimal 200 MB free space available should be used.

Settings

Here you can export/import device settings via USB drive connected to device.



Use UP/DOWN buttons to navigate between submenu items and OK button to select the required action.

➤ **Backup Settings**

Select this action to backup (copy) device settings into the USB drive connected to device.

The FAT32 formatted USB drive with a minimal 100 MB free space available should be used.

➤ **Restore Settings**

Select this action to restore device settings from the USB drive connected to device.

The settings binary file should exist inside the USB drive filesystem root.

The device will reboot after the settings are applied.

3.1 TV / Radio mode

Device starts the last TV or Radio program playback after boot.

In the case when the network streaming content (the stream which is not present inside the device TV or Radio programs list) was previously launched via the external automation system the device will restore the last stream in Media Player mode after boot.



The scene can contain radio texts: internet radio song titles from the network stream metadata (when available).

In the following some diverse function of the unit are listed which you can select using the remote control in TV and Radio mode.

◆ **RADIO / TV button (3)**

Using this button you can switch between TV and Radio channels.

◆ **UP and DOWN buttons (7)**

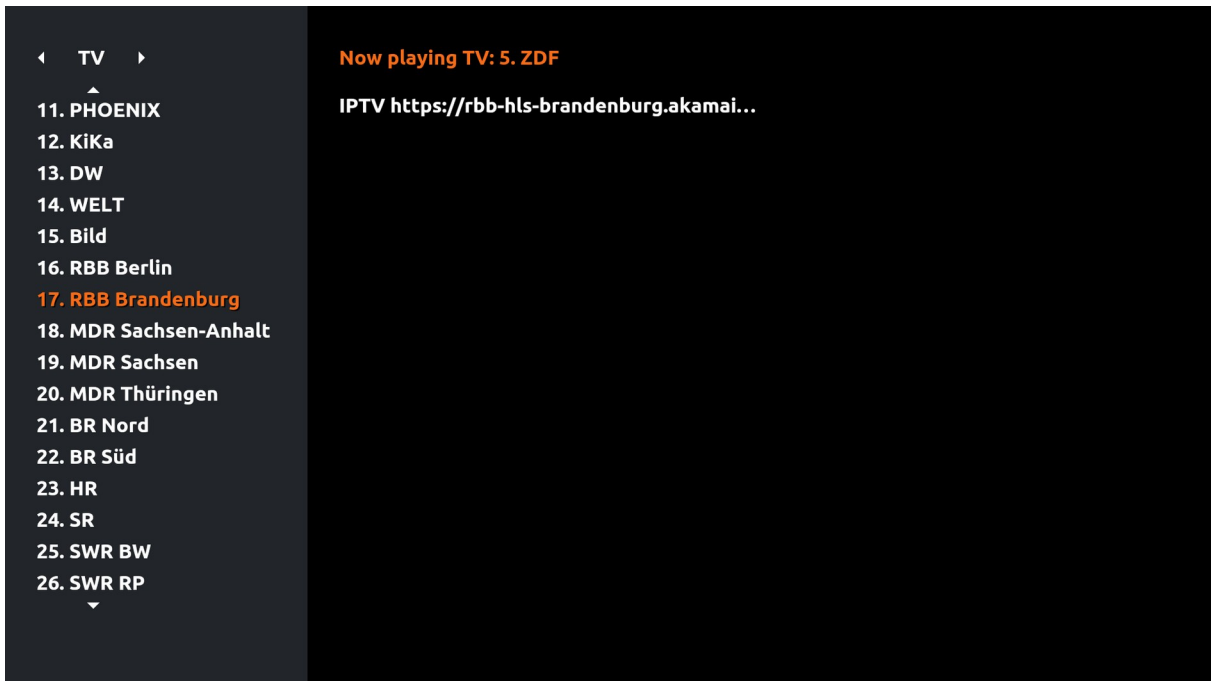
Switch to the previous and to the next channel (from the currently played channel).

◆ **Numeric buttons 0..9 (2)**

Channel selection by channel number. Channellist will be displayed with the inserted channel number selected.

◆ OK button (10)

Activate Channellist OSD. You'll see the following scene on the screen:



Use UP/DOWN buttons (7) to navigate inside the list.

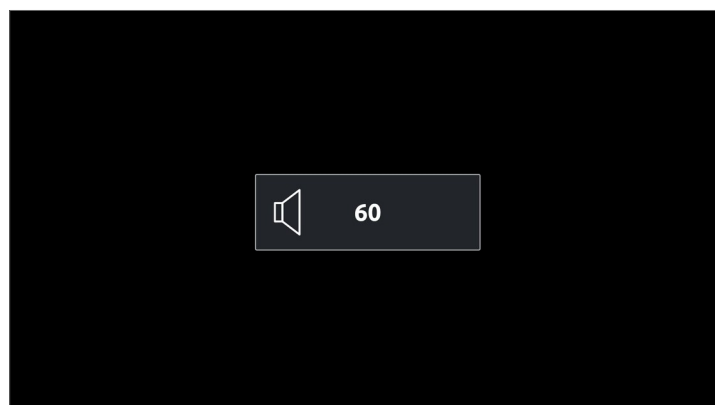
Use Rewind and Fast Forward buttons (16,17) to move 10 items up and down accordingly. Use Go Prev and Go Next buttons (19,20) to move to the top or bottom of the list.

Press OK button (10) to switch to selected channel and EXIT button (9) to quit the channellist OSD.

◆ LEFT and RIGHT buttons (8), MUTE button (6)

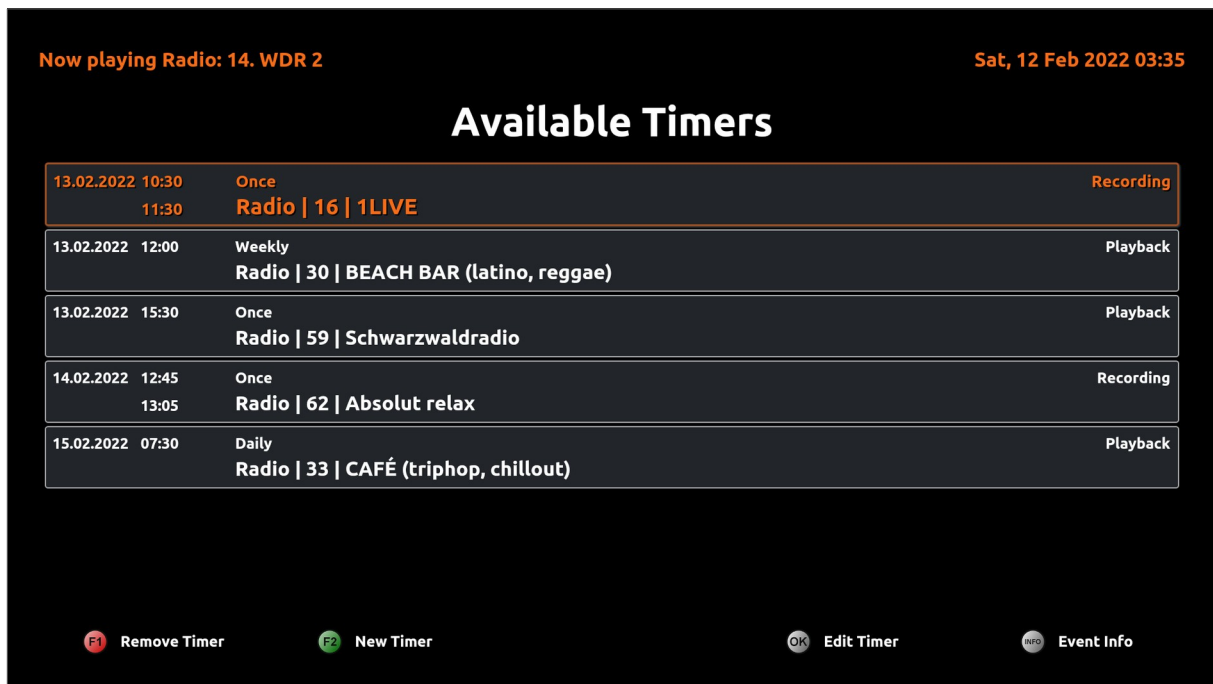
Using this buttons you can control (increase/decrease) audio volume level and mute audio.

You'll see the following notification on the screen on volume change:



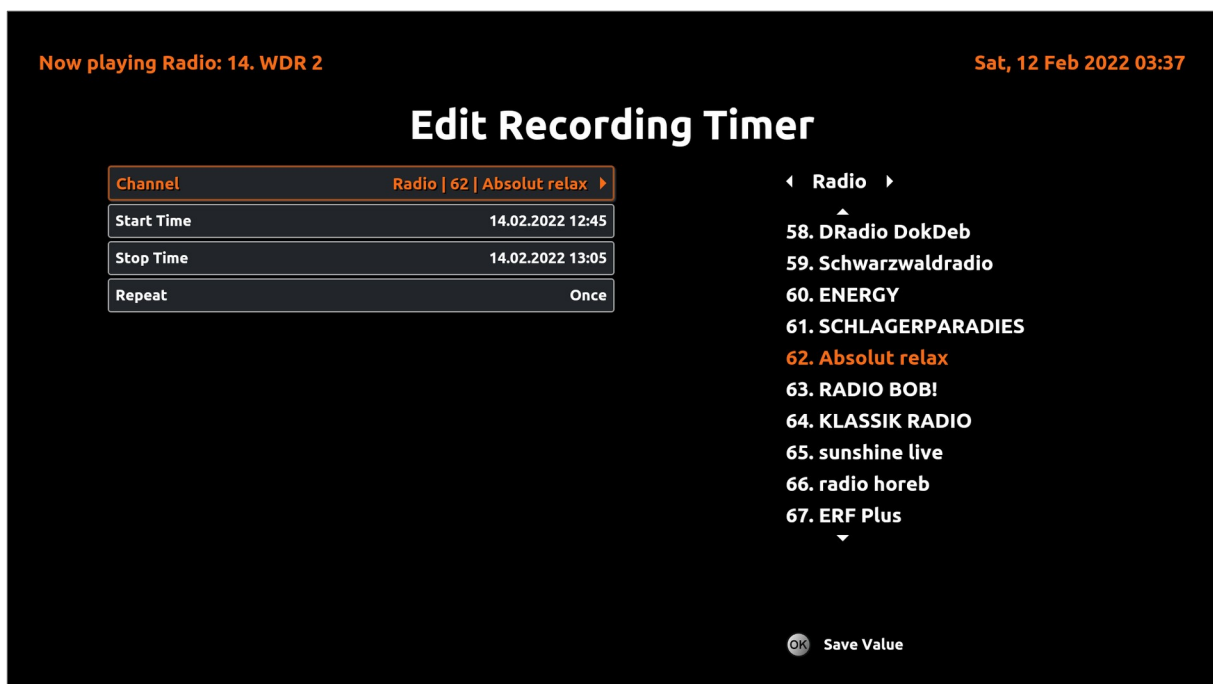
◆ TIMER button (25)

Using this button you can start Timer menu to add, edit or remove existing timers.



Use UP/DOWN buttons (7) to navigate inside the list.

Press OK button (10) to edit selected timer.



Please use the hints on the screen to navigate and control OSD.

Note: Time sync should be achieved from NTP to activate Timers function. Otherwise those OSD will be unavailable.

◆ Red / F1 button (13)

Using this button you can start Recordings Browser OSD to play selected recording.

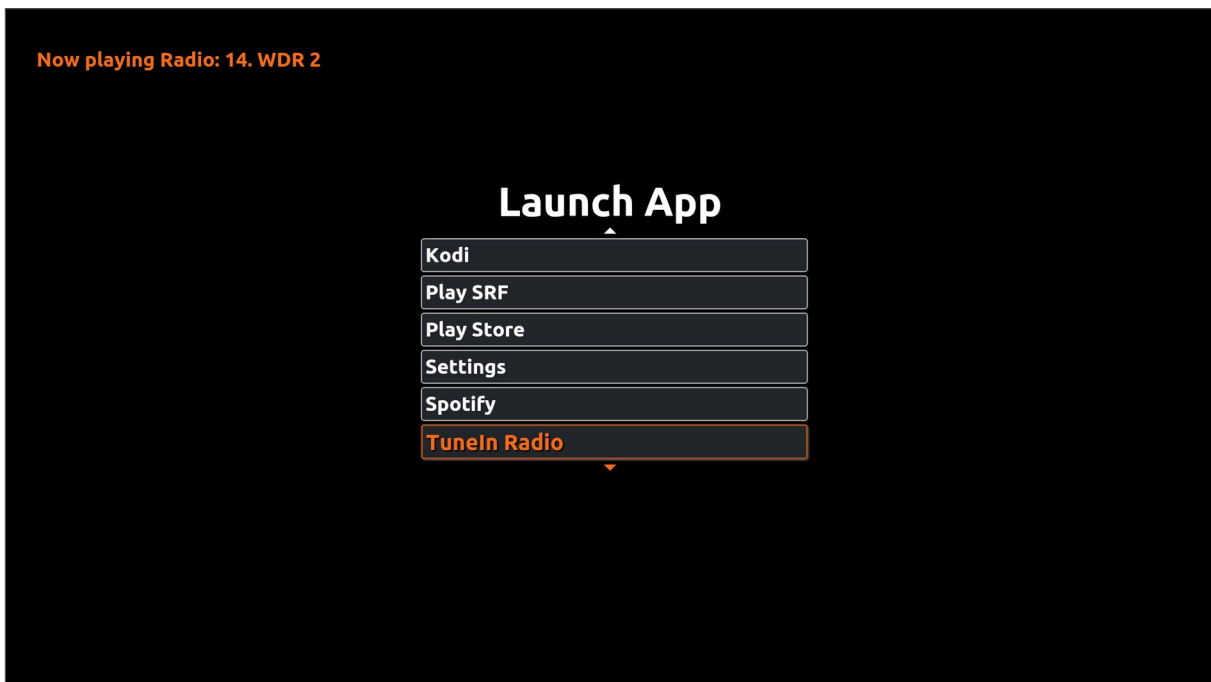


Use UP/DOWN buttons (7) to navigate inside the list.

Press OK button (10) to start playback for the selected recording.

◆ Blue / F4 button (12)

Using this button you can start Apps Launcher OSD to start selected App.

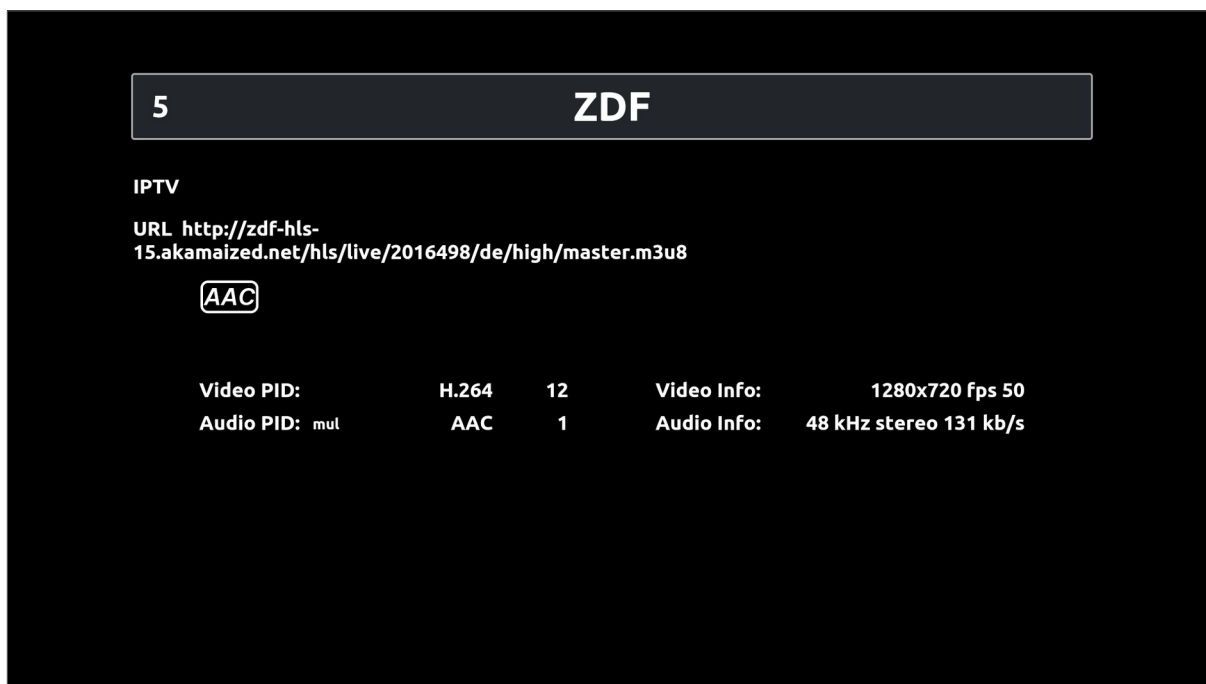


Use UP/DOWN buttons (7) to navigate inside the Apps list.

Press OK button (10) to launch selected App.

◆ INFO button (22)

Using this button you can start Stream Info notification.



Stream Info OSD will be automatically hidden after 2 minutes.

To leave the the OSD immediately you have to press the EXIT button (9).

◆ Start / Stop Recording button (21)

Using this button you can toggle recording. It will start recording of the currently played program in the case when recording is disabled. It will stop recording when recording is already running.

Note: The NAS storage should be previously set up and accessible for writing to get recording function working.

◆ Play / Pause button (18)

Using this button you can start Timeshifting for the currently running recording. In the case when there is no recording the button will be not applicable.

◆ MENU button (11)

Using this button you can go to the Setup Menu. Playback will be stopped immediately.

3.2 App mode

Device goes into App Mode after the App is launched.

The following controls are applicable for App Mode:

◆ **UP/DOWN/LEFT/RIGHT navigation buttons (7,8)**

You can use these buttons to navigate inside the app's GUI.

The buttons will move the mouse pointer in the case when mouse mode is active.

◆ **OK button (10)**

Using this button you can select or confirm inside the app's GUI.

The button will send a mouse pointer tap in the case when mouse mode is active.

◆ **EXIT button (9)**

Using this button you can go back or exit/leave inside the App GUI.

◆ **MODE button (4)**

This button toggles mouse mode for device App Mode. It enables mouse mode in the case when it was disabled and disables otherwise.

You'll see the mouse pointer on the screen when mouse mode is active.

◆ **Numeric button 2,8 and 4,6 (2)**

Using these buttons you can scroll vertically and horizontally accordingly inside the App GUI.

◆ **Return to the last playback button (5)**

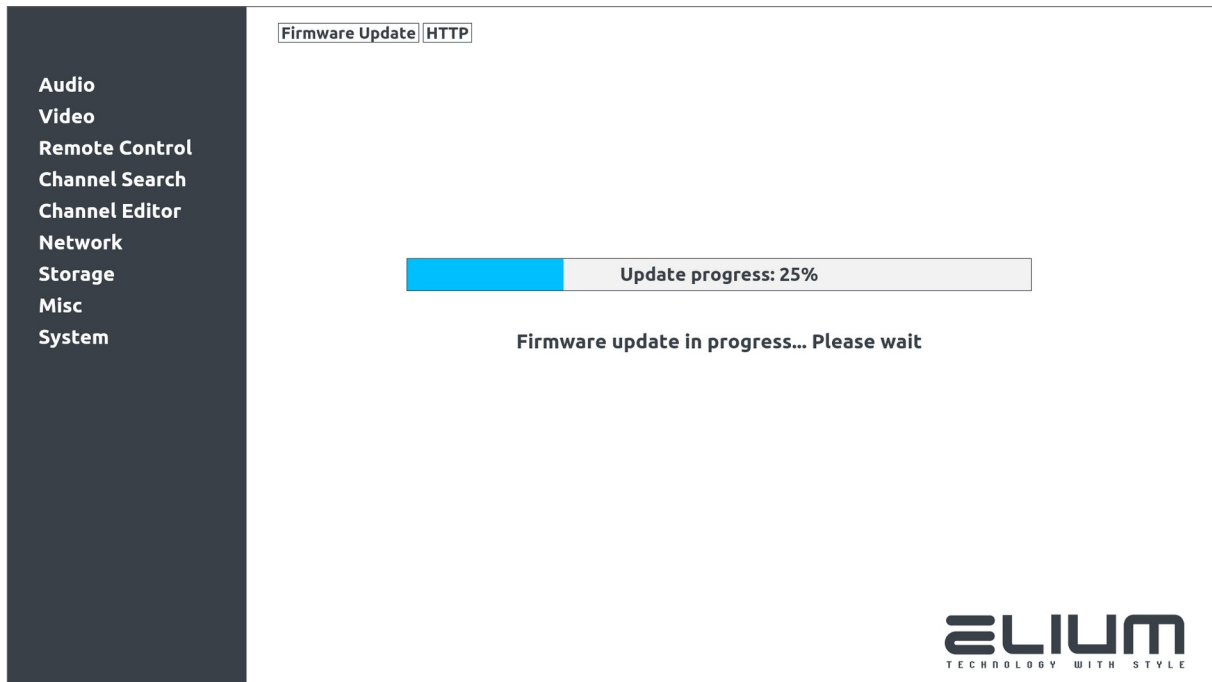
Using this button you can immediately exit App Mode and start the last program playback.

◆ **MENU button (11)**

Using this button you can go to the Setup Menu. App Mode will leave immediately.

4.1 Firmware Update

You'll see the following scene on the screen during firmware update process.



There are several possibilities for the IRD firmware update.

Make sure that the firmware image is unpacked from ZIP container before running update. Only unpacked firmware image (*.img file not zip archive) can be used for update.

Update via USB pendrive

The FAT32 formatted USB drive with a minimal 500 MB free space available should be used for the firmware update.

- Save (unpack) IRD firmware image file into the USB drive root (subfolders are not supported).
- Rename saved firmware image file to **elium_IRD2160_update.img**
- Plug the USB drive to the USB slot on the front site of the unit
- Wait some few time, the update will start automatically after ~ 20 sec.

The update progress is shown at the device GUI. Do not power-off or reboot device until update is complete.

The update process takes approx. 10 minutes.

Device **will NOT automatically reboot** after the update is finished.

The respective message "Firmware update finished. Please remove USB drive and restart device." will be shown at the device GUI on completion.

- Remove the USB drive from the unit and restart device via power switch.

Note: Device will be locked waiting for manual restart on successful update completion via USB pendrive.

The update routine locks (and will not restart update once more) until the USB drive is removed on firmware update failure.

Update via HTTP control panel

- Open the device's HTTP control panel in your browser.
- Go to 'Device' item in top menu.
- Press 'Firmware Update' Action button.
- Select previously unpacked firmware image file inside browser 'Open File' dialog.
- Press 'Upload' button and wait some time until the file is uploaded and processed by device.

The 'Firmware Update' overlay is shown in browser after the update start.

The update progress is also shown at the device GUI.

The update process takes approx. 10 min. Device will automatically reboot after the update is finished.

You may need to clear the cached contents of the updated device from your browsers cache.