ELIUM

Operating Manual

IRD 3020 / IRD 3040

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.

17.04.2026 // Rev.02.en

Contents

1.1 Accessories

- Digital IRD 3020 / IRD 3040 Integrated Receiver Decoder
- 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.

Power Cord

Handle the power cord carefully. Hold the plug when unplugging the cord. Do not use a damaged power cord. Do not plug the power cord until all connections have been completed.

Input Voltage

Use only at voltage of 100 - 240V.

Ventilation

The temperature inside the unit is effectual deduced. Please do not cover the ventilation slots to avoid temperature problems and serious failures.

The unit needs a stable stand at all time.

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.

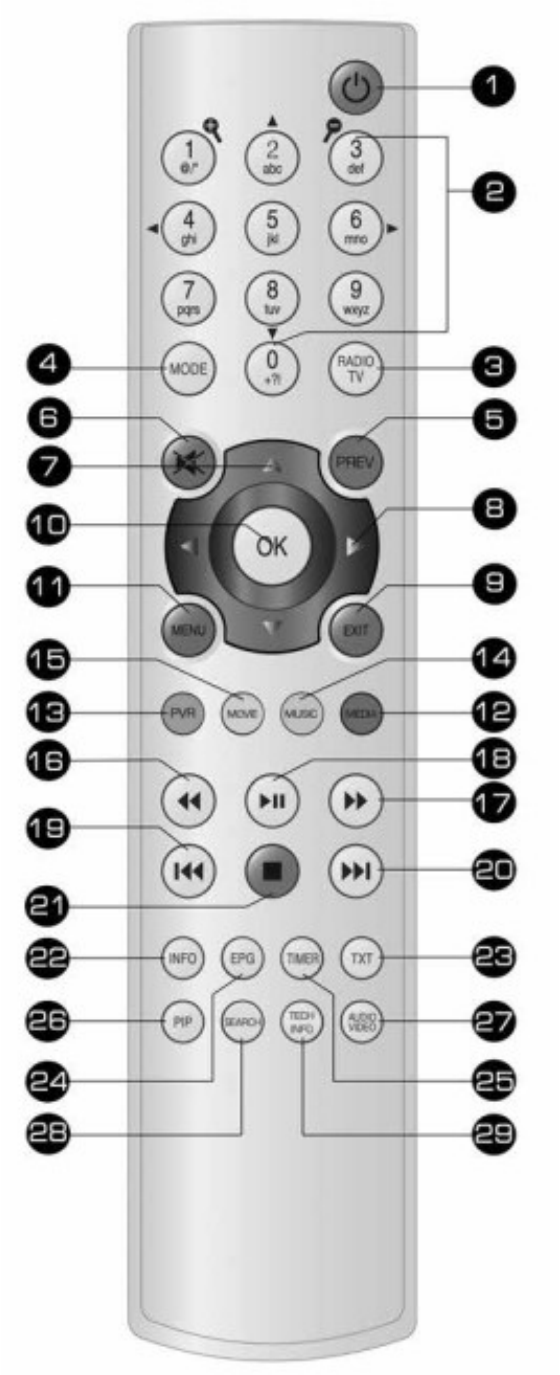
The ideal humidity is between 10% – 70%.

Earthing

Please observe the relevant regulations.

1.3 Remote Control

The remote control enables the interaction with the device. 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 - Not active (switch between TV and Radio)

4 - Data input: toogle upper/lower case, toggle +/- sign in numeric input

5 - Return to previous playback

6 - Mute

7 - Up and Down navigation, switch prev/next program in 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 Front Panel Keypad

The device is equipped with the keypad on its front panel. The keypad mostly duplicates the remote control functionality and allows operating and setting up the device without remote control.

For the convenience reasons the respective keypad buttons with the similar function are enumerated the same as for the remote control keys from the previous chapter (1.3 Remote Control). The keypad buttons (1), (31) .. (33) with unique functionality are desctibed below.

Unless explicitly stated, all further references to the buttons (button titles and enumeration) within this document are applied equally to both remote control and front panel keypad keys.

1 – POWER ON/OFF Switch

2 – NUMERIC buttons 0..9 (channel selection by channel number in Radio mode, data input, scroll in App Mode, seek in Media Player)

4 – MODE button (data input: toogle upper/lower case, toggle +/- sign in numeric input)

5 – PRE button (return to previous playback)

7 – UP / DOWN buttons (up and down navigation, switch prev/next program in Radio mode)

8 – LEFT / RIGHT buttons (left and right navigation, changes in menu, +/- volume adjustment in playback)

9 – EXIT (return to last menu)

10 – OK (confirm or select)

11 – MENU (access setup menu)

13 – F1 (Recordings browser / context dependent)

15 – F2 (context dependent)

14 – F3 (context dependent)

12 – F4 (Apps selection / context dependent)

22 – INFO (program information on the screen / context dependent)

27 – A/V (multifeed and multilanguage)

31 – SERV (wake up from StandBy, lock/unlock remote control or the other keypad keys except Power Switch [1] and SERV [31])

32 – DISP+ / DISP– buttons (show next/prev view on the frontpanel display in Radio mode: switch between default DLS/RDS radio texts / audio level meter and signal measurements info view)

33 – SET button (not active / TBD)

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 radio programs 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 and perform channels search.

In the case when device setup is already complete (radio programs available) device will start the last program playback.

Note: Device can be also explicitly set into IDLE mode (displaying the above screen) by 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 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.

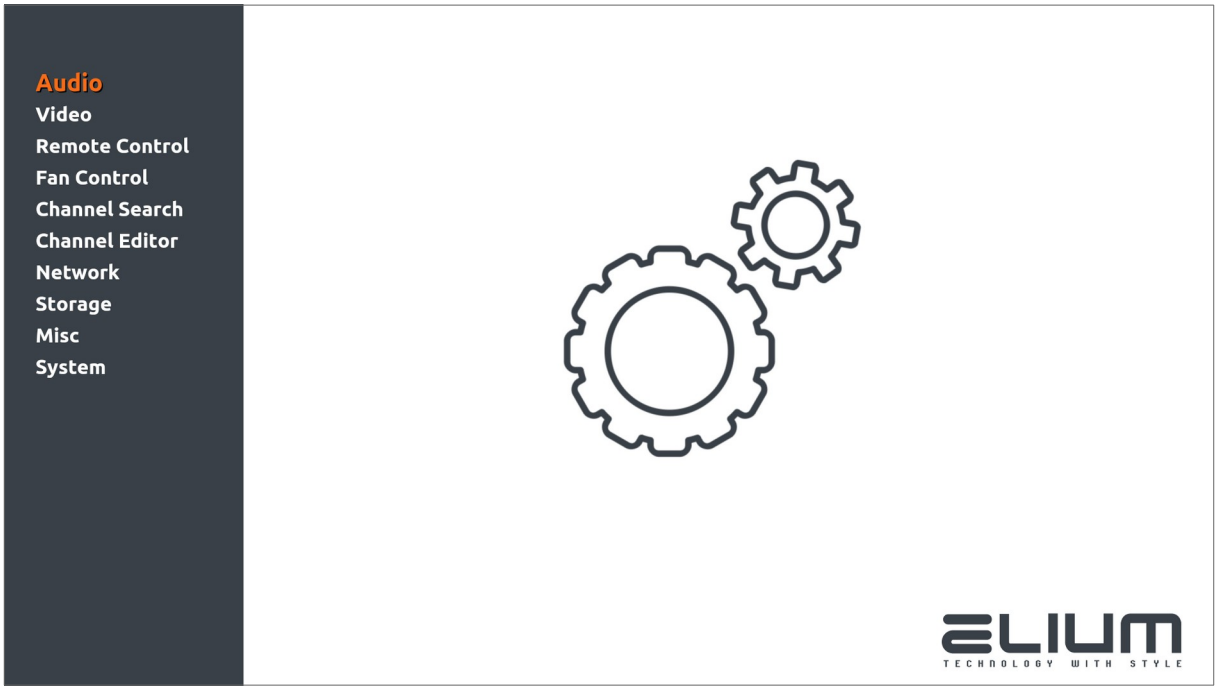
2.1 Setup Menu

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 playback in the case when the program is available.

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



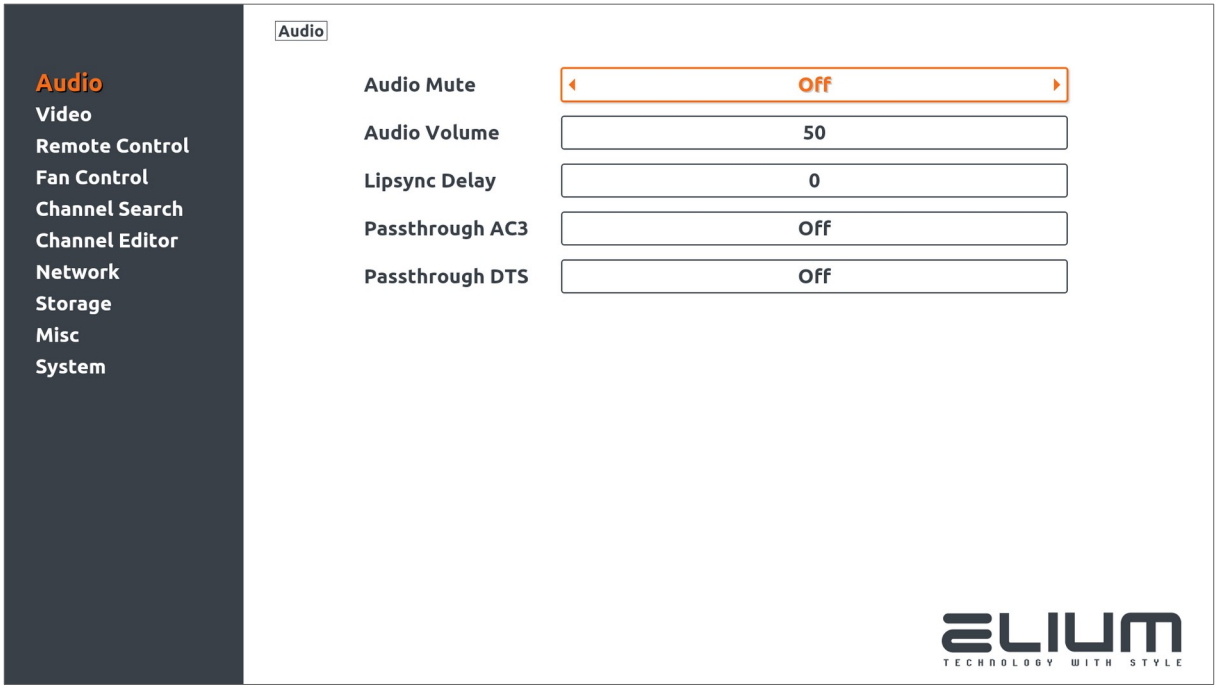
The following guidelines can be applied to operate in setup menu:

- 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 is not used for DAB or FM channels. It makes sense only in the case of IPTV channels or Media Player playback for the programs/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 is not used for DAB or FM channels. It 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.

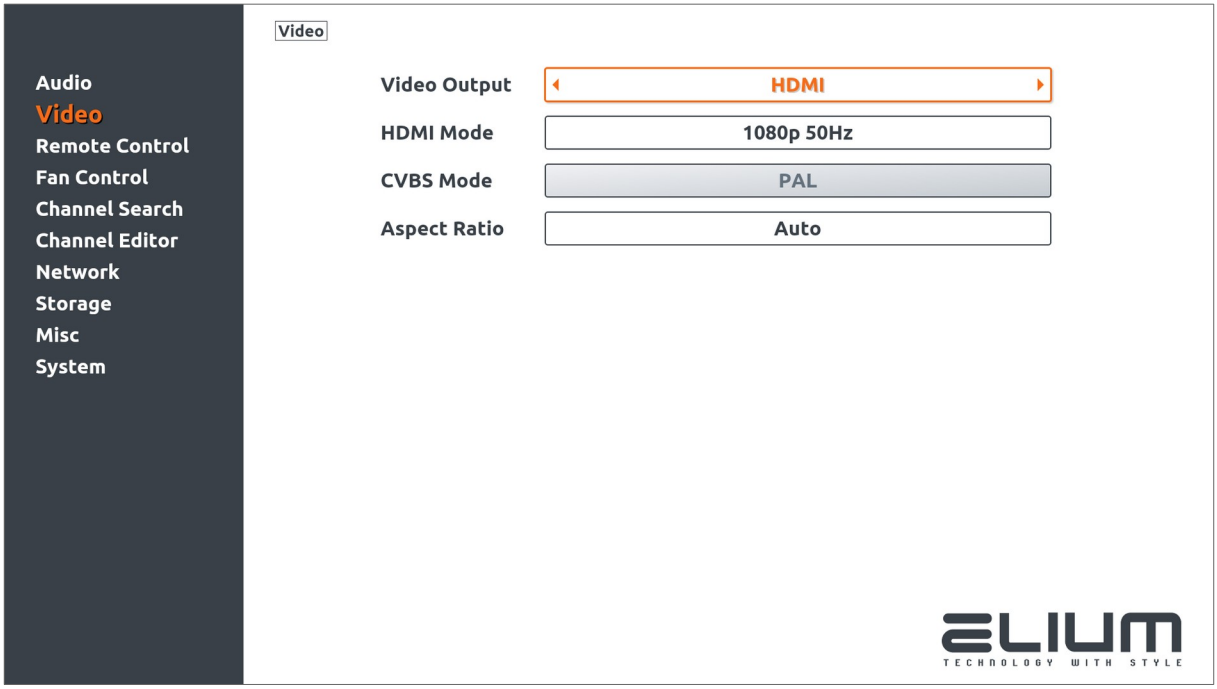
Warning: DTS passthrough audio streams will only work with the capable DTS decoder equipment (e.g. AVR which supports DTS).

Note: The setting is not used for DAB or FM channels. It 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
- CVBS (only if analog CVBS output available on the respective model)

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.

CVBS Mode
Here you can select Analog CVBS output mode. Available values:
- PAL (720x576)
- NTSC (720x480)

Note: Only applicable for the respective device models where analog CVBS video output is available.

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.

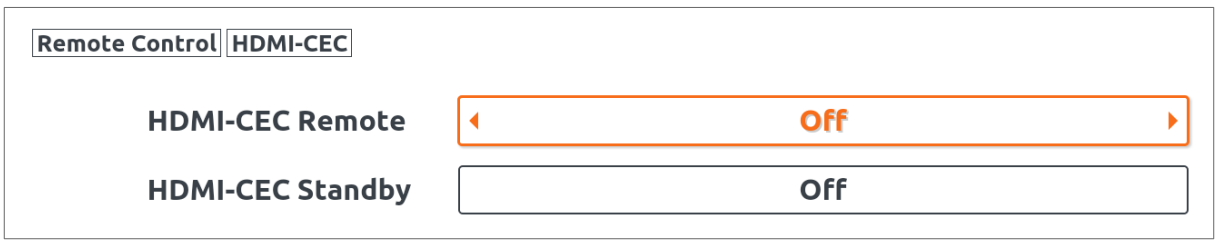
- **RS-232**

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



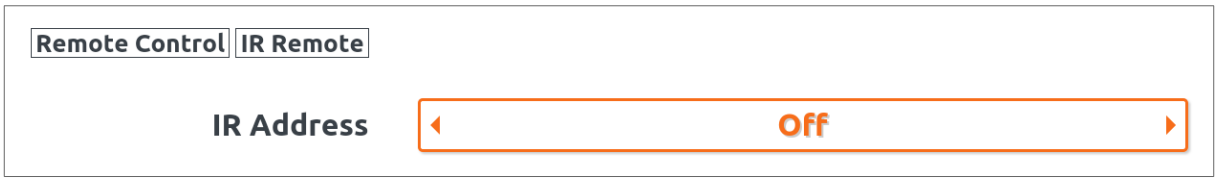
HDMI-CEC Remote
Enable/Disable HDMI-CEC remote control:
Off - Remote control via HDMI-CEC is disabled;
On - Remote control via HDMI-CEC is enabled.
HDMI-CEC remote control feature enables remote control commands to be passed through HDMI from other CEC-enabled devices within the system (e.g. from TV 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

RS-232 Baudrate
Set device RS-232 connection baud rate.
Supported values are: 9600, 19200, 38400, 115200.

IR Remote Settings



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 Fan Control Settings

Press OK button when Fan Control option from setup menu (main menu) is selected to activate device fan 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.

- **CPU Fan**

Here you can set CPU cooling fan maximum temperature threshold, control device fan speeds and temperature sensors.

- **Left Fan**

Here you can set Board Left cooling fan minimum/maximum temperature thresholds, control device fan speeds and temperature sensors.

- **Right Fan**

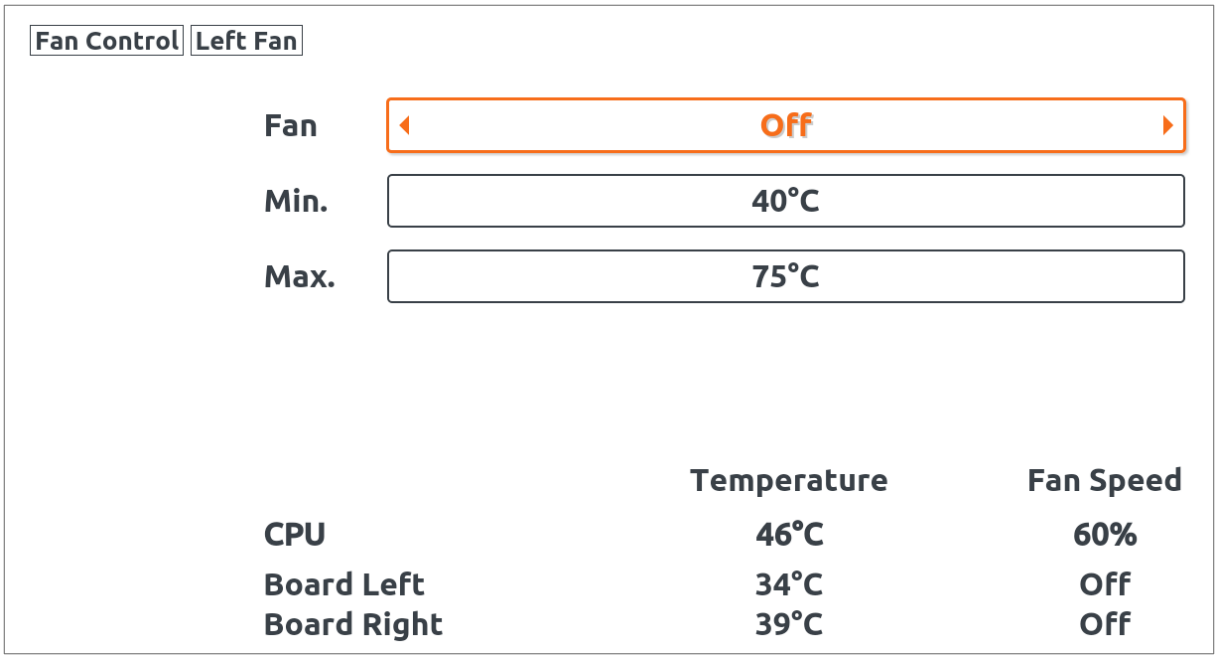
Here you can set Board Right cooling fan minimum/maximum temperature thresholds, control device fan speeds and temperature sensors.

CPU Fan Control

Max.
Device CPU cooling fan maximum temperature threshold in C deg.
The fan works at the maximum speed when temperature value from CPU sensor is greater than the setting value.

Device temperature sensors and fan speeds notification displayed inside CPU Fan Control submenu is the same as for Left/Right Fan Control below.

Left / Right Fan Control



Fan
Board Left/Right cooling fan status: enable or disable cooling fan.
Note: Temperature threshold are not taken into account in the case when the respective cooling fan is disabled (the fan is always off).

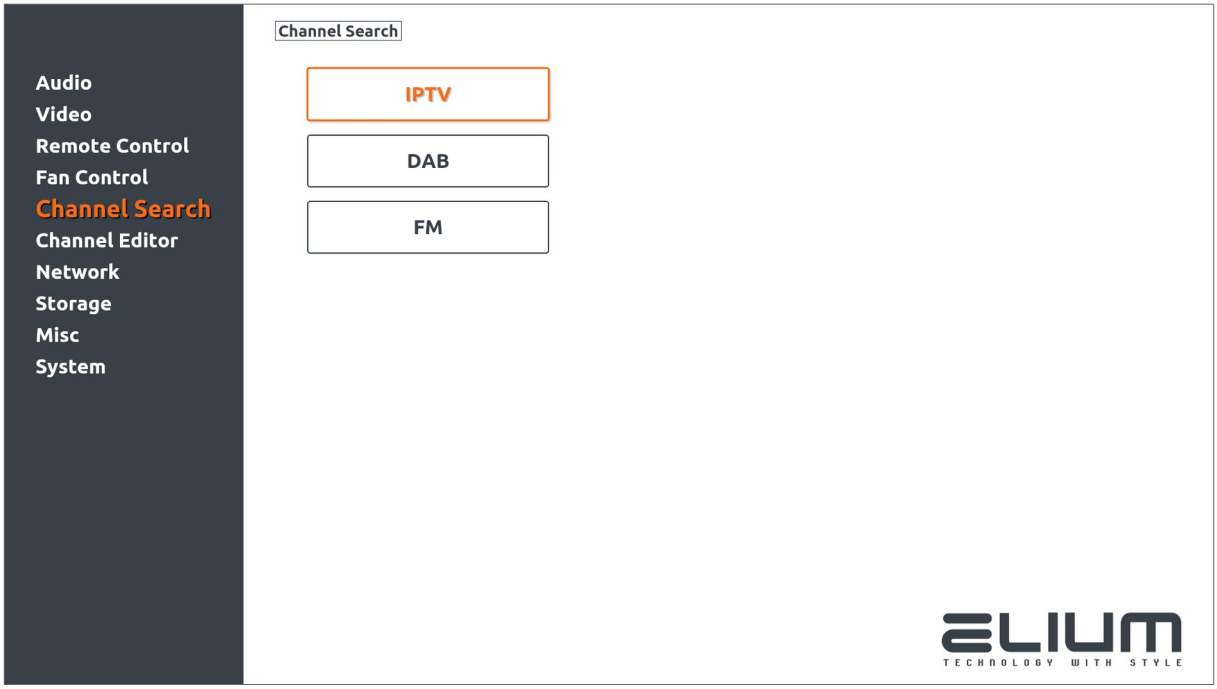
Min.
Board Left/Right cooling fan minimum temperature threshold in C deg.
The fan is disabled when temperature value from the respective sensor is lower than the setting value (CPU sensor temperature and overall board temperature is taken in account which can prevent disabling).

Max.
Board Left/Right cooling fan maximum temperature threshold in C deg.
The fan works at the maximum speed when temperature value from the respective sensor is greater than the setting value (CPU sensor temperature and overall board temperature is taken in account).

2.6 Channel Search

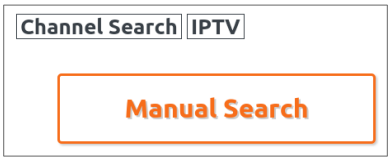
Press OK button when Channel Search option from setup menu (main menu) is selected to activate channel search submenu.

The following scene will be displayed on the screen.

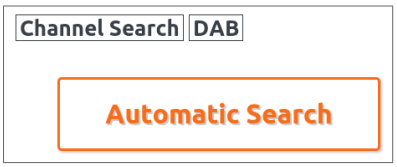


Use UP/DOWN buttons to navigate between submenu items and OK button to select the required submenu.

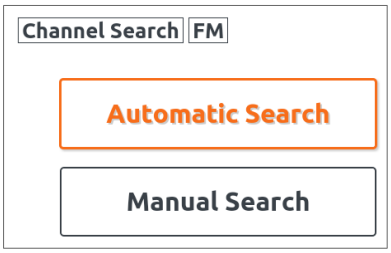
- **IPTV**



- **DAB**



- **FM**



The following Channel Search modes are available:

- **Automatic Search**

All available frequencies (the whole band) are searched with the given parameters, new programs inserted at the end of the channellist.

Press OK to start the search. Use EXIT button to quit the running automatic search.

The indicator containing automatic search progress will appear while search is running and when the search is complete. Currently found programs are also shown.

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

- **Manual Search**

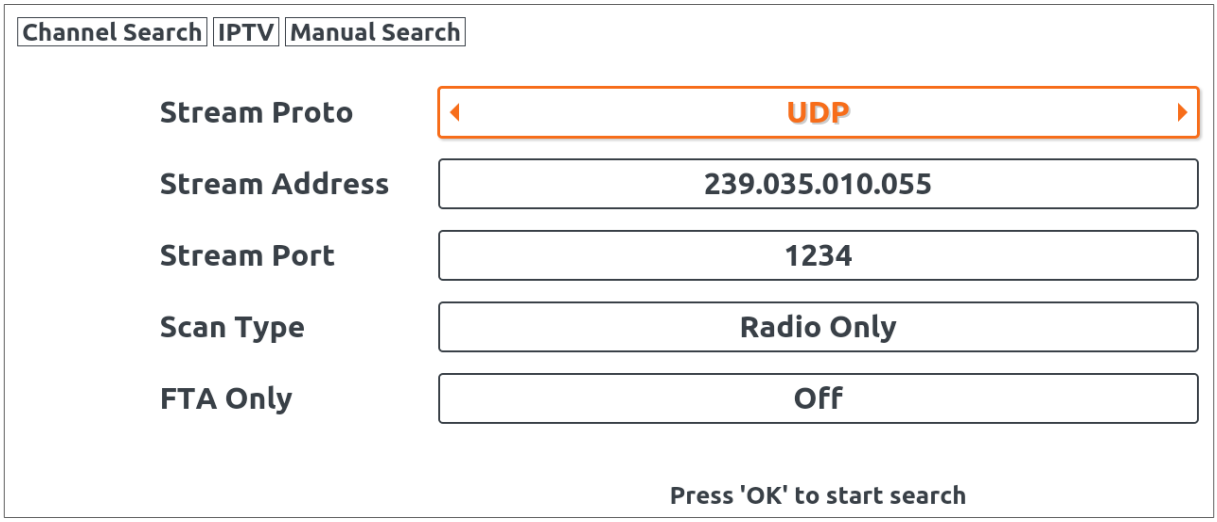
Searching for all channels of a particular frequency (or IPTV MPEG-TS stream), new programs inserted at the end of the channellist.

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



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'

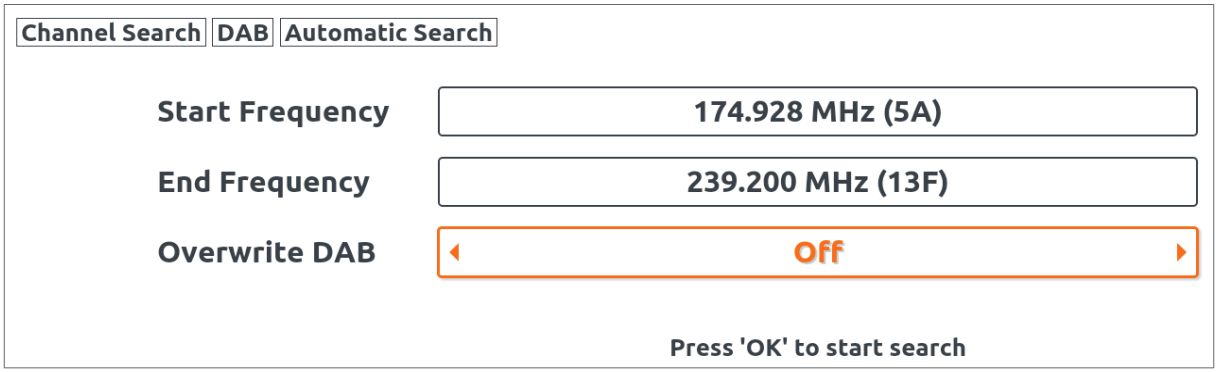
Stream Port
IPTV stream port number (e.g. 1234) used for IPTV search.

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.

DAB Automatic Search

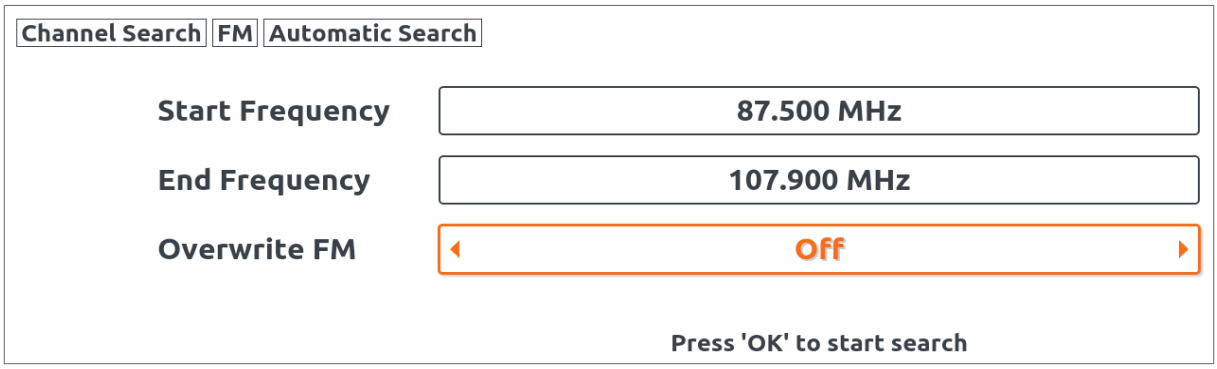


Start Frequency
Indicates DAB band start frequency used for scan.

End Frequency
Indicates DAB band end frequency used for scan.

Overwrite DAB
Overwrite DAB (remove existing DAB programs) option used for the search:
- Off - append DAB (do not remove existing DAB programs)
- On - overwrite (remove existing DAB programs on search)

FM Automatic Search

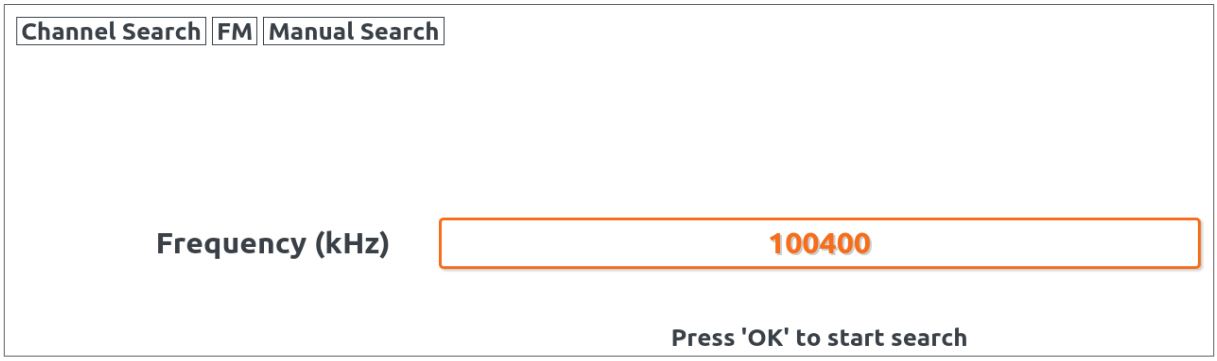


Start Frequency
Indicates FM band start frequency used for scan.

End Frequency
Indicates FM band end frequency used for scan.

Overwrite FM
Overwrite FM (remove existing FM programs) option used for the search:
- Off - append FM (do not remove existing FM programs)
- On - overwrite (remove existing FM programs on search)

FM Manual Search



Frequency
FM frequency in kHz (e.g. 88800 or 102450).

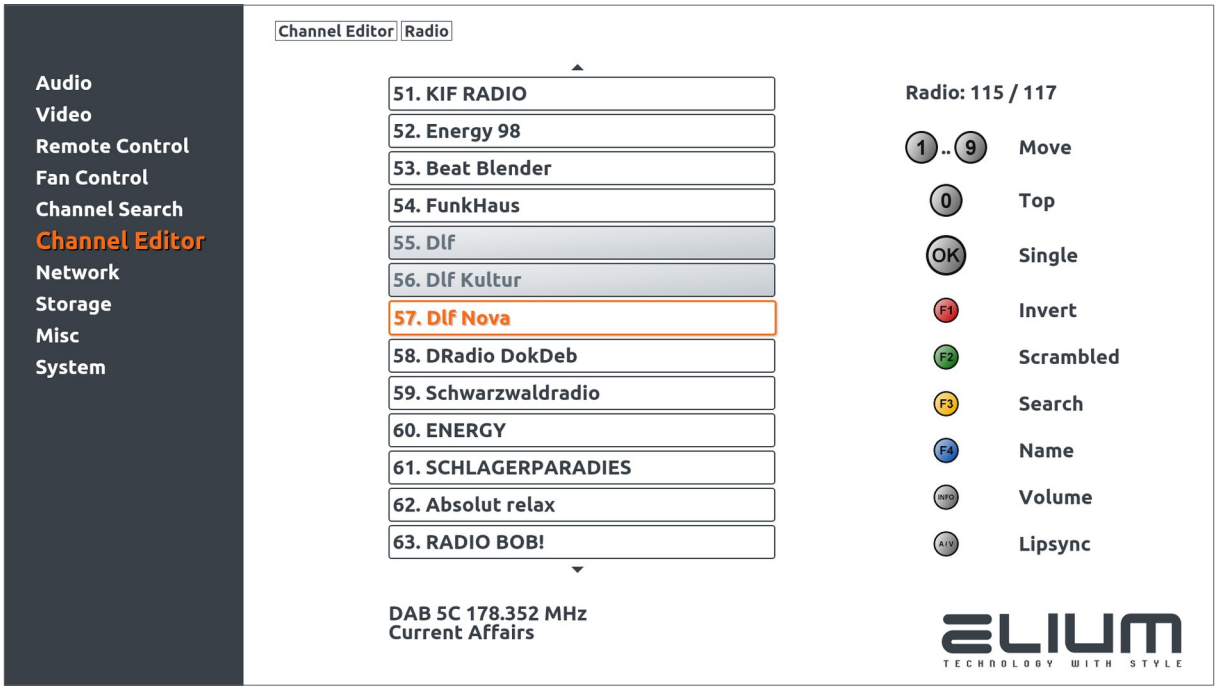
Use 0..9 buttons to insert frequency digits or LEFT button to remove the last digit.

2.7 Channel Editor

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

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 following scene will be displayed on the screen.

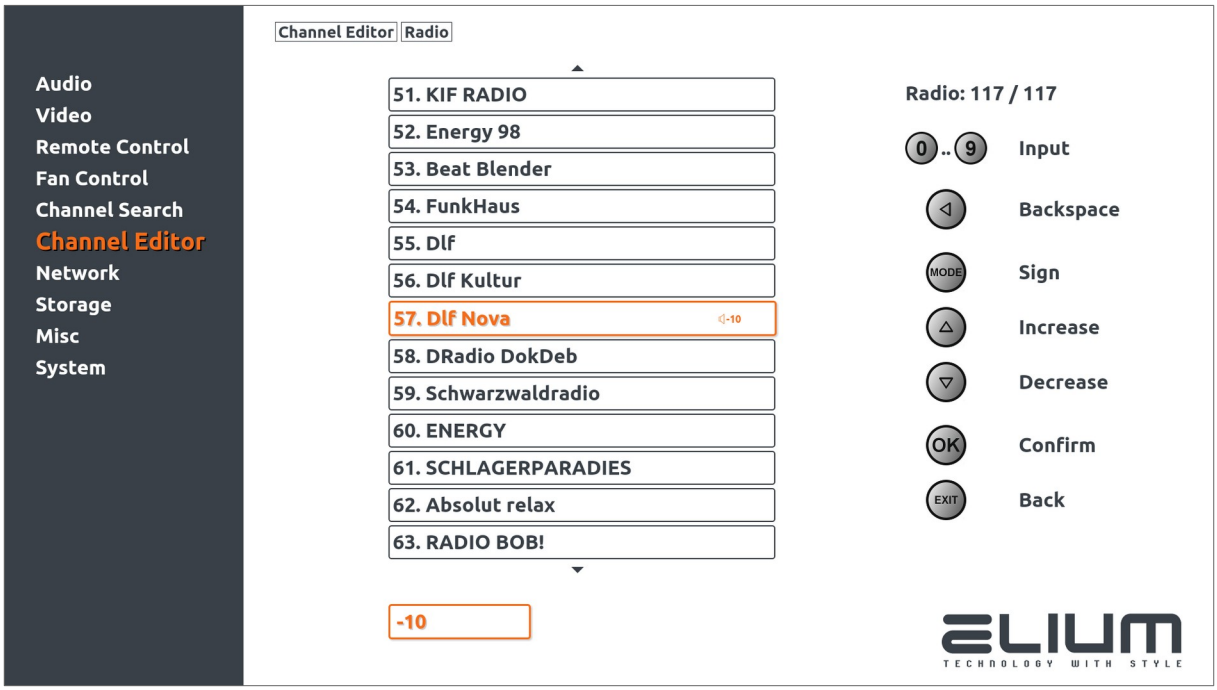


The following controls are used to operate in channel editor:

- 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

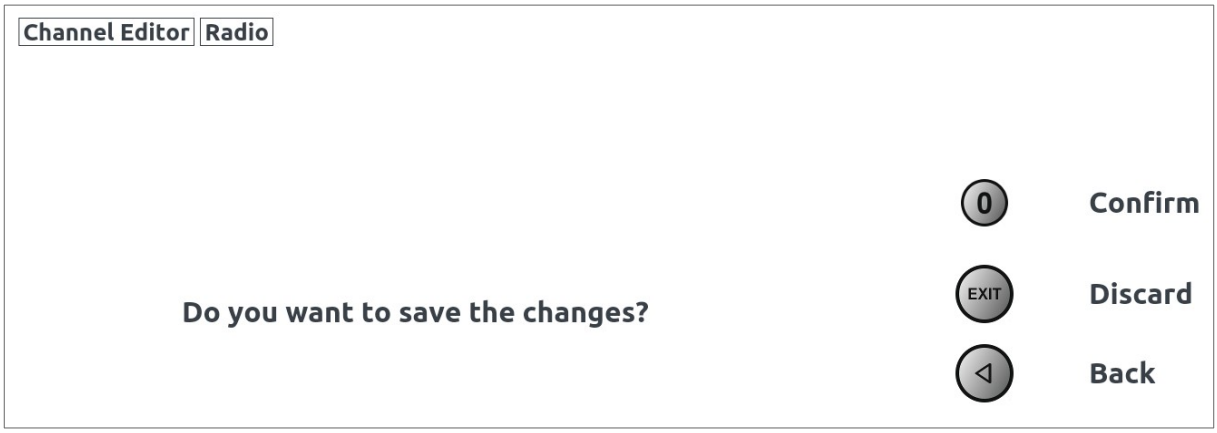
It's possible to preset the volume or lipsync adjustment values for each program independently.



Note: Lipsync adjustment is not used for DAB or FM channels. It makes sense only in the case of IPTV channels playback for the programs containing video streams (to adjust audio/video lipsync).

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.

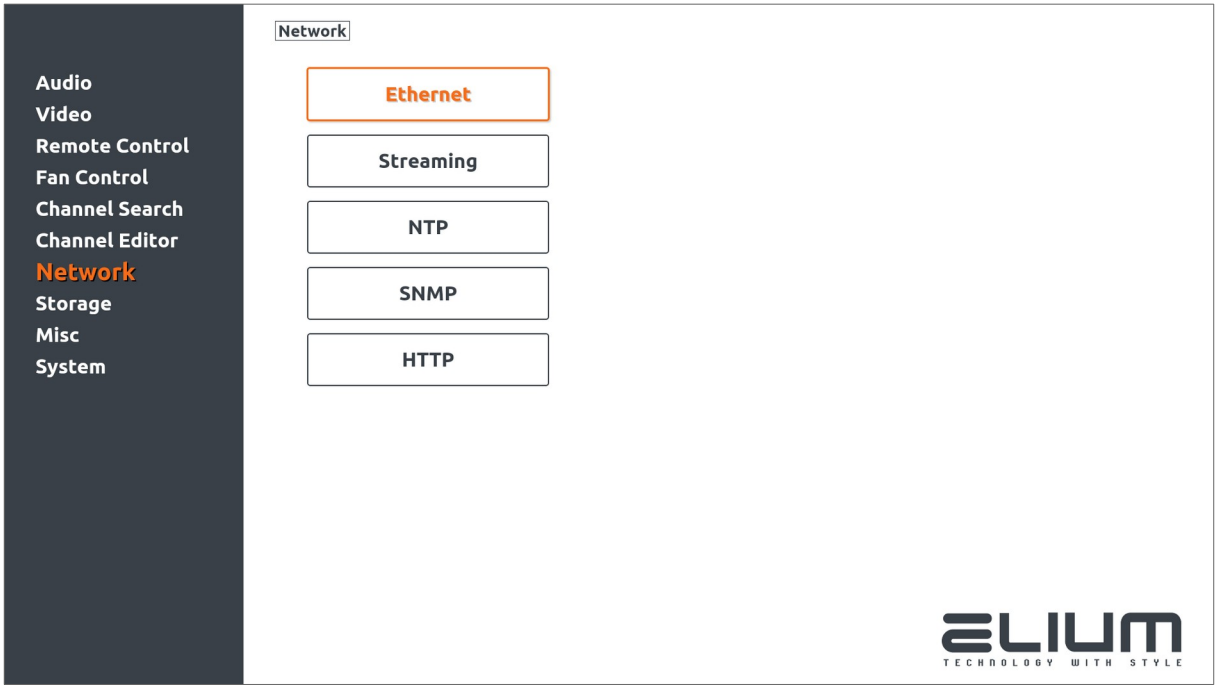
Delete all channels

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.

2.8 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.

- **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

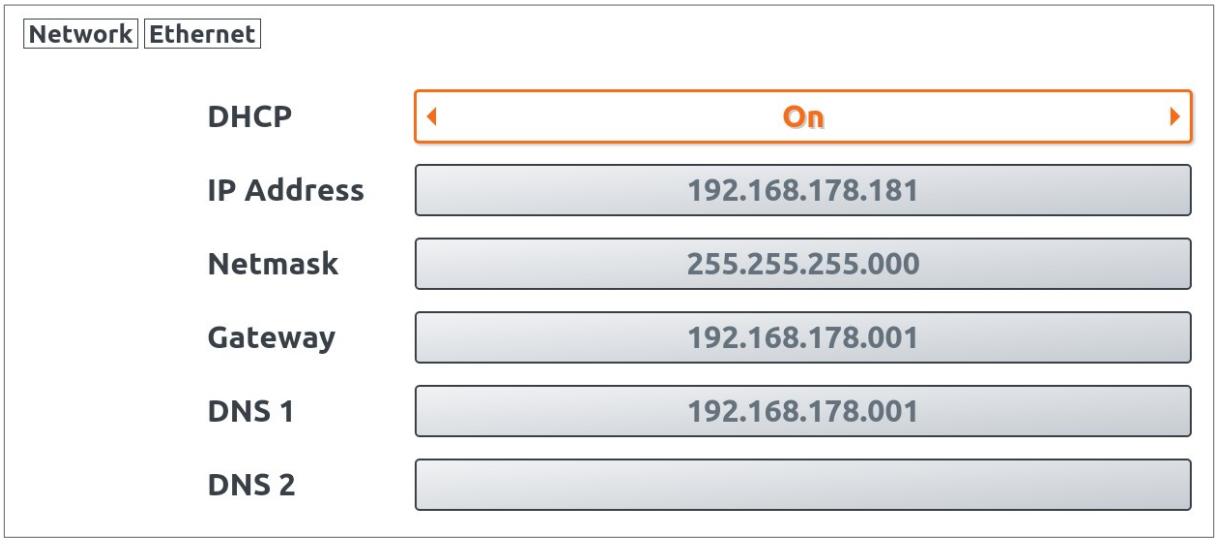
Ethernet interface parameters are set manually.

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).



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

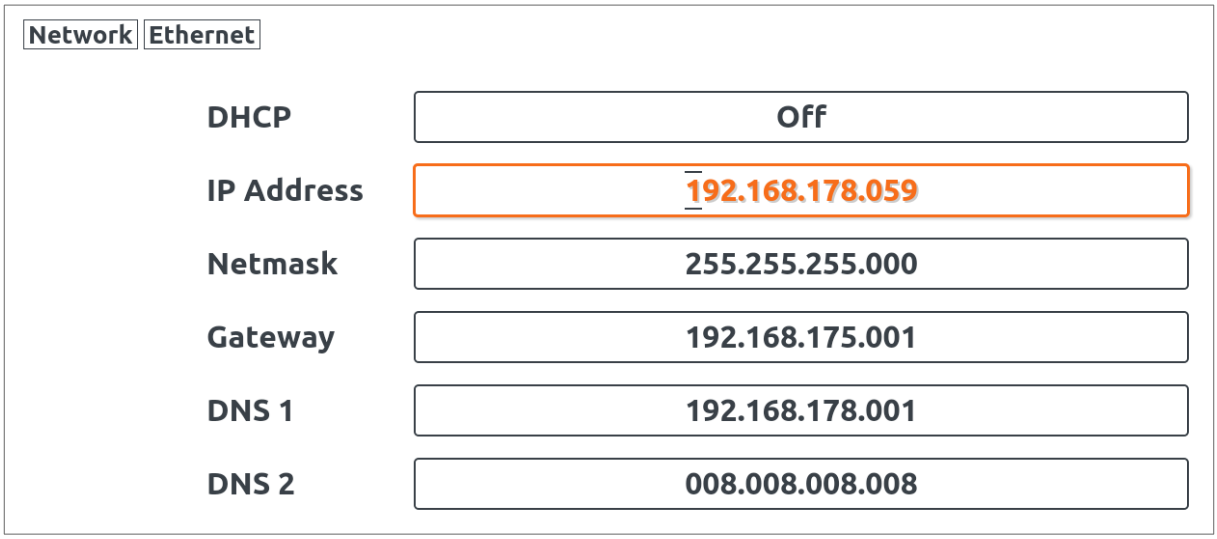
Enabling DHCP:

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



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).

Streaming Settings

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

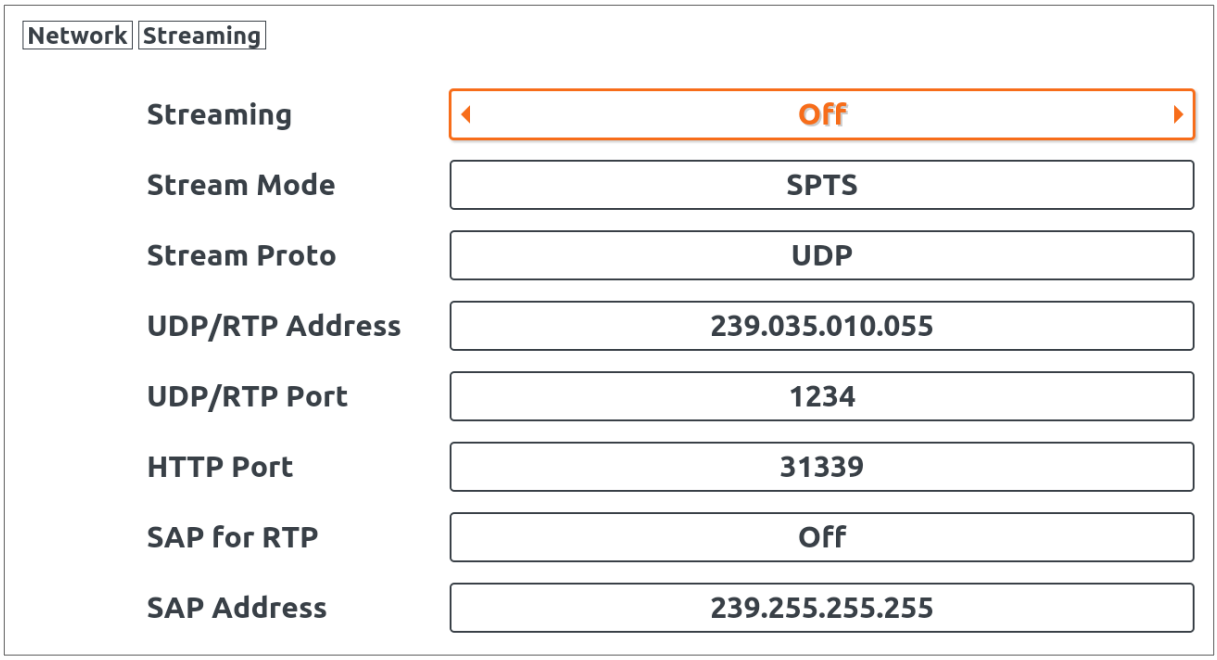
You can switch between RTP, UDP and HTTP streaming protos and select destination address to utilize unicast, broadcast and multicast streams.

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



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)

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.

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 connected with a network cable and communicate over network for IPTV live streaming function. Please make sure the device is accessible from your PC.

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.

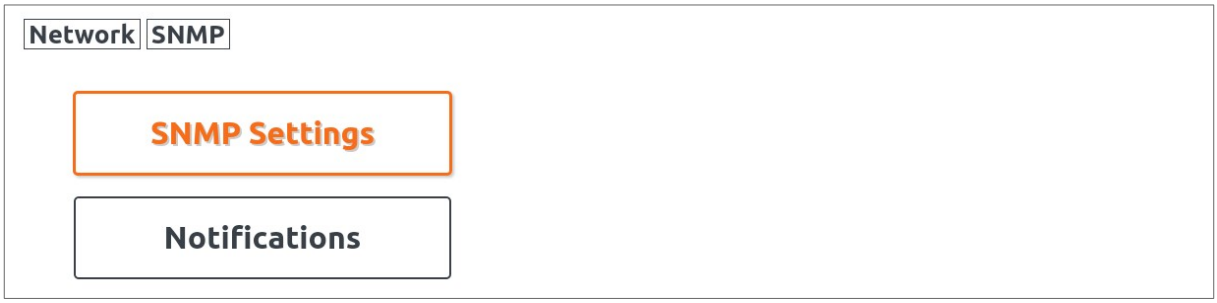
NTP Time Sync
Here you can enable or disable NTP network time synchronization.

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.

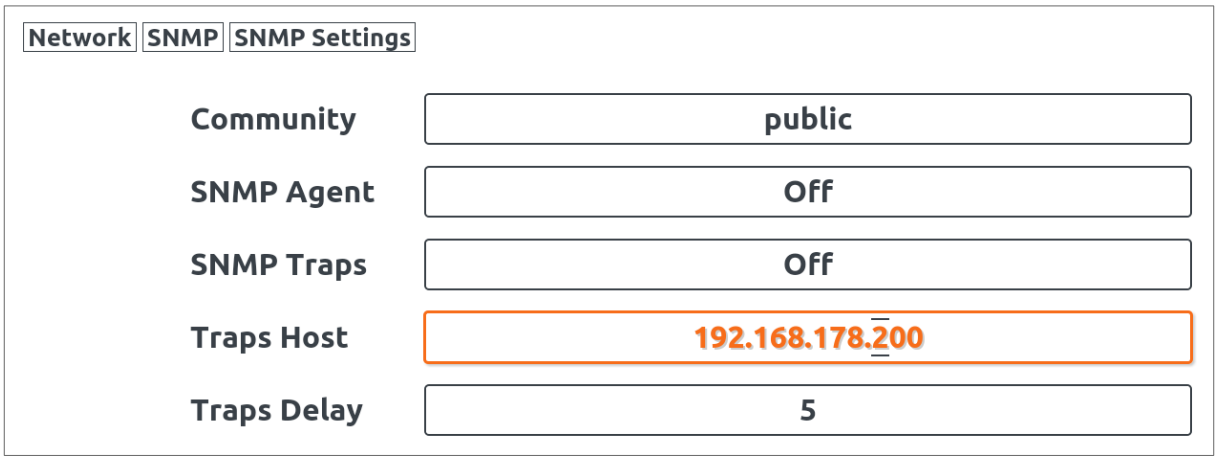
When SNMP option from the Network Settings is selected, you'll see the following submenu:



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.



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.

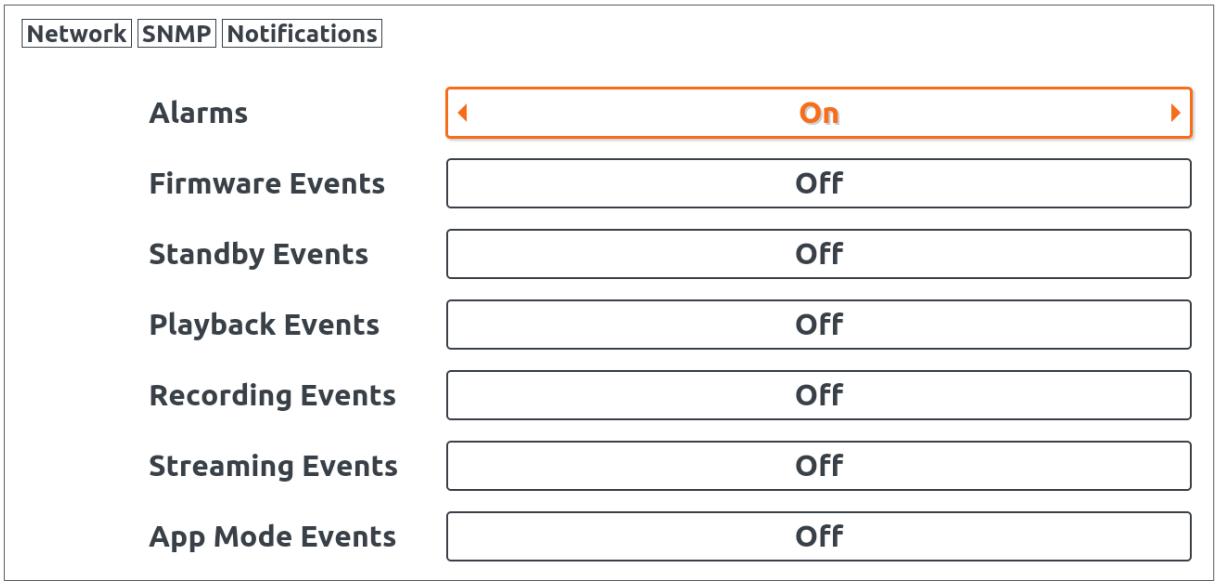
Traps Host
Set SNMP Trap host IP address here.

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.



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:

- tuner unit receives weak signal not suitable for the program playback
- 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).

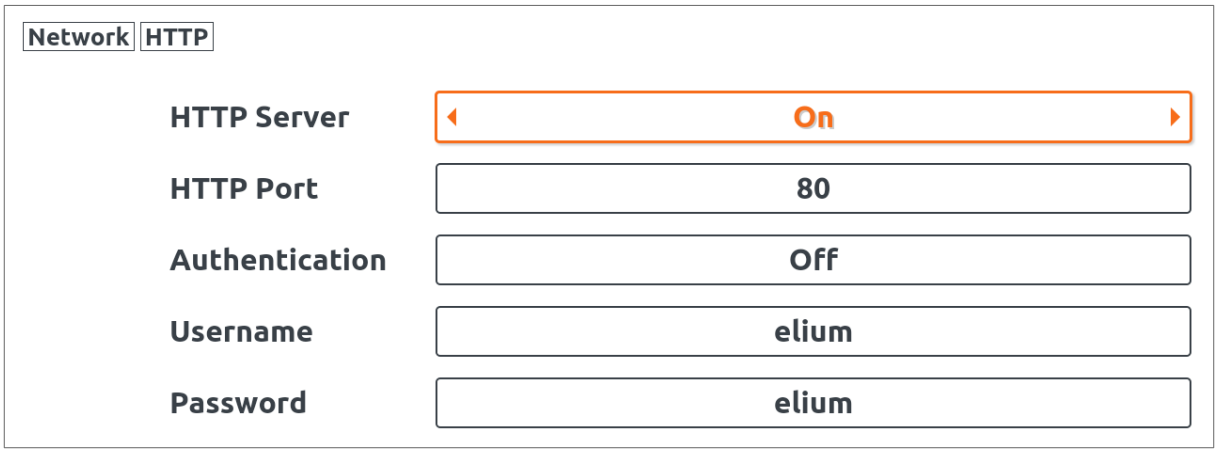
Streaming Events
Enable/Disable SNMP Trap streaming events.
Streaming event notifications are generated once pro each event to inform with the IPTV live streaming status (start/stop streaming).

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.



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.

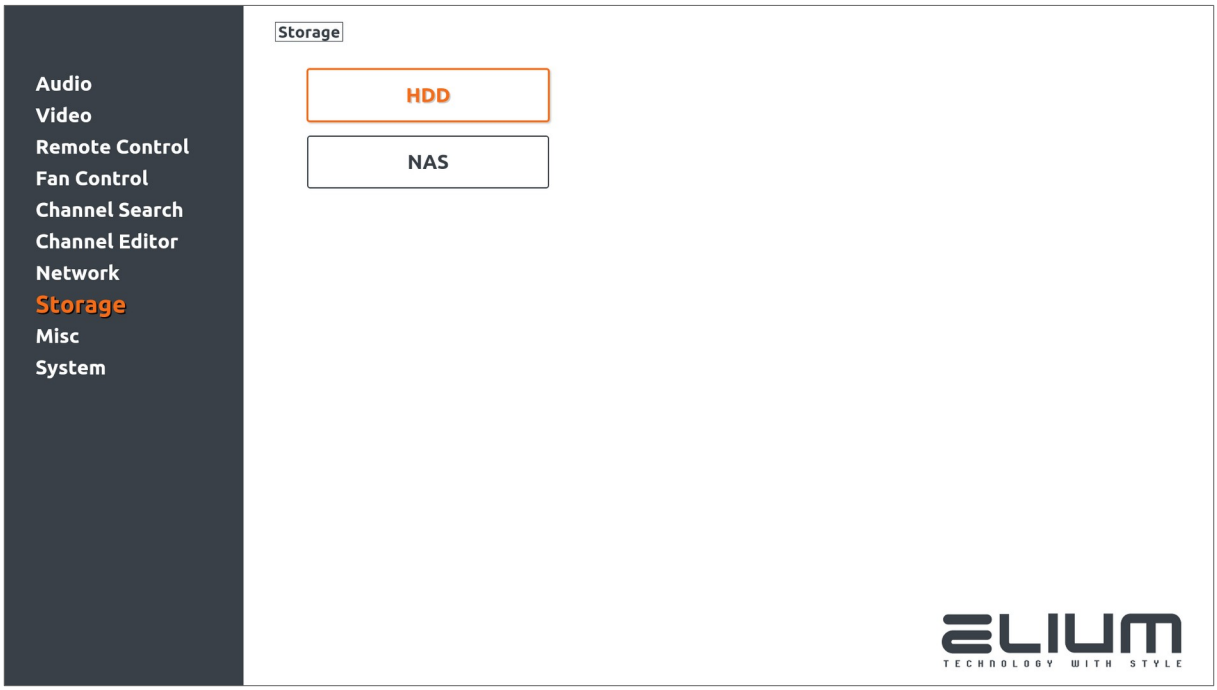
Password
Set HTTP authentication login password.

2.9 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.

- **HDD**

Here you can manage external HDDs connected via eSATA interface.
Note: Applicable only for the models equipped with eSATA.

- **NAS**

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.

You can also setup preferred storage type (HDD or NAS) for recordings in the case when storages of both types are connected.

HDD Management

Applicable only for the models equipped with eSATA.

Up to two external HDD storages are available on the models equipped with eSATA interface:

HDD 1 = Bottom eSATA interface on device

HDD 2 = Top eSATA interface on device

Make sure the cables are connected correctly.

Use OK button to select the required HDD device. You can than observe the following information for the selected hard drive:

- connection status (whether drive formatted and mounted)
- filesystem type
- available space and drive capacity

The connected hard drive have to be formatted to the right format supported by the device. The following filesystem types supported:

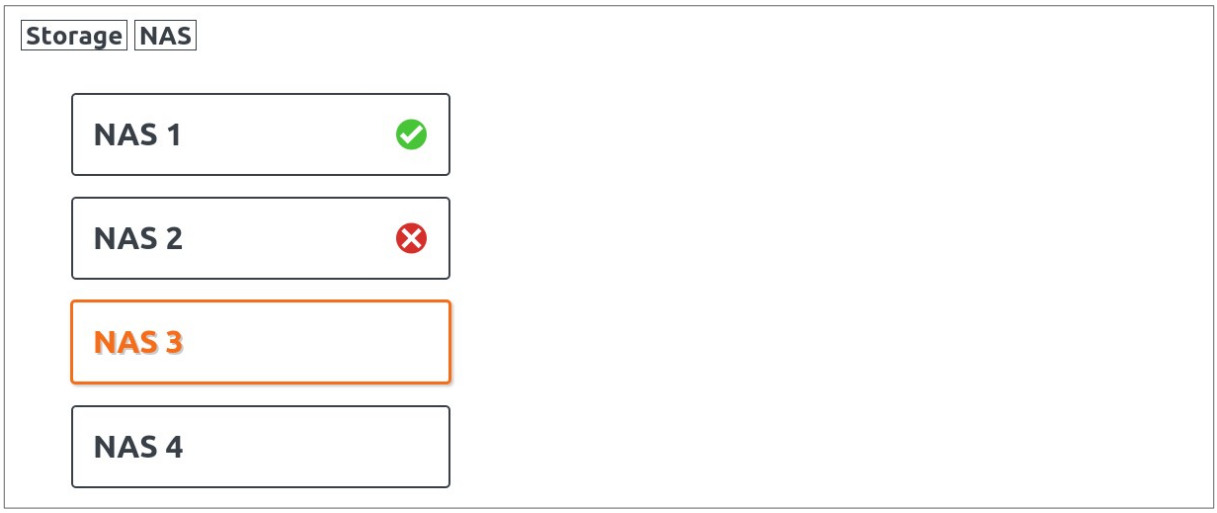
- EXT 2/3/4 (used by default when formatted by device)
- NTFS
- VFAT (not recommended)

To perform HDD format navigate to „HDD Format" control and press OK. You'll need confirm HDD formatting action with remote control „0" button. HDD format progress will be indicated during operation.

In the case when both external HDD drives are connected and mounted successfully the HDD 1 drive has a priority for recording. All recordings will be stored there until the drive space is available. Recordings will be stored inside HDD 2 drive only when there is no more space left on HDD 1 drive.

NAS Management

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



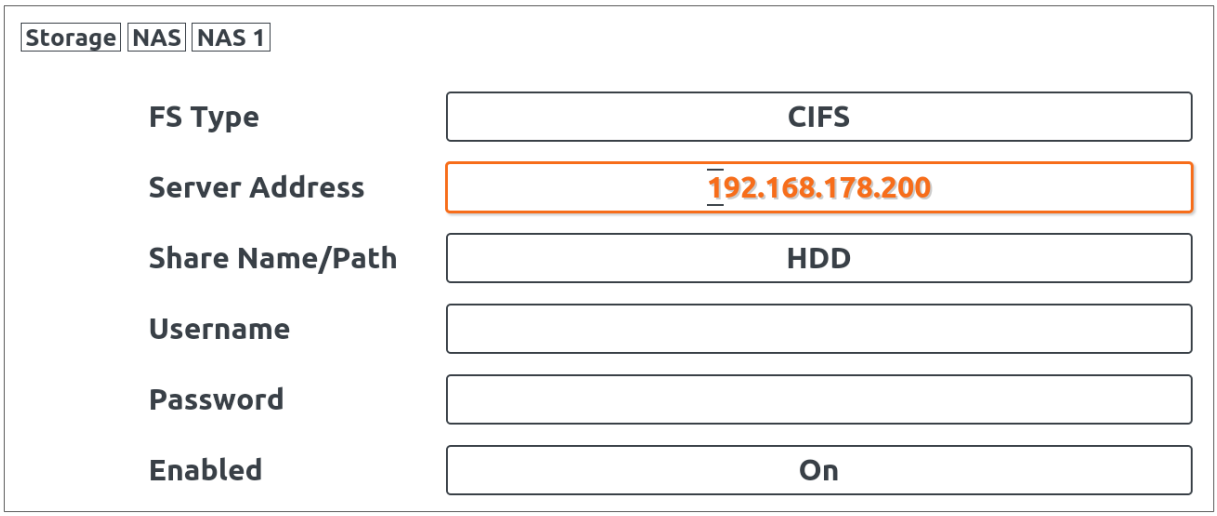
The storages are ordered by a recording priority. When several NAS storages are connected successfully and available for writing the storage with the lower number has a priority for recording and will be selected to store recordings.

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.



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.

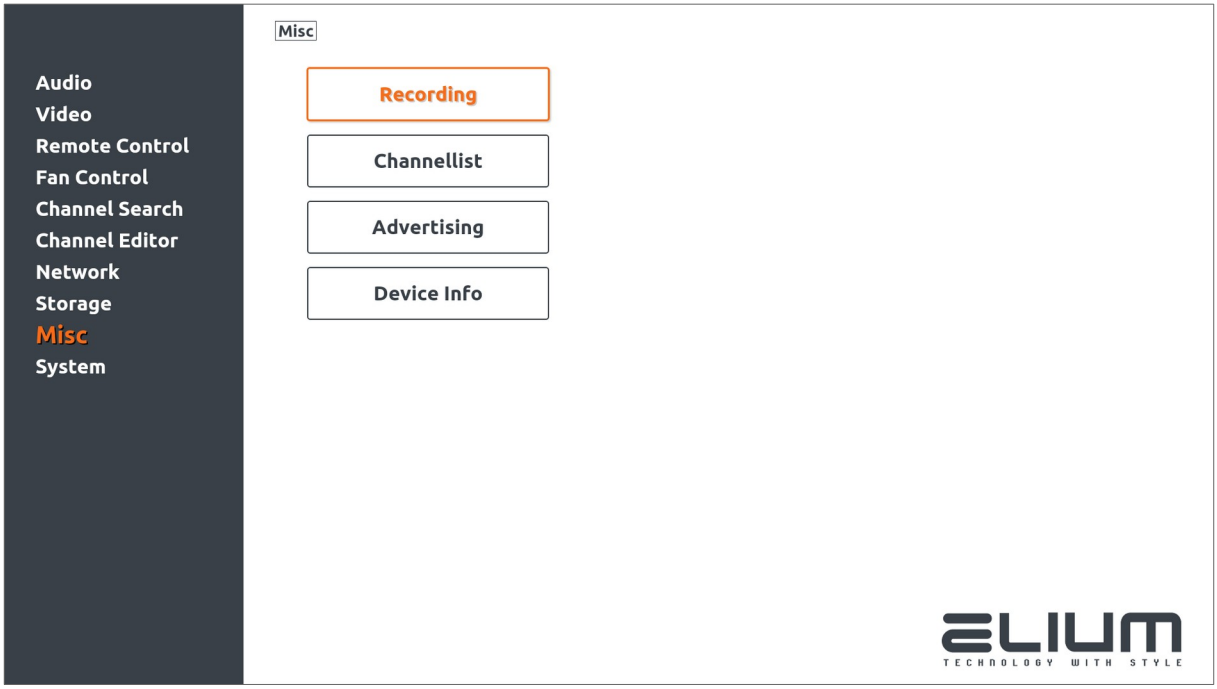
Password
NAS network drive / file server login password (applicable only for CIFS).
Leave empty for anonymous/guest login.

Enabled
Enable/Disable the given NAS network drive:
Off - NAS storage is disabled (not used)
On - NAS is enabled (used by automounter)

2.10 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.

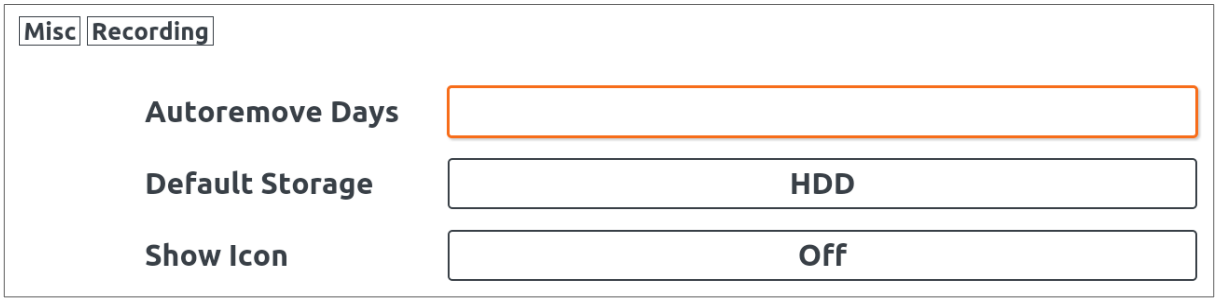
- **Advertising**

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.

Recording Settings



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).

Default storage
Set up preferred recording storage (for the case when the storages of both HDD and NAS type available):

- HDD – default recording storage is HDD connected to eSATA
- NAS – default recording storage is NAS network drive

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

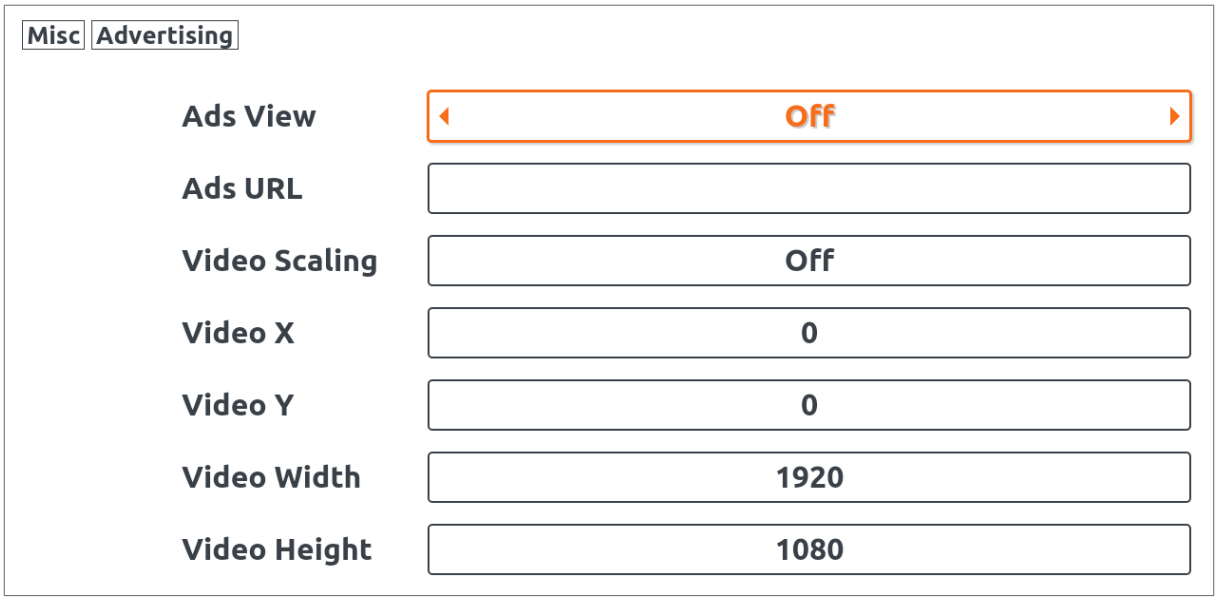
LCN Numbering
Enable/Disable channellist LCN Numbering setting:
Off - disabled (programs are enumerated in a row without any spaces)
On - enabled (the spaces inside the list are allowed)

Disabling LCN Numbering will result in immediate renumbering of the 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 assumed that Advertising WebView is managed via remote control commands with the external automation system. But you can also control and change the settings here.



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.

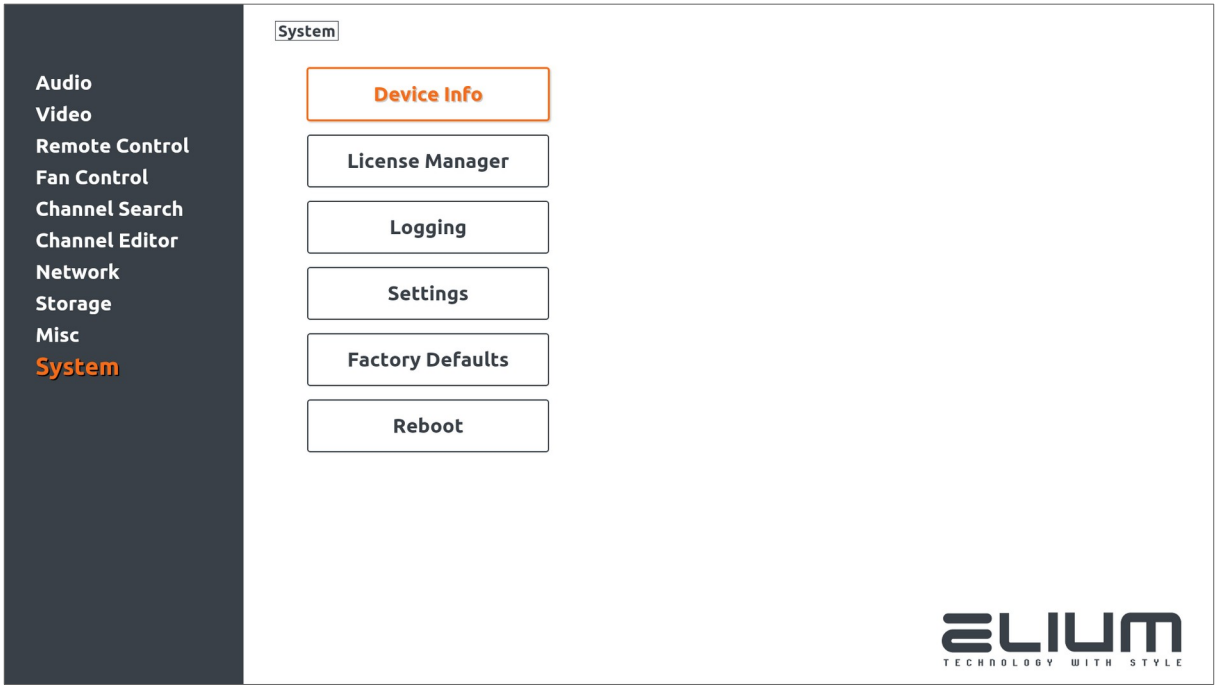
Device Info Settings

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

2.11 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**

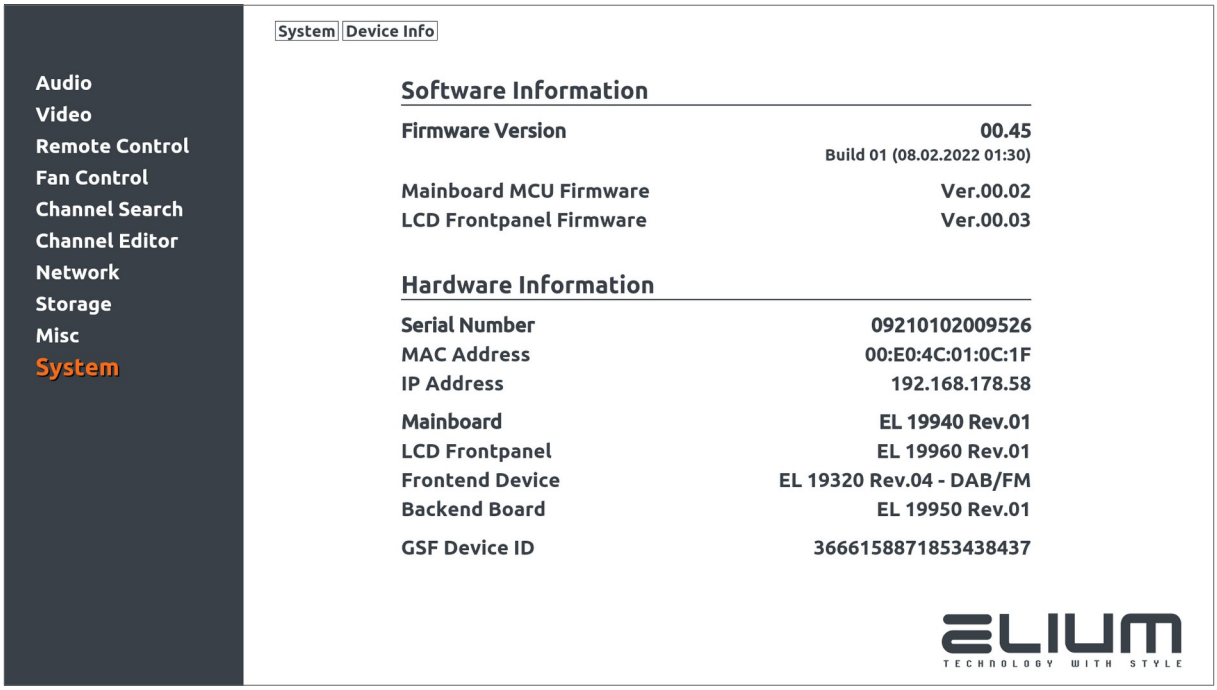
Select this action to reset device settings to factory defaults.

- **Reboot**

Select this action to reboot device.

Device Info

The following scene will be displayed on the screen.



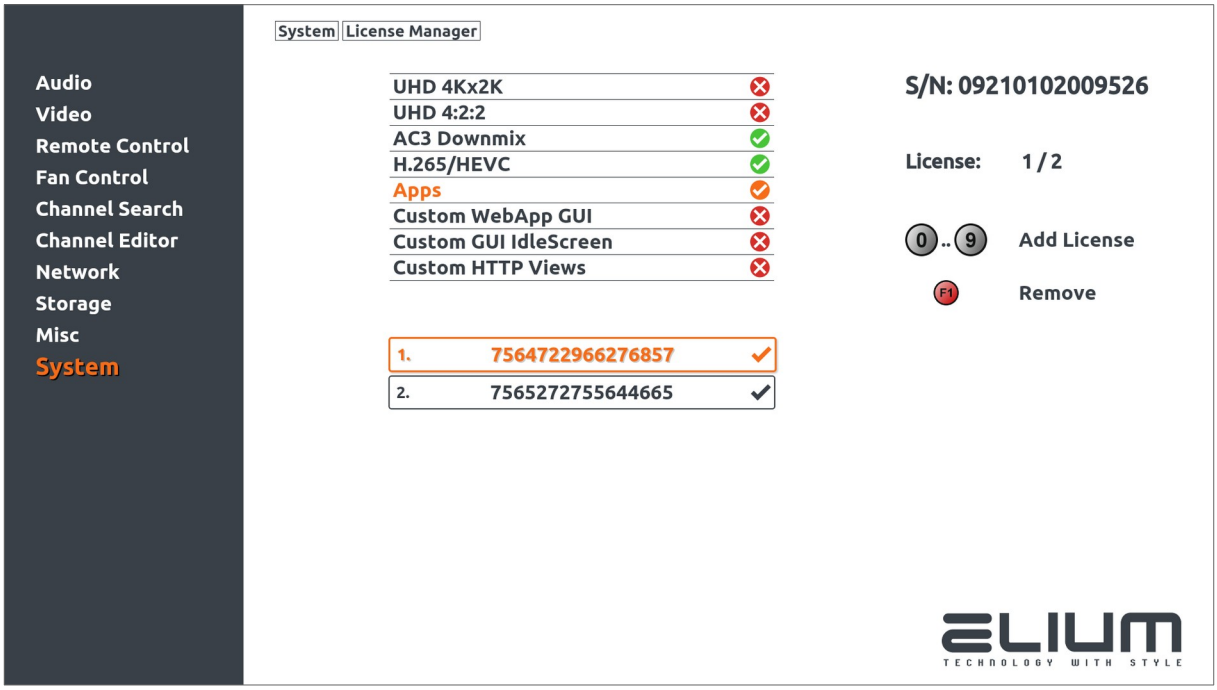
Technical support

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
- Frontend Board

License Manager

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



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)

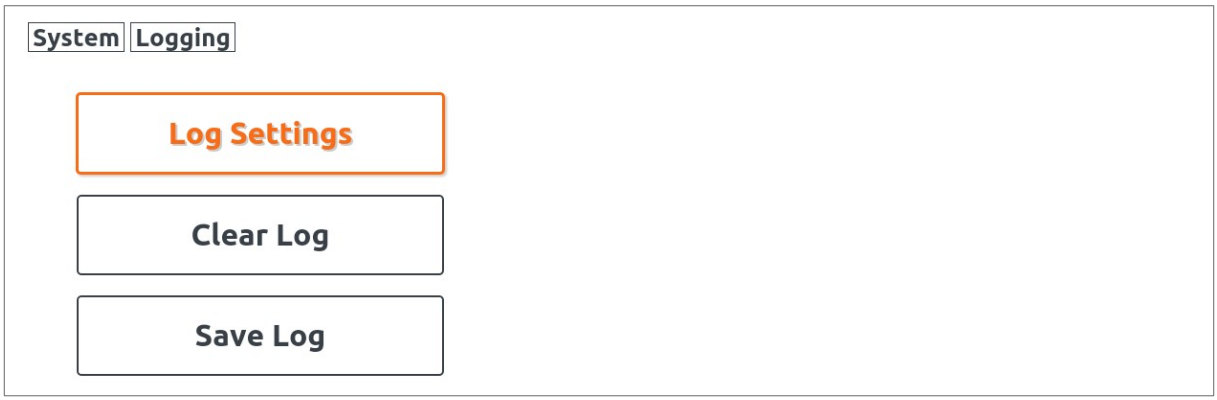
Each selected license key shows the features which it covers with orange.

To obtain/purchase license:

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

Logging

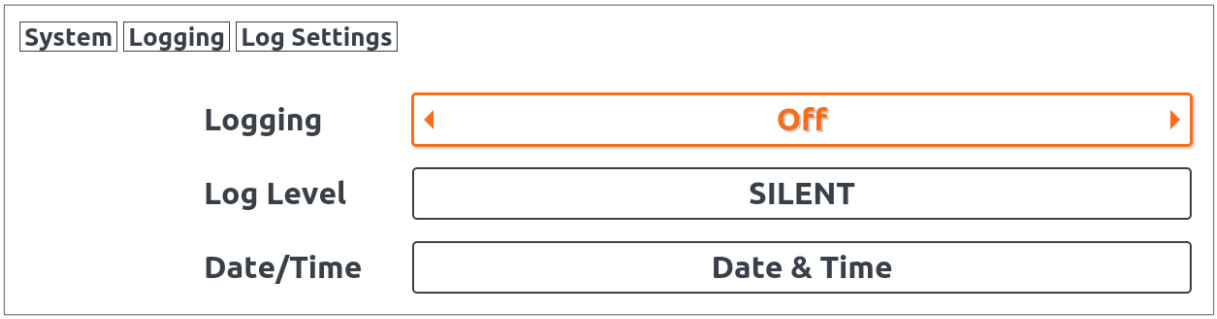
Here you can setup device logging settings, clear existing log and save log files into USB drive connected to device.



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.

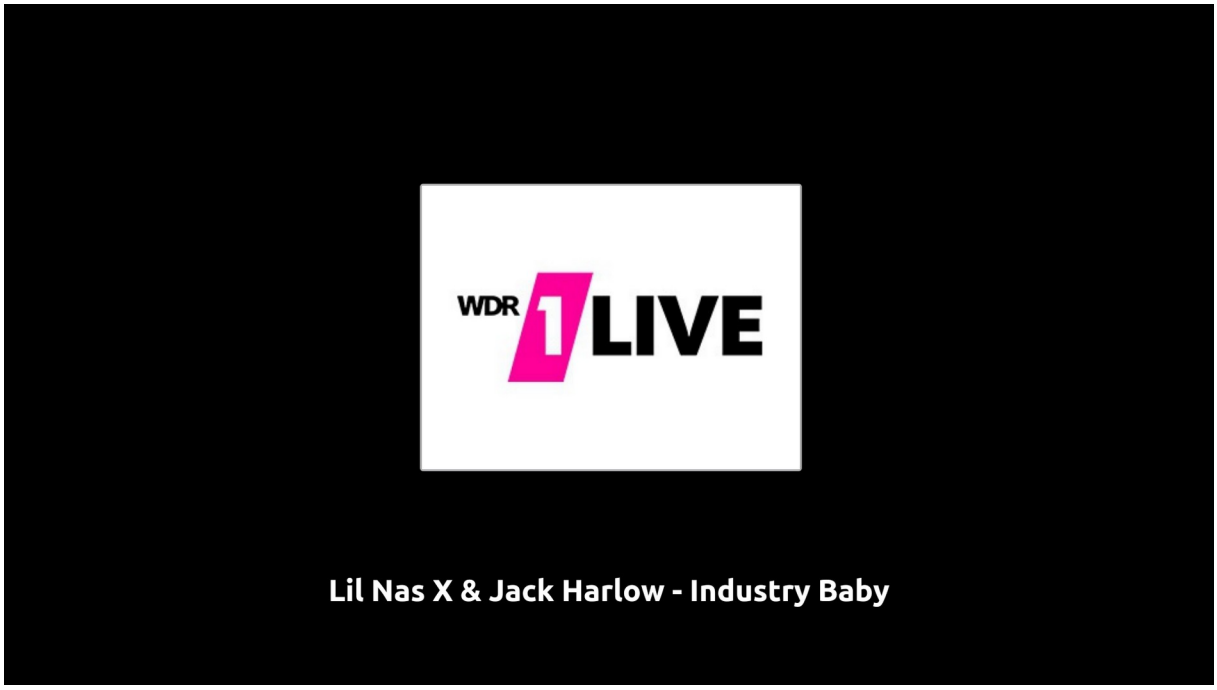
The settings binary file should exist inside the USB drive filesystem root.

The device will reboot after the settings are applied.

3.1 Radio mode

Device always starts the last program playback after boot.

You‘ll see the following scene on the screen during radio program playback:



The scene contains radio text: DLS for DAB, RDS radio text for FM or internet radio song titles from the network stream metadata (when available).

DAB MOT slideshow images will be also shown if available for the case of DAB reception.

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

- **UP and DOWN buttons (7)**

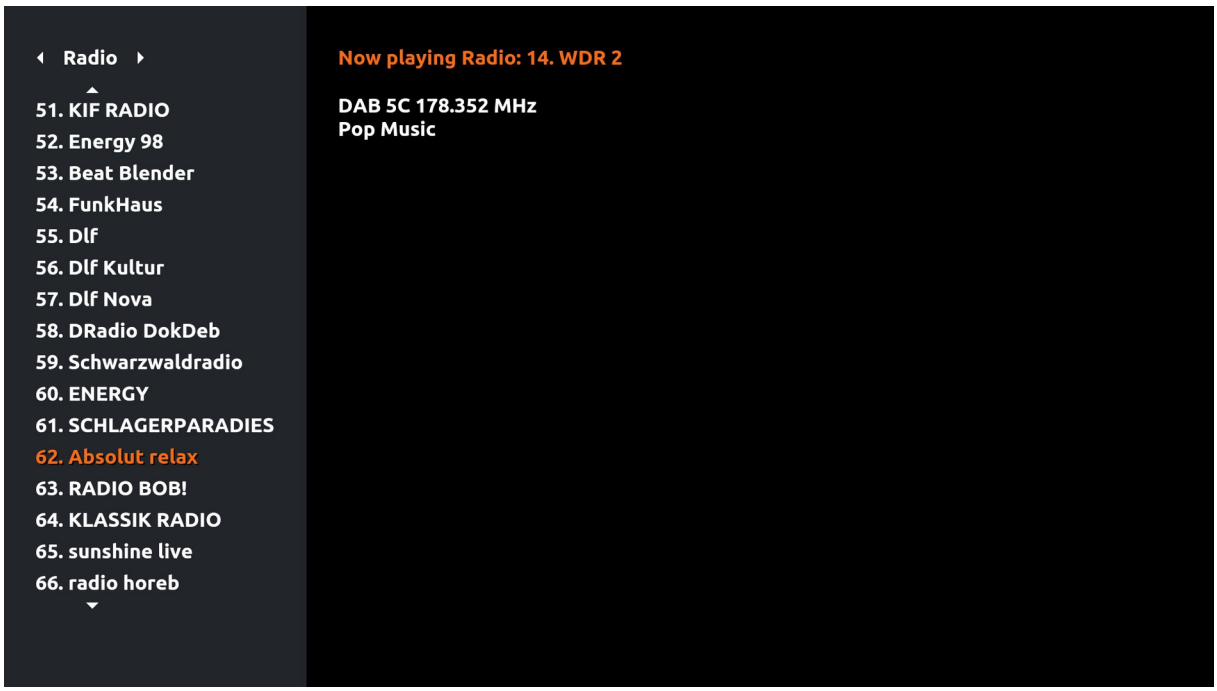
Switch to the previous and to the next channel (from the currently played channel).

- **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.

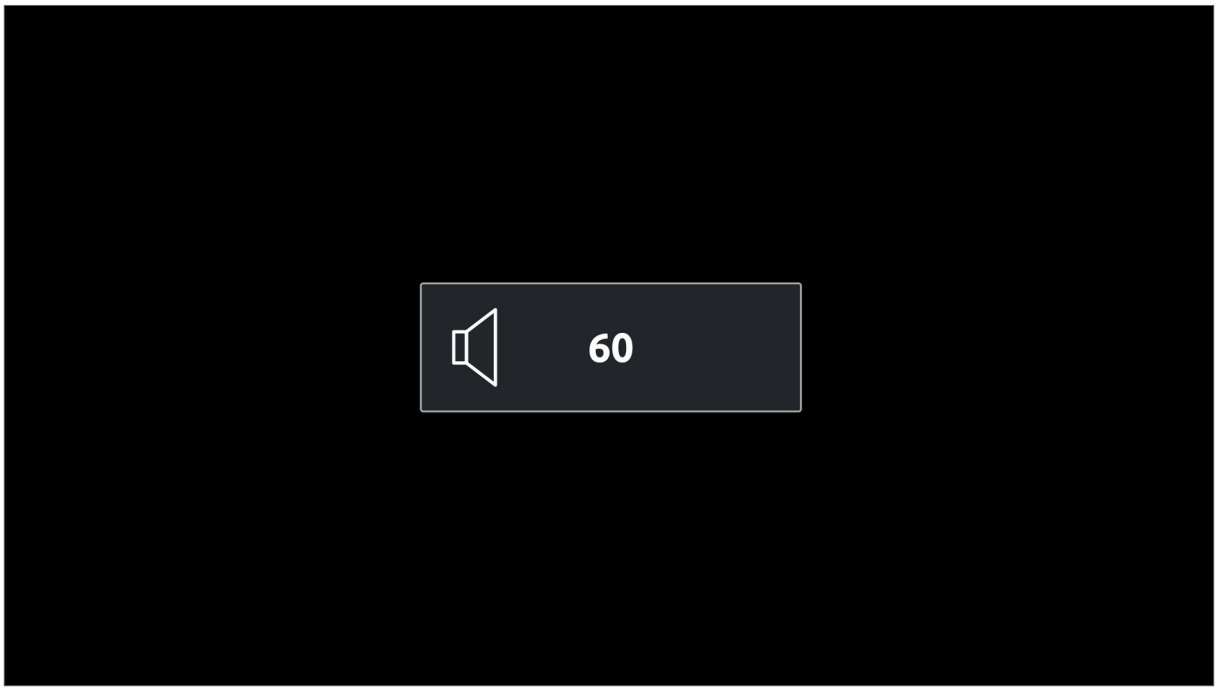
Use Rewind and Fast Forward buttons (16,17 - remote only) to move 10 items up and down accordingly. Use Go Prev and Go Next buttons (19,20 - remote only) to move to the top or bottom of the list.

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 – remote only)

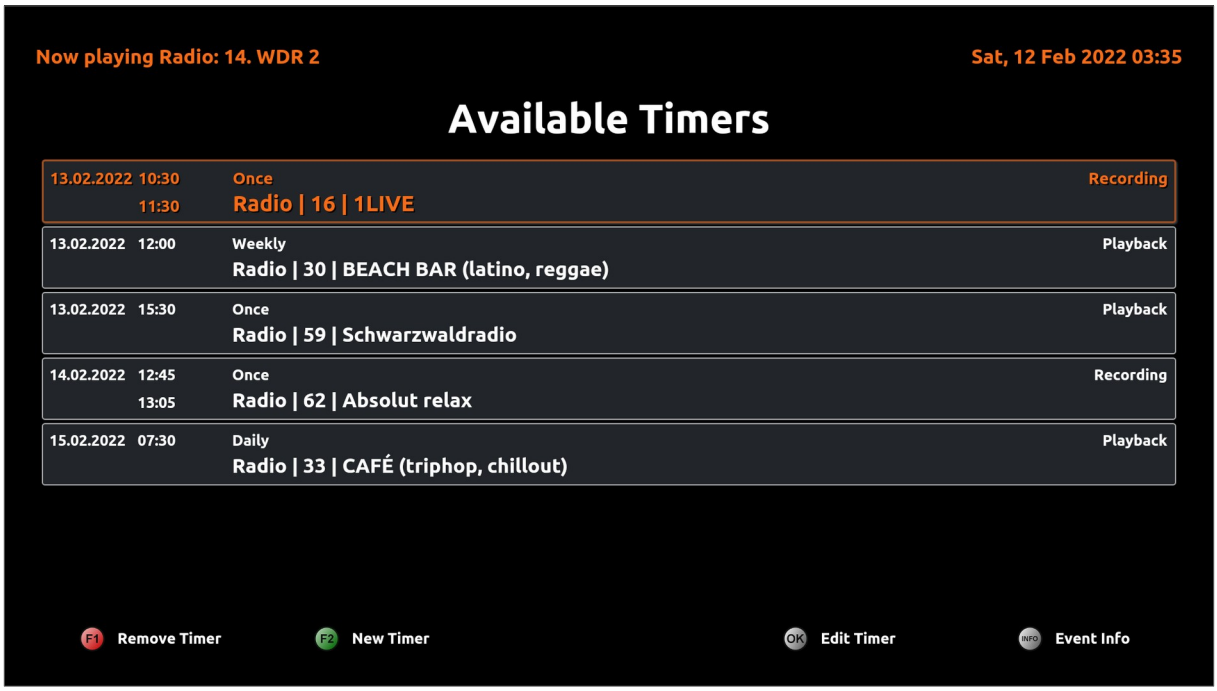
Using this buttons you can control (increase/decrease) audio volume level and mute audio.

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



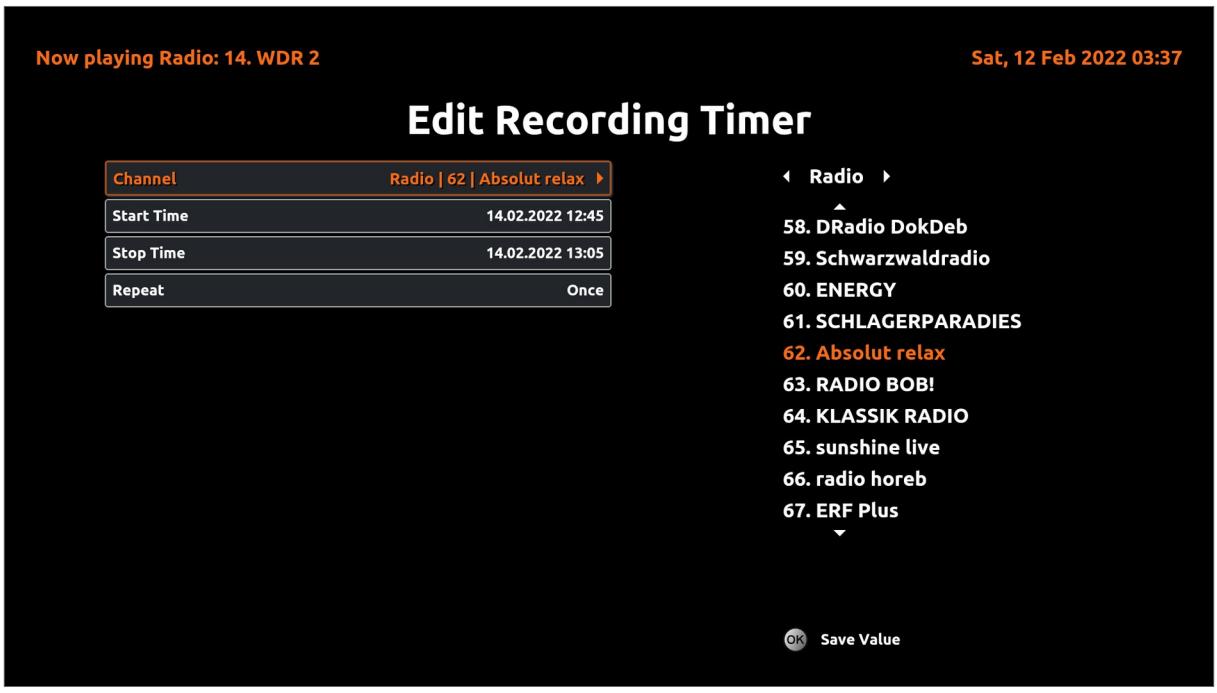
◆ **TIMER button (25 – remote only)**

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)**

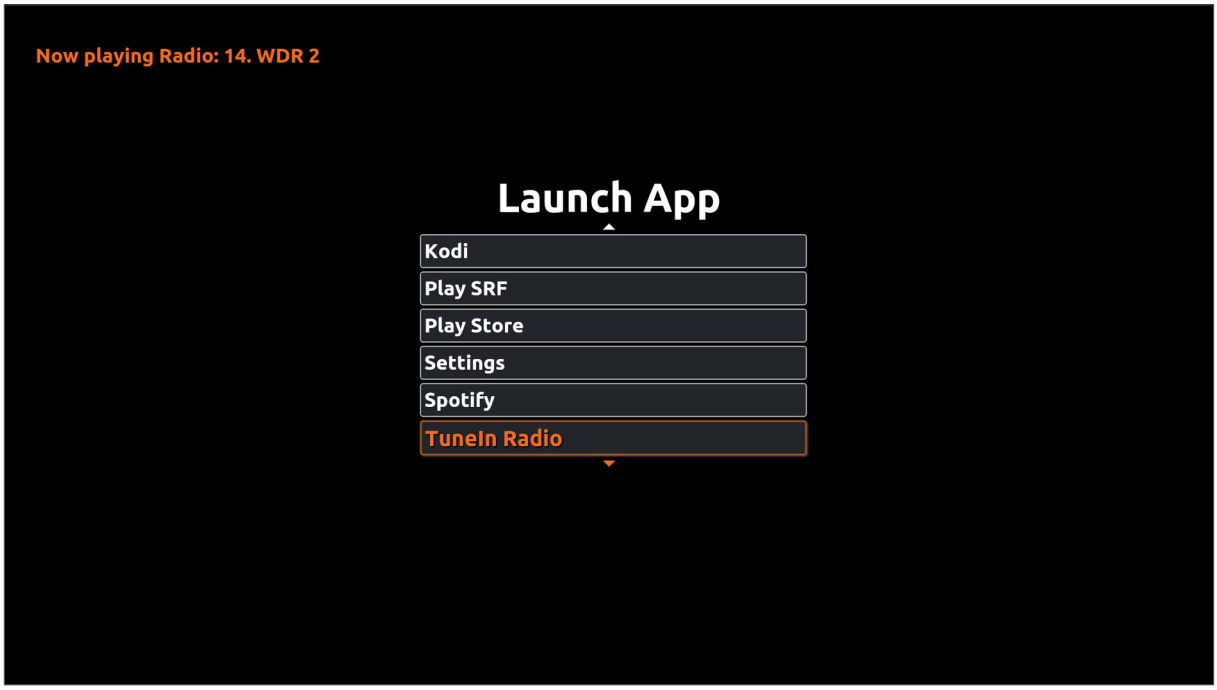
Using this button you can start Recordings Browser OSD to play selected recording.

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.

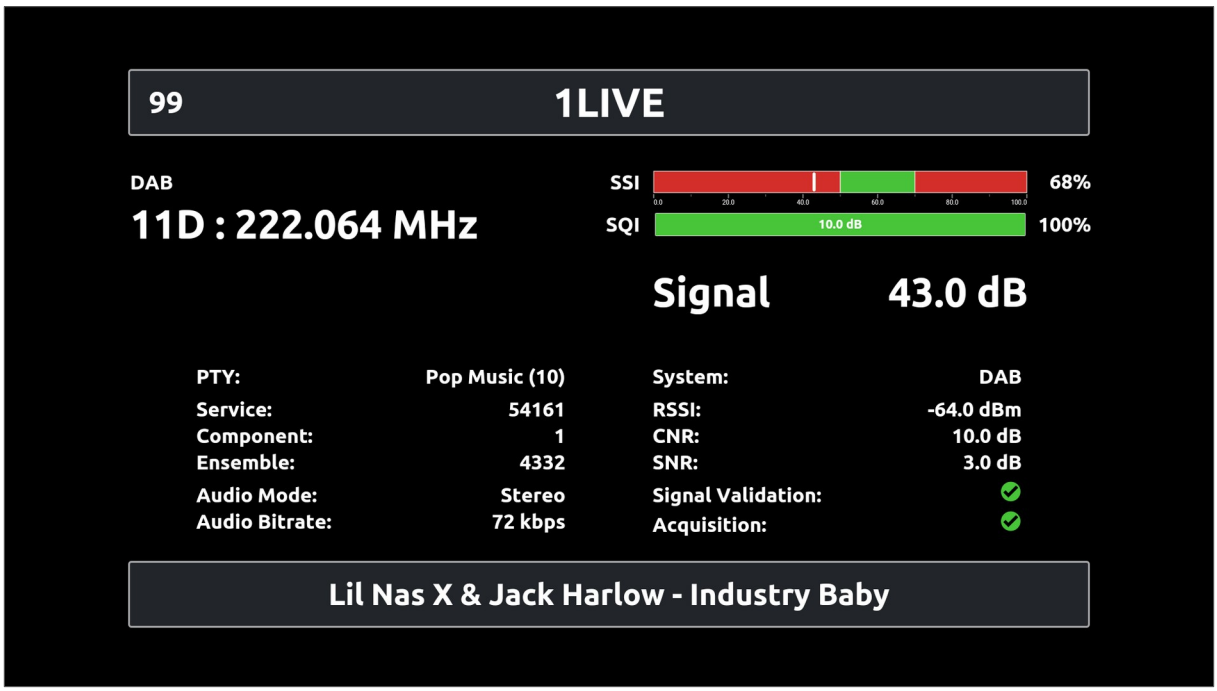


Use UP/DOWN buttons (7) to navigate inside the Apps list.

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

◆ **Start / Stop Recording button (21 – remote only)**

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.

◆ **Play / Pause button (18 – remote only)**

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.

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

Using this button you can start the last (previous) program playback.

◆ **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 this buttons to navigate inside the apps GUI.

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

- **OK button (10)**

Using this button you can select or confirm inside the apps GUI.

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

- **EXIT button (9)**

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

- **MODE button (11)**

This button toggles mouse mode for device App Mode. It enables mouse mode in the case when if 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 this button you can scroll vertically and horizontally accordingly inside the App GUI.

- **Return to the last playback / PRE button (5)**

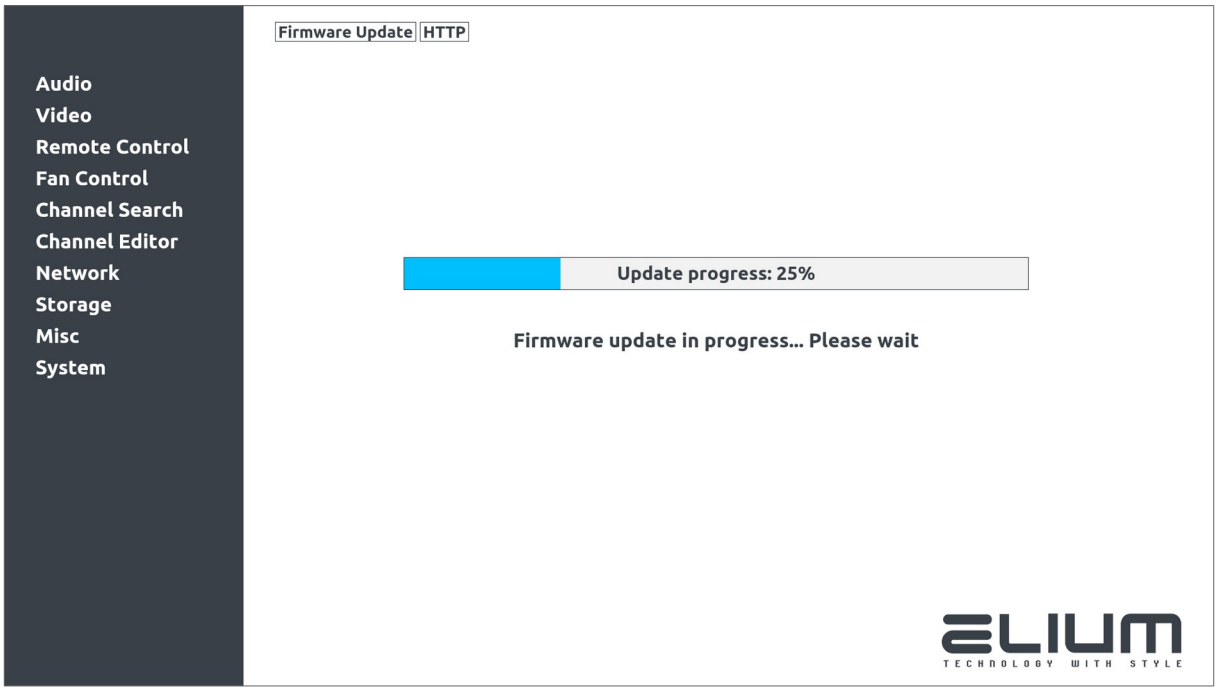
Using this button you can immediately exit App Mode and start the last program playback.

- **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.