



Mediacenter
NV-501
NV-501-Wac

Operation manual
Firmware version 1.0.29

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1 INTRODUCTUION

2 Annotation

This operation manual sets out the purpose, technical characteristics, safety compliances, recommendations for installation, configuration and usage of digital television high-resolution set-top-box, NV-501 and NV-501-Wac (hereinafter referred to as the mediacenter).

Before working with mediacenter it is strongly recommended to read the following Manual.

3 SYMBOLS

Symbol	Description
Bold font face	Notes, warnings, section headings, titles and table titles are written in bold.
<i>Calibri Italic</i>	Important information is written in Calibri Italic.
<KEY>	Keyboard keys are written in upper-case and enclosed in angle brackets.

NOTES AND WARNINGS



Notes contain important information, tips, or recommendations on device operation and setup.



Warnings inform users about hazardous conditions which may cause injuries or device damage and may lead to the device malfunctioning or data loss.

4 DESCRIPTION

5 Purpose

The mediacenter combines the functionality of a high-resolution set-top box (Set-Top-box) and a home HD media player. The network model of the device and a wide range of interfaces allow easy and convenient access to IP-television (IPTV) and local media resources.

Dual-core media processor Realtek RTD1195 media player supports a wide range of audio and video formats. Model NV-501-Wac has a built-in dual-band Wi-Fi 802.11ac module, which provides high-speed connection over a wireless network.

The mediacenter has a large set of built-in functions: IPTV broadcasting with additional services support, playback of video and audio data, viewing images from various information carriers, Internet resources access using an integrated web browser and Internet applications.

The set of built-in functions of the media center can be extended by operator services (video collection, operator music access, etc.).

6 Functions:

- High Definition IP TV (Full HD IPTV)
- Home FullHD Media Player

The mediacenter is a universal media player that allows you to play media content:

- via local wireless / wired network, for example, from a PC or other devices connected to a local network;
- from external storage (external hard drive, USB flash-drive, SD-card).

The player has an intuitive interface with copying, deleting and moving files support.

- Internet applications

The mediacenter functionality can be expanded by application installing from both the local media and the application store or GooglePlay.

- Web browser

You are able to connect to the Internet and view any sites on your home TV screen with the integrated web browser and the ability to connect a wireless keyboard and mouse.

- Multimedia features

- Supports an extended set of codecs and containers, including: M2TS, MKV, MPEG-4.10/H.264, HEVC=H.265;
- Multimedia streams playback with a bitrate up to 50 Mbps;
- HD Audio playback: Dolby Digital AC-3, DTS;
- Support downmix to stereo;
- Photo viewing.

- Network features:

- Protocol support: IPv4, HTTP, DNS, DHCP, NTP, IGMPv3 (multicast), IGMPv2, ICMP, UDP, RTSP;
- Wireless network Wi-Fi 802.11b / g / n / ac¹ connection;
- Remote OS update via HTTP;

- Installing applications over the network;
- Samba client;
- DLNA client.
- Wide range of switching capabilities:
 - Operator's network connection: via Ethernet cable, via Wi-Fi¹;
 - A / V equipment connection: HDMI1.4;
 - External storage devices connection: USB2.0, microSD;
 - USB keyboard, USB mouse (wired / wireless) connection.

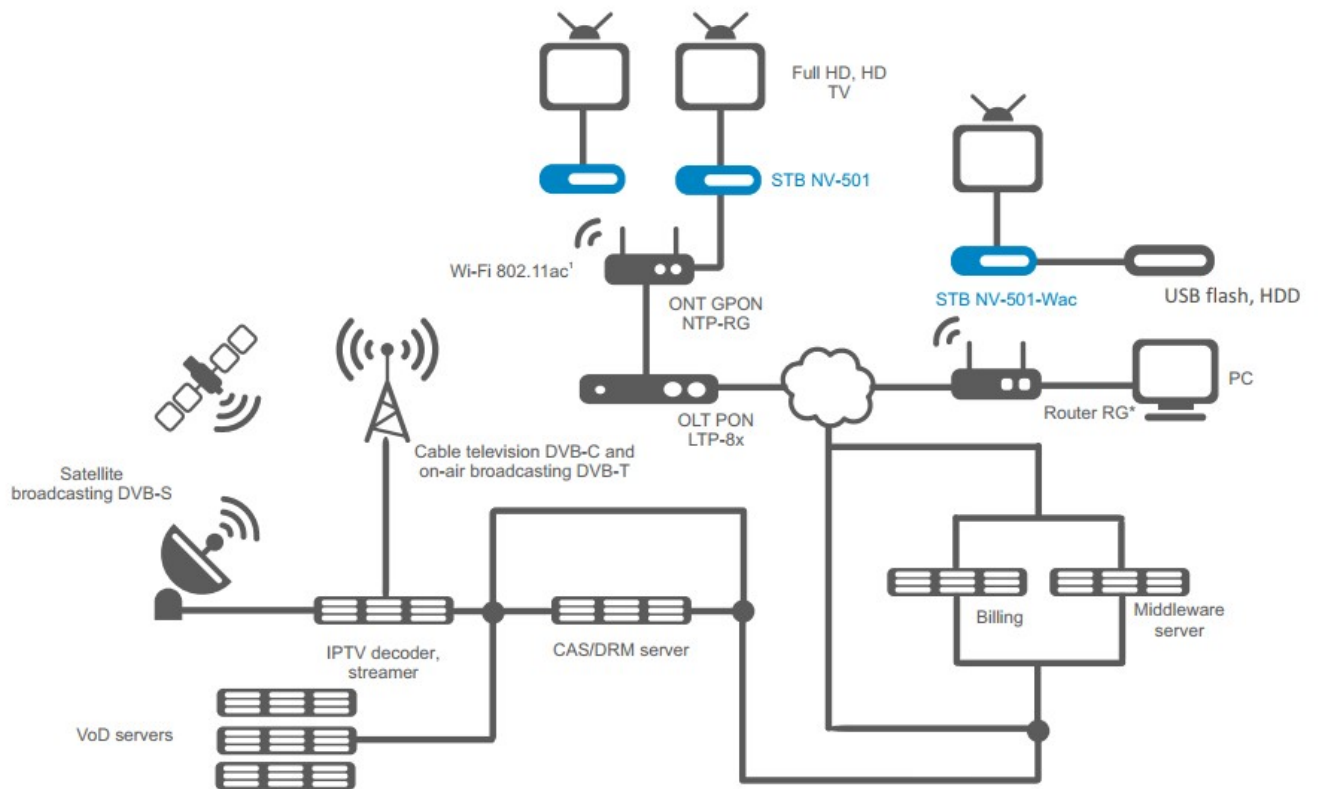


Fig. 1 - Application diagram

¹Wi-Fi is implemented in NV-501-Wac only

7 Main Specifications

Table 1 shows main specifications of the device.

Table 1 – Main specifications

General parameters

CPU	Realtek RTD1195
RAM DDR3 (RAM)	1 GB
ROMeMMC (system memory)	4 GB
OS	Android 4.4
Protocols	IPv4, HTTP, DNS, DHCP, IGMP V2 / V3, ICMP, RTP, RTSP
Media Containers	MPEG-4.10 / H.264, MPEG-2 TS, MPEG-2 PS, AVI, FLV, MOV, MP3, WAV, MP4, MKV, OGG, M2TS, MTS
Video codecs	MPEG1, MPEG2 (HD), MPEG4 (HD), XviD, DivX, H.264, WMV9, AVCHD, Vc1, h.264
Audio codecs	Mp3, MPEG Audio, AAC, Ac3, DTS, FLAC
Image file format	JPG, JPEG, GIF, PNG
Subtitle format	SRT, SMI, SSA, ASS
Playlist file formats	M3U ¹ , XSPF
Web browser	HTML 3.2, HTML 4.01, HTTP 1.1 / 1.0 RFC2068, DHTML, JavaScript V1.1 / 1.2 / 1.5, Unicode UTF-8, CSS3 support
Display modes	HD 1080p / I, HD 720p
File systems	NTFS, FAT32, EXT2, EXT3

Ethernet interface parameters

Number of interface	1
Electrical connector	RJ-45
Data rate, Mbps	auto detection, 10/100/1000, duplex/half duplex
Standards support	10/100/1000Base-T

Wireless interface parameters²

Standards	IEEE 802.11b/g/n/ac
Frequency range, MHz	2.4, 5 GHz
Security	64/128/152-bit WEP data encryption; WEP, TKIP and AES
Wi-Fi Antennas ²	internal

Audio / video interface parameters

Audio/video output	HDMI 1v4
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Other interfaces

USB	2xUSB 2.0
MicroSD reader	1
Remote IR receiver interface	1

Configuration/Control

Local control	using the built-in graphical interface
Remote control	via SSH, TR-069

Physical specifications and ambient conditions

Power voltage	5.2V DC
Power consumption	up to 12W

¹ Current software version supports this format for Internet radio only.

²For NV-501-Wac only

USB port load capacity	up to 0.5A
Permissible total load of two USB ports	up to 1.0A
Operation temperature range	from +5 to +40°C
Relative humidity	up to 80%
Dimensions	100x89x18 mm
Weight	up to 0.15 kg.

8 Design

This section describes the mediacenter design: rear, front and side device panels, connectors description, LED indicators and controls are shown.

9 Front panel of the device


The front panel of device is shown in Fig. 2.



Fig.2 - Appearance of the front panel of the device

LEDs and controls located on the front panel of the device are listed in Table 2.

Table 2 - Description of LEDs and controls located on the front panel

Front panel elements	Description
1	Infrared receiver of the signal from the remote control.
2	 Device power and activity state indicator.

10 Rear panel of the device

The rear panel of device is shown in Fig. 3.

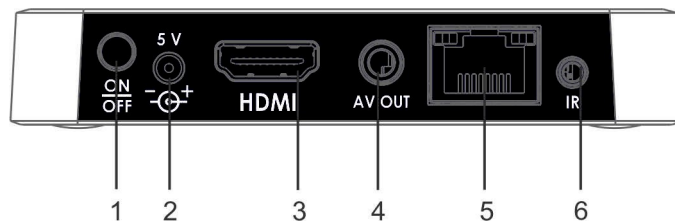


Fig. 3 - Appearance of the rear panel of the device

Connectors and controls located on the rear panel of the device are listed in Table 3.

Table 3 - Description of connectors and controls located on the rear panel

Rear panel elements	Description	
1	ON/OFF	ON/OFF switch.
2	5V	Power supply connector.
3	HDMI	HDMI connector for high quality digital video and audio transmission to a TV.
4	AV OUT	AV OUT connector is designed to transmit analog video and audio to the speaker system or TV.
5	LAN 10/100/1000	Ethernet LAN interface RJ-45 connector for internet service provider network connection.

6	IR	Remote IR receiver connector.
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11 Side panel of the device

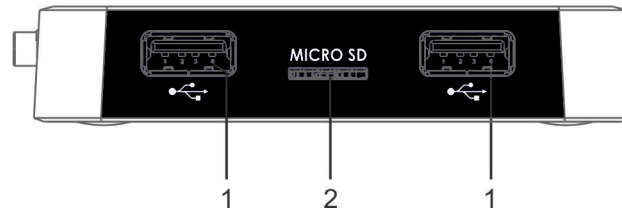



Fig. 4 - Appearance of the side panel of the device

Table 4 - Description of LEDs and controls located on the side panel

1		Two USB 2.0 connectors for connecting peripheral devices to the mediacenter: external hard drives, flash drives, input devices (keyboard, mouse). You can connect external devices such as USB-Hub to increase the number of simultaneously connected USB devices.
2	MicroSD	MicroSD Card Reader

12 'F' Function Button

'F' function button is located on bottom panel of the case. It is used for loading the service mode for firmware updating or restoring the factory software.



Warning! Careless handling of this function can lead to mediacenter malfunctions. Before using the F button, read your device's local firmware update guide.

13 Light indication

LEDs located on the front panel indicate the current state of the device.

5, 6 lists possible states of the LEDs.

Table 5 - Device status LED indication

Indicator	Indicator State	Device state
⚡	Solid green	The device is turned on and ready to go.
	Solid orange	The device is turned on, device configuration is loading or applying
	Solid red	The device is plugged in but is in standby mode.
	Off	The device is unplugged or defective

Ethernet interface state is shown by 10/100/1000 socket built-in LED indicators.

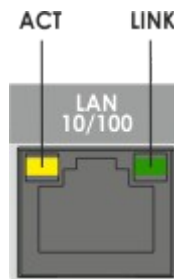


Figure5 - RJ-45 Connector Appearance

Table 6 - Light indication of Ethernet 10/100/1000 interfaces

ACT indicator light	LINK indicator light	Ethernet interface state
Disabled	Disabled	The port is disabled or connection is not established
Disabled	Flashes	Data transfer is carried out in 100BASE-T mode.
Flashes	Disabled	Data transfer is carried out in 10BASE-T mode.
Flashes	Flashes	Data transfer is carried out in 1000BASE-T mode.

14 Remote control buttons assignment (RC)

This section describes remote control buttons assignment.

Universal remote control for mediacenter and TV is shown on Fig. 6;




















15 Universal remote control for mediacenter and TV






Figure 6 - Infrared remote control for mediacenter and TV N°2

Table 7 describes the buttons and indicators of the universal remote control.

Table 7 - Remote control buttons assignment

Buttons		Target
ON/OFF		Power on/standby. Turns the set-top box on or puts it on standby.
MUTE		Mute/unmute.
Exit		Quit the application. The function is available in Stalker
Arrow		Enable/disable the mouse cursor. Press this button to switch to the mouse cursor control mode and back.
Numeric keypad		Used to navigate through the channels, digits entering.
AUDIO		Audio track switching.
SUB		Subtitle switching.
Volume		Volume control.
CH		Sequential channel switching. In ZOOM mode, adjust the image size.
HOME		Return to the main menu.
Navigation buttons		Buttons 'up', 'down', 'right', 'left' are used to select menu items. When playing video and music, the "right", "left" buttons are used to move to the required episode. OK button is used to select or confirm an option.
MENU		Used in the Explorer application to bring up the context menu.
RETURN		Return to level back.
Green button		The button functionality is set depending on the application.
Yellow button		The button functionality is set depending on the application.
Blue button		The button functionality is set depending on the application.
Playback control :		Playback control buttons:
PLAY		Pause/continue playback;
REW		rewind;
FWD		fast forward;
ZOOM		Enables ZOOM (zoom in/out, move the window).

INFO		'Help' menu.
DEL		Deletes characters when typing.
F		The button functionality is set depending on the menu section.

The universal remote control works simultaneously in two modes:

- TV control (TV unit);
- mediacenter control.

To control the TV, only the buttons of the TV unit are used, mediacenter control using these buttons is not available.



To control the TV, the buttons of the TV unit must be assigned to the functions of the buttons on the TV remote, a description of the programming procedure for the remote is given in Appendix B.

16 Delivery Package

Standard delivery package includes:

- Mediacenter;
- 220/5V power adapter;
- Infrared remote control;
- Batteries for remote control - 2 pcs;
- HDMI cable (optional);
- Category 5e Ethernet cable (optional);
- Remote IR receiver (optional);
- Installation and connection guide.

17 INSTALLATION PROCEDURE

This section describes the safety measures, installation procedure and process of turning the device on.

18 Safety measures

1. Do not set an IP set-top box near heat sources and in rooms with temperatures below 5°C or above 40°C.
2. Do not use the device in rooms with high humidity. Do not expose the device to smoke, dust, water, mechanical vibrations or shock.
3. Do not open the device. There are no user-serviceable parts inside.



The device has horizontal ventilation. There are ventilation holes on the side panels of the device. Do not block the ventilation holes with foreign objects to avoid device components overheating and disruption of its operation.

19 Mediacyenter Installation

1. Check the device for visible mechanical damage before installing and turning it on. In case of any damage, stop the installation, fill in a corresponding document and contact your supplier.
4. If the device was exposed to low temperatures for a long time before installation, leave it for 2 hours at ambient temperature prior to operation. If the device was exposed to high humidity for a long time, leave it for at least 12 hours in normal conditions prior to turning it on.
5. The device is installing in a horizontal position, following the safety instructions.

20 Mediacyter startup sequence

STEP 1 Connecting the mediacyter to the TV

Connect the HDMI cable to the mediacyter connector and to TV HDMI connector, Figure 7.

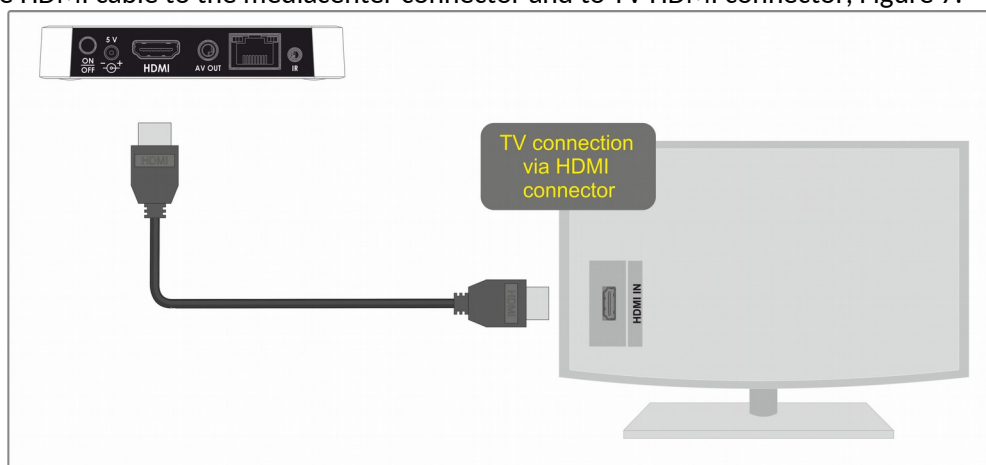


Fig. 7 - Connecting the mediacyter to the TV

STEP 2 Connecting the mediacyter to the provider's network

You will need an Ethernet network cable provided by your ISP.

Select the connection type of the mediacyter to the provider's network:

1 Connection to the provider's network via Ethernet cable.

- a) Connection to the provider's network without home router usage.

Connect the network Ethernet cable from your ISP to the mediacyter LAN 10/100 connector, Fig. 8.

The media center will receive the network settings automatically when it is turned on. If necessary, the network settings can be changed in the menu of the media center, see Section 41 The 'Ethernet' section .

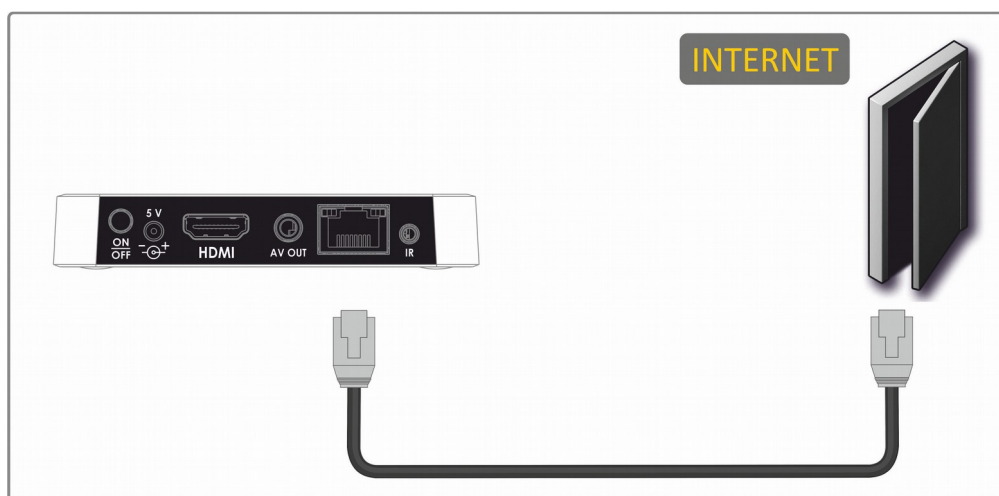




Fig. 8- Connection to the provider's network without home router usage.

- b) Connecting to the provider's network using a home router, switch, hub.

Home router usage allows you to create a local network. When choosing this connection method, the media center can play media content from the home network.

Connect the Ethernet network cable to the LAN 10/100/1000 connectors of your media center and router, Fig. 9.

Connect the network Ethernet cable from your ISP to the router WAN connector.

- 
The WAN connector name may be different, in this case refer to your router's documentation.
- 
The network settings can be changed in the menu of the media center, see Section 41The 'Ethernet' section.

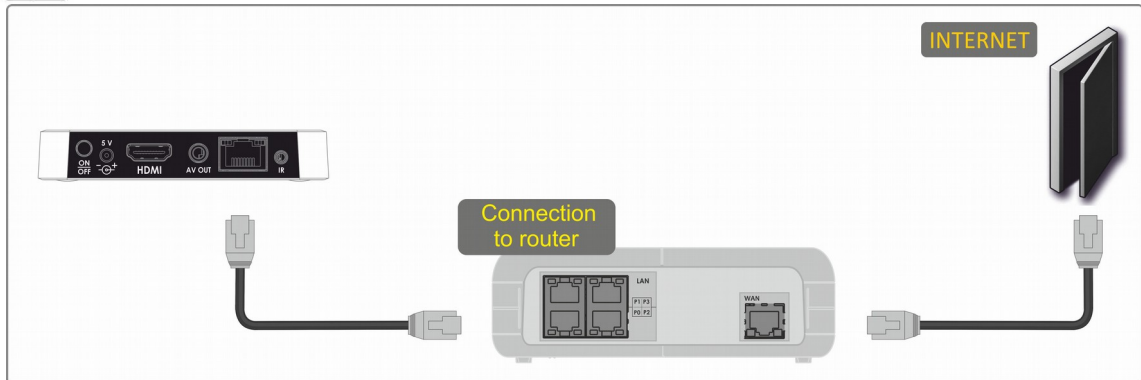


Fig. 9 - Connecting to the provider's network using a router

2 Connection to the provider's network via Wi-Fi (local wireless network creation)¹.

For this connection method you need a home Wi-Fi router. Wi-Fi router usage allows you to create a local network. When choosing this connection method, the media center can play media content from the home network.

Enable Wi-Fi on your router (for more information, see your router documentation).

Next, you need to connect the media center to your router Wi-Fi network. For this, see section.40 The 'Wi-Fi' Section .

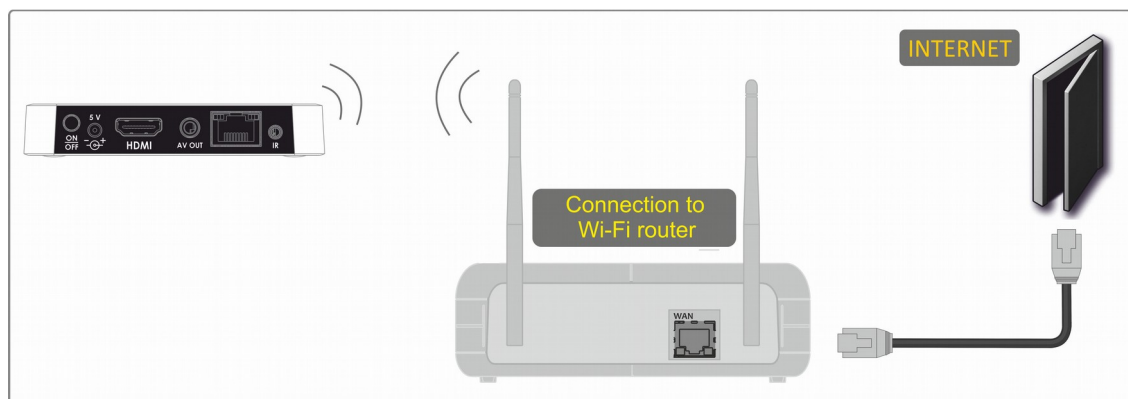


Figure 10 - Connecting to the provider's network using Wi-Fi router

STEP 3 Connecting the mediacenter to the power supply

¹ For NV-501-Wac only

Connect the power adapter cable to the 5V device power connector. Next, connect the adapter to the power supply, Fig. 11.

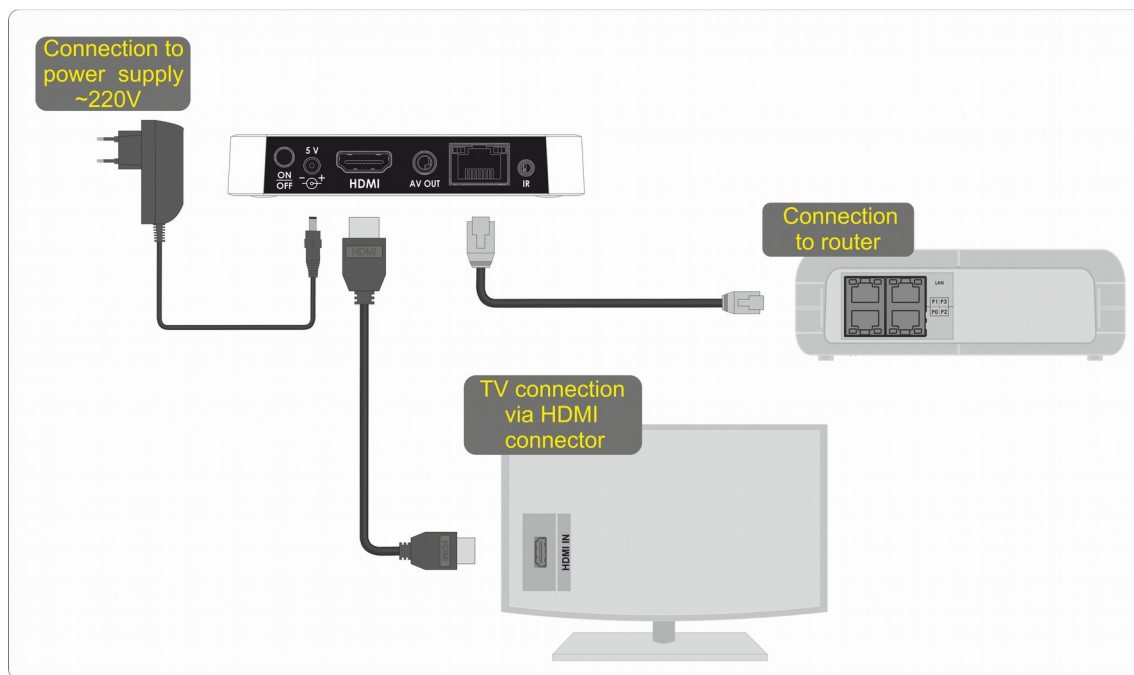
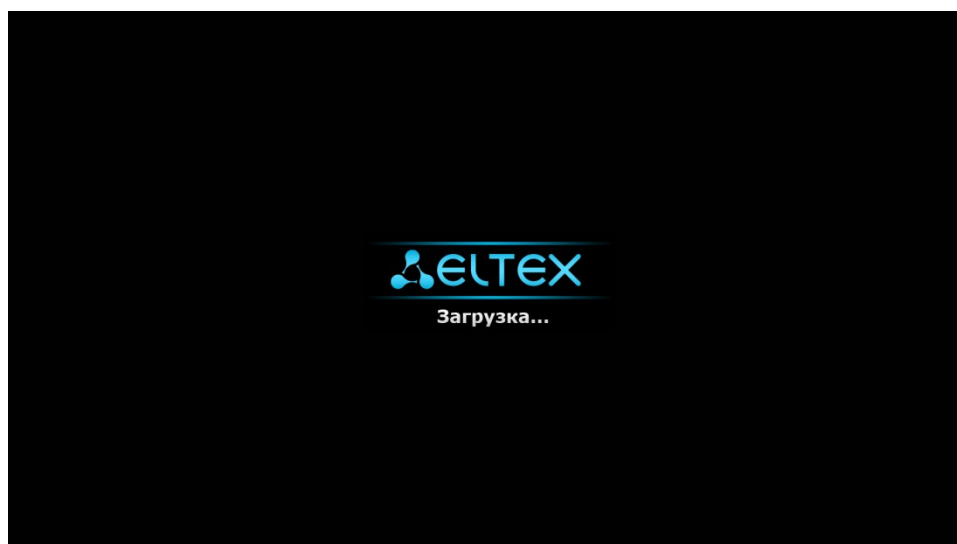


Fig. 11 - Mediacenter connection diagram

STEP 4 Turning the mediacenter on

After connecting the mediacenter to the power supply, wait until the device is fully loaded (this may take about a minute).

Then switch the TV to the signal source to which the media center is connected (for more information, see the documentation for your TV).



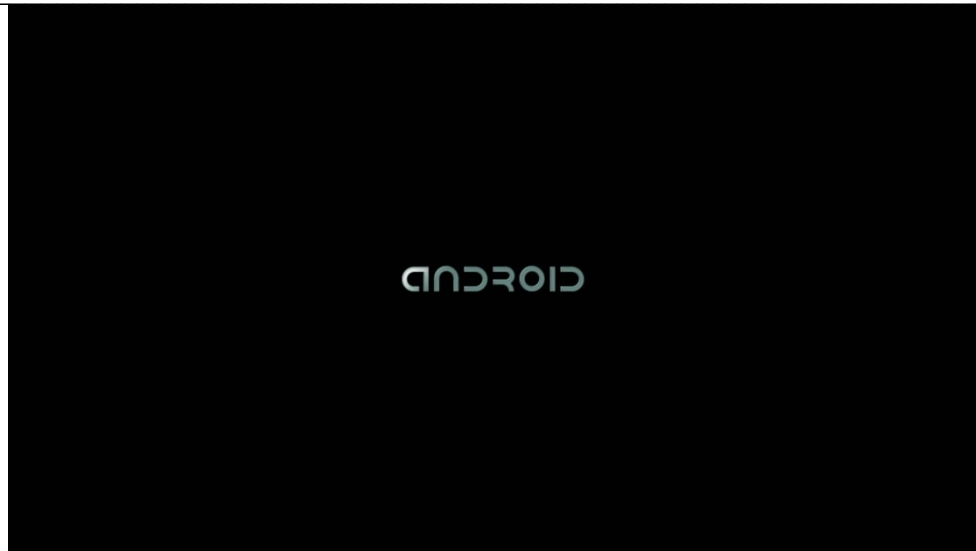


Fig. 12- Mediacenter screensavers through console launching



When the mediacenter turning first time on, a firmware update may begin. Please don't impede this. As soon as the mediacenter firmware is updated, you will be able to fully enjoy all its features.

21 MEDIACENTER CONTROL.

22 Interface elements and general control principles

23 General principles











Mediacenter is controlled by a graphical user interface. The mediacenter user interface provides complete device functions control. It allows you to access the provider menu, various applications and mediacenter settings.

The main menu consists of sections, which are presented in the graphic images form. When selecting a section, its icon is highlighted. Depending on the tasks performed, each section contains its own navigation and control subsystem. A detailed description of the main sections is given below.

Mediacenter can be controlled using the remote control (included in the delivery), keyboard, mouse (set by the user if necessary). This section describes the general device control principles.

The Table 8 shows assignment of the keyboard keys and remote control buttons.

Table 8 - General principles of media center management

Remote control button		Keyboard key	Target
	 HOME		return to the main menu
	 RETURN	← Backspace	return to level back
	 left right	← →	scroll through the menu to the left, right; tabs left, right
	 up down	↑ ↓	scroll through the menu up, down; value selecting in the drop-down list
	 OK	ENTER	menu item selection; selection confirmation

24 General principles of typing

To enter numbers, letters and symbols, use the remote control or the keyboard.

Text entering using the remote control is done through the virtual keyboard.



- To navigate through the virtual keyboard, use the buttons 'down', 'up', 'left', 'right'.
- "OK" button is used to press the button of the virtual keyboard .
- The "DEL" button is used to delete characters.
- To close the virtual keyboard without saving changes press 'RETURN' button.

25 Video and music management and image viewing

Video and music management

This section describes the remote control usage principles when playing video, music

1 Playback control:

- to start playback, press the 'PAUSE' or 'OK' button;
- to pause, press the 'PAUSE' or 'OK' button;
- to stop playback and return to the main menu, press the 'RETURN' button.

3 Go to spicified episode:

- Use the 'left', 'right' or 'REW', 'FWD' buttons to choose required episode and press 'OK' button.

4 Sound adjustment:

For sound level adjustment use buttons:

- 'VOL' + - increase the volume;
- 'VOL' - - turn down the volume;
- 'MUTE' - completely mute the sound.

		'PAUSE': - pause; - start playback.
		'OK': - selection confirmation; - pause; - start playback.
		'RETURN' - playback stop and return to the level back.
		'FWD', 'REW' buttons and navigation button 'left', 'right' - cursor movement back and forth to the required scene;
		'ZOOM' - zoom in or out.
		'VOL' - volume adjustment.
		'MUTE' - turn the sound off/on.
		'AUDIO' - audio track selection.
		'SUBT' - select/disable subtitles.

5 The audio track¹ chagement.

To switch the audio track, press the 'AUDIO' button , use the 'up' and 'down' navigation buttons to select the required option, and press 'OK'.

6 Changing and turning subtitles off¹.

To switch the subtitles, press the 'SUBT' button , use the 'up' and 'down' navigation buttons to select the required option, and press 'OK'.

7 Screen size changing:

To zoom the imge in or out, press the button to switch to the 'ZOOM' mode. Use the navigation buttons to select the required display mode:








- *Box* - image broadcasting without zooming;
- *Full* - the image will be enlarged to fit the screen;
- *Panscan* - the image will be stretched across the screen width.

To exit the 'ZOOM' mode, press the 'RETURN' button.

¹The function is not available during playback of audio content.

Images viewing

This section describes the remote control usage principles when viewing images.

	navigation buttons ' left ', ' right ': - previous, next image; - in ' ZOOM ' mode, move the image left and right.
	navigation buttons ' up ', ' down ' - in ' ZOOM ' mode, move the image up and down.
	' ROT ' - rotates the image.
	' PAUSE ' - slideshow start/stop.
	' RETURN ' - return to level back.
	' ZOOM ' - start/stop the ZOOM mode.
	' CH ' - zoom in/out in ' ZOOM ' mode.

26 User interface main menu description

In the user interface main menu you able to select a section for further work.

Section selection is carried out:

- with remote control: the navigation buttons 'left' , 'right' and confirm the selection of 'OK';
- with the keyboard: arrow keys ← →, to confirm press <enter>, Table 8;






To return to the main menu from any section of the user interface, press the 'HOME' button on the remote control.


The Fig. 13 shows the user interface main menu appearance. The Table 9 97 describes the main menu sections.



Fig. 13 - Main menu appearance

Table 97 - Main sections of the main menu description




Section	Description
	<p>The 'App Store' Menu</p> <p>The menu contains various applications that can be installed and used in the mediacenter.</p>
	<p>'IPTV' application</p> <p>The application allows you to view IP-TV channels and TV programs provided by the Internet operator.</p>
	<p>The 'File Manager' menu</p> <p>In the menu is carried out:</p> <ul style="list-style-type: none"> - multimedia files selection and viewing from external hard drives, USB flash drives, MicroSD; - multimedia files viewing from the local network; - multimedia files viewing from a DLNA server.
	<p>The 'Settings' menu</p>

	The device settings are performed in this menu.
	Application composition and the main menu appearance may be different from the above. The composition is determined by the mediacenter firmware version and provider's network customization.

Indication

Visual indication of the provider's network connection current status is realised in the user interface, table 10108.

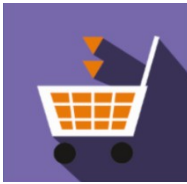
Table 108 - Visual indication of the provider's network connection current status

Appearance	Description
	Connection to the provider's network is performed via a wired ethernet interface.
	Connection to the provider's network is provided via Wi-Fi ¹ .
	Connection to the provider's network is provided via a VPN / PPPoE connection.

¹For NV-501-Wac only

27 Store

28 General Description



The 'Store' menu contains various applications that can be installed and used in the mediacenter.

To go to the 'Store' menu using the remote control, use the 'right' or 'left' navigation buttons to select 'Store' and confirm with the 'OK' button.

To exit the 'Store' menu and return to the main menu, press the 'HOME' button.

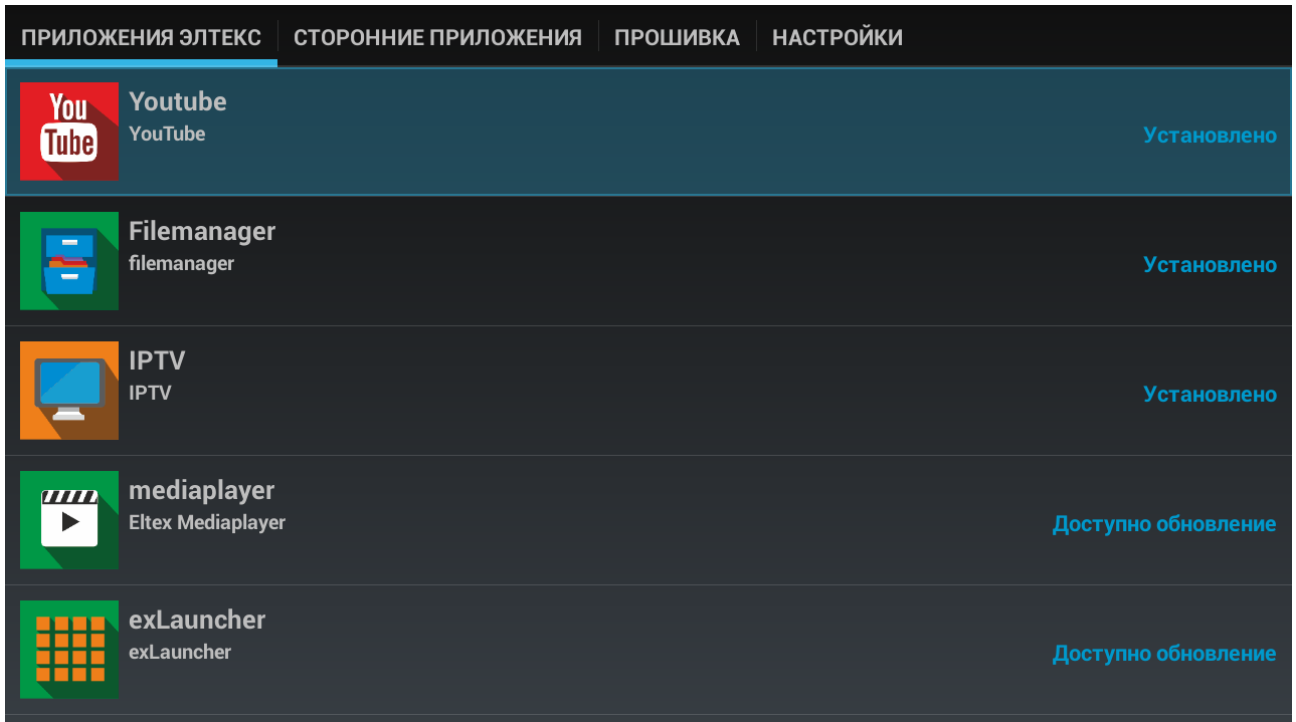




Figure 146 – External 'Shop' menu view

To navigate through the 'Store' app bookmarks, use the navigation buttons 'right' and 'left'. Use the 'up' and 'down' buttons to select an application. To confirm your choice, click the 'OK' button.

The following table describes ELTEX applications:

Table 11 - ELTEX company applications description

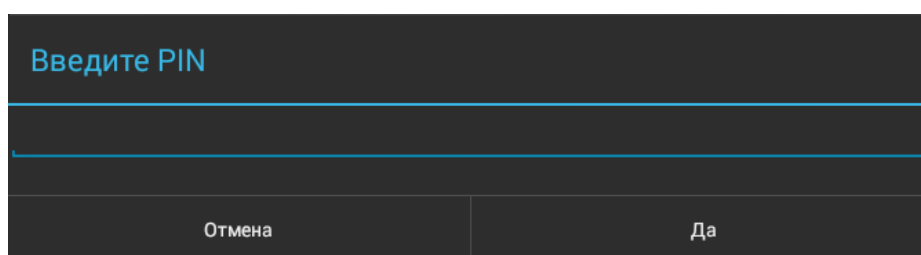
Application	Description
	The 'YouTube' app allows you to view YouTube videos.
	The 'File Manager' application allows you to work with files and folders, as well as: <ul style="list-style-type: none"> - select and view multimedia files from external hard drives, USB flash drives, MicroSD; - view media files from a local network using SMB and DLNA protocols; - view media files from a DLNA server.

	<p>The 'IPTV' application allows you to view IP-TV channels and TV programs provided by the Internet operator.</p>
--	--

29 Connection to the store

When you start the media center and enter the application store, if the firmware has factory settings, the default connection will be at the address *android-market.eltex.local*. To change this address:

1. Enter the 'Store' app.
6. In the 'Store' app, press and hold the 'F' button on the remote control.
7. A dialog box appears with enter your PIN code query:



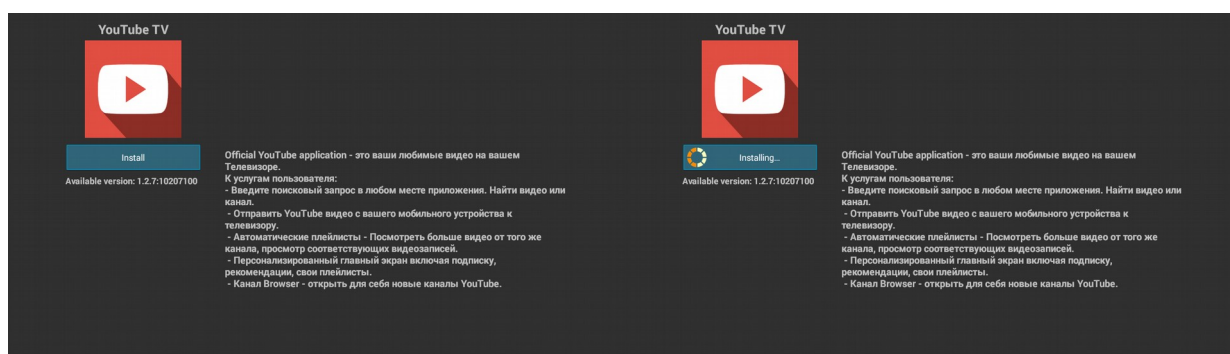
Enter the PIN code, for example, **0000** (four zeros) and press **OK**. The PIN code may differ, depending on the software version and the provider customization.

8. In appeared dialog box select *market.eltex-media.ru* or enter another address, information about which can be obtained from your provider.

30 Application Management

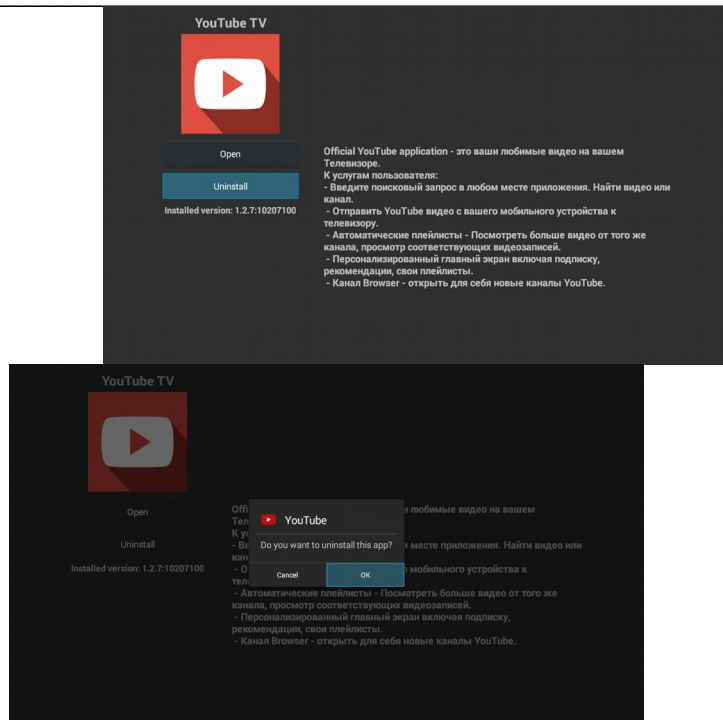
Installation

To install the application in the system, select the application using the navigation buttons and press **'OK'**. Press the **'Install'** button in personal application menu.



Removal

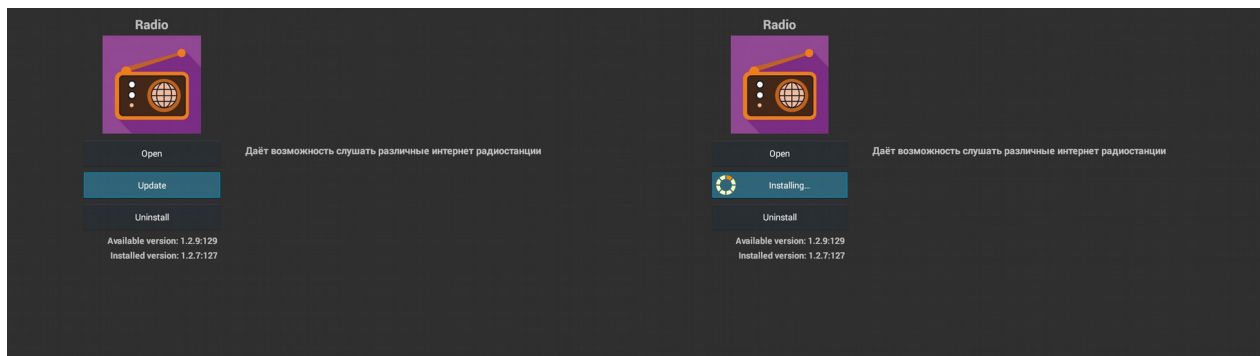
To remove the application from the system, select the application using the navigation buttons and press **'OK'**. Press the **'Remove'** button in personal application menu.



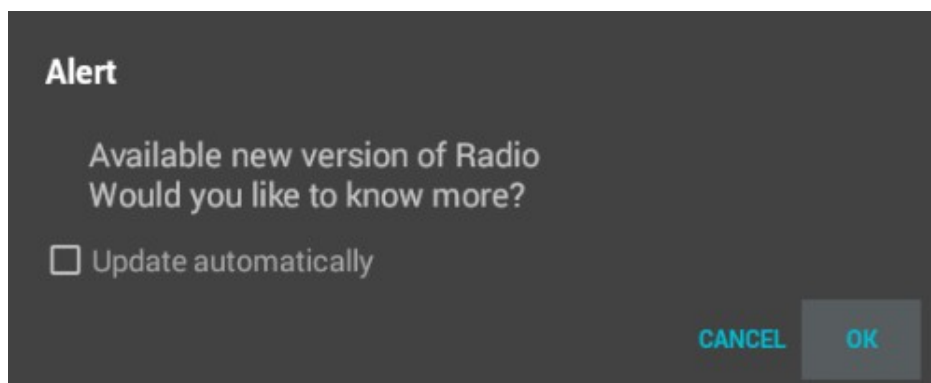
Update

If an update is available for the application, the application description will indicate 'Update Available'.

To install new application version, select the application using the navigation buttons and press 'OK'. Press the 'Update' button in personal application menu.



You may also see a notification that an update is available:



To update the application, press 'Yes' button.

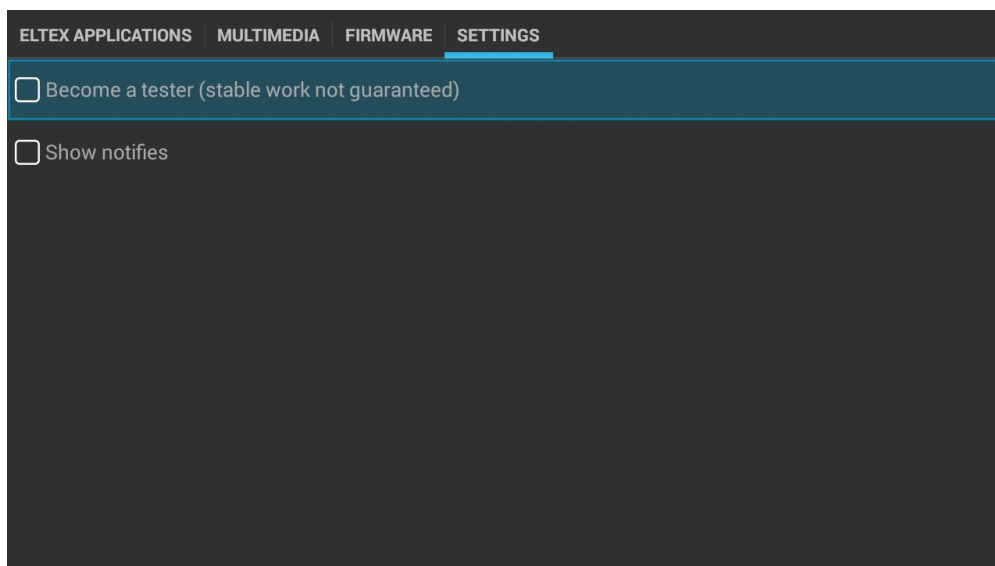
If you do not want to receive notifications for new applications, check the box '**Do not show this notice to update automatically**' and click '**Yes**'. You can cancel these settings in the 'Settings' section of the 'Store' menu.

31 Firmware update:

Detailed instructions for firmware update are given in *53 Mediacenter firmware update*.

32 Update parameters configuration

To perform update settings, use the **left** and **right** buttons to select the **Settings** tab.



In this section, you can configure the following settings:

- **Get the latest updates (stability is not guaranteed)** - when the flag is set, the application must be updated independently. The media center will receive test versions of applications whose stability is not guaranteed;
- **Update applications automatically** - when checked, all applications will be updated automatically.

33 'IPTV' application

34 General Description

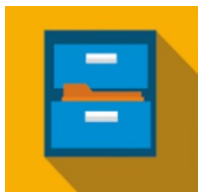
The 'IPTV' application allows you to view IP-TV channels and TV programs provided by the Internet service provider. You can open your playlist from a flash drive or specify the playlist URL in the application settings. The default URL is:

<http://eltex.local/iptv/playlist.xspf>

The playlist is formed according to a special format, for more details please read the IPTV playlist creation guide. Documentation can be downloaded in the download center on the official company website <http://eltex-co.ru/support/downloads>.

35 Explorer (File Manager)

36 General Description



The **'File Manager'** menu is intended for accessing media resources of a local network (from your computer and other devices included in it), connected hard disks and flash drives, SD cards.

To go to the **'Explorer'** menu using the remote control, use the **'right'** or **'left'** navigation buttons to select 'Explorer' and confirm with the **'OK'** button.

To exit the 'Explorer' menu and return to the main menu, press the **'HOME'** button.



Figure 157 – External 'Explorer' menu view

'Explorer' menu window is divided into 4 general areas:

1. Information panel, that indicate the pat to resource.
2. Bookmarks menu for accessing network media resources, USB flash drives, external hard drives, MicroSD, DLNA server.
 - *SD card* - a directory that contains a list of files stored on a microSD connected to the device;
 - *JetFlash* - directory that contains a list of files stored on external USB-drives connected to the device, USB flash-drives;
 - *Network resources* - a directory that contains a list of available samba resources on the local network;
 - *DLNA servers* is a directory that contains a list of available DLNA server resources.
9. Field to view the contents of the specified resource.
10. Information panel

37 Control













This section describes the remote control usage principles in 'Explorer' menu.

1 *Navigation*

- Navigation through the menu tabs is carried out using the 'down' and 'up' navigation buttons.
- To open the bookmark, press the 'OK' button.
- Navigation through the list of folders and files is provided with the navigation buttons 'down', 'up', 'right', 'left'.
- To open the folder or file, press the 'OK' button.

8 *Files playback*

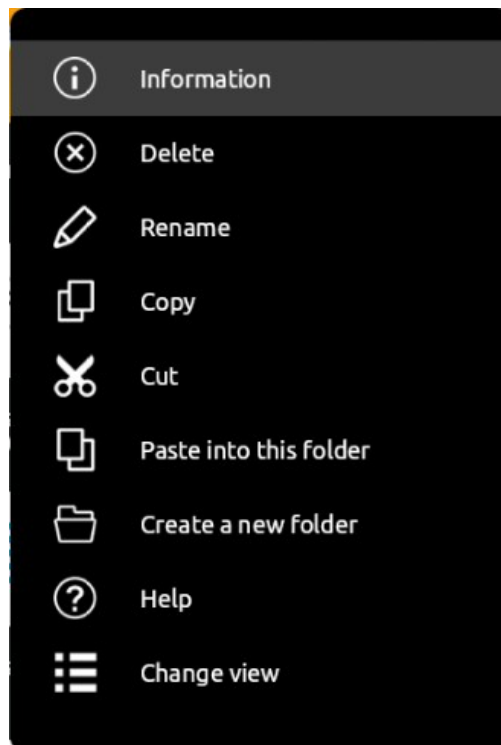
Select a file from the list using the navigation buttons and press the 'OK' button.

		'RETURN' - return to level back.
		navigation buttons - navigation through the list of folders and files. 'Up', 'down' - go up/down in the menu list;
		
		'OK' - selection confirmation; open/close directory;
		'MENU' - call the context menu: information, delete, rename, copy, cut, paste into the current folder, create a new folder.
		INFO - view file information.

The principles of remote control during video, music playback and viewing images are given in 25 Video and music management and image viewing.

9 *Context menu*

Explorer provides the ability to copy, delete, move files, as well as create and delete folders.

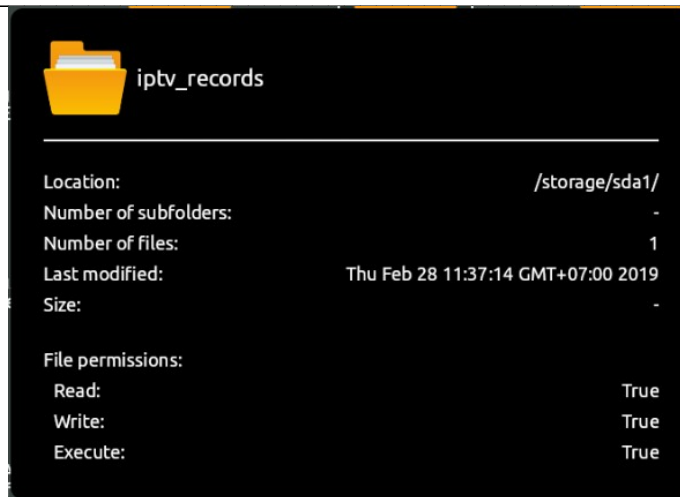


To open the context menu, select a folder or file and press the 'MENU' button.

Select the required action using the navigation buttons and press the 'OK' button.

10 *Information view*

In this menu you can view information about the file or folder.



To call the information window, press the 'INFO' button.

38 THE MEDIACENTER CONFIGURATION

39 General Description

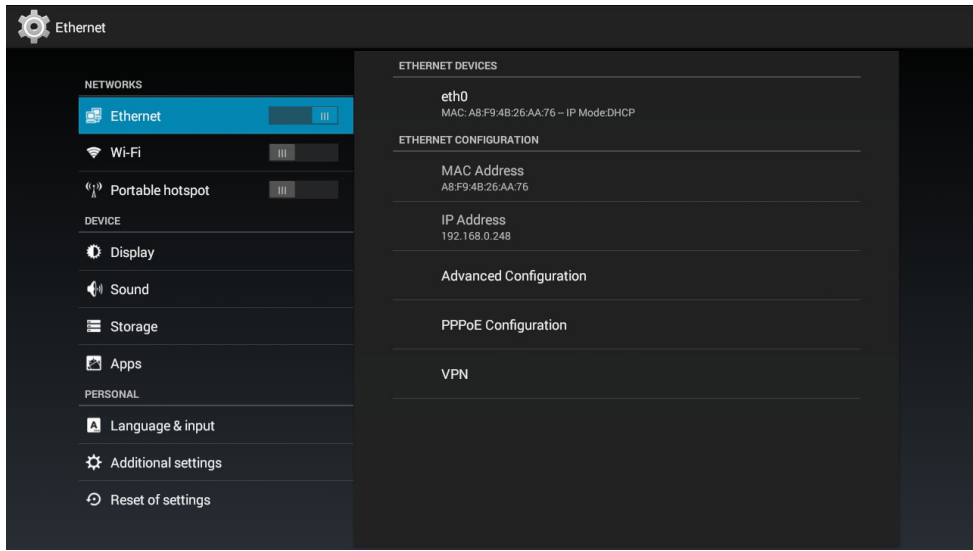
In the 'Settings' menu, you can configure the media center settings.

To go to the 'Settings' menu using the remote control, use the 'right' or 'left' navigation buttons to select 'Settings' and confirm with the 'OK' button.

To exit the 'Settings' menu and return to the main menu, press the 'HOME' button.

The Fig. 16 shows the 'Settings' menu appearance.

1 bookmarks
menu



2 settings
field

Figure 16 – External 'Settings' menu view

User interface window is divided into 2 general areas:

- 1 The settings sections are intended to select a group of customizable parameters, the table 12 shows their description.
- 2 Settings field. Based on the settings selection. Designed to settings view and parameters input.

Table 129 - Description of the configuration sections

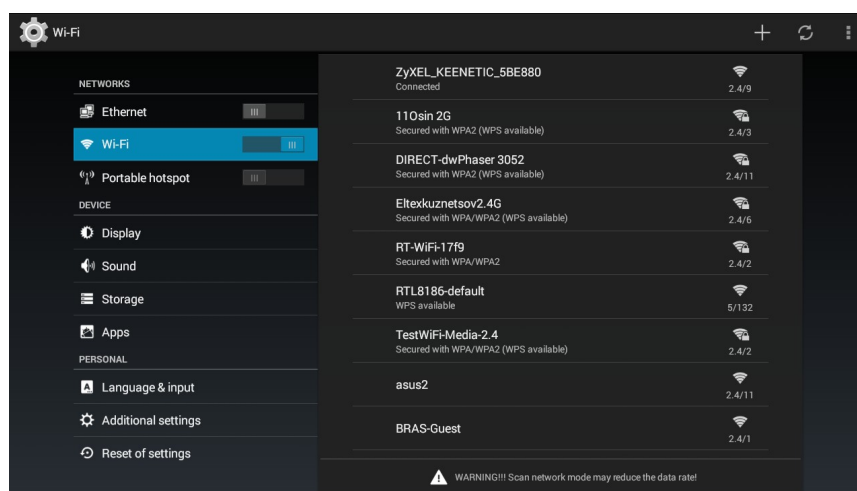
Section	Description
Network	The device network interface settings section.
Wi-Fi	Wi-Fi network setup ¹ .
Ethernet	Wired network, VPN and PPPoE configuration.
Wi-Fi hotspot	Subscriber connection to the access point organized by the set-top box configuration.
More...	Section is intended to Miracast configuration.
Device	Audio and video device parameters configuration, applications processing, language selecting and data entry method configuration.
Audio	Volume adjustment for different modes, system sound alerts configuration and audio output mode selection.
Display	Screen size, resolution and frequency adjustment.
Applications	View information about applications that are installed on the console, as well as installing, uninstalling applications and other actions.
Memory	View information about storage devices state that are installed on the con-

¹For NV-501-Wac only

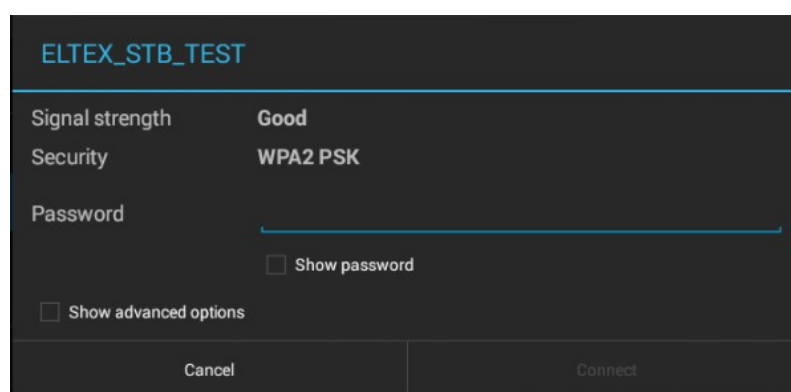
	sole, as well as installing, uninstalling applications or other actions.
Language and input	Interface language, keyboard and input method selecting, setting additional functions when entering words.
Reset	Return to the factory default settings and all data deletion from the console.
Advanced settings	Playback, UDP-to-HTTP proxy configuration.
System	Device system configuration and debugging.
Date and time	Time zone, date and time format configuration.
Device info	View the model, firmware version, kernel version and build number information.

40 The 'Wi-Fi' Section¹

In the 'Wi-Fi' section you can connect to a Wi-Fi network and configure it.



To connect to a Wi-Fi network, select the 'Wi-Fi' section. To view available networks, turn on Wi-Fi by clicking the **'OK'** button. Use the navigation buttons to select a wireless network from the list of available networks and click **'OK'**.



In the dialog box, perform the following settings:



- *Password* – password for authentication in the wireless network;
- *Advanced* - when checked, additional settings will be available.
- *Advanced settings*:
- *Proxy server settings* - a way to configure a proxy server, if you select 'Manual', the following settings will be available:
- Proxy server host name;

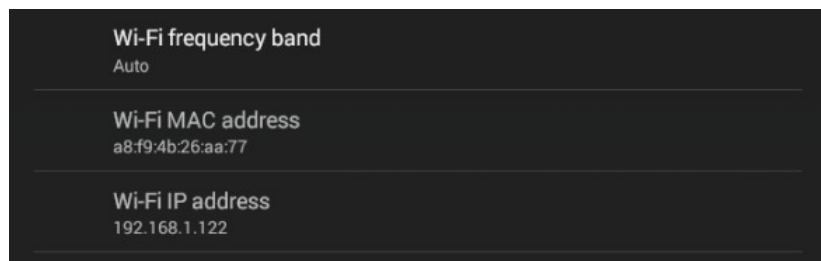
¹ Used only in NV-501-Wac.

- Proxy server port;
- Don't use proxy server
- *IP settings* - network settings obtaining method:
- *DHCP* - the device receives an IP address, gateway, DNS addresses automatically via DHCP;
- *Custom* - the settings are done manually; when the "Custom" option is selected, the following fields will be available:
- *IP address* - device IP address;
- *Gateway* - gateway IP address;
- *Network prefix length* - subnet mask as a prefix;
- *DNS 1* - primary DNS;
- *DNS 2* - alternative DNS.

To connect to a wireless network and save the settings, click the '**Connect**' button. To discard changes click the '**Cancel**' button.

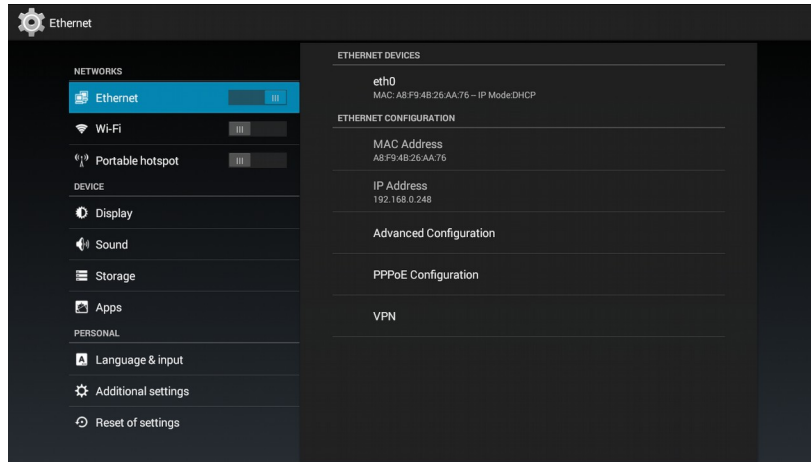
Additional buttons:

-  - information update;
-  - additional functions:

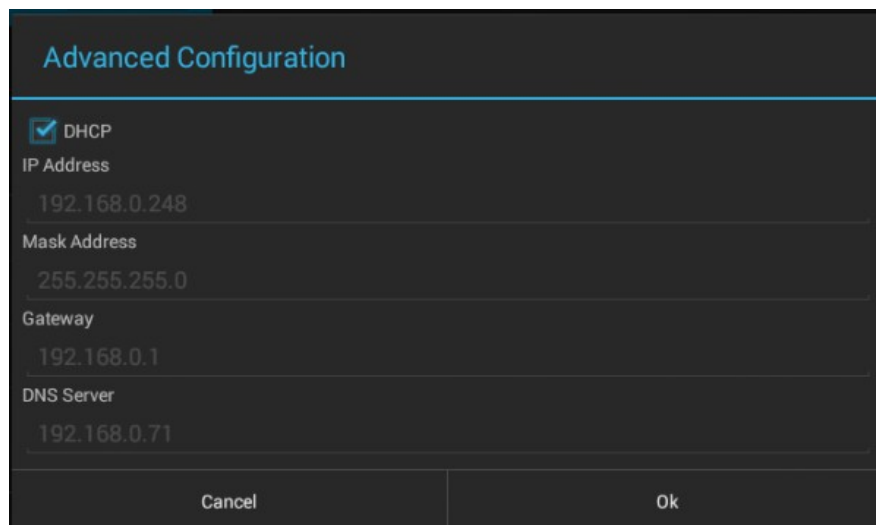


41 The 'Ethernet' section

In the 'Ethernet' section, you can set the ethernet interface parameters.



- *Additional parameters* - ethernet interface configuration;
- *PPPoE configuration* - PPPoE server connection configuration;
- *VPN* - VPN connection creation and configuration.
-
- Ethernet configuration:

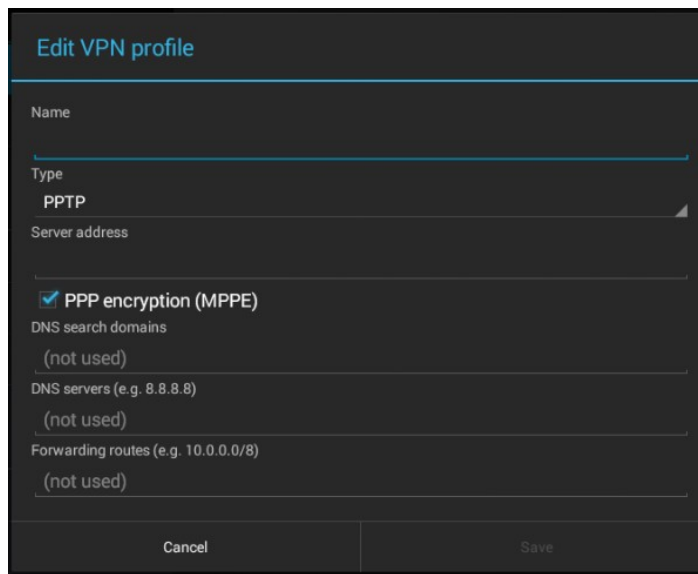
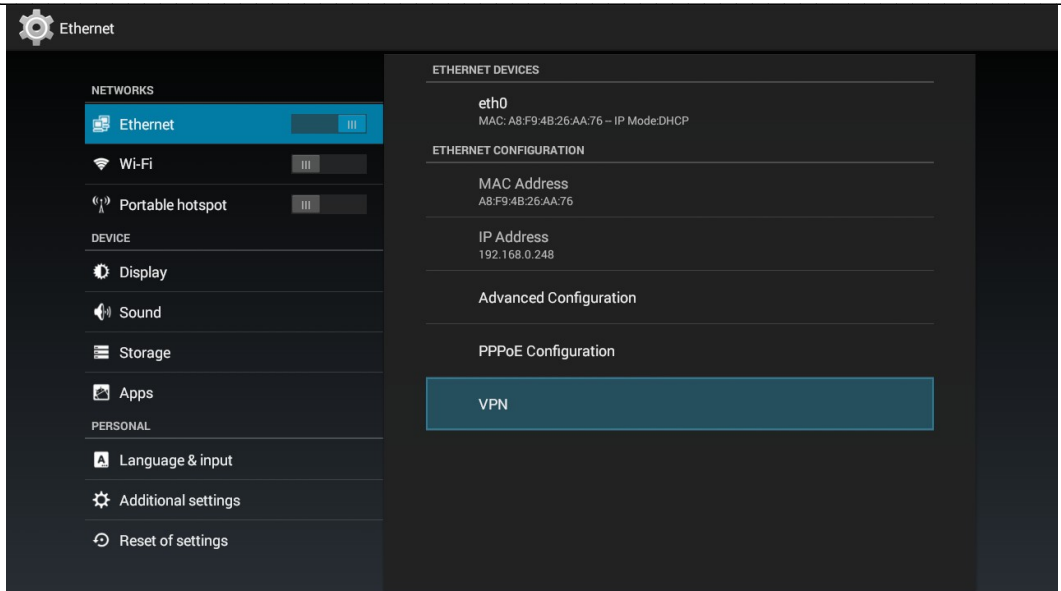


- *DHCP* - network settings are obtained automatically by DHCP, by unchecking this item, you can manually enter network settings:
- *IP address* - device IP address;
- *Netmask* - subnet mask;
- *Gateway* - gateway IP address;
- *DNS address* - DNS server address;

To save settings click the 'Save' button. To discard changes click the 'Cancel' button.


VPN connection creation:

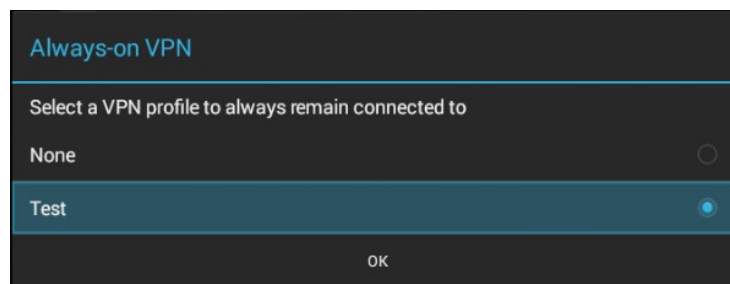
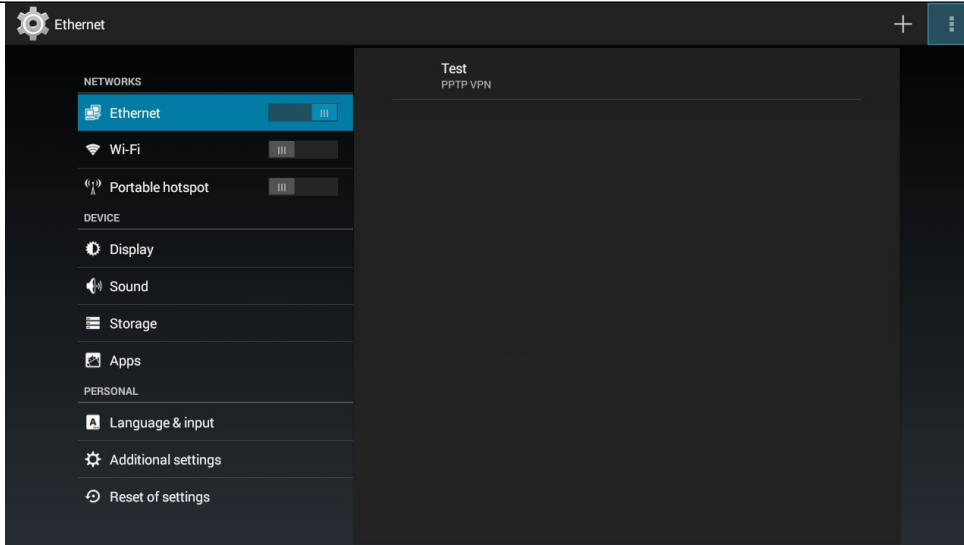
To create a VPN connection select the 'VPN' section and then in the upper right corner, click :



Fill in the following fields:

- *Network name* - VPN connection name;
 - *Type* - VPN connection protocol type: PPTP, L2TP/IPSec;
 - *Server address* - VPN server address;
 - *PPP (MPPE) encryption* - when checked, data encryption over MPPE will be used for data transfer over the VPN channel;
 - *Advanced* - when checked, additional settings will be available:
- *DNS lookup domains* - DNS lookup domain name or IP address;
 - *DNS servers* - DNS server IP address;
 - Forwarding routes.

To establish a permanent VPN connection select the 'VPN' section and then in the upper right corner, click :

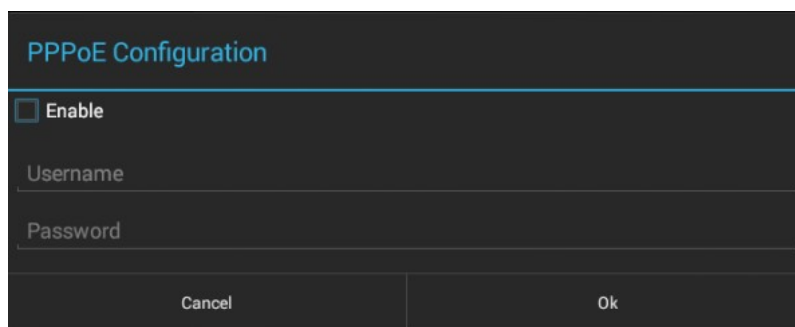


Use the navigation buttons to select the network and press the 'OK' button.

PPPoE Connection:

Select the 'PPPoE Configuration' section to connect through PPPoE:

Fill in the following fields:



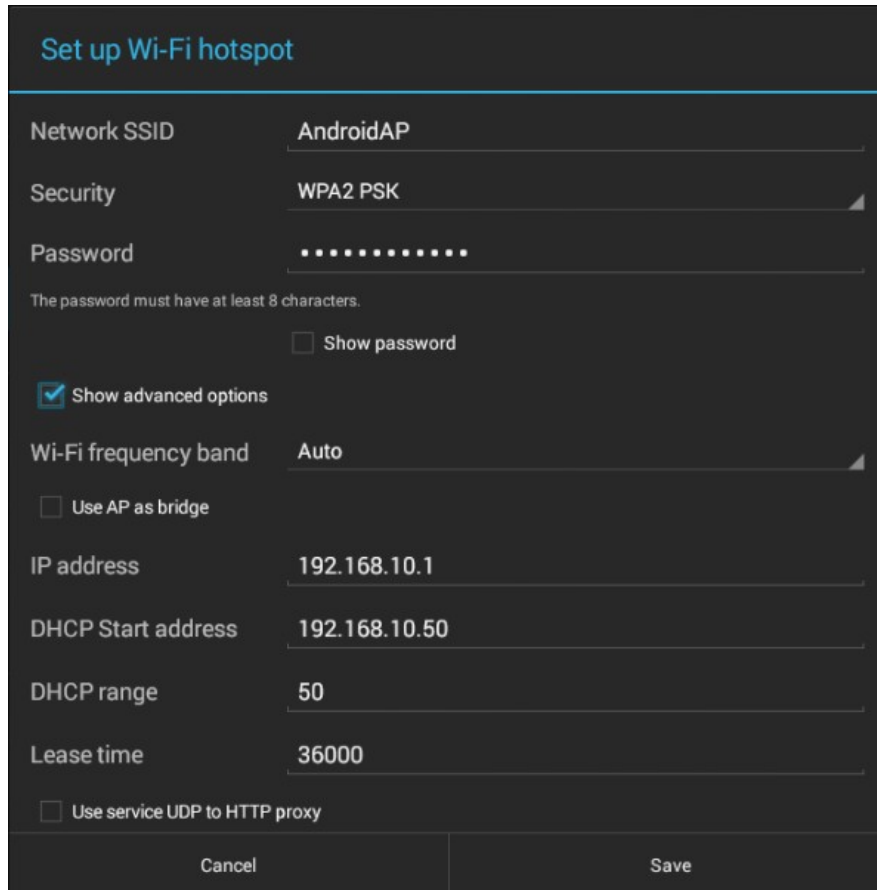
- *Enable* - when checked, connection through PPPoE will be initiated;
- *Username* - username for connection through PPPoE;
- *Password* - password for connection through PPPoE.
- You can get Username and Password form your servicew provider.

42 The 'Wi-Fi Hotspot' section

In the 'Wi-Fi Hotspot' section, you can enable and configure the client's connection to the access point created by the set-top box itself.

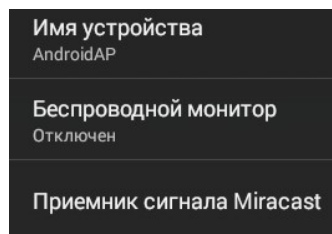
Wi-Fi hotspot configuration:

After going to settings, it is needed to enter the client connection settings:



43 The 'More...' section

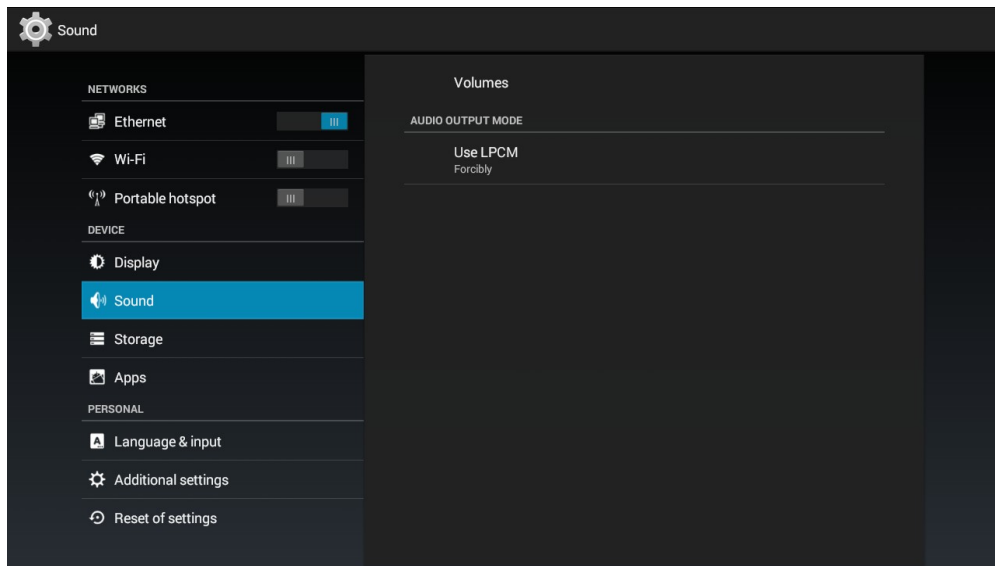
This section is intended for media content transfer to the console via Miracast.



- Device name - Hotspot name;
- Wireless monitor - continuous media devices scanning on/off;
- Miracast signal receiver - receiver enabling.

44 The 'Sound' section

In the 'Sound' section you can adjust the volume for different modes, configure system sound alerts and audio output mode.



- **Volume** - in this section you can adjust the volume for different modes.
- *Music, video, games and other media files* - volume adjustment for mediafiles;
- *Alerts* - volume adjustment for mediacenter system alerts;
- *Alarm* - volume adjustment for the alarm.

Sound effect during playback:

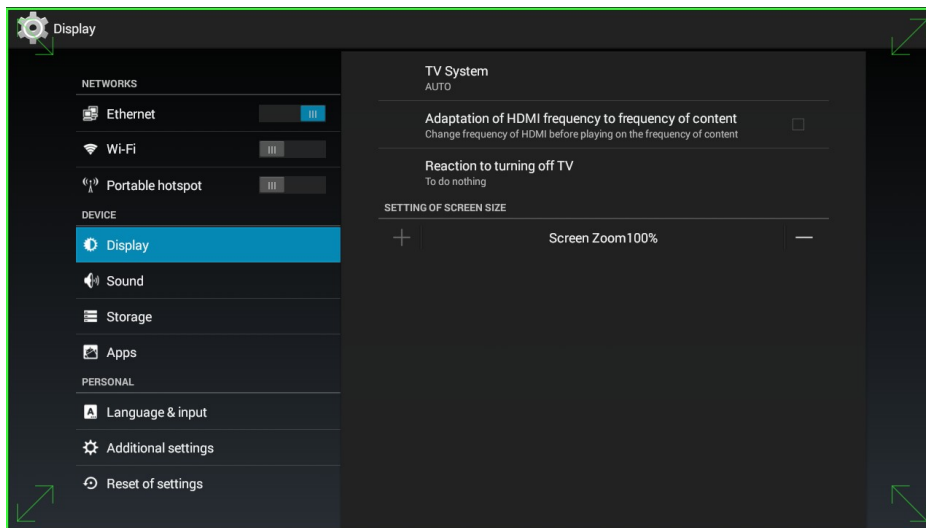
- Disable;
- Night mode;
- Comfort mode.

Audio output mode:

- *Use internal decoder* — when checked, LPCM mode will be active, otherwise RAW. LPCM audio is decoded by an internal decoder, RAW audio is decoded by an external decoder.

45 The 'Display' section

In the 'Display' section you can configure the size, definition and display refresh rate.

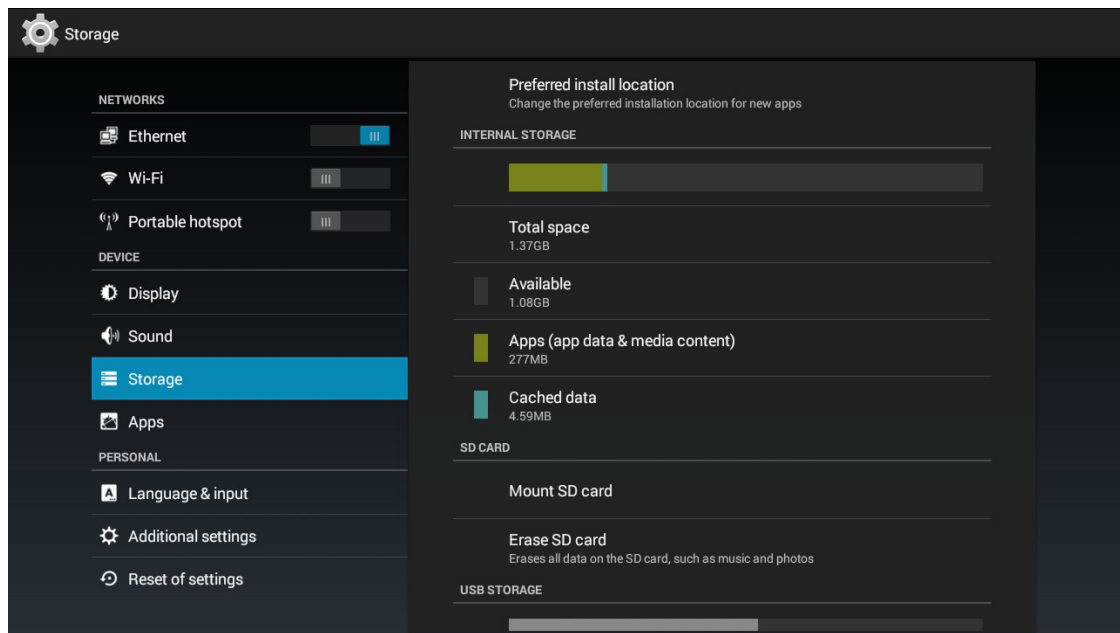


- - *TV display mode* - screen resolution configuration: 1080; 720; auto. Selecting 'auto' will automatically adjust the display resolution;
 - *HDMI frequency adjustment to the content frequency* - screen frequency configuration: auto; p60; i60; p50; i50. Selecting 'auto' will automatically adjust the display refresh rate;
 - *TV off reaction* - the set-top box behaviour when turning off the TV. Available options: Do nothing, **Go to the launcher** (by default), Sleep mode. In the 'Go to the launcher' and sleep modes, the reaction occurs after 30 seconds, after turning off the TV.
 - *Adjusting to the screen size* - you can change the screen size using the 'Zoom', 'Reduce' buttons.

To save changes, click the '**Apply**' button.

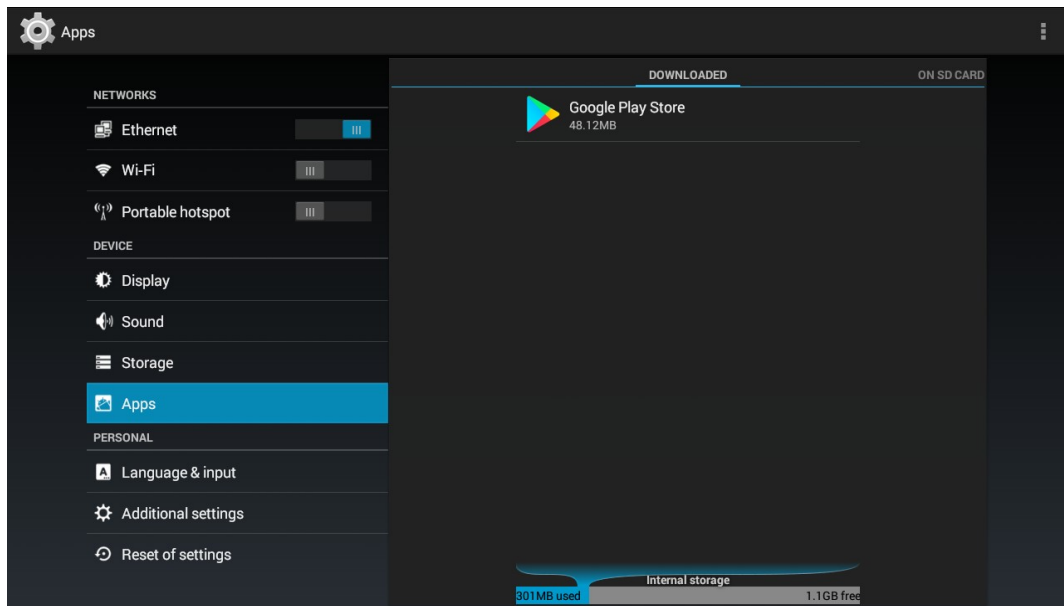
46 The 'Storage' section

In the 'Storage' section, you can view the status of storage media installed on the device information. Also you can install and remove applications, or perform other actions.



47 The 'Applications' section

In the 'Applications' section, you can view the applications information. Also you can stop and re-move applications, or perform other actions.

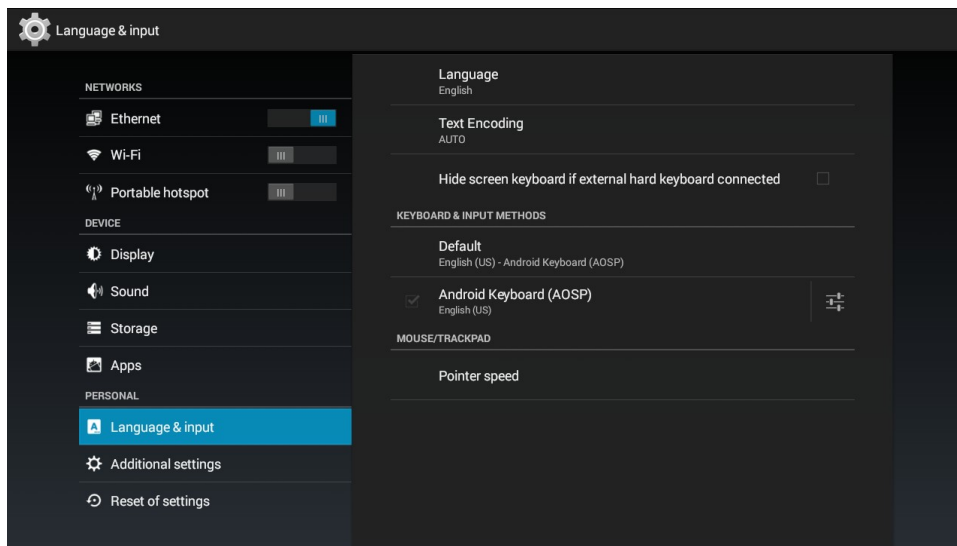


Applications are divided into the following categories:

- *Third-party* - applications from other manufacturers;
- *On the SD card* - applications that are installed on the SD card;
- *Running* - applications that are currently active in the system;
- *All* - all applications installed on the system;
- *Stop* - the button for force application stop;
- *Remove* - the button to remove the application from the device system;
- *Move to SD card* - the button to install the application on the SD card;
- *Delete data* - the button for application data deleting;
- *Clear cache* - the button for clearing the application cache;
- *Delete default settings* - button to reset default settings.

48 The 'Language and input' section

In the 'Language and input' section you can select interface language, keyboard and input method, set the additional functions when entering words.

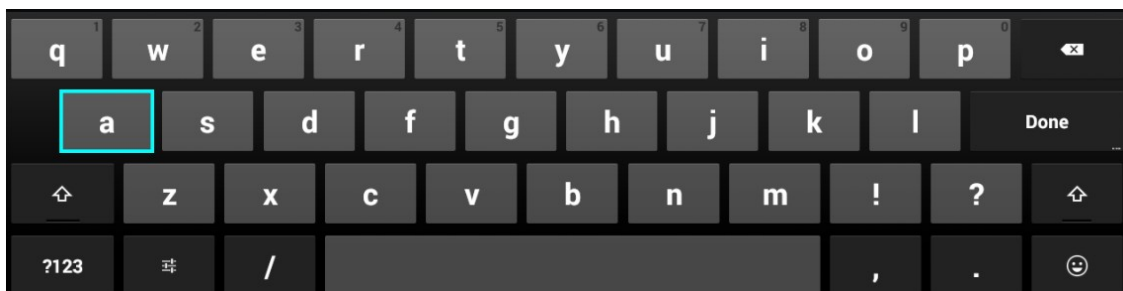


Language and input

- *Language* - select the interface language;
- *Text encoding* - setting the selected encoding for the entire system. It can take the values: AUTO, UTF8, BIG5, GBK;
- Hide the on-screen keyboard if an external one is connected.

Keyboard and input methods:

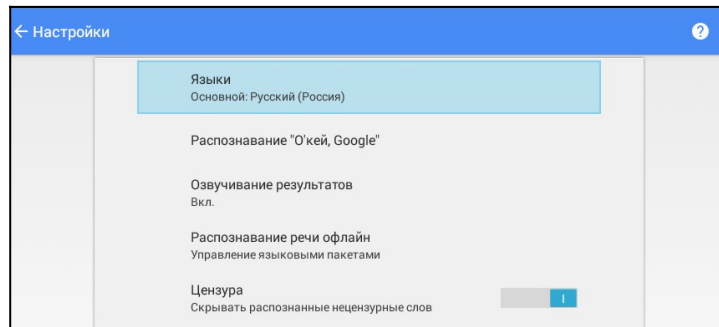
- *By default* - setting the keyboard to be used by default: russian; QWERTY keyboard; ELTEX keyboard. The default keyboard is ELTEX;
- *Android keyboard (AOSP)* - when checked, the Android QWERTY keyboard will be used:



- Google voice input - voice typing.

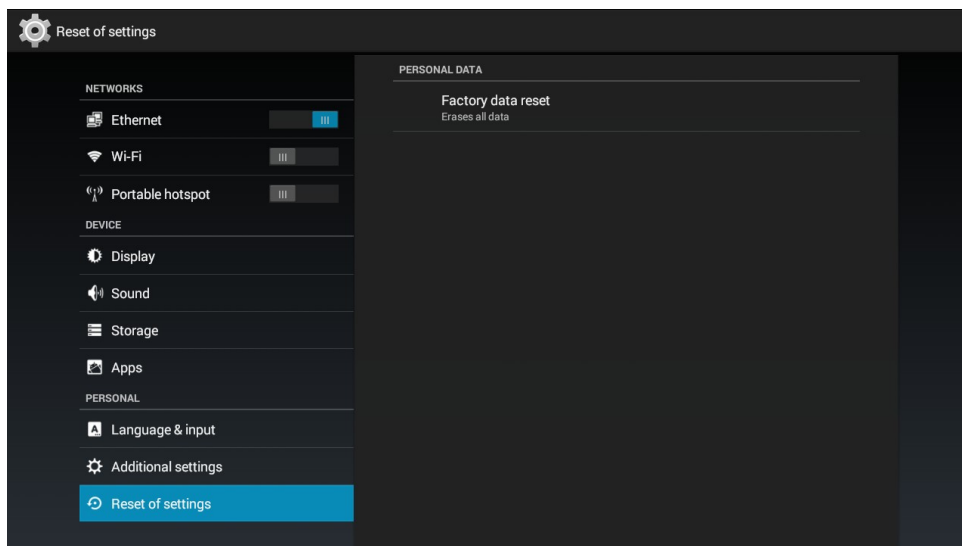
Voice input:

- *Voice search* - voice input configuration

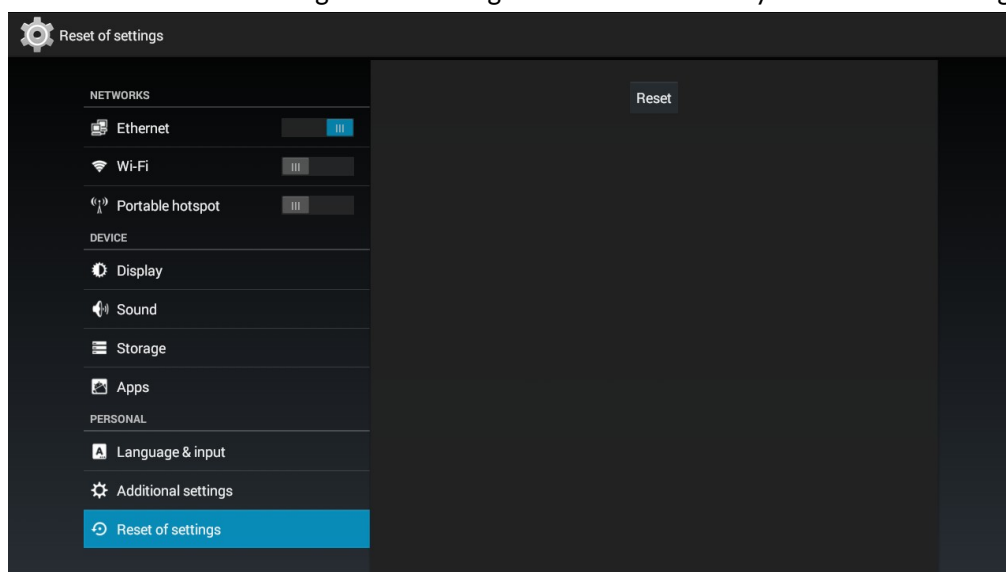


49 The 'Configuration reset' section

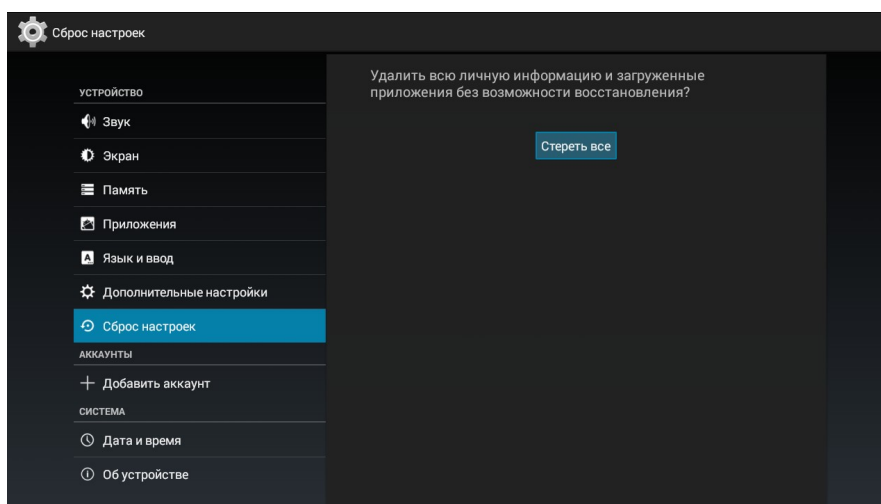
In the 'Configuration reset' section, you can return the device to the factory default settings.



- *Configuration reset* - return to the factory default settings and all data deletion from the console. After clicking on the 'Configuration reset' button you will see following menu:



Click the '**Reset**' button. Confirm by clicking the '**Erase all**' button:

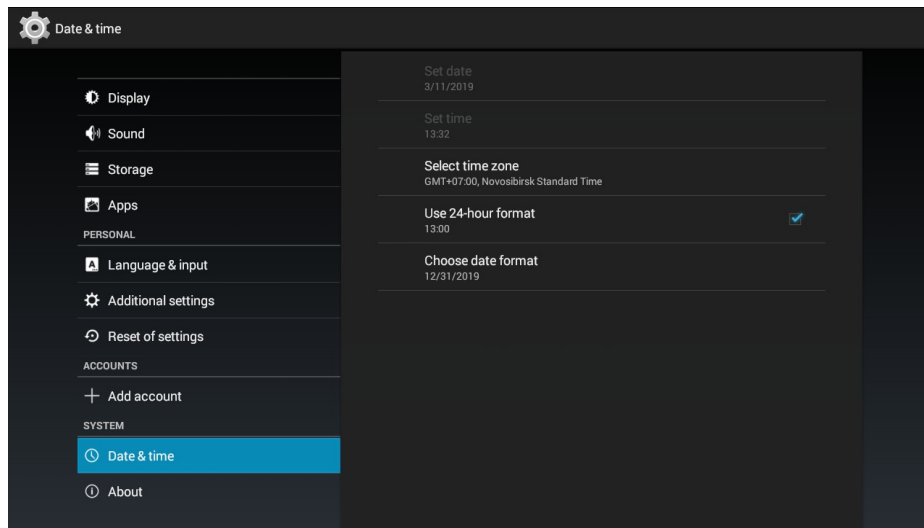


All data from the device's internal memory will be deleted, including:

- your Google account;
- System and application configuration/data;
- downloaded applications.

50 The 'Date and time' section

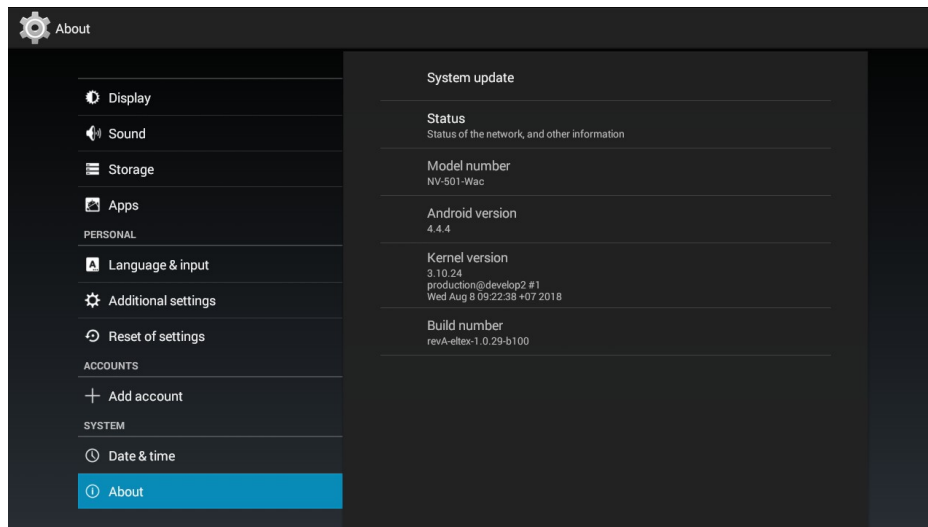
In the 'Date and time' section, you can configure the time zone and date and time format.



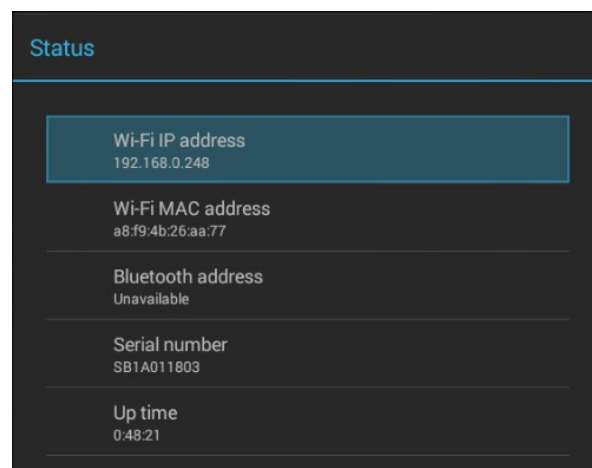
- *Date* - date set in the system, the field can't be edited;
- *Time* - system time, the field can't be edited;
- *Time Zone* — sets the time zone relative to GMT;
- *24-hour format* - when checked, sets the 24-time format;
- *Date format* - select the date format:
- default - the format will be set: day.month.year;
- month.day.year;
- day.month.year;
- year.month.day.

51 The 'About' section

In the 'About' section you can view the information about model, software version, kernel version and build number.



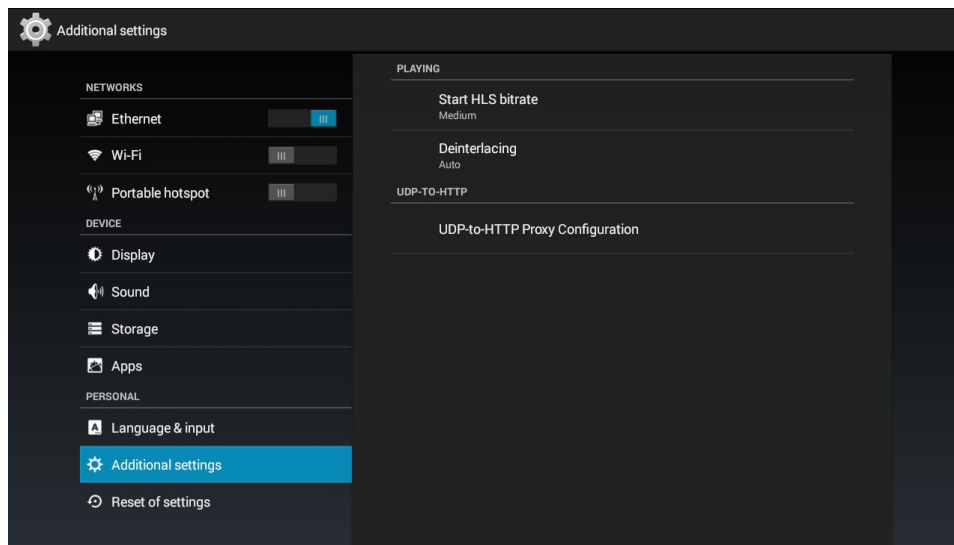
- *Status* - provides general information about the device:



- *IP address* - mediacenter IP address;
- *Wi-Fi MAC address* - internal Wi-Fi adapter MAC address;
- *Serial number* - mediacenter serial number;
- *Uptime*.
 - *Model* - mediacenter model;
 - *Android version* - firmware version;
 - *Kernel version* - firmware core version;
 - *Build number* - firmware build number.

52 The 'Advanced settings' section

The 'Advanced Settings' section is available when entering the advanced setup mode. To enter the advanced settings mode, press and hold the 'F' button on the remote control in the 'Settings' menu until a dialog box appears. Enter password **0000** (four zeros) in appeared dialog box.



Playback:

- *Start bitrate for HLS* - the initial bitrate for HLS:
 - Low;
 - *Medium*-set as default;
 - High.
- *Deinterlacing* - turn on the process of converting an interlaced image into a line-by-line, removing the serration for better viewing.

UDP-TO-HTTP:

- *UDP-to-HTTP Proxy configuration* -UDP links to HTTP converting. By default, the conversion function is disabled, the default proxy port is set to 1234.

53 MEDIACENTER FIRMWARE UPDATE

54 General information

Changing the set-top box firmware is possible in the following ways:

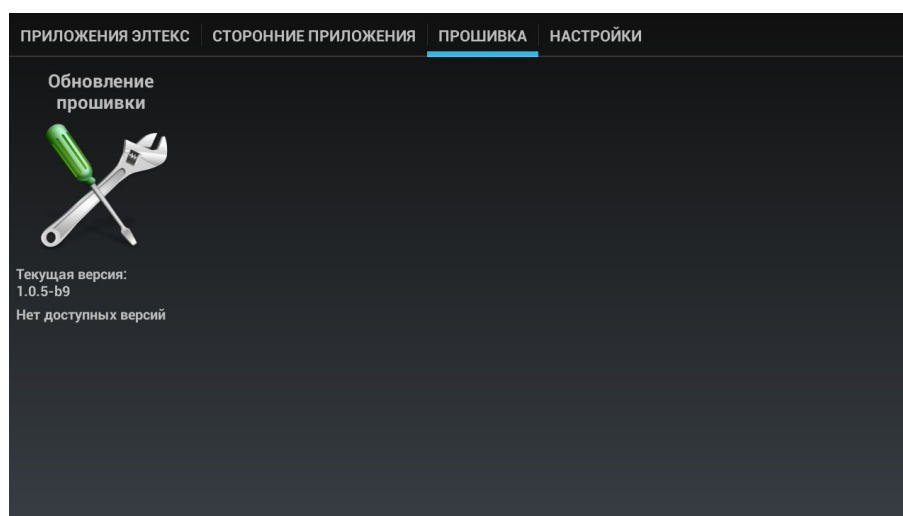
- firmware update via application store;
- update from USB drive;
- factory default restoring;
- update via ACS.

In addition to firmware updating from external media, it is possible to restore the firmware, which may be necessary if the user wants to update system with the removal of all user data or restore the device to work in case of damage to the working firmware (power off the device during the update, disconnect during the update, etc.) .

To ensure that the firmware can be changed in the absence of the Internet or in the absence of an update server provider, it is possible to update the firmware from the local drive. Any drive with a USB port can act as a local drive.

55 Firmware update via application store

In the Application Store, use the '**left**' and '**right**' buttons to select the '**firmware**' tab .



After switching to the tab, the current version will be indicated and if a new version is present, the 'Update' button will be available.

You may also see a notification that an update is available.

56 Update from USB drive

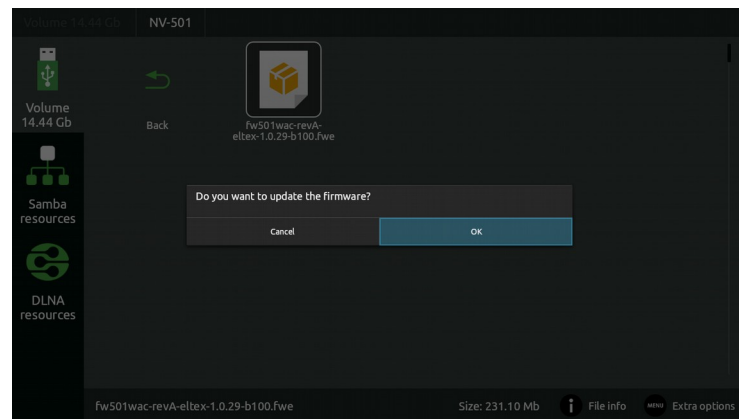
A prerequisite for updating software from a USB drive is the presence of the installed File Manager and Application Store applications - these applications are included in all firmwares.

The procedure for updating from USB-drive:

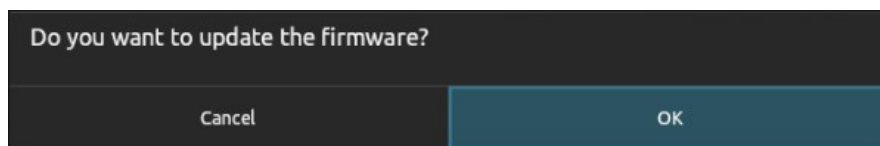
1. Copy the firmware file to the root or any other directory of the USB-drive;
2. Connect the USB-drive to any console USB port;
3. Run the 'File Manager' application:



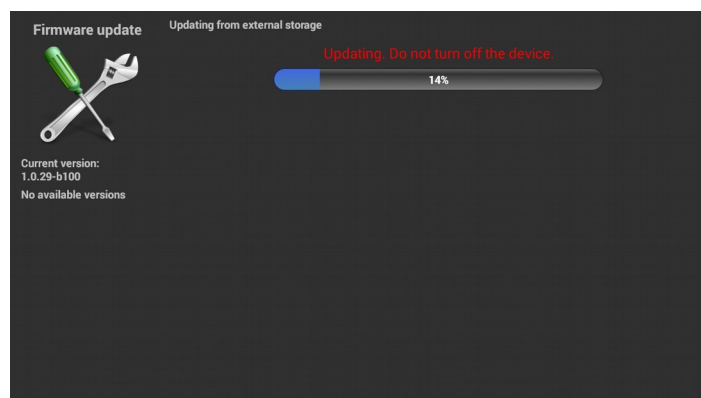
11. Select 'Drive', press 'OK'. Specify the firmware file and press the 'OK' button on the remote control:



12. Confirm the start of the update process:



The update progress dialog will start. After the update process, device will automatically restart:



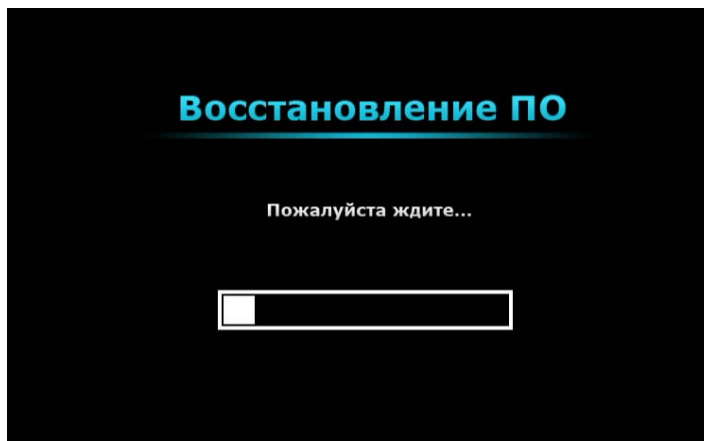


All user data and applications will be saved with this updating method.

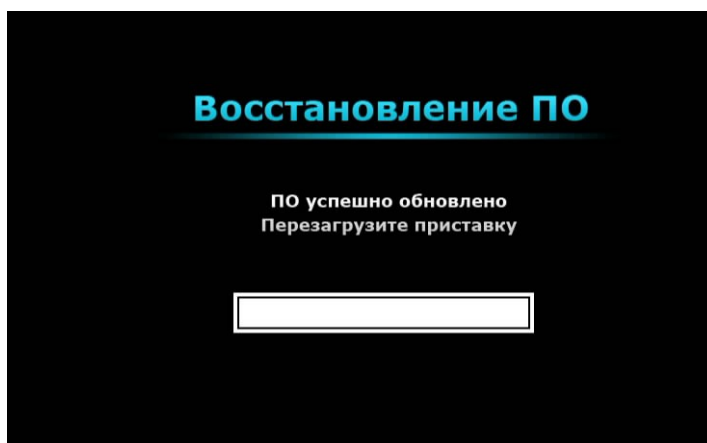
57 Factory default restoring

The procedure for updating via recovery:

1. Copy the firmware file to the root directory of the USB-drive;
2. Connect the USB-drive to any console USB port;
3. Press and hold the function button 'F', located on the bottom panel of the device;
4. Enable the console, while holding the 'F' button;
5. Release the F button after entering the software recovery mode message will appear on the screen:



13. The recovery process will start automatically;
14. The update progress dialog will start. At the end of the console update process, a dialog box will be displayed asking you to restart the console.



58 Update and Configuration via ACS

By default, the console is configured to communicate with the ACS server with `acs-eltex.local` host address.

For detailed information on how to configure and connect the console to ACS server on our website eltex.nsk.ru in the 'Products / Control Systems / Eltex.ACS' section by downloading 'Instructions for working with the STB sector in Eltex.ACS'.

Downloading, installing and configuring the ACS server process is described in the 'Operating Manual' manual. For more information go to eltex.nsk.ru website in the 'Products / Control Systems / Eltex.ACS' section.

APPENDIX A. UNIVERSAL REMOTE PROGRAMMING MANUAL

To control the TV using the universal remote control, the buttons of the TV unit must be assigned to the TV remote control buttons functions. Only the TV unit buttons are used to control the TV: TVIN, V-, V+, Fig. 18.



Fig. 18 - Universal remote control

To program the universal remote control buttons you need:

1. Press and hold the 'SET' button on the mediacenter universal remote control until a brighter red LED will appear (about 3 seconds).
2. Press the button you want to program, and the red LED will start flashing.
3. Direct the infrared transmitter of the programmable remote control to the TV remote control (hold the remotes at a distance of 3-5 cm) and press the button on the remote control of the TV whose functions you want to transfer.
4. After successful programming of the remote control buttons, the LED will flash three times, and then will begin to glow. Now you can select other buttons for programming.
5. After programming the buttons on the remote, press the 'SET' button to exit the button programming mode. The red LED will turn off.

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Visit Eltex official website to get the relevant technical documentation and software, benefit from our knowledge base, send us online request or consult a Service Centre Specialist in our technical forum.

Official website: <http://eltex-co.ru>

Technical forum: <http://forum.eltex-co.ru/>

Knowledge base: <http://eltex-co.ru/support/knowledge>

Download center: <http://eltex-co.ru/support/downloads>