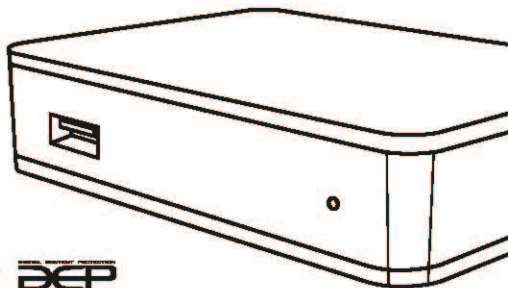




Linux based
Set-Top Box
MAG420
MAG420w1

Instruction Manual



HDMI  **DOLBY AUDIO** 

Product Care

Maintenance of Product

The product should not be disassembled. The tries of the disassembling of the product may be dangerous for your life and for serviceability of the product.

The self-supporting disassembling invalidates you the product guarantee.

The maintenance should be affected by qualified specialists in the warranty processing centers only.

The product possesses protective sealing.

Breaking or changing of the mentioned sealing invalidates guarantee of the product.

Cleaning

The product and accessories should be rubbed with dry cloth or tissue only.

To ensure safety, before shell cleaning switch the power supply off the alternative current socket.

The shell may be cleaned from persistent spots with a slightly wet cloth or cleaning tissue.

Do not use cleaner or polish, benzyl, solvents, abrasive items, liquid or aerosol detergent means for the product and accessories cleaning.

Specifications

Physical Parameters

Model MAG420, MAG420w1

Weight: 128 g

Dimensions (approximately): 132 mm width,
87 mm depth, 26 mm height

Operation temperature and Humidity

1°C - 40°C; 5% ~ 93%RH

Ethernet Interface

Ethernet Connector: RJ-45

Cable: UTP and STP 5 categories

Speed: Auto-choice, 10/100 Mbit/s

Indicators: Green - Activity, Yellow - Connection

Wi-Fi Interface

Built-in Wi-Fi module 1T1R n (only MAG420w1)

Operating frequency bands: 802.11 b/g/n 2400-2483.5 MHz

Output power: 802.11 b/g/n <20 dBm

USB Interface

Type: USB 2.0 x 1 pcs., USB 3.0 x 1 pcs.

Supported Audio-Video Formats

Video codecs: MPEG1/2 MP@HL, MPEG4 part 2 (ASP),

H.265 Main/Main 10@L5.1 High 2160p@60fps,

H.264 AVC High@L5.1 2160p@30fps, Xvid, 3D video support

Video containers: TS, AVI, MPEG, MP4, MOV, MKV, M2TS, VOB

Audio Codecs: MPEG L1/L2/L3, AAC-LC, HE AAC V1/V2, APE, FLAC

This product supports Dolby Digital Plus™

Video modes: PAL, NTSC, 576p, 720p, 1080p, 1080i, 2160p

Subtitles: DVB, PGS, SRT, SSA/ASS, SUB, Teletext subs, WebVtt,

Closed captions

Audio-Video Interfaces

Audio Connectors: TRRS (On adapter cable:

White=Left channel, Red=Right channel)

Output: 2 V RMS nominal, Loading: 10KΩ

Composite Video Interface, Type:

TRRS (Yellow connector on adapter cable)

Output: 1Vp-p

Power supply interface

Connector: DC cylindrical 2.1 mm x 5.5 mm

Type: plug-and-socket, DC current, center plus

Input 12V±10%

Power Less than 7.5W in typical conditions

Outer Power Supply Unit

Type: Pulse with universal inlet

Input: 110-240 VAC, 50-60 Hz, 0.5A max

Output: 12V 1A

Package

Type: cardboard box

Dimensions (approx.):

225 mm width, 95 mm depth, 60 mm height

Shipping weight: 432 g

The Product Unpacking and Installation

After the product extraction out of the package it is necessary to handle it with care, do not drop, shake it and afford other influence. The product is designed for horizontal allocation onto flat surface.

Do not place the product onto slippery surface, in place where it may be exposed to vibration or hazard to drop and other possible risks to the product to be damaged which may cause invalidation the product guarantee.

Do not dispose the product onto soft surface like on the carpet, bed, etc., for such surfaces cease access to the ventilation openings and complicate air flow that may cause the product overheating and invalidate guarantee in result.

Do not locate the product into the furniture in case of vacant clearance around the product is not provided for the sufficient product ventilation.

Do not place the product in place where it may be exposed to influence of direct sunlight, next to the sources of open fire and convectors.

Do not dispose the product on surfaces which in operating process may get warm, for instance, video record player or intensifier and do not put anything on the top of the shell as well. Do not cover the product with anything.

Containing liquids objects, such as vase, plant pot

are not to be placed next to or on the product. Do not touch or move the product during its operation. Switch off the product if you need to shift it.

The product is intended for use indoors.

The power supply cord is to be put to prevent its deformation and jamming and touching it well. The power supply cord is not to be laid under the carpets or blocked with anything where any damage may not be noticed.

Power supply unit

The product should be used with power supply unit provided by the manufacturer only.

The power supply unit is fitted out with plug which is intended for connecting to socket in your country usage. In case of the necessity in the product connecting in other country or in the region with other data of electric circuit the power supply unit adopted for use in the specified area should be received from the manufacturer.

Operation

The outer power supply unit of the product is getting warm in operation. In case of outer power supply unit gets hot, switch off promptly and get in touch with the equipment supplier for its replacement.

Protection from atmospheric electricity or not using for a long time

On coming the thunderstorm and also in case of the product is intended to be in no use for a long time, disconnect the power supply cord out of socket, switch off Ethernet, video and audio cables. It is to protect the product from thunder discharges and power surges in the circuit.

Usage with Plasma Displays

In the product usage for watching with plasma screens do not pause the picture for more than 5 minutes, otherwise it with other objects as may cause 'burn-out' pixels on the screen. It is not considered as a defect of the product but peculiarity of plasma screens structure. The producer does not bear the responsibility for damages had been caused in such manner.

The Arrangement Designation

The product is intended to select digital audio & video channels from transport streams, decode and display them on TV. Any other use is prohibited. It means Telecommunication Technologies LLC insists on the product usage in entirely accordant to the law of copyright. The compliance with the specified laws leaves on conscience of the user. The unauthorized copying of the protected materials or spreading of the specified copies under definite conditions may

violate the law of copyright and is to be previously adopted by possessor of the rights for the further commercial use.

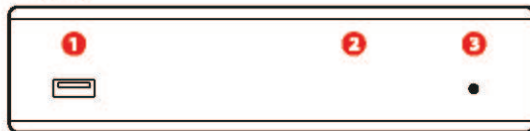
Updating Software

The product possesses the capability of automatic software updating. The manufacturer and your services provider reserve the right for automatic software updating to improve the product functional capability.

During the software updating the product should not be used for watching and switched off until the complete software updating. During the software updating the product switching off is inadmissible. The updating takes several minutes and since then you are able to continue enjoy on all delights of digital television services.

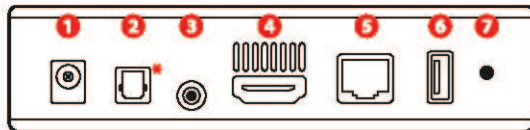
About your MAG420, MAG420w1

Front Panel



1. USB
2. IR-receiver
3. Indicator of stand-by mode/
Indicator of the Remote Unit
Buttons pushed

Back Panel



1. Power Supply
2. S/PDIF*
3. 4-pin 3,5 mm jack, Composite
video output, Stereo line output
4. HDMI
5. Ethernet LAN port
6. USB
7. Fn – Reset to factory settings/
Load from the first U-boot/
Select alternative NAND/
“Emergency” – Load the basic
software from USB/DHCP

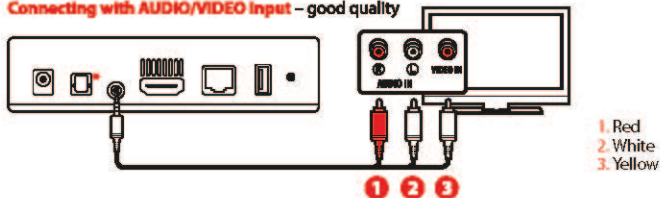
* Optional, may not be available on your device

Connecting to MAG420, MAG420w1

Connecting with HDMI – best quality



Connecting with AUDIO/VIDEO Input – good quality



Warning! Switch off all the devices (TV, amplifier, etc.) and take the power supply unit out of the socket before connecting or disconnecting any cable. If the amplifier is not connected leave digital audio outputs disconnected.

* Optional, may not be available on your device

Using Remote Control to control the Device

This section explains how to unpack Remote Control (RC) and prepare it for work. Your service provider can supply the product with an alternative RC. In that case please refer to the manual supplied by your service provider. Remote Control requires two batteries type AAA, R03, LR03, UM-4, 286.

Important information about using batteries. Do not mix different types of battery or old and new batteries. Do not use rechargeable batteries with the remote control. Remove the batteries from the remote control if you are not going to use it for several weeks, to avoid the risk of leakage. Please respect your environment and any local regulations and dispose of old batteries in a responsible manner.



Caution! Do not attempt to recharge the batteries. Immediately remove any leaking batteries. Take care when handling leaking batteries as they may cause burns to the skin or eyes, or other physical injuries.

Introduction to the Programmable Remote Control Unit (optional)

If MAG420, MAG420w1 package includes a remote control with a block of five programmable buttons

(marked with blue print colour), then you may want to choose these buttons for controlling other devices (TV set, amplifier).

To program the buttons do the following:

- Press the «On/Off» and «A/V» buttons at the same time and hold it for 2 seconds. When the green light of the «On/Off» button will stop blinking and will light steadily, it means the RC is ready to learn.
- Press the button you want to «teach» — the green light will start blinking.
- Place the infrared lamps of two RCs opposite each other and press the button on the RC of the other device, the function of which you wish to copy on device RC. Hold for 2 seconds.
- After the green light two quick blinks you may continue programming other buttons.
- Repeat the procedure described above for all buttons you want to program for controlling external devices.
- Press the «On/Off» and «A/V» buttons to save the programmed data; the green light should fade off.

Reset

Press «SETUP» and «OK» buttons at same time and hold for 2 seconds red LED will flash 5 times. Reset is done.

RCU

Programmable RCU (optional)

Favorites /
Programmable section

Additional
functions

Sound On/Off

Record / AV

Menu

Exit

Back

Info

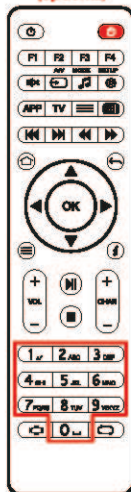
Up
Left OK Right
Down

Confirm

Volume

Change aspect ratio

To select a TV channel



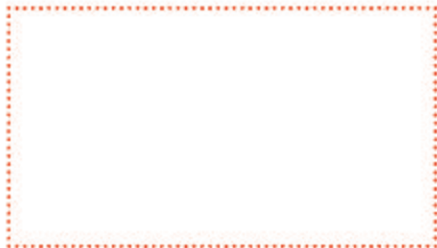
- Turn the Media Player On / Off
- Change audio mode
- Setup menu
- Context menu
- Quick TV access
- TV Guide
- Virtual keyboard
- Skip
- Fast play
- Switch channels
- Play / Pause
- Stop
- Update

Product Information

Product:

Serial Number:

MAC:



The set includes the following:

Set-Top Box	- 1 pcs.
External Power Supply 12V	- 1 pcs.
IR Remote Control	- 1 pcs.
AAA batteries	- 2 pcs.
Instruction manual	- 1 pcs.
Package box	- 1 pcs.

Optionally the set may include the following:

3,5 mm Jack to 3 RCA cable	- 1 pcs.
LAN network cable	- 1 pcs.
HDMI cable length less than 3 m	- 1 pcs.

FCC Statement

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.