P° Miramón, 170 · 20014 San Sebastián · SPAIN Tel.: +34 943 44 89 44 · Fax: +34 943 44 88 20 television@ikusi.com.www.ikusi.tv

RELEASE NOTES

Product: MAC HD (ref.4493)

MAC HOME HD (ref.4488)

MHD-201 (ref.3854) MHD-202 (ref.3855)

Version: 4.0.4

Date: 04/09/18

1. GENERAL INFORMATION

1.1 Purpose and coverage

The MAC HD, MAC HOME HD, MHD-201 and MHD-202 products form a High Definition modulator range with HDMI input (and AV, HD-SDI, USB, depending on the model) and with DVB-T, DVB-C and IP output.

This document describes the new features, compatibility issues, solved problems, and known issues to solve associated with this product release.

1.2 List of releases

- 4.0.4
- 4.0.3
- 4.0.2
- 4.0.1
- 3.0.4
- 3.0.1
- 2.50
- 2.21
- 1.16

1.3 Product identification

1.3.1 Software and hardware review

The Software and Hardware version of the equipment can be verified through the modulator's LCD screen (not available in MHDs), or with the Ikusi Headend Discovery application (not available in MAC HOME HD).

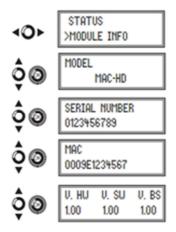
RELEASE NOTES

Product: MAC HD, MAC HOME HD, MHD-201, MHD-202



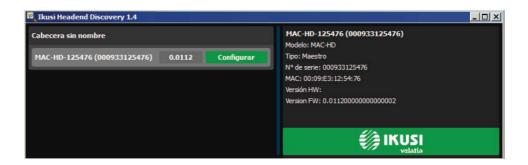
To check the versions through the LCD screen, you have to access the Equipment Information:

- Localize and select the option "MODULE INFO".
- Localize and display the option V.SW V.HW V.BS. The module reports its software version (V.SW), hardware version (V.HW) and boot system version (V.BS).



To check the versions with the "Ikusi Headend Discovery" application:

 Download the "Ikusi Headend Discovery" application available in our website (http://ikusi.tv/en/products/mac-hd) and install it on the computer. A window will open and we will see the model, the MAC address, the serial number and the firmware version.



Product: MAC HD, MAC HOME HD, MHD-201, MHD-202



1.4 Compatibility information

1.4.1 Supported HW

Not applicable. All HW versions are supported.

1.4.2 Backwards compatibility notes

It is not possible to downgrade.

2. RELEASE HISTORY

- Software release 4.0.4 (04/09/2018)
 - New features
 - Improvements are introduced to increase the number of compatible USB storage devices
 - Resolved issues
 - None
 - Known issues
 - None
- Software release 4.0.3 (22/05/2018)
 - New features
 - EDID sending is now configurable to increase the number of supported TV sources (not available in MAC HOME HD)
 - Resolved issues
 - MAC HOME HD displayed an error message when detecting 1080p50 resolution
 - Known issues
 - None
- Software release 4.0.2 (24/01/2018)
 - New features
 - None
 - Resolved issues
 - Access through Ikusi Headend Discovery didn't work in some devices
 - Known issues

RELEASE NOTES

Product: MAC HD, MAC HOME HD, MHD-201, MHD-202



- MAC HOME HD displays an error message when detecting 1080p50 resolution
- Software release 4.0.1 (20/03/2017)
 - New features
 - DVB-C output option is added
 - Increase in compatibility with some HDMI sources, for example with Apple TV STBs
 - Some changes have been added to improve reliability and performance
 - Web interface information is simplified, removing Version Loader parameter

Resolved issues

- Output TSID is not modified. All channels have the same one,
 21
- Password change doesn't work properly when it is done twice
- Output carrier occupancy values are not properly shown in the user interface

Known issues

- Access through Ikusi Headend Discovery doesn't work in some devices
- MAC HOME HD displays an error message when detecting 1080p50 resolution
- Software release 3.0.4 (23/06/2016)
 - New features
 - Unified firmware release for MAC-HD, MAC-HOME HD, MHD-201 and MHD-202 models
 - Resolved issues
 - "Reset Factory" has been optimized
 - Some errata in the text of the user interface have been corrected
 - Known issues
 - None
- Software release 3.0.1 (09/10/2015)
 - New features
 - Simultaneous IP and COFDM output

RELEASE NOTES

Product: MAC HD, MAC HOME HD, MHD-201, MHD-202



- Audio bitrate by default according to the country
- Different PID for each PMT or service

Resolved issues

- "Factory reset" on some parameters
- MHz frequencies for VHF channels
- Web interface text errors fixed
- Output pixellations with acceptable input bitrates
- Plug / unplug USB drive problems
- SDI SD + CVBS 480i input combination
- Output problems when uncommon SDI format is used at the input

Known issues

Channel occupation value data less than real one.

• Software release 2.50 (31/10/2014)

- New features
 - None

Resolved issues

- Translation errors in the display fixed
- "Zero" allowed when you configure the IP address
- It is allowed to change the parameters of the second service via display although it does not exist in the input
- Frequency change via web fixes in live, previously the changes applied after a reboot
- Channel 38 set up by default for Australia
- When the codification changes from MPEG4 to MPEG2 the bitrate adjusts to the maximum permitted in MPEG2 automatically
- TSID default value fixed in order to match with the default channel number. If the default channel number is 42, the TSID must be 42 as well. Previously the TSID was assigned with another different value.
- Errors fixed when the selected country was France and after a network disconnection it does not work properly

Known issues

None

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• Software release 2.21 (24/03/2014)

- New features
 - IP Output
 - Automatic output bitrate adaptation whenever the USB is inserted
 - HD file reproduction (USB)
 - Response speed improvements adjusting the module via web
 - Operating hours reporting
 - Australia country parameters by default

Resolved issues

- Lack of audio after power reset (with some receivers)
- Web / Joystick attenuation steps matched
- Country & Language synchronization
- Web menu syntax translations
- Italian language support added
- USB support improvement
- Stability improvements
- Homepage redirection after Factory Reset
- Display block using
- User password introduction with upper and lower case
- SDI and HDMI commutation response improved
- SW, HW and Loader information visibility improved
- Web interface text errors fixed
- TV system detection optimized in HDMI Input
- Support to set-top-boxes with HDMI late signalization
- Input signal synchronization improvement

Known issues

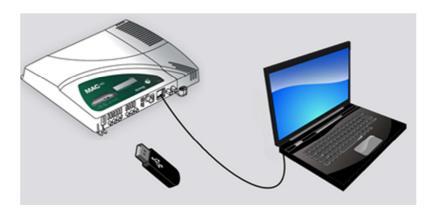
None

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3. UPGRADE INSTRUCTIONS

3.1 Installation environment



3.2 Equipment/modules checking

To make sure there is no compatibility problems, before you update to the new software, write down both software and hardware current version. Compare the version numbers with the information presented in this document to confirm their compatibility. Also verify there is no hardware alarms activated.

3.3 Software upgrade procedure

3.3.1 Through web interface (not available in MAC HOME HD)

- Download to the computer the file Firmware v2.50 from our website http://ikusi.tv/en/products/mac-hd
- From the Web navigator, Select the "GENERAL" menu and then the "Upgrade" tab.
- Select the firmware update package clicking on the "SELECT FILE" button to choose the firmware update file needed



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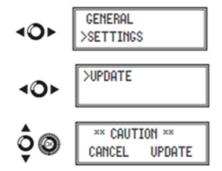
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• To launch the update click on the "Upgrade" button

Upgrade

3.3.2 Through USB (not available in MHDs)

- Download to the computer the file Firmware v2.50 from our website http://ikusi.tv/en/products/mac-hd
- Unzip it and introduce the file into the root directory of a USB flash drive
- Insert the flash drive into the USB port of the computer
- Localize and select the option "SYSTEM UPATE"



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