Firmware Release Notes

Version 4.6r1p3

New features and enhancements

System control

Common to all ISP/I.ISP/ISR

- Add Center Shift feature during configuration allowing to move Center channel phantom image using multiple speakers.
- Add Adaptive Loudness with three settings (Low, Medium, Full) to help maintain the bass/treble balance whichever volume level is adjusted.

Changes from 4.6r0p2 to 4.6r1p3

Common to all ISP/I.ISP/ISR

- Remote control "Sub Enhance" adjustment is now "LFE Enhance" adjustment, as it plays on LFE signal and not the whole Subwoofer(s) level(s) anymore
    - TCP/IP command: both Sub and LFE Enhance call will work
    - UI adjustment.
- "XLR In" is now available as external input generator
- Multiple DIRAC issues addressed:
    - Dirac profile doesn't apply after reboot in some cases.
    - No allowance of Dirac calibration after factory reset in some cases.
- Short Audio Descriptor ARC fix
- Loss of the Center channel in some streaming App, between preview and movie in AppleTV or other devices, is now addressed.
- CEC: management of Mute command (HDMI 2.0 eARC and HDMI 2.1 boards).

Specific to Focal Astral 16

- Dirac ART support with Astral16v2 hardware

Specific to ISP MK1

- Fix for wrong support of XLR4 option

Overview of ISP / I.ISP / ISR firmware installation

The ISP / I.ISP / ISR product range is made of ISP & I.ISP MK1, ISP MK2, ISP MK3, ISP CORE 16, ISP EVO & ISR Fusion 20. Although sharing the same firmware, the upgrade process differs with the use of differentiated firmware packages. ISP & I.ISP MK1, ISP MK2, ISP MK3, ISP EVO & ISR Fusion 20 share the same isp_4.6r1p2_20241001 while the ISP CORE 16 has a specific package isp_4.6r1p2-core_20241001.

Also, although the firmware development is common, the hardware platforms have differences leading to different features available and therefore different possible known issues even though the firmware version is the same.

This Release Notes document summarizes the firmware status for all ISP, I.ISP and ISR units, including all so far known issues and limitations. For a detailed information about the whole firmware upgrade process, please consult the "Firmware Update" section available in the Knowledge Center website.

Upgrade information

Make sure to first do a backup of the configuration of your ISP / I.ISP / ISR. Check updated Installer Guide or Owner Manual for more information on Backup Configuration feature.

Upgrade from Firmware earlier than 2.1r0 requires specific actions.
Please contact our support team for further information (support@stormaudio.com).

Upgrading from 2.1r2, make sure the date is part of the file name, such as **isp_4.6r1p2_20241001.** If not, add it. Upgrade from 2.1r2 onward can be done using the described process.

The upgrade can be done either via the Web User Interface Remote Upgrade function (by entering the Unit IP on a web browser and selecting the System tab) or via a USB dongle key connected in the back panel of the unit. We recommend the use of the Web User Interface.
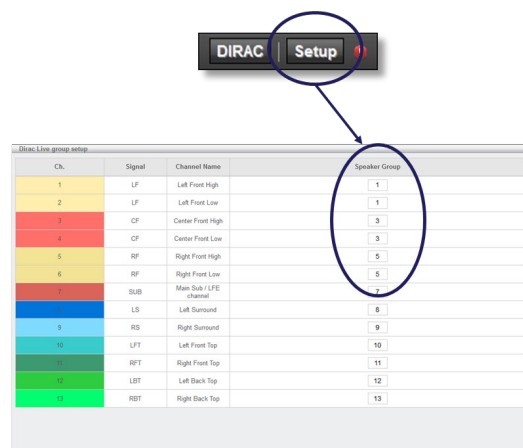
The upgrade packages can be downloaded from the StormAudio Support webpage of the Client Portal (https://www.portal-access.stormaudio.com/). Make sure to select the package according to your ISP model.

Unit with firmware up to 3.5rX version

If upgrading from an earlier version than 4.0r0 firmware such as 3.5rx, please follow below steps prior to upgrading to 4.6r1p2.

Important recommendations:
- Start first with an upgrade to 3.5r7 firmware to ensure product configuration and database is up to date (make a configuration backup first)
- For multiway speakers, use the "Dirac setup" to **group channels into speaker.**
- **Ungroup** subwoofers and other speakers.
- Upgrade to **4.1r2 version**

Unit with firmware prior to 4.1r2

If the unit is loaded with firmware revision earlier than 4.1r2, it is necessary to first upgrade it with the 4.1r2 firmware package available in the Client Portal. Only when the unit is at 4.1r2 firmware level you can proceed to the next step and upgrade to 4.4r1 firmware revision.

Unit with firmware 4.1r2

With the launch of the ISP CORE 16, a new encryption and licensing mechanism has been added requiring having a specific "transition" firmware package to upgrade to firmware 4.2r0.

- Any ISP/I.ISP MK1 or ISP MK2 will have to be upgraded with this firmware package:
  trans-isp_4.2r0_20210927.ssp
- Any ISP/I.ISP MK1 or ISP MK2 loaded with a beta version of firmware 4.2r0 (so called Release Candidate RCx) will have to be upgraded with this firmware package:
  isp_4.2r0_20210927.ssp
- Any ISP CORE 16 will have to be upgraded with this firmware package:
  isp_4.2r0-core_20210927.ssp

Note: Downgrade from 4.2r0 to a lower version is possible with a **special 4.1r2 or 4.1r3 bridge software** version. Please contact StormAudio for more information ([support@stormaudio.com).](mailto:support@stormaudio.com)
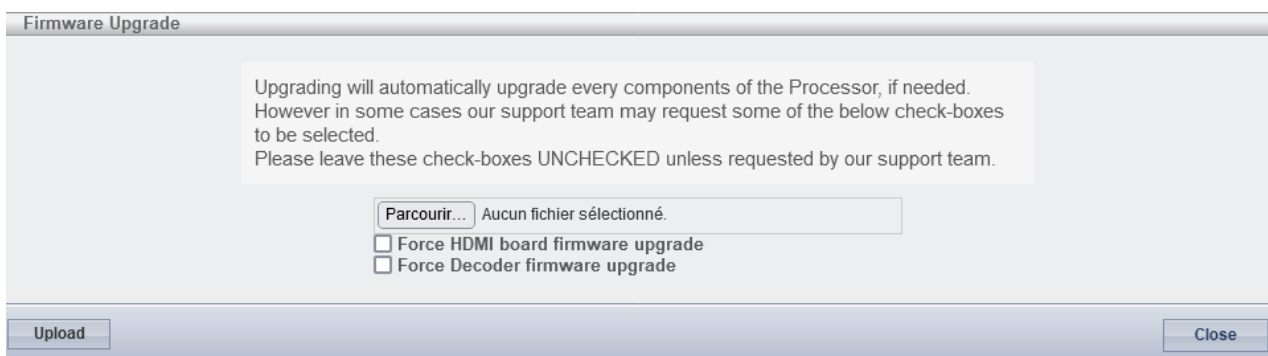
Unit with firmware 4.2r0 and onward

With 4.2r0 (and onward) loaded unit, the upgrade process is normal as described in next section. Per product specific firmware packages are available in the Client Portal.

- ISP/I.ISP MK1, ISP MK2, ISP MK3 or ISP EVO will have to be upgraded with this firmware package:
  isp_4.6r1p2_20241001
- ISP CORE 16 will have to be upgraded with this firmware package:
  isp_4.6r1p2-core_20241001

Upgrade process

The upgrade process can be monitored either on the Web User Interface (banner on top of the page, green at the beginning and red during the upgrade) or on the Front Panel display. A step-by-step process will be shown once "Firmware update" is selected on the System page of your ISP.

When prompted, select the file you have downloaded. **Do not check** the two boxes (Force HDMI and decoder upgrade) unless formerly requested by our support team. Then select Upload to launch the upgrade process that will take about 5 to 10mn to complete.

Do not interrupt the process before reading the message:
"Update finished successfully; unit will restart shortly".

Unit will restart automatically when upgrade is done through the Web User Interface.

Internal software versions overview.

Following the upgrade of the ISP/I.ISP/ISR, you can verify that the system has been properly updated by checking each internal module versions. Click on "V4.6r1p2" firmware version indication in the System page of the Web User Interface and the below pop-up window will be shown.

Composant	Version	
Release	4.6r1p2	
MAIN FIRMWARE	127.8	
Coprocessors	16 / 20 Channel	32 Channel Capable
Coprocessor A	22.10	12.1^e
Coprocessor B	21.14	11.d
Coprocessor C		2037
Coprocessor D		2037
FPGA A	1e	
FPGA B	16	
Decoder		
APM	APM 118 v254, Oct 24 2021	
HDMI	HMC82	HMC83
	v1.38	v1.56

Note: If HSR72Q (7+2) HDMI board is installed: HDMI firmware version is v58r46r52.

Firmware release historic

You will find below former firmware revision Release Notes summary.

FW4.6r0 (20240523)

Changes from 4.5r0 to 4.5r2

Common to all ISP/I.ISP

- StormXt extension to Native mode: 5.1 & 7.1 legacy now included.
- In the WebUI Header, presets now classified by Theater.
- Add Bessel filter on bass management crossover: BESS 12, BESS 24, BESS 36, BES 48
- Always generate a Preset when a profile is created.
- With StormEasy, automatically assign created Inputs and Presets to the IR assignment table.
- CEC expansion:
  - Add CEC Hostname.
  - Bug fix on CEC Order stack.
  - CEC Mode passthrough added.
  - Power On and power Off of ISP / TV / Source in fast boot mode.
  - Blocking of CEC commands for zone 2 (HDMI Output 2)
- Improve the message on front panel when switching On or Off.
- TCP IP:
  - Prevent selection of disabled input. Return error message.
  - Add zone2x audio profile selection.
  - Add Preset + and – commands.
  - Add Input + and – commands.
- Add StormXt status on OSD.
- Allow SP4 (Bryston) and Astral (Focal) upgradeability to StormAudio firmware via license.
- FAN monitoring Bug Fix on ISR and 2ISP.
- HDMI:
  - ARC/eARC improvements.
  - CEC settings
  - DHCP issue with Barco projectors resolution
  - Color depth issue resolution.

Specific to ISR Fusion

- Bug Fix in output mapping when changing BTL channel route.
- Add BTL support for Subwoofer.

New features and enhancements

System Control

Common to all ISP/I.ISP
- Add Zone 2.x support:
  - Use of the Configurator to create Zones.
  - Add Sub(s) with bass management support on Zones.
  - Add multi-way support on Zones.
  - Zones become by default audio/video zones.
  - Add Dirac ART support on Zones.
  - Multiple Zones' Audio Profiles management selectable on remote controls.

- Add multi-way Sub management allowing sub array with Dirac Live Bass Control and ART
- Add Bass shaker management on ISP platform:
  - Bass shaker takes LFE channel.
  - Bass Shaker not included in Dirac calibration.
- Add on Settings page:
  - Audio / Video mode selection for the Zones, AV by default,
  - Add CEC settings:
    - Enable general CEC.
    - Allow Standby from TV.
    - Allow Standby from device.
    - Enable one touch play.
- Add Top speaker selection without Center Height speaker in allowed configurations.

FW4.5r2 (20230925)

Changes from 4.5r0 to 4.5r2

Common to all ISP/I.ISP

- HMC82: Arc/eArc bug fix.
- Remote: Saving the tone controls for each zone.
- EQ: Possibility of adjusting the low frequency down to 6 Hz.

New features and enhancements

System Control

Common to all ISP/I.ISP
- HMC83: new hdmi 2.1 card.

Specific to ISR Fusion 20
- New device ISR Fusion 20
- Add StormEasy compatibility for ISR Fusion

Audio formats & speaker configuration

Common to all ISP/I.ISP
- Configurators: Adding new speakers in low layer. maximum 19.x.x.x

FW4.5r0 (20230609)

Changes from 4.4r1 to 4.5r0

Common to all ISP/I.ISP

- Autolipsync issue fix
- IO2 flash eeprom issue fix.

New features and enhancements

Audio Formats & speaker configuration

Dirac Live
- Add compatibility with Dirac Live Active Room Treatment.

FW4.4r1 (20230308)

Changes from 4.3r1 to 4.4r1

Common to all ISP/I.ISP

- HDMI Pass Through is now possible when in Standby with Fast boot mode active.
- In EQ adjustment, Q step will now start at 0.05 instead of 0.25.
- It is now possible to link a Preset activation to an Input selection.

New features and enhancements of 4.3r1

System Control

Common to all ISP/I.ISP

- HDMI CEC Control (**beta**)
    - o Power on action: TV Power on.
    - o One touch play: Change ISP input when player is powered on.
    - o System audio control: Change volume with input and output hdmi.
- StormEasy configurator
    - o New high-level easy step-by-step product configurator.
- New design of the WebUI header and configuration menu for a more practical use.

Specific to ISP EVO

- Software support for this new model

Audio formats & speaker configuration

Common to all ISP/I.ISP

- Multiple layout configuration
    - o Add Multi layout function.
    - o Maximum 6 layouts
- Low latency mode
    - o Reduce the latency to 13ms.
    - o At the cost of Dirac filters being disabled (EQ and Bass Management still possible)
- Bessel filter:
    - o Added to EQ adjustments.
    - o Added to Bass Management
- Fractional delay
    - o Delay will now be adjustable down to 0.005ms.
- Removal of SphereAudio feature.

FW4.3r1 (20220407)

Changes from 4.3r0p1 to 4.3r1

Common to all ISP/I.ISP

- Vumeter
    - o Fix an issue, the VuMeter and the limiter clip under 0dB.
- 3D Viewer & configurator
    - o Move L & R speaker from corner to behind screen.
    - o Change the header color.
- Update
    - o Fix an issue when using USB key, if you use the same update package version, message "Update already successfully applied" is displayed.

Specific to MK1.5/MK2/MK3/CORE 16

- Decoding
    - Fix an issue with some theater (9.1.4.6 or 9.1.5.6 or 9.1.5.7), with DD+ Atmos and DD+ 7.1/5.1.
    - Fix an issue, some stream (DDP 7.1 & THD7.1) was not down mixed to 5.1 theater.
    - Fix an issue PCM 2.0 detected and played instead of PCM 7.1

Specific to ISP CORE 16/MK3

- Fix an issue reset impossible after standby operation.

New features and enhancements of 4.3r1

Audio formats & speaker configuration

Common to all ISP/I.ISP

- "Surround enhance" applies to all speakers except Front and Center screen speakers.

Specific to MK1.5/MK2/CORE 16

- IMAX Enhanced:
    - IMAX Enhanced feature is now available.

Specific to MK3 and ISP Core 16

- IMAX Enhanced:
    - Add Imax audio stream Info on the front panel.
- Vumeter
    - Add VuMeter zoom on the front panel: Detailed information, Global VuMeter and Room VuMeter.

FW4.3r0p1 (20220530)

Changes from 4.3r0 to 4.3r0p1

Common to all ISP/I.ISP

- TCP/API:
    - Fix an issue related to connection (can lead to 0 dB volume).
    - Fix an issue related to inputs list command.
- EQs:
    - Fix an issue related to REW import.
    - Fix an issue related to enable/disable EQ.
- Remote IR
    - Fix an issue related to reboot when IR remote control buttons are pressed too quickly.

Specific to ISP CORE 16/MK3

- Upgrade:
    - Fix an issue when using USB key, if you use the same update package version, message "Update already succesfully applied" is displayed.

FW4.3r0 (20220426)

Changes from 4.2r1p2 to 4.3r0

Common to all ISP/I.ISP

- TCP/API: Fix an issue related to processor model info.
- HDMI OSD (only with 7+2 eARC HDMI board): Fix an issue related to persistent audio stream info.
- EQs: Fix an issue related to hide/display curves on graphic view (line legend vs column checkbox).
- Dirac / Bass Control: Fix an issue related to duplicate Bass Zone when creating a new profile.
- Bass Routing: Fix an issue related to "With LFE" gain and SUB channel in Expert mode.

Specific to MK1

- Decoding: Fix an issue related to Apple TV and playing Dolby Atmos® in loop.
- WebUI: Fix an issue related to parameters not saved in Settings page.

Specific to MK1/MK1.5/MK2/CORE 16

- HDMI EDID
    - Fix an issue related to interoperability improvement.
    - Fix an issue with product name info.

Specific to ISP CORE 16

- Upgrade: Fix an issue related to incorrect board reset.
- Powering: Fix an issue related to automatic start after main power down.

New features and enhancements of 4.3r0

System Control

Common to all ISP/I.ISP

- TCP/API
    - Command for HDMI video information access has been added (input, sync, timing, …).
- Volume control for Theater and Zone
    - De-mute when increasing volume.

Specific to MK1/MK1.5/MK2/MK3 and ISP Core 16

- HDMI Matrix feature is now available (only with 7+2 eARC HDMI board) (requires a license for ISP Core 16).
- HDMI auto-lipsync feature is now available on Theater and A/V Zones (only with 7+2 eARC HDMI board).
- HDMI OSD (only with 7+2 eARC HDMI board).
    - Change info presentation in box.
    - Increase timeout display box.
    - Zone2 A/V info has been added.
- TCP/API (only with 7+2 eARC HDMI board)
    - Command for HDMI pass through has been added.
    - Command for OSD has been added.

Specific to MK3 and ISP CORE 16

- TCP/API
    - Navigation command for front panel menu has been added.
    - Turn on/off command for front panel display has been added.

Audio formats & speaker configuration

Common to all ISP/I.ISP

- EQs
    - Q factor step is now 0.05.

o   Q factor is now available for Low and High Shelving filters (note: Q value is now 0.70 instead of 0.707 previously).

Removed features

Common to all ISP/I.ISP
- TCP/API
  - o   Threshold step 0.1 dB under -20 dB has been removed.
- Zone2 audio in
  - o   When ZONE2 SOURCE is None, now no audio will come out. Previously, it was coming from the Main Theater source.

FW4.2r1p2 (20220126)

Changes from 4.2r0 to 4.2r1

Common to all ISP/I.ISP
- Fix an issue with export parameters to Excel file function.
- Fix a minor look and feel issue on the Speakers Configurator.
- UI rework of the Settings page.
- Rework of the Speakers page.
- Information populated on the firmware Version page has been updated.
- Inversion of FIR filter and -0.1 dB order in ASRC.

Specific to MK1.5/MK2
- Fix an issue with plop heard when changing channel from Analog to Digital output type.

Specific to ISP CORE 16
- Fix an issue with the RTA.
- Fix an issue with plop heard on Zone2 DIGITAL OUPUT during initialisation or upgrade.
- Reduction of upgrade package file size.

New features and enhancements of 4.2r1

System Control

Specific to MK1/MK1.5/MK2
- IR remote control, INFO button is now supported.

Specific to ISP CORE 16
- IR remote control, DISPLAY and INFO buttons are now supported.
- Front panel
  - o   Theater/Zones navigation is now supported.
  - o   Active brightness is now supported.
  - o   "Custom" preset information is now supported.
- StormXT ambiance expender is now supported in DSP. Requires license activation.

Audio formats & speaker configuration

Common to all ISP/I.ISP
- Export EQs to REW text file format is now supported.

Specific to CORE 16
- Fast loading of Dirac coefficients.

FW4.2r0 (20210927)

Changes from 4.1r2 to 4.2r0

Specific to MK1

- Fix AAC 2.0 detection when playing stream recorded on some HDD recorder (Panasonic, Japan broadcast recording).

Specific to MK1.5/MK2

- Improve EDID Dolby Digital Plus Short Audio Descriptor vendor (add ACMOD28 byte).

New features and enhancements of 4.2r0

System Control

Common to all ISP/I.ISP

- IR Remote control is now available and supported.
- New TCP/API command for the StormXT feature

Audio formats & speaker configuration

Specific to MK1/MK2/MK1.5

- StormXT ambiance expander addition
- Viewer3D Theater tool is now available (only if Theater has been created with Configurator V2 for MK1).
- Fast loading Dirac coefficient.

Specific to CORE 16

- Viewer3D Theater tool is now available

Features removed in this release

- "Preset 5" button direct access has been removed from the IR command set

FW4.1r2 (20210511)

Changes from 4.1r1 to 4.1r2

Common to all ISP/I.ISP

- Optimize audio headroom for configuration without post-processing (bypass mode) to help maximizing the dynamic range of the system.
- Improve high frequency rejection for 44.1 kHz sampling rate with addition of FIR filter in all channels.
- Address issue with wrong crossover parameter saved when editing bass management.
- Address issue when deleting Profile: now, it will also remove Presets calling this profile.
- Address issue with ROON refusing to start playback: "device refuses to switch input".
- Address issue with triggers at sleep off.
- Address issue with "DTS analog compensation". Some old players or computers miss reporting analog compensation notifications with DTS:X content.
- Address issue with Theater name in the configurator (multiple subwoofers).
- Address issue with DIGOUT and Theater Alternate (MK1 only).
- Address issue with master volume control on AVB OUT board.
- Address issue with potential crash of TCP/API (Savant interface).
- Address AES IN contextual help.

New features and enhancements of 4.1r2

System Control

- Support of Center Front Height channel alone in the Height layer (up to 452 speakers' configurations available now)

Features not present in this release

- IMAX Enhanced decoder is not yet activated (MK2 & MK1.5).
- Zone2 audio in path for HDMI, AES aux, Stereo 5.1 RCA, Stereo 7.1 RCA, ROON and ARC/eARC.
- ROON application cannot control ZONES
- 7+2 eARC HDMI board: CEC command and CEC passthrough.
- Monitoring:
    - Vertical limiters bar information has been removed on Vumeter.
    - Analog volume not displayed on Vumeter.

FW4.1r1 (20210107)

Changes from 4.0r2 to 4.1r1

System Control

Common to all ISP/I.ISP

- Flexible Bass Management:
    - It's now possible to configure up to 6 bass zones.

Specific to MK2/MK1.5

- Following DTS Certification, DTS:X® content can now be played in 'Direct Mode' or 'Neural:X' Mode.
    - If preferred upmix is set to "Native", DTS:X® is played with Object but without upmix.
    - If any other upmix is selected, DTS:X® stream is decoded to match the listening configuration, with object rendering and upmix.
- On system with both Analog and Digital output, an Analog or Digital volume mode is selectable.
    - Digital volume works with both Digital and Analog output but with degraded performance of analog output (higher noise floor).
    - Analog volume works with Analog ouput only (with best analog output performance).
    WARNING : it is not possible to control volume on a Digital Output configured in Analog mode.

Audio Formats & speaker configuration

Specific to MK2/MK1.5

- DTS:X Pro™ 24 channel decoder is now supported.
- Many annoying glitches and slow transition have been resolved.
    - Behaviour on play/pause with Zappiti and Zidoo player is improved.
- Speakers configuration (396 possible configuration):
    - Theater 13.1.x.x has been renamed to 13sc.1.x.x
    - Theater 7sc.1.x.x, 9sc.1.x.x and 11sc.1.x.x screen has been added.
        - Left and Right Center channel pair are now supported.
    - Theater x.1.2f.0 has been added.
    - Configuration can now have Center Height without Voice of God, or Voice of God without Center Height.
    - Left and Right Surround 1 pair is now supported.
    - Left and Right Surround 2 pair is now supported.
- "PCM 7.1" content can now be upmixed with "DTS Neural:X" upmixer.

- Legacy 96 KHz content can now be upmixed with "DTS Neural:X" and "Auro-Matic" upmixer.
- Correct playback of some PureAudio Bluray with 24/192 content ("DTS HD Master 192 Quadio 4.0").

- 7+2 eARC board:
  - eARC / ARC compatibility has been improved (more screens tested).
  - EDID and eARC capabilities files are now included in logs package.
  - Better mute handling on stream change.

Removed features

Specific to MK2/MK1.5

- Speaker configuration:
  - Theater x.1.1.5 and x.1.1.7 has been removed.

FW4.0r2 (20200610)

Changes from 4.0r1 to 4.0r2

Common to all ISP/I.ISP

- Fix single tab issue in Safari on mac OS Catalina (WebKit Bugzilla). It is recommended to remove cache for all IP related to StormAudio devices (https://support.apple.com/fr-fr/guide/safari/sfri47acf5d6/mac).
- Fix word spelling in EQs page.
- Fix word spelling in contextual help.
- Fix issue where it was not possible to wake-up device from Deep Standby state.

FW4.0r1 (20200416)

Changes from 3.5r7 to 4.0r1

- Fixed a bug where Clicking on Save Profile while editing a profile would quit the Edit mode.
- Fixed a bug with Roon where Source Selection would not work after a restart of the Roon Core Software.
- Fixed a bug on MK1 where x.1.2f theater had no sound with legacy streams in Native mode.
- Fixed a bug on MK2 where Dolby legacy 5.1 s
- tream would play as 7.1.

New features and enhancements of 4.0r1

SYSTEM CONTROL

- Bass Management:
  - New filters type has been added (BT 12, BT 24, BT 48, LR 36, LR48).
  - Bass are now managed per speaker, and not per signal.
  - Bass management can handle up to 32 speakers.
  - Bass management is compatible with Dirac Live Bass Control.
  - Fully operational on Child Theater.

- Speaker Configurator:
  - A new layer per layer configurator has been added. It allows to configure a Theater without going through a big list of possible configurations.

- It is possible to specify whether each speaker is a multiway speaker, a replicated speaker, or even a replicated multiway.
- Inputs:
  - ROON main audio in has been added. Roon ready certification is ongoing.
  - Stereo 5+1 main audio in has been added.
  - XLR In main audio in has been added and can be used as a Zone 2 Audio In. XLR In comes as an alternative to RCA4 In.

- Monitoring:
  - Warning and error message improvement.
  - Vumeter has been reworked to handle up to 24 input channels.

- Save:
  - Modifications are now automatically saved (except on Speakers and System page).

- System:
  - Support: Main Audio Board is now available in the main firmware, no specific external diagnostic firmware is needed.
  - It's now possible for Theaters and Audio Zones to recall an adjustable Default Volume Level at unit power up, with the mode turned to ON.

AUDIO FORMATS & SPEAKER CONFIGURATION
- New decoder (MK2/MK1.5 product):
  - No more long switching time between codecs or surround.
  - Up to 24 channel support in Dolby Atmos mode. 13.1.10 configurations are now possible.
  - Compatible with upcoming DTS:X Pro and IMAX Enhanced.

DIRAC LIVE BASS CONTROL
- Support of Dirac Live Bass Control add on module has been added, free of charge for StormAudio customers, including for MK1 units' owners.

HDMI
- On Screen Display feature is now available (16:9 screen, 21:9 screen, OFF).
- It's now possible to control HDMI audio outputs (ON/OFF).
- HDMI AUX output fully operational.
- Audio stream detection issue (AppleTV+) is now fixed.
- HBR audio extraction issue is now fixed.

TCP/IP API
- Add "up / down" commands for Zones volume control.
- IMAX Mode command has been added (preparation for IMAX Enhanced future activation).

REMOVED FEATURE
- Monitoring: Vertical limiters bar information has been removed.
- SphereAudio has no effect (if SphereAudio is used, content will be played as Stereo Audio Zone). This is a temporary regression that will be addressed in a future firmware release.

FW3.5r7 (20191205)

New features and enhancements

SYSTEM & CONTROL
- New upgrade scheme for audio decoder

- Support of new flash ID for W25q64 (J serie)
- Front panel
  - Fix issue with display settings lost at power down

HDMI
- HMC82 (7+2 eARC)
  - Fix issue with eARC/ARC audio extraction,
  - Fix HBR audio extraction issue affecting Apple TV Atmos enabled app (Neflix, AppleTV+)

FW3.5r3 (20190726)

New features and enhancements

SYSTEM & CONTROL
- WebUI
  - Copy to EQ : fix crossover copy issue with EDGE browser
- TCP/IP API
  - Zone volume up and down commands added

HDMI
- HSR82P
  - Fix audio stream detection issue

FW 3.5r2 (20190620)

New features and enhancements

SYSTEM & CONTROL
- TCP/IP API
  - "Proc state" improvement.
- General bug fixes

FW 3.5r1 (20190415)

New features and enhancements

SYSTEM & CONTROL
- WebUI
  - EQ creation and visualisation
    - Filter frequency response view.
    - Combined filters frequency response view.
    - EQ bank per channel has been increased from 10 to 20.
  - Zone2
    - OPTICAL (PCM only) / COAX (PCM only) / Stereo Analog input can be used has Zone2 audio in.
    - Zone2 audio is displayed in VuMeter.
  - External generator is available for HDMI / OPTICAL / COAX / Stereo Analog.
  - Deep/Standby Network is configurable.
  - Download logs include SQL configuration (only for support).
  - Monitoring unit "sleep" status event added.
  - Input, audio in "eARC" has been replace by "ARC/eARC".
- Dirac Live DLCT 2.x:
  - Management of Dolby Enabled Speakers.

- Room EQ Wizard
  - EQ Filters can be exported from REW, then imported to ISP.
- TCP/IP API
  - Zone2 control command added.

HDMI
- HSR72-Q new software
  - Hot Plug Event and authentication improvement.
  - AppleTV improvement.
  - AppleTV switching to Oppo UDP203 improvement.
- New HMC82 board control
  - ARC and eARC compatible.
  - Dolby Vision, Standard and Low Latency pass through.

Removed features

SYSTEM & CONTROL
- WebUI
  - Loudness and CinemaEQ

FW 3.4r4 (20190326)

New features and enhancements

SYSTEM & CONTROL
- Dirac Live DLCT 2.x
  - communication stability improvement,
  - Real-time noise generator impossible level adjustment issue addressed,
- Correction of Volume Zone command, in link to TCP/IP and Control Systems (RTI, Crestron).

FW 3.4r2 (20181219)

New features and enhancements

SYSTEM & CONTROL
- Dirac Live DLCT 2.0 is now available and compatible with ISP/I.ISP. Firmware is still compliant and compatible with Dirac Live for StormAudio 1.0.
- Dirac Live tools can be used with Safari browser (macOS X) running the WebUI.

AUDIO FORMATS & SPEAKERS CONFIGURATION
- Improvement of Dolby Atmos detection when played on AppleTV and Xbox.

HDMI
- HDMI output drive strength value can be changed (only for support).
- Zappiti media box interoperability improvement.

FW 3.4r1 (20181009)

New features and enhancements

SYSTEM & CONTROL
- Front panel:
  - New GUI with better readability.

o   Allows for restoring "installer" and "expert" user/password.
- WebUI:
  - o   Monitor HDMI output 1 and 2 states.
  - o   Monitor back fan fault.
  - o   VuMeter and Console are now working over Domotz and remote tunnel.
  - o   Hardware System info page has been reworked.
  - o   Only ASCII characters are handled in the editable area.
- New PSU is now detected and managed.
- At wake-up, we force back fan speed at 50% during 1min in order to detect fan failure.

HDMI
- Improved EDID handshaking robustness (AppleTV, SONY projector, INNEOS Optical Fiber…) for faster source and resolution change.

FW 3.4r0 (20180817)

New features and enhancements

SYSTEM & CONTROL
- IR remote control handling through back panel connection. WARNING: "IR IN" is always bottom connector and "IR OUT" is always top connector, whichever silkscreen used.
- 16ch RCA board option can be used as alternate or XLR16 replicate (StormAudio ISP range).
- 16ch AES/EBU Input can now be processed by the decoder for upmixing when in 7.1 or 5.1 mode.
- 16ch AES/EBU Input with Auro-3D encoded 5.1 or 7.1 PCM streams is now detected and decoded.
- XLR 4 board option is now supported.
- Preferred Upmix is now assignable per Input.
- Limiters are now adjustable (level and enable/disable) on a per speaker basis in Speakers page.
- WebUI Improvement (pop-up, screen resolution) to better match with various display resolution.
- Home/rack mode for I.ISP (change fan regulation law) for quieter operation in home mode.
- Volume Level reference (set and recall) for the noise generator in Speakers page.

AUDIO FORMATS & SPEAKERS CONFIGURATION
- Speakers Layout expansion to support 9.1.5.6 layout.
- Phantom Center feature is now available for any Speakers layout.
- Sub Theater definition is now possible as sub-zone / child zone of a Theater (with Mono, Stereo Left, Stereo Right and SUB signals selection). Limitation: not possible to use different signal in different child zone.

FW 3.3r2 (20180606)

New features and enhancements

SYSTEM & CONTROL
- Custom Bass Management has been renamed to "Expert" Bass Management.
- Parameters changed in Edit Speakers page are now automatically saved when going on EQ page.

AUDIO FORMATS & SPEAKERS CONFIGURATION
- PCM upmixed with DTS Neural:X reaches saturation on center and wide channels correction.
- Improvement of PCM 44.1 and 48 kHz transition with play/pause/skip from source.
- Improved phase response of the 2nd order filters used for Multi-Way speakers and Bass Management and of the 4th order filters used in the LARGE AND SUB case for the Bass Management is available.

FW 3.3r0 (20180410)

New features and enhancements

SYSTEM & CONTROL
- Software upgrade will only update parts of the firmware that are different from the upgrade package used. It is nevertheless possible to force update of all modules (HDMI and audio decoder).
- Export extension of a configuration backup and log files are now *.7z file and suffixed with date of day (compatibility with *.dat file is maintained).
- EDID information settings:
  - Manufacturer Plug N Play ID is "IMF"
  - Product Code
  - Serial Number (not being handled properly by HDMI board)
  - Manufacture Week and Year
  - Product Name
  - Manufacturer's Name
- New monitoring panel for Signal informations.
- New monitoring panel for Video In informations.
- New HDMI settings:
  - Possibility to extend HDMI2.0 capability to all inputs.
  - Possibility to change HDMI2.0 speed limit to 450 MHz instead of 600 MHz.
- Dirac possible Timeout issue ("Deadline exceeded") is corrected.

AUDIO FORMATS & SPEAKERS CONFIGURATION
- Up to 9.1.6 speakers layout native decoding for Dolby Atmos (16ch discretely-rendered channels).
- Up to 9.1.2 speakers layout native decoding for DTS:X.
- Speakers Layout possibilities have been expanded to support the 16 ch decoding expansion (9.1.0.5, 9.1.1.5, 9.1.4.1, 9.1.4.5, 9.1.5.1, 9.1.5.5).
- Possibility to adjust the delay in the Speakers Configurator with 0.02ms pitch.

FW 3.2r6 (20180410)

New features and enhancements

SYSTEM & CONTROL
- DRC for Dolby Digital Plus: Is now following DRC requirements.
- Upgrade Support of new decoder Flash memory.

FW 3.2r5 (20180202)

New features and enhancements

SYSTEM & CONTROL
- SD card Read Only issue has been addressed with a Rescue process using an external USB Flash dongle.

FW 3.2r4 (20180116)

New features and enhancements

EXTENSION BOARD AND TOOLS
- Use of the microphone connected to the USB port for remote monitoring (StormMonitoring), is now extended with the use of CAT5 UTP extender.

AUDIO FORMATS & SPEAKER CONFIGURATIONS
- Auro Immersive VOG signal is played on all available tops speakers if Theater configuration does not contain VOG discrete speakers.
- Improvement of the PCM 48 kHz frequency response from 20 Hz to 22 kHz.
- Digital Input map configuration speakers is not lost anymore.
- I.ISP product, SUB limitation on XLR output has been removed allowing for full 16ch speakers layout selection.
- During configuration, Preview configuration layout has been added in configurator pop-up.
- Generator bug correction when using SphereAudio not bypassed.

SYSTEM & CONTROL
- In Edit mode, Improvement of Speaker Configurator "Viewer".
- During configuration, Viewer has been removed from configurator pop-up.
- Invert column has been moved to the right.
- Improvement of Monitoring feedback messages.

FW 3.2r0 (20171123)

New features and enhancements

AUDIO FORMATS & SPEAKER CONFIGURATIONS
- SphereAudio Cinema Effect has been added.
- Speakers Layout possibilities have been expanded to support Wide speakers for Dolby Atmos and Dolby Surround (true wide only in 9.x.y.2 layout and synthetized wide for other layout 9e.x.y.z).
- Preferred Upmix is now Preset based.
- Output remapping capability has been added.
- Bass Management is now available in two modes: Standard and Custom, offering full flexibility in bass redirection in Custom mode.
- In the Speaker Layout configurator, Surround Height (Auro-3D) and Surround Back Height (DTS:X) are now combined for more clarity.

SYSTEM & CONTROL
- Control4 system control driver has been updated with more functions accessible, especially the support of audio zones and audio adjustments.
- A delay function has been added to the Triggers settings (immediate, 1sec, 2sec, 3sec, 4sec, 5sec, 6sec, 7sec and 8sec).
- The general gain per Theater has been increased to 12dB.
- Monitoring page has been added (with VuMeter graphics, power, temperature, fan speed supervision and event log, for ISP, I.ISP and PA).
- Real Time Analyser graphic visualization has been added to the Speakers edition page.
- PA upgrade is now available from ISP or IISP web page.
- PA upgrade web page is now available (in its beta version).
- Preferred upmix is now selectable on front panel.
- Active upmix information is displayed on front panel and on WebUI Remote page.
- New TCP/API command has been added to allow sending text message to client APP.
- The USB upgrade process will not restart in loop.

FW 3.1r4 (20171005)

New features and enhancements

EXTENSION BOARDS AND TOOLS
- AVB optional board is now fully supported.

AUDIO FORMATS & SPEAKER CONFIGURATIONS
- The down firing speaker of a Dolby Enabled Speaker can now be selected as FRONT, SIDE or BACK.

SYSTEM & CONTROL
- A Fast Boot Setting is now available. When activated, ISP comes out of standby in a few seconds. Standby Power Consumption is higher when Fast Boot is enabled.

FW 3.1r0 (20170703)

New features and enhancements

EXTENSION BOARDS AND TOOLS
- The ISP / I.ISP will now support the Dirac Live™ Room Calibration process for up to 32ch Theaters.

    o A StormAudio specific license of the Dirac Live Room Calibration Tool™ (DLCT) is required to be installed in the laptop to capture via a USB microphone the acoustic response of the room. The DLCT will then create a correction filter design exported via the network to the ISP / I.ISP for Realtime playback.
    o Any ISP / I.ISP will support the Dirac Live™ runtime after this firmware upgrade.
    o Dirac Live calibration can be applied to all Theater or Audio Zones, except headphones zones.
    o The DLCT license is part of an Integrator Calibration Kit available for sale, check your distributor for availability and order.

- A new hardware optional module is now available for the ISP:
    o Dual Theater with 16 RCA unbalanced connectivity.

AUDIO FORMATS & SPEAKER CONFIGURATIONS
- The SphereAudio engine powered by Auro®-Headphones™ has been added to the Headphones audio zones via a specific Listening Presets to be defined at the Preset level. There will be 4 binaural SphereAudio Effects available on the Remote Controls: Bypass, Lounge, Home Cinema and Concert.

- Speakers Layout possibilities have been expanded to support above new features (2.1.0.2m, 3.1.0.2m, 4.1.0.2m, 2.0.0.2m, 3.0.0.2m, 4.0.0.2m).

- LFE and low frequencies of "Small speakers" signals can now be routed to any "Large" declared speaker of the Base layer, in addition to the Subwoofers.

SYSTEM & CONTROL
- Unit will restart automatically after an unexpected power cut and in the same state it was before the power cut.
- StormRemote App is available for test for your iPad. Please contact info@stormaudio.com to request an access with your iPad account email address. TestFlight will need to be installed in the iPad to download and access it.
- Crestron system control is available (basic and advanced commands).
- Control4 system control is available (basic commands).

PRODUCT CONFIGURATION

- With the integration of Dirac Live™, we have changed the way to manage the various audio configurations possible within a Theater and an Audio Zone with the creation of Audio Profiles, combining Speakers configuration, Manual Equalization and Dirac Live Filter Design. Audio Profile will replace the "Theater EQ" concept of former firmware revision.
  - o With this major update, your Theater EQs will be migrated into as many Audio Profiles as you created Theater EQs.
  - o You will be able to use this migrated Audio Profiles as basis to run Dirac.
- To compensate for the headroom required by Manual Equalization and Dirac Live filter design, it is now possible to increase the Digital Gain of all the outputs on a per-theater basis from 0 to 9dB, per 3dB steps.
  - o It has to be noted that improper use of this adjustment can lead to clipping of the outputs.

FW 3.0r0 (20170411)

New features and enhancements

AUDIO FORMATS & SPEAKER CONFIGURATIONS
- The Auro-3D® engine is integrated, supporting decoding and upmixing up to 13.1, in addition to the Atmos and DTS:X engines.
- Dolby® Atmos decoding and upmixing is expanded to support 7.1.6 speaker configuration.
- Few configurations without Center channel has been added.
- Speakers Layout possibilities have been greatly expanded to support above new features.
  - o (see below the list of supported configurations).
SAMPLING RATES
- Audio formats with sampling rate up to 192kz are now supported.
- DTS 96/24 is now supported.
PRODUCT CONFIGURATION
- Improvement of Web-UI Inputs page is making configuration easier.
- Narrow Band Pink Noise option has been added to the test signal generator for a more accurate speaker level adjustment..
- Sine frequency test signal is extended down to 10 Hz.
- The test signal routed to a speaker will be simultaneously routed to the subwoofer channel (according to the Speakers settings) to allow for proper Channel & Subwoofer matching adjustment.
- The 16ch AES/EBU Digital Input has a modifiable channel mapping and audio sync selection to accommodate specific audio servers output routing.
- Maximum gain for Tone adjustments available on the Remote Control can be set to 0, 3db or 6dB in the Settings page.

PRODUCT MONITORING
- Temperature and fan speed are displayed on Front Panel system info page.
FIRMWARE INSTALLATION
- The Firmware Package is now common to ISP and I.ISP.