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TECHNICAL DOCUMENT

8500 Balboa Boulevard, Northridge, CA 91329

SDR-35/SDP-55 HDMI 2.0 FIRMWARE 1V54_1542 UPDATE INSTRUCTIONS

MARCH 21ST, 2022

Overview

This software release is for JBL Synthesis SDR-35 and SDP-55 with the factory fitted HDMI 2.0 board installed. If your SDR-35 or SDP-55 includes the HDMI 2.1 upgrade board, please do not use this software. Instead, please use the latest HDMI 2.1 software release from https://www.jblsynthesis.com/.

Important Notes:

1. Download the latest version of Dirac Live directly from Dirac at: https://www.dirac.com/live/downloads/
2. Create an account https://www.dirac.com/register and use this when logging into the application.
3. If using DANTE, please ensure that the DANTE firmware is also up to date. Check the appropriate product pages at https://www.jblsynthesis.com/ to download the latest version.

Upgrading Firmware

WARNING – This Update will RESET all your settings.

If updating from HOST 0.82 NET 239 (or lower) contact support at luxurysupport@harman.com for assistance

USB update procedure (Host and Net):

1. Confirm the current software version installed by pressing and holding the "MENU" button on the front panel for 5 seconds. Scroll through the options checking HOST and NET versions comparing them to the latest release versions.
2. Once you have confirmed the current installed versions exit the engineering menu.
   If an update is required, locate the Unit Software files you download from our website on your computer, unzip the folder (In windows right click the folder and select "Extract All")
3. Once you have extracted the files copy the files ending in ".SWU" & ".FW" on to a freshly FAT32 formatted, empty USB Thumb Drive. After the Copying process is finished, safely eject the USB Drive before disconnecting.
4. Turn on your AVR, making sure it is fully booted (> 40 Sec).
5. Insert the USB Stick in to the AVR.
6. Press & Hold INFO & DISPLAY simultaneously till the HOST Update process starts. This update will take around 20 minutes.
7. Upon completion, the AVR will reboot and then prompt you to press "OK" to reset all settings or press "DIRECT" to skip the reset:
   - If **software before update was lower than HOST v1.44** – press "OK" to reset. All user settings and configuration data will be cleared. Dirac calibrations will need reloading on to the unit after the reset. Restoring settings from a USB or secure backup is NOT recommended for the same reason a reset is required.
   - If **software before update was greater than HOST v1.44**, either "OK" to reset, or "DIRECT" to not reset. All settings will be retained when pressing "DIRECT".

Alternative Update Method: Automatic Over-the-AIR Update

Now that your AVR is up to date via a USB update, and set up within Google Home, you can enable the Auto-Net-Update feature.

1. Go to MENU > HDMI SETTINGS > HDMI Bypass & IP = HDMI & IP ON
   This Setting will prevent the Unit from entering the "low power standby" and will keep the NET Part of the AVR active. Once an update is released, your AVR will automatically download and install the NET update overnight.
2. You will be notified next time you start the AVR that an update is available. To manually start a HOST update after an automatic overnight NET update, go to the engineering menu and select "Check for Update" the HOST will now update. This will take 75 minutes to complete.

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   - If **software before update was greater than HOST v1.44**, either “OK” to reset, or “DIRECT” to not reset. All settings will be retained when pressing “DIRECT”.

Fix list (v1.54_1542):

Add support for Tidal Connect

Add support for Spotify Connect

Add support for Amazon Music HD

Fix list (v1.54_1304):

IMS21770: WEB GUI – 5.x.4 configurable only from front panel.

IMS22433: Strange characters on OSD.

IMS22720: Digital noise when changing between Atmos and other formats on Apple TV / Roku.

IMS22759: No output on height1 in 7.1.6 setup when playing PCM5.1 with DTS Neural:X upmixer.

IMS22876: Roon – switching away from Roon, the source can shift back to the Net input (Roon v1.8 only).

IMS22877: DANTE – rare intermittent clicks resolved.

IMS22879: DANTE – Playing 88.1kHz source + Auro causes distorted output.

IMS22880: RS232/IP – control via RS232 can lag after a lengthy period (2-3 days).

IMS22884: Menu – Dolby Audio Processing always selects movie if on and input changes.

IMS22886: GUI – After OTA any key (or IP/RS232 message) NOT the “OK” key will cancel the update notice.

IMS22892: OSD – standby message stays on zone1 OSD if zone1 is put in standby and zone2 is active.

IMS22914: Audio - DTS Neural:X upmixer +PCM96/24 +Dirac has audio breakups.

IMS22915: GUI – Net version over 1000 does not show last digit.

IMS22935: Match levels between zone1 & zone2 for same input (zone2 low).

IMS22936: WEB GUI – Unable to apply Dolby Music/Night modes using web gui.

IMS22940: Audio crackle when setting maximum volume.

IMS22944: “HDMI bypass source” changes to “last” when CEC device powers on with AVR in standby.

IMS22945: Distortion when listening to ARC and then connect the Dirac calibration tool.

IMS22963: 4 channel PCM plays as 2ch until modes cycled on source players that incorrectly flag the stream.

IMS22982: Height speakers do not play Dolby Atmos in 5.1.2 if non-managed DLBC project is used.

IMS22986: Web client – cannot select “search for” option after selecting “show only”.

IMS22991: Reset, update (and other) front panel key combinations do not require 3 second hold time.

IMS23019: Make Input Config > Stereo mode default “As Spkr Types”.

IMS23035: Audio artefacts when restarting Xbox series X with DTS:X Master enabled and Dirac loaded

IMS23041: RS232 codes 0x21 0x01 0x38 0x01 0x03 0x0D & 0x21 0x01 0x38 0x01 0x02 0x0D (Dolby)do not work.

IMS23093: Config logic correction when Surround channels set to “none”.

Fix list (v1.46_985):

IMS21645: Add DTS Neural:X & DTS Virtual:X to mode list if incoming format is DD2.0

IMS21647: Zone 2 audio seems affected by zone 1 upmixer

IMS21653: DANTE JBL using DANTE no audio from any 44.1kHz input (NET, CD, etc)

IMS21843: Height C & S speakers play Atmos Height middle source audio in 9.2.6 setup

IMS22108: Unit freezing when installing Dirac filters

IMS22358: DANTE – very low level clicks during Dirac calibration

IMS22410: When volume is 0 sub still had low output

IMS22416: Podcasts longer than 100 minutes display "—" instead of time

IMS22428: Casting to AVR through Spotify no longer wakes unit from standby

IMS22433: Strange characters appear on screen when changing volume

IMS22442: Front panel volume control goes up before down and down before up with Dante enabled

IMS22445: DANTE Burst of noise through all Dante channels with Atmos (A Star Is Born - 4K)

IMS22471: Grey bar appears on the screen if changes are made to the speaker types with the web gui

IMS22475: When control is set to RS232, internal test tones from web gui will not work

IMS22482: Sub can rarely go to high volume on power on

IMS22486: Streaming audio changing MCH stereo > Virtual X then skipping 5-10+ tracks could cause lockup

IMS22501: DLCT gets incorrect gain value from AVR unless the master output level is adjusted

IMS22525: 3D - OSD missing background

IMS22545: RS232/IP sending command 0x0D while unit is in mute shows volume on OSD but not front display

IMS22546: RS232/IP erroneous character displayed on URC controller

IMS22550: No sub out on ch13-16 with Auro and Speaker Types > Subwoofer > Present

IMS22705: "Display On Time" still active during update

IMS22725: Add volume control to web client GUI

IMS22732: Internet radio timer on display will start counting in letters for longer listening times

IMS22733: DANTE – pop at start of Dirac measurement

IMS22734: RS232/IP – Command 0x43 returns Analogue Direct for DTS:X source

IMS22738: Front panel shows "Bluetooth Not Connected" after being powered up from standby on BT input

IMS22743: RS232/IP commands sometimes not ack'd

IMS22830: Unable to change Wi-Fi networks from web gui

IMS22832: 24/96 Auro +EQ loses Auro (gives just DTS HDMA)

IMS22835: Allow choice to reset or not after update

IMS22858: Sub gain in “Speaker Types” menu does not apply so subs attached to ch13/14/15/16

Fix list (v1.44_858):

IMS21327: No HDMI audio to TV from Zone 2.

IMS21505: Fail messages (re-opened).

IMS21687: ARC/CEC power off problem with Panasonic TX-58DX750B

IMS21779: Multi-channel eARC content sometimes starts with no center channel.

IMS21815: When AVR input is changed by CEC, no video is passed until manually switched from/to same input.

IMS21828: No rear subs in Auro-3D from 2ch 44.1/16 PCM

IMS21836: DBLC on 7.2.6 setup clipping artefacts.

IMS21853: Changing DD2.0<>DD5.1+Auro-3D sometimes does not pick up stream.

IMS21858: Audio dropouts with PS3 when bitmapping is set to Type 1.

IMS21907: DSD sample rate incorrectly shown.

IMS21982: Audio artefacts MCH stereo > DTS Virtual:X for 96/24 audio.

IMS22066: Lip sync lost / audio dropouts using Dolby Digital on Sky HD box.

IMS22221: No audio if playing mp3 and going direct from stereo to DTS Virtual:X

IMS22334: ARC/eARC problem with Sony AG9 TV.

IMS22340: Speaker levels on ch13/14 do not work with DANTE.

IMS22354: No output from subs (ch13/14/15/16) with full range fronts and hi-res audio plus DLBC.

IMS22357: HDMI bypass only works once the unit has been fully powered on.

IMS22360: DANTE Mute does not stay engaged over DANTE when changing mode or source.

IMS22425: DD to PCM occasionally causes loss of audio on Sky Q Box.

IMS22426: 3.1.2 channel output can occasionally come from sub as full range.

IMS22431: DTS HD-MA with full DLBC does not redirect in all speaker configs.

IMS22434: DD2.0+Dolby surround 7.1.2 results in audio loss & sluggish control.

IMS22441: DANTE Web gui volume control only shows “73”.

IMS22467: Distance with leading zero (e.g. 4.03m > 4.3m) shown incorrectly on web gui.

IMS22447: DANTE noise on DANTE output – Dolby 2.0 > Dolby 5.1

IMS22468: Internal test tone is 10dB higher if invoked with Dirac on.

IMS22469: RS232/IP command 0x43 added Auro channel layout return codes.

IMS22470: Unit stays in headphones mode if headphones removed while in standby.

IMS22472: Add +/- buttons to web gui for all slider parameters (e.g. lip sync).

IMS22478: Cannot specify main sub not present in web gui.

IMS22479: RS232/IP add 0x10 0x38 “Bass –“ command.

IMS22484: RS232/IP Possible to send out of bounds parameters to bass, treble, balance.

IMS22489: Zone2 does not output over HDMI until zone1has played that input.

IMS22494: Auro not configured correctly on initial selection.

IMS22498: Google cast can miss first 100mS of audio when starting a track.

IMS22499: Atmos with Auro, centre channel is missing – 4.1.2 setup.

IMS22509: “*” character at the start of track names when using Tidal over Chromecast or Airplay.

Fix list (v1.42_794):

IMS20940: Downmix phono has no output for some input formats.

IMS20969: Bitrate and dialnorm not reported for DD streams.

IMS21033: Bass/treble controls (stereo) have no effect.

IMS21591: Audio artefacts from Zone 2 output (use 6&7 for zone 2) when PCM 2 channel Fs changes.

IMS21809: Sub/center drop when changing modes with DTS HD-MA & Atmos on media players.

IMS21844: No sub out after changing speakers – requires power cycle for new speaker config to take effect.

IMS21924: Zone 2 no audio (use 6&7 for zone 2) if directly selecting an input (not follow zone 1).

IMS22070: PCM files with different channel counts may not show correct channel count on track change.

IMS22088: Change inputs while streaming on NET input, changes

IMS22223: DTS HD-MA 6.1 only plays from left channel.

IMS22224: Legacy DTS (768kps streams) have audio artefacts.

IMS22302: Web GUI – front speakers forced to large with front subs unless surround left/right enabled.

IMS22315: DD+ 5.1 with Auro-3D & DLBC has audio artefacts.

IMS22317: Adjusting max on/off volume sliders in web gui while in NET standby disables IP control.

IMS22322: 96kHz Dolby TrueHD distorted output.

IMS22332: Test tone steering in Dirac level setting screen could be laggy.

IMS22333: DTS CD > CD > DTS CD exchange would not play DTS audio.

IMS22355: Dirac filter names with European characters not correctly displayed on web gui.

IMS22356: Internet radio decoding error (e.g. Absolute Radio).

IMS22359: Atmos can take 30 seconds to restore audio when switching Dirac filters.

IMS22361: Skipping tracks / channels can cause audio dropouts.

IMS22370: Podcasts >2.5hrs suffer audio dropouts.

IMS22403: DTS HD-MA2.0 <> Atmos exchanges could cause audio loss.

Fix list (v1.40_764):

IMS20998: DTS files do not play from media players.

IMS21617: Audio lost when going from playing top menu (Dolby demo disc) Panasonic DPUB820.

IMS21759: Hi-res audio +Dirac+Auro-3D has audio artefacts.

IMS21788: Dirac Live filter applied, change filter or audio format, subwoofer pop noise.

IMS21823: DANTE “Snap” sound when stopping or pausing digital audio.

IMS21698: Auro11.1 & 13.1 streams channel format not displayed correctly.

IMS21801: Dirac Live filters not applied to subs on ch13/14.

IMS21963: DANTE “stuttering” sound when running Dirac calibration.

IMS22036: No LFE from DTS HD MA, with 7.1.6 speaker layout & Dirac EQ.

IMS22064: No sub out using ch13/14 with Auro-2D and DLBC.

IMS22105: “pop” noises if modes cycled through many times.

IMS22107: RS232/IP 0x29 returns data with incorrect length.

IMS22170: Atmos+DLBC missing channels on higher channel count systems.

IMS22114: RS232/IP Input Config web gui Auro Strength setting corrected.

IMS22138: DANTE Loss of audio when switching between DLBC and upmix filters whilst using Dante.

IMS22139: DANTE volume jumps to 73 when using Net streaming.

IMS22256: AVR configured to Menu > General Setup > Control > Off hangs up when MODE button pressed.

IMS22274: OSD shows Dolby Volume when accessing Dolby Audio Processing.

IMS22283: Dolby Atmos 7.2.4 “Transformers Age of Extinction” sub distortion during first 30 seconds.

IMS22301: DANTE loud audio artefact when exiting Dirac with DLCT v3.0.5 (or higher).

IMS22316: DANTE changing modes with DLBC at 192kHz causes audio artefact from sub.

IMS22318: RS232/IP Cannot set small L/R speaker with front/rear subs.

IMS22335: When restoring secure backup, not all keys except DIRECT cancel (as message suggests).

Fix list (v1.36_687):

IMS21710: Very low-level hum after streaming > 48kHz audio when paused.

IMS21735: When Dirac EQ is applied settings to SL are ignored.

IMS21725: Turn off all processing (including Dirac) when headphones are inserted.

IMS21726: Update Dolby CODEC (1.6.2).

IMS21802: Top mid height channels incorrectly reported in DLCT.

IMS21807: 2.1 system with Atmos input has audio artefacts.

IMS21810: Implement QPlay.

IMS21811: Dirac filters not accessible after hard power if Dolby enabled height speakers are used.

IMS21812: DANTE match analogue and DANTE output (assume DANTE amp has matched gain).

IMS21816: DANTE output does not mute with unit mute.

IMS21822: No audio from Savant audio device PAV-VIM8S.

IMS21830: DANTE Dirac master volume does not work with DANTE output.

IMS21832: RS232/IP Zone2 BT input sends incorrect response.

IMS21833: Audio occasionally not passed after stream change until MODE button pressed.

IMS21834: DANTE output can go to full volume on Dirac test tone.

IMS21841: Add Auro-Native & Auro 2D IR commands.

IMS21842: Grey out Input Config > Stereo Mode if DLBC is used.

IMS21849: Fix text wrapping on GUI input forms on Android devices.

IMS21850: Cannot change stereo mode if sub = none and ch13/14 = front subs.

IMS21856: Improve ability if Dirac filter is sent to unit while previous sent filter is still saving.

IMS21857: Default Dirac filter names containing UTF-8 characters improved.

IMS21866: Add +/-buttons to speaker level setting screen in web GUI.

IMS21870: Mono podcasts play at double speed.

IMS21877: Hiss from tweeters if hi-res network audio is paused.

IMS21831: Audio can be lost on zone 1 if zone 2 turned on to same input with PCM2.0 audio.

IMS21851: Distortion if PCM 5.1 96/24 & Dirac Live is used.

IMS21838: Play track using webclient, pause track, open Dirac tool & select AVR, track restarts.

IMS21875: Clipping in sub output below 55Hz on some Dirac projects

IMS21877: Dirac Upmix or full DLBC and incoming audio has .1 LFE channel, LFE is 10dB down.

IMS21878: DD+ Atmos streams + Dirac can cause audio dropouts on 16ch setups.

IMS21880: Display can be provoked into staying blank even with user input.

IMS21881: Album art not displayed if source is UPnP.

IMS21882: RS232/IP Command 0x3F always returned zero.

IMS21927: Engineering menu German language text corrections.

IMS21928: Using Zone1 output1 & output2 simultaneously to the same display prevent 4k video.

IMS21936: DANTE ch13/14 no output if set as subs and subwoofer = none.

IMS21964: Display can show just volume after USB update if DISPLAY button pressed before OK.

IMS21965: Allow DSP and NET to start after update before reset is applied.

IMS22043: Atmos track does not play if using Dolby enabled speakers and following a DD2.0 track.

IMS22056: Dirac filter can be lost if only one filter is saved to slot 2.

Fix list (v1.34_608):

IMS21658: Change Auro-Matic strength to slider bar (from drop-down list).

IMS21764: Height Centre & Surround channels operation in MCH Stereo mode improved.

IMS21717: Possible for web GUI and front panel menu both to be open.

IMS21739: Dirac filters can fail to be applied for MQA input stream.

IMS21742: Allow ARC power / audio control to be selected even if eARC control is not used.

IMS21759: High Fs audio streams + Auro + Dirac can give audio artefacts.

IMS21766: Sometimes audio can be lost on mode change or applying Dirac filter.

IMS21782: 4.0 setup reported 2 extra speakers to Dirac Calibration tool with no name.

IMS21784: AVR loses audio if there is a break in the audio stream (source-specific).

IMS21786: Inhibit changes to speaker crossovers when Dirac is on (Dirac is managing the speaker crossovers).

IMS21789: If input is already playing when AVR is powered up, vol up/down can be required to start audio.

IMS21794: Menu > Speaker Levels > Centre should be Center when region is US.

IMS21796: RS232/IP: Did not send unsolicited message when Dirac filter changed (0x37).

IMS21797: Interlaced video resolutions incorrectly reported.

IMS21800: Add front panel warning on power on that OTA update is available (effective after this host update).

IMS21803: Center Height typo when reported to the Dirac Calibration Tool.

IMS21807: Audio artefact on 2.1 system with Dolby Surround applied and Atmos input stream.

IMS21813: Add front panel warning that update will erase all settings (effective after this host update).

IMS21854: Unable to open Web Setup navigation when on mobile from the AVR Control page

Fix list (v1.32_590):

IMS21132: DSD files not played correctly from USB.

IMS21616: Audio glitches when switching sampling frequency using Qobuz over Chromecast.

IMS21669: PCM2.0 96kHz + Dirac audio artifacts at start of track.

IMS21678: Unit will prompt before performing a reset after update (operates from next release).

IMS21700: Dirac “on” distance settings revert to 0.8mS if set by web GUI.

IMS21701: Auro streams report as DTSHD-MA in web gui.

IMS21703: Unit could become unresponsive when saving first Dirac filter after a reset.

IMS21704: CD direct grayed out on inputs GAME, NET.

IMS21706: If speaker is None, clearly show other options.

IMS21712: Lip sync grayed out on web GUI.

IMS21716: Show Roon for streaming via that service.

IMS21724: Correct CD direct operation.

IMS21727: Hiss when paused on NET input after playing stream.

IMS21376: Implement Dirac Live Bass management.

IMS21740: Net stops responding to play/pause after changing speaker types while playing.

IMS21743: Volume not shown on OSD if controlled by external control system go to volume “x”.

IMS21758: Correct Auro modes in commands 0x10 & 0x11.

IMS21767: DSD files not played back correctly over UPnP.

IMS21769: Show filter receiving by host before saving.

IMS21770: Allow 5.x.4 setups with Dolby Enabled speakers.