Technical Service Bulletin 01/05

Updating Firmware Sentinel Amplified Loudspeaker Controller

This update note applies to upgrading a Sentinel3 or Sentinel10 amplified loudspeaker controller.

ALC Sentinel

Update Pack content

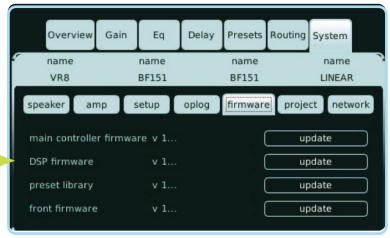
Sentinel3:

- Main controller firmware v2.5 > *existing version (February 2023)* > see important note below!
- DSP firmware v1.53 *(always uneven number for DSP21369)** > *new version (September 2026)*
- DSP firmware v1.54 *(always even number for DSP21469)** > *new version (September 2026)*
- Front firmware v1.47 > *new version (September 2026)*
- Presets firmware v2.13 > *new version (October 2026)*

Sentinel10:

- Main controller firmware v2.5 > *existing version (February 2023)* > see important note below!
- DSP firmware v1.54 *(always even number for DSP21469)** > *new version (September 2026)*
- Front firmware v1.47 > *new version (September 2026)*
- Presets firmware v2.13 > *new version (October 2026)*

* in the “firmware” screen on the Sentinel, the DSP version is shown. If both DSP firmware versions are on the USB stick, the correct version will automatically be uploaded.



This Update Pack is designed to work with specific minimal firmware requirements:

- Main controller firmware at least v2.0 or higher
  - if lower than v2.0, contact factory for separate instructions!
- Front firmware at least v1.20 or higher
  - if lower than v1.20, contact factory for separate instructions!

> Please check the current firmware versions before proceeding: In case of hesitation, contact us!

Updating can be done directly through the front USB connector or over network through ALControl remote control program (v1.72 and beyond), from front firmware v1.40.

> The main controller firmware can only be updated manually, through USB stick!

>> Please read the notes on the next page before updating !!

Technical Service Bulletin 01/05

Updating Firmware Sentinel Amplified Loudspeaker Controller

Some general “do’s and don’t’s”:

- Never perform a “quick update” right before a show: incorrect uploading could cause malfunctioning!
- Always run the complete supplied update pack, not just DSP or front or micro-controller.
- The zipped folder should be unzipped; The separate files (“presets” should remain a folder!) should be saved on the root of the USB stick. No further file handling necessary.The USB stick needs time to be recognized by the controller, take time and wait for USB stick LED to stop flashing, if so equipped.
- In case of problems with the upload, or a non-responsive front panel, please swap the USB stick for another one and retry the upload. Sometimes, the update-performance is compromised by a poor performing USB stick.
- First the Front update needs to be performed, before updating the DSP firmware. As last, presets should be updated. The Front update is essential for further DSP updating! After the front update, the Sentinel will automatically pick the correct DSP firmware, when pressing the DSP update button.
- All updates can be performed without restarting the unit, or taking out the USB stick; Any internal sequences are performed automatically and are mentioned on the screen.

Technical Service Bulletin 01/05

Updating Firmware Sentinel Amplified Loudspeaker Controller

Procedure through USB stick:

1) Unpack this "flash_front_update_complete.zip" archive to the root of the USB stick.

2) ⚠ Wait until the Sentinel has booted, before connecting the USB stick!
(otherwise, it will boot from the USB stick)

3) Go to the update tab on the Sentinel screen: system -> firmware -> front firmware update.

4) The screen turns black for a while; This might take longer than expected/usual.

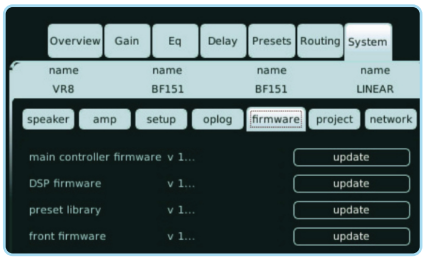
5) ⚠ Wait until unit is fully booted, before removing the USB stick!
(otherwise, the update will be interrupted)

6) Continue with the DSP update: After the DSP update, a notification will appear of the DSP synchronizing (after a short pause). Continue updating preset after the notification disappears.

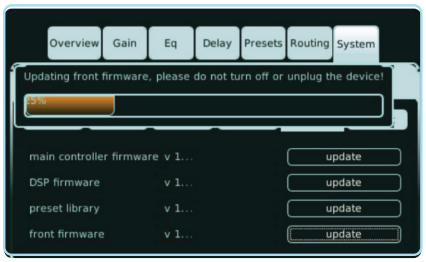
7) Preset update; Make sure the individual presets are in one unzipped folder “presets”. If notification appears “preset file not found”, make sure the folder is unzipped and placed in the root of the USB stick.

8) Finalize with the main controller update; After this update, a notification will appear to switch the unit off and on. The Sentinel is then updated and ready for operation.

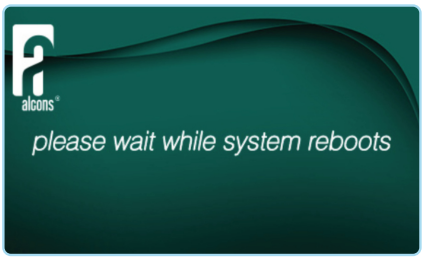
1



2



5



Technical Service Bulletin 01/05

Updating Firmware Sentinel Amplified Loudspeaker Controller

Procedure through ALControl™ remote control:

ALControl™ automatically downloads the latest available firmware, when it is connected to the Internet.

1) Connect all Sentinels to ALControl™, so they are in the network.

2) Go to the Service tab, where the firmware status of all Sentinels is visible;
   Green means “firmware = up-to-date”, orange means “firmware to-be-updated”.

3) On the right hand side, the available firmwares are visible.

   ⚠ : the main controller firmware version is visible, but this firmware cannot be updated through ALControl™!

4) Select which Sentinel devices need to be updated (from list on left hand side).

5) Press "update devices / start"; Now the update procedure will begin.

   ⚠ : the updating function does not work with ALControl™ in “Show” mode!

6) Through the “open update locally” button, the firmware file can also be loaded from a locally stored file (typically in offline situations).

   ⚠ : the update file for ALControl™ is not the same file as in the Update Pack that is downloadable from the website!

Technical Service Bulletin 01/05

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Main firmware updates/changes:

Main Controller v2.5 *(February 2023)*
add CRC on i2c front communication

DSP v1.53 + v1.54 *> new version (September 2026)*
add pink-noise source

Front firmware v1.47 *> new version (September 2026)*
add pink-noise source
add network source
add gateway / subnet mask to IP edit dialog
new S10 amp. modules send the amp ready status bit, log it to gig.log

Presets firmware v2.13 *> new version (October 2026)*
add preset CRMSQB

** please make sure all preset libraries and projects (incl. ALControl) are updated as well !*

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