

## Meridian 861v3.5 upgrade

### Introduction.

Upgrading 861 to Version 3.5 is a firmware and settings upgrade for version 3 hardware only. Customers with computer controlled automation systems will need to co-ordinate this upgrade with their dealer, there are changes to the operating principles that will affect how these work. Details are available for customers managing their own systems.

### Implications for settings.

The Meridian Application (GUI) as supplied with the upgrade pack will perform a conversion from v2 or v3 settings to v3.5. Where no conversion is feasible standard defaults are used to make a valid file. If customers wish to preserve their source labels and allocations and any user presets then they should confirm that they have the current settings available to them. Customers should note, however, that some presets are not valid for v3.5 and may be deleted or reassigned automatically.

### Firmware upgrade.

All the necessary firmware is included in the zip file 861\_35.zip. Unzip all the files into the Meridian folder, usually "C:\program files\meridian\meridian".

Then, attach the null-modem RS232 cable (provided) between the unit and a serial port on the computer and run the program "WinFUP.exe". Use the "... button to find the file "861\_35.mfp" and open it. Click on the "Store" button and follow the on screen instructions. This program will load all the new firmware, but will not overwrite the settings or types; these should be dealt with as described below.

**Do not attempt to load less than all the files; versions of firmware are designed to be used together. Unexpected system behaviour will occur with mismatched firmware.**

Note, 861v3.5 checks what firmware version is loaded. During upgrade it will display

"Bad code combination"

every time it boots. This is normal and will not occur once all files are successfully loaded.

Also, until you retype the unit to a factory preset or download a valid settings file the product will flash

"Bad EEPROM contents"

instead of the Owner name when it is turned on. Either warning indicates that you should not use the unit for audio processing; it will not operate correctly until all firmware is loaded and the settings file is corrected as described below.

### Settings.

Many detail changes have been made to the preset structure to allow more flexible processing of signals. For a full description of how they work see the 861 User Guide, available from your dealer or online at:

<http://www.meridian-audio.com/welcome.htm>

Install the new Meridian Application as included in the upgrade pack (version number 2.185 or higher) and either open the stored settings file or Fetch from the product. Click once on the 861 icon, you should see the settings file version number displayed in the right hand pane. Change it from "2.xx", or "3.xx" to "3.50 and higher". The conversion process will quickly turn this into a version 3.5/4 settings file.

If there were any user Presets based on Dig THX, DTS, DTS THX, DTS Mus, MPEG, MPEG THX or MPEG Mus then they will be converted into new user Presets based on Discrete, Cinema, THX or THX Surround EX.

The GUI will automatically reassign valid Presets to all sources that have been affected by the changes.

The user Preset "Cinema" which was included in versions 3.0 to 3.11 has been replaced by a new factory Preset of the same name, you should copy any adjustments from the old Cinema to the new one and delete the user Preset. Any source where this preset was the default should have the new Cinema reassigned to it.

There is a new option for LFE subwoofer in the music layout, customers expecting correct playback of DVD-A material should select this option for their Music layout if they have a subwoofer.

There are new options to control LFE channel filtering on the *input* side of the processing. These will default to 'Off' for music since DVD-A material has full range channels and '120Hz' for 5.1 since Dolby specifies 120Hz maximum frequency for its LFE channel.

Layouts with four surrounds will be able to use the new THX Ultra II DSP modes. Correct playback requires that customers input their "Rear speaker separation" in the distances tab of speakers.

Download these new settings to the product. It should no longer indicate "Bad EEPROM contents" and will boot normally.

### **Calibrate.**

If you converted your existing settings file then speaker levels and distances will have been preserved, but there is a new process that should be run in order to allow the new bass protection software to perform correctly. If you started from a 'New' settings file or used a factory type then the whole of calibrate needs to be run. See the User Guide for full details.

The new section requires the customer to carefully set the 'Size' parameter for each 'Large' speaker that isn't a Meridian DSP loudspeaker. Full details are in the User Guide, but here is a summary.

If the main speakers are defined as large analogue then the display below is the first of the new 'Size' menus.

"Left Size 0/9 "

Of the two numbers displayed, the leftmost is the 'Size' value sent to the DSP, the rightmost is the stored setting. A loud noise is played through the relevant speaker, but the small 'Size' makes the DSP limit the amount of bass sent to the speaker. The 861 will slowly increase the left value to match that on the right, decreasing the amount of bass protection applied to the speaker, thereby increasing the amount of bass sent to the speaker.

"Left Size 9/9 "

If, at any point, the speaker begins to produce sounds that indicate it is reaching its bass handling limit then you should reduce the 'Size' value using the menu keys (front panel or MSR). Both values will move down quickly.

Adjust the size until it is one less than the value where the speaker starts to distort distinctly (there may be one or two values which introduce a small, not significant, amount of distortion, go higher than this). Be very careful to allow the processor to ramp up the size parameter, remember, it is the rightmost value that is stored and used during playback.

Continue across the menus and set the size for each speaker. When complete Fetch into the GUI and store the new calibrate settings.

### **MSR+ support.**

This version of 861 software can interpret all the new keys on the MSR+. Until the unit is 'typed' the only change to the user interface is the order in which the 'Source' key selects sources. When the unit is reset to a factory 'type' the source labels will be as per the MSR+.