
Meridian Surround Controller Update

This Addendum describes the Surround Controller upgrade available for all three of Meridian's current Surround Controllers, the 861, 561, and 568.

This upgrade adds three important DSP processing modes to your Surround Controller: Dolby Pro Logic II, THX Surround EX, and Meridian EZ. In addition, it adds two new display options.

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Pro Logic II

Dolby Pro Logic II is a new DSP processing mode designed for two-channel sources, whether or not they are encoded for Dolby Surround. It re-creates 5.1-channel movie surround from the two-channel source, using improved decoding techniques that preserve the directness of the sound field, resulting in enhanced image stability compared with standard Pro Logic decoding.

Meridian's implementation of Pro Logic II was the first in the world to receive Dolby approval, and uses proprietary code based on 48-bit precision to give outstanding clarity.

Pro Logic II is available for any two-channel PCM or analogue input. It is not available for two-channel Dolby Digital inputs; if you want to use Pro Logic II with a two-channel Dolby Digital soundtrack from a DVD you should first switch your DVD player to PCM (two-channel) output mode.

Pro Logic II preset parameters

The following preset parameters are available for all the Pro Logic II presets:

<i>Parameter</i>	<i>Options</i>	<i>What it changes</i>
Steered All	Steered Rear, Steered Side, Steered All	Which of the four surround channels are generated by steering.
R Delay	10ms to 25ms*	The delay of the rears.
S Delay	10ms to 25ms*	The delay of the sides.
Rear	-30db to +10db	The level of the rears.
Sides	-30db to +10db	The level of the sides.

* 0 to 15ms in the **PLII Music** preset.

Three new presets have been added for Pro Logic II: **PLII Music**, **PLII Movie**, and **PLII THX**.

PLII Music

The **PLII Music** preset is designed to use the Pro Logic II DSP processing mode to decode music sources. It provides three additional menus to allow you adjust the sound field:

<i>Parameter</i>	<i>Options</i>	<i>What it changes</i>
Width	0 to 7	The centre spread, where 0 is full centre and 7 is full left and right.
Dimension	-3 to +3	The spatial sound field, where -3 puts the balance to the rear of the room and +3 puts it to the front.
Panorama	No, Yes	Extends the front stereo image to include the surround speakers, providing a wrap-around effect new to Pro Logic.

PLII Movie and PLII THX

The **PLII Movie** preset is optimised for theatre listening, and is the recommended choice when decoding Dolby Surround movies. **PLII THX** is the same as **PLII Movie** but with the enhancements of THX post-processing, including re-equalisation and timbre matching. An additional Pro Logic parameter is provided:

<i>Parameter</i>	<i>Options</i>	<i>What it changes</i>
Pro Logic	Off, On	On selects the original Pro Logic decoding.

THX Surround EX and Meridian EZ

THX Surround EX and Meridian EZ are DSP processing modes that are designed to give improved surround imaging with four surround speakers.

Both THX Surround EX and Meridian EZ can be used with THX Surround EX encoded material. In addition, Meridian EZ can be used to give improved surround imaging with DTS ES encoded material.

Both THX Surround EX and Meridian EZ can also be used with non-encoded material, and often give a good effect depending on the soundtrack.

THX Surround EX

THX Surround EX allows 5.1-channel film soundtracks to be encoded with an extra surround channel during the mixing process. EX post-processing can be used with THX when decoding a 5.1-channel Dolby Digital signal. The decoded surround signals are matrixed to the four surround speakers giving more detailed imaging behind the listener and bringing more depth, ambience, and localisation than before.

The **Digital THX** preset now includes an additional preset parameter to allow you to turn on or off the EX post-processing:

<i>Parameter</i>	<i>Options</i>	<i>What it changes</i>
THX-EX	On, Off, Auto	Switches on or off the EX post-processing. Auto automatically detects bitstreams marked as EX encoded*.

Note that some EX-encoded discs may not be marked as EX encoded, in which case select **On** rather than **Auto**.

Meridian EZ

Meridian have used their experience in developing algorithms for multiple surround speakers to create a proprietary DSP processing mode, called Meridian EZ. This is designed to give an exciting spacious surround enhancement for non-THX enhanced 5.1 sources, such as Dolby Digital and DTS.

An additional menu is available in the following presets to allow EZ post-processing to be turned on or off: **Digital**, **DTS**, **DTS Music**, **MPEG**, and **MPEG Music**.

Meridian EZ Preset Parameter

<i>Parameter</i>	<i>Options</i>	<i>What it changes</i>
EZ	Off, On, Auto*	Switches Meridian EZ post-processing on or off.

* **Auto** is only available for Dolby Digital sources.

Additional display options

In addition to the three new DSP processing modes provided by the upgrade, two new display features have been added.

Dialog normalisation display

Dolby Digital audio streams include Dialog Normalisation and Mix levels, to specify the recommended listening level of the soundtrack.

The Surround Controller uses the Dialog Normalisation level to adjust the volume level so that the soundtrack is reproduced at the correct absolute level, assuming the system is calibrated to produce 75dB SPL at volume 87.

The Mix level is an alternative level which you can select by setting the Compression parameter to Mix.

The Dialog Normalisation or Mix level is now shown in a separate display option for Dolby Digital sources:

For example:



```
DialNorm -31
```

Or:



```
MixLevel -27
```

MHR indicator

MHR (Meridian High Resolution) is a proprietary encoding format which can be applied to digital audio streams between Meridian components. It has the very important benefit of lowering jitter and improving sound quality.

If an input stream has been MHR encoded the stream display will now show an additional MHR indicator.

For example:



```
CD MHR 96k
```

Sources that supply MHR encoded streams include the Meridian 800 and 596 DVD Players. This display can be used to ensure that maximum quality has been preserved from the source to the processor.

