

## 861v2.7, 561v1.7, 568v1.5 Addendum Sheet

### Introduction

All three of Meridian's current Surround Controllers have now been updated to include exciting new DSP processing modes - Dolby Pro Logic II, THX Surround EX and Meridian EZ.

If you are upgrading your software from earlier versions you **MUST** follow the special instructions on the sheet 'Meridian processor upgrade, February 2001'

### Pro Logic II

Dolby Pro Logic II is a new process designed to work from 2 channel sources – whether or not they are encoded for Dolby Surround. Pro Logic II aims to decode movie surround from 2-channel sources, making them sound more like a discrete Dolby Digital 5.1-channel version.

The improvements in decoding techniques mean that the discreteness of the sound field elements are better preserved than was possible with standard Pro Logic technology. This results in enhanced image stability.

Meridian's implementation of PL II was the first in the world to get Dolby approval. Not only the first, but the best. Because we have been able to generate our own code, we have implemented PLII with our customary high (48-bit) precision which leads to the great clarity that is the Meridian hallmark.

Pro Logic II is available for any 2 channel PCM or analogue input. It is **NOT** available for 2 channel Dolby Digital inputs. If you want to listen to PLII with a 2 channel Dolby Digital soundtrack from a DVD, you must first switch your DVD Player to PCM (2 channel) output mode.

Three new presets have been added for PLII, designed for Music, Movie Material and THX enhanced.

#### PLII Music

The PLII Music preset has 3 new menus which allow the soundfield to be adjusted. All of these controls can be stored to the listener's preference using the Store function.

##### Centre width control.

This provides a wide range of control for the centre image, from full centre to full phantom (no centre). The overall effect when using this menu can be material dependent, the default value of 3 provides a smoothly integrated centre in most cases.

##### Dimension control.

This feature is a front/rear control which affects the spatial soundfield, pulling the balance towards the front or rear of the room. The default value of 0 (zero in a +/-3 range) provides an even front/rear balance.

##### Panorama mode.

Selecting Panorama mode will extend the front stereo image to include the surround speakers, providing a wraparound effect new to ProLogic.

#### PLII Movie

PLII movie does not offer the same flexibility as the Music preset - most of the processing is pre-optimised for theatre listening. It does however offer a menu which switches in a new version of standard Pro Logic which makes full use of the higher resolution programming techniques pioneered by Meridian.

ProLogic    Off  
ProLogic    On

## **PLII THX**

This preset is the same as PLII movie, but with the enhancements that THX post processing has to offer - re-equalisation and timbre match.

### **Additional PLII controls**

Other menus are available which allow users to adjust each PLII preset to their own preference.

#### Surround steering.

For 7 speaker layouts a Sides/Rears/All menu allows users to turn off the side or rear speakers to allow different surround effects.

#### Surround delay and gain.

Side and rear speaker delay and gain can be adjusted for each mode as in other multi-channel modes in Meridian processors. These can be used to optimise the surround sound effects generated by the PLII processing modes.

## **THX Surround EX**

THX Surround EX is a system allowing 5.1 channel film soundtracks to be encoded with an extra surround channel which has been added during the mixing process.

With the latest software, layouts with four surround speakers can now use EX processing in addition to THX when decoding a 5.1 channel Dolby Digital stream. The decoded surround signals are matrixed to the four surround speakers. With EX encoded soundtracks this gives more detailed imaging behind the listener, bringing more depth, ambience and localisation than before.

In the Digital THX preset, a menu allows the listener to turn on and off the EX post processing. In addition, soundtrack bitstreams which are marked as Surround EX encoded can be detected automatically.

THX EX menu options are:

|          |      |
|----------|------|
| THX - EX | On   |
| THX - EX | Off  |
| THX - EX | Auto |

## **Meridian EZ**

Meridian's EZ system uses a proprietary DSP process (different from EX) to give an exciting spacious surround enhancement for non-THX enhanced 5.1 sources such as Dolby Digital and DTS. Building on our long experience developing algorithms for multiple surround speakers, we have carefully optimised this process to give the best possible surround imaging with both Surround EX and DTS ES encoded material.

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

As with EX, a menu allows the EZ post processing to be turned on or off. This menu is available in the following presets:

Digital, DTS, DTS Music, MPEG & MPEG Music.

In all of these presets the EZ DSP mode can be set to On or Off:

|    |     |
|----|-----|
| EZ | Off |
| EZ | On  |

It can also be set to Auto for the Digital preset, so that it automatically loads when it receives a Surround EX encoded stream:

EZ                      Auto

## Extra Features

In addition to the additional DSP available, two new display features have been added

### Dialogue Normalisation display

All processors can now display the Dialogue Normalisation level embedded in a Dolby Digital audio stream. This value has been used by the processor to automatically adjust the volume level, so that the audio is reproduced at the correct relative SPL (assuming a system calibrated to produce 87dB SPL at volume 87). Within the Compression menu users can select to read the Mix level, and use this value as a reference sound level. These values are generally different and will account for the perceived differences in volume when switching to:

Compression Mix

compared to:

Compression Off

In the standard display loop there will be an extra display only when a Dolby Digital stream is detected, e.g.

DialNorm -31

or

MixLevel -27

### MHR indicator

MHR 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:

CD                      MHR                      96K

Sources for this stream include the Meridian 800 and 596 DVD players, this display can be used to ensure that maximum quality is preserved from the source to the processor.