

MHR Smart Link in a 568.2 / 598 system

Introduction.

When a Meridian 568.2 Surround Sound Processor and Meridian 598 DVD Audio player are used together in a system, it is expected that they be wired together using the Meridian MHR Smart Link. The Smart Link allows six encrypted digital audio channels to be transferred directly from a 598 into a 568.2. Users should note that the MHR Smart Link is the first approved digital DVD-A output connection, making it a unique feature at this time, only available to Meridian customers.

The connection is designed to provide significant features and benefits for users. These, and their implications, are described herein.

Features.

The 598 can be configured to decode all encoded audio streams internally and send out audio on the MHR Smart Link, this allows the Processor to upsample (if possible) the audio stream and process the signals at a higher rate, giving an improved audio performance.

The Smart Link also carries intelligent stream content information from the player; this includes information about the source material, such as the encoding on the disc. The 568.2 can use this information to select a suitable DSP preset for a selection of discs, such as Trifield for 2-channel music, or PLII Movie for a 2-channel movie soundtrack.

Initial set-up.

Standard 'Types' (inbuilt default configurations for the products) will set up all parameters ready for immediate Smart Link operation. If you wish to start this way then you should 'Type' the 568.2 to the required speaker layout (in standby hold down 'Volume up') and type the 598 to 'Type 1' (in standby hold down the 'Off' key). See the 568.2 manual for more information on 'Types' and what happens when you have a Multi-channel input card.

If you wish to use the Graphical User Interface (GUI) to define a more complicated configuration for the 568.2 then we recommend you start with a 'Type' as above and 'Fetch' into the GUI. This will set the enhanced source as described below, which you may then modify.

The enhanced source.

Only one 'source' is required to provide all the functionality of the Smart Link, the 'enhanced' source. It has seven different presets set-up to handle incoming audio streams, these split into two groups. Three are for traditionally encoded streams: Dolby Digital, DTS and MPEG. Four are specifically for the different types of stream available over the MHR Smart Link:

Music 2 - for 2-channel music material, such as from a CD

Music 6 - for multi-channel music from a DVD-Audio disc

Movie 2 - for 2-channel audio streams from a DVD-Video soundtrack

Movie 6 - for a decoded multi-channel DVD-Video soundtrack

Standard configuration.

Standard 'types' in the 568.2 set the enhanced source to be the 'DVD' source. The presets assigned to 'DVD' are:

- Music 2 - Trifield
- Music 6 - Discrete
- Movie 2 - PLII Movie
- Movie 6 - Cinema

If you prefer to listen to CDs with the Music DSP preset (for example), you can use the 'Assign' functionality (one quick press of the 'Store' key) to change the default preset for Music 2. Similarly all the modes above can have different presets assigned.

How it works in practice.

- 1) CD. After detecting the disc the 598 indicates that the stream is 2-channel music, the 568.2 loads Trifield and the music arrives at your speakers.
- 2) DVD-Video. Press play, ►, the 598 plays the introduction to the disc which is usually 2-channel Dolby Digital: the 568.2 selects PLII Movie and surrounds you with audio from the introductory sequence. Select the main feature and the 598 will decode and output the audio track selected, if it's Dolby Digital, DTS or MPEG 5.1: the 568.2 selects the Cinema DSP mode. If you switch audio streams within the disc then the 598 will decode the new audio track and mark this new stream on the Smart Link, e.g. Dolby Digital 2.0: 568.2 selects the PLII Movie preset again and continues to surround you with the soundtrack.
- 3) DVD-Audio. Put the disc in, press play. You may or may not be presented with a menu allowing you to select a particular track, when you do (or the when the disc plays itself automatically) the 598 will indicate how many channels of audio are present: the 568.2 will select either Trifield for 2-channel or Discrete for Multi-channel.
- 4) Change disc. Play it: the 568.2 will load whichever preset you have decided is the most appropriate for that material.

Notes on multi-channel presets.

The Discrete preset is intended for use with music material, the Cinema preset is provided for use with movies. The Cinema preset is a 'user preset' based on Discrete but has had the changes shown in the table below. The preset can be renamed if you wish, or even completely removed and replaced with another user preset.

Variable	Discrete	Cinema
2+2+2	5.1 (speaker dependent)	7.1 (speaker dependent)
LFE cut	+0dB	+5dB
Rear delay	0ms	1ms
Side delay	0ms	1ms
Rear Filter	Off	7kHz
Side Filter	Off	7kHz
Layout*	Music	5.1

*Speaker layouts. If used in the default state (i.e. as the unit was 'typed') Discrete selects the *Music* layout and Cinema selects the *5.1* layout. See the 568.2 user guide for more information.