

## MASTER DELAY BOX

### Home Theater Audio Delay Corrector

P R I M A R E



Primare Delay Box

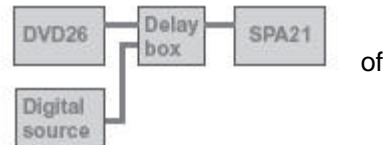


#### Audio Delay Corrector

The Master Delay Box is designed to restore perfect lip-syncing to the audio output from your digital satellite receiver and DVD-player. Modern displays, such as plasma screens, LCD screens and projectors use sophisticated imaging processors to produce the best picture possible. This processing takes time and produces a delay in the picture display. This is called a lip-sync error. This is particularly noticeable in speech, where the voice comes first and the lips move after. Lip-syncing anomalies may also affect satellite broadcasts and can occur when the transfer of older movie soundtracks to digital surround sound for DVD. The effect can be so pronounced that the film or broadcast becomes difficult to watch.

The Master Delay Box has four presets, two per input (coax and optical) and adjustable delay over a 0 - 600 ms range. There is also a true bypass of all delay correction circuits. The satellite receiver connects optically and DVD-player coaxially to the Delay Box.

The Delay Box seamlessly performs format conversion, a single coax (or toslink) feeds the audio processor. Certain A/V processors have corrective circuitry in-built, but experience has shown that these processors work best with a signal that is already synced. By inserting the master Delay Box between source and processor this advanced digital device delays the system sound by tiny increments and relieves the processor the power and memory drain associated with integral delay correction. It's also an innovative upgrade for those systems lacking this facility.



The Master DelayBox corrects lip sync errors in any HOME THEATER system by using an SPDIF-signal memory with a capacity of 600mS delay. For example the Master DelayBox is connected between a digital source (DVD player for instance) and a processor or integrated A/V amplifier. The unit delays the digital audio signal by a time of your choice. This results in a perfect sound and picture synchronization.

The unit incorporates a true bypass mode that is switched in by the use of solid-state relays. While in this mode the inputs are directly connected to the outputs.

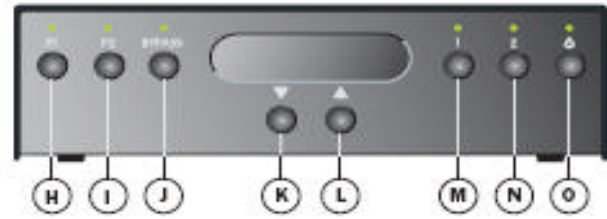
The Master DelayBox detects the 44.1 kHz sampling rate from a standard compact disc and switches automatically into bypass mode.

## Back panel connections



- A. Optical, TOSlink, output
- B. Coax, SPDIF, output
- C. Optical, TOSlink, input
- D. Coax, SPDIF, input
- E. DATA (RS232) input for home installation
- F. IR input
- G. Main power input (12V)

## Front panel display



- H. Preset 1
- I. Preset 2
- J. Bypass
- K. Decrease delay time in milliseconds
- L. Increase delay time in milliseconds
- M. Input 1 (coax digital audio)
- N. Input 2 (TOSlink)
- O. Standby

## Technical performance

The Master DelayBox is capable of full conversion between a coax and an optical signal. Any input signal to coax will be available from both outputs (coax and TOSlink), as any input signal to TOSlink will be available from both coax and TOSlink outputs.

You select the input using buttons on the front panel or on the remote control unit. Two presets are available for each input.

Note! No conversion is carried out when the delay box is in BYPASS mode.

The delay time value displayed by the Master DelayBox steps one millisecond at a time until the nearest ten. Then it steps 10 milliseconds at a time until the nearest hundred and thereafter it steps a hundred at a time up to 600 milliseconds. The time delay value counts down in the same way.

### Inputs

Optical, TOSlink, Coax, SPDIF,

External RS232C control and IR inputs are also provided for the use with automation systems.

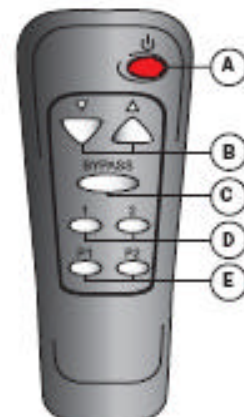
### Outputs

Optical, TOSlink, Coax, SPDIF

### Intuitive user interface

The Master Delay Box can be controlled through a very simple and intuitive set of front panel controls. Alternatively all the functions of the Delay Box can be controlled by the Remote Control supplied with the Delay Box.

## The Remote Control



- A. Standby ON/OFF
- B. Increase/decrease delay time in milliseconds
- C. Bypass
- D. Input 1 and 2
- E. Preset 1 and 2

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