

# P R I M A R E

## **Master DelayBox**

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. In bad cases sound can be heard before the image. This is called a lip-sync error.

The Primare Master DelayBox corrects lip sync errors in home cinema systems. It is an SPDIF-signal memory with a capacity of 600mS delay. Special care has been taken to keep the jitter as low as possible by the use of well renowned digital receiver and transmitter ICs (CS 8416 and CS8405A) from Crystal Semiconductors and short signal paths by the use of SMD technology.

The Primare 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 synchronisation.

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 44.1 kHz sampling rate from a standard compact disc and switches automatically into bypass mode. This feature may be disabled.

## **Clean power supply for the best possible performance**

We choose an external power adaptor for this unit because we wanted to keep all the magnetic fields from the power transformer as far away from the circuit as possible, so as not to affect the sensitive signal processing in any way.

Regulation to the three different voltages used by the Master DelayBox circuit is done internally in three steps. We have also incorporated an internal electrolytic bank to compensate for the signal path between the transformer and the box.

## **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.

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## **Outputs**

Optical, Toslink, Coax, SPDIF

## **Intuitive user interface**

In keeping with the philosophy of the Primare range of systems, the 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.

## **Features**

**0-600 ms delay**

**Full conversion between Coax and TOS-Link**

**4 presets, two per input Coax and TOS-Link**

**True bypass mode**

**Colour Option: Black**

**Inputs: 1 SPDIF, TOS-Link**

**Outputs: 1 SPDIF, TOS-Link**

**Other Inputs: IR-input 3,5 mm**

**9 V DC-power**

**RS232 input Dimensions (WxDxH): 160 x 125 x 45 mm**

**Weight:1 kg**

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