

Dolby® CP750 Bypass Unit

The Dolby CP750BU works in parallel with a Dolby CP750 processor to provide basic audio output from analogue or digital sources when the CP750 is not in service.



- Digital Input selection Switch
- Analogue Input selection Switch
- Buffered Bypass
- Global Delay
- Volume via VCAs
- Analogue Outputs

Digital Input: [Front panel push-button]

Two active high impedance balanced buffers sense AES/EBU data lines 1 and 2 only. These are decoded as Left-Right and Centre-Sub analogue pairs. AES/EBU 3 and 4 are not sensed but left as through connections.

Analogue Inputs: [Front panel push-button]

Four balanced high impedance buffers sense Left, Right Centre and Sub only. Each input level may be matched to the sensitivity of the CP750 using trimpots on the rear panel. All other channels are left as through connections.

Bypass: [Front panel push-button]

Manually switch from CP750 output to Bypass Unit. With automation connected, this switchover is performed automatically.

Global Delay: [Rear panel]

All four discrete channels derived from either the digital or analogue inputs can be delayed by the on board digital delay-line up to a maximum of 250ms. The delay is set via 3 rotary switches, the switch value showing the delay in milliseconds.

Channel Selection/Mixing:- [Internal]

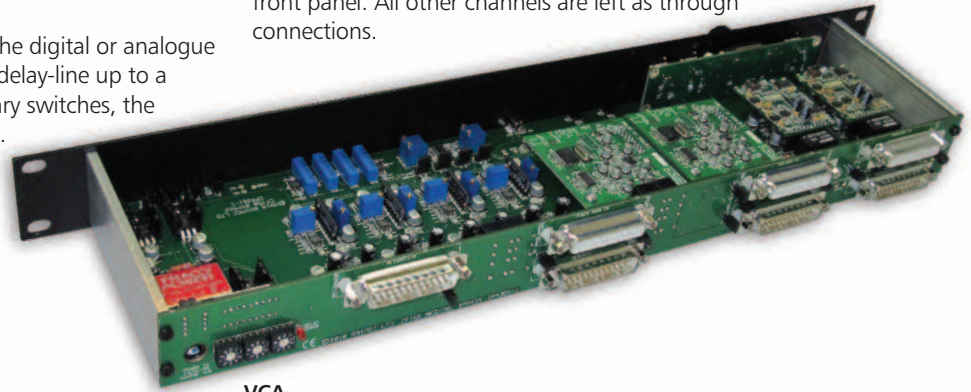
The 4 discrete audio channels may be summed to 1 common channel, the level of each in the mix being adjustable +/-10dB. Alternatively each channel may be left as a discrete feed (factory default).

Volume Control: [Front panel rotary knob]

To maintain a high signal to noise ratio the volume is controlled not in the digital domain, but in analogue by using high quality Voltage Controlled Amplifiers (VCA's).

Analogue Outputs: [Rear panel]

The 4 main outputs are balanced and selected by the master output relays when the Bypass Unit is in operation. Each output level may be matched to the sensitivity of the CP750 using trimpots on the front panel. All other channels are left as through connections.



Digital Audio:

Protocol	AES/EBU (Pairs 1 and 2)
Wordlength:	16-24bits/channel
Sampling frequency	32-96kHz
In 2 connector (Passive)	Digital-In from Server, 25W D-Socket
Out 2 connector(Passive)	Digital-Out to CP750, 25W D-Plug (all pins connected 1:1 with Input 2)
Balanced Input	7.0V max
Input Impedance	8kOhms (Optional rear 110Ohms load termination for testing)

Analogue Audio:

Frequency response	20Hz to 20kHz +/-3dB
Distortion (typical)	<0.03%
Output Noise	0dB gain, -90dBu (20Hz-20kHz)

Inputs/Outputs

In 1 connector (Active)	Analogue-In from Analogue Source, 25W D-Socket
Input level	+20dBu max (Adjustable 30dB)
Input Impedance	48kOhms
CMRR	50Hz > 85dB 20kHz > 80dB
In 3 connector (Passive)	Analogue-In from CP750 (Power Amplifier feed), 25W D-Socket
Out 1 connector (Passive)	Analogue-Out to CP750 (CP750 Analogue In), 25W D-Plug (all pins connected 1:1 with Input 1)
Out 3 connector (Active)	Analogue-Out to power amplifiers, 25W D-Plug (all pins connected 1:1 with Input 3)
Output Level	+20dBu max (Adjustable 30dB)
Balanced Output	Transformer-like floating output Stable clipping into single-ended loads Common-mode offset, RFI and surge protected
Output Impedance	50 Ohms

VCA

Dynamic range	> 120dB
Distortion @ 1kHz	Vin +10dBu, 0dB gain 0.006% Vin 0dBu, 0dB gain 0.004% Vin +10dBu, -15dB gain 0.025%
Gain tracking	better than +/-1dB, 0 to -50dB

Automation-In:

Input 4	Opto-isolated trigger
Control Pins	Pin 13 +5v, Pin 12 0V from CP750
Connector	25-W D-Plug

Power:

Power Input	+12VDC @ 1.3A regulated to +/- 9.0Vdc
Power consumption	15W
Power Connector	2.1mm DC Socket, centre + ve

Environmental:

Operating temperature	0DegC to 40DegC (32Deg F to 104Deg F)
Relative Humidity	10% - 80% relative humidity, non-condensing

Dimensions

Dimension (WxHxD)	19" 1U 483mm x 44mm x 98mm
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Weight

Weight (net)	1.9 Kg
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Warranty

One year limited, parts and labour

NOTE: All analogue Inputs/Outputs are referenced to Dolby Level of 300mV (-20dBfs).
0dBu = 0.775Vrms

Specification subject to change without prior notice.

Design: Louis T Koehorst • tel: 01223 576688

Dolby is a registered trade name of Dolby Laboratories

Designed and manufactured in the UK

RAIPEC

The Old School House, 44 Wicken Road
Newport, Safron Walden, Essex CB11 3QG
tel: +44 (0) 1799 542 120 • fax: +44 (0) 1799 542 260
email: info@raipec.co.uk • Web: www.raipec.co.uk