



**ACU1-8**  
**Audio Control**  
**Unit**

**Handbook**

**TSL**  
**Vanwall Road, Maidenhead, Berkshire, SL6 4UB**  
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## SAFETY

### **Installation.**

Unless otherwise stated TSL equipment may be installed at any angle or position within an operating temperature range of 5° - 30° C .

All TSL equipment conforms to the EC Low Voltage Directive:

EC Low Voltage Directive (73/23/EEC)(OJ L76 26.3.73)(LVD).  
Amendment: (93/68/EEC) (OJ L220 30.8.93).

In all cases the frame of the equipment must be earthed on installation.

The earth pin on the IEC mains inlet connector is connected to the metal frame of the equipment, to 0 volts on the internal DC PSU and to signal ground, unless otherwise stated. All metal panels are bonded together.

Check that the voltage selector setting (if fitted) and the fuse rating is correct for the local mains supply.

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## WARRANTY, MAINTENANCE AND REPAIR

All TSL equipment is guaranteed for one year from the date of delivery to the customer's premises. If the equipment is to be stored for a significant period, please contact TSL concerning a possible extended warranty period.

### **Failure during warranty**

If any TSL product should fail or become faulty within the warranty period, first please check the PSU fuses.

All maintenance work must be carried out by trained and competent personnel.

If equipment has to be returned to TSL for repair or re-alignment, please observe the following overleaf:

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### **TSL Returns Procedure**

Please telephone +44 (0)1628 676200 (Fax: +44 (0)1682 676299) and ask for Sales who will provide a Returns Number. This will enable us to track the unit effectively and will provide some information prior to the unit arriving.

For each item, this unique Returns Number must be included with the Fault Report sent with the unit.

A contact name and telephone number are also required with the Fault Report sent with the unit.

### **Fault report details required.**

- Company:
- Name:
- Address:
- Contact Name:
- Telephone No:
- Returns Number:
- Symptoms of the fault (to include switch setting positions, input signals etc):

### **Packing**

Please ensure that the unit is well packed as all mechanical damage is chargeable. TSL recommends that you insure your equipment for transit damage.

The original packaging, when available, should always be used when returning equipment..

**If returned equipment is received in a damaged condition, the damage should be reported both to TSL and the carrier immediately.**

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## 1.0 Introduction

The ACU1-8 is a 1RU x 160mm deep Audio Control Unit with two D type sockets to allow connection between either a TSL AMU2-8HD Dolby unit or another commercial unit. When used with the TSL AMU2-8HD Dolby unit the Volume and DIM/CUT facilities may be removed.

The following features are standard:

- DIM/CUT
- Local Volume control
- Remote volume control (when used with TSL AMU2-8HD Dolby)
- Eight fixed line Inputs on D37S (for use with TSL AMU2-8HD Dolby), D25 (for use with 3<sup>rd</sup> party audio equipment)
- Eight variable line outputs on XLR
- Power indication
- 240V mains (IEC).
- Remote VCA control.

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## 2.0 Front Panel Controls and Indicators

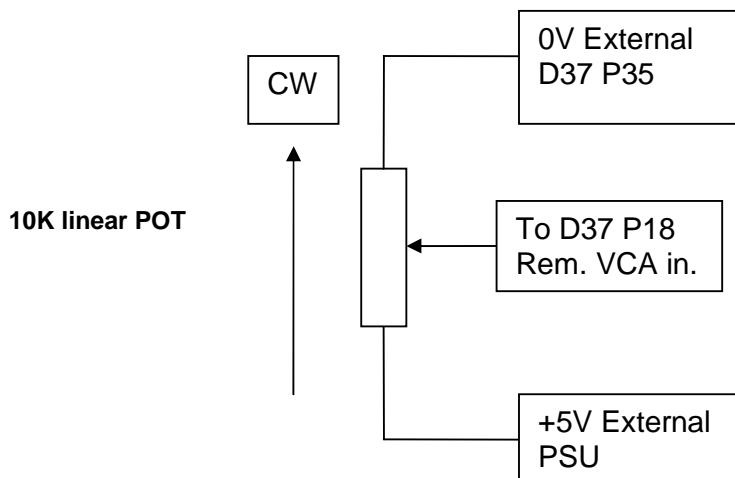
### 2.1

**DIM/CUT** Attenuates the audio output by 16dB or Cut.

**Volume Control** Varies the overall audio output level.

(See section 4.0)

**Remote VCA Connections.**



### 3.0 Pin out Details

#### 3.1 D25 Socket input connector - For use with 3<sup>rd</sup> party equipment ie: Yamaha MY8-DA96

D 25 CONNECTOR			INPUT CHANNEL	FUNCTION
PIN NO	PIN NO			
HOT +	COLD -			
1	14		A8	BACK SURROUND RIGHT
4	17		A6	BACK SURROUND LEFT
7	20		A4	RIGHT REAR
10	23		A2	LEFT REAR
15	3		A7	LFE/SUB
18	6		A5	CENTRE
21	9		A3	RIGHT
24	12		A1	LEFT
25			Screen/Shield	Ground

#### 3.11

#### D37 Socket Input connector – For use with TSL AMU2-8HD Dolby Multichannel Audio Monitoring Unit

D 37 CONNECTOR			INPUT CHANNEL	FUNCTION
PIN NO	PIN NO			
HOT +	COLD -			
3	22		A1	FIXED MON O/P (LEFT)
4	23		A2	FIXED MON O/P (RIGHT)
7	26		A3	CENTRE
8	27		A4	LFE/SUB
9	28		A5	LEFT REAR
10	29		A6	RIGHT REAR
11	30		A7	BACK SURROUND LEFT
12	31		A8	BACK SURROUND RIGHT
18				Remote VCA in
35				Remote Ground
19			Screen/Shield	Ground

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### 3.12 XLR-3 Plug (Outputs 1 – 8)

<b>XLRS</b>	<b>PIN</b>	<b>FUNCTION</b>
ANALOG	1	SCREEN
ANALOG	2	HOT
ANALOG	3	COLD

### 3.13 D9 Socket -Serial connector

This is wired for RS422. Note: As this lead is required to have a socket on both ends the cable will therefore need to have a cross over TX and RX. (See notes)

<b>D9</b>	<b>CONTROL</b>
1	0V
6	0V
2	TX-
7	TX+
3	RX+
8	RX-
4	0V
9	0V
5	N/C

## 4.0 General Notes

TSL product is wired to the European standard.

Please note that some American equipment has the function of the XLR pins 2 & 3 reversed.

When used in conjunction with a TSL AMU2-8HD Dolby, when the 5.1 or ALL mode is not selected, all channel outputs are muted except for Left and Right which then follow the AMU's monitor output selection.

When used in conjunction with the AMU2-8HD Dolby, the volume and DIM/CUT facility on the front panel of the ACU1-8 may be operated remotely by connecting the serial data ports of both units together. N.B. Without the serial lead connected the unit will automatically default to local operation.

**ACU1-8 to AMU2-8HD Dolby - 9 way cable DType plug - Serial data lead pin swaps**

D9 Plug (on cable)		D9 Plug (on cable)
3		7
8		2
4	SCN	4
7		3
2		8
6	SCN	6

**5.0 ACU1-8 Technical Specifications**

**Power Supply**

Supply Voltage                      100 -240V AC @ 50Hz/60Hz +/- 10%  
 Power Consumption                20 watts.

**Physical Dimensions**

Height                                  44mm (1RU)  
 Width                                  483mm (19")  
 Depth                                  160mm  
 Weight                                  2kgm

**Analogue Inputs 1 - 8**

Connector Type                      D37  
 Signal                                  Balanced line level audio.  
 Frequency Response                30Hz to 25kHz ±1dB  
 Impedance                            >20kΩ

**Analogue Inputs 1 - 8**

Connector Type                      D25  
 Signal                                  Balanced line level audio.  
 Frequency Response                30Hz to 25kHz ±1dB  
 Impedance                            >20kΩ

**Serial Connector**

9 Way D Type socket.  
 RS 422 (factory set up and remote control)

**Line Output.**

Connector                              XLR 3 pin Male  
 Impedance                            50Ω  
 Output Levels                        Through level control with 0dB gain.

