



**AMU1-BAS**  
**AUDIO MONITORING**  
**UNIT**

**Provisional  
Handbook**

**Television Systems Limited.  
Vanwall Road, Maidenhead, Berkshire, SL6 4UB  
Telephone +44 (0)1628 676200, FAX +44 (0)1628 676299**





## EC DECLARATION OF CONFORMITY

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

Conformity Standards Declared:

EN 60950

EMC Directive: 89/336/EEC, Amended 92/31/EEC.

Conformity Standards Declared:

EN 50081-1: 1992- EMC- Generic Emissions, Part 1.

EN 50082-1: 1997- EMC- Generic Immunity, Part 1.

EN61000-3-2: 1995- Current Harmonic Emissions.

EN61000-3-3: 1995- Voltage Fluctuations & Flicker.

Manufacturer's Name: Television Systems Ltd  
Manufacturer's Address: Vanwall Road  
Maidenhead SL6 4UB  
England  
United Kingdom

Type of Equipment: Audio Video Monitoring Unit

Model No: AMU1-BAS

Part Number: TSLP- AMU1-BAS

Date CE Mark Affixed: 16/07/09

I, the undersigned, declare that the equipment specified above conforms to the quoted Directives and Standards.

Place: Maidenhead, England

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Print: R CHAMBERS

Position: PRODUCT MANAGER



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## **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).
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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**

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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 Production 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 AMU1-BAS 1RU x 285mm deep Audio Monitoring Unit with a TSL Bargraph for audio level measurement and two internal communications quality loudspeakers.

The following features are standard:

- Six switch selectable stereo analogue inputs
- Two internal loudspeakers
- One TSL 106 segment bargraph
- Flexible output monitoring
- Headphone outputs with LS muting
- Fixed line outputs
- Phase correlation
- Loudness Indication

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## 2.0 Front Panel Controls

### 2.1 Input and Meter Selection switch

1 – 6                      Analogue I/Ps. A1 (Left Channel) is fed to the top bargraph and A2 (Right Channel) is fed to the bottom bargraph.

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## 2.2 Output Monitoring Switch

### Right A1 / A2 / stereo/Mix

This switch selects the Analogue Left or Right signals of the metered Input to the left or right monitoring outputs.

### Dim

Approximately 16dB of attenuation is switched into the audio path.

### Cut

The front panel button cuts the signal to the loudspeakers, the fixed line output remains unaffected.

### Loudness indication

This can be turned on and off by pressing the micro switches on the LHS of the bargraph display.

### Headphone Socket

When headphones are inserted the internal speakers are muted and the volume is varied by the volume control.

## 3.0 Pin-out Details

### 3.1 Input connectors -XLR sockets

<b>XLRS</b>	<b>PIN</b>	<b>FUNCTION</b>
ANALOG 1	1	GND
ANALOG 1	2	1 IN+
ANALOG 1	3	1 IN-
ANALOG 2	1	GND
ANALOG 2	2	2 IN+
ANALOG 2	3	2 IN-

### 3.2 Audio Input / Output Connectors – D37 Pinouts

#### D37 Socket, Input connector (lower)

D 37 CONNECTOR ON AMU			AUDIO INPUTS	FUNCTION
PIN NO	PIN NO			
HOT +	COLD -			
1	20		1	A1L (A1)
2	21		1	A1R (A2)
3	22		2	A2L (A3)
4	23		2	A2R (A4)
5	24		3	A3L (A5)
6	25		3	A3R (A6)
7	26		4	A4L (A7)
8	27		4	A4R (A8)
9	28		5	A5L (A9)
10	29		5	A5 (A10)
11	30		6	A6L (A11)
12	31		6	A6R (A12)
19			Screen	A Ground

#### D37 Socket, Output connector (Upper)

D 37 CONNECTOR ON AMU			AUDIO OUTPUTS	FUNCTION
PIN NO	PIN NO			
HOT +	COLD -			
1	20		A1	VAR MON O/P
2	21		A2	VAR MON O/P
3	22		A1	FIXED MON O/P
4	23		A2	FIXED MON O/P
5	24			
6	25			
7	26			
8	27			
9	28			
10	29			
11	30			
12	31			
19			Screen	A Ground

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### 3.3 Control Connector - D9 Socket

This is wired for RS422.

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

### 3.4 External Connector – D15 Plug

D15 PIN	EXTERNAL FUNCTION
1	GPI 1
2	GPI 2
3	GPI
4	GPI
5	GPI
6	GPI
7	N/C
8	N/C
9	N/C
10	N/C
11	N/C
12	N/C
13	N/C
14	+5V
15	0V

GPI 1 Remote Dim, GPI 2 remote Cut.

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#### **4.0 General Notes**

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

TSL product is wired to the European standard

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## 5.0 AMU1- BAS Technical Specifications

### Power Supply

Supply Voltage	90 -250V AC @ 50Hz/60Hz +/- 10%
Power Consumption	150 VA Max.

### Physical Dimensions

Height	44mm (1RU)
Width	483mm (19")
Depth	285mm
Weight	3500gm

### Input 1

Connector Type	XLR Female 3 pin. Pin 1 Gnd, Pin 2 hot, Pin 3 cold.
Signal	Balanced line level audio.
Frequency Response	30Hz to 25kHz
Impedance	>20k $\Omega$

### Inputs 1 - 6

Connector Type	D37
Signal	Balanced line level audio.
Frequency Response	30Hz to 25kHz $\pm$ 1dB
Impedance	>20k $\Omega$

### Line Outputs

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

Connector	D37
Impedance	<50 $\Omega$
Output Levels	Fixed

### Serial

Connector	D9
Signal	RS422

### External GPI

Connector	D15
Signal	

### Headphone Output.

Connector	Stereo Jack socket type A gauge
Impedance	50 $\Omega$
Output Levels	Through level control with 0dB gain.

**Loudspeakers** 8 Ohm, 4 watt max, 220Hz to 20 KHz

**Loudness algorithm** To ISO 226

## 6.0 Front and rear view



