



## AMU

# PROFESSIONAL VIDEO AND AUDIO MONITORING UNIT OPERATOR'S HANDBOOK ISSUE A3

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IN CORRESPONDENCE CONCERNING THIS INSTRUMENT  
PLEASE QUOTE THE SERIAL NUMBER PRINTED ON THE  
LABEL AT THE REAR OF THE UNIT



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## GENERAL INFORMATION

### WARRANTY

This product is manufactured by Hamlet Video International Ltd and is warranted to be free from defects in components and factory workmanship under normal use and service for a period of one year from the date of purchase.

### FREE EXTENDED WARRANTY

The warranty period can be extended to two years by registering the instrument on the Hamlet web site

<http://www.hamlet.co.uk/serv.html>

### TERMS AND CONDITIONS

During the warranty period, Hamlet Video International Ltd will undertake to repair or at its option, replace this product at no charge to its owner when failing to perform as specified, provided the unit is returned shipping prepaid, to the factory or authorised service facility.

No other warranty is expressed or implied. Warranty shall not be applicable and be void when this product is subjected to:

1. Repair work or alteration by persons other than those authorised by Hamlet Video International Ltd in such a manner as to injure the performance, stability, reliability or safety of this product.
2. Misuse, negligence, accident, act of God, war or civil insurrection.
3. Connection, installation, adjustment or use otherwise than in accordance with the instructions in this manual.

Hamlet Video International Ltd reserves the right to alter specifications without notice. This warranty does not affect the statutory rights of the UK customer.

## GENERAL INFORMATION

### SAFETY COMPLIANCE

This product is manufactured and tested to comply with **BS EN 61010-1 : 1993**  
Safety requirements for electrical equipment for measurement, control and laboratory use.



### EMC COMPLIANCE

We, Hamlet Video International Limited, Maple House, 11 Corinium Business Centre, Raans Road, Amersham, Bucks, HP6 6FB, England, declare under our sole responsibility that the product **HAMLET AMU** to which this declaration relates is in conformity with the following standards:

**EN50081-1** Generic emissions standard for light industrial applications.

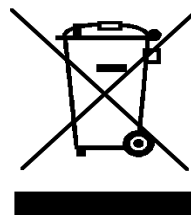
**EN50082-1** Generic immunity standard for light industrial applications.

Following the provisions of EU EMC directives 89/336/EEC and 92/31/EEC.

**NOTE.** During the EMC certification of this product, shielded cables were used.  
We recommend that they be used in operation.

### PRODUCT DISPOSAL INSTRUCTIONS

**B2B COMPLIANCE REG NO.**  
**WEE/GJ0146QT**



The symbol shown above and on the Hamlet AMU means the product is classed as Electrical or Electronic Equipment and should not be disposed with other commercial waste at the end of its working life. The Producer Registration Number above, WEE/GJ0146QT proves that Hamlet are formally registered with a legally approved Compliance Scheme. The Scheme we are registered with is called "B2B Compliance".

B2B Compliance takes on the legal responsibilities of the reporting on, and the collection and treatment of, all WEEE that Hamlet Video International Limited is obliged for - and ensures that the appropriate recycling targets are met on this WEEE

The Waste of Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) has been put in place to recycle products using best available recovery and recycling techniques to minimise the impact on the environment, treat any hazardous substances and avoid the increasing landfill.

#### **Product disposal instructions for business users.**

Business users in the EU should contact their Hamlet AMU supplier to arrange for its return to Hamlet head office in the UK, who will safely dispose of it and ensure that this Hamlet AMU is not mixed with other commercial waste for disposal.

# GENERAL INFORMATION

## Front Panel

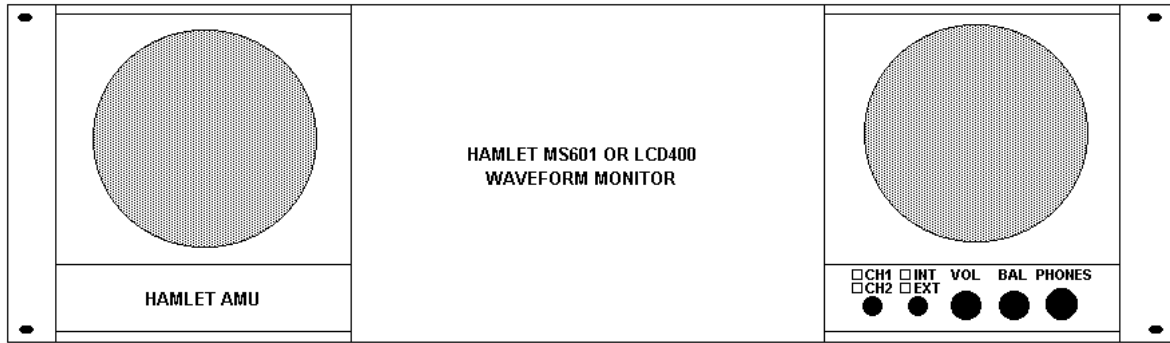
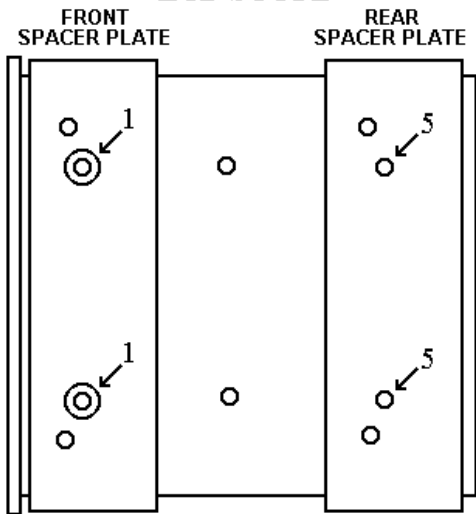


Fig 1

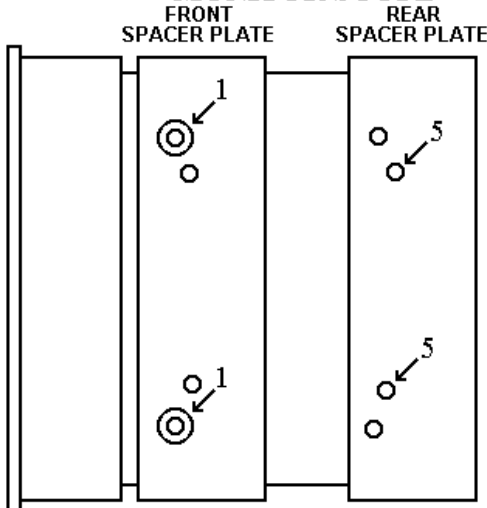
## Assembly of the various Instruments ASSEMBLY

### LCD SCOPE



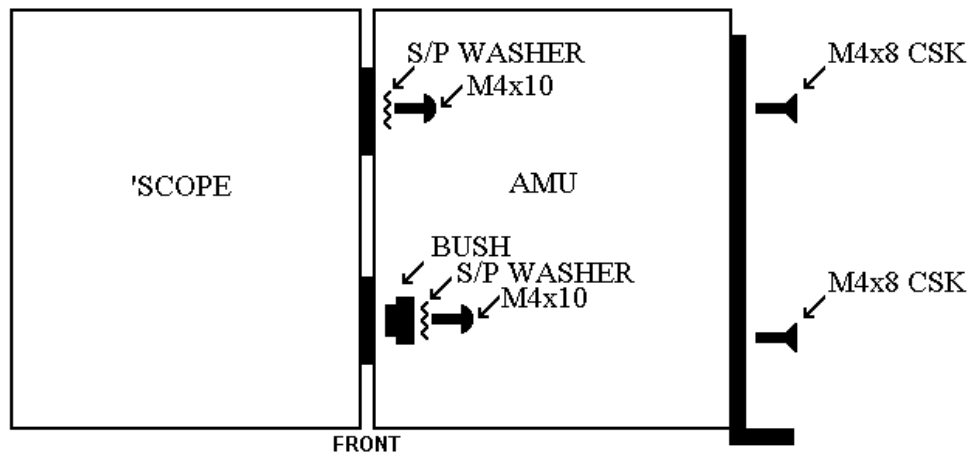
1. Using 2 off M4 x 12 PP screws and S/P washers, secure the two off brass bushes and front spacer plate onto one side of the 'scope. Repeat for the other side.
2. Remove the rear panel from each AMU speaker.
3. Slot the AMU keyhole slots over the two brass bushes on each side to secure the front.
4. Slide the rear spacer plates into the gap between the AMU and 'scope at the rear.

### MONITOR SCOPE



5. From inside the AMU, using 2 off M4 x 10 PP screws and S/P washers on each side, secure the rear of the AMU to the sides of the 'scope.
6. Re-fit the AMU rear panels.
7. Fit the rack mounting brackets using 4 x 8 CSK screws on each side.

### TOP VIEW (ONE SIDE)





## GENERAL INFORMATION

### INSTALLATION

#### UNPACKING

The Hamlet AMU is shipped from the factory in a specially constructed packing case. Exercise caution when unpacking the units to prevent damage to the case finish. Examine the units carefully for damage, which may have occurred during shipment

#### MOUNTING INSTRUCTIONS

The unit is supplied with mounting hardware to bolt the loudspeaker units to the MS601 or LCD400 waveform monitor. The amplifier speaker mounts on the right side of the waveform monitor and the passive loudspeaker mounts on the left side.

The assembled unit fits into a standard 19 inch equipment rack, where it occupies 3U of height. The unit itself generates little heat and does not need forced ventilation, but heat generated from adjacent units should not cause the case temperature to rise above 50 deg.C.

#### POWER REQUIREMENTS

The Hamlet AMU is powered from waveform monitor, via the enclosed 25 way D lead.

#### SIGNAL CONNECTIONS

The passive loudspeaker should be connected to the amplifier speaker using the enclosed cable and observing the correct polarity. The audio is selected by the waveform monitor except in EXT mode, when the XLR sockets are used.

#### CHECKOUT FOR INITIAL USE

After installation as above, switch on the Hamlet AMU and operate each control in turn, verifying correct response as described in the operating instructions.

#### PREVENTATIVE MAINTENANCE

The Hamlet AMU should be visually inspected and cleaned every one year of operation.

**CAUTION.** The front panel of the MS601/LCD400 is made from polycarbonate, which may soften if cleaned with some organic solvents. Do not allow water to get inside the equipment case.

## OPERATING INSTRUCTIONS

### **Safety notice**

Do not switch on the unit whilst wearing headphones connected to it, in case a high level signal has been selected.

### **First use**

Turn the VOL control fully counter clockwise, the BAL control to its centre position and select INT CH1 audio input.

### **Source selection**

Switch on the MS601/LCD400 and select the required source on that instrument. Turn up the VOL control to obtain the desired sound level.

### **External audio**

Pressing the INT-EXT switch allows audio to be input from the rear xlr connectors.

### **Tone controls**

The Hamlet AMU is factory set to give the best response from the loudspeakers, but Bass and Treble controls are accessible through the rear panel to allow for user preference.

### **Headphones**

Inserting headphones into the front panel jack socket automatically disconnects the loudspeakers.

## TECHNICAL SPECIFICATION

### **Main Audio Input**

Two balanced stereo audio feeds direct from the MS601 or LCD400.  
Front panel selection of Ch1 or Ch2 pairs.

### **External Audio Input**

Balanced stereo audio to the two rear XLR sockets.  
Input impedance of 22K ohm.

### **Loudspeaker output**

20W per channel RMS both channels driven.  
Response 90Hz to 14KHz +/- 6db.

### **Headphone output**

Professional 1/4" stereo jack socket.  
Response 20Hz to 20kHz +/- 3db. THD less than 0.1%

### **POWER**

Supplied from the MS601 or LCD400

### **ENVIRONMENT**

Indoor use, 5 to 45 deg.C. ambient to 2,000m.  
Max humidity 80% to 31 deg.C decreasing to 50% at 40 deg.C.  
Overvoltage category 2. Pollution degree 1.

## EXTERNAL CONNECTIONS

The supplied 25 pin D cable connects the AMU amplifier/speaker to the MS601/LCD400.

The supplied 2 core cable connects the AMU amplifier/speaker to passive speaker.  
Please observe the polarity of this cable.

2 x 3 pin XLRs for external audio input.

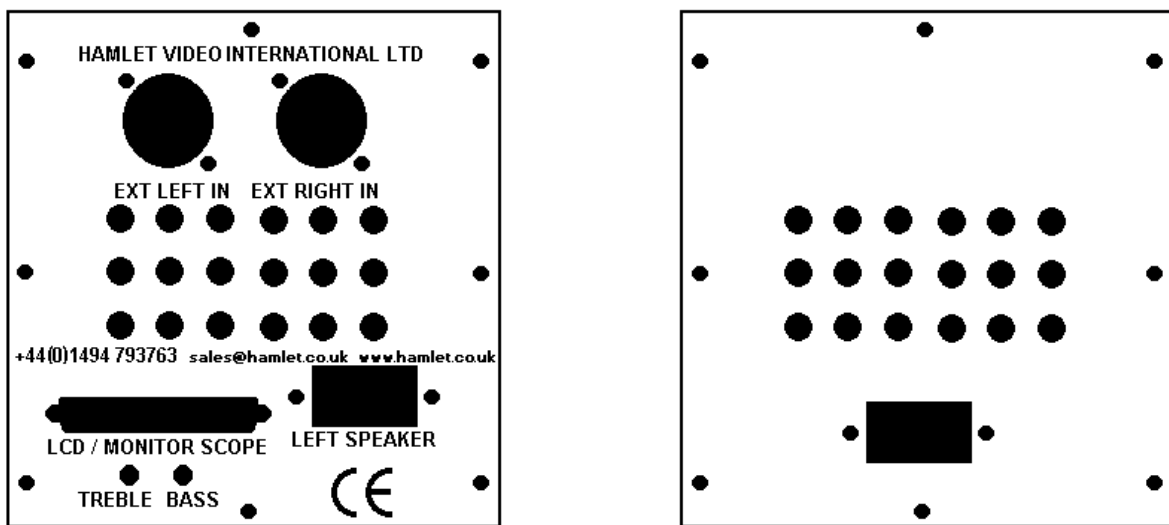


Fig 5

# AUDIO SCALES

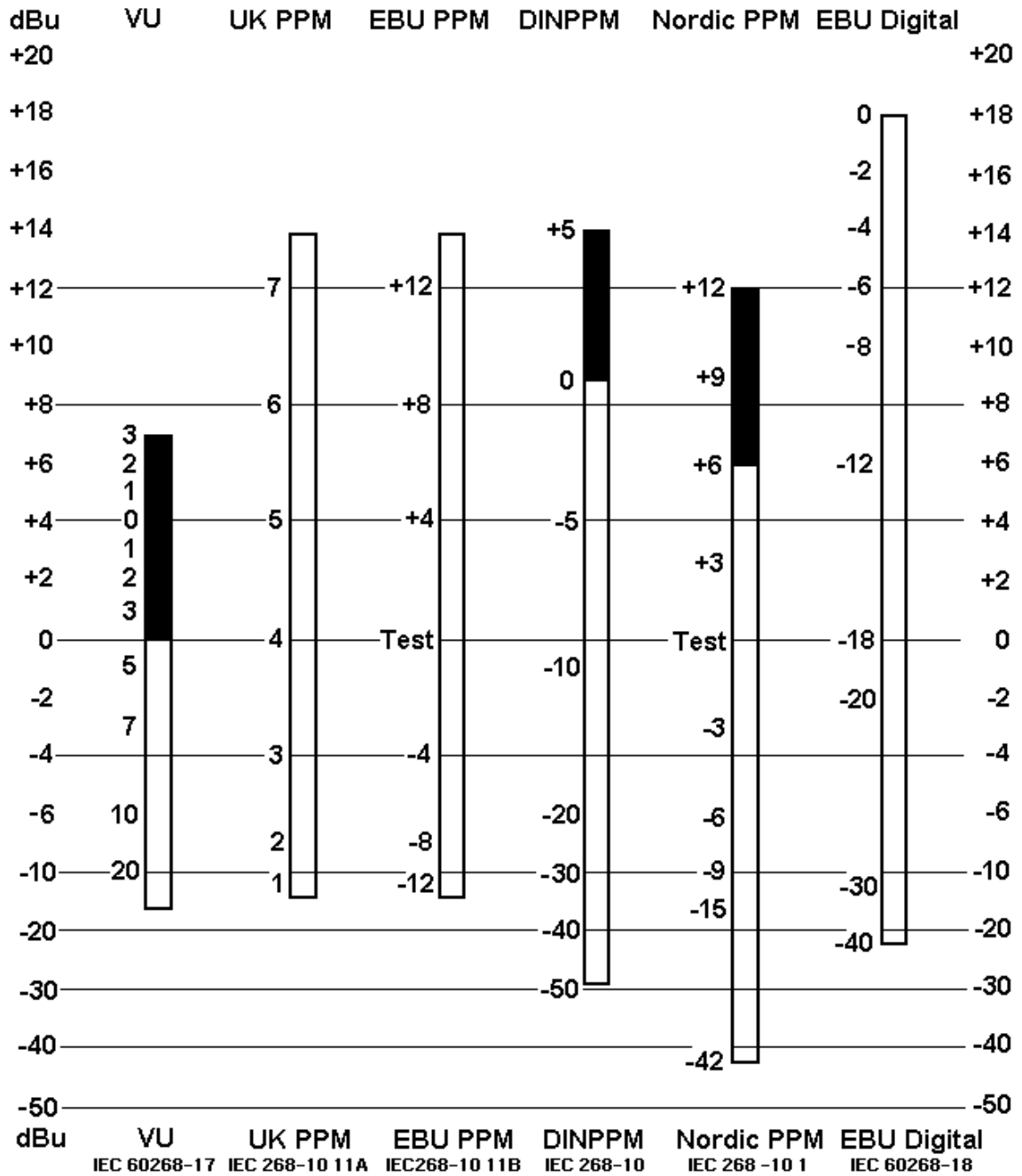


Fig 6

## USEFUL WEBSITES

<b>HAMLET</b>	<a href="http://www.hamlet.co.uk">www.hamlet.co.uk</a>	
<b>HAMLET (USA)</b>	<a href="http://www.hamlet.us.com">www.hamlet.us.com</a>	
<b>SMPTE</b>	<a href="http://www.smpte.org">www.smpte.org</a>	Society of Motion Picture Television Engineers
<b>DIN</b>	<a href="http://www.din.de">www.din.de</a>	German Standards Institute
<b>EBU</b>	<a href="http://www.ebu.ch">www.ebu.ch</a>	European Broadcasting Union
<b>AES</b>	<a href="http://www.aes.org">www.aes.org</a>	Audio Engineering Society
<b>ITU</b>	<a href="http://www.itu.int">www.itu.int</a>	International Telecommunication Union

## CONTACT DETAILS AND CUSTOMER SUPPORT

For any form of assistance in maintaining your AMU, please contact:

### **Corporate Head Office**

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Free phone (UK) 0500 625 525  
E-mail: [service@hamlet.co.uk](mailto:service@hamlet.co.uk) Web site: [www.hamlet.co.uk](http://www.hamlet.co.uk)

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Toll Free: 1-866-4-HAMLET (426-538)  
Email: [service@sencore.com](mailto:service@sencore.com) Web site: [www.hamlet.us.com](http://www.hamlet.us.com)

In correspondence concerning this instrument, please quote the serial number, which you will find printed on the label at the back of the unit.