



## **WhichWire™**

### **Diagnostic LCD monitor**

## **OPERATOR'S HANDBOOK**

### **ISSUE A1**

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



## **CONTENTS**

<b>LIST OF FIGURES .....</b>	<b>4</b>
<b>GENERAL INFORMATION .....</b>	<b>5</b>
WARRANTY .....	5
SAFETY COMPLIANCE.....	6
<b>TOP AND SIDE VIEWS.....</b>	<b>7</b>
<b>OPTIONS.....</b>	<b>9</b>
<b>OPERATING INSTRUCTIONS.....</b>	<b>10</b>
<b>EXAMPLE DISPLAYS.....</b>	<b>11</b>
<b>TECHNICAL SPECIFICATION.....</b>	<b>12</b>
<b>USEFUL WEBSITES .....</b>	<b>13</b>
<b>CONTACT DETAILS AND CUSTOMER SUPPORT.....</b>	<b>13</b>

## LIST OF FIGURES

Fig 1	Top View	.....	7
Fig 2	Side View	.....	7
Fig 3	Battery	.....	8
Fig 4	CVBS Typical display	.....	11
Fig 5	SDI Typical display	.....	11
Fig 6	AES input data stream typical display	.....	11

## 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 LTD  
MAPLE HOUSE  
11 CORINIUM BUSINESS CENTRE  
RAANS ROAD  
AMERSHAM  
BUCKS  
HP6 6FB  
ENGLAND

declare under our sole responsibility that the product

### **HAMLET WhichWire**

to which this declaration relates are in conformity with the following standards:

EN50081-1

Generic emissions standard for light industrial applications.

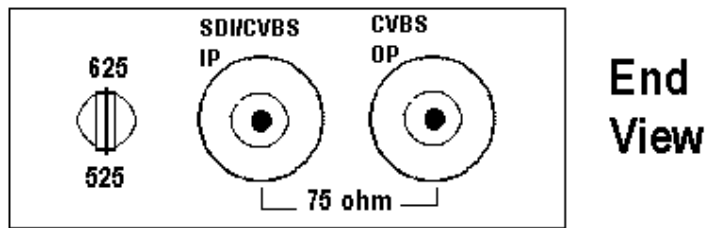
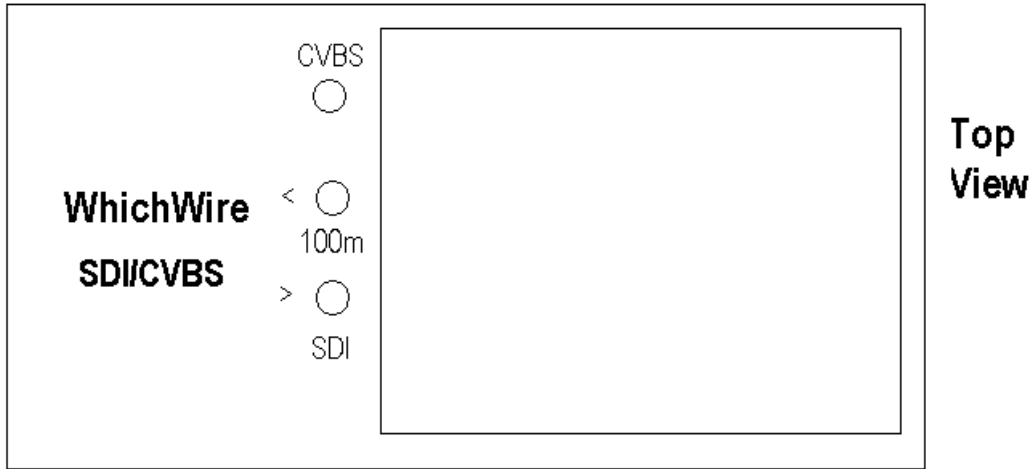
EN50082-1

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.

# TOP AND SIDE VIEWS



## OVERVIEW

The Hamlet *WhichWire*<sup>™</sup> provides high quality, multi-function, video monitoring facilities in a highly portable battery powered unit.

*WhichWire*<sup>™</sup> has only a single BNC input socket, which automatically detects the format of the input video signal and will display SDI or CVBS signals correctly without intervention. A simple side mounted switch sets operation for either 525 or 625 standard, and conserves the power that would otherwise be consumed by an automatic SDI TV Line Standard detector

The quiescent current drawn by *WhichWire*<sup>™</sup> is approximately 6uA, which could give up to 50 years standby duration with fresh cells! Hamlet Video International strongly recommends that all cells are removed from the *WhichWire*<sup>™</sup> when the unit is to be stored.

Damage caused to the *WhichWire*<sup>™</sup> by leaking cells is NOT covered under warranty. Use of high quality cells, will reduce the risk of such leakage.

Rechargeable cells generally have significantly lower power/weight ratios and develop lower terminal voltages; their use is therefore depreciated in the *WhichWire*<sup>™</sup>

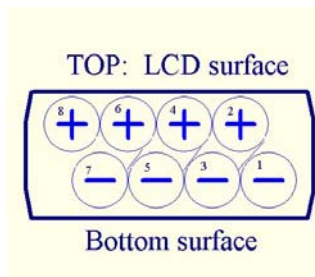


Fig 3 Inside the battery compartment

*WhichWire*<sup>™</sup> is designed to conform with IP65 requirements, but care must be taken to ensure that the case is correctly sealed after battery replacement if continued protection is required. Special sealing gaskets are fitted to both ends of the case, and their correct seating is mandatory for IP 65 protection. The finger tightened clamping screws of the battery compartment, are tightened against nylon inserts. It is important that the nylon insert is not lost, or IP65 sealing will not be achievable.

*WhichWire*<sup>™</sup> is supplied fitted with a safety clip point. For exposed aerial applications, for example, where it is mandatory to have all loose items securely tethered; a stout stainless steel split-ring provides the dedicated anchor point for belt, harness or lanyard fittings. Some users may wish to remove this ring, to improve access to the connectors, if this safety clip point is not required.



## OPTIONS

The following option is available, but must be specified when ordering *WhichWire*<sup>™</sup>

In some circumstances, Users may desire to use the *WhichWire*<sup>™</sup> as an ultra-small monitor in a fixed position over a protracted time period, and for which battery powered operation alone might prove undesirable. The *WhichWire*<sup>™</sup> may be specified fitted with a waterproof external dc power input jack, and is supplied with a compact mains power supply. Continuous operation over many days is thus practical. The external mains PSU is NOT water resistant to IP65 rating, and must not be used in outdoor conditions, or where exposure to damp or condensing humidity may be experienced.

The external mains PSU, which is supplied with a 3 pin IEC input connector, is suitable for operation from 100 to 240V, 47- 63 Hz

## OPERATING INSTRUCTIONS

**WhichWire™** does not have a discrete power on/off switch, detecting instead the presence of a video signal, either SDI or CVBS, on the input (IP) connector to automatically power up the Monitor. Universally available AA cells, which can be changed in a moment using no tools, power the **WhichWire™** Primary cells, which offer by far the highest energy/volume efficiency, will provide many hours of continuous operation totally eliminating the off-line downtime required to recharge secondary cells. Hamlet Video International thoroughly recommends the use of these high-energy alkaline cells, and these are supplied in the carton when shipped.

A simple side mounted switch sets operation for either 525 or 625 standard, and conserves the power that would otherwise be consumed by an automatic SDI TV Line Standard detector

The input signal is converted to a composite signal and available on the output connector for viewing on a large screen.

**WhichWire™** provides front panel indication of the detected input signal format as either Composite Video or SDI. Indication is also provided of the SDI signal's nominal cable length on one of two LEDs for less than 100M or greater than 100M. Additionally, poor “eye-height” is indicated by brightness modulation (uncalibrated) of the CVBS LED. Typically this suggests wave shape distortion, jitter or timing errors, which may require further investigation.

## EXAMPLE DISPLAYS

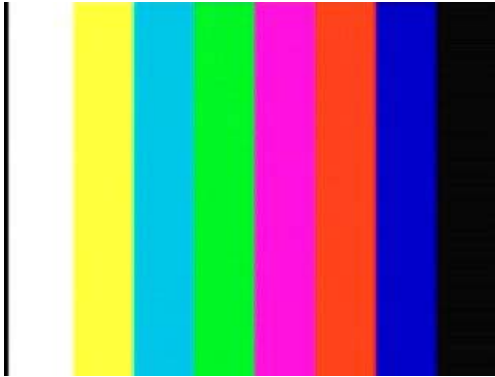


Fig 4 CVBS Typical display

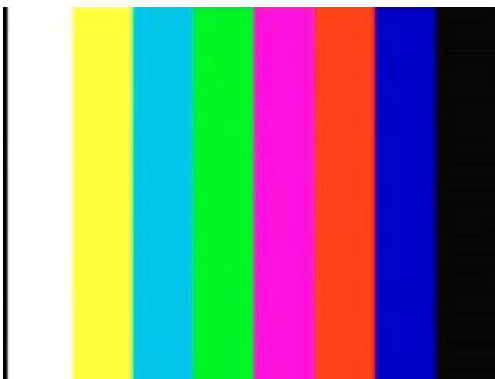


Fig 5 SDI Typical display

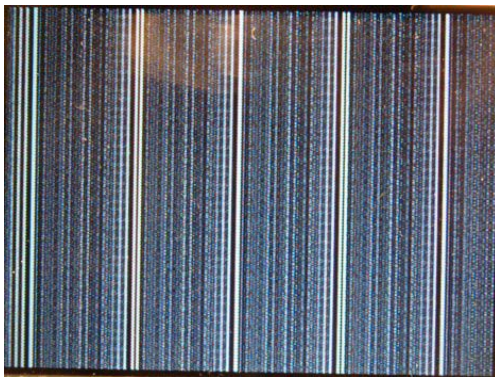


Fig 6 AES input data stream typical display

## TECHNICAL SPECIFICATION

Compact battery powered 3.5" TFT 234x600 pixel LCD display.  
Case: Slim, rugged Alloy/Rubber case, sealed to IP65.  
Colour display modes: SDI, NTSC, PAL;  
Mono display modes: SECAM, PAL M, Y, AES (presence).  
Auto-detection of the video input signal presence switches power;  
10+ years of battery life in standby, @ 6uA quiescent current  
270 SDI & Composite Video inputs with 75 ohm termination.  
Full adaptive SDI cable equalisation to 350 M,  
RSSI indicator LEDs < 100M and >100M, T3304 or equivalent cable  
SDI "eyeheight compromise" indicated by modulation of CVBS LED  
Demodulated SDI output signal option for SDI testing.  
TFT Screen protected by shatter proof and scratch resistant anti-glare panel.

### ENVIRONMENT

Operational from -0° to +50°; Storage from -10° to + 80°  
Physical: 167 x 85 x 35mm, only 500gm

### POWER

Power: 8x AA Alkaline cells, giving approx 6 hour duration CVBS mode,  
2 hour duration in SDI mode.

Note: the figures in this specification are typical, and given for guidance only. They are not, however, guaranteed. If a particular parameter is of special interest, Hamlet Video International can provide Certification to Special Order.

## USEFUL WEBSITES

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

## CONTACT DETAILS AND CUSTOMER SUPPORT

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

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

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Fax: +1 (949) 597 1094.  
Toll Free Tel number: (866) 4 HAMLET  
E-mail: service@hamlet.us.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.