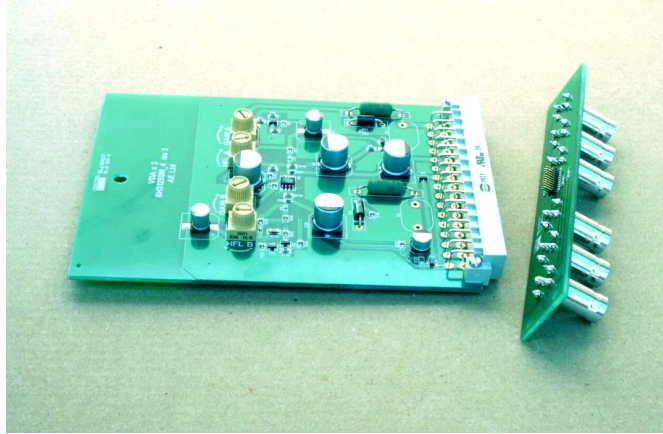


# ADDLESTONE ELECTRONICS LTD

## TYPE BH192/3125 VIDEO DISTRIBUTION AMPLIFIER MODULE (Two channels of 1 in / 2 out)

FOR USE WITH BH220 UNIVERSAL RACK



### CAUTION

- ◆ Protect rack from rain / excessive moisture.
- ◆ Take care to prevent damage to the 20-way connector (PL1) on the back of the BH192 rear panel.
- ◆ When handling the circuit cards take precautions to avoid damage from static electricity

### APPLICATION

The BH192/3125 module has been designed to operate with our BH220 Universal Rack. When installed the module will give a two channel video distribution amplifier, each channel having one input and two outputs. The video signal will be split with no loss of signal strength or quality. Up to 16 BH192/3125 modules may be installed into the BH220 frame giving a total of 32 active channels. If required the BH192/3125 module can be installed alongside our BH193/3125 & BH231/3125 modules in the same frame unit, giving a mix of 2 output, 4 output and 5 output VDA's.

### PACKAGE CONTENTS

When you open the packaging you should find the following:

- (a) 1 x BH192/3125 VDA module.  
Each module will comprise of one plug-in BH3125SM circuit card and one BH192 VDA rear panel.  
If you have also ordered a BH220 Universal Rack the modules will normally be factory fitted.
- (b) 1 x Installation Guide.
- (c) 4 x metal screws to secure rear panel

## INSTALLING THE MODULE

If the modules have been factory fitted miss this section and refer to 'CONNECTING THE CABLES'.

If you have an empty or part filled BH220 Universal Rack proceed as follows:

- (1) Select an unused slot in the rack for the plug-in circuit card.
- (2) Insert the card with the components facing to the right (looking from the front of the rack). The card should plug into the backplane with only a moderate amount of applied pressure.  
*- Take precautions to avoid damage from static electricity when handling the cards -*
- (3) Place the rack onto its front face. Locate the 20-way connector (a small black- plastic rectangular moulding) that connects to the card you have just inserted. The 20 gold plated pins on the back of the BH192 panel have to fit into this 20-way connector.
- (4) Hold the BH192 rear panel by its metal BNC connectors.
- (5) Looking from above align the four holes in the corners of the rear panel with the relevant four screw holes running along the edge of the rack.
- (6) Lower the rear panel vertically down onto the rack. The 20-way connector should engage with a small amount of downwards pressure.
- (7) If the four holes in the corners of the BH192 rear panel do not align with the screw holes in the rack then you have not correctly fitted the panel. Gently lift the panel vertically upwards and try again.
- (8) Once you have correctly located the panel into the rack, secure the rear panel using the supplied screws.
- (9) The module should now be ready for use.

Note: If you are not filling all the available panel slots in the rear of the rack it is advisable to fit blanking panels in the unused slots. This will seal the unit and protect the unused 20-way connectors. The Part Number / description for these is a BH195 Blanking Panel.

## CONNECTING THE CABLES

Refer to the BH220 Installation Guide for connecting power to the rack.

Each BH192/3125 Module has two completely separate channels of 1 in / 2 out Video Distribution Amplifiers. If you look at the BH192 rear panel you will see that it is divided into two sections, each section having three BNC connectors. The top section is Channel A and the bottom section Channel B.

The signal input from the camera is connected to the BNC connector labelled 'VIDEO IN 75R'. Note that the [video input](#) connectors are located towards the [centre](#) of the panel. The two BNC outputs for each channel are labelled '1' and '2' VIDEO OUT 75R. At this point with the power and signal cables connected you should have some form of image on the monitor. The output levels may require adjustment to obtain the best picture.

## ADJUSTMENT

The BH3125SM circuit cards are factory adjusted for Unity -- an input signal of 1.0V pk-pk @75R will give an output signal of 1.0V pk-pk @75R .

If the output signals are to be sent over some distance it may be necessary to increase the output levels of the circuit card. Proceed as follows:

- (a) Replace the BH3125SM circuit card to be adjusted with the extender card. Plug the BH3125SM card into the end of the extender card. The control pots for each channel are now accessible. The power to the rack can be left on when fitting or removing the circuit cards. Each channel has two control pots, one for adjusting the signal amplitude (labelled GAIN) and one to adjust the amount of high frequency lift (labelled HFL).
- (b) Alter the output level for channel A by adjusting the Gain control (GAIN A) and observe the effect on the monitor.

*The GAIN control adjusts the amplitude of the video signal. This alters the brightness of the picture on the monitor.*

- (c) Set the GAIN A control to the setting that gives the correct picture brightness level. If you have a video level meter use it to adjust the output of the channel to 1.0 Volt pk-pk @75R.
- (d) Alter the amount of high frequency lift for channel A by adjusting HFL A and observe the effect on the monitor.

*The high frequency component of the video signal carries information on colour and fine detail. These will be affected to some extent as you adjust HFL A.*

- (e) Set HFL A to the setting that gives the best picture.
- (f) Repeat this procedure for channel B
- (g) Once the controls have been adjusted the card can be inserted back into the rack.

The controls should not require further adjustment unless there is some significant change in the installation (e.g. change in the length of the cable run, changes to the equipment such as new cameras).

## END OF LIFE DISPOSAL

When this product eventually reaches the end of its working life it needs to be disposed of correctly to prevent damage to the environment. It should not be disposed of with general household type waste. If you phone WeeeCare plc on 0844 800 2004 and quote our Account Number **135027** they will arrange collection of this product from you. They will then correctly dispose of the unit and recover any materials that may be recycled and reused. **There will be no charge to you for this service.**

## TECHNICAL INFORMATION FOR BH192/3125 MODULE

<b>INPUT SIGNAL</b>	Nominal 1.0 Volt pk-pk composite video signal. Suitable for either colour or monochrome video.
<b>INPUT IMPEDANCE</b>	75 Ohms
<b>OUTPUT SIGNAL</b>	1.0V pk-pk @75R (with BH3125 correctly adjusted))
<b>AT UNITY GAIN</b>	Differential Phase <2 degrees. Differential Gain < 2%
<b>GAIN CONTROL</b>	Variable from -6dB to +6dB
<b>HF LIFT CONTROL</b>	Variable from -0.3dB to +6.0dB
<b>INPUT CONNECTORS</b>	BNC type coax connectors, one per channel
<b>OUTPUT CONNECTORS</b>	Two BNC type coax connectors per channel
<b>SURGE PROTECTION</b>	Transorb diodes fitted as standard (Gas Discharge Tubes can be fitted on request)
<b>RoHS STATUS</b>	Fully RoHS compliant
<b>POWER REQUIREMENTS</b>	12V DC
<b>POWER CONSUMPTION</b>	0.24W per module
<b>OPERATING TEMP. RANGE</b>	-30 to +45 degrees Celsius

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