

TYPE BH186
HUM
CANCELLER WITH LINE CORRECTION
Installation Guide



CAUTION

- ◆ Protect unit and power supply from rain / excessive moisture.
- ◆ Do not use 12V power supply if its casing has been damaged.

APPLICATION

The BH186 will cancel ground loop currents (Hum) up to a maximum of 32V pk-pk, preventing or removing hum bars on the monitor screen. In addition the BH186 is an active video amplifier that will compensate for signal losses in coax cable runs. Fully RoHS compliant.

PACKAGE CONTENTS

When you open the packaging you should find the following:

- 1 x BH186 unit
- 1 x Type BH98 12V DC Regulated Power Supply
- 1 x Installation Guide

CARE AND MAINTENANCE

Following installation the BH186 unit should require little or no maintenance. If required clean unit using damp cloth with a little mild detergent (having first disconnected the power supply). The coax signal cables may be fitted or removed without disconnecting the power supply.

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.

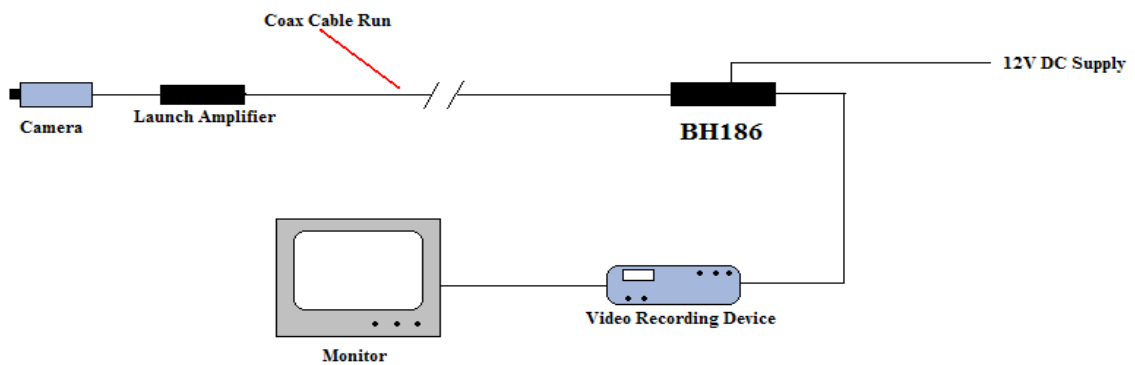
INSTALLATION

The BH186 unit should be installed at the end of the coax cable run before the video signal is connected into any other equipment. The BH186 is normally used in conjunction with a suitable Video Launch Amplifier unit installed at the camera end of the cable run. Used in conjunction with our BH184 unit the BH186 will correct for signal losses in cable runs up to about 600m (using RG59). For runs up to about 450m the BH186 unit may be used on its own. Leaving out the BH184 unit will not affect the ability of the BH186 unit to prevent or remove Hum Bars on the monitor.

The 12V DC supply is connected to the spring-loaded connector labelled '12V DC'. Ensure the positive wire is connected to the connector labelled '+'. The positive wire from the power supply is marked with a white stripe or white dots. An LED in the top panel is illuminated when power is connected.

The video cable from the camera is connected to the BNC coax connector labelled 'VIDEO IN 75R'. The outgoing coax cable is connected to the output coax connector labelled 'VIDEO OUT 75R'.

DIAGRAM SHOWING A BASIC CCTV INSTALLATION INCORPORATING A BH186 UNIT



ADJUSTMENT

The BH186 unit is sent from the factory adjusted for Unity output so that an input signal of 1.0 Volt peak to peak @75R will give an output signal of 1.0 Volt peak to peak @75R.

Once the BH186 unit has been installed and power connected it will need to be adjusted to compensate for signal losses in the cable run and to remove any Hum problems.

The BH186 unit has four controls set in the lid of the unit :

1. Adjustment for the amplitude of the video signal (GAIN)
2. Adjustment of the mid-frequency lift (MFL)
3. Adjustment of the high frequency lift (HFL)
4. Adjustment to cancel hum (HUM)

Proceed as follows:

- (a) Ensure that the camera and monitor are working and all cables connected. Set GAIN, MFL and HFL controls on the BH186 to minimum (fully anti-clockwise).

At this point you should have an image of some sort on the monitor screen although probably rather dark and monochrome.

- (b) The GAIN control will adjust the peak to peak amplitude of the video signal – this will affect the brightness of the picture on the monitor. Adjust the GAIN control until you have a picture of approximately the correct brightness.

This is only a rough first adjustment – the GAIN control is given a final adjustment once the MFL and HFL controls have been set.

- (c) Now adjust the HUM control to remove the hum bars from the monitor. You may need to repeat this procedure once you have made the final adjustment for GAIN (operation (f)) to obtain the best result.

- (d) Rotate the mid-frequency lift control (MFL) through its full rotation and observe the changes to the picture on the monitor. Adjust the MFL control to obtain the best possible picture with minimum distortion and smearing.

Correct adjustment of the MFL control is important if you are to obtain a good quality picture with a correctly shaped synchronisation pulse.

- (e) Adjust the high frequency lift control (HFL) to obtain the desired amount of colour in the video picture.

- (f) Re-adjust the GAIN control to obtain the correct picture brightness. If you have access to a Video Level Meter set the output signal from the BH186 to 1.0V peak to peak @ 75 Ohms.

Should you have any problems in adjusting the BH186 unit please call us and ask to speak to Technical Support.

TECHNICAL INFORMATION

INPUT SIGNAL	Nominal 1.0 Volt pk-pk composite video signal. Suitable for either colour or monochrome video.
INPUT IMPEDANCE	75 Ohms
OUTPUT SIGNAL	1.0V pk-pk @75R (with unit correctly adjusted)
AT UNITY GAIN	Differential Phase <3 degrees. Differential Gain < 3%
GAIN CONTROL	Variable from 0dB to +6.0 dB
MF LIFT CONTROL	Variable from 0db to +6.0 dB
HF LIFT CONTROL	Variable from 0dB to + 6.0dB @ 4.4MHz
HUM CANCELLATION	Hum cancellation up to a maximum of 32V pk-pk
PERFORMANCE	Will correct for signal losses in cable runs up to 600m using RG59 or CT125 (in conjunction with BH184 unit)
SIGNAL INPUT CONNECTOR	BNC type coax connector
SIGNAL OUTPUT CONNECTOR	BNC type coax connector
SURGE PROTECTION	Transzorb diodes fitted
POWER REQUIREMENTS	12V DC for BH186 unit.. 230V AC for the type BH98 power supply
POWER CONSUMPTION	780 mW for BH186 unit
OPERATING TEMP. RANGE	-30 to +45 degrees Celsius
DIMENSIONS OF UNIT	Length 132mm, Width 45mm, Height 23mm (excluding connectors)

If you have any problems or require information concerning this product please contact us:

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