

TYPE BH259

Automatic Adaptive Video Equaliser Unit for Coax Cable Installation Guide



CAUTION

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

APPLICATION

The BH259 unit will automatically equalise a video signal at the push of a button and deliver a high quality signal over of up to 1mile (1.6km) of RG59 Copper Coax and 1/3 mile (500m) of Copper Coated Steel Coax.

PACKAGE CONTENTS

When you open the packaging you should find the following:

- 1 x BH259 unit
- 1 x Type BH98 12V DC Regulated Power Supply

CARE AND MAINTENANCE

Following installation the BH259 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).

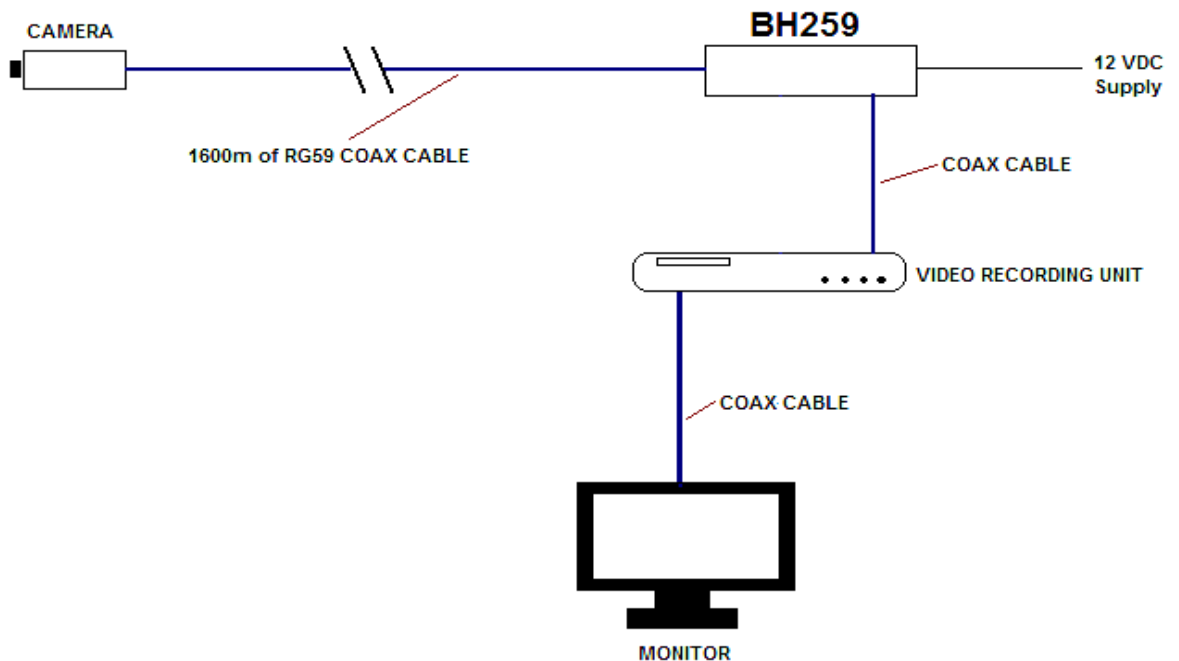
INSTALLATION

Install the BH259 unit at the receiving end of the cable run. The type BH98 power supply will require a standard 13A socket. Please note that if you only have access to a 110V AC supply we can provide a suitable power supply for this voltage.

The output cable of the 12V DC supply is connected to the orange plastic connector labelled '-12V DC+'. Ensure the positive wire is connected to the connector slot labelled '+'. The positive wire from the power supply is marked with a white or grey stripe. A green LED (labelled POWER) located below the power input connector lights when power is connected.

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

DIAGRAM SHOWING A BASIC CCTV INSTALLATION INCORPORATING A BH259 UNIT



ADJUSTMENT

If the 12V supply is connected and turned on when you connect the signal cables the unit will automatically detect and equalise the video signal and the yellow LED labelled 'SET' will be lit.

If for some reason this does not happen simply gently press and hold down for about three seconds the button marked 'AUTO SETUP'. The BH259 will then automatically equalise the video signal. When the video signal has been adjusted and locked the yellow LED labelled 'SET' will be lit. The BH259 unit will now be correctly adjusted for the cable run.

OPERATION

Once the BH258 unit has been setup it is not normally necessary to make any further adjustments for the life of the installation provided there are no significant changes to the cable run or associated equipment.

If you change the length of the cable run or use other equipment it may be necessary to press and hold the 'AUTO SETUP' button for 3 seconds. This will cause a re-equalisation of the cable run and equipment.

After a power outage the unit will automatically re-equalise without the need for any user intervention.

COAX CABLE RUNS

Some coax cables available have a steel core with a copper coating. Whilst these cables are stronger when pulled through ducts etc., their electrical characteristics are inferior to cables of all copper construction. When used with the BH259, for example, steel cored RG59 cable will correct to only about 500m as opposed to about 1,600m achieved by copper cored RG59. When purchasing or assessing an existing cable, it is not always obvious which is steel core or which is all copper. A magnet can be helpful!

As with any medium/long distance coax cable installation, care should be exercised when making a join or terminating the cable run. Join with proprietary 75Ω coax connectors and ensure ongoing protection from moisture ingress. Resistive connections, spaghetti wiring, bulky terminal blocks, damp leakage, etc. will cause picture noise and degrade performance, due to crosstalk, impedance mismatch, line reflections, etc.

GROUND / EARTH LOOPS

Significant earth potentials may exist across the long distances the BH259 can be run, ie.1,600m. If using earth returns at both ends of the line these may introduce an earth loop. If present, these disturbances will require the addition of, where appropriate, an opto-isolator, a video isolating transformer or a camera/source with 'floating' output (ungrounding one end of the line). The intensity of an earth loop may vary over time.

SPIKES & EARTHING

The BH259 contains devices to protect its internal circuitry against spike disruptions from power glitches, nearby lightning strikes etc. However, the standard device is ground independent and relies on the local destination equipment (monitor etc.) for line termination earthing. If preferred, a version of the unit can be supplied fitted with an earth stud for localised earthing. Details may be obtained from our sales department.

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

INPUT SIGNAL TYPE	Unbalanced Composite video signal. NTSC or PAL
INPUT IMPEDANCE	75 Ohm
OUTPUT SIGNAL	1.0V Pk-Pk @ 75 Ohm
SIGNAL INPUT CONNECTOR	BNC male type coax connector
SIGNAL OUTPUT CONNECTOR	BNC male type coax connector
AT UNITY GAIN	Differential Phase < 1.0° Differential Gain < 1%
BANDWIDTH	40Hz to 6MHZ
PERFORMANCE	Will equalise a video signal on the following cable types: RG59 Copper Coax up to 1 mile (1.6km) RG59 Copper Coated Steel Coax 1/3 mile (500m) *If you have a specific cable you would like us to test, please contact us at the address below.
SURGE PROTECTION	Transorbs and gas tubes fitted as standard
POWER REQUIREMENTS	12V DC @ 115mA.
POWER SUPPLY	Type BH98 plug top regulated power supply requiring input of 230V AC and with output of 12V DC
POWER CONNECTOR	Screw terminal maximum cable size 4mm ²
OPERATING TEMP. RANGE	-30 to +45 degrees Celsius
CONTROLS	Auto setup button
INDICATOR LED's	Green LED indicates power Yellow LED indicates signal equalised and 'SET'
DIMENSIONS	132mm L x 45mm W x 23mm H (excluding BNC connectors)
MOUNTING	Via 2 x 3.5mm holes for convenient screw fixing

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

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