

# Installation Instructions

## **ZRM/VID Enhanced Video Amplifier for the ZR3-mini and ZR4-mini**



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Please read this manual completely before installing ZRM/VID

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## *For Safety*

Please follow these instructions as you install your ZRM/VID and have them available during the life-time of the ZRM/VID. If you have any problems contact your supplier.

**WARNING:** INSTALLATION IS ONLY TO BE CARRIED OUT BY SUITABLY QUALIFIED AND EXPERIENCED PERSONNEL

**WARNING:** THE ZR-MINI CONTAINS HAZARDOUS VOLTAGES INCORRECT FOLLOWING OF THE INSTRUCTIONS MAY RESULT IN INJURY OR DEATH BY ELECTRIC SHOCK.

The ZRM/VID is designed for use in general purpose CCTV applications as part of the ZR-mini product and must not be used for intrinsically safe or medical applications.

Do not exceed the voltage and temperature limits given in the specifications. Only use the ZRM/VID in a clean, dry, dust-free environment.

## *Unpacking*

Keep your packaging for use if your ZRM/VID is stored for a time or needs to be returned for whatever reason. The packaging should contain:-

- *The ZRM/VID unit*
- *A flying lead terminated by a two-way connector and a BNC*
- *A cable grip for securing the flying lead*
- *These instructions*

If any of the items are missing or damaged then inform the suppliers and carriers immediately, and do not attempt to use your ZRM/VID.

## ***Electromagnetic Compatibility (EMC)***

**CAUTION** : This ZR-mini is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This product is intended for use in general purpose CCTV applications in a residential, commercial or light industrial EMC environment, refer to Baxall before using the product in an industrial EMC environment.

The product must be installed in accordance with good installation practice for EMC to enable the product to function as intended and to prevent EMC problems.

Contact Baxall to obtain a specification defining the acceptable levels of product degradation with regard to EMC immunity.

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## **MANUFACTURER'S DECLARATION OF CONFORMANCE**

The Manufacturer declares that the ZRM/VID supplied with this manual is once plugged into a ZR-mini PCB is compliant with the essential protection requirements of the EMC directive 89/336 and is tested to the requirements of standards EN 55022 for emissions and IEC801 parts 2, 3 and 4 for immunity.

# Installing Your ZRM/VID

## Step 1 - disassembly

- Disconnect all power from your ZR-mini and ensure that the isolation is secure.
- Remove the label
- If you have a ZR4-mini also remove the top PCB (figure 1)

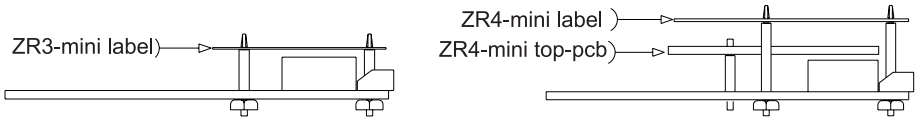


Figure 1. Side view of the ZR3-mini and ZR4-mini

## Step 2 - Removing the previous video amplifier IC

- Using a suitable tool remove the IC indicated in figure 2

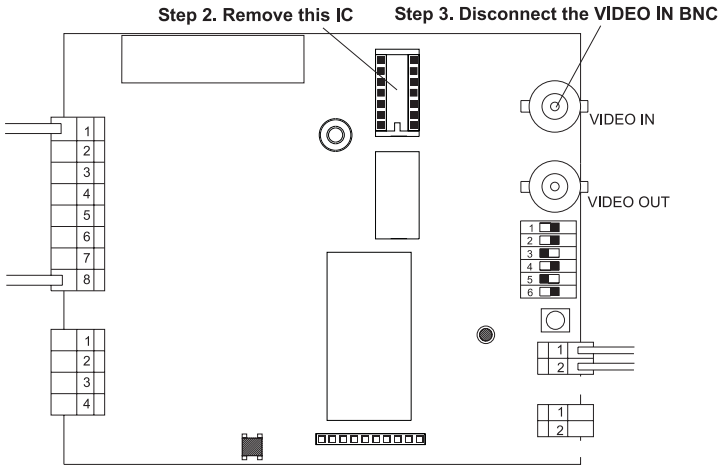


Figure 2. Removing the old video amplifier IC and disconnecting the VIDEO-IN lead.

## Step 3 - Disconnecting the VIDEO-IN

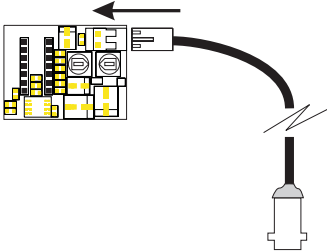
- Disconnect the VIDEO-IN BNC ready for connection to the ZRM/VID flying lead.

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## Step 4 - Connecting the flying lead to the ZRM/VID

- connect the flying lead to the ZRM/VID according to figure 3.

NOTE: You must do this at this stage because the PCB mounting pillar prevents the connector being plugged in once the ZRM/VID is inserted.

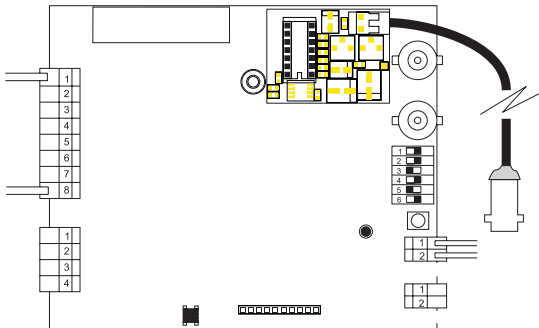


*Figure 3. ZRM/VID video connections*

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## Step 5 - Plugging the ZRM/VID into the main PCB

- Plug the ZRM/VID into the main PCB according to figure 4.



*Figure 4. Plugging in the ZRM/VID*

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## Step 6 - Plugging in the VIDEO-IN

- Connect the previously removed VIDEO IN to the end of the flying lead.
- Secure the flying lead away from the PCB to prevent it touching live parts.

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## Step 7 - Refitting

- If you had a ZR4-mini then refit the top PCB ensuring that the supporting pillar is correctly snapped into place.
- Refit the label

**WARNING:** After the next step the PCB and surrounding components are at a Hazardous Voltage.

- Switch on the power

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## Step 8 - Adjusting Gain and Lift

- Adjust the GAIN and LIFT pots (figure 5) using an insulated pot trimmer until you either have 1V pk-pk video or an acceptable picture at your monitor.

NOTE: sometimes increasing the amplification slightly can also improve telemetry reception.

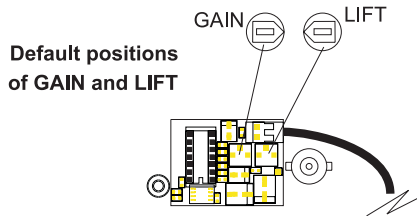


Figure 5. Default positions of Gain and Lift

The gain and lift pots operate as shown in figure 6 (when turned to their limit in either direction).



Figure 6. Gain and Lift Ranges

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## Step 9 - Completion

- Replace the label as shown in figure 1.
- Seal the box by tightening the screws to prevent unauthorised access.

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