English

Please read this in conjunction with the Installation Instructions

PRODUCT SAFETY AND ELECTROMAGNETIC COMPATIBILITY (EMC)

This product is intended for use in general purpose CCTV applications in a residential, commercial or light industrial EMC environment.

Refer to your agent before installing or using the product in medical and/or intrinsically safe applications or in an industrial EMC environment.

WARNING : This 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.

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

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

MANUFACTURER'S DECLARATION OF CONFORMANCE

The manufacturer declares that the product supplied with this document is compliant with the essential protection requirements of the EMC directive 89/336 and the Low Voltage Directive LVD 73/23 EEC. Conforming to the requirements of standards EN 55022 for emissions, IEC801 parts 2, 3 and 4 for immunity and BS415 superseded by EN60950 for Electrical Equipment safety.

Français

Cette note doit être lue et jointe aux instructions d'installation.

SECURITE ET COMPATIBILITE ELECTROMAGNETIQUE

Ce produit est destiné à être utilisé pour les applications générales de télévision en circuit fermé dans des environnements résidentiels, commerciaux ou d'industries légères à compatibilité électromagnétique.

Prendre conseil auprès du revendeur avant d'installer ou utiliser le produit pour des applications médicales et/ou à sécurité intrinsèque ou dans un environnement industriel dans lesquels des précautions doivent être prises dans le domaine des interférences radioélectriques.

ATTENTION : Ce produit est rangé en Classe A. Dans un environnement domestique il peut provoquer des interférences radioélectriques. Dans ce cas, l'utilisateur pourra être amené à prendre des mesures appropriées.

L'installation doit se faire en respectant les règles de l'art afin de permettre le bon fonctionnement du produit et empêcher que d'éventuels problèmes surgissent. Pour obtenir des conseils sur l'installation, s'adresser au revendeur.

Pour obtenir une spécification définissant les niveaux acceptables de dégradation du produit en relation avec la compatibilité électromagnétique, s'adresser au revendeur.

DECLARATION DE CONFORMITE PAR LE FABRICANT

Le fabricant déclare que le produit fourni est conforme aux prescriptions de la directive 89/336 sur la compatibilité électromagnétique et de la directive LVD 73/23 sur la basse tension. Il est également conforme aux normes EN 55022 sur les émissions, IEC801 sections 2, 3 et 4 sur la compatibilité et BS415 remplacée par la norme EN60950 relative à la sécurité des équipements électriques.

Deutsch

Bitte zusammen mit den Installationsanweisungen lesen.

PRODUKTSICHERHEIT UND ELEKTROMAGNETISCHE VERTRÄGLICHKEIT (EMV)

Dieses Produkt ist für den Einsatz in allgemeinen CCTV-Anwendungen in Wohn-, Geschäfts- oder leichtindustriellen Umgebungen ausgelegt.

Wenden Sie sich bitte an Ihre Vertretung, bevor Sie das Produkt in medizinischen und/oder eigensicheren Anwendungen oder in einer industriellen EMV-Umgebung installieren.

WARNUNG : Dies ist ein Produkt der Klasse A. In einer Wohnumgebung kann dieses Produkt Funkstörungen verursachen; in diesem Fall wird der Benutzer möglicherweise geeignete Maßnahmen ergreifen müssen.

Das Produkt muß gemäß guten Installationsverfahren installiert werden, damit es vorschriftsmäßig funktionieren kann, und um Probleme zu verhindern. Richtlinien für die Installation erhalten Sie von Ihrer Vertretung.

Eine Spezifikation, die das akzeptable Ausmaß der Produktdegradation hinsichtlich EMV-Störfestigkeit festlegt, können Sie von Ihrer Vertretung anfordern.

KONFORMITÄTSERKLÄRUNG DES HERSTELLERS

Der Hersteller erklärt hiermit, daß das mit diesem Handbuch gelieferte Produkt die grundlegenden Schutzanforderungen der EMV-Vorschrift 89/336 und der Niederspannungsverordnung LVD 73/23 EEC erfüllt. Entspricht den Anforderungen der Normen EN 55022 für Emissionen, IEC801, Teil 2, 3 und 4, für Störfestigkeit und BS415, ersetz durch EN60950 für die Sicherheit von Elektrogeräten.

Installation and Operating Instructions

ZTX5 Telemetry Transmitter

Please read this manual completely before installing your ZTX5

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For Safety

Please follow these instructions as you install your ZTX5 and have them available during the life-time of the ZTX5. If you have any problems contact your supplier.

Warning: Installation is only to be carried out by suitably qualified and experienced personnel

Warning: Only use the ZTX5 with a class 2 isolated power supply.

The ZTX5 is designed for use in general purpose CCTV applications 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 ZTX5 in a clean, dry, dust-free environment.

Electromagnetic Compatibility (EMC)

Caution : This 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 Security 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 Security Technical Support Department to obtain a specification defining the acceptable levels of product degradation with regard to EMC immunity.

MANUFACTURER'S DECLARATION OF CONFORMANCE

Baxall Security Ltd declare the ZTX5 supplied with this manual 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. The product has been approved in accordance with TCF95/10/02.

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Contents

1. Your ZTX5

Your ZTX5 is an 8-way switcher (similar to the DVS2/8) combined with an 8-channel telemetry-transmitter. It has on-screen text for setting-up the unit, displaying camera titles and indicating alarms (when used in conjunction with the AL8, see below).

It can control up to 8 Baxall-telemetry-receivers (e.g. the ZR4-mini) and allows switching of the 8 camera inputs to the 2 monitor outputs either as an automatic sequence (with variable dwell time (1 - 60 seconds)) or manually via the camera keys.

The sequences skip unused inputs automatically.

1.1 Peripheral Equipment - The ZR4-mini

The ZTX5 can control pan, tilt, focus, iris, zoom, four latching auxiliaries AUX1 (Camera power), AUX3 (Auto-pan), AUX5 (Lamps), AUX6 (Wipe) and one momentary auxiliary AUX2 (Wash). It can also set or call 8 preset positions either automatically (as a result of an alarm) or manually.

1.2 Peripheral Equipment - The ZT-TP

The ZTX5 transmits coaxial-telemetry to the 8 camera-channels. If you require 20mA-current-loop-telemetry (for compatibility with, for example, free-space transmission systems) then an extra unit called the ZT-TP can generate this directly from the coaxial line. The ZR-minis also accept 20mA twisted-pair telemetry.

1.3 Peripheral Equipment - The AL8

This has 8 alarm input connections (either all normally-open or all normally-closed) and a single alarm output with a normally-open and a normally-closed connection.

The ZTX5 alarm response options allow presets and sequences to be triggered as a result of alarms (see section 6.2).

2. Baxall Telemetry

Baxall coaxial telemetry comes in two types standard and alternate. The standard coaxial telemetry is asynchronous (not synchronised to the video signal) and can sometimes interfere with on-screen displays (O.S.Ds) such as those produced by multiplexers or time and date generators. To remedy this alternate coaxial telemetry is synchronised to the video signal. ZR-mini receivers accept both types of telemetry. Older receivers (e.g. ZR4) cannot use alternate telemetry.

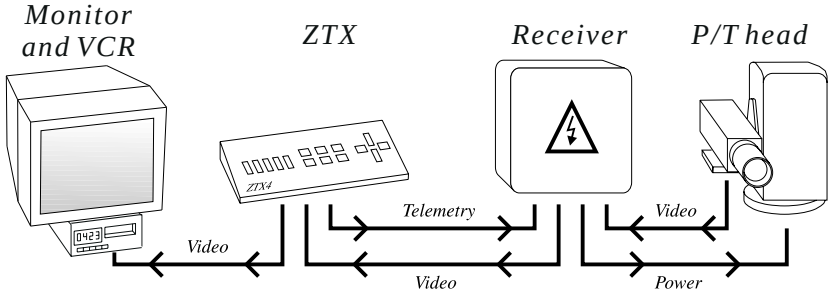


Figure 1. A general telemetry system

3. Associated Equipment

Your ZTX5 can be used in many different configurations. A single camera telemetry system is shown in figure 1. A ZTX5 system can be considerably larger than this basic system. It can include:

- 2 monitors
- a VCR
- a ZTX5 transmitter
- 8 telemetry receivers
- 8 P/T heads
- 8 CCTV cameras (e.g. Baxall CD9312 colour cameras)
- 8 motorised lenses
- BNC connectors
- coaxial cable
- associated wiring

4. Unpacking

Keep your packaging for use if your ZTX5 is stored for a time or needs to be returned for whatever reason. The packaging should contain:-

- *The switcher.*
- *A mains-socket mounting +12V DC power supply (class 2)*
- *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 ZTX5.

5. Connecting your ZTX5

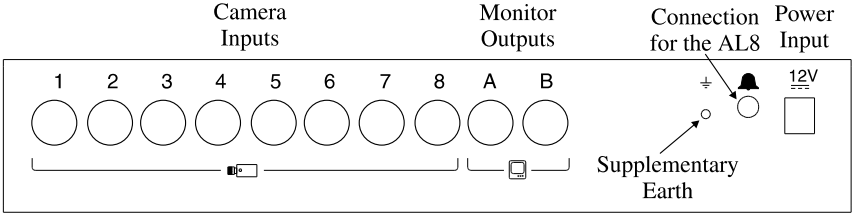


Figure 2. Connections on your ZTX5

5.1 Connections

All video signals are 1V p-p into 75 ohms via BNC connectors and 75 ohm video-coaxial-cable.

- Connect from the BNC marked A to your main monitor
- Connect from the BNC marked B to your spot monitor
- Connect cables from the cameras (receivers) to the numbered video-input BNCs (see the receiver instructions).

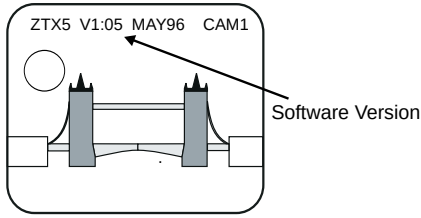
Note : The default termination for the camera input is 75 ohm. If you want to use the same video signal for another piece of equipment:, see appendix A.

- Plug the jack-plug from the 12V DC power supply provided into the jack-socket marked 12V DC.
- Plug the power supply into a suitable mains power outlet.
- Switch on the cameras, monitor and ZTX5 (at the mains power outlet).

5.2 Switching On the Power

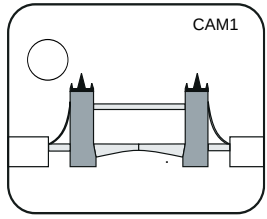
When you switch the power on, your ZTX5 scans through all the inputs to determine which have video signals connected. If it does not find any video on the inputs then it displays “NO VIDEO ON” on monitor A and scans rapidly through the camera-key LEDs.

If it finds video on its inputs then it stops scanning displays the video with the following text overlay:



(Note : that the software version will be different on your ZTX5.)

After 5 seconds the message disappears leaving only the camera number, shown here as CAM 1 (camera 1):



5.3 Connecting Video during Operation

- Connect the video signal to the input and select the channel using the camera-key.

The new channel is added to the list of available cameras and included in the sequences.

6. Commissioning

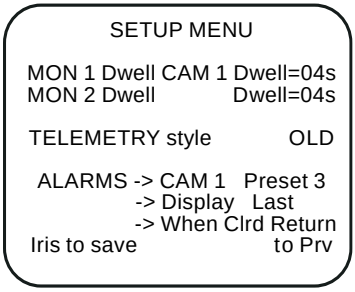
Caution : Alarms do not operate while you are in the setup screen.

6.1 Setting up the System

To access the set-up screen

- Press the monitor and preset keys together.

The display on monitor A should change to:



Instructions are cycled on-screen in the bottom-left corner. 'Iris to save' is shown in the example above.

Pan Left and Pan Right move between functions
Tilt Up and Tilt Down cycle through the choices
Iris keys store the new set-up
The 6 key exits the set-up screen.

All the settings are stored in non-volatile memory and therefore retained in the event of power loss.

MON 1 Dwell CAM 1 Dwell=04s

Use this to adjust dwell times for each camera in the monitor-1-sequence. The dwell time has a range of 1 to 60 seconds.

MON 2 Dwell Dwell=04s

Use this to adjust the dwell time for all the cameras in the monitor-2-sequence.

TELEMETRY style OLD/NEW

Allows selection of "OLD" or "NEW" telemetry. OLD telemetry may interfere with some OSDs (On-Screen-Displays) so try using NEW telemetry.

6.2 Setting the Alarms (with AL8 fitted)

Caution : Do not use your ZTX5 and AL8 as the main alarm system on your site. If required fit a dedicated fire/burglar alarm.

ALARMS	**->CAM 1**	**Preset 3**
	-> Display	**Last**
	-> When Clrd	**Return to Prv**

See your AL8 instructions. An explanation of the above follows:

CAM 1 Preset 3

Each alarm on your AL8 is dedicated to the camera of the same number on your ZTX5 (AL1 = CAM1, AL2 = CAM2, . . . , AL8 = CAM8)

When an alarm occurs the corresponding camera is sent to a preset (to set presets see section 7.3.) Preset 0 is equivalent to NO PRESET and no command is sent to the receiver.

Display Last / Sequence

This option only applies to Monitor 1. When an alarm occurs do you want to :

- view the camera for the **Last** alarm received only or,
- view a **Sequence** of the cameras which have active alarms.

The sequence has a fixed 2 second dwell time per camera..

When Clrd Return to Prv / Sequence / Hold Last

When the alarm is cleared either:

- Return to the previous settings (**Return to Prv**),
- Start a sequence on monitor 1 (**Sequence**) or,
- Hold the camera from the last active alarm on monitor 1 (**Hold Last**).

Note : Do not forget to press an Iris key to store your settings to non-volatile memory before exiting the setup screen.

7. Operation

7.1 Camera Switching Functions

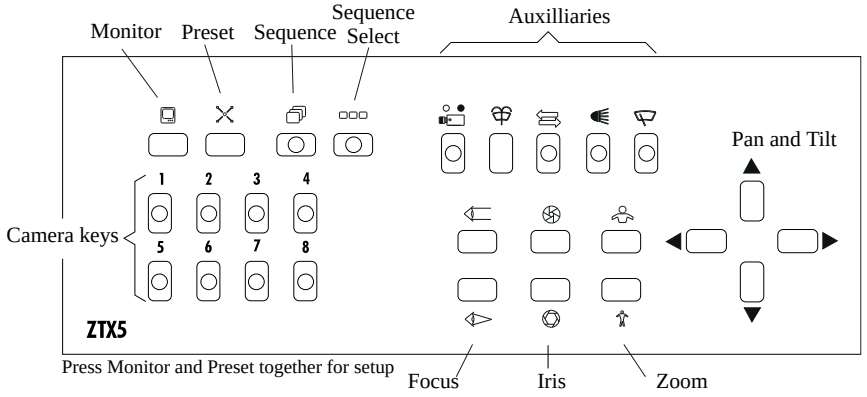


Figure 3. key-functions on your ZTX5

To select a camera on Monitor 1

- Press a camera key

To select a camera on Monitor 2

- Press and hold the Monitor key (monitor 1 should display ‘Monitor 2 under control’.)
- Press a camera key

To start the sequence on Monitor 1

Press the sequence key, “SEQUENCE MODE” should be displayed

To start the sequence on Monitor 1

- Press and hold the Monitor key
- Press the sequence key, the sequence key LED should illuminate

To select which cameras are included in a sequence

For monitor 1 this is set in the setup screen, see section 6.1.

For monitor 2:

- Press and hold the Sequence Select key

The LED’s for cameras included in the sequence illuminate.

- Press the camera keys to select and de-select cameras in the sequence.

7.2 Operating the Telemetry

Telemetry commands are sent to the current camera on Monitor 1.

Pan, Tilt, Focus, Iris and Zoom

The ZTX5 key board is shown in figure 3 along with an explanation of the key functions.

Auxiliary Functions

The symbols for the auxiliaries are as follows:-

Name	Symbol (ZTX5)	Number
Camera Power		AUX 1
Wash		AUX 2
Auto-pan		AUX 3
Spare		AUX 4
Lamps		AUX 5
Wipe		AUX 6

Global Auxiliaries

To send an auxiliary command to all 8 cameras at once:

- Press and hold the auxiliary key
- Press any number key

Selecting a Preset

A preset is a ‘preset position’ or a location which a camera moves to each time the preset is selected. Each camera can have a maximum of 8 presets although some receivers may not support them.

To select a preset:

- Press the Preset key, the message ‘Preset’ is displayed.
- Press a number key. The message ‘Preset N’ is displayed for 3 seconds where N is the preset number (1-8).

7.3 Storing Preset Positions

The preset positions are stored at your receiver so, if the receiver is already programmed (for instance from previous use with another Baxall transmitter) then you do not need to change the presets.

Preset setting and storing on the ZR4-mini

Check that you have a preset camera head and the feedback connections are made, otherwise presets will not operate.

Enhanced-mode fast preset-programming is shown below.

- Select the camera whose presets you wish change.
- Adjust Pan, Tilt, Focus and Zoom
- Press the Preset key followed by an Iris key

The 'Storing' message should appear at the top of the screen

- Press the number key corresponding to the required preset number.

The message should change to 'Storing Preset N' (N is the preset number between 1 and 8). The preset is now stored

Note : Baxall receivers manufactured before March 1996 are not compatible with Enhanced mode preset programming. If you have an earlier version then try standard mode preset programming as described in Appendix B or contact your Agent.

7.4 Alarm operation

When used in conjunction with the AL8 alarm interface the ZTX5 will respond to an alarm event by switching the appropriate camera to Monitor 1, displaying the "ALARM ACTIVE" message and sending a preset command to the associated telemetry receiver (to prevent a preset being selected set to Preset 0 in the setup screen). Only one camera may be activated in response to an alarm event.

The ZTX5 will respond to multiple alarms either by holding the last alarmed camera or sequencing rapidly between the alarmed cameras.

When the last alarm has cleared the ZTX5 can either hold the last alarmed camera, go to auto-sequence on Monitor 1 or return Monitor 1 to the state existing before the first alarm.

7.5 Resetting to Factory Defaults

NOTE: Switching off the power does not erase any settings.

To RESET your ZTX5 to factory defaults ...

- Remove the power plug from the back of your ZTX5.
- Press and Hold WIPE, Sequence Select and LAMPS for a few seconds while re-applying power to the unit.

The message “SAVING DEFAULT SETTINGS” will appear to confirm that the default settings have been loaded.

8. Trouble Shooting

The telemetry controls are reversed

If left and right, etc. are reversed on your ZTX5, this is usually due to incorrect receiver wiring, see the receiver instructions.

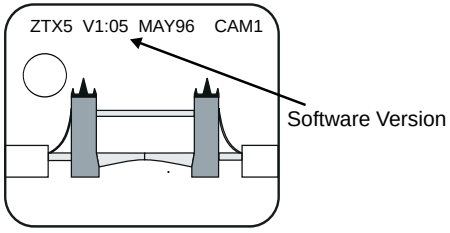
I need to contact my agent for technical support

Always have the software version numbers and purchase dates of all your units to hand when you phone technical support. It can save time.

To view the software version:

- Disconnect the power, wait 2 seconds and reconnect it. (Note : this only works if you have video connected.)

The text at the top of the screen will then display the software version for 5 seconds.



9. Specifications

Video

8 video inputs (telemetry outputs)

2 monitor outputs

All video 1 V pk-pk composite via 75 ohm coaxial cable with BNC connectors. Camera inputs have switchable 75 ohm terminations.

Telemetry Signal

Baxall Coaxial Telemetry as defined by the Baxall Telemetry Standard

Control Functions

Pan and Tilt, Focus, Zoom and Iris ZTX5 Auxiliaries

Latching Auxiliaries: AUX 1 (Camera power), AUX 3 (Auto-Pan),

AUX 5 (Lamps), AUX 6 (Wipe)

Momentary Auxiliary: AUX 2 (Wash)

Power Consumption

Maximum 3.6 VA Voltage range 12V DC +/-10%. Maximum 250 mA

Power Supply Units

230V AC +/-10% to +12V DC +/- 10% (class 2)

Dimensions

266 x 105 x 43 mm : Weight 0.8 kg

Physical

Material ABS endcaps with aluminium and mild steel shell. Colour : Graphite grey, blue lettering and keys

Temperature limits

Operating
10ºC to +50ºC at 10% to 80% relative humidity (non-condensing)

Storage
20ºC to +60ºC at 10% to 95% relative humidity (non-condensing)

Appendix A

De-terminating the camera inputs

The default termination for a camera input is 75 ohm.

If you want to use the same video signal for another piece of equipment:

- If the input termination to the other piece of equipment is easily switchable then de-terminate the cable there (often called, Hi-Z).

Caution : Only to be carried out by qualified and appropriately experienced personnel.

Caution : Take normal ESD precautions during this proceedure.

- Connect a T-piece to the camera input

The input termination resistors on your ZTX5 are individually switchable (75 ohm, Hi-Z), the switches are accessible after removing one side cheek and sliding out the base extrusion. They are the only 8 switches visible inside your ZTX5 and the default is all 75 ohms.

- If you cannot de-terminate the input at the other piece of equipment then de-terminate the input using the switches in your ZTX5
- Ensure that the coaxial cable is 75 ohm terminated in at least one place (e.g. in your VCR or extra monitor) preferably at the end.

Appendix B

Setting Presets in Standard Mode

To set presets by the standard method, starting with preset 1:

1. Hold ON the CAMERA-POWER and WASH keys and toggle the WIPE function 4 times, this calls the first preset (your ZR4-mini has 8 presets.)
2. Pan, Tilt, Focus and Zoom the camera as desired for this preset.
3. If you want to store the position press either IRIS control, if not, go on to step 4.
4. Toggle LAMPS ON and OFF to select the next preset
5. Repeat steps 2, 3 and 4. After preset 8 your ZR4-mini returns to its normal operating mode.

Note : Standard mode is the only mode available to ZR4-mini receivers manufactured before March '96

It is preferable to use Enhanced mode wherever possible as this is a faster and more convenient method.

NOTES

Baxall Security Limited.

Stockport, England

Visit our web site . . . http://www.baxall.com