

Installation Instructions

ZTX6/8M2, ZTX6/8M2/J

ZTX6/16M4, ZTX6/16M4/J

ZTX6/24M6, ZTX6/24M6/J

ZTX6/32M8, ZTX6/32M8/J

ZTX6/STD

These instructions cover installation for the Installer.

Please read this manual completely before installing your ZTX6

BLANK

Contents

1	Important Safeguards	5
1.1	Safety	6
1.2	Damage Requiring Service	6
1.3	Safety and Electromagnetic Compatibility (EMC)	7
1.4	Manufacturer's Declaration of Conformance	7
2	Instruction Manuals	7
3	Unpacking	8
4	Accessories	9
5	Description	10
6	Installation	12
6.1	Assembly	12
6.2	Video Connections - Standard	12
6.3	Video Connections – Loop-through	12
6.4	Alarm Input Connections	13
6.5	Alarm Output Connections	13
6.6	Connecting the Network / Keyboard	14
6.7	Connecting the Power	14
7	Testing Your Installation (Basic Operations)	16
7.1	The Keyboard	16
7.2	Selecting your ZTX6	17
7.3	Selecting a Monitor	17
7.4	Selecting a Camera	18
7.5	Starting A Sequence On The Current Monitor	18
7.6	To Operate The Telemetry	18
7.7	To Send A Global Auxiliary Command	18
7.8	Selecting a Preset	18
7.9	To Acknowledge an Alarm	18
8	Using The On-Screen Menus	19
8.1	Introduction	19
8.2	Passwords	20
8.3	Entering The Menu System	21
8.4	Moving Around And Selecting Options	21
8.5	Entering Numbers	21
8.6	Changing Fields With A Set List Of Options	22
8.7	Entering And Changing Text	22
8.8	Paging Between Screens	23
8.9	Exiting	23

9	The Menus	24
9.1	Change Password Menu	24
9.2	Sequences Menu	25
9.3	The Camera/Rx menu	26
9.4	Alarm Main Menu	27
9.5	Global Alarm Setup Menu	28
9.6	Alarm Monitors Menu	29
9.7	Alarm Input Senses Menu	30
9.8	Alarm Output Senses Menu	30
9.9	Response Mappings (Alarm Responses, Event Responses)	31
9.10	Response Setup	32
9.11	System Settings Menu: Setting Presets	33
9.12	Display Line Menu: Changing On-Screen Text Position	34
9.13	System Settings Menu: Time and Date Settings	34
9.14	Keyboard Main Menu: Limiting Access Rights	36
9.15	Installer Setup menu - Version Numbers	37
10	Trouble-Shooting	39
11	ZTX6 Specifications	40

1 Important Safeguards

This product is exclusively for use in CCTV applications and has no other purpose.

Read and Retain the Instructions - All the safety and operating instructions should be read before the unit is operated and should be retained for future reference.

Cleaning – Disconnect the power before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Attachments - Do not use attachments which have not been recommended by the product manufacturer as they may cause hazards.

Water and Moisture - Do not use this unit near water or in any area that is classified as a wet location.

Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Any mounting of the unit should follow the manufacturer's instructions, and should use the mounting accessory recommended by the manufacturer.

Ventilation - Openings in the enclosure, if any, are provided for ventilation to ensure reliable operation of the unit and to protect it from overheating, these openings must not be blocked or covered. This unit should not be placed in a built-in installation unless proper ventilation is provided. Do not place directly on other hot equipment, because this may increase its operating temperature.

Power Sources - This unit should be operated only from the class 2 isolated power supply provided.

Plugs – Some equipment in the system may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

Power-cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, and the point where they exit from the appliance.

Overloading - Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.

Object and Liquid Entry – This equipment must be protected from the ingress of foreign materials. Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.

Servicing – There are no user-serviceable parts. Do not remove the covers as this may expose you to dangerous voltages or other hazards, including moving mechanical parts. Refer all servicing to qualified service personnel.

Replacement Parts - When replacement parts are required, be sure the service technician has used the replacement parts specified by the manufacturer. Unauthorised substitutions may result in fire, electric shock or other hazards.

Safety Check - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

Surge Protection – All cables that may be affected by lightning must be surge protected.

1.1 Safety

If you have any problems then contact Baxall Security Ltd.

WARNING

Installation is only to be carried out by competent, qualified and experienced personnel in accordance with the country of installation's National Wiring Regulations

Refer to Baxall Security Ltd before using your unit in a medical and/or intrinsically safe application.

Do not exceed the voltage and temperature limits given in the specification. Only operate the equipment in a clean, dry, dust-free environment.

1.2 Damage Requiring Service

Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the unit.
- If the unit has been exposed to rain or water.
- If the unit does not operate normally by following the operating instructions.
- If the unit has been dropped or the cabinet has been damaged.
- When the unit exhibits a distinct change in performance.
- If the unit has no power even when the power supply appears to operate correctly. If this is the case then ask a service engineer to test the internal fuse.

1.3 Safety and Electromagnetic Compatibility (EMC)

Do not operate the unit outside the voltage and temperature limits given in the specification.

WARNING

To reduce the risk of electrical shock, do not open covers. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

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.

1.4 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.

2 Instruction Manuals

These instructions are for installing and setting up the ZTX6. Please read them in conjunction with the other instructions included with your system:

- 1) BaxNet and Keyboard Installation Instructions - These instructions are provided with your Keyboard.
- 2) The ZTX6/MOD instructions which contain instructions for assembling your ZTX6

3 Unpacking

Keep your packaging for use if your ZTX6 is stored for a time or needs to be returned for whatever reason. The packaging should contain:

ZTX6/STD

The base unit, 8 camera, 2 monitor, 8 alarm-input and 2 alarm-output
 PSU4320 power supply
 These instructions

ZTX6/MOD

An additional 8 camera, 2 monitor, 8 alarm-input expansion unit
 Screws and extension bars
 Assembly instructions

ZTX6/8M2

A ZTX6/STD base unit
 These Instructions
 PSU4320 power supply
 A ZKX2/K with associated leads and connectors for connection to the ZTX6

ZTX6/16M4 - a ZTX6/8M2 (including ZKX2/K) and a single ZTX6/MOD

ZTX6/24M6 - a ZTX6/8M2 (including ZKX2/K) and 2 x ZTX6/MODs

ZTX6/32M8 - a ZTX6/8M2 (including ZKX2/K) and 3 x ZTX6/MODs

ZTX6/8M2/J

A ZTX6/STD base unit
 These Instructions
 PSU4320 power supply
 A ZKX2/J with associated leads and connectors for connection to the ZTX6

ZTX6/16M4/J - a ZTX6/8M2 (including ZKX2/J) and a single ZTX6/MOD

ZTX6/24M6/J - a ZTX6/8M2 (including ZKX2/J) and 2 x ZTX6/MODs

ZTX6/32M8/J - a ZTX6/8M2 (including ZKX2/J) and 3 x ZTX6/MODs

Check the product code on the serial number label. If you have an incorrect item or it is damaged then inform the suppliers and carriers immediately. If this is the case then do not attempt to use your ZTX6.

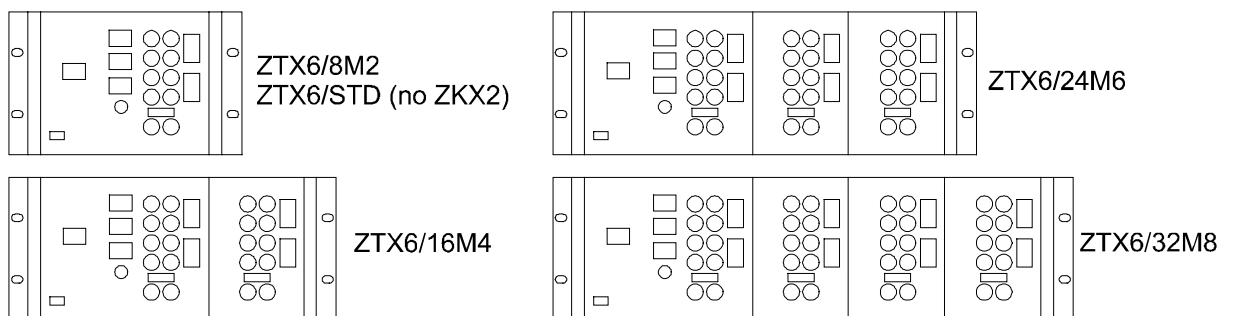


Figure 1. Illustration of the ZTX6 range

4 Accessories

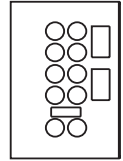
ZTX6/MOD

This is an additional 8 camera-input, 8 alarm-input, 2 monitor-output module.

Adding subsequent ZTX6/MODs to an 8M2 converts it to a 16M4, 24M6 then a 32M8.

The maximum configuration for the ZTX6 is 32M8. Do not exceed this.

ZTX6/MOD



ZTX6/RMA3

The ZTX6/32M8 is 19" 3U standard rack mounting, all the smaller units are not unless fitted to a ZTX6/RMA3 (Rack Mount Accessory, 3U).

The ZTX6/RMA3 is a steel plate with countersunk holes and screws to allow the attachment of a ZTX6. The plate is the correct size for rack-mounting.

BAX-RKIT

Remote keyboard wiring KIT, for connecting a keyboard at a distance greater than 10 metres from the main unit. Can also be used to connect multiple keyboards - includes keyboard power supply, 2 x BAX-NAP (screw terminal to RJ45 adapters) 1 x BAX-NIL1 and 1 x BAX-NILA (see below).

BAX-NIL1 1 metre lead, RJ45 to 6-pin-mini-din

BAX-NIL-2/RJ 2 metre lead, RJ45 to RJ45

BAX-NIL4 4 metre lead, RJ45 to 6-pin-mini-din

BAX-NIL9 9 metre lead, RJ45 to 6-pin-mini-din

These leads are for connecting your ZKX2 keyboard to the ZTX6, ZMX matrix or ZMX Plus.

BAX-NILA 1 metre lead, 2 x 6-pin-mini-din

This lead is for connecting local main-units together. It only makes the network connections.

ZT-TP1, ZT-TP4, ZT-TP8

The ZT-TPs connects between your transmitter and receiver in your coaxial line. They convert the Coaxial-telemetry into 20mA-current-loop-twisted-pair telemetry (for use with, for example, free-space transmission systems.) Current Baxall receivers accept both 20mA twisted-pair telemetry and coaxial-telemetry.

The ZT-TP1 is a single module, the ZT-TP4 is 4 x ZT-TP1s with a single power supply and the ZT-TP8 is 8 x ZT-TP1s with a single power supply.

Responses

Responses define what will happen when an alarm occurs. Many responses can be defined and any alarm input can have any response allocated to it. An event message received over the network can also call a response. A response can broadcast an event message onto the network. In this way, the alarms across several units can operate together. Responses can: switch cameras to monitors selecting a preset on each; sound a keyboard buzzer; set either, none or both of the alarm output relays; and display a message on a monitor.

Camera Sequences

Your ZTX6 supports 8 separate sequences of 16 cameras with individual dwell-times (from 1 to 255 seconds). A sequence is a pre-defined list of cameras viewed in order (on the monitor) for a pre-defined dwell time. All the sequences are user defined in the menu system. Any sequence can be viewed on any monitor.

Future Expansion

Your ZTX6 can be expanded by the following methods:

1. Fit an expansion module (ZTX6/MOD) up to a maximum of 32 cameras, 8 monitors.
2. If your current ZTX6 is full (ZTX6/32M8) then you may fit further ZTX6s on the BaxNet network

Coaxial Cable Lengths

The coaxial telemetry used by your ZTX6 allows for coaxial cable runs of up to 600m on appropriately specified cable. At the longer distances, towards 600m, the video reception starts to degrade. The ZR-minis have a built-in launch amplifier this can be adjusted by turning the gain and lift pots on your ZR-mini (see your ZR-mini instructions).



6 Installation

6.1 Assembly

Assembling the main unit from a combination of ZTX6/MODs and a ZTX6/8M2 is described in the ZTX6/MOD instructions included separately with every ZTX6/MOD.

6.2 Video Connections - Standard

All video must be 1 V pk-pk composite via 75 ohm coaxial cable with BNC connectors.

- Connect coaxial cable terminated with BNC connectors from your ZTX6 camera inputs  to your cameras or receivers (refer to receiver manual).
- Connect coaxial cable terminated with BNC connectors from your ZTX6 monitor outputs  to your monitors and VCRs

6.3 Video Connections – Loop-through

Loop-through allows you to use a camera input for another application such as a dedicated monitor or VCR.

To allow you to use the video-signals for other applications the camera inputs have switchable 75 ohm terminations (Hi-Z represents high-impedance). These are mounted on the 8-way dip switch between the 2 monitor outputs and the 8 camera inputs. The numbers on the dip-switch correspond to the camera input numbering.

You can use the video line with more than one application although the line must have 75 ohm termination at the end (and nowhere else). So if you are connecting the video to your ZTX6 and then on to, for instance, a monitor or a VCR then switch the relevant switch on the ZTX6 to Hi-Z and ensure the other unit 75-ohm-terminates the line.

If the ZTX6 is at the end of the line and the other unit is connected in first then ensure that the termination is switched off on the other unit (refer to the unit instructions) and leave the ZTX6 input 75 ohm terminated.

Note:

A BNC T-piece is not practical here because of the limited space between the BNCs, a BNC F-piece is preferable.

6.4 Alarm Input Connections

The ZTX6 has the same number of alarm inputs as camera inputs (they are not dedicated to the corresponding camera input). On each module they are numbered on the graphic from 1 to 8 (see Figure 5 on page 17). They are actually numbered in the same way as the cameras, the base unit (ZTX6/8M2) contains inputs 1 to 8, the first additional module (ZTX6/MOD) contains inputs 9 to 16 (but labelled 1 to 8), the second 17 to 24 and the third 25 to 32 (see Figure 5).

Electrically the alarms operate from volts-free relay closures (or openings) and the inputs can be individually configured in the on-screen menus to respond to normally-open or normally-closed contacts.

- Remove the 5-way terminal block
- Connect from each terminal to your alarm relays (see Figure 2)
- Group the returns and lead them into the common connection

The alarm-input connections are normally-open as a default. If you are connecting normally-closed alarms do not connect your alarm terminal-blocks yet wait until you have changed the alarm configuration in the on-screen menus.

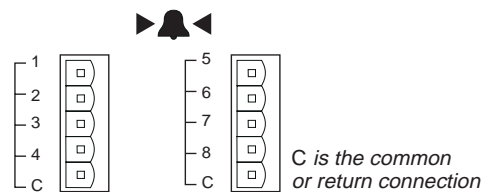


Figure 2. Alarm Input Connections

6.5 Alarm Output Connections

The base unit has 2 alarm output contacts as shown below. Each alarm input on your ZTX6 can be set to trigger one or the other, both or neither in the on-screen menus. The output relays can be set to normally-open or normally-closed individually in the on-screen menus. They are normally-open as a default.

CAUTION: Normally-closed alarm-output-relays are reliant on a power-supply. When the unit is switched off they immediately revert to the open state.

The relays switch a maximum of 30V, 2A each.

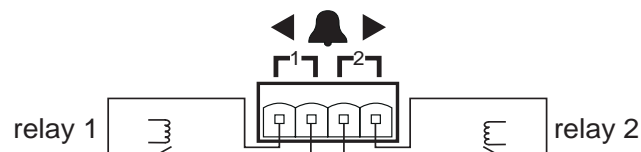


Figure 3. Alarm Output Relay Connections

- Wire your alarm output devices according to Figure 3.

6.6 Connecting the Network Keyboard

These are described in the keyboard instructions as are the BAX-RKIT for expanding the network.

Connect the keyboard using the RJ45 connector.

CAUTION: Each of the modules on your BaxNet network have an address. If two units share the same address then the network will not work. The ZTX6 address is set in the on-screen menus.

The keyboard has built in network termination and/or biasing. For most small to medium sized installations, it should not be necessary to change the switches from their default settings. Only for large installations should your network require biasing and/or terminating. Contact Baxall Security Limited for advice. The switches are located on the front of your ZTX6. The default setting for switches 1, 2 and 3 is OFF. Switch 4 is not used.

Network setting	Switch 1	Switch 2	Network setting	Switch 3
Biased	ON	ON	Terminated	ON
Not Biased*	OFF*	OFF*	Not Terminated*	OFF*

6.7 Connecting the Power

Your ZTX6 is supplied with a 230V $\pm 10\%$, 47 - 63Hz AC to 12V DC PSU. It is fitted with a non-removable power cord which must be terminated with a suitable three pin mains plug. REFER TO WIRING INSTRUCTION LABEL ATTACHED TO MAINS LEAD. Provision for secure isolation from the mains in accordance with your national wiring regulations must also be provided.

- Connect your ZTX6 and keyboard
- Switch on the power

For the first 5 seconds after the power is initially connected the keyboard LCD should display something like:

```
Baxall Security  
ZKX3/K Vx.x 9600
```

(The number x.x indicates the software version)

And the monitors should display:

```
ZTX6 MKII VERSION : 1.xx  
BY  
BAXALL SECURITY LTD  
UNIT ID 9  
FIRMWARE VER : wwxyyzz
```

(The number 1.xx indicates the ZTX6 software version, usually different from the ZKX2)
Notice also that the Unit ID for your ZTX6 is displayed here. Make a note of it.

- Check that your connections are correct by running through the tests outlined in the next section.

7 Testing Your Installation (Basic Operations)

7.1 The ZKX2 Keyboard

Your ZTX6 can be operated using the ZKX2 and ZKX2/J keyboards. The key functions are shown below. Your ZTX6 will operate with ZKB1 keyboards in addition to ZKX2 keyboards. However, proportional control is only available with the ZKX2/J keyboard when used with ZTX6 v1.04 software or above.

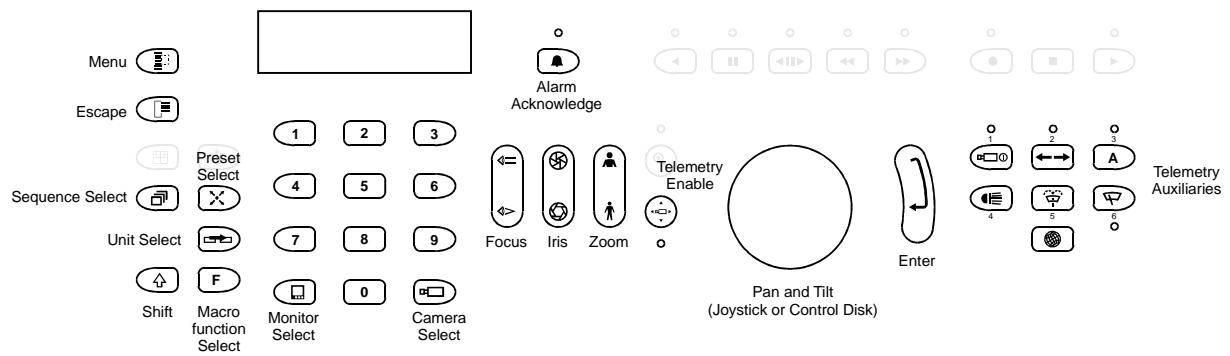


Figure 2 ZKX2 and ZKX2/J key functions

7.2 Selecting your ZTX6

If you are installing 2 or more ZTX6s on the network then connect them one at a time and change the Unit ID (see section 9.15 on page 37) so that they do not clash. The current ZTX6 Unit ID is displayed on power-up.



To select your ZTX6 the first time you power up

- Enter the Unit ID number followed by + .

Your keyboard should now be controlling your ZTX6. To change the keyboard Unit ID refer to the keyboard instructions.

7.3 Selecting a Monitor

The monitors are numbered as shown in Figure 5.

- Select a monitor by entering the monitor number and pressing .

This is now the current monitor and all camera selections apply to it.

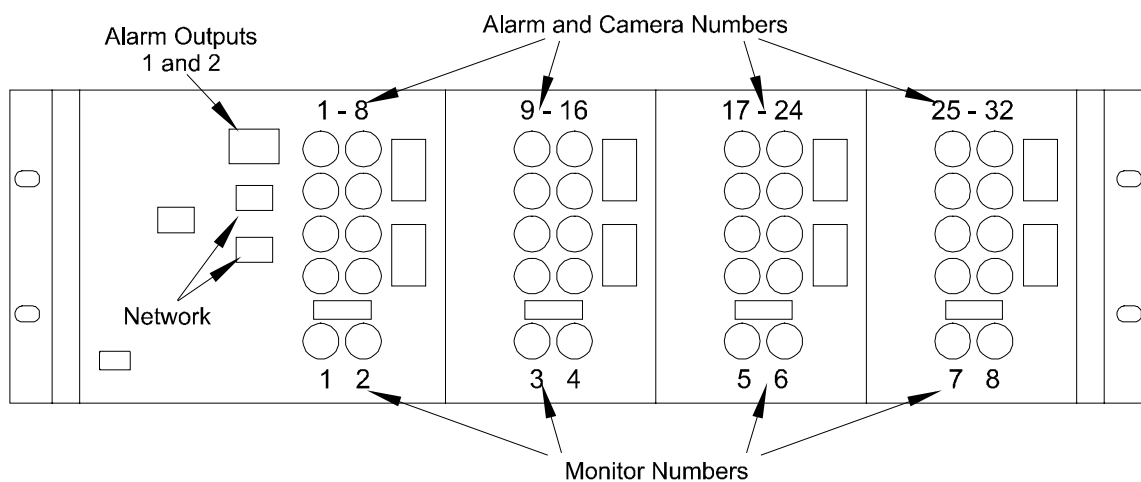



Figure 4. Camera and monitor numbering convention


7.4 Selecting a Camera

The cameras are numbered as shown in Figure 5.

- Select a camera by entering the camera number and pressing .

7.5 Starting A Sequence On The Current Monitor


Once the sequences have been set up in the menu system.

- Start the sequence by entering the sequence number and pressing 
- Stop a sequence by selecting a camera

7.6 To Operate The Telemetry

Select a monitor and a camera as shown above, ensure that a sequence is not running and press any telemetry key. If telemetry is available on the current camera then the LED should light. If it does not you may have telemetry disabled in the Camera/Rx menu (see section 9.3).

The telemetry keys are shown in Figure 4 with a description of their functions.

An additional auxiliary, AUX 4, is available on the ZTX6. AUX 4 is activated using the AUX 4 key .


7.7 To Send A Global Auxiliary Command

- Press and hold the global key  and press the desired auxiliary key

The auxiliary command is sent to every receiver output in turn.


7.8 Selecting a Preset

At this stage the presets have not been set, however, ZR-mini receivers are supplied with random presets to allow checking.

- Select a preset by entering the preset number and pressing 

To set a preset see section 9.11.

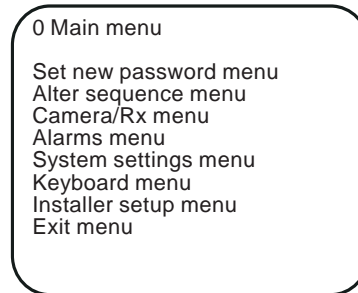
7.9 To Acknowledge an Alarm

- Select the monitor which is displaying the alarm
- Press the alarm Acknowledge key .

8 Using The On-Screen Menus

8.1 Introduction

The menus are used to configure your ZTX6. The main menu is shown below followed by a brief description of each of the sub-menus.



Set new password menu

Change the operator and/or installer passwords.

Alter sequence menu

Set up the camera sequences with lists of cameras and dwell times. There are 8 sequences.

Camera/Rx menu

Camera input and receiver enable, set camera titles, receiver options (telemetry type and preset type).

Alarms menu

Decide alarm display modes (NONE, LAST, STACK, SWITCH and ROTATE),

Decide responses to alarms and network events,

Enter messages for display during responses,

Decide the sense of alarm inputs and alarm outputs (normally-open or normally-closed) and

Choose how the alarms are reset: TRANSP. (contact-closure),
 TIMEOUT (time-out) or
 ACK (manual reset) and

Decide the state the system returns to on completion.

System settings menu

Enable/disable preset setting mode and position the on-screen displays.

Keyboard menu

Defines which monitors, cameras and camera telemetry an individual keyboard can access.

Installer setup menu

This menu is only active if you have entered under the installer password. It displays the software and firm-ware version numbers (also displayed on power-up). It also allows you to view and set the Unit ID, store and restore user defaults and set the ZTX6 to factory defaults.

Exit menu

Offers 3 options:

Save and Exit - this saves all your changes and returns to normal operation

Exit without saving - returns to normal operations with original settings

Return to the menus - returns to the menus

Note:

If you choose not to save in the exit menu then the system switches back to the previous settings.

8.2 Passwords

Each time you enter the menus you require a password. Your ZTX6 has two different passwords (both of which can be changed) one called the 'installer password' which allows access to installer functions, and a second called the 'user password' for end-users.



CAUTION: Your ZTX6 is supplied with the default passwords, we recommend that you change them immediately to prevent this manual becoming a risk to security.

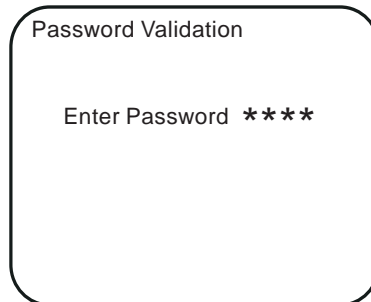
The passwords can both be changed in the menu system see section 9.1.

The default passwords are as follows:

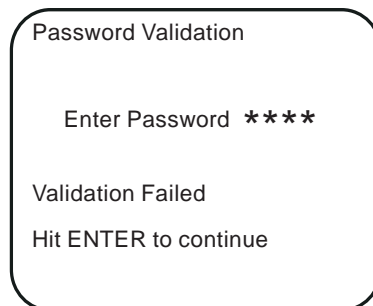
Initial User password: ←, ←, ←, ←
Initial Installer password: 1, 6, 9, 2

8.3 Entering The Menu System

The menu system is entered using the menu key  and the Shift key . Press the Shift key and the Menu key then enter your 4 digit password at the prompt:



If your password is incorrect then the following message is displayed.





Press the ENTER key and try again.

8.4 Moving Around And Selecting Options

If you are viewing a menu then use the up-arrow and down-arrow to move to the required option. The current option flashes. Press Enter to accept the option and move to the next menu.

8.5 Entering Numbers

If you are editing a number,

- Select the field using the up-arrow and down-arrow
- Type in a number using the numeric keypad and the  and  keys as spaces
- Press enter Enter to accept your input

8.6 Changing Fields With A Set List Of Options

Fields which contain a list of options are capitalised. For example in Figure 6 the fields 'Input preset', 'Rx attached', 'Telemetry mode' and 'Preset mode' all have a list of options which are accessed using the left-arrow and right-arrow keys (see section 9.3 for details of the options).

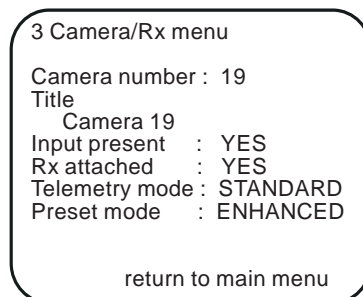











Figure 5. Menu demonstrating that option fields are capitalised

8.7 Entering And Changing Text



The text editor uses the following keys. Note the ZKX2 has a control disk and the ZKX2/J has a Joystick.

Key stroke	Action
left-arrow, right-arrow (or left/right Joystick)	move left, move right
up-arrow, down-arrow (or up/down Joystick)	previous, next field (finish editing)
 and [†] up-arrow (up Joystick)	z to a, Z to A, 9 to 0, comma, space etc.
 and down-arrow (down Joystick)	a to z, A to Z, 0 to 9, comma, space etc.
 and left/right-arrow (left/right Joystick)	delete character
 and 	delete whole field
 , 	<space>
 and 	home (move to start of field)
Numbers: 0, 7, 8, 9	jump to: zero 0, capital A, lower-case a, the first punctuation-mark ' , '

[†] 'and' indicates hold together, comma indicates either-or

8.8 Paging Between Screens

The sequence menu shown in Figure 7 is different for each sequence (Sequence number 5 is shown). To move between sequences either:

- Type a new sequence number, or,
- Use, page-up (while holding  press the up-arrow, or up Joystick) or page-down (while holding  press the down-arrow, or down Joystick)

These move to the next/ last sequence and apply to other screens which have this format such as the Camera/Rx menu in Figure 6.

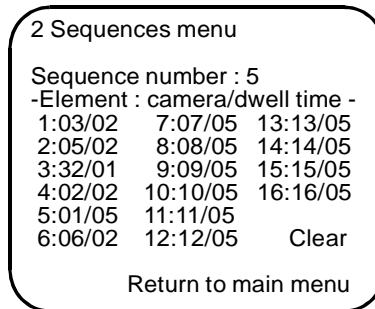


Figure 6. Sequence menu showing sequence 5

8.9 Exiting

To get to the exit menu either:

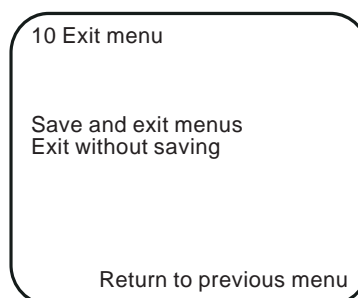
- Select and accept the Exit option in the main menu

or,

- Press the menu key from elsewhere in the menu system

Once in the exit menu:

- Choose from the three options shown below:



Note:

If you choose not to save in the exit menu then the system switches back to the previous settings.

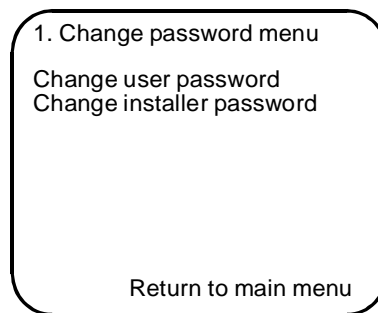
9 The Menus

9.1 Change Password Menu

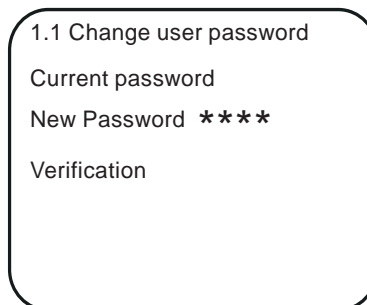
CAUTION: Do not lose or forget your installer password because restoration of your system may entail a visit by an Engineer.

To change the passwords:

- Select 'Set new password menu' using the up-arrow/down-arrow (or joystick) to highlight then the Enter key to select.



- Select either 'Change user password' or 'Change installer password' using the up-arrow or down-arrow (or Joystick) to highlight then the Enter key to select.



The user can only change their own password. The installer can change their password and also change the user password without knowing what the current user password is. To do this:

- enter the current password (this is not required of an installer in the user password menu)
- enter the new password twice

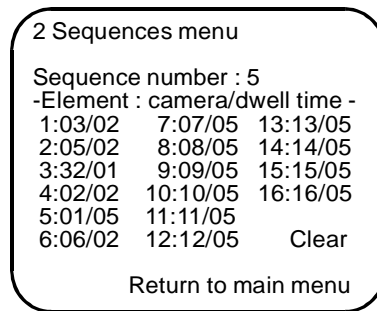
If the new password and the verification password match then the password changes. If the password is not accepted:

- Press the Enter key to continue.

9.2 Sequences Menu

The sequence menu is different for each of the 8 sequences (sequence number 5 is shown). To move between sequences either:

- Type a new sequence number in the first field, or,
- Use, page-up, (*****) and up arrow or Joystick together) or page-down, (*****) and down arrow or Joystick together)

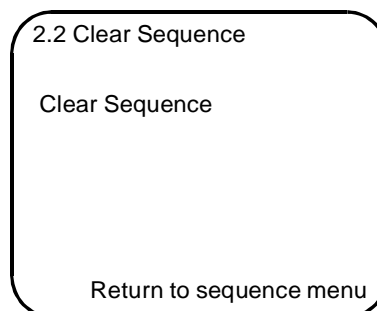


The settings shown above would perform the following sequence:

- Start then:
- Camera 3 for 2 seconds
 - Camera 5 for 2 seconds
 - Camera 32 for 1 second
 - Camera 2 for 2 seconds
 - Camera 1 for 5 seconds
 - Camera 6 for 2 seconds
 - Cameras 7 to 16 for 5 seconds each, then, return to the start

Dwell-time is between 0 and 99 seconds (0 seconds skips the entry).

If you select Clear in the Sequences menu, the following menu is displayed:



If you select Clear Sequence, the sequence is displayed with the settings camera numbers and dwell times set to zero.

Each sequence can be run on any monitor (except an alarm monitor during an response condition).

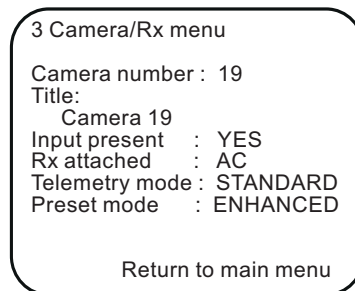
The factory default setting is with sequences 1 and 2 defined already as, respectively, cameras 1 – 16 and cameras 17 – 32, all with a dwell time of 5 seconds. The other sequences are undefined.

9.3 The Camera/Rx menu

Where Rx = receiver.

Use **[*]** and up-arrow or Joystick (together) or **[*]** and down-arrow or Joystick (together) to step through the camera inputs.

The line below the word Title can be edited using the text editor - see Section 8.7, Entering And Changing Text.



Input present YES/NO

Select NO to prevent camera selection and stop the channel from being displayed.

Rx attached NONE/AC/DC

This option switches the telemetry on and off for that input, and specifies the type of receiver (AC/DC) if one is present. If it is selected as AC/DC, telemetry is transmitted when a telemetry key is pressed. The default setting for the **Rx attached** parameter is **AC** for each input. That is, telemetry is switched on and the receiver type is **AC**. To obtain the optimum performance from the system, particularly for the operation of Global commands, each input should be correctly set to AC, DC or NONE.

Telemetry Mode STANDARD/ALTERNATE

See the trouble shooting section for an explanation. Standard suits most installations.

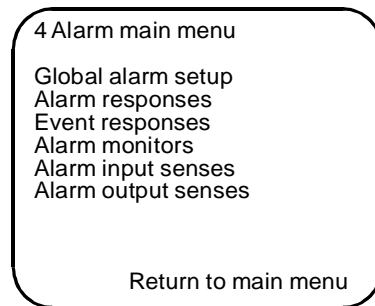
Preset Mode STANDARD/ENHANCED

The recommended mode is ENHANCED setting of presets. This mode is both faster and more convenient. Its use is described in section 9.11.

Note: If you have a receiver manufactured before March 1996 then you must use STANDARD mode. This is described in Appendix A.

9.4 Alarm Main Menu

This menu and its sub-menus are concerned with alarms and network events.



Alarms are triggered by the alarm inputs. Network Events are received from other units over the network. Each alarm (max 32) or event (1 to 255) can be mapped to a response.

Responses display a title, sound the keyboard buzzer, move cameras to preset positions and switch cameras to monitors. The responses can also be displayed and cleared in a variety of ways, specified in the global alarm setup menu.

CAUTION: If you suspect that alarms were active during changes in the alarm menus (this includes your changing the alarm-input contacts from N/O or N/C) then:

- Make all the necessary further changes,
- Save and exit (in the exit menu) then,
- Reset your system by removing the power for 5 seconds.

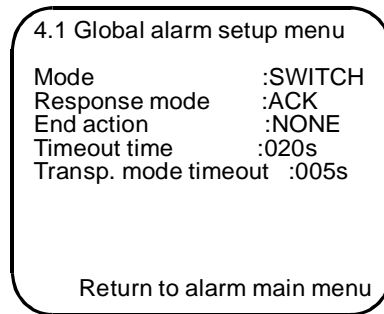
Your settings will not be lost.

Failure to do this may cause problems at a later date.

All the choices under the alarms main menu lead to further menus which are described in the following sections.


9.5 Global Alarm Setup Menu

This menu controls the overall alarm setup, how all the responses are reset, and the system state to be returned to once all the responses are clear.



There are 5 display mode settings NONE, LAST, STACK, SWITCH and ROTATE. These modes change dependent on the response modes which are ACK, TRANSP., and TIMEOUT.

ACK - Acknowledge Alarm Responses

A response mode of ACK indicates that a response is active from the time the alarm is triggered to the time it is manually cleared by an operator (select the monitor displaying the response and press the Alarm Acknowledge key .

TRANSP. - Transparent Alarm Responses

A response mode of TRANSP. indicates that a response is active until it is manually cleared (as in ACK response mode) or until the alarm contacts return to their resting state. The 'TRANSP. alarm timeout' is the minimum time for which a transparent alarm's response is displayed if the contacts reset immediately.

TIMEOUT - Timeout Alarm Responses

A response mode of TIMEOUT indicates that the responses are active until they are cleared (as in ACK response mode) or until they timeout according to the timeout period set in the same menu. The timeout operates regardless of whether the alarm contacts have returned to their resting state or not.

So, for each display mode you can have any of the above response modes. The display modes are as follows:

NONE = alarms disabled

LAST = (Last In First Out) In this display mode each alarm is displayed on all the alarm monitors (according to the alarm monitor list, section 0). The next response to arrive replaces the current response (on all the monitors), although in TRANSP. or TIMEOUT response mode the respective timeout periods must have passed first. This minimum timeout is intended to ensure that no responses disappear immediately without being observed. In ACK response mode, the responses disappear when a new alarm arrives. This can lead to an alarm not being displayed. The current response is cancelled regardless of whether the alarm contacts are still active.

STACK = As each response arrives it is shown on the next available alarm-monitor (according to the alarm monitor list, section 9.10). Once all the alarm-monitors are full the next response is placed in a queue. When an response is cleared it is replaced by the next response in the queue.

SWITCH = The first response is shown on all the alarm monitors. Once it is cleared the next response is displayed on all alarm monitors.

ROTATE = This is the same as SWITCH however subsequent responses are cycled in a sequence which uses the 'Transp. alarm timeout' as its dwell-time. Rotate does not work in TRANSP. or TIMEOUT response modes and must be used in the ACK response mode.

Note: in rotate mode the alarm outputs are disabled.

End action

This can be set as RETURN or NONE. RETURN will return the monitors to their pre-alarm states when the alarms are cleared. NONE will leave the monitors in their alarm states.

9.6 Alarm Monitors Menu

Use this menu to select which monitors the responses are displayed on. The options are DISPLAY/NO DISPLAY per monitor.

In LAST, SWITCH and ROTATE display modes, the current response is displayed on all the monitors selected here. In STACK display mode, the first response is displayed on the lowest numbered monitor selected here, the second on the second lowest etc. As the responses are cleared the next response (next response which had no monitor to display on) drops onto the monitor which contained the response just cleared.


```
4.5 Alarm monitors menu
Monitor number 1: DISPLAY
                2: NO DISPLAY
                3: NO DISPLAY
                4: NO DISPLAY
                5: NO DISPLAY
                6: NO DISPLAY
                7: NO DISPLAY
                8: NO DISPLAY

Return to alarm main menu
```

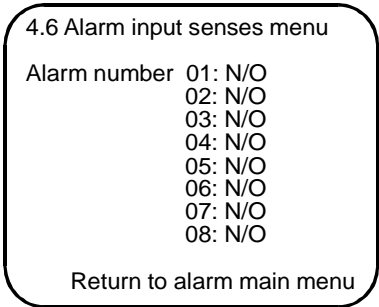
9.7 Alarm Input Senses Menu

- Select between N/O (Normally-Open) and N/C (Normally-Closed).

Note:

The alarms altered here will trigger responses when you exit the menu system. Cancel them by selecting the relevant monitor and pressing the Alarm Acknowledge key .

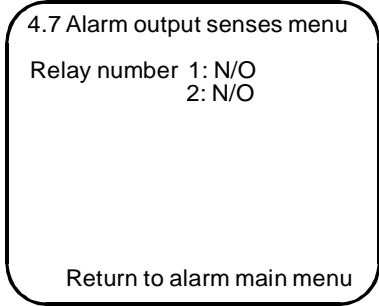
Observe the caution on triggering alarms whilst adjusting the alarm settings on page 27.



9.8 Alarm Output Senses Menu

CAUTION: Normally-closed alarm-output-relays are reliant on a power-supply. When the unit is switched off they immediately revert to the open state.



- Select between N/O (Normally-Open) and N/C (Normally-Closed).



9.9 Response Mappings (Alarm Responses, Event Responses)

Alarms (1 to 32) and network events (1 to 255) are mapped onto the responses in the following menus. There are 32 responses available (see section 9.10).

An event is a network message received from another unit. Your ZTX6 can also generate them as part of its response (see section 9.10.).

- Use  and the up-arrow or Joystick; or  and the down-arrow or Joystick to step through the alarms/events

or,

- type the number in the first field.

4.3 Alarm responses	
Alarm:Response	01:005
	02:003
	03:032
	04:002
	05:016
	06:018
	07:015
	08:002
Return to alarm main menu	



4.4 Event responses	
Event:Response	001:022
	002:027
	003:031
	004:035
	005:014
	006:002
	007:008
	008:007
Return to main alarm menu	

- Use the up-arrow/down-arrow keys or Joystick to select the response you want to change.
- Use the left-arrow/right-arrow keys or Joystick to position the cursor then type, 0 (zero for no-response), or 1 to 32 (responses 1 to 32).
- Setup the responses according to section 9.10.

9.10 Response Setup

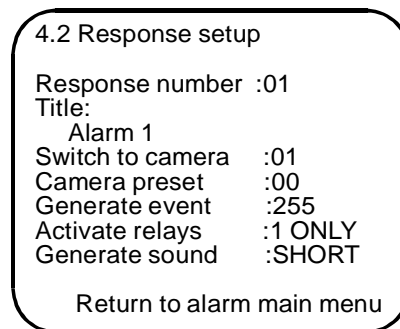
Responses are triggered by alarms or network events (see section 9.9). They display a title; switch a camera to the alarm monitor; move it to a preset position; generate a network event; activate the alarm-output relays; and generate an audible warning at the keyboards.

To step through the 32 responses:

- Use  and the up-arrow key or Joystick; or  and the down-arrow key or Joystick.

or,

- type the number in the first field.



```
4.2 Response setup
Response number :01
Title:
  Alarm 1
Switch to camera :01
Camera preset :00
Generate event :255
Activate relays :1 ONLY
Generate sound :SHORT

Return to alarm main menu
```

To change the settings:

- Use the left-arrow/right-arrow key or Joystick to select the field you want to change.
- Change the title using the text editing described in section 8.7
- Select the camera, the preset and any network events (1-255) in the next 3 fields. Zero represents no action. See section 9.11 for setting presets.
- Select the alarm-output relays in the 'Activate relays' field ('1 ONLY', '2 ONLY', '1 AND 2' and 'NONE').
- Select the urgency of the keyboard beep in 'Generate sound' options are 'NONE', 'SHORT', 'MEDIUM' and 'LONG'. The beep sounds on all keyboards.

To respond to events from other ZTX6s or ZMXs on the network see the Event responses menu in section 9.9.

9.11 System Settings Menu: Setting Presets

Presets are preset camera positions. A typical receiver has 8 of these. Some receivers do not have any, check your receiver before beginning.

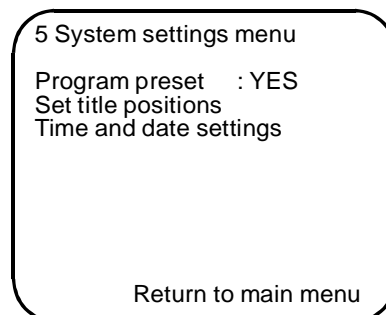
You can program presets with a different transmitter and call them from the ZTX6 because they are stored in the receiver. Because of this, if you are using the ZTX6 as a replacement transmitter then you do not always need to change the presets.

This section describes Enhanced mode preset setting. The type of preset setting (STANDARD/ENHANCED) is set for each camera under the Camera/Rx menu, see section 9.3. The default is ENHANCED.




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 A or contact your Agent.

To enable 'preset setting mode':

- Change the 'Program preset' menu item to be YES in the System data menu (below)



To set a preset in Enhanced mode:

- Select the camera
- Press the telemetry key 
- Adjust Pan, Tilt, Focus and Zoom
- Press , the preset number (1 to 8), then the preset key .

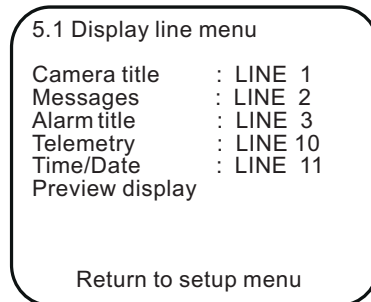
The preset is now stored.

Note:

To prevent presets being set by operators, return to this menu and set 'Program preset' to NO.

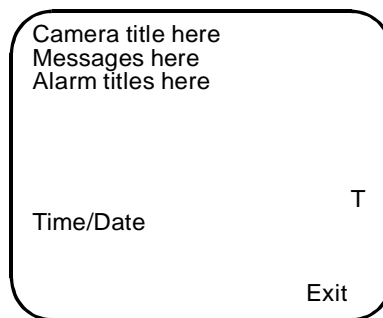
9.12 Display Line Menu: Changing On-Screen Text Position

From menu 5, System settings menu, selecting 'Set title positions' to give the menu shown



below:

- Select each field using the up/down-arrow keys or Joystick.
- Change the values using the left/right-arrow keys or Joystick.
- Preview the display position by selecting 'Preview display of titles' using the Enter key, which may look like this:

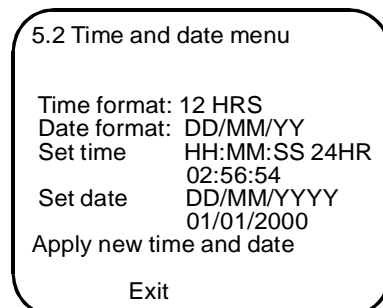


- Select Exit to return to the Display line menu again.

The default setting for the Time/Date parameter is OFF.

9.13 System Settings Menu: Time and Date Settings

When the Time and date settings option is selected from the System Settings Menu, the Time and date menu is displayed:



Time format: 12 HRS/24 HRS

This option switches the display format for the time from 12 to 24 hour format.

Note:

Even if this format is set to 12 HRS, the time that is specified in the Set time option in the same menu must always be 24 hour format.

Date format: DD/MM/YY, MM/DD/YY or YY/MM/DD

This option switches the display format for the date between DD/MM/YY, MM/DD/YY or YY/MM/DD format.

Note:

Even if this format is set to MM/DD/YY or YY/MM/DD, the date that is specified in the Set date option in the same menu must always be DD/MM/YY format.

Set time

This option sets the system time. Use the up and down arrow keys or joystick to move between the HH, MM and SS fields. Type in the required numbers as described in section 8.5, remembering that the input format is 24 HRS, HH/MM/SS.

Note:

The internal clock of this unit should be used as a guide only. For total accuracy, the unit must be used with an external clock.

Set date

This option sets the system date. Use the up and down arrow keys or joystick to move between the DD, MM and YYYY fields. Type in the required numbers as described in section 8.5, remembering that the input format is DD/MM/YYYY.

Apply new time and date

This option sets the system time and date according to the values specified in the Set time and Set date options.

9.14 Keyboard Main Menu: Limiting Access Rights

Each keyboard can be given access to cameras, monitors and receivers (i.e. camera movement) on an individual basis.

```
7 Keyboard main menu
Keyboard - monitor access
Keyboard - camera access
Keyboard - receiver access

Return to main menu
```

```
7.1 Keyboard-Monitor Access
Monitor number :1
Keyboard 1 :ALLOWED
Keyboard 2 :BARRED
Keyboard 3 :BARRED
Keyboard 4 :BARRED
Keyboard 5 :BARRED
Keyboard 6 :BARRED
Keyboard 7 :BARRED
Keyboard 8 :BARRED
Return to previous menu
```

```
7.2 Keyboard-Camera access
Camera number :01
Keyboard 1 :ALLOWED
Keyboard 2 :BARRED
Keyboard 3 :BARRED
Keyboard 4 :BARRED
Keyboard 5 :BARRED
Keyboard 6 :BARRED
Keyboard 7 :BARRED
Keyboard 8 :BARRED
Return to previous menu
```

This menu gives access to 3 further menus:

```
7.3 Keyboard-Rx access
Receiver number : 01
Keyboard 1 :ALLOWED
Keyboard 2 :BARRED
Keyboard 3 :BARRED
Keyboard 4 :BARRED
Keyboard 5 :BARRED
Keyboard 6 :BARRED
Keyboard 7 :BARRED
Keyboard 8 :BARRED
Return to previous menu
```

- Use **[*]** and the up-arrow key or Joystick; or **[*]** and the down-arrow key or Joystick to step through the monitors/cameras/receivers or type the number in the first field.
- For each keyboard choose between ALLOWED and BARRED for each monitor/camera/receiver.

The default setting is ALLOWED for every one.

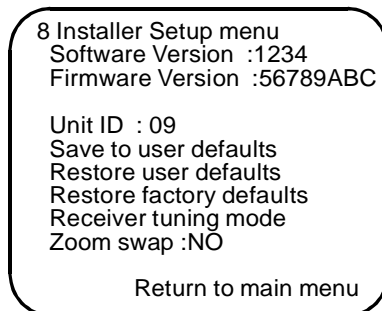
Note:

If, in the Camera/Rx menu you have selected 'Input present : NO' or 'Rx attached : NO' then it is not necessary to also set them to BARRED here.

9.15 Installer Setup menu - Version Numbers

This menu displays software and firmware version numbers, and allows
storage of your own default system settings
changes to the Unit ID
restoration of the factory defaults
swapping of zoom buttons for ZTX5 replacement.

Receiver tuning mode is only used in special circumstances. Its function is to leave the telemetry running continuously by sending a WIPE command once per second until it is deactivated.



To change the Unit ID:

CAUTION: if you change the Unit ID you must 'Save and Exit' the menus then, reset your ZTX6 by removing the power for 5 seconds. You will not lose any settings.

- Select the field using the up/down-arrow keys or joystick
- Type the new Unit ID on the numeric key-pad
- Exit the menus using the 'Save and Exit' option
- Reset your system by removing the power for 5 seconds

Your settings will not be lost.

To store your own default system settings:

- First setup all the camera titles, monitors, alarms etc.
- Select 'Save to user defaults'

To restore system settings to the user defaults:

- Select 'Restore user defaults'

To restore system settings to the factory defaults:

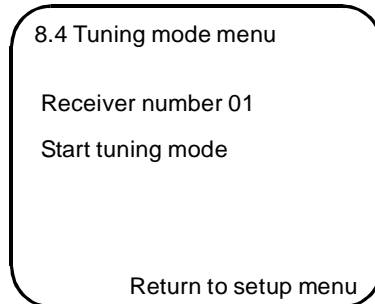
- Select 'Restore factory defaults'

Note:

After restoring to defaults you will have to select your ZTX6 again if the Unit ID has changed. The Unit ID is displayed on the initial power-up/reset screen.

To select Receiver tuning mode:

- Select Receiver tuning mode. This displays the Tuning mode menu:
- Select the Receiver number option and specify the number of the receiver.



- Select the Start tuning option to start transmitting the WIPE commands.

To swap the zoom keys:

- Select Zoom swap
- Select YES to change the operation.

10 Trouble-Shooting

I get interference on my picture/recording when I operate the telemetry.

If the interference appears when you attempt to move a camera (send telemetry). Then you may want to use ALTERNATE instead of STANDARD telemetry. STANDARD telemetry can interfere with the on-screen displays on some equipment.

Telemetry is available in two types which can be changed on individual inputs. STANDARD which operates on all Baxall receivers and ALTERNATE which only operates on ZR-mini receivers.

Changing the telemetry type is described in section 9.3.

What happens to my settings when I attach a ZTX6/MOD?

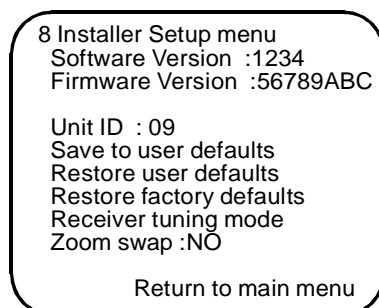
The settings for your ZTX6 are stored in the base module so that attaching the extra ZTX6/MOD (up to a maximum of 3) does not affect any of the previously saved settings. The extra 8 camera inputs, alarm inputs and the extra 2 monitors will need setting up in the menus.

I need to contact my agent for technical support

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

The Keyboard version number is displayed on the LCD at power-up.

The ZTX6 version numbers are displayed either in the Installer menu or on the power-up screen.



```
8 Installer Setup menu
Software Version :1234
Firmware Version :56789ABC

Unit ID : 09
Save to user defaults
Restore user defaults
Restore factory defaults
Receiver tuning mode
Zoom swap :NO

Return to main menu
```



```
ZTX6 MKII VERSION : 1.xx
BY
BAXALL SECURITY LTD
UNIT ID 9
FIRMWARE VER : wwxyyzz
```

The numbers '1.xx' and 'wwxyyzz' indicate the ZTX6 software and firmware versions, (different from the ZKB1).

11 ZTX6 Specifications

Product Codes

Code	Description
ZTX6/8M2	8 camera input, 2 monitor output (base module)
ZTX6/16M4	16 camera input, 4 monitor output
ZTX6/24M6	24 camera input, 6 monitor output
ZTX6/32M8	32 camera input, 8 monitor output
ZTX6/STD	base module without a ZKB1

Notes:

1. The ZTX6/8M2 module is the base module. Adding subsequent ZTX6/MODs to an 8M2 converts it to a 16M4, 24M6 then a 32M8
2. Each camera input is also a coaxial-telemetry output
3. For each camera input there is an alarm input. They are not necessarily linked.
4. All main units are supplied with a keyboard

Features

Upgradeable in the field in 8 camera 2 monitor steps
Operated by ZKB1, ZKX2/K and ZKX2/J keyboards over the BaxNet Network
On-screen setup menus
Multi-monitor alarm handling
2 levels of password security for system settings
Expandable up to 32 video inputs by 8 video outputs
Responds to and sends network events to other BaxNet modules

The BaxNet Network

This is specified in the manual included with your keyboard

Inputs and Outputs

Video inputs individual enable/disable
8, 16, 24 or 32 video inputs with switchable termination.
2, 4, 6 or 8 video outputs
2 alarm outputs on the base module (individually N/O or N/C)
8 alarm inputs with each 8 camera inputs (individually N/O or N/C)
9 to 15 V DC power supply input
Cables and connectors available as BAX-RKIT

Telemetry

Baxall Coaxial Telemetry as defined by the Baxall Telemetry Standard
Outputs individually selectable STANDARD/ALTERNATE telemetry
Outputs individually selectable STANDARD/ENHANCED preset setting
Pan and Tilt, Focus, Iris and Zoom
Auxiliaries: Camera power, Wash, Wipe, Lamps, Auto-pan, AUX 4 (all individual or global)

Sequencing Operations

8 x 16 step sequences, adjustable dwell time (0 to 99 seconds) for each camera in each sequence.

Alarm Responses

Global enable/disable
Switch camera to monitor, select preset.
Display a response title
Trigger alarm outputs
Output network message (event)
4 different display modes,
3 different clearance modes
 ACK, Acknowledge (active until manually cleared)
 TRANSP, Transparent (contact reset or manual acknowledge)
 TIMEOUT, Timed-out (active until timed-out or acknowledged)

System Security

4-digit Password, 2 levels plus basic operation gives 3-levels of security.

Dimensions

ZTX6: Depth 50 mm, Height 132 mm

ZTX6 model	Length:	Weight:
8M2	215 mm	0.9 kg
16M4	304 mm	1.4 kg
24M6	393 mm	1.9 kg
32M8	482 mm	2.4 kg

The ZTX6/32M8 is 19" 3U standard rack mount equipment.

The Accessory - ZTX6/RMA3 is available to convert the smaller units to 19" 3U standard rack mount equipment.

Material

Mild-steel and aluminium

Colour

ZTX6: Graphite-grey, blue lettering

Temperature Specification

Operational temperature limits:-
-10°C to +50°C at 10% to 80% relative humidity (non-condensing)
Storage temperature limits:-
-20°C to +60°C at 10% to 95% relative humidity (non-condensing)

Electrical Specification

All Video Inputs and Outputs

All video: 1V pk-pk composite video via 75 ohm BNC connectors.

Alarm Inputs

Work with volts-free-relay type alarms.

Individually N/O or N/C switchable in on-screen menus

Alarm Outputs

Volts-free contacts max 30V, max 2A

Network Wiring

This is specified in the manual included with your keyboard

Video Signals

All video 1 V pk-pk composite video via 75ohm coaxial cable with BNC connectors.

Power

Power Consumption: Maximum 11VA between 9 and 15 V DC (ZTX6/32M8 with two centrally powered keyboards)

Power Supply: 230V \pm 10% at 47 to 63Hz AC to 12V DC

Appendix A

Setting Presets in Standard Mode

Note:

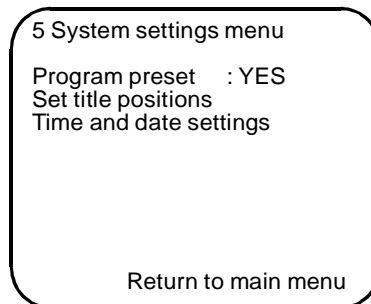
Check that you have a preset camera head and the feedback connections are made, otherwise presets will not operate.

Note:

The type of preset setting (STANDARD/ENHANCED) is set for each camera under the Camera/Rx menu, see section 9.3. The default is ENHANCED change this to STANDARD before following the procedure detailed below.

To enable 'preset setting mode':

- Change the 'Program preset' menu item to be YES in the System data menu (below)



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:

To prevent presets being set by operators return to this menu and set 'Program preset' to NO.

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 Limited.

Stockport, England

Visit our Web site: <http://www.baxall.com>

Baxall Security Ltd. Reserve the right to make changes to the product and specification of the product without prior notice to the customer.