

**SAFEGUARDS AND WARNINGS**

**⚠ WARNING**

Installation and servicing is only carried out by suitably qualified and experienced personnel.  
 The DAX/UL is designed for use in general purpose CCTV applications and has no other purpose.  
 The DAX/UL is designed to operate in class 2 general indoor environments.  
 Do not install the DAX/UL where it is exposed to rain or moisture.  
 The DAX/UL must be powered from a class 2 isolated power source as supplied.

**CERTIFICATIONS**

This product meets the requirements of the following standards:

**Electromagnetic Compatibility**

EN55022:1995 limits and methods of measurement of radio disturbance characteristics of information technology  
 EN50082-1:1992 Electromagnetic compatibility- Generic Immunity standard

**Comprising:**

- IEC 801-2:1991 Electrostatic discharge
- IEC 801-3:1984 Radiated electromagnetic fields
- IEC 801-4:1988 Fast transient bursts

**Safety**

EN 60950: 1992 Safety of information technology equipment, including electrical business equipment

**DECLARATIONS**

The manufacturer declares that the DAX unit supplied with this manual, is compliant with the EMC directive 89/336 EEC and the low voltage directive 73/23/EEC and 93/68/EEC

**UNPACKING**

Keep your packaging. The DAX/UL is a Baxall Coaxial Telemetry-to-Dome Interface module and a power supply. The packaging should contain:

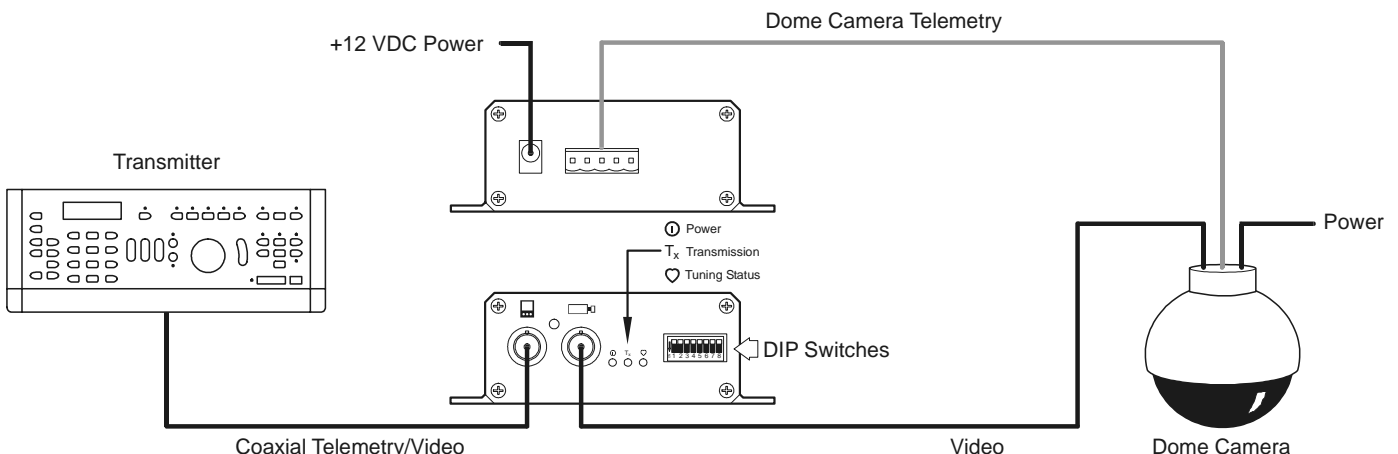
- A Baxall Coaxial Telemetry to Dome Interface Module
- 12 VDC class 2 isolated power supply
- These instructions

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 unit.

**DESCRIPTION**

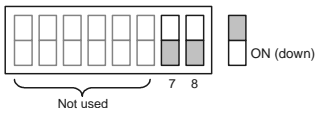
The DAX/UL converts Baxall coaxial telemetry into Dome telemetry. It connects between your transmitter and dome camera in the coaxial line as shown below. The DAX/UL requires a +12 VDC class 2 isolated power supply.

We do not recommend the use of the DAX range with fixed speed telemetry controllers. Best operation is achieved with the Baxall ZKX2/J or Vista NPX/JKB keyboard used with a ZTX6, ZMXplus, Vista Gen3 or Vista Columbus unit.



**SWITCH SETTINGS**

Your DAX/UL is compatible with Ultrak dome cameras that support the FastScan/SmartScan Protocol. DIPswitches located on the front of the DAX/UL are used to set various options as shown below:



Switch 7:

Switch 8 ON:

Switch 8 OFF:

Switch 7 should always be set to OFF

Autopan mode

Preset Tour mode

**EXTENDED FEATURES****Extended Preset Modes**

- The Baxall telemetry system normally transmits eight presets. The WIPE (☐) key is used to enable access to an additional eight presets. To access the first eight presets, ensure that the WIPE (☐) key is turned OFF and select the preset using keys 1 to 8. To access the second set of eight presets, press the WIPE (☐) key to turn it ON and use the number keys 1 to 8 to access presets 9 to 16. This method gives a total of 16 preset positions.

**Menu Mode**

Use the following procedure to access the menu mode of the camera:

- Set the POWER (☐) key on the transmitter to ON.
- Select from the following preset numbers to activate the desired menu:
  - 1 + ☐ for the Main Setup menu
  - 2 + ☐ for the Preshot menu
  - 3 + ☐ for the Vectorscan menu
- When within a menu, the telemetry keys provide different functions:
  - The preset selection keys now operate as number keys for making menu selections or entering numeric values. The numbers 1 to 8 are entered using the corresponding number key with the WIPE (☐) key set to OFF. The number 9 is entered by setting the WIPE key to ON then pressing the number key 1. The number 0 is entered by setting the WIPE key to ON then pressing the number key 2. The letter P is entered with the WIPE key set to ON and pressing the number 3 key. Similarly, the letters V, T, Y and N can be entered with the WIPE key set to ON and by using the number keys 4, 5, 6 and 7 respectively.
  - Use either IRIS (☐) key as the menu Enter key.
  - Use either FOCUS (☐) key for entering D for the Delete option.
  - Use either ZOOM (☐) key for entering S for the Save option.
  - Use the WASH (☐) key as the menu Exit key.
  - When required, the joystick will operate as a cursor control for cursor up, cursor down, cursor left and cursor right.

**Tours and special functions**

There are 4 versions of Tours or auto movements that can be accessed.

- Preset tour 1-16 fixed dwell time (5 s) recalled from DAX unit  
To Recall : Press the Auto pan (☐) key with DAX dip 8 set to OFF
- Auto pan mode will pan the camera at a constant speed for 25 seconds in one direction, then 25 seconds in the reverse direction  
To recall: Press the Auto pan (☐) key with DAX dip 8 set to ON
- Preset Tour on the dome (called a tour on the dome) This is a pre-programmed macro of camera commands over a 2 minute period.  
To recall tour 1, 2 or 3: Press the LAMPS (☐) key, select 1, 2 or 3 using the number keys then press the preset (☐) key.  
To program tour 1, 2 or 3: Press the LAMPS (☐) key, select 4, 5 or 6 using the number keys then press the preset (☐) key.  
To end tour programming: Press the LAMPS (☐) key, select 7 using the number keys then press the preset (☐) key.

To program a tour using the menu mode:

- Select Menu mode by setting POWER (☐) to ON, then press 1 + ☐.
- Select menu item 6 (PTZ tours)
- Select menu item 2 (program tour) followed by the preset (☐) key
- Enter the tour number, 1,2 or3, followed by the preset (☐) key followed by either IRIS (☐) key to enter
- Set POWER (☐) to OFF
- Move PTZ in tour / walk required (max 120 seconds)
- Press the WASH (☐) key to end the tour

EXTENDED FEATURES

4. Vector Scan mode. This is a movement between defined presets that can be programmed via the menu of the Dome unit.
- To recall:
- Set LAMPS (☐) to ON then the WIPE (☐) key.
  - Select the number of the vector scan required (1-8) followed by the preset (☒) key
- To program
- Select Menu mode by setting POWER (☐) to ON.
  - Select menu item 3 (Vectorscan menu) followed by the preset (☒) key
  - Enter the four number, 1-3, followed by the preset (☒) key followed by either IRIS (☐) key to enter
  - Use the menu mode keys to move through the screens to enter relevant numbers in the fields provided. Refer to dome manual for more information.
5. Day / Night mode swap is incorporated to enable colour to mono switching of the camera module.
- To toggle the current mode:
- Set the LAMPS (☐) key to ON
  - Select 8 followed by the preset (☒) key

INSTALLATION

- All video is 1V pk-pk composite via 75Ω video coaxial cable and BNC connectors. The connections to your DAX/UL are shown on the side label and in the schematic overleaf.
- Connect the +12 VDC and the Ultrak dome camera RS485 extension lead to the connectors on the interface unit according to the side label.
  - Connect the interface Module to your transmitter and to your Ultrak dome camera according to the installation diagram.
  - In order to access the **Tours and Special Functions** in the manner described above, the dome camera must be set to MAXPRO using switch S4 located on the KD6 receiver board - see the dome camera's instructions for more information.
  - The Camera ID should be set to 1.

SPECIFICATION

Inputs: Baxall coaxial telemetry as defined by the Baxall coaxial telemetry specification, +12 VDC or 24 VAC.

Output: Ultrak Camera telemetry

Power: nom. +12 VDC (min. 8.0 VDC max. 24 VDC) class-2 isolated, 50mA max (0.6 Watts) or 24 VAC.

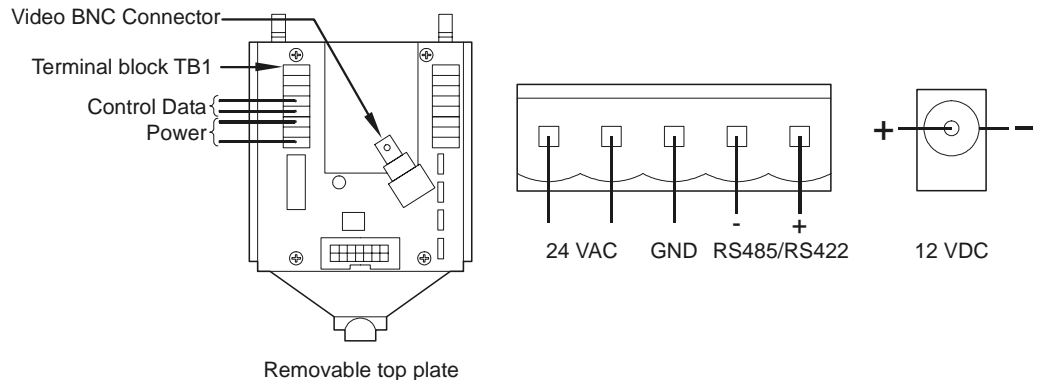
Power Supply: 230 VAC to +12 VDC class 2. Max 200mA.

Dimensions: 115 x 107 x 37 mm. (WxDxH)

Temperature Limits: Only use this product between the temperatures of -10° and +40°C.

CONNECTORS

Terminal	Designation
TB1-1	24 VAC
TB1-2	N/C
TB1-3	24 VAC
TB1-4	Rx-
TB1-5	Rx+
TB1-6	Tx+
TB1-7	Tx-
TB1-8	N/C



**QUICK REFERENCE**

<b>Program Preset</b>	<b>1 to 8:</b> $\text{F} + \langle n \rangle + \text{X}$ where $\langle n \rangle$ is the preset number 1 - 8	<b>9 to 16:</b> Set $\text{V}$ to ON, then $\text{F} + \langle n \rangle + \text{X}$ where $\langle n \rangle$ is the preset number 1=9; 2=10; etc.
<b>Recall Preset</b>	<b>1 to 8:</b> $\langle n \rangle + \text{X}$ where $\langle n \rangle$ is the preset number 1 - 8	<b>9 to 16:</b> Set $\text{V}$ to ON, then $\langle n \rangle + \text{X}$ where $\langle n \rangle$ is the preset number 1=9; 2=10; etc.

<b>Recall a tour of presets 1 to 16</b>	$\text{↔}$ Note ensure DIP switch 8 is OFF
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<b>Recall a Vector scan</b>	Set $\text{E}$ and $\text{V}$ to ON, then $\langle n \rangle + \text{X}$ Where $\langle n \rangle$ is the Vector scan to be recalled (1 - 9)
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<b>Recall a Dome tour</b>	Set $\text{E}$ to ON, then $\langle n \rangle + \text{X}$ Where $\langle n \rangle$ is the Dome tour to be recalled (1 - 3)
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<b>Recall the Auto pan function</b>	$\text{↔}$ Note ensure DIP switch 8 is ON
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<b>Toggle Day to Night mode</b>	Set $\text{E}$ to ON, then $8 + \text{X}$
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<b>Access Main menu</b>	Set $\text{C}$ to ON, then $1 + \text{X}$
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<b>Access Preshot programming menu</b> <i>(for programming beyond preset 16)</i>	Set $\text{C}$ to ON, then $2 + \text{X}$
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<b>Access Vector scan programming menu</b>	Set $\text{C}$ to ON, then $3 + \text{X}$
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**MENU ENTRY COMMANDS**

<b>Select a menu item</b>	$\langle n \rangle + \text{X}$ Where $\langle n \rangle$ is the menu item number
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<b>Enter a number</b>	<b>1 to 8:</b> $\langle n \rangle + \text{X}$ ; <b>9:</b> Set $\text{V}$ to ON, then $1 + \text{X}$ ; <b>0:</b> Set $\text{V}$ to ON, then $2 + \text{X}$
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<b>Entering letters</b>	Set $\text{V}$ to ON, then for 'P' press 3; 'V' press 4; 'T' press 5; 'Y' press 6; 'N' press 7
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<b>Enter</b>	$\text{↵}$ OR $\text{↵}$
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<b>Exit menus (Escape)</b>	$\text{⏏}$
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<b>To send a 'D' for Delete</b>	$\text{⌫}$ OR $\text{⌘}$
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<b>To send an 'S' for Save</b>	$\text{⌘}$ OR $\text{⌘}$
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