

**tyco**

*Fire &  
Security*

## UK CCTV Product Catalogue - *Issue 5*



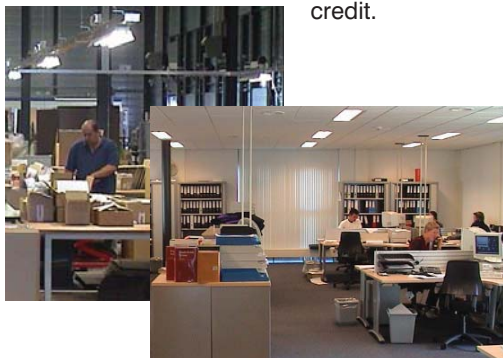
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# Introduction

Welcome to the Fifth Edition of the Tyco Safety Product's UK CCTV Product Catalogue of products available from our distribution centre in Letchworth. We aim to make your product range as comprehensive as possible to ensure you never need go anywhere else. To meet this goal, our product specialists, with your help, have selected the most appropriate, cost effective product range available on the market.

In line with our ISO 9000 accreditation, only those products that meet the highest quality criteria have been included.

Our goal is to despatch product on the same day as we receive your order. Our warranty and service returns policy is second to none. We recognise that your business is highly dependent on excellence in customer service and to help achieve this we offer extended warranty from many of our suppliers. Full credit is also available on a "No Question – No Fuss" basis for any new in-warranty product returned to the distribution centre. Our standard duration for warranty is a minimum of 12 months credit.



Tyco Safety Product's Web site contains an endless supply of product related information available in multiple languages - English, French, German, Spanish, Italian, Dutch and Polish. It is regularly updated and features many aids to the selling process including presentation material, independent product test results and detailed technical information.

Our web site can be found at **[www.tycosafetyproducts-europe.com](http://www.tycosafetyproducts-europe.com)**

NEW - We have posted all of the ADT/Tyco datasheets on the website.



To enhance customer specifications and quotations we also provide a series of product datasheets which can give our clients an opportunity to read more about the product.

We are positive that together we can help grow your business and we look forward to working with you in the future.

For further details on this catalogue, contact our customer telephone Help Line on **+01462 66 77 00 - Letchworth Customer Services**

## CONTENTS

### Introduction

|   |            |
|---|------------|
| <b>Chapter 1 - Cameras and Domes</b>                                    | <b>3</b>   |
| Section 1- Baxall - Tyco/ADT Branded Cameras                            | 4          |
| Section 2- Sanyo Day/Night Cameras                                      | 11         |
| Section 3- JVC Cameras  | 12         |
| Section 4 - Entry Level Cameras   | 13         |
| Section 5 - Covert Cameras  | 14         |
| Section 6 - Mini Domes  | 17         |
| Section 7 - American Dynamics Domes & Mounts                            | 20         |
| <b>Chapter 2 - Camera Lenses</b>  | <b>40</b>  |
| <b>Chapter 3 - Camera Housings and Camera Brackets</b>                  | <b>47</b>  |
| <b>Chapter 4 - Infrared Lamps</b>                                       | <b>61</b>  |
| <b>Chapter 5 - Pan and Tilt Units</b>                                   | <b>67</b>  |
| <b>Chapter 6 - Telemetry Switchers</b>                                  | <b>70</b>  |
| <b>Chapter 7 - Flat Panels and Monitors</b>                             | <b>75</b>  |
| Section 1 - American Dynamics Flat Panels                               | 75         |
| Section 2 - Monochrome CRT Monitors                                     | 77         |
| Section 3 - Colour Monitors   | 77         |
| Section 4 - Monitor Brackets  | 78         |
| <b>Chapter 8 - Multiplexers and Quads</b>                               | <b>79</b>  |
| Section 1 - American Dynamics Multi-vision Quest Multiplexers           | 79         |
| Section 2 - American Dynamics Quads                                     | 82         |
| <b>Chapter 9 - Digital Video Systems</b>                                | <b>83</b>  |
| Section 1 - GE Low Cost 4 Way DVR                                       | 83         |
| Section 2 - ADT OEM Branded DVR from Dedicated Micros                   | 84         |
| Section 3 - American Dynamics Intellex Digital Video Management Systems | 86         |
| <b>Chapter 10 - Matrix and Keyboards</b>                                | <b>94</b>  |
| Section 1 - American Dynamics CCTV switchers                            | 95         |
| Section 2 - American Dynamics Keyboards                                 | 100        |
| Section 3 - American Dynamics Code Distributors and Code Translators    | 104        |
| <b>Chapter 11 - Video Recorders &amp; Accessories</b>                   | <b>105</b> |
| <b>Chapter 12 - Perimeter Protection</b>                                | <b>108</b> |
| <b>Chapter 13 - Video Transmission</b>                                  | <b>111</b> |
| Section 1 - Adpro   | 111        |
| Section 2 - Heitel  | 115        |
| Section 3 - Video Transmission - using UTP cable                        | 123        |
| <b>Chapter 14 - Service Equipment and Accessories</b>                   | <b>125</b> |
| <b>Chapter 15 - Power Supplies</b>                                      | <b>130</b> |
| <b>INDEX</b>  | <b>149</b> |

# Chapter 1 - Cameras and Domes

## Chapter 1 - Cameras and Domes

Our range includes cameras from American Dynamics, Baxall - including cameras with the latest Digital technologies and image enhancements - the range includes cameras to suit all application requirements.

Most of the cameras we now offer include Digital Signal Processing enhancing the camera's images and features whilst keeping the costs to a minimum.

## Explanation of Terms

### Sensitivity (Lux)

Quantifies the camera's low-light performance. Measured in Lux using a lens aperture of f1.2, the value represents the minimum scene illumination required by the camera to produce a useable video output.

### Resolution (TV Lines)

Describes the ability of the camera to discriminate fine detail in a scene. The higher the number of TV Lines, the better the resolution of the camera.

### AI (Auto Iris)

Dedicated connector and reference signal for Auto Iris lenses.

### DD (Direct Drive)

Dedicated connector and circuitry for Direct Drive lenses.

### DD Level

Allows the lens drive level to be adjusted for DD type lenses.

### BLC (Backlight Compensation)

Automatically compensates for the silhouetting effect of a backlit subject.

### BLC Window (Back Light Comp.)

User selectable areas for BLC control.

### EI (Electronic Iris)

Feature to automatically adjust shutter duration to compensate for fluctuations in ambient light.

### GAMMA

Improves grey/black discrimination at low light levels.

### AGC (Automatic Gain Control)

Automatically adjusts the camera's gain to compensate for poor light conditions.

### White Balance

Feature to preserve accurate white rendition under different light source types.

### Shutter

Analogous to the shutter in a standard 35mm film camera. Can be used to freeze fast moving subjects.

### Flickerless mode

Feature to prevent the strobing effect under certain lighting conditions/shutter speeds.

### LL with Phase Adjust

Allows accurate synchronisation of multi-camera installations by locking the camera to the AC supply. The point on the AC cycle at which the camera locks is adjustable by  $\pm 120^\circ$

### Internal Lock

Locks the camera's frame rate to its internal oscillator.

### Genlock

Allows multi-camera installations to be synchronised to an externally generated synchronisation signal.

### S-Video Out

Provides a separated Y/C video signal.

### Peak White Inversion

Feature that allows excessively white areas in a scene to be rendered as black and therefore not adversely affect the camera's exposure system.

### PWI Threshold

Sets the level at which the Peak White Inversion feature operates for white areas in the scene.

\* Note: These terms apply to Baxall Cameras and features may be slightly different for other manufacturers.

## Did You Know?

Did You Know Lux is the measurement of light and refers to levels of illumination in any given area. The amount of light in specific areas to be viewed should be given careful consideration when choosing the right cameras for installation. It is worth noting that whilst the table (right) gives indications of typical light levels it is recommended that a light meter is used to give accurate figures

| Description                      | Lux    |
|----------------------------------|--------|
| British Summer Time              | 50,000 |
| Overcast Sky                     | 5,000  |
| Well Lit Office                  | 500    |
| Minimum for Easy Reading         | 300    |
| Passageway/Outside Working Light | 50     |
| Good Main Road Lighting          | 15     |
| Sunset                           | 10     |
| Typical Side                     | 5      |
| Minimum Security Risk Lighting   | 2      |
| Twilight                         | 1      |
| Clear Full Moon                  | 0.3    |
| Typical Moonlight/Cloudy Sky     | 0.01   |
| Typical Starlight                | 0.001  |
| Poor Starlight                   | 0.0001 |

## Section 1 - Baxall - Tyco/ADT Branded Cameras

Since the previous CCTV catalogue Baxall have launched a new range of fixed cameras, providing a common camera body that allows the use of branding strips to allow Tyco or ADT branding.

To assist the transition from the old to new part numbers a cross reference table has been created.

### Mono Cameras

TY9207/LV  
TY9207



803.001.173  
803.001.149

TY9210/LV  
TY9210  
TY9252A/LV  
TY9252A



603.001.219.A  
603.001.220.A  
803.001.198  
803.001.199

TY9752/LV  
TY9752



803.001.1123  
803.001.122

### Colour Cameras

TY9307/LV  
TY9307



803.001.149  
803.001.173

TY9310/LV  
TY9320



603.001.207.A  
603.001.208.A

TY9313/LV  
TY9313



803.001.125  
803.001.124

TYX9772/LV/WF/STD  
TYX9772/WF/STD



601.001.187.A  
603.001.186.A

TYX9714/LV  
TYX9714



803.001.197  
803.001.196

1/3" 380TVL

1/3" 580TVL

1/2" 580TVL

1/3" 330TVL

1/3" 480TVL

1/3" 480TVL

1/2" 480TVL

### Mono Cameras

TCM338LV  
TCM338M



TCM358LV  
TCM358M



TCM258LV  
TCM258M



### Colour Cameras

TCC333LV  
TCC333M



TCC348LV  
TCC348M



TCC348LVTP  
TCC343MTP



TCC2X48LV  
TCC2X48M







## Features

- 1/3" Super HAD CCD
- 380 TVL resolution
- 0.06 lux sensitivity (with AGC and F1.2 lens)
- Low voltage source AC: 24V  $\pm$ 15% @ 50Hz DC: 12V - 10% +15% (TCM338LV)
- Mains source 98~260V AC 50Hz (TCM338M)
- Dimensions (LxWxH) 123 x 60 x 52mm
- Weight 350gr (Low Voltage) 500 gr (Main Voltage)
- Allows for Tyco or ADT branding

## Mono Cameras 1/3" Medium Resolution

The TCM338M and TCM338LV monochrome digital 1/3" CCD cameras are the ideal choice for entry level applications. A series of new advanced features offer optimal performance right out of the box.

This camera uses a medium resolution 380 TV Lines imager that can capture images in very low light - 0.06lux. The camera also has an electronic shutter and automatic gain control, making it suitable for a variety of lighting conditions. The cameras are sensitive to infrared light and therefore can be used in covert applications.

When using an auto iris lens, the camera will automatically detect whether it is a DC or video type lens. Installation is made easy by an embedded 1/4" x 20 mount in both the top and bottom of the camera.

The camera features internal and phase adjustable line-lock options for "roll-free" switching, and a fully isolated power supply that allows multiple cameras to be connected to a single 24 VAC source. This isolation also helps eliminate ground loops.

## Technical Specification

| Product  | CCD Type      | Sensitivity (Lux) | Resolution (HTVL) | Power Supply | Active Twisted Pair | AGC ON (Norm)/Off | Dipswitches   |           |                     |             |            |                |              |           |                  |                  | Buttons, Pots, Rotary Switches etc |                   |              |                 |             |                  |              |                      |
|----------|---------------|-------------------|-------------------|--------------|---------------------|-------------------|---------------|-----------|---------------------|-------------|------------|----------------|--------------|-----------|------------------|------------------|------------------------------------|-------------------|--------------|-----------------|-------------|------------------|--------------|----------------------|
|          |               |                   |                   |              |                     |                   | AGC (Lo/High) | EI On/Off | BLC On/Off / Window | LL/Internal | CM Hi / Lo | Gamma 0.45/1.0 | Genlock Term | AWB / MAN | Sharpness On/Off | Digital Rec Mode | Pk White Inversion                 | LL Ph Buttons (2) | LL Phase Pot | DC Lens Lvl Pot | Push WB Set | Dip SW for 7 BLC | Rotary 7 BLC | Rotary Shutter speed |
| TCM338M  | 1/3" SuperHAD | 0.06              | 380               | 98-260       |                     | •                 |               | •         | 1                   | •           |            |                |              |           |                  |                  |                                    |                   |              |                 |             |                  |              |                      |
| TCM338LV | 1/3" SuperHAD | 0.06              | 380               | 12/24        |                     | •                 |               | •         | 1                   | •           |            |                |              |           |                  |                  |                                    |                   |              |                 |             |                  |              |                      |

All cameras have:  
 Video Drive (AI) or Direct Drive (DD) Lens  
 Compatibility  
 SNR >50db  
 Line Lock with Phase Adjustment  
 Internal Lock  
 AGC On/Off  
 EI On/Off  
 DC Lens Level Pot

## Product Codes

TCM338LV Low voltage 1/3 380 TVL camera  
 TCM338M Main voltage 1/3 380 TVL camera



## Features

- 1/3" Sony Super HAD CCD
- 580 TVL resolution
- 0.07 lux sensitivity (with AGC and F1.2 lens)
- Low Voltage Source AC: 24V  $\pm$  15% @ 50Hz  
DC: 12V - 10% + 15% (TCM358LV)
- Mains Source 98~260V AC 50Hz (TCM358M)
- Dimensions (LxWxH) 123 x 60 x 52mm
- Weight 350gr (Low Voltage) 500gr (Main Voltage)
- Allows Tyco/ADT branding

## Mono Cameras 1/3" High Resolution

The TCM358M and TCM358LV black & white 1/3" CCD cameras are full-performance, high-resolution imagers. They are available as either mains or low voltage versions.

Incorporating the latest in CCD technology, the camera provides improved control of video processing; this allows it to deliver higher resolution (580 TV Lines) and enhanced sensitivity (0.07lux). The camera can operate in extremely low light conditions, making it the perfect choice for any type of video application that requires higher levels of sensitivity and image quality.

These cameras are sensitive to infrared light and are suitable for use in covert applications when used in conjunction with IR illuminators.

The performance features of this camera make it the ideal choice to be used with other peripheral CCTV equipment such as indoor and outdoor housings and pan/tilts.

When using an auto iris lens, the camera will automatically detect whether it is a DC or video type lens. Installation is made easy by an embedded 1/4" x 20 mount in both the top and bottom of the camera.

The camera features internal and phase adjustable line-lock options for "roll-free" switching, and a fully isolated power supply that allows multiple cameras to be connected to a single 24 VAC source. This isolation also helps eliminate ground loops.

## Technical Specification

| Product  | CCD Type      | Sensitivity (Lux) | Resolution (HTVL) | Power Supply | AGC ON (Norm)/Off | AGC (Lo/High) | AGC ON (Norm)/Off | Active Twisted Pair | EL On/Off | BLC On/Off / Window | CM HI / Lo | Gamma 0.45/1.0 | Genlock Term | Sharpness On/Off | AMB / MAN | Digital Rec Mode | Pk White Inversion | LL Ph Buttons (2) | LL Phase Pot | DC Lens Lvl Pot | Push WB Set | Dip SW for 7 BLC | Rotary 7 BLC | Rotary Shutter speed | PKW Inv Thresh Pot |
|----------|---------------|-------------------|-------------------|--------------|-------------------|---------------|-------------------|---------------------|-----------|---------------------|------------|----------------|--------------|------------------|-----------|------------------|--------------------|-------------------|--------------|-----------------|-------------|------------------|--------------|----------------------|--------------------|
| TCM358M  | 1/3" SuperHAD | 0.07              | 580               | 98-260       | •                 | •             | •                 | •                   | •         | 1                   | •          | •              | •            | •                | •         | •                | •                  | •                 | •            | •               | •           | •                | •            | •                    | •                  |
| TCM358LV | 1/3" SuperHAD | 0.07              | 580               | 12/24        | •                 | •             | •                 | •                   | •         | 1                   | •          | •              | •            | •                | •         | •                | •                  | •                 | •            | •               | •           | •                | •            | •                    | •                  |

All cameras have:  
 Video Drive (AI) or Direct Drive (DD) Lens  
 Compatibility  
 SNR >50db  
 Line Lock with Phase Adjustment  
 Internal Lock  
 AGC On/Off  
 EI On/Off  
 DC Lens Level Pot

## Product Codes

**TCM358LV** 1/3" Monochrome 580TVL Low Voltage Camera 12DC/124 VAC  
**TCM358M** 1/3" Monochrome 580TVL Main Voltage camera



## Features

- 1/2" Sony EXview HAD™ CCD
- 580 TVL resolution
- 0.03 lux sensitivity (with agc and F1.2 lens)
- Low Voltage Source AC: 24V ±15% @ 50Hz DC: 12V - 10% +15% (TCM2X58LV)
- Mains Source 98~260V AC 50Hz (TCM2X58M)
- Dimensions: (LxWxH) 132 x 68 x 60mm
- Weight: 380 Gr (Low Voltage) 520gr (Main voltage)

## Mono Camera 1/2" High Resolution Exview™

The TCM258M and TCM258LV monochrome 1/2" CCD cameras provide superior images and are designed for more complex applications and systems. They are available in either mains (98 to 260VAC) or low voltage (12VDC/24VAC) versions.

Incorporating the latest in Exview™ CCD technology, the camera provides improved control of video processing; this allows it to deliver higher resolution (580 TV Lines) and enhanced sensitivity (0.03lux). The camera can operate in extremely low light conditions, making it the perfect choice for any type of video application that requires higher levels of sensitivity and image quality.

These cameras are sensitive to infrared light and are suitable for use in covert applications when used in conjunction with IR illuminators.

The performance features of this camera make it the ideal choice to be used with other peripheral CCTV equipment such as indoor and outdoor housings and pan/tilts.

Seven selectable separate backlight compensation (BLC) zones allow for custom positioning of the camera based on the area being observed and specific areas of interest. The selectable DVR-Saver™ mode saves valuable DVR hard drive space. When using the DVR-Saver mode on an American Dynamics' Intellex®, video file sizes are reduced by up to 30 percent.\*

When using an auto iris lens, the camera will automatically detect whether it is a DC or video type lens. Installation is made easy by an embedded 1/4" x 20 mount in both the top and bottom of the camera.

The camera features internal and phase adjustable line-lock options for "roll-free" switching, and a fully isolated power supply that allows multiple cameras to be connected to a single 24 VAC source. This isolation also helps eliminate ground loops.

## Technical Specification

| Technical Specification |                |      |     |        |  |  | Dipswitches        |                      |              |                  |             |                 |              |                   |                    |                  | Buttons, Pots, Rotary Switches etc |           |              |                |            |             |                     |                 |                   |                     |
|-------------------------|----------------|------|-----|--------|--|--|--------------------|----------------------|--------------|------------------|-------------|-----------------|--------------|-------------------|--------------------|------------------|------------------------------------|-----------|--------------|----------------|------------|-------------|---------------------|-----------------|-------------------|---------------------|
|                         |                |      |     |        |  |  | PKW Inv Thresh Pot | Rotary Shutter speed | Rotary 7 BLC | Dip SW for 7 BLC | Push WB Set | DC Lens Lvl Pot | LL Phase Pot | LL Ph Buttons (2) | Pk White Inversion | Digital Rec Mode | Sharpness On/Off                   | AWB / MAN | Genlock Term | Gamma 0.45/1.0 | CM HI / Lo | LL/Internal | BLC On/Off / Window | AGC (Lo/Hi/Off) | AGC ON (Norm)/Off | Active Twisted Pair |
| TCM258M                 | 1/2" SuperHAD  | 0.06 | 580 | 98-260 |  |  |                    |                      |              |                  |             |                 |              |                   |                    |                  | 1                                  |           |              |                |            |             |                     |                 |                   |                     |
| TCM258LV                | 1/2" SuperHAD  | 0.06 | 580 | 12/24  |  |  |                    |                      |              |                  |             |                 |              |                   |                    |                  | 1                                  |           |              |                |            |             |                     |                 |                   |                     |
| TCM2X48M                | 1/2" ExviewHAD | 0.03 | 580 | 98-260 |  |  |                    |                      |              |                  |             |                 |              |                   |                    |                  | W                                  |           |              |                |            |             |                     |                 |                   |                     |
| TCM2X58LV               | 1/2" ExviewHAD | 0.03 | 580 | 12/24  |  |  |                    |                      |              |                  |             |                 |              |                   |                    |                  | W                                  |           |              |                |            |             |                     |                 |                   |                     |

All cameras have:  
 Video Drive (AI) or Direct Drive (DD) Lens  
 Compatibility  
 SNR >50db  
 Line Lock with Phase Adjustment  
 Internal Lock  
 AGC On/Off  
 EI On/Off  
 DC Lens Level Pot

## Product Codes

TCM258LV 1/2" 580TVL Mono Low Voltage camera  
 TCM258M 1/2" 580TVL Mono Main Voltage camera  
 TCM2X58LV 1/2" 580TVL ExView Mono Low Voltage camera  
 TCM2X58M 1/2" 580TVL ExView Mono Mains voltage camera





## Features

- 1/3" Sony Super HAD CCD
- 330 TVL resolution
- 0.6 lux sensitivity (with AGC and F1.2 lens)
- Low Voltage Source AC: 24V  $\pm$ 15% @ 50Hz DC: 12V - 10% + 15% (TCC333LV)
- Mains Source 98~260V AC 50Hz (TCC333M)
- Dimension: (LxWxH) 123 x 60 x 52mm
- Weight: 350gr (Low Voltage) 500gr (Main Voltage)
- Allows Tyco/ADT branding

## Colour Cameras 1/3" Medium Resolution

The TCC333M and TCC333LV digital CCD colour/monochrome cameras are ideal for the majority of applications (except use with IR lighting).

The cameras are simple to install and use, and have a solid, sturdy feel. They are available in either mains (98 to 260VAC) or low voltage (12VDC/24VAC) versions.

These cameras use a 1/3" medium resolution 330 TV Lines sensor, which offers good low light sensitivity (0.6lux), and clean, sharp images. With an automatic electronic shutter and automatic gain control (AGC), the cameras will operate in a wide range of lighting conditions. When using an auto iris lens, the camera will automatically detect whether it is a DC or video drive (AI) type lens.

Backlight compensation (BLC) allows for custom positioning of the camera based on the area being observed and specific areas of interest.

All dipswitches are situated on the rear panel, making the camera easy to set up. There is also a back focus thumb wheel, which covers the entire focal range with a single turn. Physical installation is simplified by an embedded 1/4" x 20 mount in both the top and bottom.

## Technical Specification

| Product   | CCD Type      | Sensitivity (Lux) | Resolution (HTVL) | Power Supply | Active Twisted Pair | AGC ON (Norm)/Off | Dipswitches   |           |                     |             |            |                |              |           |                  |                  | Buttons, Pots, Rotary Switches etc |                   |                 |             |                  |              |                      |                    |  |
|-----------|---------------|-------------------|-------------------|--------------|---------------------|-------------------|---------------|-----------|---------------------|-------------|------------|----------------|--------------|-----------|------------------|------------------|------------------------------------|-------------------|-----------------|-------------|------------------|--------------|----------------------|--------------------|--|
|           |               |                   |                   |              |                     |                   | AGC (Lo/High) | EI On/Off | BLC On/Off / Window | LL/Internal | CM HI / Lo | Gamma 0.45/1.0 | Genlock Term | AWB / MAN | Sharpness On/Off | Digital Rec Mode | Pk White Inversion                 | LL Ph Buttons (2) | DC Lens Lvl Pot | Push WB Set | Dip SW for 7 BLC | Rotary 7 BLC | Rotary Shutter speed | PKW Inv Thresh Pot |  |
| TCCM333M  | 1/3" SuperHAD | 0.6               | 330               | 98-260       |                     | •                 |               | •         | 1                   | •           |            |                |              |           |                  |                  |                                    |                   | •               | •           |                  |              |                      |                    |  |
| TCCM333LV | 1/3" SuperHAD | 0.6               | 330               | 12/24        |                     | •                 |               | •         | 1                   | •           |            |                |              |           |                  |                  |                                    |                   | •               | •           |                  |              |                      |                    |  |

All cameras have:  
 Video Drive (AI) or Direct Drive (DD)  
 Lens Compatibility  
 SNR >50db  
 Line Lock with Phase Adjustment  
 Internal Lock  
 AGC On/Off  
 EI On/Off  
 DC Lens Level Pot

## Product Codes

**TCC333LV** 1/3" Colour/Mono 330TVL 24VAC/12VDC camera  
**TCC333M** 1/3" Colour/Mono 330TVL Main voltage camera



## Features

- 1/3" Sony Super HAD CCD
- 480 TVL resolution
- 0.7 lux (with AGC and F1.2 lens)
- Low Voltage Source AC: 24V -15% +33% @ 50Hz DC:12V -10% +15% (TCC348LV & TCC348LVTP)
- Mains Source 98~260V AC 50Hz (TCC348M & TCC348MTP)
- Dimension (LxWxH) 123 x 60 x 52mm
- Weight: 350gr (Low voltage) 500 gr (Main voltage)
- Allows Tyco/ADT branding
- TP suffixed cameras offer on-board Twisted Pair Transmitter

## 1/3" High Resolution & Twisted Pair Colour Cameras

The TCC348MTP and TCC348LVTP digital CCD colour cameras are ideal for the majority of applications. The cameras are simple to install and use, and have a solid, sturdy feel. They are available in either mains (98 to 260VAC) or low voltage 12VDC/24VAC versions. Active Twisted Pair is also included for the transmission of video over an unshielded telephone cable. These cameras use a 1/3" medium resolution 480 TV Lines sensor, which offers good low light sensitivity (0.7lux), and clean, sharp images. With an automatic electronic shutter and automatic gain control (AGC), the cameras will operate in a wide range of lighting conditions. When using an auto iris lens, the camera will automatically detect whether it is a DC or video drive (AI) type lens.

Seven selectable separate backlight compensation (BLC) zones allow for custom positioning of the camera based on the area being observed and specific areas of interest. The selectable DVR-Saver™ mode saves valuable DVR hard drive space. When using the DVR-Saver mode on an American Dynamics' Intellex®, video file sizes are reduced by up to 30 percent.

All dipswitches are situated on the rear panel, making the camera easy to set up. There is also a back focus thumb wheel, which covers the entire focal range with a single turn.

Physical installation is simplified by an embedded 1/4" x 20 mount in both the top and bottom.

The TCC348M and TCC348LV digital CCD colour cameras are ideal for the majority of applications. The cameras are simple to install and use, and have a solid, sturdy feel. They are available in either mains (98 to 260VAC) or low voltage (12VDC/24VAC) versions.

These cameras use a 1/3" medium resolution 480 TV Lines sensor, which offers good low light sensitivity (0.7lux), and clean, sharp images. With an automatic electronic shutter and automatic gain control (AGC), the cameras will operate in a wide range of lighting conditions. When using an auto iris lens, the camera will automatically detect whether it is a DC or video drive (AI) type lens.

Backlight compensation (BLC) allows for custom positioning of the camera based on the area being observed and specific areas of interest. All dipswitches are situated on the rear panel, making the camera easy to set up. There is also a back focus thumb wheel, which covers the entire focal range with a single turn. Physical installation is simplified by an embedded 1/4" x 20 mount in both the top and bottom.

## Technical Specification

| Technical Specification |               |                   |                   |              |                     |                   |               |           |                     |             |            |                |              |           |                  |                                    |                    |                   |                 |              |
|-------------------------|---------------|-------------------|-------------------|--------------|---------------------|-------------------|---------------|-----------|---------------------|-------------|------------|----------------|--------------|-----------|------------------|------------------------------------|--------------------|-------------------|-----------------|--------------|
| Product                 | CCD Type      | Sensitivity (Lux) | Resolution (HTVL) | Power Supply | Active Twisted Pair | Dipswitches       |               |           |                     |             |            |                |              |           |                  | Buttons, Pots, Rotary Switches etc |                    |                   |                 |              |
|                         |               |                   |                   |              |                     | AGC ON (Norm)/Off | AGC (Lo/High) | EI On/Off | BLC On/Off / Window | LL/Internal | CM Hi / Lo | Gamma 0.45/1.0 | Genlock Term | AWB / MAN | Sharpness On/Off | Digital Rec Mode                   | Pk White Inversion | LL Ph Buttons (2) | DC Lens Lvl Pot | LL Phase Pot |
| TCC348M                 | 1/3" SuperHAD | 0.7               | 480               | 98-260       |                     | •                 |               | •         | 1                   | •           |            |                |              |           |                  |                                    |                    |                   |                 |              |
| TCC348LV                | 1/3" SuperHAD | 0.7               | 480               | 12/24        |                     | •                 |               | •         | 1                   | •           |            |                |              |           |                  |                                    |                    |                   |                 |              |
| TCC348MTP               | 1/3" SuperHAD | 0.7               | 480               | 98-260       | •                   | •                 | •             | •         | W                   | •           | •          |                |              | •         |                  | •                                  |                    | •                 | •               |              |
| TCC348LVTP              | 1/3" SuperHAD | 0.7               | 480               | 12/24        | •                   | •                 | •             | •         | W                   | •           | •          |                |              | •         |                  | •                                  |                    | •                 | •               |              |

All cameras have:  
 Video Drive (AI) or Direct Drive (DD) Lens Compatibility  
 SNR >50db  
 Line Lock with Phase Adjustment  
 Internal Lock  
 AGC On/Off  
 EI On/Off  
 DC Lens Level Pot

## Product Codes

|                   |  |
|-------------------|--|
| <b>TCC348LV</b>   | 1/3" High Resolution Colour Camera<br>480TVL, 12DC/24VAC                 |
| <b>TCC348M</b>    | 1/3" High Resolution Colour Camera<br>480TVL, Main Voltage               |
| <b>TCC348LVTP</b> | 1/3" High Resolution Colour Camera<br>480TVL, Twisted Pair, Low Voltage  |
| <b>TCC348MTP</b>  | 1/3" High Resolution Colour Camera<br>480TVL, Twisted Pair, Main Voltage |



## Features

- 1/2" Sony Exview HAD CCD
- 480 TVL
- 0.3 lux sensitivity (with AGC and F1.2 lens)
- Low Voltage Source AC: 24V -15% +33% @ 50Hz  
DC:12V -10% +15% (TCC248LV & TCC248LVTP)
- Mains Source 98~260V AC 50Hz (TCC248M & TCC248MTP)
- Dimension TCC 2X Series (LxWxH)132 x 68 x 60mm
- Dimension TCC 248 Series (LxWxH)123 x 60 x 52mm
- Allows Tyco/ADT branding
- TP suffixed cameras offer on-board Twisted Pair Transmitter

## 1/2" High Resolution Exview and Twisted Pair Colour Cameras

The TCC2X48M and TCC2X48LV digital CCD colour/ monochrome cameras are ideal for most applications (except use with IR lighting). Solid and sturdy, the cameras are simple to install and use. Mains cameras have a wide-ranging power supply of 98 to 260VAC, whilst the low voltage version uses either 12VDC or 24VAC voltage versions are available.

These cameras use a 1/2" high resolution 480 TV Lines sensor, which offers very good low light sensitivity (0.3lux), and clean, sharp images. With an automatic electronic shutter and automatic gain control (AGC), the cameras will operate in a wide range of lighting conditions. When using an auto iris lens, the camera will automatically detect whether it is a DC or video drive (AI) type lens.

Seven selectable separate backlight compensation (BLC) zones allow for custom positioning of the camera based on the area being observed and specific areas of interest. The selectable DVR-Saver™ mode saves valuable DVR hard drive space. When using the DVR-Saver mode on an American Dynamics' Intellex®, video file sizes are reduced by up to 30 percent.\*

All dipswitches are situated on the rear panel, making the camera easy to set up. There is also a back focus thumb wheel, which covers the entire focal range with a single turn. Physical installation is simplified by an embedded 1/4" x 20 mount in both the top and bottom of the camera.

## Technical Specification

| Product    | CCD Type      | Sensitivity (Lux) | Resolution (HTVL) | Power Supply | Active Twisted Pair | AGC ON (Norm)/Off | Dipswitches   |           |                     |             |            |                |              |           |                  |                  | Buttons, Pots, Rotary Switches etc |                   |                 |             |                  |              |                      |                     |
|------------|---------------|-------------------|-------------------|--------------|---------------------|-------------------|---------------|-----------|---------------------|-------------|------------|----------------|--------------|-----------|------------------|------------------|------------------------------------|-------------------|-----------------|-------------|------------------|--------------|----------------------|---------------------|
|            |               |                   |                   |              |                     |                   | AGC (Lo/High) | EI On/Off | BLC On/Off / Window | LL/Internal | CM HI / Lo | Gamma 0.45/1.0 | Genlock Term | AWB / MAN | Sharpness On/Off | Digital Rec Mode | Pk White Inversion                 | LL Ph Buttons (2) | DC Lens Lvl Pot | Push WB Set | Dip SW for 7 BLC | Rotary 7 BLC | Rotary Shutter speed | PKW Inv / Fresh Pot |
| TCC248MPT  | 1/2" SuperHAD | 0.6               | 480               | 98-260       | •                   | •                 | •             | •         | W                   | •           | •          | •              | •            | •         | •                | •                | •                                  | •                 | •               | •           | •                | •            | •                    | •                   |
| TCC248LVTP | 1/2" SuperHAD | 0.6               | 480               | 12/24        | •                   | •                 | •             | •         | W                   | •           | •          | •              | •            | •         | •                | •                | •                                  | •                 | •               | •           | •                | •            | •                    | •                   |
| TCC248LVTP | 1/2" SuperHAD | 0.6               | 480               | 98-260       | •                   | •                 | •             | •         | W                   | •           | •          | •              | •            | •         | •                | •                | •                                  | •                 | •               | •           | •                | •            | •                    | •                   |
| TCC248MTP  | 1/2" SuperHAD | 0.6               | 480               | 12/24        | •                   | •                 | •             | •         | W                   | •           | •          | •              | •            | •         | •                | •                | •                                  | •                 | •               | •           | •                | •            | •                    | •                   |

All cameras have:  
Video Drive (AI) or Direct Drive (DD) Lens  
Compatibility  
SNR >50db  
Line Lock with Phase Adjustment  
Internal Lock  
AGC On/Off EI On/Off  
DC Lens Level Pot

## Product Codes

|            |   |
|------------|---|
| TCC248LVTP | 1/2" Exview 480 TVL Low Voltage Twisted Pair Colour Camera  |
| TCC248MTP  | 1/2" Exview 480 TVL Main Voltage Twisted Pair Colour Camera |
| TCC2X48LV  | 1/2" Exview 480 TVL Low Voltage Twisted Pair Colour Camera  |
| TCC2X48M   | 1/2" Exview 480 TVL Main Voltage Twisted Pair Colour Camera |

## Section 2 Sanyo Day/Night Cameras



### Features

- Super-high horizontal resolution of 520 TV lines
- High sensitivity — minimum illumination of 0.45 lx (F1.2, colour mode) or 0.01 lx (F1.2 B/W mode)
- Two types of backlight compensation: Multi-spot and centre-zone metering
- 24V AC and 12 to 15V DC dual power operation (VCC-4795P)
- 220 to 230V AC, 50Hz operation (VCC-4790P)
- Dimension: (WxHxD) 67 x 54 x 128mm

### Sanyo 1/3" Moving IR filter Day/night Cameras

A two-in-one solution: a colour camera during the day, a high-sensitivity B/W camera during the night. A colour camera, which captures objects in vivid colours in daylight, becomes a high-sensitivity B/W camera during the night and provides tiny details even in dark corners. It is suitable for use with IR lighting.

Centre-zone metering system:

Luminance measured at centre and automatic lens aperture adjustment enable a clear image even when backlit.

### Additional Benefits

- 1/3-inch CCD image sensor with approx. 470,000 picture elements
  - Super-high horizontal resolution of 520 TV lines
  - Higher sensitivity and lower smear effect than that of previous models
  - New, built-in DSP (digital signal processing) circuitry delivers superior colour reproduction and reduced noise
  - The camera's sensitivity to exposed light allows it to automatically switch from colour to B/W mode
  - Two types of backlight compensation selectable
- Multi-spot metering system:
- Luminance is measured in 64 separate areas for optimum backlight compensation even for peripheral and moving objects; features selectable normal and high modes
- Auto-tracing or manual white balance selectable (Slide SW)
  - Built-in high-speed electronic shutter
  - Internal synchronisation, line-lock capability
  - Built-in electronic iris for indoor use

### Technical Specification

|               |                                       |
|---------------|---------------------------------------|
| B/W mode:     | (F 1.2 lens, 50 IRE)                  |
| 0.01 lx       | VCC-4790P and VCC 4795P               |
| 0.03 lx       | Previous Models (VCC-4592P/VCC-4594P) |
| Colour mode:) | (F1.2 lens, 50 IRE)                   |
| 0.45 lx       | VCC-4790P and VCC-4795P               |
| 0.6 lx        | Previous Models (VCC-4592P/VCC-4594P) |

### Product Codes

|              |                                       |
|--------------|---------------------------------------|
| VCC-4790P-UK | Sanyo Day/Night camera 220/230 v ac   |
| VCC-4795P    | Sanyo Day/Night camera 12v dc /24v ac |

## Section 3 JVC Cameras



### Features

- Integrated Digital Signal Processor for Low-light Operation
- 1/3-inch IT CCD with 440,000 Effective Pixels
- 535 Lines of Horizontal Resolution
- Automatic Gain Control (AGC)
- Auto White Balance with Manual Adjustment
- S/N Ratio of 50 dB (AGC Off)
- Automatic Electronic Shutter
- 0.7 lux sensitivity in colour and 0.48 lux B&W mode @F1.2

### JVC TKC-920E & TKC-921E Colour/Monochrome Camera

These new JVC cameras offer an outstanding 535 TVL resolution which is delivered by the 1/3" Interline Transfer CCD. The quality of key image parameters are continually optimised by the intelligent Digital Signal Processor. The Super LoLux function allows the camera to achieve reliable, high performance pictures even at light levels as low as 0.7 lux (using an F1.2 lens).

Built-in Revolutionary Digital Signal Processor (DSP)  
JVC's innovative Digital Signal Processor automatically adjusts camera parameters to ensure sharp and natural pictures of 535 TV lines horizontal resolution with high-quality performance. 1/3-inch CCD with 440,000 Effective Pixels JVC's TK-C920E and TK-C921EG come with a 1/3-inch Interline Transfer (IT) CCD for accurate colour reproduction and super LoLux sensitivity of 0.7 lux F1.2. Detail Corrections - Horizontal and Vertical (2H)

The TK-C920E and TK-C921EG provide dual-edged detail correction -horizontal and vertical, dual-edged with 2H line memory.

Signal-to-Noise Ratio of 50dB (AGC Off) The sharp and high resolution pictures of TK-C920E and TK-C921EG also achieve a signal-to-noise ratio of 50dB.

Super LoLux and Automatic Gain Control (AGC)  
As the ambient light level falls the AGC seamlessly increases the camera's sensitivity. With Super LoLux turned on the AGC will further increase the camera's sensitivity to 0.7 lux at F1.2. Manual or Automatic (ATW) White Balance For flexibility of operation in a wide range of environments the white balance can be set manually or can be automatically adjusted in real time by the Automatic White Tracking function over a range of 2,300°K to 10,000°K.

Please note these are cameras feature an IR filter and are not suitable for use with IR lighting.

### Technical Specification

|                              |  |
|------------------------------|--|
| Minimum Light Level:         | 0.7 lux (F1.2, AGC ON) - Video level 25%                                 |
| Power requirement:           | TK-C920E: AC 24V (50Hz/60Hz), DC 12V TK-C921EG: AC 220V_240V (50Hz/60Hz) |
| Power consumption:           | TK-C920E: 380mA TK-C921EG: 57mA  |
| Operating temperature range: | -10°C to 50°C<br>0°C to 40°C (recommended )                              |
| Weight:                      | TK-C920E: 370g TK-C921EG: 713g   |

### Product Codes

|             |  |
|-------------|--|
| 603.001.225 | JVC TKC-921E 1/3 " 520TVL colour camera , AC 220V-240V (50Hz/60Hz) |
| 603.001.226 | JVC TK-C920E 1/3" 520TVL colour camera: AC 24V (50Hz/60Hz), DC 12V |



## Section 4 - Entry Level Cameras

### Entry Level CCTV Products

These products have been introduced to the Product range to offer a cost effective, reduced featured solution. These items are subject to change in both appearance and specification dependent on supply availability and changes in market pricing.

#### LCM001

Indoor 1/3" Colour Minidome Camera, 460 TVL, Fixed focal 3.6mm Lens. 12v dc.

#### LCM002

Internal Static Vandal Resistant Colour MiniDome Camera 1/3", 380TVL, 3.6mm Lens. 12v dc.

#### LCM003

Internal Static Colour MiniDome Camera 1/3", 460TVL, 4-9mm Vari-focal Lens, 12v dc

#### LCM004

External Static Vandal Resistant Colour MiniDome Camera 1/3", 480TVL, 4-8mm Vari-focal Lens, 12v dc

#### LCM005

Indoor 1/3" Colour Minidome Camera, 460 TVL, Fixed focal 8mm Lens, 12v dc.

#### LCB001

External Static Day/Night Bullet Camera & Bracket, 1/3", 400TVL, 6.0mm Lens. Includes integrated I/R with 10 metre visibility range. 12v dc.

#### LCB002

Internal Static Colour Bullet Camera 1/3", 480TVL, 4-9mm Vari-focal Lens, inc. Bracket. 12v dc.

#### LCH001

External Camera Housing & Bracket inc.12V Heater/Blower, with 1/3" 480TVL Colour Camera & 3.5-8mm Varifocal Lens.

## Section 5 Covert Cameras



### Features

- Available in colour or monochrome
- Easy to install
- Unobtrusive

### Smoke Detector Colour and Monochrome Camera

Available in colour and monochrome these cameras are unique to the Tyco group and are identical to the M600/900 series of smoke detectors, so remain completely unobtrusive when used in conjunction with our fire alarm systems. The camera is easy to install, the base part is mounted and connected up and the camera is twisted into position.

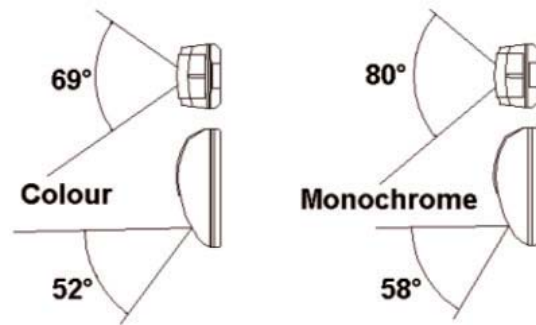
The M600 uses standard composite signal and will integrate into any standard CCTV system. The unit also incorporates a microphone and comes complete with 12Vd.c. power supply unit with leads.

### Technical Specification

|             |         |
|-------------|---------|
| Resolution  |         |
| Monochrome: | 380 TVL |
| Colour:     | 330 TVL |

### Product Codes

|             |  |
|-------------|--|
| 603.001.127 | Covert Monochrome Fire Detector Package  |
| 603.001.177 | Covert 1/3" Colour Camera Fire Detector Package includes Power Supply TYSM-10C |



### Working PIR Covert Cameras

These units not only offer covert surveillance capability but also a fully working Passive infrared detector which can initiate recording or integrate the CCTV system into the intruder system. These cameras are packaged in standard PIR cases which means they will blend into an existing system.

These cameras are supplied with 12V power supply units and Microphones. These are supplied with the brackets pictured on the right. Available in colour and monochrome.

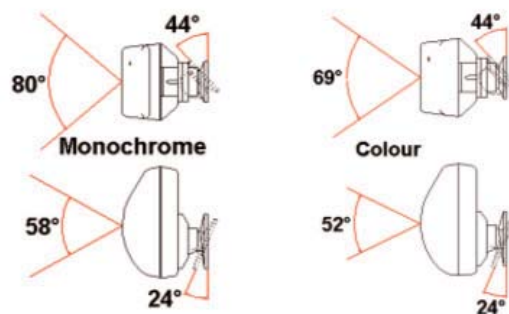
### Technical Specification

Resolution:                      Monochrome 380 TVL  
   Colour 330 TVL

### Product Codes

**603.001.128**      Covert 1/3" Monochrome Camera  
Working PIR (3.6mm pin hole lens) with  
PSU TYEV-500MPAW

**603.001.130**      Covert 1/3" Colour Camera Working  
PIR (3.6mm pin hole lens) with  
TYEV-500CPAW



### Colour Monochrome PIR Packaged Covert Cameras

These cameras are mounted into standard Aritech packages, which match the detectors from the current intruder range making these cameras very difficult to distinguish between a camera and a detector.

Available in colour and monochrome and are provided with a 12V PSU and microphone. These are supplied with the brackets pictured.

### Technical Specification

Resolution  
Monochrome: 380 TVL  
Colour: 330 TVL

### Product Codes

603.001.129 Covert 1/3" Monochrome Camera P.I.R. Package (3.6mm pin hole lens) with PSU TYEV-400MPA  
603.001.131 Covert 1/3" Colour Camera PIR Package (3.6mm pin hole lens) TYEV-400CPA

## Section 6 Mini Domes



### Features

- Vandal resistant
- Choice of medium resolution 330TVL or 480TVL
- Varifocal lens 4-9mm

### Derwent Vandal resistant Dome

Derwent Systems offer two new Vandal Resistant domes suitable for External applications. These domes are available in either Medium Resolution or High Resolution Colour versions, and feature a 1/3" 4-9mm vari-focal lens.

This External Dome was designed by engineers to establish a new benchmark for toughness. This heavy cast aluminum, armoured polycarbonate dome camera cannot be beaten by physical attack, and it incorporates excellent CCD optics.

Superior toughness and superior optics combined with ease of installation. An XYZ gimbal easily accesses the installer-friendly camera. This dome can withstand a lot more than sledgehammer blows.

### Technical Specification

| Camera Type                 | Colour                                    | High-Res Colour      |
|-----------------------------|---|----------------------|
| Image Sensor:               | 1/4" Sony CCD                             | 1/3" Sony Hi Res CCD |
| Effective Pixels:           | 512(H) x 582(V) PAL                       | 752(H) x 582(V) PAL  |
| Resolution:                 | 380 TVL                                   | 480 TVL              |
| S/N Ratio:                  | Greater than 48 dB                        | Greater than 50 dB   |
| Sensitivity:                | 1 Lux / F2.0                              | 1 Lux / F2.0         |
| Electronic Shutter:         | Up to 1/100,000 s                         |                      |
| Video Output:               | 1 Vp-p, 75 Ohms                           |                      |
| Voltage Regulator:          | Included for electronic protection        |                      |
| Voltage Supply:             | 12 VDC or 24 VAC                          |                      |
| Power Consumption:          | 2.4 W max (200 mA) @ 12 VDC               |                      |
| Operational Range:          | -50°C to +50°C (-58°F to +122°F)          |                      |
| Humidity Range:             | Up to 85% relative humidity               |                      |
| Base Construction:          | Heavy Cast aluminum                       |                      |
| Base Dimensions:            | f154.0 mm x 101.0 mm H (f6.06" x 3.98" H) |                      |
| Dome Construction:          | 4" Semi-Spherical Polycarbonate           |                      |
| Gimbal:                     | Pan-Tilt-Twist for easy installation      |                      |
| Overall Weight:             | 1.5 kg (3.2 lbs)                          |                      |
| VariFocal:                  | Auto-Iris Lens                            |                      |
| Focal Length:               | 4 mm - 9 mm                               |                      |
| Aperture Ratio:             | F2.0 to F2.8 - 360                        |                      |
| Angle of View (Horizontal): | 70.1° - 26.7°                             |                      |
| Angle of View (Vertical):   | 51.6° - 26.5°                             |                      |
| ALC - Auto Level Control:   | Average / Peak Lighting                   |                      |
| LEVEL:                      | Adjust L-H for IRIS Aperture              |                      |
| Dimensions:                 | Ø28 mm x 38.0 mm (L)                      |                      |
| Weight:                     | 1.2 oz (35 g)                             |                      |

### Product Codes

|             |  |
|-------------|--|
| 603.001.221 | Medium resolution Colour Vandal resistant dome |
| 603.001.227 | High Resolution Colour Vandal Resistant Dome   |





## Features

- Integrated Computer® auto iris varifocal lenses provide a wide variety of adjustment
- Varifocal lens AI 2.8-10mm (78.2 degrees to 21.6 degrees Horizontal Field of view) standard, f1.2
- Manually adjustable pan/tilt/rotation mechanism for wall or ceiling mount
- Auto sensing dual voltage (24V AC/12V DC)
- 480 TVL resolution
- 1/4" CCD interlace
- Minimum Illuminance 1.5lux at 50IRE

## Dual Voltage Varifocal Mini Dome

This 1/4" auto sensing dual voltage fixed mini-dome offers a varifocal Auto Iris lens (2.8-10 mm).

## Technical Specification

|                       |                            |
|-----------------------|----------------------------|
| External Dimensions:  | 128(w) x 101(h)mm          |
| Operating Temperature |                            |
| Operation:            | -10° ~ +50°C               |
|                       | Storage: -20° ~ +60°C      |
| Image Sensor 1/4":    | CCD interlace              |
| Dip switch settings:  | Sync. L.L./INT; BLC Off/On |
| Weight:               | 320g (Approx)              |
| White Balance:        | Auto (ATW)                 |
| S/N RATIO (AGC OFF):  | More than 50dB             |
| Power Supply:         | AC24V ±10% or DC12V ±10%   |
| Power                 |                            |
| Consumption:          | 300mA/12VDC   250mA/24VAC  |

## Product Codes

|             |   |
|-------------|---|
| 603.014.038 | High Resolution Minidome 480TVL,<br>12vac/24vdc Varifocal lens 2.8-<br>10mm |
|-------------|---|



## Features

- Elegant dome-shaped case
- Easy mounting on suspended ceilings
- The dome exists in several variations
- The orientation of the camera can be modified horizontally as well as vertically
- Holds enough room for the compact varifocal lenses

## Dome Style Camera Housings

The V4 camera housing is available in either black or white finish and allow a normal CCD camera and lens to be elegantly mounted to a false ceiling.

The camera tilt angles can be adjusted from 36° and 90° to the horizontal. The housing will require a maximum of 160mm of space above the tile.

## Technical Specification

|  |                   |
|--|-------------------|
| Field of application indoors           |                   |
| Internal dimensions:                   | 125 (D) × 62.5 mm |
| Dimensions:                            | 175 (D) × 65 mm   |
| Weight:                                | 0.56 kg           |
| Inclination angle:                     | 36° 90°           |
| Swivel range:                          | 360°              |
| Max. dimensions of the camera (H × B): | 60 × 60 mm        |
| Max. dimensions of the lens:           | 50 (D) × 55 mm    |

## Product Codes

- A25376 Computer V4W White Ceiling Dome  
A25377 Computer V4B Black Ceiling Dome

## Accessories

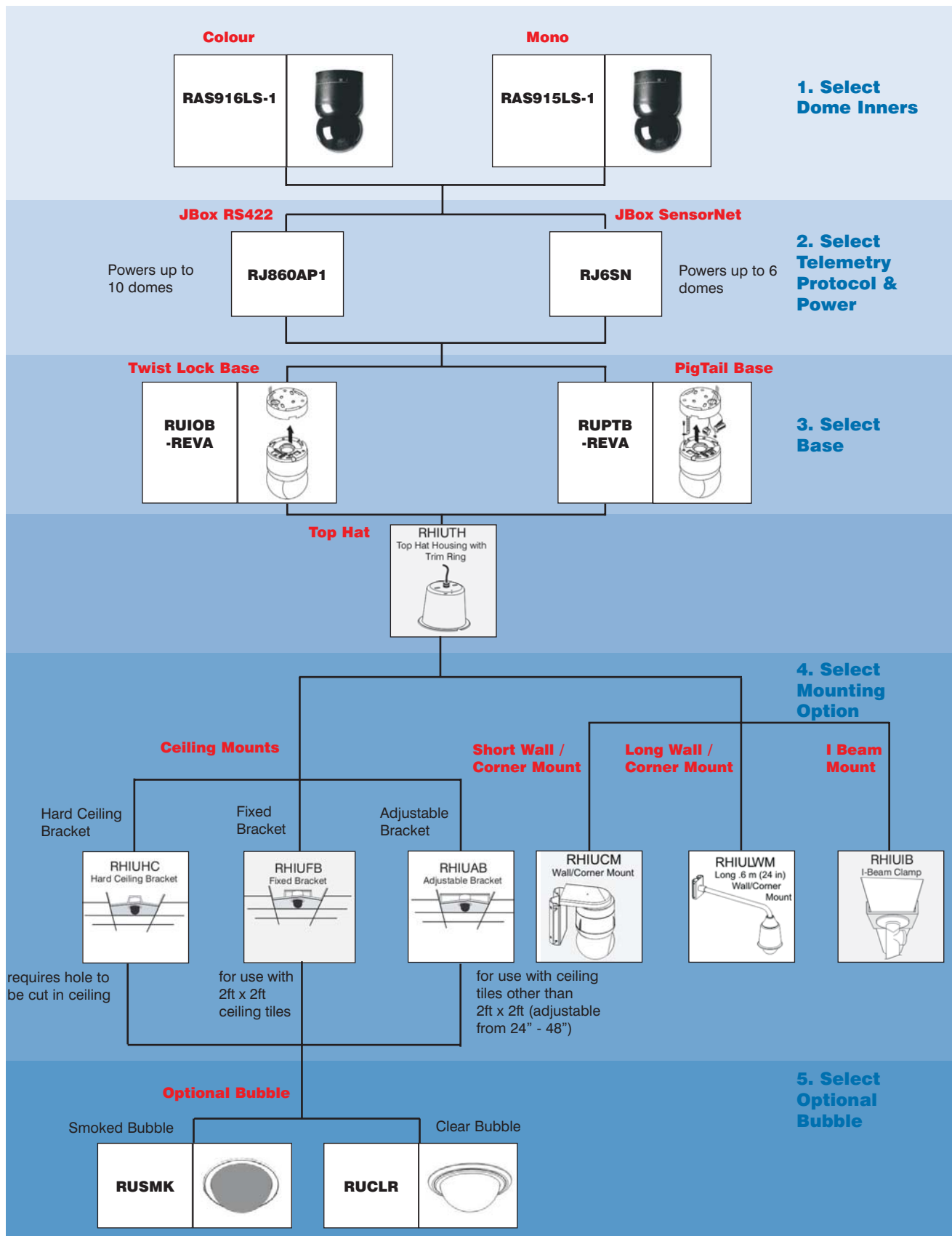
| 603.003.152   | A28023   | A28024   |
|---|--|--|
| Conway WW5 Washer Bottle and Pump For Conway-EH4 & EH3 Housing Fixed Camera Kit | <p>Install Kit External Fixed Camera Functional Camera Junction Box.</p> <p>A professional mains distribution box for a fully functional camera includes an illuminated double pole isolation switch, segregated fusing for housing and lamps and video loop through connection. The box is IP55 rated and is provided with 2 Kopex quick fit connectors.</p> <p>Includes:-</p> <ul style="list-style-type: none"> <li>2M Flexible Conduit</li> <li>2 20mm Connectors</li> <li>2 20mm Lockrings</li> <li>3M 0.75 3183Y Cable</li> <li>2 BNC Crimp Connectors</li> <li>1 In-Line BNC Connectors</li> <li>1 IP55 Adaptor Box</li> <li>Dimensions 155H 110W 70D</li> <li>1 5Amp Fused Block</li> <li>1 5Amp Con Block</li> <li>2 Cable Clips</li> </ul> | <p>Install Kit For External Functional Camera Functional Camera Kit</p> <p>Includes:-</p> <ul style="list-style-type: none"> <li>2m Kopex KEBF0530 Ultra flexible LSF covered 25mm steel Conduit</li> <li>2 Kopex GBM0505 25mm swivel connectors</li> <li>2 25mm galvanised locknuts</li> <li>3m 0.75mm 3183Y white mains cable</li> <li>3m 0.5mm 8 Core YY cable</li> <li>2 BNC Crimp connectors</li> <li>4 M10 loose anchors</li> <li>1 IP55 adaptable box</li> <li>1 Fused 5Amp Block</li> <li>2 Cable clips</li> </ul> |

## Section 7 American Dynamics Dome and Mounts

### Dome Cameras

*How to select your Internal Dome*

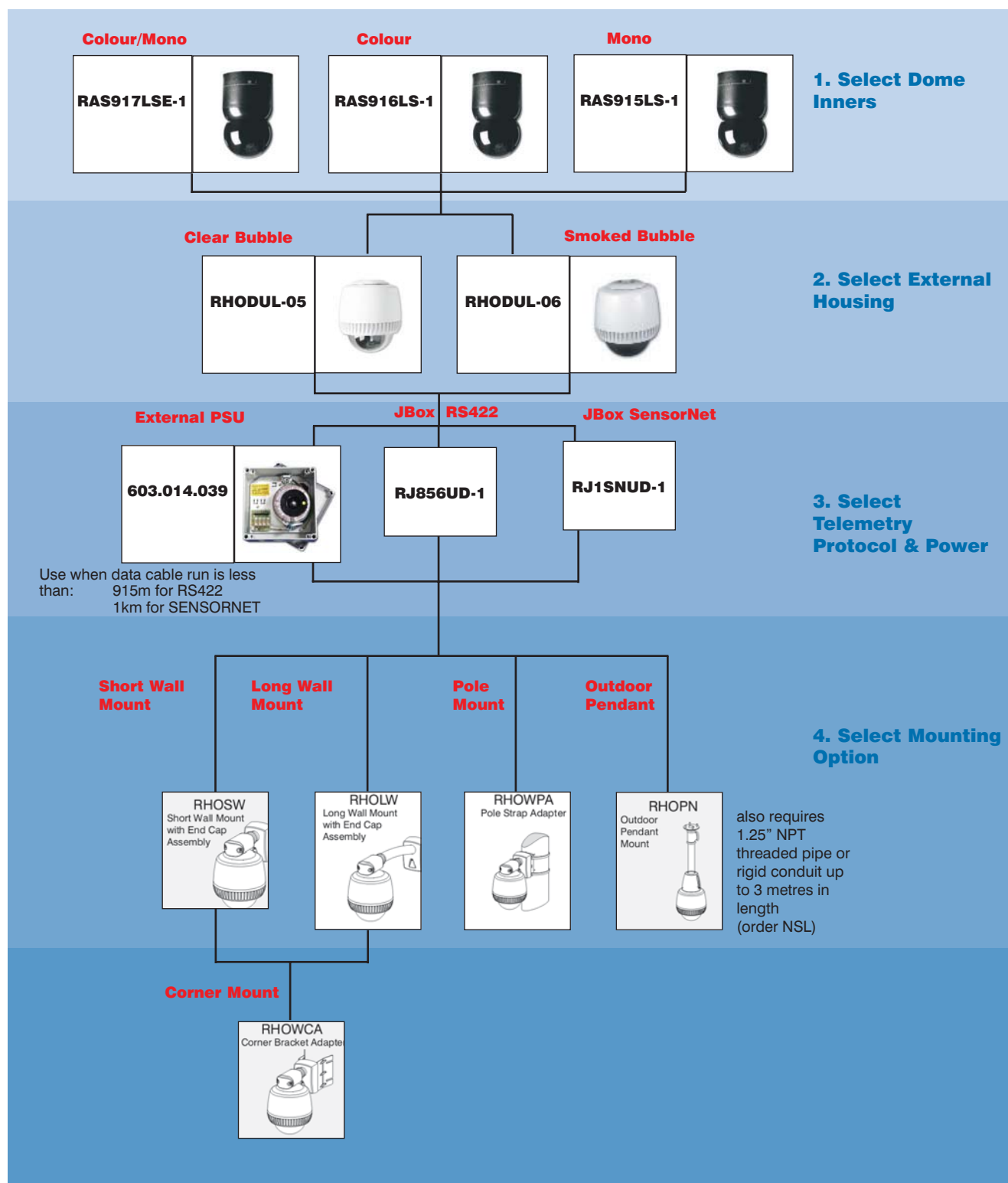
#### Internal Domes



## Dome Cameras

### How to select your External Dome

#### External Domes





## Features

- Colour Camera with 22x optical zoom, and four x digital zoom
- Zoom Adjusted Program (ZAP) automatically adjusts pan and tilt speeds in proportion to zoom position, even at 22x magnification.
- Power-on functional tests
- Automatic gain control
- Automatic white balance allows the camera to automatically adjust the white balance of the image, providing optimal image quality.
- Line-lock is enabled to help prevent vertical rolling in multi-camera applications.
- Supports RS-422 /RS-485, Manchester and SensorNet protocols

## SpeedDome Optima Programmable Dome Camera

SpeedDome Optima delivers the standard features of a programmable dome, but is priced comparably to a PTZ(Pan, Tilt & Zoom). This provides an alternative for customers who prefer the convenience and programmability of a dome camera, but previously considered domes too expensive.

Choose from several innovative mounting options, including hard ceiling, wall and pendant mounts (for both indoor and outdoor applications). The dome contains all of the necessary install components, therefore installation is quick and easy- just 15 minutes from box to ceiling for the hard ceiling mount.

The dome's power-on diagnostics and functional tests assist with fault isolation during install and service. The dome accommodates a variety of protocols, including RS-422/RS-485, Manchester and SensorNet, making it compatible with any American Dynamics controller or matrix switcher/ controller system.

The dome features a colour camera with 22x optical zoom and 450+ TV lines resolution, providing a quality, high-resolution picture. The dome also provides user-programmable presets and patterns.

The integral housing model, which is constructed of ABS plastic, is suitable for both indoor and outdoor applications. This model incorporates a flying lead connection for mechanical and electrical cabling.

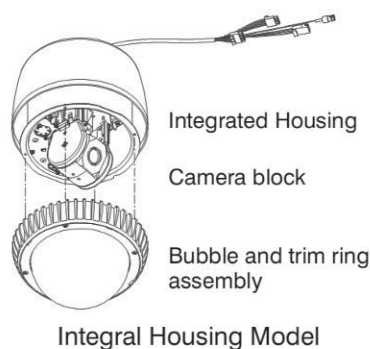
The outdoor version of the integral housing model is weather and tamper-proof, and contains a heater/blower that protects the dome.

In extreme temperatures, the housing's built-in fan prevents the dome from overheating, and the built-in thermostat and heater prevent ice from forming on the outside bubble.

### Additional Benefits

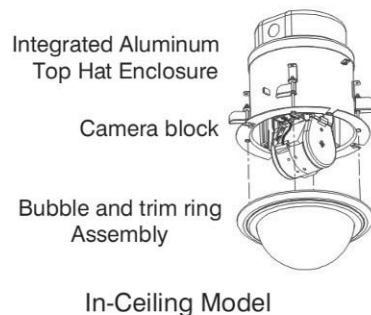
Three user-definable patterns

- One auxiliary output
- Easy to install and service
- 470+ lines horizontal resolution
- Automatic focus provides clear images without the need for manual adjustments. Auto iris provides visible scenes without the user having to manually compensate for diverse lighting conditions. Up to 96 user-definable presets
- Priced comparably to a PTZ, with more features and easier to install
- One alarm input
- Indoor and outdoor versions
- LED diagnostics
- Stepper motors with micro-step control



Integrated Housing  
Camera Block  
Bubble and trim ring assembly  
Integral Housing Model

Integrated Aluminium Top  
Hat Enclosure  
Camera Block  
Bubble and trim ring  
Assembly  
In-Ceiling Model



In-Ceiling Model



**NOTE:**

*The Optima range allows daisy chain configuration of control wiring.*

*- For RS-422/RS-485: 10 domes at a maximum distance of 1 km (3,000 ft) on two 22 AWG Shielded twisted pairs(STP).*

*- For SensorNet: 32 devices at a maximum distance of 1 km (3,000 ft) on one 22 AWG Unshielded twisted pair(UTP).*

*- For Manchester: 3 domes at a maximum distance of 1.5 km (5,000 ft) on one 18 AWG Shielded twisted pair(STP).*

## Technical Specification

The in-ceiling model is designed with an integrated aluminium top hat enclosure and platinum cap with swing-out tabs that grasp ceiling material, ensuring a secure and easy installation.

This model utilises an endcap connection for mechanical and electrical cabling. The in-ceiling model is for indoor applications only.

|               |                      |
|---------------|----------------------|
| Lens:         |                      |
| Design:       | Aspherical           |
| Focal Length: | 4 to 64mm            |
| Aperture:     | 11.4 (wide),         |
| f2.2 (tele)   |                      |
| 4mm           | 47.0° (H) x 35.2°(V) |
| 64mm          | 3.0° (H) x 2.25°(V)  |

## Product Codes

|           |  |
|-----------|--|
| RASIPHS-1 | Indoor Hard Ceiling Smoked Bubble(PAL) |
| RASIPHC-1 | Indoor Hard Ceiling Clear Bubble (PAL) |
| RASIPPS-1 | Indoor Pendant Smoked Bubble (PAL)     |
| RASIPPC-1 | Indoor Pendant Clear Bubble (PAL)      |
| RASOPPS-1 | Outdoor Mount Smoked Bubble (PAL)      |
| RASOPPC-1 | Outdoor Mount Clear Bubble (PAL)       |



## Features

- Colour camera with up to 242x zoom (22x optical 11x digital)
- 470 lines horizontal resolution
- Zoom and adjusted programming
- Autofocus and auto iris, Auto white balance
- Automatic gain control, Line-lock
- Supports RS-422 Manchester and SensorNet protocols
- Unshielded Twisted Pair (UTP) wiring video transmission enabled as standard
- Up to 96 user-definable presets
- Three user-definable patterns, Powers-on functional tests
- LED diagnostics. Easy to install and service
- Priced comparably to a PTZ with more features and easier to install

## SpeedDome Optima LT

SpeedDome Optima LT delivers the standard features of a programmable dome, but is priced comparably to a PTZ camera. This provides an alternative for customers who prefer the convenience programmability of a dome, but previously considered domes to be price-prohibitive. Choose from hard ceiling, pendant and 2X2 tile indoor mounting options.

And because the dome contains all of the necessary install components, installation is a breeze – just 15 minutes from box to ceiling for the hard ceiling mount. The dome's power on diagnostics and functional tests assist with fault isolation during install and service.

The dome accommodates RS-422, Manchester and SensorNet protocols, making it compatible with most American Dynamics controller or matrix switcher/controller systems.

The dome features a COLOUR camera with 22x optical zoom (11x digital) and 470 TV lines resolution, providing a quality, high-resolution picture. The dome also provides user-programmable presets and patterns.

| Controller                    | SensorNet | Manchester | RS-422    |
|-------------------------------|-----------|------------|-----------|
| ADTT16E                       | 96        | N/A        | N/A       |
| ADTT16E via RCSN422           | N/A       | N/A        | 4         |
| MegaPower 48                  | 96        | 64         | 96        |
| MegaPower 168 via CCM         | 64        | 64         | 64        |
| MegaPower 168 via AD 2091     | N/A       | 64         | N/A       |
| MegaPower 168 via AD2083-02B  | N/A       | N/A        | 16        |
| MegaPower 1024 via AD2091     | N/A       | 64         | N/A       |
| MegaPower 1024 via AD2083-02B | N/A       | N/A        | 16        |
| AD2150                        | N/A       | 64         | N/A       |
| AD2150 via AD2083-02B         | N/A       | N/A        | 16        |
| VM96                          | Unlimited | N/A        | Unlimited |

## Technical Specifications

Mechanical dimension of the Optima LT:

Dimensions (H x D):

In-Ceiling Model:

Total: 301 x 190.5 mm (11.9 x 7.5 in)  
 Above Ceiling: 207.4 x 190.5 mm (8.2 x 7.5 in)  
 Below : 92.7 x 178 mm (3.65 x 7.0 in)

Integral Housing Model: 303 x 243.5 mm (11.9 x 9.60 in)

Weight:

In-Ceiling ModelC: 2.5 kg (5.50 lbs)  
 Integral Housing Model: 2.7 kg (6.10 lbs)

## Product Codes

RASELHS-1

Dome, SpeedDome Optima LT, Hard ceiling mount Colour camera module, 22optical , 11x digital , 470+ TVL, PAL, Smoke bubble, Sensornet and Manchester protocol only and no alarm input .

RASELHC-1

DOVE KIT : SpeedDome Optima LT, Hard ceiling mount ,Colour camera module, 22x, 450+ TVL, PAL, Clear bubble, Sensornet and Manchester protocol only and no alarm input

RASELPS-1

DOVE KIT : SpeedDome Optima LT, Indoor Pendant, COLOUR Camera Module, 22x, 450+TVL, PAL, Smoke Bubble, Sensornet and Manchester protocol only.

RASELPC-1

DOVE KIT : SpeedDome Optima LT, Indoor Pendant, COLOUR Camera Module, 22x, 450+TVL, PAL, Clear Bubble, Sensornet and Manchester protocol only and no alarm input



## Features

- Motion detection provides the ability to trigger multiple user-specified actions
- 96 preset store camera parameters (controller dependent)
- 16 patterns including expanded commands and duration
- 16 preset sequences
- Advanced DSP CCD camera
- 23x optical zoom with 10x digital zoom
- Accepts select competitors protocols (see your sales representative for details)
- Freeze frame on presets (user-selectable on/off)
- Open shutter to capture images in very low light
- Wide dynamic range
- Select from two housing/eyeball assembly colours: black or white
- Infrared mode
- Continuous autofocus/Zoom adjusted programming
- Dome usage statistics
- Unshielded twisted pair (UTP) with video transmission enabled as standard

## ULTRA VIIIE SpeedDome® Day/Night Enhanced Programmable Dome Camera

The current state-of-the-art, Speed Dome Ultra VII Day/Night Enhanced utilises a 23x optical zoom combined with a 10x digital zoom, providing a 230x total zoom.

Digital signal processing (DSP 6) provides enhanced clarity, colour and detail in well lit or low light applications.

The dome's internal multi-protocol receiver enables the dome to be connected directly to a host of systems including those from other vendors.

Motion detection monitors areas of interest, and when triggered provides the ability to call a preset, generate an alarm to a matrix or a controller, initiate a sequence, set an output or monitor an area as long as motion is present.

An option feature freezes the image when moving to a preset thereby reducing hard drive space when the video is digitally recorded.

Privacy zones can be set up to prevent users from viewing sensitive areas. The dome's direction indicators, which can be displayed on the monitor, denote the direction the dome is pointing, the direction in which it is moving, and the dome's azimuth (degree of tilt).

The dome supports up to sixteen user-definable areas. The dome's advanced alarm handling enables alarms to be processed internally by the dome, externally by the controller, or by both the dome and the controller. A "home position" feature allows the users to establish a default preset, sequence or pattern for the dome when the dome is not in use.

The dome had the ability to provide statistics on pan, tilt and zoom usage indicating how little or how often the dome is controller.

Other features include wide dynamic range, infrared mode, password-protection, dome-generated programming on-screen text, and user-definable settings for features such as line-lock, maximum zoom, direction indicators, proportional flip, AGC and white balance.

### Additional Benefits

- Supports SensorNet RS-422 AD UTC and Manchester protocols
- Dome-generated on-screen text including direction indicators
- Up to eight privacy zones
- Programmable presets, patterns and area names
- Direct Set feature provides fast access to the most frequently used dome features.
- Alarm inputs and outputs
- Password protection
- Automate home position
- Automatic proportional flip and Automatic Gain Control, line-lock and white balance (user-selectable on/off)

# Chapter 1 - Cameras and Domes

## Two Mounting base options

The housing/eyeball assembly twist locks into both mounting bases. The I/O board base connects the housing/eyeball assembly in one step. Power, communication and video cables (or composite cable) are connected one time to an I/O PC board in the mounting base, so the assembly is simply "twist-locked" onto the base.

Service and maintenance are easy and can be accomplished - without a ladder or lift - via the Installation/Removal Tool.

The I/O board mounting base supports four alarm inputs and four alarm outputs as well as power and communication LEDs.

The standard base connects the housing/eyeball assembly in two steps. First power, communication, and video cables (or composite cable) are inserted through the base and attached to the assembly. Then the assembly is connected to the base. The standard mounting base supports one alarm input and one alarm output. The Installation/Removal Tool cannot be used to install this configuration.

## Technical Specification

### Operational

|                        |  |
|------------------------|--|
| Manual Pan/Tilt Speed: | 0.25° -100° per second (based on zoom position)  |
| Preset Pan/Tilt Speed: | 220° per second maximum  |
| Pan Travel:            | 360° continuous  |
| Tilt Travel:           | 110°   |
| Pan/Tilt Accuracy:     | 0.5°   |
| ZoomFocus Accuracy:    | 0.5%   |
| Total Zoom:            | 230x   |
| Optical Zoom:          | 23x  |
| Digital Zoom:          | 10x  |
| Zoom Pause:            | 23x or 35x   |
| Zoom Stop:             | Selectable: 23x, 35x (zoom pause default) 46x, 69x, 92x (zoom stop default) 115x, 138x, 161x, 184x 207x, and 230x. |

### Alarm Outputs:

With I/O Board: 4 open collector drivers at 12VDC  
40mA

Without I/O Board: 1 open collector driver at 12VDC  
40mA

Menu languages: English, French, German, Italian  
Spanish and Portuguese

## Specification of the Camera of the Ultra 7E Day and Night

### PAL

|                   |  |
|-------------------|--|
| Effective Pixels: | 752 (H) x 582 (V) pixels                                     |
| Scanning:         | 652 lines, 50 fields, 25 frames                              |
| Horizontal:       | 15.625kHz  |
| Vertical:         | 50Hz   |
| Shutter speed:    | Auto/Manual (1/1.5-1/30,000)                                 |
| All cameras:      |  |
| White Balance:    | Through the lens (TTL) Automatic Tracing White Balance (ATW) |

|                        |  |
|------------------------|--|
| Horizontal Resolution: | 470 lines  |
| Imager:                | Interface transfer 1/4 inch CCD array  |
| Scanning System:       | 2.1 Interface  |
| Video Output:          | 1.0 Vp-p, 75Ω Composite  |
| S/N Ratio:             | >50dB (typical)  |
| Minimum Illumination:  | Better than 0.5 lux (20 IRE, AGC) on 0.03 lux with 1/4 second open shutter<br>0.01 lux with 1/4 sec open shutter<br>0.01 lux in black and white IR mode<br>0.009 lux in black and white mode with 1/4 sec open shutter |

## Product Codes

**RAS917LSE-1** SpeedDome Ultra VIIe, colour cam, D/N 23X TVL



## Features

- 22x optical zoom with 11x digital magnifier (242x total zoom)
- Open shutter to capture images in very low light
- Continuous autofocus
- Dome usage statistics
- Eight privacy zones
- 96 presets

## SpeedDome®Ultra VII Programmable Dome Camera

The current state-of-the-art, SpeedDome Ultra VII features a 22x optical zoom, combined with its 11x digital zoom, provides the power of 242x total zoom. Digital signal processing (DSP 5) provides enhanced clarity, colour and detail in well lit or low light applications. The dome's internal multi-protocol receiver enables the dome to be connected directly to a host of systems including those from other vendors.

An optional feature freezes the image when moving to a preset thereby reducing hard drive space when the video is digitally recorded. Privacy zones can be set up to prevent users from viewing sensitive areas. The dome's direction indicators, which can be displayed on the monitor, denote the direction the dome is pointing, the direction in which it is moving, and the dome's azimuth (degree of tilt). The dome supports up to sixteen user-definable areas.

### RUIOB-REVA

The I/O board base connects the housing/eyeball assembly in one step.

Power, communication, and video cables (or composite cable) are connected one time to an I/O PC board in the mounting base, so the assembly is simply "twist-locked" onto the base.

The I/O board mounting base supports four alarm inputs and four alarm outputs as well as power and communication LEDs.

The I/O board base provides unsurpassed ease of installation, service, and maintenance .

The dome's advanced alarm handling enables alarms to be processed internally by the dome, externally by the controller, or by both the dome and the controller. A "home position" feature allows users to establish a default preset or pattern for the dome when the dome is not in use. The dome has the ability to provide statistics on pan, tilt and zoom usage.

Other features include password protection, dome-generated programmable on-screen text, and user-definable settings for features such as line-lock, maximum zoom, direction indicators, proportional flip, AGC and white balance.

The SpeedDome Ultra Outdoor Housing is available to extend surveillance to outdoor environments. The housing now features a reinforced Outdoor Housing as standard and a Heavy Duty Vandal Resistant Housing Kit option.

### RUPTB-REVA

The standard base connects the housing/eyeball assembly in two steps.

First, power, communication, and video cables (or composite cable) are inserted through the base and attached to the assembly.

Then the assembly is connected to the base. The standard mounting base supports one alarm input and one alarm output.

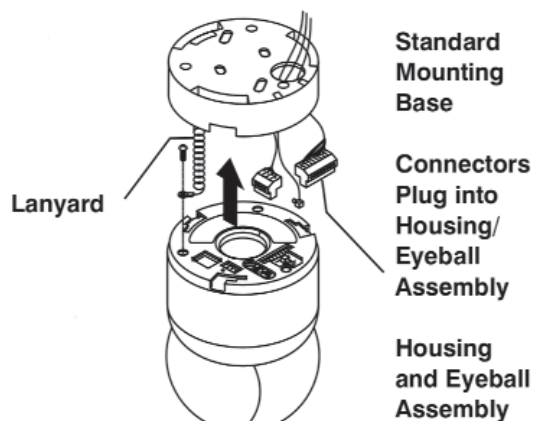
The standard base is the value priced mounting base alternative.

Daisy chain configuration of control wiring is enabled:

- For RS-422: 10 domes at a maximum distance of 1 km (3000 ft) on two 22 AWG Shielded twisted pairs (STP).
- For SensorNet: 32 devices at a maximum distance of 1 km (3000 ft) on one 22 AWG Unshielded twisted pair (UTP).

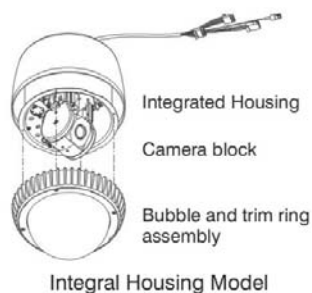
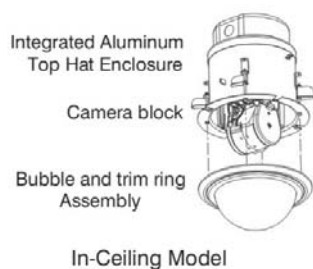
For Manchester: 3 domes at a maximum distance of 1500meters (5000 ft) on one 18 AWG Shielded twisted pair (STP).

|              |                       |
|--------------|-----------------------|
| Lens Design  | Aspherical            |
| Aperture     | f1.6                  |
| 4 mm.        | 47.0° (H) x 35.2° (V) |
| 88 mm        | 4.0° (H) x 3.0° (V)   |
| Focal Length | 4 to 88 mm            |





# Chapter 1 - Cameras and Domes



## Black/White Camera Only

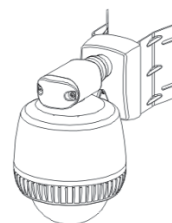
Horizontal Resolution . . . . . 500 lines at centre

Minimum Illumination . . . . . 0.008 lux (20 IRE, AGC on) 0.004 lux with 1/4 sec open shutter

## Colour Camera Only

Horizontal Resolution . . . . . 470 lines at centre

Minimum Illumination . . . . . 0.3 lux (20 IRE, AGC on) 0.02 lux with 1/4 sec open shutter



## Product Codes

RAS915LS-1      SpeedDome Ultra VII, B/W m, 22X, 500TVL  
RAS916 LS-1      SpeedDome Ultra VII, Colour mod, 22X, 470TVL



## Features

- Identical in appearance to the fully featured SpeedDome Ultra
- Multiple mounting options
- Friction bearings hold camera in set position  
Interchangeable with SpeedDome Ultra(fits standard and I/O board mounting bases)
- Powerful visual deterrent
- 1.5 lux, minimum illumination
- 330 line colour camera inside
- Manual focus, zoom and iris adjustments
- Manual 3.5 to 8.0 mm variable focal lens
- Camera and eyeball of drone can be manually adjusted after installation

## Drone and Dummy Domes

The SpeedDome Ultra Drone II is a fixed camera housed inside the SpeedDome Ultra chassis.

This 330 line colour camera - with its 1/3-inch, manual vari-focal, 3.5 mm to 8.0 mm lens - provides a value driven alternative for users who require fixed camera coverage, but like the appearance and deterrence of a functional dome camera.

The 370° pan and 90° tilt mechanism enables the internal camera and the eyeball to be manually positioned in any orientation. The friction bearings hold the camera in that fixed position, pointing at the desired camera view. The manual lens controls allow for zoom, iris and focus adjustments as necessary.

For maximum flexibility, the drone can accommodate both types of SpeedDome Ultra mounting bases - the standard mounting base (RUPTB) and the I/O board mounting base (RUIOB).

This means that the drones are interchangeable with SpeedDome Ultra without the need for any re-cabling. The ability to change the domes allows customers to install the dummy domes at a customers premises and then replace them with programmable domes as budgets and/or needs change. In addition, customers can interchange the dummy and the functional domes as surveillance requirements change.

The dummy dome is also available with no fixed camera or lens assembly.

## Technical Specifications

### SpeedDome Ultra Drone II with Fixed PAL Camera module RAS614LS-1

|                      |   |
|----------------------|---|
| Manual Viewing Angle | 3.5 to 8.0 mm variable focal lens<br>3.5 mm : 78° H x 58° V<br>8.0 mm : 35° H x 27° V   |
| Manual focus         | zoom and iris adjustments<br>1.5 lux, minimum illumination<br>Camera and eyeball of drone can be manually adjusted after installation |

### Drone RHOPTDOME

|                          |   |
|--------------------------|---|
| Description              | Optima, indoor ceiling mount, smoke bubble , no cameras , no lenses . |
| Housing                  | Black anodized aluminum   |
| Dimensions               | (H x D) Total :252.9 x 245 mm   |
| Above Ceiling            | 158 x 187.6 mm  |
| Below Ceiling            | 94.9 x 245 mm   |
| Weight                   | 1.32 kg (2.90 lbs)  |
| Bubble                   | Smoked acrylic optical grade  |
| Maximum Camera/Lens Size |   |
| Dimensions               | (H x W x D) 165 x 51 x 64 mm  |

## Product Codes

|            |   |
|------------|---|
| RAS614LS-1 | SpeedDome Ultra Drone II                              |
| RDULTRA    | Dummy Dome Non functional, no camera or lens assembly |
| RHOPTDOME  | Drone, Optima, indoor ceiling mount, smoke bubble     |



## Features

- Controls up to sixteen video inputs
- Compatible with SensorNet domes (SpeedDome Ultra and SpeedDome Optima series)
- Controls pan/tilt/zoom functions
- Up to 96 programmable presets per dome
- Three programmable patterns per dome
- One programmable sequence
- Up to four simultaneous dome input alarms
- Supports ten different languages
- Backlit LCD display
- Easily interfaces with the Intellex Digital Video Management System for dome control

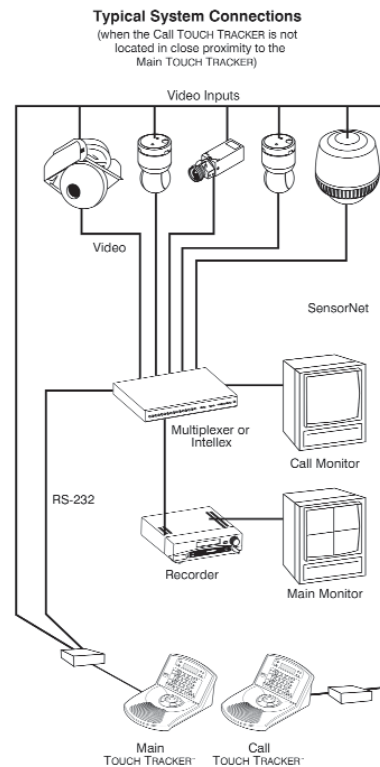
## ADTT16E Advanced Dome Controller

The ADTT16E Advanced Dome Controller, ergonomically designed for ease of operation, is the perfect controller for any small surveillance application.

This programmable video controller allows you to control up to sixty-four SensorNet programmable domes, including both indoor and outdoor versions of SpeedDome® Ultra and SpeedDome Optima. The controller's tracker ball provides pan/tilt control of the currently selected dome. Buttons for lens zoom, focus and iris functions are located near the tracker enabling one handed operation. Standard features include programming/control of up to 96 pre-sets and three patterns per dome.

The ADTT16E can be used as a stand-alone unit for control of a single video input or several inputs on dedicated monitors. When used in conjunction with a multiplexer, or Intellex Digital Video Management System, the controller can define and display a sequence of up to sixteen video inputs on a single monitor. The inputs can also be displayed in multi-screen format.

The system can manage up to four simultaneous dome alarm inputs; this ensures that all alarm events are recognised, even if more than one alarm occurs simultaneously. The ADTT16E supports ten languages and easily integrates with Intellex for dome control.



## Product Codes

**ADTT16E-REVA** Dome Controller, Touch Tracker, English layout, SensorNet, controls up to 64 cameras/domes, UK power cord



## Features

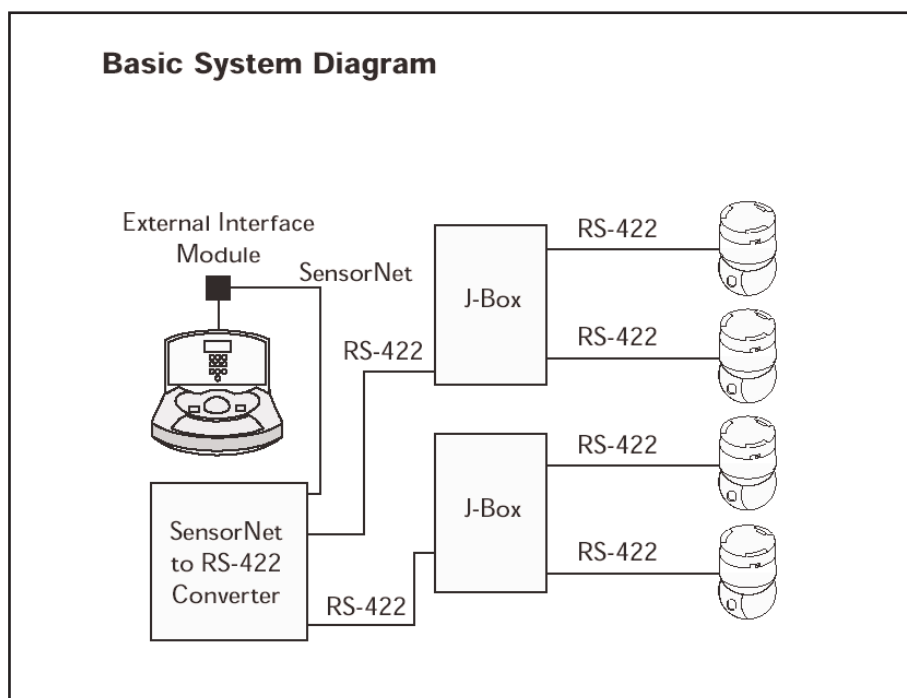
- Allows ADTT16E systems to control existing RS-422 SpeedDome Series domes
- Class 2 LPS Certification
- Universal mount design
- Supports four presets per suitably equipped dome
- Supports three patterns per suitably equipped dome, including apple peel
- Supports proportional speed dome control and dome flip features
- Comprehensive diagnostics with front panel indicators

## RCSN422 SensorNet to RS-422 Code Converter

The SensorNet to RS-422 Code Converter allows an ADTT16E controller to control existing RS-422 SpeedDome® Series domes. The Converter receives SensorNet communication from the ADTT16E controller and converts it into RS-422 protocol for use by the domes. This provides a practical and price competitive upgrade path from older RS-422 based systems - in particular the VM1 - to the newer SensorNet-based ADTT16E controllers.

The Converter permits upgrades without having to replace existing cabling or domes. This minimises additional installation expense, system downtime and disruptions. Upgrading to ADTT16E provides proportional variable speed dome control and intuitive access to features like dome flip, apple peel, and repeat pattern.

In addition, SensorNet domes can be added to the system, thus allowing users to take advantage of SensorNet installations. The converter includes seven RS-422 output ports. The ports use pluggable Euro-style screw terminal connectors, each with a dual colour data LED. The converter has one SensorNet port to accommodate the ADTT16E controller and seven RS-422 output ports.



## Product Codes

RCSN422

SensorNet to RS422 protocol converter



### Features

- Reinforced high impact design
- Vandal Resistant option
- Four tamper-proof screws with driver bit supplied
- Ceiling, pole, roof, wall and corner mounts available

### SpeedDome Indoor Dome Housing

The SpeedDome Ultra indoor dome housing allows the SpeedDome Ultra dome to be installed indoors using the same design as found in the SpeedDome Ultra outdoor housing. It is available in standard and vandal resistant options.

The housing is made of a reinforced fibreglass high impact polycarbonate material along with stabilised trim ring and top cover. The bubble assembly is affixed to the top via tamper-proof screws.

### Product Codes

|            |   |
|------------|---|
| ADSDUPIHS  | Dome housing, Ultra (indoor), smoke bubble                    |
| ADSDUPIHC  | Dome housing, Ultra (indoor), clear bubble                    |
| ADSDUPIVRC | Dome housing, Ultra (indoor), clear bubble, vandal resistant  |
| ADSDUPIVRS | Dome housing, Ultra (indoor), smoked bubble, vandal resistant |



## Features

- Four alarm inputs one output
- On demand defog and defrost heater cycle modes
- Reinforced high impact design
- Vandal resistant option
- Temperature-controlled interior environment
- Meets IP66/NEMA4 specifications
- Class 2 LPS certified
- Four tamper-proof screws with driver bit supplied
- Surge and lightning protection of video communications alarm input and output and power
- Ceiling, pole, roof, wall and corner mounts available
- Flying lead connector with Euro-style screw terminal
- Allows daisy chain configuration of control wiring
- J-Bows available to facilitate wiring of housing and dome
- Prevents and removes accumulated ice in one hour

## SpeedDome Outdoor Dome Housing

The SpeedDome Ultra outdoor housing allows the SpeedDome Ultra dome to be installed in virtually any environment. The housing is temperature controlled and weatherproof, protecting the dome from wide range of outside temperature. In extreme temperatures, the housings built-in thermostat and heater prevents ice from forming on the outside bubble.

In addition to the thermostatically controller heater and blower, you can even manually activated a defog and defrost mode using your American Dynamics controller. The housing is made of a reinforced fibreglass high impact polycarbonate material along with a UV stabilised sun shade trim ring and top cover. The bubble assembly is affixed to the top via tamperproof screws.

## Technical Specification

Maximum Distance from Power Source  
Dome and housing to be connected to a Class 2 LPS, 24 VAC, 80 VA power source (do not exceed maximum outdoor Class 2 ratings of 30 VAC, 100 VA).

|                                      | 18 AWG | 16 AWG | 14 AWG |
|--------------------------------------|--------|--------|--------|
| <b>Low Line Voltage 102/204Va.c.</b> | 60m    | 100m   | 160m   |
| <b>Low Line Voltage 90/180Va.c.</b>  | 30m    | 50m    | 80m    |

## Product Codes

- RHODUL-05** Dome housing, outdoor, Ultra, I/O board, clear bubble, 4 alarm inputs, white
- RHODUL-06** Dome housing, outdoor, Ultra, I/O board, smoked bubble, 4 alarm inputs, white
- RHODUL-05VR** Ultra OD Vandal Resistant Housing, Clear Bubble
- RHODUL-06VR** Ultra OD Vandal Resistant Housing, Smoked Bubble
- RHCLVRKIT** To Upgrade an existing standard external housing with clear bubble to become vandal resistant
- RHSMKVRKIT** To Upgrade an existing standard external housing with smoke bubble to become vandal resistant



# Chapter 1 - Cameras and Domes







## Dome Mounts







American Dynamic's family of programmable domes is complemented by a comprehensive line of mounts to accommodate any indoor or outdoor mounting requirement. These mounts are compatible with the SpeedDome Ultra series and the SpeedDome Optima series of programmable domes.

Choose from a variety of wall mounts, corner mounts, pole mounts, ceiling mounts, pendant mounts and over the roof mounts for both indoor and outdoor applications. Depending upon the requirements of the application indoor mounts can be used with or without an optional bubble. The mounts innovative end cap and pendant cap design enable the mount and housing to be assembled on the ground allowing for a safe, quick and efficient installation.

## Indoor Mounting Options



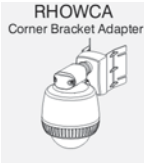




|   | Description  | Dome Compatibility                                  | Weight | Dimensions HxWxD (mm)                  | Construction  |
|---|--|---|--------|--|---|
|  <p><b>RHIUTH</b><br/>Top Hat Housing with Trim Ring</p>          | <b>RHIUTH</b> - This Top Hat housing with trim ring and plastic base mounts directly to a ceiling or to an indoor mounting structure. It is a metal enclosure that houses the dome. The Trim Ring is slightly larger so that it completely covers the Top Hat's metal rim. The RHIUTH is plenum rated.   | SpeedDome<br>Ultra Series Only                      | 0.77Kg | 157 x 175 x 175                        | Galvanised Steel  |
|  <p><b>RHIUIB</b><br/>I-Beam Clamp</p>                           | <b>RHIUIB</b> - This clamp enables the dome to suspend from an I-Beam. The I-Beam clamp is installed in combination with the RHOPN ceiling pendant mount to affix the Top Hat housing / dome assembly in I-Beam installations.   | SpeedDome<br>Ultra Series or<br>SpeedDome<br>Optima | 1.5Kg  | 6.7 x 293 x 127                        | Steel   |
|  <p><b>RHIUHC</b><br/>Hard Ceiling Bracket</p>                  | <b>RHIUHC</b> - This bracket enables the Top Hat housing to be recessed in the ceiling (requires RHIUTH Top Hat). The bracket is mounted to the Top Hat and installed in a hole cut in the ceiling - perfect for sheet rock, plaster or solid ceilings.  | SpeedDome<br>Ultra Series Only                      | 0.70Kg | 212 x 179 x 56                         | Galvanised Steel  |
|  <p><b>RHIUFB</b><br/>Fixed Bracket</p>                         | <b>RHIUFB</b> - This bracket enables the Top Hat housing to be recessed in the ceiling or in a 2 foot drop ceiling tile (requires RHIUTH Top Hat). The bracket is mounted to the Top Hat housing and installed in a hole cut in the ceiling. The bracket distributes the weight of the dome and Top Hat housing across the T-Bar framework of the ceiling. It is also very useful for sheet rock, plaster or solid ceilings. | SpeedDome<br>Ultra Series Only                      | 1.8Kg  | 180 x 632 x 100                        | Galvanised Steel  |
|  <p><b>RHIUAB</b><br/>Adjustable Bracket</p>                    | <b>RHIUAB</b> - This bracket enables the Top Hat housing to be recessed in drop ceilings that utilise other than 2 foot grids (requires RHIUTH Top Hat). The bracket distributes the weight of the dome and the Top Hat housing across the T-Bar framework of the ceiling and is adjustable from 632 to 1219 mm.   | SpeedDome<br>Ultra Series Only                      | 2.3Kg  | 180 x 1219 x 100                       | Galvanised Steel  |
|  <p><b>RHIUCM</b><br/>Wall/Corner Mount</p>                     | <b>RHIUCM</b> - This mounting structure attaches directly to a flat wall, inside corner or outside corner. The Top Hat housing / dome assembly mounts to the structure for a quick and easy installation.  | SpeedDome<br>Ultra Series Only                      | 1.8Kg  | With dome installed<br>224 x 101 x 201 | Galvanised Steel  |
|  <p><b>RHIULWM</b><br/>Long .6 m (24 in) Wall/Corner Mount</p>  | <b>RHIULWM</b> - This mount positions the dome away from the wall, enabling it to see over furniture, shelving and displays. The mounting structure attaches directly to a flat wall, inside corner or outside corner. The Top Hat housing / dome assembly also mounts to this structure.  | SpeedDome<br>Ultra Series Only                      | 2.7Kg  | With dome installed<br>413 x 123 x 772 | Painted Steel   |
|  <p><b>RHOSW</b><br/>Short Wall Mount with End Cap Assembly</p> | <b>RHOSW</b> - This mounting structure attaches directly to a flat wall. When used with the RHOWCA corner bracket adaptor or RHOWPA pole strap adaptor, this short mount can be affixed to corners as well as poles. This mount's compact design with mounting hole cover hides the mounting plate to provide a clean and aesthetically pleasing appearance.   | SpeedDome<br>Optima Only                            | 1.3Kg  | With dome installed<br>366 x 218 x 282 | Powder coated aluminium, ABS plastic and fibre filled PVC |

# Chapter 1 - Cameras and Domes

|   | Description  | Dome Compatibility             | Weight | Dimensions HxWxD (mm)   | Construction   |
|---|--|--------------------------------|--------|---|--|
|  <p><b>RHOLW</b><br/>Long Wall Mount<br/>with End Cap<br/>Assembly</p> | <p><b>RHOLW</b> - This mount positions the dome away from the wall, enabling it to see over furniture, shelving and displays. This mounting structure attaches directly to a flat wall. When used with the RHOWCA corner bracket adaptor or RHOWPA pole strap adaptor, this long wall mount can be affixed to corners as well as poles. This mount's compact design with mounting cover hides the mounting plate to provide a clean and aesthetically pleasing appearance.</p> | SpeedDome<br>Optima Only       | 1.7Kg  | With dome installed<br>366 x 218 x 587                            | Powder coated<br>aluminium, ABS<br>plastic and fibre<br>filled PVC |
|  <p><b>RHOWCA</b><br/>Corner Bracket Adaptor</p>                       | <p><b>RHOWCA</b> - This adaptor bracket enables the long and short wall mounts (RHOSW and RHOLW) to affix to outside corners. Its powder coated aluminium construction ensures an extremely sturdy installation.</p>   | SpeedDome<br>Optima Only       | 0.79Kg | 185 x 210 x 125   | Powder Coated<br>Aluminium   |
|  <p><b>RHOWPA</b><br/>Pole Strap Adaptor</p>                           | <p><b>RHOWPA</b> - This adaptor bracket enables the long and short wall mounts (RHOSW and RHOLW) to affix to outside corners. This option contains stainless steel straps that can be daisy chained to accommodate any size pole. The kit also includes all the necessary mounting hardware. Its powder coated aluminium construction ensures an extremely sturdy installation.</p>  | SpeedDome<br>Optima Only       | 0.5Kg  | 138 x 79 x 27<br>(Straps Support)<br>53 to 951<br>(Pole Diameter) | Powder Coated<br>Aluminium and<br>Stainless Steel                  |
|  <p><b>RHSDA</b><br/>Ceiling Pendant Mount</p>                         | <p><b>RHSDA</b> - This adaptor allows a SpeedDome Ultra to be retrofitted into an existing SpeedDome housing via the housing's snap-hinge mounts, making installation fast and easy. A shirt assembly is included with this SpeedDome Housing adaptor kit to compensate for the smaller dimensions of the SpeedDome Ultra.</p>   | SpeedDome Ultra<br>Series Only | 1.4Kg  | 106 x 205 x 250   | Anodised<br>Aluminium  |

# Chapter 1 - Cameras and Domes

## Outdoor Mounting Options

|  | Description  | Dome  | Weight | Dimensions<br>HxWxD (mm)  | Construction   |
|--|--|---|--------|---|--|
|  <p><b>RHOSW</b><br/>Short Wall Mount<br/>with End Cap<br/>Assembly</p> | <p><b>RHOSW</b> - This mounting structure attaches directly to a flat wall. When used with the RHOWCA corner bracket adaptor or RHOWPA pole strap adaptor, this short wall mount can be affixed to corners as well as poles. This mount's compact design with mounting cover hides the mounting plate to provide a clean and aesthetically pleasing appearance.</p>  | SpeedDome Ultra Series and SpeedDome Optima | 1.3Kg  | With dome installed<br>366 x 218 x 282                            | Powder Coated Aluminium, ABS plastic and fibre filled PVC                  |
|  <p><b>RHOLW</b><br/>Long Wall Mount<br/>with End Cap<br/>Assembly</p>  | <p><b>RHOLW</b> - This mount positions the dome away from the wall, enabling it to see over awnings, soffits and landscaping. This mounting structure attaches directly to a flat wall. When used with the RHOWCA corner bracket or RHOWPA pole strap adaptor, this long wall mount can be affixed to corners as well as poles. This mount's compact design with mounting cover hides the mounting plate to provide a clean and aesthetically pleasing appearance.</p> | SpeedDome Ultra Series and SpeedDome Optima | 1.7Kg  | With dome installed<br>366 x 218 x 587                            | Powder Coated Aluminium, ABS plastic and fibre filled PVC                  |
|  <p><b>RHOWCA</b><br/>Corner Bracket Adaptor</p>                        | <p><b>RHOWCA</b> - This adaptor bracket enables the long and short wall mounts (RHOSW and RHOLW) to affix to outside corners. Its powder coated aluminium construction ensures an extremely sturdy installation.</p>   | SpeedDome Ultra Series and SpeedDome Optima | 0.79Kg | 185 x 210 x 125   | Powder Coated Aluminium  |
|  <p><b>RHOWPA</b><br/>Pole Strap Adaptor</p>                           | <p><b>RHOWPA</b> - This adaptor bracket enables the long and short wall mounts (RHOSW and RHOLW) to affix to outside corners. This option contains stainless steel straps that can be daisy chained to accommodate any size pole. This kit also includes all the necessary mounting hardware. Its powder coated aluminium construction ensures an extremely sturdy installation.</p>   | SpeedDome Ultra Series and SpeedDome Optima | 0.5Kg  | 138 x 79 x 27<br>(Straps support)<br>53 to 951<br>(Pole diameter) | Powder Coated Aluminium and Stainless Steel                                |
|  <p><b>RHOPN</b><br/>Outdoor Pendant Mount</p>                        | <p><b>RHOPN</b> - This mount allows an outdoor dome housing to be suspended from an outdoor ceiling or horizontal surface. It can be installed using either 1.25" NPT threaded pipe or rigid conduit, either new or existing up to 3 metres in length.</p>   | SpeedDome Ultra Series and SpeedDome Optima | 1.8Kg  | 115 x 120 x 120   | Powder Coated Aluminium and ABS Plastic                                    |
|  <p><b>RHOTR</b><br/>Over-The-Roof Mount with End Cap Assembly</p>    | <p><b>RHOTR</b> - This mount affixes directly to any vertical roof wall or parapet. This mount positions the dome away from the wall, enabling it to see over awnings, soffits and landscaping. Its opposing wing brackets ensure a secure installation to the roof surface, while allowing the pole to be repositioned for easy service access.</p>   | SpeedDome Ultra Series and SpeedDome Optima | 5.7Kg  | 1098 x 243 x 473  | Powder Coated Aluminium, Stainless Steel, ABS plastic and fibre filled PVC |
|  <p><b>ROTTF</b><br/>Floor Adaptor for RHOTR</p>                      | <p><b>ROTTF</b> - This adaptor enables the RHOTR over-the-roof mount to be installed on horizontal and vertical roof / parapet surfaces. Multiple fastening positions ensure versatility for mounting on any combination of surfaces or angles.</p>  | SpeedDome Ultra Series and SpeedDome Optima | 2.59Kg | 369 x 240 x 240   | Powder Coated Aluminium  |



## Features

- SensorNet or RS-422 versions available, 230 VAC input
- Meets Class 2 power requirements
- IP66 environmental protection rating
- Indoor or outdoor
- Quick-release lockable cover latches
- Can be conduit connected (standard 1/2-inch knockouts with fitting supplied)
- Supports SpeedDome Ultra/Optima programmable domes and SpeedDome
- Ultra/Optima outdoor housings
- Wiring diagram, installation guide, and test procedures on inside cover of J-Box enclosure
- Diagnostic LEDs/Surge protection

## External Junction Boxes RJ856UD-1 One-Position RS422 J-Box / RJ1SNUD-1 One-Position SensorNet J-Box

These weather-tight, single-position J-Boxes provide Class 2 LPS power and data communications for one programmable dome or one dome and outdoor dome housing.

Each J-Box contains a single input-either SensorNet or RS-422-that receives data from the compatible controller and feeds that data to the dome. The J-Boxes meet the Class 2 power requirements of the SpeedDome Ultra/Optima outdoor housings, and are IP66 rated for protection against moisture, dust, ice, wind, and insects.

The hinged front cover can be secured with captive screws, and contains two quick-release cover latches that can be locked for further security. The inside of the enclosure's cover contains a wiring diagram, quick installation instructions, and test procedures specific to that J-Box.

The units contain an on/off power switch as well as diagnostic LEDs for host, aux, dome activity, noise, and power. Surge protection circuitry within the J-Box arrests unexpected volt-age surges on exterior power and data lines to protect interior equipment. The J-Boxes can be surface-mounted to concrete, wood, or sheet rock with supplied hardware. They can also be mounted to a ceiling or to a pole with user-supplied hardware.

## Technical Specification

### SensorNet Serial Communication Interface

|                                |   |
|--------------------------------|---|
| Cable Distance:                |   |
| J-Box to J-Box:                | 1 km (3000 ft)  |
| Host to J-Box:                 | 1 km (3000 ft)  |
| J-Box to Dome:                 | Limited by the length of the low-voltage AC power cable   |
| Maximum Loads:                 | 32/node   |
| Cable Type:                    | Single unshielded twisted pair (UTP), 22 AWG, non-polarised   |
| Surge Protection:              | Isolation transformer coupled, 2000 Vrms, 10 kA, 8/20 $\mu$ sec impulse rated gas tube, TVS rated at 1 watt |
| Host, Aux and Dome Connectors: | Eurostyle plug  |

### RS-422 Serial Communication Interface

|                   |   |
|-------------------|---|
| Cable Distance    |   |
| J-Box to J-Box:   | 1 km (3000 ft)  |
| Host to J-Box:    | 1 km (3000 ft)  |
| J-Box to Dome:    | Limited by the length of the low-voltage AC power cable           |
| Maximum Loads:    | 10 daisy chained  |
| Cable Type:       | Two shielded twisted pair (STP), 22 AWG, polarised                |
| Surge Protection: | 10 kA 8/20 $\mu$ sec impulse rated gas tube, TVS rated at 1,500 W |
| Connectors        |   |
| Host:             | Spring-loaded   |
| Aux:              | Spring-loaded   |
| Dome:             | Eurostyle terminal  |

## Product Codes

|           |   |
|-----------|---|
| RJ856UD-1 | Junction Box 230v ac input RS422 protocol       |
| RJ1SNUD-1 | Junction Box 230v ac input , SensorNet protocol |



## Features

- Supports up to six SpeedDome
- SpeedDome Ultra and Optima domes
- Meets Class 2 LPS power requirements
- 230 VAC input
- Hardwire or line card power latch
- Diagnostic LEDs
- Quick-release lockable cover latch
- Surge protection
- On/off switch for field servicing

## Internal Junction Boxes RJ6N Six-Position SensorNet J-Box

The six position J-Boxes provide Class 2 LPS power and data data communications for up to six SpeedDome Series programmable domes. Each J-Box receives data from the compatible controller and feeds that data to the domes. The hinged front cover can be secured with the quick-release cover latch that can be locked for further security.

The units contain an on/off power switch as well as diagnostic LEDs for host, aux, dome activity, noise, and power.

Surge protection circuitry within the J-Box arrests unexpected voltage surges on exterior power and data lines to protect interior equipment.

The J-Boxes can be surface-mounted to concrete, wood, or sheet rock with supplied hardware. They can also be mounted to a ceiling or to a pole with user-supplied hardware.

## Technical Specification

SensorNet Serial Communication Interface

Cable Distance:

J-Box to J-Box: 1 km (3000 ft)

Host to J-Box: 1 km (3000 ft)

J-Box to Dome: Limited by the length of the low-voltage AC power cable

Maximum Loads: 32/node

Cable Type: Single unshielded twisted pair (UTP), 22 AWG, non-polarised

## Product Codes

RJ6SN

Six position Junction box Sensornet protocol 120V/230VAC input



## Features

- Supports up to ten SpeedDome Ultra and Optima domes
- Meets Class 2 LPS power requirements
- 230 VAC input versions
- Diagnostic LEDs mounted on PC board
- Front cover can be secured with a captive screw
- Surge protection
- Hardware or line cord power connection

## RJ860AP Series Ten-Position RS-422 J-Box

The SpeedDome Ultra/Optima ten-position J-Boxes provide Class 2 LPS power and data communications for up to ten SpeedDome Series programmable domes. Each J-Box receives data from the compatible controller and feeds that data to the dome.

The J-Boxes can be surface-mounted to concrete, wood, or sheet rock with supplied hardware.

The units contain diagnostic LEDs for RS-422 communication. Surge protection circuitry within the J-Box arrests unexpected voltage surges on exterior power and data lines to protect interior equipment.

## Technical Specification

RS-422 Serial Communication Interface

Cable Distance:

J-Box to J-Box: 1 km (3000 ft)

Host to J-Box: 1 km (3000 ft)

J-Box to Dome: Limited by the length of the low-voltage AC power cable

Maximum Loads: 10 daisy-chained

Cable Type: Two shielded twisted pair (STP), 22 AWG, polarised

Surge Protection: TVS, 6.2 V, 1 W, .73 A

Connectors

Host: Spring-loaded

Aux: Spring-loaded

Dome: Cinch Jones

## Product Codes

RJ860AP1

Ten position Junction box RS422 protocol 230vac input



### Chapter 2 Camera Lenses

We offer a comprehensive range of Computer lenses. The name is synonymous with quality, reliability and competitive pricing. Our range includes lenses to suit 1/3 and 1/2 inch CCD format cameras, available in Fixed Focal length, Varifocal and Zoom type.

More information on how to select the correct lens is available from the Lenses Sales Information Document which can be downloaded from our website ([www.tycosafetyproducts-europe.com](http://www.tycosafetyproducts-europe.com)).

All our lenses will work with Infra-Red equipment. DD or DC/MS Lenses come with a 90mm lead and are fitted with the standard plug. Our Video Drive Lenses are supplied with a 300mm lead.

Manual Calculation- there are a number of formulas available to calculate the focal length and they are all based on three factors:

The height or the width of the area to be viewed (H) or (W)

The distance between the scene and the camera (D)

The format of the imaging device

#### Formats

Camera Vertical imager dimension (v)

|      |       |
|------|-------|
| 1/3" | 3.6mm |
| 1/2" | 4.8mm |

#### Where:

f = Focal length of the lens

v = Vertical size of the imaging device

D = Distance from the lens to target

V = Vertical size represented by the full screen at D

$$\begin{aligned} f/v &= D/V \\ f &= Dv/V \end{aligned}$$

e.g. We need to achieve a view of a person 1.6 meters tall to represent 10% of the screen height 20 meters from the camera.

Therefore the screen must represent 16 meters at 20 meters away from the camera

For a 1/2" camera the Vertical size of the CCD is 4.8mm

$$f = \frac{20\text{m} \times 4.8\text{mm}}{16\text{m}}$$

$$f = 5.75\text{mm or } 6\text{mm}$$

(Lens calculators are available on request)

#### Did You Know?

##### There are 3 main types of Iris: Manual, Auto Iris and Direct Drive (DC Iris)

**Manual:** This type of lens only has an iris which is manually adjustable by hand and therefore can only be used in areas where the light level is fairly good and constant and there is little effect from changing light levels e.g. sunlight through windows. This allows the use of cameras which have electronic iris to be used.

**Auto:** This type of lens is needed when using cameras outdoors or in areas where the light level is changing or where affected by external sources e.g. sunlight. The lens contains an amplifier which converts the video signal from the camera into a voltage which drives the iris motors on the lens to open or close.

**Direct Drive:** These lenses work in much the same way as auto iris lenses but they do not contain an amplifier. These lenses utilise amplifiers which are built into the camera on which it is to be used. This tends to make them slightly cheaper than auto iris lenses.

## Chapter 2 - Camera Lenses

### Lenses - an Introduction...

*It is important to use the right lens for the light conditions and desired field of view, otherwise the images seen and recorded will not be satisfactory. CCTV Cameras with an integral lens are less expensive but do not offer lens choices and are therefore limited in their usefulness. The important factors that govern the choice of lens are:*

#### Focal Length

Lenses either have a fixed or variable focal length. Manually variable focal length lenses are called Vari-Focal Lenses. Electrically powered variable focal length lenses are called Zoom Lenses and while they are often used in high-end video surveillance systems, they are generally too expensive for use in most systems. The focal length of a lens is usually given in Millimeters (mm). Focal lengths of most CCTV camera lenses vary from 3.6mm to 16mm for fixed focal length lenses, to well over 70mm for zoom lenses. So what does that mean? In general short focal length lenses (e.g. 4mm) have wide fields of view. This is good for close-ups or for seeing a large area. Objects appear smaller, rapidly, as distance from the camera increases. As lens focal length increases, the field of view narrows and more distant objects are easier to define.

#### The Lens Iris

CCTV Cameras that are used in good and constant light conditions (e.g. indoors with electric lighting) will perform satisfactorily with a "Fixed Iris Lens". Fixed Iris lenses with fixed focal length are the least expensive and the most widely used.

In varying light conditions (e.g. outside or inside facing a window ) the iris on the camera will need to open and close to accommodate changes in light intensity, otherwise the camera images will be too bright or too dark.

Lenses with electrically powered irises which automatically adjust as light conditions change are called "Auto Iris Lenses". They are more expensive but do a much better job in varying light conditions.

In constant light conditions that are either dim or very bright, a "Manual Iris Lens" may be the answer. As it's name implies, this type of lens can have the Iris aperture adjusted by hand to give the optimum camera image quality. Pricing for "Manual Iris" lenses is higher than Fixed Iris and lower than Auto Iris lenses.

#### The "F Stop" value of the lens.

While "F Stop" is actually a ratio between focal length and lens aperture, in practice, when comparing lenses of the same focal length, it is an indication of the lens aperture. The smaller the "F Stop" the wider the lens aperture and the more light that lens will let into the camera. This is of particular importance in lenses with adjustable irises (both manual and auto).

### Fixed Focal Lenses Manual Iris

#### Features

- Manual Iris
- Manual Focus with locks screws
- No filter Facility
- These lenses for use on 1/3" CS Mount Cameras only
- All lenses are colour corrected
- Angle of view stated are achieved on a 1/3" camera






| Picture | CCD  | Focal length | F-Stop | IRIS                                   | Lens mount | Angle of view H | Angle of view V | Product Code | Supplier Ref |
|---------|------|--------------|--------|--|------------|-----------------|-----------------|--------------|--------------|
|         | 1/3" | 4.0mm        | 1.2    | Manual Iris & Focus with Lock Screws   | CS         | 63.9"           | 49.1"           | L0412CS      | T0412FICS-3  |
|         | 1/3" | 8.0mm        | 1.2    | No Iris, Manual Focus with Lock Screws | CS         | 34.7"           | 25.9"           | L0812CS      | T0812CS-3    |

## Chapter 2 - Camera Lenses

### Fixed Focal Lenses Auto Iris: VIDEO DRIVE

#### Features

- Manual Iris
- Manual Focus
- No filter Facility
- All lenses are colour corrected






| Picture   | CCD  | Focal length | F-Stop | IRIS  | Lens mount | Angle of view H | Angle of view V | Product Code | Supplier Ref |
|---|------|--------------|--------|---|------------|-----------------|-----------------|--------------|--------------|
|    | 1/2" | 12mm         | 1.4    | Manual Focus with amplifier (Video Drive) plug fitted | CS         | 30.4            | 22.7            | A25152       | HG1214AFCS-3 |
|    | 1/2" | 6mm          | 1.4    |   | CS         | 58.3            | 43.7            | A25151       | HG0614AFCS-3 |
|   | 1/2" | 3.6mm        | 1.6    |   | CS         | 99.2            | 71.7            | A25155       | HG0614AFCS-3 |
|  | 1/3  | 4mm          | 1.6    |   | CS         | 63.9            | 49.1            | 603.002.160  | TG0412AFCS-3 |
|  | 1/3" | 2.6mm        | 1.6    |   | CS         | 98.7            | 74.9            | TG2616       | TG2616AFCS-3 |

## Chapter 2 - Camera Lenses

### Fixed Focal Auto Iris DIRECT DRIVE

#### Features



- Manual Iris
- 4 Pin Plug
- Auto Iris Direct Drive (No Amplifier)

| Picture   | CCD  | Focal length | F-Stop | IRIS   | Lens mount | Angle of view H | Angle of view V | Product Code | Supplier Ref |
|---|------|--------------|--------|--|------------|-----------------|-----------------|--------------|--------------|
|    | 1/2" | 3.6mm        | 1.6    | Manual Focus (no Amplifier) Direct Drive with 4 pin plug & lock screws | CS         | 74.1 degrees    | 99.2 degrees    | LD3616CS     | HG3616FCS-3  |
|    | 1/2" | 6.0mm        | 1.4    |  | CS         | 44.3 degrees    | 58.3 degrees    | LD0614CS     | HG0614FCS-3  |
|    | 1/3" | 2.6mm        | 1.6    |  | CS         | 74.9 degrees    | 98.7 degrees    | LD2616CS     | TG2616FCS-3  |
|   | 1/3" | 4.0mm        | 1.2    |  | CS         | 49.1 degrees    | 63.9 degrees    | LD0412CS     | TG0412FCS-3  |
|  | 1/3" | 8.0mm        | 1.2    |  | CS         | 25.9 degrees    | 34.7 degrees    | LD0812CS     | TG0812FCS3   |

### Varifocal Lenses Manual Iris



#### Features

- Manual Iris
- Manual Focus
- Lock Screws

| Picture   | CCD  | Focal length | F-Stop | IRIS                                 | Lens mount | Angle of view H      | Angle of view V      | Product Code | Supplier Ref     |
|---|------|--------------|--------|--------------------------------------|------------|----------------------|----------------------|--------------|------------------|
|  | 1/3" | 3.5-8mm      | 1.4    | Manual Iris & Focus with lock screws | CS         | 26.6 to 57.6 degrees | 35.4 to 77.6 degrees | L35814CS     | T2Z3514CS2       |
|  | 1/2" | 4.5-10mm     | 1.6    |                                      | CS         | 37.7 to 85.3 degrees | 28.2 to 62.1 degrees | A25366       | TBA<br>H2Z4515CS |

## Chapter 2 - Camera Lenses

### Varifocal Auto Iris Video Drive

| Picture   | CCD  | Focal length | F-Stop | IRIS  | Lens mount | Angle of view H      | Angle of view V      | Product Code | Supplier Ref |
|---|------|--------------|--------|---|------------|----------------------|----------------------|--------------|--------------|
|  | 1/2" | 4.5-10mm     | 1.6    | Manual Focus with Amplifier (Video Drive) & lock screws | CS         | 38.2 to 81.3 degrees | 28.7 to 60.4 degrees | A25367       | HG2Z4516AF3  |
|  | 1/3" | 3.5-8mm      | 1.4    |   | CS         | 35.4 to 77.6 degrees | 26.6 to 57.6 degrees | A25394       | TG2Z3514F3   |

### Varifocal Auto Iris DIRECT DRIVE




#### Varifocal Lenses Auto Iris

Features of the Direct Drive Iris Lenses

- Manual Focus
- No Amplifier (Direct Drive)
- With 4 Pin Plug & Lock Screws

Features of the Video Drive Iris Lenses

- Manual Focus with Amplifier
- Lock Screws
- No Plug

| Picture   | CCD  | Focal length | F-Stop | IRIS  | Lens mount | Angle of view H       | Angle of view V      | Product Code | Supplier Ref  |
|---|------|--------------|--------|---|------------|-----------------------|----------------------|--------------|---------------|
|   | 1/2" | 4.5-10mm     | 1.6    | Manual focus, no amplifier (Direct Drive) with 4 pin plug & lock screws | CS         | 28.7 to 60.34 degrees | 36.2 to 81.3 degrees | LD41016CS    | HG2Z4516FCS-2 |
|  | 1/3" | 3.5-8mm      | 1.4    |   | CS         | 26.5 to 57.6 degrees  | 35.4 to 77.5 degrees | LD35814CS    | TG2Z3514FCS-2 |
|  | 1/3" | 5-50mm       | 1.6    |   | CS         | 3.6 to 53.6 degrees   | 2.7 to 40.2 degrees  | 603.002.166  | T10Z0513FCS   |

### Varifocal Zoom Lenses

#### Varifocal Lenses Auto Iris

Features of the Direct Drive Iris Lenses

- Manual Focus
- No Amplifier (Direct Drive)
- With 4 Pin Plug & Lock Screws



Features of the Video Drive Iris Lenses

- Manual Focus with Amplifier
- Lock Screws
- No Plug

## Chapter 2 - Camera Lenses

### Varifocal Zoom Lenses

Features  
All Video Drive Iris  
49mm Filter

| Picture   | CCD  | Focal length | F-Stop | IRIS                    | Lens mount | Angle of view H     | Angle of view V     | Product Code | Supplier Ref   |
|---|------|--------------|--------|-------------------------|------------|---------------------|---------------------|--------------|----------------|
|    | 1/2" | 8-80mm       | 1.2    | Video Drive with Preset | C          | 4.7 to 44 degrees   | 3.5 to 33.3 degrees | 603.002.164  | H10Z0812AMSP   |
|    | 1/2" | 7.5-120mm    | 1.2    |                         | C          | 3.2 to 46.6 degrees | 2.4 to 35.3 degrees | 603.002.150  | H16Z7516AMSP   |
|    | 1/2" | 12-120mm     | 1.8    |                         | C          | 4.7 to 44 degrees   | 3.5 to 33.3 degrees | 603.002.130  | H10Z0812AMMSP  |
|  | 1/2" | 8-48mm       | 1.2    |                         | C          | 8.0 to 44.6 degrees | 6.1 to 33.5 degrees | 603.002.156  | H6Z0812AMSP    |
|  | 1/2" | 7.5-120mm    | 1.6    |                         | C          | 3.2 to 46.6 degrees | 2.4 to 35.3 degrees | A25218       | 7516AMS        |
|  | 1/2" | 8-80mm       | 1.2    |                         | C          | 4.7 to 44 degrees   | 3.5 to 33.3 degrees | A25177       | H10Z0812AMS    |
|  | 1.2" | 8-48mm       | 1.2    |                         | C          | 8.0 to 44.6 degrees | 6.1 to 33.5 degrees | A25154       | H6Z0812AMS     |
|  | 1/3" | 5.7-34.2     | 1.0 mm |                         | CS         | 8.1 to 45.9 degrees | 6.2 to 34.8 degrees | A25195       | T6Z5710AMS-CS  |
|  | 1/3" | 5.7-57mm     | 1.2    |                         | CS         | 4.7 to 44 degrees   | 3.5 to 33.3 degrees | 603.002.167  | T10Z5712AMS-CS |





### Features

- Reduced Glare lens
- High Quality
- Wide selection of accessories

### Lens Accessories

#### Lens Filters

Many CCTV situations require additional filtering to produce the optimum picture, reduce glare or reflection. These are the most common filters used.

Neutral Density 1 - is used for reducing the overall light levels and also improves contrast. It is used to set up Auto iris lenses when used on colour cameras.

Neutral Density 3 - is a darker filter than the ND1, it is used for setting up monochrome cameras with auto iris lenses, and is sometimes used to reduce the light levels in very intensely lit conditions. Multiple filters can be combined to increase strength.

Infrared Pass - by using an infrared pass filter it is possible to set lens focus accurately for infra red lighting and also simulate the conditions in which the camera will operate at night. This can then have sufficient sensitivity to produce clear pictures, or whether the lamps are powerful enough. This filter cuts out all visible light up to 715nm, only allowing infrared to be seen. Infrared Cut - this filter reduces the infrared content of any scene to a level that is acceptable to the camera.

Natural daylight contains a very high proportion of infrared light and some large areas where there is a lot of sunlight can be subject to glare.

This glare can be reduced by the infrared cut filter and improve picture quality by eliminating much of the unwanted radiation. This filter will not work with infrared light.

Polarising - this filter can be used in similar situations to the infrared cut, typically where a heat haze is present from large sunlit areas or where reflections are produced from windows/windcreens etc. Additionally where cameras overlook water this filter will reduce the shimmering effect and provide a crisper clearer picture. It needs to be rotated on the camera until the required affect has been achieved.

#### Lens Cleaning Tissue

Single Opticpad lens cleaning tissue impregnated with isopropyl alcohol.

#### Viewfinder

The viewfinder is commonly used to determine which focal length of lens should be used to give the correct angle in a particular situation. It does this by altering the view seen through the eye piece and relating it to a particular format focal length, which can be easily read on any of the four scales on the Barrel. The Scales relate to 1/3", 1/2" 2/3" and 1" format cameras. It is simple to use and an effective time saver.

### Product Codes

|             |                               |
|-------------|-------------------------------|
| A2802       | Opticpad Lens Cleaning Tissue |
| 603.002.131 | Lens Filter Kit               |
| 603.002.132 | Viewfinder 1/3" - 1"          |

### Chapter 3 - Camera Housings and Camera Brackets

This range of camera housings and brackets offer a range of solutions from low volt to mains, and from standard housings to vandal resistant.

The housings in the catalogue will fit any combination of camera and fixed varifocal lens available from the range.

#### Housings

The table below shows the suitable housing for any camera and zoom lens combination (from the range).

| Housing     | Zoom Ratio |             |      |     |             |      |
|-------------|------------|-------------|------|-----|-------------|------|
|             | 6:1        | 1/3<br>10:1 | 21:1 | 6:1 | 1/2<br>10:1 | 16:1 |
| Dennard 506 | ✓          | ✓           | ✓    | ✓   | ✓           |      |
| Dennard 515 | ✓          | ✓           | ✓    | ✓   | ✓           | ✓    |
| Dennard 504 | ✓          | ✓           |      | ✓   | ✓           |      |
| Conway VEH4 | ✓          | ✓           |      | ✓   | ✓           |      |
| Conway EH3  | ✓          | ✓           | ✓    | ✓   | ✓           | ✓    |
| Conway EH4  | ✓          | ✓           | ✓    | ✓   | ✓           |      |

IP Codes signify the extent to which a product is protected against water or solid objects or dust getting through the exterior of the product and affecting its performance. The IP codes are defined in IEC standard IEC 529, which is identical to EN 60529 and BS EN 60529.

The code is usually given in the form IP. The first digit refers to the protection given to solid object or, dust the second digit gives the protection provided against water. There are six levels of protection provided against solids and eight levels of protection against water.

| Characteristic Numeral | Degree of Protection   |  |
|------------------------|--|--|
|                        | Solid  | Water  |
| <b>0</b>               | <b>Non - Protected</b>   | <b>Non - Protected</b>   |
| <b>1</b>               | <b>Protected against solid foreign objects of 50mm Ø and greater</b>   | <b>Protected against vertical drops of water</b>   |
| <b>2</b>               | <b>Protection against solid foreign objects of 12.5mm Ø and greater</b>  | <b>Protected against vertical drops of water when the enclosure is tilted to 15°</b>     |
| <b>3</b>               | <b>Protection against solid foreign objects of 2.5mm Ø and greater</b>   | <b>Protected against sprayed water at an angle of 60° on either side of the vertical</b> |
| <b>4</b>               | <b>Protection against solid foreign objects of 1.0mm Ø and greater</b>   | <b>Protected against splashing water from any direction</b>                              |
| <b>5</b>               | <b>Dust-Protected<br/>(Dust is not totally prevented but does not penetrate in a quantity to interfere with the satisfactory operation of the apparatus)</b> | <b>Protection against water Jets against the enclosure from any direction</b>            |
| <b>6</b>               | <b>Dust tight</b>  | <b>Protected against powerful water jets against the enclosure from any direction</b>    |
| <b>7</b>               | -  | <b>Protected against the effects of temporary immersion in water</b>                     |
| <b>8</b>               | -  | <b>Protected against the effects of continuous immersion in water</b>                    |

Full Technical Drawings in AutoCAD and PDF format are available from our Website at [www.tycosafetyproducts-europe.com](http://www.tycosafetyproducts-europe.com)



### Features

- Removable top cover
- Power coated & stoved finish
- IP65 rated

### Dennard 506 Camera

The Type 506 housing is specifically designed to accommodate a range of C.C.D. cameras.

The enclosure incorporates a removable top cover for camera access. Units are constructed from zintec sheet, powder coated and stoved.

In addition an insulated camera platform is provided with horizontal and vertical adjustment, float glass window, heater, 2 cable glands and stainless steel fittings offering environmental protection to IP 65 of BS. EM 60529. This unit can be fitted with an optional wiper unit.

### Technical Specification

|                      |   |
|----------------------|---|
| Internal Dimensions: | 84H x 129W x 406D mm  |
| Mounting:            | Dennard 317, 428, Pan & Tilt  |
| I.P rating:          | IP65  |
| Weight:              | 2.6Kg   |
| Voltage              | 12v to 24v dc or 110 to 230v ac   |
| Construction:        | Body: Pressed Zintec steel<br>Window: Float Glass<br>Sunshield: Sheet aluminium<br>Finish: Polyester powder coated and stoved |

### Product Codes

|               |   |
|---------------|---|
| 603.003.255.A | Camera Housing, IP65, 230V Heater, Int Dim (HxWxD) 84x129x406 With ADT Logo           |
| 603.003.250.A | A Camera Housing IP65 12v dc/24v ac Int Dim (H x W x D) 84 x 129 x 406 with ADT logo. |



### Features

- Weatherproof.- BS.EN 60529 Level IP65 (no water ingress)
- Constructed from aluminium alloy extrusions, powder coated & stoved
- Vandal resistant
- Slide and hang operation for ease of installation & maintenance
- Horizontal insulated camera platform adjustment
- Window heater
- Hidden cable bracket - Wall or ceiling mounting

### Dennard 508 Camera

Weatherproof fixed attitude vandal resistant enclosure designed to accommodate a wide range of CCD Cameras. The housing design incorporates its own universal hidden cable bracket with built in locking teeth.

All fixings are stainless steel, button head socket screws and the window is polycarbonate which adds up to total protection.

To simplify set-up and maintenance, the extruded aluminium body with sunshield can slide forward and hang from the front of the camera platform.

A thermostatically controlled heater and fused mains input terminal block are standard features. As the pan axis locking nut access is too small for normal locking tools a thin spanner is provided. A thermostatically controlled heater and fused mains input terminal block are standard features.

### Technical Specification

|                      |                                    |
|----------------------|------------------------------------|
| Internal Dimensions: | 84H x 84W x 260D mm                |
| Mounting:            | Wall/ Ceiling                      |
| I.P. Rating:         | IP65                               |
| Weight:              | 4.5Kg                              |
| Voltage:             | 240Va.c. 9VA                       |
| Construction:        |                                    |
| Body:                | Extruded aluminium alloy           |
| Window:              | Polycarbonate                      |
| Sunshield:           | Sheet aluminium                    |
| Finish:              | Polyester powder coated and stoved |

### Product Codes

|                        |  |
|------------------------|--|
| <a href="#">A25303</a> | Dennard 508 Wall/Ceiling Mount Vandal Resistant, IP65, 230V Heater |
| <a href="#">A28022</a> | 24V Heater Unit For Dennard Housings                               |



### Features

- Constructed from aluminium alloy sheet
- Powder coated and stoved
- Weatherproof to BS.EN 60529 Level IP65 (no water ingress)
- Window heater and thermostat
- Horizontally adjustable insulated camera platform

### Dennard 515 Series

The Type 515 range of environmental camera housings are designed to accommodate a wide range of camera / lens combinations and to provide protection to BS.EN 60529 level IP65 (no water ingress). Insulated camera platforms with longitudinal adjustment are supplied as standard.

Also supplied are the window heater, thermostat, three cable glands and full sunshield. Self parking wipers, 5 and 25 litre washers are available and can be retro fitted. The housings are constructed from aluminium alloy, powder coated and stoved with stainless steel fittings.

### Technical Specification

|                      |  |
|----------------------|--|
| Internal Dimensions: | 125H x 185W x 440D mm                                      |
| Mounting:            | 428, Pan & Tilt  |
| I.P. rating:         | IP65   |
| Weight:              | 3.6 Kg   |
| Voltage:             | 230V 75va  |
| Construction Body:   | Welded Aluminium, WindowGlass<br>Sunshield Sheet aluminium |
| Finish:              | Polyester powder coated<br>and stoved                      |

### Product Codes

|             |   |
|-------------|---|
| 603.003.223 | Dennard 515/W Camera Housing with wiper |
| 603.003.224 | Dennard 515 Camera Housing              |



### Features

- Attractive styling
- pressure die cast aluminium alloy construction
- 'O' Ring seal
- Fused input terminal block cable management bracket assembly
- Multiple voltage option
- Weatherproof to BS.EN 60529 level IP66

### Dennard2010D Series

The Dennard 2010 housing comprises a stylish pressure die cast enclosure, sized to suit the current range of CCD cameras with fixed focus lenses, plus wall bracket with cable management system.

The equipment has been designed to provide weatherproof protection in an attractive package using the most modern manufacturing methods, which is reflected in its' very competitive price.

### Technical Specification

|                      |                     |
|----------------------|---------------------|
| Internal Dimensions: | 78H x 75W x 233D mm |
| Mounting:            | Wall                |
| I.P. Rating:         | IP66                |
| Weight:              | 2.2Kg               |

### Product Codes

|             |   |
|-------------|---|
| 603.003.244 | Dennard 2010 wall mounted camera housing plus bracket with cable management system. |
|-------------|---|

*This unit must be mounted directly to a vertical face.*



### Features

- Attractive styling
- Pressure die cast aluminium alloy construction
- 'O' ring seal
- Fused input terminal block
- Cable management bracket assembly
- Multiple voltage option
- Weatherproof to BS.EN.60529 level IP66

### Dennard 2010 Series

The Type 2010 housing comprises a stylish pressure di-cast enclosure, sized to suit the current range of CCD cameras with fixed focus lenses, plus wall bracket with cable management system. The equipment has been designed to provide weatherproof protection in an attractive package using the most modern manufacturing methods.

The 2010 is an IP66 rated camera mounting platform with fuse-holder and connection block and two cable glands. These housings are now supplied with a heater already fitted, either low voltage or mains.

### Technical Specification

|                      |                     |
|----------------------|---------------------|
| Internal Dimensions: | 78H x 75W x 233D mm |
| Mounting:            | Wall                |
| I.P. Rating:         | IP66                |
| Weight:              | 2.2Kg               |

*This unit must be mounted directly to a vertical face and can be fitted with a single 885 or 883 Infrared lamp.*

### Product Codes

|               |  |
|---------------|--|
| 603.003.254.A | A Dennard 2010 wall mounted camera housing plus bracket with cable-management system. Weatherproof to IP66 supplied with a 240V Heater     |
| 603.003.251.A | A Dennard 2010 wall mounted camera housing plus bracket with cable management system. Weatherproof to IP66 supplied with a 24V Heater Unit |





### Features

- All aluminium construction
- 110-240v versions
- Stainless steel clip fasteners
- 4" PCD mounting point
- Anti-tamper options
- Manufactured to weatherproof standard BS EN60529 level IP65
- Finished in BS10A03 (morning mist) with a white gloss sun visor

### Conway EH Series

The External camera Housing series from Conway are manufactured from aluminium alloy.

All units come with a 240V heater /demister, camera mounting platform and cable termination as standard, with a wiper fitted option.

### Technical Specification

#### EH3

Technical Data  
Mounting:  
4" PCD  
Window Sizes:  
144 x 105mm  
Glass Sizes:  
170 x 130  
Weight:  
4.5 kg  
Power Consumption:  
6 watts (approx)

#### EH5

Technical Data  
Mounting:  
4" PCD  
Window Sizes:  
94 x 59mm  
Glass Sizes:  
108 x 78  
Weight:  
1.5 kg  
Power Consumption:  
6 watts (approx)  
Internal sizes

#### EH4

Technical Data  
Mounting:  
4" PCD  
Window Sizes:  
109 x 78mm  
Glass Sizes:  
135 x 95  
Weight:  
3 kg  
Power Consumption:  
6 watts (approx)

Length x Height x Width  
mm

#### EH3

419 x 126 x 150

#### EH4

342 x 86 x 115

#### EH5

240 x 70 x 88

### Product Codes

|             |   |
|-------------|---|
| 603.003.162 | Conway EH5 External Housing (Small)     |
| 603.003.171 | Conway EH4 External Housing (Medium)    |
| 603.003.172 | Conway EH3/W External Housing C/W Wiper |



### Features

#### IHC4 Features

- Vandal Resistant
- Mono-Drive Anti-tamper fitting
- White powder coated finish as standard
- Constructed from 1.6mm CR4 steel
- Tough cast acrylic screen
- Cable termination
- Manufactured to IP54

#### EHC4 Features

- Vandal resistant construction
- Mono-drive Anti Tamper Fittings

### Conway IHC4/EHC4

The Conway range of external camera housings is designed specifically to provide an environment for camera and lens assemblies that is safe from interference and the weather. The housing also gives the added advantage of hiding cables and wires that might be unsightly in many situations. The camera mounting assembly has been designed to cope with most major cameras on the market. It has the ability to take top or base mounting cameras and the removal of one part of the assembly will allow the housing to be mounted on a wall either left or right facing.

The Conway IHC4 camera housings are designed specifically to provide an environment for camera and lens assemblies that is safe from interference and relatively dust free.

The housing also gives the added advantage of hiding cables and wires that might be unsightly in many situations. The IHC4 in particular, can be found in prominent installations in the UK and throughout the world, ranging from transport systems, schools, prisons, car parks, banks and supermarkets.

The camera mounting assembly has been designed to cope with most major cameras on the market. It has the ability to take top or base mounting cameras and the removal of one part of the assembly will allow the housing to be mounted on a wall either left or right facing.

### Conway IHC4/EHC4

These Ceiling mounted Vandal resistant housings are constructed from rugged zinc plated mild steel with a laminated glass window.

The units have an adjustable mounting cradle. (A special security key is required to gain access to this housing).

### Technical Specification

|                      |                      |
|----------------------|----------------------|
| Internal Dimensions: | 80H x 75W x 250D mm  |
| Mounting:            | Ceiling              |
| IP Rating:           | IP65/55              |
| External Dimensions: | 186H x 85W x 470D mm |

### Product Codes

|             |  |
|-------------|--|
| 603.003.167 | Ceiling Mount Vandal Resistant, IP65, Int dim (HxWxL) 80x80x250mm (EHC4-CM-VR)   |
| A25310      | Ceiling Mounted Vandal Resistant, IP55, Int dim (HxWxL) 80x75x250mm (IHC4-CM-VR) |



### Features

#### IHW4 features

- Vandal resistant
- Mono-Drive ® anti-tamper fittings
- White powder coated finish as standard
- Constructed from 1.6mm CR4 steel
- Tough cast acrylic screen
- Cable termination
- Manufactured to IP54

#### EHW4 features

- Vandal resistant construction
- Mono-Drive ® Anti-Tamper fittings
- Manufactured to IP65
- Manufactured from stainless steel (3CR12)
- Finished in white power coat
- 110-240v heater
- Cast Acrylic Screen
- Cable termination

### Conway IHW4/EHW4

These wall mounted Vandal resistant housings are constructed from rugged zinc plated mild steel with a laminated glass window with a lexon screen.

The units have adjustable mounting cradle. (A special security key is required to gain access to this housing).

### Technical Specification

|                      |                      |
|----------------------|----------------------|
| Internal Dimensions: | 80H x 100W x 250D mm |
| Mounting:            | Wall                 |
| IP Rating:           | 65/54                |
| External Dimensions: | 85H x 265W x 480D mm |

### Product Codes

|             |   |
|-------------|---|
| 603.003.165 | Conway IHW4 Wall Mounted Vandal Resistant, IP54 |
| 603.003.166 | Conway EHW4 Wall Mounted Vandal Resistant, IP65 |



### Features

- 230V voltage options
- Ceiling mount option
- Cable managed

### CHOV Housing

IP66 Rated These Aluminium housings feature a side mounted hinged lid and through bracketry cabling fitted with a 240V heater. These aluminium housings feature a side mounted hinged lid.

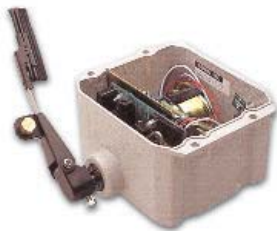
This provides easy access and through the bracket cable management to provide additional integrity and security allowing the housing to be installed with no cables on view.

### Technical Specification

|                         |                 |
|-------------------------|-----------------|
| External Dimensions:    | 465 x 130 x 145 |
| Internal Dimensions:    | 300 x 81 x 78   |
| Product                 | CHOV-Small,     |
| Side Opening:           |                 |
| Colour:                 | CBC Grey        |
| Water Resistant:        | IP54            |
| Voltage Input:          | 230V voltage    |
| Housing Weight:         | 3.2 Kg          |
| Power Consumption:      | 180mA           |
| Dimensions (W x H x D): | 465 x 145 x 130 |
| Sunshield:              | RAL 9002        |

### Product Codes

|                        |   |
|------------------------|---|
| <a href="#">A25373</a> | CHOV Housing  |
| <a href="#">A25374</a> | Computar WBOV Bracket For Internal Camera Housing CHOV, Cable Runs Internally |



### Features

- Self parking wiper arm
- Washer nozzle fitted to arm as standard
- Stainless steel wiper arm
- Weatherproof, BS EN60529 Level IP 65 (no water ingress)
- Built in fuse protection
- PCB 'Plug-in' connections

### Type /W (Enclosure Wiper Unit)

The wiper unit is designed to accompany the type WW/5 washer box. Together they provide a complete window, wash/wipe system for the Dennard range of enclosures. Constructed from pressure die-cast Aluminium alloy, powder coated & stoved with stainless steel wiper arms & fittings, the units offer environmental protection to BS.EN.60529 level IP65. The self parking arm is fitted with a washer jet as standard.

An optional brush blade is also available for dry, sandy conditions. If ordered separately please specify the housing type to enable the correct blade length to be supplied.

### Product Codes

A25188

Wiper Unit for 506 Housing Dennard



### Type WW5 (5 Litre Washer Unit)

The Dennard washer unit is designed to accompany the type /W wiper unit. Together they provide a complete window wash/wipe system for the Dennard range of outdoor enclosures. Constructed from mild steel, zinc plated and powder coated & stoved with stainless steel fittings, the units offer environmental protection to BS.EN.60529 level IP65(no water ingress).

The washer units are supplied with 10 meters of tubing to allow direct connection to the washer jet on the /W wiper unit. An optional float switch can be provided to prevent the motor pump from running dry.

N.B. Will work with both Conway and Dennard Housings

### Product Codes

A25187

WW5 5 Litre Washer

## Chapter 3 - Camera Housings and Camera Brackets

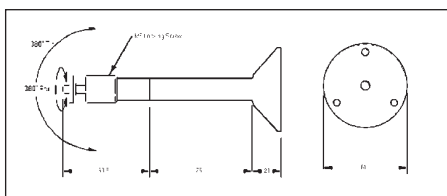


### Features

- Max load 4kg
- Attractive styling
- Concealed mounting screw

### Dennard 433B Camera Bracket

The Type 433B is an attractively styled indoor, universal camera bracket, with concealed mounting screw. Allen key locked for security. Maximum permissible load 4kg. This bracket will work for wall or ceiling.



### Product Codes

A25488

Wall Mount Bracket for Camera, Max Load 4Kg, 180° Tilt, 360° Pan, UNC Attached (for cameras)



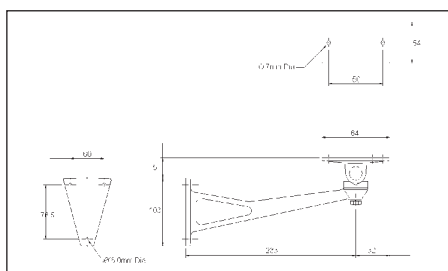
### Features

- Max load 10kg
- 360 degrees panning
- +/- 70 degrees tilts
- Aluminium die cast
- Powder coat and stoved finish

### Dennard 317 Housing Bracket

The Type 317, wall brackets are specifically designed to support the Camera housings with a maximum weight of 10kg. Slackening a single bolt releases the head assembly which enables the camera to be panned through 360 degrees and tilted through +/- 70 degrees before locking in the desired position.

Brackets are constructed from aluminium die castings with a powder coat and stoved finish as standard.



### Product Codes

A25180

317 Wall Bracket, Max weight 10Kg, Rotation 360°, Tilt  $\pm 70^\circ$ , Fixing 4" Centres (for housings)

### Features

- Max load up to 15kg
- Panning 360 degrees
- Tilt +/- 70 degrees

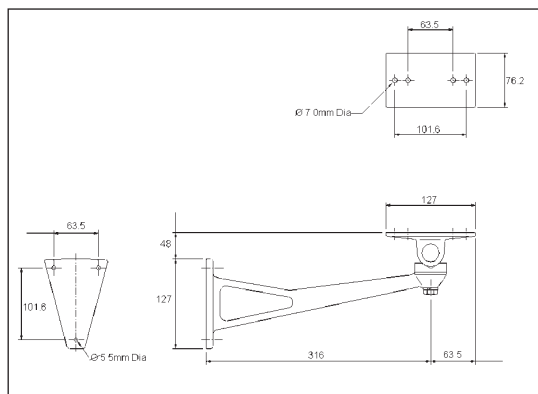


### Dennard 428 Housing Bracket

The type 428, wall brackets are specifically designed to support the Camera housings with a maximum weight of 15Kg. Slackening a single bolt releases the head assembly which enables the camera to be panned through 360 degrees and tilted through +/- 70 degrees before locking in the desired position.

Brackets are constructed from aluminium die castings with a powder coat and stoved finish as standard.

Brackets are constructed from aluminium die castings with a powder coat and stoved finish as standard.

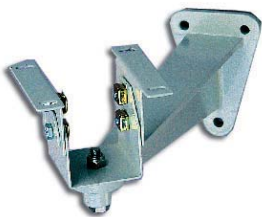


### Product Codes

A25307

428 Wall Bracket, Max weight 15Kg,  
Rotation 360°, Tilt  $\pm 70^\circ$ , Fixing 4"  
Centres (for housings)





### Features

- Pan through 360 degrees
- Tilt +/- 90 degrees
- Max loading up to 10 /25 kg1)pan through 360 degrees

### Conway CMB1-3

The Conway CMB range of wall mounting brackets are designed to specifically support housing and camera combinations up to a maximum weight of 20Kg for the CMB1 and 10Kg for the CMB3 bracket.

Loosening the central pivot bolt enables the camera assembly to be panned through 360°, whilst the tilt remains unaffected.

The tilt can be adjusted by the central tilt pivot bolts by +/- 90°.

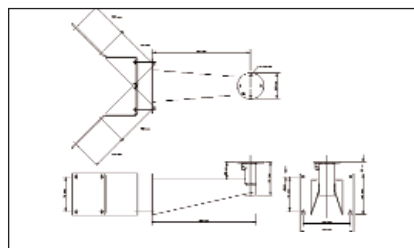
### Product Codes

- |             |  |
|-------------|--|
| 603.003.147 | Conway CMB3 Wall Mount Max weight 10Kg, Rotation 360°, Tilt $\pm 90^\circ$ , Fixing 4" PCD |
| 603.003.148 | Conway CMB1 Wall Mount Max weight 25Kg, Rotation 360°, Tilt $\pm 90^\circ$ , Fixing 4" PCD |



### Features

- Up to 25kg max loading
- Zinc plated mild steel
- Suitable for Dennard 2000 , 490 and 560 series pan and tilts



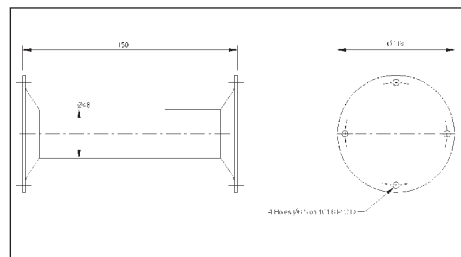
### Dennard 436 platform

Suitable for the 2000 and 490, and 560 Series of Pan and Tilts these units are provided with a heightened platform so you don't need to specify a column spacer.

The Bracket is manufactured from sheet mild steel which is then zinc plated and powder coated and stoved. A corner mount option is available. The 436 will take a dynamic payload of up to 25 kg.

### Product Codes

- |             |   |
|-------------|---|
| 603.003.237 | Dennard 436 Bracket for 2000 2006 and 488 pan and tilt heads accepts payloads of up to 25kg                     |
| 603.003.238 | Dennard 436 corner mounting kit Bracket for 2000 2006 and 488 pan and tilt heads accepts payloads of up to 25kg |



### Type 426 Column Spacer

The type 426-150 is an outdoor spacer column used commonly to raise pan & tilts on brackets so enabling full unhindered movement especially when looking down vertically. Raising height is 150mm Max. load 20 kg.

### Product Codes

|        |   |
|--------|---|
| A25181 | 426-150 Column spacer, Max weight 20Kg, Fixing 4" PCD |
|--------|---|

### Chapter 4 - Infrared Lamps

Infrared lamps emit light in the infrared spectrum. The higher the cut-off wavelength the less visible the light is to the human eye.

Derwent limited are widely considered to be the leaders in the field of infrared lighting.



#### Features

- Reduced running costs compared to Halogen IR
- Even distribution of light
- Choice of 300 or 500 Watts

#### Derwent Cospec Infra Red Lamps

The Cospec2 lamps use a lens that directs more light from the top of the lamp than the bottom. This gives an even distribution of light over a long distance from the source. The advantage of using the lens is that objects in the foreground are illuminated to the same level as distant objects.

They also have a higher efficiency, giving a higher output per Watt, lowering the end user costs of running the lamps by over 60%.

#### Did You Know?

##### Selecting IR Lamps

IR Lamps are available in different wavelengths. Whilst operating, the lower frequency illuminators (e.g. 715nm and 730nm) will give off a faint red glow. Higher frequency shorter wavelength units (e.g. 850nm or 940nm) are almost totally discreet.

If a customer is concerned about the running costs of a system incorporating IR lighting LED lamps offer significantly lower power consumption, and the lifetime of bulbs are much longer.

#### Product Codes

|             |  |
|-------------|--|
| A25456      | PSU single Derwent 300 IR SGIR-PSU3SS                |
| 603.006.013 | PSU Twin Derwent 300 IR SGIR-PSU3ST                  |
| 604.002.162 | Bulb Kit 300 Derwent SGIR-UNILL                      |
| 603.006.010 | PSU single Derwent 500 IR SGIR-PSU5SS                |
| 603.006.011 | PSU Twin Derwent 500 IR SGIR-PSU5ST                  |
| 604.002.163 | Bulb Kit 500 Derwent SGIR-UNIPF                      |
| 603.003.202 | Mounting Bracket For Single Derwent IR on Pan & Tilt |
| 603.003.203 | Mounting Bracket For Twin Derwent IR on Pan & Tilt   |

NOTE: 4 metre Lead supplied with this unit. Do not attempt to reduce the length of this lead as it will have a detrimental effect of bulb life.

| Product Equivalent Code | Horizontal Angle | Filter Cutoff | Filter Wattage |
|-------------------------|------------------|---------------|----------------|
|                         |                  |               |                |
| A25455                  | 10               | 730           | 300            |
| 604.002.168             | 30               | 730           | 300            |
| 604.002.171             | 10               | 730           | 500            |
| 604.002.166             | 30               | 730           | 500            |



### Features

- Solid State
- Ultra Long Life up to 10 Years
- New Increased Performance up to 60m+
- Low Cost of Ownership
- Requires IR Sensitive Camera

### Uniflood LED

A new design, the Uniflood LED offers ultra long life. The infra-red illuminator uses solid state, high efficiency LED's. Low power consumption of LED's result in very low running costs.

The product codes include the power supply with photocell.

### Product Codes

- |             |   |
|-------------|---|
| 603.006.023 | Uniflood LED 30 Deg Lens 850nm<br>60mtrs Includes power supply and Photocell  |
| 603.006.024 | Uniflood LED 30 Deg Lens 940nm<br>60mtrs Includes power supply and Photocell Use where no red lights are allowed Road side/Airports/Rail Side |



### Features

- IR up to 50m
- Long Bulb Life, average 2 years
- Med, Narrow and Wide Beam Patterns
- Other Filter Options available 830nm or 950nm

### Miniflood 100

Miniflood 100, short to medium range, long life for schemes up to 50m. Efficient and reliable with outstanding bulb life. Requires Derwent power supply.

### Product Codes

- |             |                                       |
|-------------|---------------------------------------|
| 603.006.025 | Miniflood 100, 10 Deg Lens 730nm      |
| 603.006.026 | Miniflood 100, 30 Deg Lens 730nm      |
| 603.006.027 | Miniflood 100, 60 Deg Lens 730nm      |
| 603.006.028 | Miniflood 100 Single PSU CW Photocell |
| 603.006.029 | Miniflood 100 Twin PSU CW Photocell   |



### Features

- IR up to 20m
- Solid State
- Ultra Long Life up to 10 Years
- Low Cost of Ownership
- Requires PSU (Option PSU230/15)

### Miniflood LED

The Miniflood LED, is an ultra long life, highly reliable infra-red illuminator using solid state high efficiency LED's, with a versatile input voltage allowing 12 to 24Va.c. or d.c.

### Product Codes

|             |                                  |
|-------------|----------------------------------|
| 603.006.030 | Miniflood LED, 30 Deg Lens 850nm |
| 603.006.031 | Miniflood LED, 60 Deg Lens 850nm |



### Features

- Compact design
- IP65 rated
- Can power up to two MFLED's

### PSU230/15 Power Supply Unit

PSU230/15-IP65 Rated dedicated power supply. This product is designed to be used in conjunction with the following Derwent product:  
MFLED                      Up to 2 Units  
N.B. Lead length restrictions may apply

### Product Code

|             |  |
|-------------|--|
| 603.006.034 | PSU 230/15 15VA.C. 1.5A IP65 Rated<br>PSU Can be used in conjunction with<br>MFLED. Can run up to Two of these units |
|-------------|--|



### Features

- Long Life
- High reliability
- View up to 175metres

### SUPER LED

Long life, high reliability, Infra-Red illuminator using solid state high efficiently LED's. SuperLED is designed for night-time CCTV schemes which demand a high level of reliability and minimum maintenance costs.

SuperLED reliably achieves illumination distances not yet seen in the LED market and is manufactured by Derwent, World leaders in the field of Infra-Red Technology. Developed for external applications with ranges up to 175 meters with IR extended cameras and lenses, or up to 100 meters using mid-range cameras.

### Technical Specification

|                    |  |
|--------------------|--|
| LED array:         | Current controlled supplied by a dedicated Derwent power supply unit |
| Consumption:       | 140W on full power (external)<br>80W nominal on low power (internal) |
| Power supply:      | Constant current regulation to LED                                   |
| Temperature range: | 45 degree ambient Max. on full power                                 |
| Construction:      | Robust aluminium casting/ extrusion                                  |
| Weight:            | 5.8kg  |
| Colour:            | Black  |
| Cable:             | Supplied with 4m connecting lead                                     |
| No of :LEDs:       | 560  |

### Product Codes

[603.006.065](#) SuperLED long range IR illuminator includes PSU



### Features

- Long lamp life
- Medium or spot coverage
- IP65 rated

### Type 880 & 883 Infra-red Illuminators

The type 880 and 883 microlights have been designed to provide a low power, low cost, high performance infra red illuminator, at a size complementing C.C.D camera equipment.

The units are constructed from aluminium alloy, powder coated and stoved with stainless steel fittings. Silicone 'O' ring sealing and one metre of high temperature outdoor cable, factory fitted, offering weatherproofing to BS.EN.60529 Level IP65 (no water ingress).

Average lamp life is 2000 hours with specially modified 12V 50mm tungsten halogen lamps. The type 880 is supplied with a 50W Medium bulb and the type 883 is fitted with either a 75W medium angle bulb or a 75W spot bulb.

Note: When fitting replacement lamps care must be taken not to touch the filament envelope or reflective inner face as this will be detrimental to the lamp life.

### Technical Specification

| Product Code | Horizontal Angle | Filter Cutoff | Wattage |
|--------------|------------------|---------------|---------|
| A25368       | 18               | 715           | 75      |
| A25369       | 38               | 715           | 75      |
| A25200       | 38               | 715           | 50      |

### Product Codes

|        |   |
|--------|---|
| A25368 | Dennard 883N 75W Microlight Illuminator (Narrow)                    |
| A25369 | Dennard 883M 75W Microlight Illuminator (Medium)                    |
| A25200 | Dennard 880M50 50W Microlight Illuminator (Medium)                  |
| A25370 | Dennard 888/2/105 Illuminator - Boxed PSU & Photocell (240~12Va.c.) |
| A25201 | 880/PSU 240~12 Transformer For Dennard 12V IR Lamps                 |
| A28019 | 881/50/M Dennard 881 Medium Beam 50W 12V Replacement Bulb           |





### Features

- Optional Stone Guard
- Bulb Life 2020/300 300 to 2000Hrs 2020/500 500 to 4000Hrs
- Available in a range of angles
- Weight 3kg

### Dennard 2020 Infrared Lamps

The Dennard 2020 series of infrared lamps are available in 300W and 500W versions. The units are 240Va.c. and are supplied with a 25Lux photoelectric switch. Manufactured from high-pressure die cast aluminium enclosures, which gives stylish protection to IP66. Replacement sealed beam bulbs can be fitted in seconds.

The 2020 series will fit to the same equipment as the 890 and 885 lamps and the current range of 300W bulbs will fit the 300W 2020 Series lamp products. However the spare 500-watt lamps are new numbers.

### Technical Specification

| Product Codes | Wattage | Angle  |
|---------------|---------|--------|
| 604.002.194   | 300     | Narrow |
| 604.002.195   | 300     | Medium |
| 604.002.196   | 300     | Wide   |
| 604.002.197   | 500     | Narrow |
| 604.002.198   | 500     | Medium |

### Product Codes

|             |  |
|-------------|--|
| 604.002.199 | Dennard /SG optional Stone Guard for 2020 I.R. lamps                   |
| Spare Bulbs |  |
| 604.002.200 | Dennard 500W Narrow spare bulb for 2020 series lamp (Dennard Hx502)    |
| 604.002.201 | Dennard 500W Medium spare bulb for 2020 series IR lamp (Dennard Hx504) |
| A28017      | 300W Medium Spare Bulb (Dennard 886/M)                                 |
| A28018      | 300W Narrow Spare Bulb (Dennard 886/N)                                 |

### Did You Know?

#### IR Lamp Bulb Life

Manufacturers quote life expectancy figures as "mean-time". This simply means that on average after a number of hours quoted by the manufacturer **HALF OF THE BULBS WILL HAVE FAILED**. If the mean-time of 4,000 hours is quoted, half of the bulbs will have failed within that period (5.5 months). Matters appear much worse during the months of October to March, obviously because of the longer hours of darkness. A simple

calculation may be used in order to provide adequate maintenance. If you have 4 external cameras with one lamp each and the lamps are on for 12 hours with a life expectancy of 4,000 hours, you can expect a bulb to fail every 4,000 divided by 48 (4 cameras x 12 hours) which equals 83 days.

i.e.  $4,000 / 48 = 83$  days

You should make sufficient provision for this within a maintenance contract.

### Chapter 5 - Pan and Tilt Units

Although regarded as old Technology since the increase in demand for fully function domes, a number of appliances such as Town Centres and Traffic Systems still require traditional PTZ solutions.

Here follows a selection of Pan and Tilt units to suit a wide range of customer specifications.



#### Features

- Variable Speed
- IP66 Rated
- Heavy Duty Pre-Position Pots

#### 2006 D.C. Variable Speed - External

Innovative design combined with advanced production techniques and modern styling make the 2000 series the bench-mark for the next generation of pan and tilt heads.

The type 2006 is offered with externally adjustable limit switches and heavy duty pre-position post come as standard.

Ease of maintenance and servicing has been significantly improved over conventional pan and tilt designs. All external fixings are the same size. Options and accessories can be retro fitted with plug in wiring.

The type 2006 heads can be operated upright or inverted.

#### Technical Specification

|                    |                |
|--------------------|----------------|
| Maximum Load:      | 20Kg           |
| Pan Angle:         | 5° to 350°     |
| Tilt Angle:        | -20° to +90°   |
| Pan Speeds:        | 48°/Sec        |
| Pan Torque Kg cm:  | 150            |
| Tilt Speeds:       | 16°/Sec        |
| Tilt Torque Kg cm: | 400            |
| Temperature Range: | -20°C to +55°C |
| Backlash:          | 0.5°           |
| Weight:            | 7.5Kg          |
| Power (VA):        | 36VA           |
| IP Rated:          | IP66           |

#### Product Codes

603.008.037      Dennard 2006 DC

Note: All series 2006 Pan and Tilts include 3 metre long leads. Warranty: 2 years.



### Features

- Fixed Speed
- IP66 Rated
- Externally adjustable limit switches

### 2000 Fixed Speed - External

Innovative design combined with advanced production techniques and modern styling make the SGP 2000 series the bench-mark for the next generation of pan and tilt heads. The type 2000 is offered with externally adjustable limit switches and pre-position tell back options are also available.

Ease of maintenance and servicing has been significantly improved over conventional pan and tilt designs. All external fixings are the same size. Options and accessories can be retro fitted with plug in wiring. All the type 2000 heads can be operated upright or inverted.

### Technical Specification

|                    |                |
|--------------------|----------------|
| Maximum Load:      | 20Kg           |
| Pan Angle:         | 5° to 350°     |
| Tilt Angle:        | 20° to -90°    |
| Pan Speeds:        | 7.5°/Sec       |
| Pan Torque Kg cm:  | 100            |
| Tilt Speeds:       | 3°/Sec         |
| Tilt Torque Kg cm: | 250            |
| Temperature Range: | -20 to +55°C   |
| Backlash:          | 0.5°           |
| Weight:            | 7.5Kg          |
| Power (VA):        | 16             |
| Voltage (V):       | 24V & 240Va.c. |
| IP Rated:          | IP66           |

### Product Codes

|             |                            |
|-------------|----------------------------|
| 603.008.032 | 2000 240Va.c.              |
| 603.008.033 | 2001 24Va.c.               |
| 603.008.034 | 2000 240Va.c. with presets |
| 603.008.035 | 2001 24Va.c. with presets  |

NOTE: All Series 2000 Pan & Tilts include 3 metre long leads.  
Warranty: 2 Years



### Features

- Fixed Speed
- IP66 rated
- Payloads up to 15kg are accepted

### 488 A.C. Fixed Speed - External

The type 488 pan and tilt head, is a medium duty, remotely controlled, outdoor unit, designed to accept payloads of 15kg.

Constructed from aluminium alloy castings, powder coated and stoved, with anodised high strength aluminium alloy shafts.

### Technical Specification

|                    |                  |
|--------------------|------------------|
| Maximum Load:      | 15Kg             |
| Pan Angle:         | 10° to 350°      |
| Tilt Angle:        | +/-5° to +/-175° |
| Pan Speeds:        | 6°/Sec           |
| Pan Torque Kg cm:  | 125              |
| Tilt Speeds:       | 4°/Sec           |
| Tilt Torque Kg cm: | 165              |
| Temperature Range: | -20 to +55°C     |
| Backlash:          | 0.5°             |
| Weight:            | 9Kg              |
| Power (VA):        | 16               |
| Voltage (V):       | 240Va.c.         |
| IP Rated:          | IP66             |

### Product Codes

**A25018** 488 Pan & Tilt, Max Load 15Kg, IP66, 230Va.c., Side Mount.

Warranty: 2 Years

**DANGER**

**THIS EQUIPMENT IS  
LIABLE TO SUDDEN  
MOVEMENT**

### Pan & Tilt Accessories

### Product Codes

**604.002.192** Warning sign for CCTV pan and tilt units U.K. requirement for NACOSS approved installations

### Chapter 6 - Telemetry Switchers

This range of receivers offers a choice of fixed and variable speed units, both boxed and in pcb form. These can be wired with either co-ax or twisted pair for control by Baxall telemetry Transmitters.

The DVS Desktop switchers are designed to allow users to achieve the most economical solution to their needs for manual and automatic sequential video switching.



#### Features

- Full variable speed control of DC pan and Tilt units
- 8 preset positions programmable from the transmitter
- Software Auto pan or 8 preset position tour
- Alarm preset override of Tour facility
- 8 Alarm inputs, one alarm output
- 4 Auxiliary outputs
- Video gain and lift to compensate for long cable runs
- Twisted pair control input (20 mA current loop)

#### ZR-DC Variable Speed Telemetry Receiver

The ZR-DC telemetry receiver controls variable speed pan and tilt units. In most applications these can be used with coax based Baxall telemetry control systems, which enable the installer to use just one coax cable to communicate the video signal with a combined telemetry control signal. If the receivers are up to 2km from the control equipment a ZTTP1 adaptor can be installed to enable two wire twisted pair control, or interface to microwave or fibre optic equipment.

The ZR-DC offers full variable speed control when used with a ZKX2/J keyboard, ZTX6/J matrix product, or ZMXplus product that is controlled by a joystick keyboard. Pseudo variable speed is provided with other transmitters. ZR-DC also has the facility for 4 auxiliary functions which can be configured for Lamps, Camera power, Wash or Wipe.

#### Did You Know?

##### Sensormatic Dome Compatibility

By using a Baxall Dax/Sens convertor (604.001.136) you can operate Sensormatic Domes "down the co-ax" using Baxall Telemetry Control equipment (or the ZMX Plus range of multiplexers).

#### Product Codes

|             |   |
|-------------|---|
| 604.005.040 | DC Variable speed Telemetry RX in weatherproof box inc PSU ZR-DCWBX |
| 604.005.041 | DC Variable speed Telemetry RX PCB Only ZR-DC/PCB                   |
| 659.001.019 | PSU For the ZR-DC PCB (240V AC to 24V DC) ZR-DC/PSU                 |



### Features

- 8 preset positions, programmable from the transmitter (ZR4)
- Software driven, auto or random pan
- Launch Amplifier for long distance coaxial transmission
- Alarm preset override of auto or random pan then automatic return after 60 seconds time-out
- 8 alarm inputs, one alarm output
- Four programmable auxiliary outputs
- Video gain and lift compensation for long cable runs
- Reduced size for inclusion in the camera housing
- IP65 boxed version available
- On-board test routine to ease commissioning
- Telemetry control via video coax or 20mA twisted pair
- Two programmable auxiliary outputs on ZR3M, four on ZR4M

### ZR3 Mini and ZR4 Receivers

The ZR3 Mini and ZR4 Mini telemetry receivers are coaxial AC pan and Tilt receivers. They will operate from either 20mA twisted pair or coax based Baxall telemetry. The units have adjustable video amplification for long cable runs and ensure easy installation procedures, which are aided by comprehensive on-board test software.

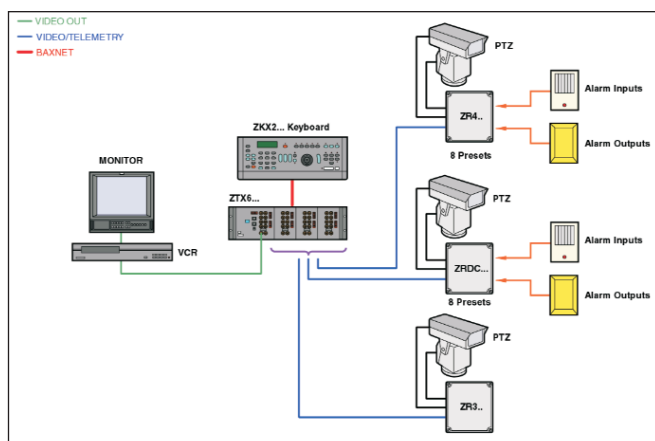
The ZR3 Mini has PAN, TILT, ZOOM and FOCUS functions plus 2 auxiliary outputs, each of which can be selected as one of the following - LAMPS, CAMERA POWER, WASH and WIPE.

The ZR4 Mini is a powerful full-function telemetry receiver, offering 8 pre-set positions. It has PAN, TILT, ZOOM, FOCUS and IRIS function, and 4 auxiliary outputs, each of which can be selected as - LAMPS, CAMERA POWER, WASH and WIPE.

The 4th auxiliary can be configured as a separate output for other devices such as barriers.

The ZR4 Mini offers 8 presets which may be set from the control position, or can be controlled by external alarm inputs within the Baxall ZTX range of transmitters. A common alarm relay output is also provided.

Both the ZR3 Mini and ZR4 Mini are compatible with the Baxall ZTX range of transmitters and ZMX ranges of Multiplexers which include Telemetry.



### Product Codes

- A26039 SGT ZR3 Telemetry Receiver in Weatherproof Box for use with ZTX and ZMX Telemetry Control Systems. 240V ac supply and output ZR3M/WBX
- A26043 SGT ZR4 Telemetry Receiver in Weatherproof Box for use with ZTX and ZMX Telemetry Control Systems. 240V ac supply and output ZR4M/WBX
- 604.005.021 SGT ZR3M24 Telemetry Receiver in Weatherproof Box for use with ZTX and ZMX Telemetry Control Systems. 240V ac supply 24V output ZR3M24/WBX
- 604.005.026 SGT ZR3M PCB for fitting within SGH-EH3 Housings (All Variants) ZR3M/PCB
- 604.005.025 SGT ZR4M PCB for fitting within Camera Housings ZR4M/PCB
- A26064 SGT ZR4EXP Plug-On PCB to fit onto a ZR3 PCB (to upgrade)



## Features

- Easy to install due to minimal cabling requirements and compact size
- Auto tuning present to minimise installation time
- Up to 16 presets supported per dome
- Patrol function available
- Pan flip (Auto flip) function supported
- Sites can have a selection of AC or DC receivers and Dax converters controlled from one Transmitter
- Proportional variable speed supported with the ZKX2/J joystick keyboard

## DAX Telemetry Dome Converter

The DAX dome converter is designed to control American Dynamics DAX variable SpeedDomes via any Baxall telemetry transmitter.

Control is enabled by converting standard co-axial telemetry signaling into twisted pair protocol for the Dome.

Installation of the domes is made simple as all signals are transmitted along the coaxial cable to the DAX. Control can be maintained at distances up to 500 meters.

Compatible with ZTX6 and ZMXplus with Joystick keyboard for proportional variable speed. Compatible with ZTX3,4,5, 6 and ZMX for pseudo variable.

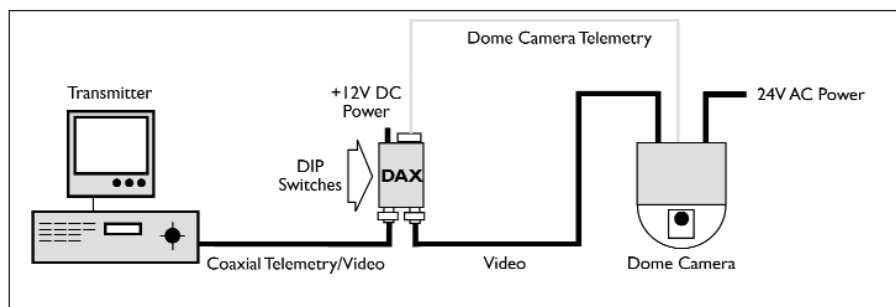
## Technical Specification

| Feature           | Sensormatic |
|-------------------|-------------|
| S/W version       | 3.06 #      |
| Zoom In/Out       | Yes         |
| Zoom Speed        | Fixed       |
| Focus Near/Far    | Yes         |
| Focus Speed       | Manual/Auto |
| Iris Open/Close   | Manual/Auto |
| Iris speeds       | Fixed       |
| Pan Left/Right    | Yes         |
| Pan Speeds        | 15 *        |
| Tilt Up/Down      | Yes         |
| Tilt Speeds       | 15 *        |
| Preset store 1~8  | Yes         |
| Preset Store 9~16 | Yes         |
| Preset call 1~8   | Yes         |
| Preset call 9~16  | Yes         |
| Preset Tours      | Yes         |
| Autopan           | No          |
| Autoflip          | Yes         |
| OSD Menu access   | Yes         |
| Patterns          | 3           |
| Zoom adjusted pan | Yes         |

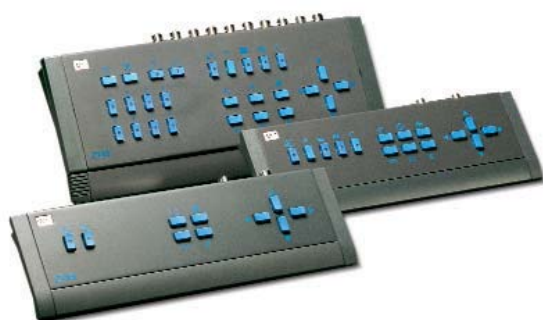
# Version 3.06 is used on dome variants III & IV . The unit was also tested with the Ultra VI.  
 \* ZTX3,4,5 and ZKX2/K do not have variable speeds

## Product Codes

**604.001.136** Baxall DAX/SENS dax unit for use with American Dynamics domes. Includes PSU.







## Features

### ZTX 3

- Single channel desktop telemetry transmitter
- Control via coaxial
- Pan, Tilt, Zoom & Focus
- 2 Latching auxiliaries

### ZTX 4

- Single channel desktop telemetry transmitter
- Control via coaxial or twisted pair
- Pan, Tilt, Zoom, Focus and Iris
- 4 Latching auxiliaries

### ZTX 5

- Multi-channel desktop telemetry transmitter
- Dual monitor outputs
- On screen menus
- Compatible with DVS AL8 alarm module
- Control via coaxial
- Pan, Tilt, Zoom, Focus and Iris
- 4 latching auxiliaries
- 2 momentary auxiliaries
- 8 presets

## Baxall ZTX 3 4 & 5 Telemetry Transmitter

### Control Features

The ZTX3, ZTX4 and ZTX5 all provide the basic camera control functions of pan, tilt, focus and zoom and have two auxiliary latching functions, traditionally used for camera power and auto-pan but assignable to whichever function the user requires, including non-camera functions such as gate control.

The ZTX4 and ZTX5 have additional iris control, two further latching auxiliaries (lamps and wipe) and one momentary auxiliary (wash). All latching keys have an associated LED to indicate their current status.

All models use Baxall Coaxial Telemetry, which is compatible with a wide range of Baxall telemetry receivers, and the user may select synchronous or asynchronous telemetry for best picture quality. The ZTX4 also provides for 20mA current loop (twisted pair) telemetry for compatibility with additional receivers.

### Simple System Set-Up

Setting up all the features of the ZTX5 is accomplished via menus displayed on the main monitor and selection of the menu options using the ZTX5 keys. The procedure is simple to use and users are guided through each stage by instructions on-screen. Programmable functions include dwell times, camera presets (working interactively with the camera controls in a point and press manner) and alarm responses.

### Multi-Camera System Features

The ZTX5 forms the basis of a versatile multi-camera system with built-in intelligence to simplify the setting up and operation of the system under normal and alarm conditions.

It is capable of controlling up to eight cameras, providing a range of viewing options on two monitors and responding automatically to individual or multiple camera alarms. Camera selection is performed by pressing one of eight keys and selection is confirmed by an illuminated LED on the switch. The operator then has full control over the selected camera's main and auxiliary functions, including the ability to drive it to one of eight preset positions.

Auxiliary functions may also be controlled globally, allowing the operator, for example, to switch on all camera wipers or lamps simultaneously. The unit also provided independent display sequences for both the main and spot monitors. The main monitor has individually adjustable dwell times for each camera. The spot monitor has a globally adjustable dwell time combined with a user-selectable skip facility to de-select cameras the operator wants to keep hidden.

Up to eight alarm inputs are available to the ZTX5 using the AL8, one associated with each camera. The ZTX5 responds to the alarm condition by selecting the alarmed camera, activating a user-defined preset to drive the camera to the most appropriate position before displaying the resultant picture on the main monitor. In the event of multiple alarms the most recent alarm can be displayed or all alarmed views can be sequenced on a two second sequence. The display sequence on the spot monitor is unaffected by alarms.

The ZTX5's response to clearing alarms can be preset by the user to one of three conditions: display of the last alarmed camera, return to pre-alarm set-up or resumption of the main monitor sequence.

## Technical Specification

| FUNCTION             | ZTX3 | ZTX4 | ZTX5        |
|----------------------|------|------|-------------|
| Camera Inputs        | 1    | 1    | 8           |
| Monitor Outputs      | 1    | 1    | 2           |
| Pan & Tilt           | ✓    | ✓    | ✓           |
| Focus                | ✓    | ✓    | ✓           |
| Zoom                 | ✓    | ✓    | ✓           |
| Iris                 | •    | ✓    | ✓           |
| Camera Power - Aux 1 | ✓    | ✓    | ✓           |
| Wash - Aux 2         | •    | ✓    | ✓           |
| Auto-Pan - Aux 3     | ✓    | ✓    | ✓           |
| Lamps - Aux 5        | •    | ✓    | ✓           |
| Wipe - Aux 6         | •    | ✓    | ✓           |
| Camera Presets       | •    | •    | ✓           |
| Sync/Async Telemetry | ✓    | ✓    | ✓           |
| 20mA Loop Telemetry  | •    | ✓    | •           |
| Camera Sequences     | •    | •    | Spot & Main |
| Dwell                | •    | •    | ✓           |
| Alarm Inputs         | •    | •    | ✓           |
| Simple Menu Setup    | •    | •    | ✓           |

## Product Codes

|               |   |
|---------------|---|
| <b>A26110</b> | Baxall ZTX3 Single Channel Telemetry Transmitter c/w 2 Auxiliary Functions    |
| <b>A26041</b> | Baxall ZTX4 Single Channel Telemetry Transmitter c/w 5 Auxiliary Functions    |
| <b>A26042</b> | Baxall ZTX5 8 Channel Telemetry Transmitter, 2 Monitor Output 5 Aux Functions |



## Features

- Faster operator response due to compact, ergonomic design
- Built-in intelligence gives simplified system management
- Choice of 2, 4 or 8 camera inputs
- Choice of 1 or 2 independent monitor outputs
- User selectable dwell per camera
- Visual indication of camera selection on switcher and monitor
- Optional automatic alarm per channel response facility
- Automatically skips unused camera inputs

## DVS Desktop Video

The DVS desktop video Switches are designed to allow users to achieve the most economical solution to their needs for manual and automatic sequential video switching. Up to eight cameras may be linked to one or two monitors, with smooth switching transitions between cameras.

The attractive casing is styled to enhance even the most prestigious environment, and the layout is designed to maximise operator efficiency, allowing rapid, accurate response to emergency situations.

The DVS1 range of Switches route the output from up to eight video cameras to a single monitor. The cameras may be selected manually by a single key, or their views may be screened sequentially with the user-defined global dwell time. The DVS2 range of Switches route the output from up to eight cameras to two monitors independently. Usually one of the monitors is used to display a continuous picture from one (operator selectable) camera, whilst other monitor screens sequential views from all the cameras.

The dwell times on the DVS24A and DVS28A are set on the Switcher using an on-screen display. The value is selected and is variable per camera.

With the DVS24A and DVS28A Switches, the identification number of the currently selected camera is shown via the on screen display (the position of this may be set by the user). The current camera is also shown on the switcher by lighting an LED in the associated key. Unused camera positions are automatically skipped.

The DVS24A and DVS28A Switches may be used with the optional DVS/AL8 alarm unit which automatically displays the view where an alarm event has occurred with a user selectable choice of actions for subsequent alarms.

The DVS/AL8 alarm unit will accept up to 8 alarm inputs and connects to a DVS24A or DVS28A via a single lead. It has a single pulsed alarm output which may, for example, be used to control a VCR connected to the Main monitor output (directly, via the monitor or via a T-piece) so that it will record the alarm scene.

All units are powered from a 12 volt supply operating from a mains plug-in adaptor for increased operator safety. High quality, low movement tactile keys are fitted to all Switches for extended, trouble-free life.

## Technical Specification

| Model Variation  | DVS14L           | DVS14               | DVS18       | DVS24A  | DVS28A             |
|--|------------------|---------------------|-------------|---|--------------------|
| Model Number   | DVS14L           | DVS14               | DVS18       | DVS24A  | DVS28A             |
| Product Code   | 604.004.007      | 604.004.008         | 604.004.009 | 604.004.010   | 604.004.011        |
| Camera Video Inputs  | 4                | 4                   | 8           | 4   | 8                  |
| Monitor Video Inputs   | 1                | 1                   | 1           | 2   | 2                  |
| Control Keys   | 5                | 5                   | 9           | 6   | 10                 |
| Sequencing - main monitor All except DVS14L offer fully programmable sequencing* |                  |                     |             |   |                    |
| Sequencing Spot Monitor  | n/a              | n/a                 | n/a         | Sequences Camera inputs in numerical order skipping unused inputs |                    |
| Dwell Adjustment   | Global 5-50 secs | Per Input 1-60 Secs | per input   | 1 to 60 secs, main, global plus 5-50 secs spot                    |                    |
| OSD Menu   | no               | yes                 | yes         | yes   | yes                |
| Built In Alarms  | no               | no                  | no          | 4 inputs, 1 output  | 8 inputs, 1 output |
| Programmable Titles  | no               | yes                 | yes         | yes   | yes                |
| VCR Lock   | no               | yes                 | yes         | yes   | yes                |
| * DVS14L sequences camera inputs in numerical order, skipping unused inputs      |                  |                     |             |   |                    |

## Product Codes

Optional Parts  
A26055

Switcher Alarm Interface Unit For  
DVS24A & DVS28A

## Chapter 7 - Flat Panels & Monitors

Flat Panel Hi Sharp 15,17 inch and 19 inch CCTV LCD Flat Panel Monitors with Multi-mode functions.

Tyco Safety Products have released a new range of 3rd Party VGA/Composite LCD flat panels.

### Flat Panel 15 "Hi-Sharp Multi-mode LCD Panel



Hi-Sharp 15,17 inch and 19 inch CCTV LCD Flat Panel Monitors with Multi-mode functions Tyco Safety Products have released a new range of 3rd Party VGA / Composite LCD flat panels.

#### Features

- VGA resolution : 1024 x768 pixels
- Composite res : 625 lines, 50 fields (PAL)

- Active Area (mm): 304.128(H) x 228.096(V)
- Viewing Angle (HxV) : 130° / 100°
- Response Time : 16ms
- VGA : 15 pin D-SUB connector
- Composite : BNC x 2/ BNC x 2
- Looping Output Auto Termination
- Audio : RCA x 2/ RCA x 2 Y/C Input
- 4-pin DIN connector x 1
- Speaker : 2W + 2W
- Weight : N.W./ G.W.: 4.5kg/ 6.5kg

- Dimension : 390(W)x74.2(D)x354,5(H)mm
- Power Consumption : 35W

#### Product Code

HS-CL15V

Flat Panel

### 17" Hi-Sharp Multi-mode LCD panel



#### Features

- VGA resolution : 1024 x768 pixels
- Composite res : 625 lines, 50 fields (PAL)
- Active Area (mm): 337.92(H) x 270.36(V)
- Viewing Angle (HxV) : 160° / 160°

- Response Time : 16ms
- VGA : 15 pin D-SUB connector
- Composite : BNC x 2/ BNC x 2
- Looping Output Auto Termination
- Audio : RCA x 2/ RCA x 2 Y/C Input
- 4-pin DIN connector x 1
- Speaker : 2W + 2W

- Weight : N.W./ G.W.: 5.6kg/ 7.5kg
- Dimension : 390(W)x74.2(D)x354,5(H)mm
- Power Consumption : 40W

#### Product Code

HS-CL17V

### 19 "Hi-Sharp Multi-mode LCD Panel



#### Features

- VGA resolution : 1024 x768 pixels
- Composite res : 625 lines, 50 fields (PAL)
- Active Area (mm): 376.32(H) x 301.056(V)
- Viewing Angle (HxV) : 160° / 160°

- Response Time : 12ms
- VGA : 15 pin D-SUB connector
- Composite : BNC x 2/ BNC x 2
- Looping Output Auto Termination
- Audio : RCA x 2/ RCA x 2 Y/C Input
- 4-pin DIN connector x 1
- Speaker : 2W + 2W
- Weight : N.W./ G.W.: 6.5kg/ 8.3kg

- Dimension : 425(W)x75.6(D)x396(H)mm
- Power Consumption : 40W

#### Product Code

HS-CL19V

## Section 1 - American Dynamics 15 and 17 inch CCTV LCD Flat Panel with Multi-mode Functions

American Dynamics is adding several new LCD monitors with CCTV (motion video) and computer (analog) inputs. Able to automatically support NTSC/PAL video or computer (D-sub 15 pin) input, these monitors are ideal for security applications.

Offering automatic configuration, these monitors can be connected directly to cameras, VCRs or other conventional security equipment as well as computers or DVRs. With industry standard screen resolution up to SXGA (1280 x 1024) on the 17-inch monitor and XGA (1024 x 768) on the 15-inch monitor, these monitors offer looping video connections in both BNC and S-videoformats.

They also offer looping audio with RCA format connectors. With integrated adjustable bases and available VESA mount options, these monitors can be used in a variety of locations or applications. Anti-glare coating reduces ambient light reflection and the base offers easy tilting and adjustment.

Product description Using On Screen Display (OSD), both monitors automatically calibrate to their input or they may be manually adjusted. In Microsoft® Windows environments, the monitors provide automatic energy saving and power conservation.

## 15, 17 and 19-inch LCD Flat Panel Monitors with analog VGA (D-SUB) input

### 15 INCH Flat Panel VGA only



#### Feature

- Resolution : 1024x768 pixels - 16 ,7 Million colours .
- Connector : 1 Analog D-Sub 15 pin
- Viewing Angle ( HxV) : 170° /170°

- Response time : 25 ms
- Consumption : 45 Watts -120 /230 VAC
- Dimensions (H x W x D): 47.4 x . 47.4 x 21.8 cm
- Weight : .6.4 kg (13.3 lbs)

#### Product Code

ADMNC1LCD15

### 17 INCH Flat Panel VGA only



#### Feature

- Resolution: 1280 x 1024 pixel
- Connector: 1 Analog D-Sub 15 pin
- Viewing Angle (HxV): 170° / 170°
- Consumption: 45 Watts -120 /230 VAC

- Dimensions (H x W x D): 47.4 x 47.4 x 21.8 cm
- Weigh : .6.4 kg (13.3 lbs)

#### Product Code

ADMNC1LCD17

## Chapter 7 - Flat Panels & Monitors

### 15, 17 and 19-inch LCD Flat Panel Monitors with analogue VGA (D-SUB) input

#### 19 INCH LCD FLAT PANEL MONITOR WITH ANALOGUE VGA INPUT



##### Features

- 19-inch LCD Flat Panel Monitor With Analog VGA (D-Sub Input) and Audio Stereo .
- Dimensions : 47.4 x 47.4 x 21.8 cm
- Weight : 6.4 kg (13.3 lbs) .
- Resolution : 1280 x 1024 (max) 75 Hz Viewing Angle :  $\pm 85^\circ$  (H)  $\pm 85^\circ$  (V)

##### Product Codes

ADMNC1LCD19

### 15, 17 and 20-inch LCD Flat Panel with Multi-mode Functions

#### 15 INCH FLAT PANEL MONITOR WITH Multi-mode FUNCTIONS



##### Features

- VGA Resolution : 1024x768 pixels
- Viewing angle : 150° (H) 140° (V)
- Viewing Area : 304 (H) x 228 (V) mm
- S-Video : 1 in (DIN-4), 1 V pp 75? and 1 loop-through out
- Audio speakers : 2 x 1.0 watts built-in
- Dimensions (H x W x D)

Without Base : 40.05 x 33.02 x 6.35 cm

With Base : 40.05 x 40.95 x 18.41 cm

- Unit Weight

Without Base : 4.3 kg (9.5 lbs)

With Base : .5.0 kg (11.0 lbs)in

- Dimensions (H x W x D)

Without Base : 40.05 x 33.02 x 6.35 cm

With Base : 40.05 x 40.95 x 18.41 cm

- Unit Weight

Without Base : 4.3 kg (9.5 lbs)

With Base : .5.0 kg (11.0 lbs)

##### Product Codes

ADMNM1LCD15

#### 17 INCH LCD FLAT PANEL MONITOR WITH Multi-mode FUNCTIONS



##### Features

- VGA Resolution : 1280x1024 pixels
- Viewing angle : 150° (H) 140° (V)
- Viewing Area : .338 (H) x 270 (V) mm
- S-Video : 1 in (DIN-4), 1 V pp 75? and 1 loop-through out
- Audio speakers : 2 x 1.0 watts built-in
- Dimensions (H x W x D)

Without Base : 40.05 x 33.02 x 6.35 cm

With Base : 40.05 x 40.95 x 18.41 cm

- Unit Weight

Without Base : 4.3 kg (9.5 lbs)

With Base : .5.0 kg (11.0 lbs)

##### Product Codes

ADMNM1LCD17

#### 20 INCH FLAT PANEL MONITOR WITH Multi-mode FUNCTIONS



##### Features

- Active Matrix TFT LCD
- NTSC/PAL and RGB computer input
- VGA Resolution : 800 x 600 Pixel
- Composite resolution : 625 lines, 50 fields/sec (PAL)

- Response time : 16 ms
- Viewing Area : 408 x 306 mm
- Viewing Angle ( HxV ) : 160°/160°
- Power Input Voltage . : 96 – 256 VAC 60 Hz / 50 Hz

##### Product Codes

ADMNLC20 ( Black colour )

ADMNLC20W ( White colour )

ADMNLC20RK ( Black Rack mount)

### Mounts for Flat Panel

#### ADMMTLCDPL



##### Technical Specification

Material: Metal and plastic  
Weight: 3.8 Kg (8.50 lbs).  
Shipping Weight: 4 Kg (9.00 lbs).

##### Product Codes

ADMMTLCDPL

#### RHSP730PL



##### Technical Specification

Material: Metal and plastic  
Weight: 3.6 Kg (8.00 lbs).  
Shipping Weight: 3.8 Kg (8.50 lbs).

##### Product Codes

RHSP730PL

#### ADMNMTLCDWAL



##### Technical Specification

Material: Metal and plastic  
Weight 5 Kg (11.00 lbs).  
Shipping Weight: 5.2 Kg (11.50 lbs).

##### Product Codes

ADMNMTLCDWAL

## Section 2 - Monochrome Monitors

### Vista Monochrome Monitors (Supplied with ADT Sticker) - ADT Branded Monochrome Monitors



#### Features

- 1000TVL resolution
- Metal case
- Choice of 9,12,14 or 17"

Ideal for applications such as  
Retail environments  
Control Rooms  
Industrial sites  
Offices

The NVM range of monitors comprises a selection of screen sizes from the compact 9" to the 17" version.

All monitors offer an exceptional 1000 TVL resolution monochrome image, with audio as standard.

Built with premium performance and functionality in mind, the monitors are compatible with CCIR and EIA signal standards and can be powered from between 100 ~ 260V AC.

#### Product Codes

**NVM9BD.A** 9" High resolution monochrome monitor 1000TVL with Audio capability

**NVM12BD.A** 12" High resolution monochrome monitor 1000TVL with Audio capability **NVM15BD.A** 17" High resolution monochrome monitor 1000TVL with Audio capability

**NVM14BD.A** 14" high resolution monochrome monitor 1000TVL with audio

## Section 3 - Colour Monitors

### JVC Colour Monitor Range



The JVC Range of monitors give the excellent display, offering resolutions up to 550 lines. They are housed in space saving metal and plastic cases and most are provided with an in-built speakers.

Vertical, horizontal, brightness and contrast controls are available from the front of these units.

| Dimensions | Height | Width |
|------------|--------|-------|
| Depth      | TVL    |       |
| 10" Metal  | 220    | 222   |
| 316.3      | 300    |       |
| 14" Metal  | 310    | 348   |
| 389        | 320    |       |

|           |     |     |
|-----------|-----|-----|
| 17" Metal | 334 | 395 |
| 418       | 750 |     |
| 21" Metal | 408 | 476 |
| 492       | 450 |     |

#### Product Codes

**603.004.073**

JVC 10" colour monitor TM-A101G

**603.004.067**

14" JVC Colour Monitor, Metal Case

TM-A140PN

**603.004.076**

JVC 17" colour Monitor TM-A170G

**603.004.081**

21" JVC Colour Monitor TM 2100PN

### Sanyo Colour Monitors



The Sanyo 'TV Style' colour monitor is available in two sizes 14" and 21". These entry level monitors are supplied with plastic cases and provide a low cost solution to your CCTV needs.

| Dimensions |       | Height |     |
|------------|-------|--------|-----|
| Width      | Depth | TVL    |     |
| 14"        | 336.5 | 370    | 379 |
| 400TVL     |       |        |     |
| 21"        | 466   | 514    | 482 |
| 400TVL     |       |        |     |

We recommend that the following brackets only are used with these monitors.

#### Product Codes - Brackets

**603.003.246**

Ceiling mounted bracket for Sanyo

VMC7321

**603.003.247**

Wall mounted bracket for Sanyo

**VMC7321**

**603.003.248**

Ceiling mounted bracket for Sanyo

VMC7314

**603.003.249**

Wall mounted bracket for Sanyo

VMC7314

#### Product Codes - Monitors

**603.004.074**

Sanyo VCM7314P 14" Colour Monitor 320TVL Plastic Case with audio

**603.004.075**

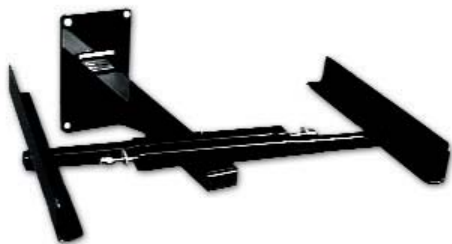
Sanyo VCM7321P 21" Colour Monitor 320TVL Plastic Case with audio



## Section 4 - Monitor Brackets

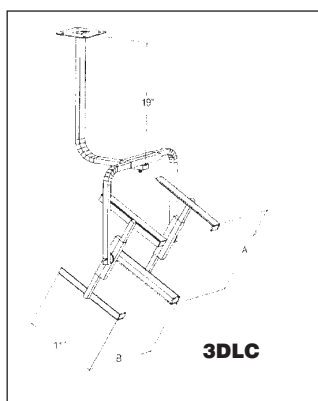
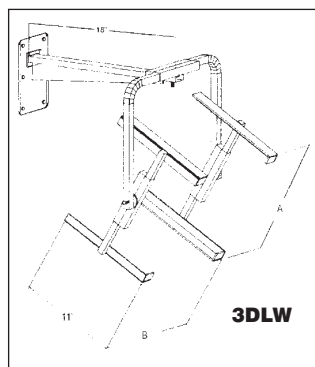
### Features

- Ceiling or Wall Mounting
- Powder coated for durability
- Robust



### Ceiling Mounted Monitor Brackets

Powder coated for long lasting durability and impressive finish, the brackets are available in black.



|                            | A25098<br>3DLMC | A25097<br>3DLMW | A25096<br>1DL-MOD | 603.003.141<br>3DLSLC |
|----------------------------|-----------------|-----------------|-------------------|-----------------------|
| 603.004.081<br>JVC 21" Col | ✓               | ✓               |                   |                       |
| 603.004.067<br>JVC 14" Col |                 |                 |                   | ✓                     |
| 603.004.073<br>JVC 10" Col |                 |                 | ✓                 |                       |
|                            | CEILING         |                 | WALL              |                       |
| Sanyo 14"<br>603.004.074   | 603.003.248     |                 | 603.003.249       |                       |
| Sanyo 21"<br>603.004.075   | 603.003.246     |                 | 603.003.247       |                       |



Sanyo Ceiling Mount



Sanyo Wall Mount

### Product Codes

**603.003.141** Monitors Ceiling Bracket For 9" 10" & 12"  
Gardiner Engineering 3DLSC  
Monitor Heights Size A 225mm to 400mm  
Monitor Widths Size B 187mm to 375mm

**A25098** Medium Ceiling Mount For 17-21"  
Monitors Gardiner Engineering 3DLMC  
Monitor Heights Size A 350mm to 525mm  
Monitor Widths Size B 362mm to 600mm

**A25096**

**A25097**

Monitor Wall Bracket For 9" To 14"  
Gardiner Engineering 1DL-MOD (Photo)  
Medium Wall Mount For 17-21" Monitors  
Gardiner Engineering 3DLMW  
Monitor Heights Size A 350mm to  
525mm Monitor Widths Size B 362mm to  
600mm

# Chapter 8 - Multiplexers and Quads

## Section 1 - American Dynamics Multivision Quest Multiplexers



### Features

- 4, 9 and 16 channel versions
- Colour models
- 720 x 576 (PAL) pixel display with 16 million colours
- Covert camera programming
- Intelligent video motion detection
- History log for up to 255 alarms
- Video loss or motion detection events
- User-friendly on-screen menus
- Ability to freeze live and recorded images
- Up to three pre-programmed main monitor sequential switching modes
- Two levels of password protection
- Adjustable gain control for each camera

### Multivision® Quest Duplex Multiplexers

The Multivision Quest Duplex Multiplexers offer advanced features not typically found in standard multiplexers. The duplex capability allows users to view live or recorded video while also recording at the same time.

Video inputs can be programmed as covert so that certain cameras are recorded but not viewable on the monitors. Three types of alarm events are supported: video loss, alarm inputs via the rear panel, and motion detection.

Motion detection for each individual camera is programmed via a detection grid. Each alarm event can be programmed to put the multiplexer into alarm mode, which can result in on-screen alarm text, an internal buzzer sounding, and a relay being triggered.

Triggered alarm inputs can be programmed to increase the camera record rate. Alarm dwell time is user selectable from 1 to 9,999 seconds. In addition, as these events occur they are stored in a non-volatile event history log. The most recent 255 events are kept in the list.

For installations where cameras are located at long distances and video signal integrity is affected, the gain control for each individual camera can be adjusted to restore picture quality. The multiplexer has two passwords: one for resetting the unit to factory settings, one for configuring the unit during installation.

### Product Codes

|          |   |
|----------|---|
| DMV94Q-1 | Duplex, 4 channel, colour multiplexer, 230VAC, PAL  |
| DMV99Q-1 | Duplex, 9 channel, colour multiplexer, 230VAC, PAL  |
| DMV96Q-1 | Duplex, 16 channel, colour multiplexer, 230VAC, PAL |

### Did You Know?

#### The Difference Between Simplex, Duplex and Triplex Multiplexers

Simplex can only provide one multiplexed operation at once. This can be sent to a VCR (or a single channel digital recorder or onto the main monitor).

Duplex provides two multiplexed outputs allowing both recording and viewing of multi images at the same time.

Triplex provides three multiplexed operations, recording, viewing and also viewing images being played back on a second VCR or single channel digital recorder all at the same time. Generally this is viewed in a quad screen format where one or two images are live and the other images are being played back.





### Features

- View live and pre-recorded video simultaneously on same screen while recording at the same time
- 10 and 16 channel versions
- 720 x 576 (PAL) pixel display with 256 greys and 16 million colours
- 50 (PAL) fields/second refresh rate
- Covert camera programming
- Per-camera scheduler for day/night alarm and motion settings, Intelligent video motion detection
- Can play back encoded video from other Robot® Multivision multiplexers
- Two levels of password protection
- Active window selection for real time display
- Adjustable gain control for each camera
- Ability to freeze live and recorded images
- Up to three user programmable main monitor sequential switching
- Compatible with the AD Touchtracker Controller

### Multivision® Quest Triplex Multiplexers

The Multivision Quest Triplex Multiplexers offer advanced features not typically found in standard multiplexers. The triplex capability allows users to view live and recorded video simultaneously on the same screen, while also recording at the same time.

Viewing options are available for 2x zoom, picture in picture, programmable sequential switching, and a variety of multi-view screen layouts in any combination of live and recorded video. Users can also use the active window feature to select a window (live or play-back) to display video in real time. Video inputs can be programmed as covert so that certain cameras are recorded but not viewable on the monitors.

Three types of alarm events are supported: video loss, alarm inputs via the rear panel, and motion detection. Motion detection for each individual camera is programmed via a detection grid and has two settings for indoor/out-door applications. Each alarm event can be programmed to put the multiplexer into alarm mode, which can result in on-screen alarm text, an internal buzzer sounding, and a relay being triggered.

Motion detection, as well as triggered alarm inputs, can be programmed to increase the camera record rate based upon time of day. Alarm dwell time is user selectable from 1 to 9,999 seconds. In addition, as these events occur they are stored in a non-volatile event history log. The most recent 255 events are kept in the list. Video inputs can be programmed for priority recording during normal and alarmed activity. For installations where cameras are located at long distances and video signal integrity is affected, the gain control for each individual camera can be adjusted to improve picture quality.

The multiplexer has two passwords: one for resetting the unit to factory settings, one for configuring the unit during installation.

### Product Codes

|          |   |
|----------|---|
| TMV96Q-1 | Triplex, 16 channel, colour multiplexer, 230VAC, PAL                  |
| MQRPNL   | Remote control panel for all the Quest Multiplexers (duplex, triplex) |



### Features

- Dimensions (H x W x D) :44 x 435 x 39 mm(1.75 x 17.13 x 1.55 in)
- Weight With Desktop Base :1.2 kg (2 lbs 11 oz)
- Compatible with all Multivision Quest duplex and triplex multiplexers
- Connect up to sixteen multiplexers to one remote panel and easily change which multiplexer you control
- Daisy chain up to four remote panels
- Maximum distance is 300 m (1,000 ft)
- Easy to install and operate from desktop or rack mount

### Multivision Quest Remote Control Panel

Expand the control of your CCTV multiplexer system with a Multivision Quest Remote Control Panel. Each unit connects up to sixteen multiplexers located up to 300)m (1,000 ft) away, giving security operators remote control from a central location.

The Remote Control Panel connects easily and operates like the front panel on the multiplexer.

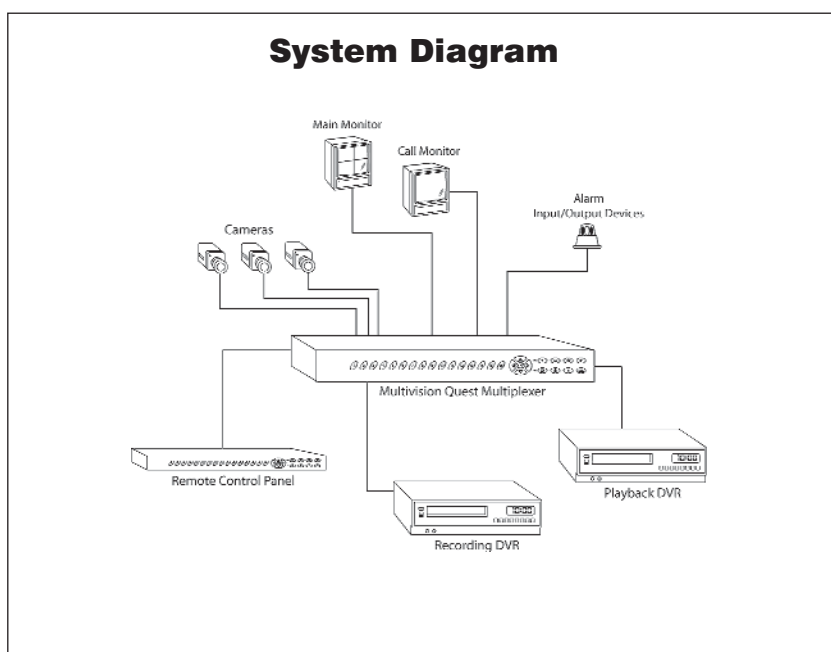
The Remote Control Panel comes with everything you need for desktop or rack mount use.

Up to four Remote Control Panels can be daisy chained, each up to 300 m (1,000 ft) from the previous panel. In addition, up to sixteen multiplexers can also be daisy chained using one or more Remote Control Panel(s).

### Product Codes

#### **MQRPNL**

Remote control panel for Quest multiplexers



### Section 2 - American Dynamics Quads

Offering choices of either monochrome or colour, standard or premium models, this range of Quads will suit the majority of requirements.



#### Features

- Improved video performance
- Fully digital chipset, no analog processing
- Improved MTBF

#### American Dynamics Quads

Available at the same two performance levels as the previous NTSC and PAL versions, the quads provide video resolution of either 515 x 512 (standard) or 1024 x 512 (premium).

Each model features easy setup and operation via front panel push buttons and offers comprehensive alarm options and security lockout.

Premium models ADQUAD87 -1 offers remote control of up to nine quads via RS-232. In playback mode, they also provide 2x image zoom, freeze frame and enhanced images for event analysis.

#### Product Positioning

These quads all provide reliable performance and excellent picture clarity. Standard resolution models ADQUAD27-1 and ADQUAD77-1 are value driven options with popular features and excellent image quality

#### NEW Features, Functions & Advantages

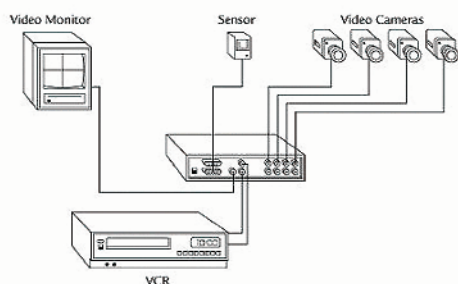
| Feature                               | Function           | Advantage/Value                   |
|---------------------------------------|--------------------|-----------------------------------|
| Formatted Digital video chipset       | Video processing   | Improved motion and image clarity |
| Formatted External impedance switches | Impedance settings | Provides manual impedance control |

#### Technical Specification

|                       |  |
|-----------------------|--|
| Display Rate:         | Real time, 30 fields per second                  |
| Alarm inputs/outputs: | 4 Alarm input / 1 Relay output                   |
| PAL:                  | 625 lines, 50 fields per second                  |
| Dimensions:           | 44 x 216 x 311 mm<br>(1.75 x 8.5 x 12.25 inches) |

#### Product Codes

|                   |   |
|-------------------|---|
| <b>ADQUAD27-1</b> | Quad, 4 channel In/Out, B/W, 512 x 512, 220VAC, CCIR                                    |
| <b>ADQUAD77-1</b> | Quad, 4 channel In/Out, colour, 512 x 512, 220VAC, PAL                                  |
| <b>ADQUAD87-1</b> | Quad, 4 channel In/Out, colour, 1024 x 512, enhanced playback with 2X zoom, 220VAC, PAL |



### Chapter 9 - Digital Video Systems

#### Section 1 - HiSharp Low Cost 4 way DVR



##### Features

- Entry-level digital solution (MPEG-4) for small applications
- Operates in Triplex mode – view, record, and playback images simultaneously
- Recording speed up to 25 pps per camera
- Live viewing over local Ethernet
- Remote alarm recording capability
- USB-2 port for quick and easy archiving to ThumbDrive
- Audio in x4/audio out x1
- Internal CD writer

##### HiSharp Low Cost 4 way DVR

Replace your traditional VCR/Multiplexer combination with HiSharp's new low-cost, compact, four-channel digital video recorder. This unit brings all the benefits of digital security monitoring to the budget-conscious small business/home owner.

A user-friendly interface and more than one month of hard disk recording make it easy to use, install, and maintain in a small-business environment. The elimination of tape management issues and VCR maintenance costs means that it provides a fit and forget solution, with a simple search function for reviewing video. In addition, it includes security features such as external alarm inputs and motion detection that triggers an alarm when movement in a user-definable area of the image is detected.

This unit allows simultaneous viewing, recording, and playback of video images. Where video is required for evidence of an incident, it is simple to archive the video to CD or thumbdrive.

##### Product Codes

HS-DF401B

4 way DVR with 160GB Hard disk & internal CD/RW

### Section 2 -Dedicated Micros DVR's

Digital Sprite 2 technology to provide installation simplicity, peace of mind and ease of use.

With several generations of evolution, the current range of features meet the requirements of nearly all CCTV recording applications.



#### Features

- Internal CD Writer
- Internal PSU
- Compact and Familiar Design
- Two months Standard Recording
- No Learning Curve - 100% DS2 Compatible

#### Dedicated Micros DVR's

The Digital Sprite 2 has always set the standard for easy to use, reliable digital video recording with integrated telemetry control. Now a new generation of the DS2 is available that retains the features that have made the product so popular but adds significant improvements in local and networking functionality.

##### Flexible one box solution

The new DS2 now combines Transmission with Telemetry Control and Recording into one platform so there is no need for additional hardware when integrating a comprehensive CCTV solution. Furthermore, on-site operations have been enhanced with features such as DVD archiving and DuoVu whilst maintaining the DS2's familiar user interface.

##### Multi-Mode Recording

Taking the functionality and flexibility of the DS2 to a new level, MultiMode Recording gives greater control over individual camera settings by providing settable recording resolutions (4CIF down to QCIF), dynamically switchable MPEG-4/JPEG compression settings and configurable record rates per camera (up to 100pps). This increased flexibility allows greater freedom in how CCTV systems can be configured and allows the user to record cameras how they like, when they like.

##### Feature packed

With other new features such as FTP Continuous Archiving adding to its already comprehensive feature list (simultaneous MPEG-4 & JPEG transmission and recording, and improved search tools such as GOTO, and Smart Search), its palette of essential tools for both the local and remote operator are hard to beat.

##### A great combination

The user-friendly interface, remote management capability and leading edge features mean that the new DS2 can provide greater control and flexibility than ever before, and as part of the 'NetVu Connected' family the new DS2 is built to adapt to future advances in security technology, protecting your investment for years to come.

#### Product Codes

|                |  |
|----------------|--|
| DM-DS2PD160-06 | DM New DS2A 6 way 160GB<br>+ CD/RW – Netvue connected  |
| DM-DS2PD320-06 | DM New DS2A 6 way 320GB<br>+ CD/RW – Netvue connected  |
| DM-DS2PD160-16 | DM New DS2A 16 way 160gb<br>+ CD/RW – Netvue connected |
| DM-DS2PD160-09 | DM New DS2A 9 way 160GB<br>+ CD/RW – Netvue connected  |
| DM-DS2PD320-09 | DM New DS2A 9 way 320GB<br>+ CD/RW – Netvue connected  |
| DM-DS2PD320-16 | DM New DS2A 16 way 320GB<br>+ CD/RW – Netvue connected |
| DM-DS2PD600-16 | DM New DS2A 16 way 600GB<br>+ CD/RW – Netvue connected |



### Features

- Internal CD Writer
- Compact and Familiar Design
- Hard Drive Variants

### ADT 4 Way DVR with CD

The ADT 4 way DVR is available with a CD writer built in, providing a quick and easy way of copying relevant footage to standard CD media. Everything is contained in one box and is immediately available -no cumbersome cables, no problems mounting extra boxes, no hanging around waiting for additional equipment to arrive.

Simply press the copy button; select the required start and stop times to create a CD that the police can take away with them. Audio and other data related to the images is copied with the video to complete the understanding of the event. Images copied to CD are automatically played back when the CD is inserted into a Windows PC, with no additional software to install.

#### Internal CD writer

No external CD recorders, SCSI cables or additional power supplies are needed. Everything you need to copy images to CD in is one box, making the new units simpler to order, install and use.

#### Compact and familiar design

Using low profile CD technology, the ADT 4 way DVR with CD keeps exactly the same familiar front panel as units without CD and the same footprint, while only slightly increasing the height.

#### Hard drive variants

The ADT 4 Way DVR with 4 CD is available in 80 & 160GB hard drive variants.

### Product Codes

603.006.078.A  
603.006.079.A

ADT 4way DVR & CD 80GB  
ADT 4way DVR & CD 160GB

### Section 3 - American Dynamics Intellex Digital Video Management Systems



#### Features

- Full range of DVR for different budgets
- DVR models from 4 to 16 ways
- Windows XPro enabled
- Unique compression format ACC

#### Digital Video Management Solution from American Dynamics

When Intellex launched at ISC East in 1997, it gave the world three innovations in motion video technology: Smart Search, Instant Replay and Intellecord®, which introduced the concept of event recording. That year American Dynamics took home the Product Achievement Award for CCTV Systems, the Judge's Choice Award and the CEO Technology Award for Most Innovative Product. Since then our DVRs have only improved.

##### Intellex Digital Management System

Featuring the powerful, compact Intellex Ultra — best in class for performance, reliability, integration and value. Or, choose from the Intellex DVMS, Intellex LT or Intellex IP platforms to suit your particular need.

##### Intellex Ultra (available with 16 channels)

Intellex Ultra is a reliable, high performance platform that captures higher resolution, de-interlaced images (4CIF, 200 ips; 2CIF, 400 ips) without compromising the capability to record full motion video. Its 3U chassis saves expensive rack space, making it an ideal solution for applications like casinos or government facilities with limited space for security equipment. For ultimate flexibility and security, Intellex Ultra has up to four front-accessible, swappable 3.5 inch hard drive bays which can optionally be used in a RAID 5 configuration. Plus, an industry first, separate, solid-state, embedded system drive means no moving parts to wear out or fail.



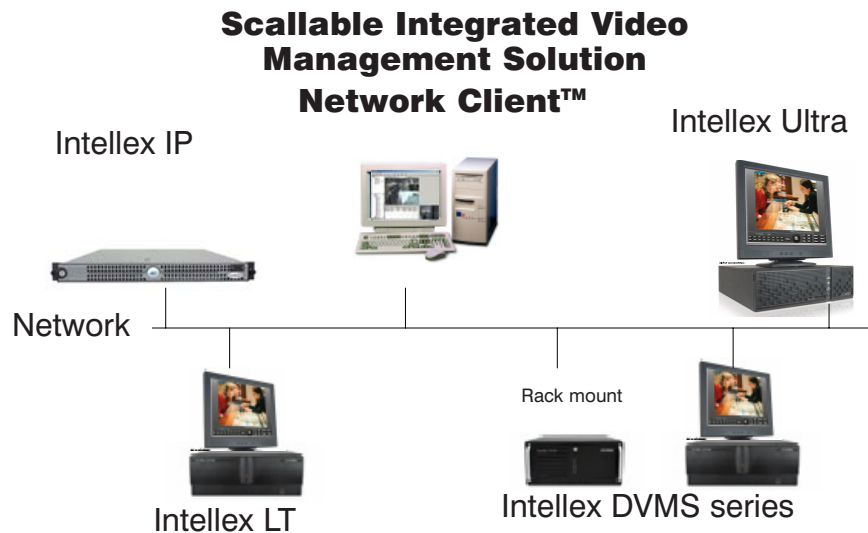
##### Intellex IP (up to 16 network video streams)

Intellex IP supports IP cameras with performance of up to 400 ips at 1CIF and 100 ips at 4CIF. Intellex IP integrates seamlessly with existing Intellex systems and analog and digital cameras to leverage prior investments. Its scalable 1U form factor complements the design of large systems. The ability to use existing IT network cable further reduces total cost of ownership.(1) Requires v4.0 or higher.

##### Intellex DVMS

The original digital video management system, Intellex DVMS has been leading the market since 1997. Intellex DVMS offers a 16-channel system that records up to 100 ips at 2CIF. Intellex DVMS is offered in a desktop or rack mount chassis with Standard, Premier packages.









This means simplified packaging for easier ordering, maintenance and configuration. And because Intellex DVMS is networkable and easily integrates with other equipment and software applications, it's a cost-effective solution for many new and existing applications.

**Intellex LT (available with 4, 8 and 16 channels)**

Intellex LT delivers the key Intellex features in an economical package, providing the best solution for small retail stores, health care facilities and small offices. It can store more than 900 hours of video and supports as many as five simultaneous Network Client users.

## DVR COMPARISON TABLE

|   |   |   |   |    |
|---|--|--|--|---|
|   | Intellex Ultra<br>(Premier)  | Intellex DVMS<br>(Standard & Premier)  | Intellex LT<br>(Premier)   | Intellex IP-<br>(Premier)   |
| Maximum Images per Second (NTSC/PAL)                                  | 480/400  | 120/100  | 60/50  | 480/400   |
| Storage Capacity  | 400 GB , 800 GB, 1.2 TB<br>1.6 TB (RAID 5 1.2 TB)  | 160 GB, 250 GB , 320GB<br>500 GB, 750 GB <sup>3</sup>  | 160 GB, 320 GB   | 250 GB, 500 GB  |
| Windows ®XP PRO   | Yes  | Yes  | Yes  | Yes   |
| Record Mode   | Linear or<br>Circular/Continuous   | Linear or<br>Circular/Continuous   | Linear or<br>Circular/Continuous   | Linear or<br>Circular/Continuous  |
| Pre-Alarm Recording   | Yes (up to 5 minutes)  | Yes (up to 5 minutes)  | Yes (up to 60 seconds)   | Yes (up to 5 minutes)   |
| Alarm Indexing  | Yes (15 minutes)   | Yes (15 minutes)   | No   | Yes (15 minutes)  |
| Alarm /Event Notification:  |  |  |  |   |
| Remote  | Yes (via Network Client)   | Yes (via Network Client)   | Yes (via Network Client)   | Yes (via Network Client)  |
| Local   | Yes  | Yes  | Yes  | Yes   |
| E-mail  | Yes  | Yes  | Yes  | Yes   |
| Resolutions (CIF)   | 1,2, 4, (640 x 480)  | 1, 2   | 1,2  | 1,2,4   |
| Text Insertion (Via Serial Port)                                      | Yes  | Yes <sup>4</sup> (up to 8 channels)  | Yes <sup>4</sup> (up to 8 channels)  | Yes   |
| Video Analysis Tools<br>(Size Speed Direction is<br>Motion Exception) | Yes  | Yes, Premier Edition only  | No   | No  |
| Smart Search  | Yes  | Yes  | Yes  | Yes   |
| Custom Schedule/Weekends  | Yes, with IntellexCord®  | Yes, with IntellexCord®  | Yes, with IntellexCord®  | Yes, with IntellexCord®   |
| Multi-Screen Playback   | Yes  | Yes  | No   | Yes   |
| Cover Camera  | Yes  | Yes  | Yes  | Yes   |
| Dome Control  | Via Network Client,<br>Browser Client or<br>Intellex GUI (via ADTT16E<br>ADACSENT, MP48<br>AD168, AD 1024 or other<br>third party switchers) | Via Network Client,<br>Browser Client or<br>Intellex GUI (via ADTT16E<br>ADACSNEET, MP48<br>AD168, AD1024 or other<br>third party switchers) | Via Network Client,<br>Browser Client or<br>Intellex GUI (via ADTT16E<br>ADA CSNET, MP48<br>AD168, AD1024 or other<br>third party switchers) | Via Network Client<br>Browser Client or<br>Intellex GUI (via ADTT16E<br>ADACSNET, MP48<br>AD168, AD1024, other<br>third party switchers) and<br>IP 422-compatible device) |
| Alarm-Triggered Camera<br>Action                                      | Yes  | Yes  | Yes  | Yes   |
| User-Defined MatrixDome<br>Control Camera Handler                     | Yes  | Yes  | Yes  | Yes   |
| Activity Log<br>(Who, When, Why)                                      | Yes  | Yes  | No   | Yes   |
| 3rd Party Integration via API   | Yes  | Yes  | Yes  | Yes   |
| Chassis Configuration   | 3U, Desktop/Rack Mount<br>configurable   | 4U, Desktop or Rack Mount <sup>5</sup>   | 4U, Desktop or Rack Mount <sup>5</sup>   | 1U Rack Mount   |
| Alarm Quality & Sensitivity   | Yes  | Yes  | Yes  | Yes   |
| Settings  |  |  |  |   |
| Camera -- Selectable  | Yes  | Yes  | No   | Yes   |
| Frame Rate  |  |  |  |   |
| One-Click Clip Export   | Yes, CD-RW/DVD+RW  | Yes, CD-RW/DVD+RW <sup>7</sup>   | Yes, CD-RW   | Yes, CD-RW  |
| Extended Storage  | SAN, NAS & DAS   | ESM:   | ESM:   |   |
| Options   | devices  | SAN, NAS & DAS devices   | SAN, NAS & DAS devices   | SAN, NAS & DAS devices  |
| Support for Remote  | Yes  | Yes  | Yes  | Yes   |
| Configuration & Management  |  |  |  |   |
| NTSC/PAL Toggle   | Yes  | Yes  | Yes  | N/A   |

(3) 180 and 320GB modules are available in Standard Edition only; 250GB and 500GB are available in Premier Editions; 750 GB model is available in Premier with rack mount chassis only.

(4) Premier Edition only

(5) Rack mount is only available in Premier Editions

(6) Accessory Kit is required for rack mount, ordered separately

(7) CD-RW is only available in the Standard Editions; DVD+RW is only available in the Premier Edition

## Chapter 9 - Digital Video Systems

### Model Number Configuration for Intellex Ultra, DVMS, and LT platforms

|         | BRAND | FAMILY                           | CHANNELS  | CHASSIS                                     | PLATFORM                      | FEATURES                   | STORAGE                                  |                                  |
|---------|-------|----------------------------------|---|---|-------------------------------|----------------------------|--|----------------------------------|
| Example | AD    | D                                | 6   | 00  | UL                            | P                          | 160                                      |                                  |
| ULTRA   | AD    | Digital Video Management Systems | 6 = 16 channels                                   | CO = Desktop/<br>Rack Mount<br>configurable | UL = Ultra<br>UR = Ultra Rait | P= Premier                 | 040 = 400 GB<br>080 = 800 GB             | 120 = 1,200 GB<br>160 = 1,600 GB |
| Example | AD    | D                                | 6   | 00  | DV                            | S                          | 025                                      |                                  |
| DVMS    |       |                                  | 8 = 8 channels<br>6= 16 channels                  | 00 = Desktop<br>RO = Rack Mount             | DV = DVMS                     | S= Standard<br>P = Premier | 016= 160GB<br>025 = 250GB<br>032 - 320GB | 050=500 GB<br>075 = 750 GB       |
| Example | AD    | D                                | 4   | 00  | LT                            | P                          | 016                                      |                                  |
|         |       |                                  | 4 =4 channels<br>8 =8 channels<br>6 = 16 channels | 00 = Desktop                                | LT + LT                       | P = Premier                | 016 =160GB<br>032 = 320                  |                                  |

### Model Number Configuration for Intellex IP

|         | BRAND | FAMILY                           | PLATFORM | STORAGE                      | AUDIO  |
|---------|-------|----------------------------------|----------|------------------------------|--|
| EXAMPLE | AD    | D                                | IP       | 250                          | A  |
| IP      | AD    | Digital Video Management Systems | IP = IP  | 250 = 250 GB<br>500 = 500 GB | Blank = No audio & Fire Wire<br>A = With audio & Fire Wire |

| ULTRA 4.0              |  | Description |
|------------------------|--|-------------|
| ADD600ULP080           | Intellex Ultra, 800GB native storage space, Intellex v4.0 software, Premier package, PAL/ NTSC   |             |
| ADD600ULP120           | Intellex Ultra, 1.2TB native storage space, Intellex v4.0 software, Premier package, PAL/ NTSC   |             |
| ADD600ULP160           | Intellex Ultra, 1.6TB native storage space, Intellex v4.0 software, Premier package, PAL/ NTSC   |             |
| ADD600URP120           | Intellex Ultra, 1.2TB native storage space, Intellex v4.0 software, Premier package, PAL/ NTSC   |             |
| ADD600ULP040           | Intellex Ultra, 400GB native storage space, Intellex v4.0 software, Premier package, PAL/ NTSC   |             |
| Intellex LT 4.0        |  |             |
| ADD400LTP016           | Intellex LT 4 Desktop, 160GB native storage space, Premier package, PAL/NTSC   |             |
| ADD400LTP032           | Intellex LT 4 Desktop, 320GB native storage space, Premier package, PAL/NTSC   |             |
| ADD600LTP016           | Intellex LT 16 Desktop, 160GB native storage space, Premier package, PAL/NTSC  |             |
| ADD600LTP032           | Intellex LT 16 Desktop, 320GB native storage space, Premier package, PAL/NTSC  |             |
| ADD800LTP016           | Intellex LT 8 Desktop, 160GB native storage space, Premier package, PAL/NTSC   |             |
| ADD800LTP032           | Intellex LT 8 Desktop, 320GB native storage space, Premier package, PAL/NTSC   |             |
| Intellex STANDARD 4.0  |  |             |
| ADD600DVS032           | Intellex DVMS DV16 Desktop 320GB native storage space, Standard package PAL/NTSC   |             |
| ADD800DVS016           | Intellex DVMS DV8 Desktop 160GB native storage space, Standard package PAL/NTSC  |             |
| Intellex DVMS 4.0      |  |             |
| ADD600DVP025           | Intellex DVMS DV16 Desktop, 250GB native storage space, Premier package, PAL/NTSC  |             |
| ADD600DVP050           | Intellex DVMS DV16 Desktop, 500GB native storage space, Premier package, PAL/NTSC  |             |
| ADD800DVP025           | Intellex DVMS DV8 Rack Mount, 250GB native storage space, Premier package, PAL/NTSC  |             |
| ADD800DVP050           | Intellex DVMS DV8 Rack Mount, 500GB native storage space, Premier package, PAL/NTSC  |             |
| Intellex DVMS Rack 4.0 |  |             |
| ADD6R0DVP025           | Intellex DVMS DV16000 Rack Mount, 250GB native storage space, Premier package, PAL/NTSC  |             |
| ADD6R0DVP050           | Intellex DVMS DV16000 Rack Mount, 500GB native storage space, Premier package, PAL/NTSC  |             |
| ADD6R0DVP075           | Intellex DVMS DV16000 Rack Mount, 750GB native storage space, Premier package, PAL/NTSC  |             |
| Intellex IP 4.0        |  |             |
| ADDIP250               | Intellex IP, 250GB native storage space, Intellex v4.0 software, 400 IPS, Advanced Search/IntelleCord, Single channel of audio (live and recorded), Single channel of text (recorded), Text based searching (local and support for remote), additional RS-232 interface                          |             |
| ADDIP250A              | Intellex IP, 250GB native storage space, Intellex v4.0 software, 400 IPS, Advanced Search/IntelleCord, Single channel of audio (live and recorded), Single channel of text (recorded), Text based searching (local and support for remote), additional RS-232 interface, Audio/IEEE1394 included |             |
| ADDIP500               | Intellex IP, 500GB native storage space, Intellex v4.0 software, 400 IPS, Advanced Search/IntelleCord, Single channel of audio (live and recorded), Single channel of text (recorded), Text based searching (local and support for remote), additional RS-232 interface                          |             |
| ADDIP500A              | Intellex IP, 500GB native storage space, Intellex v4.0 software, 400 IPS, Advanced Search/IntelleCord, Single channel of audio (live and recorded), Single channel of text (recorded), Text based searching (local and support for remote), additional RS-232 interface, Audio/IEEE1394 included |             |

## Chapter 9 - Digital Video Systems

### Product Codes

#### Accessories

|                |  |
|----------------|--|
| ADDSNC40       | Network Client Single User License   |
| ADDSNUL40      | Network Client Unlimited License   |
| ESM640,ESM1000 | 640GB or 1,000 GB Extended Storage Module (Uses up to three per Intellex unit)           |
| DVRM-01        | Front Rack Mount Kit   |
| UHRM09         | BNC rack mount extension kit   |
| RDVEXP01       | 1 to 4 text data port expander   |
| RDVEXP02       | 1 to 8 text data port expander   |
| RDVDAT01       | SCSI external DAT drive  |
| RDVUPGSCSI01   | SCSI 3 adapter card  |
| RDVUSB23201    | USB to RS-232 adapter  |
| ADACSNET       | USB CCTV control module w/CBL  |
| RDVUPGFW       | FireWire card upgrade kit  |
| ADACHDDC400    | Intellex Ultra 400 GB HD w/caddy   |
| ADACHULP       | Intellex Ultra Looping panel   |
| ADDSNCVMK      | Network Client Virtual Matrix/Keyboard single license                                    |
| ADDSNCVMKUL    | Network Client Virtual Matrix/Keyboard unlimited license                                 |
| ADDSNCSI       | Network Client Snap-In Manager License   |
| ADACKBPC2000   | Keyboard accessory, keyboard to PC connection kit for AD2000 series key boards           |
| ADACKBPCMPCC   | Keyboard accessory, keyboard to PC connection kit, for MegaPower ControlCenter Keyboards |

#### Software Upgrade Codes

|             |  |
|-------------|--|
| RDVUPG40    | Intellex upgrade from V3.* to 2.6 to version 4.0 for DVMs series |
| RDVUPG40IP  | Intellex IP software upgrade from 3.2 to 4.0                     |
| RDVUPG40RMS | Intellex RMS Software upgrade from 3.2 to 4.0                    |



### Features

- Add an extra layer of protection to your video system
- Tighten control over access to video
- Merge video security with IT security
- Archive video to off-site locations and network-attached storage

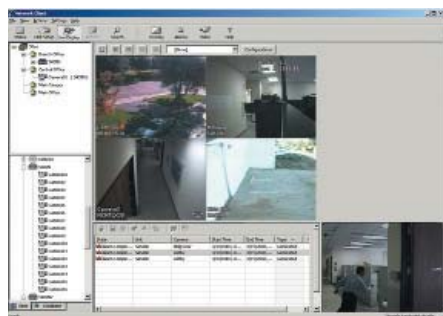
### Intellex Management Suite

When you choose an Intellex Digital Video Management System, you'll immediately realise the amazing efficiency that it brings to your security operation.

The Intellex Management Suite takes video security to the next level by expanding your ability to centrally manage multiple Intellex systems over a computer network.

These Windows-based products make it easy to remotely manage access, store and secure your surveillance video. Remote software, you can be virtually everywhere at the same time and never miss an alarm or event.

Of course, video technology isn't static. That's why we never stop working to develop and enhance these tools, offering free downloadable upgrades at our website to keep you at the forefront of innovation.



### Features

- View Line video up to 64 cameras simultaneously
- Remote alarm notification
- A keyboard can be connected to give virtual matrix functionality

### Network Client

Intellex is the only digital video management system on the market with a single remote management software program that works with every Intellex platform. Install Network Client on any PC with a network connection and you'll have control of every Intellex on your system, no matter how far-flung or decentralised the operation.

Simply log in and access a menu just as if you were sitting in front of an Intellex. You can view live video from up to 64 cameras simultaneously, send and receive alarm notifications, and much more. Now, it's easier than ever with our exciting new CCTV keyboard1 option that gives you the functionality of a virtual matrix.

### Product Codes

|              |  |
|--------------|--|
| ADDSNCVMK    | Network Client Virtual Matrix/Keyboard single license                          |
| ADDSNCSI     | Network Client Virtual Matrix/Keyboard unlimited license                       |
| ADDSNC40     | Intelligent Network Client 4.0 single license                                  |
| ADDSNC40UL   | Unlimited Network Client 4.0 license   |
| ADDSNCSI     | Network Client Snap-In Manager License   |
| ADACKBPC2000 | Keyboard accessory, keyboard to PC connection kit for AD2000 series key boards |

|              |  |
|--------------|--|
| ADACKBPCMPCC | Keyboard accessory, keyboard to PC connection kit, for MegaPower ControlCenter Keyboards |
|--------------|--|



### Features

- Higher Level of Security
- Saves Time
- Integrates with Microsoft Management Console (MMC)

### Intellex Policy Manager

Intellex Policy Manager provides additional security for a collective network of Intellex units and remote workstations running either Network Client or third party software applications that use the Intellex Application Programming Interface (API). Intellex Policy Manager enables administrators to assign detailed privileges to user and user group accounts for local and remote access to Intellex and Intellex functions.

#### Additional Benefits

Provides higher level of security by integrating local and remote accessibility of Intellex DVMS into MS Windows® security.

Tightens control over local and remote access to Intellex units, Intellex information and functions by assigning access and usage privileges by user ID and password

Saves time applying Advanced Security on additional Intellex units by copying default security attributes from one Intellex to multiple Intellex units in the same “zone” in one operation.

Sets up, configures and changes settings from any authorised computer on the network using Intellex Policy Manager Admin Client.

Integrates with Microsoft Management Console (MMC) by using the existing users and user groups on the domain. Benefits from the interface with the Event Viewer of the MS Windows operating system to monitor if all Intellex units are online or not.

Implements Intellex Policy Manager on LAN/WAN/VPN via TCP/IP on one or more logical network domain(s).

Uses MS Windows administration GUI conventions, making it easy for administrators to learn and operate.

### Product Codes

**ADDSPM12U10** Intellex Policy Manager, USB port hardware key, valid for up to 10 Intellex units

**ADDSPM12U25** Intellex Policy Manager, USB port hardware key, valid for up to 25 Intellex units

**ADDSPM12UUL** Intellex Policy Manager, USB port hardware key, valid for unlimited Intellex units

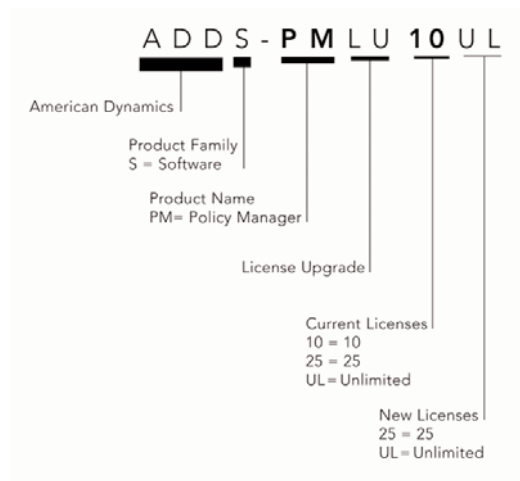
**License Upgrade** If additional Intellex units are added, the license must be upgraded. The following model numbers indicate the upgrades available:

#### Upgrade Options product codes

**ADDSPMLU1025** License upgrade from 10 to 25 licenses, requires a valid PID for 10 licenses

**ADDSPMLU10UL** License upgrade from 10 to unlimited licenses, requires a valid PID for 10 licenses

**ADDSPMLU25UL** License upgrade from 25 to unlimited licenses, requires a valid PID for 25 licenses





### Features

- Manages the storage of video, audio and text data to a network-attached storage device instead of a DAT drive
- Provides Network Client access to network stored data
- Integrates with Intellex Policy Manager for securing access to network stored data
- Runs independently from Intellex, allowing access to network stored data even when Intellex is offline
- Provides the ability to assign storage space per Intellex unit and control which storage devices are online or offline
- Available on LAN, WAN or VPN over the Internet on one or more logical network domain(s)
- Intellex Archive Manager GUI uses the Windows® MMC, utilising Microsoft GUI conventions for easy administration

### Intellex Archive Manager

Intellex Archive Manager works seamlessly with Intellex to manage and organise stored video, audio and text data on network-attached storage (NAS) devices.

Easily access and manage network-stored data through Network Client and integrate with Intellex Policy Manager to extend advanced security settings from each camera to the archived video that it has recorded.

#### INTELLEX BROWSER CLIENT

*Browser Client lets you view live Intellex video through a web browser. This free software package makes it easy for IT administrators to set up a dedicated website to view Intellex video, define which Intellex units to make available for viewing, and set up and administer a group of authorised users.*

*\*Download from [www.tycosafetyproducts-europe.com](http://www.tycosafetyproducts-europe.com)*

### Product Codes

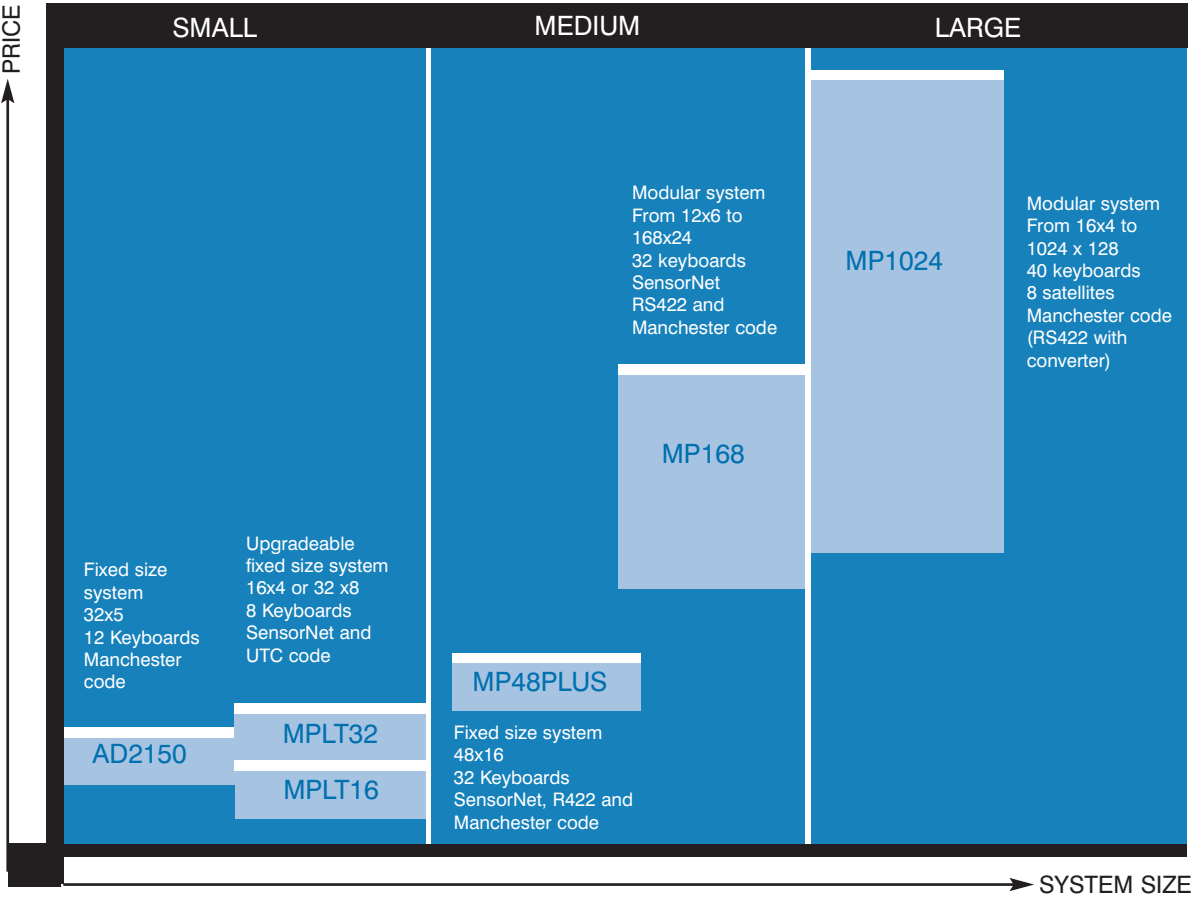
- |             |   |
|-------------|---|
| ADDSAM12U10 | Intellex Archive Manager, USB port hardware key, valid for up to 10 Intellex units  |
| ADDSAM12U25 | Intellex Archive Manager, USB port hardware key, valid for up to 25 Intellex units  |
| ADDSAM12UUL | Intellex Archive Manager, USB port hardware key, valid for unlimited Intellex units |



## Chapter 10 - Matrix and Keyboards

The work-horse of the video security application, American Dynamics matrix switcher systems have evolved to meet the needs of a changing market.

You have a choice between a large range of products that covers all the needs of the market. New systems satellite to provide flexible, scalable solutions for a variety of applications.



## Section 1 - American Dynamics CCTV Switchers



### Features

- 3 Flexible expansion modes using a primary/secondary configuration of up to 7 systems and 288 cameras
- Ethernet Cat 5IP connection for multi-matrix communications and system setup
- EASY 48 configuration and monitoring software for Windows'XP, 2000, 95/98 and NT\* 4.0 based systems
- Dome ping test and status display
- Improved legacy RS-22 dome support including Simplex RS-422

### MegaPower™ 48 Plus Matrix Switcher/Controller System

The MegaPower™ 48 Plus Matrix Switcher/Controller System takes the modular design and high-end functionality of the MegaPower 48 to new levels of flexibility and performance for the small to mid-sized application. Features standard to our largest matrix switchers – macro control, recorder control, a choice of keyboards, a complete offering of programmable functions – are augmented with several exciting enhancements.

For one, the MegaPower 48 Plus is an Ethernet Cat 5 IP enabled matrix that can operate as a stand-alone system or as part of a network. Choose from one of three expansion modes and grow your system by up to 288 inputs. Whether used as a centralised or distributed system, the MegaPower 48.

Plus can be cost-effectively installed and optimised for the most challenging of site requirements.

#### Additional Features

- Direct set function control menu for SensorNet or RS-422 domes with Control centre 200/300 Direct Set key or ADTTE and AD2088 site keys
- Modular microprocessor-based, high-density matrix
- 48 video inputs
- 16 video inputs, 8 with text overlay
- Slim, vertical wall-mount design; optional rack mount kit available

- Tool free removability of main electronics unit (MEU) keeps system wiring intact
- Optional Unshielded Twisted Pair (UTP) Adaptor Module allows installation with simple UTP cable for video
- 64 system tours and 64 salvos
- Tool-free removability for main electronics unit (MEU) keeps system wiring intact
- Optional Unshielded Twisted Pair (UTP) Adaptor Module allows installation with simple UTP cable for video
- Full embedded system menus for easy setup
- Removable flash memory module for data backup without a PC
- Recorder Control and User-defined macros
- Supports wireless text messaging on alarm for pagers and cellular phones
- 4096 preset titles, 250 alarm titles
- Dedicated alarm programming tables differentiate between alarm sources
- Flexible RS-232 inputs expandable to 32 per MP 48
- 64-system tours and 64 salvos

### System Expansion

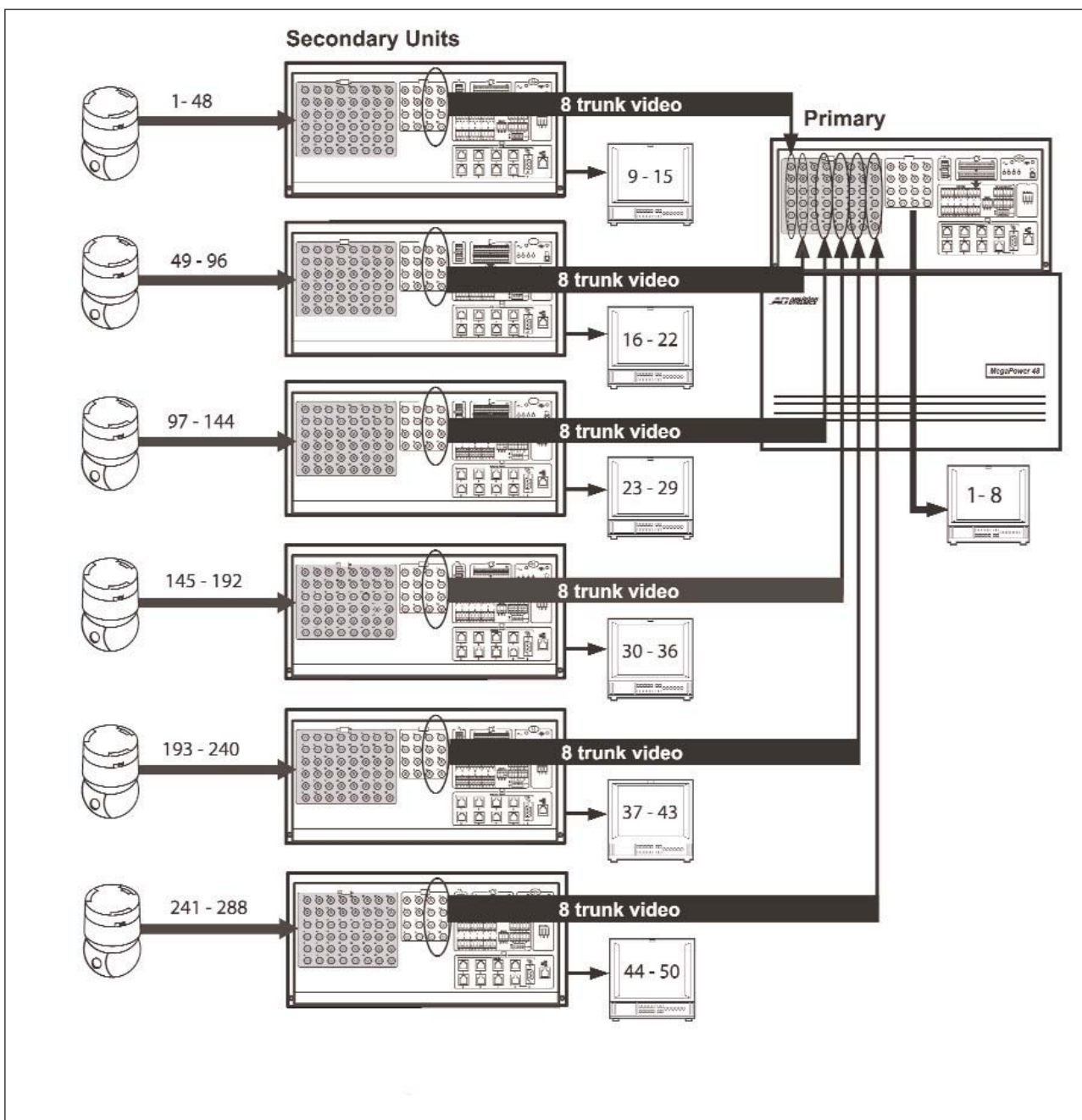
System are expanded with primary-to-secondary relationship. There are 3 modes of expansion using, Ethernet for command and control.

If inter-matrix communication is disrupted, all secondary units continue functioning locally and the primary provides status to users of the fault condition.

- |         |   |
|---------|---|
| Mode 0: | Basic system, 48 Video Inputs, 16 full crosspoint video outputs   |
| Mode 1: | The primary unit has 16 video trunk lines from each of up to 3 secondary units, providing 16 full crosspoint video outputs with up to 144 Video inputs  |
| Mode 2: | The primary unit has 12 video trunk lines from each of up to 4 secondary units, providing 12 full crosspoint video outputs with up to 192 Video inputs. Each secondary had 3 local outputs with full crosspoint video switching of local cameras. |
| Mode 3: | The primary unit has 8 video trunk lines from each of up to 6 secondary units, providing 8 full cross point video outputs with up to 288 video inputs. Each secondary has 7 local outputs with full cross point video switching of local cameras. |

## Chapter 10 - Matrix and Keyboards

### Diagram:- Mode 3 Example



### Product Codes

ADMP48P-UK

American Dynamics MegaPower 48 Plus  
Matrix with UK power cord



## Features

- 2 models: 16 x 4 or 32 x 8
- Looping inputs, auto terminated
- Field upgrade from 16 to 32 channels available
- New bi-directional digital AD Up-The-Cable (UTC) dome protocols and SensorNet
- New QuickSet function for changing dome settings
- Configured with new ControlCenter 200 or 300 keyboards
- Up to eight keyboards with priority settings
- 128 views (camera/preset and camera/pattern)
- 16 sequences/tours
- ADnet RS-485 and RS-232 communication protocols
- Networks up to three matrix systems on ADnet bus
- 32 alarm inputs, two relay outputs
- Alarm titles

## Mega Power LT Matrix Switcher

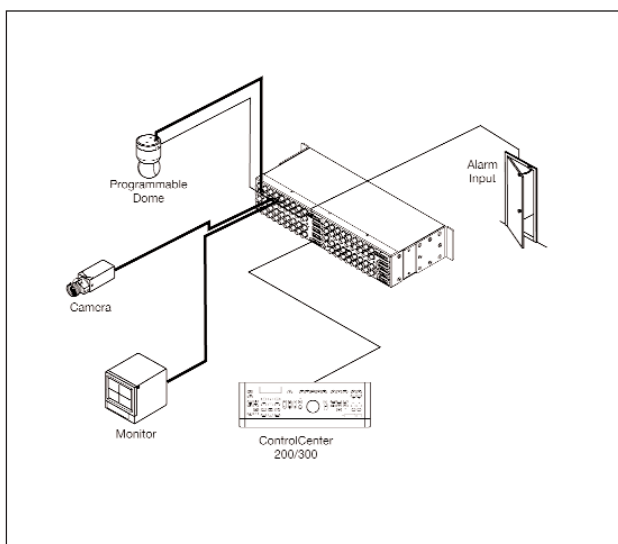
American Dynamics introduces the MegaPower LT, an affordable, highly-featured matrix switching system designed to satisfy the needs of the low-end market. The MegaPower LT comes in two models, 16 inputs by 4 outputs and 32 inputs by 8 outputs, with a 16 x 4 expansion unit available for the smaller model. All inputs are looping inputs that are auto-terminated.

The MegaPower LT offers a new, future-ready Up-the-Cable (UTC) protocol - currently available in the SpeedDome® Ultra VII - along with the standard SensorNet for dome control. The MegaPower LT can be wall or rack mounted, and comes with a choice of keyboards including the new, industrial style ControlCenter 200 with 2-axis joystick or the Control Centre 300 with 3-axis joystick.

The unit also supports existing American Dynamics keyboards.

### Additional Benefits

- Five alarm display modes, three alarm response modes
- Send alarm messages to other networked matrix systems
- Dome ping test
- System partitioning
- Video loss on all channels
- Auto sense NTSC/PAL
- 255 event messages
- Password protection for menu entry
- Embedded menu support for English, French, Spanish, German and Italian



## Product Codes

- |                                 |   |
|---------------------------------|---|
| <b>ADMPLT16</b>                 | MegaPower LT, 16 inputs x 4 Outputs, 230v, PAL                      |
| <b>ADMPLT32</b>                 | MegaPower LT, 32 inputs x 8 Outputs, 230v, PAL                      |
| <b>Kit MP LT &amp; KEYBOARD</b> |   |
| <b>ADMPLT16C2</b>               | MegaPower LT, 16 inputs x 4 Outputs, 230v, PAL, with CC200 keyboard |
| <b>ADMPLT16C3</b>               | MegaPower LT, 16 inputs x 4 Outputs, 230v, PAL with CC300 keyboard  |
| <b>ADMPLT32C2</b>               | MegaPower LT, 32 inputs x 8 Outputs, 230v, PAL, with CC200 keyboard |
| <b>ADMPLT32C3</b>               | MegaPower LT, 32 inputs x 8 Outputs, 230v, PAL, with CC300 keyboard |



### Features

- Single CUP system of up to 1024 video inputs by 128 video outputs
- Full cross-point satellite based systems of up to 8192 video inputs by 128 video outputs
- 64 universal tours, 35 event timers, 64 salvos
- Automatic alarm call-up of up to 1024 alarm inputs
- 25 alarm display/clearance modes
- Four alarm contact tables
- Monitor displays which user or keyboard is in control of the current-displayed video input
- Modular microprocessor based, high-density matrix architecture and User defined Macros
- Looping video inputs available via optional loop panels

### MegaPower 1024 matrix switcher/controller

The MegaPower 1024 is the ultimate high-density video matrix switcher/controller system. This full featured, pre-packaged, modular system is designed for the largest and most sophisticated users of CCTV, such as airports, corporate or government complexes, casinos, and large medical centres.

The microprocessor based switcher/controller allows you to automate your entire electronic security infrastructure. This permits a single operator (or multiple operators) to easily manage a highly complex CCTV system.

#### Additional Benefits

- External CPU with optional dual CPU/hot switch capability and Individual Monitor Tours
- Optional internal video loss detection
- Recorder control (VCRs and digital recorders)
- Provides fixed and variable speed pan/tilt and dome control and Integral menu-driven setup
- Ten flexible RS-232 inputs, expandable to 40
- Windows® based system setup software
- System partitioning of inputs, outputs, and keyboards
- System priority levels and user passwords

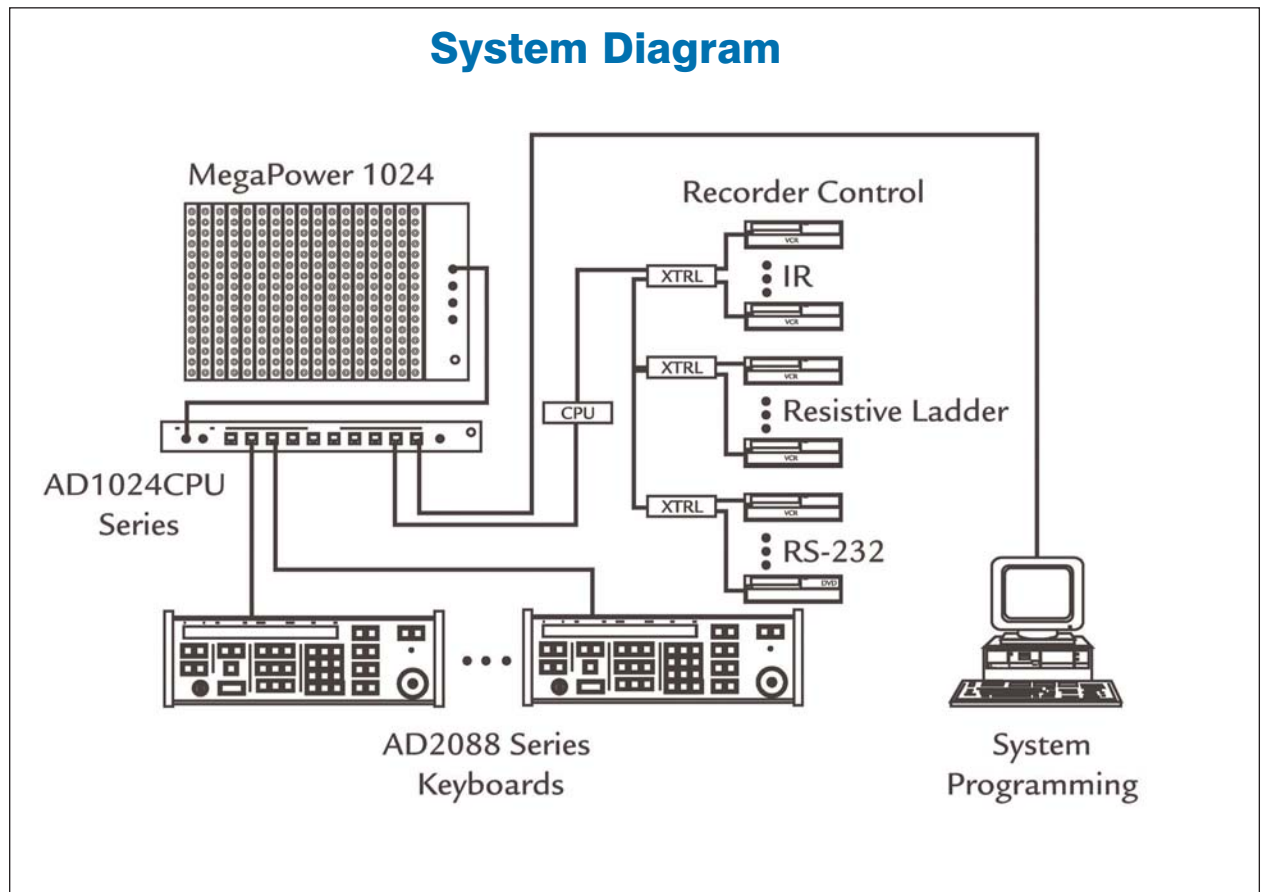
### Technical Specification

|                            |  |
|----------------------------|--|
| Bandwidth:                 | 17 MHz   |
| Frequency Response:        | ± 0.5 dB to 12 MHz   |
| S/N Ratio:                 | -65 dB (Vp-p vs. Vrms noise)                                 |
| Mounting:                  | 19-inch EIA rack mount                                       |
| Dimensions (H x W x D):    |  |
| AD2010, AD2020 Series:     | 267 x 483 x 470 mm<br>(10.5 x 19 x 18.5 in)                  |
| AD1024CPU,<br>AD1024CPU-1: | 44.5 x 483 x 260 mm<br>(1.75 x 19 x 10.25 in)                |
| Unit Weight:               |  |
| AD2010, AD2020             | Series 28 kg (60 lbs), fully<br>loaded bay (with 16 modules) |
| AD1024CPU,<br>AD1024CPU-1: | 4.5 kg (10 lbs)  |

### Product Codes

*This product is available as a back to back item. Due to the number of product options (more than 2000) please contact our customer service team for a lead time and your Regional Manager for a part code or look up the following website:*

[www.tycosafetyproducts-europe.com/English/Pdf/SID/CCTV/Matrix\\_Lookup.pdf](http://www.tycosafetyproducts-europe.com/English/Pdf/SID/CCTV/Matrix_Lookup.pdf)



## Section 2 - American Dynamics Keyboards



### Features

- Attractive ergonomic design
- Backlit LCD display
- Camera, monitor and satellite site selection
- Variable-speed Tracker Ball control of domes
- Lens control (zoom, focus, iris)
- Supports dome "flip" feature
- Preset, pattern and auxiliary control
- Tour control
- Salvo control
- Alarm control
- Supports multiple languages (English, French, Spanish, German, Italian, Portuguese)
- Built-in self-test to verify hardware and software operation

### ADTTE Touch Tracker® Matrix Keyboard

The ADTTE Matrix Switcher/Controller Keyboard is a compact, ergonomically designed keyboard that is compatible with MegaPower™ Series Matrix Switcher / Controller Systems. This keyboard provides you with easy access to a complete selection of video switching options - from basic camera and monitor selection to the most advanced automatic control.

The tracker ball provides control of fixed and variable speed pan/tilts and domes. Buttons enable you to control lens zoom, focus, and iris functions.

The keypad contains buttons that allow you to assign any camera to any monitor, and access special features such as salvos, tours, and alarms.

The LCD displays the currently selected camera, monitor, and site. It also enables you to see the numbers you enter from the keypad as you enter them, and it displays system prompts and messages.

### Technical Specification

Dimensions: (H X W X D) 130 x 194 x 260 mm  
Weight: 1 kg (2.2lbs)  
Colour: Black Shell with gray applique

### Product Codes

ADTTE-UK TOUCH TRACKER FOR 1024 & MP48  
ENGLISH UK POWER CORD





### AD2088-1 Full System Keyboard

MegaPower™ Matrix Switcher/Controller Systems. The keyboard features full-travel keys that provide true tactile feel. Dedicated keys provide for user log-on, intuitive site and monitor/recorder selection, and camera or salvo call-up. All system activities, including tours and alarms, can be controlled directly from the keyboard.

The AD2088 Series provides user-defined macro keys that allow for ease-of-use, even with the most complex and demanding installations.

Each operator can customise his or her own keyboard to perform a multitude of system tasks via simple, easy to remember keystrokes intuitive to that operator. The keyboard also offers recorder control for VCRs and digital recorders.

The keyboard's vector-solving, twist-action joystick provides one handed control of the selected dome. The joystick also provides zoom control of motorised lenses.

### Features

- Variable-speed, vector-solving, twist-to-zoom joystick for pan/tilt/zoom control
- 1000 user-defined macros
- LED display (with brightness control)
- Preset, pattern and auxiliary control function
- Operator keyswitch with removable key
- Tour control and Alarm control
- Camera, monitor, recorder and satellite site selection
- Tactile full-travel keys
- Recorder control (VCRs and digital video recorders)
- Eight customisable macro keys
- Joystick push-button for dome flip
- Lens control and Salvo control

The push-button at the top of the joystick enables users to quickly flip a compatible dome 180° for uninterrupted surveillance of subjects who pass directly underneath the dome.

The keyboard's internal beeper sounds for five seconds upon receipt of an alarm. It has adjustable baud rates to properly match the keyboard to the network and matrix switcher / controller system, and a self-test mode to verify both hardware and soft-ware operation of the communications port, LEDs, joystick, beeper, and memory.

### Product Codes

|           |   |
|-----------|---|
| AD2088-1  | Keyboard - MP 48, AD Matrixes - Full System with Macro Keys - desk top -230VAC          |
| AD2088R-1 | Keyboard - MP 48, AD Matrixes - Full System with Macro Keys -rack mount version- 230VAC |



### ControlCenter 200 and ControlCenter 300

The ControlCenter 200 and ControlCenter 300, are the latest additions to the ControlCenter family. These new keyboards communicate with the matrix switcher and other equipment through one of two keyboard protocols:

- ADnet (RS-485)
- The standard American Dynamics RS-232.

When in ADnet mode, the ControlCenter 200/300 will control up to three MegaPower LT matrix systems, along with Digital Video Recorder DigiMux™ units (DigiMux Service Pack 1 release).

In the RS-232 mode, the ControlCenter 200 and ControlCenter 300 will control the MegaPower 48, 168 and 1024 systems, and can also control digital recorders and VCRs in a CCTV system.

### Features

- Selectable keyboard protocols, RS-232 or ADnet (RS-485), for control of matrix switchers and other CCTV system components
- Choice of models with variable-speed, vector solving joysticks for pan, tilt, zoom control
- LCD display with adjustable contrast
- Preset, pattern and auxiliary control
- Lens control/Tour and salvo control
- QuickSet dome function control/ Alarm Control
- Passcode protection for programming functions

The ControlCenter units have a new, industrial-style keyboard with either :

- a two-axis joystick (ADCC0200)
- a three-axis joystick (ADCC0300).

A choice of these keyboards is included with the MegaPower LT matrix switcher/controller.

### Product Codes

|           |  |
|-----------|--|
| ADCC0200P | Keyboard, ControlCenter, RS485/RS232, 2-axis joystick, desktop,with 230VAC power supply  |
| ADCC0300P | Keyboard, ControlCenter, RS485/RS232, 3-axis joystick, desktop, with 230VAC power supply |
| ADCCACPSP | Keyboard, Accessory, Remote kit, Power Supply and Interface, 230VAC                      |



## Features

- Smart Card Access
- Smart Card Partitioning
- Undo/Redo
- Macro Keys
- Simple (Single) Macros
- Macro Storage
- Light Gray LCD

## MegaPower Control Centre Full System Keyboard with Smartcard

The MegaPower ControlCenter is a new keyboard that includes the standard features of the AD2088 plus new and expanded features. The keyboard is recommended for full programming/control of the MegaPower family and other future matrix systems. It is designed to support the features of the MegaPower family of switchers but it will have provisions to support future integration of other CCTV products.

The mechanical design of the new keyboard represents the best of both worlds with respect to the traditional American Dynamics Keyboard Touch Tracker design concepts. It has the ruggedness of the AD2088 and the sleekness of the Touch Tracker. A LCD is used like the Touch Tracker but it is much larger and has a unique light gray background with black text/graphics, which provides additional data to the Operator. A Twist Zoom joystick is used for PTZ control.

| Feature                 | Function 11.41..1   | Advantage/Value 1.4.1.1.1.1  |
|-------------------------|---|--|
| Smart Card Access       | Provide multiple access levels to system functions, custom macro storage and transfer, and Pass code partitioning.  | Provides highly flexible system management tool for access, macros and system control.   |
| Smart Card Partitioning | Provide the ability to partition camera view, camera control and monitor view for each user on the system.  | Access privileges are customised for each user and follow the user to any keyboard on the system.  |
| Undo/Redo               | Remember last 20 cameras selected and be able to step backwards and forwards through them.  | Easy way to toggle between desired cameras and also a means to find a previously selected camera without remembering the actual camera number.                             |
| Macro Keys              | Program up to 64-user defined/user labelled keys for select cameras, presets, tours, salvos and other system functions selectable from the keyboard. 3 types of macros are supported - Simple, Numeric and Variable (Quick Switch). | Reduces training required for system users by allowing operators to select cameras based upon what they are viewing rather than by camera, preset, number.                 |
| Simple (Single) Macros  | A macro key can be assigned a complex set of commands (up to the keyboard's keystroke limit) which is activated with a single key press (no numeric prefix).  | A single key press can be used to automate the positioning of cameras and setting of auxiliaries to specific setting/event (e.g., Shift Change, Facility Opening/Closing). |
| Macro Storage           | Transfer macros from keyboard to keyboard via a smart card.   | Macros can be copied onto other keyboards. Macros can also be safely stored and reused in the unlikely event of a keyboard malfunction.                                    |
| Light Gray LCD          | Black text/graphics on a light gray LCD to indicate camera, monitor, VCR, multiplexer numbers, and Enter display values. Also for keyboard menu setup, etc.   | LCD is unique with high level of visibility to the user from any viewing angle.  |

## Product Codes

|           |                                  |
|-----------|----------------------------------|
| ADCC1100  | Keyboard with Smart Card         |
| MP1000CC  | MegaPower ControlCenter Keyboard |
|           | Accessories                      |
| MP1000SCA | Spare Administrator Smart Card   |
| MP1000SC3 | Blank Smart Cards, 3-pack        |
| MP1000KFT | Keyboard Feet Kit                |



### Features

- 4 RS-232 device ports and 1 CPU port
- Selectable baud rate via dip switches
- Status LEDs on front and back of unit
- Installation friendly RJ-45 connections

### AD2081 Series RS-232 Port Expander for Matrix

The AD2081 is used to expand a single RS-232 port on a matrix switching system to four ports. Each of the four ports then has an alphanumeric designation such as 1a, 1b, 1c and 1d. The Port Expander is compatible with the full range of American Dynamics Matrix Switcher/Controller Systems and Keyboards as well as accessory products such as the Alarm Interface Unit.

The AD2081 series is installation friendly, utilising RJ-45 connectors for all device connections. It can be mounted virtually anywhere with the high-strength Velcro pads. Power on status and RS-232 activity is indicated with easy to see LEDs.

### Technical Specification

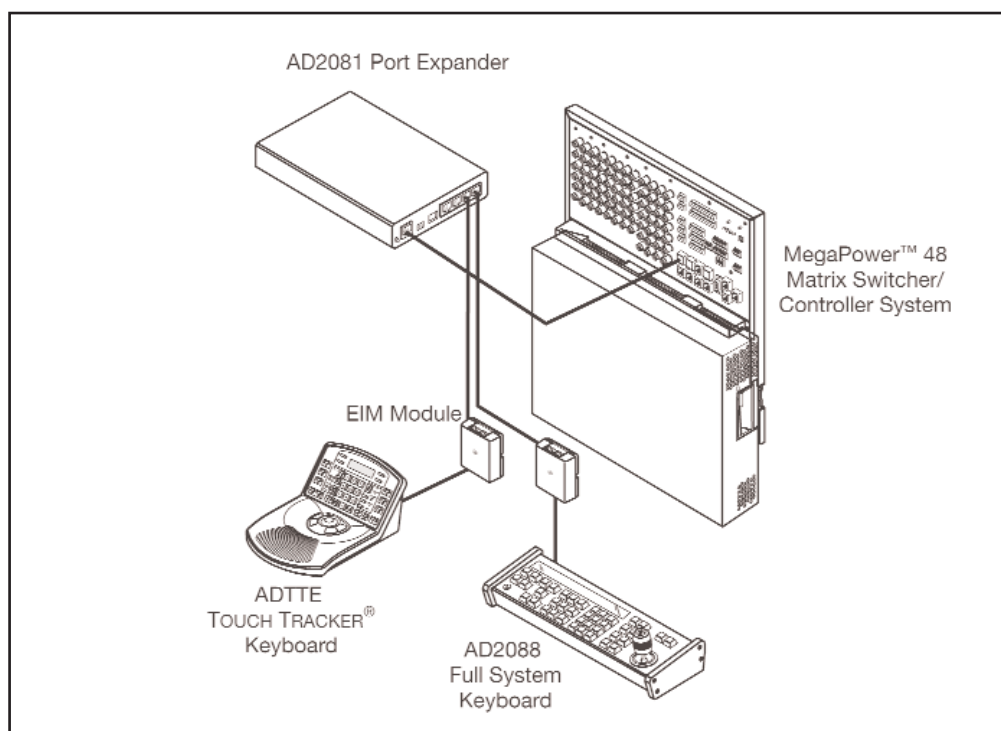
Dimensions:  
(H x W x D) 20.6 x 13.3 x 2.9 cm  
(8.1 x 5.2 x 1.2 inches)

Weight: 0.6kg (1.3lbs)

Colour: Black

### Product Code

**AD2081-1** Port expander for AD matrix 1 port  
RS232 to 4 ports RS232



### Section 3 - American Dynamics Code Distributors and Code Translators



#### Features

- Cost-effective RS-422 distribution
- Sixteen RS-422 connections
- Daisy chain of up to ten domes per connection
- Provides pan, tilt, and zoom control for SpeedDome Ultra and SpeedDome Optima Series domes
- Quick-connect screw terminals for all cable connections
- Universal wall, rack, and surface mounting
- Diagnostic LEDs
- Interfaces to both American Dynamics High Speed Data Line and Manchester code based systems
- Relays alarms from domes/receivers to American DynamicsMatrix Switchers
- Form C relay output

#### AD2083-02C RS-422 Code Distributor

The AD2083-02C Series provides economical distribution of American Dynamics RS-422 code to the SpeedDome® Ultra and SpeedDome Optima Series domes. Using the AD2083-02C Code Distributor, multiple dome sites can be driven from the powerful family of American Dynamics Matrix Switcher/Controller Systems.

The AD2083-02C outputs code for pan, tilt, focus, iris, zoom, preset and pattern control. It can also receive alarm information from SpeedDome Ultra Series domes and relay it to an American Dynamics Matrix System. In addition, an alarm from any of the domes activates a Form C relay.

#### Product Codes

AD2083-02C-1 Matrix code converter, 1 HighSpeed Data or 1 Manchester to 16 SEC RS422,230 VAC



#### Features

- Generator/Distributor
- 64 Manchester Outputs in 4 groups of 16
- 1 RS-232 Outputs
- Can be used as a code combiner
- Universal Wall, surface or rack mount

#### AD2091 RS-422 Code Distributor

The AD2091 Series Manchester Control Code Generator/Distributor provides economical distribution of AD Manchester code to SpeedDome® Ultra Series Domes, SpeedDome Optima Series Domes and compatible receiver/drivers.

The AD2091 interfaces with the MegaPower™ 1024 or 168 via high speed data line. The AD2091 provides up to 64 independent buffered AD Manchester Control Code outputs in four groups of 16. Each group is capable of controlling separate blocks of 64 camera sites.

Multiple units can be cascaded to provide control for up to 1024 camera sites. Each output will drive up to 5000 ft. of cable.

A single RS-232 output, with selectable baud rates may be used for transmitting code over suitably equipped devices. The AD2091 can also be used to combine control code from two different matrix systems. The unit can be mounted in a rack or on a wall surface.

#### Product Codes

AD2091-1 Manchester Control Code Generator/distributor, 230 VAC

### Chapter 11 Video Recorders & Accessories

Due to the increasing popularity of digital recording within the Security Industry, the demand for Multiplexer and VCR combinations has significantly reduced.

However, police authorities and small businesses still continue to utilise analogue technology and to support this we have retained a 24 hour time lapse VCR in the stock range.

#### Did You Know?

##### VHS Versus S-VHS

VHS Recording provides approximately 240 lines of resolution in colour and 300 lines of resolution in monochrome. By using the S-VHS recorder and S-VHS tapes this can be improved up to 400 lines.

N.B. Only monitors that allow a S-VHS connection (also known as Y/C) between them and the VCR will provide this improved resolution.



#### Features

- Flexible Recording - Continuous or time-lapse drive operation, with variable recording interval and number of fields, provides up to 960 hours recording time
- Flexible Operation - Wide range of alarm modes, with easy cuing and alarm search. Recording options include daily, weekly, repeat or alarm
- Reliability Built-in - Recording integrity check. Automatic head cleaning. Power fail protection and recovery. Digital elapsed tape display and tape use counter. Battery back-up
- Ease of Use - Jog/Shuttle control with on-screen menus for easy programming, set up and operation. Tape remain indicator and fully controlled play-back features (also via optional remote control). Built in RS232C interface
- Timer Facilities - Full programme lock. Timed and manual alarm recording. Flexible eight position timer and auto repeat record
- Easy Search and View Facilities - Search by date/time, alarm as well as standard index and skip search

#### Product Codes

|         |  |
|---------|--|
| CTR4024 | CBC 24Hrs VHS Time Lapse Video Recorder - RoHS compliant |
|---------|--|



### Features

- 1.5mm prime steel construction
- Radial pin camlock
- Anti-jimmy interlocking panels on front and top doors

### VCR Protective Cabinets

The lockable VCR storage enclosure is an essential element of the CCTV installation. The protection of the VCR and the information being recorded is often overlooked at great cost.

By locking the VCR away you protect the machine and tape from theft and also have an immediate management control over access to the Machine.

### Technical Specification

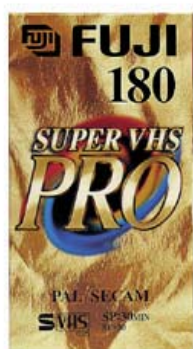
|                      |        |       |                     |
|----------------------|--------|-------|---------------------|
| Internal Dimensions: |        |       |                     |
|                      | Height | Depth | Width               |
| CV1                  | 175    | 434   | 530mm Specification |

### Product Codes

|        |   |
|--------|---|
| A29071 | CV1 Lockable VCR Enclosure Internal Dimensions H175 D434 W530mm |
|--------|---|

---

### Super VHS Tapes



### Product Codes

|             |  |
|-------------|--|
| 604.002.178 | TVS E180 S-VHS Tape ADT Branded Blue Case Super VHS 3 Hour Security Video cassette, the ultimate quality of recording, ideal for intimate detail or for taking prints off a recording. Each Video cassette comes with its own PVC Library case, making it resistant to accidental damage. Recommended for up to 15 passes in 24 Hour Time Lapse Mode. Compatible with Video Recorders with the 'S-VHS' symbol. |
|-------------|--|



### Data Protection Act Compliant Product - Tape Dispenser



#### Product Codes

604.002.007

TVS 920045 31 Tape Dispenser - ADT logo



#### VHS Tapes

A Full Range of Blank Security Video cassettes for CCTV usage.

Each Cassette is quality graded by colour for easy reference, providing a simple logging system on the reverse for the operator to record incidents and other relevant details.

These products are exclusive to the Security industry and therefore cannot be mistaken for basic consumer product.

Recommended for up to 15 passes in 24 Hour Time Lapse Mode Compatible for Video Recorders with the 'VHS' symbol.

#### Product Codes

604.002.180

TVS Pack of 7 E180 VHS High Grade Tape ADT Branded, ideal for real time or time lapse recording, best used for identifying shapes or colours of individuals or vehicles. Recommended for up to 12 full passes in 24 Hour Time Lapse Mode Compatible with Video

604.002.181

recorders with the VHS' symbol  
TVSE180 VHS Super high grade Tape ADT Branded Red case ideal for detailed recording such as close-ups of individuals, vehicle registration numbers, etc. Each Video cassette comes with it's own PVC library case making it resistant to accidental damage

604.002.179

TVS E240 4 hour VH5 High Grade Tape ADT Branded Green case - ideal for real time or time lapse recording. Recommended for up to 12 full passes in 24 hour time lapse mode. Please note we do not recommend the use of 4 hour tapes for long duration time lapse modes

A29125

Fuji branded SD E180 standard. Ideal all-purpose cassette for time lapse.



### Perimeter Protection

Optex offers a comprehensive range of outdoor PIR detectors and Active Infrared detectors, suitable for a large variety of Event Driven CCTV and perimeter protection applications.

The outdoor PIR detector range comprises of short range detectors (Optex outdoor PIR detectors) and long range, wide and narrow angle detectors (the industry renowned Redwall® range)



#### Features

- All metal construction
- Dual channel processing
- Twin dual sensors
- Tamper protected
- IP65 rated
- Low power consumption
- Accurate alignment with LRP 1020
- High or medium sensitivity settings

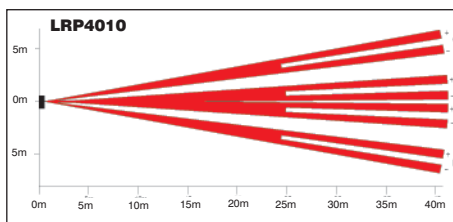
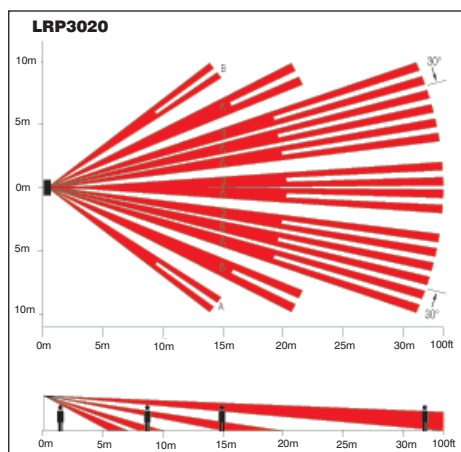
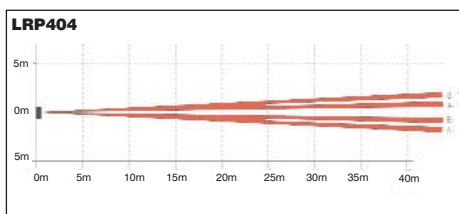
#### Redwall 404, 4010 & 3020

Redwall 404 4010 and 3020 sensors are specifically designed for use in small to medium size external areas. Their rugged construction and reliable operation make them ideal for use as motion detectors in CCTV applications. The inclusion of dual sensors and processors and high and medium sensitivity settings results in a full specification sensor for the smaller installation.

The all metal housing of the sensors provides a stable environment for the detection electronics. The head adjustments are tamper protected to prevent sensors being re-aligned by unauthorised personnel. Sensors come complete with fixings.

#### Product Codes

- |             |   |
|-------------|---|
| 603.011.006 | LRP 404 40m x 4m Redwall 12Vd.c. 25mA (Security Enclosures LRP404                   |
| 603.011.001 | Redwall 40M x 10M range Detector 16 Zone 12Vd.c. 25mA (Security Enclosures LRP4010) |
| 603.011.002 | Redwall 30M x 20M range Detector 48 Zone 12Vd.c. 25mA (Security Enclosures LRP3020) |



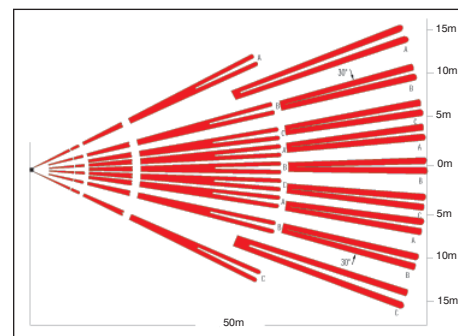


### Redwide

The Redwide 5030 offers wide angle detection for large external areas. It is able to achieve this by combining a high grade, gold plated optical array with three dual element pyroelectric sensors. This combination achieves significant coverage with a low potential for false alarms. Designed for use with CCTV, the detector coverage matches popular camera/lens combinations. The sensor can be accurately aligned using the optical viewer provided and stability of detection checked with the LRP 1020 Walktester (optional).

### Features

- Triple electronic processors
- Gold coated optics
- Triple dual element sensors
- All metal construction
- Integral mounting bracket
- Alignment viewer
- Patented optical array
- Low power consumption



### Product Codes

603.011.003

Redwall 50M x 30M range Detector 78  
Zone 12Vd.c. 25mA (Security  
Enclosures LRP5030)

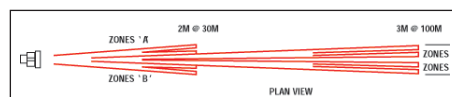


### Redwall LPR 100Q

The Redwall 100Q detector has changed the industry's perception of using passive infrared in outdoor applications. It is simple to install and align and reliable in operation. The use of four elements in a 100 metre detector is unique (and underlies Security Enclosures commitment to development.)

### Features

- Quad Element detection
- Internal Mounting Bracket
- Optical alignment
- Patented optical Array
- Gold Coated reflective surfaces
- Twin Processors
- Low Power Consumption

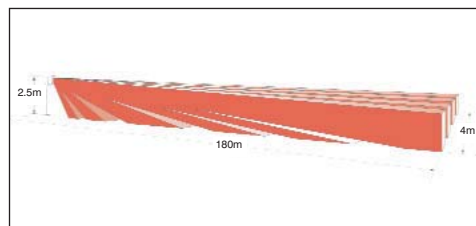


Redwall detectors feature an advanced visual alignment system. At installation a small reflex viewer, supplied with each detector, can be plugged into the sensors front window and provides a view of the area to be protected. An integral mounting bracket allows fixing to wall or pillar and comes complete with fixings.

### Product Codes

603.011.004

Redwall 100M x 3M range Detector 20  
Zone 12Vdc 25mA (Security Enclosures  
LRP100Q)



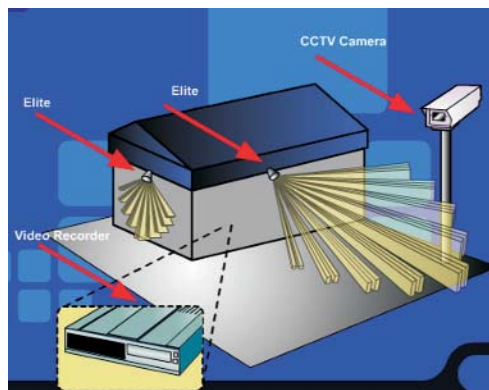
### MegaRed 180Q

A 180m x 4m 'Super' long-range passive infrared detector for indoor or outdoor use. MegaRed provides two separate zones of detection to allow alarms to be pinpointed more accurately. The 'Near' zone extends from 5m to 80m while the 'Far' zone operates from 80m to 180m. The sensor comes with its own controller to simplify system cabling. The controller can be connected remotely from the detector and requires only a two-core cable to be run between itself and the detector head.

The two-core cable will simultaneously carry alarm 'near', alarm 'far' and tamper information as well as power for the detector head. Distance between controller and head can be up to 1.4km when using 2.5mm twin cable. Use of the LRP 1020 walktester is important in achieving optimum alignment. The MegaRed operates on 12vdc and consumes 60mA. Heated versions and sun/snow hoods are available.

### Product Codes

603.011.005 LRP 180Q 180m x 4m Megared



### GJD Opal Elite

The Opal Elite is a weatherproof PIR designed to simultaneously or individually control CCTV switchers VIDEO recorders and GJD Intruder Lighting Controllers. Two sets of voltage free signal contacts provide the necessary signals to control CCTV switcher/s and video recorder/s. etc.

Two separate negative switching outputs are provided for further advanced applications if required. These signals are compatible with GJD security lighting controllers for activating security or infra-red camera lighting.

The microprocessor controlled electronics with a Intelligent Signal Processing achieves a more stable performance in all weather conditions.

### Technical Specification

Range Coverage: Adjustable to 35 metres 90 deg GJD Multifunction

lens. With lens Masking

facility ( supplied )

Supply: 200 metre max. 12VDC at 8mA nominal. ( 21mA Max )

7 / 0.2 mm cable 12VDC at

5mA in low power mode.

Adjustment: 180 degrees pan and 90 degrees tilt.

CCTV Output (Solid State Relay):

Voltage free signal contacts

rated at 24VAC/DC with 80R series resistor.

Selectable normally open or normally closed configuration with various timing options.

### Product Codes

A25216 GJD Opal Elite CCTV Alarm Input PIR

### Chapter 13 - Video Transmission

This range of products provides solutions for all areas of the monitoring market, from a user wishing to dial in from home up to centrally monitored multi-camera businesses.

Remote video monitoring is cost effective, vigilant, 24 hours a day, and can defuse situations before they escalate to loss, damage or violence.

#### Section1 - ADPRO®



#### Features

- 10 video & alarm inputs expandable to up to 100
- Outstanding colour or black and white picture quality with up to 928 x 576 pixel (PAL) resolution, full colour range and 256 grey levels
- Picture updates on PSTN systems in less than half a second (much faster on ISDN)
- Simultaneous multiple post-alarm image capture and management
- Automatic alarm generation for camera or cable failure
- Simultaneous video and bi-directional audio transmission over the same communication link
- Unique fast auto-sequencing guard tour and quad display
- Flexible support of a wide range of camera PTZ telemetry systems
- 12Vd.c. operation available on both rack mount and wall mount units
- On screen local and remote set-up in English, French, German, Italian or Spanish

#### ADPRO®Fast Scan

Fast Scan is a video and audio transmission system. It enables multiple remote site verification and surveillance through high-speed transmission of images over standard telephone lines or other digital links such as ISDN.

#### Product Codes

- |             |   |
|-------------|---|
| 604.001.119 | Adpro Fastscan III wall mount TX colour (CA alarm - requires a 12v DC PSU @ 2A) |
| 604.001.121 | Adpro Fastscan III rack-mount Transceiver colour Rack Mount (no pre-alarm)      |
| 604.001.137 | FastScan Mini 5 channel transmitter (200905)                                    |



## Features

- 20 (or 10) video and alarm inputs
- Exceptional colour or monochrome picture quality with full colour range and 256 grey levels. PAL or NTSC selectable.
- Live video over digital networks.
- RJ45 connection to Ethernet and V.24 interface to 230 kbps.
- User selectable image transmission rate provides efficient throttle control of overall network bandwidth,
- Simultaneous multiple pre and post alarm image capture and management.
- On board storage of six post-alarm sequences (three images each) and 180 pre-alarm images.
- Auto sequencing display.
- High quality audio transmission with automatic gain control and echo cancellation.
- Direct microphone input and loudspeaker output.
- A wide range of PTZ protocols support a variety of camera stations with variable speed joystick control.

## ADPRO® FastVu

A PC-based software package specifically designed to monitor video and audio from remote sites fitted portability offered by a standard or laptop PC.

## Product Codes

|             |   |             |   |
|-------------|---|-------------|---|
| 604.001.140 | Fast Vu 2020 20 Channel Rack Mount Transceiver 200710 AFV-2020-TCVR | 604.001.142 | Fast Vu 3010 10 Channel Wall Mount Transceiver 200907 AFV-3010-TX |
| 604.001.141 | Fast Vu 2010 10 Channel Rack Mount Transceiver 200827 AFV-2010-TCVR |             |   |

## ADPRO® Fast Scan Accessories

### Product Codes

|             |  |             |  |
|-------------|--|-------------|--|
| 604.001.127 | VM21 Relay Card - Used with the Fast Scan, it provides 10 normally open relay contacts for alarm/control outputs plus a single pole changeover general relay. (220295) | 604.001.138 | AMK300 Keyboard - The AMK-300 provides full control of all functions and set up of the Fast Scan and FastVu product ranges. (200678) |
| 604.001.105 | VM81 Programmer - Hand-held programmer used to set up Fast Scan. (220253)  |             |  |

## ADPRO® FastVu Accessories

### Product Codes

|             |  |             |   |
|-------------|--|-------------|---|
| 604.001.143 | VM22A Audio Switcher - A 10 channel audio switcher and amplifier to complement the FastVu system. It provides easy control and distribution of multiple audio streams using a single video transmission link. (200763) | 604.001.145 | VM25, FastVu I/O Expander Module (201285) - The VM25 connects to a FastVu transmitter providing:<br>1) Ten I/O relay outputs for control of external functions (e.g. lighting, barriers, gates, equipment etc.)<br>2) Entry Exit Routes<br>3) Event Log (500 events)<br>4) Tamper sensing on alarm inputs to detect and report tampering with alarm inputs (provides compliance with BS8418). |
| 604.001.144 | VM87 Programmer - Hand-held programmer used to set up FastVu equipment. (200813)   |             |   |
| 604.001.138 | AMK300 Keyboard - The AMK-300 provides full control of all functions and set up of the Fast Scan and FastVu product ranges. (200678)   |             |   |



## Features

- Ability to carry out surveillance or view alarm images from thousands of sites
- Video alarm verification
- Automated displays to replay alarm images and concurrently view live images
- Automatic saving of alarm images to hard disk
- Saving of live images to hard disk
- Selectable (by site) automatic storage of video during live surveillance of the site• No proprietary hardware required - all you need is a latest industry standard PC with a V34 internal modem or terminal adaptor, and access to a telephone or ISDN line
- Image and audio storage with facilities to recall and display all previous events

## ADPRO® Receiver PC Based

A PC-based software package specifically designed to monitor video and audio from remote sites fitted with ADPRO® Fast Scan and the ADPRO® FastVu range of video transmission systems.

When used with Fast Scan sites, it provides many of the Fast Scan receiver video-monitoring features, with the convenience and portability offered by a standard or laptop PC.

## Product Codes

- |             |   |
|-------------|---|
| 604.001.146 | Video Central Gold - Includes all features of Video Central (220494)  |
| 604.001.147 | Video Central Lite - Includes all features except there is no alarm receiving capability/ability to network, or site maps. (220096) |

## ADPRO® Audio Accessories

### Product Codes

- |             |  |             |  |
|-------------|--|-------------|--|
| 604.001.128 | VSA H04 - PA Amplifier (30 Watt) including external horn speaker (addition of PA system provides additional site deterrent effect upon intrusion). | 604.001.148 | VM23 Audio Intercom - The VM23 is a telephone handset with built-in pre-amplifier and speaker circuitry designed for easy and direct connection to the Fast Scan. It can also be used with the VM22A Audio Switcher to switch audio to the currently displayed camera at the remote site. (220326) |
| 604.001.129 | VSH SH - Additional 30W external horn speaker (use up to 3 extra with VSA SH)  |             |  |

## ADPRO® Comms Devices

### Product Codes

- |             |  |             |   |
|-------------|--|-------------|---|
| 604.001.149 | ADPRO Central Terminal Adaptor (ISDN) for use with Video Central - Used in conjunction with Video Central to view/monitor any ADPRO site utilising ISDN network. Incorporates Auto Sense feature to allow connection to V24 or X21 sites. (225263/P)         | 604.001.150 | ADPRO V34 Modem. Used to connect ADPRO transmission equipment to PSTN and leased lines.(225266) |
| 604.001.132 | ADPRO Advanced Terminal Adaptor (ISDN with RedCare Ready). The advanced terminal adaptor is used when connecting ADPRO transmission equipment onto ISDN network. Features BT ISDN Redcare capability to provide signalling in event of line failure.(225263) |             |   |





### Features

- Hard Disk Recording
- Choice of Video Inputs 5, 10 or 20
- Option of 25ips or 50 ips

### ADPRO FastTrace

ADPRO FastTrace is a Multi-Site Video Security System for evidential quality recording that delivers rapid remote access of live events and instant retrieval of stored images. With intelligent, interactive management software and advanced compression algorithm capability, ADPRO FastTrace provides 120 days storage of archived video at 1ips on 10 cameras without compromising image quality.

The result: A secure, cost-effective and reliable remote off-site video transmission and verification system.

Long term recording of evidential quality images can either be continuous or programmed to activate on movement or transaction and the system's capability of simultaneous viewing, recording and playback can accommodate up to four users (local or remote) at one time.

When used in conjunction with Video Central, the unique combination of video alarm verification, remote site monitoring and control, and long duration evidential quality recording - FastTrace provides a very flexible Multi-site video security system.

Four models of Fast Trace have been selected to allow the choice of number of video inputs, (5 , 10 and 20 cameras), refresh rate (25 or 50 images per second) and Hard Disk size (1x HDD = 160GB, 2xHDD = 320GB) to tailor the unit to the customers requirements.

### Technical Specification

|  |                                  |
|--|----------------------------------|
| System Control & Setup                   |                                  |
| Operator access via                      |                                  |
| ADPRO® Video Central Lite or ADPRO®      |                                  |
| Video Central Gold Version 8 (or later). |                                  |
| Power Requirements:                      | 115-230 volts, AC, 47 - 63Hz.    |
|  | Maximum power dissipation        |
|  | 100W.                            |
| Construction:                            | Standard 19" rackmount, 3U high  |
|  | subrack to DIN4194.              |
| Dimensions:                              | 482mm (19") W x 132mm (5.2") H   |
|  | x 281mm (11") L.                 |
| Weight:                                  | Rackmount - Fully configured     |
|  | system 11 kilograms (22 pounds). |
| Temperature Range:                       | Operating range 0°C-40°C (32°F-  |
|  | 104°F).                          |
| Humidity:                                | less than 90% non-condensing     |

### Product Codes

|             |  |
|-------------|--|
| 604.001.157 | ADPRO AFT-5005-1-1, 5ch FastTrace, 1xHDD, 1xVCE (25ips), incl viewer software. (201415)  |
| 604.001.158 | ADPRO AFT-5010-1-1, 10ch FastTrace, 1xHDD, 1xVCE (25ips), incl viewer software. (201201) |
| 604.001.159 | ADPRO AFT-5010-2-2, 10ch FastTrace, 2xHDD, 2xVCE (50ips), incl viewer software. (201206) |
| 604.001.160 | ADPRO AFT-5020-2-2, 20ch FastTrace, 2xHDD, 2xVCE (50ips), incl viewer software. (201238) |



### Section 2 - HeiTel Product Range

The HeiTel Video Transmission system offers outstanding performance for a very reasonable price, it offers two main products, which can be linked through ISDN, TCP/IP or PSTN links.

These products are CamTel SVR and CamDisc both offering the choice of four or Ten-camera systems, with CamDisc also featuring an on-board hard disk.

#### HeiTel Products

These systems allow standard CCTV cameras to be connected either over an ordinary PSTN telephone, an ISDN Line or even a TCP/IP network all ending up connected to a remote computer. These units offer some superb features and a number of system solutions normally only available in more expensively priced products.

HeiTel have developed a compression algorithm, which has been custom designed for security applications, HeiTel products offer above average image update rates even at low bandwidths and exceptionally long recording times compared to conventional systems with comparable hard disk sizes and recording criteria.

The unique MultiLink design allows for simultaneous IP connections (LAN, Internet, DSL) in combination with dial-up connections (PSTN/POTS, ISDN, GSM, HSCSD).

Additionally, HeiTel guarantees high protection of investment: all products are backward compatible, can be upgraded with additional modules, and remote software updates are free of charge.

#### Definitions

**PSTN** - Public Switched Telephone Network :also known as “dial- up

**POTS** - Plain Old Telephone Service

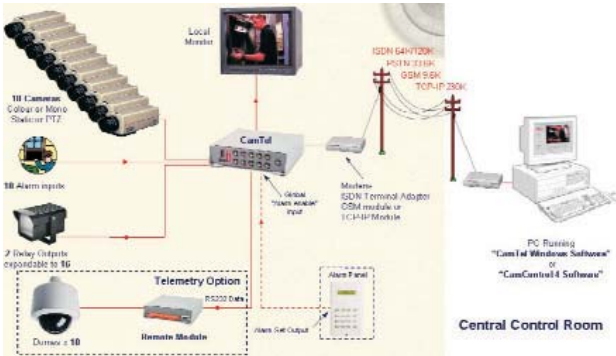
**ISDN** - Integrated Services Digital Network An international standard for end-to-end digital transmission of voice, data, and signalling

**GSM** - Global System for Mobile communication. A European digital standard for mobile or cellular telephony

**HSCSD** - High Speed Circuit Switched Data: dedicated circuit-switched data communications technology for GSM which boosts data throughput up to 14.4 Kbps in a single channel, and by aggregating channels, up to 57.6 Kbps

**LAN** - A local area network is a computer network covering a local area, like a home, office or small group of buildings

**DSL** - DSL (Digital Subscriber Line) is a technology for bringing high-bandwidth information to homes and small businesses over ordinary copper telephone lines



## Features

- Image optimised transmission and storage with 4 or 10 inputs
- Event-triggered connections by alarm contact, motion detection, technical alarm, and routine call
- Perfected for alarm verification and conformity with control centre applications
- Full-duplex voice communication via bidirectional audio transmission
- Integrated interfaces for network, camera remote control, data transmission, and system integration
- Extensive remote control functions to control lighting, barriers, alarms, doors, or any relay-controlled devices
- Compact design, suitable for desk, wall and 19" mounting for desk, wall and 19" mounting

## CamTel

*Detect, Alarm, Record, Transmit and Log ...*

These are some of the central features of the CamTelsvr and CamDiscsvr product families. The hardware platform has been designed especially for CCTV applications. It forms the solid basis for digital video transmission, video recording, remote evaluation and control centre integration in order to meet the high specifications required for security applications with regard to reliability, efficiency, compatibility, and compactness.

Only tried and tested technologies and processes are employed in their products, such as the image optimised differential compression algorithm developed by HeiTel. This process combines the advantages of the motion picture compression process with those of the single image compression algorithm for high resolution images.

### CamTel SVR 4

Digital video transmission system for 4 cameras with integrated ethernet interface (TCP/IP) for video transmission/remote set-up/remote maintenance (options: DSL, POTS/PSTN, ISDN, GSM/HSCSD); up to 25 fps transmission speed; MultiLink/Multiuser technology; pre-alarm buffer for ca. 1400 images; event-triggered connections by alarm contact, motion detection, technical alarm and routine call; integrated motion detection; remote control of PTZ systems and 2 relays; optional accessories: ISDN Card, Audio Card, 19" Mount Kit.

### CamTel SVR 10

Digital video transmission system for 10 cameras with integrated ethernet interface (TCP/IP) for video transmission/remote set-up/remote maintenance (options: DSL, POTS/PSTN, ISDN, GSM/HSCSD); up to 25 fps transmission speed; MultiLink/Multiuser technology; pre-alarm buffer for ca. 1400 images; event-triggered connections by alarm contact, motion detection, technical alarm and routine call; integrated motion detection; remote control of PTZ systems and 2 relays; optional accessories: ISDN Card, Audio Card, 19" Mount Kit.

## Technical Specification

|                      |  |
|----------------------|--|
| Power supply:        | external switched power supply, 100_240 V AC, 50/60 Hz, 12 V DC at max. 3.5 A, 42 W  |
| Ambient temperature: | +5°C +40°C (+41 +104°F)  |
| Housing/Enclosure:   | Desktop and wall mounting: 221 x 88 x 270 (WxHxD mm) 19" mounting: 1/2 19"x 2RU x 275 mm (WxHxD)   |
| Weight:              | 2.9 kg   |
| Alarm inputs:        | 4 or 10 alarm inputs (camera related), 1 general alarm input, 1 arm/disarm and 1 tamper input (all on screw terminals)                             |
| Control outputs:     | 2 relays _ system error and/or remote control purposes (changeover contact on screw/clamp scrimp), max. 30 V DC/1 A, 60 V DC/0.3 A, 125 V AC/0.5 A |

## Product Codes

|             |               |
|-------------|---------------|
| 603.015.057 | CamTel SVR 4  |
| 603.015.058 | CamTel SVR 10 |



## Features

### CamDisc svr Features

- Image optimised transmission and storage with 4 or 10 inputs
- Individually adjustable image resolutions up to 720 x 288 pixels
- Integrated Multi-Unicast server supporting 4 simultaneous IP network connections and 2 dial-up connections

### Functions specific to CamDisc svr

- Long-term recording onto removable hard disk drive with adaptive multi-track management for schedule-controlled permanent and motion recording, or contact-triggered event recording, respectively
- Multi-criteria evaluation of recordings via IP and/or dial-up connection, and in offline mode via PC adapter kit
- Live video transmission and simultaneous playback and recording (Triplex)

## CamDisc svr 4

CamDisc svr 4 (delivered without hard disk) Digital video transmission system with local long-term recording on removable hard disk for 4 cameras, with integrated ethernet interface (TCP/IP) for video transmission/remote set-up/remote maintenance (options: DSL, POTS/PSTN, ISDN, GSM/HSCSD); MultiLink/Multiuser technology; Triplex functionality; up to 25 fps recording speed; schedule-controlled permanent and motion recording; or contact-triggered event recording respectively selectable per camera; event-triggered connections by alarm contact, motion detection, technical alarm and routine call; remote control of PTZ systems and 2 relays; optional accessories: ISDN Card, Audio Card, 19" Mount Kit.

## CamDisc svr 10

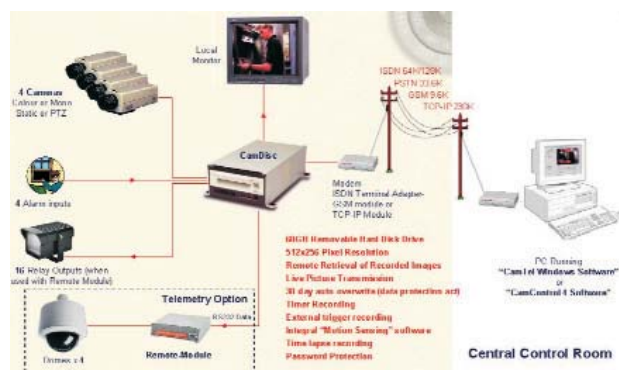
CamDiscsvr 10 (delivered without hard disk) Digital video transmission system with local long-term recording on removable hard disk for 10 cameras, with integrated ethernet interface (TCP/IP) for video transmission/remote set-up/remote maintenance (options: DSL, POTS/PSTN, ISDN, GSM/HSCSD); MultiLink/Multiuser technology; Triplex functionality; up to 25 fps recording speed; schedule-controlled permanent and motion recording; or contact-triggered event recording respectively selectable per camera; event-triggered connections by alarm contact, motion detection, technical alarm and routine call; remote control of PTZ systems and 2 relays; optional accessories: ISDN Card, Audio Card, 19" Mount Kit.

## Technical Specification

|                            |  |
|----------------------------|--|
| Power supply:              | external switched power supply, 100_240 VAC, 50/60 Hz, 12 V DC at max. 3.5 A, 42 W   |
| Ambient temperature:       | +5°C +40°C (+41 +104°F)  |
| Housing/Enclosure:         | 19" mounting: 1/2 19" x 2RU x 275 mm (WxHxD)   |
| Weight:                    | 3.8 kg with hard disks   |
| Desktop and wall mounting: | 221 x 88 x 270n (WxHxD mm)   |
| Alarm inputs:              | 4 or 10 alarm inputs (camera related), 1 general alarm input, 1 arm/disarm and 1 tamper input (all on screw terminals)                             |
| Control outputs:           | 2 relays _ system error and/or remote control purposes (changeover contact on screw/clamp scrimp), max. 30 V DC/1 A, 60 V DC/0.3 A, 125 V AC/0.5 A |

## Product Codes

|             |   |
|-------------|---|
| 603.015.059 | CamDisc svr 4 (delivered without hard disk) |
| 603.015.060 | CamDiscsvr 10 (delivered without hard disk) |



## Chapter 13 - Video Transmission

### Accessories for Heitel Transmission Equipment

*80 GB Removable Hard Disk*

*For CamDisc devices*

*Part Number 603.015.062*

*120 GB Removable Hard Disk*

*For CamDisc devices*

*Part number 603.05.035*

*320 GB Removable Hard Disk*

*For CamDisc devices*

*Part number 603.015.063*

Notes on HDD: Every hard disk is extensively tested for performance and functionality before release. Particular attention is given to the factors low power consumption and low heat development. These contribute to extended product life. To ensure that all CamDisc hard disks meet these criteria, every hard disk is coded, formatted, mounted in a CamDisc specific removable frame, and subsequently tested again. The local evaluation of CamDisc image archives up from 320 GB hard disks requires a suitable PC or USB PC kit. Removable disks up from 320 GB can be used with the following devices: CamDiscsvr series and CamDisc V.24/ISDN/TCP/IP, starting with serial number CDxxx, and firmware release 2.04 or higher.

### PC Kit CamDisc USB

External housing with USB connection for device-independent evaluation of CamDisc removable hard disks(i.e. for use with laptop computers)

Part Number 603.015.020

### R16 Adapter (for svr series)

Remote adapter for remote control of 16 additional relays (e.g. for lighting, door control systems, etc.)

Part Number 603.015.061

### ISDN Card (for svr series)

Plug in ISDN module with S0/I.430 interface for transmission via 1 B channel

Note: ISDN card delivered separately with instructions for on-site installation into CamTel svr or CamDisc svr.

Part number 603.015.065

### CamControl PRO

Single user solution for operation, alarm verification, and configuration of up to 2000 image transmitters with Multi-Site functionality and storage of all transmitted images in PC receiver archives

- Simultaneous video connections to up to 4 separately located video transmitters
- Insertion of transmitter-specific info texts
- Receiver-side event logging with special enhancements for control centre applications

Note: CamControl PRO replaces CamControl 4 Software.

Part number 603.015.012

### 19" Mounting Kit (for svr series)

Installation kit for 19" mounting of up to two svr series devices (2 RU)

Part Number 603.015.064

### Audio Card (for svr series)

Plug in Audio module for bidirectional transmission of digital audio signals in voice quality

Note: Audio card delivered separately with instructions for on-site installation into CamTel svr or CamDisc svr.

Part number 603.015.066

## Product Codes

|             |                                   |
|-------------|-----------------------------------|
| 603.015.020 | PC Kit CamDisc USB                |
| 603.015.061 | R16 Adapter                       |
| 603.015.065 | ISDN Card                         |
| 603.015.012 | CamControl PRO                    |
| 603.015.064 | 19" Mounting Kit (for svr series) |
| 603.015.066 | Audio Card (for svr series)       |



### Features

- One license included with purchase of either CamTel® or CamDisc®
- Customer friendly user interfaces
- Runs under Windows 95/98/2000/NT4.0

### CamTel® Windows Software

Universal receiver software for simple programming (configuration) of all transmitters, CamTel®, CamDisc® and CamLine, provides image transmission and operation of the connected systems. The receiver software runs under Windows® 95B/98/2000/NT4.0. The receiver software transmits video images over public or private networks. Upon establishment of a connection, the software automatically determines which transmitter has been activated (CamTel® with 10 video inputs, CamDisc® with 4 video inputs or CamLine with 2 video inputs). The image transmission function can be started manually at any time by the receiver computer, or automatically upon activation of an alarm contact or initiation of security tours. Received images are saved on to the hard disk drive of the receiving PC.

The software has a password-protected user administration and supports audible (via PC sound card) and visual alarm signalling.

Customer-friendly user interfaces make operation of the software simple and intuitive. To connect with the same transmitter unit from multiple PC work stations, one Cam-Tel® Windows software license is required for each work station.

One license is included with the purchase of CamTel®, CamDisc® or CamLine.

### Technical Specification

System requirements:

- PC 80486DX100 MHz, min. 8 MB RAM and 12 MB free space on HDD
- VGA display, VGA graphics board with at least 65,536 colours
- Operating system Windows ® 95B/98/2000/NT 4.0

Includes:

- CD-ROM CamTel ® Windows Software
- Manual English

### Product Codes

One of these is supplied with each CamLine/CamTel and CamDisc product. For additional PCs use product code below.

- |             |  |
|-------------|--|
| 603.015.015 | CamTel Windows Software for additional PC's Manuals and CD ROM |
|-------------|--|



### Features

- Reliable
- Easy to use
- Rich Graphics Real time audio and video

### PSTN Modem

Compatible with virtually any PC - including models running DOS or Windows 3.1, the U.S. Robotics 56K Faxmodem gives you the fastest possible downloads over analog phone lines. Renowned for its reliable connections and ease of use, this popular controller-based modem brings you the full functionality of the Web - rich graphics, real-time audio and video, and intense game actions.

Included Connections software suite makes Web browsing, downloading and faxing as easy as point-and-click. For quick and reliable on-line access, get connected with the U.S. Robotics 56K Faxmodem.

### Technical Specification

|                            |   |
|----------------------------|---|
| Device Type:               | Fax / modem                             |
| Enclosure Type:            | External Enclosure                      |
| Colour:                    | White                                   |
| Dimensions:                | 6.5 cm Depth 9.5 cm Height 3.8 cm Width |
| Port(s)/Connector:         |   |
| Required:                  | 1 x serial - RS-232                     |
| Power Voltage Required:    | AC 110/220 V $\pm$ 10% ( 50/60 Hz )     |
| Power adaptor -            | External                                |
| Interface Type:            | Serial RS-232                           |
| Connectivity Technology:   | Cable                                   |
| Max Transfer Rate:         | / 56K                                   |
| Technology:                | 56 Kbps / V.90, V.92                    |
| Max Fax Transfer Rate:     | 14.4 Kbps                               |
| Error Correction Protocol: | MNP-4, ITU V.42, MNP-2, MNP-3           |
| Data Compression:          |   |
| Protocol:                  | MNP-5, ITU V.42bis                      |
| Transmission Mode:         | Full-duplex Protocols                   |

### Product Codes

603.015.045 PSTN Modem





### Features

- Use indoor and outdoor
- Simple to use
- Ideal for Marine and Industrial applications

### Audio Over ISDN

These products allow a monitoring operator to broadcast live one way audio to a remote site. A typical system set-up is shown below.

There is a choice of 30, 60 or 120W amplifiers dependent on the area to be covered and a choice of 15w ,20w or 30w horn speakers.

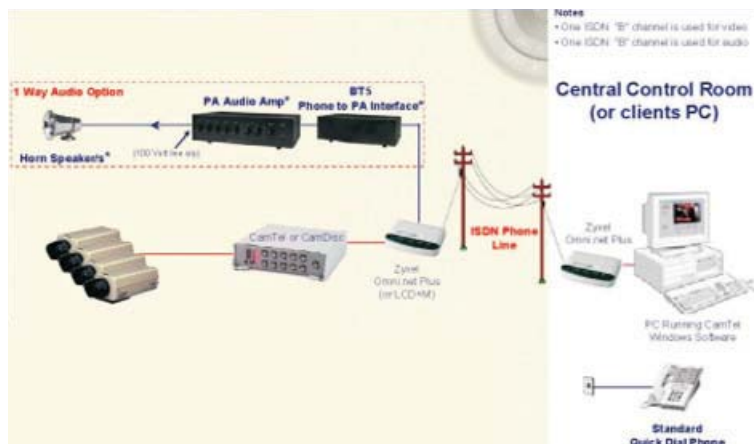
Connect the amplifier of your choice to your telephone system by simply plugging into a telephone socket where a conventional telephone would be used (two-wire system).

When the extension is called, the ringing current is detected and the BT5 will loop the line. An acknowledged tone, followed by a chime is sent to the caller indicating that an announcement can now be conveyed to the Public Address system.

After the announcement has finished, the BT5 will disconnect from the PA system and release the telephone extension ready to accept another paging call.

This range of lightweight plastic weatherproof re-entrant horns has been designed for high quality sound reinforcement. Manufactured in a strengthened ABS moulded compound with UVL (ultra violet light) protection and supplied with a high grade stainless steel epoxy coated U bracket.

Offering clarity of speech and high efficiency, these horns are suitable for communications or signal warnings. Being non-corrosive and resistant to salt laden air, they are suitable for use indoors and out. In addition they are also ideal for marine and industrial applications as they are unaffected by most chemicals.



### Product Codes

603.015.036 BT5 BT ADAPTOR - A free standing self powered unit

603.015.055 TT15/H 15W HORN SPEAKER

603.015.056 TT20/H 20W HORN SPEAKER

603.015.051 TT30/H 30W HORN SPEAKER

The TT30/A, TT60/A & TT120/A series mixer power amplifiers are designed for PA system applications such as paging, announcements, intercommunications and background music in offices, schools, shops, and recreation areas. These amplifiers come with three microphone inputs, two auxiliary inputs and one auxiliary out

603.015.037  
603.015.038  
603.015.039

TT30/A 30W Amplifier  
TT60/A 60W AMPLIFIER  
TT120/A 120W AMPLIFIER





## Features

- Offers alarm verification, visual access control and routine monitoring
- Password protected user administration
- Supports audio

## CamControl 4 Central Station Software for PC

Control software specially developed for larger security control rooms, alarm receiving centres, visual monitoring centres and any application requiring the simultaneous display of four physically separated transmitters onto a single monitor. Both live and archived images can be transmitted over public or private networks (modem, ISDN, GSM, TCP/IP).

The central station software also offers the functions of alarm verification, visual access control and routine monitoring. Transmitter-specific response information can be displayed in the event of an alarm (key-holder info etc).. The software has a password-protected user administration and supports audible (via PC sound card) and visual alarm signalling.

The entire range of the control station software functions may be utilised in the main window: full image (full format), 2, 4 or 10 camera display, camera control (if a remote module is also used), accessing pre-alarm images, archiving, remote control, remote configuration of the transmitter, access control, and many more. The special options depend on the system configuration and the functions of the CamTel ® , CamDisc ® or CamLine transmitter.

### Hardware requirements:

- M-compatible PC
- Pentium 166 Processor
- 32 MB space
- Com port UART 16550 (or 4 port serial interface for multiple connections)
- VGA display, VGA graphics with at least 65,535 colours, 1024 x 786 pixels
- Operating system Windows ® 95B/98/2000/NT 4.0

### Includes:

- CD-ROM with CamControl 4 central station software,
- Dongle license key
- Manual English

Control software specially developed for larger security control rooms, alarm receiving centres, visual monitoring centres and any application requiring the simultaneous display of four physically separated transmitters onto a single monitor. Both live and archived images can be transmitted over public or private networks (modem, ISDN, GSM, TCP/IP).

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The entire range of the control station software functions may be utilised in the main window: full image (full format), 2, 4 or 10 camera display, camera control (if a remote module is also used), accessing pre-alarm images, archiving, remote control, remote configuration of the transmitter, access control, and many more. The special options depend on the system configuration and the functions of the CamTel ® , CamDisc ® or CamLine Transmitter.

### Hardware requirements:

- IBM-compatible PC
- Pentium 166 Processor
- 32 MB space
- Com port UART 16550 (or 4 port serial interface for multiple connections)
- VGA display, VGA graphics with at least 65,535 colours, 1024 x 786 pixels
- Operating system Windows ® 95B/98/2000/NT 4.0

### Includes:

- CD-ROM with CamControl 4 central station software,
- Dongle license key
- Manual English

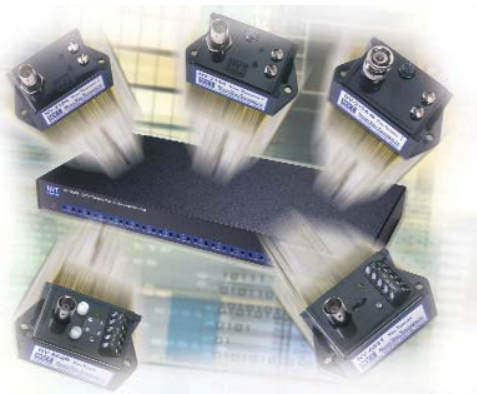
## Product Codes

- 603.015.012 CamControl 4 central station software, takes up to 4 simultaneous calls
- 603.015.013 4 Port serial card for use with CamControl 4

### Section 3 - Video Transmission using UTP Cable

NVT provide a range of products to transmit video over unshielded twisted pair cable as an alternative to co-ax.

The benefits of this are a greater distance covered without loss of picture quality, total immunity from interference, and a quick method of installation.



#### Features

UTP Transmission Compared to Coax Video:

- Total interference immunity
- Most models have built-in Surge Suppression
- Active models have Ground Lifting
- Active models have built-in Distance Equalisation control for crisp video at all distances
- Transmission distances up to one mile or more compared to fibre
- Simple termination and installation
- Installation tools, test equipment, and labour are less expensive voltage power circuits. Perfect for larger CCTV installations where port density and camera number growth are common

#### Video Transmission Using UTP Cable

UTP Video transmission systems transmit real time high quality interference free video over ordinary unshielded twisted pair cable. (Cat5 UTP) For at least 20 years products have been available capable of transmitting video using UTP wire. For much of that time however, UTP balun manufacturers did little more than convert an unbalanced coax signal to a balanced signal for use on the twisted pair. Some companies added gain to extend the distance. Unfortunately, these devices provided inadequate noise immunity, no ground loop isolation, and no surge protection.

The security market viewed this older technology as "last resort" until companies like NVT or American Dynamics developed their own range of high performance UTP/CCTV products.

A technique has been developed for rejecting noise and interference. This allows the video signals to reside in the same wire bundle with ringing telephones, Ethernet, 24VAC, RS-422 or RS-485 data, multiple video signals, etc. Unlike coax, it can also reside in high-noise environments, such as lift travelling cables, or near fluorescent lights, radio transmitters, motors or generators.



##### ADACTP01BNC

Single Camera Twisted Pair Video Adapter

The American Dynamics twisted pair video adapter is a passive transmission device that transmits video or video with up-the-coax (UTC) Dome control signals over unshielded twisted pair (UTP) Cables, point-to-point, for distances up to 300 meters (1,000 feet). These adapters use category 2-6 twisted pair wires to transmit the video and dome control signals and do not require power. Dimension: 47 x 13.6mm (1.85 x 0.54 inches).



##### 603.015.053

Single Camera Transmitters and Receivers

NVT NV-214AM twisted pair Video Transceiver transmits video up to 225m when used with an NVT passive transceiver or when used with an active receiver can transmit up to 1Km



##### 603.015.023

Passive Single Camera Transmitter/Receiver, 300m range Fits direct to back of camera. (1km with active receiver). Used as a receiver, the NV-213A-M is fully compatible with qualified OEM cameras that are equipped with an NVT twisted-pair output. The unparalleled interference rejection and low emissions of the Model NV-213A (-M) allow video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant. With built-in transient protection, damaging voltage spike problems are eliminated.



##### 603.015.026

Active Single Camera Transmitter, 1600m range (1 Mile). The NVT Model NV-653T Video Transmitter is an active (amplified) device that allows the transmission of real-time monochrome or colour video on up to one mile (1.6km) using Category-2 or -3 Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported. The unparalleled interference rejection and low emissions of the Model NV-653T allows long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting ensures no annoying "hum-bars" when ground potential differences exist. With built-in transient protection, damaging voltage spike problems are eliminated.



##### 603.015.027

Active Single Camera Receiver, 1600m range (1 Mile) c/w ground loop isolation. The NVT Model NV-652R Video Receiver is an active (amplified) device that allows the reception of real-time monochrome or colour video on up to one mile (1.6km) using Category-2 or 3 Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported. The unparalleled interference rejection and low emissions of the Model NV-652R allow long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting ensures no annoying "hum-bars" when ground potential differences exist. With built-in transient protection, damaging voltage spike problems are eliminated.

## Multi Channel Transmitters and Receivers



### 603.015.025

Four Camera Transmitter/Receiver, 300m range (1000m if used with active receiver). The NV-413A Video Transceivers are passive (non-amplified) device that allows the transmission of real-time monochrome or colour video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported. "Up-the-coax" type P/T/Z signals may be sent over the same wire pair. Used as a receiver, the NV-413A is fully compatible with qualified OEM cameras that are equipped with an NVT twisted-pair output. The unparalleled interference rejection and low emissions of the Model NV-413A allow video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant. With built-in transient protection, damaging voltage spike problems are eliminated.



### 603.015.029

Eight Camera Transmitter/Receiver, 300m range (1000m if used with active receiver). The NV-813A is an 8-port passive transceiver hub that allows transmission of real-time monochrome or colour video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported. "Up the coax" type P/T/Z signals may be sent over the same wire pair at distances up to 1,000ft (300m). The unparalleled interference rejection ability of the NV-813A Hub allows video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. Perfect for larger CCTV installations where port density and camera number growth are common.



### 603.015.030

Sixteen Camera Transmitter/Receiver, 300m range (1000m if used with active receiver). The NVT NV-1613A is a 16-port passive transceiver hub that allows transmission of real-time monochrome or colour video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported. "Up the coax" type P/T/Z signals may be sent over the same wire pair at distances up to 1,000ft (300m). The unparalleled interference rejection ability of the NV-1613A Hub allows video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. Perfect for larger CCTV installations where port density and camera number growth are common.



### 603.015.031

Thirty Two Camera Transmitter/Receiver, 300m range (1000m if used with active receiver) The NVT NV-3213A is a 32-port passive transceiver hub that allows transmission of real-time monochrome or colour video over Unshielded Twisted-Pair (UTP) telephone wire. Baseband (composite) signals of any type are supported. "Up the coax" type P/T/Z signals may be sent over the same wire pair at distances up to 1,000ft (300m). The unparalleled interference rejection ability of the NV-3213A Hub allows video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. Perfect for larger CCTV installations where port density and camera number growth are common.

## Multi Channel Long Range Receivers (c/w Built in Ground Loop Isolation)



### 603.015.028

Four Camera Receiver, 1000m range with Passive Transmitter (1600m with active transmitter). The NV-452R Video Receiver is an active (amplified) device that allows the reception of real-time monochrome or colour video on up to one mile (1,6km) using Category-2 or 3 Unshielded Twisted-Pair (UTP) telephone wire. The unparalleled interference rejection and low emissions of the Model NV-452R allow long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting ensures no annoying "hum-bars" when ground potential differences exist. With built-in transient protection, damaging voltage spike problems are eliminated.



### 603.015.032

Eight Camera Transmitter/Receiver, 1000m range with Passive Transmitter NV862R (1600m with active Transmitter). The NV-862R is an 8-port active (amplified) device that allow the reception of real-time monochrome or colour video on up to one mile (1,6km) using Category-2 or 3 Unshielded Twisted-Pair (UTP). Baseband (composite) signals of any type are supported. The unparalleled interference rejection and low emissions allow long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting ensures no annoying "hum-bars" when ground potential differences exist. With built-in transient protection, damaging voltage spike problems are eliminated. Perfect for larger CCTV installations where port density and camera number growth are common.



### 603.015.033

Sixteen Camera Transmitter/Receiver, 1000m range with Passive Transmitter NV1662R (1600m with active Transmitter). The NV-1662R is a 16-port active (amplified) device that allows the reception of real-time monochrome or colour video up to one mile (1,6km) or Category-2 or 3 Unshielded Twisted-Pair (UTP) or up to 1.5 miles (2,4km) NTSC of Category-5. Baseband (composite) signals of any type are supported. The unparalleled interference rejection and low emissions allow long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting ensures no annoying "hum-bars" when ground potential differences exist. With built-in transient protection, damaging voltage spike problems are eliminated. Perfect for larger CCTV installations where port density and camera number growth are common.



### 603.015.034

Thirty Two Camera Transmitter/Receiver, 1000m range with Passive Transmitter NV3262R (1600m with active Transmitter). The NVT Model NV-3262R is a 32-port active (amplified) device that allows the reception of real-time monochrome or colour video up to one mile (1,6km) or Category-2 or 3 Unshielded Twisted-Pair (UTP). Baseband (composite) signals of any type are supported. The unparalleled interference rejection and low emissions allow long run video signals to co-exist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of shared or existing cable plant. Ground-lifting ensures no annoying "hum-bars" when ground potential differences exist. With built-in transient protection, damaging voltage spike problems are eliminated. Perfect for larger CCTV installations where port density and camera number growth are common.

### Chapter 14 - Service Equipment and Accessories

These are a range of products available to assist in the installation of CCTV systems. We offer a choice of mono or colour test monitors, and a range of connectors and cables to meet the majority of customer's requirements

and surge protection devices to prevent damage to important equipment when lightning strikes.



#### Features

- Ideal Service Tool
- 4" Flat Screen 81W X 59H
- 500 TVL Resolution
- 12 Hour Battery Charge Time
- Sturdy Leather Carry Case With Neck Strap
- Power Supply 12Vd.c.
- Dimensions 230(h) x 79(w) x 60 (d)

#### PSM012 Monochrome Service Monitor

The service monitor is an essential tool for all CCTV engineers, allowing simple on the spot adjustments of cameras and lenses with the minimum inconvenience. No more trailing mains cables and difficulties correcting the setting of field of view. It is one of the most widely used service monitors in Europe and has proved its reliability and durability year after year.

The self-contained unit comes with a rechargeable 12 V Battery pack and charger giving 1.5 hours of continuous use, and weighs only 850g. Enclosed in a rugged leather case for protection this unit is a must for any installation engineer. The unit comes complete with a short BNC lead and battery charger.

#### Product Codes

603.004.029      4" Monochrome 12Volt DC Battery operated Portable Service Monitor comes in a protective case with charger.



#### CIE Colour Service Monitor

The EN220, is a high resolution 5.6" colour TFT-LCD monitor, which provides superior video.

#### Features

- High resolution with 16 million true colour
- Colour, contrast and brightness adjustment. Built in audio and speaker wide view angle
- Reliable rechargeable battery included in the service kit system available in PAL
- Low power consumption

The EN220 with its easy to carry service kit and rechargeable battery rack provides trouble free operation with incredible performance.

#### Technical Specification

Screen Size: 5.6" (116H x 87Wmm)  
Active Area: 111.36H x 83.2W mm  
Drive System: A-Si TFT Active Matrix  
Screen Colour: 16 million true colour  
Dot Matrix: 320H x RGB x 240W dots  
Dot Pitch: 0.116H x 0.348W  
Overall Dimensions: 230H x 180W x 70D mm  
Weight: 1.58Kg  
Contract Ratio: 85:1  
Luminosity: 270cd/m2  
Sound Output: 200mW x built-in 4cm speaker - 1 piece

Input Terminals: Power Input, Video Input, Audio Input  
Power Consumption: 12Vd.c./600mA, 8W Max.  
Power Input: 9Vd.c.~20Vpin 2.0 dia  
Video Input: 0.75 Vp-p~1Vp-ppin 3.5 dia  
Stereo Output: Ear Phonepin 3.5 dia  
Operating Temp.: -40oC to +95oC

#### Product Codes

603.004.070      CIE Service Monitor Colour EN220/P



### ClearView



### Product Codes

|             |  |
|-------------|--|
| 604.003.024 | One Metre Coaxial Hook Up Lead 2120 Belden 8723 Style Cable (2 Screened Pairs)   |
| 2123        | Belden 8723 Style Cable (2 Screened Pairs). Supplied on 500m Reel  |
| 610.001.054 | 8723 Style cable LSF Grey (twisted pair)   |
| 604.003.056 | URM70 Coaxial Cable for Internal CCTV applications, 5.8mm Overall Diameter, White PVC, 7/0.19mm Inner Conductor, Loss per 100M@5Mhz 3.31dB , Priced Per Meter MOQ 100 Metre Drum combined with a 0.75mm CSA twin power cable Shotgun |
| 662.008.001 | Sensornet - Single twisted pair, unscreened (250m) Belden 8442   |
| 610.001.043 | 300M Reel Of UTP CAT5 Grey Cable   |

### Hand Held Test Meter



### Product Codes

|             |  |
|-------------|--|
| 604.002.155 | A self calibrating hand held meter that tests for video, audio, sync and burst with termination. |
|-------------|--|

### Signs

#### CCTV SURVEILLANCE IN OPERATION

Images are being monitored for the purposes of Public Safety, Crime Prevention and Prosecution of Offenders.

This scheme is controlled by:  
For further information contact:

Secured by ADT

### Product Codes

|             |   |
|-------------|---|
| 604.002.232 | A4 Foamex wall sign - Text as per photo   |
| 604.002.233 | A3 Foamex wall sign - Text as per photo   |
| 604.002.234 | Window/surface sticker (qty x2)self adhesive vinyl - text as above (also includes permanent marker pen) |



### Features

- Built-in lightning protection
- Easy Installation
- Compact Design

### ClearView & ClearSurge

#### ClearView 2

The ClearView 2 is a dual channel ground isolation transformer, with built in lightning protection.

It is common in CCTV installations for ground differentials (hum) to create problems for installers. A dual channel device has been developed with mounting tabs after consulting with installers who had fitted many single units without any means to be able to secure the units.

The end result was a very untidy control room. The ClearView 2 is a cost effective way of dealing with Ground loop problems where more than one camera is involve.

Lightning protection should be an integral element of any CCTV installation where cable runs span between buildings. However, in the extremely price competitive market for CCTV, the cost of including such protection is often prohibitive.

ClearView includes 10,000 Amps of lighting protection, which in the event of a lightning strike within 1Km of a camera, reduces the effects of over-voltages and prevents equipment damage. These items should be installed at the control room.

#### ClearView 1

The ClearView 1 is a single channel ground isolation transformer, with built in lightning protection. The price of the ClearView 2 is competitive with single channel GIT's. However, we have found that in some cases companies have chosen other devices when there has only been the requirement to provide ground differential correction on a single channel. Therefore, we supply a single channel ClearView to provide a like for like product.

#### ClearSurge 1

ClearSurge is a single channel lightning protection device for CCTV cameras. The ClearSurge is designed for easy installation within the camera housing itself. Other lightning protection devices, because of their physical size and shape, require a separate housing and this creates both difficulties with installation and increased costs. The ClearSurge 1 is installed directly to the camera BNC, with its own earth cable which, once connected to the terminal block, is effectively ready for action.

The ClearSurge diverts the effects of lightning (over voltages) away from the camera to ground by creating a path of least resistance. The camera bracket also needs to be earthed for the unit to function correctly.

### Product Codes

|             |  |
|-------------|--|
| 604.001.133 | Clearview1 single camera coax isolation transformer and Lightning Protection device eliminates hum caused by ground differentials between camera and control room. |
| 604.001.134 | Clearview2 Twin camera coax isolation transformer and Lightning Protection device eliminates hum caused by ground differentials between camera and control room.   |
| 604.001.135 | Clearsurge 1 Coax lightning protection designed to fit in camera housing 10KA surge Protection 60mm x 30mm   |

# Chapter 14 - Service Equipment and Accessories

## Service Equipment & Accessories

### Coaxial Cables & Connectors

| Product Code | Cable         | Outside Diameter | Colour |   |   |   |   |   |   | Sheath | Core @5MHz | Loss dB | MOQ  | Max External M | Distance Use |
|--------------|---------------|------------------|--------|---|---|---|---|---|---|--------|------------|---------|------|----------------|--------------|
| A22011       | RG59B/U       | 6mm              | White  | ✓ | ✓ | ✓ | ✓ | ✓ |   | PVC    | 1/0.58     | 2.25dB  | 100M | 260M           | No           |
| 604.003.030  | RG59B/U       | 6mm              | White  | ✓ | ✓ | ✓ | ✓ | ✓ |   | PVC    | 1/0.58     | 2.25dB  | 250M | 260M           | No           |
| A22001       | URM70         | 5.8mm            | White  |   | ✓ | ✓ | ✓ | ✓ |   | PVC    | 7/0.19     | 3.31dB  | 100M | 180M           | No           |
| A22007       | RG 11A/U      | 10.2mm           | Black  |   |   |   |   |   | ✓ | PVC    | 7/0.4      | 1.4dB   | 100M | 420M           | No           |
| A22009       | CC125         | 7.8mm            | White  |   |   |   |   |   | ✓ | PVC    | 1/1.25     | 1.1dB   | 500M | 540M           | No           |
| A22012       | CT125UG       | 9.8mm            | Green  |   |   |   |   |   | ✓ | P.E.   | 1/1.25     | 1.1dB   | 200M | 540M           | Yes          |
| 604.003.056  | URM70 Shotgun | 5.8 x 12.2mm     | White  |   | ✓ | ✓ | ✓ | ✓ |   | PVC    | 7/0.19     | 3.31dB  | 100M | 180M           | No           |
| Non Stock    | CC167         | 10.2mm           | Black  |   |   |   |   |   | ✓ | PVC    | 1/1.62     | 0.9dB   | 100M | 660M           | No           |
| Non Stock    | CC167UG       | 11.5mm           | Green  |   |   |   |   |   | ✓ | P.E.   | 1/1.62     | 0.9dB   | 500M | 660M           | Yes          |

Maximum Distance on a loss of 6dB at 5Mhz

**A21020BNC**  
Twist-On Connector  
Suitable for Cable  
RG59B/U Twist on No  
tools required

**A21018**  
Coaxial BNC Crimp Jack for  
RG59B/U and URM70 Cable  
**Tools Required**  
**Pin** Tool  
**Ferrule** Tool A

**A21003**  
10 Off BNC Crimp connector and  
strain relief turned crimp plug  
suitable for cables RG59B/U,  
URM70  
**Tools Required**  
**Pin** Tool A  
**Ferrule** Tool A

**A21903**  
BNC Crimp Connector with Strain Relief  
suitable for RG59B/U URM70  
604.003.027  
10 Off BNC Crimp Connectors with Strain  
Relief suitable for RG59B/U URM70  
**Tools Required**  
**Pin** Tool A  
**Ferrule** Tool A

604.003.044  
Right Angled BNC Crimp Connector with  
Strain Relief suitable for RG59B/U URM70  
**Tools Required**  
**Pin** Tool A  
**Ferrule** Tool A

604.003.034  
BNC Crimp Connector for RG11 Coaxial  
Cable  
**Tools Required**  
**Pin** Tool B  
**Ferrule** Tool B

604.003.038  
BNC Crimp Plug for  
CC167RBS (Coax  
Connectors 504-5-  
CT167RBS)  
**Tools Required**  
**Pins** Tool C  
**Ferrules** Tool D

604.003.036  
BNC Crimp Plug For  
CC125RBS (Coax Connectors  
504-5-CT125RBS)  
**Tools Required**  
**Pins** Tool  
**Ferrules** Tool F

604.003.037  
BNC Crimp Plug for CC167 (Coax  
Connectors 504-5-CT167)  
**Tools Required**  
**Pins** Crimp Tool C  
**Ferrules** Crimp Tool D

604.003.035  
BNC Crimp Plug for CC125 (Coax  
Connectors 504-5-CT125)  
**Tool required**  
**Pins** Crimp Tool C  
**Ferrule** Crimp Tool C

A21021  
BNC Secure Fit Plug for CC100/125 (Coax  
Connectors 504-083)  
**Tools Required**  
**Pin** Solder Iron  
**Body** Spanner



# Chapter 14 - Service Equipment and Accessories

## Coaxial Connectors

### Product Codes



**604.003.059**

BNC Goalpost Y adapter (Coax connectors 504-051)



**A21008**

BNC/BNC Cable Connector Jack to Jack



**A21011**

Coaxial BNC 'T' Adapter two Jacks one BNC

## Coaxial Connector Tools

### Product Codes



**9052**

A Type Ratchet BNC Crimp tool is suitable for crimping pins and Ferrules for RG59 and URM70



**604.003.023**

Rotary Cable Stripper Suitable for use with Crimp Connectors



**604.003.039**

**604.003.042**

**604.003.041**

**604.003.040**

C type Crimp Tool for CT 125 Ferrules and all Pins

D Type Crimp Tool for CT167RBS Ferrules

E Type Crimp Tool for CT167 Ferrules

F Type Crimp Tool for CT125RBS Ferrules

### Did You Know?

#### VHS Versus S-VHS

A camera's picture is generally measured by quality of picture versus noise received (signal to noise ratio). This is measured in decibels (dB). The further you send a picture along a cable run the higher the loss of picture and therefore the lower the dB figure becomes.

See our table on Page 73 for loss in dB per 100 metres figures and the recommendation of maximum cable length for each type of cable.

### Power Supply Units

To allow for the variety of power requirements within the CCTV range, there are a number of products selected to allow the choice of 12Vdc or 24vac along with different outputs ranging from 500mA up to 4Amps.

To allow for the use of these products within camera housings, some items are provided as pcb versions.



#### Features

- Reliable
- Sturdy
- Long life

### Power Supplies for Single American Dynamics Domes

Although it is recommended when installing American Dynamics domes that a Junction Box should be used to provide Surge Protection and Data amplification, in some instances where the data cable run is short (for RS422 protocol less than 915 metres, and for SensorNet less than 1000m) a more cost effective solution is to simply use a PSU.

There are two solutions available; If installing the dome Internally part numbers 0300-0914-03 (universal transformer) and 0351-0547-03 (UK power cord) are suitable.

If installing Externally then part number 603.014.039 (24v 4A single fused PSU) can be used, this unit is housed in an IP66 rated external housing. These units should only be used to power single domes

#### Technical Specification

##### Specifications for 603.014.039

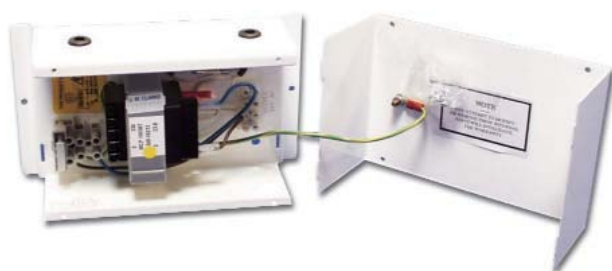
INPUT:  
Voltage: 230v ac nominal +10%/-15%  
Frequency: 50HZ

OUTPUT:  
Nominal voltage: 24v ac @230v  
Voltage Range (on Full load to off load At nominal mains voltage): 23v to 28v  
Fused outputs: 1 x 4A F Rated 230v 20mm  
Glass type:

PHYSICAL:  
Environment: 0 to +40 deg C at up to 75% RH  
IP66  
Dimensions: 182 x 182 x 90mm  
Colour: Light Grey Feature  
Specification:

#### Product Codes

|              |   |
|--------------|---|
| 0300-0914-03 | Universal Transformer for Internal SpeedDome                    |
| 0351-0547-03 | UK Power Cord   |
| 603.014.039  | 4A 24vAC PSU for External SpeedDome, in an IP66 rated enclosure |



### Features

- Metal Boxed
- Single fused output
- 24v ac

### 24VA.C., 1A Camera Power Supply Unit

A metal boxed Power supply offering 24v ac output , with a single 1 amp fuse

### Technical Specification

Input:: 240V AC input (Toroid Transformer)  
Output: 24V AC 1 Amp Fused one Output  
Dimensions: 150H x 100W x 65D mm

### Product Codes

A23002 240V/24Va.c 1 Amp. Requires mounting in a housing



### Features

- Metal Boxed
- Single Fused Output
- 4 Amp output
- Sturdy

### 24VA.C., 4A Camera Power Supply Unit

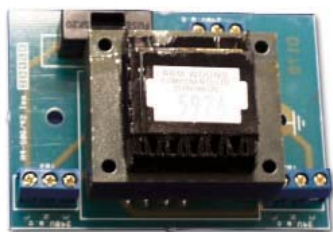
Metal boxed power supply, 240Va.c. to 24Va.c., 4 amp with a single fuse and connections for 8 outputs.

### Technical Specification

Mains Input: 240V, 50Hz +/-5%  
PSU Total Output: 4A@24Va.c.  
Case: 1.3mm steel  
Dimensions: 210H x 190W x 60D mm

### Product Codes

A23004 Camera PSU 240V/24V.a.c. 4amp



### Features

- PCB mounted supply
- Single 1 amp fuse
- Two connections for outputs
- Economic

### 24VA.C., 1A PCB Power Supply Unit

PCB mounted power supply, 240Va.c. to 24Va.c., 1 amp with a single fuse and 2 connectors for outputs.

### Technical Specification

Mains Input: 240V, 50Hz +/-5%  
PSU Total Output: 1A@24Va.c.  
Dimensions: 45H x 85W x 60D mm

### Product Codes

A23003 Camera PSU Housing Kit 24V 1Amp



### Features

- Encapsulated PSU
- 500mA output
- Suitable for Single camera or minidome
- Economic

### 24VA.C., 500mA Power Supply Unit

This encapsulated power supply has no fused input/output therefore an external disconnect device is recommended.

It provides 500mA@24v ac and suitable for powering a single fixed camera or minidome.

### Technical Specification

603.014.036 (VR24500 EB)

Mains Input Voltage: 230v ac  
Nominal O/P Voltage: 24vac (22-29)  
(Voltage Range-on/off load):  
Maximum Continuous current: 0.5A  
Fused Output: No  
Case Style: ABS  
Case size -(All sizes approximate):  
Height mm: 100  
Width in mm: 69  
Depth in mm: 60  
BS EN 60950: Y  
Mains Supply: 230Vac +10%,-15% at 50Hz

Nominal Output Voltage Based on mains input voltage at 230Vac  
Output Ripple (dc units only): <100mV(pk to pk) at nominal input voltage  
Environment: -10°C to +40°C up to 75% RH - Non condensing  
ABS Encapsulated units: Black ABS to UL94/ VO  
ABS Encapsulated variants: EB = UK mains plug.  
Main Applications CCTV and Access Control Systems  
Safety Note: External disconnect device is required

### Product Codes

603.014.036 24 vac 500mA psu



### Features

- Encapsulated power supply
- 750mA output
- Compact
- Economic

### 12VD.C., 1 Amp Camera Power Supply Unit

This encapsulated power supply has no fused input/output therefore an external disconnect device is recommended.

It provides 1A@12v dc and is suitable for powering two fixed cameras or minidomes.

### Technical Specification

603.014.035 (VR12100 EB)

Mains Input Voltage: 230 v ac

Nominal O/P Voltage:

(Voltage Range-on/off load):

12vdc

Maximum Continuous current:

1A

Fused Output: NoCase Style ABS

Case size -(All sizes approximate)

Height mm: 100

Width in mm: 69

Depth in mm: 60

BS EN 60950: Y

### Product Codes

603.014.035 12vdc 1 Amp PSU



### Features

- Mains input voltage 230v ac
- Nominal output voltage 12v dc
- Maximum Continuous current 1.5 A
- Fused output 1 x 1.5A

### 12VD.C., 1A Camera Power Supply Unit

This unit is contained within a metal IP41 rated "clam-shell" type enclosure. It provides 1.5A@12v dc suitable for powering up to 3 fixed cameras or minidomes.

### Technical Specification

Case style: metal IP41 excluding rear face and clam shell

Case size: 100mm High  
180mm wide  
66mm deep

Lid type: Clam  
BS EN 60950

### Product Codes

603.014.037 12vdc Amp PSU



### Features

- Metal boxed
- 4 amp output
- Mains present indicator
- Optional battery can be fitted

### 12VD.C., 4A Camera Power Supply Unit

The 1384-1 Power supply Unit will provide 13.8 volts dc at a maximum of 4A When fitted with an optional rechargeable battery the unit provides a standby facility during Mains failure.

This unit must be used with D.C. units only this unit is factory adjusted to provide 13.8 volts dc output. If fitted a lead Acid rechargeable battery can be charged from an uncharged state if necessary, and then trickle charges to maintain optimum condition.

The Mains present indicator is a green LED and the Red LED pulses if the mains supply fails or if the output fuse fails. During mains failure the load can be supplied from the rechargeable battery. An automatic disconnect circuit will operate if the battery voltage becomes too low.

### Technical Specification

|                         |  |
|-------------------------|--|
| Mains Input:            | 230V +/- 10% @50Hz                             |
| PSU output :            | 4A @ 13.8V dc max                              |
| Load Output :           | 3A a 13.8V dc with rechargeable battery fitted |
| Load Voltage Reg:       | 0.9% Max                                       |
| Output Ripple:          | 50mV RMS Max                                   |
| Max Battery Size:       | 4 x 6Ah 12 Lead Acid                           |
| Batt. Disconnect Volt.: | 9.8V +/- 0.2V                                  |
| Batt. Recharge Time:    | 24 Hours                                       |
| Environment:            | -10 to +40°C at up to 95%RH                    |

### Product Codes

|             |  |
|-------------|--|
| 603.001.183 | Elmdene 12V 4amp Power supply unit (PSU1384) Boxed |
|-------------|--|

# INDEX

| Stock Code No. | Page   | Stock Code No. | Page     | Stock Code No. | Page |
|----------------|--------|----------------|----------|----------------|------|
| 0300-0914-03   | 130    | 603.006.027    | 62       | 604.001.137    | 111  |
| 0351-0547-03   | 130    | 603.006.028    | 62       | 604.001.138    | 112  |
| 2123           | 126    | 603.006.029    | 62       | 604.001.140    | 112  |
| 601.001.187.A  | 4      | 603.006.030    | 63       | 604.001.141    | 112  |
| 603.001.127    | 14     | 603.006.031    | 63       | 604.001.142    | 112  |
| 603.001.128    | 15     | 603.006.034    | 63       | 604.001.143    | 112  |
| 603.001.129    | 16     | 603.006.065    | 64       | 604.001.144    | 112  |
| 603.001.130    | 15     | 603.006.078.A  | 85       | 604.001.145    | 112  |
| 603.001.131    | 16     | 603.006.079.A  | 85       | 604.001.146    | 113  |
| 603.001.177    | 14     | 603.008.032    | 68       | 604.001.147    | 113  |
| 603.001.183    | 134    | 603.008.033    | 68       | 604.001.148    | 113  |
| 603.001.186.A  | 4      | 603.008.034    | 68       | 604.001.149    | 113  |
| 603.001.207.A  | 4      | 603.008.035    | 68       | 604.001.150    | 113  |
| 603.001.208.A  | 4      | 603.008.037    | 67       | 604.001.157    | 114  |
| 603.001.219.A  | 4      | 603.011.001    | 108      | 604.001.158    | 114  |
| 603.001.220.A  | 4      | 603.011.002    | 108      | 604.001.159    | 114  |
| 603.001.221    | 17     | 603.011.003    | 109      | 604.001.160    | 114  |
| 603.001.225    | 12     | 603.011.004    | 109      | 604.002.007    | 107  |
| 603.001.226    | 12     | 603.011.005    | 110      | 604.002.155    | 126  |
| 603.001.227    | 17     | 603.011.006    | 108      | 604.002.162    | 61   |
| 603.002.130    | 45     | 603.014.035    | 133      | 604.002.163    | 61   |
| 603.002.131    | 46     | 603.014.036    | 132      | 604.002.166    | 61   |
| 603.002.132    | 46     | 603.014.037    | 133      | 604.002.168    | 61   |
| 603.002.150    | 45     | 603.014.038    | 18       | 604.002.171    | 61   |
| 603.002.156    | 45     | 603.014.039    | 130      | 604.002.178    | 106  |
| 603.002.160    | 42     | 603.015.012    | 118, 122 | 604.002.179    | 107  |
| 603.002.164    | 45     | 603.015.013    | 122      | 604.002.180    | 107  |
| 603.002.166    | 44     | 603.015.015    | 119      | 604.002.181    | 107  |
| 603.002.167    | 45     | 603.015.020    | 118      | 604.002.192    | 69   |
| 603.003.141    | 78     | 603.015.023    | 123      | 604.002.199    | 66   |
| 603.003.147    | 59     | 603.015.025    | 124      | 604.002.200    | 66   |
| 603.003.148    | 59     | 603.015.026    | 123      | 604.002.201    | 66   |
| 603.003.162    | 52     | 603.015.027    | 123      | 604.002.232    | 126  |
| 603.003.165    | 54     | 603.015.028    | 124      | 604.002.233    | 126  |
| 603.003.166    | 54     | 603.015.029    | 124      | 604.002.234    | 126  |
| 603.003.167    | 53     | 603.015.030    | 124      | 604.003.023    | 129  |
| 603.003.171    | 52     | 603.015.031    | 124      | 604.003.024    | 126  |
| 603.003.172    | 52     | 603.015.032    | 124      | 604.003.027    | 128  |
| 603.003.202    | 61     | 603.015.033    | 124      | 604.003.034    | 128  |
| 603.003.203    | 61     | 603.015.034    | 124      | 604.003.035    | 128  |
| 603.003.223    | 50     | 603.015.036    | 121      | 604.003.036    | 128  |
| 603.003.224    | 50     | 603.015.037    | 121      | 604.003.037    | 128  |
| 603.003.237    | 59     | 603.015.038    | 121      | 604.003.038    | 128  |
| 603.003.238    | 59     | 603.015.039    | 121      | 604.003.039    | 129  |
| 603.003.244    | 50     | 603.015.040    | 121      | 604.003.040    | 129  |
| 603.003.246    | 77, 78 | 603.015.041    | 121      | 604.003.041    | 129  |
| 603.003.247    | 77, 78 | 603.015.042    | 121      | 604.003.042    | 129  |
| 603.003.248    | 77, 78 | 603.015.045    | 120      | 604.003.044    | 128  |
| 603.003.249    | 77, 78 | 603.015.053    | 123      | 604.003.056    | 126  |
| 603.003.250.A  | 48     | 603.015.057    | 116      | 604.003.059    | 129  |
| 603.003.251.A  | 51     | 603.015.058    | 116      | 604.005.021    | 71   |
| 603.003.254.A  | 51     | 603.015.059    | 117      | 604.005.025    | 71   |
| 603.003.255.A  | 48     | 603.015.060    | 117      | 604.005.026    | 71   |
| 603.004.029    | 125    | 603.015.061    | 118      | 604.005.040    | 70   |
| 603.004.067    | 77, 78 | 603.015.064    | 118      | 604.005.041    | 70   |
| 603.004.070    | 125    | 603.015.065    | 118      | 610.001.043    | 126  |
| 603.004.073    | 77, 78 | 603.015.066    | 118      | 610.001.054    | 126  |
| 603.004.074    | 77, 78 | 604.001.105    | 112      | 659.001.019    | 70   |
| 603.004.075    | 77, 78 | 604.001.119    | 111      | 662.008.001    | 126  |
| 603.004.076    | 77     | 604.001.121    | 111      | 803.001.112    | 34   |
| 603.004.081    | 77, 78 | 604.001.127    | 112      | 803.001.122    | 4    |
| 603.006.010    | 61     | 604.001.128    | 113      | 803.001.124    | 4    |
| 603.006.011    | 61     | 604.001.129    | 113      | 803.001.125    | 4    |
| 603.006.013    | 61     | 604.001.132    | 113      | 803.001.149    | 4    |
| 603.006.023    | 62     | 604.001.133    | 127      | 803.001.173    | 4    |
| 603.006.024    | 62     | 604.001.134    | 127      | 803.001.196    | 4    |
| 603.006.025    | 62     | 604.001.135    | 127      | 803.001.197    | 4    |
| 603.006.026    | 62     | 604.001.136    | 72       |                |      |



# INDEX

| Stock Code No. | Page | Stock Code No. | Page   | Stock Code No. | Page   |
|----------------|------|----------------|--------|----------------|--------|
| 803.001.198    | 4    | ADACKBPC2000   | 90, 91 | ADSDUPIHC      | 32     |
| 803.001.199    | 4    | ADACKBPCMPCC   | 90, 91 | ADSDUPIHS      | 32     |
| 9052           | 129  | ADACSNET       | 90     | ADSDUPIVRC     | 32     |
| A21003         | 128  | ADACTP01BNC    | 123    | ADSDUPIVRS     | 32     |
| A21008         | 129  | ADCC0200P      | 101    | ADTT16E-REVA   | 30     |
| A21011         | 129  | ADCC0300P      | 101    | ADTTE-UK       | 100    |
| A21018         | 128  | ADCC1100       | 102    | CTR4024        | 105    |
| A21020BNC      | 128  | ADCCACPSP      | 101    | DM-DS2PD160-06 | 84     |
| A21021         | 128  | ADD400LTP016   | 89     | DM-DS2PD160-09 | 84     |
| A21903         | 128  | ADD400LTP032   | 89     | DM-DS2PD160-16 | 84     |
| A23002         | 131  | ADD600DVP025   | 89     | DM-DS2PD320-06 | 84     |
| A23003         | 132  | ADD600DVP050   | 89     | DM-DS2PD320-09 | 84     |
| A23004         | 131  | ADD600DVS032   | 89     | DM-DS2PD320-16 | 84     |
| A25018         | 69   | ADD600LTP016   | 89     | DM-DS2PD600-16 | 84     |
| A25096         | 78   | ADD600LTP032   | 89     | DMV94Q-1       | 79     |
| A25097         | 78   | ADD600ULP040   | 89     | DMV96Q-1       | 79     |
| A25098         | 78   | ADD600ULP080   | 89     | DMV99Q-1       | 79     |
| A25151         | 42   | ADD600ULP120   | 89     | DVRM-01        | 90     |
| A25152         | 42   | ADD600ULP160   | 89     | ESM1000        | 90     |
| A25154         | 45   | ADD600URP120   | 89     | ESM640         | 90     |
| A25155         | 42   | ADD6R0DVP025   | 89     | HS-CL15V       | 75     |
| A25177         | 45   | ADD6R0DVP050   | 89     | HS-CL17V       | 75     |
| A25180         | 57   | ADD6R0DVP075   | 89     | HS-CL19V       | 75     |
| A25181         | 60   | ADD800DVP025   | 89     | HS-DF401B      | 83     |
| A25187         | 56   | ADD800DVP050   | 89     | L35814CS       | 43     |
| A25188         | 56   | ADD800DVS016   | 89     | LCB001         | 13     |
| A25195         | 45   | ADD800LTP016   | 89     | LCB002         | 13     |
| A25200         | 65   | ADD800LTP032   | 89     | LCH001         | 13     |
| A25201         | 65   | ADDIP250       | 89     | LCM001         | 13     |
| A25216         | 110  | ADDIP250A      | 89     | LCM002         | 13     |
| A25218         | 45   | ADDIP500       | 89     | LCM003         | 13     |
| A25303         | 49   | ADDIP500A      | 89     | LCM004         | 13     |
| A25307         | 58   | ADDSAM12U10    | 93     | LCM005         | 13     |
| A25310         | 53   | ADDSAM12U25    | 93     | LD0412CS       | 43     |
| A25366         | 43   | ADDSAM12UUL    | 93     | LD0614CS       | 43     |
| A25367         | 44   | ADDSNC40       | 90, 91 | LD0812CS       | 43     |
| A25368         | 65   | ADDSNC40UL     | 91     | LD2616CS       | 43     |
| A25369         | 65   | ADDSNCSI       | 90, 91 | LD35814CS      | 44     |
| A25370         | 65   | ADDSNCVMK      | 90, 91 | LD3616CS       | 43     |
| A25373         | 55   | ADDSNCVMKUL    | 90     | LD41016CS      | 44     |
| A25374         | 55   | ADDSNUL40      | 90     | MP1000CC       | 102    |
| A25376         | 19   | ADDSPM12U10    | 92     | MP1000KFT      | 102    |
| A25377         | 19   | ADDSPM12U25    | 92     | MP1000SC3      | 102    |
| A25394         | 44   | ADDSPM12UUL    | 92     | MP1000SCA      | 102    |
| A25455         | 61   | ADDSPMLU1025   | 92     | MQRPNL         | 80, 81 |
| A25456         | 61   | ADDSPMLU10UL   | 92     | NVM12BD.A      | 77     |
| A25488         | 57   | ADDSPMLU25UL   | 92     | NVM14BD.A      | 77     |
| A26039         | 71   | ADMMTLCDPL     | 76     | NVM9BD.A       | 77     |
| A26041         | 73   | ADMMTLCDWL     | 76     | RAS614LS-1     | 29     |
| A26042         | 73   | ADMNC1LCD15    | 75     | RAS915LS-1     | 28     |
| A26043         | 71   | ADMNC1LCD17    | 75     | RAS916LS-1     | 28     |
| A26055         | 74   | ADMNC1LCD19    | 76     | RAS917LSE-1    | 26     |
| A26064         | 71   | ADMNLC20       | 76     | RASELHC-1      | 24     |
| A26110         | 73   | ADMNLC20RK     | 76     | RASELHS-1      | 24     |
| A28017         | 66   | ADMNLC20W      | 76     | RASELPC-1      | 24     |
| A28018         | 66   | ADMNM1LCD15    | 76     | RASELPS-1      | 24     |
| A28019         | 65   | ADMNM1LCD17    | 76     | RASIPHC-1      | 23     |
| A2802          | 46   | ADMNMTLCDWAL   | 76     | RASIPHS-1      | 23     |
| A28022         | 49   | ADMP48P-UK     | 96     | RASIPPC-1      | 23     |
| A29071         | 106  | ADMPLT16       | 97     | RASIPPS-1      | 23     |
| A29125         | 107  | ADMPLT16C2     | 97     | RASOPPC-1      | 23     |
| AD2081-1       | 103  | ADMPLT16C3     | 97     | RASOPPS-1      | 23     |
| AD2083-02C-1   | 104  | ADMPLT32       | 97     | RCSN422        | 31     |
| AD2088-1       | 101  | ADMPLT32C2     | 97     | RDULTRA        | 29     |
| AD2088R-1      | 101  | ADMPLT32C3     | 97     | RDVDAT01       | 90     |
| AD2091-1       | 104  | ADQUAD27-1     | 82     | RDVEXP01       | 90     |
| ADACHDDC400    | 90   | ADQUAD77-1     | 82     | RDVEXP02       | 90     |
| ADACHULP       | 90   | ADQUAD87-1     | 82     | RDVUPG40       | 90     |

# INDEX

| <b>Stock Code No.</b> | <b>Page</b> |
|-----------------------|-------------|
| RDVUPG40IP            | 90          |
| RDVUPG40RMS           | 90          |
| RDVUPGFW              | 90          |
| RDVUPGSCSI01          | 90          |
| RDVUSB23201           | 90          |
| RHCLRVRKIT            | 33          |
| RHODUL-05             | 33          |
| RHODUL-05VR           | 33          |
| RHODUL-06             | 33          |
| RHODUL-06VR           | 33          |
| RHOPTDOME             | 29          |
| RHSMKVRKIT            | 33          |
| RJ1SNUD-1             | 37          |
| RJ6SN                 | 38          |
| RJ856UD-1             | 37          |
| RJ860AP1              | 39          |
| TCC248LVTP            | 10          |
| TCC248MTP             | 10          |
| TCC2X48LV             | 4, 10       |
| TCC2X48M              | 4, 10       |
| TCC333LV              | 4, 8        |
| TCC333M               | 4, 8        |
| TCC343MTP             | 4           |
| TCC348LV              | 4, 9        |
| TCC348LVTP            | 4, 9        |
| TCC348M               | 4, 9        |
| TCC348MTP             | 9           |
| TCM258LV              | 4, 7        |
| TCM258M               | 4, 7        |
| TCM338LV              | 4, 5        |
| TCM338M               | 4, 5        |
| TCM358LV              | 4, 6        |
| TCM358M               | 4, 6        |
| TG2616                | 42          |
| TMV96Q-1              | 80          |
| TY9207                | 4           |
| TY9207/LV             | 4           |
| TY9210                | 4           |
| TY9210/LV             | 4           |
| TY9252A               | 4           |
| TY9252A/LV            | 4           |
| TY9307                | 4           |
| TY9307/LV             | 4           |
| TY9310/LV             | 4           |
| TY9313                | 4           |
| TY9313/LV             | 4           |
| TY9320                | 4           |
| TY9752                | 4           |
| TY9752/LV             | 4           |
| TYX9714               | 4           |
| TYX9714/LV            | 4           |
| TYX9772/LV/WF/STD     | 4           |
| TYX9772/WF/STD        | 4           |
| UHRM09                | 90          |
| VCC-4790P-UK          | 11          |
| VCC-4795P             | 11          |
| VMC7321               | 77          |

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