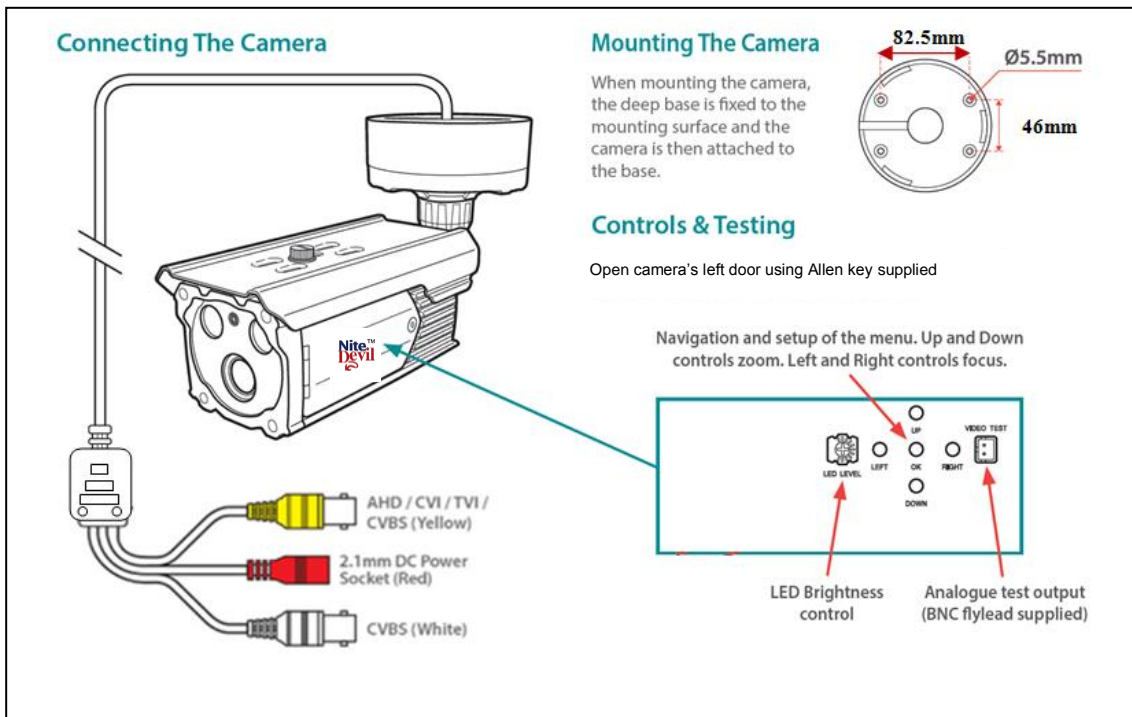


**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

**SEE845 External HD-TVI Camera**

This HD-TVI camera has a 2.1 Mega Pixel 2.8~12mm varifocal lens, 2x High Power IRs with 40 meter range, 2 motors driving the zoom & focus and cut filter for True Day/Night, Privacy masking & Motion. This model comes in glossy black or glossy white.

The SEE845 cameras produce exceptional quality images using the Sony 1/3" CMOS CCD providing HD 1080P resolution. The cameras have Coaxitron Control for changing the OSD menu specifications via the DVR or remote network connection, or via the camera.



**Powering the Camera**

The SEE845 runs on a 12V DC regulated power supply. The camera is provided with a fly lead with a mini power 2.1mm DC socket. It is recommended to use a power supply that is rated higher than the current consumption of the camera i.e. the current consumption is 655mA with IRs set to maximum so use a power supply of 700mA or above. The camera is polarity sensitive so connections must be correctly made.

## NiteDevil SEE845 all-in-one HD-TVI Camera with IR

### Connecting the camera to control equipment

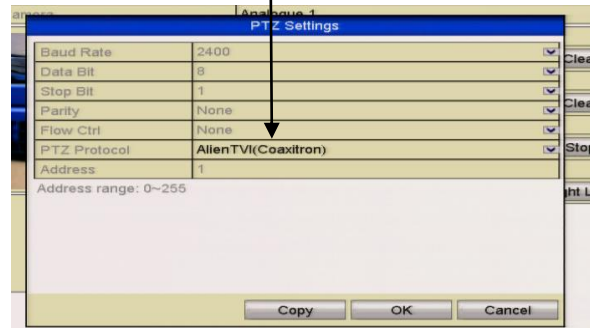
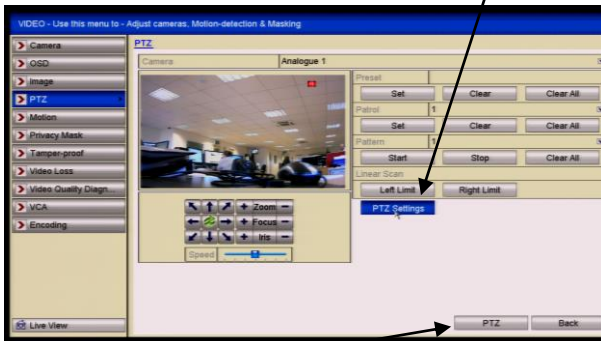
The dome camera comes with a fly lead for power and HD-TVI video out. Connect the camera to control equipment via a female BNC-BNC lead. When using a co-ax type cable such as RG59 or similar, the outer braid of the co-ax provides the “0V GROUND” connection and the inner core provides the “Video” connection. A separate analogue test output is available for setup. A cable is supplied with the camera.

Note that the camera has an automatic zoom and focus. If you want to manually set zoom and focus you will need to enter the camera menu by either using the menu buttons on the side of the camera or pressing Iris +using the PTZ option in the DVR and switch 2-MOTOR to manual. Otherwise the camera will auto focus when powered up. See further details on menu access.

### Menu Access via DVR

Access to the camera menu is via the menu buttons on the camera or via the Up the Co-ax connection. Access by the menu buttons is described below. To use the Up the Coax connection, this can be accessed using the PTZ menu in the MEGA TVI or MAX TVI DVRs using the AlienTVI(Coaxitron) protocol. This protocol is generally set in the PTZ Settings menu as default but if not, select using the following:

Enter the **DVR Menu**, click on **Video**, **PTZ** and **select the channel** number of the TVI camera connected to the DVR. Then click on **PTZ Settings** and select **AlienTVI(Coaxitron)** and click **OK**.



Now click on the **PTZ** button at the bottom of the screen and a full screen picture will be displayed with the PTZ control menu. Click on the **IRIS+** button to display menu

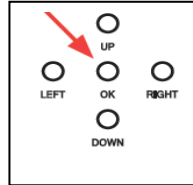


Use the directional arrows to move up and down or right to select options.

**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

**OSD Menu**

The SEE845 has an on screen display menu. This can be accessed using the small joystick under the flap on the side of the camera.



Press the centre button straight down (see arrow) to enter the menu and use Left, Right, Up and Down to move through and amend menu settings.

Alternatively use the TVI DVR PTZ menu as detailed in “Menu Access via DVR” above.

The following menu display is shown:

<b>IRIS</b>	ELC ALC	Electronic Light Control – overall brightness of picture Auto light compensation – measures peak light levels
<b>2-MOTOR</b> ↵	AF MODE SCANNING ONEPUSHAF SYNC TDN INITIAL RETURN	Auto/Manual Half/Full On On/Off On
<b>EXPOSURE</b> ↵	BRIGHTNESS SHUTTER  SENS-UP AGC RETURN	1 ~ 20 Auto-Normal /Deblur Manual- 1/25,1/50,1/100,1/200,1/400,1/800,1/1600,1/3200, 1/6400,1/12800,1/25600. Flicker Off /x2/x4/x8/x16/x32 1 ~ 10
<b>BACKLIGHT</b>	OFF HLC ↵ BLC ↵ WDR ↵	Level 1 ~ 20 / Color – BLK/Customise/WHT/YEL/CYN/GRN/MAG/RED/BLU H-Pos – V-Pos – H-Size – V-Size - Return Mode Normal / ROI ↵ Weight – Low / Middle / High – Return ROI Window Zone 0 ~ 3 Window Use On / Off H-Pos 920 V-Pos 630 H-Size 512 V-Size 432  Return

**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

<p><b>DAY&amp;NIGHT</b></p>	<p>EXTERNAL ↩</p> <p>AUTO ↩</p> <p>COLOUR</p> <p>B&amp;W ↩</p>	<p>IR LED Off / On            Anti-Sat. 1 ~ 20 (Not used when IRs off)            Extern S/W Low / High            D-&gt;N Level 1 ~ 20 Default 13            N-&gt;D Level 1 ~ 20 Default 7            Delay – Low / Middle / High - Return</p> <p>IR LED Off / On            Anti-Sat. 1 ~ 20 (Not used when IRs off)            AGC Threshold 1 ~ 20            AGC Margin 1 ~ 20            Delay – Low / Middle / High - Return</p> <p>IR LED Off / On            Anti-Sat. 1 ~ 20 (Not used when IRs off)</p>
<p><b>COLOR</b> ↩</p>	<p>AWB</p>	<p>Auto            Color Gain 1 ~ 20            Return            AUTOext            Color Gain 1 ~ 20            Return            PRESET (Push)            Color Gain 1 ~ 20            Return            MANUAL ↩            C-Temp 5000K / 8000K / 3000K            R-Gain 1 ~ 20            B-Gain 1 ~ 20            Return</p>
<p><b>DIGITAL NOISE REDUCTION</b></p>	<p>DNR</p>	<p>Off / Low / Middle / High</p>
<p><b>IMAGE</b></p>	<p>SHARPNESS            GAMMA            MIRROR            FLIP            ACE</p> <p>DEFOG</p> <p>PRIVACY</p> <p>RETURN</p>	<p>CVBS / CVI / TVI / AHD - 1 ~ 10 TVI Default 4            0.55 / 0.65 / 0.75 / 0.45            Off / On            Off / On            Off / Low / Middle / High (Adaptive Colour &amp; Contrast Enhancement)</p> <p>Off / On ↩ Mode – Auto / Manual            Level - Low / Middle / High</p> <p>Off / On ↩ Zone Num (0 ~ 15) / Zone Disp Off / On            H-Pos / V-Pos / H-Size / V-Size /            Y-Level (1 ~ 20) / CR Level (1 ~ 20)            CB Level (1 ~ 20) / Trans / Return</p>

## NiteDevil SEE845 all-in-one HD-TVI Camera with IR

<p><b>MOTION</b></p>	<p>OFF / ON ↵</p>	<p>Det Window ↵          Window Zone 0 ~ 3          Window Use On/Off          Det H-Pos &lt;nn&gt; &lt;nn&gt; value = position          Det V-Pos &lt;nn&gt; &lt;nn&gt; value = position          Det H-Size &lt;nn&gt; &lt;nn&gt; value = size          Det V-Size &lt;nn&gt; &lt;nn&gt; value = size          Return          Det Tone 0 ~ 4          MDRect Fill On/Off          Sensitivity 0 ~ 10          Motion OSD On/Off          Text Alarm On/Off          Signal Out Off/On          Return</p>
<p><b>SYSTEM</b></p>	<p>OUTPUT ↵</p> <p>FRAME RATE          FREQUENCY          COM. ↵</p> <p>IMAGE RANGE          FULL / COMP / USER ↵</p> <p>COLOR SPACE          AUDIO MIC          COLOR BAR          LANGUAGE          CAM TITLE</p> <p>RESET ON(Push)          Return</p>	<p>Main Output Analog Out 0 / 1 ↵          Analog Out 0 TVI / Analog Out1 CVBS          Y Gain 0 ~ 32 Def 16 / Y Gain not used          CB Gain 0 ~ 32 Def 12 / CB Gain not used          CR Gain 0 ~ 32 Def 12 / CR Gain not used          Position 0 ~ 256 Def 128 / Position not used          Burst Freq 0 ~ 256 Def 128 / Burst Freq not used          Burst Gain 0 ~ 128 Def 69 / Burst Gain not used          UCC Select0 8 Byte <b>(Do not change this)</b>          720 EX Off/ On          Exit          1080 25P          50Hz / 60Hz          COM          Cam ID 0 ~ 255 Default 0          Baudrate 2400 / 4800 / 9600 / 57600 / 115200          Set Done On (push)          Return</p> <p>IMAGE RANGE          Offset 0 ~ 32 (Default 16)          Return          HD-CbCr / YUV / SD-CbCr          (Not Used)          Off / On          ENG / CHN / CHN(S) / JPN / KOR          Off / Right Up ↵ / Left Down ↵          (Use up or down to select character and          left or right to select position)          Hold down Iris+ button for 3 seconds</p>
<p><b>EXIT</b></p>	<p>Press IRIS + Save &amp; Exit</p>	

**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

**Menu Description**

The following menu description gives more in depth information about the menu options. In some instances recommendations are made to hopefully enhance the results. However every installation will be different and there will occasions when alternative solutions may be more suitable.

<b>LENS</b>	ELC ALC	Electronic Light Control – measures overall brightness Auto light compensation – measures peak light levels
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**ELC** Electronic Light Control – measures overall brightness of picture and applies to manual iris lens  
**ALC** Auto light compensation – measures peak light levels and applies to auto iris lens which this camera has.

**Recommend setting Lens to ELC mode.**

<b>2-MOTOR</b> ↩	AF MODE SCANNING ONEPUSHAF SYNC TDN INITIAL RETURN	Auto/Manual Half/Full On(Push) Press IRIS+ or joystick centre button down On/Off On(Push) Press IRIS+ or joystick centre button down
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Two motors are fitted in this camera one driving the zoom & focus and the other operating the cut filter for True Day/Night operation. If you want to manually set zoom and focus you will need to enter the camera menu by either using the menu buttons on the side of the camera or pressing Iris+ using the PTZ option in the DVR and switch 2-MOTOR to manual. Then move to Return, Exit menu and now when you access the menu you can use the Zoom and Focus options in the PTZ control menu or using the Up and Down and Left and Right buttons on the camera, to zoom and focus.

**AF Mode                      Auto / Manual**

By default the camera is set to Auto. This allows the camera to auto focus. If you want to set the zoom/focus manually, select manual mode and exit menu as explained above.

**SCANNING                      Half / Full**

The scanning option can be set to Half for quick action auto scan or Full for full scan. You will see the camera movement on full scan takes twice the time of a half scan. However half scan may miss certain focus points, so if the picture is out of focus using AF Mode in auto, first try changing this option to Full Scan.

**ONEPUSHAF                      On(Push)**

Hold down IRIS + button or joystick centre button to initiate an auto focus scan. This can be used to test the auto focus option.

**SYNC TDN                      On / Off**

True day night provides the best method for night time viewing. The cameras are fitted with a cut filter that syncs with the internal IR to provide the most effective way for picture quality, day and night. If a pulsing effect is caused then switch this option off.

**INITIAL                              On(Push)**

Hold down IRIS + button or joystick centre button to return to manufacturer’s settings

**RETURN**

Return to Main Menu

**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

<b>EXPOSURE</b> ↵	BRIGHTNESS	1 ~ 20
	SHUTTER	Auto-Normal /Deblur Manual- 1/25,1/50,1/100,1/200,1/400,1/800,1/1600,1/3200, 1/6400,1/12800,1/25600. Flicker
	SENS-UP	Off /x2/x4/x8/x16/x32
	AGC	1 ~ 10
	RETURN	

**BRIGHTNESS**      **1 ~ 20** (Default = 10)

Use this setting to increase brightness by opening camera iris. Useful for improving night time viewing by using in conjunction with the Sens-Up option. However be aware to consider possible effects when there is strong sunlight in summer that if setting brightness too high it may cause the picture to white out.

**Recommendation is to set brightness to 15.**

**SHUTTER**              **Auto / Manual**

1/25,1/50,1/100,1/200,1/400,1/800,1/1600,1/3200,1/6400,1/12800,1/25600,  
Flicker

Shutter speed changes allow you to freeze moving objects without ghosting but reduce the amount of available light the faster the shutter operates. At night the slower the shutter speed the more light is available. The Flicker option sets the shutter speed at 1/250 that synchronises with fluorescent tubes so that the pulsing effect is minimised.

**Recommendation is to leave this in Auto.**

**SENSUP**                **Off /x2/x4/x8/x16/x32**

The SensUp option allows the shutter speed to be reduced allowing additional light to be captured. Increasing brightness helps night time viewing (see BRIGHTNESS setting above). If set too high and Sensup is slowing shutter speed down to a lower speed than any movement speed, ghosting can occur.

**Recommend Sensup is switched to x2 for some external light at night or x8 for low light**

**AGC**                    **1 ~ 10** (Default = 10)

For better performance in low light conditions the AGC (Automatic Gain Control) can be increased. This has the effect of making the picture brighter but it may also add more noise as it amplifies all aspects of the video signal.

**Recommend AGC is decreased below 10 if Sensup is increased over x2 and noise i.e white dots are produced.**

**RETURN**

Return to main menu.



**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

<p><b>BACKLIGHT</b></p>	<p>OFF  HLC ↵  BLC ↵  WDR ↵</p>	<p>Level 1 ~ 20 / Color –  BLK/Customize/WHT/YEL/CYN/GRN/MAG/RED/BLU  H-Pos – V-Pos – H-Size – V-Size - Return  Mode Normal / ROI ↵  Weight – Low / Middle / High – Return  ROI  Window Zone 0 ~ 3  Window Use On / Off  H-Pos 920  V-Pos 630  H-Size 512  V-Size 432  Return</p>
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Backlight Compensation when set, can balance light levels during day and night so that light hitting objects viewed, is evenly spread across the picture. There are three options HLC, BLC and WDR that can be selected.

**HLC ↵**  
**(High Level Backlight Compensation)**

**Level 1 ~ 20 / Color**

HLC is high level backlight compensation that will darken a bright area e.g car headlights. The lower the level the more compensation is applied.

**BLC ↵**  
**(Backlight Compensation)**

**H-Pos – V-Pos – H-Size – V-Size**

BLC is the standard setting for low level light differences. Select an area where BLC is required. Using the H-Pos (Horizontal Position) and V-Pos (Vertical Position) followed by H-Size (Horizontal Size) and V-Size (Vertical Size) create a box where light balancing is required.

**WDR ↵ Mode Normal / ROI (Region of Interest)**  
**(Wide Dynamic Range)**

**Weight – Low / Middle / High**

WDR is used for surveillance applications where there is a large difference in foreground and background light levels. This is typical in homes and office buildings that have large areas of glass with direct sunlight outside. Without the option switched on, views by cameras looking through windows may not give good reproduction outside. Also where there are areas of shadow and bright sunlight, the WDR option helps to balance light levels. The ROI option provides up to four areas that can be mapped to provide WDR balancing in defined areas which may be better utilised. The Weight option adjusts the depth of balancing required.

**Recommend using WDR where balancing light levels in warehouses or large buildings is difficult and may help to overcome bright light coming in through windows and glass that whites out camera pictures.**

**Return**  
Return to main menu



**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

<b>DAY&amp;NIGHT</b>	EXTERNAL ↵	IR LED Off / On Anti-Sat. 1 ~ 20 (Not used when IRs off) Extern S/W Low / High D->N Level 1 ~ 20 Default 13 N->D Level 1 ~ 20 Default 7 Delay – Low / Middle / High - Return
	AUTO ↵	IR LED Off / On Anti-Sat. 1 ~ 20 (Not used when IRs off) AGC Threshold 1 ~ 20 AGC Margin 1 ~ 20 Delay – Low / Middle / High - Return
	COLOUR	
	B&W ↵	IR LED Off / On Anti-Sat. 1 ~ 20 (Not used when IRs off) Return

Day & Night menu controls light settings and predominantly provides options for using the cameras’ Infra-Red facilities. There are four sub-options namely External, Auto, Colour and Black & White.

**EXTERNAL ↵**

This option does not use the internal CDS sensor to measure the available light. With cameras using their own IR light source, this option can give the best results. Note that this option has a manual adjustment for setting IR switch on according to lux level from day to night and from night to day, plus an option for applying a delay factor. This stops switching until a pre-determined lux level remains constant. There is also the option to switch off the IRs.

**Recommend to try Auto if External does not give required results.**

**AUTO ↵**

The standard Auto function uses the internal CDS to measure available light. This uses AGC (Automatic Gain Control) and Anti Saturation to measure picture quality before switching which is used in conjunction with a pre-determined time interval when lux levels remain constant. There is also the option to switch off the camera IRs.

**COLOUR**

This option will remain in colour mode day and night. There are no sub menu settings. This will only be applicable when light levels at night allow the camera to continue working at 4 lux or higher.

**B&W ↵**

When this option is selected the camera will remain in black and white mode, day and night. The only sub menus available are Anti Saturation and the option to switch off the camera IRs.

**Return**

Return to main menu.

**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

<p><b>COLOR</b> ↵</p>	<p>AWB Auto</p> <p>AUTOext / Preset (Push)</p> <p><b>MANUAL</b> ↵</p> <p>Color Gain 1 ~ 20 Default 10 Return</p>	<p>Color Gain 1 ~ 20 (Default 10) Return</p> <p>Color Gain 1 ~ 20 Default 10 Return</p> <p>C-Temp 5000K / 8000K / 3000K R-Gain 1 ~ 20 (Default 10) B-Gain 1 ~ 20 (Default 10) Return</p>
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This feature automatically adjusts the colour settings in the camera to match the type of light available, so that white and other colours appear as natural as possible.

**AUTO**

This option automatically sets white balance.

**AUTOext**

This option is generally used to set white balance when camera is used externally i.e ATW.

**PRESET(Push)** Press IRIS+ or joystick centre button down

This option allows you to set white balance using current light levels. Settings will only change when you press IRIS+ or joystick centre button down.

**MANUAL** ↵

Use this option to manually balance light levels. Note that the manual option is used for a static light environment and generally suitable for cameras installed indoors using constant artificial light.

- C-Temp 5000K / 8000K / 3000K
- R-Gain 1 ~ 20 (Default 10) Sets Red Gain
- B-Gain 1 ~ 20 (Default 10) Sets Blue Gain
- Return

**RETURN**

Return to main menu

<p><b>DIGITAL NOISE REDUCTION</b></p>	<p>DNR</p>	<p>Off / Low / Middle / High</p>
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**DNR Off / Low / Middle / High**

Digital Noise Reduction is generally applied when the Sens-Up feature is used to improve night time views in low light conditions. Using the Sens-Up option slows the shutter speed but this increases noise and causes grainy picture effects. DNR helps to minimise this effect. The options low, medium and high, apply different levels of noise reduction and therefore have to be tested to gain the best result as light levels will be different at every site and location.

**Recommend to leave off even when Sense-Up is on and if grainy picture is created then test starting at low, but leave camera on the best setting.**



**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

**PRIVACY**

**Off / On**

Zone Num (0 ~ 15) This function allows the creation of up to 16 coloured areas to be created to provide privacy masking.

Zone Disp Off /On The Zone Display allows you to switch on and off the zone number.

H-Pos / V-Pos / H-Size / V-Size

Each area can be positioned using the H-Pos (horizontal position), VPos (vertical position) and sized using the H-Size (horizontal size) and V-Size (vertical size) options. The Zone Display allows you to switch on and off the zone number.

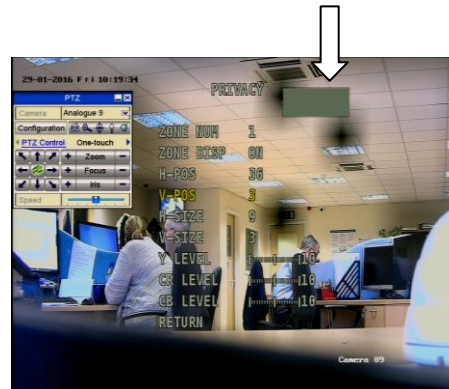
Y-Level (1 ~ 20)

CR Level (1 ~ 20)

CB Level (1 ~ 20)

The Y-Level is the colour hue for privacy masking and the CR Level (Chrominance Red) and CB Level (Chrominance Blue) are used to create the required colour.

The pictures below show an area that has been masked, before and after.



**TRANS (Transparency) 0 ~ 3**

The Transparency option allows the transparency of the Privacy Masking area created to be displayed in the full colour selected using the value 0 but gradually made more transparent i.e weaker by increasing to value 1, 2 or 3 at the highest level.

**RETURN**

Return to main menu

**NiteDevil SEE845 all-in-one HD-TVI Camera with IR**

<p><b>MOTION</b></p>	<p>OFF / ON ↵</p>	<p>Det Window ↵            Window Zone 0 ~ 3            Window Use On/Off            Det H-Pos &lt;nn&gt; &lt;nn&gt; value = position or size            Det V-Pos &lt;nn&gt; &lt;nn&gt; value = position or size            Det H-Size &lt;nn&gt; &lt;nn&gt; value = position or size            Det V-Size &lt;nn&gt; &lt;nn&gt; value = position or size            Return            Det Tone 0 ~ 4            MDRect Fill On/Off            Sensitivity 0 ~ 10            Motion OSD On/Off            Text Alarm On/Off            Signal Out Off/On            Return</p>
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**MOTION Off / On ↵**

The motion option when switched on allows you to create up to four areas in the picture and as motion is detected in these areas, the areas will be displayed with red moving boxes.

**DET WINDOW ↵**

Enter to select window number

- Window Zone** 0 ~ 3
- Window Use** On / Off
- Det H-Pos** <nn> Set horizontal position
- Det V-Pos** <nn> Set vertical position
- Det H-Size** <nn> Set horizontal size
- Det V-Size** <nn> Set vertical size

Each area can be positioned using the H-Pos (horizontal position), VPos (vertical position) and sized using the H-Size (horizontal size) and V-Size (vertical size) options.

**Return**

**DET TONE 0 ~ 4**

Sets the background tone to enable the motion detect area to be more or less prominent.

**MDRECT FILL On / Off**

Allows the switching on or off of the selected zone

**SENSITIVITY 0 ~ 10**

Sets the sensitivity of the motion detection

**MOTION OSD On / Off**

Switch Motion On Screen Display on or off

**TEXT ALARM On / Off**

Switch Motion Text Alarm on or off.

**Return**







## NiteDevil SEE845 all-in-one HD-TVI Camera with IR

### SEE845 Camera Specifications

<b>Sensor</b>	1/28" SONY 2.1 MP CMOS	<b>Video Outputs</b>	TVI, AHD, CVI & Analogue
<b>Resolution 1080p</b>	1920(H) x 1080(V) @ 25fps	<b>Independent CVBS</b>	CVBS 700TVL separate output
<b>Day/Night</b>	Mechanical True Day/Night	<b>IR Power</b>	2 H/Powered IR LEDs up to 40 mtrs
<b>Min.Illumination</b>	.001 Lux (0 Lux IR LEDs on)	<b>Power/Current</b>	12vDC 700mA IRs On full / 150mA off
<b>Mounting</b>	Ceiling and Wall mounting	<b>Deepbase</b>	Provided for cable management
<b>Menu</b>	OSD direct and via coaxitron	<b>IR Power Control</b>	IR power adjustment
<b>WDR</b>	True Wide Dynamic Range option	<b>Lens 2MP</b>	2.8mm ~ 12mm Motorised
<b>Viewing Angle</b>	360 <sup>0</sup> horizontal rotation/90 <sup>0</sup> vertical	<b>Backlight</b>	HLC, BLC, WDR, Off
<b>Colour</b>	SEE845W White / SEE845B Black	<b>Dimensions</b>	125(H) x 120 (W) x 335 (L)mm *
<b>NiteDevil</b>	Sens-Up option included	<b>Build</b>	Metal
<b>Privacy Masking</b>	16 areas for Privacy Masking	<b>IP Rating</b>	IP65
<b>Flat Front Glass</b>	Flat glass to reduce IR reflection	<b>Noise Reduction</b>	Digital Noise Reduction option
<b>Motion Detect</b>	Displays message when triggered	<b>AGC</b>	Automatic/Selectable

\* The dimensions stated relate to the camera being ceiling mounted with the deep base fitted. If the camera is wall mounted then the following dimensions apply: 125(h) x 120 (w) x 360 (l)mm (Includes mounting bracket)



WEE/CG0783SS

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.

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