

SEE850



SEE850

The SEE850 is a multi-format HD eyeball camera with Multi-Technology outputs, a motorised lens and high powered IRs. It has TVI, AHD and CVI mode selection plus a separate output for analogue (CVBS) use.

Special Features

In HD-TVI mode, the cameras have the Coaxitron Control facility for changing the OSD menu specifications via the DVR or remote network connection or via the camera. The motorised lens facility allows zoom and focus control to be altered remotely without the need for site access.

This camera also has the NiteDevil menu feature for reducing shutter speed for improving light capture at night.

*If you have fitted cameras with IRs and have experienced condensation issues or IR flare, then this camera reduces these problems considerably thanks to flat dual front glass.

Mounting the Camera

The camera is for indoor or outdoor use and can be mounted on a wall, ceiling or under a lintel.



First disconnect the base from the camera by unscrewing and removing the securing plate.



Secure the base with screws using the 4 screw holes in the base



Adjust the eyeball camera and cover to ensure that the correct view is achieved and refit the securing plate.

The camera is IP66 rated and suitable for outdoor use.

Features

- Motorised 2.8-12mm Lens
- Quad Technology
- 2 High Power IRs Up to 35m Range
- True Day/Night IR Cut Off Filter
- UTC and Co-axitron Control
- Weatherproof IP66 Rated Metal Body
- Extra Deep Base Option
- HD 1080P
- Switchable Video Output
- Gloss Black or Pure White Colour
 Options

Specification		
FUNCTION	SPECIFICATION	
Lens	2.8-12mm Motorised	
Resolution	1080P HD	
Lux	0 with LEDs on	
DayNight	True Day/Night Filter	
IR LEDs	2	
IR Range	Up to 35m	
Input Voltage	12V DC	
IP Rating	IP66	
Backlight	Backlight	
	Compensation	
Finish	Gloss Black or Pure White	
Dimensions	120 Dia. x 90mm	

Other Products To Consider



External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -White SEE820W External HD

NiteDevil Camera with 2.8-12mm Varifocal Lens -Black SEE820B

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The SEE850 requires a 12V DC 500mA regulated power supply minimum when IRs are on, and power consumption is rated at 6 watts. It should be noted that extra headroom is required when the camera is first powered up so we recommend connecting it to a 12V DC regulated 750mA power supply minimum.

The camera is provided with a fly lead with a mini power 2.1mm DC socket. The camera is also polarity sensitive so connections must be made correctly.

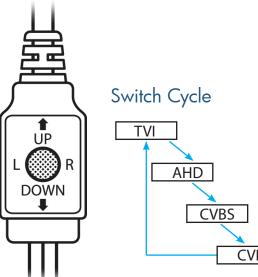
Connecting the Camera to Control Equipment

The dome camera comes with a fly lead for power, TVI/AHD/CVI/CVBS selected BNC video output, plus a second analogue (CVBS) video output on separate BNC lead. Connect the HD camera to control equipment via 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 "OV GROUND" connection and the inner core provides the "Video" connection. The separate analogue (CVBS) output is primarily available for setup purposes but can be used for viewing via an analogue monitor. Note that vou cannot use both analogue

outputs together but can view one analogue on one HD.

These cameras can be viewed in TVI, AHD, CVI and CVBS.

First power the camera up when it is connected to a monitor or DVR and monitor and see if the required format displays a colour picture. If not, or if it's in black and white, press the joystick button in and *not* down for 3 seconds. Repeat until picture displays in colour. (*Note that the picture may be in black and white in low light levels, or the cellophane lens cover has not been removed).



Alternatively, you can change the camera format in the menu:

Example - Change the camera format to TVI:

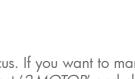
<System> <Output> <MAIN OUTPUT ANALOGUE OUT0

<System> <Output> <ANALOGUE OUT0 TVI

When you are in the correct format, press the joystick button in momentarily if you wish to access the menu.

Automatic Zoom and Focus

This camera has an automatic zoom and focus. If you want to manually set the zoom and focus, enter the menu and select '2-MOTOR' and change 'AF Mode' to manual. Exit and Save changes. Now you can use the camera joystick or DVR PTZ controller to manually zoom and focus. Alternatively you can enter the '2-MOTOR' menu and change 'AF Mode' to manual and then use the 'ONEPUSHAF' option to automatically focus but leave the camera in



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manual mode so that the settings do not change.

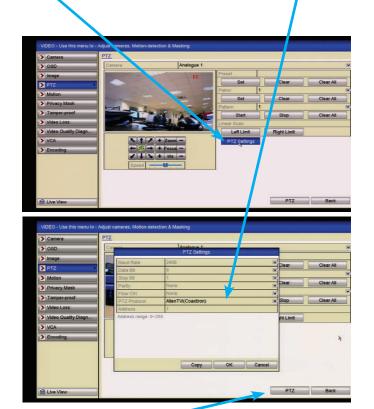
If you are experiencing out of focus problems in auto mode, this can be overcome by changing the SCANNING option from '*Half Scan*' to '*Full Scan*' to ensure the correct focus point is always detected.

Menu Access via TVI DVR using Coaxitron

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 to Co-ax' connection, it 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 the menu.



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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.

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





OSD Menu

The SEE850 has an onscreen display menu. This can be accessed using the joystick on the camera.



O 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:

LENS	FLC ALC	Electronic Light Control - Overall brightness of picture Auto Light Compensation - Measures peak light levels
2-MOTOR 	AF MODE SCANNING ONEPUSHAF SYNC TDN INITIAL RETURN	Auto/Manual Half/Full On On/Off On
EXPOSURE	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, 1/2800, 1/25600 Flicker Off/x2/x4/x8/x16/x32 1 ~ 20
BACKLIGHT	OFF HLC 🚽 BLC 🚽 WDR 🚽	Level 1 ~ 20 / Colour - BLK/Customise/WHT/YEL/CYN/ GRN/MAG/RED/BLU H-Pos - V-Pos - H-Size - V-Size - Return Weight - Low/Middle/High - Return

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D Off/On	Features	
Sat 1 ~ 20 (Not used when	Motorised 2.8-12)mm Long
ff)	•	
rnal S/W Low/High	Quad Technolog	-
V Level 1 ~ 20 Default 13	• 2 High Power IRs	- Up to 35m Range
D Level 1 ~ 20 Default 7	True Day/Night I	R Cut Off Filter
y - Low/Middle/High -	• UTC and Co-axit	on Control
, ,	•	66 Rated Metal Body
rn	•	
	Extra Deep Base	Option
D Off/On	• HD 1080P	
-Sat 1~20 (Not used when	 Switchable Video 	Output
ff)	Gloss Black or Pu	re White Colour
Threshold 1~20	•	
Margin 1 ~ 20	Options	
y - Low/Middle/High -	•	
rn		
	Specification	
	FUNCTION	SPECIFICATION
	Lens Resolution	2.8-12mm Motorised 1080P HD
	Lux	0 with LEDs on
D Off/On	DayNight	True Day/Night Filter
-Sat 1 ~20 (Not used when	IR LEDs	2
ff)	IR Range	Up to 35m
	Input Voltage	12V DC
Dext	IP Rating	IP66
SET (Push)	Backlight	Backlight Compensation
IUAL	Finish	Gloss Black or Pure
emp 5000k/8000k/3000k		White
ain 1 ~ 20	Dimensions	120 Dia. x 90mm
	0	
ain 1 ~ 20		
urn	Other Products	s To Consider
.ow/Middle/High	•	
-	GERGE	other
5/CVI/TVI/AHD - 1~10 TVI		
ult 4		
	External HD	External HD
/0.65/0.75/0.45	NiteDevil Camera	NiteDevil Camera
Dn	with 2.8-12mm	with 2.8-12mm
Dn	Varifocal Lens - White	Varifocal Lens -
.ow/Middle/High (Adaptive	• SEE820W	Black SEE820B
ur & Contrast Enhancement)	0 0	
On ← Mode - Auto/Manual	0 0	
el - Low/Middle/High		ate. System Q Ltd reserves the right cations or features without notice.
$Dn \neq Zone Num (0 ~ 15)/$	• Whilst every effort is made to	ensure that these instructions are
e Disp Off/On H-Pos/V-Pos/	in any way for any losses, no	n Q Ltd cannot be held responsible matter how they arise, from errors
		ructions, or the performance or ment that these instructions refer to.
	0	
ever (1~20)/ Keturn	•	
		the products and/or accompanying
	ze/V-Size/ Y-Level (1 ~ 20) .evel (1~20)/ Return	evel (1~20)/ Return



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MOTION	OFF/ON ◀┘	Det Window
		Window Zone 0 ~3
		Window Use On/Off
		Det H-Pos <nn> <nn> value =</nn></nn>
		position or size
		Det V-Pos <nn> <nn> value =</nn></nn>
		position or size
		Det H-Size <nn> <nn> value =</nn></nn>
		position or size
		Det V-Size <nn> <nn> value =</nn></nn>
		position or size
		Return
		Det Tone 0~4
		MDR etc Fill On/Off
		Sensitivity 0~10
		Motion OSD On/Off
		Text Alarm On/Off
		Signal Out On/Off
		Return
SYSTEM	OUTPUT	Main Output Analog Out 0/1
		Analog Out 0 TVI / Analog Out 1
		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 ~ 256 Def 128 / Burst
		Freq not used
		Burst Gain 0 ~ 128 Def 69/ Burst
		Gain not used
		UCC Select0 8 Byte (Do not
		change this)
		720 Ex Off/On
		UCC Select1 not used
		Exit
	FRAME RATE	1080p 25p
	FREQUENCY	50Hz/60Hz
	COM.←	СОМ
		Cam ID 0 ~ 255 Default 0
		Baudrate
		2400/4800/9600/57600/115200
		Set Done On (Push)
		Return

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		FULL/COMP/USER◀┘ Offset 0 ~32 (Default 16) Return
	IMAGE RANGE FULL/COMP/ USERFULL/ COMP/USER	IMAGE RANGE Offset 0 ~32 (Default 16) Return
	COLOUR SPACE AUDIO MIC COLOUR BAR LANGUAGE CAM TITLE RESET ON (push)	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
EXIT	Press IRIS+ to exit	

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 be occasions where an alternative solution may be more suitable.

LENS	ELC	Electronic Light Control - Measures
		Overall Brightness
	ALC	Auto Light Compensation - Measures
		Peak Light Levels

ELC - Electronic Light Control - measures overall brightness of the picture and applies to manual iris lens

ALC - Auto Light Compensation - measures peak light levels and applies to auto iris lens

*Recommend setting Lens to ALC mode.

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2-MOTOR◀┛	AF MODE	Auto/Manual
	SCANNING	Half/Full
	ONEPUSHAF	On(Push) Press IRIS+ or joystick
		centre button down
	SYNC TDN	On/Off
	INITIAL	On(Push) Press IRIS+ or joystick
	RETURN	centre button down

Two motors are fitted in this camera. One driving the zoom and 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 camera or pressing IRIS+ using the PTZ option in the DVR and switch 2-MOTOR to manual. Then Exit and Save Changes. Then use the PTZ option in DVR pressing the Zoom and Focus adjustments manually.

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 focus control manually, select manual mode and Exit/Save menu and then use the DVR PTZ controller Zoom and Focus controls

SCANNING

Half/Full

The scanning option can be set to Half for guick 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 but full scan is needed when there are a number of focus points to be considered. Out of focus issues are often resolved by changing to full scan.

ONEPUSHAF

On(Push)

Hold down IRIS + button or joystick centre button to initiate an auto focus scan. This also works when the AF Mode is set to manual.

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.

INITIAL

On(Push)

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

RETURN

Return to Main Menu

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EXPOSURE	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	1~20
	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 that if setting brightness to 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 that Sensup is switched on to x2 for areas with some light at night to x16 when pitch black.

AGC

1 ~ 20 (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*.

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BACKLIGHT	OFF HLC ◀┘	Level 1 ~ 20 / Colour - BLK/Customise/WHT/YEL/CYN/ GRN/MAG/RED/BLU
	BLC◀┛	H-Pos - V-Pos - H-Size - V-Size - Return
	WDR◀┛	Weight-Low/Middle/High - Return

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 3 options: HLC, BLC and WDR that can be selected.

HLC≁

(High Level Backlight Compensation)

Level 1 ~ 20/Mode - All Day/Night Only

HLC is high level backlight compensation that will darken a bright area e.g car headlights. This can be set for all day or night only. The lower the level the more compensation is applied. Note that using the night option may be best as daytime pictures generally give a more even spread of light apart from sunlight issues. *Recommend only to use on Night Only if bright lights are causing complete video loss.

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-

(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. *Recommend using WDR where balancing light levels in warehouses or large buildings is difficult.

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DAY & NIGHT	EXTERNAL	IR LED Off/On
		Anti-Sat 1 ~ 20 (Not used when
		IRs off)
		External 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 ← J

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 predetermined lux level remains constant. There is also the option to switch off the IRs. *Recommend to try this option first but switch to Auto if not getting required results.

AUTO₊J

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 predetermined time interval when lux levels remain constant. There is also the option to switch off the camera IRs. Probably best option to use if this is the only source of light at night.

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.



- Motorised 2.8-12mm Lens
- Quad Technology
- 2 High Power IRs Up to 35m Range
- True Day/Night IR Cut Off Filter
- UTC and Co-axitron Control
- Weatherproof IP66 Rated Metal Body
- Extra Deep Base Option
- HD 1080P
- Switchable Video Output
- Gloss Black or Pure White Colour Options

Specification		
FUNCTION	SPECIFICATION	
Lens	2.8-12mm Motorised	
Resolution	1080P HD	
Lux	0 with LEDs on	
DayNight	True Day/Night Filter	
IR LEDs	2	
IR Range	Up to 35m	
Input Voltage	12V DC	
IP Rating	IP66	
Backlight	Backlight Compensation	
Finish	Gloss Black or Pure White	
Dimensions	120 Dia. x 90mm	

Other Products To Consider



External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -White SEE820W

External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -Black SEE820B

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Return

Return to the Main Menu.

COLOUR	AWB Auto	AUTOext / Preset (Push)
COLOONA	Colour Gain 1 ~ 20	Colour Gain 1 ~ 20 Default
	(Default 13)	13
	Return	Return
		MANUAL
		C-Temp
		5000k/8000k/3000k
		R-Gain 1 ~20 (Default 10)
		B-Gain 1 ~20 (Default 10)
		Return

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 the camera is used externally.

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 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

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External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -Black SEE820B

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DIGITAL NOISE REDUCTION

SE	DNR
N	

Off/Low/Middle/High

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. If grainy picture is created then test starting on low and leave camera on the best setting.

	T	1
IMAGE	SHARPNESS	CVBS/CVI/TVI/AHD 1 ~ 10
		TVI Default 4
	GAMMA	0.55/0.65/0.75/0.45
	MIRROR	Off/On
	FLIP	Off/On
	ACE	Off/Low/Middle/High
		(Adaptive Colour &
		Contrast Enhancement)
	DEFOG	Off/On → Mode - Auto/
		Manual
		Level - Low/Middle/High
	PRIVACY	Off/On
		(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)/Return
	RETURN◀┛	

IMAGE₄J

The Image menu covers a variety of options including sharpness, mirror, defog, shading and privacy masking facilities.

Sharpness 1 ~ 10

Depending on the camera format selected, the format/s will be in dark type for adjustment.

The sharpness control is done by digital correction and the best way to set this option is to set level to maximum of 10, then flick back to 1, to see the difference. Then adjust to display sharpest picture without displaying heavy black lines around subjects.

Gamma 0.55/0.65/0.75/0.45 (Default 0.55)

Gamma correction controls and adjusts the overall brightness of an image. *Recommend trying each option and select the best quality picture.

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Other Products To Consider



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Mirror

This option changes a left handed view to a right handed view if switched on.

Flip Off/On

This option turns a view upside down. This option is generally used with the Mirror function.

ACE Off/On/Middle/High

Off/On

Adaptive Colour & Contrast Enhancement (ACE) is an automated option for adjusting colour and contrast as light levels change throughout the day. Low, middle or high options are available. **Recommend setting option to Low.*

DEFOG - Off/On

Mode - Auto - Level - Low/Middle/High

Manual - Level - Low/Middle/High

The defog option can be used to improve the captured image in poor weather conditions such as smog, fog or smoke. Three levels of optimisation can be applied, low, middle or high. This option is useful to stabilise rapid fluctuating light levels. **Recommend setting this option to On*.

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.

Done 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), V-Pos (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)

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.

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Input Voltage	12V DC	
IP Rating	IP66	
Backlight	Backlight Compensation	
Finish	Gloss Black or Pure White	
Dimensions	120 Dia. x 90mm	

Other Products To Consider



External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -White SEE820W External HD NiteDevil Camera with 2.8-12mm

with 2.8-12mm Varifocal Lens -Black SEE820B

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



RETURN

Return to the Main Menu.

MOTION	Off/On 	Det Window - Window Zone 0 ~ 3 Window Use On/Off Det H-Pos <nn> <nn> value = position or size Det V-Pos<nn> <nn> value = position or size Det H-Size<nn> <nn> value = position or size Det V-Size<nn> <nn> value = position or size Return Det Tone 0~4 MDRect Fill On/Off Sansitivity 0~ 10</nn></nn></nn></nn></nn></nn></nn></nn>
		Det Tone 0~4
		MDRect Fill On/Off Sensitivity 0 ~ 10
		Motion OSD On/Off
		Text Alarm On/Off
		Signal Out Off/On
		Return

MOTION

Off/On₄

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></nn>	Set horizontal position	
Det V-Pos <nn></nn>	Set vertical position	
Det H-Size <nn></nn>	Set horizontal size	
Det V-Size <nn></nn>	Set vertical size	

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Other Products To Consider



External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -White SEE820W External HD

NiteDevil Camera with 2.8-12mm Varifocal Lens -Black SEE820B

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	Each area can be positioned using the H-Pos (horizontal position), V-Pos (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.
MIDRECT 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	

SYSTEM	OUTPUT <mark>↓</mark>	Main Output Analog Out 0 – / Out
		14
		Analog Out 0 TVI/AHD/CVI/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 Select 0 8 Byte (Do not change
		this)
		720 EX Off/On
		UCC Select1 not used
		Exit
	FRAME RATE	1080 25P
	FREQUENCY	50Hz/60Hz
	COM.◀┛	СОМ

SYSTEM

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IR Range	Up to 35m	
Input Voltage	12V DC	
IP Rating	IP66	
Backlight	Backlight	
Dackingin	Compensation	
Finish	Gloss Black or Pure	
	White	
Dimensions	120 Dia. x 90mm	

Other Products To Consider



External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -White SEE820W External HD NiteDevil Camera with 2.8-12mm Varifocal Lens -Black

SEE820B

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	Cam ID 0 ~ 255 Default 0 Baudrate 2400/4800/9600/57600/ 115200/ Set Done On (Push) Return FULL/COMP/USER ← J Offset 0 ~32 (Default 16) Return
IMAGE RANGE FULL/COMP/ USER 	IMAGE RANGE Offset 0 ~ 32 (Default 16) Return
COLOUR SPACE AUDIO MIC COLOUR BAR LANGUAGE CAM TITLE	HD-CbCr/YUV/SD-CbCr (Not Used) Off/On ENG/CHN/CHN(S)/JPN/KOR Off/Right Up←J/Left Down←J (Use up or down to select character and left or right to select position)
RESET ON (Push)	Hold down Iris+ button for 3 seconds
Return	

The SYSTEM menu provides a number of general facilities. These include selecting the correct camera format, setting a camera identification number and baud rate for RS485 connection, resolution mode, frame rate and colour standard, language, test colour bar, camera title and camera reset option.

OUTPUT→

Main Output Analog Out 0/1 (Out 0 = HD Out 1 = CVBS) Analog Out 0 TVI ← (Select TVI/AHD/CVI) Y Gain 0 ~ 32 Default 16 Yellow Gain CB Gain 0 ~ 32 Default 12 Blue Gain CR Gain 0 ~ 32 Default 12 Red Gain Position 0 ~ 256 Default 128 Position Burst Freq 0 ~ 256 Default 128 Burst Frequency Burst Gain 0 ~ 128 Default 69 Burst Gain UCC Select 0 8 Byte (Do not change this) 720 EX Off/On UCC Select1 not used Exit Analog Out1 CVBS/TVI ← /OFF Analog Out1 CVBS Return

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Other Products To Consider



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External HD

NiteDevil Camera with 2.8-12mm Varifocal Lens -Black SEE820B

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FRAME RATE	1080P 25P/720 25P/720 (crop) 50P (Select Camera	
	Frame Rate) Sets the camera output mode. 1080p is	
	default.	
FREQ	50Hz/60Hz (Cycles per second)	
COM. ←	Cam ID 1 (Set ID number in camera between 0 & 255)	
	Baud Rate 2400/4800/9600/57600/115200	
	Set Done (Press Iris+ button)	
	Return	
IMAGE RANGE	Full/Comp/User	
	Offset 1 ~ 32 (Default = 16)	
COLOUR SPACE	HD-CbCR (High Definition Chrominance Blue and Red)	
	YUV (Allows greyscale adjustment (Y = luminance UV	
	= colour)	
	SD-CbCr (Standard Definition Chrominance Blue and	
	Red)	
AUDIO MIC	Not used	
COLOUR BAR	Off/On (Useful for testing camera colour quality)	
LANGUAGE	ENG/CHN/CHN(S)/JPN/KOR (Select language	
	required)	
CAM TITLE	Off/Right Up ← I / Left Down ← I (Enter Camera Title)	

(Use up or down to select character and left or right to select position) Hold down Iris+ button for 3 seconds



RESET ON(Push)

Press IRIS+ or joystick centre button down

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Sensor	SONY 2.1MP	Video Outputs	TVI, AHD, CVI & Analogue
Resolution	1920(H) x 1080(V)@25fps	Independent CVBS	CVBS 700TVL separate output
Day/Night	Mechanical True Day/Night	IR Power	2 H/Powered IR LEDs > 30m
Min. Illumination	B&W .001 Lux @ (F2.0 AGC & DSS on) Colour 0.5 Lux @ (F2.0 AGC on)	Power/Current Power Supply	12vDC 500mA IRs on 12vDC>750mA regulated
Mounting	3D Ceiling and Wall mounting	Lens 2MP	2.8mm ~ 12mm motorised
Menu	OSD direct and via coaxitron	Backlight	HLC, BLC, WDR, Off
WDR	Wide Dynamic Range option	Dimensions	120mm(D) x 105mm(H)
Zoom & Focus	Automatic/ Manual zoom & focus	Build	Cast Alloy Body
Colour	SEE850B Black/ SEE850W White	IP Rating	IP66
NiteDevil	Sens-Up option included	S/N Ratio	>52dB (AGC Off)
Privacy Masking	16 areas for Privacy Masking	Noise Reduction	2DNR and 3DNR
Dual Front Glass	Dual glass to reduce IR reflection	AGC	Automatic/ Selectable

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