

SEE880(B/W) External HD Camera (5 ~ 50mm)

The SEE880 has multi format HD modes for TVI, AHD, CVI and CVBS and a separate BNC for CVBS* (analogue) use.

In addition the SEE880 comes in two colours, Glossy Black & Glossy White with the following features:

2.1 MegaPixel 1080P/700TVL (CVBS)

5~50mm lens

6x High Power IRs > 80m range

Manual focus and cut filter for TDN

NiteDevil brand for low light conditions

Privacy masking & Motion Detection

Extra deep base for cabling

Dual front glass for reducing IR flare

and all metal construction**

Additional deep base for cable connections

**Special Features**

The SEE880 cameras produce exceptional quality images using the Sony CMOS IMX291LQR CCD providing HD 1080P resolution.

The SEE880 is a multi-format HD camera with TVI, AHD, CVI and CVBS mode selection and in addition a separate analogue output (CVBS) on a separate BNC lead.

* Additional CVBS output available if using HD, but only one CVBS if not.

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.

This camera 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 with the flat dual front glass, reduces these problems considerably.

Mounting the Camera

The camera is primarily for outdoor mounting on a wall, building or under a lintel but could also be used inside in an appropriate building. A deep base can be used for cable management. Either attach the deep base or secure the thinner bracket base to the wall, building etc. with suitable screws, connect the respective cable connections and lock the camera. Position adjustments are made by slackening the knurled nut and bolt using the tool provided and re-tightening when positioned correctly.

Powering the Camera

The SEE880 draws 12V DC 900mA when IRs are on, and power consumption is rated at 10.8 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 1.5A power supply. The camera is provided with a fly lead with a mini power 2.1mm DC socket. The camera is polarity sensitive so connections must be correctly made.

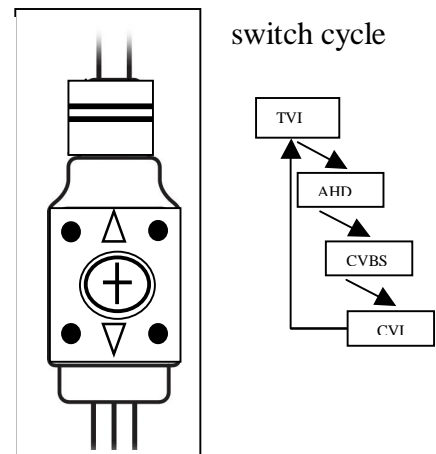
Connecting the camera to control equipment

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 a separate BNC lead. Connect the HD 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. The separate analogue (CVBS) output is primarily available for setup purposes but can be used for viewing via an analogue monitor. Note that you cannot use both analogue outputs together but can view one analogue and 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 in black and white, press the joystick button in and not down, for 3 seconds. Repeat until picture displays in colour. (Note that picture may be in b/w in low light levels or the cellophane lens cover has not been removed). Alternatively if you use the menu, you can change the camera format in the menu:

Example - Change camera format to TVI:

```
<System> <Output> <MAIN OUTPUT ANALOG OUT0
<System> <Output> <ANALOG OUT0 TVI ◀
```



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

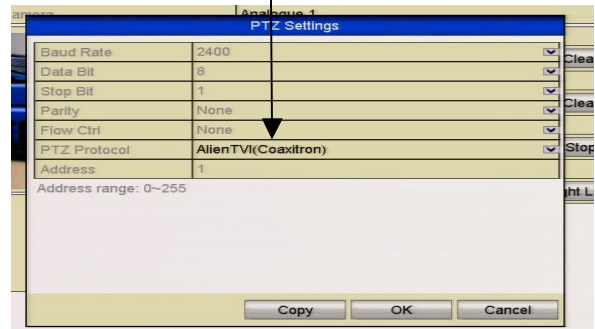
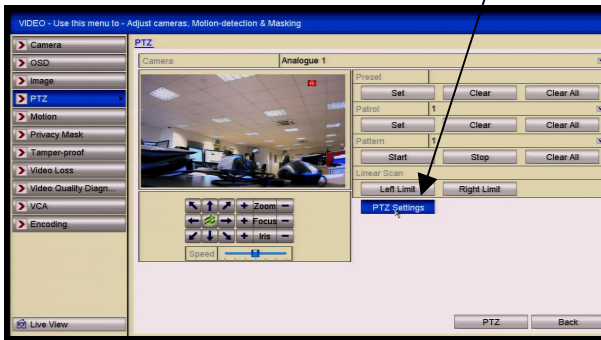
Manual Zoom and Focus

This camera has manual zoom and focus. After installing the camera and selecting the appropriate video format, adjust the Zoom control by removing the black zoom control cover and then adjusting the zoom control screw at the bottom of the camera lens. When the area contains the appropriate view albeit may be out of focus, adjust the Focus screw for best results. In the camera menu you can enter the Focus Adjust option and select an area for best focus result by creating a box (Wide, Middle or Narrow) to select the required area for focusing.

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 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

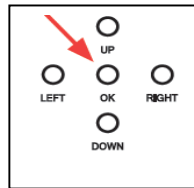


Use the directional arrows to move up and down or left or right to select options.

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

OSD Menu

The SEE870 has an on screen display menu. This can be accessed using the joystick on 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:

IRIS	ELC ALC	Electronic Light Control – overall brightness of picture Auto light compensation – measures peak light levels
FOCUS ADJ	OFF ON ↩	Focus Area Wide / Narrow / Middle (Def Wide) Disp Tone (Display Tone 0 Low, 1 Medium , 2 High) Disp H_Pos 0 ~ 60 Horizontal Position (Def 2) Disp V_Pos 0 ~ 34 Vertical Position (Def 12) Disp H_Size 0 ~ 60 Horizontal Size (Def 2) Disp V_Size 0 ~ 34 Vertical Size (Def 14) Return
EXPOSURE ↩	BRIGHTNESS SHUTTER SENS-UP AGC RETURN	0 ~ 20 (Def 10) Auto-Normal /Deblur (Def 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 Off /x2/x4/x8/x16/x32 0 ~ 10 (Def 10)
BACKLIGHT	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 Weight – Low / Middle / High – Return

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

<p>DAY&NIGHT</p>	<p>EXTERNAL ↵</p> <p>AUTO ↵</p> <p>COLOUR</p> <p>B&W ↵</p>	<p>IR LED Off / On Anti-Sat. 1 ~ 20 Default 10 (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</p> <p>IR LED Off / On Anti-Sat. 1 ~ 20 Default 10 (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 Default 10 (Not used when IRs off)</p>
<p>COLOR ↵</p>	<p>AWB Color Gain 1 ~ 20 Return</p>	<p>Auto AUTOext PRESET (Push) MANUAL ↵ C-Temp 5000K / 8000K / 3000K R-Gain 1 ~ 20 B-Gain 1 ~ 20 Return</p>
<p>DIGITAL NOISE REDUCTION</p>	<p>DNR</p>	<p>Off / Low / Middle / High</p>
<p>IMAGE</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 & 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) / Return</p>

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

<p>MOTION</p>	<p>OFF / ON ↵</p>	<p>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 Sensitivity 0 ~ 10 Motion OSD On/Off Text Alarm On/Off Signal Out Off/On Return</p>
<p>SYSTEM</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 (Do not change this) 720 EX Off/ On UCC Select1 not used Exit 1080 25P 50Hz / 60Hz COM Cam ID 0 ~ 255 Default 0 Baudrate 2400 / 4800 / 9600 / 57600 / 115200 Set Done On (push) Return FULL / COMP / USER ↵ Offset 0 ~ 32 (Default 16) Return</p> <p>IMAGE RANGE Offset 0 ~ 32 (Default 16) Return</p> <p>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>EXIT</p>	<p>Press IRIS + to exit</p>	

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.

IRIS	ELC	Electronic Light Control – measures overall brightness
	ALC	Auto light compensation – measures peak light levels

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.

FOCUS ADJ	OFF	Focus Area Wide / Narrow / Middle (Def Wide) Disp Tone (Display Tone 0 Low, 1 Medium , 2 High) Disp H_Pos 0 ~ 60 Horizontal Position (Def 2) Disp V_Pos 0 ~ 34 Vertical Position (Def 12) Disp H_Size 0 ~ 60 Horizontal Size (Def 2) Disp V_Size 0 ~ 34 Vertical Size (Def 14) Return
	ON ↩	

This camera has manual zoom and focus. After installing the camera and selecting the appropriate video format, adjust the Zoom control by removing the black zoom control cover and then adjusting the zoom control screw at the bottom of the camera lens. When the area contains the appropriate view albeit may be out of focus, adjust the Focus screw for best results.

Focus Area Middle / Wide / Narrow Select to create a focus box

In the camera menu you can enter the Focus Adjust option and select an area for best focus result by creating a box (Wide, Middle or Narrow) to select the required area for focusing. Yellow is for accurate focus setting and green for out of focus. The less green displayed, the better the focus setup is. Note that this is a setup aid only and focusing is a manual process. Ensure option is switched off after setup.

Disp Tone 0 / 1 / 2 (Alter brightness of focus aid)

Disp H _ Pos (Set horizontal position of Focus Box)

Disp V _ Pos (Set vertical position of Focus Box)

Disp H _ Size (Set horizontal size of Focus Box)

Disp V _ Size (Set vertical size of Focus Box)

RETURN

Return to Main Menu

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 in summer 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.

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.

RETURN

Return to main menu.

<p>BACKLIGHT</p>	<p>OFF HLC ↵</p> <p>BLC ↵ WDR ↵</p>	<p>Level 1 ~ 20 / Color – BLK/Customise/WHT/YEL/CYN/GRN/MAG/RED/BLU</p> <p>H-Pos – V-Pos – H-Size – V-Size - Return Weight – Low / Middle / High – Return</p>
-------------------------	---	---

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 / 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.

Return

Return to main menu

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

DAY&NIGHT	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 this option if Auto 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.

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

COLOR ↵	AWB Auto Color Gain 1 ~ 20 (Default 13) Return	AUTOext / Preset (Push) Color Gain 1 ~ 20 Default 13 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 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 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

DIGITAL NOISE REDUCTION	DNR	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 and if grainy picture is created then test starting at low, and leave camera on the best setting.

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

IMAGE	SHARPNESS ↵ GAMMA MIRROR FLIP ACE DEFOG PRIVACY RETURN ↵	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 & Contrast Enhancement) Off / On ↵ Mode – Auto / Manual Level - Low / Middle / High 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) / Return
--------------	---	---

IMAGE ↵

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 best quality picture

Mirror Off / On

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 / Low / Middle / High

Adaptive Colour & Contrast Enhancement (ACE) is an automated option for adjusting colour and contrast as light levels changes through 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.

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.

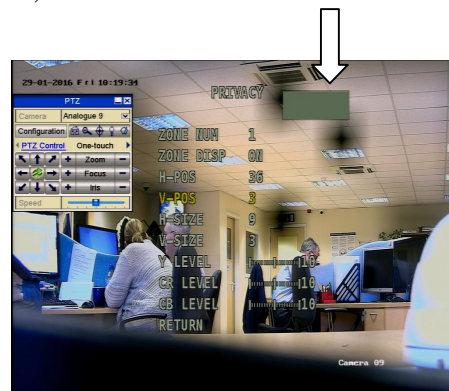
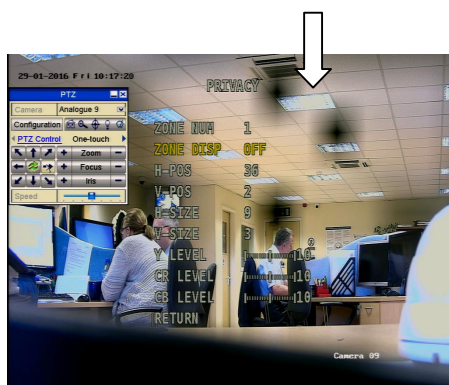
Y-Level (1 ~ 20)

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.



RETURN

Return to main menu

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

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 Sensitivity 0 ~ 10 Motion OSD On/Off Text Alarm On/Off Signal Out Off/On Return
---------------	------------	---

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

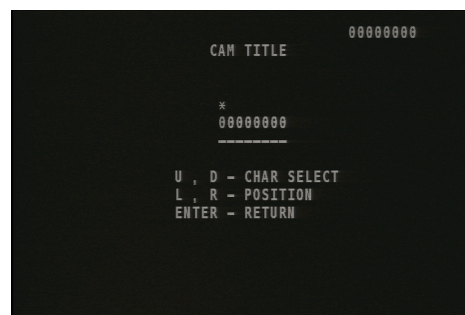
TEXT ALARM On / Off Switch Motion Text Alarm on or off.

Return

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs

	Analog Out1	CVBS / TVI↵ / Off
	Analog Out1	CVBS
	Return	
FRAME RATE	1080 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 and 255)
	Baud Rate	2400 / 4800 / 9600 / 57600 / 115200
	Set Done	(Press Iris+ button)
	Return	
IMAGE RANGE	Full / Comp / User ↵	
		Offset 1 ~ 32 (Default = 16)
	Return	
COLOR SPACE	HD-CbCr (High Definition Chrominance Blue and Red) YUV (Allows grayscale adjustment (Y= luminance UV= colour) SD-CbCr (Standard Definition Chrominance Blue and Red)	
AUDIO MIC	Not used	
COLOR BAR	Off / On	(Useful for testing camera colour quality)
LANGUAGE	ENG / CHN / CHN(S) / JPN / KOR (Select language required)	
CAM TITLE	Off / Right Up↵ / Left Down ↵ (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

Return

SEE880 Multi-Format HD Camera (TVI/AHD/CVI) & Analogue with IRs**SEE880 Camera Specifications**

Sensor	SONY 2.1 MP CMOS IMX291LQR	Video Outputs	TVI, AHD, CVI & Analogue
Resolution 1080p	1920(H) x 1080(V) @ 25fps	Independent CVBS	CVBS 700TVL separate output *
Day/Night	Mechanical True Day/Night	IR Power	6 x H/Powered IR LEDs >80m
Signal System	PAL/NTSC	Operating Temp.	-20°C ~ +50°C
Min.Illumination	.001 Lux (0 Lux IR LEDs on)	Power/Current	12vDC 900mA IRs On
Mounting	Ceiling and Wall mounting	Lens 2.13MP	5mm ~ 50mm Manual Varifocal
Menu	OSD direct and via coaxitron	Backlight	HLC, BLC, WDR, Off
WDR	True Wide Dynamic Range option	Dimensions	156(h) x 102(w) x 301(d) mm inc bracket
S/N Ratio	54dB	Build	Cast Alloy Body
Colour	SEE880W White / SEE880B Black	IP Rating	IP66
NiteDevil	Sens-Up option included	Extra Deepbase	Additional for cable management
Privacy Masking	16 areas for Privacy Masking	Noise Reduction	2DNR and 3DNR
Dual Front Glass	Dual glass to reduce IR reflection	AGC	Automatic/Selectable
Humidity	> 95%RH (without condensation)	Optical Zoom	10x

* ONLY ONE ANALOGUE OUPUT DISPLAYS AT ANY TIME



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.

All specifications are approximate. Kovert.com reserves the right to change any product specification or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, kovert.com cannot be held responsible in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the camera or other equipment that these instructions refer to.