Instruction Manual

SEE602

Table of Contents

Introduction

1.1 SEE602

Long range IR reach of up to 60M and a 2.8-12mm varifocal lens make this a great choice for covering larger areas with CCTV. Use it on a 12mm setting to capture vehicles entering a gateway even in low light when the high powered IR beam kicks into action. The motorised lens option can even make use of an alarm trigger such as a break beam to capture this and automatically email it to you.

The mechanical day-night filter retracts at night to let the camera see to its best levels whilst it moves back during the day to give great colour reproduction that isn't overwhelmed by the IR rays of the sun.

2MP Resolution - Compatible with most current DVRs on the market including the Zip DVR Lite model. Suits domestic installations and commercial jobs with a limited budget.

Tools & Handy Extras

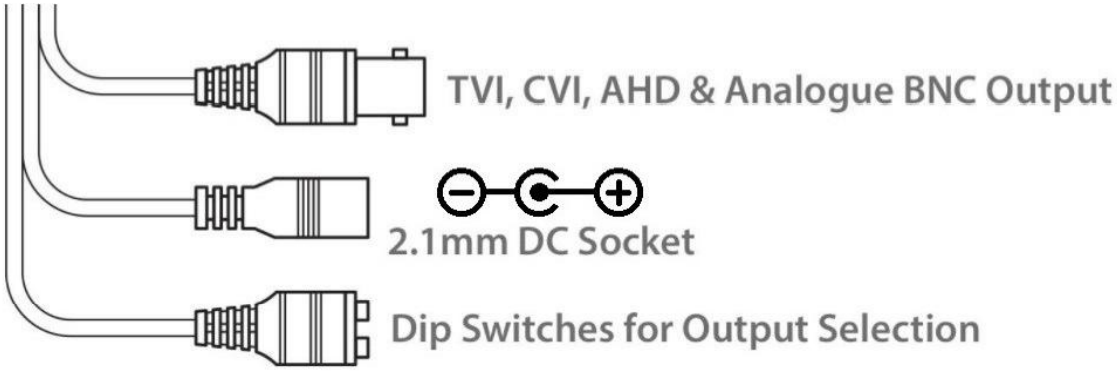
- Screwdriver
- Drill
- Hammer
- POW151 - 12V DC 500mA Plug-in PSU
- Drill bits
- BNC Crimp Tool & BNCs
- RG59 Coax Cable
- Digital Multi-Meter
- LCD400K - CCTV Test monitor

Connections

The camera is provided with a fly lead with a 2.1mm DC socket and standard BNC connector

It is recommended to use a power supply that is rated higher than the current consumption of the camera

The camera is polarity sensitive so connections must be made correctly

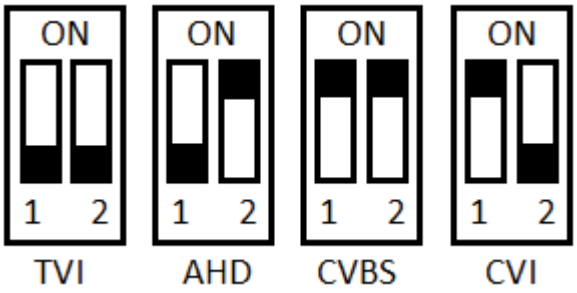


4-In-1 Technology

Selectable HD-TVI, HD-CVI, AHD and CVBS (Analogue) Output. The default is set to HD-TVI however the output can be changed to AHD, CVI or CVBS if required.

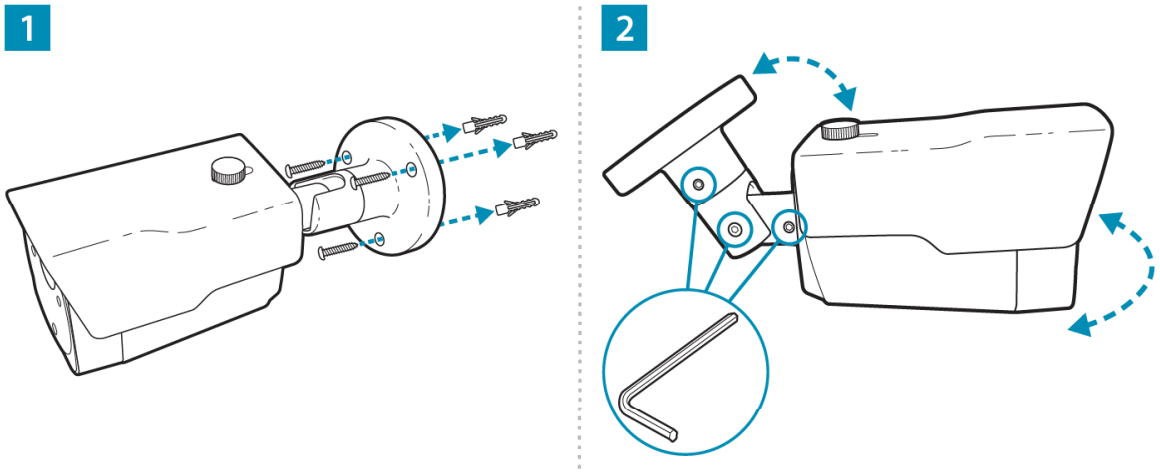
This output can be changed either with the dip switches on the fly-lead of the camera. Please note the "Output Mode" in the menu of the DVR won't change the format, as the dip switch overrides the output.

The dip switch configuration can be found below:-



Mounting

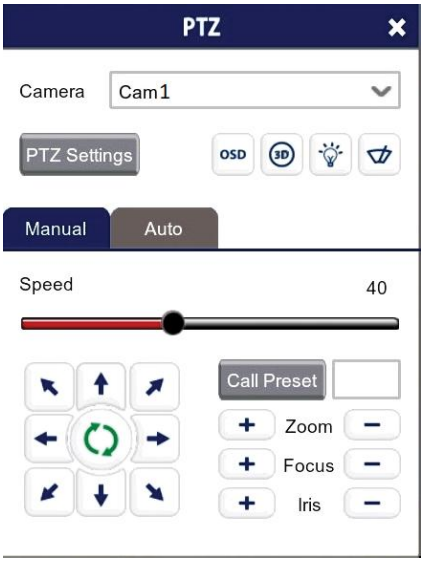
5.1 All-in-one



OSD Menu

Access to the camera menu is by Coaxitron. *For the ZIP DVRs, ZIP Coaxitron is set as default.*
To access the Cameras Menu via coaxitron:-

1. Click on the image in Live view
2. Click on the PTZ button at the bottom of the screen
3. Click on the IRIS + button to display the menu



Use the directional arrows to move up and down through the menu.
Use the directional arrows left and right to change the option.
Use IRIS + to select & enter that menu option.

6.1 2MP OSD Menu

LENS	**MANUAL** (No Adjustment)			
EXPOSURE	SHUTTER	**AUTO** 1/25 1/50 FLK 1/200 1/400 1/1000 1/2000 1/5000 1/10000 1/50000 / x2 / x4 / x6 / x8 / x10 / x15 / x20 / x25 / x30		
	AGC	0 ~ 15 (Default **15**)		
	SENS-UP	**OFF**/ AUTO	SENS-UP	**x2** / x4 / x6 / x8 / x10 / x15 / x20 / x25 / x30
			RETURN	
	BRIGHTNESS	0 ~ 100 (Default **40**)		
	D-WDR	**ON** / AUTO / OFF	LEVEL	0 ~ 8 (Default **2**)
			RETURN	
	DEFOG	**OFF**/ AUTO	POS/SIZE	POSITION & SIZE
			GRADATION	0 ~ 2 (Default **0**)
			DEFAULT	(Defaults the above)
			RETURN	
	RETURN			
BACKLIGHT	**OFF** / BLC	LEVEL	**MIDDLE** / HIGH / LOW	

	HSBLC	AREA	POSITION & SIZE			
		DEFAULT	(Defaults the above)			
		RETURN				
		SELECT	AREA **1** / 2 / 3 / 4	(Selects adjustment area)		
		DISPLAY	**ON** / OFF	POSITION & SIZE		
		BLACK MASK	**ON** / OFF			
		LEVEL	0 ~ 100 (Default **20**)			
		MODE	**NIGHT** / ALL DAY	AGC LEVEL	0 ~ 255 (Default **48**)	
				RETURN		
		DEFAULT				
		RETURN				
WHITE BAL	**ATW** /					
	AWC-SET /	(Sets Automatic White Balance Control)				
	INDOOR /					
	OUTDOOR /					
	MANUAL /	BLUE	0 ~ 100 (Default **50**)			
		RED	0 ~ 100 (Default **50**)			
		RETURN				
	AWB					
DAY & NIGHT	**EXT** /	D-N (DELAY)	0 ~ 60 (Default **3**)			
		N-D (DELAY)	0 ~ 60 (Default **3**)			
		RETURN				
	COLOR /					
	B/W	BURST	**ON** / OFF			
		IR SMART	**ON** / OFF	LEVEL	0 ~ 15 (Default **0**)	
				AREA	POSITION & SIZE	
			RETURN			
		RETURN				
NR	2DNR	**MIDDLE** / HIGH / OFF / LOW				
	3DNR	**MIDDLE** / HIGH / OFF / LOW				
	RETURN					
SPECIAL	CAM TITLE	**OFF** / ON	Use on screen keyboard			
	D-EFFECT	FREEZE	**OFF** / ON			
		MIRROR	**OFF** / MIRROR / V-FLIP / ROTATE			
		NEG. IMAGE	**OFF** / ON			
		RETURN				
	MOTION	**OFF** / ON	SELECT	AREA **1** / 2 / 3 / 4		
			DISPLAY	**ON** / OFF		
			SENSITIVITY	0 ~ 100 (Default **64**)		
			COLOR	**GREEN** / BLUE / WHITE / RED		
			TRANS	**1.00** / 0.75 / 0.25 / 0.00		
			ALARM	VIEW TYPE	**ALL** / OFF / BLOCK / OUTLINE	
				OSD VIEW	**ON** / OFF	
				ALARM OUT	**ON** / OFF	
				TIME	0 ~ 15 (Default **3**)	
				RETURN		

			DEFAULT		
	PRIVACY	**OFF** / ON	SELECT	AREA **1** / 2 / 3 / 4	
			DISPLAY	COLOR / OFF / MOSAIC / INV.	
			COLOR	WHITE / BLACK / RED / BLUE / YELLOW / GREEN / CYAN / USER	
			TRANS	**1.00** / 0.25 / 0.50 / 0.75	
			DEFAULT		
			RETURN		
	LANGUAGE	**ENG** / CHN1 / CHN2 / GER / FRA / ITA / SPA / POL / RUS / POR / NED / TUR			
	DEFECT	LIVE DPC	**OFF** / ON	AGC LEVEL	0 ~ 255 (Default **64**)
				LEVEL	0 ~ 100 (Default **64**)
				RETURN	
		WHITE DPC	**ON** / OFF	POS / SIZE	POSITION & SIZE
				START	STARTS SCAN
				DPC VIEW	**OFF** / ON
				LEVEL	0 ~ 100 (Default **3**)
				AGC	0 ~ 14 (Default **8**)
				SENS-UP	**x6** / x8 / x10 / x15 / x20 / x25 / x30 / x2 / x4
				RETURN	
		BLACK DPC	**OFF** / ON	POS / SIZE	POSITION & SIZE
				START	STARTS SCAN
				DPC VIEW	**OFF** / ON
				LEVEL	0 ~ 100 (Default **100**)
				RETURN	
		RETURN			
	RS485	CAM ID	0 ~ 255 (Default **0**)		
		ID DISPLAY	**OFF** / ON		
		BAUDRATE	**38400** / 2400 / 4800 / 9600 / 19200 /		
		RETURN			
	RETURN				
ADJUST	SHARPNESS	**AUTO /**	LEVEL	0 ~ 10 (Default **6**)	
			START AGC	0 ~ 255 (Default **120**)	
			END AGC	0 ~ 255 (Default **255**)	
			RETURN		
		OFF			
	MONITOR	**LCD /**	GAMMA	USER / 0.45 ~ 1.00	
			BLUE GAIN	0 ~ 100 (Default **64**)	
			RED GAIN	0 ~ 100 (Default **64**)	
			RETURN		
		CRT	BLUE GAIN	0 ~ 100 (Default **56**)	
			RED GAIN	0 ~ 100 (Default **56**)	
			RETURN		
	LSC	**ON** / OFF			
	COMET	**OFF** / ON			

	OUTPUT MODE	NO ADJUSTMENT
	RETURN	
EXIT	**SAVE & END** / RESET / NOT SAVE	

6.2 Key Menu Settings

Exposure Mode - AUTO sets the required shutter speed for the current light level. The shutter speed will automatically detect the required length of time to keep the digital sensor exposed to light. FLK option sets the shutter speed to stop synchronisation with lighting so that pulsing effect is minimised.

White Balance - Colour adjustment of the camera to be set up so objects appear a natural colour. ATW (Automatic tracking white balance) continually tracks and adjusts the white balance, making it suitable for use in cameras in which the image content and lighting are subject to changes.

Day & Night - The camera can be set to colour or B&W mode or have it automatically switch External is set as default, the switch between colour and black & white is controlled by an external trigger In this a light dependent resistor. Delay can be set which will instruct the camera to wait for a set length of time before switching. This accommodates for any temporary drops in light

DNR (Noice Reduction) - Noise Reduction is the process of removing noise from the video signal by applying a digital filter. 2D noise reduction reduces noise in the foreground of the image where as 3D noise reduction reduces noise in both the foreground and the background of the image.

D-WDR - Digitally adjusts the exposure in areas of the frame to maintain optimum levels in both the dark and bright areas of an image.

Reset - Defaults the camera to factory settings. This setting helps when fault finding issues with the camera to ensure all settings are defaulted.

Troubleshooting

7.1 Camera Rebooting / Turning Off

A. Check the voltage of the camera (under load) if below 10.8V then move the power supply closer to the camera.

B. For 12V DC cameras only ever use regulated power supply rated at above 750mA, 1A would be recommended. So that the camera is always receiving the correct supply.

C. Use thicker gauge copper cabling to reduce the voltage drop.

7.2 Poor Quality Images

A. Check the fly-lead is set to the correct output – see 4-In-1 Technology 3

B. If set to CVBS, then this is a low quality video output for legacy systems (Analogue), when using a 2 MegaPixel DVR or above then use another video format, like HD-TVI.

C. Reset the camera menu via Zip Coaxitron – OSD Menu 4

D. Check if your recorder supports the resolution of the camera.

7.3 Image is Black & White

A. Check the video format your DVR supports, then set the camera to the relevant video format – see the 4-In-1 Technology 3

B. Reset the camera menu via Zip Coaxitron OSD Menu 4

C. Check the recorder supports the resolution of the camera.

7.4 NCD / No Image Displayed on Recorder

A. Test that the camera has the correct voltage supplying it, this must be done with the camera connected so that there is load on the PSU. A 12V DC camera should have at least 10.5V DC connected to it.

B. The camera can not function without the correct power supply. For 12V DC cameras only ever use regulated power supplies to ensure that the camera is always receiving the correct voltage.

C. Ensure that the BNC – BNC lead that is connected between the camera and DVR has no shorts or open circuits.

General Maintenance

- Ensure that nothing is obscuring the field of view, position the camera to ensure the Lens can see clearly.
- Routinely clean the camera to prevent dust build up as this can effect the performance of the camera. We recommend a damp non-abrasive microfibre cloth.
- Check that the cameras are firmly attached.
- Check playback in the recorder to ensure the camera is recording properly.

Specifications

9.1 SEE602

Resolution	2MP
Lens Type	2.8-12mm Varifocal
Image Output	1 Volt Peak-Peak 75 ohm
Min.Illumination	0 Lux IR On
Day/Night	Mechanical (True Day-Night)
InfraRed LEDs	2 High Powered LEDs
IR Range	60M
Input Voltage	12V DC
Current Consumption	500mA (IR On)
IP Rating	IP66
Video Connection	BNC Socket
Power Connection	2.1mm DC Socket
WDR	Yes
Bracket	Wall & Ceiling Available
Finish	White/ Black
Build	Metal
Dimensions	(H)88.5mm x (W)88mm x (D)141mm (ex bracket)

Conditions

10.1 General Company Disclaimer

All specifications are approximate. System Q Ltd reserves the right to change any product specifications or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, System Q Ltd 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 equipment that these instructions refer to.

10.2 WEEE Declaration

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 WEE/CG0783SS collection point as defined by your local council.

10.3 Copyright

Index