Instruction Manual

2MP Budget Covert Range

xSEE900 xSEE950 xSEE960

Table of Contents

1 Introduction to the 2MP Covert Range

Compatible with most current DVRs on the market including the ZIP DVR Lite, Supa and Xtra models.

These cameras are multi-format with TVI, AHD, CVI and CVBS modes, which can be changed with the 4-in-1 dip switch.

1.1 Tools & Handy Extras

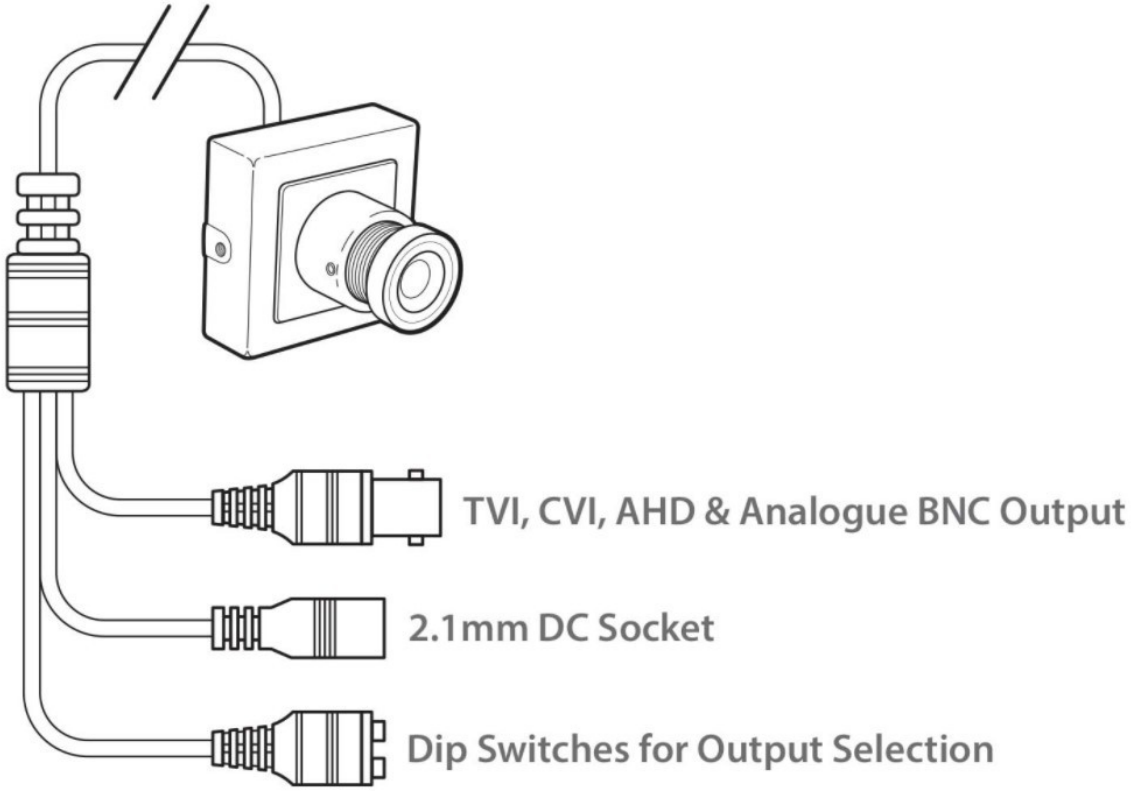
- Screwdriver
- Drill
- Hammer
- POW151 - 12V DC 500mA Plug-in PSU
- Drill bits
- BNC Crimp Tool & BNCs
- RG59 Coax Cable
- Digital Multi-Meter
- LCD400K - CCTV Test monitor

2 Connections, Dimensions & Key Features

The camera is provided with a fly lead with a 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 85mA on so add approximately 50% headroom, and use a regulated power supply rated at 130mA or above. The camera is polarity sensitive so connections must be correctly made.

2.1 SEE900 COVERT 3.6MM MODULE

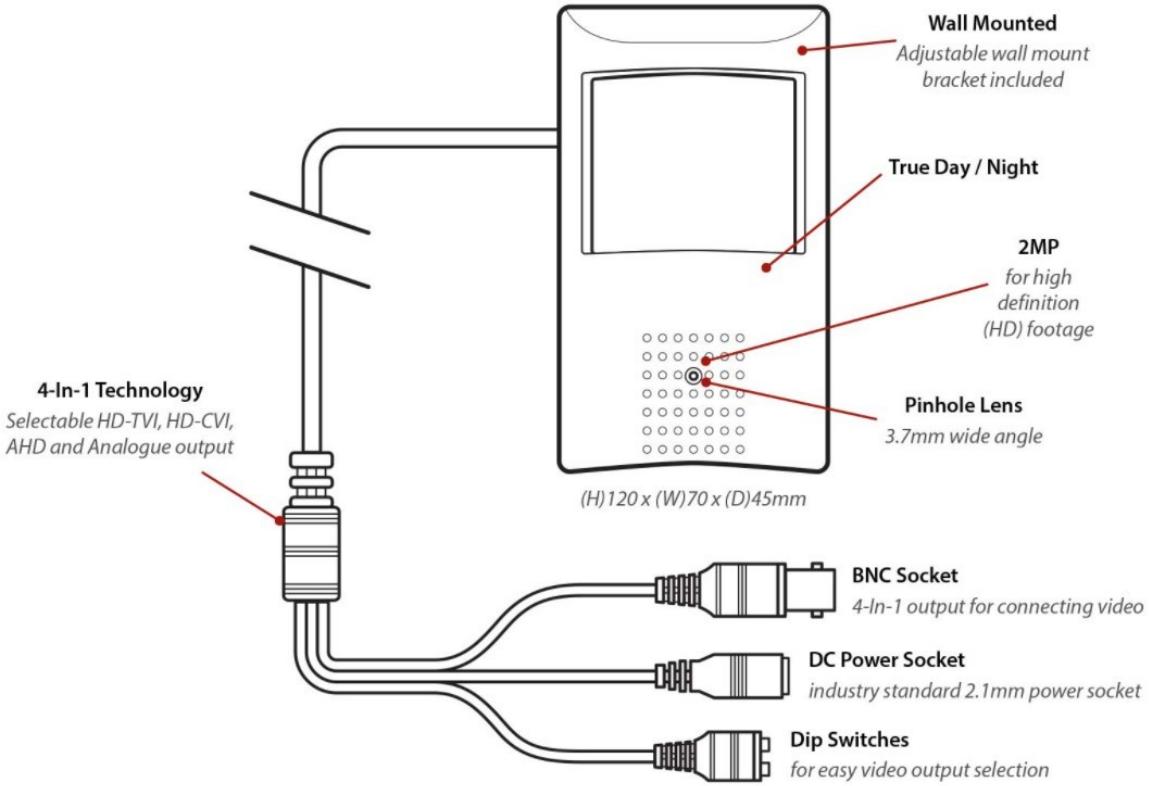


SEE900 Dimensions

FEATURES

- 2MP Resolution
- TVI, CVI, AHD or Analogue Output
- Mounting Bracket Included
- 3.6mm Wide Angle Board Lens

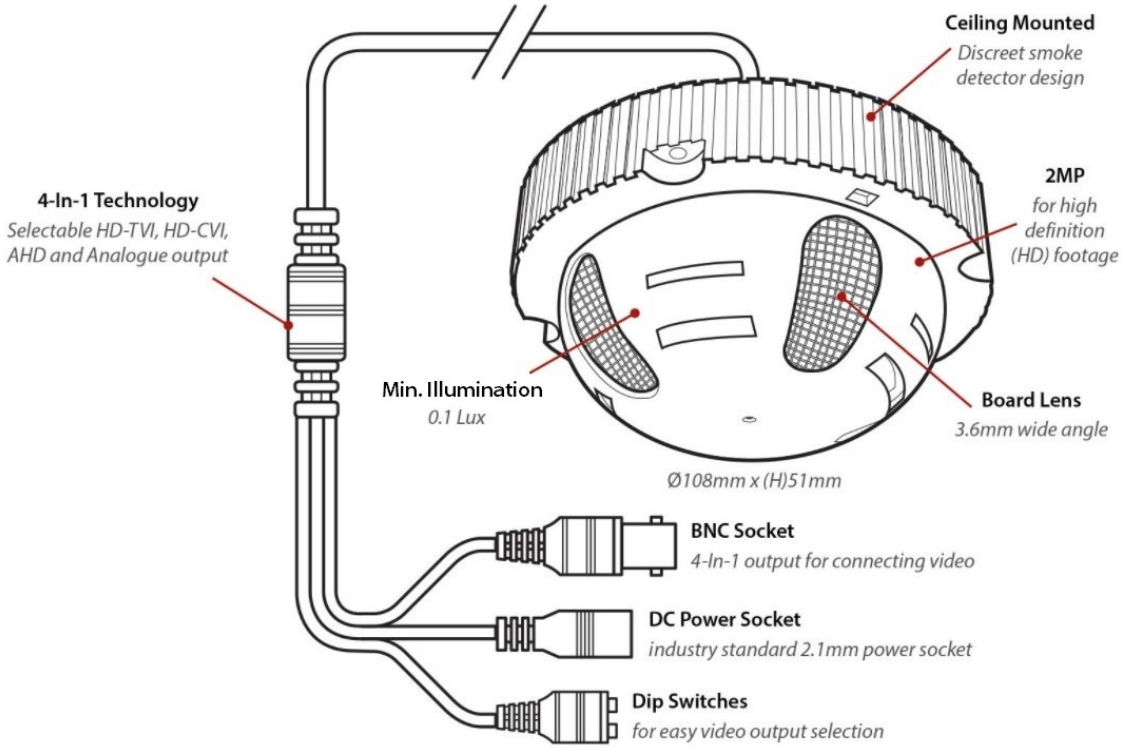
2.2 SEE950 COVERT 3.6MM SMOKE



FEATURES

- **Realistic PIR Cases**
- **TVI, CVI, AHD or Analogue Output**
- **3.7mm Pinhole Lens**
- **Wall Bracket Included**

2.3 SEE960 COVERT 3.6MM SMOKE



FEATURES

- **Hi-Res, Stylish & Discrete**
- **Low Light - 0.001 Lux**
- **3.6mm Board Lens**
- **TVI, CVI, AHD, CVBS Output**

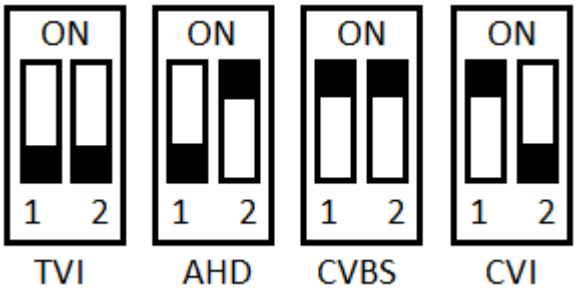
3 4-In-1 Technology

Selectable HD-TVI, HD-CVI, AHD and CVBS (Analogue) Output. As default the 2MP Covert Cameras are set to HD-TVI which will work with the ZipLite, ZipSupa and ZipXtreme DVRs, however the output can be changed to AHD, CVI or CVBS if required.

Note:- When using CVBS for this camera, the image has a reduced field of view, approximately 1/3 reduced.

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:-

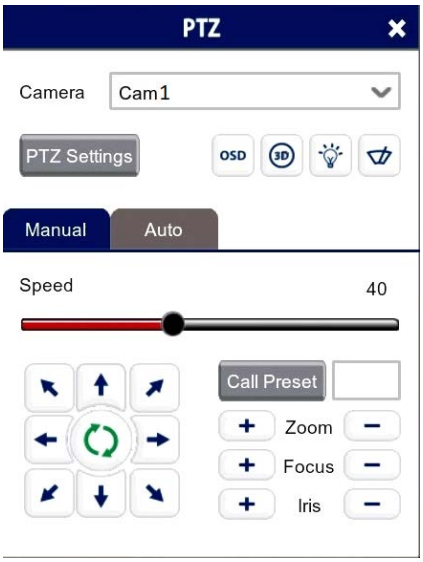


4 OSD Menu

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.

AE	BRIGHTNESS	1 ~ 100 (Default 40)	
	EXPOSURE MODE	GLOBAL / CENTRE / BLC / FLC	
	BLC	0 ~ 7 (Default 4)	
	RETURN		
AWB	MODE	ATW / MWB	
	RGAIN	0 ~ 63 (Default 0)	
	BGAIN	0 ~ 63 (Default 0)	
	RETURN		
DAY – NIGHT	MODE	AUTO / COLOR / B/W / EXT	
	SMART IR	CLOSE / OPEN	
	RETURN		
IMAGE ENHANCE	CONTRAST	AUTO / MANUAL	0 ~ 20 (Default 10)
	SHARPNESS	AUTO / MANUAL	0 ~ 20 (Default 5)
	SATURATE	AUTO / MANUAL	0 ~ 20 (Default 5)
	3DNR	AUTO / MANUAL	0 ~ 20 (Default 0)
	2DNR	AUTO / MANUAL	0 ~ 20 (Default 0)

	DWDR		CLOSE / OPEN	
	FLIP		CLOSE / OPEN	
	MIRROR		CLOSE / OPEN	
	RETURN			
VIDEO SETTING	HD		NO ADJUSTMENT SEE 4-IN-1 SWITCH	
	VIDEO STANDARD		1080P 25 / 1080P 30 / 720P 25 / 720P 30	
	APPLY & REBOOT			
	RETURN			
LANGUAGE	ENGLISH / SIMPLIFIED CHINESE / TRADITIONAL CHINESE / RUSSIAN / SPANISH / FRENCH / POLISH / ITALIAN / PORTUGUESE / JAPANESE / KOREAN / GREEK			
FUNC	PRIVACY	MODE	ON / OFF	
		AREA 0	DISPLAY	OFF / ON
			XPOSITION START	0 ~ 100 (Default 37)
			YPOSITION START	0 ~ 100 (Default 41)
			WIDTH	0 ~ 100 (Default 10)
			HEIGHT	0 ~ 100 (Default 17)
			RETURN	
		AREA 1	Same as above AREA 0	
		AREA 2	Same as above AREA 0	
		AREA 3	Same as above AREA 0	
		AREA 4	Same as above AREA 0	
		COLOR	RED / GREEN / BLUE	
		TRANSPARENCY	OFF / ON	
		RETURN		
	MOTION	MODE	ON / OFF	
		AREA 0	DISPLAY	OFF / ON
			XPOSITION START	0 ~ 100 (Default 37)
			YPOSITION START	0 ~ 100 (Default 41)
			WIDTH	0 ~ 100 (Default 10)
			HEIGHT	0 ~ 100 (Default 17)
			RETURN	
		AREA 1	Same as above AREA 0	
		AREA 2	Same as above AREA 0	
		AREA 3	Same as above AREA 0	
		AREA 4	Same as above AREA 0	
		COLOR	RED / GREEN / BLUE	
		TRANSPARENCY	OFF / ON	
		RETURN		
	RETURN			
RESET				
SAVE & EXIT				
EXIT				

4.1 Key Menu Settings

Exposure Mode - Globe is set as default, it automatically 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. FLC option sets the shutter speed to stop synchronisation with lighting so that pulsing effect is minimised.

AWB (White Balance) - This allows the 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 - This setting allows you to lock the camera in a 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.

5 Troubleshooting

5.1 Camera Rebooting / Turning Off

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

B. For 12V DC cameras only ever use regulated power supplies so that you can be sure that the camera is always receiving the correct voltage.

Note:- SEE942 & SEE952 models draw more current at night time as the cameras have IRs built in.

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

5.2 Poor Quality Images

A. Check the fly-lead is set to the correct output – see 4-In-1 Technology 5

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 – see above for Reset.

D. Check if your DVR supports 2 MegaPixel cameras.

5.3 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 5

B. Reset the camera menu via Zip Coaxitron OSD Menu 6

C. Check if your DVR supports 2 MegaPixel cameras.

5.4 NCD / No Image Displayed on Recorder

A. Test that the camera has the correct voltage supplying it, you must do this 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 so that you can be sure that the camera is always receiving the correct voltage.

C. Ensure that the BNC – BNC lead that you connect between the camera and DVR has no shorts or open circuits. If you are making your own lead, don't forget the lead must have two wires connected to complete the circuit, Video and Ground.

6 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.

7 Specification

	SEE900	SEE950	SEE960
Image Sensor	1/2.9"		
Resolution	2MP		
Lens Type	3.6mm Fixed Board	3.7mm Fixed Pinhole	3.6mm Board Lens
Image Output	TVI / CVI / AHD / CVBS		
Min. Illumination	0.1 Lux		
Day/Night	Electronic		
Input Voltage	12V DC		
Current Consumption	60mA		
Signal to Noise Ratio	More than 50dB		
Gain Control	Automatic		
Video Connection	BNC Socket		
Power Connection	2.1mm DC Socket		
WDR	Yes		
Protocol	UTC		
Bracket	Supplied		
Finish	Black	White	
Build	Metal	Plastic	
Operating Temperature	-10°C - +60°C		
White Balance	Auto / Manual		
Dimensions	(H) 35 x (W) 35 x (D) 29mm	(H) 120 x (W) 70 x (D) 45mm (Ex Bracket)	108mm Dia x (H) 51mm

8 Conditions

8.1 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.

8.2 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.

8.3 Copyright

Index