



## **Quick Start Guide**

Before operating this product, please read this quick-start guide to ensure proper use. Please store these instructions a safe place for future reference.

#### **FEATURES**

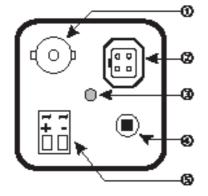
- Compact Design
- Manual Iris only
- 1080P Full HD High Sensitivity Sensor
- 800TVL Resolution in analog mode
- Selectable , Analog, TVI, CVI, AHD
- Wide Dynamic Range
- HLC, BLC, DEFOG
- Sens Up
- O- C----
- On Screen Menu
- 12VDC or 24VAC

#### **PRECAUTIONS**

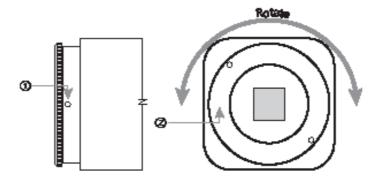
- 1. Before installing and operating the unit, please read this manual carefully.
- 2. Precision components are contained in this camera, please avoid violent vibrations during installation and maintenance. Do not connect the power until you have completed the installation.
- 3. Please obey all local electrical wiring regulations when using this unit.
- I. Do not use abrasive or corrosive materials for cleaning. Use only a soft cloth for cleaning.
- 5. To prevent damage to the lens or sensor, do not point the camera directly into the sun or very strong light sources.
- 6. Do not use the camera outside it's working temperature (-10°C~ 50°C / 14°F ~122°F) or humidity (<90%) ranges.
- 7. Ensure that the power supply meets the current requirements of the camera and that the supply voltage is inside the tolerances of the camera:  $24VAC \pm 10\%$
- 8. Ensure that the fixings used are adequate to support the load of camera.
- In case of camera failure, do not attempt to dismantle or service the camera yourself.Please refer to qualified service personnel for repair of the camera.

## **CONNECTIONS**

- 1. BNC Connector. Video Output. 75Ω 1Vp-p
- 2. No connection, connector not active
- 3. Power LED
- 4. OSD Joystick
- 5. Removable power connector. Observe polarity of 12VDC connections. 24VAC connections are not polarity conscious. Polarity markings are visible when the terminal block is removed



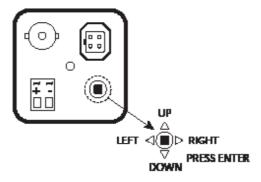
## **LENS AND BACK FOCUS**



A CS-mount lens should not normally require any back focus adjustment when mounted on the camera. If back focus adjustment is required, slacken the grub screw ①, using the supplied allen key and rotate the lens mounting ring ② until optimum focus is achieved. Re-tension the grub screw to lock the mounting ring.

If a C-mount lens is used, a C-mount adaptor(not supplied) must be fitted to the lens mounting ring before attaching the C-Mount lens, or the CCD/filter may be damaged. Depending on the available installation space, the knurled lock screws ④ may be interchanged with the spare domed lock screws. ⑥ Do not overtighten the lock screws. Remember to secure the power/video lead to the bracket with a cable tie as detailed in the previous section.

## **OSD ACCESS**



Connect the Video-Out of the camera to a display monitor.

To activate the camera OSD, depress the joystick button twice on the rear panel of the camera.

Push the joystick ▲▼ to select a menu from the list.

Push the joystick ◀▶ to change the selected value.

Press the joystick button to open a sub-menu or execute a command.

## **OSD MAIN MENU**

When the OSD menu is launched, you are presented with the adjacent opening screen.

A menu option followed by a ← indicates the presence of a sub-menu. Options set to OFF will not show a ← until set to ON

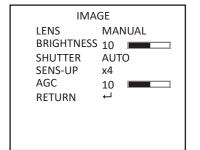
Use RETURN ← to return to the previous menu.

MENU EXPOSURE ← BACKLIGHT W DAY/NIGHT ←			
BACKLIGHT W	MENU		
	/DR←		
IMAGE ← MOTION O SYSTEM ←	1iddle J FF←		

# **EXPOSURE MENU**

#### Exposure menu:

- Lens- Manual
- BRIGHTNESS sets the level of the overall brightness
- **SHUTTER** OFF, 1/60~1/120K. (1/50~120K PAL) Set this on to reduce the exposure time of each image. This can be used to reduce blur in images with fast changing content.
- **FLK** Use this when flicker is observed in the image under fluorescent lighting. When FLK is ON, the shutter menu is disabled.
- **SENS UP -** Slows frame rate and increases low light sensitivity
- AGC- Off or Level Control -Used to adjust overall AGC level



#### **BACKLIGHT**

#### **BACKLIGHT - OFF, BLC, HLC, WDR**

- BLC Adjust the area to be enhanced and sets the level. Initial resets the BLC setting to defaults.
- HLC (High Light Compensation ) Low, Middle, High. This inverts over exposed areas from white to black

)	WDR- Weight, Low, Middle, High. Provide
	optimal image exposure in images with
	extremes of lighting, this is used to improve contrast in bright/dark area

# BACKLIGHT WEIGHT MEDIUM RETURN ←

## **DAY&NIGHT**

#### DAY/NIGHT - AUTO, COLOR, B/W, EXT

- AUTO Allows the camera to switch from color to B/W mode in low light. The switching thresholds and hysteresis time are adjustable.
- **COLOR** fixes the camera in color mode
- **B/W** fixes the camera in monochrome mode.
- Extern NA

◆DAY/NIGHT◆		
MODE D>N N>D THRES DELAY	AUTO 10 7 2	
RETURN	- □	

# WHITE BALANCE

#### WHITE BAL - AWB (default), AUTOext PRESET, MANUAL

- AWB the camera automatically samples the image for optimum white balance
- PRESET Allows the white balance to be set automatically and locked. This
  option is normally used when no white reference is present in the image.
  To set the white balance, hold a white object in front of the camera, with
  light from the source falling on it and press the joystick to set and lock the
  white balance
- MANUAL This option allows the color tempature, Red and Blue gain to be manually set in the image. Note, using this option requires care to ensure all cameras on one system have the same color response.

MANUAL				
C-TEMP R-GAIN B_GAIN	5000K [ 10]			
RETURN	ų			

## DNR

**DNR -** OFF, LOW, MIDDLE, HIGH - Controls the level of digital noise reduction applied to the image. Increasing DNR may soften the image.

#### IMAGE

DISPLAY ADJ - OFF, ON - Press to open submenu.

- COLOR GAIN Level control
- SHARPNESS Level control
- GAMMA 0.35~0.70, default 0.45 sets the gamma response of the camera. This used to compensate for the output response of different display types. It can also be used to bring out details in low light areas of an image.
- MIRROR- OFF/ON, Set this feature to ON to show a mirror image of the camera view.
- FLIP- Flip image ON or OFF
- D-Zoom- Digitally zooms in on center of image
- ACE -
- **DEFOG** Improves the clarity of image obscured by fog and snow by analysing the brightness of the image and compensates the color of the image.
- SHADING Level control for lens
- PRIVACY ZONE OFF, ON 2 kinds, BOX (16) Polygon (4)

### MOTION

MOTION - OFF, ON - Press to open submenu.

- **DET SINDOW** Select Zone 1-4 to set up
- **SENSITIVITY** Set sensitivity threshold, A high figure makes the zone more sensitive.
- MOTION OSD- If selected Motion area Box will be displayed on screen
- TEXT ALARM -If Selected Text will show on screen when motion is activated.

MOTION SET			
DET Window	OFF		
SENSITIVITY	5		
MOTION OSD	OFF		
TEXT ALARM	OFF		
RFTURN	┙		

DISPLAY ADJ

[ 10] ■

OFF

OFF

0.0x

OFF

OFF

OFF

OFF

COLOR GAIN

CHROMA GAMMA

MIRROR

D-ZOOM

DEFOG

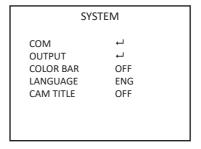
SHADING

PRIVACY RETURN

## SYSTEM/VIDEO OUT

**SYSTEM** -Gives access to basic camera configuration

- **COM** Protocol, Camera ID , Baudrate
- OUTPUT 4-in1 Selections
- FRAMERATE 1080P 60/50 or 30/25, 1080i 60/50 ,720P 60/50 or 30/25
- FREQ- 60/50Hz
- CVBS OUT (4:3, 16:9)
- ANALOG MODE: HD-T (TVI), HD-C (CVI), HD-A (AHD), CVBS
- CONFIRM-If you change any selection in the output mode press and hold the enter button for 3 secs. If watching the screen it will change from ON to show "PUSHING" This will change the selection you just made above.



- LANGUAGE Default to English -CHN, CHNs, JPN, KOR
- CAM TITLE
- Exit

NOTE: If you make changes to the video output mode, verify you have a monitor that will accept the new video format selected or you will be locked out of the camera until you connect to a device that accepts that new video format.

#### EXIT

#### • EXIT- Exits the menu mode

SPECIFICATIONS		
	System	NTSC
Imaging	Sensor	1/2.8 2MP Advanced Sensitivity Sensor
	Effective Pixels	1920 x 1080
Performance	Resolution HD	1080P Full HD
	Resolution Analog	800TVL
	Sensitivity	0.03Lux
	Wide Dynamic Range	130dB Max
	S/N Ratio	52dB
	Day / Night	Software Controlled
Lens	Туре	Manual IRis Only
	Mount	CS (C with Adaptor)
Functions	Video Interface	Analog HD (TVI, CVI, AHD) & CVBS Analog
	OSD	English, Chinese, Japanese, Korean
	Flickerless	On/Off
	Wide Dynamic Range	On/Off low/Middle/High
	DEFOG	Auto/Manual/Low/Medium/High
	Digital Image Stabilize	Yes
	AGC	Adjustable Level
	SENS UP	Adjustable Level 512x
	Electronic shutter	Off/On 1/200,000 sec maximum
	Sync	Internal
	Camera ID Number	Off/On 1~255
	Camera Name	Off/On, 15 Characters
	White Balance	ATW/Push/Manual
	DNR	2D + 3D Off, Low, Medium, High
	Gamma	0.35,0 .4, 0.45, 0.5, 0.55
	Motion Detection	4 areas, Off/On, Position & Sensitivity
	Privacy masking	8 areas, Off/On, Color, Position
	Image functions	Sharpness, Mirror, Flip, D-Zoom
Input/Output	Video Output	CVBS 1.0Vp-p 75Ω - BNC
	Programming interface	in-line joystick/Optional UTC Controller
Power	D Model	12VDC/24VAC ±10% 4.2W max
Physical	Construction	Die Cast
	Dimensions (mm)	40 x 40 x 73
	Weight	220G
	Mounting	1/4 20
Environmental	Operating Temperature	-10°C~+50°C
	Humidity	Less than 90%, non condensing
Order Codes		in11S7N2D
Mar	eserve the right to amend s	specifications and design without prior notice