



# **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
- 1080P Full HD High Sensitivity Sensor
- 800TVL Resolution in analog mode
- Selectable , Analog, TVI, CVI, AHD
- Wide Dynamic Range

- HLC, BLC, DEFOG
- Sens Up
- On Screen Menu
- 12VDC
- Optional 24VAC power Converter

# **PRECAUTIONS**

- 1. Before installing and operating the unit, please read this manual carefully.
- 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.
- 4. 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

Connections for video and power are made to the flying lead from at the rear of the camera. Two connectors are provided:

- 1. Video output connector,  $75\Omega$  BNC socket. Connect a male BNC connector to a Monitor, DVR or UTC programmer to this socket.
- 2. Power Input connector. This is a 2.1mm DC jack. Observe polarity of 12VDC connections. The centre conductor is +12VDC ±10% and outer is ground. Refer to the adjacent diagram for clarification.

## **OSD ACCESS**

Connect the Video connector out connector of the camera to a display monitor. To activate the camera OSD, depress the joystick button on the UTC Controller

Push the joystick  $\blacktriangle \nabla$  to select a menu from the list.

Push the joystick ◀▶ to change the selected value.

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

To return from a sub-menu to the previous menu, select "Return" and press the joystick button.

# **OSD MAIN MENU**

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

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

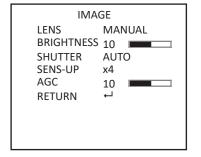
Use RETURN ← to return to the previous menu.

MENU		
EXPOSURE BACKLIGHT	↓ WDR↓	
DAY/NIGHT	MΩK←	
WHITE BALANCE	<b>←</b>	
DNR IMAGE	Middle	
MOTION	OFF←	
SYSTEM	←	
EXIT	SAVE←	

# **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 monochrome mode.
- Extern NA

◆DAY/NI	GHT♠
MODE D>N N>D THRES DELAY	AUTO 10 7 2
RETURN	٠

# 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	↵			

# 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 SENSITIVITY MOTION OSD	OFF 5 OFF	
TEXT ALARM	OFF	
RETURN	↵	

DISPLAY ADJ

[ 10]**=** 

OFF

OFF

0.0x

OFF

OFF

OFF

OFF

COLOR GAIN

CHROMA GAMMA

MIRROR

D-ZOOM

DEFOG

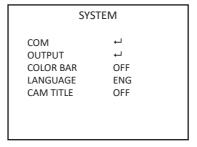
SHADING

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	Fixed LEns 3mm		
	Mount	12mm		
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	L Model	12VDC 10% 4.2W max		
Physical	Construction	Extruded / Metal		
	Dimensions (mm)	114H x 52W x 53D		
	Weight	90G		
	Mounting	Multiple Mounting Brackets included		
Environmental	Operating Temperature	-10°C~+50°C		
	Humidity	Less than 90%, non condensing		
Order Codes		inDUCS7N1L30		