

Tamper Resistant Dome Camera Quick Start Guide





Rev 0.1

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

- Die Cast Aluminium Housing •
- Polycarbonate Bubble
- Varifocal lens
- 1080P Full HD High Sensitivity Sensor
- 800TVL Resolution in analog mode
- Selectable , Analog, TVI, CVI, AHD
- 3 Axis gimbal • 12VDC/24VAC

Sens Up

Wide Dynamic Range

HLC, BLC, DEFOG

On Screen Menu

PRECAUTIONS

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- 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.
- Please obey all local electrical wiring regulations when using this unit. 3.
- 4. Do not use abrasive or corrosive materials for cleaning. Use only a soft cloth for cleaning.
- To prevent damage to the lens or sensor, do not point the camera directly into the sun 5. or very strong light sources.
- Do not use the camera outside it's working temperature (-10°C~ 50°C / 14°F ~122°F) or 6. 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: $24VAC \pm 10\%$
- Ensure that the fixings used are adequate to support the load of camera. 8.
- In case of camera failure, do not attempt to dismantle or service the camera yourself. 9. Please refer to qualified service personnel for repair of the camera.

CONNECTIONS

- 1. 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. 24VAC power is not polarity conscious. Use the terminal block adaptor for connecting 24VAC power, if required. Refer to the diagrams below for clarification.
- 2. BNC Connector. Video Output. 75Ω 1Vp-p
- 3. Locking grub-screw





MOUNTING

- 1. Using the enclosed drill template, mark and drill the four mounting holes for the base. Choose an appropriate drill bit for the surface you are drilling in to and ensure that the diameter is correct for the fixings being used.
- 2. If rear cable exit is to be used, mark and cut a central 20mm ($\frac{3}{4}$ ") diameter hole for the cable and connectors, as indicated on the drill template.
- 3. If side cable exit is not to be used, insert the rubber trim bung at point (4). The bung is found in the accessory pack. 4. Use appropriate No.8 countersunk screws (and wall plugs,
- if applicable) for the mounting surface in use.
- 5. Ensure that the fixings can adequately bear the weight of the camera.
- 6. Slacken the locking grub-screw and remove the dome cover. If necessary, rotate the gimbal in axis A to gain access to the mounting holes
- 7. Mount the camera and fit the O-rings in the accessory pack to maintain a moisture proof seal.
- 8. Make the video and power connections and commission the camera
- Once commissioning is complete, replace the liner, dome cover and re-tension the grub-9. screw to prevent unauthorized users tampering with the camera.

LENS AND POSITIONING

The camera and integral varifocal lens are mounted on a 3-axis gimbal with integrated liner. To remove the liner for commissioning, gently squeeze at points B and withdraw the liner in direction C.



Note: Do not use the lens as a lever to adjust the camera position The field of view may be adjusted by loosening the zoom lever,

(7), and moving until the required field of view is obtained. Loosen the focus lever (8) and adjust to obtain optimum (6) focus. Remember to tighten both levers when adjustments are complete to prevent image drift.. They should be tensioned "finger tight" only

When complete, gently push the liner back onto the gimbal arms, until it snaps into place.

OSD ACCESS



Exposure menu:

- Lens- Manual
- overall brightness SHUTTER-

The camera is supplied in a general configuration that will suit the majority of installation requirements. Should advanced configuration be required then the on-board (9) joystick may be used to provide access to the camera On Screen Display (OSD) for user programming. To view the On Screen Display and image from the camera, connect a monitor to the service jack (10) (2.5mm mono jack, or optional lead) or direct to the video output of the camera.

To activate the camera OSD, depress the joystick on the service board

Push the joystick $\blacktriangle \nabla$ to select a menu from the list. Push the joystick \blacktriangleleft to change the selected value. Press the joystick button to open a sub-menu or execute a command.





joystick button.

screen





















Optional Programming Method



Connect the Video-In connector of the UTC controller to the Video-Out connector of the camera. Connect the Video-Out of the UTC controller to a display monitor. To activate the camera OSD, depress the joystick button on the UTC Controller for 1 second (operation is confirmed when LED is latched on). Push the joystick $\blacktriangle \nabla$ to select a menu from the list.

Push the joystick \blacktriangleleft 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

OSD MAIN MENU

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

A menu option followed by a \leftarrow 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** WDR⊷ BACKLIGHT DAY/NIGHT WHITE BALANCE Middle DNR IMAGE OFF⊷ MOTION SYSTEM SAVE⊷ EXIT

EXPOSURE MENU

BRIGHTNESS - sets the level of the

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

IMA	GE
LENS	MANUAL
BRIGHTNESS	10
SHUTTER	AUTO
SENS-UP	x4
AGC	10
RETURN	┙

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 areas.

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

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
5000K [10]
Ч

BACKLIGHT

MEDIUM

WEIGHT

RETURN

◆DAY/NIGHT◆

AUTO

10

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MODE

RETURN

THRES DELAY 2

D>N

N>D

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
- MIRROR- OFF/ON, Set this feature to ON to show a mirror image of the camera view.
- D-Zoom- Digitally zooms in on center of
- **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.
- 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.

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 ٠
- 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 dome until you connect to a device that accepts the format you just selected.

DISPLAY ADJ	
COLOR GAIN	[10]
CHROMA	[5]
GAMMA	.5
MIRROR	OFF
FLIP	OFF
D-ZOOM	0.0x
ACE	OFF
DEFOG	OFF
SHADING	OFF
PRIVACY	OFF
RETURN	↓

MOTION SET

OFF

OFF

OFF

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SYSTEM

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┙

OFF

ENG

OFF

DET Window

SENSITIVITY

MOTION OSD

TEXT ALARM

RETURN

COM

OUTPUT

COLOR BAR

LANGUAGE

CAM TITLE

System Sensor Imaging Effective Performance Resoluti Resoluti Sensitivi Wide Dy S/N Rati Day / Ni Туре Mount Functions Video In OSD Flickerle Wide Dy DEFOG Digital Ir AGC SENS UP Electroni Sync Camera Camera White B DNR Gamma Motion Privacy r Image fu Input/Output Video Ou Program D Model Power Physical Constru Dimensi Weight Mountir Environmental Operatir Humidit Order Codes Lens







EXIT

SPECIFI	CATIONS
	NTSC
	1/2.8 2MP Advanced Sensitivity Sensor
Pixels	1920 x 1080
on HD	1080P Full HD
on Analog	800TVL
ty	EXIT- Exits the menu mode0.03Lux
namic Range	130dB Max
0	52dB
ght	Software Controlled
	2.8~12mm,
	14mm straight
terface	Analog HD (TVI, CVI, AHD, CVBS)
	English, Chinese, Japanese, Korean
SS	On/Off
namic Range	On/Off low/Middle/High
	Auto/Manual/Low/Medium/High
nage Stabilize	Yes
	Adjustable Level
	Adjustable Level 512x
ic shutter	Off/On 1/200,000 sec maximum
	Internal
ID Number	Off/On 1~255
Name	Off/On, 15 Characters
alance	ATW/Push/Manual
	2D + 3D Off, Low, Medium, High
	0.35,0 .4, 0.45, 0.5, 0.55
Detection	4 areas, Off/On, Position & Sensitivity
nasking	8 areas, Off/On, Color, Position
inctions	Sharpness, Mirror, Flip, D-Zoom
utput	CVBS 1.0Vp-p 75Ω - BNC
	CVBS 1.0Vp-p 75Ω - Service port
ming interface	On board Joystick/Optional UTC Controller
	12VDC/24VAC ±10% 4.2W max
ction	Die Cast Aluminum Shell
	Polycarbonate Bubble
ons (mm)	108Ø x 95mmH (4.24"Ø x 3.47"H)
	550g (1.21 lb)
g	Surface
ig Temperature	-10°C~+50°C
y La a	Less than 90%, non condensing
12.8~12mm	in51\$7N2D28\/12

We reserve the right to amend specifications and design without prior notice