5MP LITE FULL COLOUR DOME HD CAMERA
Model: DEF3 5MP
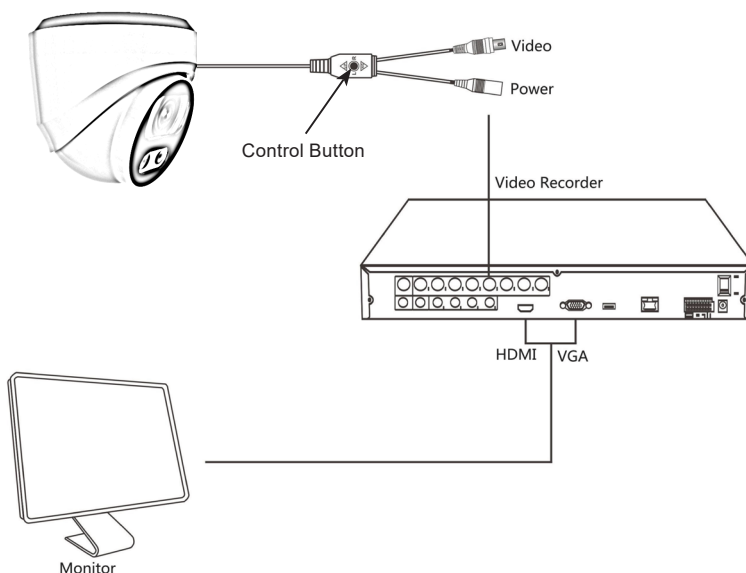**8MP/4K LITE FULL COLOUR DOME HD CAMERA**
Model: DEF4 8MP

SAFETY INSTRUCTIONS

Before using the camera, please read this manual carefully and keep it for future use.

- Installation should be completed by a qualified installer or experienced person with good knowledge of network installation.
- Do not expose the lens to intense light source for long periods.
- Do not touch the sensor directly.
- Ensure the power supply used to operate the camera is of the correct specification.
- Operating temperature range is -10°C to +60°C.
- Do not mount the camera directly above a heat source.
- Do not install the camera below an air curtain or air conditioning unit or the lens may be affected by condensation.
- There are no serviceable parts inside - do not disassemble.
- It is advisable to install lightning protection if the camera or any wiring is to be installed in a vulnerable position.

INSTALLATION

Video
Power
Control Button
Video Recorder
HDMI VGA
Monitor

Auto Gain Control (AGC)
- Built-in auto gain control (AGC) circuit. The colour camera can produce high quality pictures in low light condition.

Auto Electronic Shutter (AES)
- Built-in auto electronic shutter function. The colour camera's AES speed is up to 1/100,000s.

Gamma Characteristic
- Camera Gamma characteristic is 0.45.

Scanning Mode
- NTSC or PAL mode.

- The camera connection cable has a menu control button under a small round plastic cover on the splitter.
- When the camera is operating, pressing the button will display an on screen menu for setting further options:-
1. **AE** - brightness and exposure
2. **AWB** - white balance adjustment (ATW/MWB)
3. **Day/Night** - gain control (Auto/Colour/BW)
4. **Image Enhance** - adjusts contrast, sharpness, saturation, flip/2DNR/DWDR/mirror.
5. Video Output - HD: AHD/TVI/CVI/CVBS
   AHDTVI:5MP12.5/5MP20/4MP15/4MP25/4MP30/1080P25/1080P30
   CVI:4MP30/4MP25/1080P30/1080P25
6. **Language** - set your language preference for the menu
7. **Version** - displays the firmware version of the camera
8. **Reset** - reset to defaults
9. **Save and Exit** - saves all amended settings and exits the menu
10. **Exit** - quits without saving

NOTE: The button acts like a joystick so you can switch between options or make changes to the settings.

TROUBLESHOOTING

No picture after connecting to the recorder and power supply.
- Check the power supply is suitable and connected correctly and that the network cable is correct and installed properly.
- Check the monitor connection, power and input settings.

The picture has flowing interference ripples or generally poor.
- May be caused by fluctuations in the AC mains power supply.
  Check the monitor and peripheral equipment used to determine if the problem is with the camera feed or another component in the network.
- Ensure the power supply is stable and of sufficient power and all connections are clean with low impedance.

The picture colour changes continuously
- Installation close to fluorescent lighting can cause this. Try to keep a reasonable distance from the fluorescent fitting.
- Interference from an electromagnetic source close to the camera or the supply wiring.

SPECIFICATION

	DEF3	DEF4
Image Sensor	1/3" 2.0MP CMOS Sensor (5MP resolution 2592 x 1944)	1/25" 5.0MP CMOS Sensor (8MP resolution 3840 x 2160)
Output	PAL/NTSC	
Minimum light level	0.03lux/F2.0	0.01lux/F1.2
S/N ratio	>52dB	>50dB
Synchronisation	Internal	
IR Range	25 meters	
Power on	Auto	
Video output	AHD/TVI: 5M@20fps/12.5fps, 4M@30fps/25fps/15fps, 2M@30fps/25fps; CVI: 4M@30fps/25fps, 2M@30fps/25fps;CVBS	AHD: 8M@15fps, 5M@20fps/12.5fps, 4M/2M@30fps/25fps; TVI/CVI: 8M@15fps/12.5fps, 5M@20fps/12.5fps, 4M/2M@30fps/25fps
Power	12VDC (+/-10%) <12W	
Lens	3.6mm Board Lens	
IP Rating	IP67	
Dimensions	Ø96 x 91mm	
Weight	0.6kg	
Operating Temp	-10°C~+60°C 95% humidity (Max)	

MAINTENANCE

- Use a soft cloth to wipe off any dust. If the camera is very dirty, use a damp cloth with a mild detergent and wipe dry.
- Do not use any chemicals, abrasives or solvents that could damage the camera.
- Clean the lens and sensor with a soft dry cloth.

INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT.
When this product has reached the end of its life it must be treated as Waste Electrical & Electronic Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used. Contact your local authority for details of recycling schemes in your area.

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