

## CAM666 NiteDevil

The NiteDevil Dome Camera produces high quality images and works in extremely low light conditions. The dome was originally developed for bars and nightclubs but is also a good choice for external dimly lit areas such as car parks and compounds. The dome has many features including a 3D axis mounting bracket for wall mounting, vandal resistant, 550 TVL, OSD menu with privacy masking, motion and digital zoom to 2x and has an RS485 connection for accessing menu via a PTZ keypad.



**New version with OSD menu**

### Precautions:

- Do not operate the camera in extreme temperatures either under  $-10^{\circ}\text{C}$  or over  $50^{\circ}\text{C}$ .
- Do not use in high humidity.
- Do not disassemble the camera, as there are no user serviceable parts.
- Do not drop the camera or subject it to severe shocks.
- Avoid installing close to strong electromagnetic fields or wireless communication devices as this may cause interference on the video image produced.
- Do not remove supplied power, video or RS485 connectors, as this will invalidate warranty.

### Mounting the Camera

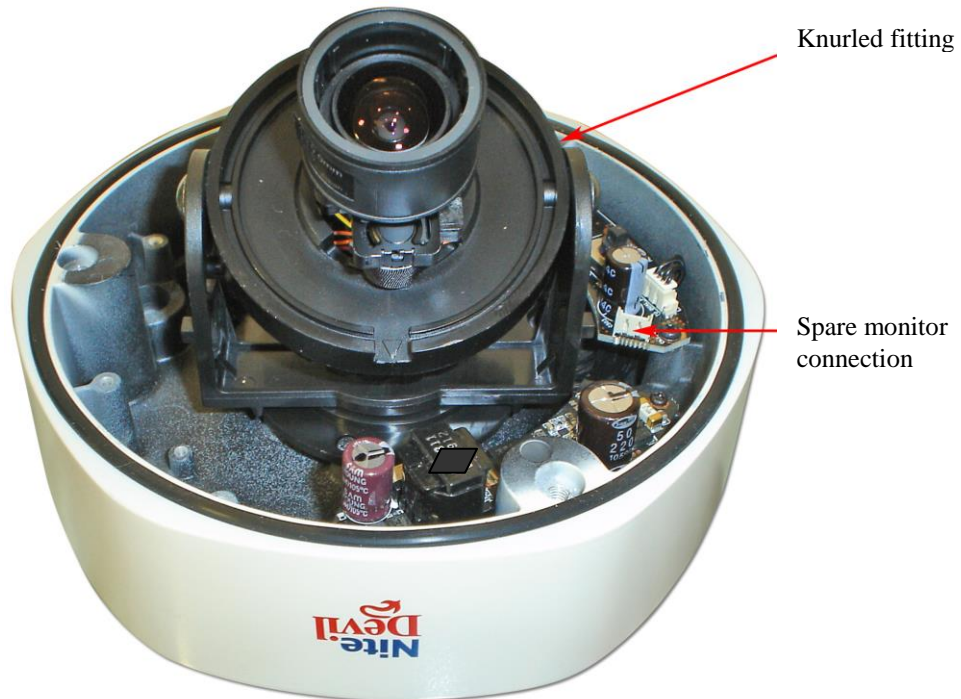
**If mounting on a wall, do not mount with cable entry bung at the top. Ensure that the bung is tight. It is recommended to seal cable entry with silicon.**

The camera is for mounting on a wall, ceiling or outdoor fascia board. Note that this camera has a 3D gimble, allowing wall mounting as well as ceiling mounting. The camera should be fitted to a smooth impermeable surface and sealed to avoid water ingress through the base of the casing.



- 1 Stick the guide pattern on the wall or ceiling
- 2 Drill four holes according to the guide patter then insert plugs into the drilled holes
- 3 Fix the surface mount bracket with screws to the ceiling or wall.
- 4 Draw out the power/video fly lead to connection point.
- 5 Connect the dome base to the surface mount bracket with supplied screws.
- 6 Adjust desired focus and scene by adjusting the 3-axis camera bracket.
- 7 Put the dome cover over the base
- 8 Fix dome cover in place using supplied star bolts.

**Wall Mounting**



When mounting this camera on a wall it is necessary to adjust the camera 3D Gimble.

1. Make sure the side cable entry is always fitted underneath the camera.
2. Turn the whole camera assembly so that the camera can be moved either from left to right or up and down dependent on the area to be viewed.
3. If the camera view is tilted, turn the knurled fitting at the rear of the lens to bring camera picture upright.

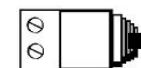
**Connecting The Camera**

The dome camera comes with a fly lead for power (green screw terminal), video (BNC connector) and RS485 (grey screw terminal)..

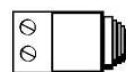
**1. Video Connection**

To reduce installation time the video out lead is terminated into a male BNC connector. This allows the installer to effortlessly connect the camera to control equipment via a female BNC-BNC lead. A spare monitor connection shown above is also available.

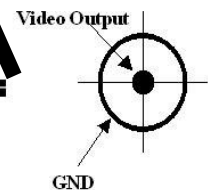
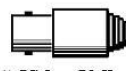
(3) RS 485  
(Grey/Black)



(2) Power (Green)  
AC24v / DC 12V



(1) Video (Yellow)  
BNC



**2. Power Connection**

The Camera requires a 24Vac or 12Vdc regulated power supply. . The power screw terminal is not polarity sensitive. However, the use of a power supply with a higher current rating (at least 25%) than the camera’s is highly recommended. Please note that removing the power connector will invalidate the warranty as will applying voltages outside those specified. To avoid ‘over voltage’, do not earth one side of an AC connection.

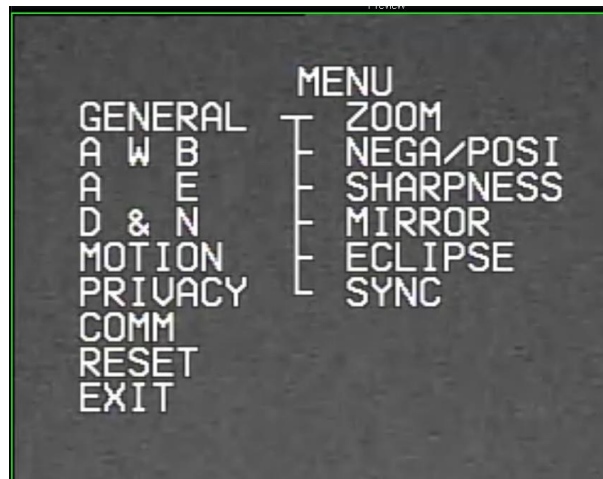
**3. RS485**

**NiteDevil External 3 Axis Vandal-Proof Dome Camera**

The RS485 lead can be connected to a PTZ keypad to access the internal OSD menu. Ensure that the polarity is correct and enter CALL 95 to access the menu. Note that the RS485 does not control any camera functions like zoom or focus on this model. You must use PELCO-D and 2400 bps baud rate in the COMM menu. See details in these instructions.

The cameras functions are accessed via an OSD menu located on the main camera PCB. It should be noted that attaching a test monitor via the supplied adapter could ease the process of setting up the camera.

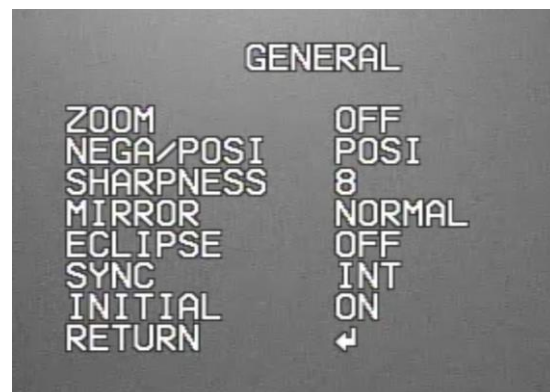
Remove the dome cover to reveal the square black menu button. Press in to display Main Menu.



The black menu button can now be moved down, left or right to select the required menu option. To enter a change press the black menu button in. To exit a menu move down to exit and press the menu button in to return or exit.

**GENERAL MENU**

- ZOOM** 1.25X, 1.5x, 1.75x, 2x
- NEGA/POSI** Changes positive to negative
- SHARPNESS** Set 0 –15 default 8
- MIRROR** NORMAL default option  
HORIZONTAL left to right  
VERTICAL upside down  
ROTATE 180° rotation
- ECLIPSE** OFF default  
ON reduce light halo effect
- SYNC** INT default fixed setting
- INITIAL** OFF default  
ON resets menus to default
- RETURN** Exit menu



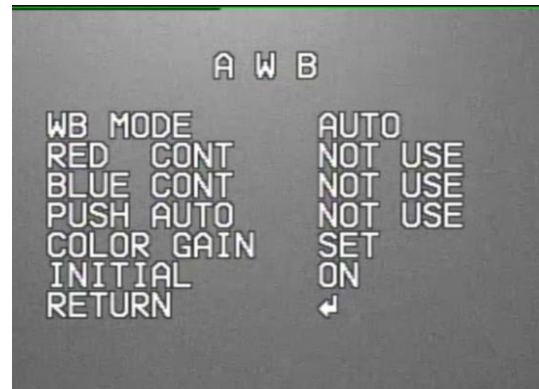
**AWB MENU Auto White Balance**

**WB MODE** AUTO default Colour temp.  
2500°K ~ 9500°K

**HOLD** fix colour using Push Auto

**USER** change red/blue colours

**COLOR GAIN** set red & blue  
colour gain - see menu below



**R-Y GAIN** default 135  
set red colour density  
32 ~ 192

**B-Y GAIN** default 140  
set blue colour density  
32 ~ 192

**INITIAL** Initialise colour again

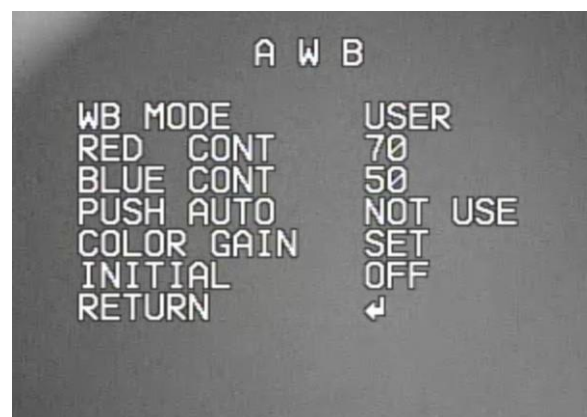
**RETURN** return to AWB mode

**USER** set colour temperature

**RED CONT** default 70  
red setting 0 ~ 127

**BLUE CONT** default 50  
Blue setting 0 ~ 127

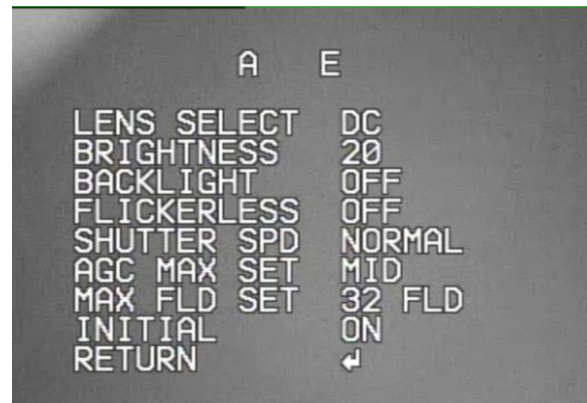
**COLOR GAIN** see menu above





**A E** Automatic Exposure

- LENS SELECT** DC direct drive lens default  
ELC electronic light control
- BRIGHTNESS** set brightness level  
0 ~ 60 default 20
- BACKLIGHT** Backlight Compensation  
OFF, LOW, MID, HIGH  
Default OFF
- FLICKERLESS** OFF default - only DC lens  
ON overcome flickering  
from fluorescent units



- SHUTTER SPD** NORMAL default, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000  
Only DC Lens
- AGC MAX SET** AGC OFF, LOW, MID default, HIGH  
Sets auto gain control
- MAX FLD SET** OFF, 2, 4, 8, 16, 32, 64 FLD default 32FLD
- INITIAL** reset A E mode settings
- RETURN** return to main menu.

**D/N MODE** (Day/Night)

- D/N MODE** AUTO default  
Colour during day  
B/W during night
- DAY colour always
- NIGHT b/w always
- EXT switch to b/w  
or colour externally
- HI-COLOR
- LOW-COLOR
- BURST** OFF default  
ON
- INITIAL** OFF default  
ON reset this menu
- RETURN** return to main menu



**MOTION** Displays message on screen for set time when movement detected

**DETECT MODE** OFF/ON

**MD DISPLAY** OFF/ON

**DETECT AREA** CENTRE, OUT,  
UPPER, WHOLE,  
USER

The area in light grey is the detection area. You can select any of the set areas or selecting USER allows your own area to be set. Use left/right button to move to position and the up/down buttons to specify or release area.



**SENSITIVITY** You can set the sensitivity level of motion detection 0 ~ 8 (default 4)

**ALARM TIME** This is for setting the time you require the display on the monitor. Adjust setting 1 ~ 60 seconds (default 1)

**INITIAL** This resets motion menu to default settings.

**RETURN** Return to main menu.

**MASK** Allows privacy masking of up to 4 areas

**AREA** Select area number 1~4

**MASK** Select mask OFF/ON

**COLOR** Select colour BLACK,  
GREY or WHITE.

**START X** Start of horizontal axis

**END X** End of horizontal axis

**START Y** Start of vertical axis

**END Y** End of vertical axis

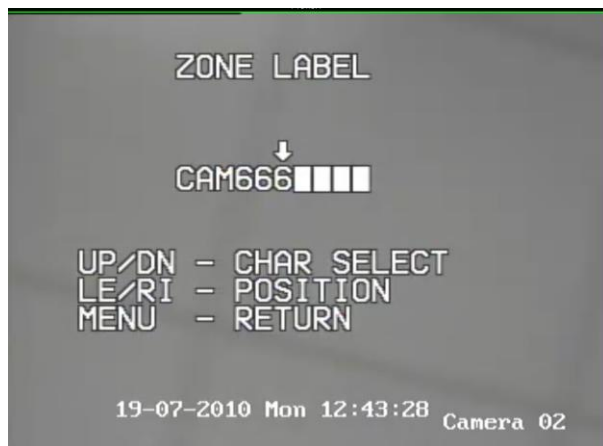
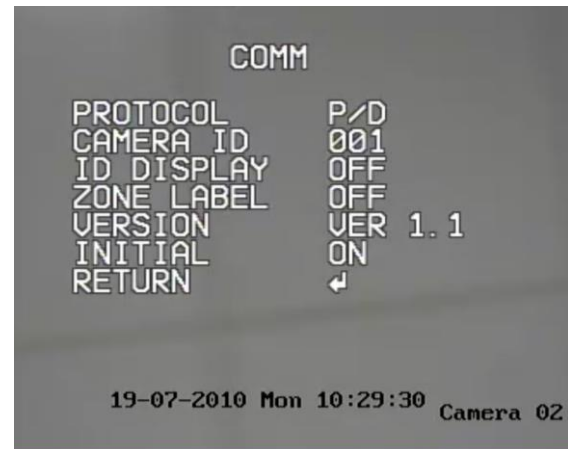
**INITIAL** Reset privacy settings

**RETURN** Return to main menu



**COMM** This menu needs to be setup so that a keyboard can be connected to RS485

<b>PROTOCOL</b>	Select P/D for PELCO-D DEF not operable
<b>CAMERA ID</b>	000 ~ 255 (default 001)
<b>ID DISPLAY</b>	To display camera ID at top left of screen. OFF/ON
<b>ZONE LABEL</b>	To display ZONE LABEL on the bottom left of screen.



Zone Label gives you a 10-character display field.

If you press the up button this will take you through numerics, alpha uppercase, alpha lowercase and special characters. When the correct character is found, press the right button to move to the next character. Press the menu to return to COMM menu.

<b>VERSION</b>	VER 1.1	Displays software menu version.
<b>INITIAL</b>		Reset COMM menu mode.
<b>RETURN</b>		Return to main menu.
<b>RESET</b>		This resets all menus.
<b>EXIT</b>		Exit from OSD menu.

Whilst this NiteDevil camera can be mounted on a wall or ceiling there is an optional mounting bracket that can be purchased. This is the CAM610 bracket.



### CAM666 Camera Specification

Signal System	Pal:625 lines
Communication	RS485 (PELCO-D Protocol available)
OSD Menu	English
Image Sensor	1/3 inch CCD
Total / Effective Pixels	752(H) x 582(V)
S/N Ratio	50dB Min. (AGC off)
Resolution	550 TV Lines
Video Output Level	1.0 Vp-p (75ohms, composite)
Lens	4mm – 9 mm Vari-focal 1:1.5
BLC	OFF / LOW / MID / HIGH
Sync. System	Internal
Sensitivity (f1.2)	0.3 lux (colour) / 0.1 Lux (B/W) / 0.0003 Lux (DSS On, x 64)
Electronic Shutter	1/50 ~ 1/10,000sec
White Balance	ATW / HOLD / USER
AGC	OFF / LOW / MID / HIGH
DSS	OFF/ 2~64 field
D-Zoom	OFF / (x1 ~ x2)
Eclipse	ON / OFF
Day/Night	AUTO / DAY / NIGHT / EXT
Operating Temperature	-10°C ~ 50°C
Motion Detection	ON / OFF
Privacy Masking	ON / OFF (4 zones)
Power Consumption	450mA / 5.4W (Max)
Supply voltage	AC 24V / DC 12V (+10% - 20%)
Sharpness	0 ~ 15
Weight	Approx. 1210g.

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