The CAM200 Traditional NiteDevil

The NiteDevil Camera is a traditional style camera for fitting in a standard housing. It produces high quality images and works in extremely low light conditions. The NiteDevil was originally developed for bars and nightclubs but is also a good choice for external dimly lit areas such as car parks and compounds. This camera has many features including a Sony CCD providing a resolution of 530 TVL, audio function, remote controllable, very low light sensitivity down to 0.003Lux, electronic/manual shutter, an in-built I.R Filter for bright sunlight locations and an OSD facility providing options for 8 privacy zone settings, image rotation function and selectable picture display in normal and negative modes. This camera is truly amazing.



NOTE: Lens not supplied. Use our 5~100mm D.D lens Model CCT345

Features

1/3" SONY Wide Dynamic 530 TVL CCD - Easy installation and special applications - Supports up to 8 privacy zone settings - Remote controllable for easy setting - Built-in ICR cut filter for Day & Night use - 3x digital zoom for high quality pictures - Use with CS-Mount or C-Mount lens -

Advanced Day & Night mode Power selection of 12v DC or 24v AC In-built audio sensor —
Horizontal & Vertical Image rotation function —
Picture display in normal or negative modes —
Digital slow shutter function Recommend using 5-100mm D/D Lens CCT345.

Powering the Camera

The dome requires a 24v AC or 12v DC regulated power supply. Connections are not polarity sensitive. Recommend using a power supply rated at minimum of 500 mA.

Precautions

Do not install the camera in extreme temperature conditions. Only use the camera where temperatures are between – 10 degrees centigrade and +50 degrees centigrade. Do not use the camera where the humidity is higher than 90%.

Never install the camera in damp or humid conditions. This can affect image quality.

This camera requires stable lighting conditions to operate effectively.

Do not touch the front lens of the camera. Fingerprints can stain the lens glass.

Never expose the camera to rain or liquids. These will corrode the camera electronics.

Do not subject the camera to vibration as it may cause camera malfunctions.

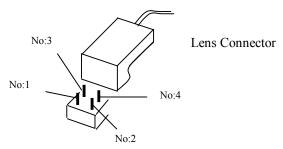
Camera Lens

This camera is not supplied with a lens. It is designed to work with an Auto Iris Direct Drive Lens, Video Drive Lens, CS-Mount Lens or C-Mount Lens.

The camera is supplied with an Auto Iris Lens connection plug, a miniature L-Wrench and a C-Mount adaptor. A Lens protection cap is also supplied. The L-Wrench is a small Allen Key used for adjusting the Back Focal Length.

If you are fitting a Direct Drive Lens these are usually fitted with a connection plug that is fitted into the connection socket on the side of the camera. If the Direct Drive Lens does not have a fitted connector or you are using a Video Drive Lens, use the spare connector provided. Remove approximately 8mm of the cable outer cover and then bare the four wires for 2mm. Remove the cover of the auto iris lens connection plug and solder the lens cable connections to the pins in the plug.

l	PIN	Direct Drive Lens	Video Drive Lens
l	1	DAMPING -	12V RED
l	2	DAMPING +	IRIS WHITE
l	3	DRIVE	Not used
l	4	GND	GND



Fitting Camera Lens



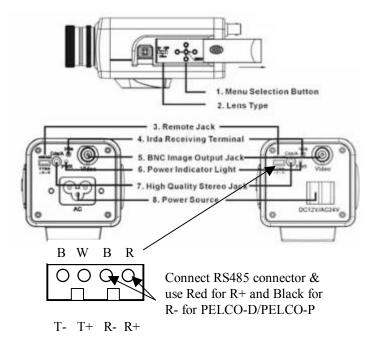
Fitting a lens may require the removal of the CS-Mount fitting. <u>Do not loosen</u> the small Back Focus grub screw until the outer ring is removed leaving the inner ring inserted. When fitting the Direct Drive Lens ensure that the DC Auto Iris Lens connector is fitted to the socket on the side of the camera. Ensure the menu selection button is moved across to the DC setting. To adjust the focus after fitting the lens, use the supplied Allen key (L-Wrench) and loosen the Back Focus grub screw situated at the bottom of the lens base. Adjust focus and retighten the grub screw. To fit a C-Mount lens both rings are fitted. NOTE: Only tighten the lens/mounts hand tight because overtightening will damage the camera.

Fitting into camera housing

This camera has a fixing screw hole on the bottom of the camera case. The clamp screw is a standard size camera screw connector used for fitting camera tripods etc. Ensure that the clamp screw does not extend to a depth of more than 5mm as it could cause serious damage to the camera.

Connecting the camera to control equipment.

- 1. To select the menu options press centre button.
- 2. Set Lens type DC, VIDEO or AES.
- 3. Remote jack for RS485/RS422 connections.
- 4. IRDA receiving terminal. Users can use the IR remote controller to adjust camera settings.
- Connect the BNC video connection to your DVR or direct to your monitor using a BNC-BNC lead.
- 6. Power Indicator Light.
- 7. High Quality Stereo Jack Use this to connect CDS/Audio cable supplied with camera (See further details below)
- 8. Power source 12vDC or 24vAC (As the connections are not polarity sensitive the positive and negative can be connected either way around)



RS485 Connection

Plug in the 485/422 connector which has four wires connected into the back of camera as shown on previous page bottom right. Note that the plug has two small indents on the bottom of plug so that the red cable is located in the far right connector. The red cable is the RS485 + and the black immediately to its left is the RS485 - connection. Note that the keyboard ID for PELCO-P must be camera ID+1. If the user changes the camera ID from the OSD menu you must shutdown the OSD menu in order to make the new camera ID active.

Keyboard (RS485)	Camera	Remarks
Enter 95; Press the		
PRESET key until the	Enter main menu.	
main menu displays on		
the screen.		
Press OPEN key	Enter Main Menu/Enter Sub Menu	OSD Mode
Press CLOSE key	Enter Main Menu/Enter Sub Menu	OSD Mode
Press NEAR key	Cursor Up	OSD Mode
Press FAR key	Cursor Down	OSD Mode
Press IN key	Setting value decrease (-) at Sub menu	OSD Mode
Press OUT key	Setting value decrease (+) at Sub menu	OSD Mode
Joystick Left	Setting value decrease (-) at Sub menu	OSD Mode
Joystick Right	Setting value decrease (+) at Sub menu	OSD Mode
Joystick Up	Cursor Up	OSD Mode
Joystick Down	Cursor Down	OSD Mode

Keyboard (RS485)	Camera	Remarks
Press OPEN key	Brightness +	Live Mode
Press CLOSE key	Brightness -	Live Mode
Press IN key	D-ZOOM IN (when WDR OFF)	Live Mode
Press OUT key	D-ZOOM OUT (when WDR OFF)	Live Mode

IRDA Remote Controller

The remote controller allows a wire free control of the OSD menu. It must be aimed at the Irda sensor on the rear of the camera.

CDS/Audio Lead

This lead is required by the camera when "AUTO" is selected in the D/N menu. Without this sensor, only manual DAY or NIGHT can be selected.

Note: Without this lead plugged in the "AUTO" selection will keep the camera fixed in Black and White.





Note: Other buttons on remote are reserved for future use.

Audio Facility

This camera has a microphone installed and is located at the front of the camera bottom right. When the CDS/Audio lead is attached there is a separate audio plug for connecting to an audio amplifier (see above).

NORMAL MANUAL OPERATION

When in normal manual operation i.e not in camera menu, press the UP/DOWN button for Digital Zoom control. Note that the WDR menu mode must be set to OFF for this to operate. If you use the Initial option this will initialise all menus except for the General Menu Camera ID and Baud rate functions, and the Message menu Zone functions.

MENU OPERATION

THE MAIN MENU

First press the MENU button behind the camera side flap or the OK button on the remote. The Main Menu will now be displayed on the monitor.

Please select any function by using the UP and DOWN buttons and LEFT and RIGHT buttons. Press the centre button to access the Main Menu or a Sub Menu.

MAIN MENU

MAIN MENU		
GENERAL	(CAMERA ID, BAUD RATE, SYNC, VPHASE, INITIAL, EXIT)	
AE	(BRIGHTNESS, AGC MAX, MGC ADJ, FLICKER, SHUTTER, DSS MAX, INITIAL, EXIT)	
WDR	(WDR MODE, WDR LEVEL, BACKLIGHT, BLC LEVEL, BLC WIND, INITIAL, EXIT)	
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY, INITIAL, EXIT)	
AWB	(COLOUR MODE, RED ADJ, BLUE ADJ, PUSH LOCK, INITIAL, EXIT)	
PRIVACY	(WIND, PRIVACY, H STR, H END, V STR, V END, INITIAL, EXIT)	
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE, FREEZE, INITIAL, EXIT)	
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP, ID POS, ZOOM DISP, ZOOM POS, INITIAL, EXIT)	
INITIAL	INITIALISE ALL SUB MENUS	

GENERA	L MENU
CAMERA ID	1
BAUD RATE	9600
SYNC	INT
V PHASE	NA
INITIAL	ON
EXIT	1

- 1. CAMERA ID set CAMERA ID 0-253
- BAUD RATE
 Data transfer rate ... set to 2400, 4800, 9600 or 19200
- 3. SYNC set function to internal or line lock
- V PHASE
 V PHASE adjusts the vertical phase level from 0 to 358. It only works in line lock mode.
- 5. INITIAL sets General Menu back to factory settings except for Camera ID and Baud Rate
- 6. Exit exit from this menu to Main Menu

MAIN MENU			
GENERAL	(CAMERA ID, BAUD RATE, SYNC,		
	VPHASE, INITIAL, EXIT)		
AE	(BRIGHTNESS, AGC MAX, MGC ADJ,		
	FLICKER, SHUTTER MODE, DSS MAX,		
	INITIAL, EXIT)		
WDR	(WDR MODE, WDR LEVEL, BACKLIGHT,		
	BLC LEVEL, BLC WIND, INITIAL, EXIT)		
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY,		
	INITIAL, EXIT)		
AWB	(COLOUR MODE, RED ADJ, BLUE ADJ,		
	PUSH LOCK, INITIAL, EXIT)		
PRIVACY	(WIND, PRIVACY, H STR, H END, V STR,		
	V END, INITIAL, EXIT)		
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE,		
	FREEZE, INITIAL, EXIT)		
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP,		
	ID POS, ZOOM DISP, ZOOM POS,		
	INITIAL, EXIT)		
INITIAL	INITIALISE ALL SUB MENUS		
EXIT	EXIT FROM MENU		

	AE MENU
BRIGHTNESS	16
AGC MAX	160
MGC ADJ	NA
FLICKER	OFF
SHUTTER	MIRIS
DSS MAX	OFF
INITIAL	ON
EXIT	1

1. <u>BRIGHTNESS</u>

Brightness level adjustment. Adjustment range $0 \sim 36$. Brightness function only works if WDR mode is set to OFF. When WDR mode is set to ON, function becomes N/A and is not adjustable.

2. AGC MAX

Auto Gain Control Maximum (AGC Max) function. Adjustment range $0 \sim 255$. When WDR mode is ON, function becomes N/A and is not adjustable.

3. MGC ADJ

Manual Gain Control function. Users can only make adjustment when Shutter mode is fixed such as 1/125. When WDR mode is ON, function becomes N/A and is not adjustable.

4. FLICKER

When the flicker function is ON, the fixed electronic shutter operates at 1/120 (PAL). When WDR mode is ON, function becomes N/A and is not adjustable.

5. SHUTTER

MIRIS means auto shutter selected. Otherwise users can set shutter at a fixed rate.

6. DSS MAX

Digital Slow Shutter (DSS). Adjust range $2 \sim 160$ fields.

7. <u>INITIAL</u>

Sets this menu back to factory settings.

8. EXIT

MAIN MENU			
GENERAL	(CAMERA ID, BAUD RATE, SYNC, VPHASE, INITIAL, EXIT)		
AE	(BRIGHTNESS, AGC MAX, MGC ADJ, FLICKER, SHUTTER, DSS MAX, INITIAL, EXIT)		
WDR	(WDR MODE, WDR LEVEL,		
BACKLIGHT	BACKLIGHT,		
	BLC LEVEL, BLC WIND, INITIAL,		
EXIT)			
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY,		
	INITIAL, EXIT)		
AWB	(COLOUR MODE, RED ADJ, BLUE ADJ,		
	PUSH LOCK, INITIAL, EXIT)		
PRIVACY	(WIND, PRIVACY, H STR, H END, V STR,		
	V END, INITIAL, EXIT)		
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE,		
	FREEZE, INITIAL, EXIT)		
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP,		
	ID POS, ZOOM DISP, ZOOM POS,		
	INITIAL, EXIT)		
INITIAL	INITIALISE ALL SUB MENUS		
EXIT	EXIT FROM MENU		

WDR MENU		
WDR MODE	ON	
WDR LEVEL	128	
BACKLIGHT	NA	
BLC LEVEL	NA	
BLC WIND	NA	
INITIAL	ON	
EXIT	1	

1. <u>WDR MODE</u>

Wide Dynamic Range (WDR) set ON or OFF.

2. WDR LEVEL

When WDR is ON users are able to adjust WDR level from 0 to 255.

3. <u>BACKLIGHT</u>

Backlight ON/OFF switch. Backlight Compensation (BLC) function works only if WDR function is off.

4. BLC LEVEL

BLC level setting ranges from 0 to 15. It will only work when WDR function is OFF.

5. <u>BLC WIND</u>

BLC wind setting. BLC wind function allows users to set BLC wind position (10 positions total). The settings are: CENTERS, CENTERL, TOPS, TOPL, BOTTOMS, BOTTOML, LEFTS, LEFTL, RIGHTS, RIGHTL.

6. <u>INITIAL</u>

Sets this menu back to factory settings.

7. <u>EXIT</u>

<u>MAIN MENU</u>		
GENERAL	(CAMERA ID, BAUD RATE, SYNC,	
ODI (DIE I	VPHASE, INITIAL, EXIT)	
AE	(BRIGHTNESS, AGC MAX, MGC ADJ,	
	FLICKER, SHUTTER, DSS MAX,	
	INITIAL, EXIT)	
WDR	(WDR MODE, WDR LEVEL, BACKLIGHT,	
	BLC LEVEL, BLC WIND, INITIAL, EXIT)	
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY,	
	INITIAL, EXIT)	
AWB	(COLOUR MODE, RED ADJ, BLUE ADJ,	
	PUSH LOCK, INITIAL, EXIT)	
PRIVACY	(WIND, PRIVACY, H STR, H END, V STR,	
	V END, INITIAL, EXIT)	
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE,	
	FREEZE, INITIAL, EXIT)	
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP,	
	ID POS, ZOOM DISP, ZOOM POS,	
	INITIAL, EXIT)	
INITIAL	INITIALISE ALL SUB MENUS	
EXIT	EXIT FROM MENU	
I		

	DAY/NIGHT MENU
	DAT/MOTT WENC
D/N MODE	DAY
D/N LEVEL	NA
D/N DELAY	NA
INITIAL	ON
EXIT	1

1. <u>D/N MODE</u>

Users can select from three different modes – AUTO, DAY or NIGHT.

DAY - camera will stay in colour mode during day and switch to B/W in very low light level.

NIGHT – camera will stay in black & white mode constantly.

AUTO - This option allows you to set the D/N LEVEL (parameter below) by using the CDS/Audio lead sensor. If the AUTO option is used and the lead is removed then images will be in black & white mode constantly. Note that the CDS sensor must be placed in a suitable location near the camera lens.

2. <u>D/N LEVEL</u>

When camera is set to AUTO it will automatically switch dependent on light level. This setting controls the switching point and the higher setting requires the environment to be darker before switching to night mode. To use this option you must set D/N MODE to AUTO and fit the CDS/Audio lead that contains the CDS sensor.

3. <u>D/N DELAY</u>

Day/Night delay time is from $0 \sim 15$ seconds.

4. <u>INITIAL</u>

Sets this menu back to factory settings.

5. EXIT

<u>MAIN MENU</u>		
GENERAL	(CAMERA ID, BAUD RATE, SYNC,	
	VPHASE, INITIAL, EXIT)	
AE	(BRIGHTNESS, AGC MAX, MGC ADJ,	
	FLICKER, SHUTTER, DSS MAX,	
	INITIAL, EXIT)	
WDR	(WDR MODE, WDR LEVEL, BACKLIGHT,	
	BLC LEVEL, BLC WIND, INITIAL, EXIT)	
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY,	
	INITIAL, EXIT)	
AWB	(COLOUR MODE, RED ADJ, BLUE	
	ADJ, PUSH LOCK, INITIAL, EXIT)	
PRIVACY	(WIND, PRIVACY, H STR, H END, V STR,	
	V END, INITIAL, EXIT)	
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE,	
	FREEZE, INITIAL, EXIT)	
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP,	
	ID POS, ZOOM DISP, ZOOM POS,	
	INITIAL, EXIT)	
INITIAL	INITIALISE ALL SUB MENUS	
EXIT	EXIT FROM MENU	

AWB MENU			
COLOUR MODE	AUTO		
RED ADJ	NA		
BLUE ADJ	NA		
PUSH LOCK	NA		
INITIAL	ON		
EXIT	1		

1. <u>COLOUR MODE</u>

 $Auto\ White\ Balance\ modes\ includes\ AUTO,\ INDOOR,\ OUTDOOR,\ MANUAL\ and\ PUSH\ LOCK.$

2. RED ADJ

Red gain adjustment function. Red gain adjustment only works if Colour Mode set to MANUAL.

3. <u>BLUE ADJ</u>

Blue gain adjustment function. Blue gain adjustment only works if Colour Mode set to MANUAL.

4. <u>PUSH LOCK</u>

Push lock function only works when Colour Mode set to Push Lock otherwise function not activated. When Push Lock set to ON, the camera will automatically start the AWB function. When Push Lock set to OFF, the camera will stop the AWB function.

5. <u>INITIAL</u>

Sets this menu back to factory settings.

6. <u>EXIT</u>

MAIN MENU	
GENERAL	(CAMERA ID, BAUD RATE, SYNC,
	VPHASE, INITIAL, EXIT)
AE	(BRIGHTNESS, AGC MAX, MGC ADJ,
	FLICKER, SHUTTER, DSS MAX,
	INITIAL, EXIT)
WDR	(WDR MODE, WDR LEVEL, BACKLIGHT,
	BLC LEVEL, BLC WIND, INITIAL, EXIT)
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY,
	INITIAL, EXIT)
AWB	(COLOUR MODE, RED ADJ, BLUE
	ADJ, PUSH LOCK, INITIAL, EXIT)
PRIVACY	(WIND, PRIVACY, H STR, H END, V
STR,	
	V END, INITIAL, EXIT)
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE,
	FREEZE, INITIAL, EXIT)
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP,
	ID POS, ZOOM DISP, ZOOM POS,
	INITIAL, EXIT)
INITIAL	INITIALISE ALL SUB MENUS
EXIT	EXIT FROM MENU

PRIVACY MENU		
WIND	1	
PRIVACY	OFF	
H STR	20	
H END	70	
V STR	20	
V END	30	
INITIAL	ON	
EXIT	•	

1. <u>WIND</u>

Privacy area setting. Area setting range $1 \sim 8$ areas.

2. <u>PRIVACY</u>

Privacy function setting ON or OFF.

3. <u>H STR</u>

Horizontal start is the function that sets horizontal start position in privacy area. Adjust range $1 \sim 180$.

4. <u>H END</u>

Horizontal end is the function that sets horizontal end position in privacy area. Adjust range $1\sim180$.

5. <u>V STR</u>

Vertical start is the function that sets vertical start position in privacy area. Adjust range $1 \sim 180$.

6. <u>V END</u>

Vertical end is the function that sets vertical end position in privacy area. Adjust range $1 \sim 180$.

7. <u>INITIAL</u>

Sets this menu back to factory settings.

8. <u>EXIT</u>

MAIN MENU	
GENERAL	(CAMERA ID, BAUD RATE, SYNC,
	VPHASE, INITIAL, EXIT)
AE	(BRIGHTNESS, AGC MAX, MGC ADJ,
	FLICKER, SHUTTER, DSS MAX,
	INITIAL, EXIT)
WDR	(WDR MODE, WDR LEVEL, BACKLIGHT,
	BLC LEVEL, BLC WIND, INITIAL, EXIT)
DAY/NIGHT	(D/N MODE, D/N LEVEL, D/N DELAY,
	INITIAL, EXIT)
AWB	(COLOUR MODE, RED ADJ, BLUE
	ADJ, PUSH LOCK, INITIAL, EXIT)
PRIVACY	(WIND, PRIVACY, H STR, H END, V STR,
	V END, INITIAL, EXIT)
SPECIAL	(SHARPNESS, NEGATIVE, ROTATE,
	FREEZE, INITIAL, EXIT)
MESSAGE	(ZONE, ZONE DISP, ZONE POS, ID DISP,
	ID POS, ZOOM DISP, ZOOM POS,
	INITIAL, EXIT)
INITIAL	INITIALISE ALL SUB MENUS
EXIT	EXIT FROM MENU

SPECIAL MENU		
SHARPNESS	7	
NEGATIVE	OFF	
ROTATE	OFF	
FREEZE	OFF	
INITIAL	ON	
EXIT	1	

1. <u>SHARPNESS</u>

Sharpness level adjustment. Adjustment range $0 \sim 15$.

2. <u>NEGATIVE</u>

When set to ON video image displayed in negative. (Negative will only display in black and white) When set to OFF, video image displayed in positive. (When negative set to OFF colour images can be displayed.

3. <u>ROTATE</u>

Four modes are provided. They are OFF, HORIZONTAL, VERTICAL and ROTATE.

OFF - This displays in normal mode.

HORIZONTAL – This produces a left/right horizontal image reverse.

VERTICAL - This produces an up/down vertical image reverse.

ROTATE – This produces a 180 degree rotation.

4. <u>FREEZE</u>

This option produces a frozen image.

5. <u>INITIAL</u>

Sets this menu back to factory settings.

6. <u>EXIT</u>

MAIN MENU **GENERAL** (CAMERA ID, BAUD RATE, SYNC, VPHASE, INITIAL, EXIT) (BRIGHTNESS, AGC MAX, MGC ADJ, AΕ FLICKER, SHUTTER, DSS MAX, INITIAL, EXIT) WDR (WDR MODE, WDR LEVEL, BACKLIGHT, BLC LEVEL, BLC WIND, INITIAL, EXIT) DAY/NIGHT (D/N MODE, D/N LEVEL, D/N DELAY, INITIAL, EXIT) AWB (COLOUR MODE, RED ADJ, BLUE ADJ, PUSH LOCK, INITIAL, EXIT) **PRIVACY** (WIND, PRIVACY, H STR, H END, V STR, V END, INITIAL, EXIT) SPECIAL (SHARPNESS, NEGATIVE, ROTATE, FREEZE, INITIAL, EXIT) MESSAGE (ZONE, ZONE DISP, ZONE POS, ID

ID POS, ZOOM DISP, ZOOM POS,

INITIALISE ALL SUB MENUS

MESSAGE MENU		
ZONE		
ZONE DISP	ON	
ZONE POS	LEFT DOWN	
ID DISP	ON	
ID POS	RIGHT DOWN	
ZOOM DISP	ON	
ZOOM POS	LEFT UP	
INITIAL	ON	
EXIT	1	

1. <u>ZONE</u>

DISP,

INITIAL EXIT

Zone label setting. Maximum of 16 characters.

INITIAL, EXIT)

EXIT FROM MENU

UP/DN - character selection (First select Zone. The press right button. The use UP/DN button to select characters required.)

RIGHT - character position selection.

2. ZONE DISP

Zone screen display setting. Set to ON or OFF.

3. ZONE POS

Zone display position. Can set following adjustments from RIGHT DOWN, RIGHT UP, LEFT DOWN & LEFT UP.

4. <u>ID DISP</u>

ID screen display setting. Set to ON or OFF.

5. ID POS

ID display position. Can set following adjustments from RIGHT DOWN, RIGHT UP, LEFT DOWN & LEFT UP.

6. <u>ZOOOM DISP</u>

Zoom screen display setting. Set to ON or OFF.

7. ZONE POS

Zoom display position. Can set following adjustments from RIGHT DOWN, RIGHT UP, LEFT DOWN & LEFT UP.

8. <u>INITIAL</u>

Sets this menu back to factory settings. Re-input to reset all menus to factory settings.

9. EXIT

Return to Main Menu. Re-input to exit Main Menu.

CAM200 TECHNICAL SPECIFICATION

Image Sensor	PAL: 1/3" Sony CCD ICx213
Pick-up Device	1/3" Interline Transfer CCD
Total Pixels	PAL: 795 (horizontal) x 596 (vertical)
Effective Pixels	PAL: 752 (horizontal) x 582 (vertical)
Resolution	530 TVL Colour / 600 TVL black & white
Scanning Sys.	PAL: 625 Lines / 50 fields
S/N Ratio	More than 48dB (AGC Off)
Electronic Shutter	Auto $1/50 \sim 1/50,000$ secs.
	Manual 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/20000, 1/50000.
Gamma Correction	0.45
Minimum	0.1 Lux (Day and Night On), 0.003Lux (DSS) F1.2
Illumination	
Video Output	1.0V p~p , 75 ohm
WDR Function	ON / OFF
Control Interface	RS422 / RS485 / (RS232, Infra Red optional)
Gain	AGC / MGC
White Balance	Auto / Indoor / Outdoor / Manual / Push Lock
Day & Night	Auto / Day / Night
Scanning Rate	H: 15,625 KHz V: 50Hz
BLC	ON / OFF
Lens Mount Type	C or CS Mount, Direct Drive (DC), Video Drive
Power Source	12v DC / 24v AC <6W
Dimensions	63.9 (W) x 133.4 (D) x 64 (H) mm
Operating	-10°c to 50°c
Temperature	
Storage Temperature	-20°c to 70°c



This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.

WEE/CG0783SS

All specifications are approximate. Kovert.com reserves the right to change any product specification or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, kovert.com cannot be held responsible in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the camera or other equipment that these instructions refer.