



Face Recognition Multifunction Megapixel HD Smart Camera

Operation Manual



1. Main features:

(1) 1/3 inch SONY Super HAD CCD $\rm I\!I$

(2) Sony New HD CCD

(3) Face Recognition: Face Detection / multi-target tracking motion detection / tracking Zoom / Intelligent Face tracking / warning zone of detection / capture Archive

(4) Automatic intelligent analysis multi-target moves and face tracking. Electronic fence one/dual-way throughout to alarm

(5) Supports digital through the fog / HLC / BLC / Smart IR function

- (6) Supports 2 languages
- (7) Use TF card capture, storage function, maximum support 32G
- (8) Photo Playback, Auto search ,face zoom
- (9) Support communication settings (RS485), Pelco_D protocol
- (10) Support alarm equipment.

2. Function description



2.1 When turned on, press "MENU" button to enter the menu mode. upwards to pull the "UP" key to up-move / analog plus / mode switching; downwards to pull"DOWN" key to down- move / analog minus / mode switching; Leftwards to pull "L" key to return to the previous directory; Rightwards to pull "R" key for entry into the next directory;

2.2 Exit: Press "MENU" button to pop-up exit menu mode. upwards to pull "UP" key to leave; downwards to pull "DOWN" key to return key; Leftwards to pull "L" key to restore the factory settings; Rightwards to pull "R" key to save and exit.

2.3 The operation and settings of RS485 and PTZ keyboard: operation command used to record RS485 keyboard can record various different brands of commands. Usage: select the keys [KEY FUNC] you want to record by the buttons on the machine, such as MENU, UP ..., then press [KEY SET] to start recording, the menu will be displayed on waiting, then press the RS485 keyboard keys, and then press the enter button on the machine, then displays OK, indicating the end of the record of this button.

2.4 Intelligent Monitoring: multi-target tracking, face book, electronic fences, motion detection, digital zoom, privacy masking, close the Smart Monitoring, these seven item represent a separate product function, that when you select "O" ring stays in that item, indicating the product function at this time. Such as "O" ring stays in face book entry, save and exit, it means that the product at this time is the human face capture function. So that the user can according to actual situation to select.

2.5 alarm devices: burglar alarm trigger line is divided into: ALARM +, ALARM-, this two trigger lines correspondingly connected to the input of the alarm system.

Set whether needs to output an alarm or not when motion is detected, "Alert level" to choose high, low, off; high is high output (3V), low output is low (0V), off means the alarm signal output is closed. Set high or low depending on an external alarm system of itself trigger voltage is high or low.

- 3. Menu function settings
- 1. Intelligent monitoring

1.1 Multi-target tracking: the use of advanced image detection, identification and tracking technology, with precision motion control system to realize the quick succession tracking capture of multi-motion target in big scene. Mainly used in public places, residential, factories, campuses, shopping malls and so on.

Magnification	0~5[0]	Set automatic magnification
Sensitivity	-4~4[0]	Set detection sensitivity, the larger the number is, the more sensitivity is
Intelligent tracking	ON,OFF(OFF)	Set if enables intelligent tracking
Frame follow	ON,OFF(OFF)	Set if enables frame follow
Alert level	High,low,off(off)	Set if output alarm when detect the

		object motion, high is high output, low output is low .Set high or low depending on an external alarm system of itself trigger voltage is high or low.
Alarm seconds	0-3600 [10]	Set the alarm time in unit of seconds while detecting object motion
Manually warning area	ON,OFF(OFF)	Set if needs to use manually warning area range
Warning area selected	1、2[1]	Select warning areas needed to set, max.2
Set warning area	Press the Right key then click setting	Press Enter key to switch to the endpoint, total of 6 set point, Press the Enter key to switch to the set point, press Up / Down / Left / Right, warning zone can be set for several consecutive press the Enter key to exit the setting screen.
Switch	ON,OFF(OFF)	Set if opens the warning area
Number of edges	4~6[6]	Set the number of edges
Color	0-15[1]	Set the color
Display warning area	ON,OFF(ON)	Set if displays the image of warning area

1.2 Face book: for face capture, storage, mainly ideal for the cell door, factory gate, campuses, shopping malls, banks and other important places.

Sensitivity	0~ 11[11]	Set the sensitivity,
Back light compensation	ON,OFF(OFF)	Set if enables back light compensation
Face tracking zoom	ON,OFF(OFF)	Set if enables face auto-zoom
Face book dwell time	5 ~ 90 [5]	Set the face book dwell time in the unit of seconds
Display face book delay	ON,OFF(OFF)	Set if face book delay the displays
Frame	ON,OFF(OFF)	Set if opens frame

Set cordon	Press the Right key then click setting	Set warning areas, total of 2 set point, Press the Enter key to switch to the set point, then press Up / Down / Left / Right to pan to warning area, for several consecutive press the Enter key to exit the setting screen.
Face magnification	1 ~ 4 [1]	Set the face magnification
Face book location	0 ~ 120 [20]	Set the face book location
Capture archive	ON,OFF(ON)	Set if needs to storage the captured image into TF card
Warning area displays	ON,OFF(OFF)	Set if display the image of warning area
Alarm level	High,low,off(off)	Set if output alarm when detect the object motion, high is high output, low output is low .Set high or low depending on an external alarm system of itself trigger voltage is high or low.
	0-3600 [10]	
Alarm seconds		Set the alarm time in unit of seconds while detecting faces

1.3 Electronic fence: Electronic fences, one/dual-way crossing alarms. Generally ideal for walls, windows, floor glass doors and windows, "provided there is external alarm equipment."

Alarm level	High,low,off(off)	Set if output alarm when detect the object motion, high is high output, low output is low .Set high or low depending on an external alarm system of itself trigger voltage is high or low.
Alarm seconds	0-3600 [10]	Set the alarm time in unit of seconds while detecting touch
Trace line	ON,OFF(ON)	Set if displays trace line
Sensitivity	-4 ~ 4 [0]	Set the sensitivity
Cordon selected	1 ~ 4 [3]	Set the number of cordon, total of 4 can be set
Set cordon	Press the Right key then click setting	Set cordons, total of 2 set point, Press the Enter key to switch to the set point, then

		press Up / Down / Left / Right to randomly move the cordon location, for several consecutive press the Enter key to exit the setting screen.
Alarm direction	Two-way, right to left, left to right, touch [OFF]	
Color	0-15 [3]	Set the color of cordon

1.4 Motion detection: Generally known as Movement detection, commonly used in unmanned surveillance video, that is, when an object movement is detected in the monitoring range, it will send alarm signals "provided there is external alarm equipment."

Set warning area	Press the Right key then click setting	Set warning areas, total of 16 areas, press Up / Down / Left / Right to move the warning area location, then press Enter key to remove or set area(red bottom), press any key in Up / Down / Left / Right these four item to set screen or press Enter key to exit .
Sensitivity	-2 ~ 2 [0]	Set the sensitivity of motion detection, the larger the number, the more the sensitivity
Alarm level	High,low,off(off)	Set if output alarm when detect the object motion, high is high output, low output is low .Set high or low depending on an external alarm system of itself trigger voltage is high or low.
Alarm seconds	0-3600 [10]	Set the alarm time in unit of seconds while detecting object motion

1.5 Digital Zoom: mainly used for a certain area to zoom, move.

Magnification	1.0~4.0 [1]	Magnification
Vertically	-10 ~ 10 [0]	After amplification, set the vertical postion of screen
Horizotal movement	-10 ~ 10 [0]	After amplification, set the horizotal postion of screen

1.6 Privacy Shield: mainly for a region or personal area not want to be photographed, and select to use regional blocks to mask. Mainly ideal for office spaces, or more specific places.

Transparency	0-3 [3]	Set the transparency of privacy shield
Shielded area selection	1,2,3,4,5,6,7,8[1]	Select the shield ID, a total of 8 areas can be set
Set shield area	Press the Right key then click setting	Set the shield area, total of 4 set point, Press the Enter key to switch to the set point, then press Up / Down / Left / Right to move shield area blocks size and location, for several consecutive press the Enter key to exit the setting screen.
Switch	ON,OFF(OFF)	Set if needs to enable this shield
Color	1-15	Set the color of shield

1.7 Disable intelligent monitoring: turn off intelligent monitoring function of products (multi-target tracking, face book, electronic fences, motion detection, digital zoom, privacy shield), work as ordinary Megapixel HD surveillance products.

2. Exposure mode

2.1 Standard Exposure: general standard exposure modes

Intelligent dark zone compensation	ON,OFF(OFF)	[enable] effectively compensate for camera when shooting in backlit situation of dark picture of the main deficiencies, then dark areas of the background screen will be more bright
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2.2 Back light compensation

Dark compensation Auto, low, mediu intensity high(auto)	m, The compensation intensity of dark
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2.3 HLC

Set light district	Press the Right key then click setting	Set overexposed areas range area to be shielded, total of 2 set point, Press the Enter key to switch to the set point, then press Up / Down / Left / Right to pan to move the light area size, for several
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		consecutive press the Enter key to exit the setting screen.
Dark compensation intensity	low, medium, high(high)	The compensation intensity of dark
Shielded gray	1~6 [1] (1 is black(0,0,0) other is 40, 80, 120, 160, 200)	Set shield color of overexposed area, the larger the number is, the whiter the color is

2.4 Through the fog

Through the fog	Auto, low, medium, high(auto)	Set the intensity through the fog, if set to automatic, the program will follow the scene to determine whether or not to open the Fog and decided strength
Sensitivity	1~13 [8]	Set the sensitivity of Fog, the larger the number, the more the sensitivity
Strength	1~13 [8]	Set the strength of Fog

3. Color Adjustment

White Balance	ATW 2-8.5K, ATW 2-8.5K	Set tracing white balance mode
Brightness	0-99 [50]	Set the brightness
Color-red	0-99 [50]	Set the color—red intensity
Color-green	0-99 [50]	Set the color—green intensity
Color-blue	0-99 [50]	Set the color—blue intensity
Contrast	0-99 [40]	Set the contrast
Saturation	0-99 [45]	Set the saturation

Color rolling suppression	OFF,ON(OFF)	Set the rolling suppression

4. Image Adjustment

4.1 Day&Night mode

		Color-color mode compulsory, non-switching
		Black & white- black&white compulsory, non-switching
Mode	Color, black&white, auto- progressive,auto-	Auto-progressive: the progressive black&white closed to human's eyes
	standard, exteral input,(exteral input)	Aut-standard: switching to black& white once up to specified brightness
		External input: external control, needs the IR Input Level in day&night mode to set the input level so as to work properly
	ON OFF(OFF)	
Color burst		Turn on / off the color burst, only valid for [black and white], [Auto - Standard], [External Input] mode
	0.255 [0]	
Delay control	0-255 [0]	Control the switching delay time of day&night mode,only valid for [Auto - Standard]mode
Delay time	0-60 [2]	Control the switching delay time of day&night mode, only valid for [External Input] mode
Day->night	0-255 [128]	Set the enable point switching from color mode in day to black& white mode in night, Day->night enable point must be later than the reply point of Night->day, only valid for [Auto - Standard]mode
Night->day	0-255 [112]	Set the enable point switching from black& white mode in night to color mode in day , Night->day reply point must be later than the enable point of Day->night, only valid for [Auto - Standard]mode
IR-CUT input level	High , low (low)	Input the high/low level for IR-CUT switching, only valid for [External Input] mode, set it low.
IR-CUT output	High , low , off (off)	Input the high/low level for IR-CUT switching, only valid for [External Input] mode, set it low.
Smart IR	0 ~ 6 [2]	Set the smart IR intensity, only valid for [External Input] mode

4.2 Digital slow shutter

Digital slow shutter	1/100000,1/10000,1/5000,1/2000, 1/500, 1/250, 1/100,1/50, automatic, 2x,3x,4x,5x,,8x, 16x,32x,64x,128x,256x,512X[16X]	Set the shutter speed.
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4.3 HDNR

HDNR	0 ~ 32 [32]	Set the HDNR (2D/3D)

4.4 Sharpness

Sharpness	0 ~ 7 [1]	Set the screen sharpness, the larger number is, the stronger it is
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4.5 Dynamin compensation of dead pixels

Dynamin compensation of dead pixels	0 ~ 2 [1]	Set the compensation intensity
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5. System setting

5.1 TF card playback, rightwards to pull R key to access the image bar.

TF card playback	Press Right then click on Set	Playblack the picture in TF card
TF card format	Press Right then click on Set	Fomat the TF card
Year	Add via upwards UP key, and minus via downwards DOWN key	Set the year of image which is looking for
Month	Add via upwards UP key, and minus via downwards DOWN key	Set the month of image which is looking for
Day	Add via upwards UP key, and minus via downwards DOWN key	Set the day of image which is looking for
Hour	Add via upwards UP key, and minus via downwards DOWN key	Set the hour of image which is looking for

Minute	Add via upwards UP key, and minus via downwards DOWN key	Set the minute of image which is looking for
Second	Add via upwards UP key, and minus via downwards DOWN key	Set the second of image which is looking for

5.2 Lens

Mode	DC current-indoor, DC current- outdoor,manually(manually)	Set the lens type
Brighness	-50 ~ 50 [0]	Only valid for DC iris lens
Iris speed	0-7[4]	The speed control of Iris lens switch

5.3 RS485 setting, support Pelco_D protocol.

Camera ID Baud Rate	0-255 [1] 1200,2400,4800,9600,19 200,38400,57600,115200 ,230400, 460800 [2400]	Set camera Pepco ID Set camera baut rate
Pelco set	KEY FUNC : MENU, UP, DOWN, RIGHT, LEFT, DEFAULT KEY SET	Used to record the operation command on RS485 keyboard, you can record various different brands of command. Usage: select the keys [KEY FUNC] you want to record by the buttons on the machine, such as MENU, UP, then press [KEY SET] to start recording, the menu will be displayed on waiting, then press the RS485 keyboard keys, and then press the enter button on the machine, then displays OK, indicating the end of the record of this button

5.4 Language

Language	English, Chinese(Chinese)	Set the menu language

5.5 Type of monitors

Type of monitors	CRT, LCD [CRT]	Switch the type of monitors

5.6 Other

Display ID/Icon	Off ,display ID/Icon, display ID Display Icon [display Icon]	Set if need to display Pelco ID and Icon	
	Set date and time		
System time	Year-(add via UP key,Minus via Down key)	Set system time-year	
	Month-(add via UP key,Minus via Down key)	Set system time-month	
	Day-(add via UP key,Minus via Down key)	Set system time-day	
	Hour-(add via UP key,Minus via Down key)	Set system time-hour	
	Minute-(add via UP key,Minus via Down key)	Set system time-minute	
	Second-(add via UP key,Minus via Down key)	Set system time-second	

6. File Backup of TF Card

Take out the TF card from machine, and through card reader connect with computer, then open the removable disks, you could view and copy the recorded files in the DCIM folder.

7. Troubleshooting

(1) The captured photo can't save or no pictures in TF card, please check: Face book>> if captured archive is selected Open

(2) There can't detect TF card, please confirm whether the TF card you purchased is damaged, TF card is inserted correctly or TF card is not formatted.

(3) RS485 keyboard can't work : firstly, please check if RS485+、RS485- these two CNC wires are correspondingly connected in RS485 keyboard, and then according to the methods of RS485 keyboard operation commands to record the button .

(4) No alarm output(built-out alarm devices): please firstly check if ALARM+、

ALARM- these two alarm output line are not reversely connected with device +,pole; secondly check alarm level high and low setting status , which depends on alarm device itself's trigger voltage is high or low.(based on alarm device information)

8. Related Paramters

Item	Parameter
Image format	JPEG
Image resolution	1280*720
Deck type	TF card
Storage support	Support up to 32G(an image nearly occupy memory 100KB;
	Calculated to 1GB card, phote storage space: 1024×
	1024KB=1048576KB÷100KB=nearly 10485PCS)
Operate temperature	-20~+80°C

Specification parameter would be upgraded and change, please refer to the actual object.

9. Precautions

- The video recorder has a cyclic camera function, when the memory card is full, the machine will automatically delete the older files, then leave space to save new record files.
- Quality: this products is non-professional video equipment, not guarantee all video files can reach the level what you expect.
- Illumination: pleased used in lit environment, do not put the camera directly upwards the sun and other strong lights so as to prevent optical components from damaging.
- Cleaning requirements: do not used in the dust density environment to protect lens and other components agianst dust to guarantee the camera effects . You could use cleaning paper or cloth to gently wipe the lens to keep its clean.
- Other matters: the product belongs to sophisticated electronic products, do protect it against strong impact and vibration, and do not used in the environment of strong electronic magnetic.
- Waste disposal: pay more attention to environmental protection, do not discard the products randomly. It's forbidden to throw it into fire to avoid explosion.
- Supplement: other questions please contact the local distributors.

Note:

The date and time of this product doesn't have power and memory function, after power off and restart, the date and time will automatically restore to the origional settings, and needs you to reset it in the item of System Setting, otherwise, the following capture archived image will be recorded in TF card in origional date and time, the specific setting method as follow: press MENU key: pop-up menu>system setting>set date and time> press MENU key>rightwards to select save and leave. (any other version upgrade without notice)