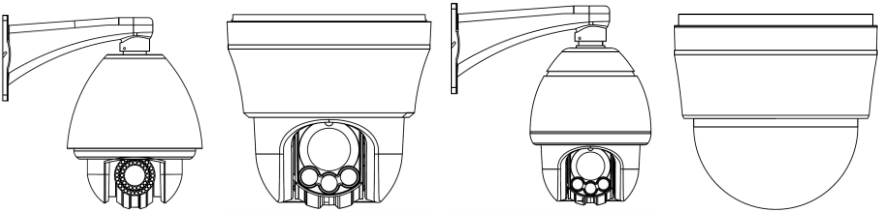


Intelligent Mini PTZ Camera

Manual

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※Read the manual before you use the PTZ Camera

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Chapter 1 Product Profile

1.1 Specification (Standard Configuration)

Model	Mini High Speed Dome Camera
Power Supply	DC 12V
IR Distance	30M
Optical Zoom	10X
Image Source	CMOS / CCD
Signal System	PAL / NTSC
Resolution	480TVL / 540TVL / 650TVL / 700TVL / 1000TVL
Focus	Auto/Manual, Adopt high performance DSP to realize all-digital ultra high continuous focus
Preset Points	64 points
Cruise	64 preset points can take part in the cruise, residence time is settable
Other Scanning	Support horizontal scanning, A-B scanning
Rotate Range	Horizontal 360° unlimited, Vertical 90°(or 180°Auto Rotate)
Rotate Speed	Medium Speed: (Min) 0.01°/s~(Max) 50°/s, High Speed: (Min)0.01°/s~(Max) 200°/s
Communication	PELCO-D/PELCO-P, 2400/4800/9600 Automatic Recognition
OSD Menu	English
Temperature Control System	Optional
Diameter of Shelter	4" Optical Glass Shelter
Material	Metal
Working Temperature/ Humidity	-20 °C ~ +50 °C (Optional temperature control module) , < 95%RH

1.2 Description

1.2.1 Set the address code, baud rate, control protocol

Before using the machine, User should set the address code, 1 to 255 optional; Modify the address encoded by the menu (Restart the machine then it will enter into force); This machine automatically identify PELCO -D / P and other control protocols, automatic identify 2400,4800,9600 baud rate.

1.2.2 Target Tracking

Users can control the camera to track moving targets or moving horizon by a joystick control up and down ,right and left on the keyboard .And can change the size of perspective and target image by adjusting the focal length . In the auto-focus state, with the rotation of the lens, the camera will automatically adjust according to the scene , make rapid changes instantly get a clear picture

1.2.3 focal length / speed automatic matching technology

For long focal length in manual adjustment, a reflection of the high-speed camera might touch joystick slightly, makes the picture move quickly, resulting in data loss. User-friendly design, intelligent ball focal distance horizontal and vertical camera to automatically adjust the speed according to the manual operation more simple and easy to track the target

1.2.4 Automatic flip (slightly different in different model)

The operator pull the lens to the bottom, If you are still holding the joystick, t the camera will rotate 180 ° automatically, then level up and flip 90 ° , so the back of the scene can be seen directly, and achieve the full vertical 180 ° continuous monitoring.

1.2.5 Set and call preset

Preset function is the function that camera can store the horizontal angle ,tilt angle and position of the camera focal length and other parameters in memory,

you can quickly call these PTZ and camera parameters and adjusted to the position when needed. The operator can quickly and easily through the control keypad, IR controller and other control equipment and call the preset point, the camera supports 64 presets

1.2.6 Lens Control

A. Focal Control

Users can adjust the focal length and the distance by keyboard or host matrix to obtain the desired panoramic picture, or subtle view

B. Focus Control

In default auto-focus, zooming, the camera will auto-focus to the center of the scene and keep image clean. ; Users can manually focus in exceptional circumstances, to achieve the desired image effect, when in manual focus, , just shake the joystick to resume auto-focus , then it will restore to auto focus.

Camera lens can not autofocus in the following cases:

- a. target is not the center of the screen
- b. goals while in the far and near places
- c. targets are light objects, such as neon, spotlights and other luminous objects
- d. target is in the vicinity of water droplets or behind the glass with dust
- e. targets moving too fast
- f. large area targets, such as walls
- g. goal is too dark or fuzzy

1.2.7 Iris control

Users can control the keyboard, adjust the Iris size manually, get the screen brightness

1.2.8 Auto BLC

When the backlight compensation function to be opened, the camera can be brightness compensation to a dark target automatically under the strong light background. Adjust the bright light background to avoid the entire scene a cloud of light caused by brightness background and the dark target to make invisible, so as to get a clear image

1.2.9 Auto WB (Automatic white balance)

According to the variation of environmental light, automatic adjust and reappear the true color.

1.2.10 Night vision function (B/W conversion)

With night vision camera, according to the variation of environmental light will convert CMOS illumination automatically in B/W conversion automatic mode. Such as: during the day because the light is enough, use general illumination to guarantee colorful picture. And can change to low illumination in the night automatically. with black and white images showed clear image.

1.2.11 Automatic cruise

Through controlling the preset point with cruise. And put some preset point to a sequence according to the requirement to automatic cruise queue, only an external command can let the high speed dome camera move automatically according to presetting point at in specific time..

1.2.12 continuous scanning

Only need an external command or by electrify action, idle action, action with alarm, it can make the high speed dome camera horizontally in a clockwise direction to loop scanning continuously at a certain speed

1.2.13 Zone scanning

Only need an external command or by electrify action, idle action, action with alarm, it can make the high speed dome camera horizontally scan back and forth within a set range

at a certain speed, it can be set in the menu

1.2.14 Intermittent scanning

Only need an external command or by electrify action, idle action, action with alarm, it can make the high speed dome camera horizontally intermittent scan back and forth at a certain speed

Chapter 2 System OSD Menu Setting

2.1 POST (power-on self-test)

After the high speed dome camera power on and motion at horizontal and vertical direction, Screen will appear system-related information, after this information disappear, the high speed dome camera self-test finish. High speed dome camera information as the flowing picture:

```
SERIAL:          14001234
PTOTOCOL:        AUTO
BAUD RATE:       AUTO
ADDRESS :        001
CAMERA:          MT10C
SOFTWARE         VER: 1.0
```

Display: protocol automatically, baud rate automatically, address code 1

Note: For different setting of high speed dome camera, the contents after power-on is different

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Note: For different setting of high speed dome camera, the contents after power-on is different

2.2 Preset point's set and call

2.2.1 set preset point

By controlling the keyboard, hard disk video recorders and other control equipment to make the high speed dome camera rotate to the corresponding position, After using zoom key to adjust the multiple of lens to the suitable angle, you can set the preset point, and input the corresponding preset number

2.2 Preset point's set and call

2.2.1 set preset point

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E.g.: Using the Keyboard to set the Preset 1

- a. Turn the PTZ to the desired position, and zoom lens to a desired angle
- b. Enter "1" of the Keyboard
- c. Enter "PRESET" of the Keyboard

2.2.2 CALL PRESET

Call the Preset by controlling the keyboard, DVR or other control equipment, according to the needs of the number to call and view the set Preset Position.

E.g.: Using the Keyboard to call the Preset 1

A. Enter “1” of the Keyboard

B. Enter “Call” of the Keyboard

2.3 PRESET MENU

Call Preset 95	Start Menu
Set Preset 95	Enter/Exit the Mechanism Menu
Call Preset 82	Automatic cruise
Call Preset 83	Delete all Presets
Set Preset 70	Set left limit Area Scanning
Set Preset 71	Set right limit Area Scanning
Call Preset 94	Clear all Area Scanning
Call Preset 96	360°Batch Scanning
Call Preset 97	Area Scanning
Call Preset 98	Preset Cruising
Call Preset 99	360°Continuous Scanning

Table 2-1Menu

2.4 <OSD Main Menu>

PTZ powered on, after the completion of the self-test, call Preset 95 to enter the main menu, screen display as Table 2-2.

(Noted: IR MODE,IR ON SENS,IR OFF SENS is the specific feature of IR PTZ, Non-infrared invalid)

<p>CRUISE TIME</p>	<p>Preset point cruise time setting: 2~60second optional</p>
<p>FRAME SCAN SPEED</p>	<p>Scanning speed set:1~14 optional</p>
<p>SET LEFT LIMIT</p>	<p>Settings area scan left limit: refer to Table 2-5</p>
<p>SET RIGHT LIMIT</p>	<p>Settings area scan right limit: refer to Table 2-6</p>

CLEAR FRAME SCAN	Removing area scanning
ZOOM DISPLAY	Zoom display setting
CAMERA	Enter into the chipset menu refer to Table 2-7
IR MODE	IR leds mode setting

	<p data-bbox="452 304 862 366">“ON” means ir leds often open mode</p> <p data-bbox="452 548 858 609">“OFF” means ir leds often close mode</p> <p data-bbox="452 791 817 853">“AUTO” means ir leds auto mode</p>
<p data-bbox="178 1110 341 1171">IR ON SENS</p>	<p data-bbox="452 1079 1008 1202">IR leds auto open specifiction setting: 0~20 adjustment</p>

<p data-bbox="172 335 345 397">IR OFF SENS</p>	<p data-bbox="452 304 1008 428">IR leds auto close specification setting: 0~20 adjustment</p>
<p data-bbox="129 649 395 711">RESTORE FACTORY DEFAULT</p>	<p data-bbox="452 680 817 742">Restore the camera factory setting</p>
<p data-bbox="143 997 374 1059">REBOOT SYSTEM</p>	<p data-bbox="452 997 739 1059">Reboot the camera system</p>

EXIT	Exit OSD menu
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Table 2-2 main manu

2.5 <POWER UP> Electric action set

Electric action set is used to set the action when the dome with electronics but without receiving control order.

Specification , Table 2-3

POWER UP	Menu function description
NONE	Dont perform any action

<p data-bbox="228 304 402 366">AUTO SCAN</p>	<p data-bbox="561 304 931 366">Perform 360° continuous scanning</p>
<p data-bbox="200 588 430 649">RANDOM SCAN</p>	<p data-bbox="561 588 885 649">Perform intermittent scanning</p>
<p data-bbox="210 874 420 936">FRAME SCAN</p>	<p data-bbox="561 874 813 936">Perform area scanning</p>
<p data-bbox="244 1158 385 1219">PRESET 1</p>	<p data-bbox="561 1158 856 1219">Arrive at No.1 preset point</p>

PRESET 8	Arrive at No.8 preset point
CRUISE	Perform preset point cruise

Table 2-3 Electric action set manu

2.6 <PARK ACTION> Setting Park Action

In the parking time, the action before camera not get any instruction.

PARK ACTION	Functional description of the menu
NONE	Not any action
AUTO SCAN	360°continuous auto scan
RANDOM SCAN	Random Scan
FRAME SCAN	Frame Scan
PRESET 1	Reach to PRESET 1
PRESET 8	Reach to PRESET 8
REAPEAT LAST	Do the latest action
CRUISE	Preset point cruise

2.7 <SET LEFT LIMIT> Setting left limit position

SET LEFT LIMIT	Menu functions described
LEFT LIMIT POSITION	E.g, keyboard control, shake rocker and choose the left limit position of frame scan, press keystroke IRS+ ; confirming the current position is left limit position, the system will automatically back the 2-2 of main menus .

2.8 <SET RIGHT LIMIT>Setting right limit position

SET LEFT LIMIT	Menu functions described
RIGHT LIMIT POSITION	E.g, keyboard control, shake rocker and choose the left limit position of frame scan, press keystroke IRS+ ; confirming the current position is right limit position, the system will automatically back the 2-2 of main menus

2.9 <CAMERA>Menu of camera

PS: Different menu in different camera, the sheet 2-7 is only the example for the reference due to one type of camera menu.

CAMERA	Camera menu set
FOCUS	AUTO/MANUAL
ID DISPLAY(OFF/ON(

Chapter 3 Troubleshooting and Maintenance

3.1 Troubleshooting Table

Issue	Possible Causes	Fixes
No action after power on, no image, the light not lit	Power wrong connection	Check and Correct
	Power supply damaged	Change
	Power cord contact failure	Exclude
Auto checking,	Incorrect setting of address code, and baud rate	Check and correct

having image but not control when power on	Incorrect setting of protocol	Change
	RS485 connection not good	Check RS485 connection
Have image, but no auto-checking and noise from the motor	Object stops camera or motor fault	Contact professional men to check and repair
	Camera tilting	Straighten
	Power is not strong enough	Change power supplier and ensure the power supplier near the camera
Image has wave interference	Bad connection of video cable	Exclude
	Power is not enough	Change
Image blur	In manual focus state	Control the camera or do the preset address
Camera control stop or delay	Power is not strong enough	Change power supplier and ensure the power supplier near the camera
	the matching resistant is not added to control the most distant camera	Check if the matching resistant is added to control the most distant camera
	Too long distance make the RS485 signal attenuation	Change a good RS485 line
	485 converter driving force is not enough	Change the source converter

3.2 After-sale service

Dear users, in order to ensure that you fully enjoy Speed Dome Camera high quality service, please read the following product service rules carefully.

(First) Our company provides limited warranty and lifetime repair service for the speed dome camera.

1. Limited warranty for a period of 36 months since the date of sale, in the limited warranty period, you will enjoy the trouble free service, sent by the user to the company for repairing. (fault, improper use, human error or irresistible reasons do not belong to the scope of warranty).
2. In more than 36 months the limited warranty period from the date of product failure, Product failure paid repair service.

(Second) Speed Dome camera repair response time

1. Since products arrive at the company , response service in 24 hours.
2. Before the product is sent back to my company, please contact with our company staff in advance, then send back to my company product. Otherwise the user will take responsibility if the repair is not timely.

Product Warranty Card

According to the card warranty description, where the fault caused by the quality of the product itself under normal use in the warranty period will be given free repair.
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Warranty description

Our products since the date of the sale within three months of normal use, if faulty, can choose a replacement, maintenance and other services.

After purchasing our products, artificial damage if the fault occurs within three years free warranty and lifetime maintenance services. For a free replacement or warranty is not satisfied, the company provides technical services,

maintenance charge only the cost of materials needed replacement parts.

1. When the product needs maintenance, should provide this card and the copy of the invoice to our company or the local authorized service department.
2. Privately disassemble the machine casing, tearing up labeling, charge for the repair costs and other expenses according to the provisions.
3. Not accepted faulty machines after modified or added other functions.

The following cases out of warranty:

1. Not including the normal wear and tear caused by the periodic inspection, maintenance, repair, or replacement parts.
2. The warranty does not including: falling, squeezing, flooding, moisture damage, human fault or improper use.
3. The warranty does not including: flooding, firing, lightning and other natural disasters or force majeure damage.
4. Not including by a non-authorized maintenance center to repair the machine.
5. All above if have changed is standard by the relevant information.

Model			
Manufacturing NO.			
Manufacturing Date			
Company			
Name			
Address			
Tel			
Maintenance Date	Fault	Maintenance	Maintenance

	Conditio ns	Location	Result

Remark: _____
