# High Speed PTZ Camera

# **User Manual**

### Foreword

1 Foreword	
2 Product overview	
2. 1 Product brief descriptions	
2. 2 Performance characteristics	
2. 3 Function explanation	Ошибка! Закладка не определена. <u>3</u>
2. 4 Technical patameters	
3 Installation	4
3.1 Speed dome DIP switch settings	4
3.1.1 Enter DIP switch settings	4
3.1.2 DIP switch settings	4
3.2 Speed dome installation	Ошибка! Закладка не определена. <u>6</u>
3.2.1 Speed dome accessories	Ошибка! Закладка не определена. <u>6</u>
4 Speed dome basic opration	<u>7</u>
5 Menu settings	
5.1 Main menu	
5.2 System information	Ошибка! Закладка не определена. <u>10</u>
5.3 Address settings	Ошибка! Закладка не определена. <u>11</u>
5. 4 Motion	Ошибка! Закладка не определена. <u>11</u>
5.4.1 Set frame scan	
5.5 Pattern	
5.5.1 Program pattern	
5.6 Camera setup memu	
5.7 Cruise menu	Ошибка! Закладка не определена. <u>17</u>
5.8 Display setup	
5.9 Restore factory default	Ошибка! Закладка не определена. <u>18</u>
5.9.1 Reboot system	
6 Simple fault clearing and maintain	
6.1 Simple fault clearing form	
6.2 Notice	
6.3 After service	

#### 1 Foreword

Before install and use high speed PTZ camera, please read below information carefully,

1. Before installation please read user manual carefully.

2. Please do not test and install the product on unstable flat, make sure the product place on a stable flat and assembly firmly before operation.

3. Prevent products damage caused by stress, severe vibration and immersion on transportation and storage.

4. Installation of this product must not be reversed; please handle with care, do not squeeze structural components, Otherwise, they may cause mechanical failure, affecting the overall performance. The transparent material on the speed dome iris is advanced optical materials, do not touch it, any scratches will affect image quality.

5. Prevent any foreign matter or liquid into camera, to avoid damage on camera.

6. When you make connection, please follow up safety standards, use with a dedicated power supply. RS-485 and video signal adopt TVS grade lightening protection technique, can effectively prevent damage caused by not more than 500W lighting, surging and other types of pulse signals. Please keep enough distance away from High-voltage equipment or cables when RS-485 and video signal during transmission. Make lighting and surging protection measures when necessary.

7. Whether in use or non-use, never allow cameras aimed at the sun or other bright objects. Otherwise, may result in permanent damage of CCD.

8. Do not use it exceed the temperature, humidity standards.

9. This product do not have user repair parts. When camera has fault, please do not repairit, should find out fault refer to user manual, if can not find out reason, please send the camera to professional maintanence person. The maintenance person must be authorized by our company.

#### 2 Product overview

#### 2. 1 Product brief description

High speed PTZ camera adopt the latest scientific and technological achievements, best manufacturing technique, successful developed by years of valued experience, it is a high-performance digital signal processing (DSP) camera which equips with automatic zoom lens; build-in PTZ and digital decoders, representing a new generation of high-tech monitoring products. It uses all-digital control, simple and ingenious design, discretional quickly locate and continuous follow-up scan, it has automatic tracking function, make smart surverillance of all-round, non-blind spot, Can automatically adapt to the environment and target distance changes in light and dark, High reliability and long-term stable operation, without maintenance.

High speed PTZ camera is compatible with a variety of control protocols, so it can support a variety of popular platforms. Match with other system, the connection use methods of different system is not the same, please contact the system manufacturer or distributors for necessary information.

The various characteristics of the high speed PTZ camera, make it applicable to large-scale industries, active target object surveillance. Such as power systems, telecommunications sector, banking security, factories and enterprises, intelligent buildings, intelligent community, urban road monitoring, airports, stations and other monitoring occasions.

2. 2 Performance characteristics

1. Build-in OSD English menu ,through menu to display and change the information and parameter of camera,can set and incoke presets, pattern scan, area scan and display areaetc.

2. Timing auto- activation function, Can set the ball machine idle for a period of time, then startarea scan, intermittent scan, continuous scan, pattern scan and invoke presets.

3. Integrated design, compact structure , high reliability.

4.256 presets.

5. Adopt RS485 control.

6. Precision motor drive, running smoothly and responsive.

7. Horizontal 360° continuous rotation, no surveillance blind area.

8. Rotation speed automatic adjust according to lens' zoom.

9. Veritial 90°, auto overturn 180° continuous surveillance.

10. Auto focus, auto white balance

11. Backlight compensation, you can see all the objects in a strong light environment.

12. Compatible with a variety of control protocol, baud rate adjustable.

### 13. Wide Dynamic Camera Support (SONY1010, SONY490, SONY990)

### 4 Technical parameter

Model	ASD-36SO650IR200
Imaging source	1/3 sony CCD
System	PAL/NTSC
Resolution	650TVL
Effective pixel	752 (H) x582 (V)
Min. illumination	Color: 0.2 Lux/F1.6 (50 IRE)
	B&W : 0.02 Lux/F1.6 (50 IRE)
S/N ratio	$\geq 60 dB$
Backlight	ON/OFF
compesation	
White balance	AUTO
Electronic shutter	1/50sec ~ 1/120,000sec
Focal length	f=3.2 to 115.2mm
Optical zoom	36X OPTICAL ZOOM.10X DIGITAL ZOOM
Focus	Auto/manual, adopt high-performance DSP, achieve all-digital
	continuous focus function
Presets	256
Pattern scan	8 channels, each channel can record 100 action
Cruise track	30 presets can join cruise, preset stay time can set
Other scan	Support horizontal scan, frame scan, radom scan
Rotation range	Horizontal 360° unlimited, vertical 180°, auto overturn
Rotation speed	Horizontal and vertical:min. 0.01°,max. 300°/s (can auto adjust
	according to zoom times)
Protocol	PELCO D and PELCO P
Menu	Full screen menu
Temperature	Optional
control system	
Power supply	DC12V/4A
Dimension	7 inch
Operation	$-10^{\circ}C \sim +70^{\circ}C$ (Optional temperature control components), <
condition	95%RH
Material	Aluminum shell, waterproof ratingIP66

## 3 Installation

#### 3.1 Speed dome DIP switch settings

High speed dome camera is compatible with a variety of control protocols, baud rate can be adjusted to make it compatible with more monitoring and control system. Before install the speed dome camera, please adjust the DIP switch to appropriate code according to your requirements, in order to adjust the baud rate, control protocol, address code. If there are no special requirements, the speed dome factory default address code is 1, baud rate is 2400BPS corresponding code, control protocol is PELCO-D corresponding code.

#### 3.1.1 Enter DIP switch settings

Through DIP switch to change BAUD-RATE, PROTOCOL and ADDRESS. Speed dome core, housing and DIP switch pictures see as below:





Pic 2.DIP Switch

#### 3.1.2 DIP switch settings

#### SW1: Baud rate and control protocol switch

#### SW2: Address code switch

DIP switch "ON" means "1", DIP switch "OFF" means "0", DIP switch left is low position ,right is high position Baud rate and control protocol setting form:

				SW1	
Code point	1	2	3	4	
	OFF	OFF			PELCO-P
Control	ON	OFF			PELCO-D
protocol	OFF	ON			Reservation
	ON	ON			Reservation
			OFF	OFF	AUTO
Baud			ON	OFF	2400
rate			OFF	ON	4800
			ON	ON	9600

2. SW2 is used for setting speed dome address code. Address adopt binary mode, you can set at total 256 different speed dome address code, see address code table. The factory default settings shown in Figure 2.

Adress			SW2 sp	peed dome	address co	de table		
Address	1	2	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

#### User manual

3.2 Speed dome camera installation

### 3.2.1 Speed dome install accessories dimension

Product Pic 3-1







Pic 3-2

3.2.2 Speed dome camera installation

Step 1 : Bracket installationq



Pic 3-3 Determine the location of the mounting screw holes



Pic 3-5 Drill holes as required



Pic 3-4 Drill holes in the installation



Pic 3-6 Tighten the screws

Be installed in the walls of the ball machine to determine the installation location, according to the screw hole bracket on the wall with a signal pen draw hole,See Pic  $3-3_{\circ}$  Drill the hole as Pic  $3-4_{\circ}$  The expansion of the screw into the hole; the cable through the bracket, align the screw holes on the bracket and then tighten the nut on the screw, As Pic  $3-6_{\circ}$ 

#### Step 2 : Installation of the ball machine

3 on the bracket screws loose, align the ball machine frame blank into the head cover and tighten the bracket screws on the three to prevent the ball machine off.

#### **4** The basic operation of the speed dome camera

Since different platforms of concrete operation methods are not identical, Generally, should be based on the system manufacturer's operating manual prevail under different circumstances will have special requirements and methods of the operation, please contact the dealer to obtain the necessary information.Here only Introduced the keyboard how to control the ball machine method.

1.Power On Self Test

After the speed dome camera power on, the camera process the horizontal and vertical movement by auto, Through the self-test to determine speed dome camera work fine.

Control the camera rotation from top to bottom ,right to left:

After selected one camera, you can manually control the speed dome camera top to bottom, right to left by the joystick .The joystick control the movement of the camera, when the joystick shake to the right, the camera is also to right. Similarly, when the joystick to the left, camera same too.

2. Preset setting

According to the following steps to set preset :

(1) select the camera (more information please read control of the keyboard manual);

(2) operation joystick, zoom button, focus button, buttons adjust the camera aperture screen;

(3) Press the number key + PRESET (Enter the specified preset ), save the preset scene parameters.

3. Call preset

Follow the below step to watch the preset:

(1) select the camera;

(2) Press the number key +<u>PREVIEW</u> (enter the designated preset ), the camera move to the preset position immediately, the lens zoom, focus and aperture is also automatically change to the preset parameters; if the input is a special function of the preset (see "Preset function menu"), the speed dome camera will perform with special features preset of the corresponding functions (such as: Enter the 80 preset, the camera auto-tracking feature).

Preset function list	

Special preset	Specific of function	
<b>INVOKE 64/95 PRESET</b>	Enter the ball machine menu	
<b>INVOKE 57 PRESET</b>	Enter CAMERA menu	
INVOKE 56	Foread to avit many	
PRESET/IRIS-	Forced to exit menu	
INVOKE 97/99 PRESET	Start Auto Scan	
<b>INVOKE 96 PRESET</b>		
OR OTHER PTZ	Off Auto Scan	
<u>CONTROL</u>		

<b>INVOKE 32 PRESET</b>	Call 1 pattern scan
<b>INVOKE 53 PRESET</b>	Call 2 pattern scan
<b>INVOKE 49 PRESET</b>	Call 3 pattern scan
<b>INVOKE 50 PRESET</b>	Call 4 pattern scan
<b>INVOKE 58 PRESET</b>	Pattern scan 1
SET 51 PRESET	Set the right / left scanning 1 as beging
SET 52 PRESET	Set the right / left scanning 1 as Ending
<b>INVOKE 51 PRESET</b>	Invoke right/left scanning 1
<b>INVOKE 52 PRESET</b>	Invoke right/left scanning 2
<b>INVOKE 93 PRESET</b>	System restart
<b>INVOKE 94 PRESET</b>	Restore the factory parameters
INVOKE 50 DDESET	starts four combination functions (parades prese
INVOKE 59 PRESEI	
	points to 64 points)
INVOKE 100 PRESET	Manually open the first set of infrared light
INVOKE 100 PRESET OR 1+F1	Manually open the first set of infrared light
INVOKE 100 PRESET OR 1+F1 INVOKE 101 PRESET	Manually open the first set of infrared light Manually open the second set of infrared light
INVOKE 100 PRESET OR 1+F1 INVOKE 101 PRESET OR 2+F1	Manually open the first set of infrared light Manually open the second set of infrared light
<u>INVOKE 100 PRESET</u> <u>OR 1+F1</u> <u>INVOKE 101 PRESET</u> <u>OR 2+F1</u> 1+F2	Manually open the first set of infrared light Manually open the second set of infrared light Manually close the first set of infrared light
INVOKE 100 PRESET           OR 1+F1           INVOKE 101 PRESET           OR 2+F1           1+F2	Manually open the first set of infrared light Manually open the second set of infrared light Manually close the first set of infrared light
<u>INVOKE 100 PRESET</u> <u>OR 1+F1</u> <u>INVOKE 101 PRESET</u> <u>OR 2+F1</u> <u>1+F2</u> 2+F2	Manually open the first set of infrared light         Manually open the second set of infrared light         Manually close the first set of infrared light         Manually close the second set of infrared light
INVOKE 100 PRESET           OR 1+F1           INVOKE 101 PRESET           OR 2+F1           1+F2           2+F2	Manually open the first set of infrared light         Manually open the second set of infrared light         Manually close the first set of infrared light         Manually close the second set of infrared light

4. Close-up lens and wide-angle lens

Zoom adjustment, or to narrow the disparity between the camera lens, zoom in or out the scenery to get close-up and wide-angle effect. Hold down the  $\boxed{\text{ZOOM+}}$ , the camera features are closer to the picture of the object is magnified; hold the  $\boxed{\text{ZOOM-}}$ , the camera features pulled away, the screen object has been reduced. If you press and quickly release the zoom button, the camera monitor screen only for small changes. The camera zoom changes depends on the length of time holding down the zoom button.

5. Lens Focus Control

Focus is adjustable camera images of an object or scene in the clarity of the process. Hold down the FOCUS+ from the distant objects or scenes clear up near objects become blurred. Hold down the FOCUS-, proximity to clear up objects or scenes, distant objects become blurred. Focus button repeatedly until you adjust the monitor screen objects into clear from the ambiguity. The same as the zoom button, the camera focused vary depending on the length of time holding down the focus button.

6. Manual Iris Function

The camera aperture to change the brightness of the screen. Hold down the IRIS+, the camera picture change to light, hold down the IRIS-, the camera screen change to dimmed. The same as the zoom button, the camera light dark vary depending on the length of time holding down the aperture button.

#### **5** Menu settings

This chapter will introduce the operation of OSD menu.Plug in power,after speed dome self-test,you will see below information:

VERSION : V10.04 PROTOCOL : PELCO-P/D BAUD RATE : 2400 CAMERA ID : 1

#### HORIZONTAL CHECK OK VERTICAL CHECK OK CAMERA CHECK OK

Different surveillance systems has different operation ways, detailed operation please contact distributor. Here below is an easy introduction of NQJ302 control keyboard (our company product) to operate OSD menu.

1. Enter main menu:setup No.95 preset, and you will enter OSD main menu.IRIS+ (iris open) is the confirm key, IRIS- (iris close) is the exit key.

2. Enter other menu: Up / down shake the joystick, so that the cursor is pointing to a menu, press IRIS+enter the menu.

3. Function select: Up / down shake the joystick, so that the cursor is pointing to a menu, press IRIS+select this function.

4. Parameter select: Up / down shake the joystick to select the parameter, press IRIS+, then restore.

5. Restore settings: Press IRIS+ ,restore the settings, it is effective if has corresponding prompt.

6. Does not restore and back to last menu: press IRIS- back to last menu, it is effective if has corresponding prompt.

7. Exit menu: Up / down shake the joystick, so that the cursor is pointing to exit option, press IRIS+exit OSD menu.

8. Back to previous menu: so that the cursor is pointing to back option, press IRIS+ and back to previous menu.

Notes: Different speed dome setting, different display on speed dome.

The following is detailed description of use smart standard control keyboard to oprate OSD menu:

5.1 Main menu

Speed dome work normally,set No.64/95 preset,enter main menu,screen display is as Pic 3.1.

```
MAIN MENU
CAMERA SETTINGS---->
DOME SETTINGS --->
FUNCTION SETTINGS---->
SYSTEM SETTINGS --->
SPECIAL FUNCTION---->
EXIT
```

#### Pic 3.1 MAIN MENU

Main menu contents despription:

< CAMERA SETTINGS > < DOME SETTINGS > < FUNCTION SETTINGS > < SYSTEM SETTINGS > < SPECIAL FUNCTION > <EXIT>

To enter the menu and the implementation of the various functions of the basic operation is as follows:

1. On Pic 3.1 MAIN MENU, Up / down shake the joystick or Press ZOOM+

button/ZOOM- button, so that the cursor is pointing to a menu item or function option;

2 . Press FOCUS+ button , enter menu or operate a function option.

#### 5.2 < CAMERA SETTINGS >

On Pic 3.1 MAIN MENU, Up / down shake the joystick or Press ZOOM+

button/ZOOM- button, so that the cursor is pointing to CAMERA SETTINGS--->,

then press FOCUS+ button, Enter Pic 3.2 CAMERA SETTINGS

	CAMER	RASETUP	
l	LANGUAGE	ENGLISH	
2	ZOOMDISP	ON	
/	AGC	200	
E	BLC	OFF	
	SHUTTER	AUTO	
I	FOCUS	AUTO	
E	BRIGHT	130	
(	COLORSEL	AUTO	
1	MIRROR	OFF	
l	LENINIT		
[	DEFAULT		
~			

#### Pic 3.2 CAMERA SETUP

CAMERA SETUP: checking the basic information of the speed dome camera. Followings are the functions:

LANGUAGE : ENGLISH/Chinese

ZOOMDISP: zoom display, ON/OFF

AGC : Auto Gain , 200 ( 160---240/Auto )

BLC : Backlight compensation, ON/OFF

SHUTTER : AUTO--- ( 1/50,1/120,1/250,1/500,1/1000,1/2000--1/10000 )

FOCUS : AUTO/MANU/KEYAUTO

BRIGHT : 130 ( 60---170 )。

COLORSEL : AUTO/BLACK/COLOR

LENINIT :

DEFAULT :

#### 5.3 <DOME SETTINGS>

On Pic 3.1 MAIN MENU, Up / down shake the joystick or Press ZOOM+ buttor ZOOM button, so that the cursor is pointing to DOME SETTINGS--->, then press FOCUS+ button, Enter Pic 3.3 DOME SETTINGS

DOME SETTING	GS	
AUTO INVERT	ON	
IDLE TIME/MIN	0	
IDLE ACTIVE	NO	
ACTIVE No.		
REBOO TRUN	NO	
RUN No.		
RETURN		
		/

Pic 3.3 DOME SETTINGS

On Pic 3.3 DOME SETTINGS, checking the basic information of the speed dome camera. Followings are the functions:

DOME SETTINGS	//Dome Setting
AUTO INVERT	//Auto flip ON/OFF
IDLE TIME/MIN	// Idle time (minutes):0~255,为 0 hoursIdle time
function close IDLE ACTIVE	// Free activation:NO/PRESET/SCAN/PATT ERN/TOUR No / preset / scan / pattern / cruise
ACTIVE No. REBOOT RUN	// Air free activation number // Restart function : NO/PRESET/SCAN/PATTERN/TOU R/LAST STA
RUN No.	// Restart function number
RETURN	//Return

#### 5 . 4 < FUNCTION SETTINGS >

On Pic 3.1MAIN MENU, Up / down shake the joystick or Press ZOOM+

button/ZOOM- button, so that the cursor is pointing to FUNCTION

SETTINGS---> , then press FOCUS+ button enter Pic 3.4< FUNCTION SETTINGS > memu

FUNCTION SETTINGS PRESET SETUP ---> TOUR SETUP---> SCAN SETUP---> PATTERN SETUP---> RETURN

#### Pic 3.4< FUNCTION SETTINGS > Menu

<FUNCTION SETTINGS> checking the basic information of the speed dome camera. Followings are the functions:

<PRESET SETUP> <TOUR SETUP> <SCAN SETUP> <PATTERN SETUP> RETURN

5.4.1<PRESET SETUP>

checking the basic information of the speed dome camera. Followings are the functions:

On Pic 3.4< FUNCTION SETTINGS > memu  $\,$  , Up / down shake the joystick or

Press ZOOM+ button/ZOOM- button, so that the cursor is pointing to PRESET SETUP---> ; then press FOCUS+ button, See Pic 3.4.1 :

PRESET SETTINGS				
PRESET	No.	1		
PRESET	SET			
PRESET	CALL			
PRESET	DELETE			
RETURN				

Pic 3.4.1 <PRESET SETTINGS >

< PRESET SETTINGS > Followings are the functions:

PRESET No. :

PRESET SET :

PRESET CALL :

PRESET DELETE :

RETURN

5.4.2<TOUR SETTINGS>

On Pic 3.4 FUNCTION SETTINGS menu , Up / down shake the joystick or Press

ZOOM+ button/ZOOM- button, so that the cursor is pointing to TOUR

SETTINGS---> then press FOCUS+ button, enter Pic 3.4.2 TOUR SETTING.

	TOUR SET	TINGS	
TOUR	NO.	1	
STAY	DELAY	4	
TOUR	SPEED	63	
TOUR	SET		
TOUR	RUN		
TOUR	DEL		
RETUR	2N		

Pic 3.4.2< TOUR SETTINGS >Menu

< TOUR SETTINGS > Followings are the functions:

TOUR No. :

STAY DELAY:(S):0~255

TOUR SPEED : :0~63 SPEED

TOUR SET :

TOUR RUN :

TOUR DEL:

**RETURN** :

<TOUR SETTING>is used to set the camera automatically preset scan line. Followings are the functions:

On Pic 3.4.2< TOUR SETTINGS > Menu , Up / down shake the joystick or Press

ZOOM+ button/ZOOM- button, so that the cursor is pointing to STAY DELAY

[(S)  $0 \sim 255S$ ], then press FOCUS+ button/FOCUS- button, Left / right shake the

joystick, select the residence time

2. After , Up / down rocker rocking or press  $\boxed{200M\_button}/\boxed{200M\_button}$ , make the cursor is pointing to TOUR SET , Press  $\boxed{FOCUS+}$  buton enter, yon will see1~16 number preset , Left / right shake the joystick select No.1 Preset press  $\boxed{IRIS+}$  button to saved , then it will auto to return to  $\frac{Pic_3 4.2}{2}$  2~16 number preset will be same setting. Cruise preset position an press  $\boxed{ZOOM+}$  button  $\boxed{ZOOM-}$  button to revised , after revised then press  $\boxed{IRIS+}$  button to saved.

3. after , Up / down shake the joystick or press ZOOM+ button/ZOOM- button , make the cursor is pointing to TOUR RUN.

#### 5.4.3<SCAN SETTINGS>

On Pic 3.4 FUNCTION SETTINGS, Up / down shake the joystick or Press ZOOM+ button/ZOOM- button, so that the cursor is pointing to SCAN SETTINGS, then press FOCUS+button, enter Pic 3.4.3 Scan Setting Function.

SCAN SET	TINGS
SCAN No.	1
SCAN MODE	<180
SCAN SPEED	55
START POSTION	1
END POSTION	
SCAN RUN	
SCAN DELETE	
RETURN	

Pic 3.4.3 SCAN SETTINGS

< SCAN SETTINGS  $> \,$   $_{\circ} \,$  Followings are the functions:

SCAN No. :

SCAN MODE : ( >  $180^{\circ}$  or <  $180^{\circ}$  )

SCAN SPEED : :0~63 SPEED

START POSTION:

END POSTION:

SCAN RUN:

SCAN DELETE :

**RETURN** :

< SCAN SETTINGS > is used to set the camera automatically preset scan line. Followings are the functions:

1 . Select Scan number ;

2. On Pic 3.4.3 SCAN SETTINGS, Up / down shake the joystick or Press ZOOM+ button/ZOOM- button, so that the cursor is pointing to <START POSTION>;

3. Press FOCUS+ button, enter SCAN RUN, Up / down shake the joystick, press IRIS+button to saved;

4. Up / down shake the joystick or press ZOOM+button/ZOOM- button ,make the cursor is pointing to <END POSTION> ;

5.Press FOCUS+ button, eneter SCAN DELETE, Up / down shake the joystick,

press IRIS+button to saved ;

6. Up / down shake the joystick to select SCAN RUN.

#### 5.4.4<PATTERN SETTINGS>

On Pic 3.1 FUNCTION SETTINGS , Up / down shake the joystick , make the cursor is pointing to  $\langle$ PATTERN SETTINGS  $\rangle$  , then press FOCUS+ button , enter Pic 3.5  $\langle$ PATTERN SETTINGS  $\rangle$  menu.

PATTERN SETTINGS PATTERN No. RECORD NEW PATTERN PATTERN RUN PATTERN DELETE RETURN

Pic 3.5<PATTERN SETTINGS>

<PATTERN SETTINGS> Menu is used to record user-defined scan path. Followings are the functions:

PATTERN No. :

**RECORD NEW PATTERN :** 

PATTERN RUN:

PATTERN DELETE :

RETURN :

User manual

Pattern scan is used to set and clear pattern scan line.

PATTERN No Select PATTERN No PATTERN No range 1~4. See as following :

1 . On Pic 3.5<PATTERN SETTINGS > , Up / down shake the joystick , make the cursor is pointing to PATTERN NO. ;

2 . Up / down shake the joystick or press  $\overline{\text{ZOOM}+}$  button/ $\overline{\text{ZOOM}-}$  button , make the cursor is pointing to  $\langle \text{RECORD NEW PATTERN} \rangle$  press  $\overline{\text{FOCUS}+}$  button ; enter PATTERN RUN.

3. Up / down shake the joystick or press ZOOM+ button/ZOOM- button ,

RECORD NEW PATTERN 4 . Up / down shake the joystick or press  $\overline{\text{ZOOM}+}$  button/ $\overline{\text{ZOOM}-}$  button, make the cursor is pointing to < PATTERN RUN > press  $\overline{\text{FOCUS+}}$  button , PATTERN RUN ;

#### **5.5 SYSTEM SETTINGS**

On Pic 3.1MAIN MENU, Up / down shake the joystick or press ZOOM+ button/ZOOM- button, make the cursor is pointing to SYSTEM SETTINGS--->, then press FOCUS+ button, enter Pic 3.6 SYSTEM SETTINGS

SYSTEM SETTINGS SYSTEM INFORMATION DISPLAY SETUP---> CLEARANCE FUNCTION---> FACTORY DEFAULT SYSTEM REBOOT RETURN

Pic 3.6 SYSTEM SETTINGS

< SYSTEM SETTINGS > :

SYSTEM INFORMATION :

<DISPLAY SETUP> :

#### <CLEARANCE FUNCTION> :

FACTORY DEFAULT:

SYSTEM REBOOT:

RETURN :

#### 5.5.1 DISPLAY SETTINGS :

On Pic 3.6 SYSTEM SETTINGS, Up / down shake the joystick or press  $\overline{ZOOM+}$  button/ $\overline{ZOOM-}$  button, make the cursor is pointing to < DISPLAY SETUP>, then press  $\overline{FOCUS+}$  button, enter Pic 3.6.1 DISPLAY SETTINGS---> $\circ$ 

DISPLAY SE	TTINGS	
DOME TITLE	ON	
DOME ID TITLE	ON	
DYNAMIC TITLE	ON	
PTZ TITLE	ON	
RETURN		

Pic 3.6.1 DISPLAY SETTINGS

<DISPLAY SETTINGS>

DOME TITLE : , ON/OFF

DOME ID TITLE : ON/OFF

DYNAMIC TITLE: ON/OFF

PTZ TITLE : ON/OFF

RETURN :

#### **5.6 CLEARANCE SETTINGS :**

On Pic 3.6 SYSTEM SETTINGS, Up / down shake the joystick or press ZOOM+ button/ZOOM- button, make the cursor is pointing to < CLEARANCE FUNCTION>, then press FOCUS+ button, enter Pic 3.6.2 CLEARANCE SETTINGS---> CLEARANCE SETTINGS CLEAR PRESET CLEAR SCAN CLEAR TOUR CLEAR PATTERN RETURN

#### Pic 3.6.2 CLEARANCE SETTINGS

<CLEARANCE SETTINGS>:

CLEAR PRESET :

CLEAR SCAN :

CLEAR TOUR :

CLEAR PATTERN :

**RETURN**:

#### 5.7 SPECIAL\_FUNC MENU :

On Pic 3.1MAIN MENU, Up / down shake the joystick or press  $\overline{\text{ZOOM}+}$  button/ $\overline{\text{ZOOM}-}$  button, make the cursor is pointing to  $\langle \text{SPECIAL FUNCTION} \rangle$ , then press FOCUS+ button, enter Pic 3.7 SPECIAL\_FUNC MENU

SPECIAL\_FUNC MENU IR SYSTEM SETUP---> MOTION DETEC WDR LEVEL RETURN

Pic 3.7 SPECIAL\_FUNC MENU

<SPECIAL\_FUNC MENU>:

IR SYSTEM SETUP : Didn't come with this setting now

MOTION DETEC : ON/OFF

WDR LEVEL :, OF/OFF

RETURN :

#### 5.7.1 IR SYSTEM SETUP

On Pic 3.7 SPECIAL\_FUNC MENU , Up / down shake the joystick or press  $\overline{\text{ZOOM+}}$  button/ $\overline{\text{ZOOM-}}$  button, make the cursor is pointing to < IR SYSTEN

SETUP>, then press FOCUS+button , enter Pic 3.7.1 SPECIAL\_FUNC MENU

/			Î
	IR SYSTEM SETUP		
	IR MODE	AUTO	
	IR ON SENS	25	
	IR OFF SENS	80	
	RETURN		
	CURRENT LEVEL:	XX	
	_		

#### Pic 3.7.1 IR SYSTEN SETUP

< IR SYTEM SETUP >

IR MODE : ON/OFF/AUTO

IR ON SENS : ,  $10 \sim 50$  Default 25

IR OFF SENS : , 60 ~ 255 Default 80

**RETURN** :

**CURRENT LEVEL:** 

1, on IR SYSTEM SETUP menu ,Up / down shake the joystick ,make the cursor is pointing to IR MODE , Press FOCUS+/FOCUS+ button or Left / right shake the joystick to choose what mode you need,then press FOCUS+ button。

2. Up / down shake the joystick , make the cursor is pointing to IR ON SENS, press FOCUS+/FOCUS+ button or Left / right shake the joystick to choose what mode you need<sub>o</sub> (Infrared sensitivity is based on the installation site open environment to adjust the sensitivity setting, the normal environment in order to subject the system default )<sub>o</sub>

3, Up / down shake the joystick , make the cursor is pointing to IR OFF SENS, press  $\overline{FOCUS+}/\overline{FOCUS+}$  button or Left / right shake the joystick to choose what mode you need<sub>o</sub> (Infrared sensitivity is off-site environment according to the installation to adjust the sensitivity setting, the normal environment for the system default date).

#### 6 Easy troubleshooting and maintenance

#### 6.1 Easy troubleshooting list

Error reports	Problem	Solution
	connect the wrong power cable	Correct
No movement after power on,no image	Power supply is damaged	Replacement
	Protective tube is damaged	Replacement
	Power cable connect not good	Eliminate
Self test and with image after power	the ball machine address coding, control protocol, baud rate is wrong	re-set the ball machine address coding, control protocol, baud rate
control	RS-485 cable connect wrong	Check RS-485 connect cable
The image	Video cable connect not good	Eliminate
unstable	Power is not enough	Replacement
Con control but not	RS-485 cable connect not good	Check RS-485 connect cable
	One of the RS-485 cable broken	Check RS-485 connect cable

#### 6.2 Notes

1. Careful Transport

Transport, storage and installation process, we need to prevent stress, severe vibration and damage to the product immersion.

2. Do not demolish unauthorized Camera

Do not remove screws or protective cover, there is no repair parts machine. The work should by qualified maintenance people to do it.

3. Be careful installation of the movement

To be especially careful, light up-light down, do not force squeezing movement and the structural components, so as to avoid the ball machine trouble. For security reason, do not cover the ball is not installed electricity.

4. Power, video lines and control lines

Power lines, video lines and control lines preferable to use shielded cable and is independent of routing, can not blend together with other lines.

5. Electrical Safety

In use must comply with all electrical safety standards, the ball machine or signal transmission line should work with high-voltage equipment or cables to maintain a sufficient distance (at least 50 meters), if necessary, do a good job against lightning, surge and other protective measures.

6. Cleaning

When cleaning the camera housing, please use the dry soft cloth. such as severe dirt, please use neutral cleaner gently wipe. Do not use strong or with abrasive cleaner, so as not to scratch jacket, affecting image quality.

7. Please strictly sealed to prevent liquid splashing into the ball machine, otherwise it will result in permanent damage to the device.

8. Do not use the camera when exceed the limits of temperature, humidity.

Ball machine use temperature of -25 °C to 70 °C, humidity less than 90%.

9. Do not install the camera near the air-conditioned outlet.

Under such conditions, the lens would be fogging following the state of hydrometeor

- By the opening and closing air-conditioner frequently caused the high and low temperature changed.
- By the opening and closing door frequently caused the high and low temperature changed.
- Make the glasses fogging environment.
- In a room filled with smoke or dust .
- Do not use the camera toward strong light for long time, such as the sun..

Spotlight and other light will cause screen aging. Use the camera toward to strong light for a long time, may be rised CCD of the color filter damage and loss the ture color images.

#### 6.3 Service

Dear users, in order to ensure the full enjoyment of your services, please read the following products and services charter.

(-) our company supply the speed dome camera of limited warranty and lifetime maintenance services

1. The warranty period from the date of sale for 12 months, in the warranty period, you will enjoy the product free service, delivered or sent by the user (improper use,man-made causes of failure or an irresistible fault do not belong to the scope of the warranty).

2. After 12 month limited free repairing duration, the products will absorb life time repair with payable services.

 $(\Box)$  Speed dome camera repair time.

1.Since the customer send the product to 24-hour service.

1. 2. Please advise the related contact first, then return the product to our company. Otherwise, the product not timely maintenance