

MANUAL DO USUÁRIO



Night vision type vehicle Intelligence PTZ camera

User's Manual

1

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Notes for Attention

1. Read the manual carefully before installing the product..
2. Please do not dismount components inside the product to avoid occurrence of trouble. There is no part inside the product, which needs repair by customer himself.
3. Clean out dirt with special lens tissue if dust is stuck on the lens.
4. Do not aim the camera at the sun or very bright object, aim or monitor bright and still object for a long time whether the power supply of the camera is switched on or off.
5. Do not apply the product under the state exceeding limited temperature, humidity or specifications of power supply.
6. Carefully use camera. Do not shock and strike it.
7. Please install the speed pan/tilt in the wall or horizontal. Do not be bottom up.
8. Observe all electric safety standards in application and adopt special power supply attached the product. RS-485 control signal and video signal should be kept enough distance with the high voltage devices and cables during the course of transmission, and take protection measures such as anti-lightning and surging etc. if necessary.

Introduction

Description of Functions

Intelligence heavy-duty Pan/Tilt is an all-in-one high-tech monitoring product, which integrates high-definition color video camera, universal gear change pan-tilt and multi-function decoder, infrared LED, character list folds to add, alarm function. This product furthest reduces the processes of connection an installation between system reliability. Also the video camera is very easy to install and maintain, has many features, such as perfect shape, legerity and convenience, simple operation and etc.

1. Integrate multi-function decoder

- a. Built-in decoder consists of multi-protocol and communications protocol. Communication serial baud rate (2400~9600) is adjustable. Using the simple finger-switch inside the device, the products can be compatible with kinds of systems and has very high commonality.
- b. RS485 serial control, addresses of P/T is from 1~255

2. Integrate full-view rotary station

- a. Horizontal 360°unlimited continuous rotation, pan speed is 100°/s and Manual control speed can be adjusted from 0.1 ~60°per second continuously; Vertical rotation range is -75°~85°Tilt speed is 60°/s and manual control speed can be adjusted from 0.1 ~40°per second continuously.
- b. Low speed's circulating a steady and super and low voice, not film oscillation
- c. The realization is all-directions to keep watch on without the blind spot, positioning accuracy to reach ± 0.1

3: High intelligence

-
- a. Provides 128 preset points. power-off memory
 - b. Provide setting of scanning track and select scanning track function.
 - c. Four groups of scanning tracks: Every group of scanning track can set Max. 16 preset positions.
 - d. Limiting speed when Long focal distance. Can be quickly accurate to search a target
- 4. Camera function: The actual function makes reference to the camera module.**
- a. Focus: Draw near & Push far
 - b. Zoom : Draw near & Push far
 - c. Backlight compensation: On & OFF
 - d. White Balance: When the display picture appears a color to lose really, the customer can establish various mode through a setting.
 - e. Min. illumination set: Under general circumstance the camera work is in the automatic appearance, when the illumination is lower than 1Lux, the camera will cut over automatically Min. illumination can also adjust by manual way.
 - f. Other faction of camera control by menu of system.
- 5. Alarm Input & Output**
- a. 4 Alarm input , Normal Open, closing for alarm
 - b. 2 Alarm output, Normal Open, Normal Close Output
 - c. When the system identifies the alarm signal, the P/T and

camera will work immediately, and report the picture of alarm district to main monitor.

6. Infrared System

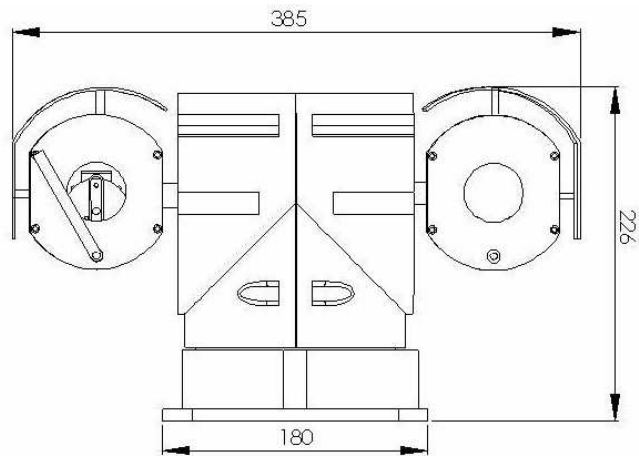
- a. The infrared system is normally under automatic control state. The infrared lamp shall act followed by open/close of the low illumination of the camera;
 - b. The open/close state of the infrared lamp can be changed by the menu manually;
 - c. The default option on the menu of the infrared lamp is OFF. Normally the system detects external illumination and opens/closes the infrared lamp automatically. If the user changes the option of the infrared lamp into ON, the infrared system is changed into the manual control; if changing back into the automatic control, the user should set the option on the menu of the infrared at OFF.
7. Brush function.

3. Specification

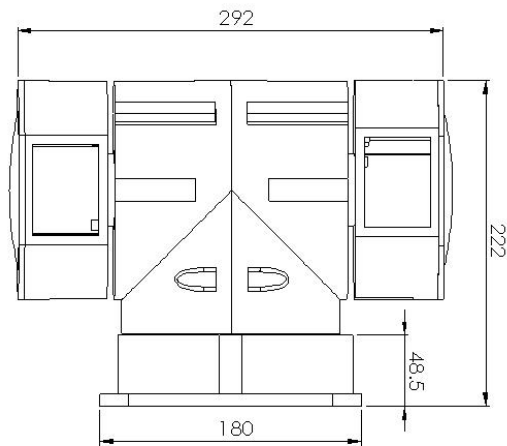
Spec.	Power Supply	DC 12V / AC24V
	Power consumption	30VA
	Weight	6Kg
	Installation	top mounted, wall mounted
	Relative humidity	10-90%
	Work temperature	-35℃~55℃
	Waterproof Class	IP66
Faction of P/T	Pan speed	100°max
	Tilt speed	60°max
	Preset position	128 preset potions
	Tracks	4 Tracks
	Scanning speed	0.5°~30°/s
IR LED	IR LED	High Brightness LED 36pcs/18pcs
	Infrared LED rang	80 meters
	power consumes	6W/10W
	IR LED CONTROL	Auto/ Manual control on menu
	LED life	More than 20000 hours
Alarm	4 Input	Normal Open, closing for alarm
	2 Output	Normal Open, Normal Close Output

4 Explanation of Product

4.1 Drawing1 (with brush)

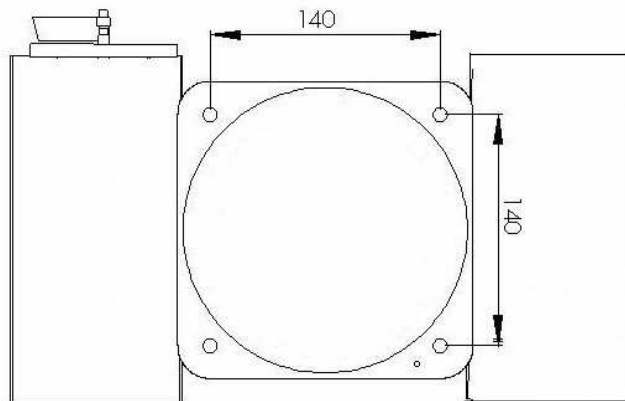


4.2 Drawing2 (without brush)



4.3 Installation

Plain Base Installation



Steps of installation

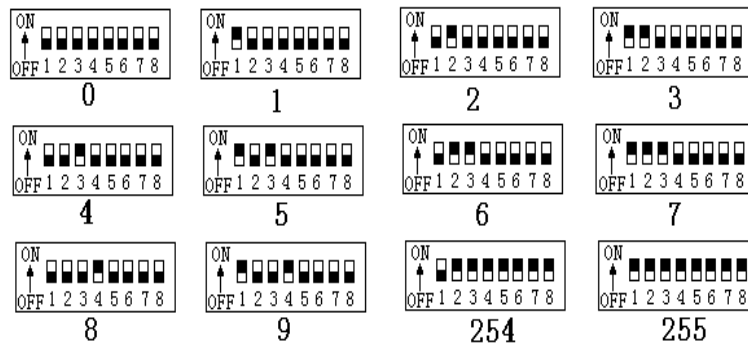
1. Remove the bottom plate of the pan/tilt;
2. Set the corresponding information in accordance with the schematic drawing of the dip-switch of addresses, protocols and baud rates;
3. Install the bottom plate of the pan/tilt and take care of the tightness of waterproof seal ring;
4. If vehicle used, first of all fix the Shock Bracket on the bottom of the pan/tilt then fix the whole pan/tilt;
5. If the plain base is used, fix the pan/tilt onto the fixation hole of the pan/tilt
6. Connect the output wires of the socket according to relative colors on the schematic drawing and do not make wrong connections;

7. For the common pan/tilt, 10-core socket is used as the alarm interface and detailed connection can be seen from the description of colors of terminals.

4.3 ID code setting

The ID code setting of P/T set by 8 digital-switch, address of P/T is from 1~255, about the Stir code of addresses 1~128, please see the Appendix □.

From DIP-8 to DIP-1 equal to an 8 digital binary systems DIP-8 is the tallest, DIP-1 is lowest. The each "ON" appearance means 1, the "OFF" appearance means 0. There is the parts of Stir code of addresses .Setting as below picture



The Stir codes of addresses 129~255 set as binary system

4.4 Protocol Setting

The protocol of P/T set by the No.1, No.2 and No.3 of BK2 switch, setting as below picture.



B01



ALEC



VCL



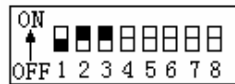
Pelco P



Pelco D



A01



Santachi 650

Common Baud Rate as below (bps): B01/9600 ; ALEC/4800; VCL/4800; PelcoP/4800/9600; PelcoD/2400; A01/4800; Santachi/9600.

4.5 Setting Baud Rate of P/T

Baud Rate setting of this P/T set by the No.4, No.5 of BK2. Setting as below pictures.



1200bps



2400bps



4800bps

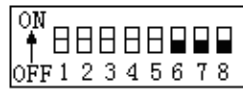


9600bps

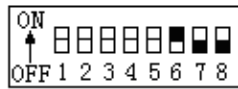
4.6 SETTING PROTOCOL OF ZOOM CAMERA

Protocol of zoom camera setting by the No.6, No.7 and No.8 of BK2 switch, Setting as below pictures.

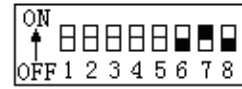
Set protocol of YOKO zoom camera as the LG setting.



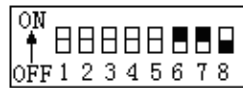
SONY



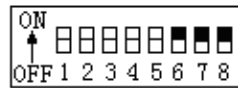
HITACHI



SUNKWARD



LG

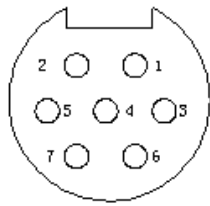


SAMSUNG

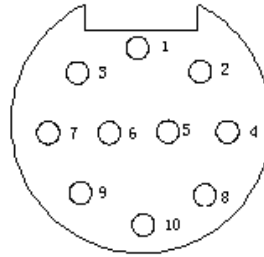
Note:

Before above setting, Must power off first.

4.7 Explain of connecting :



A. 7-Core Input Terminal



B. 10-Core Input Terminal

4.71 Description of 7-Core Terminal:

Note: AC 24V power line is at a non-positive and negative

- | | |
|--------------------------------|------------------------------------|
| 1. DC12V: Red + / AC24V | 2. DC12V: GND Black-/ AC24V |
| 3. R- (communication-): Yellow | 4. Null |
| 5. R+ (communication+): Orange | |
| 6. V+: (VF+) | 7. V-: (VF-) |

4.72 Description of 10-Core Terminal:

- | | |
|------------------------|-------------------------|
| 1. Alarm-1 in: Red | 2. Alarm-2 in: Orange |
| 3. Alarm-3 In: Yellow | 4. Alarm-4 In: Green |
| 5. NULL | |
| 6. Alarm In COM: Black | 7. Alarm Out COM: White |
| 8. NULL | |
| 9. Alarm NO OUT: Blue | 10. Alarm NO OUT: Pink |

4.73 Description of 10-Core Socks:

The 10-core socket is used for alarm system. If 10-core socket is not inserted and there is no alarm system;

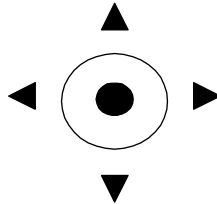
5. OPERATION (Default protocol PELCO-D/2400)

The speed P/T can be controlled remotely horizontal and vertical movement. It is used with a system controller, separately. It is controlled remotely from the controller through a serial connection to the RS-485 connector using a twisted-pair cable.

Conventional Function

1. Pan / Tilt Function

The pan function will move the camera on all horizontal planes, to surveillance position. The tilt function will move the camera on a vertical plane, to surveillance position. The speed is variable according to the angle of joystick.



2. Zoom Function

2.1 The filming range can be set using the zoom function.

Press **TELE** the LCD displays Zoom Tele

Press **WIDE** the LCD displays Zoom Wide

Note: The bigger zoom is, the slower of joystick 's speed is .

2.2 Iris Function

Normally, Focus is AUTO.

Focus level can be adjusted by pressing **[NEAR]** and **[FAR]**

Move the joystick, focus will be auto.

3. Preset Memory

The preset memory function will memories camera positions and zoom, focus, etc.

Setting up to 128 preset camera positions can be memorized. Later, you can

easily recall any of the preset camera positions by entering its corresponding number, and the camera will move the memorized position with all the preset settings.

3.1 To set a preset position

SET + **N** + **ENTER**

N: the number of preset position: 1~128

3.2 To call a preset position

When camera positions have been set, you can enter a memorized camera position number.

Preset + **N** + **ENTER**

N: the number of preset position: 1~128

4. Delete a preset position

[PRESET] + **[N]** + **[OFF]**

N: the number of preset position: 1~128

5. To call cruise tracks:

[PRESET] + **32** + **[ENTER]**

This command can call the No.1cruise tracks. It can scan preset points no.1 ~ 16.

[PRESET] + **53** + **[ENTER]**

This command can call the No.2cruise tracks. It can scan preset points no.17 ~ 31.

[PRESET] + **49** + **[ENTER]**

This command can call the No.3cruise tracks. It can scan preset points no.33 ~ 48.

[PRESET] + **50** + **[ENTER]**

This command can call the No.1cruise tracks. It can scan preset points no.65 ~ 80.

Note: If some points are not been set or delete, it will not scanning these points

when cruising. Resort 3 seconds in every preset point.

6. Setting scanning track

Method 1:

1. Setting begin scanning track point

[SET] + [51] + [ENTER]

Adjust the position of Speed P/T which you need.

2. Setting finish scanning track point:

[SET] + [52] + [ENTER]

Adjust the position of Speed P/T which you need.

3. Calling scanning:

[PRESET]+51+ [ENTER]

Note: Setting begins and finishes scanning track point first.

4. Stop scanning

[PRESET]+52+ [ENTER]

(Move Joystick also can stop scanning)

When Speed P/T scanning, default state following

- a. Speed P/T scan between two points.
- b. Scan "begin-point" and "end-point" and resort 3 seconds
- c. If "begin-point" and "end-point" superpose, Speed P/T horizontal 360°rotation.

Method 2:

Call scanning

[AUTO]+ [ON]

The Speed P/T scanning 360 degree. Need not to set the preset

point

7. Brush function

1. Open the brush: [PRESET]+ 9 + [ENTER]
2. Close the brush [SET]+ 9 + [ENTER]

Note: Above operation use for our company's suited keyboard by example, detail operation do as your keyboard menu

(N)	Control object	The definition of key	
		PRESET+N+ENTER	SET+N+ENTER
54	Power supply	Come back Initial value	/
55	Backlight compensation	ON	OFF
56	Min. illumination	ON	OFF
57	Menu/ Screen Display	ON	OFF
58	Digital Zoom	ON	OFF
59	Focus	AUTO	MANUAL
60	IRIS	AUTO	MANUAL
61	White Balance	AUTO	MANUAL
62	Static image	Image congeal	Normal image
63	Mirror image	Image mirror	Normal image
64	Color/black & white	Color	B/W

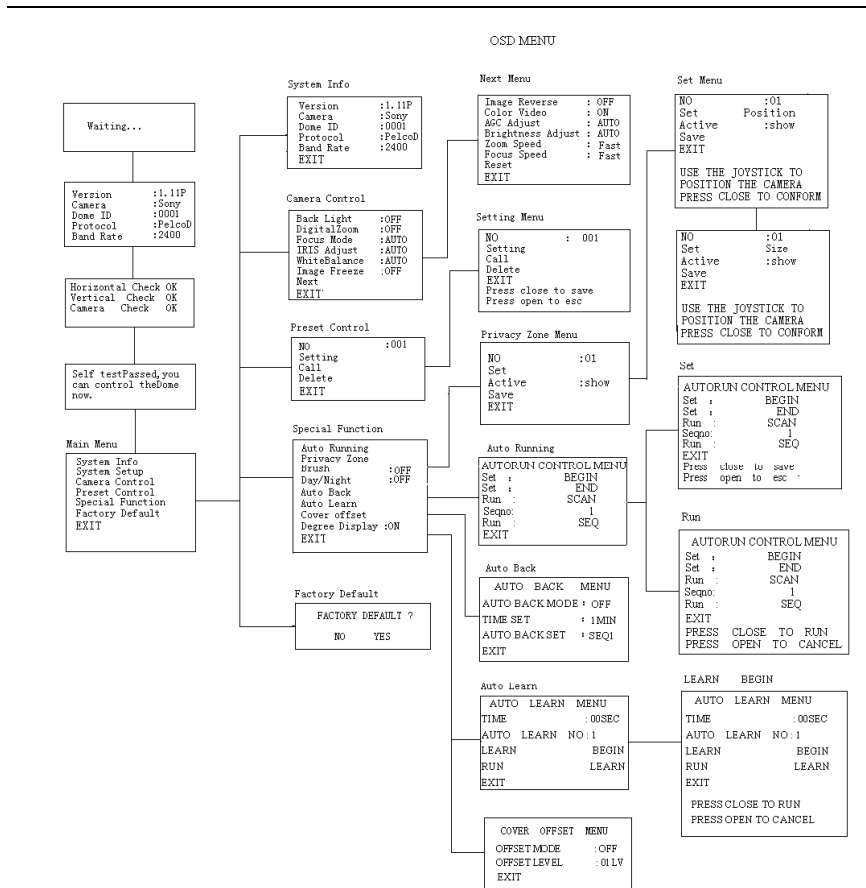
Operation of camera

Note: Some cameras don't support the above function of them.

Power-off memory

Provide setting of scanning track and select scanning track function. Self-test can allow to store track that user edits arbitrarily and information power-off memory.

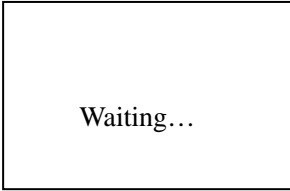
6. Index Diagram of the Screen Menu



Index Diagram of the Screen Menu

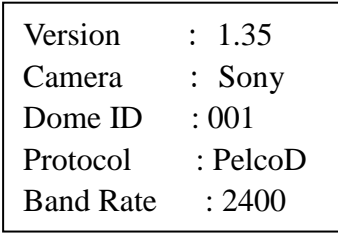
This is the camera's OSD function, which include the menu while opening and the menu while operating.

Open it, and see the start of image, the order of showing is:
Waiting for image



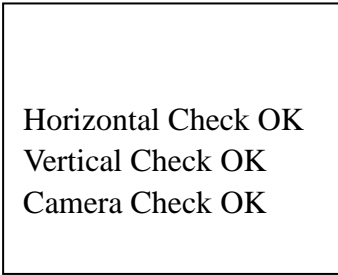
Waiting...

The image of system information



Version : 1.35
Camera : Sony
Dome ID : 001
Protocol : PelcoD
Band Rate : 2400

The information of checking itself



Horizontal Check OK
Vertical Check OK
Camera Check OK

The finished information of checking itself

Self test passed, you
can control the PTZ
now

The Menu Setting

• The major menu setting

After checking itself, please {[PRESET] +8+ [ENTER]}, then it will show the image as the No.1-0-1:

System Info	→ (Pic.1-1-1)
System Setup	
Camera Control	→ (Pic.1-2-1)
Preset Control	→ (Pic.1-3-1)
Special Function	→ (Pic.1-4-1)
Factory Default	
EXIT	→ (Pic.1-5-1)

1-0-1 System information

On the menu of 1-0-1, turn up or down the rocker to point to system info (or click the up or down key of controlling system) , then turn right to enter to system info(or click the right key of control system)

As per the image 1-1-1:

Version : 1.35
Camera : Sony
Dome ID : 001
Protocol : PelcoD
Baud Rate: 2400
EXIT

Pic.1-1-1

The last pages all show the system setting; the consumer can't operate any item of setting the function of system.

● Camera function setting

On the image 1-0-1, turn up or down the rocker to point to the camera control, then turn right to enter to the function menu of camera.

Back Light: OFF
Digital Zoom: OFF
Focus Mode : AUTO
IRIS Adjust : AUTO
White Balance: AUTO
Image Freeze : OFF
Next
EXIT

Pic.1-2-1

Remark: The menu of this page is to set the function of integration camera.

- ◆ Black Light: to set back light, default "OFF", choose "ON" if you need.
- ◆ Digital Zoom: to set digit zoom, default "OFF", choose "ON" if you need;
- ◆ Focus Mode: to set focus mode, default "AUTO", choose "MANU" if you need;
- ◆ IRIS Adjust: to set iris adjust , default "AUTO", choose "MANU" if you need;

- ◆ White Balance: to set the model of white balance , show “AUTO”, choose “MANU” if you need;
- ◆ Image Freeze: to set the switch of image freeze, default “OFF”, choose “ON” if you need;
- ◆ Next: enter to next menu of function

The step is as following:

- 1) Turn up or down the rocker to point to the choice item, and then turn right to enter to input area. Turn up or down the rocker to amend the input value while the on/off is flashing;
- 2) Set the rest item as step 1;
- 3) All finished , turn up or down the rocker to point to exit, then turn right the rocker and exit if it point to next , turn right and enter to next image, it will show as Pic.1-2-2:

Image Reverse	: OFF
Color Video	: ON
AGC Adjust	: AUTO
Brightness Adjust:	AUTO
Zoom Speed	: Fast
Focus Speed	: Fast
Reset	
EXIT	

Pic.1-2-2

Note: This menu is to set the remind information of screen showing

(Pic.1-2-2)

- ◆ Image Reverse: Default OFF, select ON;
- ◆ Color Video: Default setting ON (Color), select OFF (BW) .

- ◆ AGC Adjust: Default AUTO
- ◆ Brightness Adjust: Default AUTO;
- ◆ Zoom Speed: Default Fast, select Slow
- ◆ Focus Speed: Default Fast, select Slow
- ◆ Reset: Select this setting , **Come back initial producer setting**

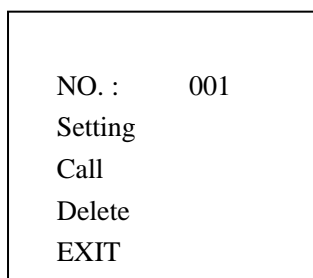
Steps of setting same as above setting:

Note: Maybe some cameras have no full functions of above menu.

Please according to actual factions set camera.

● **Setting Preset Position**

The menu of Pic.1-0-1, move rocker down or up to let cursor points "Preset Control", then move rocker on right to come into menu of setting preset position (Pic.1-3-1) :



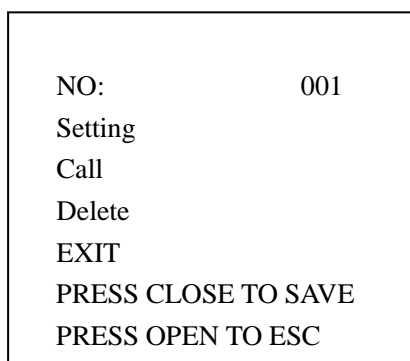
Pic.1-3-1

Explain: Above menu is used to set, call and delete preset positions. (Pic.1-3-1):

- ◆ NO.: Display the No. of preset position. (No.:1-128);
- ◆ Setting: Setting preset position
- ◆ Call: Call preset position (Pic.1-3-2)
- ◆ Delete: Delete preset position

Setting steps as follow:

- 1) In menu of Pic.1-3-1, move rocker down or up to let cursor points "NO.", then move rocker on right to come into the area of input. Character blink, move rocker down or up to change the data and move rocker on right to save and exit. No. range is 1 to 128.
- 2) Move rocker down or up to let cursor points "setting", then move rocker on right to come into the area of setting. The screen displays the state of setting (Pic.1-3-2).Control the dome camera by keyboard. After setting, press "close" to save. The screen will display Pic.1-3-1, cursor points "setting", Setting is finish. You can call this position to confirm it is saved.

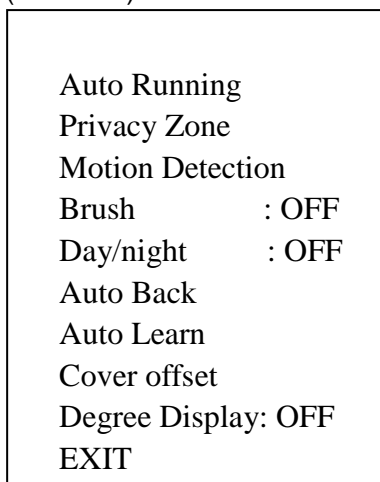


Pic.1-3-2

- 3) Select the No. of preset position before Call preset position, move rocker down or up to let cursor points "call", then move rocker on right to confirm, the camera will adjust to the preset position (**Note:** If the No. Of preset position haven't been set. Call this No., the camera will not adjust.)
- 4) After all setting, move rocker down or up to let cursor points "EXIT", then move rocker on right to exit setting menu

●. Special Function

- 5) In menu of Pic.1-0-1, move rocker down or up to let cursor points “Special Function”, then move rocker on right to come into the menu of special function (Pic.1-4-1).



Pic.1-4-1

Note: Brush(Function of rain strip): If system have this function, Default display “OFF”; If not have it, default display “NONE” and will not be change. Press **【Preset+9+Enter】** to set brush function, and press **【SET+9+Enter】** to exit brush function.

Day/night: IR led setting. Default OFF, select ON

Auto Back : Return automatically (Pic.1-4-1-4)

Auto Learn : Study function (Pic.1-4-1-5)

Cover offset : (Pic.1-4-1-8)

Explain: The menu of Pic.1-4-1 is setting function. Move rocker down or up to select function, and then move rocker on right to come in the area of input. Character blink, move rocker down or up to

change the data and move rocker on right to save and exit.

Step of operation

Move rocker to “Auto Running”, Move rocker on right to enter the menu of Auto Running as the Pic.1-4-1-1

AUTORUN CONTROL MENU	
Set :	BEGIN
Set :	END
Run:	SCAN
Seqno:	1
Run:	SEQ
EXIT	

Pic.1-4-1-1

Explain: :

Set: setting the begin point and the end point of the track

The First Run: scanning

Seqno: setting the scanning speed

The second Run: call scanning

Step of operation:

(1) Move rocker to “Set”, Move rocker on right ,the system will show as the pic.1-4-1-2,then set the begin point and the end point of track.

```

AUTORUN CONTROL MENU
Set   :      BEGIN
Set   :      END
Run   :      SCAN
Seqno:      1
Run   :      SEQ
EXIT
Press close to save
Press open to esc

```

Pic.1-4-1-2

(2) Move rocker to the first "Run", Move rocker on right ,the system will show as the pic.1-4-1-3. press "CLOSE" to scan horizontal 360°; press "OPEN" to exit.

```

AUTORUN CONTROL MENU
Set   :      BEGIN
Set   :      END
Run:      SCAN
Seqno:      1
Run:      SEQ
EXIT
PRESS CLOSE TO RUN
PRESS OPEN TO CANCEL

```

Pic.1-4-1-3

(3) Move rocker to "Seqno", Move rocker on right to choose the speed between 1 to 4.

(4) The second Run (SEQ): call track

●.Privacy Zone

Select in menu of Pic.1-4-1, Move rocker down or up to select “Privacy Zone”, then move rocker on right to come into the menu of privacy zone (Pic.1-4-11).

NO : 001	No. of privacy zone, (Select NO.: 1-12) .
Set	Enter setting menu.→ (1-4-12)
Active : show	Select to open or close privacy function.
Save	Save privacy zone.
EXIT	Exit this menu.

Pic.1-4-11

Setting steps as follow:

- 1) Move rocker down or up to let cursor points “NO.” , then move rocker on right to come into the area of input. Character blink, move rocker down or up to change the data, and move rocker on right to save and exit. No. range is 1 to 12.
- 2) Move rocker down or up to let cursor points “set” (Pic1-4-12), then adjust the cover positions and press “Close” to save and exit(Pic1-4-13), next step adjust the range of privacy and press “Close” to save and exit.
- 3) If “Active ON” can setting above steps.;
- 4) Move rocker down or up to let cursor points “Save” to save privacy zone.

```

NO          :01
Set         Position
Active      :show
Save
EXIT

USE THE JOYSTICK TO
POSITION THE CAMERA
PRESS CLOSE TO CONFORM

```

Pic.1-4-12

```

NO          :01
Set         Size
Active      :show
Save
EXIT

USE THE JOYSTICK TO
POSITION THE CAMERA
PRESS CLOSE TO CONFORM

```

Pic.1-4-13

Note: After setting privacy zone ,must save it. If not the dome camera will be not memory.

◆ **Return automatically**

Move rocker down or up to “Auto Back”, move rocker on right to come into menu, as pic.1-4-1-4

AUTO BACK MENU	
AUTO BACK MODE	: OFF
TIME SET	: 1MIN
AUTO BACK BEGIN	: SET
AUTO BACK SET	: BEGIN

Pic.1-4-1-4

Explain:

AUTO BACK MODE: Default OFF , select ON
 TIME SET : 0-9MIN
 AUTO BACK BEGIN : Set begin point
 AUTO BACK SET : SEQ1、SEQ2、SEQ3、SEQ4、SCAN、PRE1

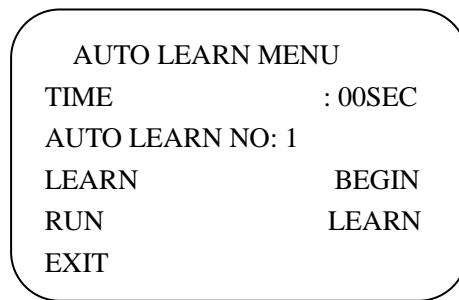
Note: SEQ is track; SCAN is scanning; PRE is preset point.

When "AUTOBACK MODE" set "ON", during this time, if the speed dome camera doesn't do any actions, it will return to set mode.

◆Study function

Move rocker down or up to " Auto Learn", move rocker on right to come into

Menu as pic.1-4-1-5



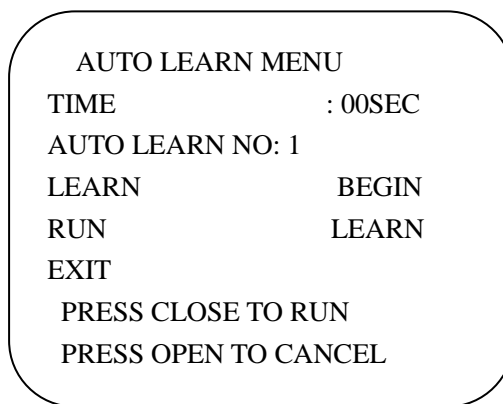
P1-4-1-5

TIME : Max. 60s. (4 tracks, 60s/track)

AUTO LEARN NO: From1 to 4

Operation:

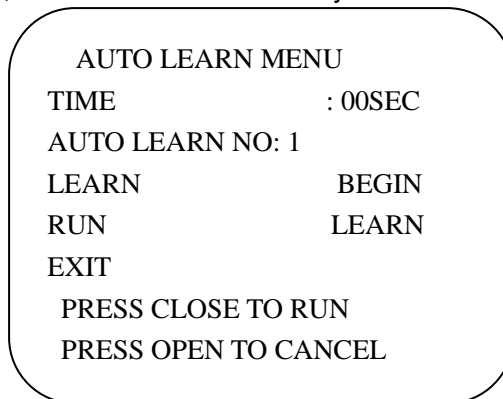
1. Move rocker down or up to “LEARN BEGIN”, move rocker on right to come into as pic.1-4-1-6



Pic.1-4-1-6

Explain: Press “CLOSE” ,screen will show “WAITTING” . “WAITTING” disappear after a few seconds, the interface automatically self-learning. Time is Max. 60s. Then the system will show “LEARN FINISHED”; press “OPEN” to cancel.

2. Move rocker down or up to “RUN LEARN”, move rocker on right come into as pic.1-4-1-7, select “CLOSE” to run self-learning, Time is Max.60s.Then the system will show “Run finished”. If don't move rocker, Dome device will circularly self-learn.

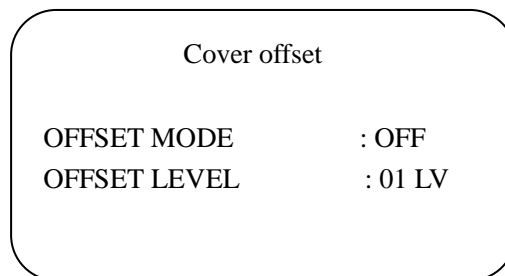


Pic.1-4-1-7

Note: When the dome device is in the process of learning, press SET +8 + ENTER, dome device will exit the OSD menu and re-learn from zero second.

◆ **Focus on correcting the functional coverage**

Move rocker down or up to “Cover offset” , move rocker on right come into as pic.1-4-1-8



Pic.1-4-1-8

Explain:

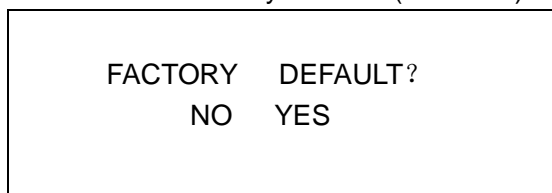
OFFSET MODE : Focus on correcting the functional coverage model.

Default OFF , select ON

OFFSET LEVEL : Focus-level settings. You can choose between 01 and 09.

5. Recovery Function

In menu of Pic.1-0-1, Move rocker down or up to let cursor points "Factory Default", then move rocker on right to come into the menu of recovery function (Pic.1-5-1).



Pic.1-5-1

Explain: Pic.1-5-1, There is a reminder that is recovery factory setting or not. Default setting is NO. If recovery factory setting, you can Move rocker down or up to choose "YES", then move rocker on right to confirm it. After 5 seconds, automatically return main menu.

◆ Exit then Screen Menu

After setting, press [SET+8+ENTER] to exit the screen menu

8. General Failure Analysis Table

Problem Description	Possible Reason	Troubleshooting
After power on, no motion and no image	Power supply module is damaged or power is not enough.	Change
	Power cable is connected improperly	Correct
	Failure occurs on engineering line.	Eliminate
Self test is exceptional, there is image but with motor noise "wu"	Mechanical failure	Examine and Repair
	Video camera is slantwise	Put right
	Power supply not enough	Change power that meets requirements. It is recommended to place the power switch near the Speed P/T.
Self-test is normal, but have no image	Video line is connected mistakenly.	Correct
	Video line is poor contact.	Eliminate
	Video camera is damaged.	Change
Self-check ok but cannot control	Control signal line is connected mistakenly.	Correct
	Position of Speed P/T does not match.	Reselect
	Protocol setting is wrong	Reset and on power again
Vague image	Video line is poor contact.	Eliminate
	Power supply not enough	Change
P/T is not controllable.	Too much load or communication distance is too long.	Confirm terminal resistance Add code distributor

	Self-test is exceptional	On power again
	Bad connection of control	Press to full connect
	Operation of Host has problem.	On power again

Note: Much load or communication distance too far, Connect 120Ω resistor of the farthest dome pan/tilt from the controller and disconnect all other resistors; Add coding divider

Packing Accessories as following:

1. An instruction book
2. Hexagon screw 4pcs
3. Flat lock washer 4pcs
4. Spring lock washer 8pcs
5. Waterproof screw 4pcs
6. Waterproof rubber cushion 1 piece
7. A small cross screwdriver
8. A pair of gloves
9. Wall bracket hole bitmap 1 piece
10. Desktop mounting holes bitmap 1 piece.

9. Appendix

Dip-switch Address	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8
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
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF

36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
61	ON	OFF	ON	ON	ON	ON	OFF	OFF
62	OFF	ON	ON	ON	ON	ON	OFF	OFF
63	ON	ON	ON	ON	ON	ON	OFF	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
75	ON	ON	OFF	ON	OFF	OFF	ON	OFF

76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
79	ON	ON	ON	ON	OFF	OFF	ON	OFF
80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
87	ON	ON	ON	OFF	ON	OFF	ON	OFF
88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
91	ON	ON	OFF	ON	ON	OFF	ON	OFF
92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
93	ON	OFF	ON	ON	ON	OFF	ON	OFF
94	OFF	ON	ON	ON	ON	OFF	ON	OFF
95	ON	ON	ON	ON	ON	OFF	ON	OFF
96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	ON	OFF	OFF	ON	ON	OFF
104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON	OFF
108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
109	ON	OFF	ON	ON	OFF	ON	ON	OFF
110	OFF	ON	ON	ON	OFF	ON	ON	OFF
111	ON	ON	ON	ON	OFF	ON	ON	OFF
112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
115	ON	ON	OFF	OFF	ON	ON	ON	OFF

116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
117	ON	OFF	ON	OFF	ON	ON	ON	OFF
118	OFF	ON	ON	OFF	ON	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON	OFF
120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
121	ON	OFF	OFF	ON	ON	ON	ON	OFF
122	OFF	ON	OFF	ON	ON	ON	ON	OFF
123	ON	ON	OFF	ON	ON	ON	ON	OFF
124	OFF	OFF	ON	ON	ON	ON	ON	OFF
125	ON	OFF	ON	ON	ON	ON	ON	OFF
126	OFF	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
...
255	ON	ON	ON	ON	ON	ON	ON	ON

Explain: DIP1 means 1, DIP2 means 2, DIP3 means 4, DIP4 means 8, DIP5 means 16, DIP6 means 32, DIP7 means 64, DIP8 means 128;

For example: Address 241=128+64+32+16+1 , So set the DIP1,DIP5 DIP6, DIP7,DIP8 for "ON", other switches for "OFF"