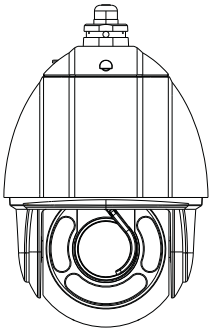
SPEED DOME CAMERA

User Manual



• Please read this instruction carefully for correct use of the product and preserve it for reference purposes

Disclaimer:

► This manual is provided for user reference only, without legal restraint.

► The content of this manual is subject to change without prior notice, and the updates will be added into the new version of this manual.

► This manual may contain several technically incorrect places or printing errors, please feel free to let us know. We will readily improve or update the products or procedures described in the manual.

Notes on Safety

■ Please use the specified power supply to connect(supports AC24V).

■ Do not attempt to disassemble the camera; in order to prevent electric shock, do not remove screws or covers.

■ There are no user-serviceable parts inside. Please contact the nearest service center as soon as possible if there is any failure.

■ Avoid from incorrect operation, shock vibration, heavy pressing which can cause damage to product.

■ Do not use corrosive detergent to clean main body of the camera. If necessary, please use soft dry cloth to wipe dirt; for hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.

■ Avoid aiming the camera directly towards extremely bright objects such as sun, as this may damage the image sensor.

■ Please follow the instructions to install the camera. Do not reverse the camera, or the reversing image will be received.

■ Do not operate it in case temperature, humidity and power supply are beyond the limited stipulations.

■ Keep away from heat sources such as radiators, heat registers, stove, etc.

■ Do not expose the product to the direct airflow from an air conditioner. Otherwise, it may cause moisture condensation inside the clear dome due to temperature difference between internal and external of the dome camera.

CONTENTS

Chapter 1 Introduction

1.1 Overview

This speed dome camera is front-end equipment used for video capture. Its digital flip technology makes omni-directional and non-blind-spot monitoring into reality. Equipped with an IP66-rated housing, embedded auto thermostatic device, 3-level lightning-proof and surge-proof design, the unit is able to adapt to severe environment. Intelligent tracking and 3D positioning functions can be realized when using with DVR. What's more, OSD menu mode clearly displays the functions of camera, which is easy to operate.

1.2 Characteristics

► Internal Decoder

- Support RS422
- Support PELCO_D, PELCO_P
- Support address setup via hardware and software

► Internal Camera

- Auto/Manual focus
- Auto/Manual white balance; auto brightness
- Auto Day/Night (low illumination)

► Internal PTZ

- The advanced stepping motor drive enables the dome to rotate smoothly, position precisely, and respond sensitively.
- Adopting synchronous belt drive ensures lower noise and stable image during operation.
- Support 360° pan and 90° tilt continuous rotation with non-blind-spot monitory.
- Pan /tilt preset speed up to 240°/S.
- Pan/Tilt manual speed up to 0.5°~ 90°/S.
- High speed and accurate preset can be called.
- ZAP function is profitable to adjust the speed depending on the change of zoom length which ensures to get clear image at any time.

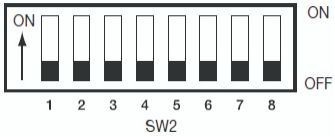
► Others

- Built-in heater and fan enable to adapt to any severe environment.
- Adopt IP66 waterproof structure which meets international standard.
- Built-in lightning-proof components prevent the dome from damage by lightning strike and surge.

1.3 Dial Switch Setup

Before installing the camera, the dome address, communication protocol and baud rate should be confirmed. The default dome address, protocol and baud rate are 1, PELCO-D and 2400 respectively.If you want to change, please power off the camera firstly and open the camera cover to find the dial switches. The steps are followings:

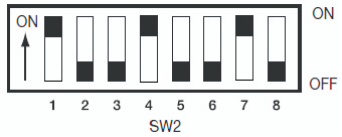
① SW2 is used to set dome address. The buttons from 1 to 8 are equivalent to bit 0 ~ bit 7 respectively; "ON" status of each button means 1, while "OFF" means 0.



The ID address adopts binary system coding: 2^{n-1} . which "n" stands for the button number in SW2. For example: the button 1 is set to "ON" status , while others are set to "OFF" status, the address is $2^{1-1}=1$; the button 2 is set to "ON" status , while others are set to "OFF" status, the address is $2^{2-1}=2$, and so on. Please refer to the below chart.

Button	1	2	3	4	5	6	7	8
Dome ID	1	2	4	8	16	32	64	128

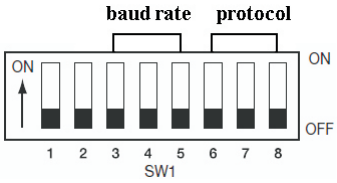
● For example: If you want to set dome address as "73", 73=1+8+64 means the button 1, 4, 7 should be set to "ON" status.



● For example: If you want to set dome address as "5", 5=1+4 means the button 1, 3 should be set to "ON" status.

NOTE: Please set the dial switch correctly according to the binary system, here we do not list one by one.

② The button 6, 7 and 8 in SW1 are used to set communication protocol. When the three buttons are set to "0" , it is PELCO-D; When any one of them is set to "1", it is PELCO-P.



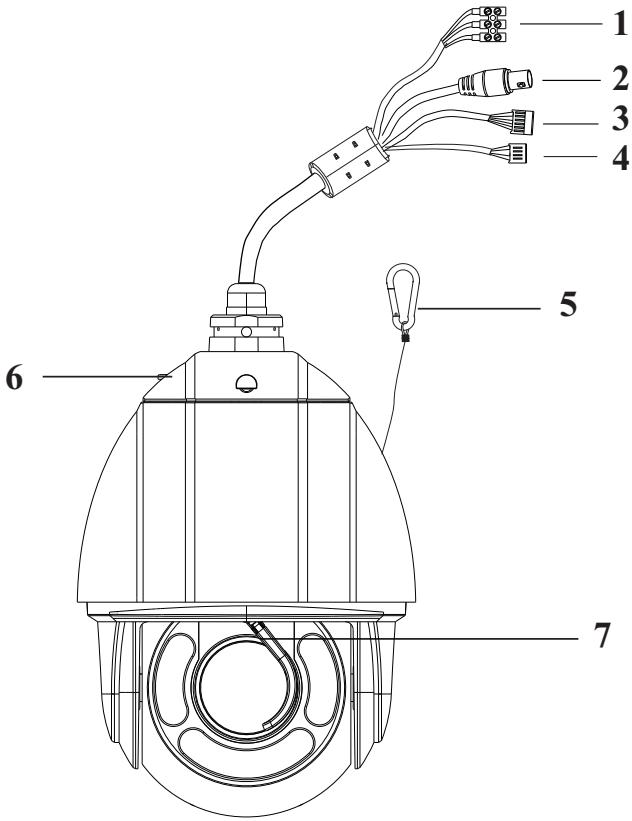
③ The button 3, 4 and 5 in SW1 are used to set baud rate

SW1			Baud Rate
3	4	5	
0	0	0	1200
1	0	0	2400
0	1	0	4800
1	1	0	9600
0	0	1	9600
1	0	1	9600
0	1	1	9600
1	1	1	9600

④ The camera may malfunction if the switches are not fully turned on/off. Please double check the switches before finishing setup.

NOTE: Change is effective after rebooting the camera
You can change the protocol via software menu.
Please refer to chapter 4.2.3 for details.

2.1 Interfaces and Parts



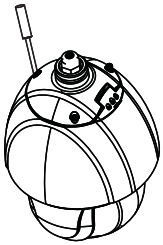
1 Power supply
2 HD-TVI Video Out
3 Alarm in/out
4 RS422
5 Safety Wire
6 Base Tray
7 Wiper

2.2 How to install

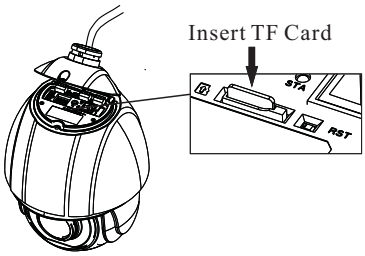
WARNING

- Please make sure the wall is able to bear the dome camera's weight!
- Please make sure the dome camera is powered off during installation!
- Please install the dome camera according to the below steps!

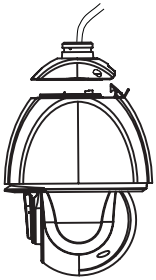
The installation steps are as follows:



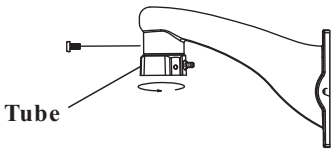
① Loosen three screws of the base tray.



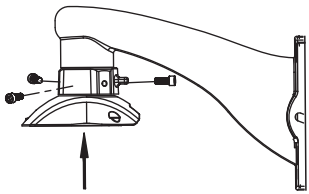
② Open the base tray and insert TF card.



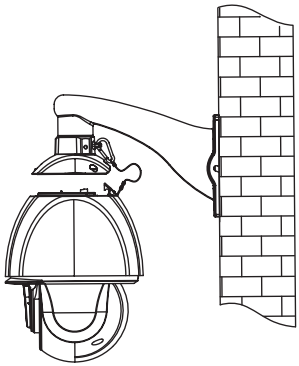
③ Unplug the cables and remove the base tray.



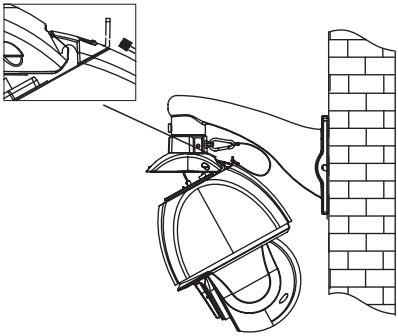
④ Fasten the tube to the bracket.



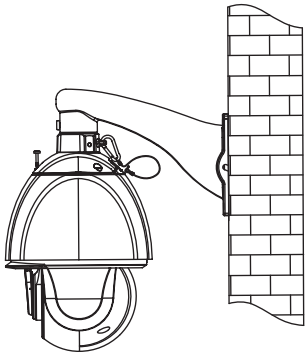
⑤ Pull the cables through the bracket. Then fix the base tray to the tub with the screws.



⑥ Fix the bracket to the wall with the screws and then hook the safety wire to the tub.



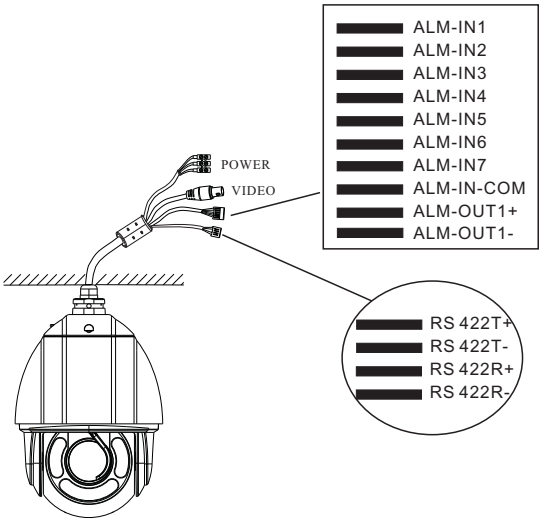
⑦ Hook the camera to the base tray and then connect the cables.



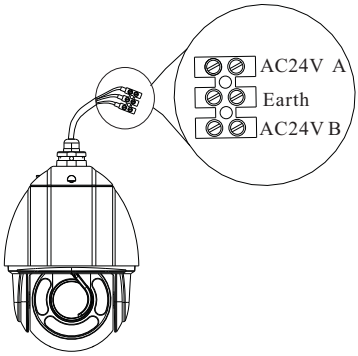
⑧ Secure the camera to the base tray with the screws.

2.3 Connection

Connection End(AC 24V)



Power Connection(AC 24V)



Alarm Connection

1. Alarm Input

a) There are seven independent alarm input ports (ALM-IN1~ALM-IN7) and one common port (ALM-IN-COM).

b) Alarm input: connect DC5V~DC12V voltage between the alarm input port ALM-Inx (x=1~7) and the common port (ALM-IN-COM).

c) Disconnect the voltage between alarm input port(ALM-Inx(x=1~7) and common port (ALM-IN-COM) to cancel the alarm.

2. Alarm Output

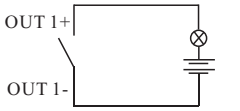
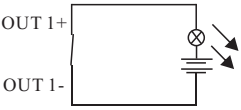
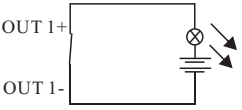
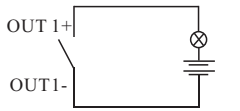
a) Support 1CH alarm output including OUT1+,OUT1- connections; support two input modes namely NO, NC.

b) Alarm output: support only one passive switch for user to connect alarm devices; the alarm output state will be auto on/off according to your setting.

c) Please refer to below chart for the dome output state.

Output Mode	Whether to output	Connection between OUT 1+ and OUT 1-
NO Output	No	Open Circuit
	Yes	Short Circuit
NC Output	No	Short Circuit
	Yes	Open Circuit

3. Examples

Input connection	Output Mode	Output Connection
 No Alarm Input	NO	
	NC	
 Alarm Input	NO	
	NC	

3.1 Startup and Shutdown

Before running your camera, please make sure all the connections are done correctly.
Startup: After the power supply is connected, the camera will be automatically started up and then the system of the speed dome is going to self-check. The menu cannot be operated until successful self-checking has done.
Shutdown: Disconnect the power cable.

3.2 Keyboard Setup

The address, communication protocol and baud rate of the keyboard should be consistent with that of dome camera. Since different keyboards have different ways to set protocol, please refer to relevant user manual of keyboard for details.

Panning and tilting: use the joystick of the controller
Controlling zoom: move the joystick clockwise (Tele) or counterclockwise (Wide)
OSD commands:
Joystick Up----move to the above menu
Joystick Down---- move to the below menu
Joystick Right----select the sub-menu/exit
Joystick Left----return to the previous menu and save the setting

NOTICE: Please refer to the user manual of keyboard for operation decription.

Call preset 95 to enter the main menu interface:

MAIN MENU
1 SYSTEM INFORMATION ↓
2 SYSTEM SETUP ↓
3 CAMERA SETUP ↓
4 PRESET SETUP ↓
5 DOME FUNCTION ↓
6 DISPLAY SETUP ↓
7 WIPER SETUP↓
8 LOAD DEFAULT ↓
0 EXIT

NOTE：The arrow "↓" icon means there is submenu to operate.

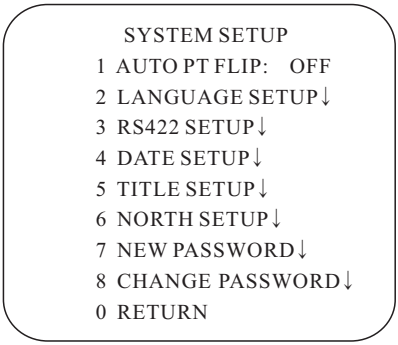
Chapter 4 Menu Setup

4.1 System Information

You can check the version, camera, temperature, date, dome ID, protocol and baud rate of the speed dome camera in the system information interface.

4.2 System Setup

Go to Main Menu→System Setup as below:



4.2.1 Auto PT Flip

This function is useful to monitor moving objects or people passing directly under the camera.

① Enable "AUTO PT FLIP" and then exit menu.

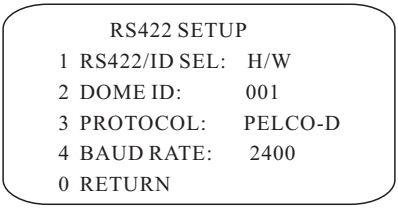
② Keep on moving downwards so that the PTZ can follow the object from one side to another side, ensuring an object or a person passing directly under the dome is always monitored.

4.2.2 Language

Our product supports English.

4.2.3 RS422 Setup

Go to Main Menu→System Setup→RS422 Setup as below:



RS422 Selection: H/W (hardware) and F/W (software) are selectable. It is effective to set the communications when selecting F/W. Otherwise the dome communication is in accordance with dial switches.
Dome ID: Range from 001 to 255.
Protocol: Support PELCO-D and PELCO-P.
Baud Rate: The baud rate is selectable from 1200bps to 9600bps.

NOTICE: The change to communication setup will take effect after rebooting. The communication of keyboard should be modified correspondingly.

4.2.4 Date Setup

Go to Main Menu→System Setup→Time Setup interface as below:

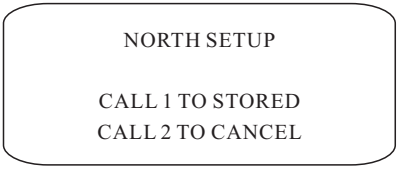
① Move the joystick of the controller in all four directions to select the desired parameters.
② Call 1 to save the setting.

4.2.5 Title Setup

The steps to set dome title are same with that of date setup. Please refer to section 4.2.4 for details.

4.2.6 North Setup

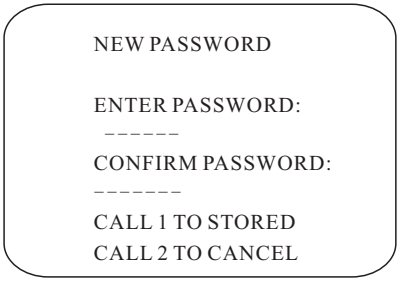
Go to Main Menu→System Setup→North Setup interface as below:



① Move the joystick in all four directions to choose a location. Call preset 1 to save the configuration.
② The horizontal angle will treat the north position as a reference; otherwise it will treat the horizontal origin as a reference to display the clockwise rotation angle of camera.
③ The vertical PTZ will treat its highest point as a reference (when the camera is parallel with the horizontal ground) to show the included angel between the camera and horizontal ground.

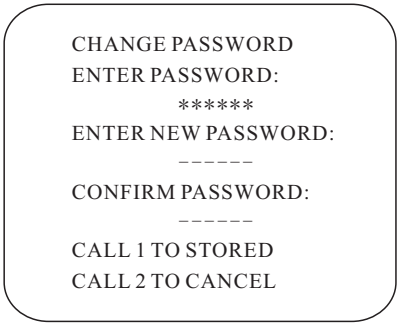
4.2.7 New Password and Change Password

New Password:



Set password by preset: Preset+N+Enter(please refer to the instruction of the keyboard for details).
Numbers from 1 to 9 are available. The password should be 6 characters.
Empty password is invalid when creating new password.
Password need to be input when you log in next time.

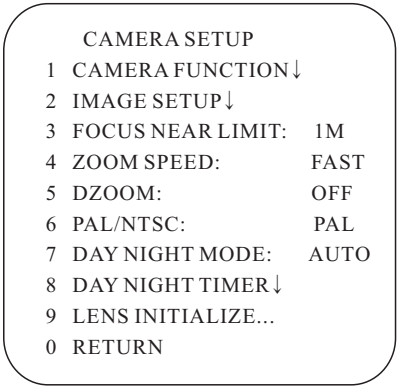
Change Password



Input the current password and then input the new password twice (entering empty new password means to delete the current password).

4.3 Camera Setup

Entering Main Menu→Camera Setup brings the following screen.



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4.3.1 Camera Function

```
CAMERA FUNCTION
1  BLC:              OFF
2  HLC:              OFF
3  HLC LEVEL:        20
4  3D-DNR:           Low
5  COLOR LEVEL:      06
6  SHARPNESS:        06
7  WDR:              OFF
8  GAMMA:            DEFAULT
9  CAM DEFOG:        OFF
0  RETURN
```

BLC: Improve the brightness of the foreground when back light is so stronger that the foreground is dark.

HLC: Effectively control the phenomenon of large halation and vague images caused by the high light sources from the camera lens. Meanwhile, this function can also compensate the highlight area to get more clear images.

HLC Level: Select high light control level.

3D-DNR: Reduce the noise of the brightness and chroma of the image in low illumination condition.

Color Level: Adjust the screen level.

Sharpness: Set the image definition.

WDR: Wide dynamic range. If WDR is on, you can see the highlight, the shadow and the backlight area clearly.

Gamma: Measurement the contrast of an image.

CAM Defog: Recover the video degradation caused by fog, rain, or even dust on your lens.

4.3.2 Image Setup

```
IMAGE SETUP
1  AE MODE           F-AUTO
2  BRIGHT:           10
3  SHUTTER:          05
4  IRIS:             13
5  AGC:              11
6  WB MODE:          ATW
7  RED GAIN<MWB>:    12
8  BLUE GAIN<MWB>:15
9  IMAGE FLIP:       OFF
0  RETURN
```

AE Mode: F-Auto, Bright, Shut, IRIS and Manual are optional.
Brightness: Range from 00 (darkest) to 20 (brightest). Adjust the screen brightness.
Shutter: The lower the value of shutter is, the brighter the image is. It is available only when the AE mode is set to manual mode.
IRIS: The higher the value of the camera IRIS is, the more the light gets. It is available only when the camera is IRIS or Manual mode.
AGC: The larger the number is, the higher the brightness and the more the noises of the image are.
WB Mode: White Balance Mode. The auto, manual and ATW mode are available. The white balance menu adjusts the balance of the screen colors under different lighting conditions.
Red Gain<MWB>: The operation is effective only when the white balance is in manual mode.
Blue Gain<MWB>: The operation is effective only when the white balance is in manual mode.
Image Flip: Flip the image.
--MiRR: Turn over the image left or right.
--Flip: Turn over the image up or down.
--Rota: Turn over the image up, down, left or right.

4.3.3 Focus Near Limit

Set the nearest distance of focus.

4.3.4 Zoom Speed

Adjust zoom speed.

4.3.5 DZoom

To turn on/ off the D-zoom mode. After enabling digital zoom mode, digital zoom will be increased on the basis of optical zoom.

4.3.6 Video Format

To choose video format: PAL/NTSC.

4.3.7 Day & Night Mode

Day&Night mode includes four modes: Auto, Night, Day and Timer.
--Auto: The camera will automatically switch the mode between day and night as per the ambient illumination.
--Night: The camera will be night mode at all time. You'd better use this mode at night.
--Day: The camera will be day mode at all time. You'd better use this mode in daytime.

--Timer: The camera will regularly switch the mode between day and night.

Day & Night Timer Setup:
Go to Day Night Timer menu as shown below:

Set the time of the BW mode and Color mode and then call preset 1 to save the settings.

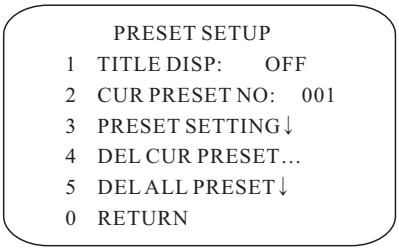
4.3.8 Lens Initialization

The camera lens will restore to the factory default setting after you enable "Lens Initialize...".

4.4 Preset Setup

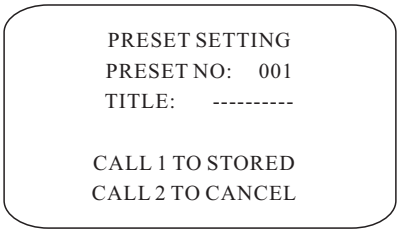
This function is used to memorize the specific position of pan, tilt, zoom and focus, giving much convenience for quick return to this position by calling preset.

① Return to the live and move the joystick to select a location. Then call preset 95 to enter the main menu interface. Selecting the preset setting menu brings up a screen as shown below:



② Select the current preset number.

③ Enter Preset Setting interface as below:



④ Move the joystick in all four directions to select the numbers or letters for setting the title. The title will display on the screen when passing though the preset if the title display has been enabled

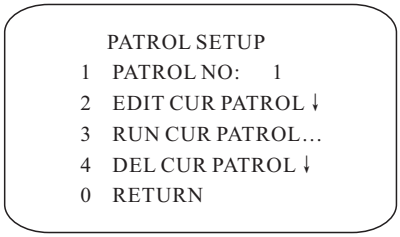
NOTE: There is another way to set preset: Number+Preset(please refer to the user manual of the keyboard you are using. This shortcut does not support title setup.

4.5 Dome Function

Dome function includes seven sub-menus: Patrol Setup, Grouping Setup, Task Setup,Trace Setup, Alarm Setup, Privacy Mask and Home Position.

4.5.1 Patrol Setup

Enter Main Menu→Dome Function→Patrol Setup as below:



In this interface, by programing presets in patrol list in advance, the system will keep calling those presets at the set time in sequence when executing patrol command so that non-stop monitoring between multiple important positions can be achieved.

Steps are following:

① Enter the “Edit Current Patrol” interface as below. This camera supports 8 patrols with 16 presets each set.

② Move the joystick upward or downward to control the cursor; move the joystick right or left to change the parameter. The preset ranges from 001~255 and the dwell time ranges from 05~240s.

③ When setting the patrol, pressing "IRIS OPEN" will increase the value by 10. pressing "IRIS CLOSE" will decrease the value by 10. Call 1 to save the setting.

FORMAT: PRE NO. /TIME (SEC)
01: 001/007 02: 002 /005
03: 000/005 04: 000/005
05: 000/005 06: 000/005
07: 000/005 08: 000/005
09: 000/005 10: 000/005
11: 000/005 12: 000/005
13: 000/005 14: 000/005
15: 015/005 16: 000/005
CALL 1 TO STORED
CALL 2 TO CANCEL

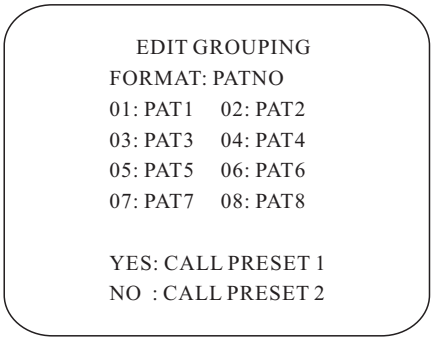
④ In the patrol setup interface, select "Run The Current Patrol" item to execute the command. The camera will automatically keep running according to the patrol you set until new command is received. The corresponding operating information will display on the screen when the camera is running.

4.5.2 Grouping Setup

Go to Main Menu→Dome Function→Grouping Setup as below:

GROUPING SETUP
1 EDIT GROUPING ↓
2 RUN GROUPING...
3 DELETE GROUPING ↓
0 RETURN

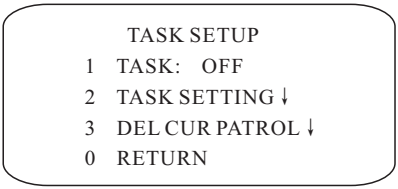
Go to "Edit Grouping" menu as shown below:



Eight patrols in a group can be set. PAT 1 stands for Patrol 1, PAT 2 stands for Patrol 2 and so on.
Select “Run Grouping” to run the patrols in order.
Select “Delete Grouping” to delete the patrol group.

4.5.3 Task Setup

Enter Main Menu→Dome Function→Task Setup as below:



By dividing 24 hours into several periods and appointing different commands for each period, the camera system will automatically execute the commands according to the set time if there is no operation.

① Enable the task function;

② Enter the task setting interface as below. Move the joystick in all four directions to change the parameters.

Time Format: Start Time--End Time. The tasks will be automatically arranged in order depending on the start time so that each task will be executed one by one.

Task Type: RSC, ASC, PRE, PAT, TRA.

.

```
TASK SETTING
1 08:00 – 11:59  : PRE : 99
2 12:00 – 13:59  : PAT : 01
3 00:00 – 00:00  : NON: 01
4 00:00 – 00:00  : NON: 01
5 00:00 – 00:00  : NON: 01
6 00:00 – 00:00  : NON: 01
7 00:00 – 00:00  : NON: 01
8 00:00 – 00:00  : NON: 01
CALL 1 TO STORED
CALL 2 TO CANCEL
```

NOTE: The home position function will be disabled if enabling task setting.

4.5.4 Trace Setup

Enter Main Menu→Dome Function→Track Setup interface as below:

```
TRACE SETUP
1  TRACE NO:  1
2  TRACE SETTING ↓
3  TRACE RUN…
4  DELETE TRACE ↓

0  RETURN
```

This function is used to memorize the operation to PTZ, zoom, focus so that repeating operation process can be realized by running trace.

① Choose the current trace number;

② Enter the trace setting. Press “IRIS-” and move the joystick in all four directions to control the dome camera. Then call preset 1 to save the setting.

Notice: Each trace can memorize up to 180s. If the time exceeds 180s, the system will automatically save the operation data and return to the previous menu. In addition, up to 360 commands can be memorized for each trace. If exceeding 360 commands, the system will automatically save the first 360 commands and then exit the current interface. The recording time is related to the operating frequency. The more frequent the operation is , the shorter the memory time is .

③ Select “Trace Run…” item to perform the command.

4.5.5 Alarm Setup

Enter Main Menu→Dome Function→Alarm setup as below:

```
ALARM SETUP
1  ALARM IN CONDITION:  N.O.
2  OUTPUT ENABLE:       ON
3  EDIT ALARM ↓
4  ALARM TIMER ↓
0  RETURN
```

Alarm In Condition: Set the alarm input type to be Normally Opened (N.O.) or Normally Closed (N.C.) according to the sensor type.
Output Enable: If “ON” is selected, the camera will output alarm information on an alarm.
Edit Alarm: Go to “Edit Alarm” menu as shown below.

```
EDIT ALARM
1  ALARM IN NO:      7
2  ALARM IN MODE:    ON
3  ALARM CALL:       PRE56

YES: CALL PRESET 1
NO  : CALL PRESET 2
```

Alarm In NO: Select alarm input number.
Alarm In Mode: ON, OFF and Timer are optional.
Alarm Call: Call the preset you need. When the first alarm input happens, the camera will automatically switch to this preset to monitor.
Alarm Timer: Go to “Alarm Timer” menu as shown below.

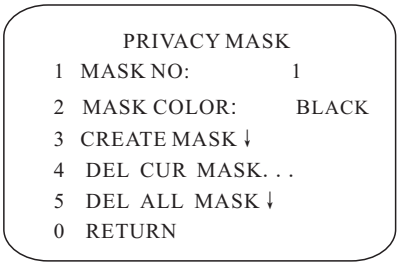
```
ALARM TIMER
1  ENABLE:        OFF
2  ALM TIME:      00:00
3  DISARM TIME:   00:00

YES: CALL PRESET 1
NO  : CALL PRESET 2
```

① Enable "Alarm Timer".
② Set alarm time and disalarm time.
When "Timer" is selected in alarm mode, the current alarm input can trigger relevant alarm during this period when the alarm occurs.

NOTICE: If the dome is on the menu state when alarm is triggering , any command is negative.

4.5.6 Privacy Mask

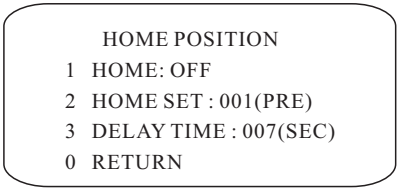
Go to the Main Menu→Dome Function→Privacy Mask interface as below:



Mask NO: Select the current mask area. Eight mask areas can be set at most.
Mask Color: Select the color to mask.
Create Mask: Go to the "Create Mask" sub-menu and then set the mask area by moving the joystick. After that, call preset 1 to save the mask area.
Delete Current Mask: Select this menu to delete the current mask area.
Delete All Mask: Select this menu to delete all mask areas.

4.5.7 Home Position

Enter Main Menu→System Setup→Home Position interface as below:



①Move the joystick upwards or downwards to enable the home position function.
②Then select preset which has been set in advance.
③Select delay time and exit the menu. When the stand-by time of the dome camera exceeds the delay time, the camera will automatically execute the command to monitor the selected preset.

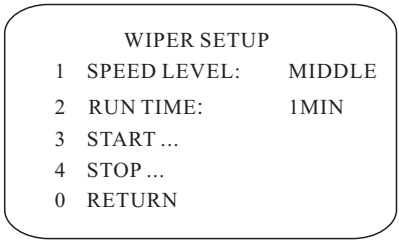
NOTE: Delay time range from 005s to180s

4.6 Display Setup

You can enable title display, time display, temperature display, camera OSD display, orientation display or system display if you need.

4.7 Wiper Setup

Go to Main Menu→Wiper Setup as shown bleow.



① Set the speed level and run time.
② Select "START" to enable wiper function.

4.8 Load Default

Master Reset: Restore the camera state and active menu to factory default but do not clear those parameters such as dome title, dome ID, protocol, baud rate, preset, patrol and so on.
Master Clear: Restore the camera to factory default.
System Reboot: Reboot the camera.
Firmware Update: It is used for updating the dome camera system by RS422 BUS. Firmware update will delete the dome system software, which will result in failure to work . Please be cautious! If you want to update the camera's system, please make contact with us to obtain a new software package firstly!

PS: Preset Description

Call Preset	Call Preset 90	Run trace 1
	Call Preset 91	Run patrol 1
	Call Preset 92	Run patrol 2
	Call Preset 93	Run patrol 3
	Call Preset 94	Run patrol 4
	Call Preset 95	OSD menu
	Call Preset 97	Enable random scan
	Call Preset 99	Enable P-P SCAN
Set Preset	Set Preset 91	Set random scan, TASK auto call the beginning point
	Set Preset 92	Set left border of P - P SCAN
	Set Preset 93	Set right border of P - P SCAN

Appendix A Troubleshooting

Problem	Cause and Solution
No image and no action when power is input	Check if the power cable is normal or misconnected
The image is not stable	Check if the video cable is properly connected
	Check if the power supply is enough
The image is vague	Check if the dome cover or the lens is stained with dirt
The image has a lot of noise	Check if there is strong interference source surrounding the dome
Normal self-check but no image	Remove the protective cover of the camera lens
	Check if the video cable is properly connected
Normal self-check but out of control	Check if the RS422 bus is properly connected
	Check if the Dome ID, communication protocol setup is right
Abnormal self-check Not stable control	Check if the protective foam is removed
	Check if the power meets the requirement.
The alarm output or preset is not working	Check if the alarm device is working
	Check if the alarm in/out cable is connected
	Check if alarm input is enabled

Appendix B Specification

Camera	Image Sensor	1/3 Inch Progressive CMOS
	Effective Pixel	1920(H) x 1080 (V) 2 Mega
	Horizontal Resolution	1000 TVL
	Min. Illumination	0 Lux
	Lens	20 x Zoom, f = 4.7-94mm, F1.6 ~ F3.5
	IR Distance	100 m
	SNR	> 50dB
	Focus Mode	Auto/Manual
	Day/Night	Auto/Manual/Timer
	BW	Auto, ATW, manual
System	Alarm Input	7CH
	Alarm Output	1CH
	Auto Flip	YES
	Preset	255
	Patrol	8
	Trace	4
	Scan	2
	Home Position	Yes
	Task	Yes
PTZ	Pan Range	360°endless rotation
	Pan Speed	Preset: 240°/s，Manual Control Speed: 0.5~90°/s
	Tilt Range	0~90°（auto-rotation）
	Tilt Speed	Preset: 240°/s，Manual Control Speed: 0.5~90°/s
General	OSD	English
	Input Voltage	AC24V/3000mA
	Video Output	HD-TVI 1.0Vp-p, 75Ω, PAL/NTSC
	Control Method	RS422/RS485, PELCO-D / PELCO-P
	Power Consumption	15W / Max 65W（IR on, heater on）
	Working Environment	- 20°C~60°C / Less than 95%(RH)
	Protection Level	IP66
	Weight	5KG
	Dimension	Φ216mmx349mm