

SDOMEOP / SDOMEPIR / SDOMEOPPIR

Technical manual



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1). Safety Precaution

1. Only qualified and experienced person can carry on this installation.
2. Always conform to national and local safety codes during installation.
3. Use reliable tools only, poor quality tools may cause danger. e.g. ladder.
4. Check the space and toughness of the site before installing. It should be able to bear 4 times the weight of the dome and its accessories
5. Do install the speed dome to appropriate environment (Please refer to the chart below).
6. Keep all the original dome package materials in case of future repacking and transporting.

Model	Indoor	Outdoor
Maximum Temp Range	-10 °C~+50°C	-40 °C~+60°C
Humidity	<90%	<90%
Air Pressure	86~106KPa	86~106KPa
Power Supply	AC24V/1.25A, 50/60Hz	AC24V/2.5A, 50/60Hz

7. Please refer to the user manual carefully.

2). Warning

1. Mind Transportation

Avoid press or to be strucked furiously In the process of transportation.

The product must be shipped in the form of accessories, the product wouldn't within guarantee policy if product is not accordance with transportation term in the process of transportation.

2. Fault occur

If the products fumes or can't work well, user should turn off power, stop to use the speed dome immediately, then connect to supplier.

3. Don't dismantle or refit

Don't dismantle shell, otherwise it will cause speed dome camera damaged. if user need to set some function or maintain the products, please connect to supplier.

4. Don't put other substances into PTZ camera

Make sure there is not metal substance or flammable substance in camera. If there is othere substances, it will cause camera short circuit or damage. If water or liquid leak into camera, please turn off power immediately, then connect to supplier directly. Keep camera carefully, avoid water or seawater to corrade.

5. Mind to carry product

In order to avoid damnification , don't drop the product on ground or let products be strucked forcefully.

6. Fix product in places far from electric field or magnetic field

If camera is installed in those places near to TVL, wireless transmitter, Electromagnetism equipment, transformer, speaker, the electromagnetism from them will interfere image effect.

7. Avoid humidity and dust

In order to avoid camera damage, don't instal camera in the place with dust or vapor or high temperature.

8. Avoid high temperature

Don't instal camera in places where bring heat source to camera, or sunshine can irradiate, otherwise

it will cause camera distort, fade or other damage.

9.Cleaness

Use soft cloth with scour to wipe off spot, then dry camera with soft cloth. Don't use gasoline, dope thinner or other chemistry substance to clean product, otherwise it will cause product distortion or paint desquamated.

10. Don't let camera aim at strong light.

11. Please use product according to working temperature

Usage environment for outdoor speed dome camera:

Working Temperature	-40~+60℃
Humidity	<90%
Atmospheric Pressure	86~106KPa
Power supply	24V/2.50A,50/60HZ

Usage Environment for indoor speed dome camera:

Working Temperature	-10~+50℃
Humidity	<90%
Atmospheric Pressure	86~106KPa
Power Supply	24V/1.25A,50/60HZ

12. Prohibit to install indoor camera in outdoor environment

3). Main Features:

1、 Built-in Decoder

- Pure digital design, setting information never lost when power is off,
- Integrative design, high stability,
- Auto action function
- Timer run for Preset, Tour, home position, alarm, pattern, region scan, two point scan,
- 220 preset, support auto tour, 4 patrols with 32 preset each,
- 4 paterrens, each pattern can last 180 second,
- 4 auto scanning
- 8 areas indicating function
- Built-in compass indicating direction,
- Support RS485 termination resistor,
- 8 privacy mask zones
- Display or hide speed dome camera' title information on screen
- Timed D/N switch

2、 Built-in P/T

- Precise Moter stepping drive, work steadily、 sensitive reaction,
- Integrative design, compact structure;
- Support 360° continuous pan, no blind area surveillance
- 0.5°/S Pan, image don't wobble;
- 80 degree vertical tilt, continuous surveillance

3、 Built-in camera with zoom lens, high sensitivity, high resolution.

- Auto Focus
- Auto BLC
- AGC
- Auto White Balance
- Color/W&B auto switch

4、 Screen Menu

- English OSD Menu.
- Set Menu and Menu password protection, Operate conveniently.
- 16 bit title for setting preset title and camera title, right and left sacning title...etc.
- Support chinese and english editor
- Can operate following function through OSD Menu,Preset,Tour,Pattern,Privacy mask zone, two point scanning.

4).Installation Preparation

1).Tools Lists:

You may need following tools for the installation:

Screws and nuts, screw driver, Small slotted screw driver, Wire cutter, Ladder, Drill, Saw.

2)、Cables:

Video Coaxial Cable

The video coaxial cable should be:

- 1) 75 Ohm impedance.
- 2) Solid copper wire.
- 3) 95% braided copper shield.

Check the max transmission distance referring to the chart below.

International Gauge	Transmission Distance(Max.)
RG 59/U	750ft (229m)
RG 6/U	1,000ft (305m)
RG 16/U	1,500ft (457m)

- R S4 85 communication cable (refer to appendix III)
- 24VAC power cable (refer to appendix IV)

4. DIP switches and jumpers setting

Please refer to appendix VI to set the followings:

Protocol and Baud rate

Dome address

5. Check accessories list

If camera is with ceiling mount,accessories are following:

Swell bolt: 3 sets

Screw: 3 pcs

Plastic tube: 3 pcs

6. Please keep all package materials

After you unpack package,please keep all package materials well, in case there is something wrong with speed dome,user can re-pack speed dome and send it to agent or factory to repair it.

5).Installation Type Guide

Three main kinds of installation are available for high speed dome:

- (1) In-ceiling Mount
- (2) Surface Mount
- (3) Bracket Mount

There are 4 bracket options for bracket mount:

- 1) Wall Mount
- 2) Corner Mount
- 3) Pole Mount
- 4) Pendant Mount

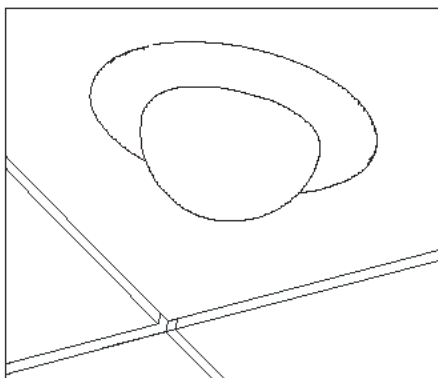
NOTE: Installation site should be able to withstand at least 4 times the weight of the dome.

Bracket mount dome has indoor type and outdoor type. Comparing to indoor type, outdoor type has extra sun-shield housing, temperature sensor and heater. Outdoor type conforms to IP66 standard.

! WARNING: DO NOT install indoor dome in outdoor environment.

After installation, the outside appearance is following:

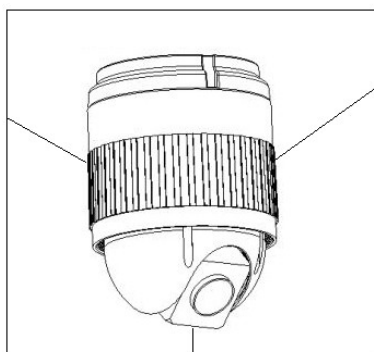
- (1) In-ceiling mount



Picture 1

Speed dome camera with in-ceiling mount is suitable for indoor installation, please refer to installation procedure on page [7~11](#).

- (2) **Ceiling Mount**

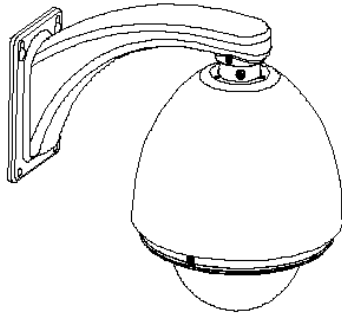


Picture 2

It is suitable for hard ceiling installation, please refer to installation procedure on page [12~15](#).

- (3) **Bracket mount**

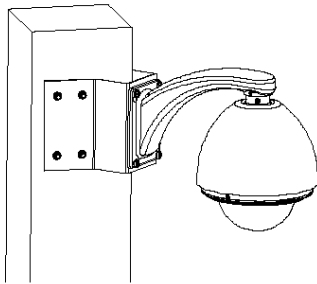
- ① Wall Mount



Picture 3

Wall mount is suitable for firm wall of indoor and outdoor environment, please refer to page [16~19](#).

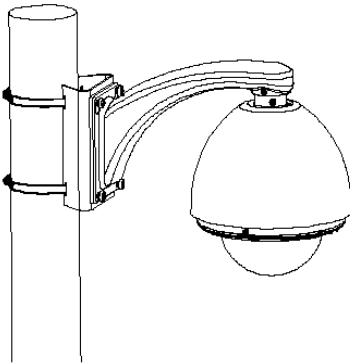
② Corner Mount



Picture 4

Corner mount is suitable for firm wall of indoor and outdoor environment, it has 90 degree angle between wall and corner mount, please refer to page [20~21](#).

③ Pole mount



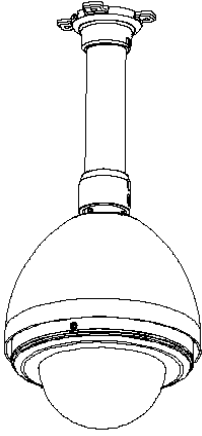
Picture 5

Pole mount is suitable for firm pole of indoor and outdoor environment, please refer to page [21~22](#).

④ Pendant mount

Pendant mount has following three kinds:

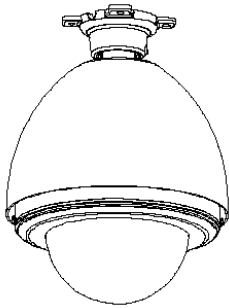
- a. Thick pole pendant mount



Picture 6

The pendant mount is suitable for firm ceiling structure of indoor and outdoor environment, please refer to page [22~24](#).

b. Pendant mount without pole

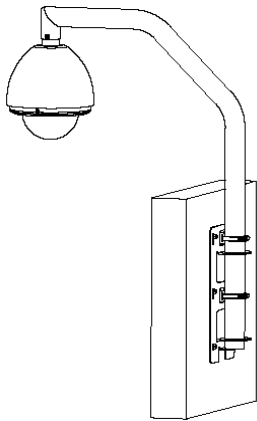


Picture 7

This is also suitable for firm ceiling structure of indoor and outdoor environment, please refer to page [24~26](#).

⑤ Parapet mount

Parapet mount is suitable for indoor and outdoor firm wall structure.



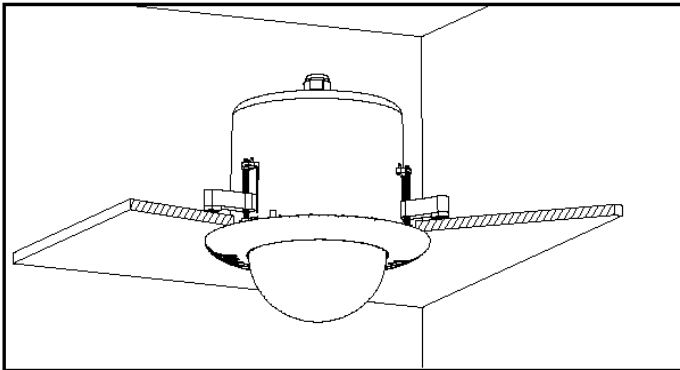
Picture 8

6).In-Ceiling Mount installation

1). Installation condition:

Camera with wall mount is suitable for firm wall indoor and outdoor, installation requirement as follows:

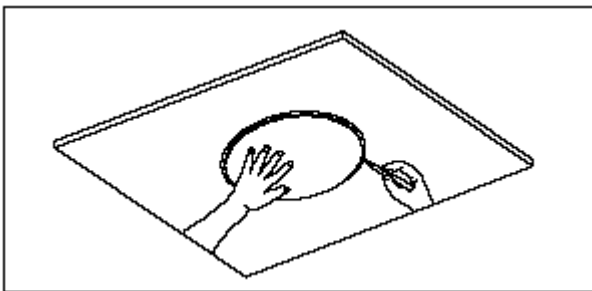
- (1) The wall mounting surface must be firm enough to install expansive screws
- (2) The wall mounting surface must be firm enough to bear 4 times the weight of the speed dome
- 3) There is at least 200mm room above ceiling;
- 4) The thickness of ceiling at least is 5-42 mm.



Picture 9

2) Drill circle on ceiling

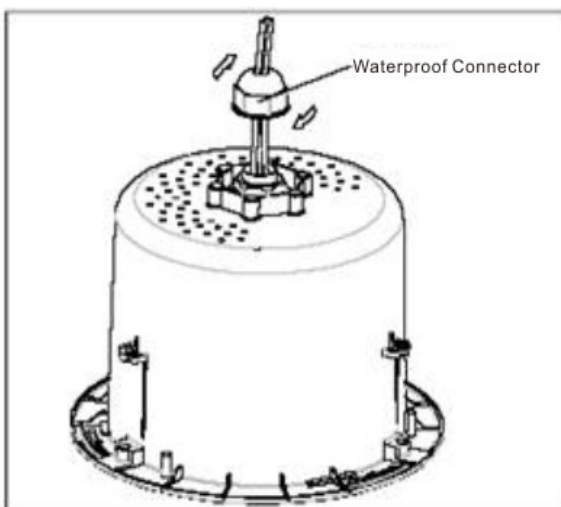
Take the paper pattern(accessory) as a template to draw a pattern on the ceiling. The paper pattern's diameter is 225mm.



Picture 10

3) Connect cable

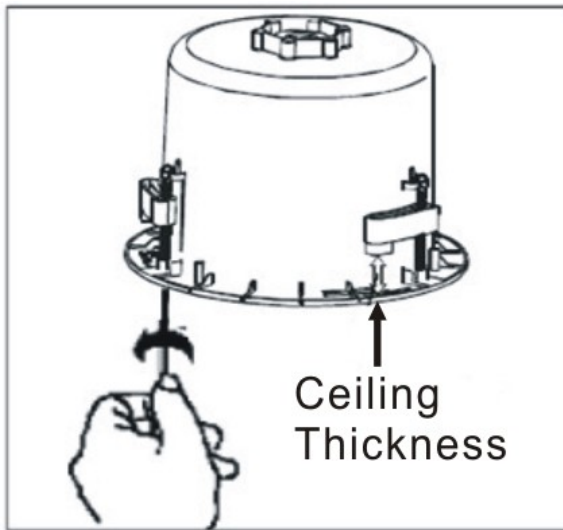
- (1) Connect power cable, video, alarm cable through upper cover.



Picture 11

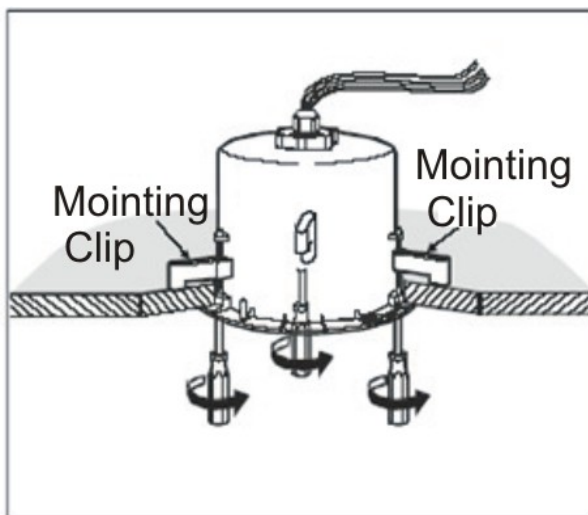
4) Fix upper cover

- (1) clean up cable and screw down screw cap well.
- (2) Push housing into ceiling and let the clips stretch out. Finally, screw the three clips to tighten the housing. (picture 12)



Picture 12

Note: Use even strength to adjust the three clips, or it may distort the shape of the housing.

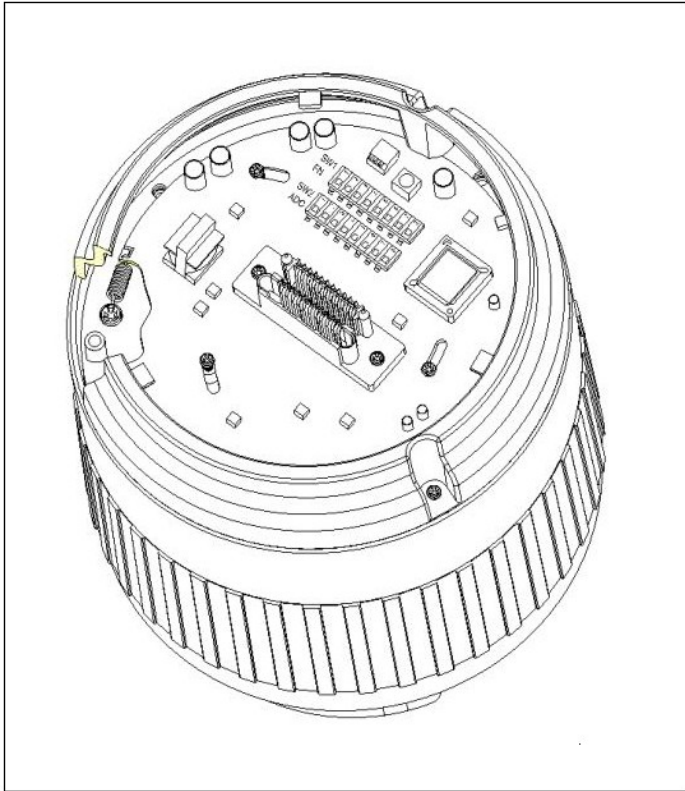


Picture 13

5) Fix camera :

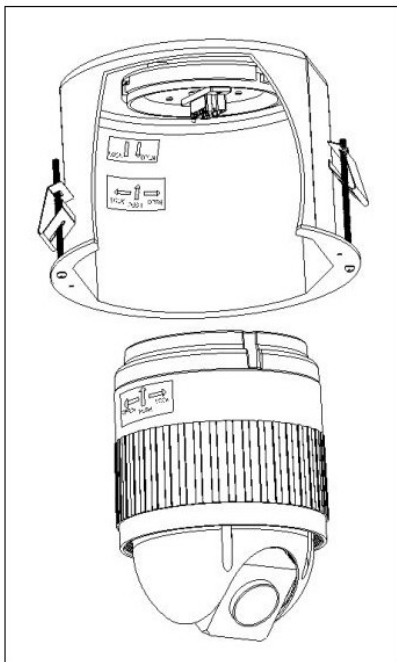
- (1) Pick up camera from carton to check it, then refer to "appendix VI" to set camera baud rate, protocol, and address.

Note: If there is something wrong with camera in the process of using, please pack it well, then send it to supplier for repair.



Picture 14

- (2) Both hands hold camera flank, there is direction indicator at the bottom of camera flank, "PUSH" on camera to "PUSH" on housing, then push it upper and parallelly, after camera was pushed to bottom, then turn it to "lock" direction, please refer to picture 15.

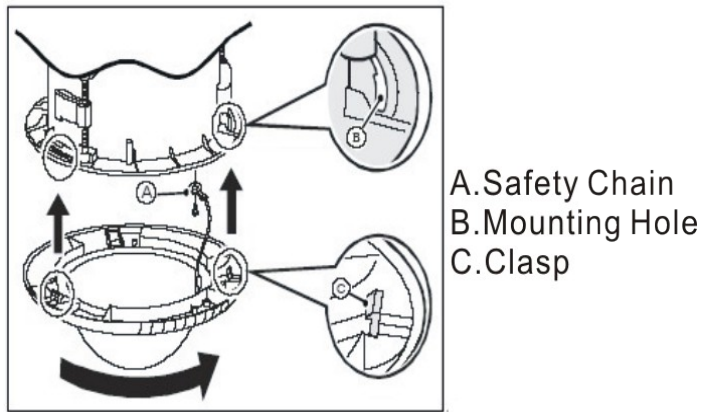


Picture 15

- (3) **Install housing**

Install down cover:

- (1) Use M3 screw to screw hole of safety chain on plastic pole of tray, (three holes on the tray circumference, user can choose one of them)
- (2) Match the clasps and mounting holes then turn the down cover frame clockwise. (picture 16)



Picture 16

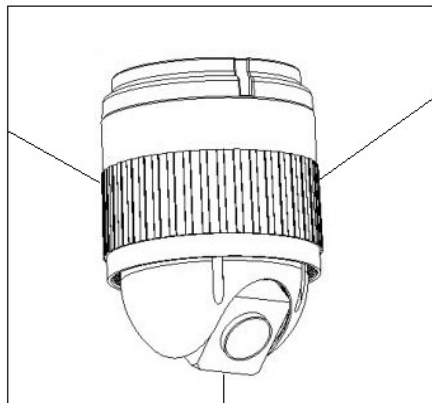
- NOTE:** 1. Let the safety chain inside the arc groove of the down cover, otherwise it may scratch the lens.
2. If you found difficult to fit in the down cover, try readjusting the three clips.

7). Ceiling Mount Installation

Installation conditions:

Camera with ceiling mount is suitable for indoor hard ceiling, please refer to picture 17.

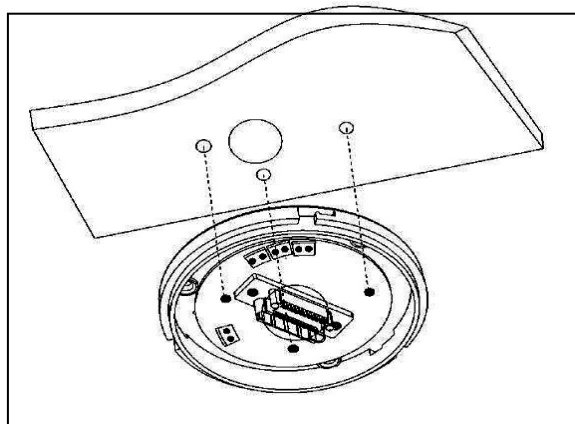
- 1) The wall mounting surface must be firm enough to install expansive screws
- 2) The wall mounting surface must be firm enough to bear 4 times the weight of the speed dome



Picture 17

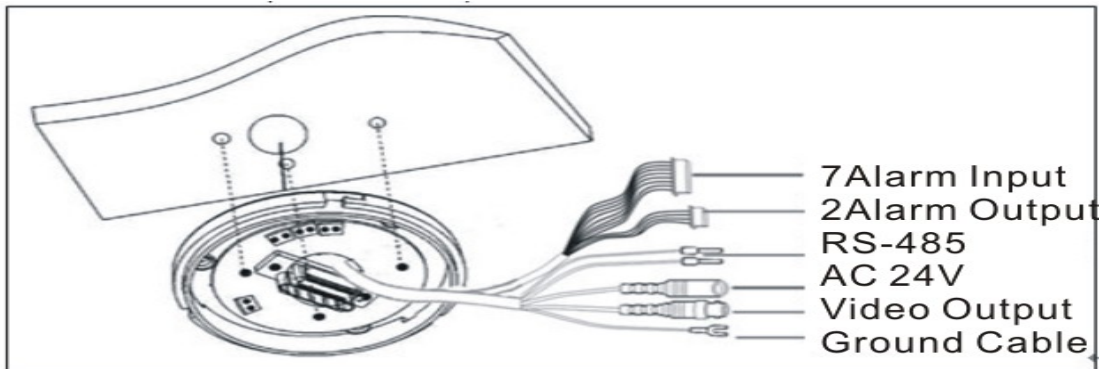
1. Install ceiling base:

- (1) Make sure installation place and cable, mark the screws positions on wall, drill the holes, refer to picture 18



Picture 18

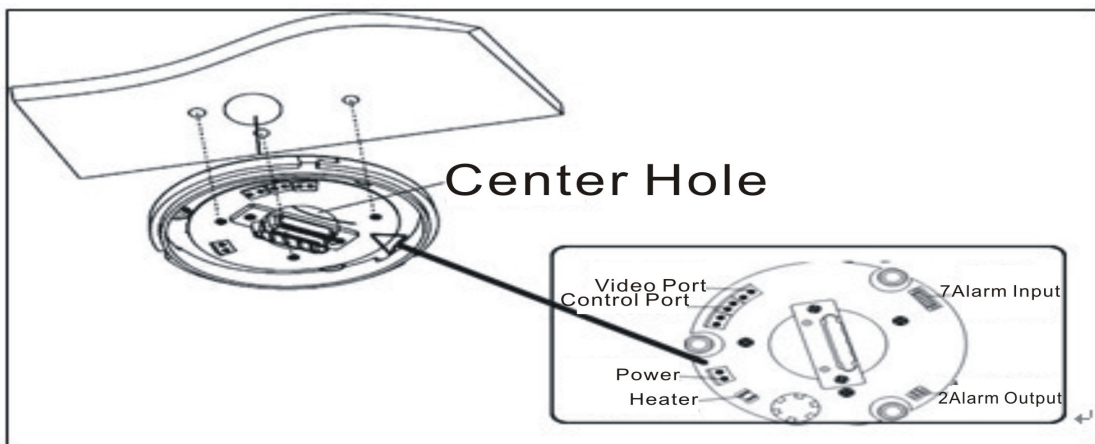
(2) Put all cables into base, please refer to picture 19.



Picture 19

2.Connect cable:

Please refer to picture 20, connect cables to relative ports.



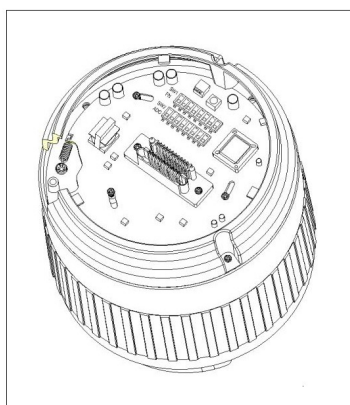
Picture 20

Note: make sure power is off when user connects cables.

2. Install camera:

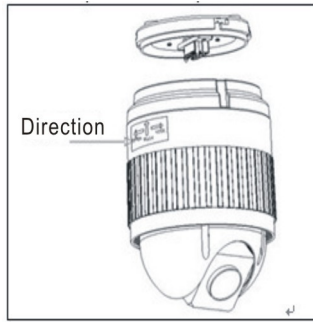
(1) Pick up camera from carton to check it, then refer to "appendix VI" and switch "SW1" "SW2" to set camera baud rate, protocol, and address.

Note: If there is something wrong with camera in the process of using, please pack it well, then send it to supplier for repair. (set switch before installing down cover.)



Picture 21

(2) Both hands hold camera flank, there is direction indicator at the bottom of camera flank, "PUSH" on camera to "PUSH" on housing, then push it upper and parallelly, after camera was pushed to bottom, then turn it to "lock" direction, please refer to picture 22



Picture 22

8). Wall Mount installation

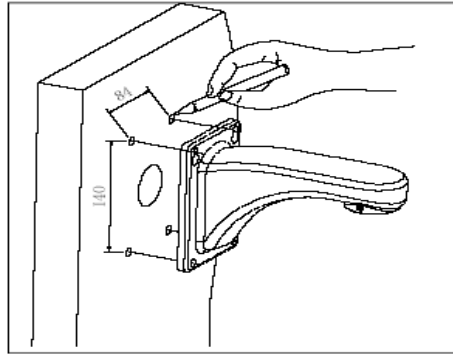
Installation conditions:

Camera with ceiling mount is suitable for indoor hard ceiling, please refer to picture 17.

- 1) The wall mounting surface must be firm enough to install expansive screws
- (2) The wall mounting surface must be firm enough to bear 4 times the weight of the speed dome

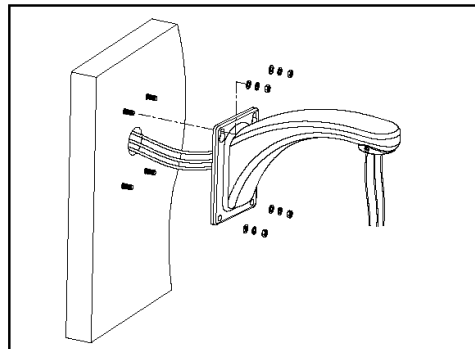
1. Install wall mount:

- (1) Please refer to picture 23, Take the bracket base as the template to mark the screws positions on wall, drill the holes.



Picture 23

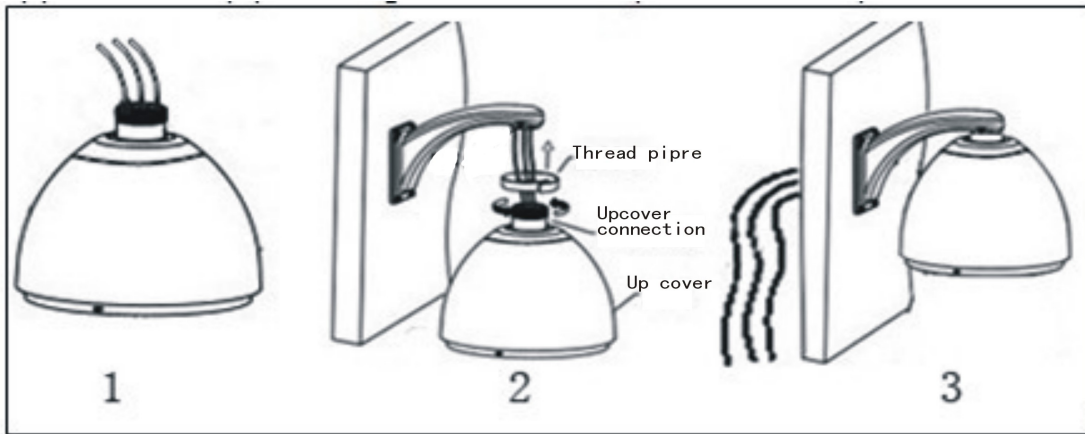
- (2) Please refer to picture 24, match wall mount with hole and install it.



Picture 24

2. Install upper cover:

- (1) Loosen the M4 bolt and swing away the power board holder, let cables go through upper cover, then cling upper cover to pipe and tighten M4 screw, please refer to picture 25

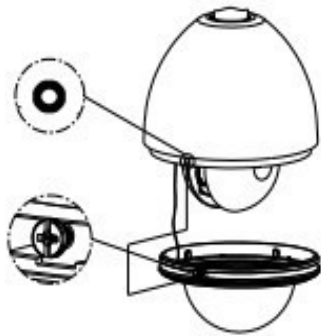


Picture 25

Note: If the speed dome is used outdoor, please wrap more belt on screw thread, then screw upper cover to wall mount.

3. Connect down cover:

Refer to picture 26, after taking off M3 screw from upper cover, insert the M3 screw into safety chain of down cover, then screw it.



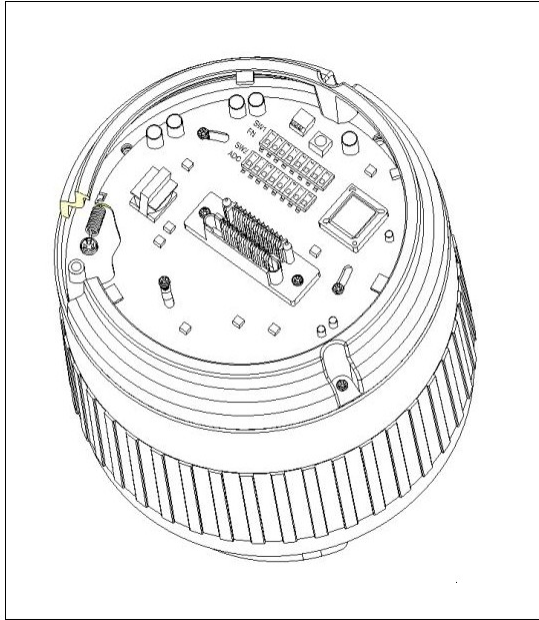
Picture 26

4. Install camera:

(1) Pick up camera from carton to check it, then refer to “appendix VI” and switch “SW1” “SW2” to set camera baud rate, protocol, and address.

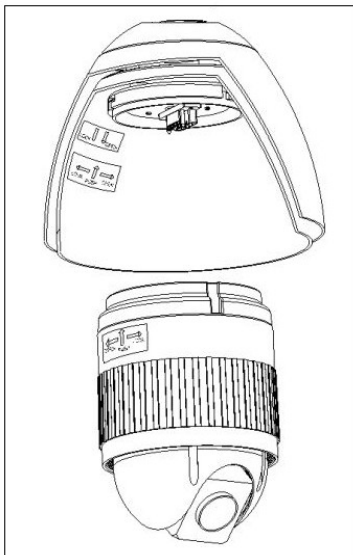
Note: If there is something wrong with camera in the process of using, please pack it well, then send

it to supplier for repair. (set switch before installing down cover.)



Picture 27

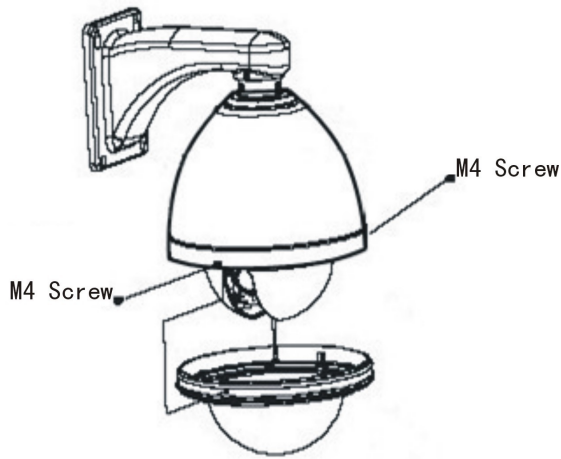
- (2) Both hands hold camera flank, there is direction indicator at the bottom of camera flank, "PUSH" on camera to "PUSH" on housing, then push it upper and parallelly, after camera was pushed to bottom, then turn it to "lock" direction, please refer to picture 28



Picture 28

5. Install down cover:

- (1) First take off 2 pcs screw from down cover flank
- (2) Refer to picture 29, smear lubricant on circle of down cover flank.
- (3) Loosen the two M4 screws on down cover ring. Apply lubricant to the O-ring to make down cover easier to slip in. Push upward the down cover into the housing and then fasten down cover with two M4 screws



Picture 29

9). Corner Mount installation

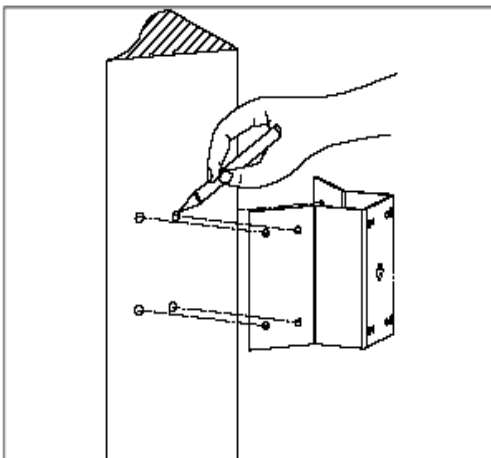
1. Installation Requirements:

Camera with Corner mount is suitable for firm wall which has 90 degree angle between two walls indoor and outdoor, Installation environment as follows:

- (1) The wall mounting surface must be firm enough to install expansive screws
- (2) The wall mounting surface must be firm enough to bear 4 times the weight of the speed dome

2. Install corner accessories, wall mount bracket:

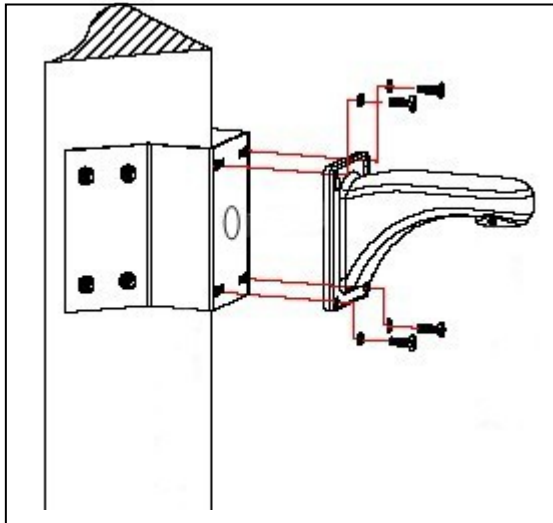
- (1) Refer to picture 30, take the bracket base as the template to mark the screws positions on wall, drill the holes and put expansion screws inside.



Picture 30

- (2) Refer to Picture 20, Put power/ RS485/video cables through the hole of corner base and use M8 nuts to fasten corner base on the mounting surface.

Note: Put cables through the wall or aside the corner base



Picture 31

Install upper cover: refer to page 14

Connect cable: refer to page 12

Connect down cover: refer to page 15

Install camera: refer to page 15-16

Install down cover: refer to page 16

10). Pole mount installation

Camera with pole mount is suitable for firm pole structure indoor and outdoor

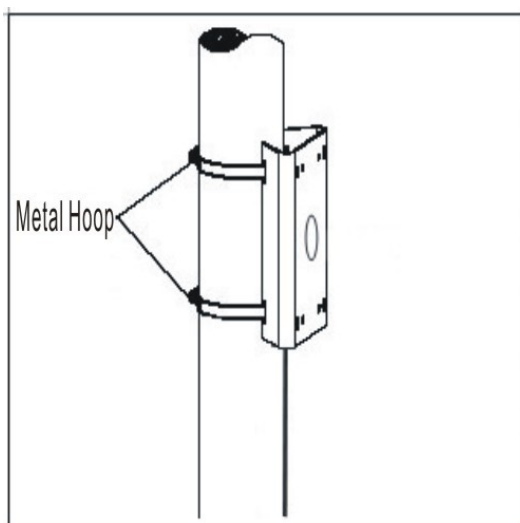
1. Installation requirements:

- 1) The outside diameter of the pole must be in the range of 130-150mm (5.12 ~6 inches).
- 2) The Pole structure must be firm enough to bear 4 times the weight of the speed dome.

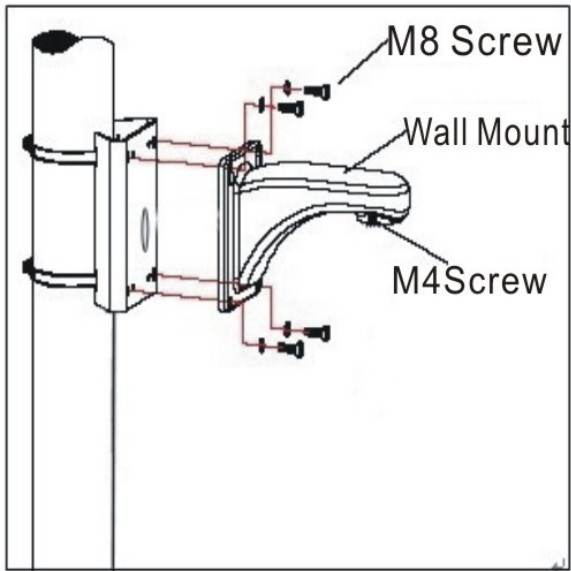
2. Install Pole mount accessory and wall mount bracket:

- (1) Refer to picture 32 and 33, put Power/RS485/Video cables through the hole of corner base and use M8 nuts to fasten corner base on the mounting surface.

NOTE: Put cables through the wall or aside the corner base.



Picture 32



Picture 33

Connect upper cover: refer to page 14,

Connect Cable: refer to page 12,

Connect down cover: refer to page 15

Install camera: refer to page 15-16

Install down cover: refer to page 16

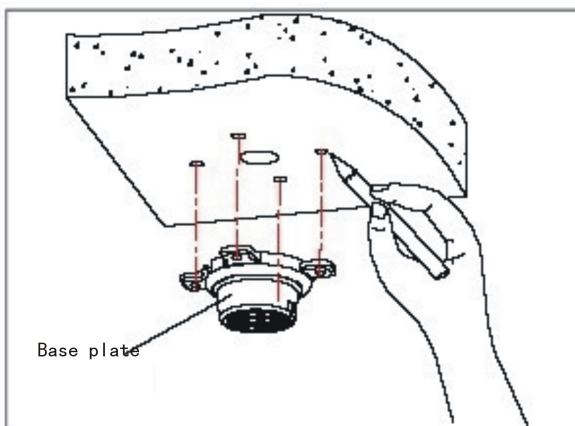
11). Pendent mount with pole

1. Installation requirements:

- (1) The ceiling must be firm enough to bear 4 times the weight of the speed dome.
- (2) The wall mounting surface must be firm enough to install expansive screws.

2. Install base and suspender:

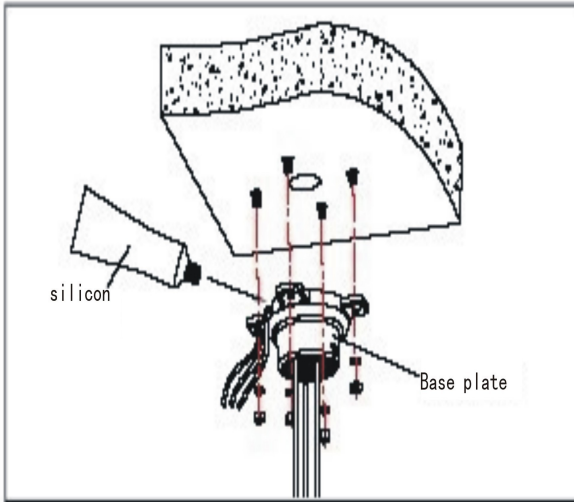
- (1) Take the bracket base as the template to mark the screws positions on ceiling. Drill the holes and put expansion screws inside, refer to Picture 34



Picture 34

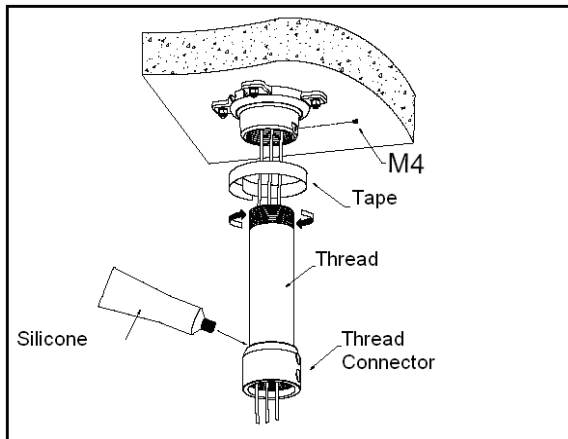
- (2) Put Power/RS485/Video cables through the central hole of the bracket base, and then fix it on ceiling, refer to picture 35.

NOTE: Apply silicone along the top of bracket base in the case of outdoor dome.



Picture 35

- (3) Put cables through the cavity of suspender. Apply water-proof tape to the thread. Then turn the thread pipe head into the bracket base and fasten the connection with an M4 screw, please refer to picture 36



Picture 36

NOTE: Apply silicone to the suspender as picture shows in the case of outdoor dome.

3. Install upper cover:

- (1) Insert cables through the hole at the top of the housing. Apply water-proof tape to the housing thread. Then turn the housing onto the wall mount bracket and retain the connection with an M4 screw. If installation height is not high enough, mount housing directly into the base

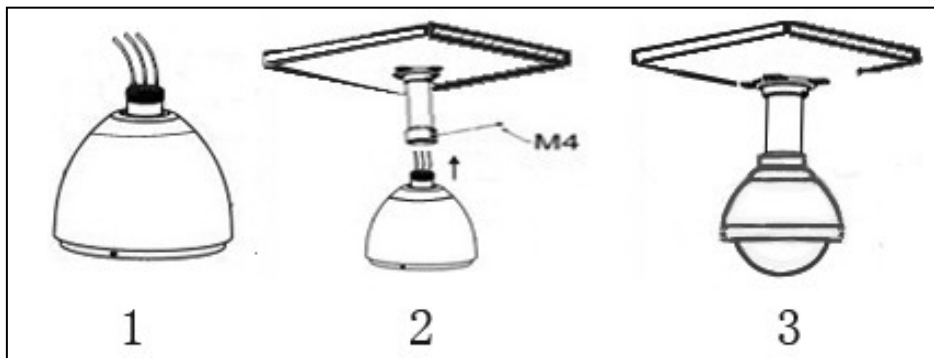


图37

Note: If camera is used outdoor, Apply silicone to the gap between bracket and wall in the case of outdoor dome.

Install upper cover: refer to page 14

Connect Cable: refer to page 12

Connect down cover: refer to page 15

Install camera: refer to page 15-16

Install down cover: refer to page 16

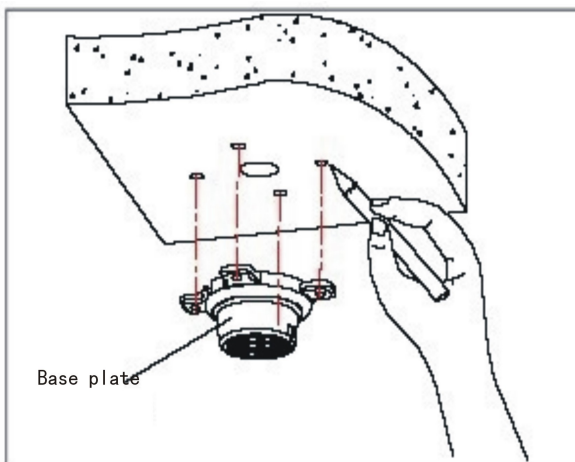
12). Pendent Mount without pole

1. Installation requirements:

- (1) The ceiling must be firm enough to bear 4 times the weight of the speed dome.
- (2) The wall mounting surface must be firm enough to install expansive screws.

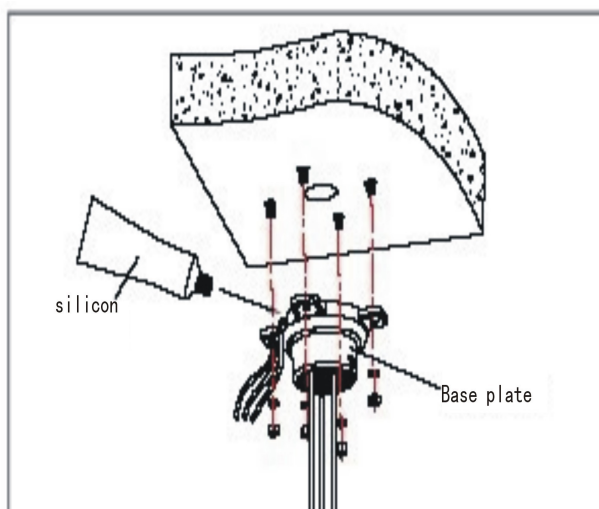
2. Install base and suspender:

- (1) Take the bracket base as the template to mark the screws positions on ceiling. Drill the holes and put expansion screws inside, refer to Picture 38



Picture 38

- (2) Put Power/RS485/Video cables through the central hole of the bracket base, and then fix it on ceiling, refer to picture 39.



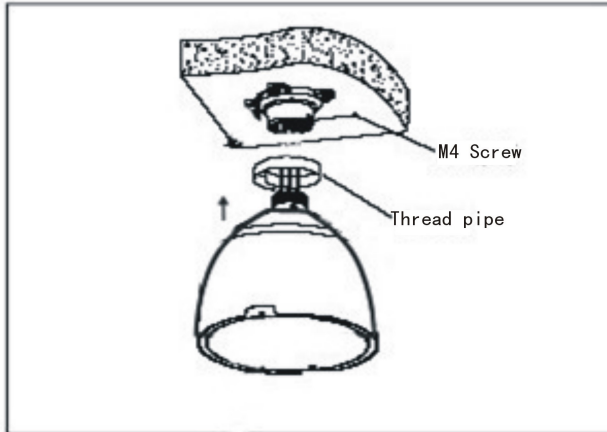
Picture 39

NOTE: Apply silicone along the top of bracket base in the case of outdoor dome.

3. Install upper cover:

Put cables through the cavity of suspender. Apply water-proof tape to the thread. Then turn the thread

pipe head into the bracket base and fasten the connection with an M4 screw, please refer to picture 40.



Picture 40

NOTE: Apply silicone along the top of bracket base in the case of outdoor dome.

Install upper cover: refer to page 14

Connect cable : refer to page 12

Connect down cover: refer to page 15

Install camera: refer to page 15-16

Install down cover: refer to page 16

13). Parapet mount installation

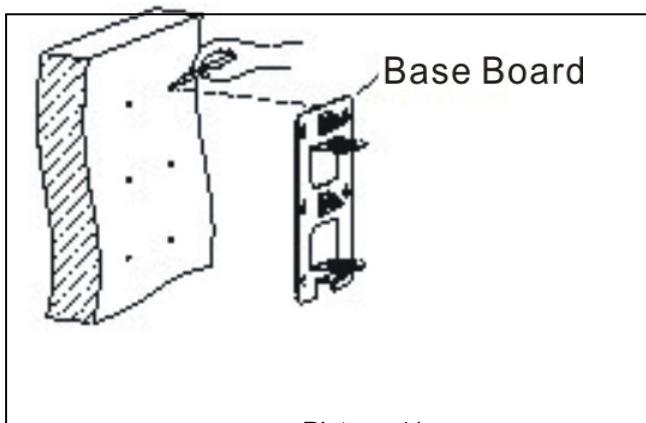
1. Installation Requirements:

Camera with parapet mount is suitable for firm mount of indoor and outdoor environment, installation requirement as follows:

- (1) The wall mounting surface must be firm enough to install expansive screws
- (2) The wall mounting surface must be firm enough to bear 4 times the weight of the speed dome

2. Mark Screws Positions

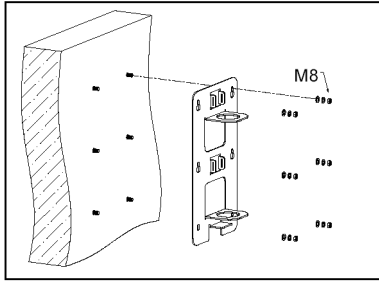
- (1) Take the bracket base as the template to mark the screws positions on wall, drill the holes



Picture 41

3. Install Base

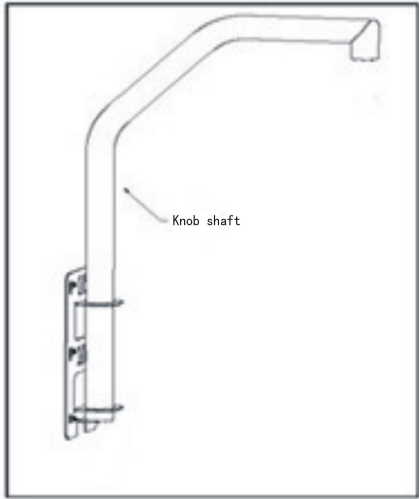
Fix the bracket base on the wall with the M8 expansive screws.



Picture 42

4. Install Pipe Arm

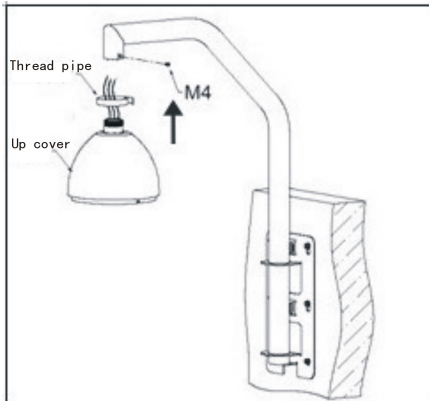
Put the cables through the two trays of the base and pipe arm, and plug the pipe arm into two trays



Picture 43

5. Unfasten the power board holder

Loosen the M4 bolt and swing away the power board holder, let cables go through upper cover, then cling upper cover to pipe and tighten M4 screw.



Picture 44

NOTE: Apply silicone along the top of bracket base and wrap more tape in the case of outdoor dome.

Install upper cover: refer to page 14

Connect cable: refer to page 12

Connect down cover: refer to page 15

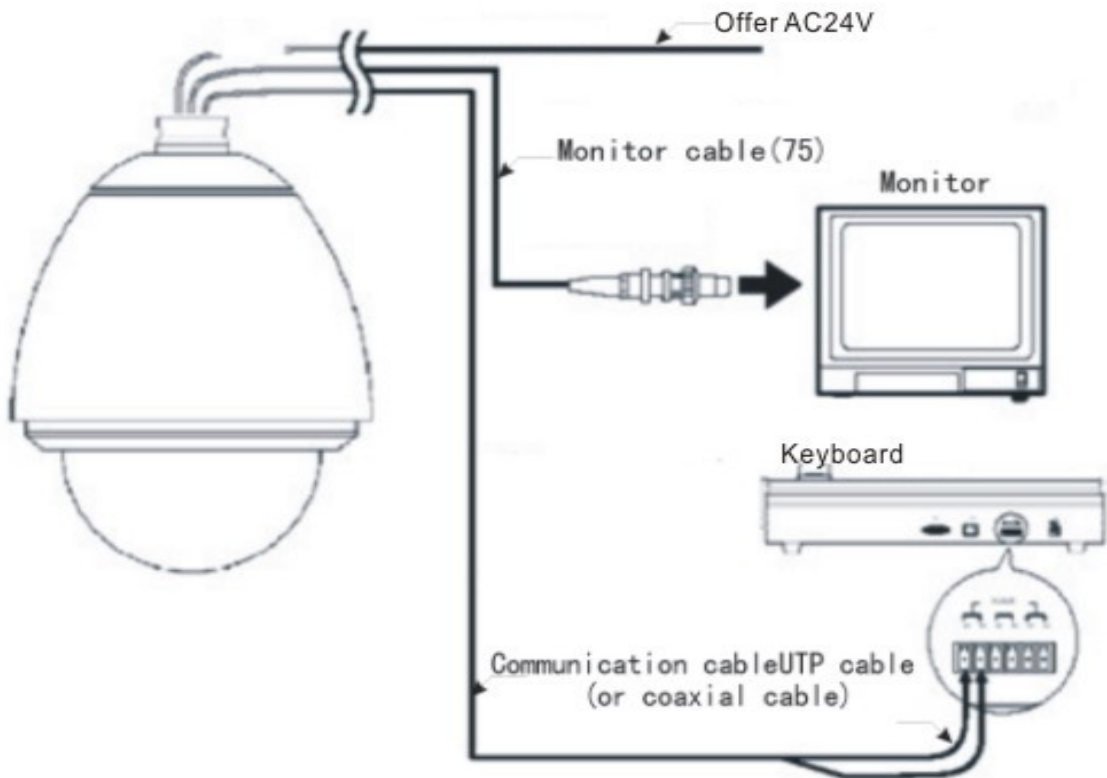
Install Camera: refer to page 15-16

Install down cover: refer to page 16

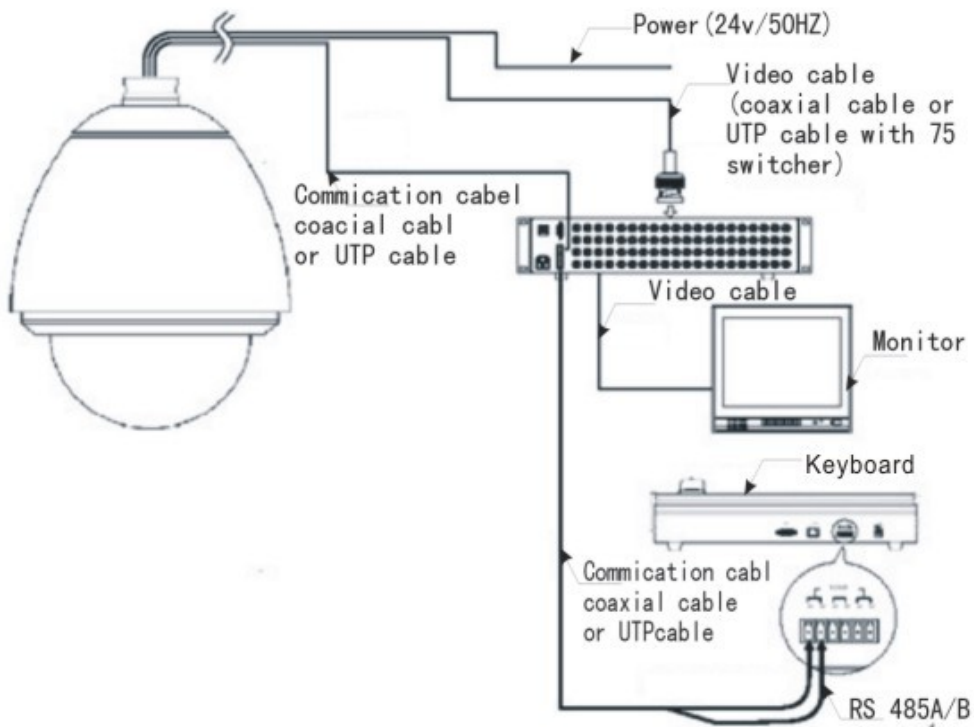
14). Products Connection

Before connecting all equipments, please turn off all power, and read user manual of all equipments.

1. Connection between keyboard and monitor



2. Video matrix connection:



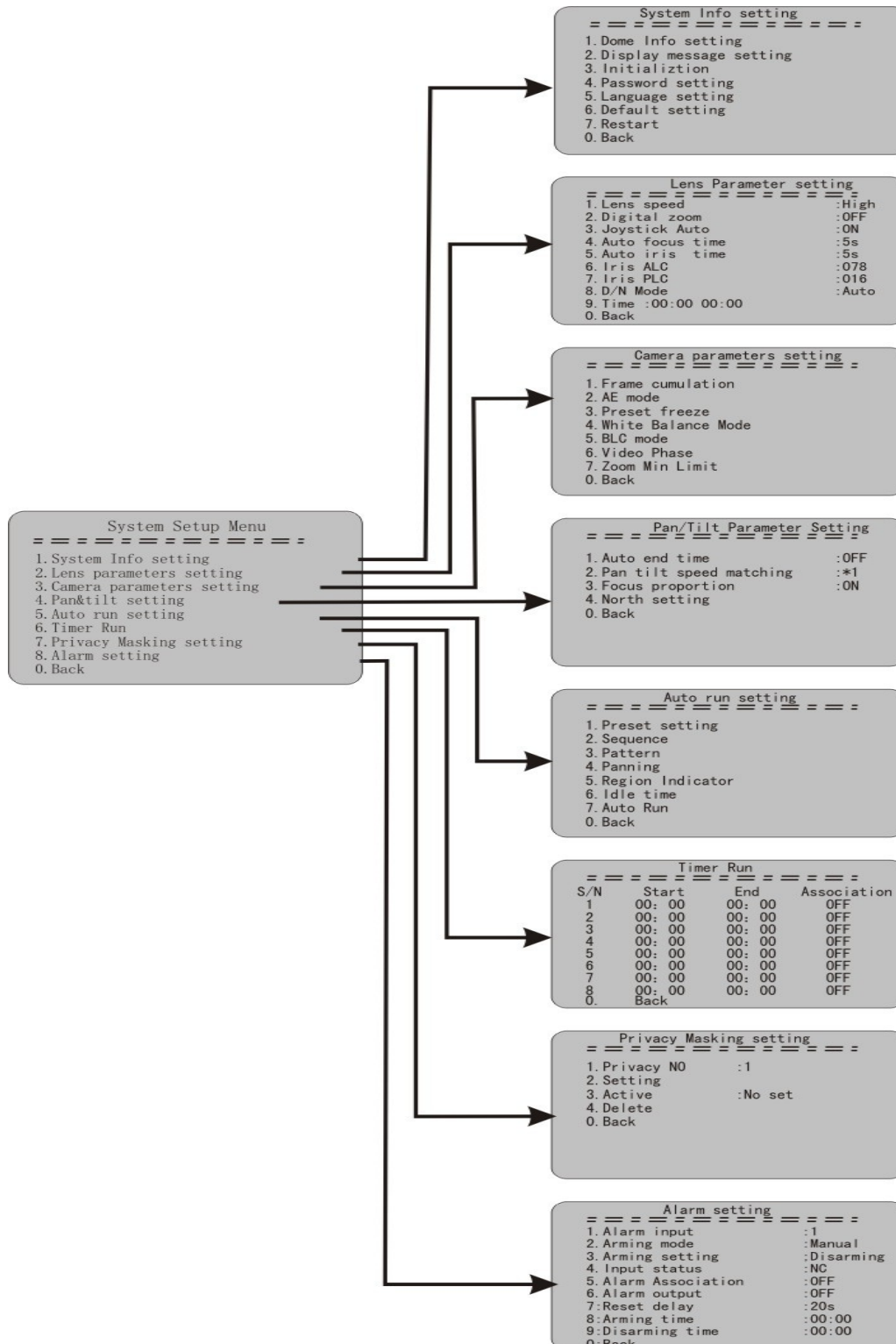
15). Operation Guide

The method for picking up camera menu:pick up No.95 preset or pick up No.1 preset two times.

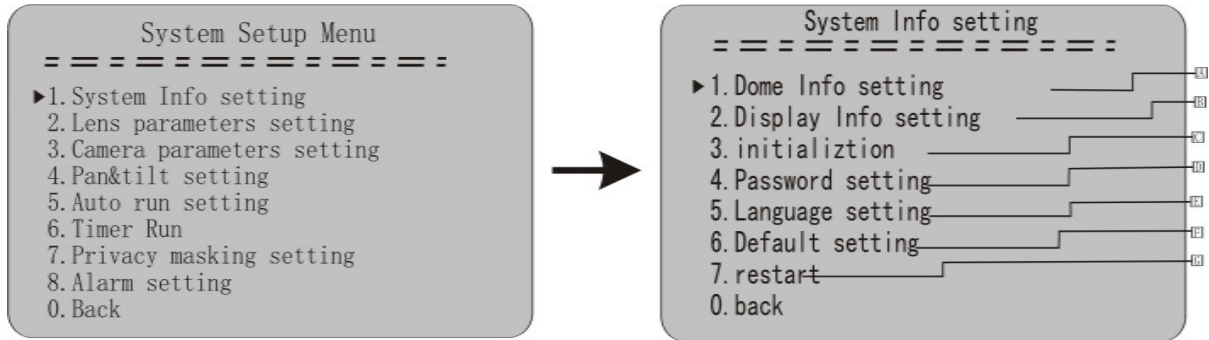
The operation is different for different keyboard,please comply with keyboard user is using.

Camera support short cutkey of some controller to save preset, pick up sets, set scanning border 、 start scan and patrol, andso on, please refer to user manual for the detailed commands.

16). Menu Tree



17). System information setting



A. Dome information setting (refer to page 27)

Set PTZ camera address, title,data,tempreature and so on.

B. Display information setting (refer to page 33)

Through this setting, user can see camera title, preset title, scanning title, area scanning title, zoom, alarm and clock indicator, camera direction.

C.Initialization Information (refer to page 34)

Through this, user can know camera ID, dome S/N number, protocol, baud rate, software version, fan speed and temperature.

D. Password setting (refer to page 35)

Camera password is default "000000" and turn off password protection function, if necessary, user can change password and activate password protection function.

E. Language option (refer to page 36)

Chinese and English are optional

F. Restoration setting (refer to page36)

Make sure camera setting information to be default.

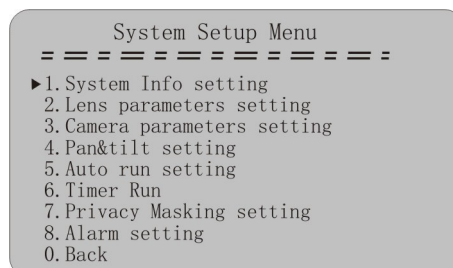
G. Restart (refer to page 36)

After operationg this function, all operation would be stopped, camera would be powered again, all setting information before power off is valid

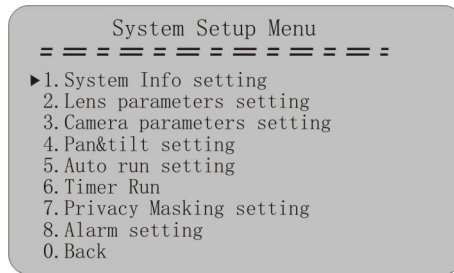
A. Dome information setting

Modify camera address

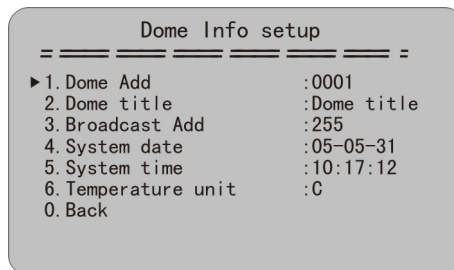
1. Make sure Number 1-8 to be "ON" on SW1 switch, at the same time, soft ID is activated, otherwise dome address is hard ID, couldn't be changed.
2. Pick up number 95 preset or pick up No 1 preset within five seconds two times to pick up main menu.



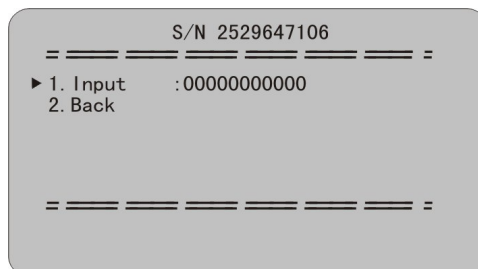
3. Move joystick to ▲ or ▼ to choose "system information setting", then move it to ►, screen will display system information setting menu.



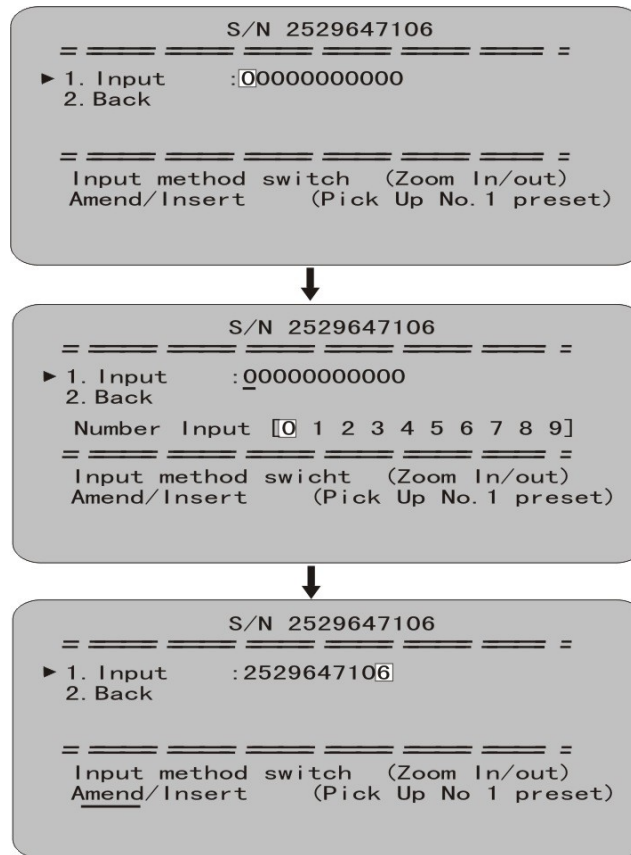
3. Move joystick to choose “dome information setting”, then move joystick to ▶, screen will display dome information setting menu.



5. To choose “dome address”, then move joystick to ▶, screen display S/N setting menu.



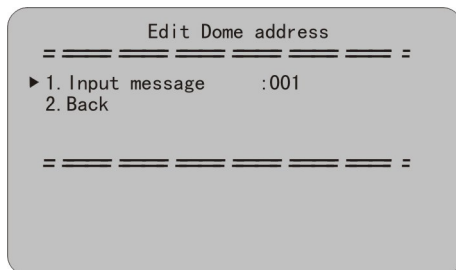
- ① Choose “input”, then move joystick to ▶, “input” setting information will glitter.
- ② Move joystick to ▼, at the same time, there is input information in menu, then move joystick to ◀ or ▶, to choose number user need, after finishing it, move joystick to ▲ to confirm it, if move joystick to ▼ to say “give up”, then move joystick to ◀ or ▶ to modify other number. The inputting number should comply with “dome S/N”.
- ③ Finally move joystick to ◀ to finish inputting.



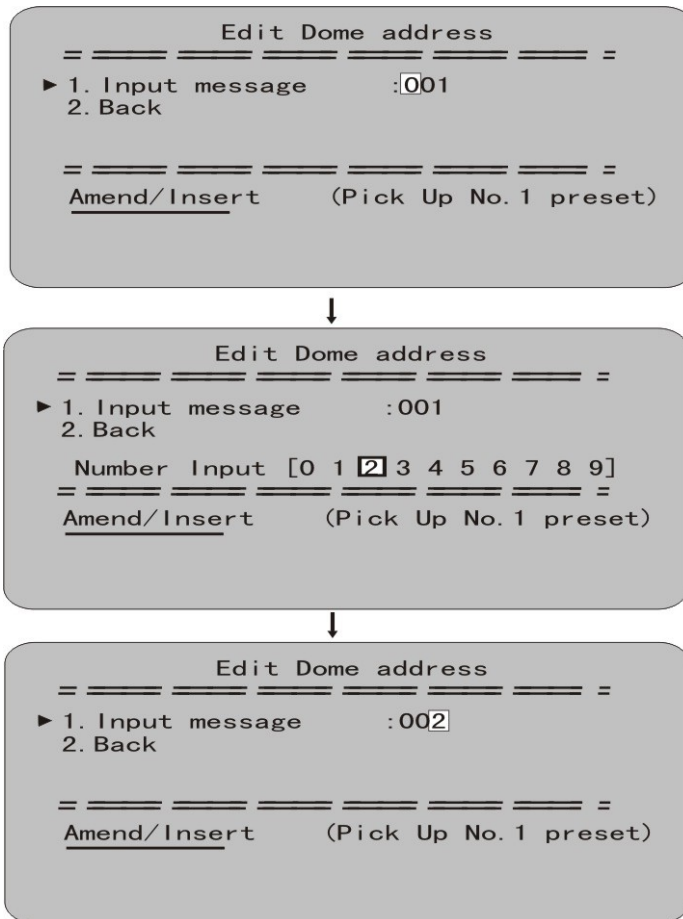
Note: When user input S/N, user pick up No.1 preset to switch” modification” and”insert”, if screen display “modification”, it shows the situation is “modification status”; if screen display” insert”, it shows situation is “insert status”.

- Modification status: modify glitter number.
- Insert status: insert number before glitter number.

6. Choose“return”, then move joystick to▶, screen display dome address edit menu.



- ① Choose“input info”, then move joystick to▶,“input info” setting content will glitter.
- ② Move joystick▼, menu display number input info, then move it to◀ or▶ to choose number user need,after finishing it,move joystick to▲ to confirm it. If joystick is moved to▼, it shows give up,finally move joystick to◀ or▶ to change other number.
- ③ Then move joystick to◀, untill there is flitter cursor.
- ④ Choose“return”, then move joystick to▶ to end setting.



Note: When user input S/N, user pick up No.1 preset to switch” modification” and”insert”, if screen display “modification”, it shows the situation is “modification status”; if screen display” insert”, it shows situation is “insert status”.

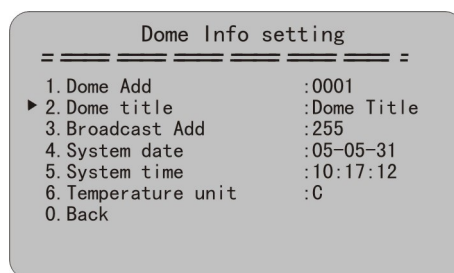
- Modification status: modify glitter number.
- Insert status: insert number before glitter number.

Press tracking shot key to choose input method: number input、English capitalization、English lowercase,symbol input, please refer to following “edit dome title” in detailed.

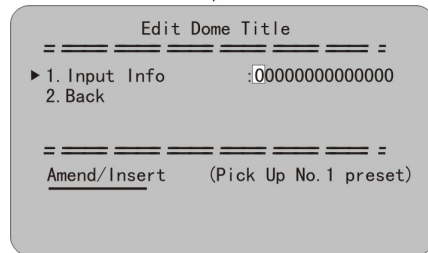
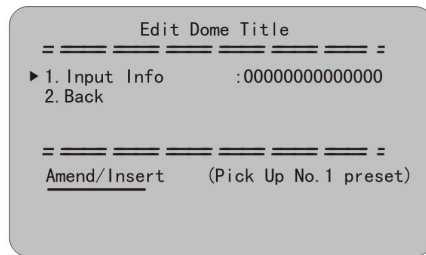
Note: If dome address is changed successfully, dome can't be controller, user must modify dome address in keyboard menu,Dome can be controlled unless dome address in keyboard must comply with changed dome address, please refer to keyboard user manual for modifying dome address in keyboard.

Edit dome title

1. Move joystick to choose“dome info setting”, then move it to ►, screen display dome info setting menu.

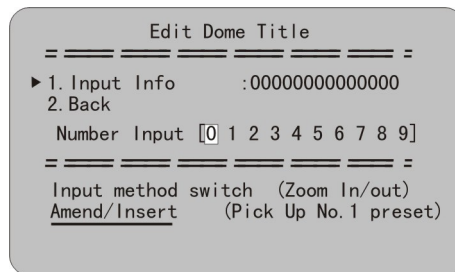


2. Move joystick to choose“dome title”, then move it to ►, screen display dome title editing menu.
 - ① Choose“input info”, then move joystick to ►, input info setting content will glitter.



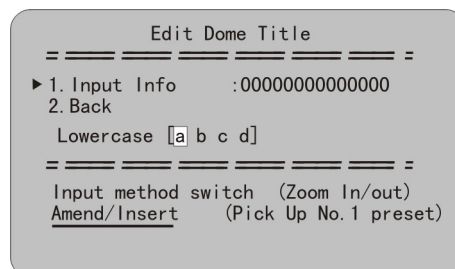
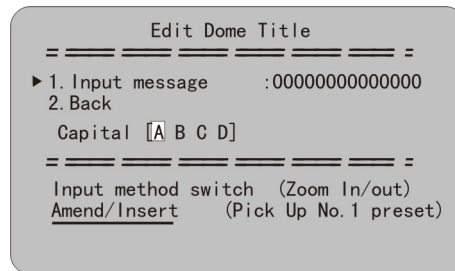
② Move joystick to ▼, there is number inputting info in menu, press tracking shot key to choose inputting method: number input, English capitalization, English lowercase, symbol input.

• **Number input:**



Move joystick to ◀ or ▶ to choose number user needed, then move joystick to ▲ to confirm it, if joystick is moved to ▼, it shows give up, move joystick to ▼ again, it enters into other modification. After finishing it, move joystick to ◀ until glitter ▶ cursor appear, then move joystick to choose "return", move joystick to ▶ to end setting.

• English capitalization and English lowercase input:

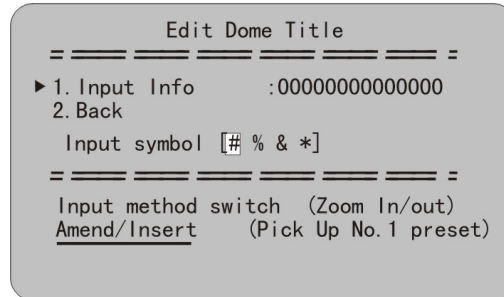


Glittering ↓ in menu shows joystick can be moved to ▲ or ▼ to page up and page down, joystick is moved to ▶ to choose letter on the page, at this time letter is glittering: joystick is moved to ◀ or ▶ to choose needed letter, then turn it to ▲ to confirm it; if joystick is moved to ▼ to show "give up", then move it to ◀ or ▶ to operate other modification.

Note: When system is in "letter choice", user wants to operate page down or page up, user needs to move joystick to ◀ until glittering ↓ appears, then page down or page up, after that, move

joystick to ◀ until glittering ▶ cursor appears, then move joystick to choose “return”, finally move joystick to ▶ to end setting.

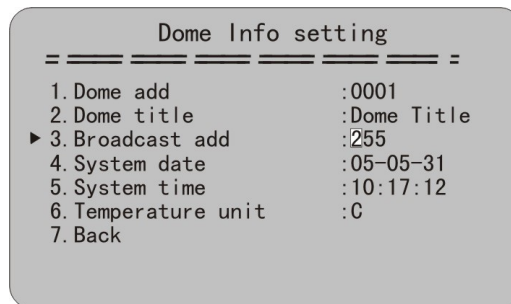
• **Symbol input method:**



Move joystick to ◀ or ▶ to choose needed symbol, at this time, letter is glittering, then move joystick to ▲ confirm it. If joystick is moved to ▼ to testify “give up”; if joystick is moved to ◀ or ▶, enter in other setting procedure, after finishing it, then choose “return”, finally move joystick to ▶ to end setting

Broadcast address setting

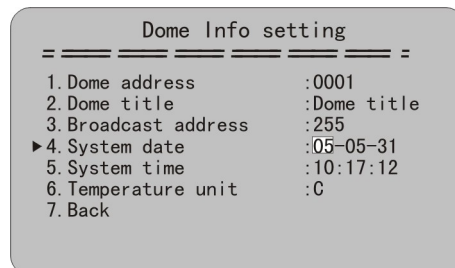
1. Choose “dome info setting”, then move joystick to ▶, screen will display dome info setting menu
2. Choose “broadcast address”, then move joystick to ▶, number on broadcast address setting area will glitter.



3. Move joystick ▲ or ▼ to change setting (000-255), then move joystick to ◀ or ▶ to let glittering cursor move to next position.
4. After finishing setting, move joystick to ◀ till glittering ▶ cursor appears, then move joystick to choose “return”, finally move joystick to ▶ to end setting.

Modify system date

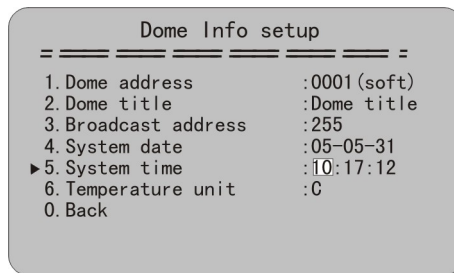
1. Choose “dome info setting”, then move joystick to ▶, screen will display dome info setting menu.
2. Choose “system date”, then move joystick to ▶, number on the area of system date setting will glitter.



3. Move joystick to ▲ or ▼ to change number, then move it to ◀ or ▶, make glittering cursor move to next position.
4. After finishing setting, move joystick to ◀ till glittering ▶ cursor appears, then move joystick to choose “return”, finally move joystick to ▶ to end setting.

Modify System Time

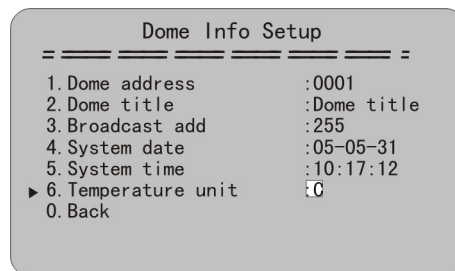
1. To choose “Dome Info Setup”, then move joystick to ►, “Dome Info setup” menu appears.
2. To choose “System time”, then move joystick to ►, system time setting area will glister.



3. To move joystick to ▲ or ▼ to change number, then move it to ◀ or ▶, Make glittering cursor move to next position.
4. To move joystick to ◀ until glittering cursor appears, then move joystick to choose “back”, finally move joystick to ▶ to end setting.

Modify temperature unit

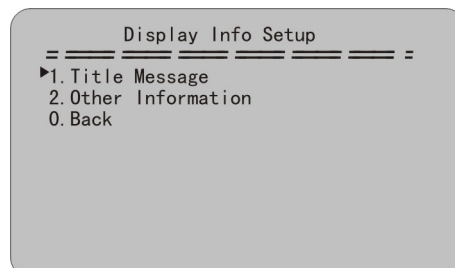
1. Choose “dome info setting”, then move joystick to ►, screen will display dome info setting menu.
2. Choose “temperature unit”, then move joystick to ►, number on the area of temperature unit setting will glitter.



3. Move joystick to ▲ or ▼ to change setting content (C/F), then move it to ◀ or ▶ to let glittering cursor move to next position.
C: Centigrade
F: Fahrenheit
4. After finishing setting, move joystick to ◀ until glittering cursor appears, then move joystick to choose “return”, finally move joystick to ▶ to end setting.

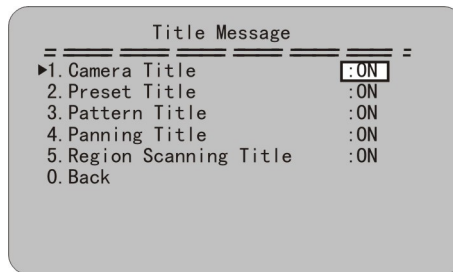
B. Display info setting

Choose “display info setting”, then move joystick to ►, screen will appear “display info setting menu”.



Title Info Setting

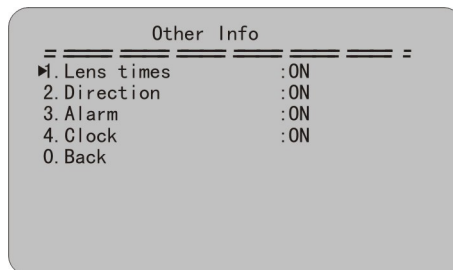
1. Choose “title info setting”, then move joystick to ►, screen will appear “title info setting menu”.
2. Move joystick to ▲ or ▼ to choose one option, then move it to ▶, then setting content will glittering.



3. Move joystick to ▲ or ▼ to change setting parameter, then move it to ◀ to finish setting. "3s-255s" shows that title last time on screen.
 4. Choose "return", then move joystick to ▶ to end setting.
 - Dome title: choose whether to display dome title on screen or not.
 - Preset title: when pick up preset, user can choose whether to display preset's title on screen or not. User can set "ON" or "OFF" separately, 3s-255s.
 - Pattern title: when picking up pattern, user can choose whether to display pattern's title on screen. user can set "ON" or "OFF" separately, 3s-255s.
 - Panning title: when picking up panning, user can choose whether to display panning title on screen or not. user can set "ON" or "OFF" separately, 3s-255s.
 - Region scanning title: when pick up region scanning, user can choose whether to display region scanning title on screen, user can set it "ON" or "OFF", 3s-255s.
- "3s-255s" shows that title last time on screen.

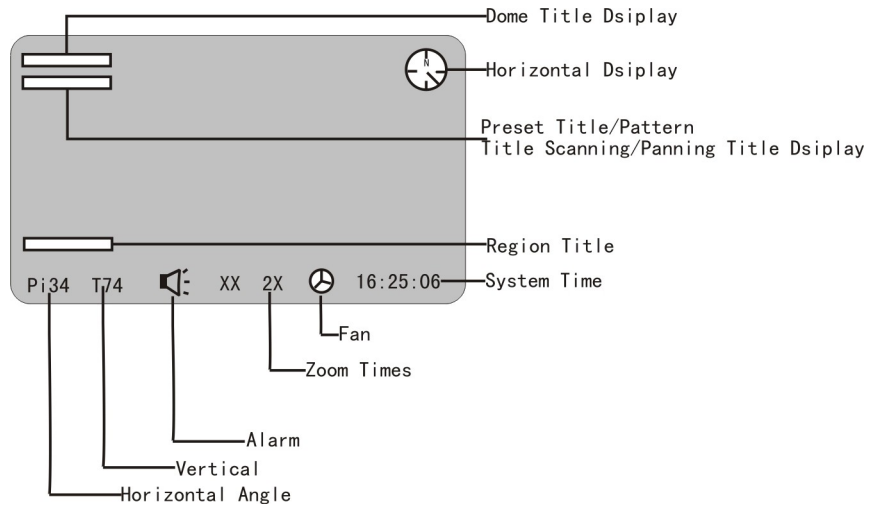
Other info setting

1. Choose "other info setting", then move joystick to ▶, other info setting menu will be appeared on screen.
2. Move joystick to ▲ or ▼ to choose one option, then move it to ▶, setting content will glitter.



3. Move joystick to ▲ or ▼ to change parameter setting, then move it to ◀ to end setting.
4. Choose "return", then move joystick to ▶ to end setting.
 - Lens zoom: to choose whether to display zoom times on screen, user can set it "ON" or "OFF", 3s-255 s.
 - Direction indicator: to choose whether to display camera direction on screen, user can set it "ON" or "OFF", 3s-255 s.
 - Alarm indicator: when system alarm, user can choose whether to display alarm info on screen.
 - Clock indicator: choose whether to display system date on screen.

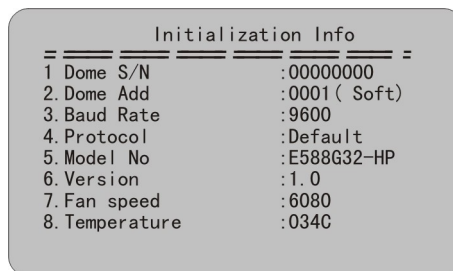
Position for setting content on screen



◆□When user pick up some preset, pattern,panning ...some functions,If some function is not set, it will show “**** is not set”, if the function is beyond setting range,it will show “**** does not exist”; For example: if No.5 preset is not set, when user pick up No.5 Preset, it will show “No.5 preset is not set”, if user pick up No.221 preset, it will show “No.221 preset doesn’t exist.

C.Initialization Information

To choose “initialization info”, then move joystick to ▶, the menu will appear on screen.



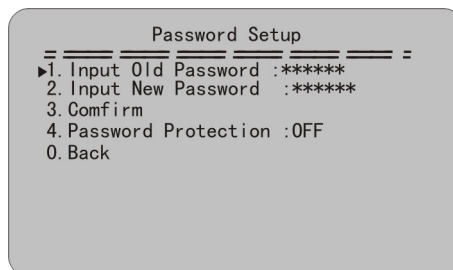
To move joystick at will to exit and return to former submenu.

D.Modify Dome Password

Modify Password

To choose”password setting”,then move joystick to ▶,the menu will appear.

Default password is“000000”,If dome password is“000000”,it shows that system turns off password protection function, user can change setting without password.

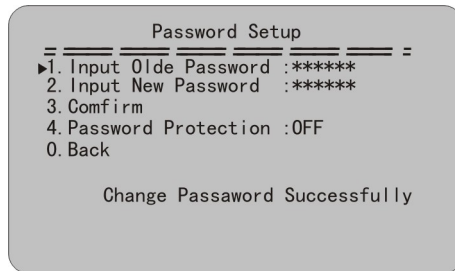


- 1.To choose“input old password”, then move joystick to ▶,the old password area will glitter.
2. To move joystick to ▲ or ▼ to modify setting, then move joystick to ◀ or ▶ to enter next setting.
3. After inputing old password, to move joystick to ◀ untill glittering“>”cursor appear.
4. To choose“input new password”, then move joystick to ▶,new password will glitter.
5. To move joystick to ▲or ▼ to modify setting, then move joystick to ◀ or ▶ to enter next setting.
6. After finishing setting new password, move joystick to ◀ untill glittering“>”cursor appears.

7.To choose “ confirm”, then move joystick to ►,If old password is wrong, there is hint saying ”wrong old password” appears.



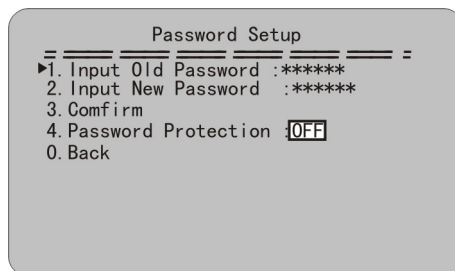
If user modify password successfully,there is hint” password modification success!” on screen.



Set and Cancel Password Protection

If user want to set password protection, first need to open passowrd protection.

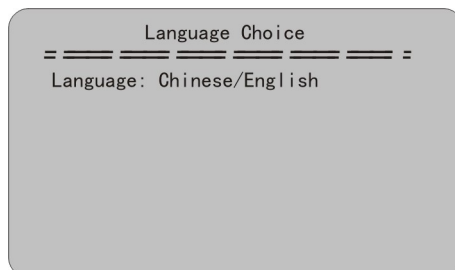
- 1.To choose”password protection” then move joystick to ►, the menu will appear on screen.
2. To choose”password protection”, then move joystick to ►,setting cursor will glitter.



3. To choose”ON”, then move joystick to ◀, then choose “return”, move joystick to ► to end setting,at this time, password protection function would be “ON”, when user pick up system menu, user need to input password.
4. If user need to cancel password protection, need to keep”password protection” OFF.

E.Language Choice

1. To choose “ language choice”, then move joystick to ►, the menu will appear.

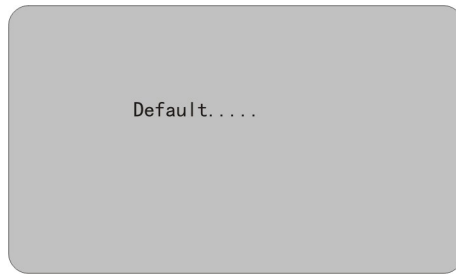


2. To move joystick to ▲or ▼ to choose language, then move joystick to ◀ or ► to finish setting.

F.Default Setting

Except for preset,pattern, panning,region, password,title,all setting content can get back to default setting.

To choose “default setting” in system menu, then move joystick to ▶, “default setting” menu will glitter on screen, it would be disappear within about 2 minutes, and return to system setting menu.

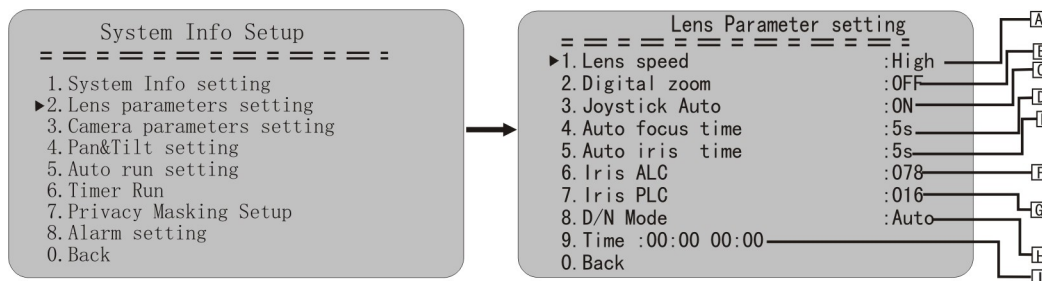


G.Restart

To choose “restart” of menu, then move joystick to ▶, the Restart menu will glitter and will disappear within two minutes, the camera would reset and inspect auto.



18). Lens Parameters



A. Zoom speed (refer to page 37)

To set the zoom speed level to high or low

- High:zoom fast
- Low:zoom low

B.Digital zoom (refer to page 38)

Digital zoom magnifies the picture by duplicating pixels. The picture is enlarged but the resolution remains the same. This menu item sets max, digital zoom magnification times.

- OFF: Turn off digital zoom
- X1-X12: Max digital zoom times.Different camera has different Max digital zoom times.

C.Joystick auto (refer to page 38)

To set automatic restore mode. When the joystick moves, the selected function will start.Function options are:

- **Both:** Joystick movement triggers both auto focus and auto iris.(default).
- **Focus:** joystick movement triggers auto focus only.
- **Iris:** Joystick movement triggers auto iris only.

- **Off:** Joystick movement triggers none of the functions.

D. Auto Focus (refer to page 38)

Systems default of Auto Focus is to automatically adjust the focus to get clear image. Focus can also be manually controlled by keyboard or matrix. For manual operation details, please refer to keyboard or matrix operation manual.

The setup is used to restore auto focus function after focus has been manually adjusted.

- **OFF:** Never restore auto focus. That means focus is always in manual mode.
- **1s-255s:** The dome will start auto focus in the number of seconds that have been set (001 to 255) after user manually adjusts focus.

Note: The camera might not be able to auto focus in the following conditions:

- 1) Target is not in the center of image.
- 2) Near and far targets in the same picture can not be both clear.
- 3) Target is an object with strong light, such as spotlight.etc.
- 4) Target is behind the glass with water drop or dust.
- 5) Target moves too fast.
- 6) Target is supposed to be a large area such as a wall.
- 7) Target is too dark or vague.
- 8) Joystick Auto set off or joystick Auto set Iris, or Focus is set off.

E. Auto Iris (refer to page 39)

Light passes through the iris and reaches CCD to form an image. A larger iris lets more light pass through causing the image to be brighter. Iris can be controlled automatically or manually. For manual operation detail, please refer to keyboard or matrix manual.

The setup is used to restore auto Iris function after Iris has been manually adjusted.

OFF: Never restore auto iris. That means iris is always in manual mode.

001-255: The dome will start auto iris in the speed that have been set (001 to 255 seconds) after user manually adjusts iris.

F. Iris ALC (refer to page 40)

To set the iris average level control value. The value could be 000~255.

Default value: 22X color camera: 066, 23X color/mono camera: 084 (different camera has different ALC default value)

G. Iris PLC (refer to page 40)

To set the iris peak level control value. The value could be 000~127.

Default value: 23X color/mono camera: 016 (different camera has different PLC default value)

Note: Changing default value is strongly **NOT** recommended.

H. Day/Night Mode (refer to page 40)

To set the dome color/monochrome switching mode. Color mode is suitable to work in daytime because it needs higher illumination. By contrary, light sensitivity of mono mode is much higher. It is suitable to work at night in low illumination environment but the video is black and white.

Auto: The dome will automatically change modes in accordance with the environment illumination.

Day: The dome is always in colorful mode.

Night: The dome is always in monochrome mode.

Time: Set schedule for mode change.

Note: You need to set exposure mode to Auto in order to get Auto Day/Night mode.

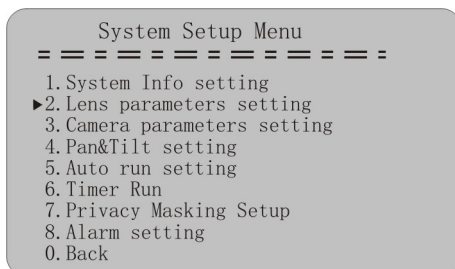
I. Time: 00:00 00:00 (refer to page 40)

Set the Day Mode start time and Night mode start time. If the two times are same with the other, the camera will stay in current mode all the time.

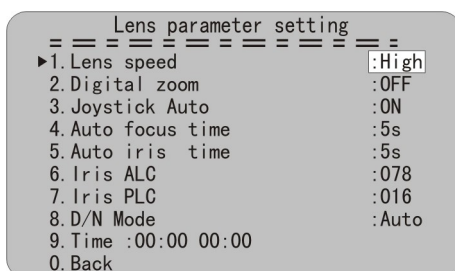
Note: Iris PLC, IRF Control, Day Mode Time, Night Mode Time can only be set in certain camera models.

A. Camera zoom speed.

1. To Pick up No.95 preset or pick up No.1 preset two times within five seconds to pick up menu.



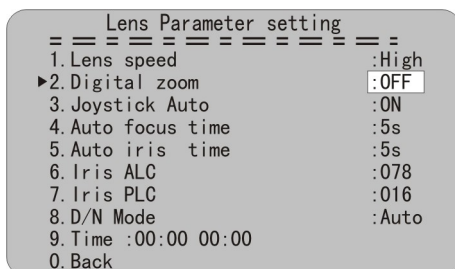
2. To Move joystick to choose “ camera parameter setting”, then move it to ►, the camera parameter setting menu will appear.
3. To choose “ camera zoom speed”, then move joystick to ►, setting content of “ camera zoom speed” will glitter.



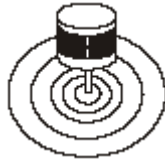
4. Move joystick to ▲ or ▼ to choose setting parameter (fast/low), then move joystick to ◀ to exit the setting.

B. Digital zoom limitation

1. To choose “ digital zoom limitation, then move joystick to ►, the setting content of “digital zoom limitation” will glitter.



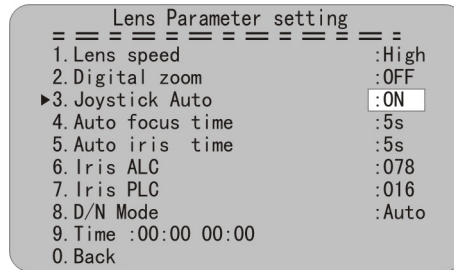
2. Move joystick to ▲ or ▼ to choose setting parameter (OFF/X1-X10) , after finishing it, move joystick to ◀ to exit the setting.



Note: User can circumrotate joystick clockwise or anti-clockwise to zoom in and zoom out. If user want to zoom continuously, it will pause few moment at the max optical zoom, it testify that optical zoom is been changed into digital zoom.

C. Joystick Auto

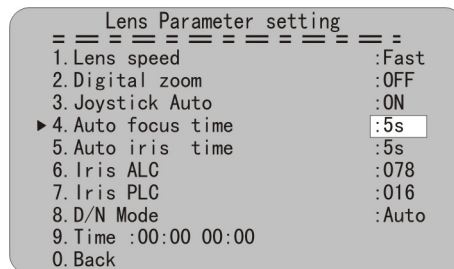
1. To choose “Joystick Auto”, then move joystick to ►, the setting content of “Joystick Auto” will glitter.



2. To move joystick to ▲ or ▼ to choose setting parameter(On/Focus/Iris/OFF) , after finishing it, to move joystick to ◀ to exit setting.

D. Auto Focus Time

1. To choose “Auto Focus Time”, then move joystick to ►, the setting content “Auto Focus Time” will glitter.



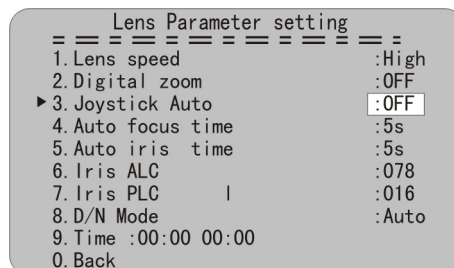
2. To move joystick to ▲ or ▼ to choose setting parameter (OFF/ 1s -255s) , then move it to ◀ to exit the setting.

Note: To use auto focus duratively will cause camera’s life short.

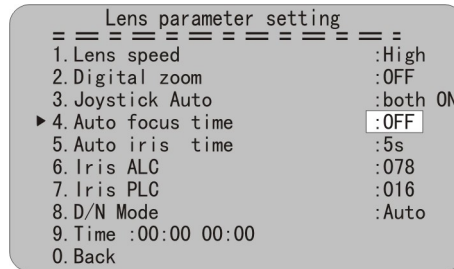
Use Camera manual Focus

Generally speaking, if user want to surveillance some objective(more than 24h), manual focus is default.

1. To keep “joystick auto” OFF.



2. To keep” auto focus time” OFF.

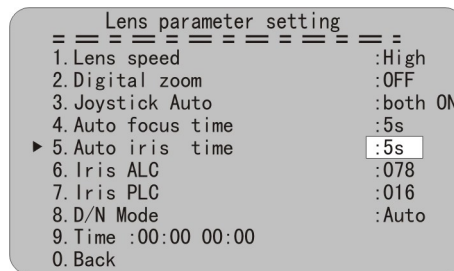


3. After finishing it, to exit setting.

4. To press [NEAR] to focus near objective, to press [FAR] to focus far objective.

E Auto Iris Time

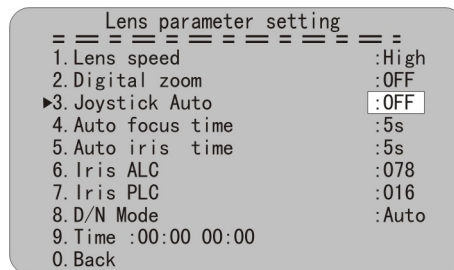
1. To choose "Auto Iris Time", then move joystick to , the setting content of "Auto Iris Time" will glitter.



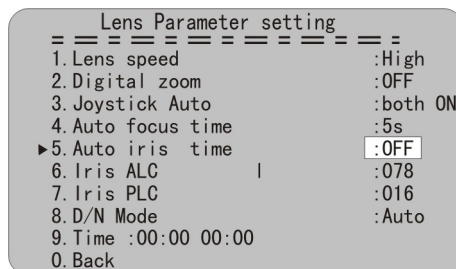
2. To move joystick to or to choose setting parameter (OFF/1s -255s), then move it to to exit the setting.

Operate Camera Manual Iris

1. To keep "joystick Auto" OFF.



2. To keep "Auto Iris Time" OFF



3. After finishing it, exit setting.

4. To press [OPEN] to make image brightness, to press [CLOSE] to make image darkness.

F. Iris ALC

1. To choose "Auto Iris Time", then move joystick to , the setting content of "Iris ALC" will glitter.


```

Lens Parameter setting
=====
1. Lens speed           :High
2. Digital zoom        :OFF
3. Joystick Auto       :ON
4. Auto focus time     :5s
5. Auto iris time      :5s
▶6. Iris ALC           :078
7. Iris PLC            :016
8. D/N Mode            :Auto
9. Time :00:00 00:00
0. Back

```

2. To move joystick to ▲ or ▼ to choose setting parameter (000-255) , then move it to ◀ to exit setting.

G. Iris PLC

1. To choose "autot iris time", then move joystick to ▶, then setting content of "Iris PLC" will glitter.

```

Lens parameters setting
=====
1. Lens speed           :High
2. Digital zoom        :OFF
3. Joystick Auto       :Both
4. Auto focus time     :5s
5. Auto iris time      :5s
6. Iris ALC            :078
▶7. Iris PLC           :016
8. D/N                 :Auto
9. Time :00:00 00:00
0. Back

```

2. To move joystick ▲ or ▼ to choose setting parameter (000-127) ,the move it to ◀ to exit setting.

H. Day and Night Mode

1. To choose "D&N switch", then move joystick to ▶, the setting content of "D&N switch" will glitter.

```

Lens Parameter setting
=====
1. Lens speed           :High
2. Digital zoom        :OFF
3. Joystick Auto       :ON
4. Auto focus time     :5s
5. Auto iris time      :5s
6. Iris ALC            :078
7. Iris PLC            :016
▶8. D/N Mode           :Auto
9. Time :00:00 00:00
0. Back

```

2. To move joystick to ▲ or ▼ to choose setting parameter (Auto/Color/B&W) , then move it to ◀ to exit setting.

I. Time

1. To choose "Time", then move joystick to ▶, the setting content of "time" will glitter.

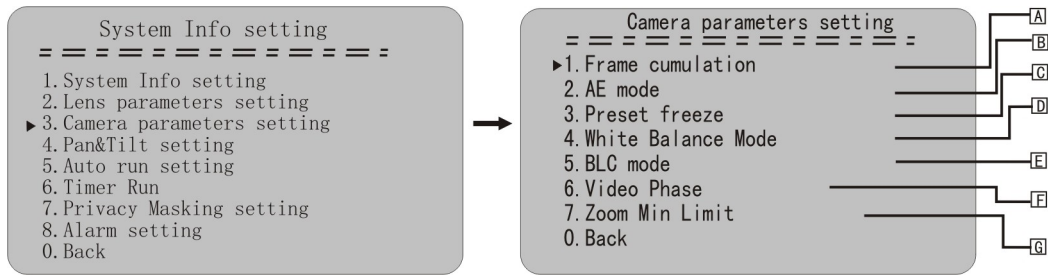
```

Lens Parameter setting
=====
1. Lens speed           :High
2. Digital zoom        :OFF
3. Joystick Auto       :Both
4. Auto focus time     :5s
5. Auto iris time      :5s
6. Iris ALC            :078
7. Iris PLC            :016
8. D/N                 :Auto
▶9. Time :00:00 00:00
0. Back

```

2. To move joystick to ▲ or ▼ to choose setting parameter, then move it to ◀ to exit setting.

19). Camera Parameters



A. Frame Cumulation(refer to page 42)

User can get good image through this setting if objective is in bad environment, the bigger the value, the brighter the image.

B. AE Mode(refer to page 42)

To set exposure mode. The value option are: **Auto, Shutter, Iris and AGC.**

Shutter:

Set Shutter speed in priority, available: settings are 1/1.5, 1/3, 1/6, 1/12, 1/25, 1/100, 1/150, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/30000

Iris:

Set Iris in priority. Values are: F1.6, F2.2, F3.2, F4.4, F6.4, F8.8, F12, F17, F24, F34

AGC:

Set Auto gain control in priority. Values are: 0dB, 6dB, 12dB, 18dB, 24dB, 30dB. Higher dB value makes image brighter.

Note: Day/Night auto mode and Sensitivity Up will be void if Exposure mode is not Auto mode.

C. Preset freeze(refer to page 43)

If Preset Freeze is On, the current image will freeze until the image of the preset presents.

Therefore you can not see the scene between the current position and the preset. This feature reduces useless data traffic in web application and save storage space for DVR.

D. White Balance (refer to page 43)

White balance simulates sun light circumstance. However in certain lighting conditions, user may want to manually adjust the red (R Gain) and blue (B Gain) settings for optimal viewing. The setting options are:

AUTO Auto white balance. (default setting)

USER Manually set the red and blue values.

R Gain & B Gain Set red and blue color depth.

E. BLC Mode(refer to page 44)

F. Video Phase (refer to page 44)

Video Phase make sure video switch synchronously.

Note: When AC is conflict with video signal system, this function is unvalid.

For example:

When power is 50Hz, this function is valid for PAL, invalid for NTSC.

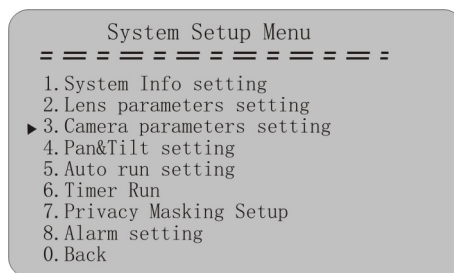
When power is 60Hz, this function is valid for NTSC, invalid for PAL.

G. Focus Min. Limit (refer to page 44)

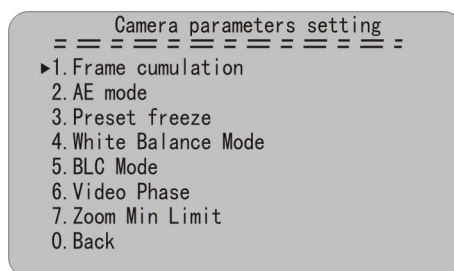
Set a minimum distance from the lens, the camera will not focus on objects in that distance. E.g. This feature can prevent camera from focusing on the down cover.

A. Frame Cumulation

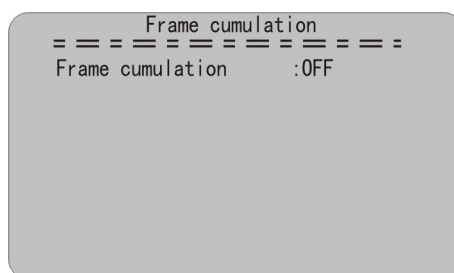
1. To pick up No.95 preset or pick up No.1 preset within 5 seconds two times, then main menu is picked out.



2. To move joystick to choose "camera parameter setting", then move it to ►, camera parameter setting menu is displayed.



3. To choose "frame acumulation", then move joystick to ►, the menu of "frame acumulation" would be displayed.

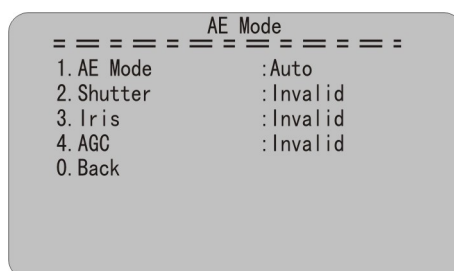


4. To move joystick to ▲ or ▼ to choose parameter setting, then move it to ◀ to exit setting.

Note: Only the settings for AE Mode in "Auto" would take effect.

B. AE Mode,

1. To move joystick to choose "AE Mode", then move it to ►, menu would be displayed.

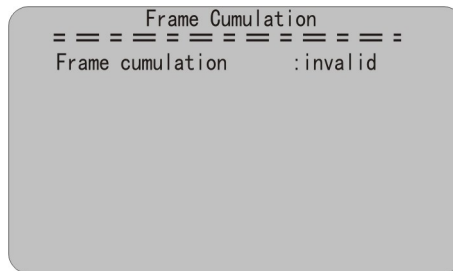
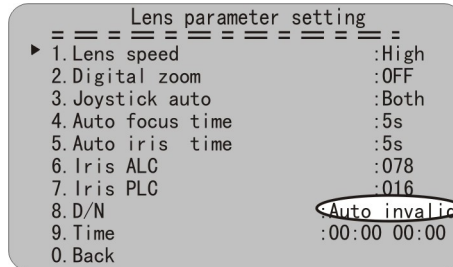
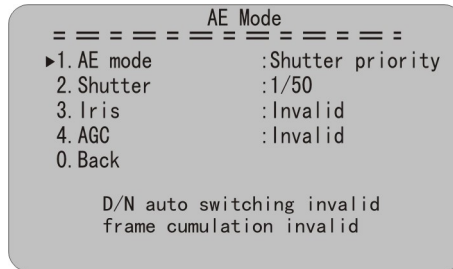


2. To move joystick to choose "AE Mode", then move it to ▲ or ▼ to choose parameter.

"Shutter"、"IRIS"、"AGC" is relative with AE mode setting parameter.

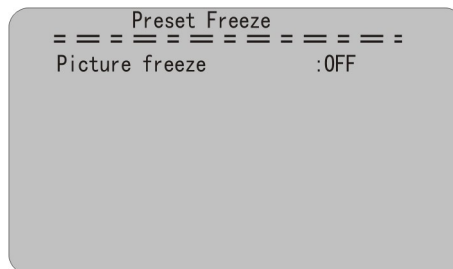
3. After finished it, move joystick to exit setting.

Note: Day/Night auto mode and Sensitivity Up will be void if Exposure mode is not Auto mode., there will be "D&N switch invalid, frame acumulation invalid" on screen, refer to following picture.



C. Preset Freeze

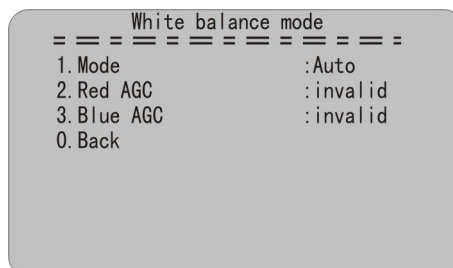
1. To choose “preset freeze”, then move joystick to ►, menu would be appeared on screen.



2. To move joystick to ▲ or ▼ to choose parameter setting, then move joystick to ◀ to exit setting.

D. White Balance Mode

1. To move joystick to choose “White Balance Mode, then move joystick to ►, Menu would be displayed on screen.

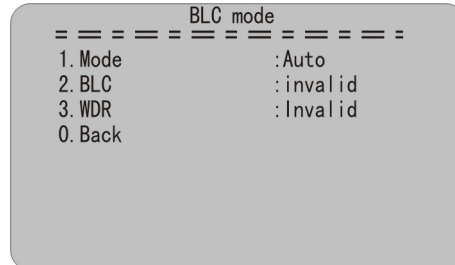


2. To move joystick to choose “Mode”, then move joystick to ▲ or ▼ to choose parameter. When “Mode” is under “Auto” status, “Red AGC” and “Blue AGC” are invalid; when “mode” is under “custom” status, “Red AGC” and “Blue AGC” can be setted. Parameter form:

Mode	Red AGC	Blue AGC
Auto	Invalid	Invalid
Custom	000-255	000-255

E. BLC

1. To move joystick to choose "BLC", then move joystick to ►, "BLC" menu would be displayed on screen.



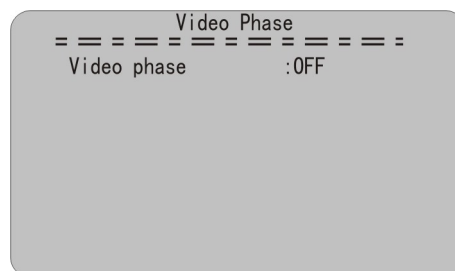
2. To move joystick to choose "Mode", then Move joystick to ▲ or ▼ to choose parameter, finally move joystick to exit setting.
 - If "Mode" is "OFF", "BLC" and "WDR" above the picture are invalid.
 - If "Mode" is "standard", the "BLC" can be setted (000-255)
 - If "mode" is "WDR", the "WDR" can be setted. (000-128)

Refer to parameter form in detailed:

Mode	BLC	WDR
OFF	Invalid	Invalid
Standard	000-255	Invalid
WDR	Invalid	000-128

F. Video Phase

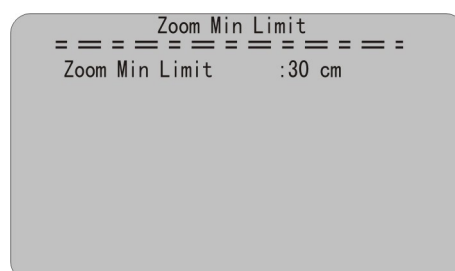
1. To move Joystick to choose "video phase", then move joystick to ►, "video phase" menu would be displayed on screen.



2. To move joystick to ▲ or ▼ to choose parameter (ON/OFF).

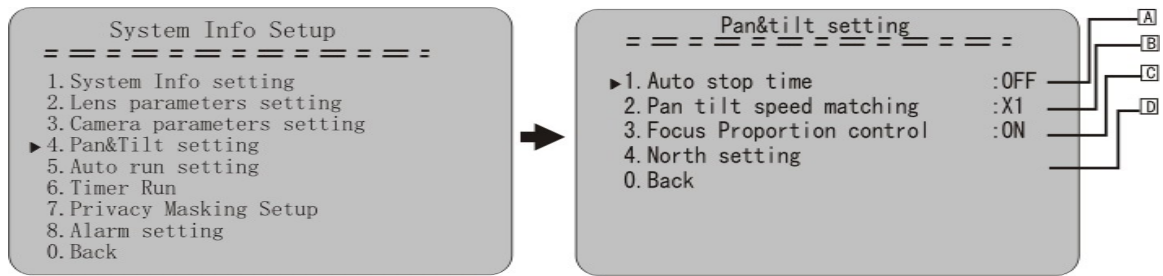
G. Focus Mini.Limit

1. To move joystick to choose "Focus mini limit", then move joystick to ►, the menu would be displayed.



- To move joystick to choose “ Mode”, then move joystick to ▲ or ▼ to choose parameter (1cm 、 10c m、 30c m、 100cm) , after finishing it, to move joystick to exit setting.

20). Pan/Tilt Parameters Setting



A.Auto Stop Time (refer to page 45)

For some particular protocols such as PHILIPS,AD,DIAMOND, the dome will not stop moving even there is no operation on controller. This menu item sets the time that, after a specified time period, the dome will stop itself. Values are in 60ms unit:

OFF: Disable this function (default setting)

001~010: After value x 60ms the dome will automatically stop moving. For example: 003 means the dome will automatically stop moving after 180ms.

B. Speed Adjust (refer to page 45)

To control speed through settig keyboard joystick.

C.Focus Proportion Control(refer to page 45)

To adjust the dome movement speed according to zoom.

ON:Dome fast or slow according zoom times.

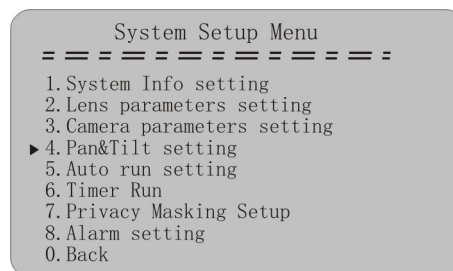
OFF:Dome speed wouldn't be changed because of zoom times.

D. Set North Direction (refer to page 46)

User can know camera's angle through compass. (" direction indicator" in info menu must be ON,otherwise user can't see camera movement angle.

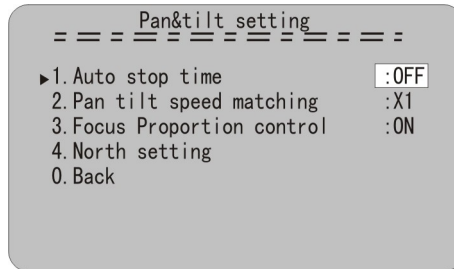
A. Auto Stop Time

- To pick up No.95 preset or pick up No.1 preset within 5 second to pick up menu.



- To move joystick to choose “P/T parameter setting”, then move joystick to ►, the menu would be displayed on screen..

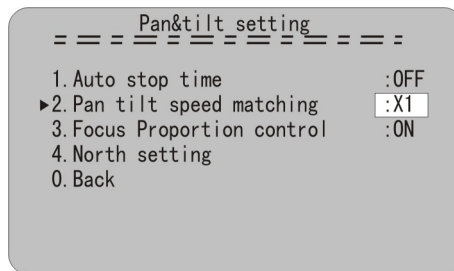
- To choose“Auto Stop Time”, then move joystick to ►, the setting content will glitter.



4. Move joystick to ▲ or ▼ to choose parameter setting (OFF/001-010) , then move joystick to ◀ to exit setting.

B.P/T Speed Match

1.To choose“P/T speed match”, then move joystick to ▶, the setting content will glitter.

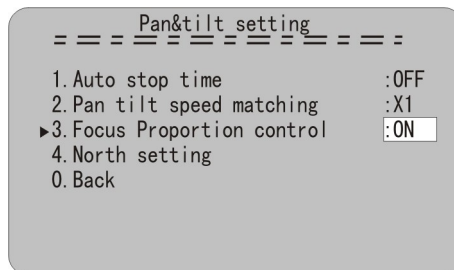


2. To move joystick to ▲ or ▼ to choose setting parameter (X1、 ↑ 2-↑32、 ↓ 2-↓3 2) , then move joystick to ◀ to exit setting.

“↑”: X Times faster than original speed,“↓”:Times slower than original speed1/X.

C.Focus Proportion Control

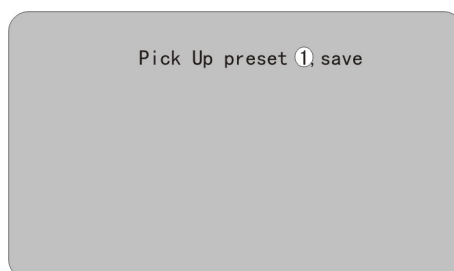
1. To choose“Focus Proportion Control”, then move joystick to ▶, the setting content will glitter.



2. To move joystick to ▲ or ▼ to choose setting parameter (OFF/ON) , then move joystick to ◀ to exit setting.

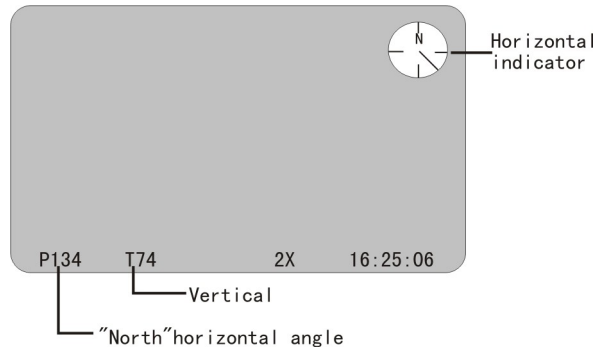
D.Set North Direction

1.To choose“Set North Direction”,then move joystick to ▶,there is “pick up No.1 preset---save” displayed on screen.

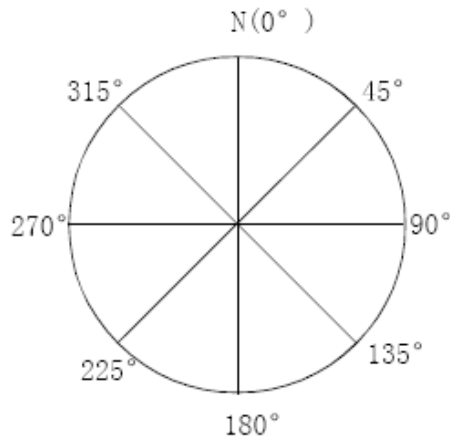


2. To move joystick to choose north direction, after finishing it, then to pick up No.1 preset to save it.

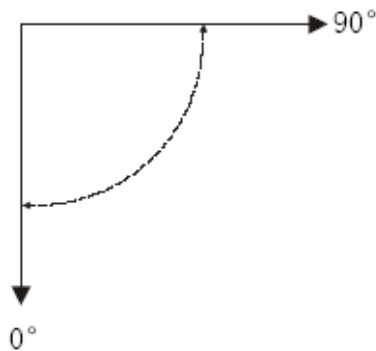
3. Only “direction indicator” in “display info setting” is “OFF”, the camera’s direction and angle would be displayed on screen.



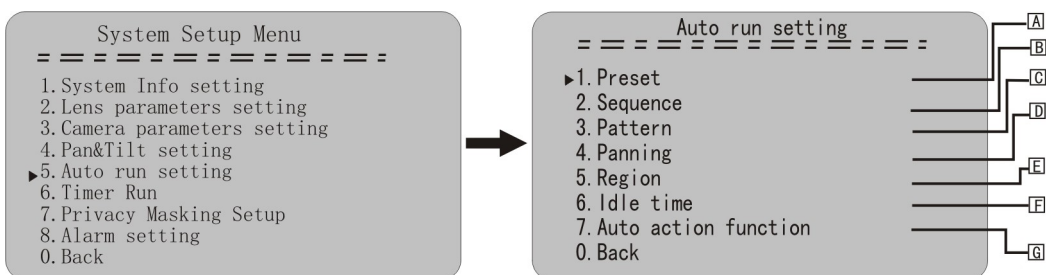
Horizontal:



Vertical:



21) . Auto Running Setup



A. Preset setup (refer to page 48)

Preset is the point that user saves for frequent use. A preset saves both direction and zoom

parameters, the camera will quickly and precisely go and zoom to a specific point if a preset is called. e.g. If you often want to see the door, you can set the point of door as preset P, then you can see the door simply by calling the preset P. This dome has 220 presets.

B.Sequence(refer to page 49)

A “sequence” is defined as a sequential moving from preset to preset and dwell for a specific time at each preset. It is useful if you need to repeat switching among a number of presets. E.g. A shopping mall has several entrances. A sequence can automatically loop the position of each entrance.

4 sequences can be set for the dome. Each sequence can contain up to 32 presets and dwell time for each preset is independent.

C .Pattern Setup(REFER TO PAGE 50)

A pattern records a continuous movement of the camera in a period of time. The difference between sequence and pattern is that in a sequence, dome moves from a preset to next at a fixed speed; in a pattern, dome moves flexible curve at various speed.

Speed Dome can record 4 patterns, minimum 180 seconds each pattern.

D.Panning Setup(refer to page 50)

Panning enables user to scan back and forth an area between two parallel sites(with same vertical degree) at a definable speed. e.g. If two sites (A & B) are set, the camera will loop between the two sites. A—B—A—B...This dome has max. 4 Pannings.

E. Region Setup (refer to page 51)

A region is an area between two sites. User can assign a title for a REGION. (E.g. Dangerous area). Whenever the camera moves into the region, the title will display on the screen to alert the user. .

F.Idle Time Setup (refer to page 52)

This function let the system automatically run assigned function after the idle time. For example: the dome is running a sequence and an operator breaks the sequence to do other work, the dome can automatically carry on the sequence within a period of time after the operator finishes using it.

G. Auto Action Setup (refer to page 52)

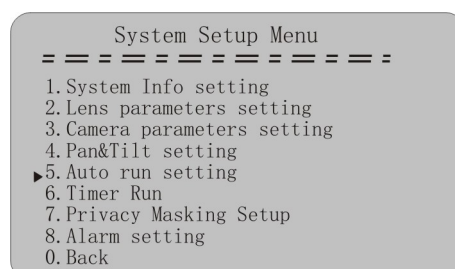
Auto action refers to the function that system will automatically run when idle time is out.

The function could be:

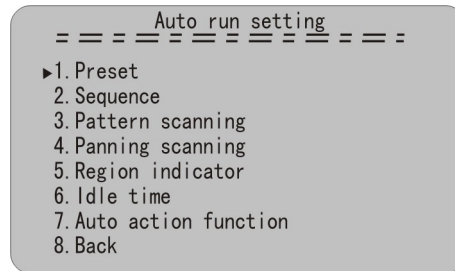
- OFF:** Disable this function
- Preset (1~220):** Call preset 001~220
- Panning (1~4):** Run panning 001~004
- Sequence (1~4):** Run sequence 001~004
- Pattern (1~4):** Run pattern 001~004

A. Preset

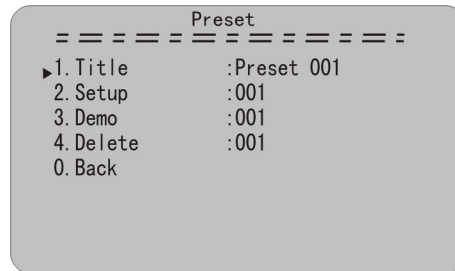
- 1.To pick up No.95 preset or pick up No.1 preset two times within 5 second to pick main menu..



- To move joystick to choose "Auto running setup", then move joystick to ►, the auto running setup menu would be displayed on screen.



- To choose "preset", then move joystick to ► to enter preset setup menu.



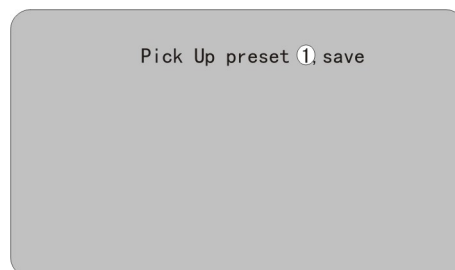
- Set Preset Title

To choose "title", then move joystick to ►, the setting content will glitter. please refer to setting method on page 29.

- Set preset

To choose "setup", then move joystick to ►, then move joystick to ▲ or ▼ to choose preset S/N (001-220), After finishing it, move joystick to ►, there is "pick up No.1 preset—save" displayed on screen.

Then move joystick to choose preset position, finally pick up No.1 preset to end setup.



- demonstrate setted preset.

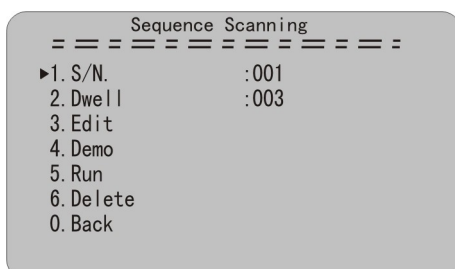
To choose "demo", then move joystick to ►, then move joystick to ▲ or ▼ to choose demonstrated prests S/N (001-220), after finishing it, move joystick to ►, preset image would be displayed on screen. If preset is not set, "no setup" would be displayed on screen.

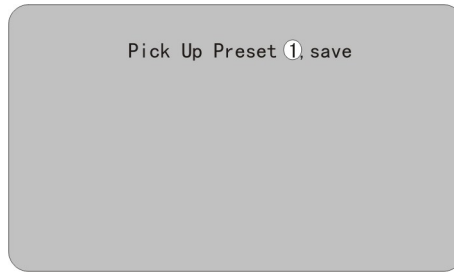
- Delete preset

To choose "delete", then move joystick to ► and to ▲ or ▼ to choose preset S/N (001-220), after finishing it, then move joystick to ► to delete preset.

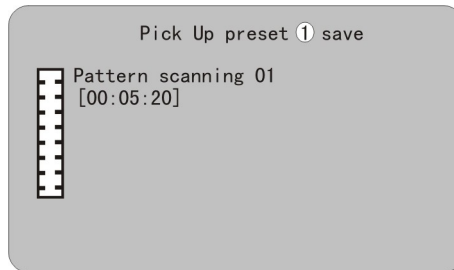
B. Sequence

- To choose "sequence", then move joystick to ► to enter sequence setup menu.





After finishing it, to pick up No.1 preset to record, the pattern scanning menu would be appeared.



When recording date is full or need to end recording, to pick up No. preset to stop recording and return to superior menu.

5. Demonstrate pattern scanning

To choose “demo”, then move joystick to ▶ to carry out one time pattern scanning, then return to menu. If user don't set pattern scanning, after operating “demo”, there is hint saying “pattern scanning is not set” on screen, then return to menu.

6. Run sequence scanning

To choose “start”, then move joystick to ▶, sequence scanning will work continuously, to move joystick at will will end sequence scanning, and don't return to menu.

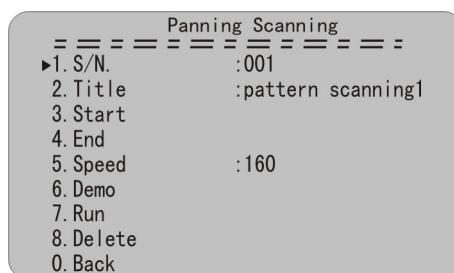
If sequence is not set, after carrying out “start”, there is hint saying “sequence is not set” on screen and it would not return to menu

7. Delete sequence

To choose “delete”, then move joystick to ▶, it will delete sequence.

D. Panning

1. To choose “Panning”, then move joystick to ▶ to enter panning setup menu.



2. Set S/N

To choose “S/N”, then move joystick to ▶, the setting content will glitter.

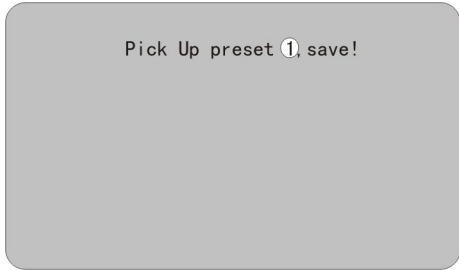
To move joystick to ▲ or ▼ to set up S/N, then move joystick to ◀.

3. Setup panning title

To choose “title”, then move joystick to ▶, the setting content will glitter, please refer to page 29 in detailed.

4. Setup panning start position

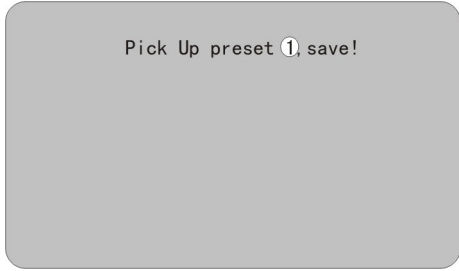
To choose start position, then move joystick to ▶, the information of “pick up preset ① save!” would be displayed.



To move joystick to choose start position, then pick up No.1 preset to save.

5. Set panning end position

To set the ending position. Set it in the same way as Start.



6. Set panning speed

To choose "speed", then move joystick to ►, the setting content will glitter, to move joystick to ▲ or ▼ to set parameter (000 (slow) -255 (fast)).

7. Demonstrate panning scanning

To choose "demo", then move joystick to ► to carry out panning one time, then return to menu, if the panning is not set, after carrying out demo, there is hint say" panning is not set" on screen, then return to menu.

8. Run panning

To choose"run", then move joystick to ►, it will run panning from start position to ending position,move joystick at will will stop it and don't return beck to menu.

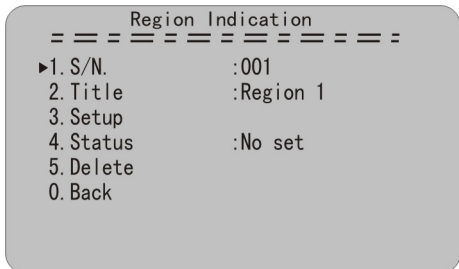
If panning is not set, after carrying out "run", there is hint saying"panning is not set" on screen,and don't return to menu.

9. Delet panning

To choose "delete" , then move joystick to ► to delete panning

E.Region setup

1. To choose"region",then move joystick to ► to enter menu.



2. Set S/N

To choose"S/N", then move joystick to ►, the setting content will glitter.

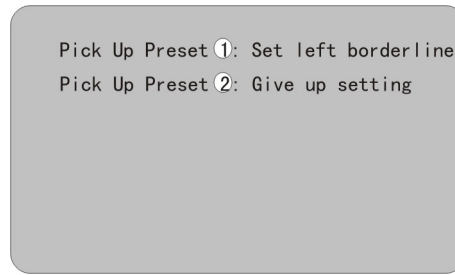
To move joystick to ▲ or ▼ to set number, then move joystick to ◀.

3. Region title

To choose"title", then move joystick to ►, the setting content will glitter, please refer to page 29 indetailed.

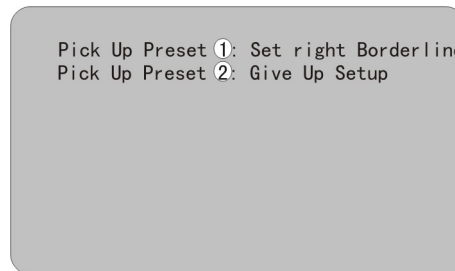
4. Region show

To choose "setting", then move joystick to ►, the display is following:



To move joystick to choose left borderline, then pick up No1 preset to save setting; to pick up No.2 preset to give up setting

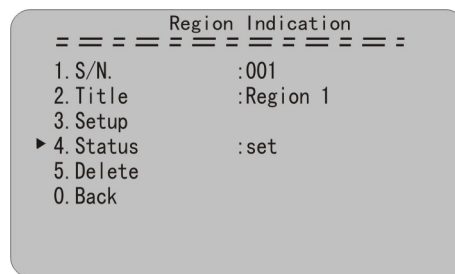
After setting it, display is following:



To move joystick to choose left borderline, then pick up No.1 preset to save setting.

(press "1" + "CALL") ; to pick up No.2 preset to give up left borderline. (press "2" + "CALL")

5. After finishing region setting, the "status" of region state menu shows "set".

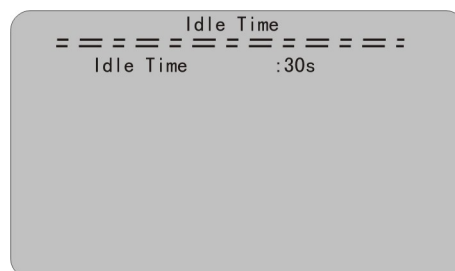


6. Delete region show

To choose "delete", then move joystick to ► to delete region show, at this time, the status of region menu is "not set".

F. Idle Time Setup

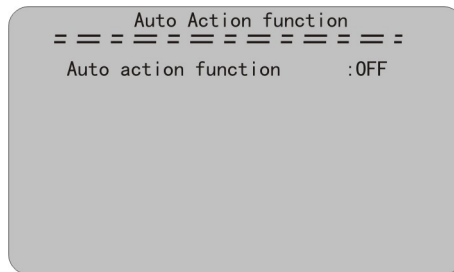
1. To choose "Idle Time", then move joystick to ► to enter setup menu.



2. To move joystick to ▲ or ▼ to choose parameter (0-255s), then move joystick to ◀ to end setting.

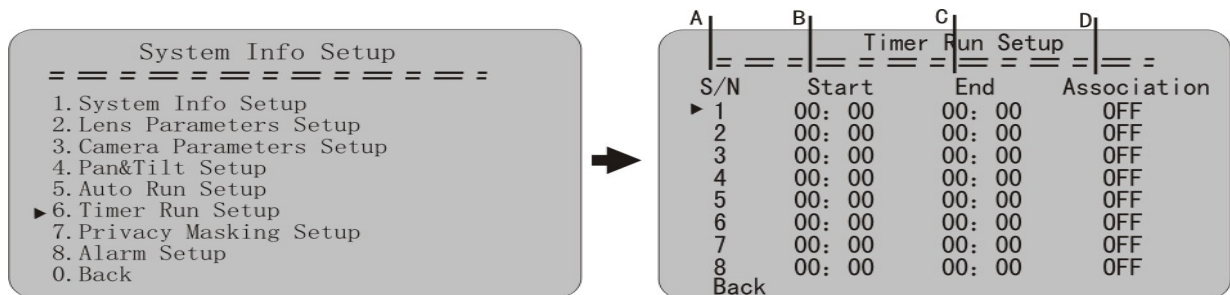
G. Auto Action setup

1. To choose "auto action", then move joystick to ► to enter menu.



- To move joystick to ▲ or ▼ to choose setting parameter (OFF、sequence1-4, Pattern 1-4、Panning1-4、preset 001-220), then move joystick to ◀ to end setting.

22). Timer Running Setup



This function allows the system to run specified functions during the scheduled time. For example, let the dome run a Pattern from 3 to 5 pm without any operator controlling the dome at that time.

A. Shcedule

Timer running can set 8 schedules, each has "OFF", 1-4 sequencs, 1-4 patterns, 1-4 panning, 1-220 presets.

B. Start

Set the start time of Timer Running.

C. End:

Set the stop time of Timer Running.

D. Association Function

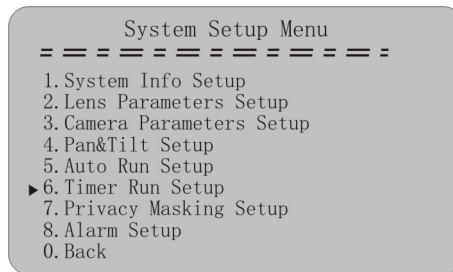
Set the function of timer runing: OFF, 1-4 sequencs, 1-4 patterns, 1-4 panning, 1-220 presets.

Note:

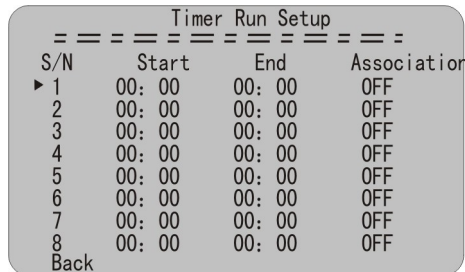
- The specified time can not be overlapped. Otherwise, the assigned Timer Running functions are ineffective.
- Timer Running function is prior to Auto Action function.
- Operations on keyboard will break the Timer Running function, however the function will continue after 10 seconds idle time.
- Timer Running function is prior to Idle Running, if dome is Idle running and timer is over, it will stop operation, it will carry out timer running.

Set Timer Running Function

- To pick up No.95 preset or pick up No.1 preset two times within 5 second to pick up menu..



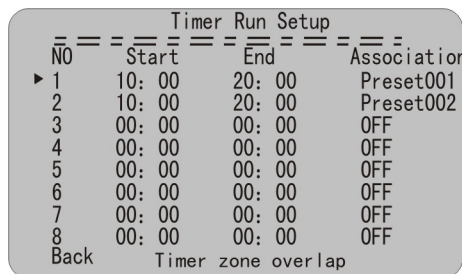
2. To move joystick to choose “Timer running setup”, then move joystick to ▶, the menu will appear.



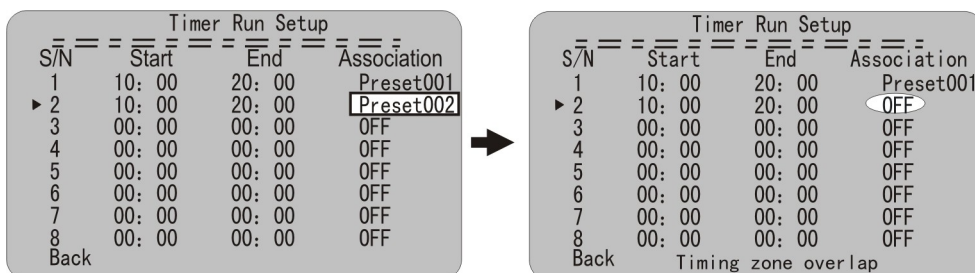
3. To choose channel, then move joystick to ▶, the setting content will glitter.

4. To move joystick to ▲ or ▼ to set time, then move joystick to ▶ to set ending time and association function one by one, then move joystick to ◀ to exit setting.

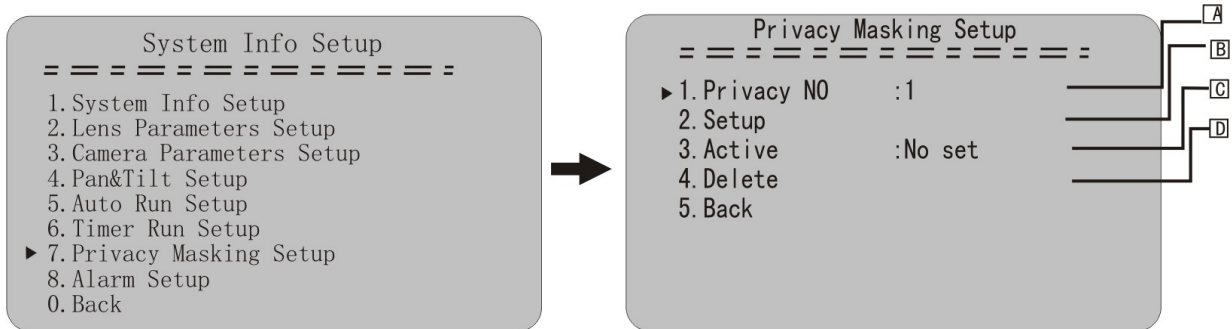
Note: If channels' time is overlap with other channel's time, after finishing setting, cursor return to left, there is hint saying “timed area overlap” displayed on screen, it would disappear within 2 second, and the association function for schedule is OFF.



For example: schedule number “1” is already set at 10:00-20:00, to pick up 001 preset, , If schedule number “2” is set at 10:00-12:00, pick up 002 preset, , after finishing setting, move cursor to left, “timed area overlap” would be displayed on screen, and the association function of schedule 2 is OFF.



23). Privacy Masking



A. Mask No (refer to page 55)

User can choose masking zone and number ,max up to 8 masking zones.

B.Setting(refer to page 56)

To set masking position and size.

C.Activate(refer to page 58)

To show masking zone status.

“no setup”: privacy mask of zone number is not set.

“ON”: Enable

“OFF”: Disable

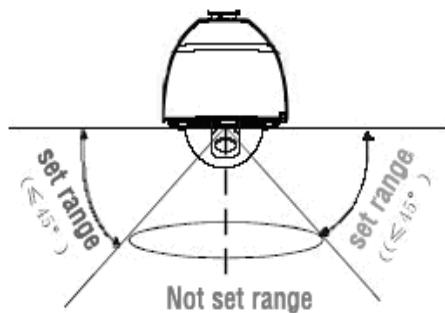
D.Delete(refer to page 58)

To delete privacy masking zone, then “activation” in menu is “no setup”.

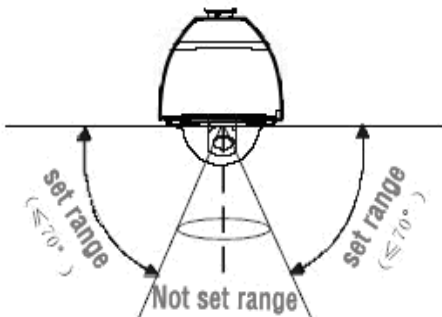
Note :

- To set privacy masking according to camera' Model No,the following two kinds of setting is for reference:

① Setting range $\leq 45^\circ$



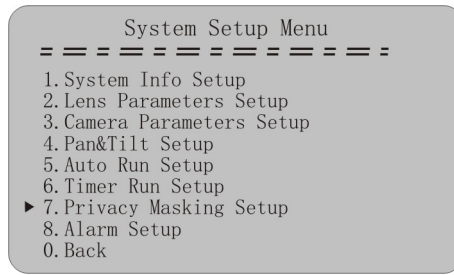
② Setting range $\leq 70^\circ$



- If setting range is $\leq 45^\circ$, user can set max 2 pcs privacy masking zones on one screen..
- If setting range is $\leq 70^\circ$, user can set max 8 pcs zones on one screen.

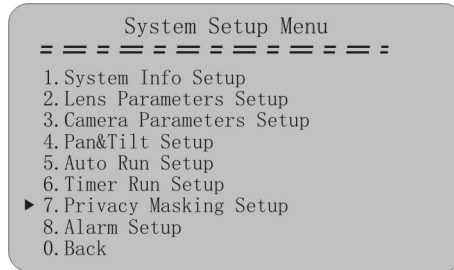
A.Mask Number

1. To pick up No.95 preset or pick up No.1 preset two times within five seconds to pick up menu.



2. To move joystick to choose “privacy masking setting”, then move joystick to ►, the menu would be displayed on screen.

3. To choose “mask No”, then move joystick to ►, setting content will glitter.



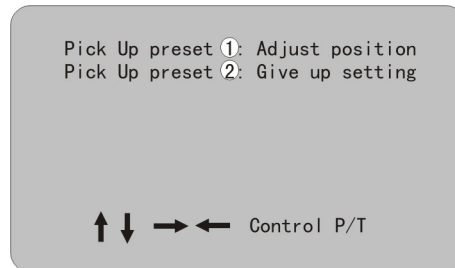
4. To move joystick to ▲ or ▼ to set parameter, then move joystick to ◀ to exit setting.

B. Setting

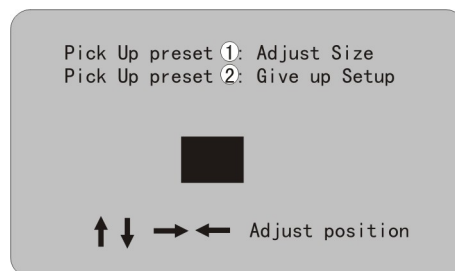
The setting method is different according to deme Model NO.

(1).The setting method for setting range $\leq 45^\circ$.

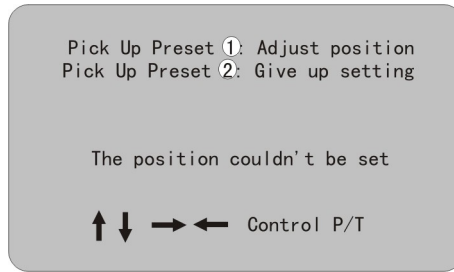
1.To move joystick to choose “setting”, then move joystick to ►, the menu is following.



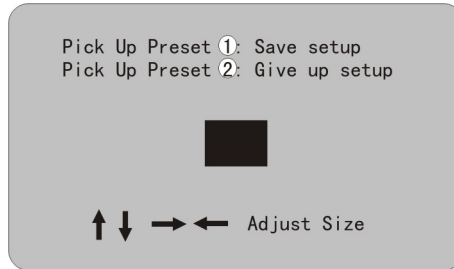
2. To move joystick to choose position until masking image appears on screen, then pick up No.1 preset to confirm it, the menu as follows.



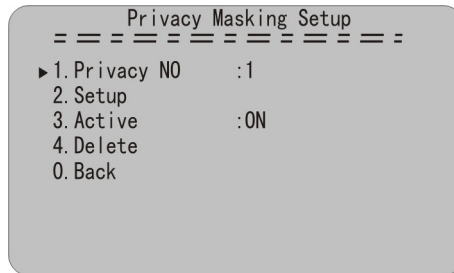
Note: If masking quantity is up to 8 pcs zones, when user pick up No.1 preset to confirm it, the menu “the position is unable to set” would appear, at this time, user need to adjust position to reset it.



3. To move joystick to adjust masking position, then pick up No 1 preset to confirm it.
4. To move joystick to ▲ or ▼ to adjust masking zone length, then move joystick to◀ or ▶ to adjust masking width.



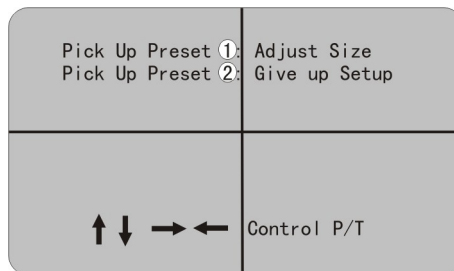
5. After finishing it, to pick up No.1 preset to save setting.
At this time, “activation” on menu is “ON”.



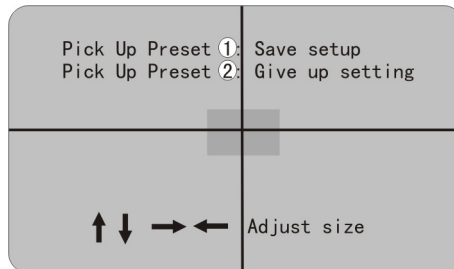
Note:to pick up NO.2 preset to give up setting in the process of setting.

(2). The setting method for setting range≤70°.

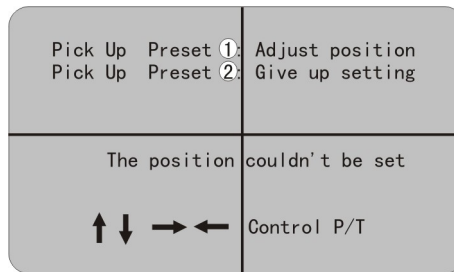
1. To move joystick to choose “setting”, then move joystick to ▶, the menu as follows.



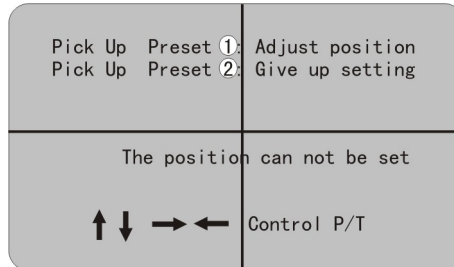
2. To move joystick to choose position, then pick up No.1 preset to confirm setting.



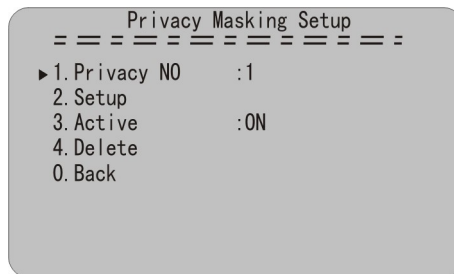
Note: If masking quantity is up to 8 pcs zones, when user pick up No.1 preset to confirm it, the menu “the position is unable to set” would appear, at this time, user need to adjust position to reset it.



3. To move joystick to ▲ or ▼ to adjust masking zone length, then move joystick to ◀ or ▶ to adjust masking width.



4. To pick up No.1 preset to save setting, at this time, 'activation' on menu is "ON".



Note: In the process of setting, to pick up No.2 preset to give up setting.

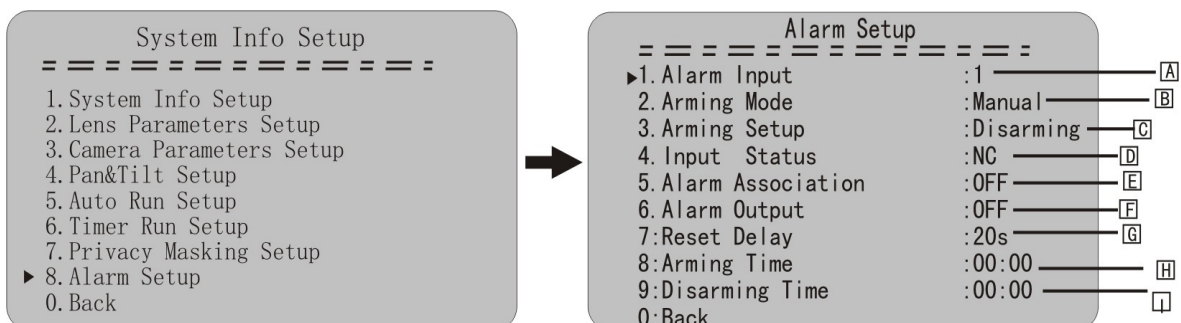
C.Activation

1. If User doesn't set privacy masking protection on monitor area, activation status on screen is "not set".
- 2.If user set privacy masking zone on monitor area, activation status on screen is "ON" or "OFF".
- 3.To move joystick to make cursor point to"activation", If the status is "ON", move joystick to ▶, the status is'OFF",If the status is "OFF",move joystick to ▶, the status is"ON".
 "ON": the zone has been set privacy masking protection,and it is ON.
 "OFF": the zone has been set privacy masking protection,and privacy masking is OFF.

D. Delete

If user want to delete privacy masking, to move joystick to"delete", then move joystick to ▶to delete it. After deleting it, "activation" on menu is "not set ".

24) . Alarming setup



A. Alarm input(refer to page 59)

Select the number of alarm input channel (1-7).

B. Alarm Mode(refer to page 59)

Auto or manually set alarm., If alarm mode is auto, user can set alarm time and disalarm through menu to realize timed alarm and disalarm.

C. Set Alarm(refer to page 60)

Set Alarm: Arm off or Arm on (Disable or enale the alarm input channel), If alarm mode is manual, usercan set alarm or disalarm manually, If alarm mode is auto, system will auto set alarm and disalarm according set information.

D. Input(refer to page 60)

System can set Normal open or closed.

N/O: If channel is open, it shows effective alarm information.

Normal close:If channel is closed, it shows effective alarm information.

E. Alarm Association(refer to page 60)

F. Alarm output(refer to page 61)

Select respond output channel for current input channel.

Off, 1, 2, 1&2.

G. Reset Delay(refer to page 61)

Set the time that system will auto reset the alarm after current alarm inputs

Values: 1 second to 255 second.

H. Alarm Time(refer to page 61)

Alarm time is valid when alarm mode is “auto”.

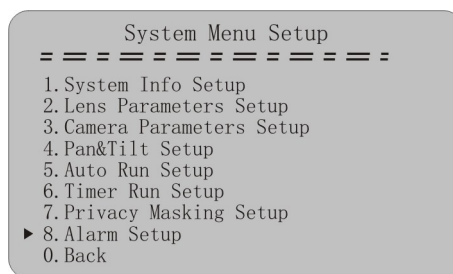
I. Disalarm Time(refer to page 61)

Disalarm time is valid when alarm model is auto.

Note: when dome receive alarm signal, it will appear“🔔 XX”on screen(XX shows alarm channel),andchannel number will gillter untill the signal is confirmed by operater,the icon would disappear.

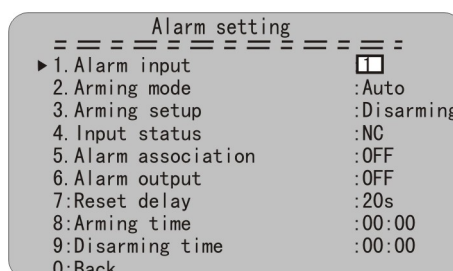
A. Alarm Input

1. To pick up No.95 preset or pick up No.1 preset within 5 second two times to pick up menu.



2. To move joystick to choose“alarm setting”, then move joystick to ▶,the menu would appear.

3. To choose“Alarm input”, then move joystick to ▶,cursor will glitter.



4. To move joystick to ▲ or ▼ to set parameter, then move joystick to ◀ to exit setting.

B. Alarm Mode

1. To move joystick to choose "alarm mode" then move joystick to ►, setting area cursor will glitter.

```
Alarm setting
=====
1. Alarm input          :1
▶ 2. Arming mode       :Auto
3. Arming setup        :Disarming
4. Input status        :NC
5. Alarm association   :OFF
6. Alarm output        :OFF
7:Reset delay         :20s
8:Arming time         :00:00
9:Disarming time      :00:00
0:Back
```

2. To move joystick to ▲ or ▼ to set parameter (Auto/ Manual) , then move joystick to ◀ to exit setting.

C. Disalarm Setting

1. To move joystick to choose "alarm setting" then move joystick to ►, the setting area cursor will glitter.

```
Alarm setting
=====
1. Alarm input          :1
2. Arming mode         :Auto
▶ 3. Arming setup      :Disarming
4. Input status        :NC
5. Alarm association   :OFF
6. Alarm output        :OFF
7:Reset delay         :20s
8:Arming time         :00:00
9:Disarming time      :00:00
0:Back
```

2. To move joystick to ▲ or ▼ to set parameter (alarm/disalarm) , then move joystick to ◀ to exit setting.

D. Input

1. To move joystick to choose "input", then move joystick to ►, the setting area cursor will glitter.

```
Alarm setting
=====
1. Alarm input          :1
2. Arming mode         :Auto
3. Arming setup        :Disarming
▶ 4. Input status      :NC
5. Alarm association   :OFF
6. Alarm output        :OFF
7:Reset delay         :20s
8:Arming time         :00:00
9:Disarming time      :00:00
0:Back
```

2. To move joystick to ▲ or ▼ to set parameter (Normal open/normal closed) , then move joystick to ◀ to exit setting.

E. Alarm association

1. To move joystick to choose "alarm association", then move joystick to ►, the setting area cursor will glitter.

```
Alarm setting
=====
1. Alarm input          :1
2. Arming mode         :Auto
3. Arming setup        :Disarming
4. Input status        :NC
▶ 5. Alarm association  :OFF
6. Alarm output        :OFF
7:Reset delay         :20s
8:Arming time         :00:00
9:Disarming time      :00:00
0:Back
```

- To move joystick to ▲ or ▼ to set parameter (OFF、1-4 sequence、1-4 pattern、1-4 panning、001-220 presets) , then move joystick to ◀ to exit setting.

F.Alarm Output

- To move joystick to choose "alarm output", then move joystick to ▶, the setting area cursor will glitter.

```

Alarm setting
=====
1. Alarm input          :1
2. Arming mode         :Auto
3. Arming setup        :Disarming
4. Input status        :NC
5. Alarm association    :OFF
▶6. Alarm output       :OFF
7. Reset delay         :20s
8. Arming time         :00:00
9. Disarming time      :00:00
0. Back
  
```

- To move joystick to ▲ or ▼ to set parameter (OFF、1、2、1&2) , then move joystick to ◀ to exit setting.

G.Reset Delay

- To move joystick to choose "reset delay", then move joystick to ▶, the setting area cursor will glitter.

```

Alarm setting
=====
1. Alarm input          :1
2. Arming mode         :Auto
3. Arming setup        :Disarming
4. Input status        :NC
5. Alarm association    :OFF
6. Alarm output       :OFF
▶7. Reset delay         :20s
8. Arming time         :00:00
9. Disarming time      :00:00
0. Back
  
```

- To move joystick to ▲ or ▼ to set parameter (1s-255s) ,then move joystick to ◀ to exit setting.

H.Alarm Time

- To move joystick to choose "alarm time" , then move joystick to ▶, the setting area cursor will glitter.

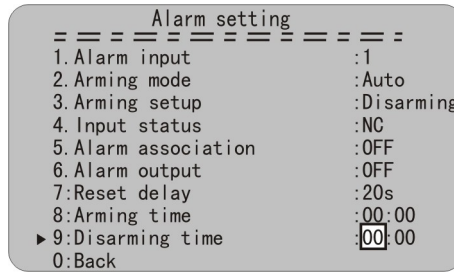
```

Alarm setting
=====
1. Alarm input          :1
2. Arming mode         :Auto
3. Arming setup        :Disarming
4. Input status        :NC
5. Alarm association    :OFF
6. Alarm output       :OFF
7. Reset delay         :20s
▶8. Arming time         :00:00
9. Disarming time      :00:00
0. Back
  
```

- To move joystick to ▲ or ▼ to set parameter, then move joystick to ◀ to exit setting.

I.Disalarm Time

- To move joystick to choose "disalarm time" , then move joystick to ▶, the cursor will glitter.



2. To move joystick to ▲ or ▼ to set parameter, then move joystick to ◀ to exit setting.

Appendix I: Lightning Proof & Surge Proof

The product adopts TVS lightning proof technology to prevent from damage by lightning strike below 1500V-4000V and impulse signals such as surge; but it is also necessary to abide by the following precautions to ensure electrical safety based on practical circumstances:

Keep the communication cables at least 50 meters away from high voltage equipment or cables.

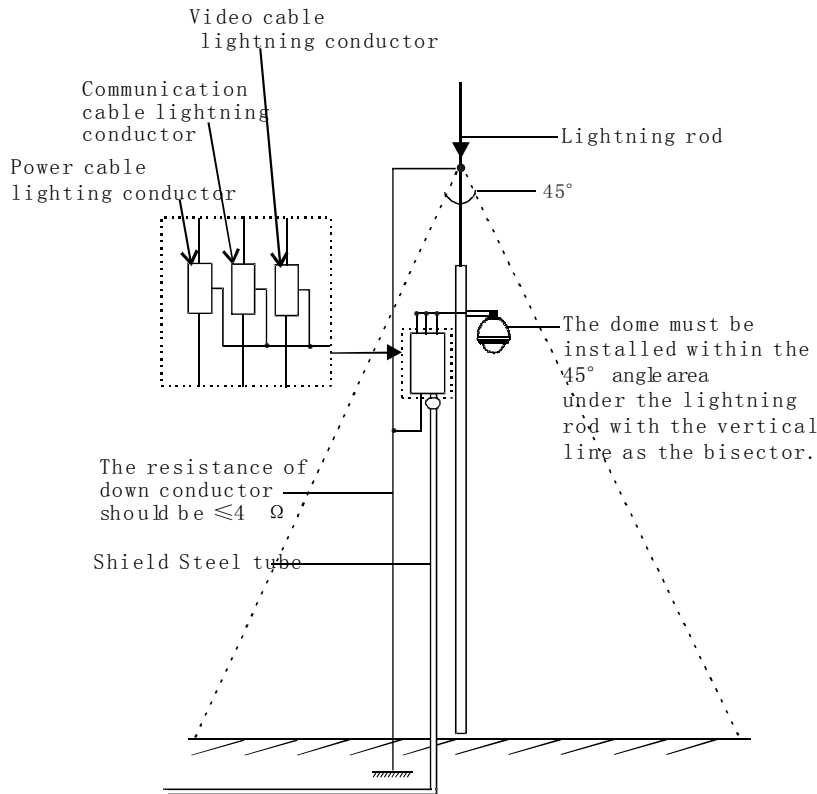
Make outdoor cable laying-out under eaves as possible as you can.

In open area shield cables in steel tube and conduct a single point ground to the tube. Trolley wire is forbidden in such circumstances.

In strong thunderstorm or high faradic zone (such as high voltage transformer substation), extra strong lightning proof equipment must be installed.

Take the building lightning proof requirements into account to design the lightning proof and grounding of outdoor equipment and cable laying-out in accordance with the national and industrial standards.

The system must be grounded with equal potentials. The earth ground connection must satisfy the anti-interference and electrical safety requirements and must not short circuited with high voltage electricity net. When the system is grounded separately, the impedance of down conductor should be less than 4 Ohms and the sectional area of down conductor should be greater than 25 square mm (refer to following picture).



Picture 58

Appendix II: The Cleaning Of Down Cover

- To obtain constant clear videos, user should clean the down cover periodically.
- Be cautious when cleaning. Hold the down cover ring only to avoid direct touch to the acrylic down cover. The acid sweat mark of fingerprint will corrode the coating of down cover and scratch on down cover will cause vague images.
- Use soft dry cloth or the substitute to clean the inner and outer surfaces.
- For hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.

Appendix III: RS485 Bus Basic Knowledge

1. Characteristics of RS485 Bus

As specified by RS485 standards, RS485 Bus is of half-duplexed data transmission cables with characteristic impedance as 120 Ohm. The maximum load capacity is 32 unit loads (including main controller and controlled equipment).

2. Transmission distances of RS485 Bus

When user selects the 0.56mm (24AWG) twisted pair wires as data transmission cable, the maximum theoretical transmitting distances are as follows:

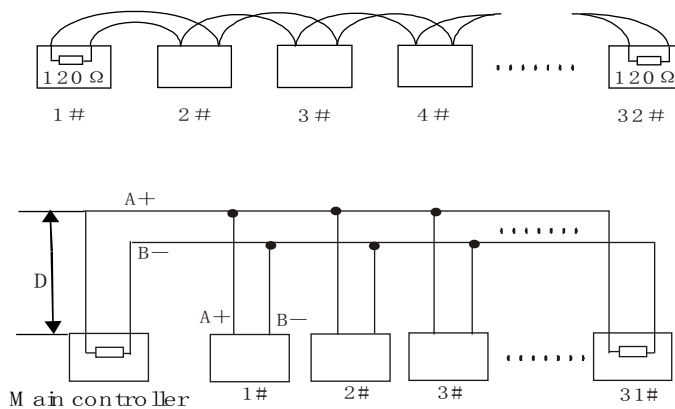
Baud Rate	Transmission Distance (Max.)
2400bps	5,906ft (1800m)
4800bps	3,937ft (1200m)
9600bps	2,625ft (800m)

If user selects thinner cables, or installs the dome in an environment with strong electromagnetic interference, or connects lots of equipment to the RS485 Bus, the maximum transmitting distance will be decreased. To increase the maximum transmitting distance, do the contrary.

3. Connection and termination resistor

3-1 The RS485 standards require a daisy-chain connection between the equipment. There must be termination resistors with 120 Ohm impedance at both ends of the connection (refer to following pictures).

Please refer to below picture for simple connection. Distance "D" should not exceed 7 meters.



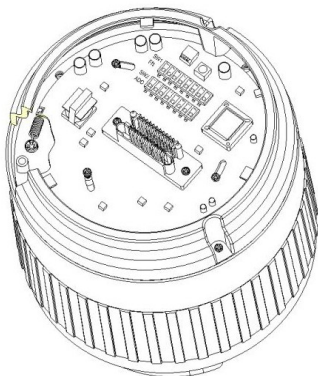
Picture 59

3-2 The connection of 120 Ohm termination resistor:

The termination resistor is ready on the Protocol PCB. There are two kinds of connection. Please refer to the Protocol PCB jumper setting form (refer to following pictures).

1) In the Picture it is the factory default connection. The jumper is seated on Pin2&Pin3 and the termination resistor is not connected.

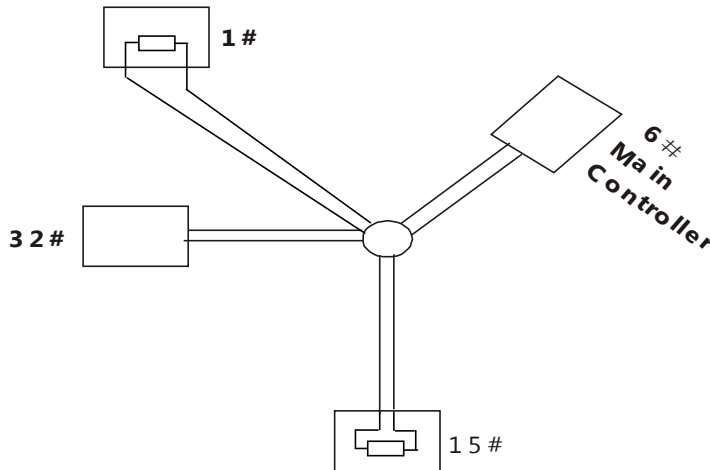
2) when connecting the 120 Ohm termination resistor, user should pull out the protocol PCB and plug the jumper on Pin1&Pin2. Install the PCB back and the termination resistor is connected.



Picture 60

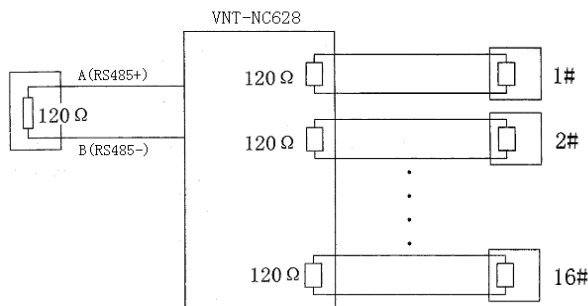
4. Problems in practical connection

In some circumstances user adopts a star configuration in practical connection. The termination resistors must be connected to the two equipment that are farthest away from each other, such as equipment 1# and 15# in the Picture as below. As the star configuration is not in conformity with the requirements of RS485 standards, problems such as signal reflections, lower anti-interference performance arise when the cables are long in the connection. The reliability of control signals is decreased with the phenomena that the dome does not respond to or just responds at intervals to the controller, or does continuous operation without stop (refer to the following picture).



Picture 61

In such circumstances the factory recommends the usage of RS485 distributor. The distributor can change the star configuration connection to the mode of connection stipulated in the RS485 standards. The new connection achieves reliable data transmission (refer to following picture).



Picture 2

5. RS485 Bus Troubleshooting (refer to following form)

Trouble	Possible Cause	Solution
Dome can do self-testing but cannot be controlled	<ol style="list-style-type: none"> 1. The address and baud rate settings of dome are not in conformity with those of controller 2. The "+" and "-" connection of RS485 Bus is incorrect 3. Wiring is not fully seated 4. There is breakage in the middle section of the RS485 Bus 	<ol style="list-style-type: none"> 1. Change the address and baud rate of controller or dome 2. Correct the connection 3. Make sure the connections are fully seated
The dome can be controlled but the operation is not smooth	<ol style="list-style-type: none"> 1. The RS485 Bus line is not in good contact with the connectors 2. One wire of the RS485 Bus is broken 3. The dome is very far away from controller 4. There are too many domes connected in the system 	<ol style="list-style-type: none"> 1. Secure the connection 2. Replace RS485 Bus wires 3. Add termination resistors to the system 4. Install RS485 distributor

Appendix IV: Wire Diameter & Transmission Distance

Comparison Chart

The transmission distance listed below are farthest ones recommended for each given wire diameter when the 24V AC voltage loss ratio is below 10% (for equipment powered by AC, the allowed maximum voltage loss ratio is 10%). For example, a set of equipment with nominal power as 80VA, installed 35 feet (10m) away from transformer, needs a wire with a minimum diameter of 0.8000mm.

Wire Gauge Conversion Chart

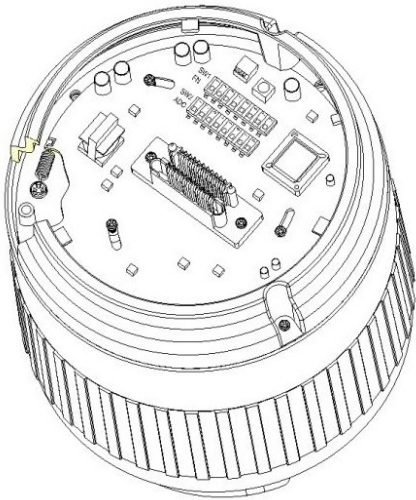
Bare wire diameter metric size (mm)	AWG (approximate)	SWG (approximate)	QQ-1 type maximum outer diameter (mm)	Bare wire cross-sectional area (mm ²)
0.050	43	47	0.065	0.00196
0.060	42	46	0.080	0.00283
0.070	41	45	0.090	0.00385
0.080	40	44	0.100	0.00503
0.090	39	43	0.110	0.00636
0.100	38	42	0.125	0.00785
0.110	37	41	0.135	0.00950
0.130	36	39	0.155	0.01327
0.140	35		0.165	0.01539
0.160	34	37	0.190	0.02011
0.180	33		0.210	0.02545
0.200	32	35	0.230	0.03142
0.230	31		0.265	0.04115
0.250	30	33	0.290	0.04909
0.290	29	31	0.330	0.06605
0.330	28	30	0.370	0.08553
0.350	27	29	0.390	0.09621
0.400	26	28	0.440	0.1257
0.450	25		0.490	0.1602
0.560	24	24	0.610	0.2463
0.600	23	23	0.650	0.2827
0.710	22	22	0.760	0.3958
0.750	21		0.810	0.4417
0.800	20	21	0.860	0.5027
0.900	19	20	0.960	0.6362
1.000	18	19	1.07	0.7854
1.250	16	18	1.33	1.2266
1.500	15		1.58	1.7663
2.000	12	14	2.09	3.1420
2.500			2.59	4.9080
3.00				7.0683

		Wire Diameter(mm)				Transmission Distance (Feet(m))
		0.8000	1.000	1.250	2.000	
Power (VA)	10	283 (86)	451 (137)	716 (218)	1811 (551)	
	20	141 (42)	225 (68)	358 (109)	905 (275)	
	30	94 (28)	150 (45)	238 (72)	603 (183)	
	40	70 (21)	112 (34)	179 (54)	452 (137)	
	50	56 (17)	90 (27)	143 (43)	362 (110)	
	60	47 (14)	75 (22)	119 (36)	301 (91)	
	70	40 (12)	64 (19)	102 (31)	258 (78)	
	80	35 (10)	56 (17)	89 (27)	226 (68)	
	90	31 (9)	50 (15)	79 (24)	201 (61)	
	100	28 (8)	45 (13)	71 (21)	181 (55)	
	110	25 (7)	41 (12)	65 (19)	164 (49)	
	120	23 (7)	37 (11)	59 (17)	150 (45)	
	130	21 (6)	34 (10)	55 (16)	139 (42)	
	140	20 (6)	32 (9)	51 (15)	129 (39)	
	150	18 (5)	30 (9)	47 (14)	120 (36)	
	160	17 (5)	28 (9)	44 (13)	113 (34)	
	170	16 (4)	26 (7)	42 (12)	106 (32)	
	180	15 (4)	25 (7)	39 (11)	100 (30)	
	190	14 (4)	23 (7)	37 (11)	95 (28)	
	200	14 (4)	22 (6)	35 (10)	90 (27)	

Appendix V: Protocol and ID address setting

Dome Switch Setting

There are two kinds of switcher, SW1 and SW2. SW1 is used to set protocol and baud rate, SW2 is used to set Dome Address.



Picture 65

X explains DIP switcher to be "ON" or "OFF" in following diagram,

○ testifies DIP switcher is "ON".

Blank explains DIP switcher is "OFF".

Baud Rate Setting (SW1) :

Baud Rate	Switcher Number							
	ON 1	2	3	4	5	6	7	8
2400bps								
4800bps						○		
9600bps							○	
19200bps						○	○	

Protocol Setup (SW1)

Protocol	switcher Number							
	ON 1	2	3	4	5	6	7	8
FACTORY								
VCL	○							
PELCO_P		○						
PELCO_D	○	○						
MOLYNX			○					
VICON	○		○					
DIAMOND		○	○					
KALATEL	○	○	○					
HUNDA				○				
...	○			○				
SANTACHI		○		○				
PELCO_C*	○	○		○				
UNIVISION_V1*			○	○				
UNIVISION_V2*	○		○	○				
PHILIPS*		○	○	○				
AD*	○	○	○	○				
ADT SECUPRO					○			
PANASONIC	○				○			
...		○			○			
SENSORNET	○	○			○			
KDEC300			○		○			
BBV*	○		○		○			
...		○	○		○			
...	○	○	○		○			
...				○	○			
...	○			○	○			
...		○		○	○			
...		○	○	○	○			
...	○	○	○	○	○			

Dome ID Setting (SW2)

In the following drawing, roundness shows DIP

“ON”

ID	Switch Number							
	ON 1	2	3	4	5	6	7	8
0								
1	○							
2		○						
3	○	○						
4			○					
5	○		○					
6		○	○					
7	○	○	○					
8				○				
9	○			○				
10		○		○				
11	○	○		○				
12			○	○				
13	○		○	○				
14		○	○	○				
15	○	○	○	○				
16					○			
17	○				○			
18		○			○			
19	○	○			○			
20			○		○			
21	○		○		○			
22		○	○		○			
23	○	○	○		○			
24				○	○			
25	○			○	○			
26		○		○	○			
27	○	○		○	○			
28			○	○	○			
29	○		○	○	○			
30		○	○	○	○			
31	○	○	○	○	○			
32						○		
33	○					○		
34		○				○		
35	○	○				○		
36			○			○		
37	○		○			○		
38		○	○			○		
39	○	○	○			○		
40				○		○		
41	○			○		○		
42		○		○		○		
43	○	○		○		○		

ID	Switch Number							
	ON 1	2	3	4	5	6	7	8
44			○	○		○		
45	○		○	○		○		
46		○	○	○		○		
47	○	○	○	○		○		
48					○	○		
49	○				○	○		
50		○			○	○		
51	○	○			○	○		
52			○		○	○		
53	○		○		○	○		
54		○	○		○	○		
55	○	○	○		○	○		
56				○	○	○		
57	○			○	○	○		
58		○		○	○	○		
59	○	○		○	○	○		
60			○	○	○	○		
61	○		○	○	○	○		
62		○	○	○	○	○		
63	○	○	○	○	○	○		
64							○	
65	○						○	
66		○					○	
67	○	○					○	
68			○				○	
69	○		○				○	
70		○	○				○	
71	○	○	○				○	
72				○			○	
73	○			○			○	
74		○		○			○	
75	○	○		○			○	
76			○	○			○	
77	○		○	○			○	
78		○	○	○			○	
79	○	○	○	○			○	
80					○		○	
81	○				○		○	
82		○			○		○	
83	○	○			○		○	
84			○		○		○	
85	○		○		○		○	
86		○	○		○		○	
87	○	○	○		○		○	

ID	Switch Number							
	<input type="checkbox"/> ON 1	<input type="checkbox"/> ON 2	<input type="checkbox"/> ON 3	<input type="checkbox"/> ON 4	<input type="checkbox"/> ON 5	<input type="checkbox"/> ON 6	<input type="checkbox"/> ON 7	<input type="checkbox"/> ON 8
88				○	○		○	
89	○			○	○		○	
90		○		○	○		○	
91	○	○		○	○		○	
92			○	○	○		○	
93	○		○	○	○		○	
94		○	○	○	○		○	
95	○	○	○	○	○		○	
96						○	○	
97	○					○	○	
98		○				○	○	
99	○	○				○	○	
100			○			○	○	
101	○		○			○	○	
102		○	○			○	○	
103	○	○	○			○	○	
104				○		○	○	
105	○			○		○	○	
106		○		○		○	○	
107	○	○		○		○	○	
108			○	○		○	○	
109	○		○	○		○	○	
110		○	○	○		○	○	
111	○	○	○	○		○	○	
112					○	○	○	
113	○				○	○	○	
114		○			○	○	○	
115	○	○			○	○	○	
116			○		○	○	○	
117	○		○		○	○	○	
118		○	○		○	○	○	
119	○	○	○		○	○	○	
120				○	○	○	○	
121	○			○	○	○	○	
122		○		○	○	○	○	
123	○	○		○	○	○	○	
124			○	○	○	○	○	
125	○		○	○	○	○	○	
126		○	○	○	○	○	○	
127	○	○	○	○	○	○	○	
128								○
129	○							○
130		○						○
131	○	○						○

ID	Switch Number							
	<input type="checkbox"/> ON 1	<input type="checkbox"/> ON 2	<input type="checkbox"/> ON 3	<input type="checkbox"/> ON 4	<input type="checkbox"/> ON 5	<input type="checkbox"/> ON 6	<input type="checkbox"/> ON 7	<input type="checkbox"/> ON 8
132			○					○
133	○		○					○
134		○	○					○
135	○	○	○					○
136				○				○
137	○			○				○
138		○		○				○
139	○	○		○				○
140			○	○				○
141	○		○	○				○
142		○	○	○				○
143	○	○	○	○				○
144					○			○
145	○				○			○
146		○			○			○
147	○	○			○			○
148			○		○			○
149	○		○		○			○
150		○	○		○			○
151	○	○	○		○			○
152				○	○			○
153	○			○	○			○
154		○		○	○			○
155	○	○		○	○			○
156			○	○	○			○
157	○		○	○	○			○
158		○	○	○	○			○
159	○	○	○	○	○			○
160						○		○
161	○					○		○
162		○				○		○
163	○	○				○		○
164			○			○		○
165	○		○			○		○
166		○	○			○		○
167	○	○	○			○		○
168				○		○		○
169	○			○		○		○
170		○		○		○		○
171	○	○		○		○		○
172			○	○		○		○
173	○		○	○		○		○
174		○	○	○		○		○
175	○	○	○	○		○		○

ID	Switch Number							
	ON 1	2	3	4	5	6	7	8
176					○	○		○
177	○				○	○		○
178		○			○	○		○
179	○	○			○	○		○
180			○		○	○		○
181	○		○		○	○		○
182		○	○		○	○		○
183	○	○	○		○	○		○
184				○	○	○		○
185	○			○	○	○		○
186		○		○	○	○		○
187	○	○		○	○	○		○
188			○	○	○	○		○
189	○		○	○	○	○		○
190		○	○	○	○	○		○
191	○	○	○	○	○	○		○
192							○	○
193	○						○	○
194		○					○	○
195	○	○					○	○
196			○				○	○
197	○		○				○	○
198		○	○				○	○
199	○	○	○				○	○
200				○			○	○
201	○			○			○	○
202		○		○			○	○
203	○	○		○			○	○
204			○	○			○	○
205	○		○	○			○	○
206		○	○	○			○	○
207	○	○	○	○			○	○
208					○		○	○
209	○				○		○	○
210		○			○		○	○
211	○	○			○		○	○
212			○		○		○	○
213	○		○		○		○	○
214		○	○		○		○	○
215	○	○	○		○		○	○
216				○	○		○	○
217	○			○	○		○	○
218		○		○	○		○	○
219	○	○		○	○		○	○

ID	Switch Number							
	ON 1	2	3	4	5	6	7	8
220			○	○	○		○	○
221	○		○	○	○		○	○
222		○	○	○	○		○	○
223	○	○	○	○	○		○	○
224						○	○	○
225	○					○	○	○
226		○				○	○	○
227	○	○				○	○	○
228			○			○	○	○
229	○		○			○	○	○
230		○	○			○	○	○
231	○	○	○			○	○	○
232				○		○	○	○
233	○			○		○	○	○
234		○		○		○	○	○
235	○	○		○		○	○	○
236			○	○		○	○	○
237	○		○	○		○	○	○
238		○	○	○		○	○	○
239	○	○	○	○		○	○	○
240					○	○	○	○
241	○				○	○	○	○
242		○			○	○	○	○
243	○	○			○	○	○	○
244			○		○	○	○	○
245	○		○		○	○	○	○
246		○	○		○	○	○	○
247	○	○	○		○	○	○	○
248				○	○	○	○	○
249	○			○	○	○	○	○
250		○		○	○	○	○	○
251	○	○		○	○	○	○	○
252			○	○	○	○	○	○
253	○		○	○	○	○	○	○
254		○	○	○	○	○	○	○
255 Program- mable Address	○	○	○	○	○	○	○	○

Afer finishing setting Dome Add and baudrate,
The dome will inspect it by itself when power
is on, it works well.