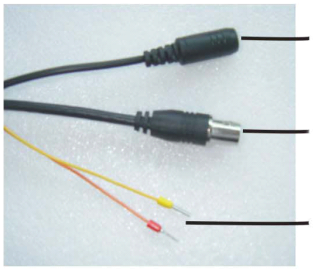
# When you ready to install the camera, please note these advices !

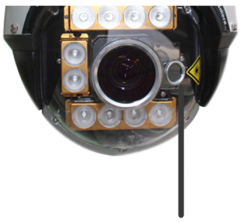
**We put a bubble piece to stuck the camera, please do not take it out before you finish the installation, that is for prevent you to rotate the dome camera body by hands or force, such a wrong operation will break the component.**

Carrying the wire is forbidden. This will draw out the wire, cause damage.

Don't dismantle the machine without professional training. This should be operated by a professional technician.

Position of dial code switch, open the small cover, will see the dial codes. Factory set is:
Protocol: PELCO_D
Baud rate: 2400
Address No.: 001





The big IR LED or laser illuminator will auto turn on at night and when camera zoom to 11X / 5X or more.

Please be careful to use hoisting support, like picture, and please note the waterproof function. If outdoor, please consider to use wall mount.

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# Products introduction

## Thank you for using our INTELLIGENT SPEED DOME CAMERA

Our products use perfect function design of high performance digital DSP, stable performance. The key parts, we use world famous bands, like electrical motor, zoom module, electrical ring, IR lights components. With the perfect electrical circuit design and convenient installation method, make it can tracing objectives fast and correctly. It can monitor all locations in 24 hours. The skillful design of hardware reducing failure rate as its possible. The human design of software make the operation become simple and convenient. These advantages make the system become convenient for installation, using, maintaining, and working stably. We believe our products have excellent performance, so it can be the best in the industry! These products can be applicable to intelligent building, bank security protection, city roads, airport, quay, station, residential district, industrial factory and mine and so on. It can meet various demands, in anywhere, and various moving targets.

## Notes

A. Please read the installation instructions before you operate it;
B. Please comply with safe operating instructions when you operate it;
C. Only professional and experienced worker can operate the installation and maintain works of it;
D. Please use reliable tools, those tools which of poor quality maybe causing dangerous situation;
E. Please ensure the installation and using environment is in line with our products demands;
F. Please check the space for install the supporter, including strength and toughness, the weight support capacity of substrate at least up to 5 multiples of both products and parts;
G. Please save the packaging of product, in order to package and transport it in the future.

## Warning

A. Don't put it near to inflammable and explosive things, please keep it far away dangerous areas;
B. Don't put it on the unstable or supporter;
C. Don't let any foreign material and liquid into the machine, that will damage it;
D. Don't try to use wrong power or adaptor to supply electricity, it's power voltage is DC 12V;
E. Please recognize the RS-485 control wire;
F. Don't try to supply power for it before you have not finish the installation;
G. Don't try to take it apart to repair;
H. Don't use corrosive cleaner to clean it;
I. Please don't let the camera face to strong light directly, like strong lamp light, strong sunlight, etc. Otherwise its CCD maybe damaged forever;
J. Please do not let it bear weight pressure or strong hit, and strong shake;
K. Please read the introductions carefully before you operate it.

## Friendly suggestions

1. Please use high quality and safe power supply, our standard power adaptor should be near to the camera, the best distance is within 3m, to avoid too much attenuation, please make sure your power supply is enough.
2. We suggest you to use high quality wires for both power and transmission, and avoid to tie a knot wires, please try your best to wiring smoothly, sometimes you have to connect many wires together, please be careful to make the connection point be perfect, don't think one core is not important, don't just tie them together, please make all cores one-to-one. Please consider to add electronic resistance and UPS when you find the power supply is not normal.
3. Please never carry the wire which is outside the dome, and don't let that wire to bear the camera weight.
4. We suggest you'd better to do some grounding and lightning protection measures, because speed dome camera have control cable, it is easier to be hit by thunder and lightning than other normal camera.

# Installation and connection

## Notes before installation

1. Installation must by the professional technicians or someone which have qualification.
2. Detailed wiring method please reference the installation sketch map and the install introductions.
3. When you installing camera, please use clean gloves, and avoid to use metal/strong objects/hands to touch the dome or its cover, in order to avoid damage the cover and affect image quality.
4. After you finish the installation, please use soft and clean cloth or towel to clean the transparent cover carefully, unclean fingers will make smudges on the cover, then will affect the image to be unclear.

## Installation requirements

- Please check the accessories are complete before installation;
- Before installation, please make sure the camera's using place and installation method are meet the requirement of the machine.
- Installation must operated by professional worker, and should comply with related rules, in order to avoid faults.
- You must to use right installation tools, like screwdriver etc, please check the dial code switch is right or not.

## Installation method

The installation place or wall must be strong and no constructing problems, the weight support capacity of installing place at least up to 4 multiples of both products and parts, including the supporter, in order to avoid camera fall down due to it's unstable.

## Installation steps

a. Take out the supporter from box, draw a central position of the drilling hole on the wall;
b. Use M8 electrical hammer to dill 4 holes on the position that out of the central position, then fix M6 screws in it;
c. Insert the wires from supporter top into the supporter inside, leave enough length for the connecting wire;
d. Put 4 holes of the supporter on those 4 screws, fix gaskets, screw those 4 screws, then fix the supporter and camera on the wall;
e. Clean the cover after installation.

## External wiring connection

- Put the BNC video interface connecting to the fixed video wire;
- Put the power wire connecting to the fixed power wire (DC12V/5A);
- Put the RS 485 control wire connecting to the fixed control RS 485wire,.please check the positive and negative of RS 485wire, make its in accordance with the remarking connection method on the wire head, if you make its converse, it can't get communication. A is positive of RS485 wire ( generally be orange ), B is negative of RS485 wire ( generally be yellow ).
- Please check the whole routes after you connect every wires, including: The polarity and connecting method of power and control wires. If you are sure they all are right, you can turn on the power. The camera will checking itself after turn on power. It will rotating 360° in horizontal firstly, then rotating 90° in vertical. At the same time, every checking informations will display on the screen, like the address, communicating speed rate, camera. After finish all checking, it will stop, this means it's finished checking and waiting for your controlling.

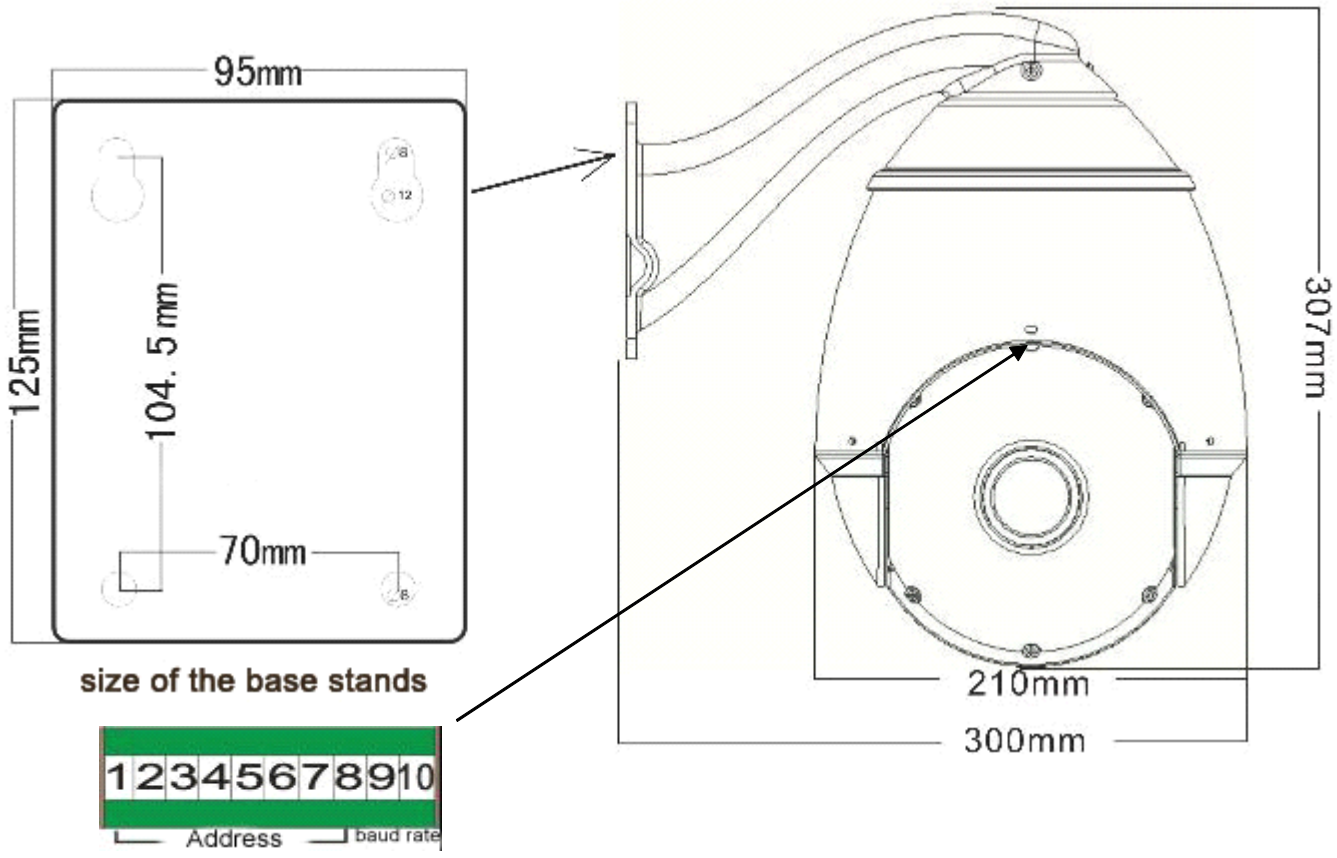
# Indoor & Outdoor IR High Speed Dome Camera

## 1. Features

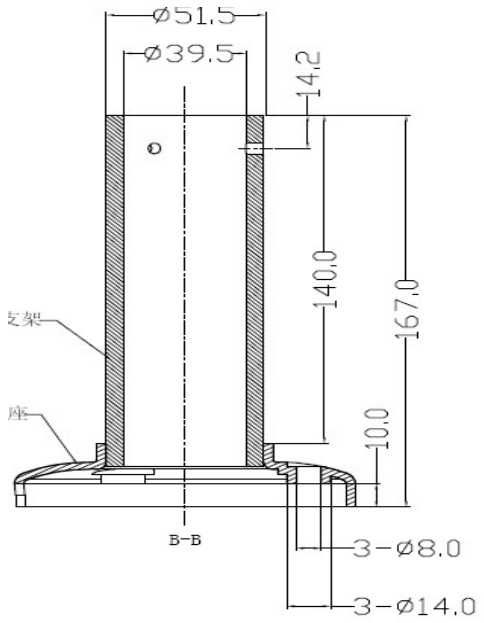
- 128 accurate preset positions, 2 pattern scan routes, 4 tour routes, 1 fixed monitoring position
- Display PTZ direction and zoom number, and temperature
- English OSD menu for operation.
- RS-485 communication, auto identify protocol of Pelco D / Pelco P
- Address codes range: 1~255
- Baud rate: 2400/4800/9600/19200, set by dial codes
- Horizontal rotating range: 0° –360° continuously
- Horizontal rotating speed: 0° –220° /sec
- Vertical rotating speed: 0° ~100° /sec, auto flip
- Working temperature: -20° C--+75° C
- Working humidity: less than 95%
- Waterproof cover level: IP65
- Built-in constant temperature control system
- Installation methods: Hoisting installation, wall mounted installation
- Power: DC12V/ 5A power supply.

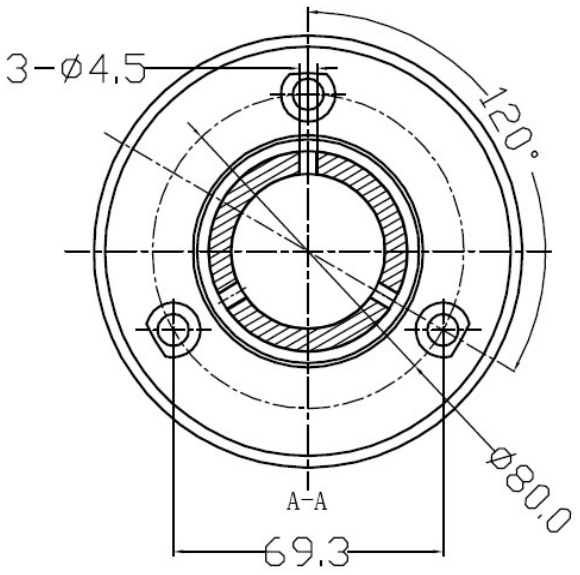
## 2. Mounting size drawing

### 2.1 Wall mount



## 2.2 Hoisting mount




# 3. hardware setting

## 3.1 Dial codes switch setting

Open the codes cover on top of dome cover, see the dial codes of 10 numbers, you can turn every number ON or OFF

## 3.2 Baud rate setting

High speed dome camera can auto identify the Pelco-D / Pelco-P, then starting work, so you just need to set baud rate and address codes of the camera, it can starting normal working. Baud rate can set through the 9th ~10th dial codes, setting method as below: factory default as 2400bps.

**Baud rate and dial codes switch matching sheet**

| Dial codes | 2400 bps | 4800 bps | 9600 bps | 19200 bps |
|---|---|---|---|---|
| No. 9 | OFF | ON | OFF | ON |
| No. 10 | OFF | OFF | ON | ON |

## 3.3 Address codes setting

10numbers dial codes switch, (picture 01) No.1~ No.8 are use to set the address codes, you can set address codes within the range 1~256, factory default as 1. Use binary, dial every number to be "ON" is means as 1, dial to be "OFF" is means as 0, details please reference the sheet.

**Address codes and dial codes switch sheet (Binary), calculate it according to this sheet**

| Binary | Add | Binary | Add | Binary | Add | Binary | Add |
|---|---|---|---|---|---|---|---|
| 0000000 | 0 | 11110000 | 15 | 01111000 | 30 | 10110100 | 45 |
| 10000000 | 1 | 00001000 | 16 | 11111000 | 31 | 01110100 | 46 |
| 01000000 | 2 | 10001000 | 17 | 00000100 | 32 | 11110100 | 47 |
| 11000000 | 3 | 01001000 | 18 | 10000100 | 33 | 00001100 | 48 |
| 00100000 | 4 | 11001000 | 19 | 01000100 | 34 | 10001100 | 49 |
| 10100000 | 5 | 00101000 | 20 | 11000100 | 35 | 01001100 | 50 |
| 01100000 | 6 | 10101000 | 21 | 00100100 | 36 | 11001100 | 51 |
| 11100000 | 7 | 01101000 | 22 | 10100100 | 37 | 00101100 | 52 |
| 00010000 | 8 | 11101000 | 23 | 01100100 | 38 | 10101100 | 53 |
| 10010000 | 9 | 00011000 | 24 | 11100100 | 39 | 01101100 | 54 |
| 01010000 | 10 | 10011000 | 25 | 00010100 | 40 | 11101100 | 55 |
| 11010000 | 11 | 01011000 | 26 | 10010100 | 41 | 00011100 | 56 |
| 00110000 | 12 | 11011000 | 27 | 01010100 | 42 | 10011100 | 57 |
| 10110000 | 13 | 00111000 | 28 | 11010100 | 43 | 01011100 | 58 |
| 01110000 | 14 | 10111000 | 29 | 00110100 | 44 | 11011100 | 59 |

If you use other equipments to control the camera, because of the protocol limitation, some special function maybe cannot use. When you use other equipments to control the camera, you need to set the protocol (auto identify), baud rate, address codes to be right. Different factories have different address codes, so sometimes you need to add 1 or cut 1 when you setting address codes. For example, you set the address code of camera to be 2, then you need to set DVR controlling address code to be 3 or 1, then you can control it.

**Remarks: alarming output switch always opening, K1~K8 are use to connect outside input signal**

# 4. OSD menu setting

## 4.1 menu setting operating introductions

When the camera power on, its basic informations will display, like protocol, baud rate, address code. After finish the checking and accept your controlling, these informations will disappear. ( user can see all setting info at here ) OSD menu setting method:

**Enter the main OSD menu: call #59 / #95 preset position to enter the main menu, then can set every item.**

Use the keyboard: call 59 / 95 number keys (call preset position) to enter main menu, then shake the joystick to shift up / down / left / right ( ←↑→↓ ), every keys functions as below:

**menu setting functional keys**

| No. | Original functions of the keyboard | Functions after enter the OSD menu |
|---|---|---|
| 1 | joystick: up | Menu cursor: up |
| 2 | joystick: down | Menu cursor: down |
| 3 | joystick: left | Menu cursor: left |
| 4 | joystick: right | Menu cursor: right |
| 5 | Iris close/ Iris (Iris - ) | Menu: back |
| 6 | Iris open/ Iris (Iris + ) | Menu: enter |

## 4.2 Basic introduction

### 4.2.1 Select item

Use the keyboard: call 59# / 95 # preset position to enter main menu, then see a sheet as below:

Use the joystick up / down to select item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu:

**Change the language to be English:** move the joystick down to the bottom, press the key "Iris+" (or the key "OPEN" on the keyboard ) to confirm select the item of "LANGUAGE", shake the joystick to change language to be "ENGLISH".

| | |
|---|---|
| SYSTEM SETUP | |
| CAMERA SETUP | |
| PAN SETUP | |
| CALENDAR | |
| LANGUAGE | ENGLISH |

### 4.2.2 Parameters setting operation

Shake the joystick up / down to change number of every item, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item and save this setting.

Press the key "Iris-" (or key "CLOSE" / "RETURN" on the keyboard ) to exit this menu, or back to the previous menu.

## 4.3 System setting of the dome camera

Shake the joystick up / down to make the cursor be under the "SYSTEM SETUP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu: as the sheet:

| |
|---|
| INFO DISPLAY |
| SYSTEM ACT |
| SET DOME TITLE |

### 4.3.1 Info display setting

Shake the joystick up / down to make the cursor be under the "INFO DISPLAY" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu: as the sheet:

| | |
|---|---|
| TITLE INFO | OFF |
| COORDINATE | OFF |
| TEMPERATURE | OFF |

Shake the joystick up / down to select, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item.

| | CAMERA |
|---|---|
| TITLE | ON / OFF |
| COORDINATE | ON / OFF |
| TEMPERATURE | ON / OFF |
| ZOOM | OFF |

Press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake the joystick up / down, you can select "DISPLAY" or "OFF". Finish the setting select, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu , and back to the previous menu.

### 4.3.2 System act setting

Shake the joystick up / down to make the cursor be under the "SYSTEM ACT" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu: (as the sheet:)

| | |
|---|---|
| POWER UP ACT | NOTHING |
| LEISURE ACT | NOTHING |
| LEISURE TIME | 003~240 (SECONDS) |
| RESET | |

**Power up act:** means after camera power on and finish checking, the action that users want it to do, the factory default is "nothing (no any action)":
Shake the joystick up / down to make the cursor under the "POWER UP ACT" item, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake joystick up / down to select what action you want, there are 10 options can be selected: nothing / pattern scan route / cruise route scan / limiting position scan/ auto scan/ fixed position scan (home). Select one, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu, and back to the previous menu.

**Leisure act:** means the camera haven't any actions after a period of time which you set, if you don't control it beyond this time, it will auto working a action you set before. The factory default is "nothing":
Shake the joystick up / down to make the cursor be under the "LEISURE ACT" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake joystick up / down to select what action you want, there are 10options can be selected: nothing / pattern scan route / cruise route scan / limiting position scan / auto scan / fixed position scan. Select one, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu , and back to the previous menu.

**Leisure time:** (factory default is "30 seconds")
Shake the joystick up / down to make the cursor be under the "LEISURE TIME" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake joystick up / down to select time (3~240 seconds). Finish the setting select, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu, and back to the previous menu.

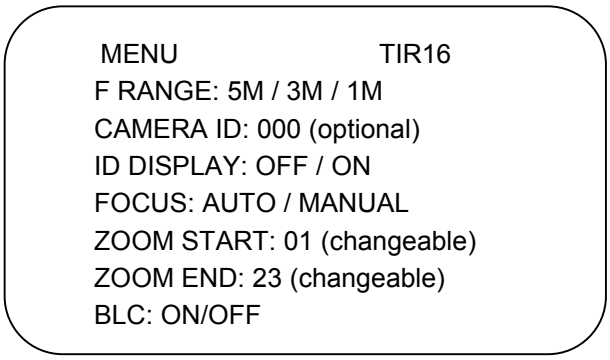
**Reset:**
Shake the joystick up / down to make the cursor be under the "SYSTEM RESET" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then screen appears "?", you need to enter the

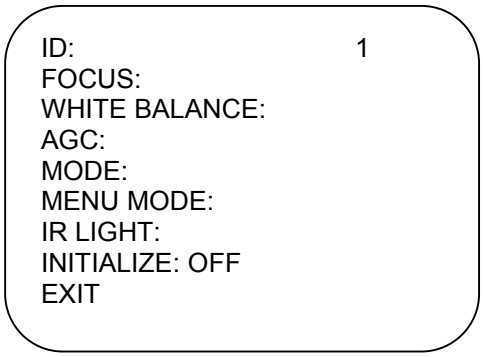
camera secret codes, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, 2 seconds later, the camera will restore to factory defaults.

**Set camera title:**
Shake the joystick up / down to make the cursor be under the "SET DOME TITLE" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then screen appears "?", shake the joystick up / down to select the letters (a~z, A~Z) and numbers (0~9) you want, move the joystick left or right will move the cursor location, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm.

## 4.4 Camera setup

Shake the joystick up / down to make the cursor be under the "camera setup" item, different camera have different parameters for selection, different modules have different menu. Our standard module menu generally as below:




After enter the main menu, you can choose these menu items as below by the key "zoom" (the key "zoom" original function is for change the image zoom definition ), or use the joystick, use "focus" to change value.

F RANGE: 5M /3M /1M--------the range of the FOCUS

CAMERA ID: 000:--------000-255(selectable by useing the key "zoom")

ID DISPLAY: ON/OFF:--------"ON" means display, "OFF" means no display(selectable by useing the key "zoom")

FOCUS: MANUAL/AUTO: --------manual zoom (defaults)/ auto zoom(selectable by useing the key "zoom")

ZOOM START: 01:--------default is 01X,(selectable by useing the key "zoom")

ZOOM END: 23:--------default is 23X,(selectable by useing the key "zoom")

BLC: ON/OFF:--------back light compensation is selectable,ON/OFF(selectable by useing the key "zoom")

RESET:--------restore factory settings

EXIT:--------return

ID: --------ID of every camera, in order to control all cameras more conveniently, from 1~255

FOCUS:

FOCUS MODE----AUTO: real time, default; MANU: manual focus; PUSH: find image clear point when the zoom stopping, then focus, will not focus again. (MANUAL MODE, if change zoom, focus mode will auto change to AUTO FOCUS MODE; AUTO MODE, if change zoom, focus mode will auto change to MANUAL FOCUS MODE)

FOCUS DISTANCE----5 / 20 CM / 1M

INITIALIZE----5K / 15K / 25K / 35K / EXEC / OFF (in order to solve lens lose steps, when it focus certain times, the module will auto check itself again, EXEC means REBOOT AND SELFCHECK)

ZOOM START----1, means the zoom starting time of the zoom module

ZOOM END----30, mean the biggest zoom times of the zoom module (initialization can clear this set)

EXIT

WHITE BALANCE:

MODE----AUTO / SPECIAL / WAWB / OUTDOOR / INDOOR

R----1~255

B----1~255

EXIT

AGC:

AGC----AUTO / MANU

LEVEL----1~16

BEIGHTNESS----AUTO / 1~15

SHUTTER----AUTO / 1/50~10K

EXIT

MODE:

BLC----ON / OFF
D/N----AUTO / DAY / NIGHT
MIRROR----ON / OFF
PROTOCOL----VISTA / PELCO D (**Don't change this protocol, otherwise you can not control the PTZ anymore**)
EXIT
MENU MODE:
LANGUAGE----CHS/ENG
MODE----PUSH / OFF / ON
ID----OFF / ON
FOCUS----OFF / ON
EXIT
IR LIGHT:
FUNCTION (MODE)----OFF / ON
IR LIGHT (LEVEL)----1 / 2 / 3 (IR light turn on set)
SWITCH----OFF / ON
ZOOM STAR----1 (changeable)
ZOOM END----30 (changeable)
EXIT
INITIALIZE: ON / OFF
EXIT

## 4.5 PAN setup

Shake the joystick up / down to make the cursor be under the "PAN SETUP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| |
|---|
| SCAN SETUP |
| AUTO FLIP |
| HOME PLACE |

### 4.5.1 Scan setup:

Shake the joystick up / down to make the cursor be under the "SCAN SETUP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| |
|---|
| PATTERN SCAN |
| TOUR SCAN |
| AUTO SCAN |
| LIMIT SCAN |

**Pattern scan setting:**

Shake the joystick up / down to make the cursor be under the "PATTERN SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: (as the sheet:)

| | |
|---|---|
| PATTERN NUMBER | 001 / 002 |
| SET PATTERN | |
| RUN PATTERN | |
| USED STATE | ENABLE / DISABLE |

**Pattern number**--------shake the joystick up/down to change the scanning routes,(001—002), 2 routes are settable.
**Set pattern**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, start to set route.(can remember route within 15 minutes, pattern your scan route)
**Run pattern**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, now the camera starting pattern scan action, and exit all menu.
**Used state**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, shake the joystick up / down to select use this route or don't use. After finish the set, press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu , and back to the previous menu.

**Tour scan setting:**

Shake the joystick up / down to make the cursor be under the "TOUR SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| | |
|---|---|
| TOUR NUMBER | 001 ~ 004 optional |
| SET TOUR | |
| RUN TOUR | |
| USED STATE | ENABLE / DISABLE |

**Tour number**--------shake the joystick up/down to change the scanning routes,(001—004), 4 routes are settable.
**Set tour**--------select this item, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, you can set continuous preset positions in this route, every route can set 16 preset positions (Note: this function shortcut key and number can't use as preset positions ). You can set the speed between every positions (50~128 level). You can set the stay time of every position (1~240 seconds).
**Run tour**--------press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to working this cruise scan, now the camera starting cruise scan action, and exit all menu.
**Used state**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, shake the joystick up / down to select use this route or don't use. After finish the set, press the key "Iris" (or the key "CLOSE" / "RETURN" on the keyboard ) to back to previous menu.

**Auto scan setting:**
Shake the joystick up / down to make the cursor be under the "AUTO SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| | |
|---|---|
| SCAN SPEED | 060 |
| SCAN POSITION | |

**Scan speed**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to change the scan speed (10~80 level), default is 60$^{th}$ level.
**Scan position**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, use the keyboard, you can adjust camera pitch angle and zoom, let the camera to remember it.

**Limit scan:**
Shake the joystick up / down to make the cursor be under the "LIMIT SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet

| | |
|---|---|
| SCAN SPEED | 060 |
| SCAN POSITION | |
| LEFT LIMIT | |
| RIGHT LIMIT | |

**Scan speed**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to change the scan speed (10-80 level), default is 60$^{th}$ level.
**Scan position**: elect this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, use the keyboard, you can adjust camera pitch angle and zoom, let the camera to remember it.
**Left limit**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to set the position (starting point).
**Right limit**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to set the position (ending point).

### 4.5.2 Auto flip function
Shake the joystick up / down to make the cursor be under the "AUTO FLIP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, select ON/OFF, the factory default is ON.

### 4.5.3 Home (Fixed) position
Shake the joystick up / down to make the cursor be under the "HOME " item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then you can use the keyboard to adjust the camera to be the best condition, to set a fixed position as its home position.

## 4.6 Calendar setup

Shake the joystick to operate, press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the sub menu.

| | |
|---|---|
| TIME SET | |
| TIME DISPLAY | DISPLAY / OFF |
| TIMING ACTION NO. | 001 |
| TIMING ACTION TIME | 010 |
| TIMING ACTION | NOTHING |

TIME SET: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change time (YY/MM/DD HH:MM)

TIME DISPLAY: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change display mode, default set is "OFF".

TIMING ACTION NO.: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change action number for certain time (001~008), camera support 8 timing set.

TIMING ACTION TIME: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change the time you when you want certain action, camera support 24 hours timing set.

TIMING ACTION: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change the action you want at the time you set. Camera support actions as: NOTHING / PATTERN SCAN / TOUR SCAN / LEF, RIGHT LIMIT SCAN / AUTO SCAN / HOME PLACE. When you finish set, press "Iris+" (or "OPEN" / "ENTER" on the keyboard) to confirm and save your set.

## 4.7 Call the shortcut of preset positions (Pelco-D/P protocol)

Some shortcuts can realized by calling preset positions to using some functions:

| Preset position | Function |
|---|---|
| Call 59# or 95# preset position | Enter main menu |
| Call 34# preset position | Back to initial position |
| Call 38# preset position | 360° auto scan |
| Set 40# preset position | Delete all preset positions |

**Preset position number of tour scan route, and call / delete command**

| Tour scan route | Call command | Corresponding number of preset position |
|---|---|---|
| No.01 | Call 41# preset position | No. 1—16# preset position |
| No.02 | Call 42# preset position | No. 17—32# preset position |
| No. 03 | Call 43# preset position | No. 65—80# preset position |
| No. 04 | Call 44# preset position | No. 113—128# preset position |
| No. 05 | Call 45# preset position | No. 129—144# preset position |
| No. 06 | Call 46# preset position | No. 145—160# preset position |
| No. 07 | Call 47# preset position | No. 161—176# preset position |
| No. 08 | Call 48# preset position | No. 177—192# preset position |

**Preset position number of pattern scan, and call / delete command**

| Pattern scan route | Call command |
|---|---|
| No.01 | Call 51# preset position |
| No.02 | Call 52# preset position |
| Starting limit scan | Call 53# preset position |

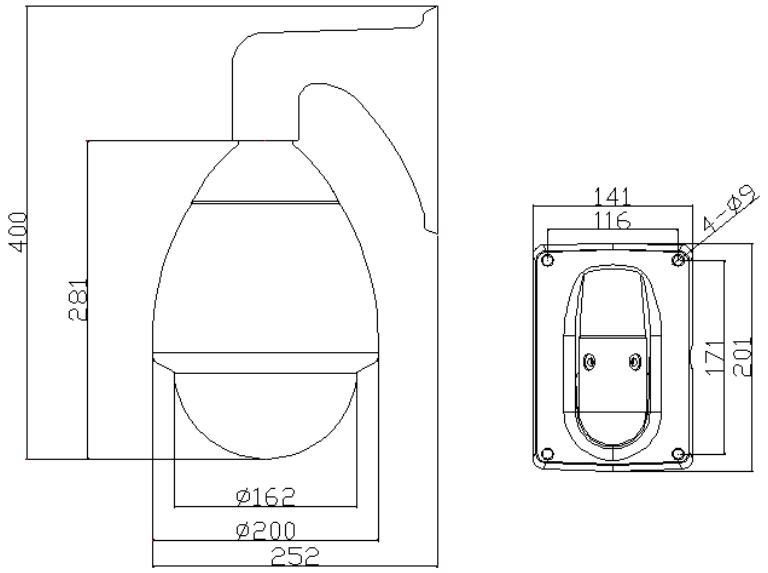
# Indoor & Outdoor Normal High Speed Dome Camera (W/O IR)

## 1. Features

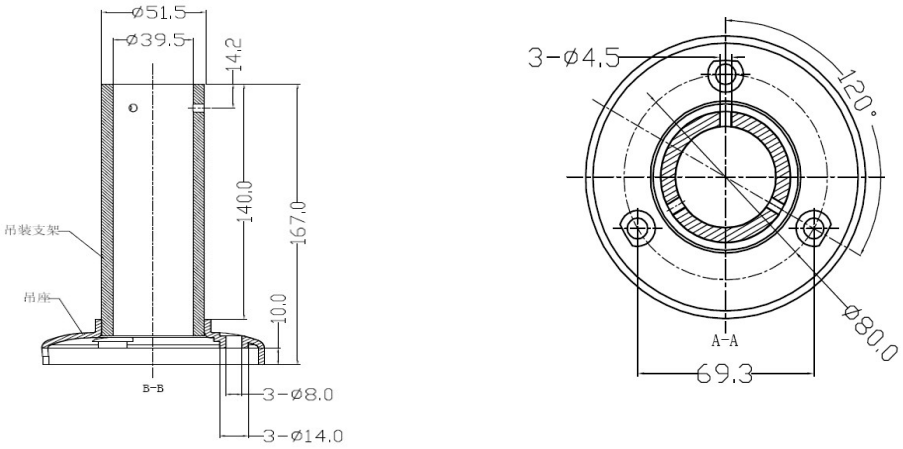
- Rotating speed: horizontal 0.1°~220°/sec, vertical 0.1°~160°/sec
- 128 preset positions, some models can set camera title
- 2 scan modes, 4 cruise routes, 2 pattern scan routes
- 2 alarm input,2 alarm auxiliary switch output (need to choose when you order the product)
- RS485 communication, auto identify protocol as Pelco D / P
- Chinese / English OSD menu
- Built-in the setting function of idle action
- Display the camera location coordinates and zoom multiples
- Waterproof cover level: IP66
- Built-in constant temperature control system
- 2 installation methods: Drop ceiling installation, wall mounted installation
- Working temperature: -20° C--+65° C
- Working humidity: less than 95%
- Power: DC12V/5A

## 2. Mounting size drawing

### 2.1 Wall mount




### 2.2 hoisting mount



# 3. hardware setting

## 3.1 Dial codes switch setting

Open the codes cover on top of dome cover, see the dial codes of 10 numbers, you can turn every number ON or OFF

## 3.2 Baud rate setting

High speed dome camera can auto identify the Pelco-D / Pelco-P, then starting work, so you just need to set baud rate and address codes of the camera, it can starting normal working. Baud rate can set through the $9^{th}$ ~$10^{th}$ dial codes, setting method as below: factory default as 2400bps.

**Baud rate and dial codes switch matching sheet**

| Dial codes | 2400 bps | 4800 bps | 9600 bps | 19200 bps |
|---|---|---|---|---|
| No. 9 | OFF | ON | OFF | ON |
| No. 10 | OFF | OFF | ON | ON |

## 3.3 Address codes setting

10numbers dial codes switch, (picture 01) No.1~ No.8 are use to set the address codes, you can set address codes within the range 1~256, factory default as 1. Use binary, dial every number to be "ON" is means as 1, dial to be "OFF" is means as 0, details please reference the sheet.

**Address codes and dial codes switch sheet (Binary), calculate it according to this sheet**

| Binary | Add | Binary | Add | Binary | Add | Binary | Add |
|---|---|---|---|---|---|---|---|
| 0000000 | 0 | 11110000 | 15 | 01111000 | 30 | 10110100 | 45 |
| 10000000 | 1 | 00001000 | 16 | 11111000 | 31 | 01110100 | 46 |
| 01000000 | 2 | 10001000 | 17 | 00000100 | 32 | 11110100 | 47 |
| 11000000 | 3 | 01001000 | 18 | 10000100 | 33 | 00001100 | 48 |
| 00100000 | 4 | 11001000 | 19 | 01000100 | 34 | 10001100 | 49 |
| 10100000 | 5 | 00101000 | 20 | 11000100 | 35 | 01001100 | 50 |
| 01100000 | 6 | 10101000 | 21 | 00100100 | 36 | 11001100 | 51 |
| 11100000 | 7 | 01101000 | 22 | 10100100 | 37 | 00101100 | 52 |
| 00010000 | 8 | 11101000 | 23 | 01100100 | 38 | 10101100 | 53 |
| 10010000 | 9 | 00011000 | 24 | 11100100 | 39 | 01101100 | 54 |
| 01010000 | 10 | 10011000 | 25 | 00010100 | 40 | 11101100 | 55 |
| 11010000 | 11 | 01011000 | 26 | 10010100 | 41 | 00011100 | 56 |
| 00110000 | 12 | 11011000 | 27 | 01010100 | 42 | 10011100 | 57 |
| 10110000 | 13 | 00111000 | 28 | 11010100 | 43 | 01011100 | 58 |
| 01110000 | 14 | 10111000 | 29 | 00110100 | 44 | 11011100 | 59 |

If you use other equipments to control the camera, because of the protocol limitation, some special function maybe cannot use. When you use other equipments to control the camera, you need to set the protocol (auto identify), baud rate, address codes to be right. Different factories have different address codes, so sometimes you need to add 1 or cut 1 when you setting address codes. For example, you set the address code of camera to be 2, then you need to set DVR controlling address code to be 3 or 1, then you can control it.

**Remarks: alarming output switch always opening, K1~K8 are use to connect outside input signal**

# 4. OSD menu setting

## 4.1 menu setting operating introductions

When the camera power on, its basic informations will display, like protocol, baud rate, address code. After finish the checking and accept your controlling, these informations will disappear. ( user can see all setting info at here ) OSD menu setting method:

**Enter the main OSD menu: call #59 / #95 preset position to enter the main menu, then can set every item.**

Use the keyboard: call 59 / 95 number keys (call preset position) to enter main menu, then shake the joystick to shift up / down / left / right ( ←↑→↓ ), every keys functions as below:

**menu setting functional keys**

| No. | Original functions of the keyboard | Functions after enter the OSD menu |
|---|---|---|
| 1 | joystick: up | Menu cursor: up |
| 2 | joystick: down | Menu cursor: down |
| 3 | joystick: left | Menu cursor: left |
| 4 | joystick: right | Menu cursor: right |
| 5 | Iris close/ Iris (Iris - ) | Menu: back |
| 6 | Iris open/ Iris (Iris + ) | Menu: enter |

## 4.2 Basic introduction

### 4.2.1 Select item

Use the keyboard: call 59# / 95 # preset position to enter main menu, then see a sheet as below:

Use the joystick up / down to select item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu:

**Change the language to be English:** move the joystick down to the bottom, press the key "Iris+" (or the key "OPEN" on the keyboard ) to confirm select the item of "LANGUAGE", shake the joystick to change language to be "ENGLISH".

| | |
|---|---|
| SYSTEM SETUP | |
| CAMERA SETUP | |
| PAN SETUP | |
| CALENDAR | |
| LANGUAGE | ENGLISH |

### 4.2.2 Parameters setting operation

Shake the joystick up / down to change number of every item, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item and save this setting.

Press the key "Iris-" (or key "CLOSE" / "RETURN" on the keyboard ) to exit this menu, or back to the previous menu.

## 4.3 System setting of the dome camera

Shake the joystick up / down to make the cursor be under the "SYSTEM SETUP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu: as the sheet:

| |
|---|
| INFO DISPLAY |
| SYSTEM ACT |
| SET DOME TITLE |

### 4.3.1 Info display setting

Shake the joystick up / down to make the cursor be under the "INFO DISPLAY" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu: as the sheet:

| | |
|---|---|
| TITLE INFO | OFF |
| COORDINATE | OFF |
| TEMPERATURE | OFF |

Shake the joystick up / down to select, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item.

| | | |
|---|---|---|
| | | CAMERA |
| TITLE | ON / OFF | |
| COORDINATE | | ON / OFF |
| TEMPERATURE | | ON / OFF |
| ZOOM | | OFF |

Press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake the joystick up / down, you can select "DISPLAY" or "OFF". Finish the setting select, press the key "Iris+" (or the key

"OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu , and back to the previous menu.

### 4.3.2 System act setting

Shake the joystick up / down to make the cursor be under the "SYSTEM ACT" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, or enter the next sub menu: (as the sheet:)

| | |
|---|---|
| POWER UP ACT | NOTHING |
| LEISURE ACT | NOTHING |
| LEISURE TIME | 003~240 (SECONDS) |
| RESET | |

**Power up act:** means after camera power on and finish checking, the action that users want it to do, the factory default is "nothing (no any action)":
Shake the joystick up / down to make the cursor under the "POWER UP ACT" item, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake joystick up / down to select what action you want, there are 10 options can be selected: nothing / pattern scan route / cruise route scan / limiting position scan/ auto scan/ fixed position scan (home). Select one, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu, and back to the previous menu.

**Leisure act:** means the camera haven't any actions after a period of time which you set, if you don't control it beyond this time, it will auto working a action you set before. The factory default is "nothing":
Shake the joystick up / down to make the cursor be under the "LEISURE ACT" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake joystick up / down to select what action you want, there are 10options can be selected: nothing / pattern scan route / cruise route scan / limiting position scan / auto scan / fixed position scan. Select one, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu , and back to the previous menu.

**Leisure time:** (factory default is "30 seconds")
Shake the joystick up / down to make the cursor be under the "LEISURE TIME" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then shake joystick up / down to select time (3~240 seconds). Finish the setting select, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm and save your set value. You can press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu, and back to the previous menu.

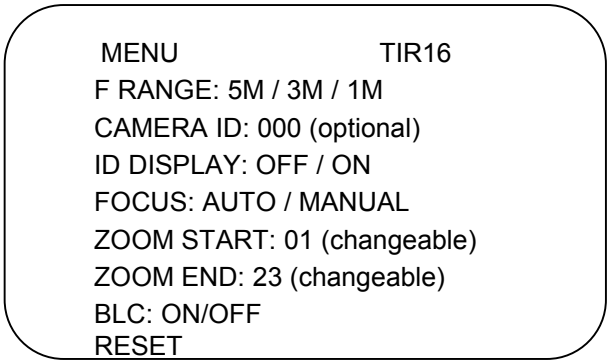
**Reset:**
Shake the joystick up / down to make the cursor be under the "SYSTEM RESET" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then screen appears "?", you need to enter the camera secret codes, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, 2 seconds later, the camera will restore to factory defaults.

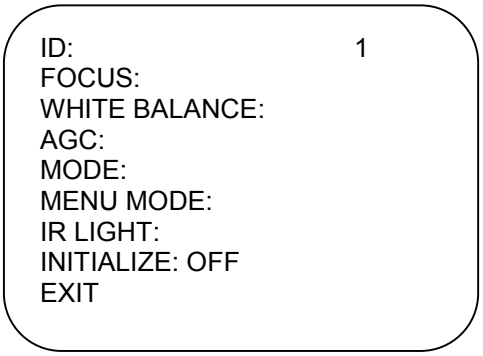
**Set camera title:**
Shake the joystick up / down to make the cursor be under the "SET DOME TITLE" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then screen appears "?", shake the joystick up / down to select the letters (a~z, A~Z) and numbers (0~9) you want, move the joystick left or right will move the cursor location, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm.

## 4.4 Camera setup

Shake the joystick up / down to make the cursor be under the "camera setup" item, different camera have different parameters for selection, different modules have different menu. Our standard module menu generally as below:

After enter the main menu, you can choose these menu items as below by the key "zoom" (the key "zoom" original function is for change the image zoom definition ), or use the joystick, use "focus" to change value.




F RANGE: 5M /3M /1M--------the range of the FOCUS

CAMERA ID: 000:--------000-255(selectable by useing the key "zoom")

ID DISPLAY: ON/OFF:--------"ON" means display, "OFF" means no display(selectable by useing the key "zoom")

FOCUS: MANUAL/AUTO: --------manual zoom (defaults)/ auto zoom(selectable by useing the key "zoom")

ZOOM START: 01:--------default is 01X,(selectable by useing the key "zoom")

ZOOM END: 23:--------default is 23X,(selectable by useing the key "zoom")

BLC: ON/OFF:--------back light compensation is selectable,ON/OFF(selectable by useing the key "zoom")

RESET:--------restore factory settings

EXIT:--------return

ID: --------ID of every camera, in order to control all cameras more conveniently, from 1~255

FOCUS: FOCUS MODE----AUTO: real time, default; MANU: manual focus; PUSH: find image clear point when the zoom stopping, then focus, will not focus again. (MANUAL MODE, if change zoom, focus mode will auto change to AUTO FOCUS MODE; AUTO MODE, if change zoom, focus mode will auto change to MANUAL FOCUS MODE)

FOCUS DISTANCE----5 / 20 CM / 1M

INITIALIZE----5K / 15K / 25K / 35K / EXEC / OFF (in order to solve lens lose steps, when it focus certain times, the module will auto check itself again, EXEC means REBOOT AND SELFCHECK)

ZOOM START----1, means the zoom starting time of the zoom module

ZOOM END----30, mean the biggest zoom times of the zoom module (initialization can clear this set)

EXIT

WHITE BALANCE: MODE----AUTO / SPECIAL / WAWB / OUTDOOR / INDOOR

R----1~255

B----1~255

EXIT

AGC: AGC----AUTO / MANU

LEVEL----1~16

BEIGHTNESS----AUTO / 1~15

SHUTTER----AUTO / 1/50~10K

EXIT

MODE: BLC----ON / OFF

D/N----AUTO / DAY / NIGHT

MIRROR----ON / OFF

PROTOCOL----VISTA / PELCO D (**Don't change this protocol, otherwise you can not control the PTZ anymore**)

EXIT

MENU MODE: LANGUAGE----CHS/ENG

MODE----PUSH / OFF / ON

ID----OFF / ON

FOCUS----OFF / ON

EXIT

IR LIGHT: FUNCTION (MODE)----OFF / ON

IR LIGHT (LEVEL)----1 / 2 / 3 (IR light turn on set)

SWITCH----OFF / ON

ZOOM STAR----1 (changeable)

ZOOM END----30 (changeable)

EXIT

INITIALIZE: ON / OFF

EXIT

## 4.5 PAN setup

Shake the joystick up / down to make the cursor be under the "PAN SETUP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| |
|---|
| SCAN SETUP |
| AUTO FLIP |
| HOME PLACE |

### 4.5.1 Scan setup:

Shake the joystick up / down to make the cursor be under the "SCAN SETUP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| |
|---|
| PATTERN SCAN |
| TOUR SCAN |
| AUTO SCAN |
| LIMIT SCAN |

**Pattern scan setting:**

Shake the joystick up / down to make the cursor be under the "PATTERN SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: (as the sheet:)

| | |
|---|---|
| PATTERN NUMBER | 001 / 002 |
| SET PATTERN | |
| RUN PATTERN | |
| USED STATE | ENABLE / DISABLE |

**Pattern number**--------shake the joystick up/down to change the scanning routes,(001—002), 2 routes are settable.
**Set pattern**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, start to set route.(can remember route within 15 minutes, pattern your scan route)
**Run pattern**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, now the camera starting pattern scan action, and exit all menu.
**Used state**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, shake the joystick up / down to select use this route or don't use. After finish the set, press the key "Iris-" (or the key "CLOSE" / "RETURN" on the keyboard ) to exit this menu , and back to the previous menu.

**Tour scan setting:**

Shake the joystick up / down to make the cursor be under the "TOUR SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| | |
|---|---|
| TOUR NUMBER | 001 ~ 004 optional |
| SET TOUR | |
| RUN TOUR | |
| USED STATE | ENABLE / DISABLE |

**Tour number**--------shake the joystick up/down to change the scanning routes,(001—004), 4 routes are settable.
**Set tour**--------select this item, press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, you can set continuous preset positions in this route, every route can set 16 preset positions (Note: this function shortcut key and number can't use as preset positions ). You can set the speed between every positions (50~128 level). You can set the stay time of every position (1~240 seconds).
**Run tour**--------press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to working this cruise scan, now the camera starting cruise scan action, and exit all menu.
**Used state**--------select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, shake the joystick up / down to select use this route or don't use. After finish the set, press the key "Iris" (or the key "CLOSE" / "RETURN" on the keyboard ) to back to previous menu.

**Auto scan setting:**

Shake the joystick up / down to make the cursor be under the "AUTO SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet:

| | |
|---|---|
| SCAN SPEED | 060 |
| SCAN POSITION | |

**Scan speed**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to change the scan speed (10~80 level), default is 60th level.
**Scan position**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, use the keyboard, you can adjust camera pitch angle and zoom, let the camera to remember it.

**Limit scan:**
Shake the joystick up / down to make the cursor be under the "LIMIT SCAN" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the next sub menu: as the sheet

| | |
|---|---|
| SCAN SPEED | 060 |
| SCAN POSITION | |
| LEFT LIMIT | |
| RIGHT LIMIT | |

**Scan speed**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to change the scan speed (10-80 level), default is 60th level.
**Scan position**: elect this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, use the keyboard, you can adjust camera pitch angle and zoom, let the camera to remember it.
**Left limit**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to set the position (starting point).
**Right limit**: select this item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, shake the joystick up / down to set the position (ending point).

#### 4.5.2 Auto flip function
Shake the joystick up / down to make the cursor be under the "AUTO FLIP" item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, select ON/OFF, the factory default is ON.

#### 4.5.3 Home (Fixed) position
Shake the joystick up / down to make the cursor be under the "HOME " item, then press the key "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, then you can use the keyboard to adjust the camera to be the best condition, to set a fixed position as its home position.

## 4.6 Calendar setup

Shake the joystick to operate, press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm select this item, and enter the sub menu.

| | |
|---|---|
| TIME SET | |
| TIME DISPLAY | DISPLAY / OFF |
| TIMING ACTION NO. | 001 |
| TIMING ACTION TIME | 010 |
| TIMING ACTION | NOTHING |

TIME SET: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change time (YY/MM/DD HH:MM)
TIME DISPLAY: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change display mode, default set is "OFF".
TIMING ACTION NO.: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change action number for certain time (001~008), camera support 8 timing set.
TIMING ACTION TIME: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change the time you when you want certain action, camera support 24 hours timing set.
TIMING ACTION: select this item, then press "Iris+" (or the key "OPEN" / "ENTER" on the keyboard ) to confirm, move joystick up / down to change the action you want at the time you set. Camera support actions as: NOTHING

/ PATTERN SCAN / TOUR SCAN / LEF, RIGHT LIMIT SCAN / AUTO SCAN / HOME PLACE. When you finish set, press "Iris+" (or "OPEN" / "ENTER" on the keyboard) to confirm and save your set.

## 4.7 Call the shortcut of preset positions (Pelco-D/P protocol)

Some shortcuts can realized by calling preset positions to using some functions:

| Preset position | Function |
|---|---|
| Call 59# or 95# preset position | Enter main menu |
| Call 34# preset position | Back to initial position |
| Call 38# preset position | 360° auto scan |
| Set 40# preset position | Delete all preset positions |

**Preset position number of tour scan route, and call / delete command**

| Tour scan route | Call command | Corresponding number of preset position |
|---|---|---|
| No.01 | Call 41# preset position | No. 1—16# preset position |
| No.02 | Call 42# preset position | No. 17—32# preset position |
| No. 03 | Call 43# preset position | No. 65—80# preset position |
| No. 04 | Call 44# preset position | No. 113—128# preset position |
| No. 05 | Call 45# preset position | No. 129—144# preset position |
| No. 06 | Call 46# preset position | No. 145—160# preset position |
| No. 07 | Call 47# preset position | No. 161—176# preset position |
| No. 08 | Call 48# preset position | No. 177—192# preset position |

**Preset position number of pattern scan, and call / delete command**

| Pattern scan route | Call command |
|---|---|
| No.01 | Call 51# preset position |
| No.02 | Call 52# preset position |
| Starting limit scan | Call 53# preset position |

# Clean the dome cover

A， In order to get image with high definition, please clean the dome cover with gloves regularly. Please dismount the cover carefully, don't be hurt, and keep your hands be dry, the sweat maybe will erode the cover.
B， Please use dry cloth.
C， Please use neutral cleaner.

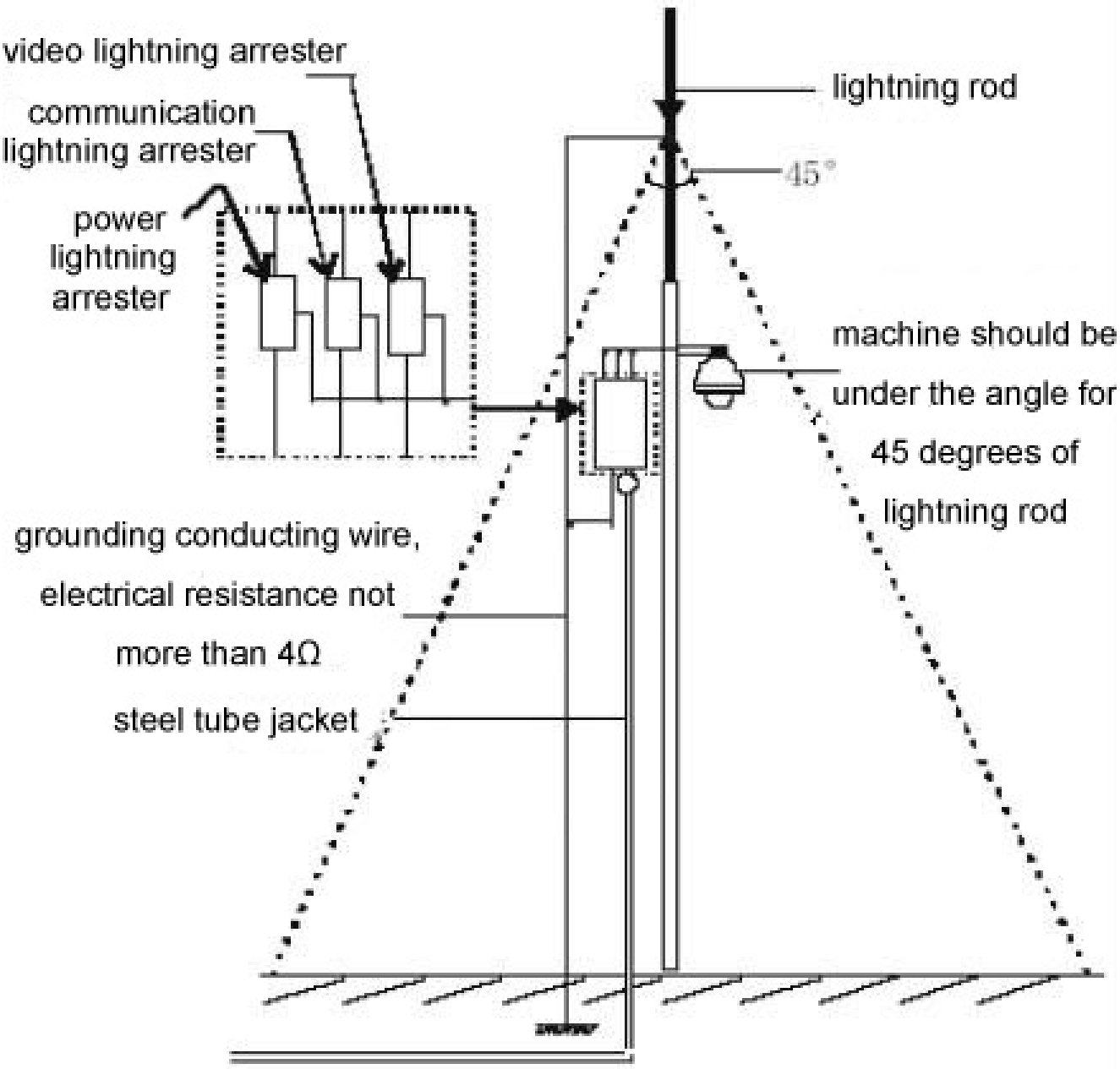
# Notes for maintain

1、Check every power sockets about every camera regularly.
2、Ensure every power voltage is stable.
3、Set obvious mark for camera which installed in a low position, remind else people who isn't monitor worker don not to touch or move it.
4、Arrange a special person to manage the monitoring equipments, forbid other person to use it.
5、Should shut off the power of monitoring equipments, when the monitoring center have no person every evening.
6、Maintain the machine regularly.

## Lightning protection

This products use TVS lightning protecting technology, it can protect the equipment in these situations: momentary lightning striking power voltage below 1.5W, electrical surge and other pulse signal. But, if you installed the machine outdoor, should consider practical situations, should ensure the electrical security, and do necessary protecting measures. Like this picture:

- Signal transfer wires should stay away from high voltage equipment or wires at least 50m distance ;
- Wiring outdoor should choose to along under house eaves;
- In the open zoom, please use sealed steel tube to cover land and wiring, and use the steel tube to touch the land, forbid to wiring in the air;
- In strong thunderstorm area, or high voltage area (like high voltage substation), must install special powerful lightning protecting equipment, and lightning rod, and all these equipments must be installed by professional worker;
- The system must be electrical bonding, the earthing device must meet all professional demands both of system and electricity, and don't connect to strong electrical net wires. When the system earthing alone, the impedance of earthing device should be less than 4Ω, cross sectional area of earthing conducting wires must be smaller than 25mm.


video lightning arrester
communication
lightning arrester
power
lightning
arrester
lightning rod
45°
machine should be
under the angle for
45 degrees of
lightning rod
grounding conducting wire,
electrical resistance not
more than 4Ω
steel tube jacket

## Simple sheet for check faults

| Faults | Possible reasons | Solution |
|---|---|---|
| Power on, but no action, no image, indicating lights off. | Power wires connected wrong | Correct |
| | Power damaged | Change |
| | Power is not right | Change |
| | Power wires are poor connection | Rule out |
| Power on, camera can check itself and display the image, but you can't control it | Address codes, baud rate are wrong | Reset the address codes and baud rate |
| | Wrong protocol | Correct |
| | RS485 wires connected wrong or damaged | Check RS485wires connection |
| Self-check is abnormal, have image but with electrical motor working voice | Machine faults | Repair |
| | Camera is crooked | Move and adjust its position |
| | Power is not enough | Change the power |
| Image is unstable | Video wires are poor connection | Rule out |
| | Power is not enough | Change the power |
| | Video route is bearing interruption | Rule out |
| image is unclear | Camera is manual zoom mode | Change to auto zoom mode |
| | The dome cover is dirty | Clean the dome cover |
| Bad controlling | Power is not enough | Change power, you'd better put the power near to the camera |
| | Check the farthest camera's controlling resistance, see if it added into | Add the resistance |
| | The distance is too long, 485 signal are cut down | Use the twisted pair or add the diameter of the wire |
| | Wrong operating method lead to out of the control | Power off and reboot |

## SONY zoom module menu for reference:

M.FOCUS (OFF / ON)----manual focus;

M.IRIS (OFF / ON)---- manual iris;

A.SBLC (OFF / ON)----super back light compensation;

WBMODE----white balance mode (6 optional);

B.GAIN (OFF / ON.ADJ)----blue gain adjustable;

ALARM----alarm (13 modes optional);

P.ZONE 2 (ON - POS - SIZE - OFF)----privacy zones;

D.ZOOM (OFF / ON)----digital zoom;

V.INVERT (OFF / ON)----vertical invert;

F.LIMIT (00~12)----focus limit;

2P.ZOOM (OFF / ON)----2 points zoom;

M.SHUTTER (OFF / ON)---- manual shutter

NIGHT (OFF / ON)----auto night vision mode

BRIGHT (ADJ)---- brightness adjustable

R.GAIN (OFF / ON. ADJ)----red gain adjustable

SHARP (ADJ)---- sharp adjustable

P.ZONE 1 (ON - POS - SIZE - OFF)----privacy zones

Z.OSD (OFF / ON)----zoom displayed on the screen

H.INVERT (OFF / ON)----horizontal invert

P.EFFECT----picture effect (negative / B&W / OFF)

.SPEED (00~07)----zoom speed

L.INIT (SET)----lens initialization

FREEZE (OFF / ON); FACTORY.SET (SET)

RS 485 COMMUNICATION INTERFACE (OFF / ON)

## LG zoom module menu for reference:

**FOCUS SET**
FOCUS MODE:AUTO / KEY / TRIGGER / MANUAL; FOCUS RANGE: 50CM / 1M / 3M / 5M
ZOOM START: X1 ~X22; ZOOM STP: X2~X276 / X324 / X396 / X444
ZOOM SPEED: SLOW / MID / HIGH; ZOOM MODE: AUTO / MANUAL / FIXED AUTO
INITIAL SET; BACK / EXIT: PREVIOUS MENU / MAIN OPTION / END

**EXPOSURE SET**
IRIS: AUTO / MANUAL; AGC: OFF / LOW / MID / HIGH
WDR / BLC: OFF / WDR / BLC / STRONG LIGHT RESTRAINT;
BRIGHTNESS: 0~100;
SHUTTER: X512 / X2 / AUTO / OFF / ANTI-FLICKER / 1/160 / 1/90000
SENS-UP: OFF / AUTP / X2~ / AUTO / X128
INITIAL SET: EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END

**AWB SET----AUTO WHITE BALANCE**
AWB: AUTO / KEY CONTROL AUTO / MANUAL----COLOR (IN / OUTDOOR) / RED (-100~100) / BLUE (-100~100) / INITIAL SET / EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END

**D / N----DAY / NIGHT SWITCH**
AUTO / LEVEL LOW, MID, HIGH / WAIT TIME 5, 10, 15, 30, 60 SECONDS / INITIAL SET / EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END / DAY / NIGHT / EXTERNAL CONTROL

**DYNAMIC SENSE SET**
OFF / ON / AREA 1~4 / STATUS: OFF, ON / WIDTH / HEIGHT / HORIZONTAL MOVE / VERTICAL MOVE / SENSITIVITY / DYNAMIC ZOOM: OFF, X1~X23, X27, X33, X37 / INITIAL SET / EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END / DAY / NIGHT / EXTERNAL CONTROL

**PRIVACY MASK ZONE SET**
OFF / ON / ZONE: 1~8 / DISPLAY: OFF, ON / COLOR: BLACK, GRAY, WHITE / WIDTH / HEIGHT / HORIZONTAL MOVE / VERTICAL MOVE / PRIVACY MASK RESTORE / INITIAL SET / EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END / DAY / NIGHT / EXTERNAL CONTROL

**3D DIGITAL NOISE REDUCTION**
OFF / LOW / MID / HIGH

**SPECIAL SET**
CAMERA ID: 0~255;
DIGITAL EFFECT: OFF / VERTICAL INVERSE / MIRROR / ROTATE
COLOR: OFF / ON; FREEZE: OFF / ON
SHART: 0~68;
DISPLAY ON SCREEN: OFF / ON: USER NAME / ZOOM STATUS DISPLAY / FUNCTION DISPLAY / CAMERA ID
LANGUAGE: ENG / CHN;
INITIAL SET / EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END

**RESET**
FACTORY SET; SOFTWARE VERSION; REBOOT;
PROTOCOL: PELCO-D / PELCO-P;
INITIAL SET / EXIT / BACK TO PREVIOUS MENU / BACK TO MAIN OPTIONS / END

**EXIT**

Note: If built in LG module to our speed dome, when you enter MENU, "FOCUS+ / -" at keyboard can used to change value, "ZOOM + / -" can used to choose options.

## CNB zoom module menu for reference:

**GENERAL**
CAMERA ID; LANGUAGE; ZONE LABEL; BACK LIGHT; SHARPNESS; MIRROR;
PROTOCOL; INITIAL; EXIT

**FOCUS**
FOCUS MODE; FOCUS DIST; ZOOM START; ZOOM END; ZOOM SPEED; INITIAL; EXIT

**AWB----AUTO WHITE BALANCE**
AWB MODE; RED CONT; BLUE CONT; PUSH AUTO; INITIAL; EXIT

**AE----AUTO EXPOSURE**
AE MODE; BRIGHTNESS; FLICKERNESS; SHUTTER SPD; IRIS ADJUST;
AGC ADJUST; AGC MAS SET; INITIAL; EXIT

**D&N----DAY & NIGHT**
D & N MODE; D & N DELAY; INITIAL; EXIT

**SLOW_SHT----SLOW SHUTTER**
SHT_FLD; INITIAL; EXIT

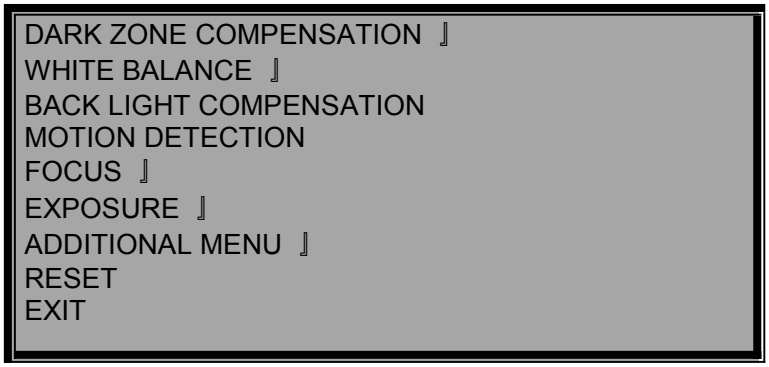
**MOTION**
DETECT MODE; DETECT AREA; SENSITIVITY; INITIAL; EXIT

**DISPLAY**
WHOLE OSD; FUNC OSD; MOTICM DET; CAMERA ID; ZOOM MAG; ZONE LABEL;
VERSION; INITIAL; EXIT

**INITIAL**
OFF STATE; ON STATE

**EXIT**

## SAMSUNG zoom module menu for reference: Main menu on screen,




- **(e.g. Our control keyboard, if for mid / low speed dome camera, press IRIS + for about 15 seconds , you wills see the zoom module menu. zoom+ / zoom - can be used to choose option, focus + / focus - can be used to change the options value)**
- Use UP / DOWN button to choose the option, when you choose options, the arrow on screen will follow your choice to move, use LEF / RIGHT button to change the mode of your chose option, when you finish all set, move the arrow to "EXIT" to quit and save the set.
- Some options with "』" mark, means this option have sub options, you can enter its sub options.

**DARK ZONE COMPENSATION**----this function means you can adjust the image brightness and saturation.

1. Press "SET" button to enter the sub menu, 0~15 adjustable, default set is 8.
2. Enter "LEVEL" of this function, can change to be LOW / MID / HIGH.
3. Move the arrow to EXIT to quit.

**WHITE BALANCE----AUTO TRACK / AUTO / MANUAL**

**BLC---**-when the camera focused object have strong light to shine it from its back, the image will be dark, you ca use this function to adjust the image. The sensitivity of BLC can be HIGH / MID / LOW / OFF

**MOTION DETECTION----**this module have 8 motion detection zones, camera can detect the object by its color, brightness, when the screen show "moving object", you need to pay attention on it.

1. Choose the area you want to detect under option "SELECT AREA".
2. Change the MOTION DETECTION function to be "ON", then set the area you want to detect.
3. Finish set, exit and save the set.

**FOCUS**----enter its sub menu,

AUTO: when camera doing optical zoom, it will auto turn on DIGITAL ZOOM, it will auto focus when it zooming.

ONE TIME FOCUS: when zoom stop, it will focus one time, and it will auto focus one time when zoom stop.

MANUAL: use controller to change zoom, and confirm the screen change, now it without auto focus function.

ZOOM TRACKING MODE: use controller to choose OFF / ON.

ZOOM TRACKING SPEED: use this to choose the digital zoom times, 1x ~ 16x.

INITIALIZE ZOOM POSITION.

USER DEFAULT SET.

LENS INITIALIZATION.

EXIT.

**EXPOSURE**----enter the sub menu,

BRIGHTNESS; IRIS: AUTO / MANUAL; SHUTTER: ANTI-FLICKER / MANUAL / AUTO (best mode);

AGC: HIGH / MID / LOW; DIGITAL NOISE REDUCTION;

SENSE LIGHT: help camera to get better image at dark environment.

**ADDITIONAL MENU-**---enter the sub menu

DAY / NIGHT: DAY (COLOR) / NIGHT (B&W) / AUTO; DIGITAL IMAGE STABLIZATION;

SYNCHRONOUS MODE: INTERNAL SYNC / EXTERNAL SYCN; COMMUNICATION;

BAUD RATE: 2400 / 9600 / 19200

ASYNCHRONOUS MODE: set parity as NO PARITY / ODD PARITY / EVEN PARITY; EXIT;

IMAGE ADJUST: HORIZONTAL INVERSE / VERTICAL INVERSE / SHARPNESS (this can make object edge to be clear, but if value is too high, will interrupt the image) / EXIT;

IMAGE: use can choose suitable monitor. CRT / LCD / USER DEFAULT

DISPLAY: set the information will be displayed on screen when the camera is working.

CAMERA ID: 1~255; POWER DISPLAY; MOTION DETECTION; ZOOM; WORD COLOR;

LANGUAGE: 16 kinds can be chose; BACK.

**BACK MAIN MENU**

**RESTORE**

**EXIT**