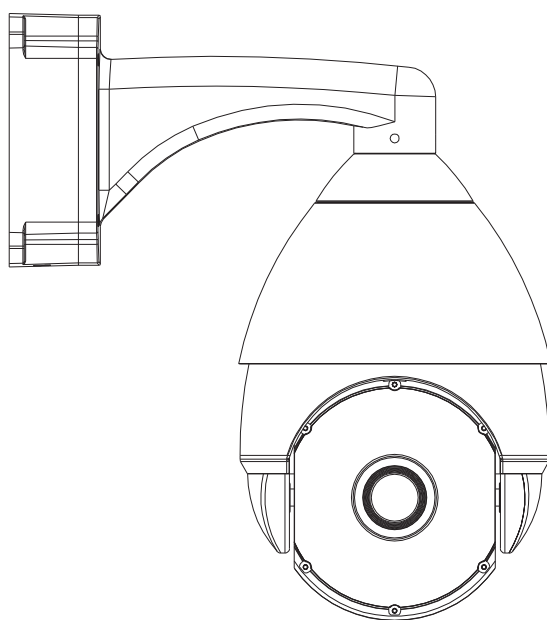


IR Night-Vision High speed Dome Camera

INSTRUCTION MANUAL



Note:

- Read this manual carefully before installation and operation. Keep it handy for later reference.
- No further notification shall be made in case the modification of product appearance and/or technical parameters.

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1.INSTRUCTION

These series of products can be widely used in intelligent building, bank security, urban roads, airport terminals and bus stations, and also are able to satisfy various demands from any square and activities occasion.

1.1 Safety Instructions

- ◆ Make sure to read the use's manual before using the product.
- ◆ Always confirm to national and local safety codes during installation.
- ◆ Only qualified and experienced person can carry on this installation and maintenance.
- ◆ Use reliable tools, otherwise may lead to dangerous incidents.
- ◆ Make sure that the environmental conditions meet the installation requirements for this product.
- ◆ Please 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.
- ◆ Please keep all the original dome package materials for future repacking and transporting.

1.2 Warnings

- ◆ Do not install this speed dome in hazardous places where combustible or explosive materials are stored or used.
- ◆ Do not place the machine on shaking desk.
- ◆ Make sure no uncertain object or fluid substances get inside the unit.
- ◆ This speed dome runs on AC 24V, do not connect it to higher or lower voltage.
- ◆ Please check RS 485 cable.
- ◆ Do not turn power on before finishing installation.
- ◆ Do not disassemble any part of the items.
- ◆ Use soft towel to clean the down cover when necessary, do not use caustic detergent.
- ◆ To protect CCD, avoid facing the camera directly to the strong light.
- ◆ To prevent damage, do not drop the unit or subject to strong shock or vibration.

2. FEATURE

2.1 Product Features

- ◆ English OSD menu.
- ◆ 220 preset positions.
- ◆ Password protection.
- ◆ IR distance up to 110M.
- ◆ Lighting proof and surge proof.
- ◆ Pan / Tilt speed $0.08^{\circ}\sim 240^{\circ}/\text{sec}$.
- ◆ Built-in alarm, 1 input/1 output.
- ◆ Built in software update interface.
- ◆ Support Sony, LG,CNB zoom camera.
- ◆ RS485, Pelco D/P protocols auto detected.
- ◆ 360° continuous pan, 180° Tilt “Auto Flip”.
- ◆ Variable rotation speed automatic matching.
- ◆ Fan and heater (option) inside, IP66 waterproof.
- ◆ 4 tours, 4 patterns, 4 autos, 8 zones, 8 privacy zones.
- ◆ IR light can adjust with zoom times automatically.

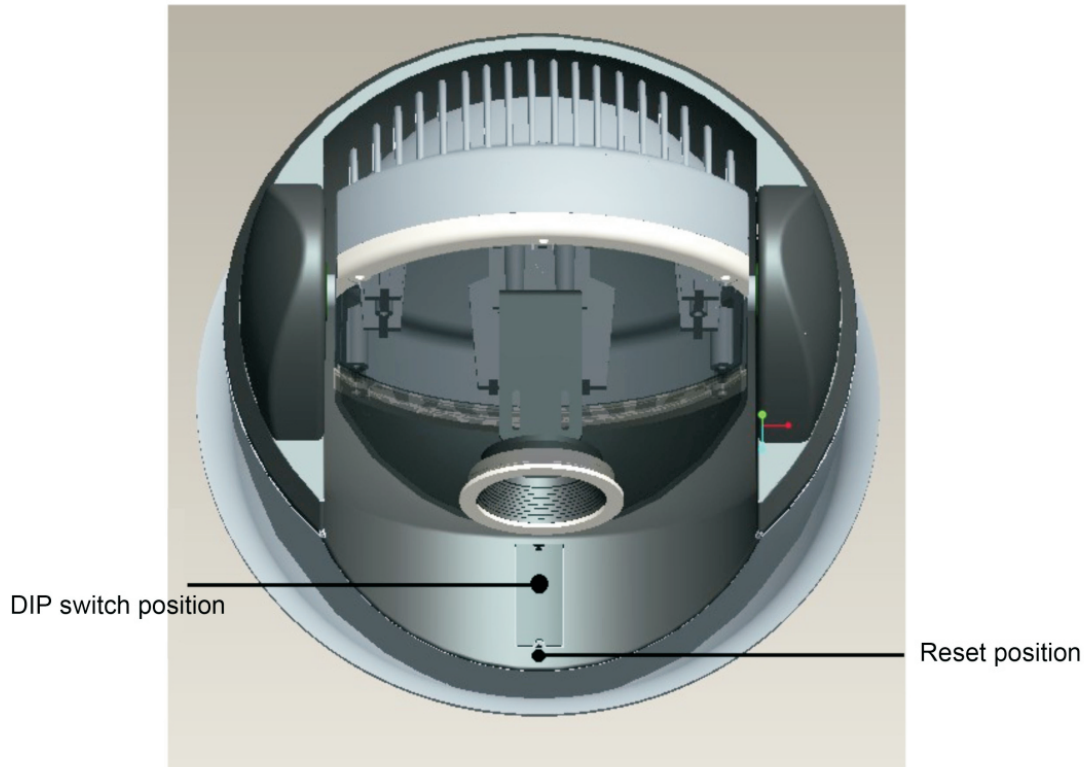
2.2 Specifications

Model	IR High Speed Dome Camera
IR Function	
IR Distance	Up to 110m
Operation	
OSD Menu	English
Preset	220, accuracy $<\pm 0.1^\circ$
Scan	4 tours, 4 patterns, 4 autos, 8 zones, 8 privacy zones
Pan Speed	$0.08^\circ \sim 240^\circ / \text{sec}$
Tilt Speed	$0.08^\circ \sim 240^\circ / \text{sec}$
Pan Range	$0^\circ \sim 360^\circ$ (Continuous)
Tilt Range	$0^\circ \sim 90^\circ$
Communication	RS485
Sync System	External Sync
Protocol	Pelco-P/D auto detected
Baud Rate	2400bps, 4800bps, 9600bps, 19200bps
Address Range	1~255 (support address setup)
IR Far Light switch	8 times (default), setup in personal
Time Running	Settable
Others	
Housing	Aluminum alloy / Plastic, water proof housing
Waterproof	IP66
Fan Rotation	Continuous, 6500rpm/min+5000rpm/min
Working Temperature	Indoor: $-40^\circ\text{C} \sim 50^\circ\text{C}$ Outdoor: $-30^\circ\text{C} \sim 50^\circ\text{C}$
Humidity	$<90\%$
Atmospheric Pressure	86~106KPa
Installation	Outdoor and indoor
Power (Max)	IR dot matrix Dome Camera, IR Distance 80M: 15VA (LED Off); 31VA(LED On); 46VA(heating condition)
	IR dot matrix Dome Camera, IR Distance 110M: 15VA (LED Off); 36VA(LED On); 51VA(heating condition)
Carton Diameter	310x310x450mm

3. SPEED DOME HARDWARE SETUP

3.1 DIP Switch Setup

Detach the upper housing and bottom cover, you can see DIP switch.



3.2 Protocol Setting

The speed dome can auto detect the Pelco-D and Pelco-P, only need to set up DIP switch according to protocol, baud rate and address. You can refer to appendix I for this part. Factory default baud rate is 2400bps.

DIP switch	2400bps	4800bps	9600bps	19200bps
9	OFF	ON	OFF	ON
10	OFF	OFF	ON	ON

Notice: please restart or press the returning switch to test the camera after setup, and then installation.

4. Installation Instruction

4.1 Installation Preparation

- A. Only qualified and experienced person can carry on this installation.
- B. Please refer to installation instructions.
- C. Speed dome installation is sure to use clean gloves, please avoid using metal, hard objects or hands directly touch the down cover.
- D. After installation, please use soft towel to clean the down cover when necessary. The acid sweat mask of fingerprint will corrode the coating of down cover and scratch on down cover will cause vague images.
- E. Please check all parts are complete before opening the package.
- F. Please check the space and toughness of the site before installing.
- G. Please use reliable tools, e.g. screw driver, and spanner. Also please check the DIP switch setting is correct.

4.2 Installation Type

There are 2 types of installation.

- (1) Wall Mount. (Standard configuration)
- (2) Suspended Mount. (Optional)

4.2.1 Installation Method

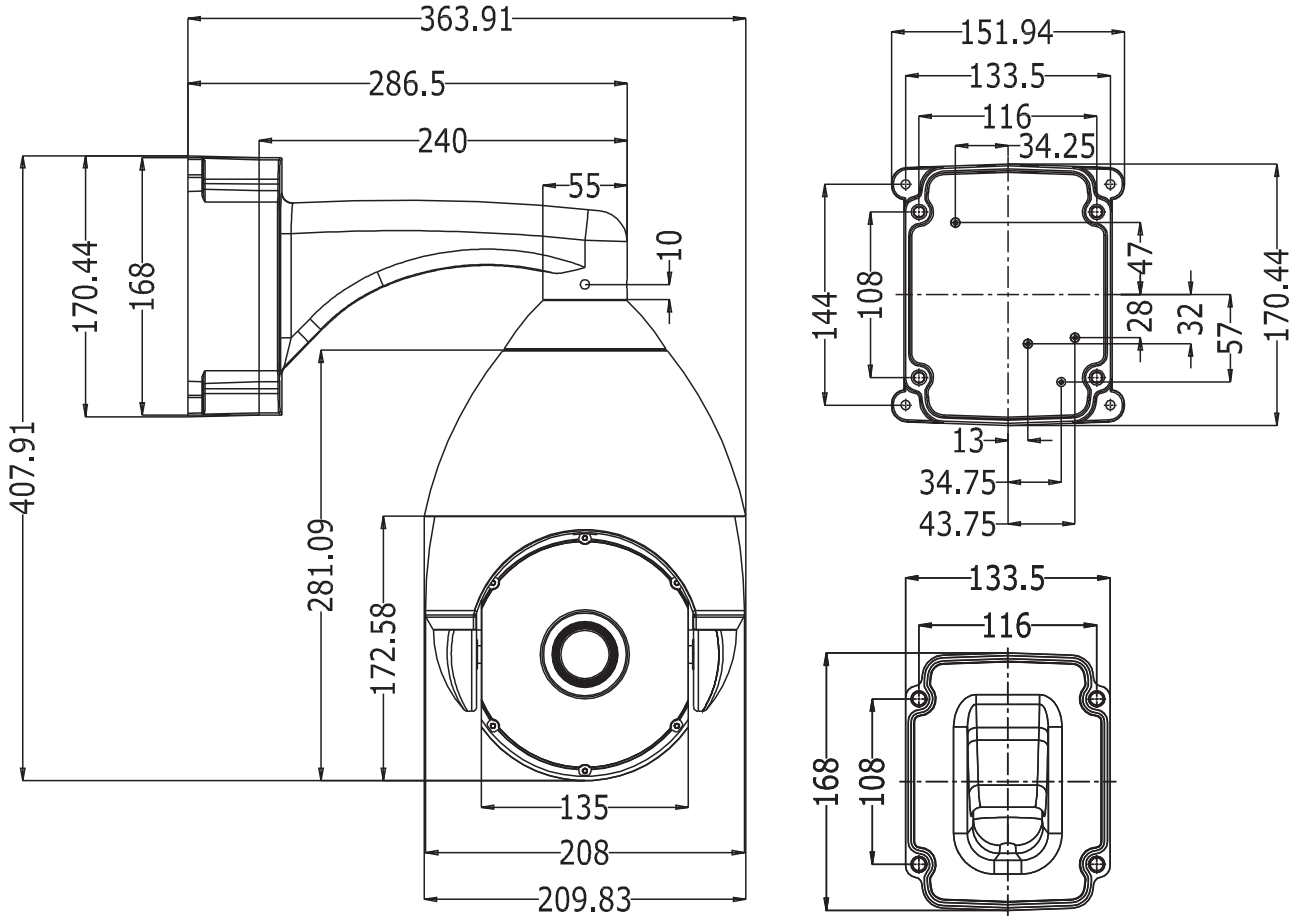
The wall should be hard and solid enough to accommodate rubber plug and tapping screw, and also should be capable of bearing at least 4 times the weight of the speed dome camera and its accessories.

4.2.2 Installation Steps

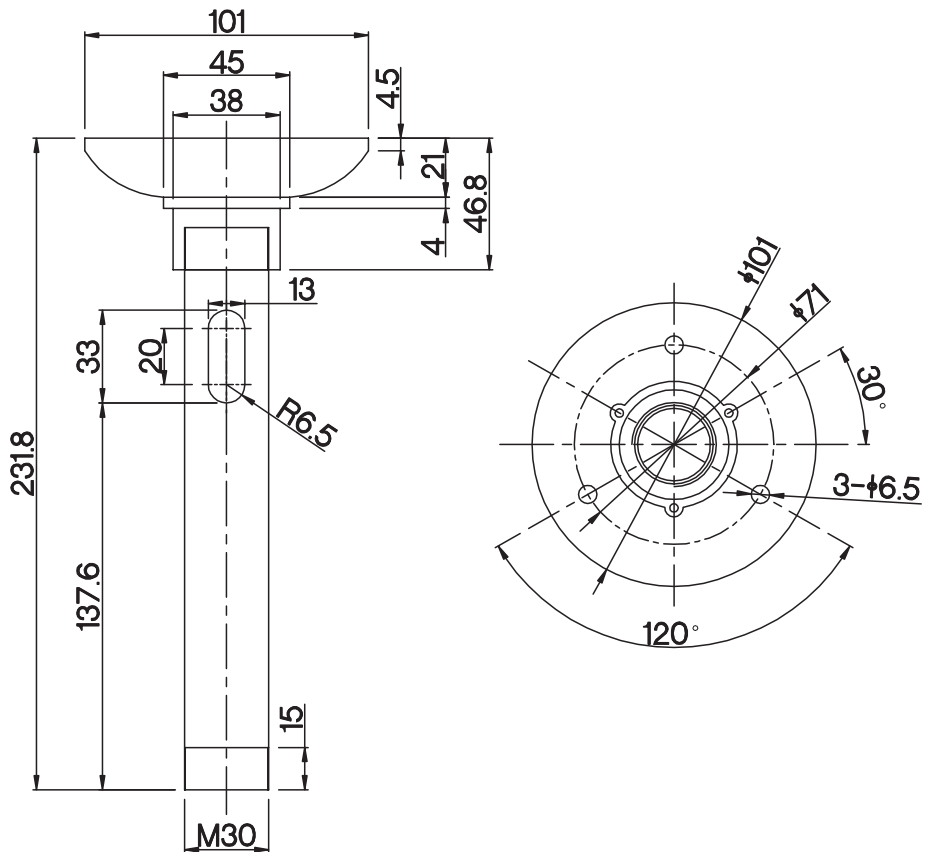
- A. Please take the wall bracket as a template to mark the screw positions of the four location holes. Drill the holes and put the supplied screw inside.

The dimension of the holes as followed:

Wall mount



Suspended mount



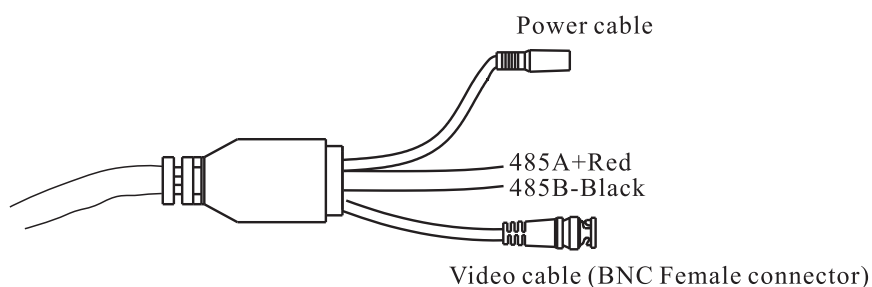
B. Take out the cables (power cable, video cable, control cable and combination cable) through the bracket base and upper housing, and leave enough length of the cable.

C. Then fasten the wall bracket by using nuts, spring washers and flat washers.

D. Please clean up the stains on the dome cover after installed.

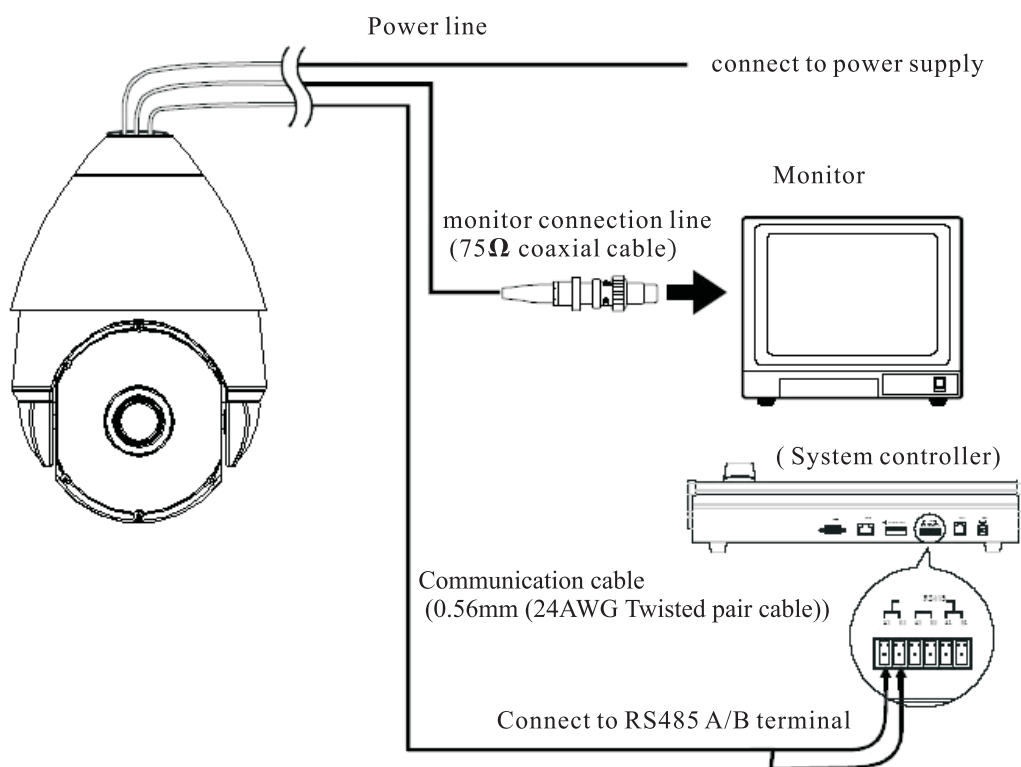
4.2.3 System Connection

(1) According to the label on the main connection line, Please connect the power cable, video / control cable correctly, connect RS485 cable to its corresponding cable connector, and then connect the cable connector to its socket. The connection is as below: **(The power cable should be dealing with waterproof.)**



(2) Fix the bracket to the Power Base.

(3) Connect the control system and display device as the picture of System Connection shows.



Note: please swathe the waterproof belt to the connector if you install outside.

5. SETUP OF THE OSD MENU

Note: For third party keyboard controller please read manuals. As command to a preset may not be the same among different manufacturers.

5.1 ENTER THE OSD MENU

Access to the dome's main system menu on your monitor by calling preset 95 or double calling preset 1 (call twice within 5 seconds). Preset calling can be done through a keyboard controller or any other device (e.g. a computer) that can send proper command to the speed dome.

In the main menu, use the direction key up or down to move the cursor to the desired setting item. Right key for enter, left key for confirmation.

OSD menu operations are specified as follow:

5.2 BOOT-UP

When you turn on the power for the dome or reset it, the initial information will be displayed on the screen, such as protocol, baud rate, and ID code. Meanwhile this information will disappear after receiving the first effective command automatically.

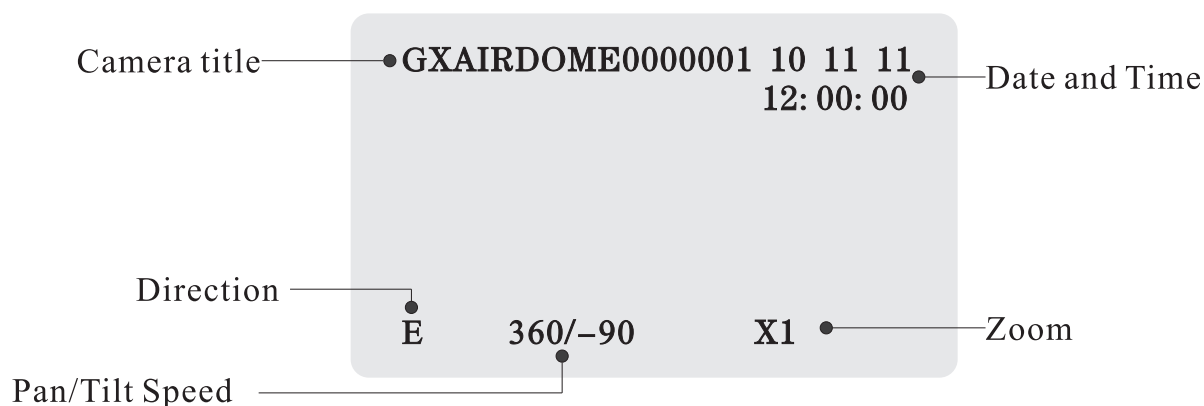
```
PROTOCOL      : PELCO P D
BAUD RATE     : 2400BPS
CAMERA ID     :      001
CAMERA S/N    : 0000000000
MODEL         : DOME-----
VERSION       : V1.0
FAN SPEED     : 6500RPM
```

STARTING

```
PROTOCOL      : PELCO P D
BAUD RATE     : 2400BPS
CAMERA ID     :      001
CAMERA S/N    : 0000000000
MODEL         : DOME-----
VERSION       : V1.0
FAN SPEED     : 6500RPM
```

STARTING SUCCESS

Standby Mode as shows



5.3 SYSTEM MENU

In the condition of standby status, calling preset 95 enters into the main menu. Using the direction key to select item or start the configuration.

The Main menu as shows:

```
SYSTEM
LENS
CAMERA
PAN/TILT
AUTO RUNNING
PRIVACY MASK
ALARM
LANGUAGE
IR ZOOM SET
>EXIT
```

5.4 SYSTEM

<Main Menu>→<SYSTEM>

```
SITE INFO
DISPLAY SETUP
DISPLAY BOOT-UP INFO
PASSWORD
SET DEFAULT
SYSTEM REBOOT
RTC TIME SET
RTC TIMER RUNNING
>BACK
```

System info includes following settings.

<SITE INFO> User can setup the dome's ID, site name and broadcast address.

<DISPLAY SETUP > User can setup to display the Screen information or not.

<DISPLAY BOOT-UP INFO> User can setup to display system information when booting.

<PASSWORD > User can setup the password or change menu password.

<SET DEFAULT> User can setup restore factory default settings, but the preset positions will be retained.

<SYSTEM REBOOT> After change dome ID or adjust tolerance between two preset positions, user has to reboot the system to activate.

<RTC TIME SET> Set the present date and time.

<RTC TIMER RUNNING> At a specified time to run the defined function.

5.4.1 SITE INFO

<Main Menu>→<SYSTEM>→<SITE INFO>

```
SITE ID:      001
NAME: GXAIR DOME0000001
BROADCAST ID: 255
>BACK
```

<SITE ID> It shows the current dome's ID. Each dome has its unique ID. ID ranges from 001 to 254.

NOTE: <SITE ID> It can be set by menu only when DIP switch set ON from 1 to 8.

Move the cursor to <SITE ID> and then move the joystick right to enter dome ID setting.

<NAME> It is the title of the dome. Assigning a name to a dome helps user to remember which dome it is. Max 16 digits Setting with number from 0~9 and letter from A~Z.

<BROADCAST ID> It is used to set broadcast ID number. The ID functions the same as dome's site ID, ID ranges from 001 to 255. The dome responds to commands sent to either ID.

<BACK> Return to upper menu.

5.4.2 DISPLAY SETUP

<Main Menu>→<SYSTEM>→<DISPLAY SETUP>

```
SITE NAME      : OFF
PRESET TITLE   : OFF
CRUISE TITLE   : OFF
PATTERN NAME   : OFF
ZOOM           : OFF
ORIENTATION    : OFF
ZONE NAME      : OFF
RTC TIME       : OFF
>BACK
```

<SITE NAME> Choose to display site name or not.

<PRESET TITLE> Choose to display preset position title or not.

<CRUISE TITLE> Choose to display auto scan title or not.

<PATTERN NAME> Choose to display pattern title or not.

<ZOOM> Choose to display the current zoom or not.

<ORIENTATION> Choose to display the current lens direction or not.

<ZONE NAME> Choose to display the current zone title or not.

<RTC TIME> Choose to display the date and time or not.

5.4.3 DISPLAY BOOT-UP INFO

<Main Menu>→<SYSTEM>→<DISPLAY BOOT-UP INFO>

```
PROTOCOL       : PELCO P D
BAUD RATE      : 2400BPS
CAMERA ID      : 001
CAMERA S/N     : 0000000000
MODEL          : DOME-----
VERSION        : V1.0
FAN SPEED      : 6500RPM
```

CALL PRESET 1 TO BACK

Enter into Boot-up info displays to check current setup, call preset 1 to return to upper menu.

5.4.4 PASSWORD

<Main Menu>→<SYSTEM>→<PASSWOR>

```
INPUT PASSWORD : *****  
CONFIRM       : *****  
PSWD PROTECTION : OFF  
>BACK
```

< INPUT PASSWORD > (Factory default is 123456) Move joystick to enter submenu, then input the old password. If you forget the password after changing, please contact the supplier for the master password.

The cursor will flash If the old password is correct, then input the new password. If the old Password input is not correct, you will not be able to change the password.

<CONFIRM> Re-input the new password and confirm. If the input is not the same as the first time input, the system will remain the old password.

<PSWD PROTECTION> Switch on / off the password protection. When it is <ON> user need to enter password to access main menu or save preset through keyboard.

<BACK> Return to upper menu.

5.4.5 SET DEFAULT

<Main Menu>→<SYSTEM>→<SET DEFAULT>

Select <SET DEFAULT> to restore factory default setting.

List of default setting:

Item	Default Value
Zoom Speed	High
Digital Zoom	OFF
Auto Focus / Iris	ON
Auto Focus Resume Time	0.05Sec
Auto Iris Resume Time	0.05Sec
Average peak level control	42
Day/Night	IR Auto Change
All display Config.	OFF
White Balance	Auto
Speed Amplify	OFF
Proportion Zoom	ON
Menu Password	OFF
Idle Time	OFF
Running Type	OFF
Arm/Disarm	Disarm
Alarm Duration	004 sec

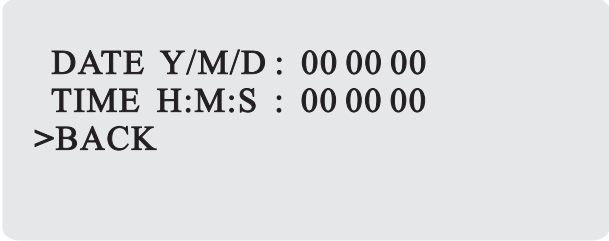
5.4.6 SYSTEM REBOOT

<Main Menu>→<SYSTEM>→<SYSTEM REBOOT>

Select <SYSTEM REBOOT> to reboot the dome.

5.4.7 RTC TIME SET

<Main Menu>→<SYSTEM>→<RTC TIME SET>



```
DATE Y/M/D : 00 00 00
TIME H:M:S : 00 00 00
>BACK
```

Use left and right keys to move the cursor to desired item, use up and down keys to change the current cursor value.

5.4.8 RTC TIME RUNNING

<Main Menu>→<SYSTEM>→<RTC TIMER RUNNING>

```
DATE Y/M/D: 00 00 00
TIME H:M:S : 00 00 00
ACTION      : OFF
>BACK
```

<DATE and TIME> Setup time running time (24-hour)

<ACTION> Choose one function from <PRESET>, <TOUR>, <PATTERN>, <CRUISE> to run.

<BACK> Back to the upper menu.

5.5 LENS

<Main Menu>→<LENS>

```
ZOOM SPEED      : HIGH
DIGITAL ZOOM    : OFF
JOYSTICK AF/AI  : BOTH
AF RESUME TIME  : 005
AI RESUME TIME  : 005
DAY/NIGHT       : AUTO
>BACK
```

<ZOOM SPEED> Set the zoom speed level to HIGH or LOW.

<DIGITAL ZOOM> Turn On / Off the Digital Zoom.

<JOYSTICK AF/AI> Setup Auto Focus or Auto Iris:

[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.

[NONE] Joystick movement triggers none of the functions.

<AF RESUME TIME> This item sets the time to restore auto focus after focus is manually changed. The default setting is 005, options are:

[Off] Never restore auto focus after switch to manual.

[005-255] The dome will start auto focus that number of seconds after user manually adjusts focus.

<AI RESUME TIME> This item sets the time to restore auto iris after iris is manually changed. The default setting is 005 seconds, options are:

[Off] Never restore auto iris after switch to manual.

[005-255]The dome will start auto iris that number of seconds after user manually adjust iris.

<DAY/NIGHT> (IR Auto Change function need camera supported)

Set the dome color/ black & white mode. Color mode is suitable to work in daytime because it needs higher illumination.

Light sensitivity of black & white mode is much higher. It is suitable to work at night without illumination but the video is black and white.

NOTE: This setting is only for the day/night camera module.

There are 3 options:

<AUTO> The dome will automatically change modes according to the environment illumination.

<COLOR> The dome is always in color mode.

<BLACK& WHITE> The dome is always in Black and White mode.

<IR AUTO CHANGE> The dome is controlled by the IR lights, when the IR lights opened, the mode auto change to Black and White. Should need camera supported.

<BACK> To the upper menu.

5.6 CAMERA

<Main Menu>→<CAMERA>



WHITE BALANCE: AUTO
BLC MODE
>BACK

5.6.1 WHITE BALANCE

<WHITE BALANCE> is normally compensated for by the automatic white balance gain control. In some lighting conditions, user may want to manually adjust the red and blue settings for optimal viewing. There are 6 options (some cameras just support part of modes below):

- [AUTO] Auto White Balance (default setting).
- [MANUAL] Manually set the red and blue values, setup from 000 to 255.
- [ATW] Auto track White Balance.
- [OPW] Once touch White Balance
- [OUTDOOR] Suitable for outdoor use.
- [INDOOR] Suitable for indoor use.

5.6.2 BLC MODE

If the backlight is bright, the objects in the center of the picture may appear dark. The dome can auto adjust the brightness of the whole image according to the brightness of center point. Thus backlight compensation can increase the brightness of the objects in the center of the picture. Choose ON/OFF. Select **<Back>** to the upper menu.

5.7 PAN/TILT

<Main Menu>→**<PAN/TILT>**

```

AUTO STOP TIME: OFF
SPEED AMPLIFY: OFF
PROPORTIONAL P/T: ON
SET NORTH
>BACK
```

<AUTO STOP TIME> For some particular protocols, the dome will not stop moving even there is no operation on joystick. This menu sets the time after which the dome receives last control command.

[Off] Disable this function (default setting)

[001~255] The time (second) that dome will stop moving without receiving any commands.

<SPEED AMPLIFY> Some protocols' controlling speed is much lower, set **<SPEED AMPLIFY>** to accelerate domes movement. Options are as below:

[Off] Disable this function (default setting)

[01× ~ 32×] Speed amplify from 01~32x if you use old version controller.

<PROPORTIONAL P/T> The dome moves at a speed of certain degree per second. Objects on screen move much faster in wide scope than in tele-scope. Even too faster in some case. This function decreases the dome movement speed while zooming in.

[On] Enable (default setting)

[Off] Disable

<SET NORTH> User can set orientation by using joystick to position north.

When select <SET NORTH>, following menu will pop-up.



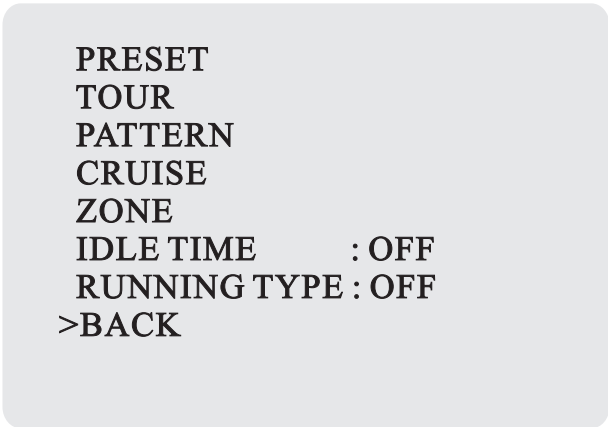
CALL PRESET 1 TO
CONFIRM

Adjust the lens to desired position and call preset 1 to confirm and return.

<BACK> Back to upper menu.

5.8 AUTO RUNNING

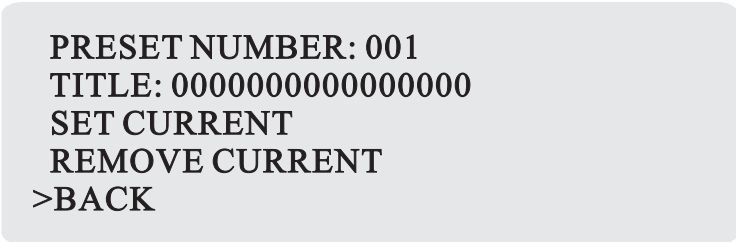
<Main Menu>→<AUTO RUNNING>



PRESET
TOUR
PATTERN
CRUISE
ZONE
IDLE TIME : OFF
RUNNING TYPE : OFF
>BACK

5.8.1 PRESET

<Main Menu>→<AUTO RUNNING>→<PRESET>



PRESET NUMBER: 001
TITLE: 0000000000000000
SET CURRENT
REMOVE CURRENT
>BACK

In this function, the value of pan/tilt speed and camera parameters could be stored in the preset so that you can call them when needed. 220 presets can be set. It could also setup by shortcuts of control system.

<PRESET NUMBER> Display current preset number, the value ranges from 001 to 220. (Except preset 95 enter into the main menu)

<TITLE> To set current preset title. 16-bit can be set up by the numbers 0 to 9 and the letters A ~ Z of any combination.

<SET CURRENT> Select this item to set the preset position and zoom. The following menu will pop-up when **<SET CURRENT>** is selected.



CALL PRESET 1 TO BACK
CONFIRM

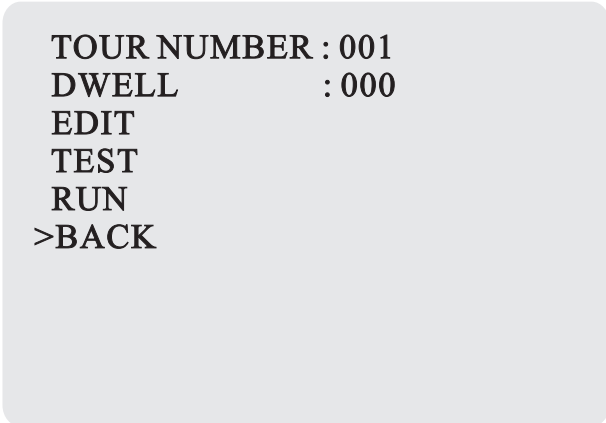
Move to the desired position and zoom to a suitable level, call preset 1 to save the current preset and return.

<REMOVE CURRENT> Delete the preset with the number and title display above.

<BACK> Select it to back to upper menu.

5.8.2 TOUR

<Main Menu>→**<AUTO RUNNING>**→**<TOUR>**



TOUR NUMBER : 001
DWELL : 000
EDIT
TEST
RUN
>BACK

The dome camera will run repeatedly as the given sequence of presets at certain dwell time by one command. Max 4 tours available (27 presets / tour).

<TOUR NUMBER> Set current tour number from 001~004.

<DWELL> Set the default dwell time from 001~255 seconds for each preset. User can still set independent dwell time for each preset in editing preset mode.

<EDIT> Edit presets and corresponding dwell time in a tour as follows.

```
PRESET-DWELL
001-003 002-003 003-003
004-003 005-003 006-003
007-003 008-003 000-003
000-003 000-003 000-003
000-003 000-003 000-003
000-003 000-003 000-003
000-003 000-003 000-003
000-003 000-003 000-003
000-003 000-003 000-003
000-003 000-003 000-003
SAVE AND BACK
>CANCEL AND BACK
```

There are three group numbers, the left side is preset number, the right side is dwell time; tour from left to right, up to down in the order to run preset; when the preset number is set to <000>, the current preset is skipped;

<SAVE AND BACK> Save the tour and back.

<CANCEL AND BACK> Quit without saving and then exit to the upper menu.

<TEST> Run and test the current tour to check if all sets meet the demands, then back to last menu automatically.

<RUN> Run the current tour repeatedly before receiving a new control command.

<BACK> Back to upper menu.

5.8.3 PATTERN

<Main Menu>→<AUTO RUNNING>→<PATTERN>

```
PATTERN NUMBER: 001
RECORD
TEST
RUN
>BACK
```

There are max 4 patterns, and the dome camera can record all regular operation in 3 minutes at least. The command will drive the speed dome runs as given route repeatedly.

<PATTERN NUMBER> Set current pattern number from 001 ~ 004.

<RECORD> Edit the current pattern's running route and record all operation in 3 minutes at least.

CALL PRESET 1 TO BACK
CONFIRM... ..
0/100

RECORD.....

The system will record all your operation before the number reaches to 100/100. To end recording user can call preset 1 to confirm and back.

<TEST> Test current pattern.

<RUN> Run current pattern repeatedly until other command received.

<BACK> Back to upper menu

5.8.4 CRUISE

<Main Menu>→<AUTO RUNNING>→<CRUISE>

CRUISE NUMBER: 001
LEFT POSITION
RIGHT POSITION
SCAN SPEED: 001
RUN
>BACK

The speed dome has max.4 auto scan routes. Run from given starting point to end point repeatedly.

<CRUISE NUMBER> Set cruise number from 001~004.

<LEFT POSITION> Set the current left limit position as below menu.

CALL PRESET 1 TO BACK
CONFIRM.....

Move the camera to the desired position and call preset 1 to confirm and return.

<RIGHT POSITION> Set right side limit position. Set it in the same way as<Left Position>.

<SCAN SPEED> Set the scanning speed (camera movement speed). Value ranges from 001 to 255; the greater number represents the higher speed.

<RUN> The speed dome will run as the given route repeatedly before received new command.

<BACK> Back to upper menu.

5.8.5 ZONE

<Main Menu>→**<AUTO RUNNING>**→**<ZONE>**

```
ZONE NUMBER:          001
TITLE                 : 0000000000000000
LEFT LIMIT
RIGHT LIMIT
REMOVE CURRENT
SCAN SPEED   :          255
RUN
>BACK
```

User can set a zone and assign a title for the zone, whenever the camera scan the zone, the title will display on the screen to alert the operator. User can set up to 8 zones.

<ZONE NUMBER> Set a zone and assign a number for it from 001~008.

<TITLE> Set the zone title, which combined with any number from 0~9 and letter A~Z at a 16 digit combination as your want.

<LEFT LIMIT> Set the left edge of the region (A).

```
CALL PRESET 1 TO BACK
CONFIRM.....
```

Move the camera left limit position to confirm and return.

<RIGHT LIMIT> Set the right edge of region (B).

<REMOVE CURRENT> Delete current zone.

<SCAN SPEED> Set the scanning speed (001 to 255); the greater number represents the higher speed.

<RUN> Start current zone scan repeatedly before receiving new command.

<BACK> To the previous menu.

5.8.6 IDLE TIME

User can set the idle time from 1~255 seconds. The dome camera will run certain function automatically if there is any operation for a long time.

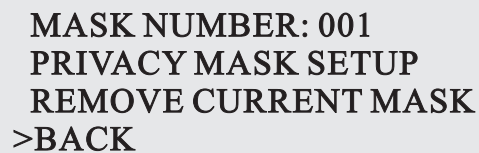
5.8.7 RUNNING TYPE

Set the run type after the idle time, user can choose Preset, Tour, Pattern or Auto.

Note: Time running available only <IDLE TIME> and <RUNNING TYPE> are both ON state.

5.9 PRIVACY MASK

<Main Menu>→<PRIVACY MASK>



MASK NUMBER: 001
PRIVACY MASK SETUP
REMOVE CURRENT MASK
>BACK

User can set privacy zone and privacy mask. Max. 8 privacy masks can be set.

<MASK NUMBER> Set and edit the current mask zone number from 001~008.

<PRIVACY MASK SETUP> Enter privacy mask setup to edit and confirm.



CALL PRESET 1 TO RETURN
CONFIRM

Call preset 1 to confirm your setup and then you will see below sub-menu:



CALL PRESET 1 TO RETURN
CONFIRM
POSITION



Move joystick to the area where the masking will be.

Call preset 1 to save.



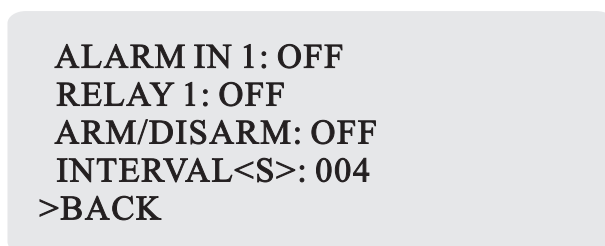
Using up, down, left and right key to adjust the size of the mask, then call preset 1 to confirm and return.

<REMOVE CURRENT MASK> Remove current mask, then the black lump will disappear.

<BACK> Back to previous menu.

5.10 ALARM (Optional function, standard camera do not include alarm)

<Main Menu>→<ALARM>



Using an external alarm sensor can activate the corresponding function to achieve the auto monitoring purpose. The dome camera supports one way alarm input (grounded connection available) and one way alarm output. Any auto run functions can be set and called.

Wiring: ALin+ alarm input positive, ALin-alarm input public polarity; ALoutA means alarm out on A side, ALoutB means alarm out on B side.

★ The alarm has high priority. For example, Cruise set at 12:00, and at the same time an alarm signal input, the dome camera would be deal with the alarm first.

<ALARM IN 1> Set the alarm input and the dome's corresponding action. Following options are applicable:

[OFF] or choose one function of <Preset>, <Tour>, <Pattern>, and <Auto> when alarm.

<RELAY 1>

[OFF] Turn off the alarm output, the alarm will not be activated.

[ON] Turn on the alarm output, the alarm will give an alarm signal when activated.

<ARM/DISARM>

<ARM> The alarm system effective.

<DISARM> The alarm system is not effective.

<INTERVAL> Set the alarm interval time from 001~255 seconds.

<BACK> Back to main menu.

5.11 LANGUAGE

<Main Menu>→<LANGUAGE>



LANGUAGE: ENGLISH
>BACK

The dome camera supports OSD Menu with Chinese/English. Enter into the <LANGUAGE>, move the cursor up and down to choose language, press the left direction key to confirm.

<BACK> To the upper menu.

5.12 IR ZOOM SET

<Main Menu>→<IR ZOOM SET>



IR ZOOM SET: 008
>BACK

Set the Lens zoom between IR far/near light, default is 8 times.

<BACK> To the upper menu.

APPENDIX I: DIP SWITCH SETTING

DIP Switch consists of 8 numbers from 1~8, use 8421 binary code, max 255 address. When the switch is in the “ON” position, the number from 1~8 corresponding to 1,2,4,8,16,32,64,128. For example, if you set 1,3,5,7 switch to the “ON” position, the corresponding address will be $1+4+16+64=85$. please refer to below details.

Sheet 1 (1=ON, 0=OFF)

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
1	1	0	0	0	0	0	0	0
2	0	1	0	0	0	0	0	0
3	1	1	0	0	0	0	0	0
4	0	0	1	0	0	0	0	0
5	1	0	1	0	0	0	0	0
6	0	1	1	0	0	0	0	0
7	1	1	1	0	0	0	0	0
8	0	0	0	1	0	0	0	0
9	1	0	0	1	0	0	0	0
10	0	1	0	1	0	0	0	0
11	1	1	0	1	0	0	0	0
12	0	0	1	1	0	0	0	0
13	1	0	1	1	0	0	0	0
14	0	1	1	1	0	0	0	0
15	1	1	1	1	0	0	0	0
16	0	0	0	0	1	0	0	0
17	1	0	0	0	1	0	0	0
18	0	1	0	0	1	0	0	0
19	1	1	0	0	1	0	0	0
20	0	0	1	0	1	0	0	0
21	1	0	1	0	1	0	0	0
22	0	1	1	0	1	0	0	0
23	1	1	1	0	1	0	0	0
24	0	0	0	1	1	0	0	0
25	1	0	0	1	1	0	0	0
26	0	1	0	1	1	0	0	0
27	1	1	0	1	1	0	0	0
28	0	0	1	1	1	0	0	0

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
29	1	0	1	1	1	0	0	0
30	0	1	1	1	1	0	0	0
31	1	1	1	1	1	0	0	0
32	0	0	0	0	0	1	0	0
33	1	0	0	0	0	1	0	0
34	0	1	0	0	0	1	0	0
35	1	1	0	0	0	1	0	0
36	0	0	1	0	0	1	0	0
37	1	0	1	0	0	1	0	0
38	0	1	1	0	0	1	0	0
39	1	1	1	0	0	1	0	0
40	0	0	0	1	0	1	0	0
41	1	0	0	1	0	1	0	0
42	0	1	0	1	0	1	0	0
43	1	1	0	1	0	1	0	0
44	0	0	1	1	0	1	0	0
45	1	0	1	1	0	1	0	0
46	0	1	1	1	0	1	0	0
47	1	1	1	1	0	1	0	0
48	0	0	0	0	1	1	0	0
49	1	0	0	0	1	1	0	0
50	0	1	0	0	1	1	0	0
51	1	1	0	0	1	1	0	0
52	0	0	1	0	1	1	0	0
53	1	0	1	0	1	1	0	0
54	0	1	1	0	1	1	0	0
55	1	1	1	0	1	1	0	0
56	0	0	0	1	1	1	0	0

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
57	1	0	0	1	1	1	0	0
58	0	1	0	1	1	1	0	0
59	1	1	0	1	1	1	0	0
60	0	0	1	1	1	1	0	0
61	1	0	1	1	1	1	0	0
62	0	1	1	1	1	1	0	0
63	1	1	1	1	1	1	0	0
64	0	0	0	0	0	0	1	0
65	1	0	0	0	0	0	1	0
66	0	1	0	0	0	0	1	0
67	1	1	0	0	0	0	1	0
68	0	0	1	0	0	0	1	0
69	1	0	1	0	0	0	1	0
70	0	1	1	0	0	0	1	0
71	1	1	1	0	0	0	1	0
72	0	0	0	1	0	0	1	0
73	1	0	0	1	0	0	1	0
74	0	1	0	1	0	0	1	0
75	1	1	0	1	0	0	1	0
76	0	0	1	1	0	0	1	0
77	1	0	1	1	0	0	1	0
78	0	1	1	1	0	0	1	0
79	1	1	1	1	0	0	1	0
80	0	0	0	0	1	0	1	0
81	1	0	0	0	1	0	1	0
82	0	1	0	0	1	0	1	0
83	1	1	0	0	1	0	1	0
84	0	0	1	0	1	0	1	0
85	1	0	1	0	1	0	1	0
86	0	1	1	0	1	0	1	0
87	1	1	1	0	1	0	1	0
88	0	0	0	1	1	0	1	0
89	1	0	0	1	1	0	1	0
90	0	1	0	1	1	0	1	0
91	1	1	0	1	1	0	1	0
92	0	0	1	1	1	0	1	0
93	1	0	1	1	1	0	1	0

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
94	0	1	1	1	1	0	1	0
95	1	1	1	1	1	0	1	0
96	0	0	0	0	0	1	1	0
97	1	0	0	0	0	1	1	0
98	0	1	0	0	0	1	1	0
99	1	1	0	0	0	1	1	0
100	0	0	1	0	0	1	1	0
101	1	0	1	0	0	1	1	0
102	0	1	1	0	0	1	1	0
103	1	1	1	0	0	1	1	0
104	0	0	0	1	0	1	1	0
105	1	0	0	1	0	1	1	0
106	0	1	0	1	0	1	1	0
107	1	1	0	1	0	1	1	0
108	0	0	1	1	0	1	1	0
109	1	0	1	1	0	1	1	0
110	0	1	1	1	0	1	1	0
111	1	1	1	1	0	1	1	0
112	0	0	0	0	1	1	1	0
113	1	0	0	0	1	1	1	0
114	0	1	0	0	1	1	1	0
115	1	1	0	0	1	1	1	0
116	0	0	1	0	1	1	1	0
117	1	0	1	0	1	1	1	0
118	0	1	1	0	1	1	1	0
119	1	1	1	0	1	1	1	0
120	0	0	0	1	1	1	1	0
121	1	0	0	1	1	1	1	0
122	0	1	0	1	1	1	1	0
123	1	1	0	1	1	1	1	0
124	0	0	1	1	1	1	1	0
125	1	0	1	1	1	1	1	0
126	0	1	1	1	1	1	1	0
127	1	1	1	1	1	1	1	0
128	0	0	0	0	0	0	0	1
129	1	0	0	0	0	0	0	1
130	0	1	0	0	0	0	0	1

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
131	1	1	0	0	0	0	0	1
132	0	0	1	0	0	0	0	1
133	1	0	1	0	0	0	0	1
134	0	1	1	0	0	0	0	1
135	1	1	1	0	0	0	0	1
136	0	0	0	1	0	0	0	1
137	1	0	0	1	0	0	0	1
138	0	1	0	1	0	0	0	1
139	1	1	0	1	0	0	0	1
140	0	0	1	1	0	0	0	1
141	1	0	1	1	0	0	0	1
142	0	1	1	1	0	0	0	1
143	1	1	1	1	0	0	0	1
144	0	0	0	0	1	0	0	1
145	1	0	0	0	1	0	0	1
146	0	1	0	0	1	0	0	1
147	1	1	0	0	1	0	0	1
148	0	0	1	0	1	0	0	1
149	1	0	1	0	1	0	0	1
150	0	1	1	0	1	0	0	1
151	1	1	1	0	1	0	0	1
152	0	0	0	1	1	0	0	1
153	1	0	0	1	1	0	0	1
154	0	1	0	1	1	0	0	1
155	1	1	0	1	1	0	0	1
156	0	0	1	1	1	0	0	1
157	1	0	1	1	1	0	0	1
158	0	1	1	1	1	0	0	1
159	1	1	1	1	1	0	0	1
160	0	0	0	0	0	1	0	1
161	1	0	0	0	0	1	0	1
162	0	1	0	0	0	1	0	1
163	1	1	0	0	0	1	0	1
164	0	0	1	0	0	1	0	1
165	1	0	1	0	0	1	0	1
166	0	1	1	0	0	1	0	1
167	1	1	1	0	0	1	0	1

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
168	0	0	0	1	0	1	0	1
169	1	0	0	1	0	1	0	1
170	0	1	0	1	0	1	0	1
171	1	1	0	1	0	1	0	1
172	0	0	1	1	0	1	0	1
173	1	0	1	1	0	1	0	1
174	0	1	1	1	0	1	0	1
175	1	1	1	1	0	1	0	1
176	0	0	0	0	1	1	0	1
177	1	0	0	0	1	1	0	1
178	0	1	0	0	1	1	0	1
179	1	1	0	0	1	1	0	1
180	0	0	1	0	1	1	0	1
181	1	0	1	0	1	1	0	1
182	0	1	1	0	1	1	0	1
183	1	1	1	0	1	1	0	1
184	0	0	0	1	1	1	0	1
185	1	0	0	1	1	1	0	1
186	0	1	0	1	1	1	0	1
187	1	1	0	1	1	1	0	1
188	0	0	1	1	1	1	0	1
189	1	0	1	1	1	1	0	1
190	0	1	1	1	1	1	0	1
191	1	1	1	1	1	1	0	1
192	0	0	0	0	0	0	1	1
193	1	0	0	0	0	0	1	1
194	0	1	0	0	0	0	1	1
195	1	1	0	0	0	0	1	1
196	0	0	1	0	0	0	1	1
197	1	0	1	0	0	0	1	1
198	0	1	1	0	0	0	1	1
199	1	1	1	0	0	0	1	1
200	0	0	0	1	0	0	1	1
201	1	0	0	1	0	0	1	1
202	0	1	0	1	0	0	1	1
203	1	1	0	1	0	0	1	1
204	0	0	1	1	0	0	1	1

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
205	1	0	1	1	0	0	1	1
206	0	1	1	1	0	0	1	1
207	1	1	1	1	0	0	1	1
208	0	0	0	0	1	0	1	1
209	1	0	0	0	1	0	1	1
210	0	1	0	0	1	0	1	1
211	1	1	0	0	1	0	1	1
212	0	0	1	0	1	0	1	1
213	1	0	1	0	1	0	1	1
214	0	1	1	0	1	0	1	1
215	1	1	1	0	1	0	1	1
216	0	0	0	1	1	0	1	1
217	1	0	0	1	1	0	1	1
218	0	1	0	1	1	0	1	1
219	1	1	0	1	1	0	1	1
220	0	0	1	1	1	0	1	1
221	1	0	1	1	1	0	1	1
222	0	1	1	1	1	0	1	1
223	1	1	1	1	1	0	1	1
224	0	0	0	0	0	1	1	1
225	1	0	0	0	0	1	1	1
226	0	1	0	0	0	1	1	1
227	1	1	0	0	0	1	1	1
228	0	0	1	0	0	1	1	1
229	1	0	1	0	0	1	1	1
230	0	1	1	0	0	1	1	1

Address DIP Switch	K1 ID switch (8 number)							
	1	2	3	4	5	6	7	8
231	1	1	1	0	0	1	1	1
232	0	0	0	1	0	1	1	1
233	1	0	0	1	0	1	1	1
234	0	1	0	1	0	1	1	1
235	1	1	0	1	0	1	1	1
236	0	0	1	1	0	1	1	1
237	1	0	1	1	0	1	1	1
238	0	1	1	1	0	1	1	1
239	1	1	1	1	0	1	1	1
240	0	0	0	0	1	1	1	1
241	1	0	0	0	1	1	1	1
242	0	1	0	0	1	1	1	1
243	1	1	0	0	1	1	1	1
244	0	0	1	0	1	1	1	1
245	1	0	1	0	1	1	1	1
246	0	1	1	0	1	1	1	1
247	1	1	1	0	1	1	1	1
248	0	0	0	1	1	1	1	1
249	1	0	0	1	1	1	1	1
250	0	1	0	1	1	1	1	1
251	1	1	0	1	1	1	1	1
252	0	0	1	1	1	1	1	1
253	1	0	1	1	1	1	1	1
254	0	1	1	1	1	1	1	1
255	1	1	1	1	1	1	1	1

Notice: Some protocols and address start from 0. Try ± 1 of address code when can't control.

APPENDIX II :TROUBLE SHOOTING

Troubles	Reason	Solution
No action when power on	<ol style="list-style-type: none"> 1. The 12V power supply is not connected correctly. 2. 220V power is failure. 	<ol style="list-style-type: none"> 1. Check the connection. Check the power supply if 12V, the output power reaches 12V. 2. Check the Main power if reaches 220V.
Self-testing and image are normal but the dome is out of control	<ol style="list-style-type: none"> 1. The dome Baud rate, DIP Switch setting is incorrect. 2. RS485 cable is disconnected or reversed. 3. Incorrect RS485 cable wiring. 4. Control system is failure. 	<ol style="list-style-type: none"> 1. Reset the DIP Switch according to the DIP Switch chart. 2. Check 485 bus controls. 3. Check the wiring. 4. Check the control device.
Some function is out of control	<ol style="list-style-type: none"> 1. RS485 communication signal is not balance. 2. Control protocol is not compatible. 3. The RS485 is interference. 	<ol style="list-style-type: none"> 1. Connect 120Ω balance resistance. 2. Reset protocol. 3. Check the RS485 cable if too close with strong lines, remove the sources interference.
Unclear image	<ol style="list-style-type: none"> 1. Focus is in manual state. 2. Extreme zoom magnification. 3. Dome cover is dirty. 	<ol style="list-style-type: none"> 1. Reset the focus mode to Auto. 2. Downsize zoom proportion. 3. Clean the dome cover.
No night vision	<ol style="list-style-type: none"> 1. Camera is in Color state. 2. Backlight on the top or back of the dome camera 	<ol style="list-style-type: none"> 1. Reset the day/night function to Auto. 2. Remove the direct light source.

