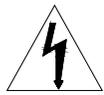
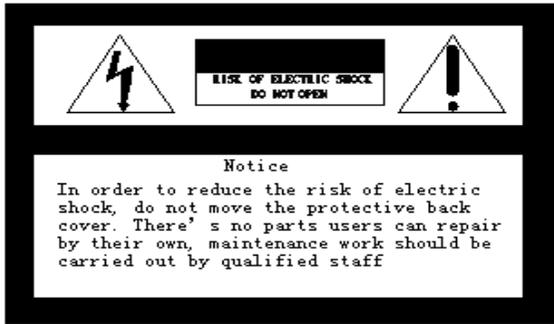


Intelligent High Speed Dome

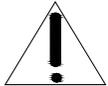
Installation Manual

Version: V1.02

Before using the product, please carefully read the manual and the maintenance of this manual for future use



The flashing arrow in the symbol is used to remind the user, the large non-insulated "dangerous voltage" near will produce an electric shock on the human body.



The notice mark used to remind the users all the instructions for important operation and maintenance on this product.

The products factory serial number will be stamp on the bottom and the back. Please fill the factory serial number in the blank space below, and properly preserve this statement in order to check when necessary.

Style number: _____

Factory serial number: _____

Appendix 4 After-Sales Service Promise

Dear Users:

Thank you for your confidence to our company brand. To make you feel more efficient, convenient and comfortable to our products, our company makes the following servicing promises:

1. Quality Warranty

The products are complied with the requirements of purchase-sale contract completely. It is manufactured in accordance with the latest standard. And we have a strict testing for the products before leaving the factory.

2. After-Sales Service During The Warranty Period

The manufacturer should be in charge of maintenance according to its regulation if it belongs to designing problem; Two-year guarantee, the first year-carry out in accordance with regulation; The second year-free of charge. You can rest assured about our products' quality: solve the regular problem within 24hrs; difficult problems within 48hrs; serious problems within 72hrs.

3. After-Sales Service After Warranty Period

With the sufficient stock of accessories, we are responsible for maintenance to make our clients use it again in short time during the whole applying period after two-year guarantee. The guarantee period of accessories is ranging from 3 months to 10 months and our clients will be given due attention with their demand (having the priority).

Appendix 3 Line and Transmission Distance Table

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

Content

Safety Announcement.....	4
Attentions.....	5
Functions and Features.....	6
Special Use for Preset Point.....	7
Dome Installation.....	8
Installing Preparation.....	9
Installation Steps.....	10
Dome Setting.....	11
DIP Switch Settings.....	12
Basic Function Operation Settings.....	17
Menu Hint.....	19
Main Menu Function Setting.....	20
System Setting.....	20
Camera Parameter.....	23
Pantilt setting.....	32
Information Display Figuration.....	41
Technical Specifications.....	42
Fault Analysis.....	43
Appendix 1 Lighting-proof, with Surge-protector.....	44
Appendix 2 RS485 Bus Common Sense.....	45
Appendix 3 Line and Transmission Distance Table.....	46
Appendix 4 After-Sales Service Promise.....	47

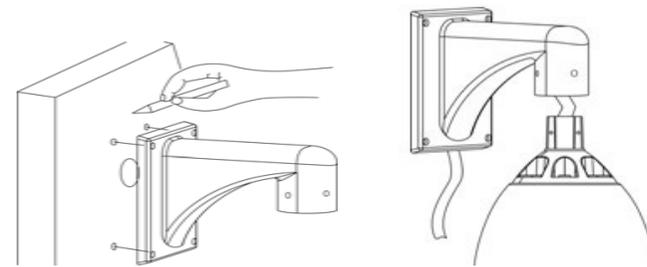
Safety Announcement

1. Please read the manual carefully before the installation;
2. Shall be subject to all the warnings;
3. Shall comply with all instructions and the manual;
4. To avoid failure, please use the recommended accessories;
5. Use the indicated power supply line and voltage; if the location of power and voltage is not clear, please contact with the dealer;
6. To prevent electric shocks, do not separate screws or housing. The professionals must prepare all the component of the machine. As for the maintenance, qualified experts should carry it out.
7. Do not use it as you like, to avoid striking and shocking, be sure to use or store it appropriately.
8. Please use dry and soft cloth to clean it when it is dirty. If seriously dirty, please use moderate detergent. Pay more attention to its appearance while cleaning and erase the remains.
9. Please contact with the sales on the bellow conditions:
 - a) Power, control line damaged
 - b) Dropped or cover damaged
 - c) Abnormal performance
 - d) Can't work according to the manual instruction
 - e) Damp or fall into water
 - f) Camera image interference
 - g) Out-cover damaged
10. Please use the same function parts or components provided by the sale while replacing to prevent damage;

Installation Steps

1. Wall Mount Installation Steps:

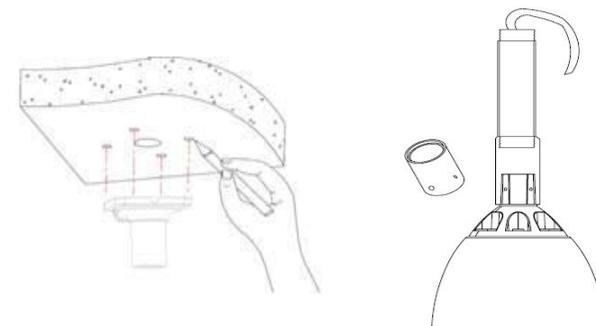
- 1) position for digging hole on the wall, and install expansion screw. Make the cover parts guide line through the bracket to the wall bracket, and fix the M6*16 screw. (as picture 3)



Picture 3

2. Pendant Mount Installation steps:

- 2) position for digging hole on the wall, and install expansion screw. Fix connector with M6*16 screw, make the cover parts guide line through the bracket to the pendant bracket, fix the whole set to the ceiling. (as picture 4)

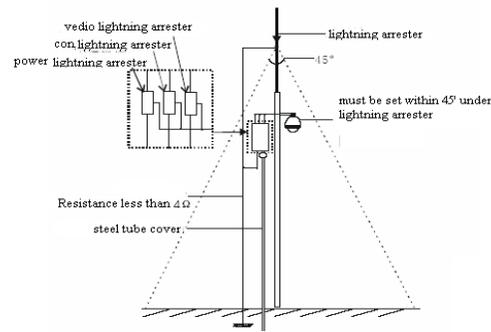


Picture 4

Appendix 1 Lighting-proof, with Surge-protector

This product adopts air discharge lightning and TVS board-level technology; can effectively prevent damage to equipment from 1500W (below) instantaneous lightning strike, waves. However, make necessary protective measures under the electrical safety for outdoor installation:

- Signal lines must keep at least 50 meters with high-voltage transmission lines or high voltage cable;
- Outdoor wiring must be selected along the roof down;
- For the open area must be sealed by pipe buried wiring, and pipe using point grounding, absolute prohibition of overhead wiring;
- Strong thunderstorms area or areas of high-voltage sensor (such as high-voltage substations), power must be taken to install additional equipment and lightning rod and other lightning protection measures;
- Outdoor installations, lightning protection and grounding circuit design must consider building lightning protection requirements, and comply with the relevant national standards, industry standards;
- Equipotent grounding system must be. Grounding system must meet the anti-jamming devices and electrical safety double requirements, and may not be short-access or mixed access with the strong zero grid line. When separate grounding systems, anti-resistivity less than 4Ω , grounding wire cross-sectional area must be not less than 25 mm^2 ;



Attentions

- 1. Don't expose the camera to rain or moisture (except outdoor used model)**
It is designed inside of the house, so be sure to avoid rain and moisture. Turn off the power supply and maintain it by qualified person. The moisture may affect the cameras and lead to electric risk..
- 2. Don't aim at the sun**
Be sure not to aim it at the sun or any other bright objects, whether in use or not. Alternatively, it may cause the picture unclear.
- 3. Avoid exposing it to the light source or hard light too long**
If the facular appears on the screen due to the light source, the image may fade to some extent.
- 4. Avoid installing it reversely**
It's designed for ceiling or wall mount. So if installed upside down, such as installing on the floor, it may cause it out of order.
- 5. Please use it according to the required temperature and humidity**
Don't use it under the circumstance of high temperature or humidity. Leave it away from heat-generating equipments, such as warm vapor, stove and so on.
- 6. Placing it away from air-conditioner's entrance point**
The lens may generate fog due to the water condensing under the following circumstance:
 - a) Quick changes from high to low temperature caused by opening/closing the door occasionally
 - b) Used where the glasses can generates fog.
 - c) Used in the house full of smog or dust.If the lens covered with fog generated by water condensing, put the cover down and clean the appearance with a piece of soft cloth.
- 7. Consumer Goods**
Some components, such as lens drive motor, cooling fan motor, built-in sliding loop may be wear out due to long-term using. Concerning its update and maintenance, please consult to maintenance center.
- 8. Don't make it point to the same object too long**
If so, the object's shadow will appear on the screen.

Functions and Features

1. Built-in decoder

- Digital design, data will not be lost while power fails.
- With recovery, function while turning on the users can run it as you like.
- Support 200 presets, 4 preset patrolling scanning routes, each contains 24 presets, and the presets can be separately programmed
- 4 patterns, each can be recorded for 100 different running track, including P/T or lens' operation and camera control.
- Support 4-auto scan.
- Soft and hard ID setting can be edited on the DIP switch and inner menu.
- Integrated multi-protocol control: PELCO“P”, PELCO“D”.
- Support auto leisure function.
- Support 8 privacy zones setting in maximum.
- Proportional zoom lens, P/T speed and depth of zoom lens will decrease in proportion.

2. Integrated assembling design, built-in P/T

- 6-inch transparent cover, black and non-transparent rotation dome, ensuring safety monitor.
- Inside / outside various installment methods.
- Horizontally controlling speed 0.5°-240°/s.
- Vertically controlling speed 0.5°-220°/s.
- 360° continuously horizontal rotation, all-direction monitor.
- Comply with IP 66/CE standard.
- Built-in surge protection device

3. Built-in zoom lens, integrated digital color camera of high sensitivity and Resolution

- Many high-resolution cameras of various models provided by different manufacturers can be available.
- Auto focus, manual priority.
- Auto iris.
- Auto shift from C-W/B

Fault Analysis

Attention: Some operation need to restart dome.

Failures	Possible reason	Resolution
No action and no image after power on	Voltage out or damaged	exchange
	Power line disconnection	modify
	Project network fault	eliminate
Successful auto test but no image	Wrong video link	modify
	Bad video link	eliminate
	Camera damaged	exchange
Abnormal auto test, chirping sound, image display	Mechanical failure	eliminate
	Tilt camera	Put right
	Power not	exchange
Successful auto test but can't control	Wrong access control line	modify
	No set address	reset
	Inconsistent baud rate, protocol	reset
Instable image	Bad video link	eliminate
	Power not	exchange
Out of control	Abnormal self test	restart
	Bad control circuit	eliminate
	Control operation unusual	modify
	Over nodes, low network quality, over tran. distance	1, Inspection terminator 2, Increase the repeaters

Technical Specifications

Electrical indicator	
Power	DC12V/3A ±10%
Voltage	≤25W
Settings:	
Protocol	Pelco-P/D selectable
Baud rate	2400bps/4800bps/9600bps/19200bps selectable
ID address set	1–255 (Soft address set)
Decoder	Built-in
Level rotation	360°continuous rotation
Level speed	0.5°–240°/ seconds, adjustable maximum speed
Vertical rotation	0-90°Rotation, 180°auto rotation
Vertical speed	0.5°–220°/seconds,adjustable maximum speed
Working environment:	
Temperature	-20°C ~50°C
Humidity	0-95 % non-condensing
Camera parameters:	
Camera match	A.I.S.: HITACHI/SONY/SANYO/SAMSUNG/LG/CNB
CCD	1/4"
Scan way	2:1 Interlaced scanning
SNR	≥50dB
Signal format	NTSC
Synchr.	Synchronization
Construction	
Cover	Aluminum
Installation	Outdoor

4. Built-in OSD Menu

- Built-in multi-functional video OSD, functional parameters of cameras and P/T function can be settable, with easy operation.
- Set 16 main subjects display
- Built-in direction display

Special Use for Preset Point

Call 95 PRESET (95+PRESET) —— Enter into main menu

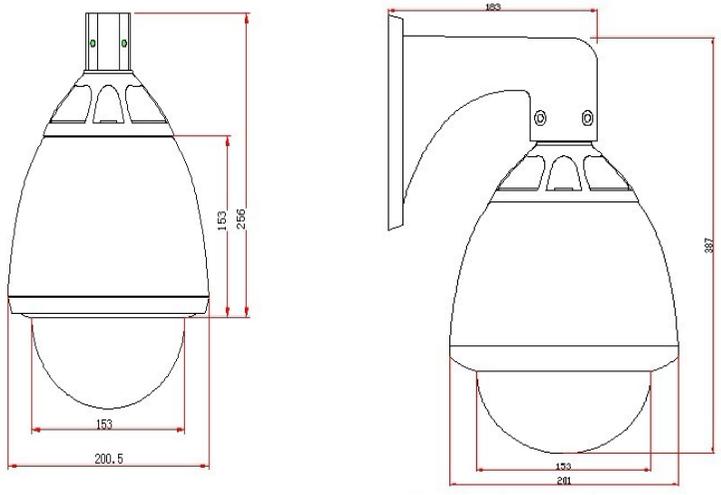
Call 96 PRESET (96+PRESET) ——Pattern scanning 1

Call 97 PRESET (97+PRESET) ——Line scanning for preset point 1

Call 99 PRESET (99+PRESET) ——Auto scanning

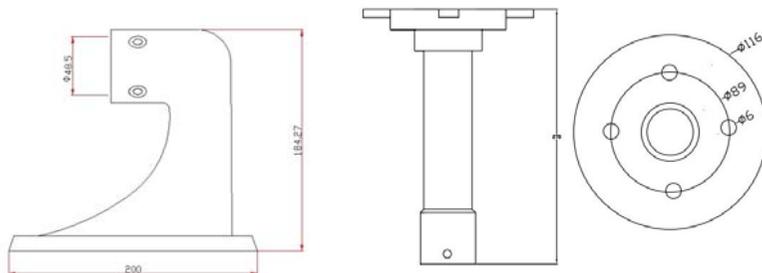
Dome Size and Bracket Installation Size

Dome Size (As picture 1)



Picture 1

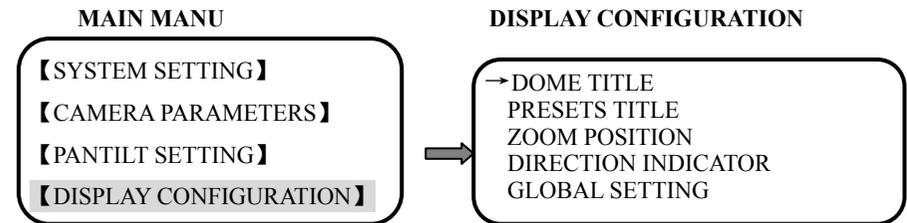
Wall and Pendant mount bracket size (As picture 2)



Picture 2

Information Display Figuration

Various information display time could be set through this menu.



■ DOME TITLE

☞ Operations:

1. Call preset point 95 to enter main menu.
2. Up/Down cursor to choose **【 DISPLAY CONFIGURATION 】** press **【 OPEN 】** for confirm. Under **【 DISPLAY CONFIGURATION 】** choose **【 DOME TITLE 】** and press **【 OPEN 】** for confirm.
3. Up/down P/T to modify Camera Title Display time.
4. Press **【 OPEN 】** for confirm, save and exit; press **【 CLOSE 】** exit directly.

❖ **Instruction:** Preset point title, Area Indication, Lens multiple Indication, Direction Indication, system time and environment index settings are the same as this one, you only have to refer to it.

■ GLOBAL SETTING

Camera title, preset point title, area Indication, lens multiple indication, direction Indication, system time and environment index display could be operated at the same time through setting this function.

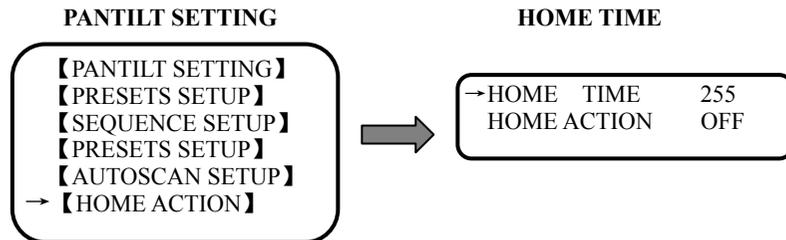
☞ Operations:

1. Call preset point 95 to enter main menu.
2. Up/Down cursor to choose **【 DISPLAY CONFIGURATION 】** item, press **【 OPEN 】** for confirm, Under **【 DISPLAY CONFIGURATION 】** choose **【 GLOBAL SETTING 】** and press **【 OPEN 】** for confirm.
3. Press **【 OPEN 】** for confirm, save and exit; press **【 CLOSE 】** exit directly.

Installing Preparation

■ HOME ACTION

From the time when the machine gets no any commands: if it still receives no any orders at the set time, the dome camera will automatically execute one function set by the users of the “Leisure Time Functions”.



● HOME TIME

☞ Operations:

1. Call preset point 95 to enter main menu.
2. Up/down cursor to choose **【PANTILT SETTING】** choose **【HOME ACTION】** item and press **【OPEN】** for confirm.
3. Under **【HOME ACTION】** choose **【HOME ACTION】** item and press **【OPEN】** for confirm and enter into the leisure time setting item.
4. Up/down P/T to modify leisure time, 5~255 seconds are selectable.
5. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

● HOME ACTION

☞ Operations:

1. Under **【HOME ACTION】** choose **【HOME ACTION】** item and press **【OPEN】** for confirm and enter into the leisure setting item.
2. Up/down P/T to modify leisure function, 1-4 auto scan, 1-200 preset point, 1-4 patrol, 1-4 mode route are selectable.
3. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

1. Basic Requirement

All electrical work must comply with the latest electrical regulations, fire regulations and relevant laws and regulations;

In accordance with the packing list to check if the parts are completed or not, determine the sites and installation applications with the required match, if not, please contact the supplier;

Use this product under the required working environment.

2. Check the Hardness of the Installation Space and Place

To confirm the installation location has sufficient space to accommodate the installation of this product and its structure;

Confirmed the ceiling, walls, brackets must be able to support the installation of the dome and the total weight of the structure.

Requiring a 4-fold safety factor.

3. Preparatory for the Cable

Select the desired cable according to the transmission distance.

Video coaxial cable minimum specifications: (1) 75Ω impedance;

(2) Full copper wire; (3) 95% braided copper shielding network.

Internal style	International style	Maximum distance (feet\meter)
RG59/U	RG59/U	760ft(229m)
5C-2V	RG6/U	1,000ft(506m)
7C-2V	RG11/U	1,500ft(457m)

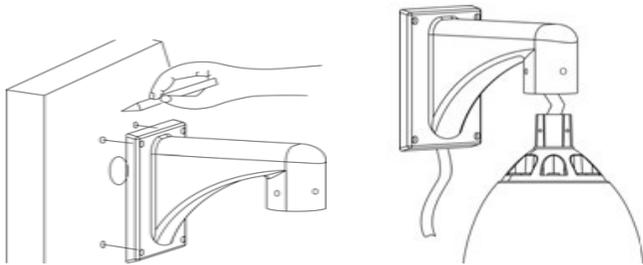
4. Save All the Packing Material

Please keep the original packaging material, when problems occur, can use it to send back to manufacturers or agents. Non-original packing materials may lead to accidental damage in transit and result in additional cost.

Installation Steps

1. Wall Mount Installation Steps:

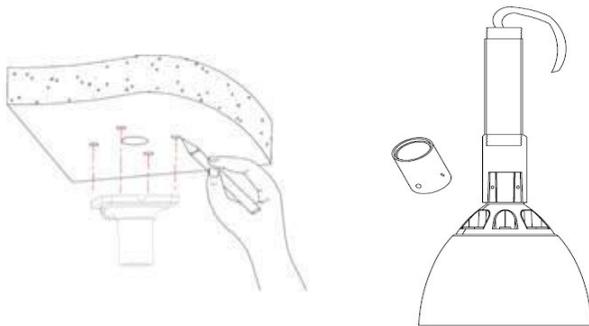
1) position for digging hole on the wall, and install expansion screw. Make the cover parts guide line through the bracket to the wall bracket, and fix the M6*16 screw. (as picture 3)



Picture 3

2. Pendant Mount Installation steps:

2) position for digging hole on the wall, and install expansion screw. Fix connector with M6*16 screw, make the cover parts guide line through the bracket to the pendant bracket, fix the whole set to the ceiling. (as picture 4)



Picture 4

3. Under **【PANTILT SETTING】** choose **【AUTOSCAN SETUP】** and press **【OPEN】** for confirming.
4. Under **【AUTOSCAN SETUP】** press **【AUTOSCAN NUMBER】** for entering into the auto scan number change setting and the parameter will flicker.
5. Up/down P/T for setting.
6. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

● SET LEFT LIMIT

☞ Operations:

1. Under **【AUTOSCAN SETTING】** choose **【SET LEFT LIMIT】** and press **【OPEN】** for entering into the scan left edge setting.
2. The vertical and horizontal position will be showed on the downside of the screen when the users operate the machine. Press **【OPEN】** when the scan left edge has been set and the system will automatically record the current level position as the left edge on scanning.
3. Press **【CLOSE】** exit directly.

- ❖ **Instruction:**
1. The scan left edge could be set at any point at the 360°horizontally;
 2. The right edge setting is the same as the left, please refer to the setting way of the left.

● DEFAULT SPEED

Adjust level scan speed, level 1-64 selectable.

☞ Operations:

1. Call preset point 95 to enter main menu.
2. Move cursor to choose **【PANTILT SETTING】** choose **【AUTOSCAN SETUP】** item and press **【OPEN】** for confirm to enter scan function set item.
3. Under **【AUTOSCAN SETUP】** choose **【DEFAULT SPEED】** item and press **【OPEN】** for confirm to enter default scan speed set item.
4. Up/down P/T to change speed value, level 1~64 can select.
5. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** and exit directly.

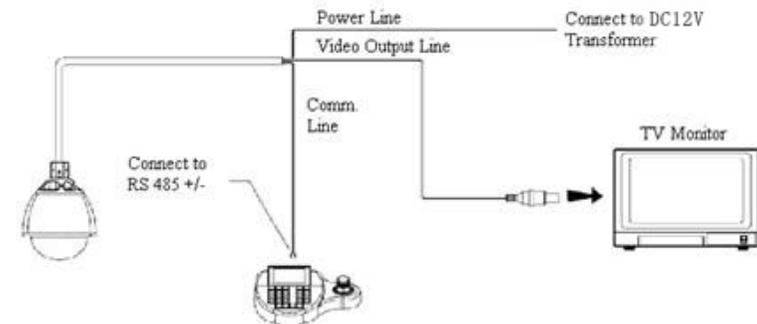
Safety Announcement

1. Please read the manual carefully before the installation;
2. Shall be subject to all the warnings;
3. Shall comply with all instructions and the manual;
4. To avoid failure, please use the recommended accessories;
5. Use the indicated power supply line and voltage; if the location of power and voltage is not clear, please contact with the dealer;
6. To prevent electric shocks, do not separate screws or housing. The professionals must prepare all the component of the machine. As for the maintenance, qualified experts should carry it out.
7. Do not use it as you like, to avoid striking and shocking, be sure to use or store it appropriately.
8. Please use dry and soft cloth to clean it when it is dirty. If seriously dirty, please use moderate detergent. Pay more attention to its appearance while cleaning and erase the remains.
9. Please contact with the sales on the bellow conditions:
 - a) Power, control line damaged
 - b) Dropped or cover damaged
 - c) Abnormal performance
 - d) Can't work according to the manual instruction
 - e) Damp or fall into water
 - f) Camera image interference
 - g) Out-cover damaged
10. Please use the same function parts or components provided by the sale while replacing to prevent damage;

Dome Setting

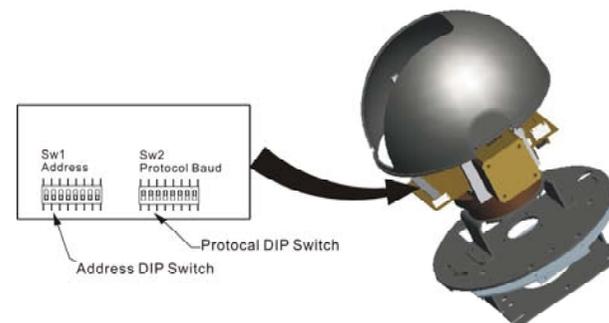
1. System Connection

1) Dome System Chart (as picture 5)



Picture 5

2) DIP Switch Chart (As picture 6)



Picture 6

DIP Switch Settings

Baud rate Setting SW2 (B7~B8)

Baudrate	Switch Number							
	ON 1	2	3	4	5	6	7	8
2400bps	<input checked="" type="checkbox"/>							
4800bps	<input type="checkbox"/>							
9600bps	<input type="checkbox"/>							
19200bps	<input type="checkbox"/>							

Protocol Setting SW2 (B1~B6)

Protocol	Switch Number							
	ON 1	2	3	4	5	6	7	8
FACTORY	<input checked="" type="checkbox"/>							
PELCO-P	<input type="checkbox"/>							
PELCO-D	<input type="checkbox"/>							
Keep for Update	<input type="checkbox"/>							
	<input type="checkbox"/>							
	<input type="checkbox"/>							
	<input type="checkbox"/>							

Remarks: “○”means OPEN status.

enter the patrol number change setting and the parameter flicker.

5. Up/down P/T to choose.
6. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

● EDIT SEQUENCE

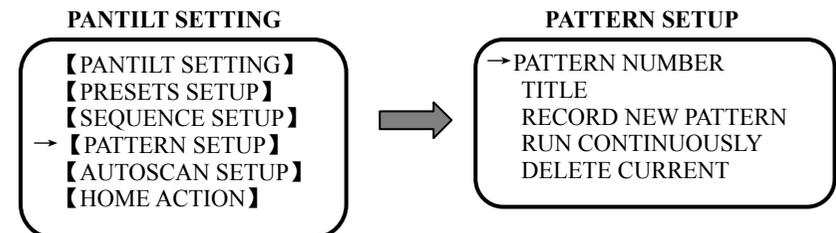
☞ Operations:

1. Call preset point 95 to enter main menu.
2. Up/Down cursor to choose **【PANTILT SETTING】**, press **【OPEN】** for confirm and enter pan set menu.
3. Under **【PANTILT SETTING】** choose **【EDIT SEQUENCE】** and press **【OPEN】** for confirm, the ‘preset point-stay’ will be showed on the screen.
4. Up/down P/T for setting the current parameter and the parameter flicker.
5. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

❖ **Instruction:** Every group of parameters is form of two groups of numbers, the first represent preset point number and the second for staying time. The staying time for every preset point is decided by the default time when it is not changed. The users could also set the staying time of every preset point through current menu. Every patrol could set 32 preset points at most.

■ PATTERN SETUP

The dome camera recording 1000 different actions continuously could be realized, including pan control, routine control of the camera etc. The machine will move according to the recorded running track. 4 mode functions can be set.

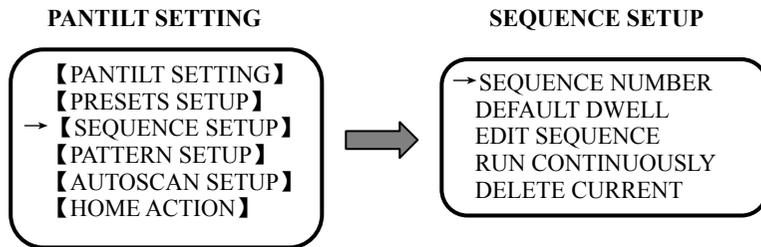


3. Under **【PANTILT SETTING】** choose **【PRESETS SETTING】** menu, press **【OPEN】** for confirm.
4. Under **【PRESETS SETTING】** choose **【SET NEW PRESET】** for entering into the preset point setting.
5. Users could head the middle position right to the preset position by controlling the dome camera. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

❖ **Instruction: The preset point number should be select first before defining, displaying and deleting the preset point or editing the title.**

■ SEQUENCE SETUP

The set preset points could be arranged to the patrol tracking routes by setting preset point patrol scan function, and the staying time of every preset point could be set alone. The dome camera will call these points one by one in line with the arranged order when preset point patrol scan is running, the dome camera can record 4 preset point patrol scan routes at most and each can store 24 preset points.



● SEQUENCE NUMBER

☞ Operations:

1. Call preset point 95 to enter main menu.
2. Up/Down cursor to choose **【PANTILT SETTING】** , press **【OPEN】** for confirm and enter pan set menu.
3. Under **【PANTILT SETTING】** choose **【SEQUENCE SETUP】** and press **【OPEN】** for confirm.
4. Under **【SEQUENCE SETUP】** choose **【SEQUENCE NUMBER】** to

Address Setting SW1

○ means DIP is ON as below tables:

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

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

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

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

This function could make the dome camera record the current level angel, hade angel and lens multiple parameters and so on. The camera could turn to this position quickly if it is required. It could support 200 preset points.

- **Preset Number Setting**

- ☞ **Operations:**

1. Call preset point 95 to enter main menu.
2. Up/Down P/T to choose **【PANTILT SETTING】**, press **【OPEN】** for confirm and enter pan set menu.
3. Under **【PANTILT SETTING】** choose **【PRESETS SETTING】** menu, press **【OPEN】** for confirm.
4. Under **【PRESETS SETTING】** choose **【PRESET NUMBER】** menu to enter to the preset point setting, and the parameter flicker.
5. Up/Down P/T to choose
6. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

❖ **Instruction: If the preset point has been set and if it exists, the dome camera will display it once for reminding its position.**

- **TITLE SETTING**

- ☞ **Operations:**

1. Under **【PRESETS SETTING】** choose **【TITLE】** for entering into the title change menu, “Edit title of the preset point” will be showed on the screen and the parameter flicker.
2. Up/down P/T for setting the current characters, about the details please refer to the Title Setting of the Dome Camera.
3. Press **【OPEN】** for confirm, save and exit; press **【CLOSE】** exit directly.

- **SET NEW PRESET**

- ☞ **Operations:**

1. Call preset point 95 to enter main menu.
2. Up/Down cursor to choose **【PANTILT SETTING】**, press **【OPEN】** for confirm and enter pan set menu.

● **SET NORTH DIRECTION**

If execute this function, the system will automatically save the current position of the dome camera as the north direction of it, and it will be regarded as the zero point of direction, i.e. 0° level position..

☞ **Operations:**

1. Call preset point 95 to enter main menu..
2. Under **【PANTILT SETTING】** choose **【PANTILT SETTING】** menu, press **【OPEN】** for confirm and enter pan parameter set.
3. Under **【PANTILT SETTING】** choose **【SET NORTH DIRECTION】** menu, press **【OPEN】** for confirm and enter north setting.
4. Use the rocker to head the camera lens to the north direction needed. Press **【OPEN】** for saving. **【CLOSE】** for return to the upper grade menu.

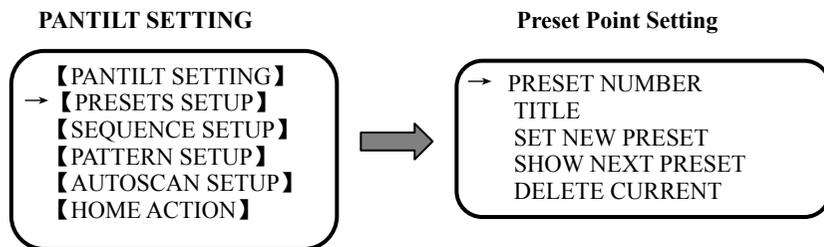
● **GOTO ZERO POSITON**

If execute this function, the system will check the vertical and horizontal point to make sure the dome camera could reset when accident happen.

☞ **Operations:**

1. Call preset point 95 to enter main menu.
2. Under **【PANTILT SETTING】** choose **【PANTILT SETTING】** menu, press **【OPEN】** for confirm and enter pan parameter set.
3. Under **【PANTILT SETTING】** choose **【GOTO ZERO POSTTON】** menu, press **【OPEN】** for confirm and enter to the zero point setting.
4. Press **【CLOSE】** for return to the upper grade menu.

■ **Preset Point Setting Menu**



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

Address	Switch Number							
	ON							
220			○	○				○
221	○							○
222		○	○	○				○
223	○	○	○	○				○
224						○		○
225	○						○	○
226		○				○		○
227	○	○					○	○
228			○				○	○
229	○						○	○
230		○	○				○	○
231	○	○	○				○	○
232				○			○	○
233	○			○			○	○
234		○		○			○	○
235	○	○		○			○	○
236			○	○			○	○
237			○	○			○	○
238		○	○				○	○
239	○	○	○	○			○	○
240						○		○
241	○					○		○
242		○				○		○
243	○	○				○		○
244			○			○		○
245	○		○			○		○
246		○				○		○
247	○	○	○			○		○
248				○		○		○
249	○			○		○		○
250		○				○		○
251	○	○				○		○
252			○	○		○		○
253		○	○	○		○		○
254						○		○
255	○	○	○	○		○		○

Power on after done ID number and baudrate setting. Dome self-examination and work smoothly.

2. Line Connect Instruction:

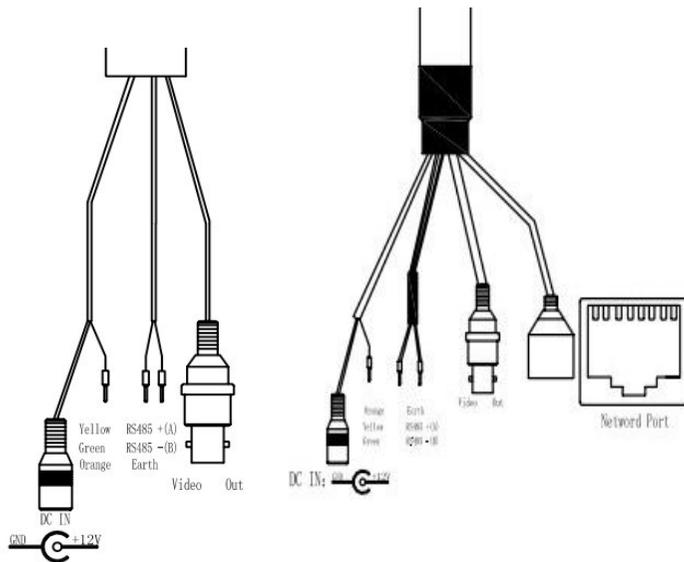
Control line mark as picture 7.

Color	Instruction
DC IN	DC12V
Orange	Earth line
Yellow	RS485+(A)
Green	RS485-(B)

Picture 7

Check the control cable, video cable and power cable connected in accordance with the signals before the electricity to work the ball machine (as picture8) **Attention:**

Lines should connect strictly obey the chart!



Picture 8

auto-aperture while using auto-focus or auto-aperture, with only using the rocker.

Focus: After choosing this item, it will just return to auto-focus mode while using manual-focus or manual-aperture, with only using the rocker.

Aperture: After choosing this item, it will just return to auto-aperture mode while using manual-focus or manual-aperture, with only using the rocker.

☞ Operations:

1. Call preset point 95 to enter main menu.
2. Under **【PANTILT SETTING】** choose **【PANTILT SETTING】** menu, press **【OPEN】** for confirm and enter pan parameter set.
3. Under **【PANTILT SETTING】** choose **【JOYSTICK RECOVER】** menu, press **【OPEN】** for confirm and enter rocker recovery set.
4. Up/down P/T to change.
5. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

● SPEED PROPORTIONAL

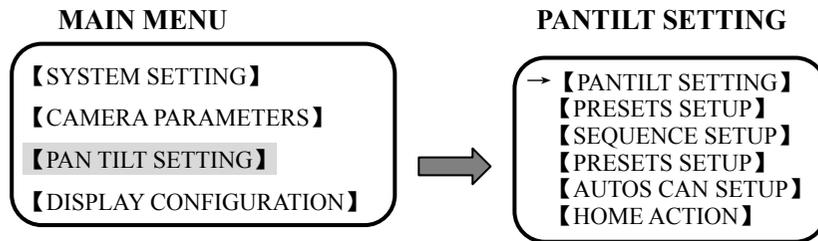
When in manual –adjusting mode, for the focal length is rather far, the picture may move quickly if you just touch the rocker lightly due to the fast mile response of the dome camera, which will cause image losing, and the pictures may easy to shake when watch the nearer pictures.

When the Speed Matching is open, the speed of the pan will change in proportion to the camera lens. The larger the amplification of the camera lens, the slower the speed of the pan. Thus could keep the picture stay clear. When it reaches the largest value, the speed of the pan will be 0.1°/s.

☞ Operations:

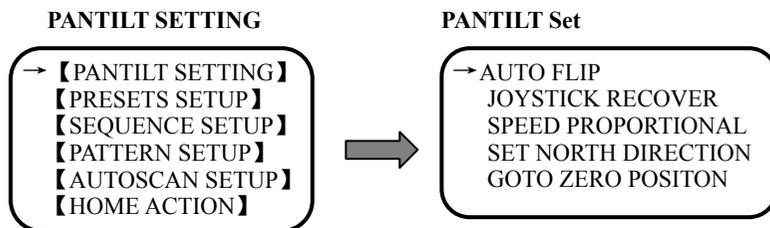
1. Call preset point 95 to enter main menu
2. Under **【PANTILT SETTING】** choose **【PANTILT SETTING】** menu, press **【OPEN】** for confirm and enter pan parameter set.
3. Under **【PANTILT SETTING】** choose **【SPEED PROPORTIONAL】** menu, press **【OPEN】** for confirm and enter speed matching set.
4. Up/down P/T to open or close this function.
5. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

Pantilt setting



■ PANTILT Set Menu

Set auto-flip, rocker recovery, the speed proportion.



● AUTO FLIP

Push lens to the bottom (vertical) and still press on the pan, the lens level rotate 180° automatically and then upward rotate 90° to see the back view, to achieve full 180° vertical monitor.

☞ Operations:

1. Call preset point 95 to enter main menu.
2. Under **【PANTILT SETTING】** choose **【PANTILT SETTING】** menu, press **【OPEN】** for confirm and enter pan parameter set. .
3. Under **【PANTILT SETTING】** choose **【AUTO FLIP】** menu, press **【OPEN】** for confirm and enter auto flip set.
4. Up/down P/T to select and change. 'On' means open this function and 90° vertical rotation; 'Off' means close this function and no 90° vertical rotation.
5. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

● JOYSTICK RECOVER

Full-open : After choosing this item, it will return to auto-focus and

Basic Function Operation Settings

This operation and editing regulations just take our company control system as an example, different keyboard manufacturers in the main menu to call the dome and preset points of the dome are different, if you are using other operating systems should be using the keyboard whichever the current operation method.

In addition, some functions of the camera is based on the integration movement of SONY480, the different movements of different functions, the user in practice is used by the current movement of equipment and in which the various movements of the function will have no specification details, please refer to the manufacturer's user manual for operating the camera.

● Power-on Self Test Display

Implement self-test procedure after power, and then the screen will show the dome initial information as bellow:

DOME ID	001
BAUD RATE	2400bps
PROCOTOL	PELCO_D
CAMERA MODULE	FCB-EX480CP
VERSION	0.03A

● Basic Functions for Menu and Keyboard

The basic operations including: move menu bar, access to lower-level menu, return to higher-level menu, select menu items, change the settings, and confirm to save or cancel settings.

1. Keyboard Function Instruction:

【OPEN】 Open iris order, enlarge iris when image choose. It means enter into sub-menu or some item when it is dome menu edit, and save edit value after programming.

【CLOSE】 Close iris order, minish iris when image choose. It means exit

up-menu or some item when it is done menu edit, and save edit value after programming.

【FAR】 Far focus, means focused far images.

【NEAR】 Near focus, means focused near images.

【TELE】 Pull lens near, It means enlarge lens' enlarging zoom when it is image choice.

【WIDE】 Push lens far, It means minish lens' enlarging zoom when it is image choice.

P/T up: Camera up rotates; move up or change set when it is in the menu settings. It means minish privacy zones up and down during privacy zone edit.

P/T down: Camera down rotates; move down or change set when it is in the menu settings. It means enlarge privacy zones up and down during privacy zone edit.

P/T right: Camera right rotates; It means enlarge privacy zones left and right during privacy zone edit.

P/T left: Camera left rotates; It means minish privacy zones left and right during privacy zone edit.

❖**Remarks:** Consistently operate P/T up and down order can up speed; When it is the unset item on the menu up and down selection, cursor will pass directly!

2. Menu Signal Instruction:

>current cursor/current menu , Number or Letter flicker means current selected menu , **【Item Name】** have sub-menu.

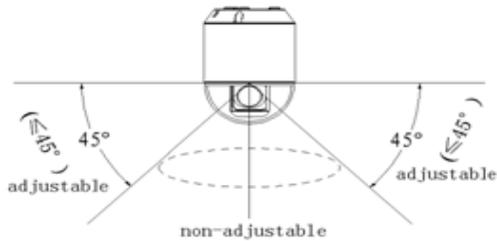
● **Methods of Enter Into Menus**

Call preset 95 to enter main menu, press number key 9, 5, and then 'PRESET' key.



3. Under **【CAMERA PARAMETERS】** choose **【PRIVACY_MASK】** item, press **【OPEN】** for confirm and enter privacy area set item.
4. Under **【PRIVACY_MASK】** choose **【MASK ACTIVATE】** item, press **【OPEN】** enter ON/OFF Privacy Zone setting.
5. Up/Down PT to change to activate or shut down the privacy protection
6. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

- When the dome is vertical down $\geq 45^\circ$, this function can't work, as bellow:



● Privacy Area Set

☞ Operations:

- Call preset 95 to enter main menu.
- Choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm and enter camera set item. Under **【CAMERA PARAMETERS】** choose **【PRIVACY_MASK】** item, press **【OPEN】** for confirm and enter privacy area set item.
- Under **【PRIVACY_MASK】** choose **【SETUP NEW MASK】** item, press **【OPEN】** enter privacy area set.
- Control and move dome, adjust grid center on the objects or location needed to be sheltered. Press **【OPEN】** for confirm, a little back privacy window appear on the screen.
- Adjust privacy window size according to practical requirement. Press **【RIGHT】**, enlarge window left and right; press **【LEFT】**, narrow window left and right; press **【DOWN】** enlarge window up and down; press **【UP】** narrow window up and down.
- Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

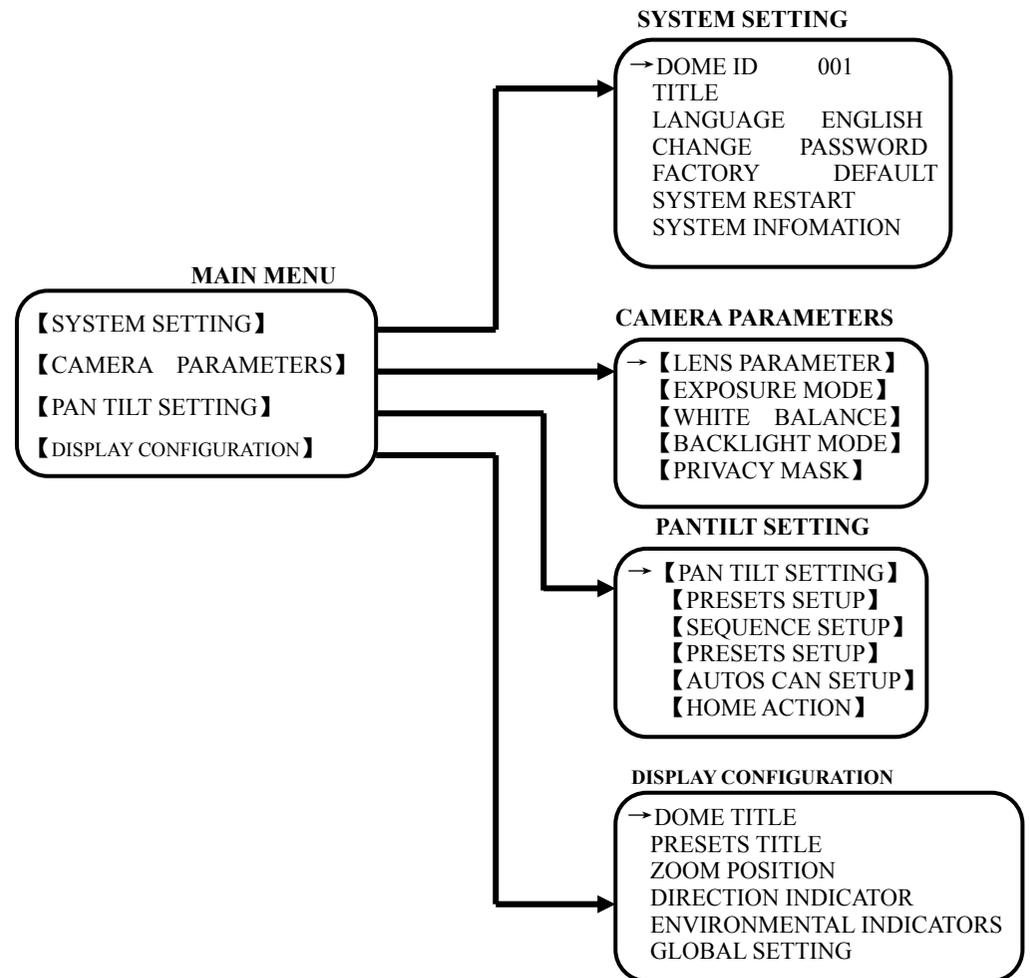
❖ **Instruction:** All the dome privacy area set are the same, Choose privacy protect number before operating definition, displaying and deleting privacy protection.

● MASK ACTIVATE

☞ Operations:

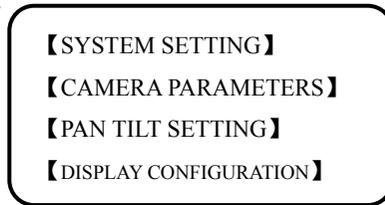
- Call preset 95 to enter main menu.
- Choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm and enter camera set item.

Menu Hint

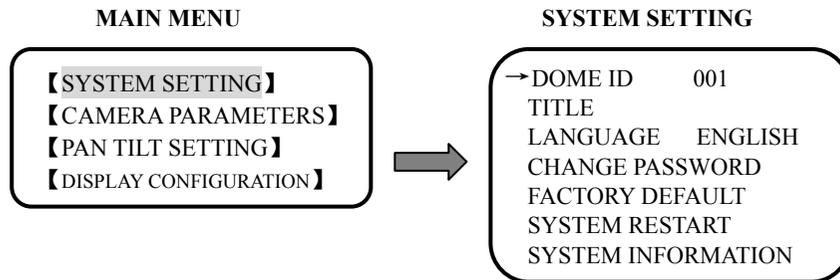


Main Menu Function Setting

Main menu:



System Setting



■ DOME ID

Support soft and hard address modification, default is hard address. While all the 8 SWI are in “OFF” can modify soft address, and it can’t be changed while it is in hard address status.

☞ **Operations:**

1. Call preset 95 to enter main menu.
2. Up/down cursor choose 【SYSTEM SETTING】 item, press 【OPEN】 for confirm, enter system setting menu.
3. Under 【SYSTEM SETTING】 to choose 【DOME ID】 item, press 【OPEN】 for confirm, enter dome serial number and input menu item, default serial number shown.
4. Press 【OPEN】 to save and exit this item setting; Press 【CLOSE】 key exit directly and no save.

☞ **Operations:**

1. Under【CAMERA PARAMETERS】 to choose【BACKLIGHT MODE】 and press 【OPEN】 to enter BLC mode set.
2. Up/Down PT to modify BLC value and open/close this function.
3. Press【OPEN】key, save and exit; press【CLOSE】key, exit directly.

● WDR MODE

This function can brighten the dark image while keeping the bright image as usual and to obtain a more vivid color images at any place.

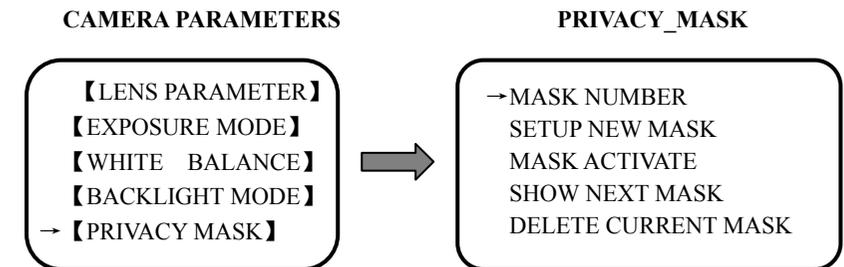
☞ **Operations:**

1. Under 【Camera Parameter】 to choose 【Wide Dynamic Mode】 and press 【OPEN】 to enter Wide dynamic mode set.
2. Up/Down PT to modify or open/close this function.
3. Press【OPEN】key, save and exit; press【CLOSE】key, exit directly.

❖ **Instruction: Few domes cannot support this function.**

■ Privacy Zone

Set privacy zone protection.



Privacy protection can display a region on the screen. Users can set regional coverage. This serial dome, Sony camera can support maximum 8 privacy area (the size can be set). Masking block will move with dome.

❖ **Remarks:**

1. This function is associated with built-in camera models, different camera models will make privacy protect window lightly various. In addition, few cameras cannot support this function.

☞ Operations:

1. Under **【WHITE BALANCE】** choose **【R Gain】** item, press **【OPEN】** for confirm and enter red gain set item,
2. Up/down P/T to change red gain value, range from 0~255 the larger the number is, the red deeper, color turn to warm.
3. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

❖ **Attention:** Only when 'WHITE BALANCE' set as 'Manuel' can this function work.

● G Gain

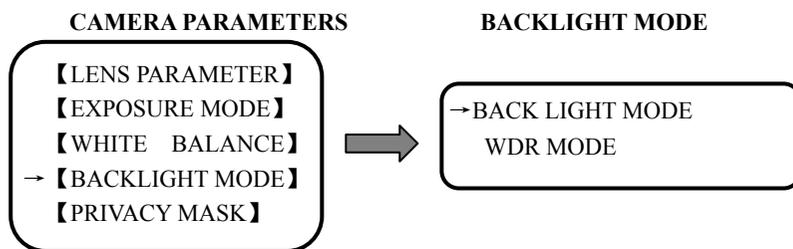
☞ Operations:

1. Under **【WHITE BALANCE】** choose **【G Gain】** item, press **【OPEN】** for confirm and enter green gain set item,
2. Up/down P/T to change green gain value, range from 0~255 the larger the number is, the blue deeper, color turn to cold.
3. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

❖ **Attention:** Only when 'WHITE BALANCE' set as 'Manual' can this function work.

■ BACKLIGHT MODE SETTING

Strong background light make backlighting objects cast a shadow, automatically backlight compensation function can adjust the aperture to match different light changes, auto-correction image brightness result in a clear screen image.



● BACKLIGHT MODE

■ TITLE SETTING:

☞ Operations:

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【SYSTEM SETTING】** item, press **【OPEN】** for confirm, enter system setting menu.
3. Under **【SYSTEM SETTING】** to choose **【TITLE】** item, Press **【OPEN】** for confirm, enter title parameter modification setting, and parameter flickers.
4. Up/Down P/T to choose
5. Press **【OPEN】** to save and exit this item setting; Press **【CLOSE】** key exit directly and no save.

❖ **Instruction:** 16 characters can be set, right pan to skip the no need edition character, use black key to replace the need to be deleted character; Move pan right to edit the next character, press **【OPEN】** to save after the last edition. Press **【CLOSE】** to terminate edition. Character including: 0-9、A-Z、:;<>., Black. Other title input as above ways.

■ LANGUAGE SELECT

☞ Operations:

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【SYSTEM SETTING】** item, press **【OPEN】** for confirm, enter system setting menu.
3. Under **【SYSTEM SETTING】** to choose **【LANGUAGE SELECT】** item, Press **【OPEN】** for confirm, enter language setting, and parameter flickers.
4. Up/Down P/T to choose.
5. Press **【OPEN】** to save and exit this item setting; Press **【CLOSE】** key exit directly and no save.

■ CHANGE PASSWORD

☞ Operations:

1. Call preset 95 to enter main menu.

2. Up/down cursor choose **【SYSTEM SETTING】** item, press **【OPEN】** for confirm, enter system setting menu.
3. Under **【SYSTEM SETTING】** to choose **【CHANGE PASSWRD】** item, Press **【OPEN】** for confirm, enter password modification setting, and “Input Old Password” shown on the screen.
4. Left/Right Pan to move cursor, Up/Down Pan to set current character.
5. Press **【OPEN】** to save and exit this item setting; Press **【CLOSE】** key exit directly and no save.
6. Succeeded input the old password, press **【OPEN】** key, “Input New Password” shown on the screen, twice input the same new password “ Password Modification Succeed” shown on the screen.

❖ **Instruction:** Dome original password is “000000”, Set dome password as “000000” means close password protection.

■ **FACTORY DEFAULT**

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【SYSTEM SETTING】** item, press **【OPEN】** for confirm, enter system setting menu.
3. Under **【SYSTEM SETTING】** to choose **【FACTORY DEFAULT】** item, press **【OPEN】** is ok.

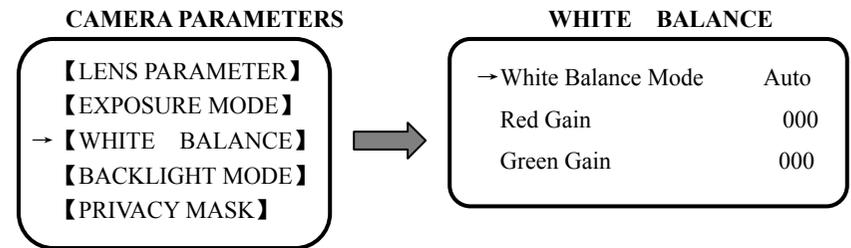
■ **SYSTEM RESTART**

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【SYSTEM SETTING】** item, press **【OPEN】** for confirm, enter system setting menu.
3. Under **【SYSTEM SETTING】** to choose **【SYSTEM RESTART】** item, press **【OPEN】** is ok. (System restart, this process will be an integrated power movement.)

■ **SYSTEM INFORMATION**

Under **【SYSTEM INFORMATION】** to choose **【SYSTEM INFORMATION】** item, press **【OPEN】** is ok.

Through this function can set various white balance mode (auto and manual), as well as red gain and blue gain adjustment.



● **WHITE BALANCE:**

This dome support various white balance mode: Auto/Manual/ATW/OPW/Outdoor/Indoor.

☞ **Operations:**

1. Call preset 95 to enter main menu.
2. Choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm, enter camera function set menu.
3. Under **【CAMERA PARAMETERS】** choose **【WHITE BALANCE】** item, press **【OPEN】** for confirm and enter white balance set item.
4. Under **【WHITE BALANCE】** choose **【WHITE BALANCE】** item, press **【OPEN】** for confirm and enter white balance set item, can be set as bellow:
 - 【Auto】:** Default mode. White balance sensors automatically detect the environment to restore the true color.
 - 【Manuel】:** Manuel adjust R Gain and G Gain value.
 - 【ATW】:** Automatic tracking modes
 - 【OPW】:** Single-lock mode
 - 【Outdoor】:** Outdoor mode, colder colors
 - 【Indoor】:** Indoor mode, warmer color
5. Up/down P/T to select needed white balance mode;
6. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

● **R Gain**

❖ **Attention: Only under (Manual) and (Iris) mode, it is available.**

● **BRIGHT LEVEL**

☞ **Operations:**

1. Under **【EXPOSURE MODE】** choose **【BRIGHT LEVEL】** item, press **【OPEN】** for confirm, enter brightness control item.
2. Up/down P/T to change brightness level value.
3. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

❖ **Attention: Only under (Manual) and (BRIGHT LEVEL) mode, it is available.**

● **AGC LEVE:**

☞ **Operations:**

1. Under **【EXPOSURE MODE】** choose **【AGC LEVEL】** item, press **【OPEN】** for confirm, enter gain set item and parameter flicker.
2. Up/down P/T to change gain level value.
3. Press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

❖ **Attention: Only when set ‘AGC LEVEL’ as ‘Manual’ can this function work.**

● **DAY/NIGHT MODE Setting**

In accordance with changes in ambient light, this feature automatically conversion between day and night. When you use this feature, in bright daylight color images during the shoot and in the dark night will be shooting black and white images. You can also set a fixed mode during the day or night without the use of this automatic conversion.

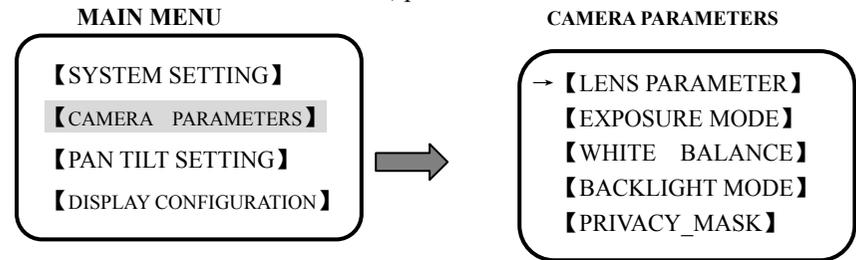
☞ **Operations:**

1. Under **【EXPOSURE MODE】** to choose **【DAY/NIGHT MODE】** item, press **【OPEN】** for confirm and enter Day/Night mode setting;
2. Up/down P/T to change setting, press **【OPEN】** key, save and exit; press **【CLOSE】** key, exit directly.

■ **WHITE BALANCE:**

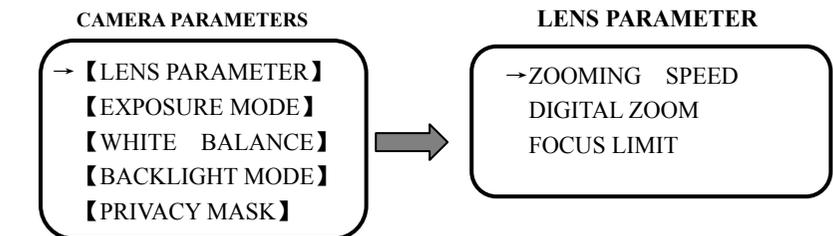
Camera Parameter

Menu are different from factories, please follow the associated one.



Attention: Series of cameras by different manufacturers vary the menu; please refer to the corresponding description of the camera feature set.

- **LENS PARAMETER** Through this menu to set camera's zoom speed, electronic zoom, and focus and preset points limit set to freeze.



● **ZOOMING SPEED**

☞ **Operations:**

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm and enter **【LENS PARAMETER】** menu.
3. Under **【LENS PARAMETER】** to choose **【ZOOMING SPEED】** item, press **【OPEN】** for confirm and enter zoom speed set, parameter flickers.
4. Up/Down P/T to choose
5. Press **【OPEN】** to save and exit this item setting; Press **【CLOSE】** key exit directly and no save.

● **DIGITAL ZOOM SETTING**

☞ **Operations:**

1. Call preset 95 to enter main menu.

2. Up/down cursor choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm and enter **【LENS PARAMETER】** menu.
3. Under **【LENS PARAMETER】** to choose **【DIGITAL ZOOM】** item, press **【OPEN】** for confirm and enter electronic zoom set, parameter flickers.
4. Up/Down P/T to choose
5. Press **【OPEN】** to save and exit this item setting; Press **【CLOSE】** key exit directly and no save.

● **FOCUS LIMIT SETTING**

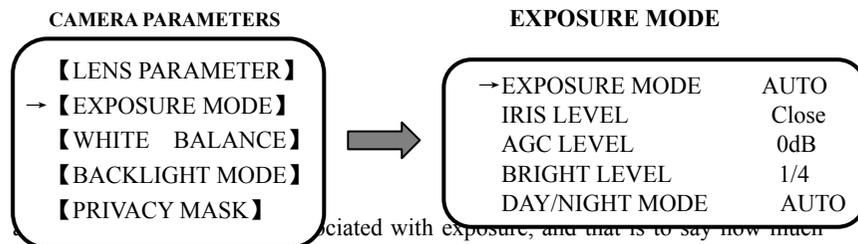
Set to limit the focal distance of the camera near a special place in order to improve the performance of the lens focus. For example: a rainy day will be focused in the 1M limit set, the camera will not focus to cover the water on the ball.

☞ **Operations:**

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm and enter **【LENS PARAMETER】** menu.
3. Under **【LENS PARAMETER】** to choose **【FOCUS LIMIT】** item, press **【OPEN】** for confirm and enter focus limit set, parameter flickers.
4. Up/Down P/T to choose
5. Press **【OPEN】** to save and exit this item setting; Press **【CLOSE】** key exit directly and no save.

■ **EXPOSURE MODE**

On this menu can set exposure mode, shutter speed, aperture, gain, brightness, back light compensation, fast/slow shutter, exposure compensation, wide dynamic and other parameters to make customer satisfied.



light should pass so that the image can be clear. And pass-ray exposure with time (shutter speed decide), Qualcomm light area (aperture size decide).

- b) The quality of image associated with gain and brightness settings, and exposure mode settings that may exist in conflict and mutual dependence with each other, depending on the camera vary, please refer to the specific circumstances of the camera function of the corresponding note.

☞ **Operations:**

1. Call preset 95 to enter main menu.
2. Up/down cursor choose **【CAMERA PARAMETERS】** item, press **【OPEN】** for confirm, enter camera function set menu.
3. Under **【CAMERA PARAMETERS】** to choose **【EXPOSURE MODE】** item, press **【OPEN】** for confirm, enter exposure sub-menu set.
4. Under **【EXPOSURE MODE】** choose **【EXPOSURE MODE】** item, press **【OPEN】** for confirm, enter exposure mode selection set item, This item can be set as:
 - 【Auto】:** This is the default setting; the camera automatically adjusts exposure according to the scene brightness and CCD sensitivity. Under this mode manually set the other exposure mode value-level is forbidden.
 - 【Manuel】:** Under this mode, any exposure mode is selectable.
 - 【Shutter P】:** Shutter in advance mode.
 - 【Iris P】:** Aperture in advance mode
 - 【Bright】:** Brightness control in advance mode.
5. Up/down P/T to modify exposure mode; press **【OPEN】** for confirm, save set and exit; press **【CLOSE】** key, exit directly.

● **Iris**

☞ **Operations:**

1. Under **【EXPOSURE MODE】** choose **【Iris】** item , press **【OPEN】** for confirm, enter aperture set item and parameter flicker.
2. Up/down P/T to change aperture value
3. Press **【OPEN】** for confirm, save aperture and exit; press **【CLOSE】** key, exit directly.