IR HIGH SPEED DOME
USER MANUAL

Before installation and use this speed dome, do read the manual and keep this manual for future use

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1. Product Introduction

This series of products using the most stable high-performance digital DSP design, some of the main component is famous brand such as Motor-driver, zoom module , electronic slip ring . our speed dome has the perfect design and easy installation ,which is an inevitable trend for the high-tech products . It can quickly and accurately position and track the target, It can be no blind spot in the all-round goal of a 24-hour surveillance .

This product can be widely used in smart buildings, bank security, urban roads, airport terminals ect which can meet any of the diversification request for the square,

1. 1Safety Attention Notes

A. Please read the instructions thoroughly before installing or operating the unit .
B. Please follow the safety operating standard when installing
C. Only professional and experienced staff can do the installation and maintenance work
D. Use reliable tools, poor tools can cause danger
E. Make sure the using environment meet requirements of the product
F. Please check the strength and toughness of the installation base, the base must bear 4 times the total weight of speed dome and accessories.
G. Please keep all packaging for future packaging and transportation.

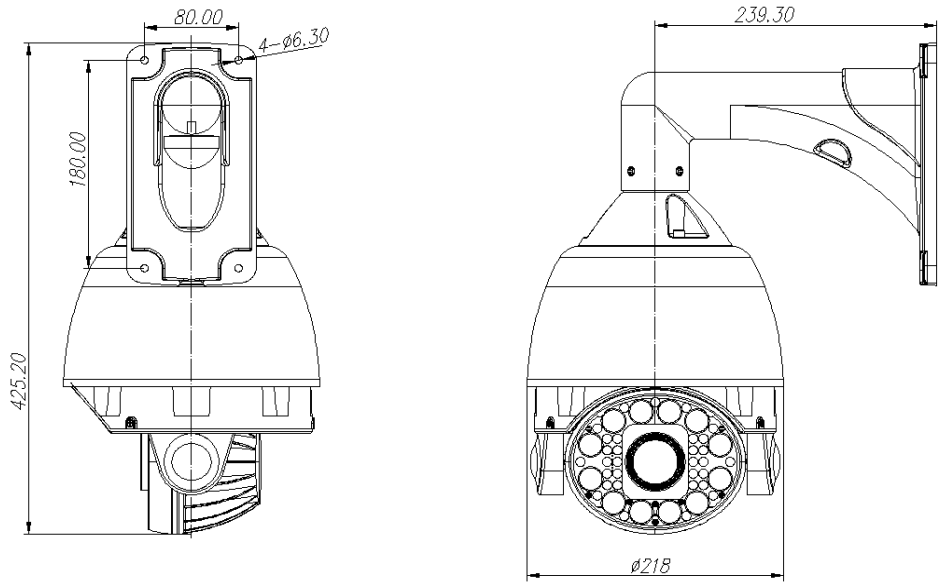
1.2 Cautions

A. Please do not install the speed dome in the inflammable and explosive area.
B. Please do not put the speed dome in the unstable table or mounting bracket.
C. Please prevent all liquids or other contaminating material from entering into the dome housing.
D. Do not use the wrong power adapter ， the speed dome power supply isDC12V.
E. RS-485, blue wire for 485+ （A）, green wire for 485-（B）
F. Please do not turn on the power before finishing installation
G. Please do not open the speed dome or repair by yourself .
H. Please do not clean the unit by Corrosive detergent .
I. Avoid shooting very bright objects directly into the camera's CCD (such as the sun or light fittings)
J. Please prevent over weight impact or shock
K. Please read manual book thoroughly before installation.

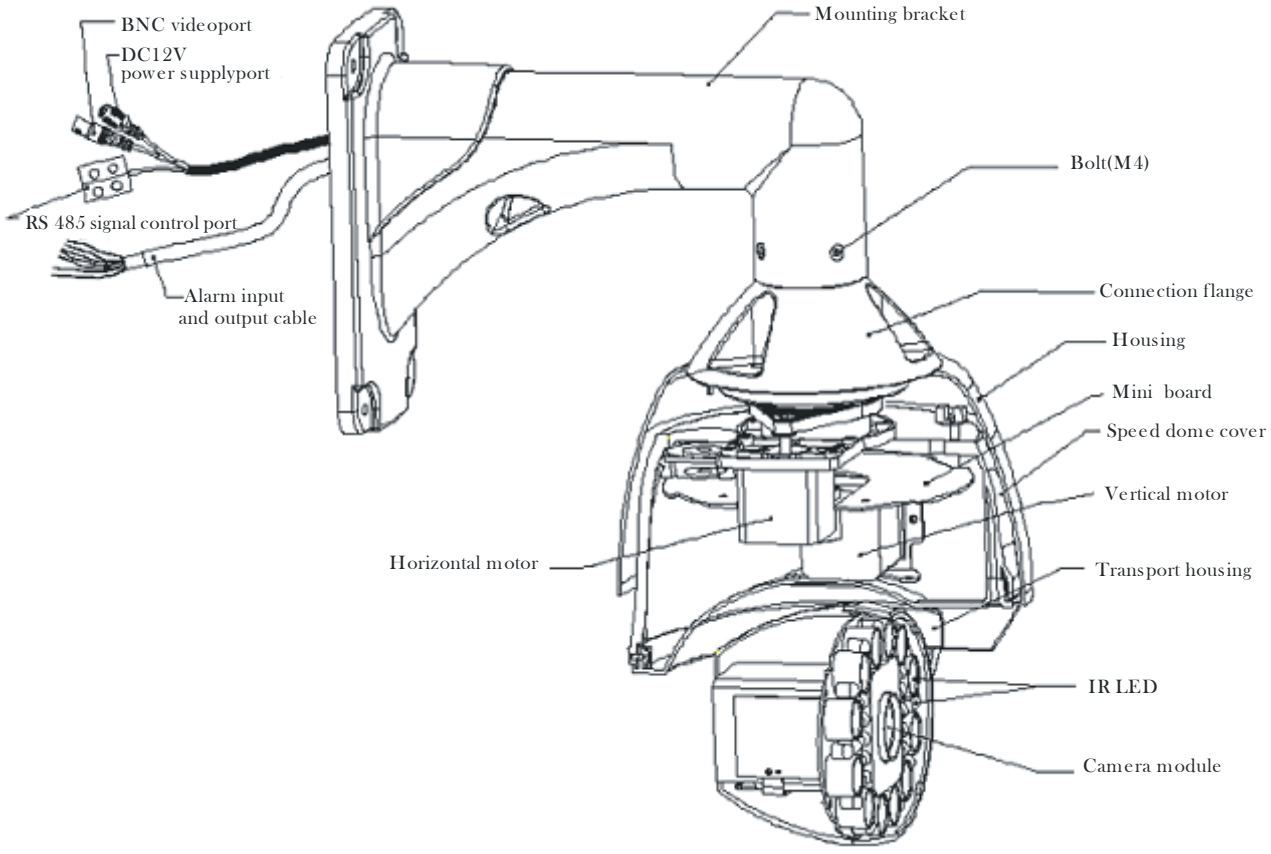
1.3 Function

- Horizontal rotation speed 0.1-280°/s,Vertical rotation speed 0.1-240°/s
- 255 preset position some of them can set title.
- 2 Scan mode ， 4 Pattern , 4 Tour .
- 4 CH Alarm in , 1CH Alarm out .
- RS485 , Pelco D ,P
- English OSD menu
- Leisure Act setting function
- Title ,coordinate ,Temperature , zoom display
- Aluminum Alloy , IP66 Waterproof housing
- Built-in temperature control system
- Outdoor and Indoor mounting
- Power supply : DC24V ,low consumption

1.4 Speed Dome Dimension Chart



SPEED DOME ENTIRETY CHART



1.5 Specification

SPECIFICATION	
OSD MENU	ENGLISH
PRESET POSITION	255 PCS（SONY，HITACHI）;64PCS（CNB，LG etc ）
SCAN	AUTO SCAN ,LIMIT SCAN (Speed adjustable)
TOUR SCAN	4 TOUR ,16 Preset position per tour ,speed and dwell time can be adjustable
PATTERN SCAN	4 PATTERN , 15minutes recording for each pattern
ALARM	4 CH ALARM IN 1 CH ALARM OUT
PRESET RANGE	1--255
COMMUNICATION	RS-485
BAUD RATE	2400/4800/9600/19200,
COMMUNICATION PROTOCOL	Pelco-P/D
DWELL SETUP	Home place/Auto Scan/Tour scan/Pattern scan
Title Display	Display or hide the title, the title can be 16 letters , number MAX.
Camera ID	Display /Hide
ZOOM	Display
Mechanical parameters	
Horizontal rotation range	0^o --360^o
Horizontal rotation speed	0.1 ^{o} --200 ^{o} /s
Tilt rotation range	0.1---90^o Auto Flip180^o
Tilt rotation speed	0.1 ^{o} --120 ^{o} /s
Positioning accuracy	0.1^o
Other Parameters	
Housing Material	Aluminum alloy
Waterproof standard	IP66
Operating Temperature	-20^oC---65^oC
Operating humidity	Less than 95%
POWER Supply	DC12V/5A
Mounting bracket	ceiling or wall mounting
Gross weight	4kg

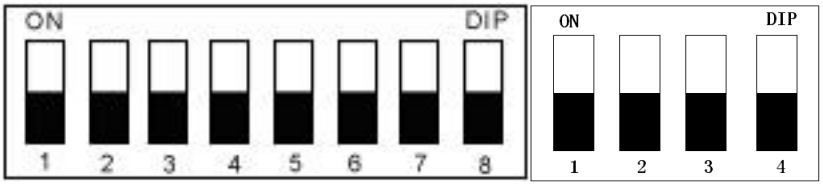
1.6 Packing and Accessories

ID	Item	Quantity
1	Manual	1 piece
2	Guarantee card	1 piece
3	Passed card	1 piece
4	Glove	1 pair
5	Screwdriver	1 piece
6	Screw for camera	4 piece
7	Screw for Bracket	4 piece

2 . Speed dome Setting

2.1 Switch Position Setting

This speed dome's address code can be setted in the software by DVR or joystick.No need to set by change the code inside the speed dome itself.The detail operation please refer to page 13.



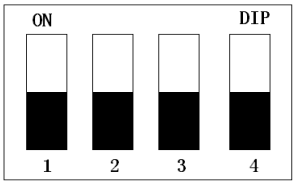
SW1 **SW2**

2.2 Baud Rate Setting

This speed dome's baud rate can be setted in the software by DVR or joystick.No need to set by change the code inside the speed dome itself.The detail operation please refer to page 13.

Speed dome can automatically recognize the Pelco-D or Pelco-P so only to set the baud rate and Address to make speed dome working . Baud rate is setted by 1&2 bits in SW2. The relative code switch setting below for reference, the default setting is 2400 bps

SW2



Baud Rate	Code bit on SW2	
	1	2
2400	OFF	OFF
4800	ON	OFF
9600	OFF	ON
19200	ON	ON

2.3 Communication protocol setting

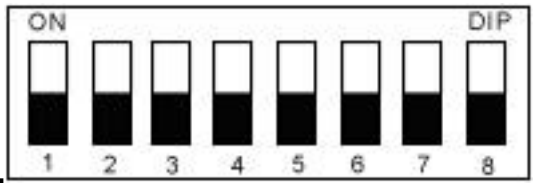
The communication is setted by 1/2 bits in SW2.Speed dome can automatically recognize Pelco-D & Pelco-P , so the speed dome can work without setting communication protocol. The default

setting is Pelco-D .

2.4 Address Setting

The bits in SW2 are used to set Dome address . (see following figure)

SW1

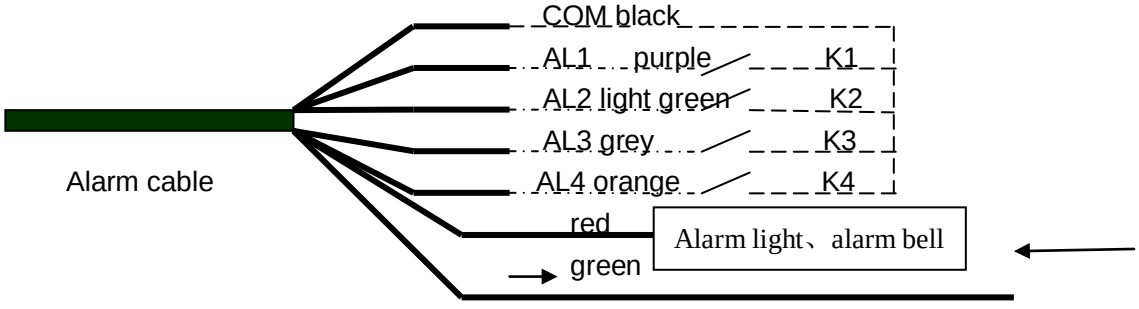


Address	CODE BIT SETTING							
	1	2	3	4	5	6	7	8
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
.....								
255	ON	ON	ON	ON	ON	ON	ON	ON

If using other controller to control speed dome, The communication protocol(speed dome recognize itself) baud rate and dome address should be setted correctly , Some times should be increase 1 or decrease 1 on the address code because of different address code from different factory . eg , dome address is 2, then have to set the address code as 3 on the DVR , then can use the DVR to control the speed dome properly .

2.5 Alarm connection

This speed dome can connect 4CH alarm input and1 CH output.



Remark : Alarm output switch value should be on,k1-k4 is switch value signal for outside

2.6. Dome camera Installation and connection :

2.6.1 Caution Before Installation:

1.The installation should be operated by the engineers or a qualified CCTV expert.

2.The correct connection way please check the installation pictures and installation specification

3.Pleases do wear glove before installation .Do not touch the speed dome and shell directly with metal ,hardware or hand to avoid scratching the speed dome housing.

4. Pleases lock the security wire when installing the transparent dome to avoid the unexpected scratch.

5.Please clean the transparent dome cover with soft paper or cloth after the installation .

2.6.2 The request of installation

Please check the accessories are complete or not after open the package .

Please check the application place and mounting way match the camera ‘s requirement.

The installation should be operated by CCTV expert obey the instructions in case of causing a trouble

Please do use the proper tools, such as the screwdriver .

Take out the camera module from the upper housing, check the address code right or not and then press the upper housing and lock the four M3X14 screw on the bottom board .

3.OSD setting

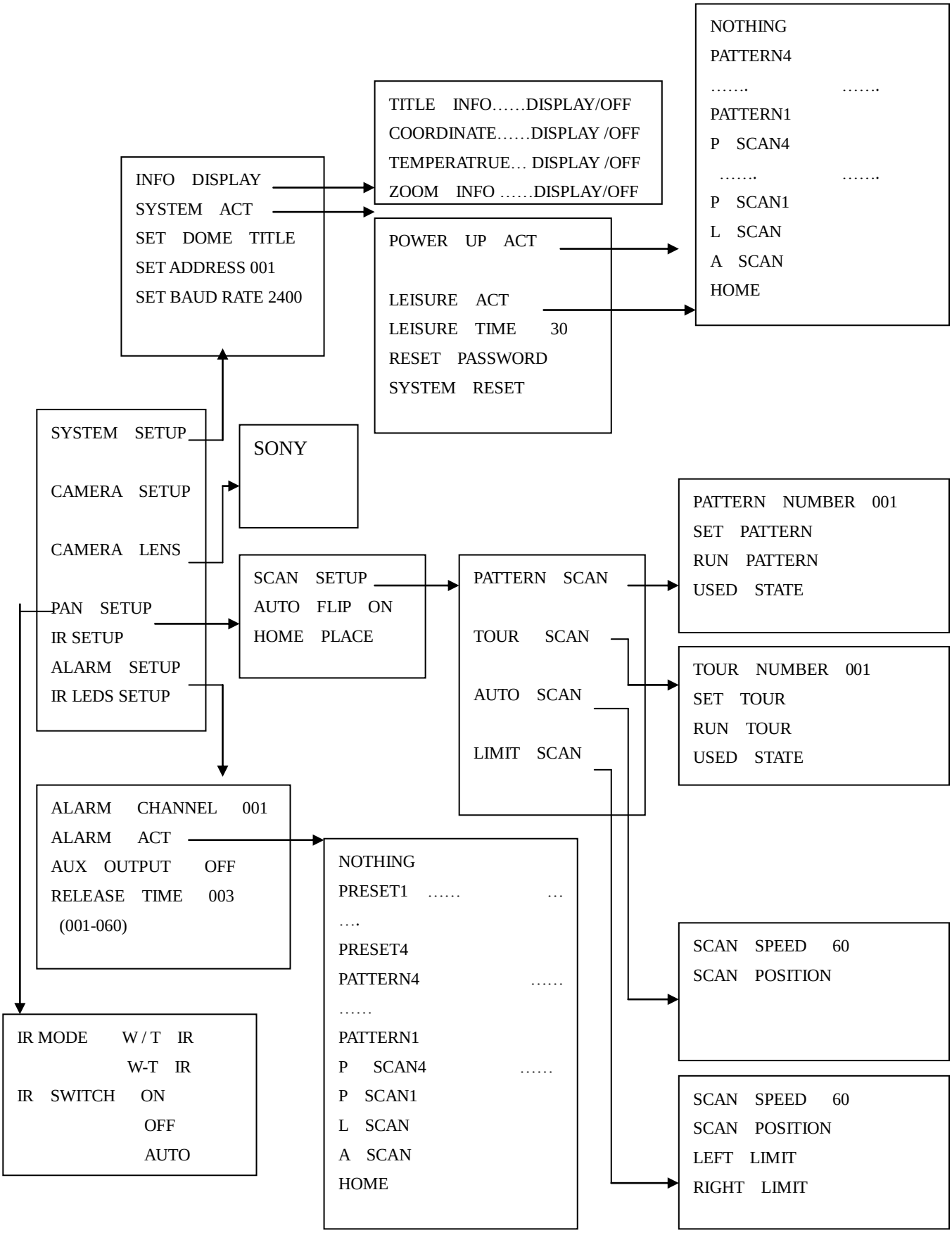
When the power of the speed dome is on, it will show the speed dome camera basic information :such as protocol ,baud rate , address code , after self-inspection all the information will appear in 5 seconds (user can see the setting information below)

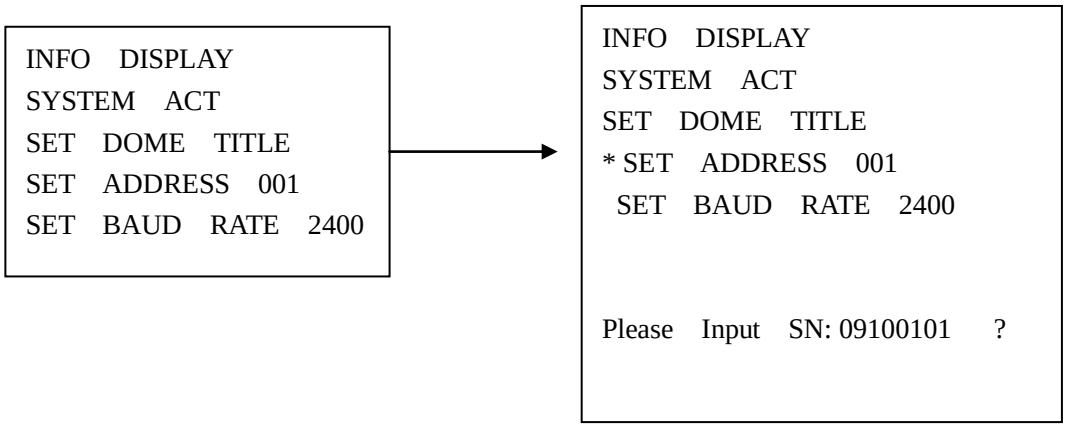
```
PROTOCOL:  PELCO-D
COMM:    2400, N , 8.1
ADDRESS : 001
FIRMWARE VER :11.0IR
RERRENCE  IS  OK
CAMERA  IS  OK
```

When above information appear after self-inspection, that means the speed dome can work well , it can be controlled well by Keyboard .Press 95+ preset to enter main menu , change menu by joystick up , down , left , right . the key function of the keyboard is as following table.

Serial number	keyboard Function	function of OSD
1	joystick up	The cursor shift up
2	joystick down	cursor shift down
3	joystick left	cursor shift left
4	joystick right	cursor shift right
5	Iris close/ Iris -	return
6	Iris open/ Iris +	confirmation

3.1 OSD Index

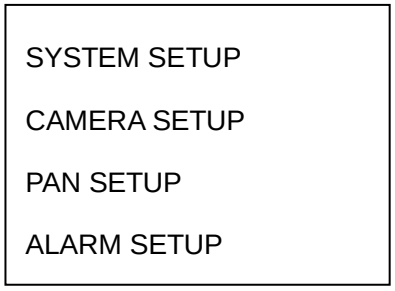

INFO DISPLAY
SYSTEM ACT
SET DOME TITLE
SET ADDRESS 001
SET BAUD RATE 2400
TITLE INFO……DISPLAY/OFF
COORDINATE……DISPLAY /OFF
TEMPERATRUE… DISPLAY /OFF
ZOOM INFO ……DISPLAY/OFF
POWER UP ACT
LEISURE ACT
LEISURE TIME 30
RESET PASSWORD
SYSTEM RESET
NOTHING
PATTERN4
……. …….
PATTERN1
P SCAN4
……. …….
P SCAN1
L SCAN
A SCAN
HOME
SYSTEM SETUP
CAMERA SETUP
CAMERA LENS
PAN SETUP
IR SETUP
ALARM SETUP
IR LEDS SETUP
SONY
SCAN SETUP
AUTO FLIP ON
HOME PLACE
PATTERN SCAN
TOUR SCAN
AUTO SCAN
LIMIT SCAN
PATTERN NUMBER 001
SET PATTERN
RUN PATTERN
USED STATE
TOUR NUMBER 001
SET TOUR
RUN TOUR
USED STATE
ALARM CHANNEL 001
ALARM ACT
AUX OUTPUT OFF
RELEASE TIME 003
(001-060)
NOTHING
PRESET1 …… …
….
PRESET4
PATTERN4 ……
……
PATTERN1
P SCAN4 ……
P SCAN1
L SCAN
A SCAN
HOME
IR MODE W / T IR
W-T IR
IR SWITCH ON
OFF
AUTO
SCAN SPEED 60
SCAN POSITION
SCAN SPEED 60
SCAN POSITION
LEFT LIMIT
RIGHT LIMIT



3.2 Operation

3.2.1 Selecting aim item

Press “64 “”+”or “95””+”to enter main menu like the chart: press Iris+ (or open key) to choose this item and enter next submenu

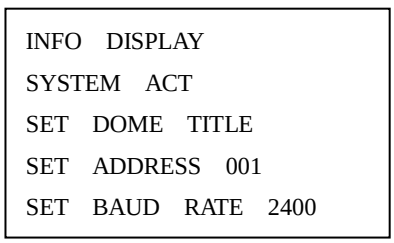


3.2.2 Parameter setting

Use the joystick up or down to change the parameter, press Iris+ or open key , confirm the data and save it .press Iris- or close key , return back to the previous menu .

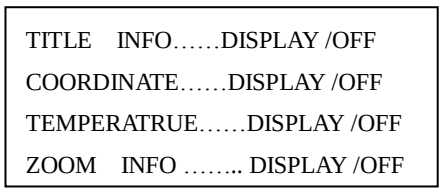
3.3 System Setting

Move the cursor on the SYSTEM SETUP by operating the joystick up an down , press the Iris+ Key , confirm and entering the submenu ,like the table:



3.31 System Display Setting

Keep the cursor on the INFO DISPLAY by operating the joystick up an down ,press Iris+ or open key , confirm and entering the next submenu ,like the table:



You can choose by operate the joystick, Iris+ or open key to confirm

TITLE INFO DEFAULT SETTING :OFF

COORDINATE DEFAULT SETTING :OFF

TEMPERATRUE DEFAULT SETTING :OFF

Press Iris+ or open key on the key board to choose those above information, then choose on /off by operating the joystick up and down .Press Iris+ key or open key to save the parameter .Press Iris- or close key to return back to the previous menu .

3.3.2 System State Setting

Keep the cursor on the SYSTEM ACT by operating the joystick , press Iris+ or open key , confirm ,enter submenu ,such as :

POWER UP ACT
LEISURE ACT
LEISURE TIME 30
RESET PASSWORD
SYSTEM RESET

A : Power up ACT :when the speed dome finished self-checking , customers can choose any action that the speed dome execute .Default setting is Nothing .

Choose the POWER UP ACT by wagging the joystick , press Iris+ or open key to confirm , then choose the action you want to set .There are Nothing ,Pattern 4 ,Pattern 3 ,Pattern 2 ,Pattern 1 ,Scan 4 , Scan 3 , Scan 2 ,Scan 1 , A-B LINE SCAN , 360°scan , Home to choose . Press Iris+ or open key to confirm and save the setting , press Iris- or close key , return to the previous menu .

B : Leisure Act: Speed dome in the setting time if no action ,in this situation ,need speed dome to executive one order, this means leisure action ,the default setting is nothing.

.Choose LEISURE ACT by wagging the joystick up and down , press Iris+ or open key to confirm , then choose the action you would like to do .there are Nothing ,PATTERN 4 , PATTERN 3 , PATTERN 3 , PATTERN 2 , PATTERN 1 , SCAN 4 , SCAN 3 , SCAN 2 , SCAN 1 , HOME to choose . Press iris+ or open key to confirm and save the setting .Press Iris- or close key to return back to the previous menu .

C: Leisure Time (Default setting is 30 second)

Choose LEISURE TIME by wagging the joystick up and down , press Iris+ or open key to confirm , then choose the leisure time(1-240s) by joystick again .press Iris+ or open key to confirm and save the setting . Press Iris- or close key , return to the previous menu .

D: Reset Password : Default setting :1111

Choose PRESET PASSWORD by wagging the joystick up and down , press Iris+ or open key to confirm this item , then "？" will display on the screen , then choose any number and letter input (input 0-9,a-z,A-Z,8 bits total) press Iris+ or open key to confirm and save this setting .

E: Default restoration

Choose SYSTEM RESET by operating the joystick up and down , press Iris+ or open key , confirm and set this item , then "？" Will appear on the screen .input the speed dome password , then press Iris+ or open key to confirm , after 2 second , it will go back to default setting .(Note:Back to the default settting,address code and braud rate is setted by switch codes)

F:Setting address code and baud rate by software

Setting address code and baud no need by switch code.Pelco_D is the default setting protocal,2400 is the default setting baud rate,address code is 1.Users should set the control equipments'communication are like these: pelco_D,baud rate 2400,address code is 001,then can communicate with the IR speed

dome camera.then can set the new address code and baud rate in the menu,the details setting are as below.

1. setting address code:

choose the “SET ADDRESS”,press “Iris+”or”Open”on the keyboard,appears submenu:

```
INFO   DISPLAY
SYSTEM   ACT
SET   DOME   TITLE
*SET   ADDRESS   001
SET   BAUD   RATE   2400
Please   Input   SN: 09100101     ?
```

At this time,submenu will show you a hint”pleas input SN”,removes the “cursor” left and right ,input the completed serial number,press “Iris” or “Open”to confirm.and make sure the input SN is the same with dome’s SN,then can modify the address code,as follow:

```
INFO   DISPLAY
SYSTEM   ACT
SET   DOME   TITLE
*SET   ADDRESS   255
SET   BAUD   RATE   2400
Please   Input   SN:
 09100101          09100101
```

Then the cursor goes back to SET ADDRESS ,wagging joystick up and down can set address code,press “Iris+”(or “OPEN”) to confirm,exit main menu,the new address code is effective immediately.

2. Baud rate setting

Wagging joystick up and down,choose “SET BAUD RATE”,press “Iris+”or “Open”,wagging joystick up and down to choose baud rate 2400/4800/9600/19200,press”Iris+” or “Open” to confirm,exit main menu,new baud rate is effective immediately.

```
INFO   DISPLAY
SYSTEM   ACT
SET   DOME   TITLE
SET   ADDRESS   255
*SET   BAUD   RATE   2400
```

3.4 Camera Set Up

CAMERA SETUP menu is depended on the camera module , different camera module has different menu. The details please refer to the Annex I、II.III

3.5 Speed dome function setting

Wag joystick up and down to choose “PAN SETUP”, press Iris+ key(or OPEN key),enter the next submenu, like the table:

SCAN SETUP
AUTO FLIP OFF
HOME PLACE

3.5.1 Scan Setup

Wag joystick up and down, choose SCAN SETUP, press Iris key(or OPEN key),enter the next submenu ,like the table:

PATTERN SCAN
TOUR SCAN
AUTO SCAN
LIMIT SCAN

A: Pattern Scan Setting

Wag joystick up and down, choose PATTERN SCAN , press Iris+ key(or OPEN key)to confirm,then enter the next submenu ,like the table:

PATTERN NUMBER 001
SET PATTERN
RUN PATTERN
USED STATE

PATTERN NUMBER: Wag joystick up and down to set pattern number (001-004),this speed dome supports 4 patterns

SET PATTERN: Wag joystick down to choose this item ,press Iris+ key(or OPEN key)to confirm this item .Begin setting up pattern route by wagging joystick ,this speed dome can records 15minutes’s(Max) route where the camera goes through ,then press “95”+ “PREVIEW” key to save this pattern and exit.

RUN PATTERN: Wag joystick down to choose this item, press Iris+ key (or OPEN key) to confirm this item,speed dome runs according to pattern route.

USED STATE: Wag joystick down to choose this item, press Iris+ key(or OPEN key)to confirm .Wagging joystick up and down to set up which pattern to be used .Then press Iris – (or CLOSE) to exit and go back to previous menu.

B: Tour Scan Setting

Wag joystick up and down ,choose TOUR SCAN ,press Iris+ key(or OPEN key) to confirm,enter the next submenu ,like the table:

TOUR NUMBER 001
SET TOUR
RUN TOUR
USED STATE

TOUR NUMBER : Choose this item ,press Iris+ key(or OPEN)to confirm, Wag joystick up and down to

set tour scan group number (001-004),this speed dome supports 4 tour scan groups.

SET TOUR:

Choose this item ,press the Iris+ key(or the OPEN key) to confirm,wag joystick up and down to choose the item to enter ,and press Iris+ key(or the OPEN key) to confirm then set up the successive preset positions ,Max 16 preset positions(attention: function shortcut key can't be used to set up preset positions);The speed to each preset position is different ,classified into 50-128 level: Leisure time at each preset position can be different (1-240seconds).Like the following table:

ID	Preset	Speed	Time
1	001	120	002
2	002	120	005
3	003	120	005
4	004	120	005
5	005	120	005
6	000	120	005
7	000	120	005
8	000	120	005

ID	Preset	Speed	Time
9	000	120	005
10	000	120	005
11	000	120	005
12	000	120	005
13	000	120	005
14	000	120	005
15	000	120	005
16	000	120	005

RUN TOUR: Press Iris+ key (or OPEN key) to confirm run this tour group

USED STATE: Choose this item and Press Iris+ key(or OPEN key)to confirm ,wagging joystick up and down to choose which tour group to be used ,press Iris+ key(or OPEN key)to confirm ,then press Iris- key(or CLOSE key)to exit and return to the previous menu.

C：360° Scan Setting

Wag joystick up and down to choose "AUTO SCAN" ,press Iris+ key(or OPEN key) to choose this item ,then enter submenu ,as follows :

SCAN SPEED 60
SCAN POSITION

SCAN SPEED: Choose this item and press Iris+ key (or OPEN key) to confirm , wag joystick up and down to change scan speed(10-80level),the default setting is 60.

SCAN POSITION: Choose this item and press Iris+ key(or OPEN key) to confirm ,use control keyboard to adjust the camera's pitch and zoom ,let speed dome record these cameras' action.

Suggestion :Don't let the camera 360° rotate continuously for a long time.

D: Limit Scan setting

Wagging joystick up and down to choose "LIMIT SCAN , press Iris+(or OPEN key)to confirm this item ,enter submenu ,as follows:

SCAN SPEED 60
SCAN POSITION
LEFT LIMIT
RIGHT LIMIT

SCAN SPEED : Choose this item ,press Iris+(or OPEN key)to confirm ,wag joystick up and down to change the scan speed of A point and B point(10-80level), the default is 60 level.

SCAN POSITION: Choose this item and press Iris+ key(or OPEN key) to confirm ,use control keyboard to adjust the camera's pitch and zoom ,let speed dome record these cameras' action.

LEFT LIMIT: Choose this item and press Iris+ key(or OPEN key) to confirm ,wag joystick left or right to set the left limit position ,A point (start point)

RIGHT LIMIT: Choose this item and press Iris+ key(or OPEN key) to confirm ,wag joystick left or right to set the right limit position ,B point(the ending point)

3.5.2 Auto Flip

Wag joystick up and down to choose AUTO FLIP item, press Iris+ key (or OPEN key) to confirm, Choose ON or OFF, make AUTO FLIP function open or close. The default setting is open.

3.5.3 Home Place

Wag joystick up and down to choose HOME PLACE, press Iris+ key (or OPEN key) to confirm, Use control keyboard to set the guard location.

3.6 Alarm Setup

Go to the main menu of the speed dome, wag joystick up and down to choose ALARM SETUP, press Iris+ key (or OPEN key) to confirm this item ,enter the submenu ,as the chart:

ALARM	CHANNEL	001
ALARM	ACT	NOTHING
AUX	OUTPUT	OFF
RELEASE	TIME	003

ALARM CHANNEL: Choose this item and press Iris+ key (or OPEN key) to confirm ,wag control joystick up and down to choose alarm channel(from 1 to 4 channel)

ALARM ACT :Choose this item and press Iris+ key (or OPEN key) to confirm ,wagging joystick to choose the alarm action, for example :NOTHING ,No. 1 preset position to No. 4 preset position , Limit scan ,The fourth pattern scan ,The first tour group scan,360° scan ,Home place and so on .The default setting is no alarm action .

AUX OUTPUT1: Choose this item and press Iris+ key (or OPEN key) to confirm ,wag the joystick up and down to choose alarm output switch(on or off)for the first alarm output ,the default setting is off.

AUX OUTPUT2: Choose this item and press Iris+ key (or OPEN key) to confirm ,wag the joystick up and down to choose alarm output switch(on or off)for the second alarm output ,the default setting is off .

RELEASE TIME：Alarm output time is postponed to a certain time, adjustable range is 1sec to 60sec.The default setting is 3 sec .

3.7 Preset position title setting

This speed dome supports the first 32 preset positions' title .When you set the first 32 preset positions' titles (1st-32nd) the left of the screen displays "?" cursor, wagging joystick up and down ,left and right to choose the

character you want to input, Max 18 characters, then press Iris+ key (or OPEN key) to confirm and exit, continue to set next preset position's title setting.

3.7 LED SETTING

Waggging joystick up and down,choose "IR SETUP" in the main menu,press "Iris+"(Open)choose submenu as follow:

IR	MODE	W—T IR
		W / T IR
IR	SWITCH	ON
		OFF
		AUTO

When " IR MODE" is setted to"W/T",When"IR SWITCH " is setted to "AUTO",In low light ,big leds and small leds will switch automatically according to lens zooming in and zooming out.when lens zoom out<3X,small leds on ,when lens zoom out>3X,big leds on and small leds off.

Users can power on and power off leds by force.

When IR speed dome is installed in the open air,like square,users can set "IR MODE" to "W-T","IR SWITCH" to"AUTO",like this,big leds and small leds power on at the same time ,will not controlled by lens zooming and zooming out.

Note:when leds on,camera image becomes black and white.

3.8 Preset position shortcut Key

Using some shortcut keys to call preset positions can start some functions,

Preset positions	functions
33	Auto flip 180 °
34	Go back to zero position
96	Start number 1 pattern scan
64 or 95	Enter OSD
61or 97	Start NO. 1 tour scan
62 or 98	Start A-B Limit scan
63or 99	Start 360 degree auto scan

Remark : The above preset positions with some function , please Do not used to be other preset position any more .

4. Exception handling table

Issue	Possible reason	Solution
Power on, no movement, no image, indicator light doesn't on	Power cable connects wrong	Connect again
	Power supply damaged	Replace
	protective tube is bad	replace
	power cable is connected bad	Check
Power on ,self check ,has image, can't control	the machine's address code or baud rate is wrong	Reset address code and baud rate
	protocol wrong	correct it
	Rs485 cable is connected wrong	check RS485 line
Can't check itself ,has image but with motor hoot	mechanical breakdown	check it and repair it
	dome camera leans	correct it
	power supply is not enough	replace it
image is not stable	video cable is not connected well	correct it
	Power is not enough	replace it
image is dim	Focus in manual state	Operate the machine or adjust any preset position to let it in auto focus state
	Dome cover is dirty	clean the dome cover
can't control the speed dome to rotate	speed dome's power is not enough	replace the power
	check the camera has matching resistor or not	install resistor for the fast dome camera
	the distance between control keyboard and speed dome is too far	Using twisted-pair RS485 line or overstriking RS485 cable
	non-standard operation	power off and restart

5. Housing cleaning

A. To ensure clear image, users should clean the housing cover regularly .When clean it please wear glove to avoid being scratched, your sweat may erode the housing cover .

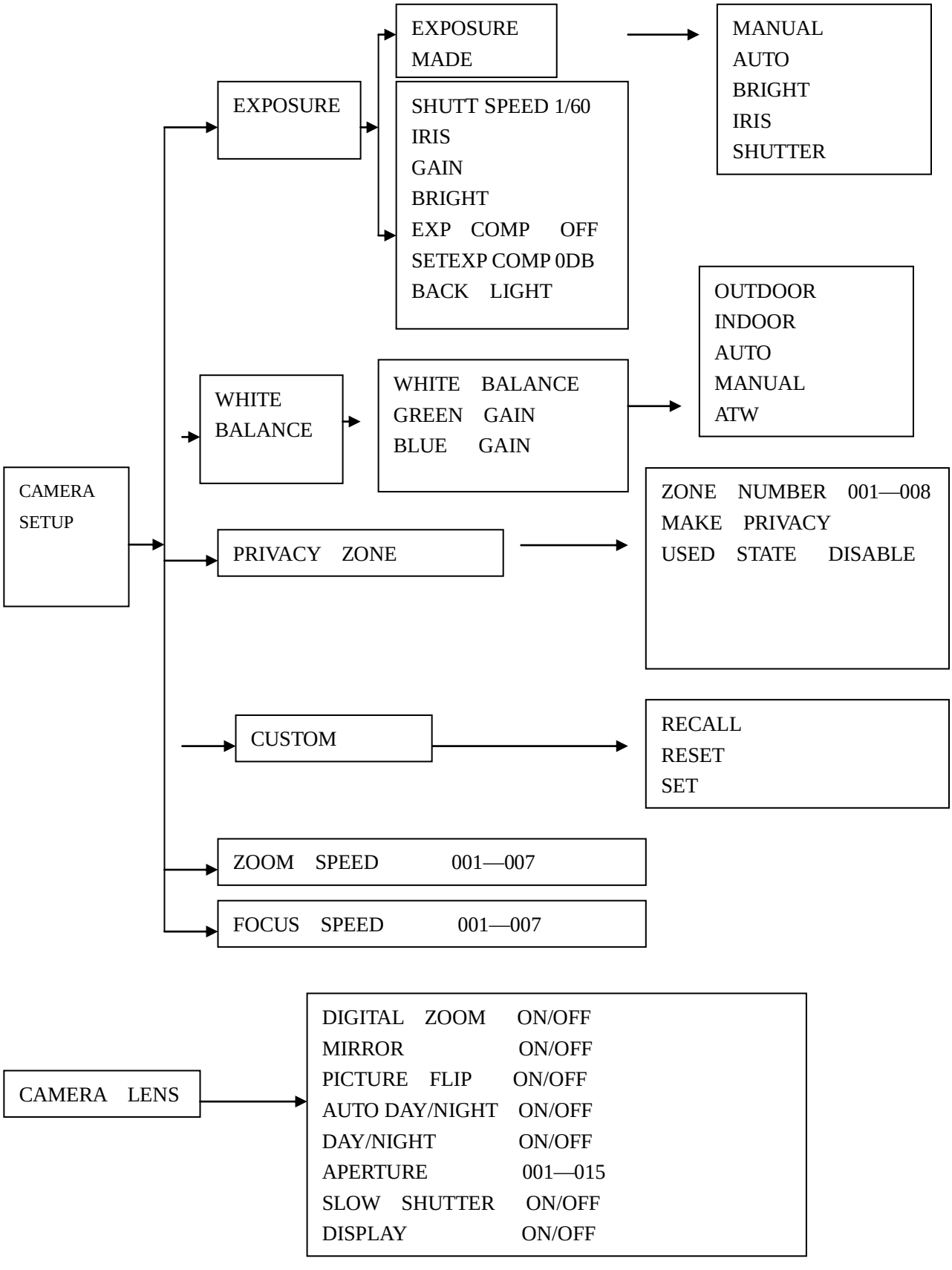
B. Use dry cloth to clean the inside and outside of the housing cover .

C. Please use neutral detergent to get rid of the solidity on the housing cover .

6. Speed dome Maintenance

1. Check speed dome power supply regularly to avoid plug is not in the socket.
2. Make sure voltage of the speed dome and monitor center is stable.
3. Mark the speed dome located in low position , remind unprofessional persons not to touch it .
4. Ask professional persons to manage all the monitor equipments, unprofessional staff are forbidden to operate the equipments.
5. Make monitor equipments power off at night if no person watch the equipment.
6. Clean the monitor equipments regularly keep maintain it well

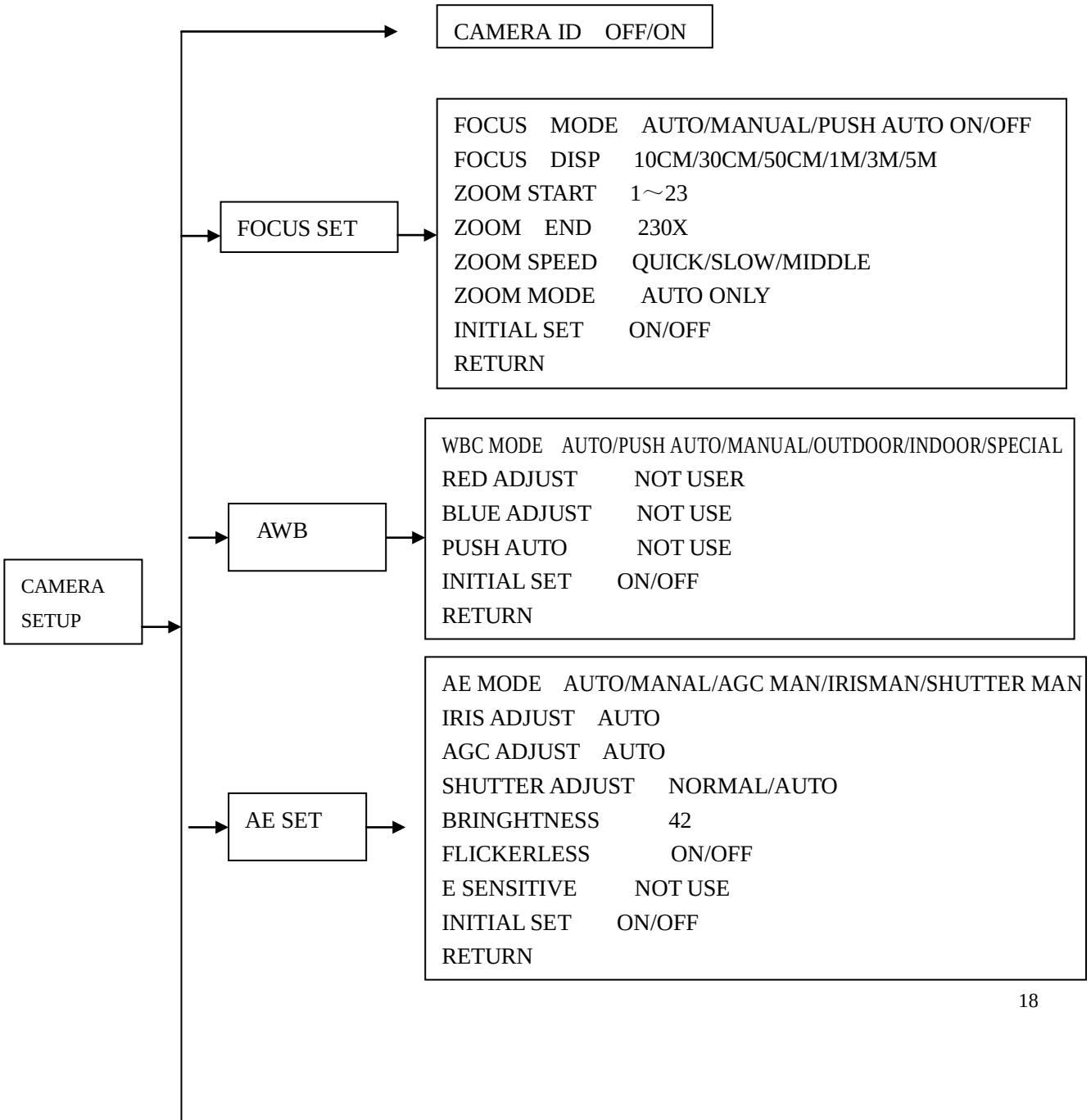
.Annex I：Sony Camera Menu

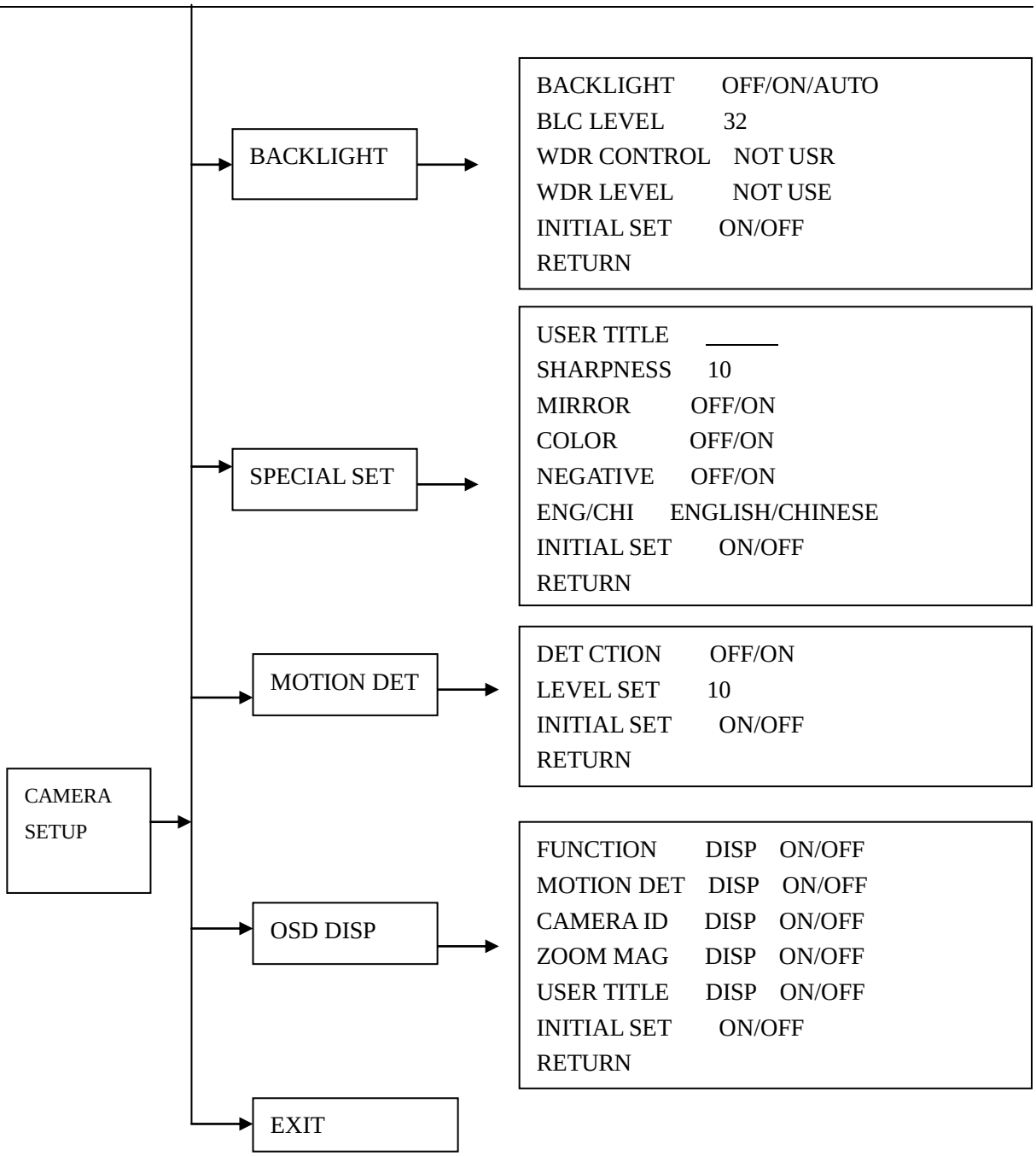


AnnexII：CNB Camera Menu

CAMERA SETUP ：	1	BACKLIGHT OFF/ON
	2	SLOW SHUTTER FLD2-128/OFF
	3	DAY/NIGHT OFF/ON /AUTO
	4	WB/CONTROL PUSH/AUTO
	5	SHUTTER AUTO
	6	CAMERA ID 000—255
	7	ZOOM START x 001
	8	ZOOM STOP x 220
	9	BRIGHTNESS 0—48
	10	SHARPNESS 0—15
	11	FOCUS PUSH/AUTO
	12	INIT SET ON/OFF

Annex III：LG Camera Menu





Remark : LG zoom module , use the keyboard to enter to the menu , the “FOCUS+”and“FOCUS- can change the parameter , “ZOOM+”and “ZOOM-” can change the cursor position .