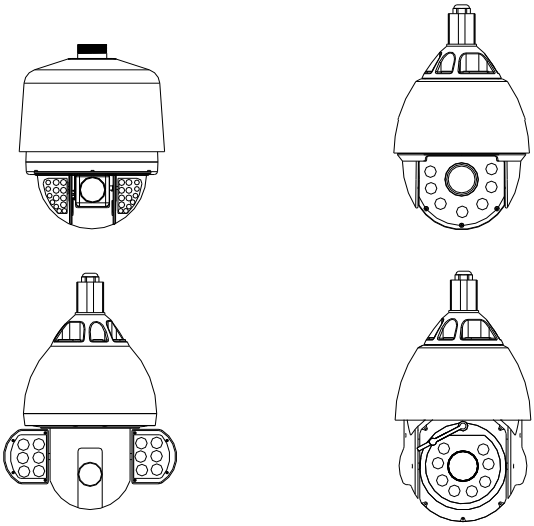
IR Intelligent Integrative Camera

Installation and User's manual

English

V3.01



Please read the manual carefully before installing and using the unit.

Catalogue

Welcome

Thank you for purchasing IR intelligent integration camera.

This manual is used as a reference for operating and programming the unit. You can find relevant information of functions and commands, as well as detailed menu tree and fast operating instructions in this manual. The section of installation provides the needed information for setting and installing the unit. Before installing and using the unit, please well understand the information in this manual.

I Important Safeguards

This manual is the basic instructions about IR intelligent integrative camera. This manual consists of important information of security and warning, function specification, performance characteristics and parameters, installation steps, general faults and the solution to get out of them, maintenance and others need to know when using the IR intelligent integrative camera.

If you first use the IR intelligent integrative camera or ever used the similar products, you had better read this manual before using this unit.

If possible, please start reading from the first page in sequence. If you just hope to see the needed parts, you also can select them from catalogue. Please refer page 29 to get the function list of the unit. This unit uses special preset points to realize some function operation.

★ **Careful Transportation**

During the course of transportation and storage, the product should be avoided from incorrect operations such as heavy pressing, strong vibration, soaking etc, which may cause damage to the unit. This unit must adopt parts packing transportation regardless of delivery or return to factory maintenance. The damage which caused by assemble packing transportation is not covered by the warranty.

★ **Careful installation**

During the course of installation, the product should be handled properly, and should be avoided from incorrect operations such as squeeze the structure parts, heavy press, strong vibration etc, which may cause mechanical problem and reflect the overall performance of the unit. The dome cover of the unit which belongs to advanced optical products should be avoided from incorrect operations such as directly touch by hand which may scratch the cover and affect image quality. Please follow all electrical standards for safety when it's being connected and adopt the particular power supply which is provided with the unit. Control signal and video signal should be kept enough distance from high voltage equipments and cables when they are in transmission, and necessary steps should be taken to prevent lightning damage or power surge. Don't turn on power before finish installation.

★ **Don't dismantle**

Don't dismantle the unit, there are no parts inside the unit which can be repaired by the users themselves. When mechanical problems arise, do not be in a haste to do any repairing, please refer to the User's Manual to find the trouble. If causes can not be located, please refer servicing to qualified professionals. All servicing must be done by authorized personnel.

★ **Set in place far from electric and magnetic fields**

If the unit is set near EMI source such as television, wireless transmitter, electromagnetic device, motors, transformers, speakers etc which may create electromagnetic field, the electromagnetic field will influence images. Please keep sufficient distance.

★ **Don't aim the camera at light objects**

No matter the unit is running or not, the camera should never be aimed at the sun or object with extremely bright light, and never be aimed at or monitor immobile light object for a long time. Otherwise, the camera's CCD might be permanently damaged.

★ **Careful maintenance**

The camera should be carefully used and avoided form impact or vibration, otherwise, it will be damaged. Don't use strong or corrosive detergent to clean dome camera's body. You should clean it with dry cloth. When the dirt is not easy cleared, you can wipe it by neutral detergent. If the camera lens is dirty, please wipe it by the special paper.

Please use this product in the required working environment:

Working Environment	IR intelligent dome camera
Environmental Temperature	-35~40 ℃
Environmental Humidity	<95%
Atmospheric Pressure	86~106KPa
Power Supply	AC24V/2.5 A

NOTE: Don't install the indoor unit outside. Please be sure the outdoor installation meets waterproof demand.

II Installation Guide

2.1 Preparation for Installation

1. Basic demand

Before installing and using this unit, please read the following warning information:

1) Installation and maintenance should be carried out by professional personnel as per relative regulations. All electrical work must obey the latest electrical regulations, fire regulations and relevant regulations.. Check whether the accessories of the unit are complete according to packing list and confirm whether the place and method of installation is in accord with required, if not , please contact your supplier. Please use this product in required environment.
2) Indoor IR intelligent integrative camera designs only for indoor uses, it can't be installed exposed to rain or in very humid place.
3) After re-installation or repair, you need to measure the resistance between the circuit and shell to check whether the insulation is good, and ensure there is no short-circuit between the circuit and shell.
4) Confirm there is enough place to contain the product and its structure components. Confirm the ceiling, wall and bracket for installation can take the total weight of the product and its structure components, and materials used to support the weight can sustain four times the weight of the product.

2. Cable preparation

1) Select cables according to transmission distance: the minimum specification requirements of vision coaxial-cable is as below:
    - 75Ω impedance;
    - Copper wire;
    - 95% braided copper mesh shielding.

Domestic Model	International Model	Maximum distance (meters /feet)
RG59/U	RG59/U	229m(750ft)
5C-2V	RG6/U	305m(1000ft)
7C-2V	RG11/U	457m(1500ft)

The same type of video cables may be different depending on manufacturer. The data shown in above table is the transmission distance of general vision cable.

2) The following data is recommended maximum distance for application of 24VAC or 24VDC, the distance is calculated from 10% voltage drop. (For AC or DC electric driving equipment, the maximum allowable voltage drop is 10 %.)

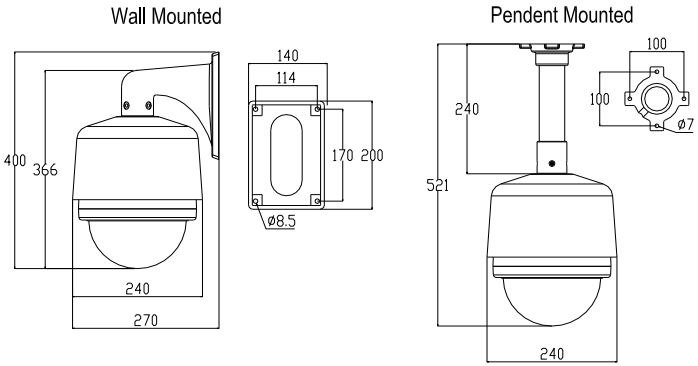
Cable diameter	0.5mm² (20AWG)	1mm² (18AWG)	1.5mm² (16AWG)	2.5mm² (14AWG)
Power 23W	38m(123ft)	60m(196ft)	95m(311ft)	151m(495ft)
Power 72W	12m(39ft)	19m(62ft)	30m(98ft)	48m(156ft)

3. Toggle switch setting

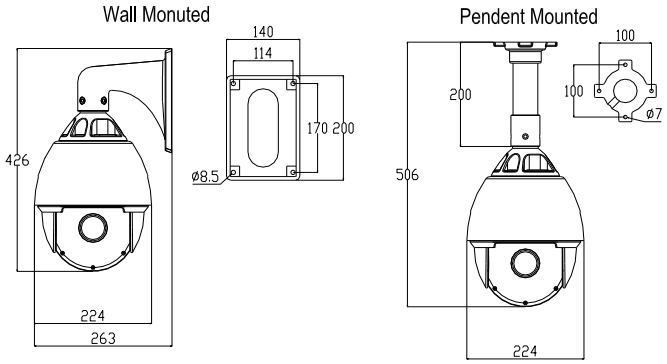
Set the toggle switch according to the control protocol, baud rate and address. (Refer to the third chapter<Description of Functional >)

2.2 Installation

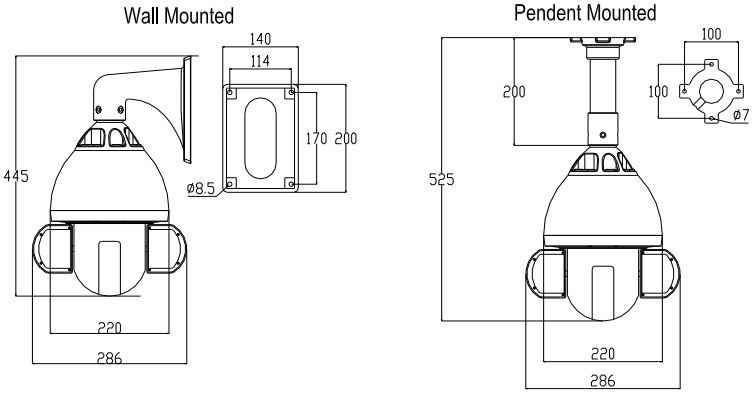
A series of IR intelligent high-speed dome camera dimension figure



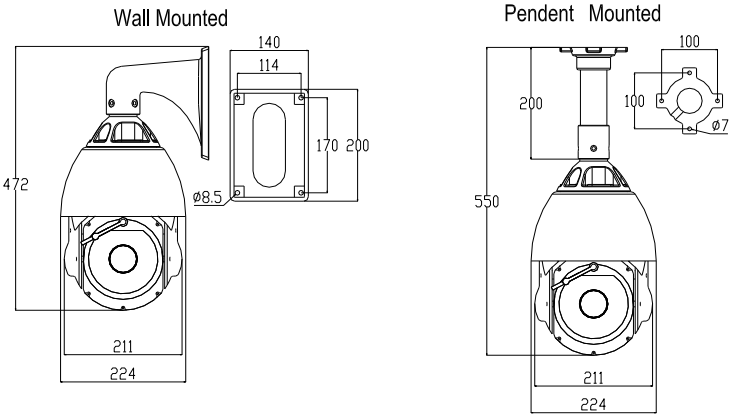
B series of IR intelligent high-speed dome camera dimension figure



C series of IR intelligent high-speed dome camera dimension figure



E series of IR intelligent high-speed dome camera dimension figure



IR intelligent high-speed dome camera is designed for wall mounted and pendent mounted installation

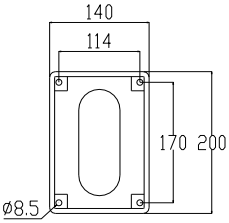
Conditions of wall mounted installation:

Wall mounted unit can be used in the rigid wall structure of indoor and outdoor.

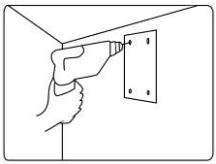
1) The wall thickness should be enough to install setscrews.
2) The wall can withstand at least 4 times the weight of the unit.

Punch holes for wall mounted bracket

Take the wall mounted bracket from the packing box, and use the open holes at the bottom of bracket as template and draw punch positions on the wall. (As shown in the following figure)



Punch holes and drive in four M8 setscrews. (As shown in the following figure)



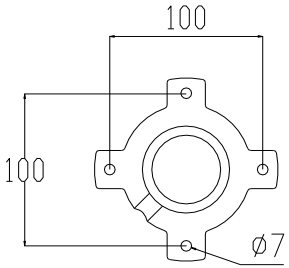
Conditions of pendent mounted installation:

Pendent mounted unit can be used indoor in the rigid wall structure.

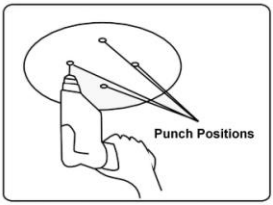
1) The thickness of ceiling should be enough to install setscrews.
2) The ceiling can withstand at least 4 times the weight of the unit.

Punch holes for pendent mounted bracket

Take the pendent mounted bracket from the packing box, and use open holes at the bottom of bracket as template and draw punch positions on the ceiling. (As shown in the following figure)

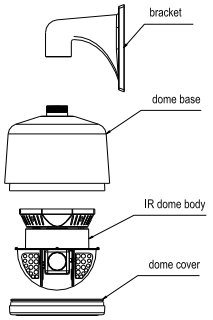


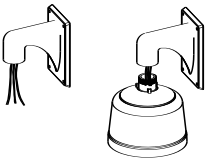
Punch holes in punch positions and drive in four M6 setscrews. (As shown in the following figure)



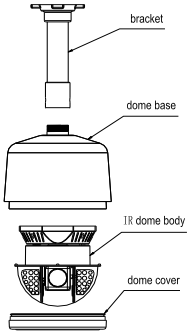
A series of IR intelligent high-speed dome camera installation

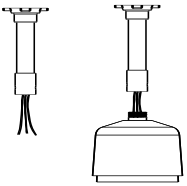
A serial wall mounted structure





A serial pendent mounted structure





Installation steps of wall mounted unit:

1) Take dome base from the packing box. Pull the wire and cables out through the bracket, and than aim at four open holes and fix the bracket firmly to the pre-installed setscrews with four M8 nuts. (As shown on the left)
2) Install the dome base onto the bracket.
3) Please refer the instruction to connect the power supply, video and controlling cables.
4) Take out IR dome body from the packing box. Setup communication protocol, baud rate and address through SW1 and SW2 at the bottom of the IR dome body. When install the IR dome body, IR dome body's socket need to correspond with the dome base's socket. Hold the camera with both hands, aim the IR dome body's clip at the dome base's bayonet (Note the corresponding red marks), put the clip into bayonet slowly, and then press the top of clip with a little force, you can confirm the installation is set at positions after heard two crisp voice of a combined bump.

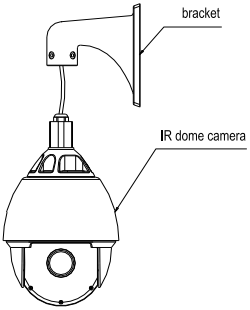
   Note: Confirm the IR dome body was completely stuck, or else the IR dome body may cover off or the dome cover may be fretted. Pull down the IR dome body lightly to check whether the IR dome body is completely stuck.
5) Install demo cover onto demo base and fix them.

Installation steps of pendent mounted unit:

1) Take dome base from the packing box. Pull the wire and cables out through the bracket, and than aim at four open holes and fix the bracket firmly to the pre-installed setscrews with four M6 nuts .(As shown on the left)
2) Refer to the installation steps of wall mounted unit.

B series of IR intelligent high-speed dome camera installation

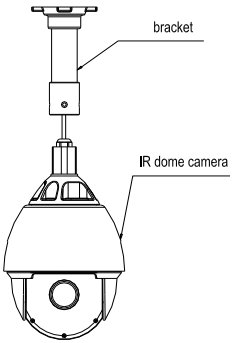
B serial wall mounted structure



Installation steps of wall mounted unit:

1) Take IR dome camera from packing box, set up dome camera protocol, baud rate and address. Pull the wire and cable out through the bracket, and then aim at four open holes on the bracket and fix the IR dome camera firmly to bracket with M6 socket head screws which are along with the unit.(As shown on the left)
2) Aim at four open holes on the wall and fix the bracket firmly to the pre-installed setscrews with four M8 nuts.
3) Please refer to the instruction to connect the power supply, video and controlling cables.

B serial pendent mounted structure

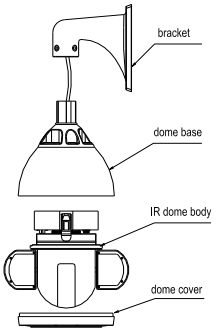


Installation steps of pendent mounted unit:

1) Take IR dome camera from the packing box, setup communication protocol, baud rate and address through SW1 and SW2 at the bottom of the IR dome camera. Pull the wire and cable out through the bracket, and then aim at four open holes on the bracket and fix the IR dome camera firmly to the bracket with M6 screws. (As shown on the left)
2) Aim at four open hole on the ceiling and fix the bracket firmly to the pre-installed setscrews with four M6 nuts
3) Please refer to the instruction to connect the power supply, video and controlling cables.

C series of IR intelligent high-speed dome camera installation

C serial wall mounted structure

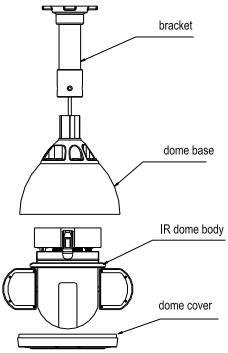


Installation steps of wall mounted unit:

1) Take dome base out from the packing box. Pull the wire and cable out through the bracket, fix the IR dome body firmly to the bracket with M6 socket head screws which are along with the unit.(As shown on the left)
2) Fix the bracket firmly onto the pre-installed setscrews on the wall with four M8 nuts.
3) Take out IR dome body from the packing box. Setup communication protocol, baud rate and address through SW1 and SW2 at the bottom of the dome body. When install the dome body, dome body's socket need to correspond with the dome base's socket. Hold the camera with both hands, aim the dome body's clip at the dome base's bayonet (Note the red marks correspond), put the clip into bayonet slowly, and then press the top of clip with a little force, you can confirm the installation is set at positions, after heard two crisp voice of a combined bump.

   Note: Confirm the dome body was completely stuck, or else the dome body may cover off or the dome cover may be fretted. Pull down the dome body lightly to check whether the dome body is completely stuck.
4) Install dome cover onto dome base and fix them

C serial pendent mounted structure

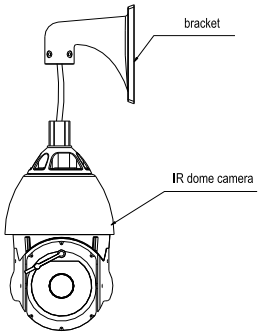


Installation steps of pendent mounted unit:

1) Take dome base out from the packing box. Pull the wire and cable out through the bracket, and fix the IR dome base firmly to the bracket with M6 screws. (As shown on the left)
2) Aim at four open holes on the ceiling and fix the bracket firmly to the pre-installed setscrews on the ceiling with four M6 nuts.
3) Refer to the installation steps of wall mounted unit.

E series of IR intelligent high-speed dome camera installation

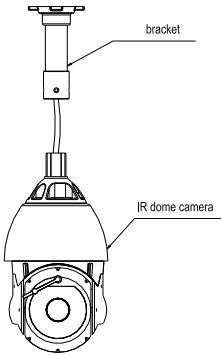
E serial wall mounted structure



Installation steps of wall mounted unit:

1) Take IR dome body from the packing box. Set up communication protocol, baud rate and address. Pull the wire and cable out through the bracket, and then aim at four open holes on the bracket and fix the IR dome camera firmly to bracket with M6 socket head screws along with the unit.(As shown on the left)
2) Aim at four open holes on the wall and fix the bracket firmly to the pre-installed setscrews with four M8 nuts.
3) Please refer to the instruction to connect the power supply, video and controlling cables.

E serial pendent mounted structure



Installation steps of pendent mounted unit:

1) Take out IR dome body from the packing box. Setup communication protocol, baud rate and address through SW1 and SW2 at the bottom of the IR dome body. Pull the wire and cable out through the bracket, and then aim at four installed holes on the ceiling and fix the IR dome camera firmly to bracket with M6 screws (As shown on the left)
2) Aim at four installing hole on the ceiling and fix the bracket firmly to the pre-installed setscrews with four M6 nuts.
3) Please refer to the instruction to connect the power supply, video and controlling cables.

Note: The pendent mounted bracket can not be used outside. Because of this specialized operation condition, please ensure that this dome camera meet the waterproof demand.

1) The suspender which is used with the pendent mounted bracket must meet waterproof demand, otherwise the customer will be responsible for the water fault.
2) It's forbidden to pull the leading-out wire of the unit out through the Flange side hole of the pendent mounted bracket.
3) Make sure the sealing ring and Flange sunken hole of pendent mounted bracket are tightly combined and sealed from water.
4) Put silica gel around Flange of pendent mounted bracket to seal from water.
5) Put silica gel around the connector of pendent sleeve and upper shield to seal from water.
6) All exposed screw holes of pendent mounted bracket must be played silica gel to seal from water.

III Description of Functions

IR intelligent integrative Camera is equipped with high performance DSP camera with zooming lens, higher efficiency IR lamps, built-in PTZ and digital decoder, which represents the future trend of high technology monitoring products. The unit is adopts full-digital control, flexible programming and exquisitely simple transmission system design. The unit is capable of rapid positioning and consecutively tracing and scanning, which realizes the real sense of all-directional and no blind spots monitoring. The unit support PELCO - D, PELCO - P, TA01 and other communication protocol, makes operation more flexible and simple.

The series of IR intelligent integration camera can be applied in every walk of life to monitor moving objects in larger areas ,such as monitoring banks, airports, transportation, state government agencies, power, prisons, hotels, commercial buildings, factories, schools, museums etc.

3.1 Performance Characteristic

1. Functions Introduce

★ Adopted full-functional high-performance DSP design, performance stable and reliable

★ 3D positioning function, realize screen coordinate positioning and partial enlarges through software

★ Minimum hand-controlling speed of stable operation is 0.01 ° / S, Maximum patrolling speed of precise positioning is 350 °/S,

★ Reserved network module interfaces can be loaded to network-intelligent camera

★ Support and automatic identification PELCO-D, PELCO-P, TA01 and other communication protocols

★ No internally saved data lose when power off; In-build module contains surge immunity protection.

★ 204 preset positions for free storage, precise positioning, and have preset screen freeze function

★ Programmable automatic patrolling tracks, automatic sweep function and guarding function

★ Supports remote fault diagnosis, system upgrade , reset, and address setting function

★ Automatically identify different camera modules , communication protocol and baud rate

★ Optional Multi-language function, and also achieve date, temperature, angle and compass display

★ Optional timing function

2. Integrated high-speed PTZ

★ Integrated design , compact structure, high reliability

★ Precise motor drive, infinite variable speed, steady operation, no jitter, sensitive control.

★ Achieve automatically flip 180º and consecutive monitoring vertically.

★ Low power consumption, calorific value is only half of the similar manufacturer’s products.

3. Built-in HD integrative camera

★ Auto iris, auto backlighting compensation

★ Auto/manual white balance

★ Auto / manual focus

★ Automatic brightness control

★ HD integrative camera

★ Multiple zoom integrative camera can be chosen

4. 24-hour outdoor design

★ Built-in heaters, sensors intelligent control

★ Built-in radiator fan, which makes the unit can work at high temperature ambient condition 60 ℃

★ The cover is constructed with all-alloy, which ensures strong and durable

★ Built-in multilevel 3000V lightning protection, surge protection and surges protection

3.2 Function declaration

This section describes the principle of main functions' implementation, not involve specific method of operation, different platforms have different operation methods, generally subject to operation manual of manufacturers , there may be some special demand and operation methods in some cases, please contact with the dealers to get necessary information.

★ **Manual target tracking**

Users can control the camera to trace the moving object or change the monitoring area by moving the joystick on the keyboard up, down, left and right . What's more, the angle of view or the size of the image of the object can be changed by adjusting the focal length. In the default Auto-focus, Auto-Iris state, the lens can automatically quickly adjust to get clear image according to the change of the object.

★ **Auto flip**

In the process of operating the joystick to trace and monitor, if the user move the lens to the bottom (vertical) then continues pressing the joystick, the lens will automatically flip 180º horizontally, then the user can still control it to move upwards till 90°, which enables the user to directly observe the situation on the back side, thus fore-and-aft 180° consecutive monitoring can be realized.

★ **Set and call Preset position**

The preset position function works in this way: The IR Intelligent Integrative Camera stores the data of PTZ horizontal angle, tilt angle and lens focal-length in the current state. The user can quickly and conveniently storage and call the preset position by the keyboard and other control equipment, and then move the PTZ and camera module to the corresponding position.

★ **Focal length / speed automatic matching techniques**

When the focus is long and in the mode of manual adjustment, due to the high sensitivity of the IR Intelligent Integrative Camera, even the slightest movement of the joystick would make the image move quickly, and cause image losses. Based on human design, the IR Intelligent Integrative Camera can automatically adjust the horizontal and vertical moving speed according to the current focal-length, which makes the manual target-tracing operation much easier.

★ **Auto-sweep function**

The auto-sweep function is a built-in function of the IR Intelligent Integrative Camera, which can pre-set Left/Right limiting positions. The user can run the left/right scan directly through an external command, and then the dome camera will automatically run horizontally between the left limiting position and the right limiting position at the preset speed.

★ **3D positioning function**

In the effective zoom range of the unit, users can directly enlarge and narrow all area of screen view and put any point in the view moved to center of the field.

★ **Pattern (pattern scan)**

The IR Intelligent integrative Camera can continuously record running track for 600 seconds or 500 instructions, after start pattern, the unit can automatically cyclic scanning and monitoring according to pre-recorded trajectory.

★ **Standby mode**

Users can preset idle time and action mode of IR Intelligent Integrative Camera (call presets, auto-sweep function, automatic patrolling, pattern, memory recalling function once power off). if users have no action within the setting time, the unit will automatically start up preset action.

★ **Menu function**

The menu can satisfy different customers' requirement by support Chinese and English full screen operation. The menu can be made to other langue according to customer’s demand.

★ **Timing action function**

Users can set different action in different time, and then can realize seven days a week, eight periods a day automatic setting function.

★ **Azimuth setting function**

Users can set up north direction to realize the precise display of rotation direction. IR intelligent integrative camera also supports region indication. When the unit is turned to a preset area, the screen can show the title of the preset area.

★ **Mask function**

For the privacy and safety area, some black lumps can be set to mask zones. The size and position of the black lumps can be adjustable. Altogether 24 privacy zones can be set in the unit. (This function needs support of the camera)

★ **Set address**

This IR Intelligent Integrative Camera support 255 addresses, the unit only responds to the command of its own address or broadcast address. The address can be set by toggle switch or soft address function of the menu.

★ **Camera control**

1) Zoom control

Users can adjust the zoom by controlling the keyboard to get panoramic view or close view.

2) Focus control

System default is automatic focus. While the lens moves, the camera module can automatically focus on the center of the object view to get clear image. In special conditions, users can manually adjust the focus to achieve desired image effect.

3) Auto iris control

The iris can automatically influence the change of ambient light and make quickly adjustment to output image of stable brightness.

4) Automatic backlight compensation

When the backlight compensation function is turned on, In extremely bright background, the camera module can compensate the brightness of the relatively dark objects, at the same time adjust the light of the bright background, avoiding that the whole image is too bright to watch due to the too high brightness of the background, while the object is too dark to be distinguished, so that clear image can be got. The system closed this function as the default.

5) Auto / manual white balance

According to the ambient light, automatically or manually adjust the light to reappear the real color.

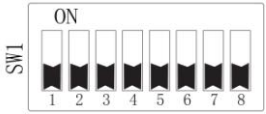
6) Color and black-and-white conversion function (only for cameras with color and black-and-white conversion function)

The camera with night vision function will automatically switch CCD illumination according to the ambient light in automatic color and black-and-white conversion mode. For example: During the day the light is enough, the camera can use general illumination to get brightly colored picture, while in night, the camera can automatically change low illumination to get clear object with black and white picture.

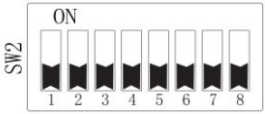
Users can set color and black-and-white conversion mode to manual by the keyboard, in this case, the camera can not automatically make corresponding conversion according to ambient light. Users can manually select color or black-and-white pictures shown.

★ **Set toggle switches**

Before installing the IR Intelligent Integrative Camera, please configure protocol, baud rate and address code. (The factory default automatic identification protocol & baud rate is address code 1)

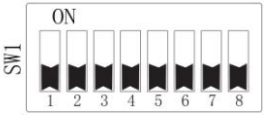


SW1 Protocol & baud rate toggle switch

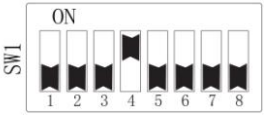


SW2 address code toggle switch

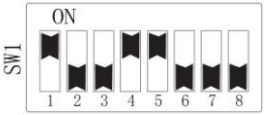
Part of the Data-chosen-switches protocol & baud rate:



Auto identification protocol & baud rate



PELCO-D&2400BPS



PELCO-P&9600BPS

1) Protocol setting

Protocol	SW1-1	SW1-2	SW1-3
Auto identification or PELCO-D	OFF	OFF	OFF
TA01	OFF	OFF	ON
PELCO-P	ON	OFF	OFF
GA（Industry agreement）	ON	OFF	ON
Reserves	……	……	……

2) Baud rate setting

Baud rate	SW1-4	SW1-5
Auto identification or 1200bps	OFF	OFF
2400bps	ON	OFF
4800bps	OFF	ON
9600bps	ON	ON

3) Address setting

SW2 toggle switch used to set address of the unit. Address sitting is used binary system, the eighth bit is the highest bit, and the first bit is the lowest bit. The broadcast address is No.0, which means if only the address of control port is No.0, the units which have suited protocol and baud rate can be controlled.

The following is the protocol address coding table of PELCO - D/TA01:

SW2 PELCO-D address code setting

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
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
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
61	ON	OFF	ON	ON	ON	ON	OFF	OFF
62	OFF	ON	ON	ON	ON	ON	OFF	OFF
63	ON	ON	ON	ON	ON	ON	OFF	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
75	ON	ON	OFF	ON	OFF	OFF	ON	OFF
76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
79	ON	ON	ON	ON	OFF	OFF	ON	OFF
80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
87	ON	ON	ON	OFF	ON	OFF	ON	OFF
88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
91	ON	ON	OFF	ON	ON	OFF	ON	OFF
92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
93	ON	OFF	ON	ON	ON	OFF	ON	OFF
94	OFF	ON	ON	ON	ON	OFF	ON	OFF
95	ON	ON	ON	ON	ON	OFF	ON	OFF
96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	ON	OFF	OFF	ON	ON	OFF
104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON	OFF
108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
109	ON	OFF	ON	ON	OFF	ON	ON	OFF
110	OFF	ON	ON	ON	OFF	ON	ON	OFF
111	ON	ON	ON	ON	OFF	ON	ON	OFF
112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
115	ON	ON	OFF	OFF	ON	ON	ON	OFF
116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
117	ON	OFF	ON	OFF	ON	ON	ON	OFF
118	OFF	ON	ON	OFF	ON	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON	OFF
120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
121	ON	OFF	OFF	ON	ON	ON	ON	OFF
122	OFF	ON	OFF	ON	ON	ON	ON	OFF
123	ON	ON	OFF	ON	ON	ON	ON	OFF
124	OFF	OFF	ON	ON	ON	ON	ON	OFF
125	ON	OFF	ON	ON	ON	ON	ON	OFF
126	OFF	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
130	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
131	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
132	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
133	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
134	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
135	ON	ON	ON	OFF	OFF	OFF	OFF	ON
136	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
137	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
138	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
139	ON	ON	OFF	ON	OFF	OFF	OFF	ON
140	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
141	ON	OFF	ON	ON	OFF	OFF	OFF	ON
142	OFF	ON	ON	ON	OFF	OFF	OFF	ON
143	ON	ON	ON	ON	OFF	OFF	OFF	ON
144	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
145	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
146	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
147	ON	ON	OFF	OFF	ON	OFF	OFF	ON
148	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
149	ON	OFF	ON	OFF	ON	OFF	OFF	ON
150	OFF	ON	ON	OFF	ON	OFF	OFF	ON
151	ON	ON	ON	OFF	ON	OFF	OFF	ON
152	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
154	OFF	ON	OFF	ON	ON	OFF	OFF	ON
155	ON	ON	OFF	ON	ON	OFF	OFF	ON
156	OFF	OFF	ON	ON	ON	OFF	OFF	ON
157	ON	OFF	ON	ON	ON	OFF	OFF	ON
158	OFF	ON	ON	ON	ON	OFF	OFF	ON
159	ON	ON	ON	ON	ON	OFF	OFF	ON
160	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
161	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
162	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
163	ON	ON	OFF	OFF	OFF	ON	OFF	ON
164	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
166	OFF	ON	ON	OFF	OFF	ON	OFF	ON
167	ON	ON	ON	OFF	OFF	ON	OFF	ON
168	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
169	ON	OFF	OFF	ON	OFF	ON	OFF	ON
170	OFF	ON	OFF	ON	OFF	ON	OFF	ON
171	ON	ON	OFF	ON	OFF	ON	OFF	ON
172	OFF	OFF	ON	ON	OFF	ON	OFF	ON
173	ON	OFF	ON	ON	OFF	ON	OFF	ON
174	OFF	ON	ON	ON	OFF	ON	OFF	ON
175	ON	ON	ON	ON	OFF	ON	OFF	ON
176	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
177	ON	OFF	OFF	OFF	ON	ON	OFF	ON
178	OFF	ON	OFF	OFF	ON	ON	OFF	ON
179	ON	ON	OFF	OFF	ON	ON	OFF	ON
180	OFF	OFF	ON	OFF	ON	ON	OFF	ON
181	ON	OFF	ON	OFF	ON	ON	OFF	ON
182	OFF	ON	ON	OFF	ON	ON	OFF	ON
183	ON	ON	ON	OFF	ON	ON	OFF	ON
184	OFF	OFF	OFF	ON	ON	ON	OFF	ON
185	ON	OFF	OFF	ON	ON	ON	OFF	ON
186	OFF	ON	OFF	ON	ON	ON	OFF	ON
187	ON	ON	OFF	ON	ON	ON	OFF	ON
188	OFF	OFF	ON	ON	ON	ON	OFF	ON
189	ON	OFF	ON	ON	ON	ON	OFF	ON
190	OFF	ON	ON	ON	ON	ON	OFF	ON
191	ON	ON	ON	ON	ON	ON	OFF	ON
192	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
193	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
194	OFF	ON	OFF	OFF	OFF	OFF	ON	ON
195	ON	ON	OFF	OFF	OFF	OFF	ON	ON
196	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
197	ON	OFF	ON	OFF	OFF	OFF	ON	ON
198	OFF	ON	ON	OFF	OFF	OFF	ON	ON
199	ON	ON	ON	OFF	OFF	OFF	ON	ON
200	OFF	OFF	OFF	ON	OFF	OFF	ON	ON
201	ON	OFF	OFF	ON	OFF	OFF	ON	ON
202	OFF	ON	OFF	ON	OFF	OFF	ON	ON
203	ON	ON	OFF	ON	OFF	OFF	ON	ON
204	OFF	OFF	ON	ON	OFF	OFF	ON	ON
205	ON	OFF	ON	ON	OFF	OFF	ON	ON
206	OFF	ON	ON	ON	OFF	OFF	ON	ON
207	ON	ON	ON	ON	OFF	OFF	ON	ON
208	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
209	ON	OFF	OFF	OFF	ON	OFF	ON	ON
210	OFF	ON	OFF	OFF	ON	OFF	ON	ON
211	ON	ON	OFF	OFF	ON	OFF	ON	ON
212	OFF	OFF	ON	OFF	ON	OFF	ON	ON
213	ON	OFF	ON	OFF	ON	OFF	ON	ON
214	OFF	ON	ON	OFF	ON	OFF	ON	ON
215	ON	ON	ON	OFF	ON	OFF	ON	ON
216	OFF	OFF	OFF	ON	ON	OFF	ON	ON
217	ON	OFF	OFF	ON	ON	OFF	ON	ON
218	OFF	ON	OFF	ON	ON	OFF	ON	ON
219	ON	ON	OFF	ON	ON	OFF	ON	ON
220	OFF	OFF	ON	ON	ON	OFF	ON	ON
221	ON	OFF	ON	ON	ON	OFF	ON	ON
222	OFF	ON	ON	ON	ON	OFF	ON	ON
223	ON	ON	ON	ON	ON	OFF	ON	ON
224	OFF	OFF	OFF	OFF	OFF	ON	ON	ON

SW2 PELCO-D address code setting (continued)

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
225	ON	OFF	OFF	OFF	OFF	ON	ON	ON
226	OFF	ON	OFF	OFF	OFF	ON	ON	ON
227	ON	ON	OFF	OFF	OFF	ON	ON	ON
228	OFF	OFF	ON	OFF	OFF	ON	ON	ON
229	ON	OFF	ON	OFF	OFF	ON	ON	ON
230	OFF	ON	ON	OFF	OFF	ON	ON	ON
231	ON	ON	ON	OFF	OFF	ON	ON	ON
232	OFF	OFF	OFF	ON	OFF	ON	ON	ON
233	ON	OFF	OFF	ON	OFF	ON	ON	ON
234	OFF	ON	OFF	ON	OFF	ON	ON	ON
235	ON	ON	OFF	ON	OFF	ON	ON	ON
236	OFF	OFF	ON	ON	OFF	ON	ON	ON
237	ON	OFF	ON	ON	OFF	ON	ON	ON
238	OFF	ON	ON	ON	OFF	ON	ON	ON
239	ON	ON	ON	ON	OFF	ON	ON	ON
240	OFF	OFF	OFF	OFF	ON	ON	ON	ON
241	ON	OFF	OFF	OFF	ON	ON	ON	ON
242	OFF	ON	OFF	OFF	ON	ON	ON	ON
243	ON	ON	OFF	OFF	ON	ON	ON	ON
244	OFF	OFF	ON	OFF	ON	ON	ON	ON
245	ON	OFF	ON	OFF	ON	ON	ON	ON
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

The following is PELCO-P protocol address coding table:

SW2 PELCO-P address code setting

Address code	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
5	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
7	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
8	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
9	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
11	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
12	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
13	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
14	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
15	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
16	ON	ON	ON	ON	OFF	OFF	OFF	OFF
17	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
19	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
20	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
21	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
22	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
23	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
24	ON	ON	ON	OFF	ON	OFF	OFF	OFF
25	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
26	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
27	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
28	ON	ON	OFF	ON	ON	OFF	OFF	OFF
29	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
30	ON	OFF	ON	ON	ON	OFF	OFF	OFF
31	OFF	ON	ON	ON	ON	OFF	OFF	OFF
32	ON	ON	ON	ON	ON	OFF	OFF	OFF

IV Technical parameter

Parameter Index

IR Illumination Distance	Options :30 meters,60 meters,80 meters,120 meters,150 meters etc.
IR lamps control	automatically switch far/near IR lamp according to focal length at night
Power Supply	AC24V±10%
Power Consumption	Maximum: 60W
Working Temperature	-30℃～55℃
Manual Rotary Speed	Horizontal:0.05～240º/s; Vertical:0.03º～160º/s
Horizontal Rotary Range	Horizontal 0º～ 360º unlimited consecutive rotation
Vertical Rotary Range	Vertical -2º～ 92º With auto flip
Control Mode	RS485 bus-mastering, support full automatic identify protocol and baud rate
3D Positioning	Realize screen coordinate positioning and local enlarge by software
Auto Patrol	9 groups, the dwell time of preset points is adjustable
Auto Sweep	No less than 20 groups, patrol speed and dwell time can be adjusted
Reduce Speed	Support intelligent focal length / speed automatic matching technique
Remote Help	Remote fault diagnosis, system upgrade, reset function
Soft Address	Set address without dismantling the unit according to demand
Pattern	4 paths, record no more than 500 instructions or 10 minutes
Power On Action	Support 18 kinds of power on action
Idle Action	Support 18 kinds of idle action
Camera	Compatible with most integrated camera (customizable specific protocol)
Video Freeze	Realize video freeze during preset points calling (need camera support)
Menu	Chinese & English ,NTSC/PAL automatic identification output(optional)
Timing	Timing automatically start special function(optional)
Lightning Protection	Voltage of power interface is 4kV,voltage of communication and video interface is 3KV, 3-level surge protection
Shell	Aluminum case, Acid rain-proof ,High hardness
Protection Grade	Meet IP66 FCC CE and pass the Chinese MPS test
Installation	Kinds of installation type, Select one according to application

★ The above specifications are subject to change without prior notice

V Functional Instructions

5.1 Common function quick instruction list

The unit has 204 preset points, preset point number 1-48 and 100-255 for effective preset points, and 49-99 for common function quick command, you can quickly use the common function by calling or setting these particular preset point numbers.

number	Call preset point	Set preset point	Remarks
50	Start the 1st pattern	Record the 1st group pattern	Pattern scan function
51	Start 1st preset point patrol	Set dwell time of the 1st patrol >>	1-16 preset point patrol
52	Start 2nd preset point patrol	Set dwell time of the 2nd patrol >>*	17-32 preset point patrol
53	Start 3rd preset point patrol	Set dwell time of the 3rd patrol >>	33-48 preset point patrol
60	Open Camera menu		Need camera support
61	Close Screen display	Open Screen display	Screen character display
62	Close Reduce speed	Open Reduce Speed	
63	Start Horizontal auto- scan	Open/close auto- flip	
65	Horizontal auto-scan mode>>*		
66	Horizontal sweep mode>>*	Set speed of the sweep >>>**	
▲70	Close Mask	Open Mask	
71	Delete all preset points		
72	**Close Expert mode**	**Open Expert mode**	**Default is Close mode**
▲73	Close Alarm function	Open Alarm function	
79	Restore factory settings		
80	Standby time setting>>*	Set Standby action >>*	
81	Power up action setting >>*		
87	Set Vertical zero position >>*		
▲89	Reboot system		
▲91	Normal installation	Inverted installation	
95	Open menu		
96	Stop scanning		
97	Start pattern		Start 1st group pattern
98	Start auto-patrol		Start 1st group patrol
99	Start auto-scan		Start 1st group scan

*: >> express that this command needs second-level calling (setting) preset point , namely, it needs to call (set) the two preset point continuously .

**: >>> express that this command need third-level calling(setting) preset point, namely, it needs to call (set) three preset point continuously.

▲: Only can be used when express mode is open.

e.g., " call (set) 53 + call (set)3" means that you need to continuously call (set) preset No.53 and then call preset No.3 within 15 seconds when the unit is in readiness, the followings are similar.

★ **Time corresponding preset point table:**

Preset point of Time	1	2	3	4	5	6	7
Time	1sec	3 sec	6 sec	15 sec	30 sec	1 min	5 min
Preset point of Time	8	9	10	11	12	13	14
Time	15 min	30 min	1 hours	8 hours	12 hours	24 hours	reserve

★ **Action corresponding preset point table:**

Preset point of Action	Action
1	No action
2～9	Preset point number: 1-8
10～11	Preset point patrol : 1st and 2nd
12～13	Horizontal sweep: 1st and 2nd groups
14～15	Auto-scan: 1st and 5th groups
16～17	Pattern: 1st and 2nd groups
18	Auto tracking

★ **Pattern scan**

1) **Record pattern:** Set preset point No.50 to enter into record mode, and then operate the unit left, right, up, down, zoom and calling preset point. When the record is complete, press <IRIS OPEN**>** to exit.
2) **Start pattern:** To start scanning the 1st pattern, call preset point No.50(or No.97)

★ **Preset point patrol**

1) **Set preset point:** Set the corresponding preset point.
2) **Set dwell time :** Set preset point number of patrol + preset point number of time ,e.g. set time of the 1st preset point patrol to 15 seconds, the operator is : set preset point No.51+No.4
3) **Start patrol:** Call the corresponding preset point number of patrol to start preset point patrol, e.g. call preset point No.51 to start the 1st preset point patrol between No.1 and No.16.

★ **Camera menu**

Call preset point No.60 to open camera menu (this function needs camera to support), and then select menu item by zooming in (TELE) and zooming out (WIDE), modify selected value by focusing far (FAR) and focusing near (NEAR), modify or open submenu by opening lens aperture (OPEN). (The above operations are the common camera operations, the specific operations should be referred to the present using camera).

★ **Camera Display**

1) **Close display:** Call preset point No.61 to close all characters presented on screen.

2) **Open display:** Set presets point No.61 to display often-used items on screen.

Often-used items include:

- Display angles and compass function (need OSD module support)
- Zoom value display
- Preset position indicate

★ **Horizontal auto-scan**

1) Start auto-scan: Call preset point No.65+ call scan number

Scan number	1	2	3	4	5	clockwise
Speed level	1 level	2 level	3 level	4 level	5 level	
Scan number	6	7	8	9	10	
Speed level	6 level	7 level	8 level	9 level	10 level	
Scan number	11	12	13	14	15	anticlockwise
Speed level	1 level	2 level	3 level	4 level	5 level	
Scan number	16	17	18	19	20	
Speed level	6 level	7 level	8 level	9 level	10 level	

E.g. Call preset point No.66 and preset point No.1 to start the first group of auto-scan

Note: The more level, the higher speed

★ **Horizontal sweep**

1) The method to set speed of sweep is :Set preset point No.66 and set sweep preset point number (table 1) and set sweep preset point speed number (table 2)

Table 1:

Sweep preset point number	1	2	3	4	5	**A→B direction**
Preset point	11～21	12～22	13～23	14～24	15～25	
Sweep preset point number	6	7	8	9	10	
Preset point	16～26	17～27	18～28	19～29	20～30	
Sweep preset point number	11	12	13	14	15	**B→A direction**
Preset point	21～11	22～12	23～13	24～14	25～15	
Sweep preset point number	16	17	18	19	20	
Preset point	26～16	27～17	28～18	29～19	30～20	

Table 2:

Sweep preset point speed number	1	2	3
Sweep speed	low	medium	high

E.g. Set preset point No.66 and set sweep preset point No.1 and set sweep preset point speed No.3 to set the first horizontal sweep to high speed mode.

★ **Expert mode setting**

In order to avoid users operate special functions of preset point, these special functions have been blocked in factory default setting .if users need to use these functions, please open Expert mode. The method is:

1) Open Expert mode: Set preset point No.72 to open Expert mode.
2) Close Expert mode: Call preset point No.72 to close Expert mode.

Open and close Expert model only need one time to take effect immediately. The state of expert model will be saved even power off, before you change Expert mode next time, you don't need to open Expert mode every time when you operate the special functions.

The items with▲in common commands table only can be operated when expert mode is open. if you need to restart the unit and the expert mode is already open, please directly call preset point N0.89 to restart the unit, if the expert mode is close, set preset point No.72 to open expert mode firstly and then call preset point No.89 to restart the unit.

★ **Delete all preset positions**

You can quickly delete all preset points with one-key. The method is: Call preset points No.71 to delete all preset points.

★ **Restore factory settings**

The restore factory settings function can restore all operations to factory default settings. The method is: Call preset point No.79 to restore all settings to factory default settings.

★ **Vertical zero position setting(system default is low position)**

This function can adjust zero position in vertical direction. The method is: Call preset point No.87 and then call the corresponding preset point number of vertical direction.

Vertical zero position in high position means the unit can monitor farther view under normally installation.

Preset points of vertical direction	1	2	3
zero position	High	Medium	Low

★ **Standby(standby or idle) action setting**

Set standby time: Set preset point No.80 and then set preset point number of time to set idle time (system default is 30 seconds).

Preset point number of time	1	2	3	4	5	6	7
Time	---	---	---	15 sec	30 sec	1 min	5 min
Preset point number	8	9	10	11	12	13	14
Time	15	30 min	1hour	8 hours	12 hours	24 hours	reserve

Set standby action: Set preset points No.80 and then set preset points of action to set idle action (system default is no action).

E.g. call preset point No.80 and then call preset point of action No.10 to set standby action to the 1st preset point patrol.

★ **Power up action (system default call the first presets).**

Set power up action: Set preset point No.81 and then set preset point of action to set the power up action.

E.g. set power up action to call preset point No.1. You can call preset point No.81 and then call preset point of action No.2 to call preset point No.1 after power up.

★ **Reboot the system**

The unit allows user to reboot the system remotely by a special command. The method is: call preset point No.89 to reboot the system.

★ **Automatic identification camera setting**

The method is: call preset point No.49 and then call preset point No.17, and then select automatic identification cameras mode.

★ **IR setting**

The method is: call preset point No.49 and then call preset point number N. Firstly call preset point No. 49 to enter into function selection mode, and then call corresponding preset point number N in the following table to start the corresponding function. It must be coherent when call these two preset point. If action between these two calls is not call preset point, this operation is invalid, you need to call preset point No.49 again to enter the function selection mode.

Preset points number N	Functional Description	Remark
1	Switch sensitivity mode of IR to high	The higher the IR sensitivity ,the easier to switch to IR black-and-white mode
2	Switch sensitivity mode of IR to medium *	
3	Switch sensitivity mode of IR to low	
7	Manually compulsorily open the IR lamp	Operation of IR lamp's switch
8	Manually compulsorily close the IR lamp	
9	Auto-control the IR lamp's switch *	
50	Auto-control the IR lamp's brightness*	Control Brightness of IR lamp
57	Manually set the IR lamp to low brightness	
59	Manually set the IR lamp to high brightness	

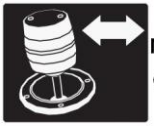
***: the function is system default.**

5.2 Menu operation guide

(The following menu for units with OSD)

Call preset point No.95 to open the menu

Move the joystick up and down to select menu items



Move the joystick left and right to modify the value of menu items

Press <IRIS OPEN> to enter submenu or to confirm the selected items

Press <IRIS CLOSE> to return to the previous menu or exit the menu

Menu item meaning:

☞ : Currently selected menu item

[Menu item] : The menu item has submenu

Menu item> : This menu item can operate after pressing IRIS OPEN button

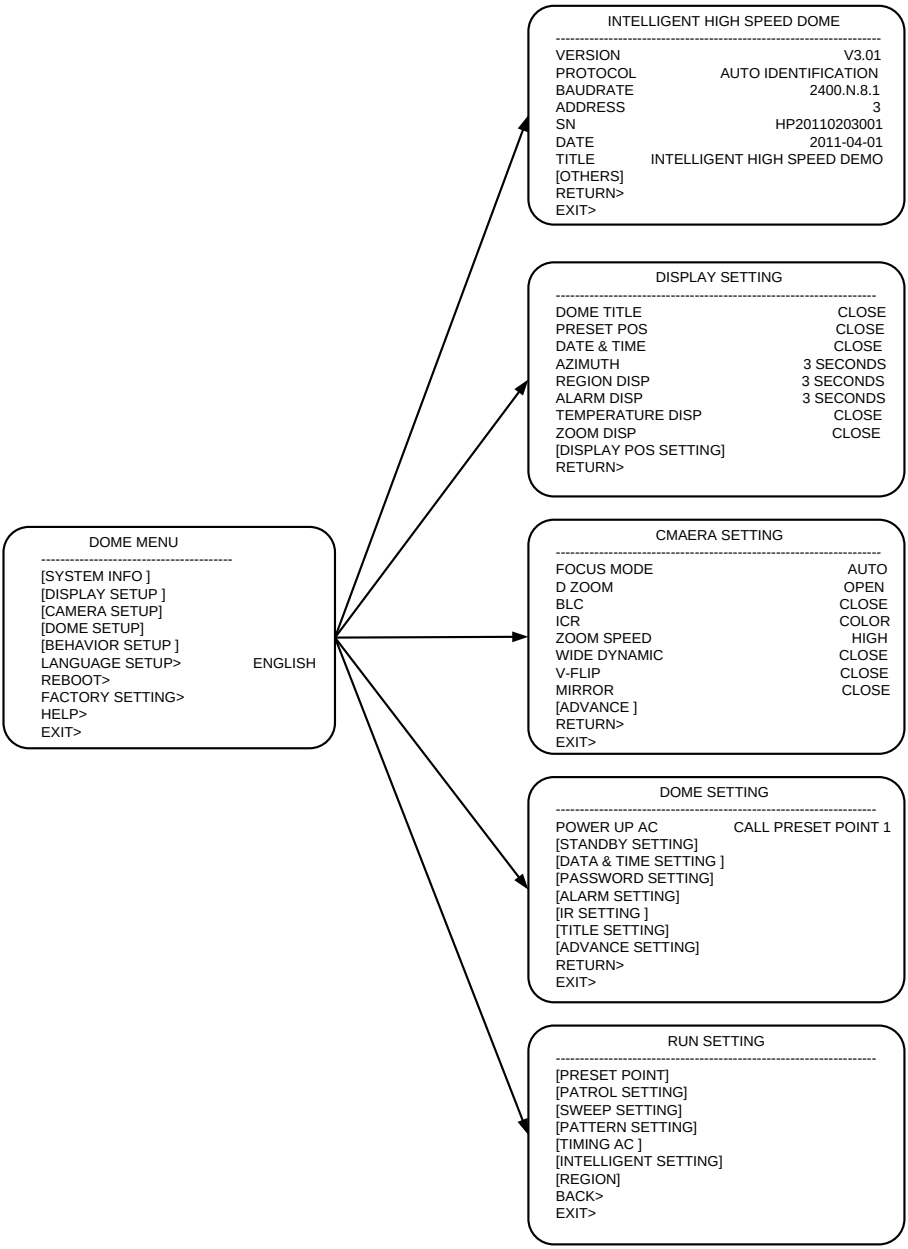
Menu item : This menu value can be modified by move the joystick to left and right

Back> : Return to the previous menu

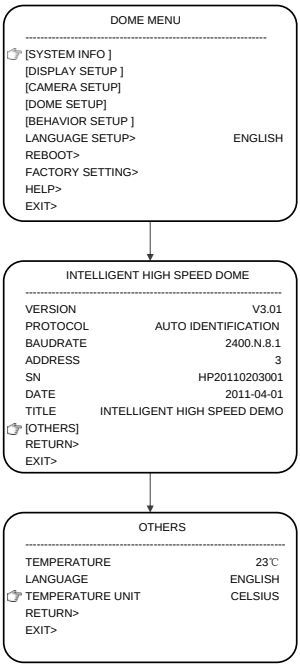
Exit> : Exit the menu

Access the main menu (call preset point No. 95)

You can call preset point No.95 to open the main menu on the monitor.


INTELLIGENT HIGH SPEED DOME
VERSION V3.01
PROTOCOL AUTO IDENTIFICATION
BAUDRATE 2400.N.8.1
ADDRESS 3
SN HP20110203001
DATE 2011-04-01
TITLE INTELLIGENT HIGH SPEED DEMO
[OTHERS]
RETURN>
EXIT>
DISPLAY SETTING
DOME TITLE CLOSE
PRESET POS CLOSE
DATE & TIME CLOSE
AZIMUTH 3 SECONDS
REGION DISP 3 SECONDS
ALARM DISP 3 SECONDS
TEMPERATURE DISP CLOSE
ZOOM DISP CLOSE
[DISPLAY POS SETTING]
RETURN>
DOME MENU
[SYSTEM INFO]
[DISPLAY SETUP]
[CAMERA SETUP]
[DOME SETUP]
[BEHAVIOR SETUP]
LANGUAGE SETUP> ENGLISH
REBOOT>
FACTORY SETTING>
HELP>
EXIT>
CMAERA SETTING
FOCUS MODE AUTO
D ZOOM OPEN
BLC CLOSE
ICR COLOR
ZOOM SPEED HIGH
WIDE DYNAMIC CLOSE
V-FLIP CLOSE
MIRROR CLOSE
[ADVANCE]
RETURN>
EXIT>
DOME SETTING
POWER UP AC CALL PRESET POINT 1
[STANDBY SETTING]
[DATA & TIME SETTING]
[PASSWORD SETTING]
[ALARM SETTING]
[IR SETTING]
[TITLE SETTING]
[ADVANCE SETTING]
RETURN>
EXIT>
RUN SETTING
[PRESET POINT]
[PATROL SETTING]
[SWEEP SETTING]
[PATTERN SETTING]
[TIMING AC]
[INTELLIGENT SETTING]
[REGION]
BACK>
EXIT>

System Information

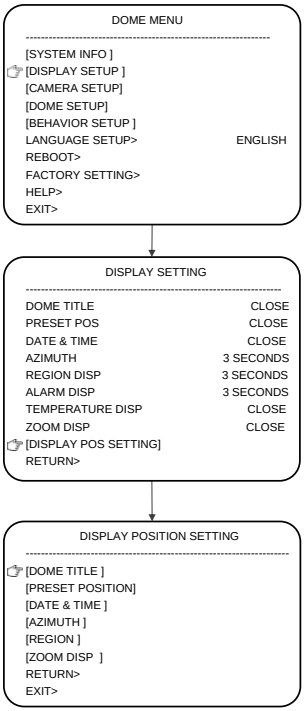


Users can check system information through the menu of the IR intelligent integration camera, system information includes: the version of the unit, protocol of the unit, communication speed, address of the unit, serial number of the unit, system date, title of the unit, temperature of the unit, language system, temperature unit etc.

Check system information as follows:

Move the cursor to "SYSTEM INFO", and press< IRIS OPEN> enter system information menu and check system information. The system support Fahrenheit and Celsius two temperature unit, and the default temperature unit is Celsius. The method to change the temperature unit is: move the cursor to "TEMPERATURE UNIT" and select unit by moving the joystick to left and right.

Display Setup



Display settings menu is used to set display mode of show items on the monitor. The following is usable items:

Dome Title	Indicate the name of dome camera
Preset Position	Indicate preset bits
Date &Time	Show current date and time
Azimuth	Show Horizontal and vertical angle
Region	Indicate region
Alarm Display	Show Alarm information
Temperature Display	Inner temperature of the unit
Zooms Display	Show Camera zooms

Setting options include:

Close	Close display item
Continuance	Continuous display after activated.
1 second	Show 1 second after activated
3 seconds	Show 3 seconds after activated
6 seconds	Show 6 seconds after activated
15 seconds	Show 15 seconds after activated

The method to set display state: Move cursor to the required position, select display state by moving joystick to left and right

Display items can be placed anywhere on the monitor. This function is used to set user-defined interface. The following positions of the display items can be adjusted:

Dome Title

Preset Position

Date & Time

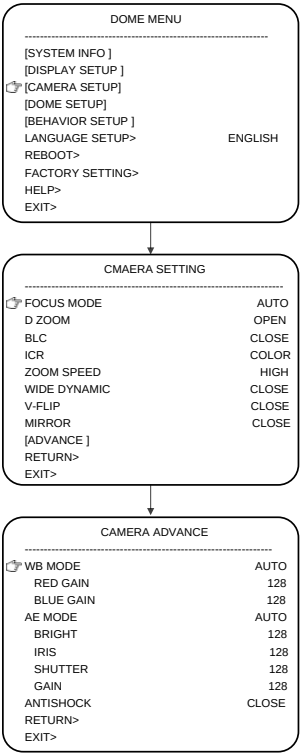
Azimuth

Region

Zoom Display

The method to adjust the position of display items: move the cursor to "DISPLAY SETUP", and press <IRIS OPEN> to enter the menu of display position setting, and then users can adjust to proper position by moving the joystick to left, right, up and down. (Note: different display items' positions can't overlap, otherwise, the characters on the screen will be covered), press <IRIS OPEN> after adjustment. Move the cursor to "RETURN" or "EXIT", and press < IRIS OPEN > to save setting and return to previous menu or exit menu.

Camera Setup



The unit allows users to adjust parameters of camera from the menu, the method to set parameters' specific meanings and settings are as follows (this function needs support by camera):

1. Focus Mode (System default is automatic)

Auto-focus function allows lens keeps focus during using magnified, contractible and mobile function. If focus mode is set to "AUTO ", camera will auto focus when the unit rotates and zooms. If focus mode is set to "MANUAL ", then adjust focus manually. Press <FAR> or <NEAR> button on the keyboard to adjust focal length. If focus mode is set to "Once ", focus only once after zoomed, and no focus next time unless reset focus.

Focus mode includes: auto focus, manual focus and once focus. The setting method is: move the cursor to "FOCUS MODE", and select option by moving the joystick to left and right.

2. Digital Zoom (System default is close)

Close and open the camera digital zoom function from the menu. Setting method is: move the cursor to "D ZOOM", and then select open or close option by moving the joystick to left and right.

3. Back Light Compensation (System default is closed)

The backlight compensation is that when the brightness of the image center is relative low, you can open backlight compensation function to improve the brightness of the image. You can open and close the backlight compensation function from the menu. The Setting method is: move cursor to "BLC", and select open or close option by moving the joystick to left and right.

4. ICR Mode (System default is automatic)

Set color of the camera from the menu, options: Auto, Color, Black and White. The setting method is: move the cursor to "ICR ", and then select ICR mode by moving the joystick to left and right.

5. Zoom Speed (System default is medium speed)

Set dome camera's default zoom speed from the menu. Zoom speed can be set to low, medium and high. The setting method is: move the cursor to "ZOOM SPEED", and select the needed zoom speed by moving the joystick to left and right.

6. Wide Dynamic (System default is close)

Wide dynamic function can improve the image quality and get clear image in the stronger contrast light condition. Wide dynamic mode can be set to close, low, medium and high. The setting method is: move the cursor to "WIDE DYNAMIC" and select the needed mode by moving the joystick to left and right.

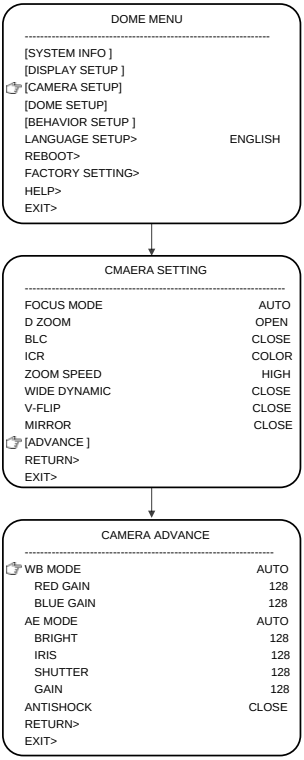
7. V-Flip(System default is close)

The setting method is: move the cursor to “V-FLIP ", and select open or close option by moving the joystick to left and right.

8. Mirror (System default is close)

The setting method is: move the cursor to "MIRROR", and select open or close option by moving the joystick left and right.

Camera Advanced Setting



Setting method is as follows (note: this function needs support by camera):

1. White Balance (System default is automatic)

You can change white balance mode from menu, so that the most effective and real color image can be got in full ambient light. The white balance model includes: Auto, Manual, Indoor, Outdoor, Auto tracking and single white balance (Note: Different camera may have different write balance options). The setting method is: move the cursor to "WB MODE", and then select the option you wanted by moving the joystick to left and right

2. Red Gain

Red gain is the gain of red components. Users can adjust red gain value according to the actual situation (only when white balance is in manual mode, this setting can be effective). The setting method is: move the cursor to "RED GAIN", and then adjust red gain value by moving the joystick to left and right.

3. Blue Gain

Blue gain is the gain of blue components. Users can adjust blue gain value according to the actual situation (only when white balance is in manual mode, this setting can be effective). The setting method is: move the cursor to "BLUE GAIN", and then adjust blue gain value by moving the joystick to left and right.

4. Exposure Mode (System default is automatic)

Users can adjust the camera exposure mode from the menu, exposure mode can be set include: automatic, manual, shutter priority, IRIS priority, brightness priority (Note: Different camera may have different exposure mode options). The setting method is: move the cursor to "AE MODE", and then select the mode you wanted by moving the joystick to left and right

5. Bright/IRIS/Shutter

Users can adjust the image brightness from the menu. The setting method is: move the cursor to "BRIGHT", and then adjust brightness values by moving the joystick to left and right.

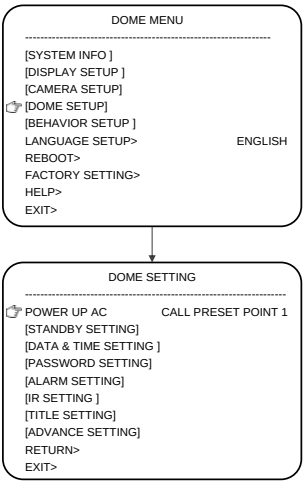
The setting methods of IRIS and shutter are similar to "BRIGHT" setting method.

The parameters of Brightness, IRIS and shutter can adjust only when exposure mode is set to manual.

6. Camera Antishock(System default is close)

You can close and open the camera antishock function from the menu. The setting method is: move the cursor to "ANTISHOCK", and then select open or close option by moving the joystick to left and right.

Power Up Action Setting



Once power on, the unit enters self-checking procedure, when the self-checking is finished, the unit can run customize commands.

1. Power Up Action Settings (system default call preset point 1)

Move the cursor to "POWER UP AC", and then select the action which will run after power up by moving the joystick left and right. Optional power up actions (total 18 kinds of action options):

No action

Call Preset point No.1 to No.8

Start the first or the second preset point patrol

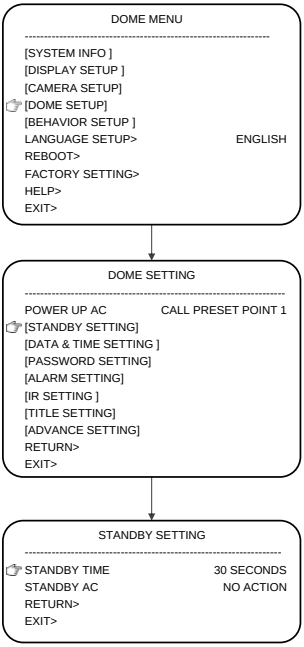
Start the first or the second horizontal sweep

Start the first or the fifth auto-scan

Start the first or the second pattern

Start auto track

Standby Setting



Standby (also called standby or idle) action setting means that if users have no operation within the specified time, the unit will run the specified function

1. Standby Time (System default is 30 seconds):

Move the cursor to "STANDBY TIME", and select standby time by moving the joystick to left and right. The options of standby time are: 15 seconds, 30 seconds, 1 minute, 5 minutes, 15 minutes, 30 minutes, 1 hour, 8 hours, 12 hours and 24 hours.

2. Standby Action (System default is no action)

Move the cursor to "STANDBY ACTION", and select standby action by moving the joystick to left and right. The options of standby actions are (total 18 kinds of action options):

No action

Call Preset point No.1 to No.8

Start the first or the second preset point patrol

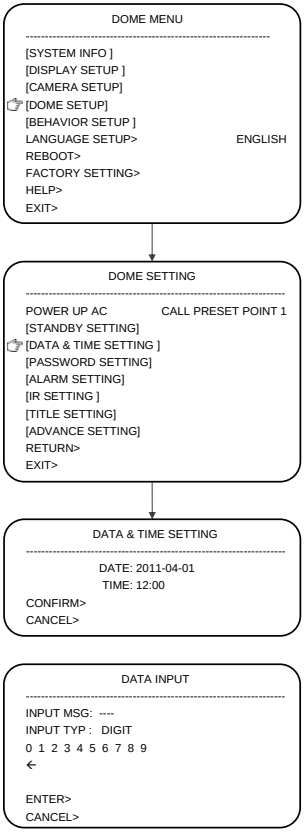
Start the first or the second horizontal sweep

Start the first or the fifth auto-scan

Start the first or the second pattern

Start auto track

Date and Time Setting



Data input inteface

The unit has date and time display function, user can modify system date and time from the menu (Interface of numeric inputs only accept digital input).The setting method is as follows:

1. Date and Time Setting

1) Move the cursor to the corresponding item by moving the joystick to left, right, up and down, and then press< IRIS OPEN> to enter corresponding interface of numeric inputs.

2) In "IPUT MSG" column, select input position by moving the joystick to left and right, and the selected position presents a twinkling state at this moment.

3) Move the cursor to digital area by moving down the joystick, and press<IRIS OPEN> to select the digit, and the selected digit will present a twinkling state, select corresponding digit by moving the joystick to left, right, up and down and then press <IRIS OPEN> to confirm, at the same time, the input position moves to the next position in "IPUT MSG" column. If you input an error digit, you can move the twinkling character to "←" position, and press <IRIS OPEN> to delete it, at the same time, the input position moves to the previous position in "IPUT MSG" column.

4) After completely input, you can press< IRIS CLOSE> to exit digital area and the digit in digital area will stop twinkling.

5) Move the cursor to "ENTER" by moving down the joystick, and press< IRIS OPEN> to confirm input and return to the interface of Data & Time setting. If the cursor moves to "CANCEL", press< IRIS OPEN>to cancel modification and return to interface of Data& Time setting.

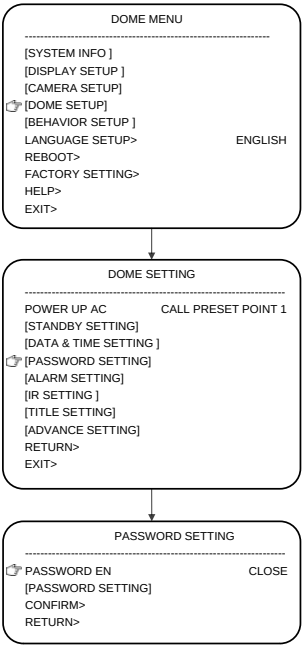
2. Confirm Setting

Move the cursor to "CONFIRM", and press <IRIS OPEN> to save modification and return to the previous menu.

3. Cancel

Move the cursor to "CANCEL ", and press<IRIS OPEN> to cancel modification and return to the previous menu.

Password Setting



You can restrict users without permissions to modify the system settings through password protection function of the unit. If you open the password protection function, you need to input correct password to open the menu. The method to enable and modify password is as follows:

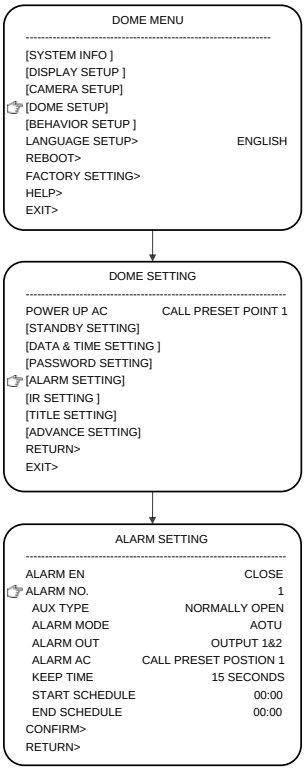
1. Password Enable

Move the cursor to "PASSWORD EN ", and select open or close password protection by moving the joystick to left and right. When the password protection function is open, you need to input correct password to open the menu

2. Modify passwords

Move the cursor to "PASSWORD SETTING", and press<IRIS open> to enter the password setting mode. You need to input old password before you input a new password. The initial password of the unit is "000000". Password input please refers to the section of Date and Time Setting.

Alarm Setting



The unit has 8 channels alarm input, 2 channels alarm output (alarm function need to select alarm module). After received the alarm, alarm input signal can trigger user defined action, meanwhile cause specified alarm output. Alarm function setting method is as follows:

1. Alarm Function

You can open or close the alarm function. The Setting method is: move the cursor to "ALARM EN", and select open or closed option by moving the joystick to left and right.

2. Alarm Number

Move the cursor to "ALARM NO.", and select alarm input channel by moving the joystick to left and right(total support eight alarm input channels). After Alarm number changed, the system will automatically refresh associated setting items to display the corresponding data.

3. Input Type

Move the cursor to "AUX TYPE", and select input type by moving the joystick to left and right. Alarm input type can be set to normally open type or normally closed type.

Normally open type: when channel is closed, it means system has received effective warning signs.

Normally closed type: when channel is open, it means system has received effective warning signs.

4. Alarm Mode

Alarm mode includes: automatic, timing and manually. Move the cursor to the "ALARM MODE" and select mode by moving the joystick to left and right.

5. Alarm output

Move the cursor to "ALARM OUT", and select the output type by moving the joystick to left and right .The types use to set whether to link the alarm switch when system receives effective alarm input signal. The type can be set to close, output 1, output 2, and output 1 & 2.

6. Alarm Action

Move the cursor to "ALARM AC", and press <IRIS OPEN> to set alarm action. This function used to set whether link to some preset special functions, such as preset position, patrol path, pattern, sweep etc when the current channel alarm.

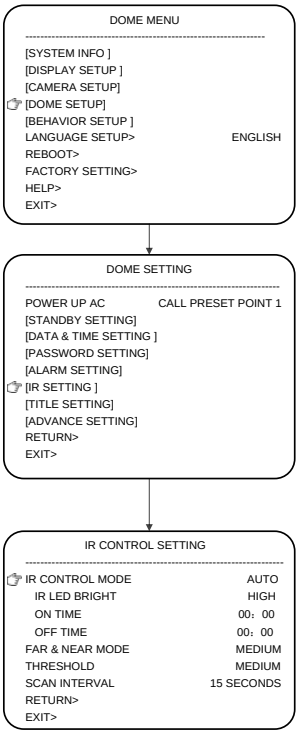
7. Keep Time

Move the cursor to" KEEP TIME", press<IRIS OPEN> to set keep time. When the current channel alarm occurs, if link to alarm output, alarm output switch will be closed, alarm keep time is the time between detecting alarm signals and removing the alarm (alarm output switch off). Options: 15 seconds, 30 seconds, 1 minute, 5 minutes and 15 minutes.

8. Start time and end time of schedule

Start time and end time of schedule means the time to open/close alarm, only when "START SCHEDULE" is set to "TIMING", this setting is valid. Move the cursor to" START /END SCHEDULE", time input please refer to the section of Date and Time Setting

IR Setting



You can open and close IR lamp or set working mode of IR lamp through the menu of IR setting.

1. IR Control Mode (System default is automatic)

Auto: IR LED can automatically open and close according to the brightness.

Timing: IR LED can open and close according to the timing.

Open: Compulsorily open the IR lamp.

Close: Compulsorily close the IR lamp.

2. IR LED Bright (System default is high power)

You can set IR LED bright to high, medium and low. The setting method is: move the cursor to "IR LED BRIGHT", and select options by moving the joystick to left and right.

3. On Time

You can control the opening time of the IR LED only when the IR control mode is set to timing mode. About how to input on time, please refer to the section of Date and Time setting.

4. Off Time

You can control the closing time of the IR LED only when the IR control mode is set to timing mode. About how to input off time, please refer to the section of Date and Time setting.

5. Far/Near Mode (System default is medium)

You can adjust the camera's multiple of far/near lamp. The multiple values including: high, medium, and low. The setting method is: move the cursor to "FAR&NEAR MODE", and select options by moving the joystick to left and right.

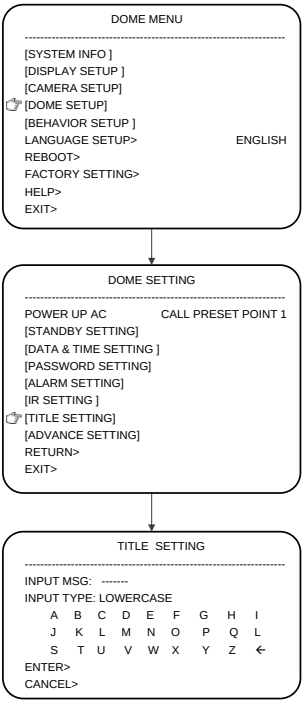
6. Threshold (System default is medium)

When IR lamp control mode is set to automatic, the sensitivity of brightness can be set to high, medium and low. The setting method is: move the cursor to "THRESHOLD", and select options by moving the joystick to left and right.

7. Scan Interval (System default is 15 seconds)

You can control the interval time of detecting the ambient light. Options are: 1 seconds, 3 seconds, 6 seconds, 15 seconds, 30 seconds, 1 minute, and 5 minutes. The setting method is: move the cursor to "SCAN INTERVAL", and select options by moving the joystick to left and right.

Title setting

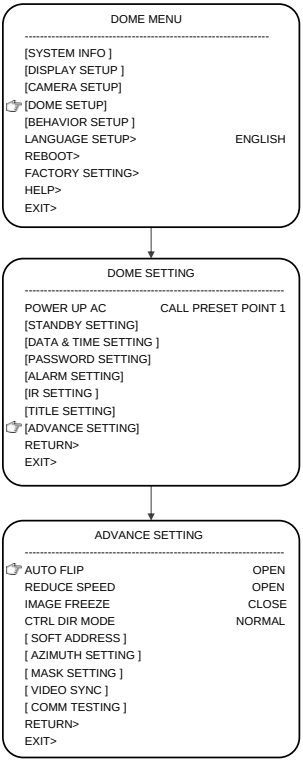


Set the unit's title from the menu and display it on monitor, so as to identify each monitor point easily. The method is as follows:

Input method may be Digit, Uppercase, Lowercase, Specific symbols and Chinese etc.

1. Move the cursor to "TITLE SETTING", and press <IRIS OPEN>to enter title setting mode, and then move the cursor to "INPUT TYPE" by moving the joystick to up and down, and select suitable input methods by moving the joystick to left and right. Optional input method is Digit, Uppercase, Lowercase, Specific symbols and Chinese.
2. Move the cursor to the next line under option of "INPUT TYPE", and press <IRIS OPEN> to enter character input mode, at this time the selected character is twinkling, select character by moving the joystick to up, down, left and right, press <IRIS OPEN> to put the twinkling character into the position of "←" in "INPUT MSG" column
3. After the input is completed, move the cursor to "ENTER", and press <IRIS OPEN> to confirm input and return to the previous menu.
4. If move the cursor to "CANCEL", and press<IRIS OPEN> will cancel the title modification and return to the previous menu.

Dome Advanced Setting



1. Auto Flip (System default is open)

When the lens runs vertically to 90° , if user keeps pressing the joystick, the lens will automatically flip 180º horizontally, thus consecutive monitoring of moving object can be realized. The setting method is: move the cursor to "AUTO FLIP ", and select open or close option by moving the joystick to left and right.

2. Reduce Speed(System default is open)

The setting method is: move the cursor to "REDUCE SPEED", and select open or close option by moving the joystick to left and right

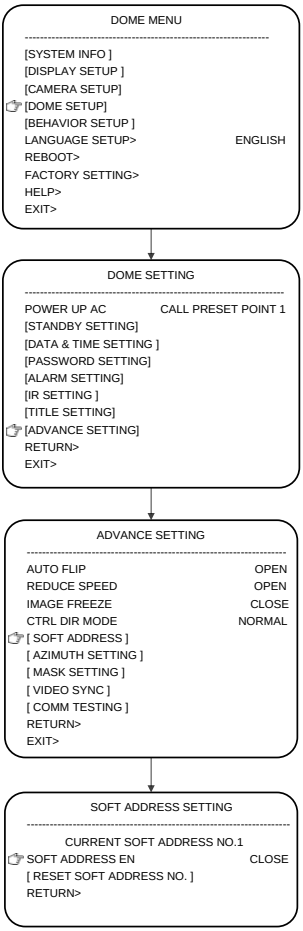
3. Image freeze (System default is close)

Image freeze means whether freeze current image when call the preset position. The setting method is: move the cursor to “IMAGE FREEZE ", and select open or close option by moving the joystick to left and right.

4. Control direction Mode(System default is normal)

Installation style includes: normal and inversion. When inversed installation, pictures and operating will auto adjust to match with the inverted installation. The setting method is: move the cursor to "CTRL DIR MODE", and select normal or inversed option by moving the joystick to left and right.

Soft address settings



You can open soft address function to enable it from the menu. The address identified by dial-up address of the unit will be shielded at this time.

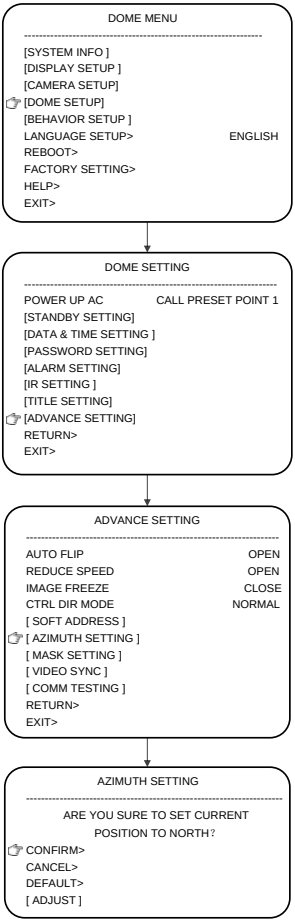
1. Soft Address Enable

The setting method is: move the cursor to "SOFT ADRESS ENABLE", and select open or close option by moving joystick to left and right.

2. Reset Soft Address Number

Move the cursor to "RESET SOFT ADDRESS NO.", and press <IRIS OPEN> to enter soft address number setting mode, and then input the required number of soft address. About how to input soft address number, please refer to Date and Time Setting.

Azimuth Setting

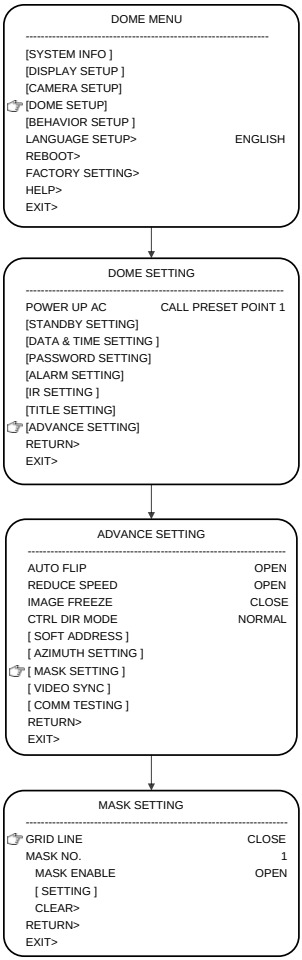


You can set horizontal azimuth from the menu. The north direction is 0 ° angle direction in horizontal and corresponds with N orientation of the compass.

1. Azimuth Setting

To set the current position to the north direction, move the cursor to "CONFIRM", and press <IRIS OPEN> to confirm that the current position is north direction. If you need to readjust, move the cursor to "ADJUST", and press<IRIS OPEN>, and then reorientate the north direction by moving the joystick to left and right, and press<IRIS OPEN> to confirm modification after the setting is complete.

Mask Setting



Mask function allows that privacy zones in the monitoring image can be shielded by black-box. Altogether 8 Privacy Mask zones can be set in the unit. The setting method is as follows:

1. Grid Line Display (System default is close)

The whole screen image can be divided into many small pieces through the grid lines, in order to orientate conveniently. The setting method is: move the cursor to "GRID LINE", and select open or close option by moving the joystick to left and right.

2. Mask Zone Number

The setting method is: move the cursor to "MASK NO.", and select number by moving the joystick to left and right.

Note: This function needs support by the camera. The number of mask area is related to camera models.

3. Mask Enable (System default is close)

Move the cursor to "MASK ENABLE", and select open or close option by moving the joystick to left and right.

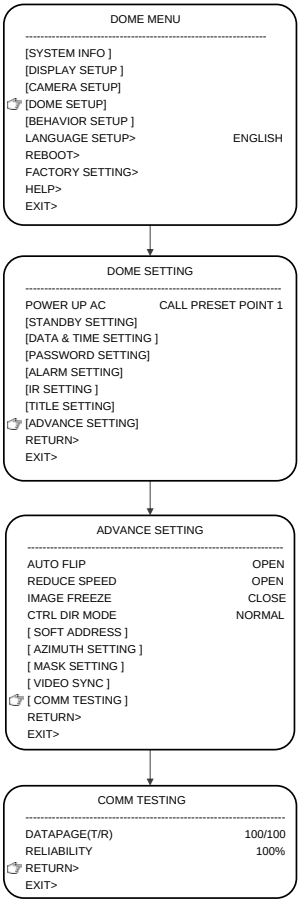
4. Mask Zone Setting

Move the cursor to "SETTING", and press <IRIS OPEN> to enter the position setting mode of mask zone, and then operate the joystick to control the unit, move the zone which need to be masked to the center of the screen, and then press<IRIS OPEN> to enter the size setting mode of mask zone, and then adjust the size of mask area by moving the joystick to up, down, left and right, then press<IRIS OPEN> after the setting is complete.

5. Clear Mask Zone

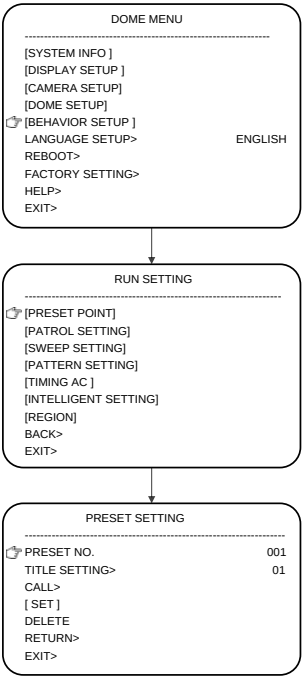
Move the cursor to "CLEAR", and press<IRIS OPEN> to delete the corresponding mask area of numbers.

Communication Test



The unit can diagnose the stability of communication lines with TA8000 control software. Start communications test through software, the window such as the left picture will be shown on the screen, and the number of data packet sent from test software, the number of data packet received and the reliability of communication lines will be shown in the window.

Preset Point Setting



The IR Intelligent Integrative Camera stores horizontal and vertical coordinate, and information of camera zoom. Users can quickly orientate the camera to the wanted testing scene. The unit supports 204 preset posints totally. The method to set Preset points is as follows:

1. Preset points Number Setting

Move the cursor to "PRESET NO." and set preset point number by moving the joystick to left and right. The unit supports 204 preset points totally. (1 to 48 and 100 to 255).

2. Preset points Title Setting

Move the cursor to "TITLE SETTING", and press <IRIS OPEN> to enter the submenu of preset position title setting, and then set preset position title. See the section of Title Setting for more information of setting.

3. Call Preset points

Move the cursor to "CALL", and press <IRIS OPEN> to call the corresponding preset scene of preset points number.

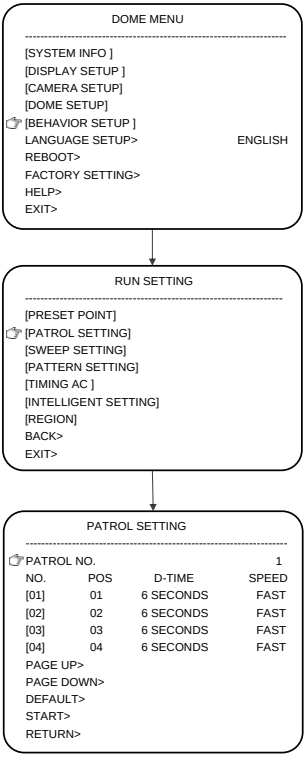
4. **Set Preset points**

Move the cursor to "SET", and press <IRIS OPEN> to enter preset points setting mode, at this time, user can operate the unit. When the unit reaches the expected preset scene, press <IRIS OPEN> to store the current position.

5. Delete Preset points

Move the cursor to "DELETE", and press <IRIS OPEN> to delete the corresponding preset scene of preset points number.

Auto Patrol Setting



Auto patrol means the unit can monitor the zone among the specified preset points, the interval time can be set by users.. The unit supports 8 groups patrol path, each patrol path supports 32 preset points in all. The setting method is as follows:

1. Set Patrol Number

Move the cursor to "PATROL NO.", and select the patrol number by moving the joystick to left and right

2. Edit Patrol Number

Move the twinkling position to the corresponding position, and press<IRIS OPEN> to enter the modified mode, and then modify the value by moving joystick to left and right, after modification is complete, press<IRIS OPEN> to exit the modified mode.

Dwell time can be 1 seconds, 3 seconds, 6 seconds, 15 seconds, 30 seconds, 1 minute, 5 minutes, 15 minutes, 30 minutes, 1 ton, 8 hours, 12 hours, and 24 hours.

Patrol speed can be fast, medium, and slow.

You can select serial number in different page through "Page Up" and "Page Down". Each page can show four serial numbers in all, move the cursor to "PAGE UP" or "PAGE DOWN", and press<IRIS OPEN> to page up or page down,

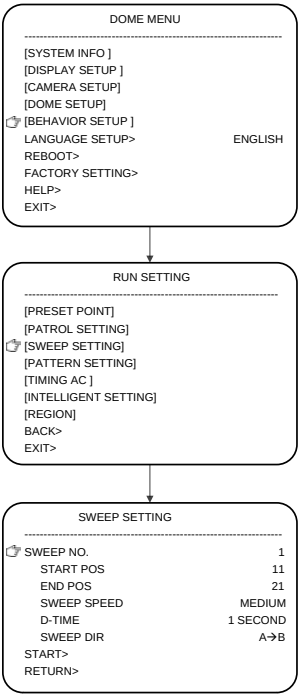
3. Default Setting

The default is the 1st to 4ur preset points, the default dwell time is 6 seconds, and the default speed is fast.

4. Start Patrol

Move the cursor to "START", and press <IRIS OPEN> to start the corresponding auto patrol.

Horizontal Sweep Settings



Horizontal sweep means that the unit scans back and forth between two specified horizontal preset points, and the scanning speed and scanning direction can be set by users.

1. Set Sweep Number

Move the cursor to "SWEEP NO. ", and select sweep number by moving joystick to left and right. Optional sweep number is from 1 to 20.

2. Set Sweep Speed (System default is medium)

Move the cursor to "SWEEP SPEED ", and select the speed by moving the joystick to left and right.

Options of sweep speed: fast, medium, slow.

3. Set Dwell Time (System default is 1 second)

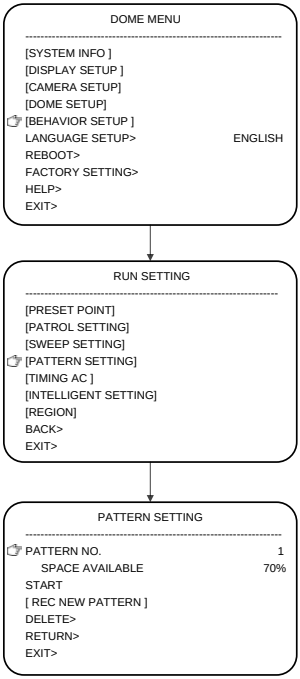
Move the cursor to “D-TIME", and select the time by moving the joystick to left and right.

Options of dwell time: 1 second, 3 seconds, 6 seconds, 15 seconds, 30 seconds, 1 minute, 5 minutes, 15 minutes, 30 minutes, 1 ton, 8 hours, 12 hours and 24 hours.

4. Set Sweep Direction

Move the cursor to "SWEEP DIR", and select the direction from A →B and B →A by moving the joystick to left and right.

Pattern setting



The IR intelligent integrative camera stores a series of users' operations within the specified time, such as horizontal and vertical rotation, camera zoom operation etc. Users can review all operations that users have done by starting up the pattern. The unit supports four groups of pattern, each group can record 10 minutes or 500 instructions at most.

1. **Set Pattern Numbe**r

Move the cursor to "PATTERN NO. ", and select the number by moving joystick to left and right.

2. Start Pattern

Move the cursor to the "START", and press <IRIS OPEN> to start the corresponding pattern of pattern number.

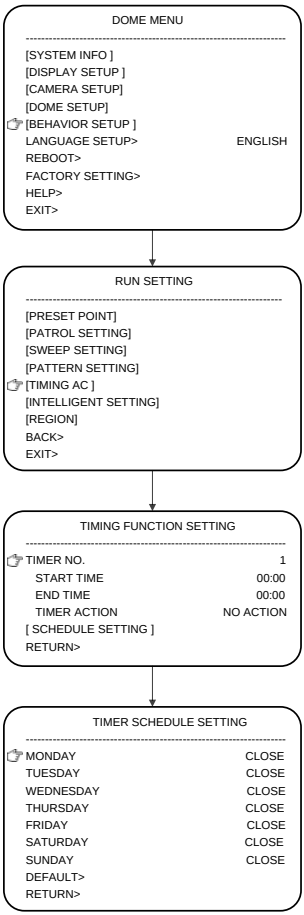
3. Record New Pattern

Move the cursor to "REC NEW PATTERN", and press <IRIS OPEN> to enter pattern setting mode. The unit will automatically store horizontal and vertical rotation and camera zoom operation at this time. When the recording space is filled to full or press <IRIS OPEN>, the unit will stop the pattern settings.

4. Delete Pattern

Move the cursor to "DELETE", and press<IRIS OPEN>to delete the corresponding pattern of pattern number.

Timing Action Setting



The timing of the unit can be divided into seven days a week, eight periods everyday. Users can set actions for every period according to the requirement. When the system time is in the specified period of time, the unit will automatically run the preset action.

1. Set Start Time

Move the cursor to "START TIME", and press<IRIS OPEN> to enter time input mode. Please refer to the section of “Date and Time Setting” to input time.

2. Set End Time

Move the cursor to "END TIME", and press<IRIS OPEN>to enter time input mode. Please refer to the section of “Date and Time Setting” to input time.

3. Set Timer Action

The linked action of each period can be set as follows (18 kinds of actions in all).

No action

Call preset points No.1 to No.8

Start the first or the second preset points patrol

Start the first or the second horizontal sweep

Start the first or the fifth auto-scan

Start the first or the second mode path

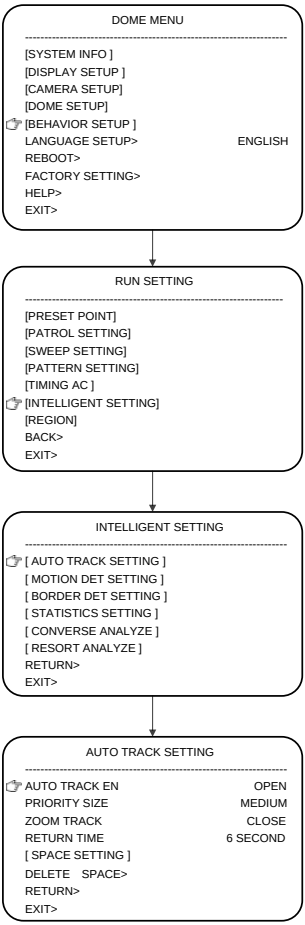
Start auto tracking

4. Set Schedule

Move the cursor to "SCHEDULE SETTING", and press<IRIS OPEN> to enter timer schedule setting.

Note: Different periods can't overlap, and the period can't span 00:00. If users operate the unit during timing period, the timer action will be interrupted. If there is no action within the specified time and the current time is still in timing period, the timer action will be executed again.

Auto Track Setting



The IR intelligent integrative camera can intelligently analyze the video images, and automatically track the moving object in the monitoring area. In tracking mode, the unit will automatically tack the moving target when the monitoring area has moving target. When the moving target moves out of the monitoring area or it can't trigger the tracking function, the unit will stay for the preset dwell time, and then return to the preset scene.

1. Auto Track Enable

Move the cursor to "AUTO TRACK EN", and select open and close options by moving the joystick to left and right.

2. Priority Target Size

Target size can be set to large, medium and small, and it means that how big the moving targets can trigger the function of auto track. The setting method is: move the cursor to "PRIORITY SIZE ", and select options by moving the joystick to left and right.

3. Zoom Track

When the track function and zoom track function are open, the unit will automatically adjust the zoom of the camera according to the size of the moving target, so that the moving target can adapt to the scene of video screen. Zoom track can be set to close, x1 to x10. The setting method is: move the cursor to "ZOOM TRACK", and select options by moving the joystick to left and right.

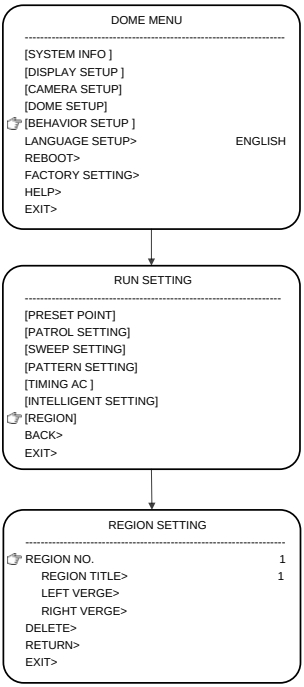
4. Return Time

In the menu of auto track setting, users can set and delete the return time which the unit needs to wait after the moving target disappears from the monitoring area. Return time can set to 3 seconds, 6 seconds, 15 seconds, and 30 seconds.

5. Space Setting

In the menu of space setting, users can set and delete the scene which the unit needs to return after the moving target disappears from the monitoring area.

Region Indication Setting



Region indication means that when users move the unit into the range of the specified preset region by operating the joystick, the screen will display the title of this preset region, so that users can indentify different regions conveniently. The unit supports eight region indications. Users can start up the function of region indication only when the left verge and the right verge are set firstly. The priority of region indication is: No.1 as highest priority, and No.8 as lowest priority. When deferent regions are overlap, only higher priority region can be shown. The setting method is as follows:

1. Set Region Number

Move the cursor to the "REGION NO.", and select the region Number by moving the joystick to left and right.

2. Set Region Title

Move the cursor to "REGION TITLE ", and press <IRIS OPEN> to enter the submenu of the region title setting, and then set the region title referring to the section of Title Setting.

3. Set Left Verge

Move the cursor to "LEFT VERGE", and press <IRIS OPEN> to enter the verge setting mode, and then move the cursor to expected position by operating the joystick, and then press < IRIS OPEN >to storage the current position as the left verge.

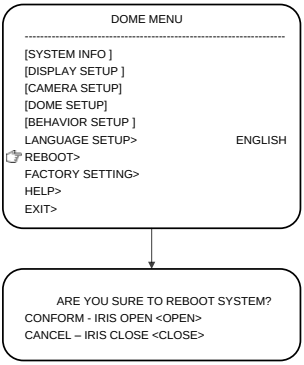
4. Set Right Verge

Move the cursor to "RIGHT VERGE", and press<IRIS OPEN> to enter the verge setting mode, and then move the cursor to expected position by operating the joystick, and then press < IRIS OPEN >to storage the current position as the right verge.

5. Delete Region Indication

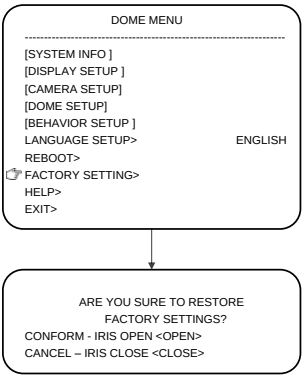
Move the cursor to "DELETE", and press<IRIS OPEN>to delete the corresponding region of region number.

Reboot system



IR intelligent integrative camera can be rebooting remotely from the menu. The operating method is: open the menu, and move the cursor to “REBOOT, and then press <IRIS OPEN> to enter the confirmation menu of reboot, and then press<IRIS OPEN> again to reboot system or press <IRIS Close> to cancel the operation of reboot system.

Restore Factory Settings



The function of restore factory settings can restore all operation that users did to the factory default settings. The operating method is: open the menu, and move the cursor to "FACTORY SETTING", and Press<IRIS OPEN>to enter the confirmation menu of factory settings, and then Press<IRIS OPEN>again to restart the unit and restore factory settings or press <IRIS CLOSE>to cancel the operation of restore factory settings.

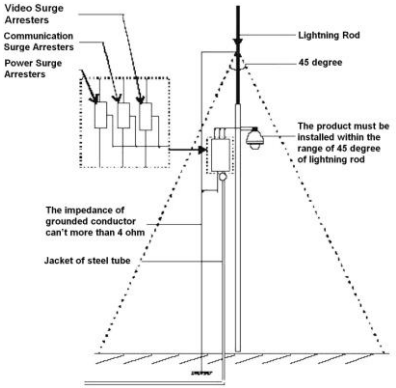
Simple Trouble Shooting Table

Problems	Possible causes	solutions
No action, no picture when power is switched on.	Power supply adaptor damaged or Power supply not sufficient	Replace
	Wrong contact of power cables	Correct
	Engineering line fault	Exclude
Abnormal self-check, image shown with motor noise	Mechanical failure	Repair
	Camera inclined	Reinstall
	Power supply not sufficient	Replace, better to place the adaptor nearby the unit
Normal self-check but no image	Wrong contact of video lines	Correct
	Bad contact of video cables	Exclude
	Camera is damaged	Replace
Normal self-check and image but out of control	Wrong contact of control signal	Correct
	Address configuration wrong	Choose new address and power on
	Protocol or Baud rate configuration wrong	Adjust Protocol, baud rate to match controller and power on
Unstable image	Bad contact of video cable	Exclude
	Power supply not sufficient or Power cables too long	Replace
IR intelligent integrative camera out of control	Abnormal self-check	Power On again
	Bad contact of control lines	Remove
	The host operations have a problem	Power on the host again
	the load is too much ,the distance is too far	Increase yards distributor
Focus out of control	Focus is in automatic mode	Set focus mode to manual

Lightning and Surge Protection

This product adopts Ceramic Gas Discharge Tube and TVS-class lightning protection technology to effectively prevent such pulse signal damage caused by instantaneous lightning under 3KW or electric surge. But, for outdoor installing, on the premise of ensuring electric safety, necessary protective measures should be taken according to practical situation:

- Signal transmission lines must be kept at least 50 meters from high voltage equipment and high voltage.
- For outside, please select the place under eaves to layout the routing.
- For open field, you must use underground sealed steel tube, and the steel tube must be adopted one point grounding mode, and absolutely forbid adopted overhead wiring.
- In intense thunderstorms or high induced voltage areas (such as high voltage substations), must use extra high-power lightning protection equipment and install lightning rod and others measures.
- The lightning protection and grounded design for outdoor installation and wiring must be combined with requirements of building's lightening prevention, and comply with the relevant national standards and industry standards.
- The system must be equipotential grounding. Grounded device must meet double requirements of system anti-jamming and electrical safety, and can't be short-circuited or hybrid-circuited with neutral leg of forceful electric power. When system grounded alone, the impedance of grounded conductor can't more than 4 ohm, sectional area of grounded wire can't more than 25mm^2 wire shorted.



Propositional preventive maintenance

The cover system of IR intelligent integration camera doesn't need any special maintenance. Dust may accumulate on the inside or outside of the dome cover occasionally. Should this happen, please shut off the power firstly and then remove downward dome cover from dome base, then clean up the dust on the dome cover by compressed air in the sprayer.

Warning: When use the sprayer, please wear appropriate eyeshade.

This unit includes various electrical and electronic device, these devices must comply with the EU Directive 2002/96/E of Waste Electrical and Electronic Equipment (WEEE) to properly recycle. About the recycling of this unit, please contact with local supplier.

Serial number of the product is shown on the bottom or inside. Please fill in the following blanks with mode number and serial number , and properly keep this menu for checking.

Mode Number:_____

Serial Number:_____

CCTV SYSTEM

Part:TA11-D06RDBMWGT