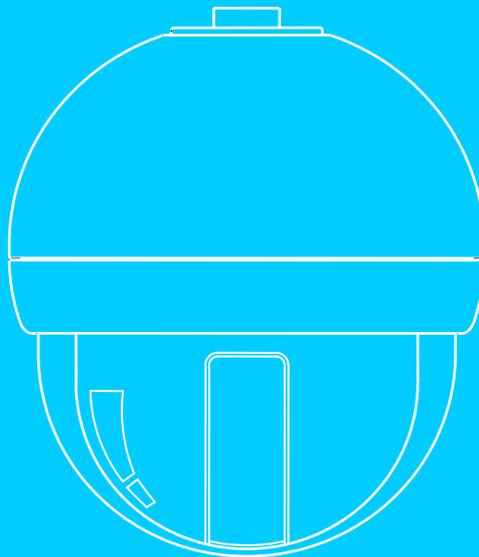




SUPERIOR SPEED DOME

USER MANUAL

**DSC-300SI**



# **SUPERIOR SPEED DOME**

**INSTALLATION/OPERATION/PROGRAMMING MANUAL**

**23X Day/Night Speed Dome Camera**



# WARNING

	<p><b>Always have the unit installed by the store it was purchased from.</b></p> <ul style="list-style-type: none"><li>● Improper connections and/or installation could result in electrical shock, fire or other serious injury or damage.</li></ul>
	<p><b>Do not place the unit on an unstable surface.</b></p> <ul style="list-style-type: none"><li>● Always checks the strength and stability of the installation location.</li><li>● A falling unit will result in damage and could cause serious injury.</li></ul>
	<p><b>Never disassemble or attempt to repair or modify the unit.</b></p> <ul style="list-style-type: none"><li>● Disassemble by untrained personnel could result in serious electrical shock, fire and/or malfunction.</li></ul>
	<p><b>Never use in locations where combustible materials are used.</b></p> <ul style="list-style-type: none"><li>● The unit should never be used where combustible materials, such as gases, are being used.</li><li>● Fire, explosion or other serious accidents could occur</li></ul>
	<p><b>Never touch electrical connections with wet hands.</b></p> <ul style="list-style-type: none"><li>● Touching electrical connections with wet hands could result in serious electrical shock.</li></ul>
	<p><b>Never expose the unit to water.</b></p> <ul style="list-style-type: none"><li>● If the unit becomes wet, turn off the power and unplug it immediately.</li><li>● Stop using the unit if it becomes wet and contact your nearest supplier or manufacturer representative.</li></ul>
	<p><b>Never use the unit if there is an abnormality.</b></p> <ul style="list-style-type: none"><li>● Turn off the power and unplug the unit immediately if there is any type of abnormality, such as a strange smell or smoke.</li><li>● Continuing to use a unit that is not operation properly could result in serious injury or damage to the unit.</li></ul>
	<p><b>Always use the designated power supply.</b></p> <ul style="list-style-type: none"><li>● Failure to use the proper power supply could result in fire, electrical shock, serious injury and/or damage.</li><li>● Always uses the designated power supply.</li></ul>
	<p><b>Always handle the connecting cords properly.</b></p> <ul style="list-style-type: none"><li>● Never damage or modify the connecting cords.</li><li>● Never pull on the connecting cord, expose them to extreme heat and/or place heavy objects on top of them.</li><li>● Failure to follow these warnings could result in fire, electrical shock or other damage or injury.</li></ul>



## CAUTION



Always use the unit indoors.

- The unit should never be used outdoors, or in any place where it will be exposed to rain or other extremes of moisture.
- Direct exposure to water will result in rust and will damage the unit.



Never use in environments that have heavy concentrations of dust, smoke, steam or humidity.

- Environments such as these could result in fire, electrical shock or other serious damage or injury.



Never place the unit in extremes of high or low temperatures.

- Extreme temperatures will damage the unit.
- Always use within an operating range of -10 °C to 50 °C (14 °F ~ 122 °F) for indoor speed dome camera.



Never place the unit near the magnetic.

- The unit should never be placed near by magnetic.
- It is reason for the malfunctions.



Never expose the unit to impact.

- Strong impact may seriously damage the unit.



## FOR PROPER OPERATION



Never install the unit yourself.

- The unit should be installed by trained personnel.



This product has been designed and manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives.

Electromagnetic Compatibility Directive 89/336/EEC(EN60065:1998, EN61000-6-3:2001, EN61000-6-1:1997)

This device complies with part 15 of the fcc rules operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received including interference that may cause undesired operation

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# 1. WELCOME

**Thank you** for purchasing this integrated speed dome system, Superior Speed Dome. Your new system features a high-resolution, color camera/optics package with Day/Night , DSS, WDR technology and programmable dome drive software with OSD menu.

This manual is designed to be a reference tool for the installation, operation and programming of your system. You will find information about Superior Speed Dome's features and commands in the OSD menu tree.

## Getting Started

You will need to install your dome system before using this manual. Refer to the installation section in this manual for installation instructure.

Once installed apply power to the high speed dome system. The system will start an initializing sequesnce. When initializing is done, the following information is displayed :

```
SPEED SOME CAMERA
Memory checking
Address : XXX      Protocol,      Baud rates,
Input power
Please Wait ! ...
```

This inforamtion will display for a second after initializing.

Refer to the following pages to learn how to operate and program your dome system.

## 2. INTRODUCTION OF THE PRODUCT

### 2.1 Product Features

#### 😊 23x Zoom lens

23x Optical zoom lens combined with an auto focus system and digital zoom enables you to get maximum 235x great pictures.

#### 😊 A low light function

Surveillance with optimum picture is possible owing to digital-slow-shutter function and wide-dynamic-range function.

- Digital-slow-shutter function is improving the CCD sensitivity by electrically lengthening exposure time so that it should be under surveillance on the condition of 0.01 Lux in color.
- Wide-dynamic-range function is possible to look at object clearer in back light condition.

#### 😊 Various auto-surveillance functions

- PTZ trace  
Realizes the registered manual operation for about 120 seconds.
- Auto swing  
Repeat pan and tilt between two preset positions.
- Group sequence  
Switches and checks a maximum of 64 preset positions in order.
- Tour sequence  
Switches and checks a maximum of 6 group sequences in order.

#### 😊 128 Preset position

A maximum of 128 preset positions can be programmable. The preset function enables to set where you want on monitor at any time.

#### 😊 Smart pan/tilt function

- It should be rotated pan travel by 360° endless.
- Pan and tilt speed compensation function in proportion to depth of zoom.

#### 😊 Day & Night function with filter

- It allows make surveillance in the night or low illumination condition with motorized IR cut filter system. (0.1 Lux)
- In the darkness, it should be changed to black & white mode automatically.
- With DSS control, it allows be watching on 0.009 Lux.

#### 😊 4ch alarm inputs

It can be directly connected sensor and used with presets owing to built-in 4-channel sensor input terminals. It can be also operated together other equipment owing to built-in alarm output. (1-Relay normal output)

#### 😊 Auto flip function

The unit can be track the moving object automatically until 180° in vertical by using controller.

#### 😊 8 Privacy Masking Zones

For the privacy, it can be programmed masking zone up to 8 locations on the OSD menu screen.

#### 😊 OSD (On Screen Display) Menu

Provides character information displayed on the monitor, such as the camera ID address, camera name, preset number, sequence status, and sets various functions of camera easily on the OSD menu screen.

### 3. INSTALLING AND CONNECTING WITH EQUIPMENTS

#### 3.1 Name and each part 3.1.1 The name of each part

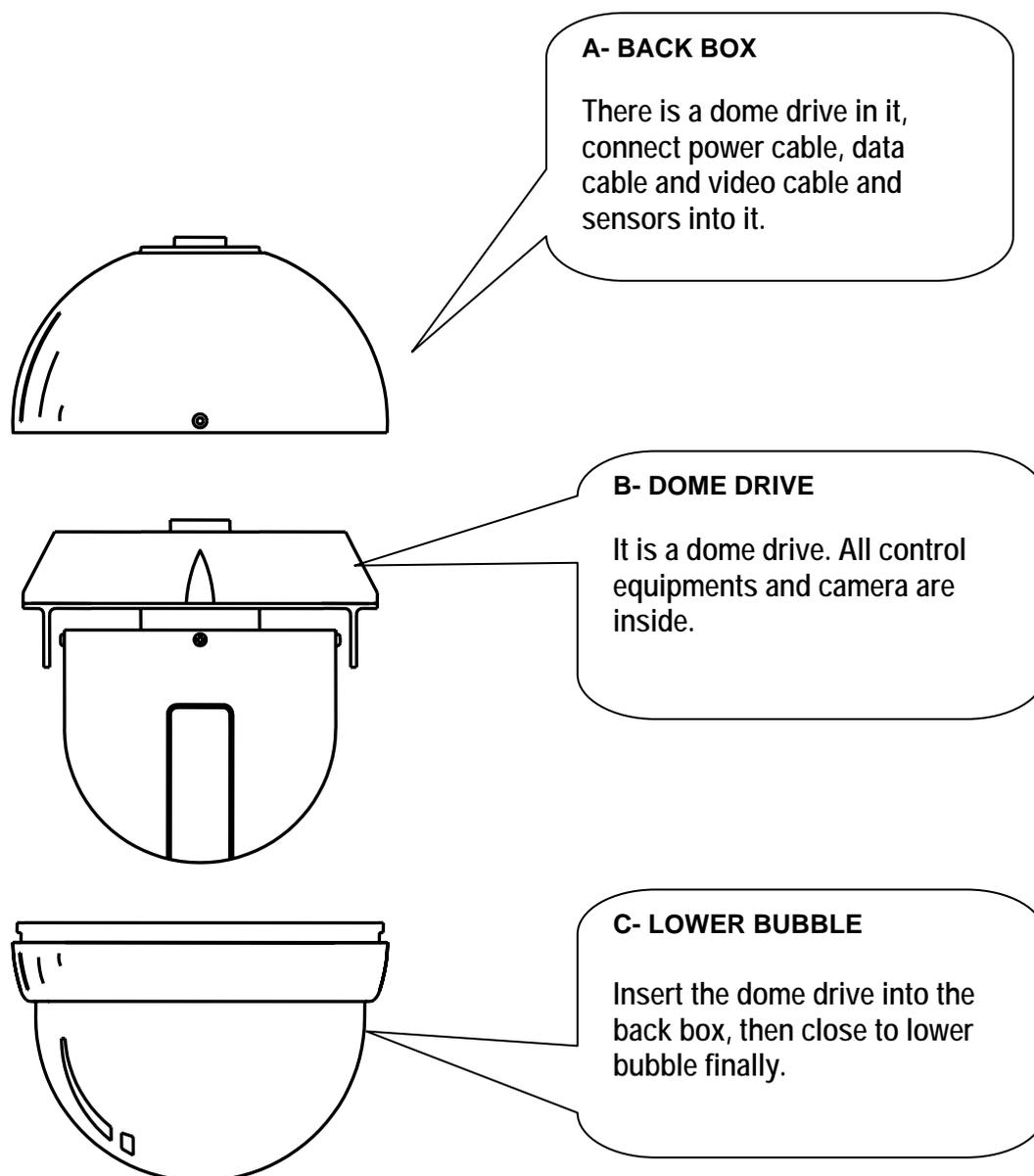
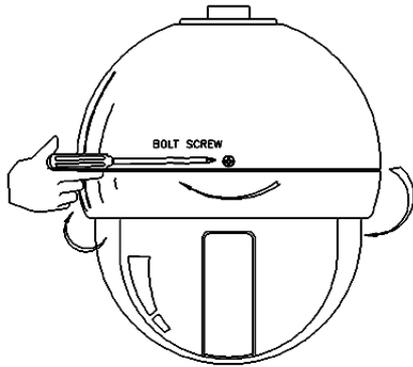


Figure 1. INDOOR SPEED DOME

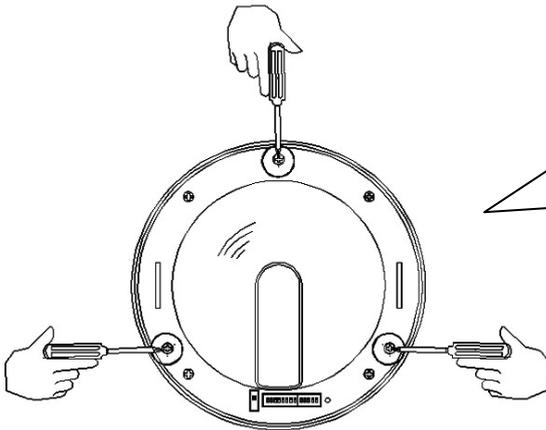
### 3.1.2 Installation and wiring

#### (1) Disassembly the camera for installation

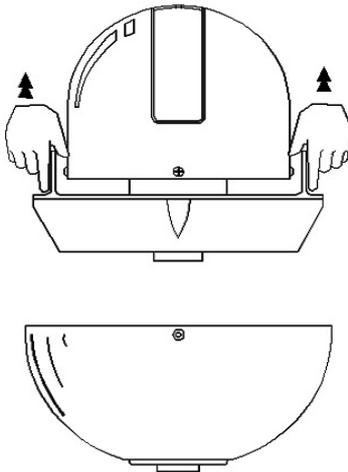


First, loose dome drive from the back box.

- Loose first, the dome drive from the back box.
- Loose the bolt on the side of cover with a screw driver and it could be removed lower bubble.



- Remove the dome drive from back box.
- There are 3 bolts on the dome drive. They should be not full pulled out to prevent missing.
- Loose three of round-headed bolts from the dome drive. It can be out up to about 1cm to prevent missing after loosen all.



- Loose the all of bolts and then pull up the lip of dome drive with both hands.
- Remove the dome drive from the back box.

Figure 2. Disassembly the dome

(2) Inside of the back box for installation

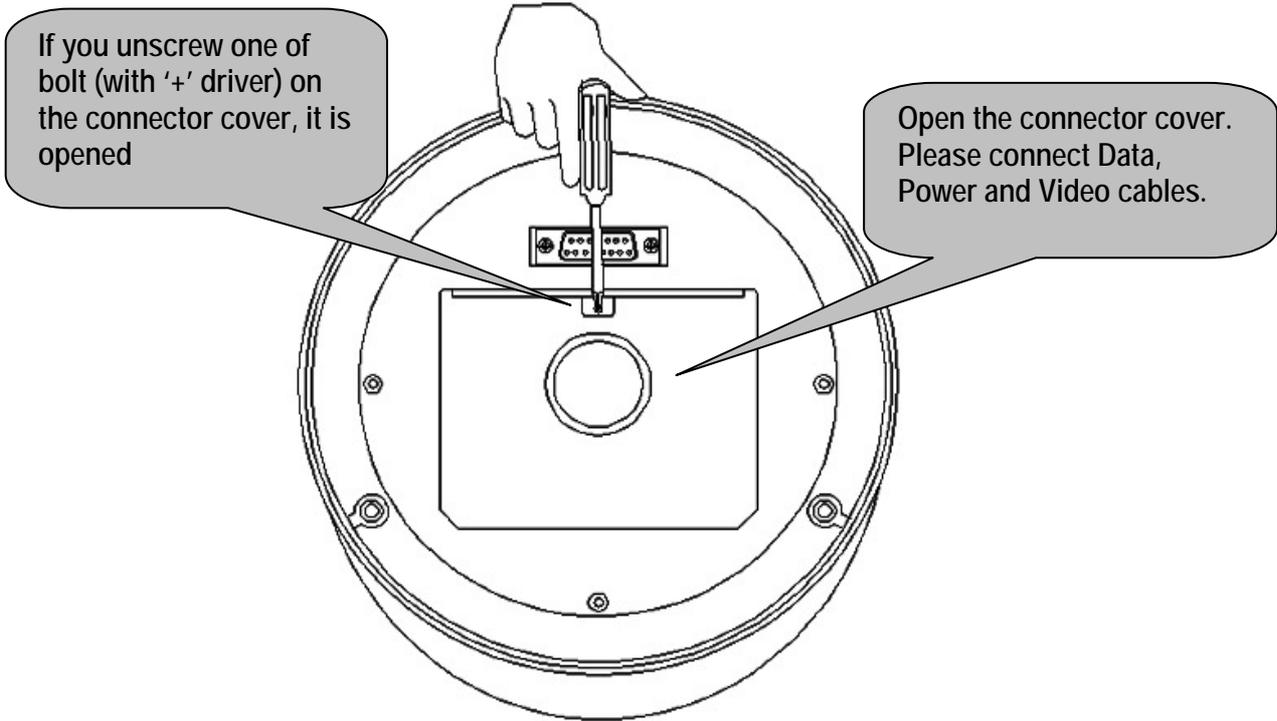


Figure 3.

- Please be careful to wrong connect so that it is explained each connector of function as below picture.

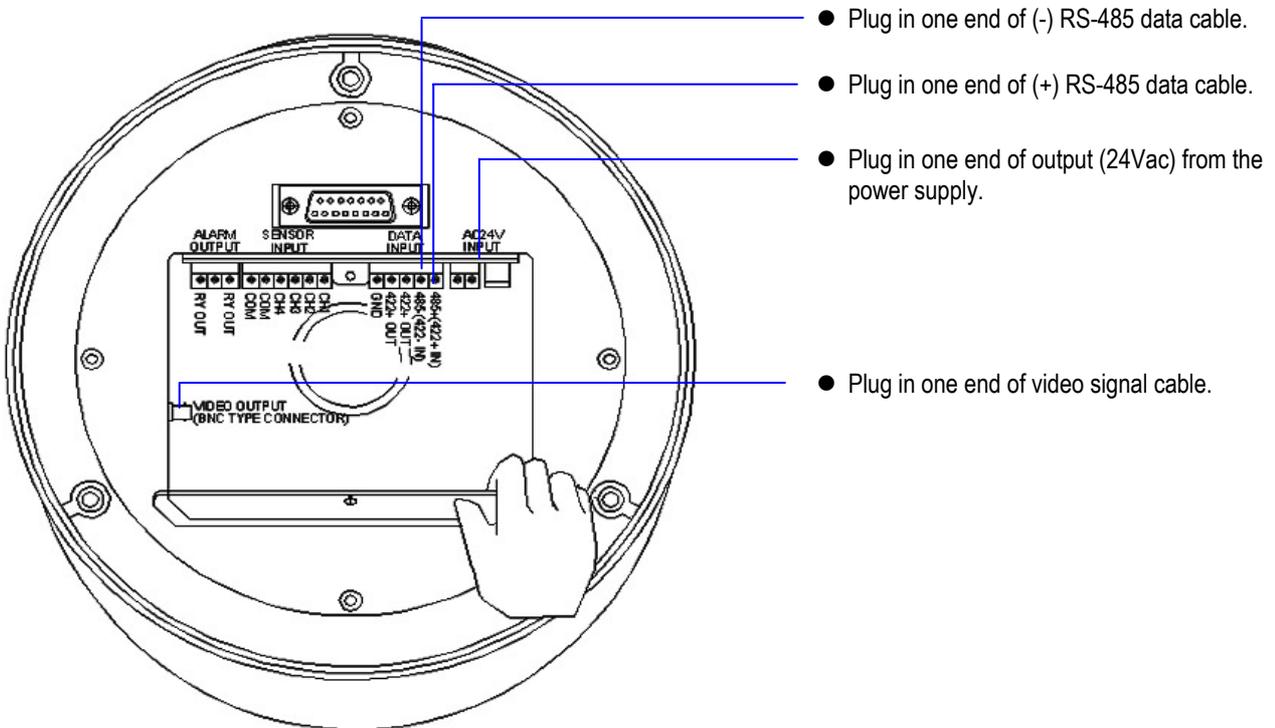


Figure 4. WIRING PART OF THE BACK BOX

- Did you connect the power cable in normal?

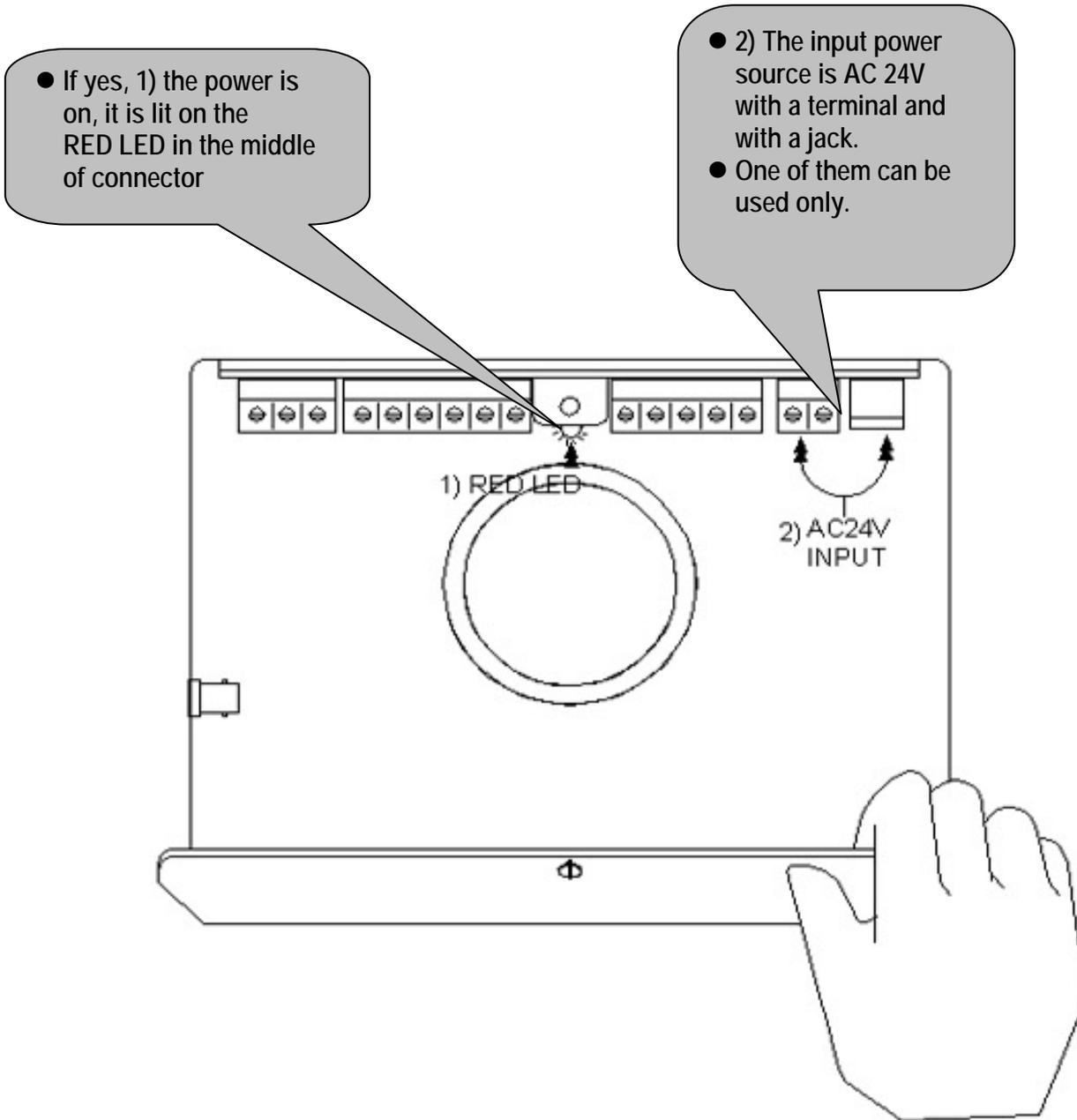


Figure 5.

## 3.2 Connecting with equipments

### 3.2.1 Basic connection diagrams

- Using dedicated keyboard controller, it can be controlled and connected with max. 255 cameras. In the data box of controller, there are two controlling ports and the respective ports can be connected with max. 128 cameras.
- If it is used the twist pair shield cable (AWG23), can be connected until distance of max. 1.2 Km. According to the condition of place, it is only whether to be long or to be short.
- Firstly, it would be arranged the following:
  - 1 PC of power adaptor using of AC 24V / 1.5A for speed dome camera.
  - 1 PC of power adaptor using of DC 12V / 1000 mA for keyboard controller.
  - Wired cables from monitor to camera for video signals.
  - Wired cables from keyboard controller to camera for data signals.
- Connect with video cables from video output terminal in the back box to video input terminal of monitor.
- Connect with AC 24V / 1.5 A of power supply from power input terminal in the back box to power source.

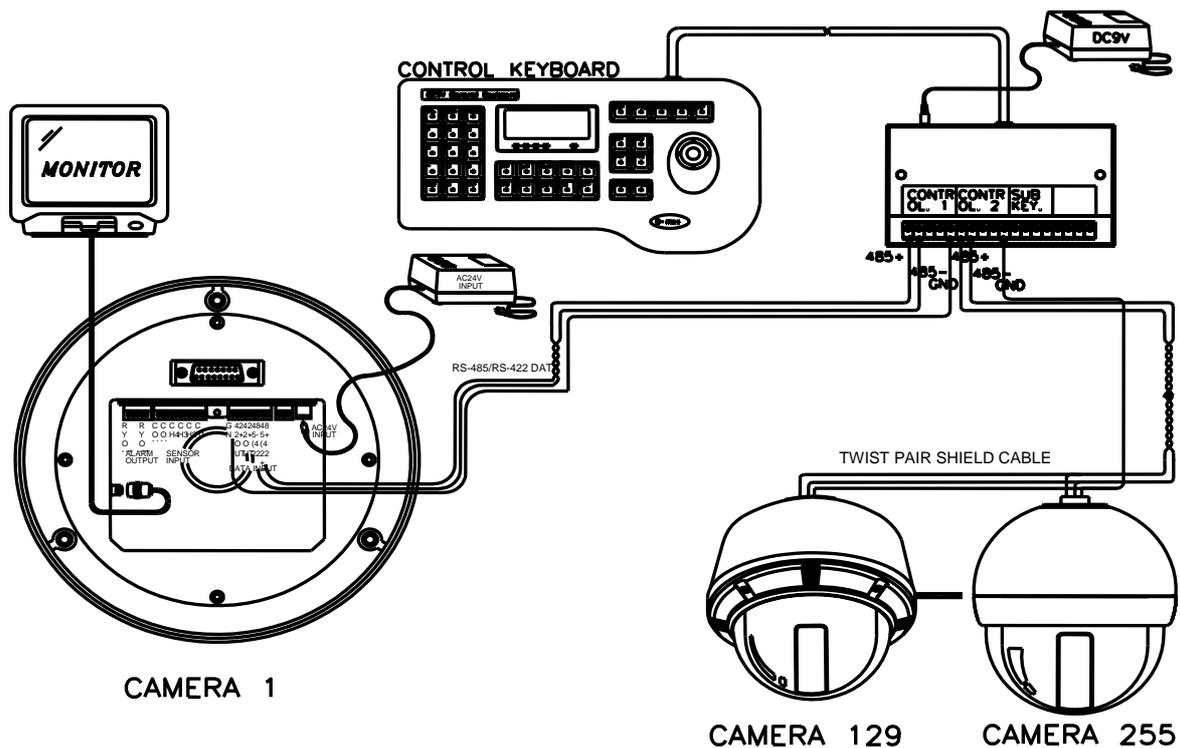


Figure 6. CONNECTING WITH EQUIPMENTS

- Connect with two pair-cables (for (+) and (-) signal) from RS-485 terminals to terminal of data box which is subsidiary of keyboard controller through hall of the back box. In wiring, please keep to match to (+) pole and (-) pole.
- Connect with 8-pin cable from data box to keyboard controller. For use to data box, please use the DC 12V / 1000mA of power supply at the same time it is a power source for a keyboard controller. Lastly, connect with 8-pin cable from data box to keyboard. It can be supplied power to keyboard.

### 3.2.2 Connection diagrams

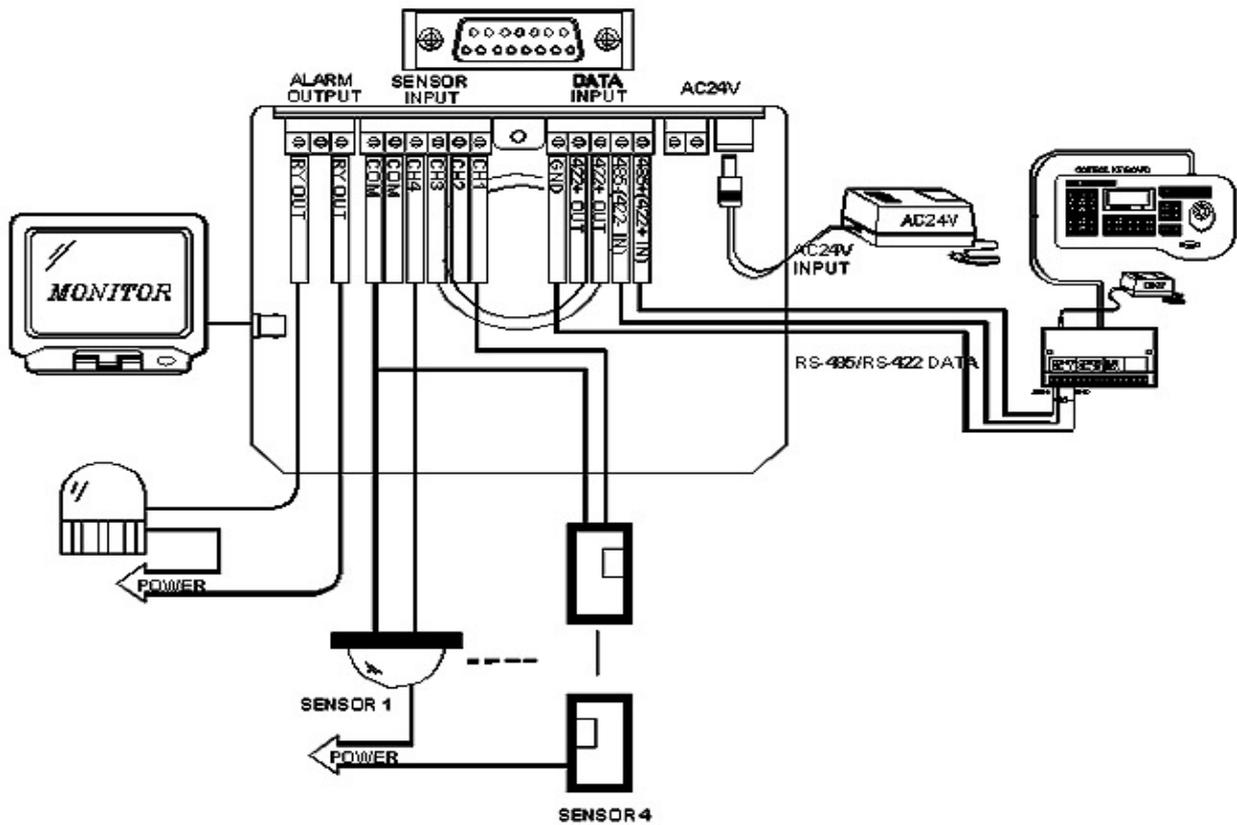


Figure 7. CONNECTION DIAGRAM

- Sensor can be connected max. 4-Channels and if it activated to detect by sensor with PRESET function, automatically the camera moves to the point by PRESET MODE.
- Alarm output is a relay switching voltage to be load up to AC/DC24V/0.5A and when it is activated by sensor, it is automatically switching on, can be released through the times or by controller.
- Video output connector to be a BNC cable can be monitoring by means of directly connection to monitor.
- Data can be process by RS485 or RS422 and when use many cameras, it can be used by means of parallel connection.
- Even if it must be used 2-twist paired cable in use of RS422, the terminal port which it was connected with RS485 cable port with 1-pair cable when it is not necessary to take a return data from camera.

---

*NOTE: Power source must be used AC 24 V, 1.5 A output of electric current and use a Double Winding Transformer as possible as.*

---

## 4. HOW TO USE FUNCTIONAL DIP SWITCHES

### 4.1 Setting DIP switches

#### 4.1.1 Setting optional DIP switches

- **TERMINATION REGISTER (DIP SWITCH No. 1):**

This switch allows the end of register to turn on the only last camera of the data lines. If data lines are distributed to several directions, it has to be switched on such camera among the most far away cameras. It switched off from factory defaults.

(Refer to part c of the figure 8)

- **RS485 / RS422 SELECT (DIP SWITCH No. 2):**

Select switch on / off so that the data type is to be proper to your actual using by RS485 or RS422. The default setting is RS485 mode.

(Refer to part c of the figure 8)

- **ADDR / INIT SELECT (DIP SWITCH No. 3):**

This switch allows set up the communication baud rate, it sets to be proper data bauds rate to be transferred from controller. In switch off, it is to become 9600 bps and to become 4800 bps in switch on. Power off and on so that changed speed is applied. The Default setting is 9600 bps. (Refer to part c of the figure 8)

- **NTSC / PAL SELECT (DIP SWITCH No. 4):**

As a converting switch NTSC system to PAL system, this switch cannot be changed by user due to the setting up a fix in the mill. Please do not change. If you want to change the switch, please check model of this product which is a NTSC or PAL.

(Refer to part c of the figure 8)

- **EXT / INT (DIP SWITCH No. 5):**

The EXT switch is AC Line-Lock and the INT switch is internal sync. If you want to use the unit in the AC line-Lock, switch to EXT, the default is EXT

(Refer to part c of the figure 8).

- **TURN ON/OFF SWITCH:**

To start the speed dome camera, turn on the switch. If in reverse, turn off the switch.

(Refer to part a of the figure 8)

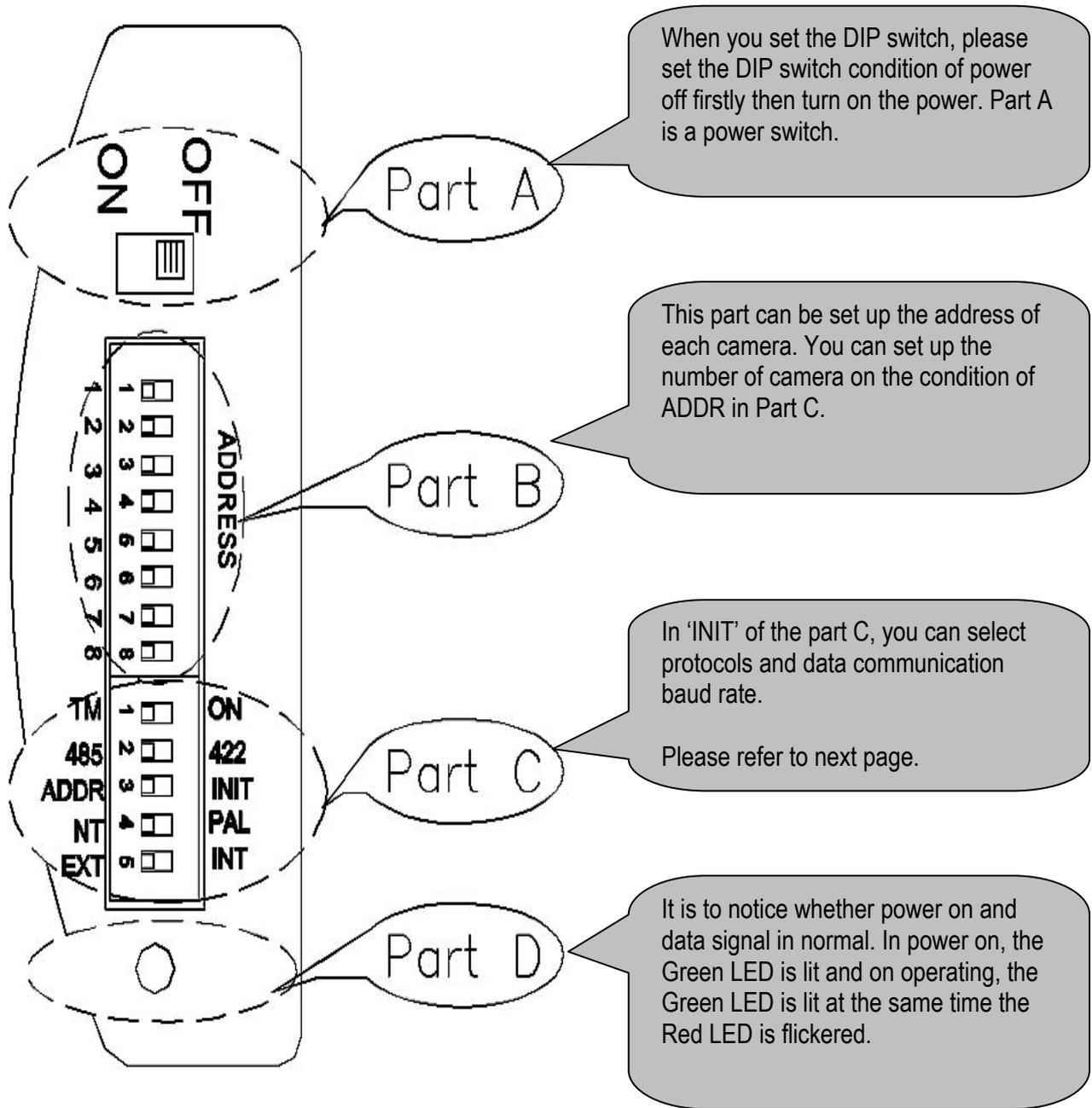


Figure 8. DIP SWITCH PANNEL ON THE DOME DRIVE

**NOTE:** Please you have to set up the DIP switches in turn off the power then finish the set up, turn on the power.

### 4.1.2 Setting address DIP Switches

Use address setting by DIP switches No. 1 to No. 8, It can be set 1 program to 255 programs.

**TABLE OF ADDRESS SETTING**

RX NO (DEC)	DIP SWITCH (HEX)							RX NO (DEC)	DIP SWITCH (HEX)						
	1	2	3	4	5	6	7		1	2	3	4	5	6	7
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	33	ON	OFF	OFF	OFF	OFF	ON	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	34	OFF	ON	OFF	OFF	OFF	ON	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	35	ON	ON	OFF	OFF	OFF	ON	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	36	OFF	OFF	ON	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	37	ON	OFF	ON	OFF	OFF	ON	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	38	OFF	ON	ON	OFF	OFF	ON	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	39	ON	ON	ON	OFF	OFF	ON	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	40	OFF	OFF	OFF	ON	OFF	ON	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	41	ON	OFF	OFF	ON	OFF	ON	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	42	OFF	ON	OFF	ON	OFF	ON	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	43	ON	ON	OFF	ON	OFF	ON	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	44	OFF	OFF	ON	ON	OFF	ON	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	45	ON	OFF	ON	ON	OFF	ON	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	46	OFF	ON	ON	ON	OFF	ON	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	47	ON	ON	ON	ON	OFF	ON	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	48	OFF	OFF	OFF	OFF	ON	ON	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	49	ON	OFF	OFF	OFF	ON	ON	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	50	OFF	ON	OFF	OFF	ON	ON	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	51	ON	ON	OFF	OFF	ON	ON	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	52	OFF	OFF	ON	OFF	ON	ON	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	53	ON	OFF	ON	OFF	ON	ON	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	54	OFF	ON	ON	OFF	ON	ON	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	55	ON	ON	ON	OFF	ON	ON	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	56	OFF	OFF	OFF	ON	ON	ON	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	57	ON	OFF	OFF	ON	ON	ON	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	58	OFF	ON	OFF	ON	ON	ON	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	59	ON	ON	OFF	ON	ON	ON	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	60	OFF	OFF	ON	ON	ON	ON	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	61	ON	OFF	ON	ON	ON	ON	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	62	OFF	ON	ON	ON	ON	ON	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	63	ON	ON	ON	ON	ON	ON	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	64	OFF	OFF	OFF	OFF	OFF	OFF	ON

\*\*\* If No.7 of DIP switch is ON, Rx No.1 changes to Rx No.65 in the above table and in last, Rx No.64 changes to Rx No.128.

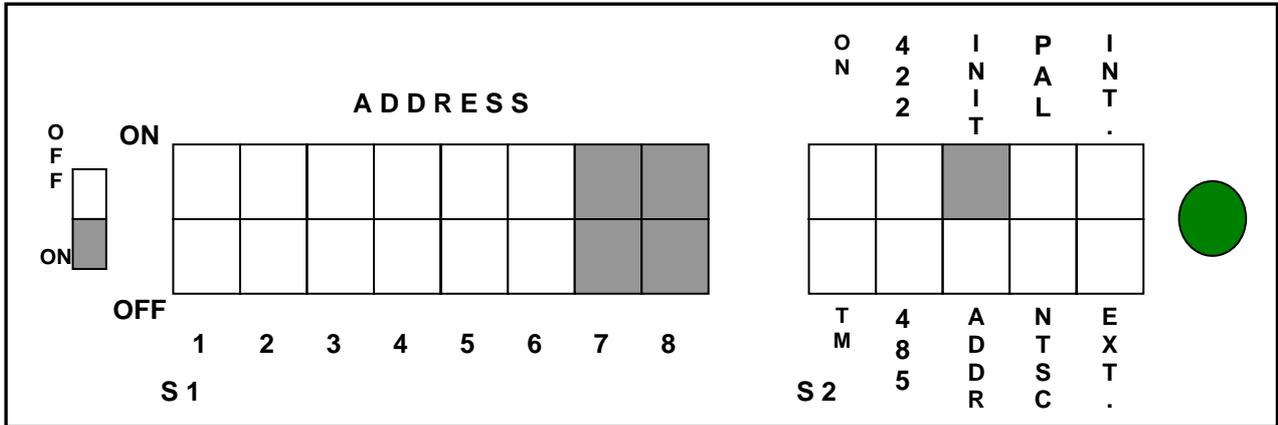
If No.7 of DIP switch is OFF and ext No.8 of IP switch is ON, then Rx No.1 changes to Rx No.129 in the above table and if No.7, No.8 of DIP switches are ON, then Rx No.1 changes to Rx 193 so that it can be set up to Max 255 of address. In the above table, Rx number is same to camera number.

### 4.1.3 Setting baud rate with DIP switches

These DIP switches allow user to set data communication baud rate to adapt to protocol as desire.

The protocols are selected with 2400 bps, 4800 bps and 9600 bps. Use baud rate for this speed dome with DIP switches as bellows:

To program the baud rate, it must be turned off the power first and after setting it must be turned on the power.



BAUD RATE	S 1		S 2
	SW 7	SW 8	SW 'INIT+ADDR'
2400 bps	ON	OFF	INIT
4800 bps	OFF	ON	INIT
9600 bps	OFF	OFF	INIT

The following steps are the setting to 2400 bps:

- Turn off the power on the dome.
- DIP SW (INIT+ADDR) must be switched to 'INIT' first.
- DIP SW 7 is ON.
- Turn on the power to initialize 2400 bps.
- Turn off the power after initializing baud rate and switch from 'INIT' to 'ADDR' and DIP SW 7 is off.
- Turn on the power again. Now it is on 2400 bps.

The following steps are the setting to 4800 bps:

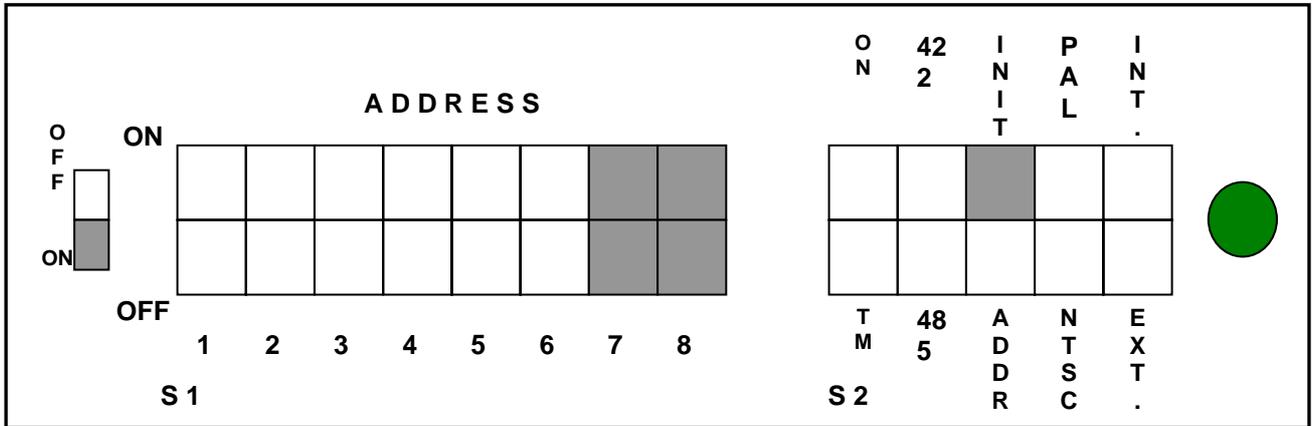
- Turn off the power on the dome.
- DIP SW (INIT+ADDR) must be switched to 'INIT' first.
- DIP SW 8 is on.
- Turn on the power to initialize 4800 bps.
- Turn off the power after initializing baud rate and switch from 'INIT' to 'ADDR' and DIP SW 8 is off.
- Turn on the power again. Now it is on 4800 bps.

The following steps are the setting to 9600 bps:

- Turn off the power on the dome.
- DIP SW (INIT+ADDR) must be switched to 'INIT' first.
- DIP SW 7 & 8 is off.
- Turn on the power to initialize 9600 bps.
- Turn off the power after initializing baud rate and switch from 'INIT' to 'ADDR'.
- Turn on the power again. Now it is on 9600 bps. (9600 bps is default baud rate from factory.)

### 4.1.4 Setting protocols with DIP switches

It allows user to operate this dome with various command protocols. It can be programmed with DIP switches. To program the protocol, it must be turned off the power first.



PROTOCOL	S 1				S 2
	SW 1	SW 2	SW 7	SW 8	SW 'INIT+ADDR'
D-MAX (9600 bps)	OFF	OFF	OFF	OFF	INIT
P-P (9600 bps)	ON	OFF	OFF	OFF	INIT
P-P (4800 bps)	ON	OFF	OFF	ON	INIT
P-P (2400 bps)	ON	OFF	ON	OFF	INIT
P-D (4800 bps)	OFF	ON	OFF	ON	INIT
P-D (2400 bps)	OFF	ON	ON	OFF	INIT

The following steps are the setting protocol:

- ① Turn off the power on the dome.
- ② Turn off all DIP switches for address in 8-PIN DIP switches.
- ③ DIP SW (INIT+ADDR) in 5-PIN DIP switches must be switched to 'INIT' first.
- ④ Switch on the each DIP SW as desire. Refer to the above table for protocol as desire.
- ⑤ Turn on the power for initializing the protocol.
- ⑥ Turn off the power after initializing the protocol.
- ⑦ Reposition all DIP switches such as protocol programming before. (DIP SW 'INIT' is switched to 'ADDR' also)
- ⑧ Set up address switches for this camera as desire.
- ⑨ Turn on the power again.

- Now it can be operated on desired protocol.
- The default is D-MAX protocol, 9600 bps.

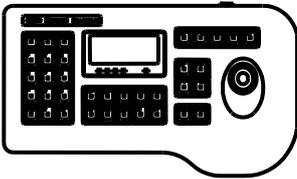
## 5. HOW TO OPERATE YOUR DOME SYSTEM

### 5.1 How to operate your dome system

<u>Operation</u>	<u>How to Control</u>
<b>Pan and Tilt</b>	Move joystick or press the direction keys left/right and up/down.
<b>Zoom Out</b>	To zoom out, do the following: 1. Press the Zoom In button or turn the joystick clockwise until zoom stops at the 46X zoom limit. (in default) 2. Release the button or joystick for one second. 3. To continue zooming (digitally), press the button or turn the joystick clockwise again until you have the picture you want or reach the digital zoom* limit.
<b>Zoom In</b>	Press the Zoom-In button or turn the joystick counterclockwise.
<b>Swing</b> Pan Swing Tilt Swing	[SET] + [SWING] [SET] + [SWING]
<b>Presets</b>	Refer to the preset programming section in this manual and supplied the keyboard's manual.
<b>Group Tour</b>	Refer to the group programming section in this manual and supplied the keyboard's manual.
<b>Auto Tour</b>	Refer to the tour programming section in this manual and supplied the keyboard's manual.
<b>PTZ Trace</b>	Refer to the privacy masking zone section and supplied the keyboard's manual.
<b>Privacy masking Zones</b>	Refer to the alarms section in this manual and supplied the keyboard's manual.
<b>Alarms</b>	Refer to the Alarms section in this manual.
<b>Auto Tilt Move</b>	Turn on or off in the programming ODS menu. Refer to the Auto Tilt Move section in this manual.

\* Digital zoom magnifies the image electronically and the picture may appear pixilated. The larger the digital zoom limit the greater the reduction in resolution.

## 5.2 Accessing OSD Menu



You can call up the main menu on your monitor by OSD (On Screen Display) menu.

**Enter [1] + [MENU] key**

Programming OSD menu for the keyboard controllers varies according to the type of controller you are using. Instructions for programming OSD menu are given below for various dedicated controllers.

### THE DEDICATED KEYBOARD CONTROLLER

1. Enter the number of the superior dome system and press the CAM key.
2. Enter numeric <1> and press [MENU] key on the keyboard.
3. The OSD menu appears on the monitor.

---

*NOTE: The round edge square is a view on the monitor and the rectangular square is a view on the keyboard as below.*

---



<View on the keyboard>



<View on the monitor>

## 6. HOW TO PROGRAM YOUR DOME SYSTEM

**SPEED DOME CAMERA**  
Ver. XXXX  
- CAMERA Module: xx  
- Protocol : XXXX  
< COMM : 9600, N, 8, 1 >  
- Input Power: xx [v]

The system information screen displays dome drive model, software version, and other diagnostic information.

System settings cannot be changed using this screen. This screen is for reference only.

Use the following steps to display the system information LCD screen on the keyboard:

1. Use the keyboard.
2. Enter the related camera number and press [CAM] key e.g. [1] + [CAM]
3. Enter number [3] and press [STATUS] key.
4. The SYSTEM INFORMATION appears on the monitor.
5. It appears the information for approx. 3 seconds.

## 7. DOME SETTING

<View on the monitor>

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001  
2. ID Display : ON  
3. Back Light : OFF  
4. Shutter speed : AUTO  
5. BLC level : 052  
6. White balance : AUTO  
7. Focus mode : AUTO  
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001  
2. ID Display : ON  
3. Back Light : OFF  
4. Shutter speed : AUTO  
5. BLC level : 052  
6. White balance : AUTO  
7. Focus mode : AUTO  
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001  
2. ID Display : ON  
3. Back Light : OFF  
4. Shutter speed : AUTO  
5. BLC level : 052  
6. White balance : AUTO  
7. Focus mode : AUTO  
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

Using the keyboard, it can be opened the OSD menu on the monitor. Enter number <1> and press [MENU] key on the monitor.

Numeric [1] + [MENU] key

### 1. ID Set

ID Set allows you to program how labels are displayed on the monitor for identification of camera.

To set a label of ID: It allows set 16 characters.

1. Use the joystick to position the cursor beside a label.
2. Use the joystick to turn the label up, down or press [Z/I] / [Z/O] key
3. If you move the joystick up or down, move to other menu item.

### 2. ID DISPLAY

ID Display allows the programmed set camera ID label to display on the monitor or not as desire.

There are two ID display settings:

- ON (default) – If ID Display mode is set to ON, the camera ID label will be displayed on the monitor.
- OFF – Camera ID label is not displayed.

To set the ID Display mode:

1. Use the joystick to move left/right.
2. The parameter of menu is changed to: ON, OFF
3. After select one of parameter, move to joystick up or down.

### 3. BACK LIGHT

Backlight is a back light compensation (BLC). If a bright backlight is present, the objects in the picture may appear dark or as a silhouette. Back light compensation enhances objects in the center of the picture. The dome uses the center of the picture to adjust the iris. If there is a bright light source outside of this area, it will wash out to white. The camera will adjust the iris so that the object in the sensitive area is properly exposed.

There are three backlight compensation settings:

- ON – Backlight compensation is activated.
- OFF (default) – Backlight compensation is not activated.

To set the backlight mode:

1. Move the joystick left / right.
2. The parameter of the menu is changed to: OFF, ON.

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001
2. ID Display : ON
3. Back Light : OFF
4. Shutter speed : AUTO
5. BLC level : 052
6. White balance : AUTO
7. Focus mode : AUTO
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001
2. ID Display : ON
3. Back Light : OFF
4. Shutter speed : AUTO
5. BLC level : 052
6. White balance : AUTO
7. Focus mode : AUTO
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001
2. ID Display : ON
3. Back Light : OFF
4. Shutter speed : AUTO
5. BLC level : 052
6. White balance : AUTO
7. Focus mode : AUTO
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001
2. ID Display : ON
3. Back Light : OFF
4. Shutter speed : AUTO
5. BLC level : 052
6. White balance : AUTO
7. Focus mode : AUTO
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

## 4. SHUTTER SPEED

Shutter speed is the duration of the electronic shutter. Program shutter speed to operate automatically (Auto) or manually (Numeric Value).

- AUTO (default) – The electronic shutter speed is set automatically by the amount of light sensed by the camera.
- Manual – it allows to control iris with this menu. Before setup, please 'day/night' & 'DSS' should be off.

## 5. BLC LEVEL

BLC level is a backlight compensation level control. Program BLC level to operate manually (Numeric Value). Before setup, make sure of 'Back Light is ON.

To set the BLC level with the joystick left / right:

- Level control – 000,001, ... , 077, 078.
- The default value is 052.

## 6. WHITE BALANCE

This feature automatically processes the viewed the image to retain color balance over a color temperature range. The default setting for white balance is AUTO.

There are four settings:

- AUTO – the camera adjust to control white balance automatically.
- INDOOR – Adjusts the picture output in the red range. As you change the value, you will see the color change on your monitor.
- OUTDOOR – Adjusts the picture output in the blue range. As you change the value, you will see the color change on your monitor.

## 7. FOCUS MODE

Focus mode allows the lens to remain in focus during zoom-in, zoom-out. The default is ONESHOT. To set is with the joystick left / right on the parameter.

There are two focus settings:

- AUTO – If focus mode is set to AUTO, the camera will focus automatically when using pan, tilt and zoom functions.
- MANUAL – Focus is operated manually. To focus, press the Focus Far or Focus near button on the keyboard.

<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001  
2. ID Display : ON  
3. Back Light : OFF  
4. Shutter speed : AUTO  
5. BLC level : 052  
6. White balance : AUTO  
7. Focus mode : AUTO  
8. Zoom MAX Limit : x46

- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off: AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English

- PREV MENU PAGE  
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off: AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English

- PREV MENU PAGE  
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off: AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English

- PREV MENU PAGE  
- NEXT MENU PAGE

## 8. ZOOM MAX LIMIT

Zoom max limit allows the user to define a limitation on the amount of telephoto zoom. The default setting is X46.

Camera with 230X zoom (23X optical zoom and 10X digital zoom) can be set for X23, X46, X69, X92, X115, X140, X163, X184, X210 and X253.

## 9. DSS CONTROL

DSS (Digital-Slow-Shutter) control allows the camera can be operated in low light condition. The level value of 32 fields is the maximum. Increasing value with the joystick left / right on the parameter, it can be looked at the objects more brightness in low light condition but if the camera is moving, the displayed pictures on the monitor is the error of real-time movie according to DSS level up. Due to the CPU accumulates amounts of the lights in physical time and displays pictures on the monitor through electronic processes. The time is slow than the physical moving time in nature.

To set is with the joystick left / right on the parameter:

- Control – OFF, 02, 04, 08, 16 (Default), 32 fields.

## 10. WDR ON/OFF

WDR (Wide-Dynamic-Range) on/off allows to super backlight compensation. This function is a new high technology of BLC function. It allows identify the objects clearer in the strong backlight condition.

There are three settings:

- AUTO (default) – According to amount of backlight, the camera is compensated automatically and especially it allows perform in zoom-in.
- Manual – Compensate for backlight continuously regardless amount of backlight.
- OFF - The function is off (Factory default).

## 11. WDR LEVEL

WDR level allows compensative performance to increase for backlight. The default is 100.

If the value is increased, the camera is more sensitivity for backlight but it is possible to bring video noise according to increasing.

Before setup, make sure of 'WDR On/Off' is manual.

To set is with the joystick left / right on the parameter (When value setting, it must be WDR On first):

- Control – 000, 001, ... , 014, 126.
- The default is 100.

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off : AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English  
- PREV MENU PAGE  
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off : AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English  
- PREV MENU PAGE  
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off : AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English  
- PREV MENU PAGE  
- NEXT MENU PAGE

## 12. DAY & NIGHT ON/OFF

Day & Night on/off allows the camera operating in night or low light condition to be turned monochrome on the monitor.

There are four settings:

- AUTO-MID (default): Convert to monochrome mode automatically according to low light condition with medium sensing.
- AUTO-LOW: Convert to monochrome mode automatically according to low light condition with low sensing.
- AUTO-HI: Convert to monochrome mode automatically according to low light condition with high sensing
- OFF: Do not convert to monochrome mode, even if the camera in low light condition.
- ON: Convert to monochrome mode by force, regardless color, daylight.

## 13. AUTO TILT MOVE

When the camera tilts downward and goes just beyond the vertical position, the dome rotates 180 degrees. When the dome rotates (flips), the camera starts moving upward as long as you continue to hold the joystick in the down position. Once you let go of the joystick after the dome rotates, joystick control returns to normal operation. The auto-tilt move feature is useful for following a person who directly beneath the dome.

There are two auto tilt move modes:

- ON – Auto tilt move mode is enabled.
- OFF (default) – Auto tilt move mode is disabled.

## 14. SMART PAN TILT

This function allows the pan tilt of movement is adapted to zoom ratio. In zoom-in, the pan tilt movement is slow.

- OFF: this function is off.
- ON: this function is available.

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off : AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English  
- PREV MENU PAGE  
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. DSS Control : 16 fields  
10. WDR On off : Off  
11. WDR Level : 100  
12. DAY&NIGHT of/off : AUTO-MID  
13. Auto Tilt Move : Off  
14. Smart PanTilt : On  
15. Manual P/T Speed : Medium  
16. Language : English  
- PREV MENU PAGE  
- NEXT MENU PAGE

## 15. MANUAL P/T SPEED

Manual pan/tilt travel speed allows user to define the maximum travel speed limit.

The range of travel speed is adjustable from 0.1 to 250 degrees per seconds in manual. It allows adjust to various speed control in detail.

There are three settings:

- Low – The travel speed is limited up to 40 degrees per seconds in manual.
- MEDIUM (default) – The travel speed is limited up to 90 degrees per seconds in manual.
- HIGH – The travel speed is unlimited up to 250 degrees per seconds in manual.

## 16. LANGUAGE

This allows to display OSD menu and messages in some languages.

There will be 6-language as blow:

- English (Default), Portuguese.
- To be, Spanish, Polish, Japanese, Chinese.

<< CAMERA SETUP p3 >>

17. Select Alarm : Sensor  
18. Motion on/off : Off  
19. Motion Detection Set :  
20. PRIVACY ZONE SET :  
21. ALARM CH ON/OFF PAGE  
22. ALARM PRESET SET PAGE  
23. FACTORY RESET WARNING!

- PREV MENU PAGE

<< CAMERA SETUP p3 >>

17. Select Alarm : Sensor  
18. Motion on/off : Off  
19. Motion Detection Set :  
20. PRIVACY ZONE SET :  
21. ALARM CH ON/OFF PAGE  
22. ALARM PRESET SET PAGE  
23. FACTORY RESET WARNING!

- PREV MENU PAGE

<< CAMERA SETUP p3 >>

17. Select Alarm : Sensor  
18. Motion on/off : Off  
19. Motion Detection Set  
20. PRIVACY ZONE SET  
21. ALARM CH ON/OFF PAGE  
22. ALARM PRESET SET PAGE  
23. FACTORY RESET WARNING!

- PREV MENU PAGE

## 17. SELECT ALARM

It allows to choose sensing type for preset. There are two kind of type as below:

- Sensor (default): With alarm sensor to connect preset, it is available.
- Motion – It allows to use motion detection. (it needs to set up motion setting.)

## 18. MOTION ON/OFF

To use motion detection, it has to be ON.

## 19. MOTION DETECTION SET

Detect Level: 00 ~ 05 (High number is high sensing)

Detect Position: 01 ~ 08 (Set up to 8 zones)



Detect Level: 01  
Detect Position: 01

Press [Z/I], set Level  
[F/F] position, [F/N] save RTN

- ① Set up the parameter of detect position 01 to 08.
- ② It can be moved the sensing cursor to a location as desire with a joystick.
- ③ Set up the sensing level 01 to 05 for each position. Level 01 is light sensing and up to 05 is high density if sensing.
- ④ After set up, to exit and save the set up with a pressing [F/N].

<< CAMERA SETUP p3 >>  
 17. Select Alarm : Sensor  
 18. Motion on/off : Off  
 19. Motion Detection Set  
**20. PRIVACY ZONE SET**  
 21. ALARM CH ON/OFF PAGE  
 22. ALARM PRESET SET PAGE  
 23. FACTORY RESET WARNING!  
 - PREV MENU PAGE



◀◀ PRIVACY ZONE SET ▶▶  
 - CH1 : BLANK - CH2 : BLANK  
 - CH3 : BLANK - CH4 : BLANK  
 - CH5 : BLANK - CH6 : BLANK  
 - CH7 : BLANK - CH8 : BLANK  
**- SET ZONE : CH01**  
 - DELETE ZONE : CH01  
 - PREV MENU PAGE  
 Press ENTER (F/F), SET/DEL



  
 Press ESC (F/N), Return MENU



◀◀ PRIVACY ZONE SET ▶▶  
 - CH1 : OFF - CH2 : BLANK  
 - CH3 : BLANK - CH4 : BLANK  
 - CH5 : BLANK - CH6 : BLANK  
 - CH7 : BLANK - CH8 : BLANK  
 - SET ZONE : CH01  
 - DELETE ZONE : CH01  
 - PREV MENU PAGE  
 Press ENTER (F/F). SET/DEL

## 20. PRIVACY ZONE SET

A privacy masking zone is a pan area, defined by a left and right limit, on the 360-degree pan plane. The masking zones are adapted to depth of zoom-in and zoom-out. The Superior Speed Dome system is capable of six masking zones.

To program the masking zone with the joystick left / right on the parameter:

- ① First, make zoom-out to limit before programming.
- ② Move the joystick up or down to position the cursor beside SET ZONE.
- ③ Move the joystick left or right. The parameter will be changed.
- ④ Select zone channel number from CH1 up to CH8 as desire.
- ⑤ When you select zone channel number, press [F/F] key on the keyboard.
- ⑥ The masking zone programming window appears on the monitor.
- ⑦ Use the joystick to position this masking zone window as you desire.

There are two zone window size settings:

- [Z/O] key - Adjust the size of window is to be large (As same to way, turn the joystick to counterclockwise).
- [Z/I] key – Adjust the size of window is to be small (As same to way, turn the joystick to clockwise)

If the setting is done, press [ESC] button on the keyboard.

- The previous menu appears on the monitor.
- CH1 is changed to OFF (The zone is ready to setting).

Enable the Masking Zone:

- After programming the masking zone, there is no masking zone on the monitor. To view the programmed masking zone, the followings:
- Move the joystick up or down to position the cursor beside CH1.
- Move the joystick left or right on the parameter to ON.
- The programmed masking zone is appeared on the monitor.
- If you want to disable the masking zone, joystick left or right to OFF.

Delete the masking zone:

- To delete the programmed masking zone is with joystick up or down to position the cursor beside DELETE ZONE. To set:
- Move the joystick left or right the parameter to be channel number as desire.
- After select, press [F/F] key on the keyboard.
- It is changed to CH1: BLANK.

To save and exit OSD menu, press:

Enter [1] and press [MENU] key on the keyboard.

```

<< CAMERA SETUP p3 >>
17. Select Alarm : Sensor
18. Motion on/off : Off
19. Motion Detection Set
20. PRIVACY ZONE SET
21. ALARM CH ON/OFF PAGE
22. ALARM PRESET SET PAGE
23. FACTORY RESET WARNING!
- PREV MENU PAGE

```



```

<< ALARM CHANNEL ON/OFF >>
- Alarm channel-1 : OFF
- Alarm channel-2 : OFF
- Alarm channel-3 : OFF
- Alarm channel-4 : OFF
- Alarm RELAY : OFF
- Active Alarm : OPEN
- Resume Time Set : OFF
- PREV MENU PAGE

```



```

<< ALARM CHANNEL ON/OFF >>
- Alarm channel-1 : ON
- Alarm channel-2 : OFF
- Alarm channel-3 : OFF
- Alarm channel-4 : OFF
- Alarm RELAY : OFF
- Active Alarm : OPEN
- Resume Time Set : OFF
- PREV MENU PAGE

```



```

<< ALARM CHANNEL ON/OFF >>
- Alarm channel-1 : ON
- Alarm channel-2 : OFF
- Alarm channel-3 : OFF
- Alarm channel-4 : OFF
- Alarm RELAY : OFF
- Active Alarm : OPEN
- Resume Time Set : OFF
- PREV MENU PAGE

```

## 21. ALARM CH ON/OFF PAGE

The Superior Speed Dome has four alarm inputs, which can be programmed as 1 second to 180 seconds priority. When an alarm is received, an input signal to the dome triggers the user-defined action (go to presets) programmed for the alarm.

There is resume alarm setting:

- RESUME – This mode lets the dome resume its previous activity (swing, group-tour, auto-tour, or previous position) after all alarms are cleared.

### ALARM CHANNEL

There are two settings:

- ON – Activate alarm input.
- OFF (default) – Inactivate alarm input.

Use the following steps to program alarm settings:

1. Use the joystick to position the cursor beside Alarm CH on/off page. Move the joystick left or right to enter.
2. Use the joystick up or down to position the cursor beside each menu in the alarm channel on/off page.
3. Move the joystick left or right to be ON in each relative channel. If the set to ON, the channel is programmed.

### ALARM REALY

This function allows user want to disable alarm output, even if alarm input ready to activate.

There are two settings:

- OFF (default) – Disable alarm output by force against activated input signals.
- ON – Enable alarm output when input signal activate.

```

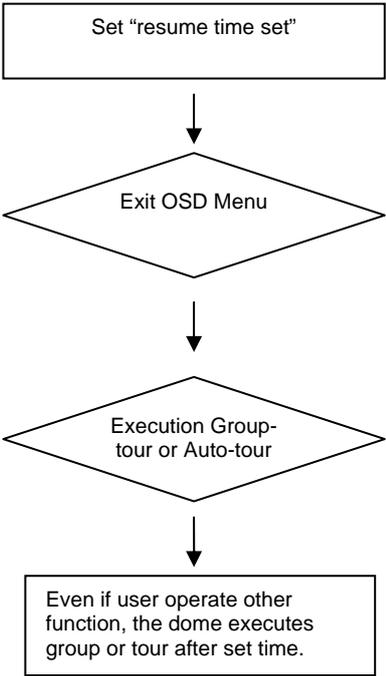
<< ALARM CHANNEL ON/OFF >>
- Alarm channel-1 : ON
- Alarm channel-2 : OFF
- Alarm channel-3 : OFF
- Alarm channel-4 : OFF
- Alarm RELAY : OFF
- Active Alarm : OPEN
- Resume Time Set : OFF
- PREV MENU PAGE

```

### RESUME TIME SET

It allows revert to previous position (Swig, Group, Tour, etc) after alarm active.

- Select the alarm priority:
  1. Use the joystick to position the cursor beside RESUME TIME SET.
  2. Move the joystick left or right to set to: OFF (default), 001 second to 180 seconds.
- For reverting sequence functions, this resume time set allows the dome reverts to "Swing" 'Group-tour', and 'Auto tour'.
  - The following is the steps:



### ACTIVE ALARM

- Active Alarm allows choose to alarm sensor type: OPEN or CLOSE.
- The default is OPEN.

*Note : Normally, there are two kind of sensor. One is open type sensor and other is close type sensor. e.g. PIR sensor is OPEN type sensor.*

<< CAMERA SETUP p3 >>  
 17. Select Alarm : Sensor  
 18. Motion on/off : Off  
 19. Motion Detection Set  
 20. PRIVACY ZONE SET  
 21. ALARM CH ON/OFF PAGE  
 22. ALARM PRESET SET PAGE  
 23. FACTORY RESET WARNING!  
 - PREV MENU PAGE



<< ALARM PRESET SET >>  
 - Alarm CH1 Preset No : 001  
 - Alarm CH 2 Preset No : 001  
 - Alarm CH3 Preset No : 001  
 - Alarm CH3 Preset No : 001  
 - Home Position Preset : 001  
 - Home Position Time : OFF  
 - PREV MENU PAGE



<< ALARM PRESET SET >>  
 - Alarm CH1 Preset No : 001  
 - Alarm CH 2 Preset No : 001  
 - Alarm CH3 Preset No : 001  
 - Alarm CH3 Preset No : 001  
 - Home Position Preset : 001  
 - Home Position Time : OFF  
 - PREV MENU PAGE



## 22. ALARM PRESET SET PAGE

### ALARM CH PRESET NO.

This function allows user to program alarms with preset positions. For 4-input alarms, each alarm channel can be programmed one preset in no.1 to no. 128 preset positions.

Set the alarm preset:

1. Use the joystick up or down to position the cursor beside each channel.
2. Move the joystick left or right on the parameter.
3. Select preset number one preset in 001 to 128 as desire.

### HOME POSITION PRESET

Home position preset allows user to program one of 128-presets with home position. With home position time, it allows the camera to go back to home position by force after priority on any position or any sequence.

Set the home position:

1. Use the joystick up or down to position the cursor beside Home Position Time.
2. Move the joystick left or right the cursor on the parameter.
3. Select time from 001 second to 180 seconds as desire.
4. The default is OFF and if the value is OFF, this function disables.

### HOME POSITION TIME

It allows the dome to revert to home position after any location by force.

Select the home position priority:

5. Use the joystick to position the cursor beside RESUME TIME SET.
6. Move the joystick left or right to set to:  
 OFF (default), 001 second to 180 seconds.

CAM-001  
Save Alarm

CAM-001  
SCAN Alarm

CAM-001  
SCAN END

CAM-001  
Alarm CH1, PST01

CAM-001  
Relay ON

CAM-001  
Relay OFF

### ALARM MESSAGE (1)

This function allows user to program alarms with the keyboard controller.

Set the alarm preset:

- Save Alarm - The message is appeared on the monitor when it is memorized a related preset number on an activated sensor. It is appeared by means of that is a directly programmed by the keyboard without use OSD menu. How to program the alarm set, refer to the keyboard's manual.
- Scan Alarm – With the keyboard, select to alarm on of the related camera and it appears a message in a watching with alarm on.
- Scan End – With the keyboard, select to alarm off, it appears a message in a watching is end with alarms. But camera is continuously watching by itself, therefore if user wants to stop the camera watching, select to OFF all alarm channels in OSD menu.

### ALARM MESSAGE (2)

This message is appeared when the alarm is activated with related preset.

- Alarm CH1 – In normal activity, it appears a channel number that is assigned in setting.
- Relay ON – In selecting ON to alarm relay of the related camera with the keyboard.
- Relay OFF – In selecting OFF to alarm relay of the related camera with the keyboard.

The alarm relay is on any alarm channel which one is activated in the four alarm channels. After approx 1 minute, it will turn OFF automatically and it can be turned OFF to push CLR key on the keyboard.

<< CAMERA SETUP p3 >>

17. Select Alarm : Sensor  
18. Motion on/off : Off  
19. Motion Detection Set  
20. PRIVACY ZONE SET  
21. ALARM CH ON/OFF PAGE  
22. ALARM PRESET SET PAGE  
23. FACTORY RESET WARNING!  
- PREV MENU PAGE

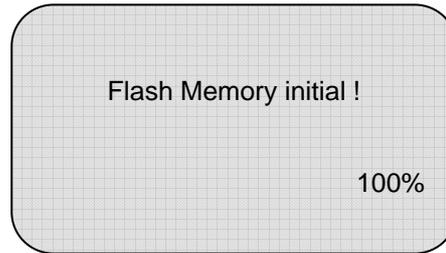
## 23. FACTORY RESET PAGE

This function allows the camera to delete the all programmed data and go back to default status.

If you select this menu, the camera is rebooting.

Move the joystick up or down to position the cursor on the parameter:

- It appears the warning message.
- Joystick left or right on this menu: go back to reboot.



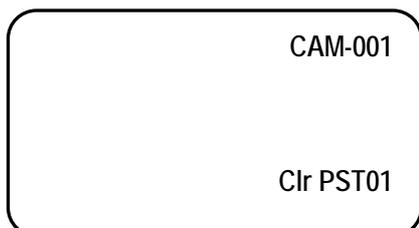
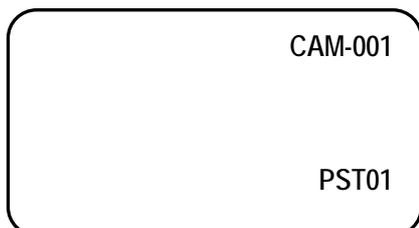
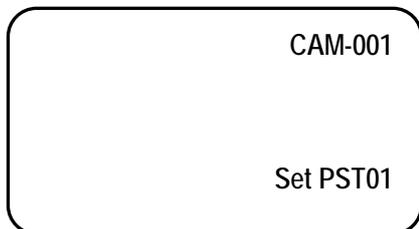
---

***NOTE : Warning! If you select the menu, all of the programmed data is loosen.***

---

## 8. PRESET PROGRAMMING

<View on the monitor>



### PRESET PROGRAMMING

The Superior Speed Dome System allows user to program preset up to 128-preset positions with the keyboard controller.

The following steps are the settings:

1. Before setting, position to camera as you desire with the joystick. Press [SET] key and enter preset number [1], press [P-SET] key on the keyboard.
2. It appears messages on the monitor.

How to program the presets:

- SET: [SET] + Preset No [1] ~ [128] + [P-SET]
- DELETE:  
[CLR](for 3 seconds) + Preset No [1] ~ [128] + [P-SET] + [ENT]
- DELETE ALL: [CLR](for 3 seconds) + [P-SET] + [ENT]

---

*NOTE: These buttons is not pressed at the same time. It is pressed in each.*

---

## 9. SWING PROGRAMMING

<View on the keyboard>

```
- SET SWING -  
Sw Mode : 1 = Pan, 2 = Tilt  
Camera : 000  
Input? [MAIN]
```



```
- SET SWING -  
Swing Start No?  
Camera : 000  
Input? [MAIN]
```



```
- SET SWING -  
Swing End No?  
Camera : 000  
Input? [MAIN]
```



```
- SET SWING -  
Swing Time? 1 - 127 sec  
Camera : 000  
Input? [MAIN]
```



```
- SET SWING -  
Swing Speed? 1 - 64 / sec  
Camera : 000  
Input? [MAIN]
```

<View on the monitor>

```
CAM-001  
SAVE Swing
```

```
CAM-001  
Swing
```

### SWING PROGRAMMING

Before programming the swing, it must be programmed presets.

#### PAN or TILT SWING

The following steps are the settings:

1. Press [SET] key and press [SWING] key on the keyboard.
2. It appears the menu message on LCD of keyboard.
3. Enter numeric [1] key for pan swing or enter numeric [2] key for tilt swing. EX) enter [1] + press [ENT] key.
4. Set swing start preset number on 'Swing Start No?' and press [ENT] key.
5. Set swing end preset number on 'Swing End No?' and press [ENT] key.
6. Set swing dwell time on 'Swing Time?' and press [ENT] key.
7. Set swing speed on 'Swing Speed?' and press [ENT] key.
8. Finally, press [SET] key on the keyboard.

If you want to stop the swing, press [SWING] key or touch the joystick.

During the swing programming, it appears a message to be done the set on the monitor as 'SAVE Swing'.

When the swing runs, it appears a message on the monitor as 'SWING'.

How to run and stop programmed swing:

- RUN: Press [SWING] key on the keyboard to run the swing.
- STOP: Press [SWING] key again or touch the joystick to stop the swing.

# 10. GROUP PROGRAMMING

<View on the keyboard>

```

- SET GROUP -
Group No? 1 - 6
Camera : 000
Input?           [MAIN]
    
```



```

- SET GROUP -
Preset No? 1 - 128
Camera : 000
Input?           [MAIN]
    
```



```

- SET GROUP -
Move Speed? 1 - 127 sec
Camera : 000
Input?           [MAIN]
    
```



```

- SET GROUP -
Dwell Time? 1 - 127 sec
Camera : 000
Input?           [MAIN]
    
```



```

- SET GROUP -
Preset No? 1 - 128
Camera : 000
Input?           [MAIN]
    
```

<View on the monitor>

```

CAM-001
Set GRP1-01
    
```

```

CAM-001
GRP1-01
    
```

## GROUP PROGRAMMING

The 'Group' means a group-touring sequence. Before programming the group, it must be programmed presets. The one group program allows set up to maximum 12 presets.

The following steps are the settings:

1. Press [SET] key and press [GROUP] key on the keyboard.
2. It appears the menu message on LCD of keyboard at the same time a message "Set GRP1" on the monitor.
3. Enter numeric <1> key for group as desire from No (1) to No (6) and press [ENT] key on the keypad.
4. Set preset number on 'Preset No? 1 - 128?' and press [ENT] key.
5. Set group sequence speed to next preset on 'Move Speed? 1 - 127 sec'. 1 sec is highest speed and press [ENT] key.
6. Set Dwell Time to next preset on 'Dwell Time? 1 -127' and press [ENT] key. It is the shortest in 1 sec and the longest in 127 sec.
7. Set next preset number on 'Preset No? 1 - 128' and press [ENT] key.
8. Repeat again the above settings sequence as desire.
9. Finally, press [SET] key on the keyboard.

How to run and stop programmed group:

- RUN: Enter numeric (1) ~ (6), and press [GROUP] key on the keyboard to run the group as you want.
  - [1] + [GROUP]
  - [2] + [GROUP]
  - [3] + [GROUP]
  - [4] + [GROUP]
  - [5] + [GROUP]
  - [6] + [GROUP]
- STOP: Press [GROUP] key again or touch the joystick to stop the group.

---

*NOTE: It allows the Group-tour to memory the preset up to 72 positions, even though this camera enables to program up to 128 preset positions.*

---

# 11. TOUR PROGRAMMING

<View on the keyboard>

```
- SET TOUR -  
Group No? 1 - 6  
Camera : 000  
Input? [MAIN]
```



```
- SET TOUR -  
Group No? 1 - 6  
Camera : 000  
Input? [MAIN]
```

<View on the monitor>

```
CAM-001  
Set Tour1
```

```
CAM-001  
Tour-01
```

## TOUR PROGRAMMING

The 'Tour' means an auto-touring sequence.  
Before programming the group, it must be programmed groups.  
The tour program allows set up to maximum 6 –group and 72 presets.

The following steps are the settings:

1. Press [SET] key and press [TOUR] key on the keyboard.
2. It appears the menu message on LCD of keyboard at the same time a message "Set Tour1" on the monitor.
3. Enter numeric key for group from No (1) to No (6) for tour and press [ENT] key.
4. Set group number on 'Group No? 1 - 6' and press [ENT] key.
5. After entering group number and pressing [ENT] key, it appears a message again, 'Group No? 1 – 6' sequentially up to full setting.
6. Finally, press [SET] key on the keyboard.

How to run and stop programmed group:

- RUN: Press [TOUR] key on the keyboard to run the tour.
- STOP: Press [TOUR] key again or touch the joystick to stop the group.

## 12. SPIRAL SEQ PROGRAMMING

<View on the monitor>

**CAM-001**

**Spiral SEQ**

### SPIRAL SEQ PROGRAMMING

This function allows make spiral surveillance in a way that the camera moves from upper, rotate and slow down sequentially.

How to run and stop programmed group:

- RUN – Enter [7] and press [MENU], [ON] key on the keyboard  
[7] + [MENU] + [ON]
- STOP: Enter [7] and press [MENU], [OFF] key or touch the joystick to stop the group.  
[7] + [MENU] + [OFF]

## 13. PTZ TRACE PROGRAMMING

<View on the keyboard>

```
- CCTV Transmitter -  
Trace ON / OFF?  
Camera : 000  
Input? 8 [MAIN]
```

```
- CCTV Transmitter -  
Trace Set / Delete?  
Camera : 000  
Input? 9 [MAIN]
```

### PTZ TRACE PROGRAMMING

This function allows memorize pan/tilt/zoom movement for 120 seconds, play back that trace to memorized movement and repeat again. It is programmed with the keyboard only.

There are three settings:

- SET – Enter [9] and press [MENU], [ON] key on the keyboard.  
[9] + [MENU] + [ON]
- Delete – Enter [9] and press [MENU], [OFF] key on the keyboard.  
[9] + [MENU] + [OFF]

How to operate the pan-tilt-zoom trace:

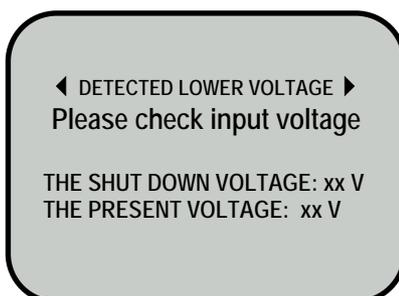
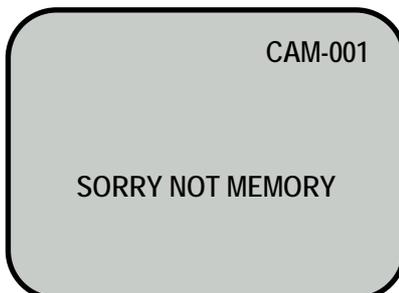
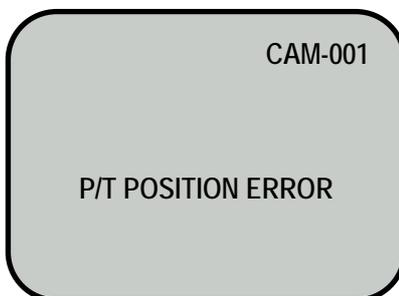
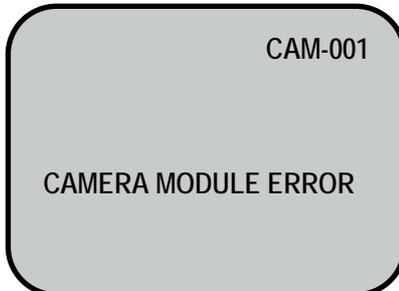
- RUN – Enter [8] and press [MENU], [ON] key on the keyboard  
[8] + [MENU] + [ON]
- STOP - Enter [8] and press [MENU], [OFF] key or touch the joystick to stop the group.  
[8] + [MENU] + [OFF]

When manipulating according this setting, the message of 'Trace memory' appears on the monitor. At the moment, move pan, tilt and zoom with the joystick.

If the memory time expires, the memorizing stop automatically and memorized ptz is registered.

## 14. ERROR MESSAGES

<View on the monitor>



### ERROR MESSAGES

Superior Speed Dome system appears error messages in wrong operations as below:

- **CAMERA MODULE ERROR** - It is appeared a message when it occurred abnormal communication from camera module in this equipment. This equipment make reset automatically.
- **P/T POSITION ERROR** - It is appeared a message when a pan of this equipment or tilt motor forget it's position. This equipment make reset automatically.
- **SORRY NOT MEMORY** - It is appeared a message when a calling a function without memory or number in an executed commend that user already memorized as like preset, swing, group, trace and so on. You may use to be memorized the related functions into this equipment.
- **DETECTED LOWER VOLTAGE** - It is appeared a message if the irregular input load voltage has been supplied to the dome in initializing or the irregular voltage has been supplied to the dome during 30 seconds on operating. To prevent system against serious damages by the irregular lower input power, the dome is shut down automatically. Before turn on the power, the user has to check the electrical lines system before the dome. After clear the electrical problem, turn on the power again. If the problem was not clear, the dome will be shut down again.
  - **THE SHUT DOWN VOLTAGE:** It is informed the input load voltage when the dome was shut down.
  - **THE PRESENT VOLTAGE:** it is appeared the preset input voltage, regardless shutdown voltage.

## 15. TROUBLE SHOOTING

### 15.1 Caution In Use

1. You must turn off the power switch before installation of this equipment
2. Avoid installation places where it is the ultimate cold, hot, and humid.
3. Use a power supply of AC24V, 1.5A output.
4. Please be careful that you connect respective wires without mismatching in installation.
5. Check the controlled cable's insulation connecting to exterior and supply to power sources.
6. Please keep the equipment from impact and strong rolling in installation or in use because of the caution of troubles.

### 15.2 Checking and maintenance in use.

TROUBLE SHOOTING	CHECK POINT	MAINTENANCE
Power do not turn on	Does the electric power supply into the equipment normally?	Check either LED is lit or not in the connector part of upper cover.
Power turned on but do not operate.	In operating, Does the LED beside power switch light to red?	<ul style="list-style-type: none"> <li>● Check the connecting status of data cable, if it is not lit.</li> <li>● If it is lit, check address and data communication bauds rate setting of DIP switches.</li> </ul>
	Did you select to RS485 or RS422 exactly?	Check the status at number 2 of option DIP switches.
The acting of pan/tilt is not good.	Did you turn on the ending terminal register? (The ending terminal resister can be switch on/off, if you loose cover of dome.)	Switch on the ending terminal resister of camera to be set in most far away.
Either it is not clean on screen or it is appeared rolling TV Lines on screen.	Is the power supply AC24V, 1.5A output?	Change the adapter has higher current charge than used adapter.
It is not focus on the object by manual.	Did you change min. distance in the set menu?	Change min. distance in the set menu.
It is continuously appeared error message of " P/T POSITION ERROR"	Did the under body of camera press or put between others?	Get rid of something that press camera, and check either camera is rotating in softly or not.
It is continuously appeared error message of " SORRY NOT MEMORY"	Did you set the related function?	Please refer to manual book and setting the function you want
It do not alarm relay ON in active alarm state.	Did you set ON the alarm relay in the set mode?	Please select on to enable alarm relay in the set mode
Even if sensor is normal, it is activated abnormal.	Is it correct alarm active setting status and sensor is either open or close?	Please set alarm active mode setting as to correct to connect status of sensor (it means either sensor is open or close) in the set mode.
When it activated alarm state, it is not exactly presser position or different.	Did you set the preset in the set mode?	Check setting status of the alarm preset in the set mode.
When it activated alarm state, there is no sign on the keyboard controller	Did you use the exclusive control keyboard?	It is need to use an exclusive control keyboard so that the alarm sound is activated on the controller
	Yes, I do.	Please select on to enable alarm of the related camera.

Please ask any other question to related company.

## 16. DIMENSIONS

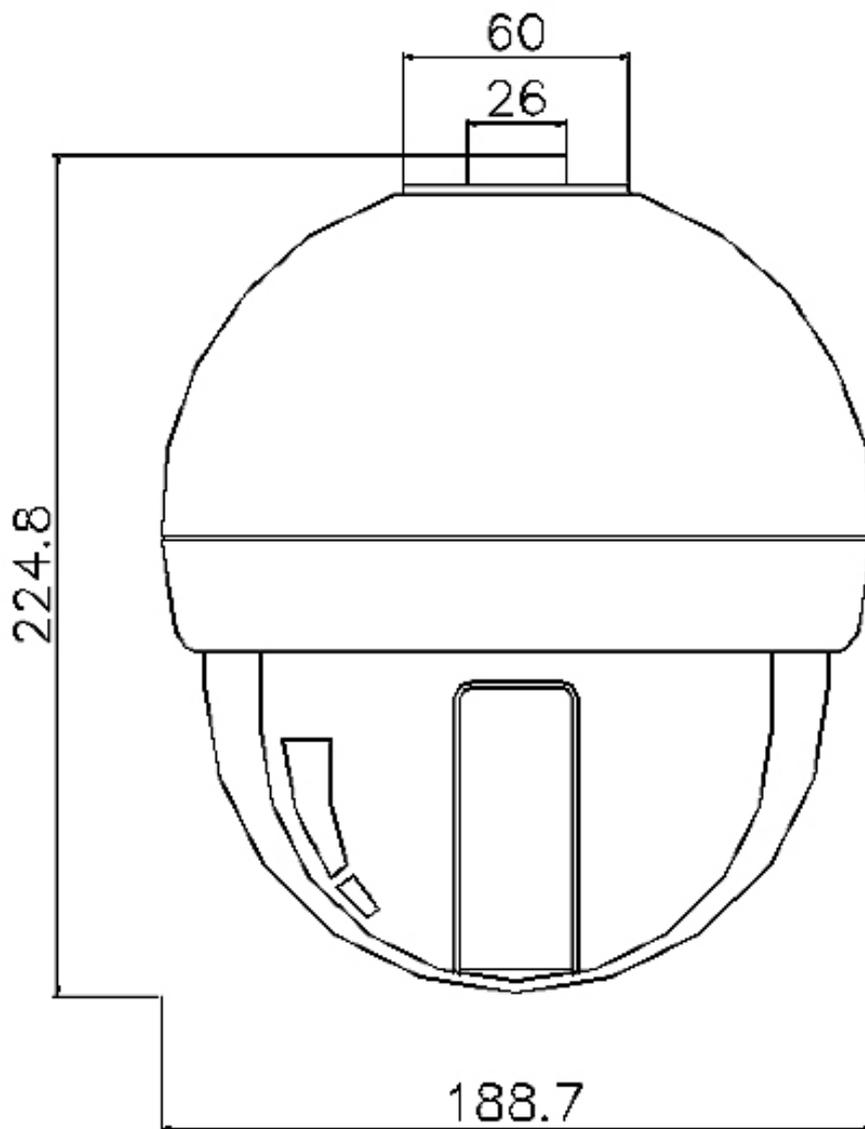


Figure 9. INDOOR SPEED DOME

## 17. SPECIFICATIONS

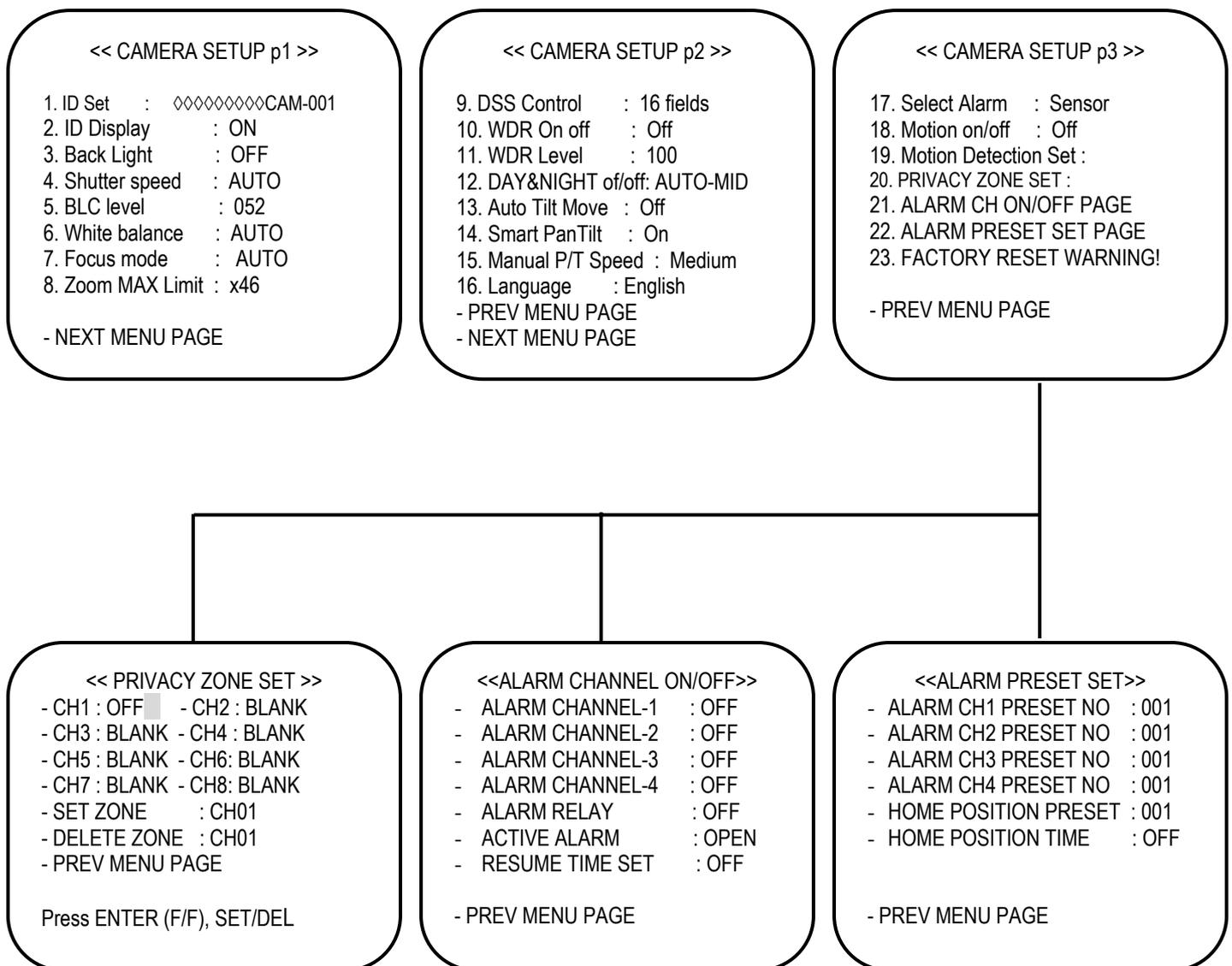
SIGNAL SYSTEM	NTSC (VK-S454R)	PAL (VK-S454ER)
TOTAL / EFFECTIVE PIXEL	410K / 380K Pixels	470K / 440K Pixels
IMAGE SENSOR	1/4" interline transfer CCD (SONY) with DSP 6	
MINIMUM ILLUMINATION	0.01 lx (Color) / 0.009 lx with Sensitive Up	
OPTICAL LENS	23X Optical Zoom, F=1.6, f= 3.6 ~ 82.8 mm	
DIGITAL ZOOM	10X (23X ~ 235X)	
MINIMUM OBJECT DIST.	AUTO	
LUMINANCE S/N RATIO	More than 50dB	
CAMERA INTERFACE	Format: Async, 1 start bit, 1 stop bit, 8 data bits, no parity More: 1Half Duplex, Command -> Response, 9600 bps	
SYNC. SYSTEM	Internal / External (Line lock)	
FORCE MODE	Auto / Manual	
WDR	Auto / Off / On	
WHITE BALANCE	AUTO / INDOOR / OUTDOOR	
BLC CONTROL	ON / OFF / AUTO, BLC Level adjustable	
VIDEO OUTPUT	Composite output 75ohm terminated 1.0 Vpp, Y/C separate output	
SHUTTER SPEED	Auto, (1/120~1/10,000), 28 Steps	AUTO, (1/100~1/10,000), 28 Steps
CAMERA CONTROL	RS-485 / RS-422	
ALARM INPUT	4ch, active high / low selective	
ALARM OUTPUT	1ch relay output	
PRESET CONTROL	128 presets	
PRIVACY MASKING ZONE	8 ZONES	
OPERATION TEMPERATURE	- 40°C to 60°C (- 40°F to 140°F)	
STORAGE TEMPERATURE	- 5°C to 60°C (23°F to 140°F)	
OPERATION HUMIDITY	LESS THAN 90%RH	
SUPPLIED VOLTAGE	AC 24V, 50/60 Hz	
POWER CONSUMPTION	MAX. 10W (MOTOR ACTIVE)	
DIMENSIONS (W x H)	189 mm X 221.8 mm	
WEIGHT	Approx 3.0 Kg	
ACCESSORIES	<ul style="list-style-type: none"> <li>● Body of Speed Dome Camera X 1 EA</li> <li>● For attaching screw bolts X 4 EA</li> <li>● Manual book X 1 EA</li> </ul>	

※ It is changeable to improve performance, quality for this product without a notice.

## 18. QUICK STARTING – OSD MENU TREE

- To access OSD menu, enter numeric (1) and press [MENU] button on the keyboard.
- To shift manu in the menu items, move to joystick up and down.
- To program the menu parameters, move to joystick left and right.

*NOTE : if you use DVR or any controller, please ask how to access OSD menu to supplier.*





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