

**HIGH SPEED DOME CAMERA**

**USER MANUAL**

**DSC-300Si5/Se5**



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# 1.CAUTION

Thank you for purchasing our product. Please operate the product after being fully aware of the manual.

Please contact us if you have any queries.

## Precaution

Note the following matters before the installation of the product.

Avoid the following places for the installation.

A high/low temperature: Using indoor-cameras in the places of  $+50^{\circ}\text{C}$ ~  $-10^{\circ}\text{C}$  can cause troubles and lower its capacity.



Snow, rain and wet: Humidity or water and any liquid inside-camera can cause troubles.



Oil, gas: Oil and gas can damage the camera as they go through the cameras.



Vibration, shock: They bring on problems or errors of the camera.



Direct light, exposure to the air: In the case of that sets indoor- cameras outside where the weather is changeable, it can cause problems.



Closing to High frequency and electric power lines: Setting the camera up around electromagnetic units or power supplier can cause problems.



## Caution in Use

Do not disassemble the unit and put alien substances in the unit.

- Disassembling the unit or putting alien substances such as a metal can make the camera defective.
- Make sure of power switch-off before the installation.
  - : Ensure power switch-off and check the voltage the camera before the installation.
- Do not give the unit a shock and an operation.
  - : Giving a strong shock or an excessive power on the button, terminal can cause problem.



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

## 2. INTRODUCTION OF PRODUCT

### 1) DESCRIPTION AND FEATURES

This camera has been designed elegantly for buildings, department stores that need to be in harmony with the interior as a high speed dome camera, including various observation functions.

#### ☺ **35x Zoom lens**

35x Optical zoom lens combined with an auto focus system and digital zoom enable you to get maximum 420x 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 included to look at object clearer in back light condition.

#### ☺ **Various auto-surveillance functions**

##### ● **PTZ trace**

Track the registered manual operation for about 180 seconds.

##### ● **Auto swing**

Repeat pan and tilt between two preset positions.

##### ● **Group sequence**

12 Preset positions are chained in one Group.

##### ● **Tour sequence**

Max 12 Groups are bound.

#### ☺ **250 Preset positions**

A maximum of 250 preset positions can be programmed. The preset function enables to set where you want on monitor at any time.

#### ☺ **Day & Night function with filter**

- It allows to 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 watching on 0.009 Lux.

#### ☺ **4ch alarm inputs**

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

#### ☺ **Auto flip function**

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

#### ☺ **8 Privacy Masking Zones**

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

#### ☺ **OSD (On Screen Display) Menu**

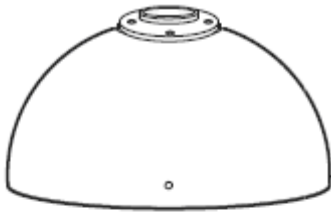
Provides character information displayed on the monitor, such as the camera ID address, camera name, preset number, sequence status, and sets various functions of camera easily on the OSD menu screen.

#### ☺ **STABILIZATION FUNCTION**

## 2) INSTALLATION AND CONNECTION

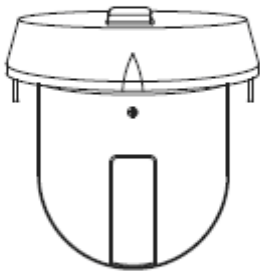
### 2-1. Name and function of each part

#### INDOOR TYPE



#### Upper cover

The camera's body goes to here and a power cable, data cable, video cable, sensor have been connected with this



#### Camera body

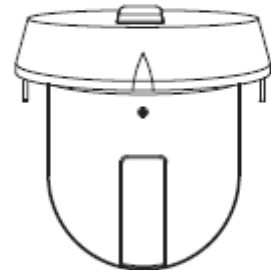
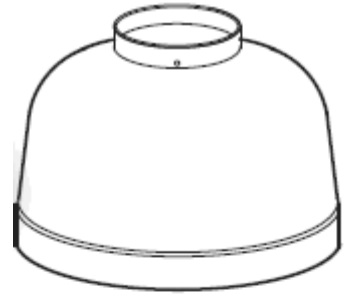
A main body that has a built-in the control units and camera



#### Lower cover

Insert the body into the upper cover, then close the lower cover

#### OUTDOOR TYPE

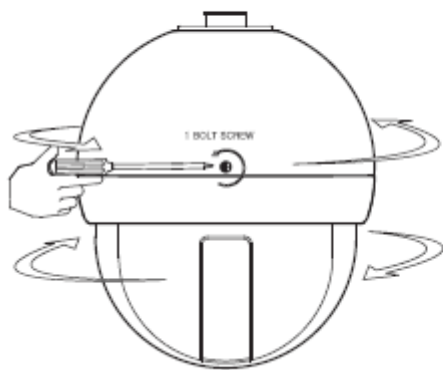


## 2-2. Installation

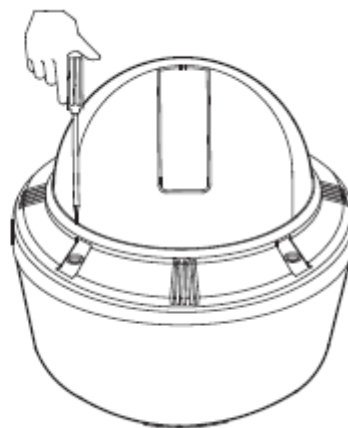
**INDOOR TYPE**

**OUTDOOR TYPE**

### SEPARATION OF LOWER COVER



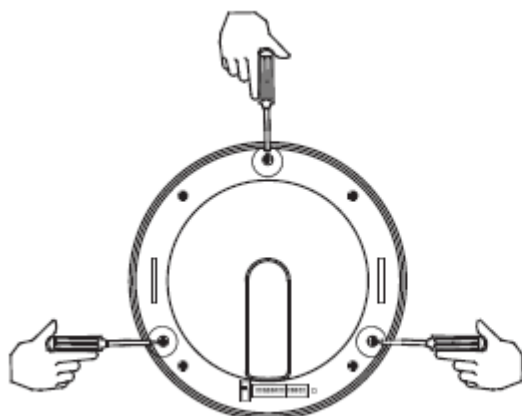
Loosen the bolt of the back of lower cover by a screwdriver(+), then turn the cover as above the picture and pull the lower cover to the down



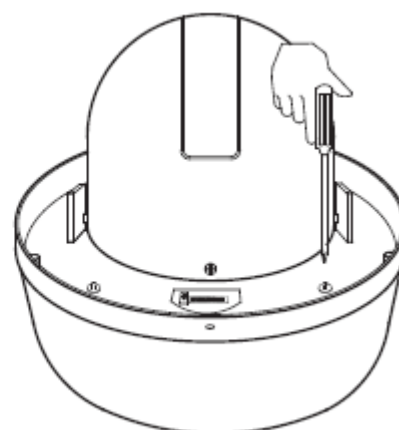
Loosen the four bolts of the lower cover, then separate.



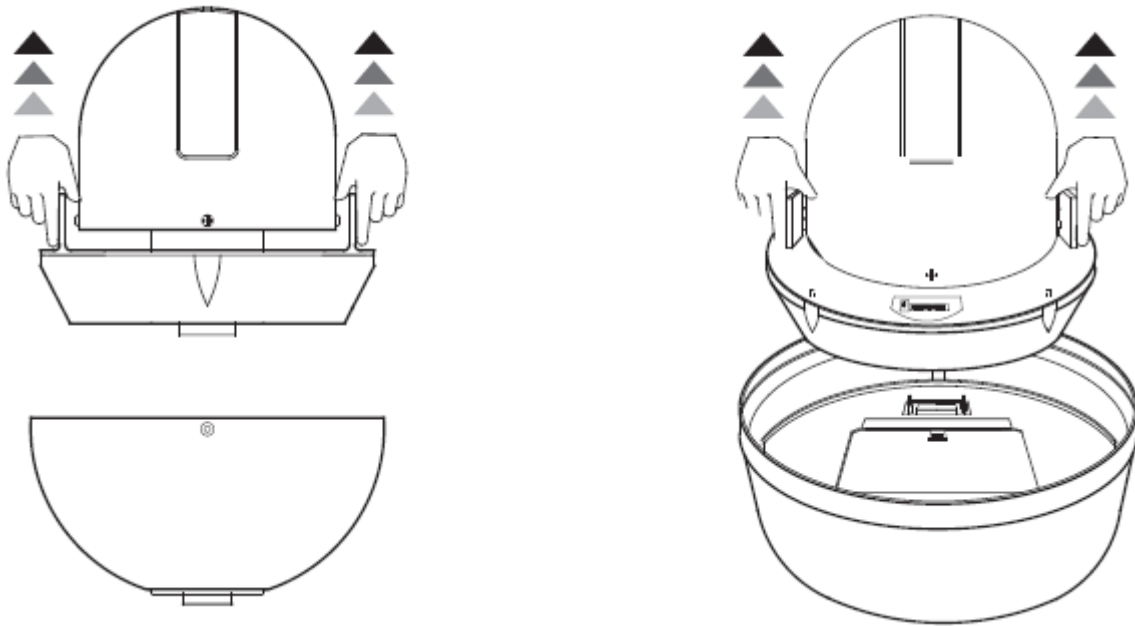
### SEPARATION OF UPPER COVER



Loosen the three bolts, the round head shaped, of the camera body. The three bolts are not loosened completely and not come up more than 1cm of the lower cover, then separate.

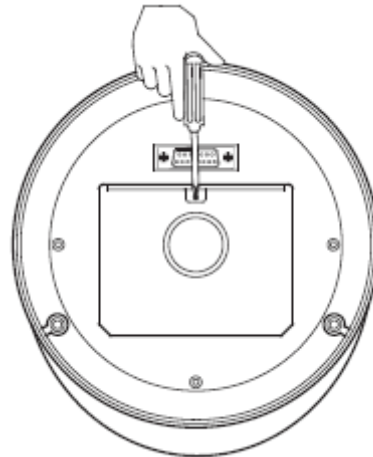






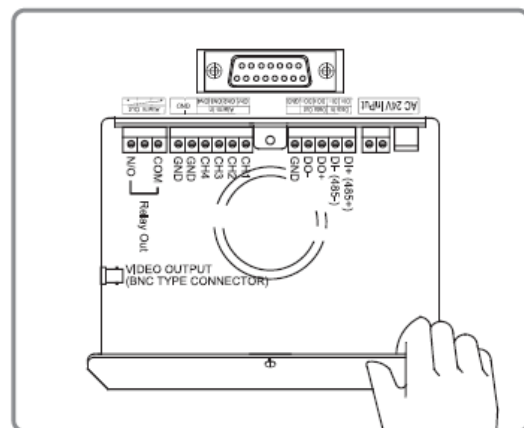
Pull the cover up with grabbing the bottom of the camera after loosening the three bolts

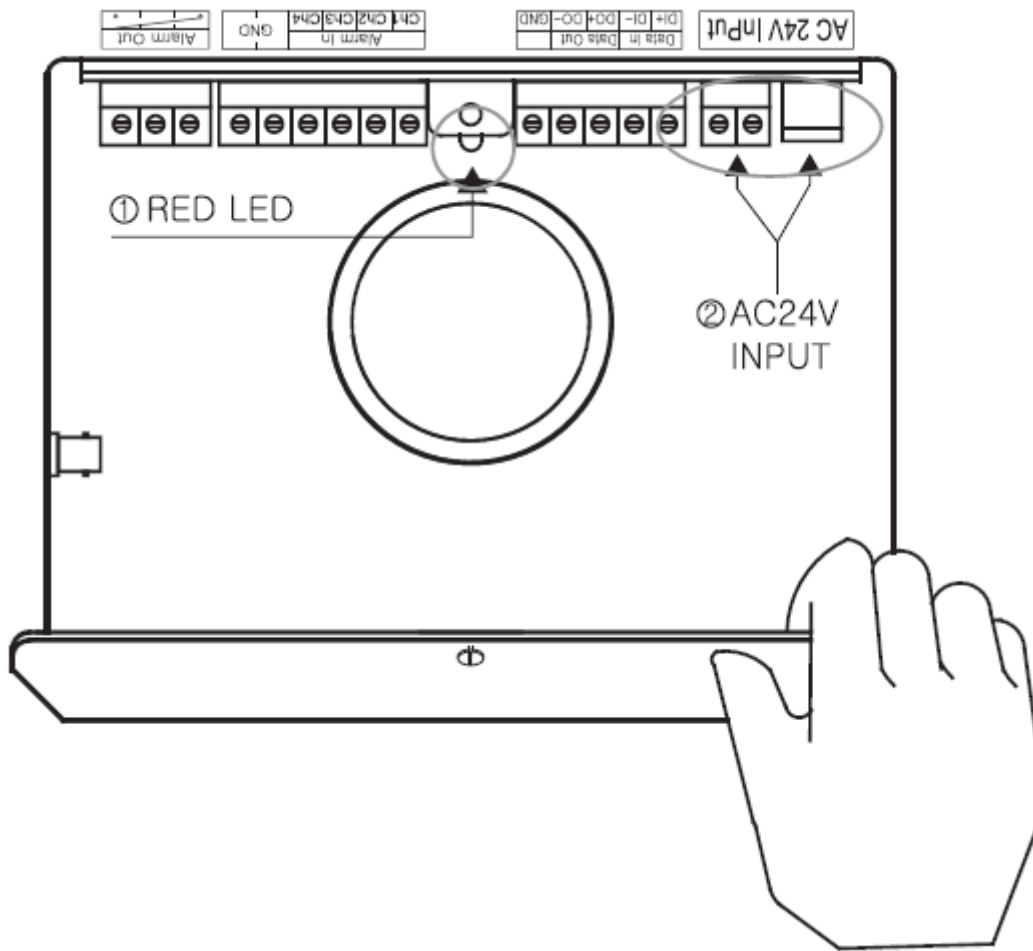
Open the connector cover, then connect power, data, video cable and sensor



The cover is opened if user loosens the one bolt on the connector cover by using a screwdriver(+).

The bolts not loosened completely to protect from missing of them.  
Be careful that each cable which each function is changed wrong



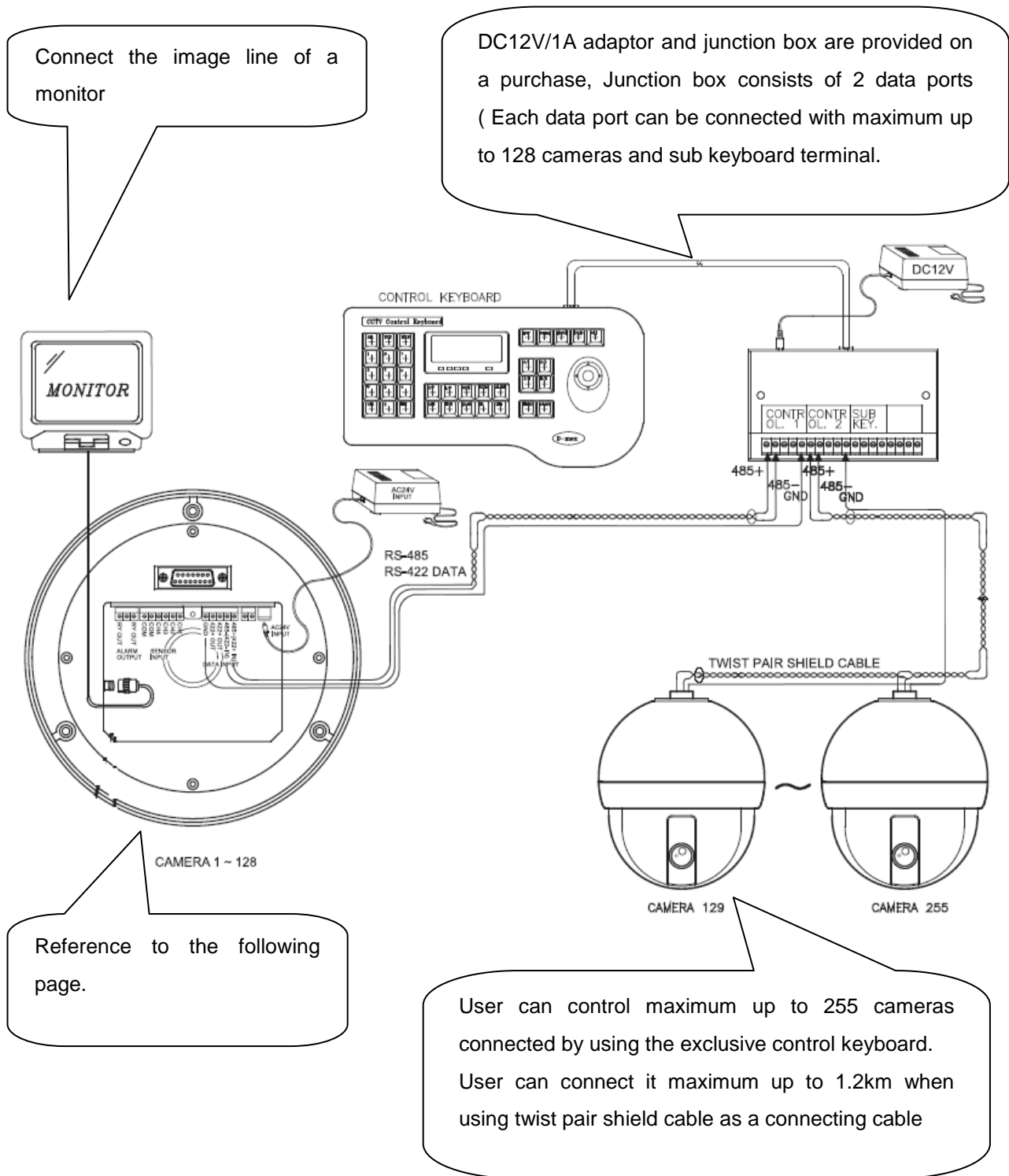


Have you connect the power cable in the right direction ?

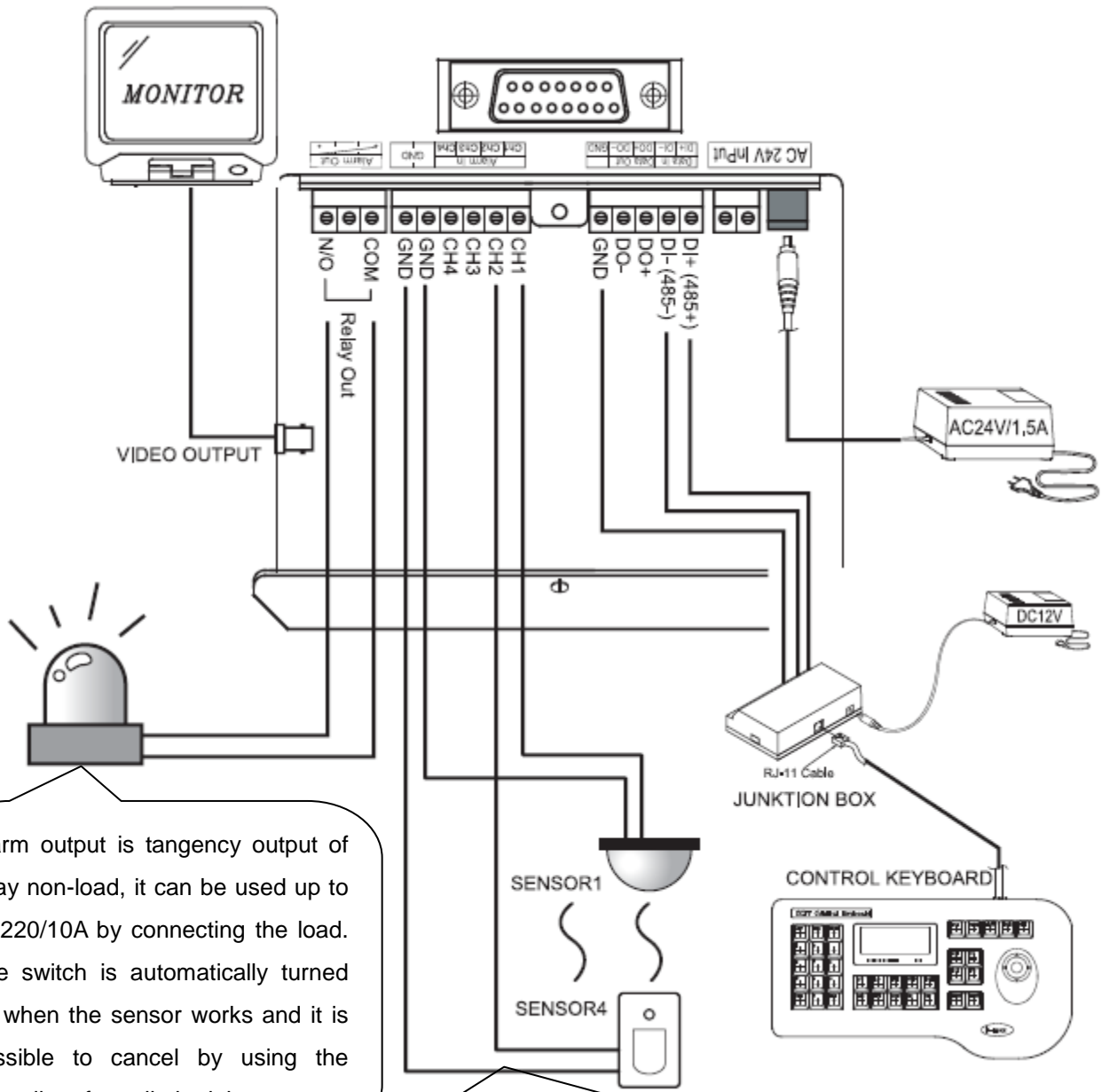
If yes

- ① RED led, in the middle of the connector, is lighted
- ② Use AC24V power source and user can use any power input that is connected with a terminal and a jack(But use 1 input).

## 2-3. Connection diagram



Must use AC24V power source, current intensity must be less than 1.5A and must use a double winding transformer



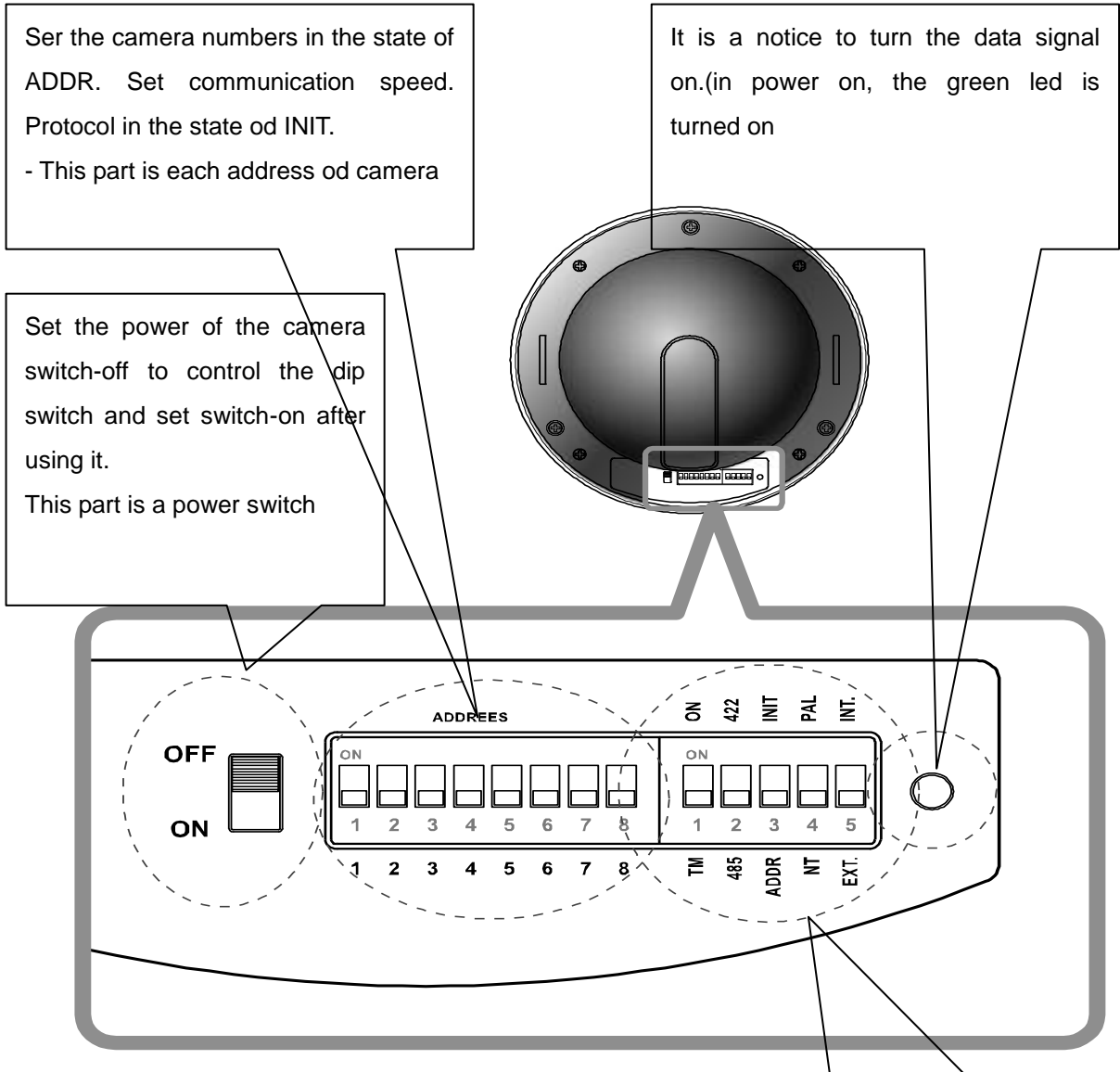
Alarm output is tangency output of relay non-load, it can be used up to AC220/10A by connecting the load. The switch is automatically turned on when the sensor works and it is possible to cancel by using the controller after a limited time

**The sensor**  
Can be connected maximum 4 channels and the camera can be moved automatically to the point by preset mode,

**DATA**  
Can be processed by RS485 or RS422 and use parallel connection to use a large quantity of cameras. ( Even if it must be used 2-twist paired cable in use of RS422, the terminal port which was connected with R485 cable port with 1-pair cable when it is not necessary to take a return data from camera

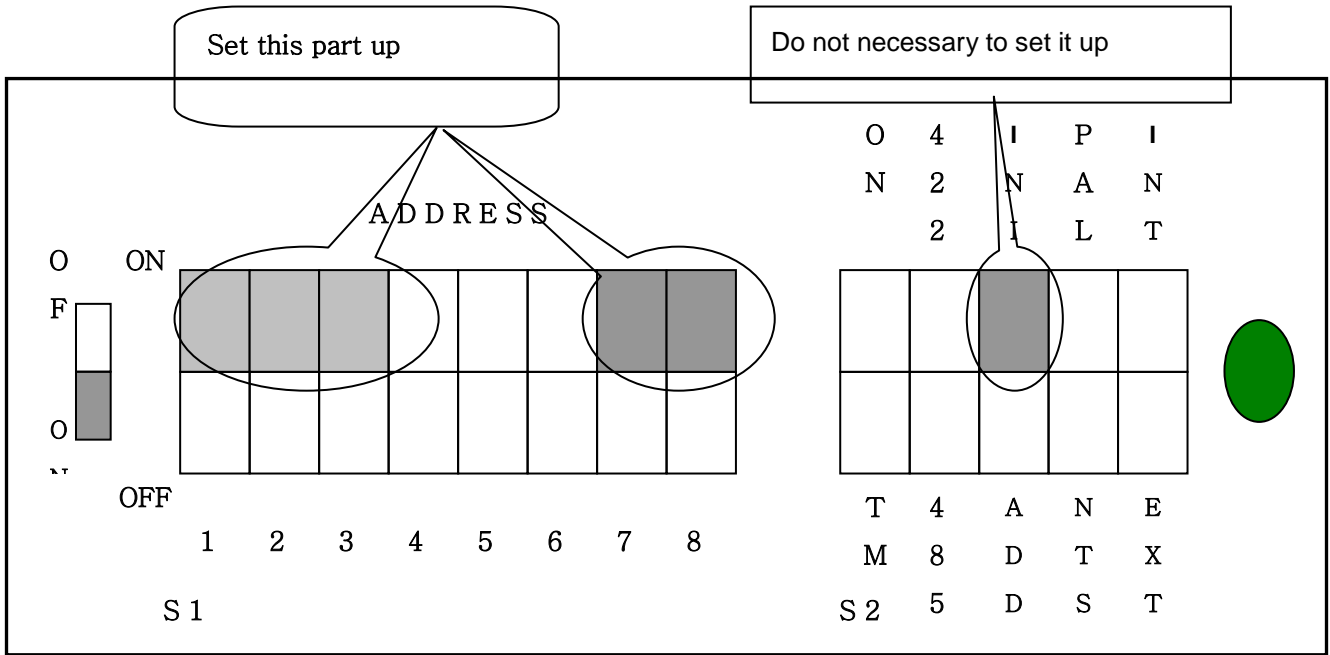
### 3. DIRECTIONS FOR USE

#### 1). DIP SWITCH SETTING



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>-Terminalation resistor (DIP SW NO1)</li> <li>~ Turn the last camera on the data line as a switch to turn on/off the terminal resistor on. Turn the DIP S/W of some of the farthest cameras on in the case of the data lines distributed to several directions. ( The first default is off )</li> <li>-RS485/422 select (DIP SW NO2)</li> <li>~ Turn on or off for the suitable data system between RS485 and RS422 ( The first default is RS485 )</li> </ul> | <ul style="list-style-type: none"> <li>- Address/Initial select (DIP SW NO3)</li> <li>~ Set the DIP SW up in the ADDRESS <b>( reference the next page )</b> (The first default is address)</li> <li>~Set the communication speed and protocol(Demand for the technical inquiry) up in the state of the initial</li> <li>-Internal/External (DIP SWNO5)</li> <li>~ Use it when selecting Internal and External (The first default is Internal)</li> </ul> |
|--|--|

## 2) HOW TO SET PROTOCOL



The switch to select protocol

The switch to select baud rate

PROTOCOL	S 1					S 2
	SW 1	SW 2	SW 3	SW 7	SW 8	SW 'INIT→ADDR'
D-MAX (9600 bps)	OFF	OFF	OFF	OFF	OFF	INIT
P-P (9600 bps)	ON	OFF	OFF	OFF	OFF	INIT
P-P (4800 bps)	ON	OFF	OFF	OFF	ON	INIT
P-P (2400 bps)	ON	OFF	OFF	ON	OFF	INIT
P-D (9600 bps)	OFF	ON	OFF	OFF	OFF	INIT
P-D (4800 bps)	OFF	ON	OFF	OFF	ON	INIT
P-D (2400 bps)	OFF	ON	OFF	ON	OFF	INIT
S-T (9600bps)	OFF	OFF	ON	OFF	OFF	INIT

Change No3 of S2 to INIT if user wants to change protocol

- ① Please the power off
- ② Switch protocol that user wants to change on as above the cable
- ③ The power on, then the set protocol and baud rate are apeated.
- ④ The power off, if every setting is right. Then the change of protocol is finished.
- ⑤ Change NO 3 of S2 to ADDR before the power on, then the power on after setting the address of the camera.
- ⑥ Try it again with the information as above the table, if something is wrong

### 3) SETTING ADDRESS OF DIP SWITCHES.

Use DIP switches No.1 to No.8 for address, it can be set 1 program to 255 program.

RX NO	DIP SWITCH (HEX)							RX NO	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

-No.1 is changed to No.64 and the last No.64 is changed No.128 when No.7 DIP SW is on.

-No.1 is changed to No.129 when No.7 DIP SW is off and No.8 DIP SW is on.

-No.1 is changed to No.193 and user can set up to maximum 255 ADDRESS when No.7, 8 DIP SW are on.

## 4) HOW TO USE OSD MENU

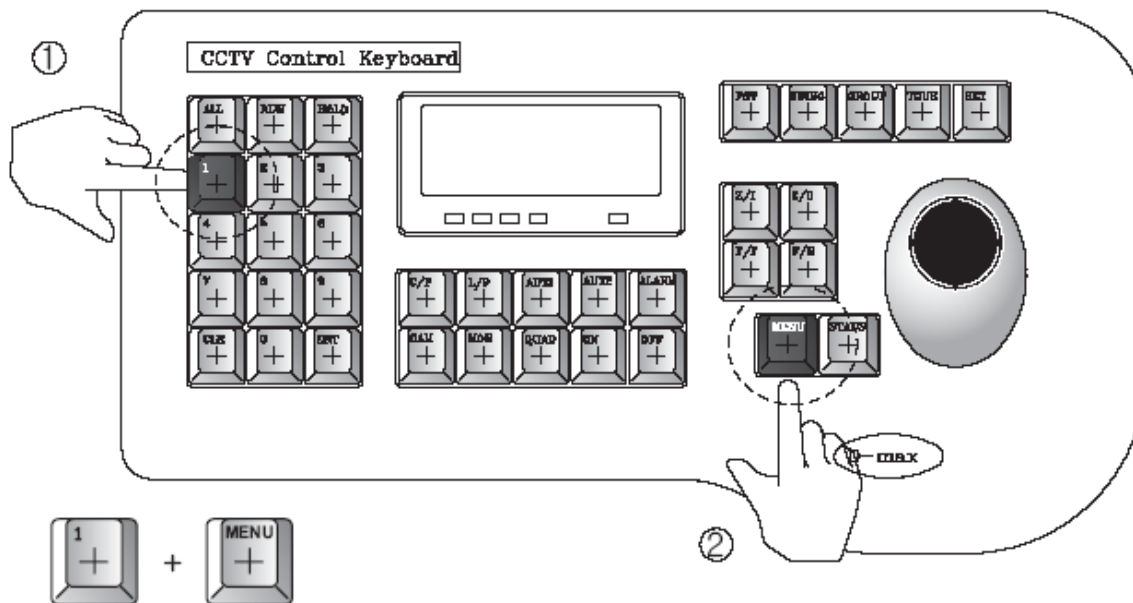
### 4-1. How to control OSD menu

- OSD (ON SCREEN DISPLAY) CONTROL

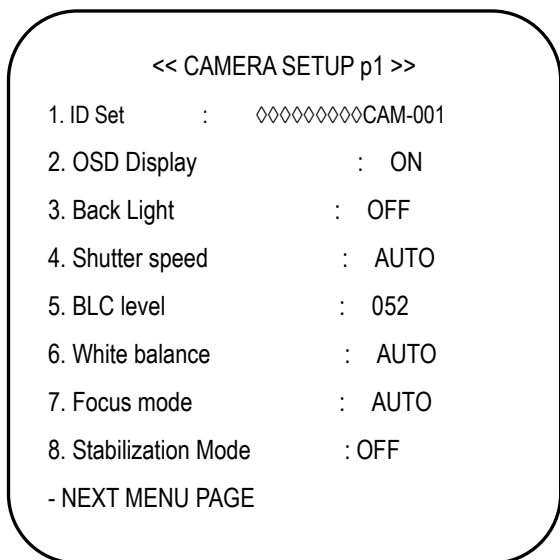
It is the function to call up the Menu

\* User can not only set Preset, Group, Tour, Swing, Trace functions of the camera up by the menu, but also set them up by shortening keys. (Refer to 3-3 content)

- Accessing OSD MENU



(1) The menu is displayed on the screen with the key tone when user presses No.1 and menu key.



- OSD Menu Control.

Right and Left moving of Cursor Feed letters into system.

Selection of up and down menu

Change of setting.

- Cancellation of OSD MENU



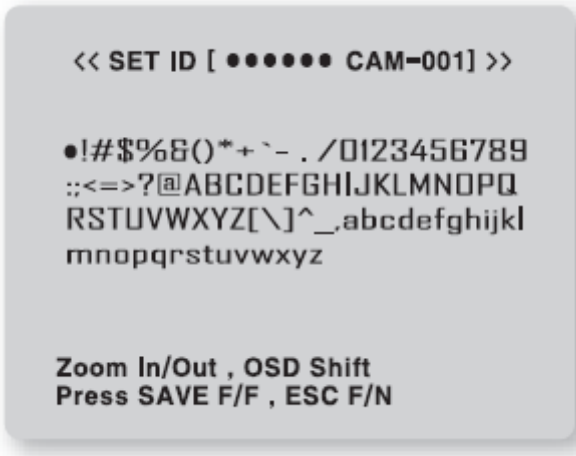


## 4-2. Functional Descriptions of each Menu.

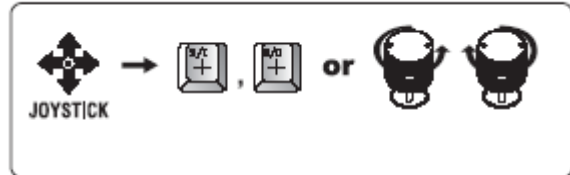
### 1. ID SET.

It is the function to set ID of the camera.

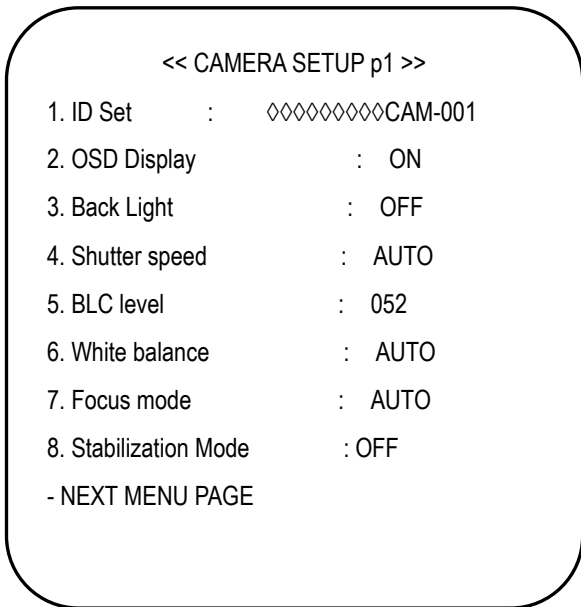
Move to No.1 menu and the screen moves as following when user presses F/F key.



User can choose letters that they want, if user control a joystick up / down / right / left, and user can reselect the previous letters, if user presses Z/I, Z/O or turn the head of the joystick to right/left.



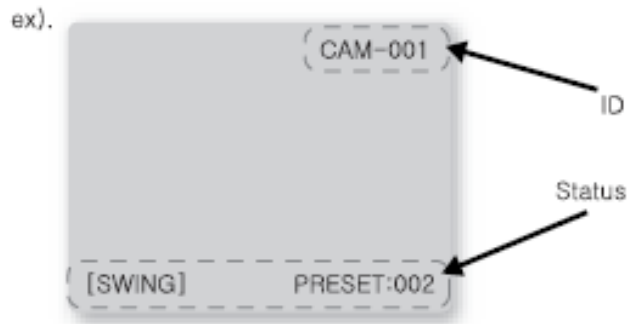
“●” is not displayed on the screen as a blank letter, user can input letters in Japanese and in Chinese if user moves the joystick down continuously.



### 2. OSD DISPLAY.

Set up whether user sets ID and STATUS to display on the screen in normal operating.

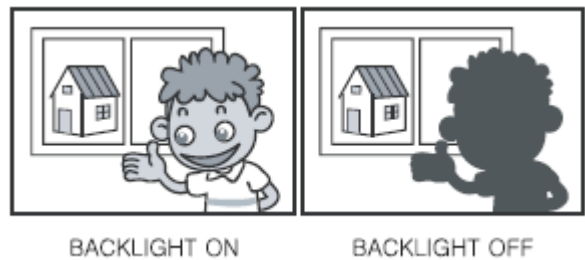
- ID + Status: 'ID' and 'Status' displayed on the screen
- ID only: Only 'ID' displayed on the screen
- Status only: Only 'Status' displayed on the screen
- All off: Nothing displayed on the screen



### 3. BACK LIGHT

Set up backlight compensation mode.

- On: It compensates a dark subject to a light subject by BACK LIGHT function.
- Off: Cancellation of BACK LIGHT compensation mode.



<< CAMERA SETUP p1 >>

1. ID Set : ◇◇◇◇◇◇◇◇CAM-001  
2. OSD Display : ON  
3. Back Light : OFF  
4. Shutter speed : AUTO  
5. BLC level : 052  
6. White balance : AUTO  
7. Focus mode : AUTO  
8. Stabilization Mode : OFF  
- NEXT MENU PAGE

#### 4. SHUTTER SPEED

Shutter speed is the duration of the electronic shutter. Set 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.
- Range: AUTO, 1/125, 1/150, 1/200, …… , 1/10000

#### 5. BLC LEVEL

BLC level is a backlight compensation level control. Set BLC level to operate manually (Numeric Value). Before setup, make sure of that

'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 three settings:

- AUTO, INDOOR, OUTDOOR

#### 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 settings:

- 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.

#### 8. STABILIZATION MODE

There is some tremble as zoom magnification is high, the function can compensate the tremble.

- On / Off

<< CAMERA SETUP p2 >>

9. Zoom MAX Limit : x70  
10. DSS Control : 16 fields  
11. WDR On off : Off  
12. WDR Level : 100  
13. DAY&NIGHT of/off : AUTO-LOW  
14. PRESET SET & RUN PAGE  
15. TRACE SET PAGE

- NEXT MENU PAGE

## 9. 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 420X zoom (35X optical zoom and 12X digital zoom) can be set for X35, X70, X105 ..... and X420.

## 10. DSS CONTROL

DSS (Digital-Slow-Shutter) control allows the camera to 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, the object is showed more brightness in low light condition but if the object moves, the image of the object is getting unclear 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.

The way of set is with the joystick left / right on the parameter:

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

## 11. WDR ON/OFF

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

There are three settings:

- AUTO – 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).

## 12. WDR LEVEL

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

If the value increases, the camera is more sensitivity for the backlight and it is possible to bring video noise.

The way of setup is with the joystick left / right on the parameter

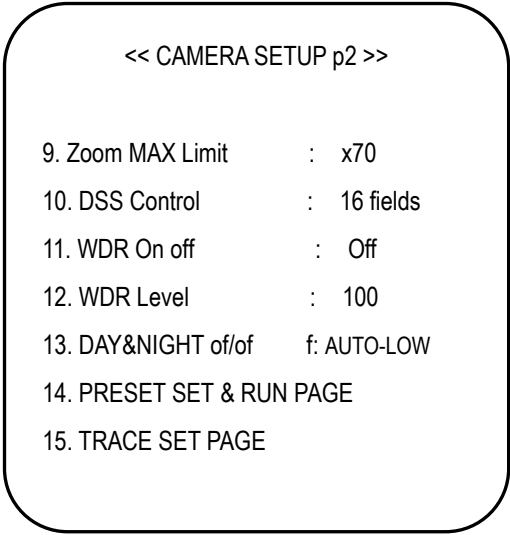
- Control – 000, 001, ....., 014, 126. ● The default is 100.

## 13. DAY & NIGHT ON/OFF

It is used when you want to see an object clearer in night or low light

There are five 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.

**14. PRESET SET & RUN PAGE**

It is a function to set and operate Preset, Group, Tour.

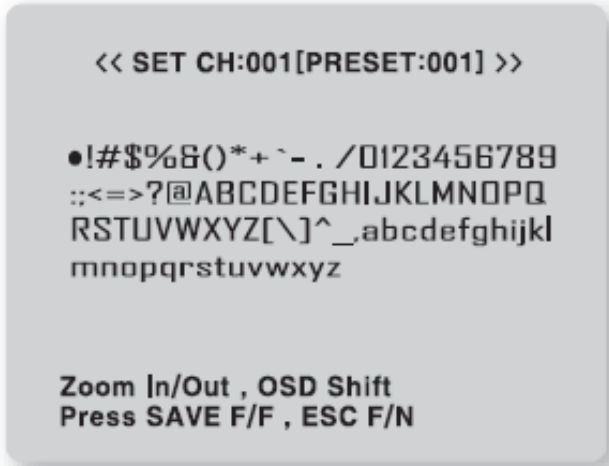
User can see the screen when moves the joystick to Right/Left after fixing the cursor on the menu.

<<PRESET SETUP PAGE>>

① Preset set CH: User can set Preset No. and title on this menu.

- Preset No. set: Set it by moving the joystick to Right/Left
- Preset title set: User can see the menu "SET ID" when presses F/F key after setting preset No.

The setting steps are the same as "ID Set" at page 14



② Preset PTZ set : Set the position of Preset.

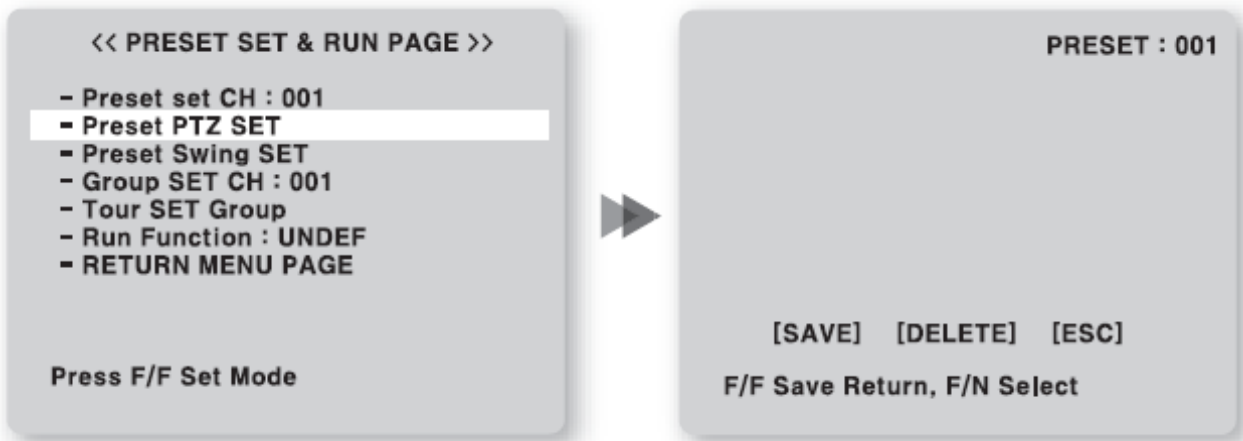
Select the main menu with the joystick, then press F/F key for next page.

Select [SAVE] with F/N key after setting the Preset point by using the joystick and ZOOM In/Out function, then the data is saved if user presses

F/F key, then it is moved to the previous screen automatically from the menu.

• [SAVE]: Previous screen. [DELETE]: Remove. [ESC]: Cancel

\* Repeat the same way after changing the number of Preset, if user set another Preset.



③ Preset Swing SET: Set Preset Swing, It moves to next SWING page for the setting. If F/F key is pressed in selection of the menu

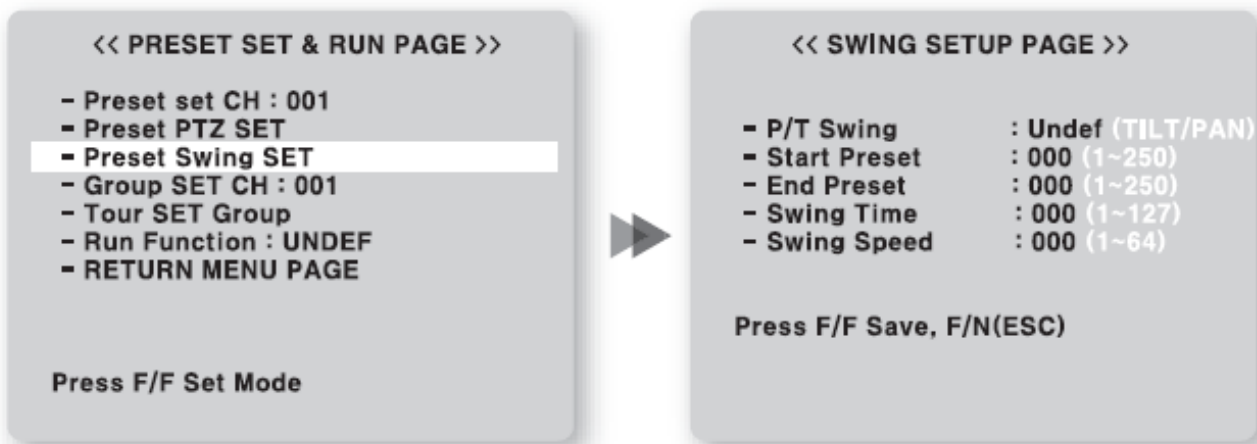
■ The preset must be set before the setting because Swing is the function to repeat the auto observation of 2 Preset points which is memorized in Preset set.

(Please be sure to put the camera position as close to parallel as possible while setting Pan or Tilt Swing.)

- P/T Swing: TILT-Observe up and down, PAN-Observe right and left
- Start Preset: Preset number of the location that the observation is started.
- End Preset: Preset number of the location to be ended an observation
- Swing Time: Delay time after moving
- Swing Speed: Move speed



: Selection of up/down menu      Change of a setting



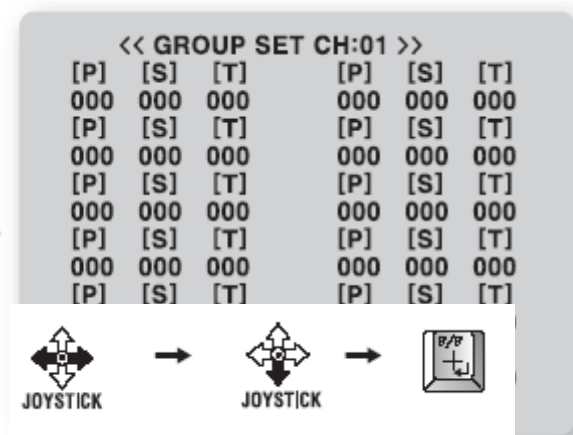
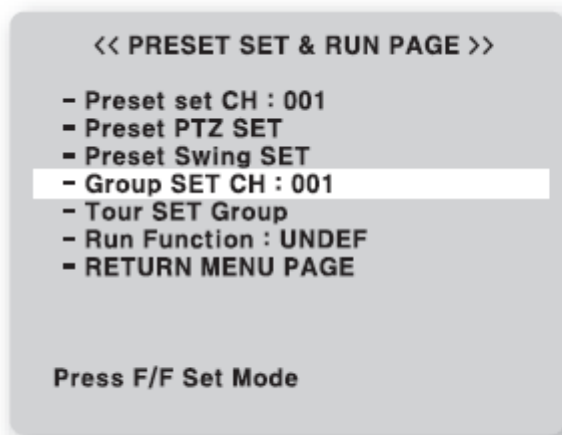
④ GROUP SET: User can set maximum 12 groups  
 Select a channel then move to next page after pressing F/F key

■ Set 12 Preset points in one Group, it is a function that observes the Preset points in the Group repeatedly and in order with regular speed, time

- [P]: Set Preset (1~250)
- [S]: Move speed (1~64)
- [T]: Dwell time



1. Set Preset
2. Next setting
3. Set move speed
4. Next setting
5. Delay time
6. Out of menu after saving data



1. Select Group channel
2. Set next channel
3. Out of menu after saving data

⑤ Tour SET Group: Maximum 12 Groups can be chained in one Tour to operate continual Group motions.

It is moved to the setting page if press F/F key on this menu.

■ The Group user wants to set must be set firstly

Set the value of "00" part of T01~T12 to Group channel that you want, then the setting is saved when it is out of the menu after pressing F/F key

Preset setup has to be made first to set Swing, Group, Tour. Otherwise, it displays the message "Sorry Undefined".











⑥ Run Function: Operate one of SWING/ GROUP/TOUR/TRACE. (It is operated automatically after end of OSD menu)

\* Set / Stop the function by a control keyboard without the menu on the screen.

**<< PRESET SET & RUN PAGE >>**

- Preset set CH : 001
- Preset PTZ SET
- Preset Swing SET
- Group SET CH : 001
- Tour SET Group
- Run Function : UNDEF
- RETURN MENU PAGE

Press F/F Set Mode

Preset	1~250 + 		
Swing	1(PAN) or +  2(TILT)		or 
Group	1~12 + 		or 
Tour			or 

**<< PRESET SET & RUN PAGE >>**

- Preset set CH : 001
- Preset PTZ SET
- Preset Swing SET
- Group SET CH : 001
- Tour SET Group
- Run Function : UNDEF
- RETURN MENU PAGE

Press F/F Set Mode



**<< TOUR SETUP PAGE >>**

T01:01 T02:00 T03:00 T04:00  
T05:00 T06:00 T07:00 T08:00  
T09:00 T10:00 T11:00 T12:00

Press F/F Save, F/N(ESC)

■ You can look at how to set TRACE at “18. TRACE SET PAGE”

⑦ RETURN MENU PAGE: Move to a higher menu page if select this menu, then control the joystick Right/Left

**<< CAMERA SETUP p2 >>**

9. Zoom MAX Limit : x70  
10. DSS Control : 16 fields  
11. WDR On off : Off  
12. WDR Level : 100  
13. DAY&NIGHT of/off : AUTO-LOW  
14. PRESET SET & RUN PAGE  
15. TRACE SET PAGE  
- NEXT MENU PAGE

### 15. TRACE SET PAGE

Set TRACE.

You can control the camera Zoom In / Out anywhere by a joystick and can memorize or play it

User can see the screen when moving the joystick to Right/Left after fixing the cursor on the menu



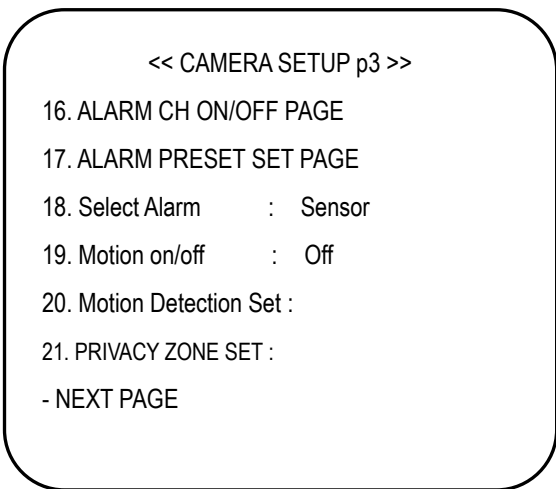
■ How to set TRACE

Move to [SET] after pressing ' F/N KEY '

F/F KEY Check – Control the scenes that you want to save a joystick after the message “Set Trace: OO%” on the middle of the screen.

If you are done with above action, move to [SAVE] with ' F/N Key '

It goes to a higher menu after saving the data with the message “Save TRACE”, if ' F/F KEY ' is pressed.



16. ALARM CHANNEL ON/OFF

■ What is the ALARM function? : It uses a sensor and operates to observe the location of the camera which is memorized previously in the situation of the warning signal or trespassers.

- **CH On/Off:** Alarm Input – Each channel can be ON/OFF

- **Alarm Relay:** It can be set 'On' or 'Off' when ALARM OUTPUT PORT detects the alarm.

- **Active Alarm:** It can be selected to either ACTIVE OPEN or ACTIVE CLOSE by the way of tangency.

ACTIVE OPEN: Alarm activates when Alarm input is set “OPEN”

ACTIVE CLOSE: Alarm activates when alarm input is set “CLOSE”.

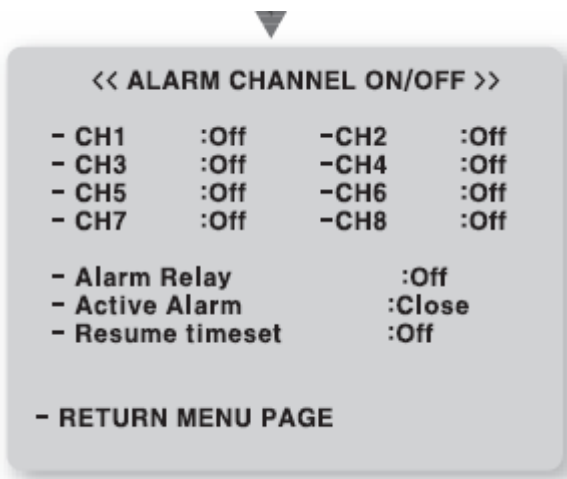
- **Resume Time Set:**

When alarm activates during SWING, GROUP and TOUR, camera moves to the place and this function allows you to set dwell time(1~180sec) After designated time the camera goes back to previous function(SWING, GROUP or TOUR).

If you stop the function while in use by joystick when Alarm is not connected, Swing, Group or Group will be functioned after the time you set.

Press SWING, GROUP or TOUR key if you want to put it to stop completely. .

**(Stopping the function by joystick will affect the SET function)**





<< CAMERA SETUP p3 >>

16. ALARM CH ON/OFF PAGE

17. ALARM PRESET SET PAGE

18. Select Alarm : Sensor

19. Motion on/off : Off

20. Motion Detection Set :

21. PRIVACY ZONE SET :

- NEXT PAGE

## 17. ALARM PRESET SET PAGE

■ The camera moves to a preset point automatically when Alarm activates in each ALARM CHANNEL.

■ Set preset points to move to and give a Preset number to each ALARM CHANNEL.

■ If ALARM CHANNEL No. is '0', the unit doesn't move to Preset position.

■ You can select PRESET number from 1 to 250.

■ Home Position Preset

The camera automatically moves to where master user set when another user controls the camera to observe other area.

(You can set 1~250 points)

<< ALARM PRESET SET >>

- CH : 001 - CH : 002

- CH : 003 - CH : 004

- Home Position Preset : 001~250

- Home Position Time : OFF/001~180

- RETURN MENU PAGE

■ Home Position Time

It sets the dwell time in Home Position Preset.

It automatically moves to where observes ordinarily in the regular time that Master user set in observation of other area

,if set Home Position Preset

(You can set 1~180sec. Set control Home Position Preset and Home Position Time together for using this function.)

You can set ALARM setting MENU not only in CAMERA

SET MENU MODE, but also a KEYBOARD in direct.

## 18. SELECT ALARM

When Alarm activates, It allows the camera to move to previous Preset position or by MOTION function.

There are two kinds as below:

- Sensor (default): With alarm sensor to connect preset.

- Motion: It allows you to use motion detection.

(It needs you to set up motion setting.)

## 19. MOTION ON/OFF

To use motion detection, it has to be ON.

<< CAMERA SETUP p3 >>

- 16. ALARM CH ON/OFF PAGE
  - 17. ALARM PRESET SET PAGE
  - 18. Select Alarm : Sensor
  - 19. Motion on/off : Off
  - 20. Motion Detection Set :
  - 21. PRIVACY ZONE SET :
- NEXT PAGE

## 20. MOTION DETECTION SET

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

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

(To set this function, 'Select Alarm' should be set 'Motion' and the video will be fixed in this function)

**Detect Level : 00**  
**Detect Position : 01**

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

- Set up the parameter of detection position 01 to 08.
- Go to a place you like for Detection Position setup.
- Set up the sensitivity level from 01 to 05 by [Z/I], [Z/O] key for each position.
- After setup, exit and save the setup with pressing [F/N] key.

<< PRIVACY ZONE SET >>

- CH1 : BLANK
- CH2 : BLANK
- CH3 : BLANK
- CH4 : BLANK
- CH5 : BLANK
- CH6 : BLANK
- CH7 : BLANK
- CH8 : BLANK

- PREV MENU PAGE  
F/F Select, L/R Change

## 21. PRIVACY ZONE SET

Max 16 privacy zones can be configured for the protection of privacy.

- In <<PRIVACY ZONE SET>> menu, select the channel that you want by a joystick, then move to the next page if you press the [F/F] key



①

Select a Channel



②

Select Set / On / Off / Del

Set: Set a new privacy zone

On: Display privacy areas

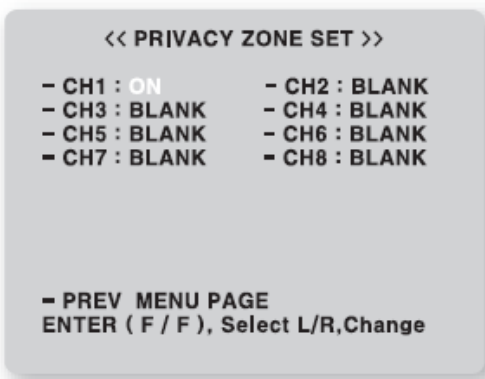
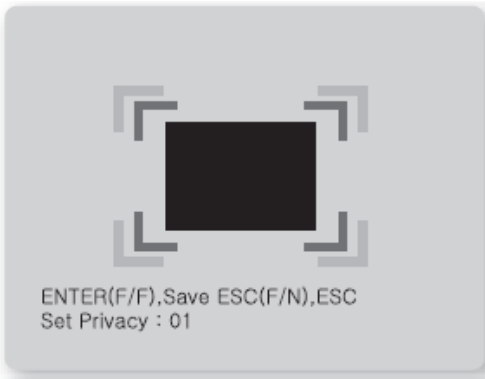
Off: Hide privacy areas

Del: Delete privacy areas

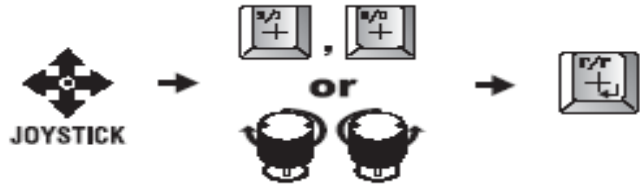


③

Confirm, Next page



④ Fix the black square on the middle of area that you want to hide by a joystick, then go back to the previous page by [F/F] key after controlling the size of the square by [Z/I], [Z/O] key and saving it.



Set the position      BOX Extension / Reduction      Check

⑤ The Channel is changed BLANK to 'OFF'.

The screen displays the black square, if you change the CH 'ON' as the left picture.



Move to the Channel      Change the CH 'ON'      Check



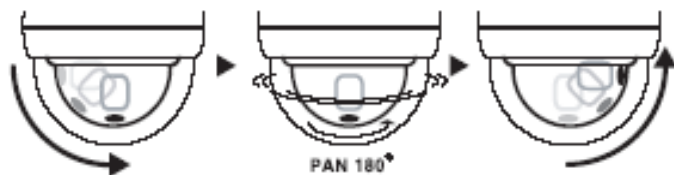
⑥ Out of OSD MENU

<< CAMERA SETUP p4 >>

- 22. Auto Tilt Mode : OFF
- 23. Smart Pan/tilt : On
- 24. Manual P/T Speed : Medium
- 25. Language: English
- 26. FACTORY RESET! WARNING!
- PREV MENU PAGE

## 22. AUTO TILT MOVE

The PAN is turned in a 180° degree arc automatically when the angle of the camera moves down to the maximum degree, therefore it is possible to track objects continuously.



## 23. SMART PANTILT

It is a function that PANTILT speed is getting slower as Zoom in.

It is hard to observe objects due to the high PANTILT speed in the operation of Zoon In

This function makes the speed less automatically for the effective observation.

<< CAMERA SETUP p4 >>

22. Auto Tilt Mode : OFF

23. Smart Pan/tilt : On

24. Manual P/T Speed : Medium

25. Language: English

26. FACTORY RESET! WARNING!

- PREV MENU PAGE

#### **24. MANUAL P/T SPEED**

You can control the maximum speed when controlling up and down. It consists of Low, Medium, Max and one turn (360°)/sec is possible in Max.

#### **25. LANGUAGE**

English, Portuguese, Polish

#### **26. FACTORY RESET WARNING**

Please be careful of that all setting data of OSD MENU are reset the same as the first default when you operate FACTORY RESET WARNING.

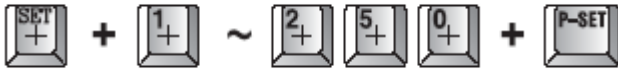
Moreover, the setting data of Preset, Swing, Group, Tour, Trace is deleted all.

### 4-3. Functional Setting, Operating/Deletion by the Keyboard

#### 1. Preset setting

You can set Preset point up to 250.

##### ① Preset Input.



Preset setting can be set 1 to 250 sequentially after moves the camera to where you want

##### ② Preset Move



The camera moves to the preset point, if you press Preset No. that you want and **P-SET Key**

##### ③ Delete a separate Preset

Go on in order as below when the sound is heard in 3 seconds after pressing **CLR Key**



Ex) Delete 5<sup>th</sup> Preset



(Waiting for 3seconds)

##### ④ Delete all Preset

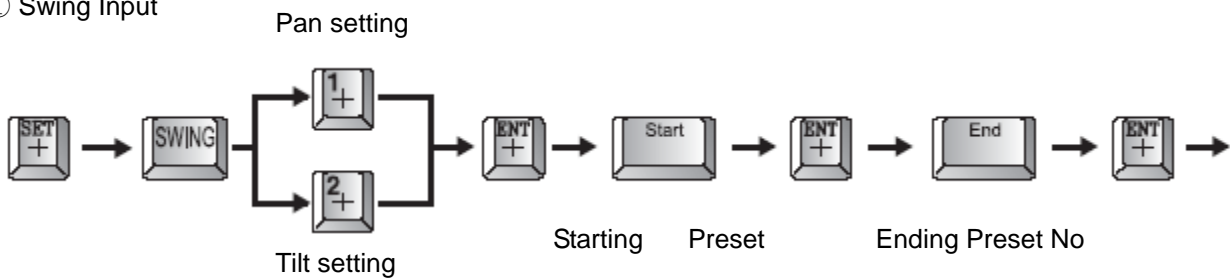
Go on in order as the right picture when the sound is heard in 3 seconds after pressing **CLR KEY**



(Waiting for 3seconds)

#### 2. Swing setting

##### ① Swing Input



Set the delay time (1~127sec)

Set the move speed (1~64 steps)

② Operation of Swing



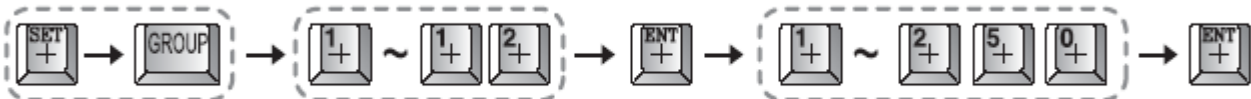
(Run Pan) (Run Tilt)

③ End of Swing



3. Group setting

① Start Group setting mode



Start the Group setting mode

Select the Group in 1~12

Select in Preset No.1~250 and input them.



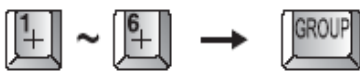
Move Speed:  
The Speed from A to B  
64=High, 1=Low

Dwell Time:  
The dwell time at the point of  
A or B before the move. (sec)

- Set Preset No. again if you want to input it continuously.
- Set a GROUP again from the first after ending with **SET Key**, if you want to finish Preset input in one Group to input next Group.

② Start a Group

③ Stop the Group



You can stop it when pressing **Group key** or using a joystick

4. Tour setting

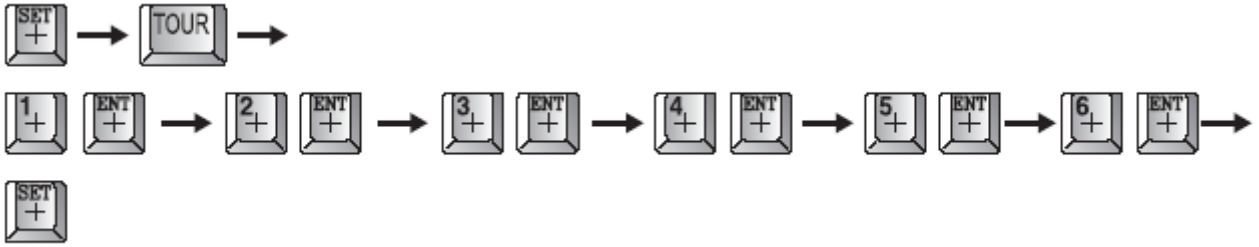
① Tour set mode



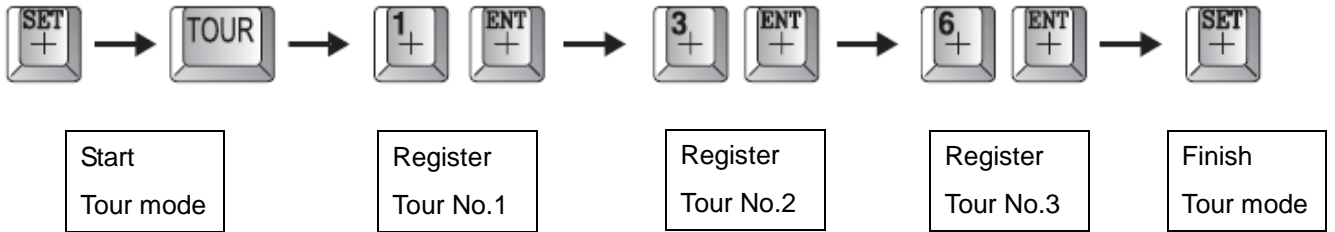
Start the Tour set mode

Select a Group in 1 ~ 12

- Repeat input in continual input



EX). Register Group No. 1,3,6 as Tour



② Start / End Tour



③ Delete Tour



### 5. Spiral Function

It is a function to observe objects in the spiral direction.

① Spiral observation 'ON'

② End



### 6. PTZ Trace

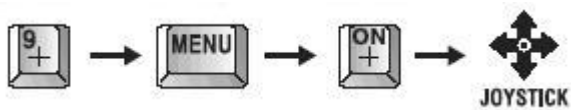
It memorizes P/T/Z motions for 200sec, then operates them at the same Trace.

① Start / End Trace



② Set Trace

③ Delete Trace



**1. PRESET MESSAGE**

**CAM-001**

**SET PST 001**

User can check that preset No.1 is saved as an appeared message in preset set

**CAM-001**

**PRESET 001**

It is displayed when moving to the preset No.1

**CAM-001**

**CLEAR PST 001**

It is displayed when user deletes preset No.1. the message “ all clear preset” is displayed when user delete preset data all at once

**CAM-001**

**(SWING) PRESET:001**

It informs user that is run swing mode in swing run

**CAM-001**

**GP:01 P002.T001.S64**

As the message in the time of operation of tour set, “GP:01” means group No.1 and it shows that group No.1 was saved.

**CAM-001**

**Save Group 01**

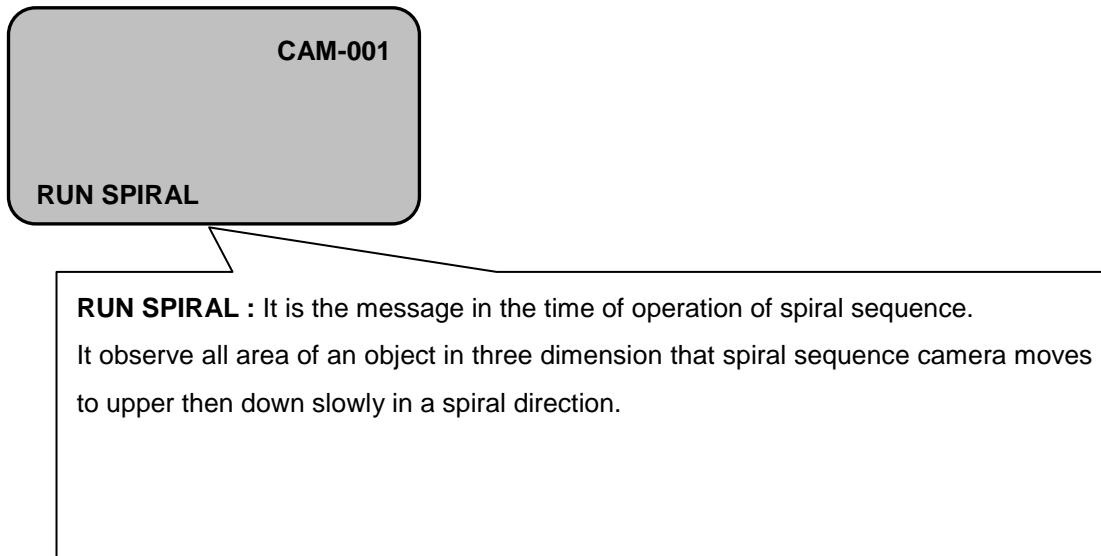
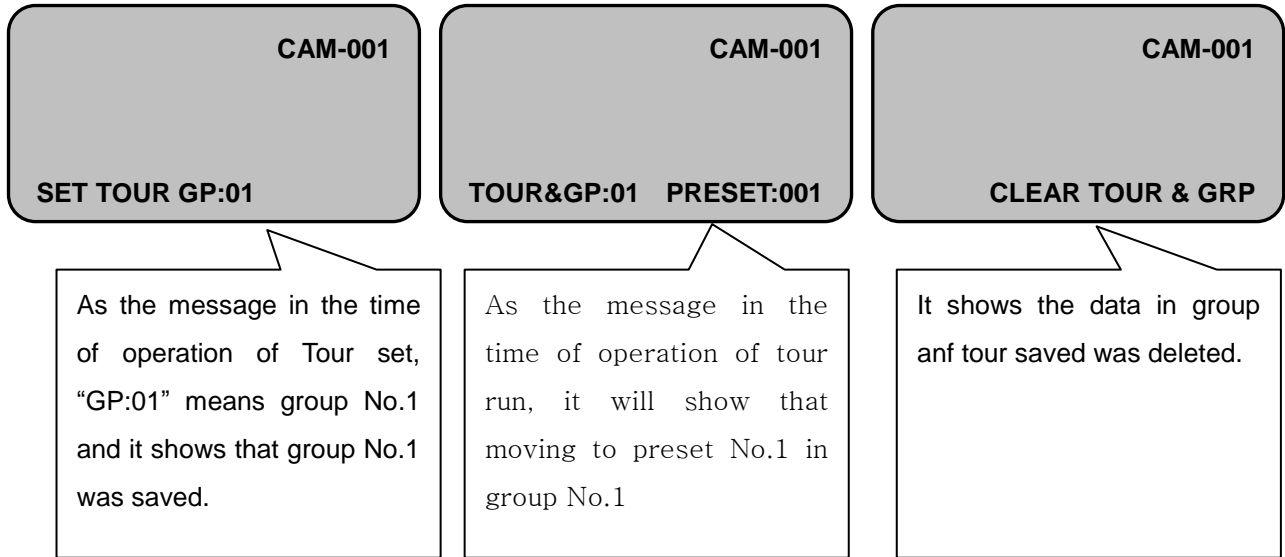
As the message in the time of completion of group set, It is displayed group No.1 was saved

**CAM-001**

**(GROUP:01) PRESET:001**

It is displayed in the time of operation of group run, It shows group No.1 will move to No.1





## 4. TROUBLE SHOOTING

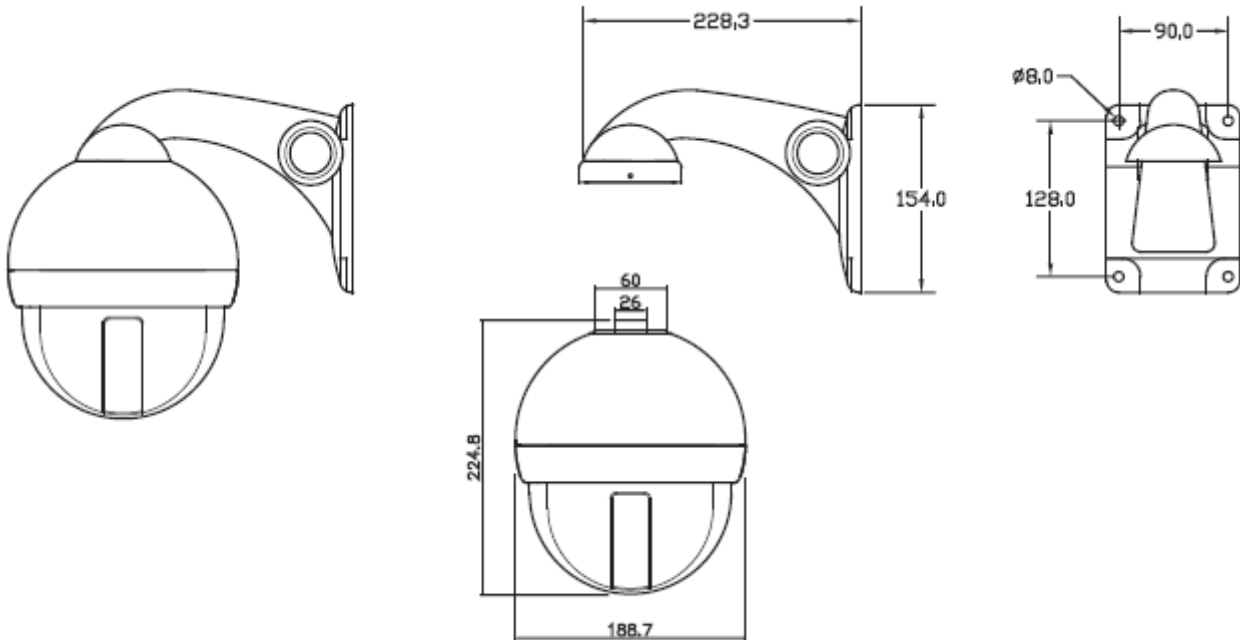
1. You must turn off the power switch before installation of this equipment
2. Avoid installation places where it is the ultimate cold, hot, and humid.
3. Use a power supply of AC24V, 1.5A output.
4. Please be careful that you connect respective wires without mismatching in installation.
5. Check the 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.

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 back box.
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 communication speed 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 resistor can be switch on/off, if you loose cover of dome.)	Switch on the ending terminal resistor 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 does 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 occurred alarm state, it is not	Did you set the preset in the set	Check setting status of the alarm

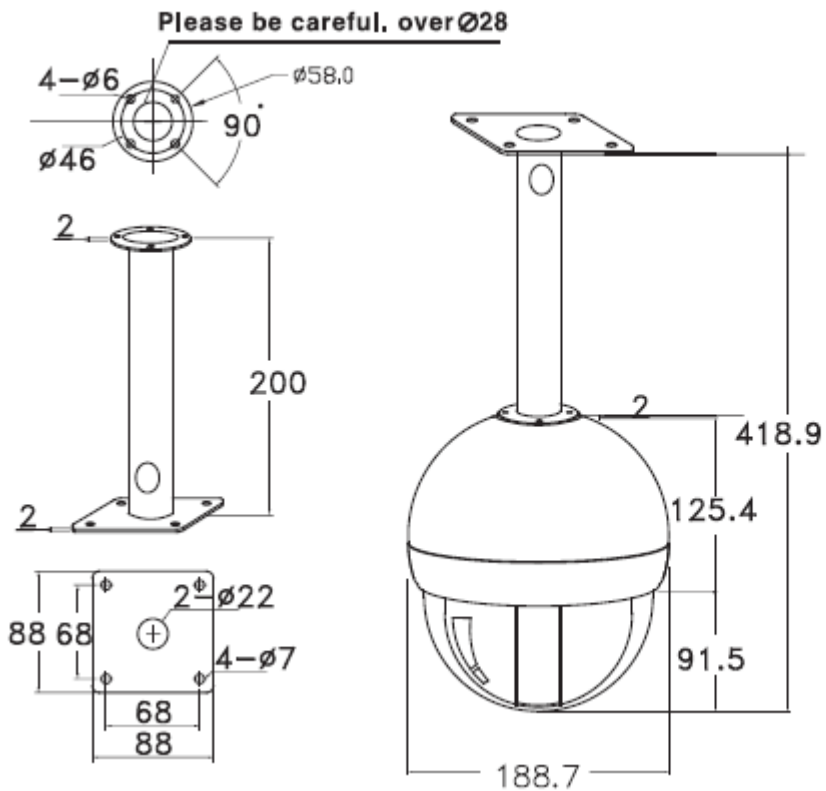
exactly presser position or different.	mode?	preset in the set mode.
When it activate alarm state, there is no sign on the keyboard controller	Did you use the exclusive control keyboard?	It is need to use an exclusive control keyboard so that the alarm sound is activated on the controller
	Yes, I do.	Please select on to enable alarm of the related camera.

# 5. DIMENSION

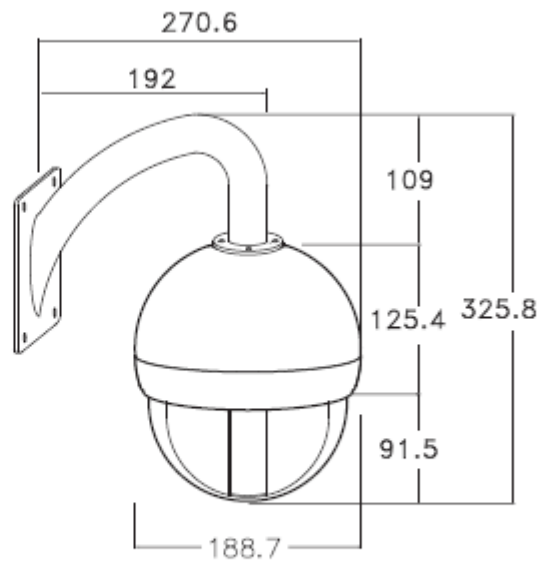
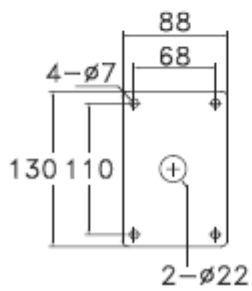
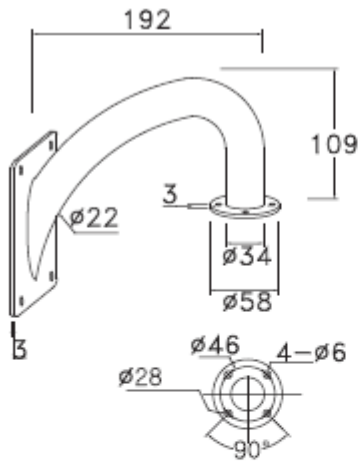
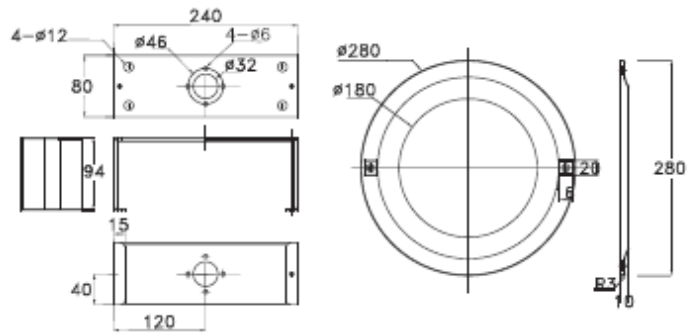
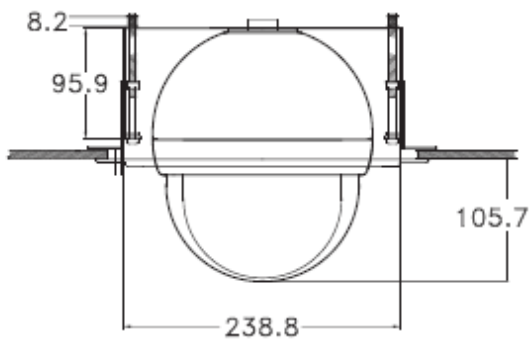
## Wall mount bracket



## Ceiling mount bracket

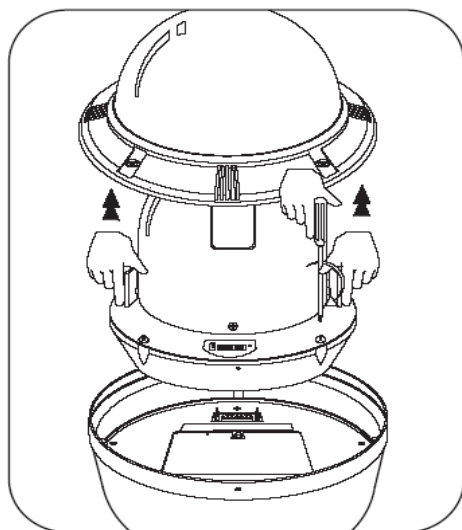


# In-ceiling mount bracket

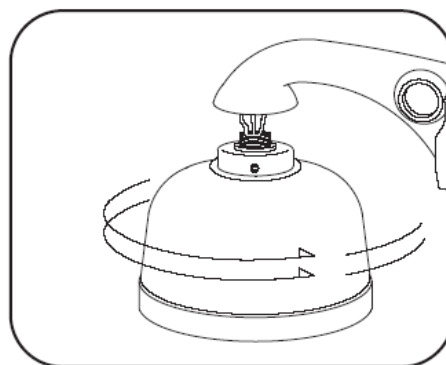


## 6. ASSEMBLY

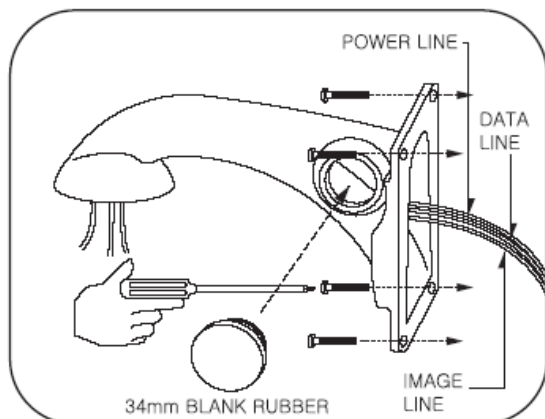
### DSC-30EWP Wall mount bracket



① Remove the main body of camera from the housing

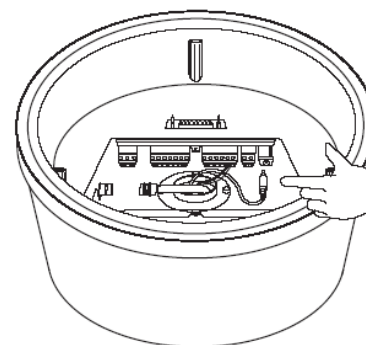


③ Fix the upper cover into a wall bracket with turning it in the same direction as the picture

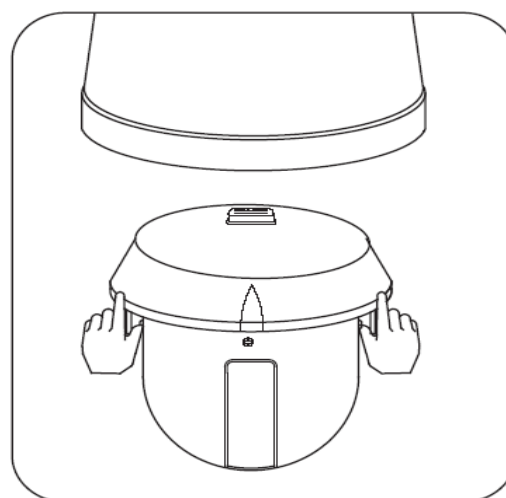
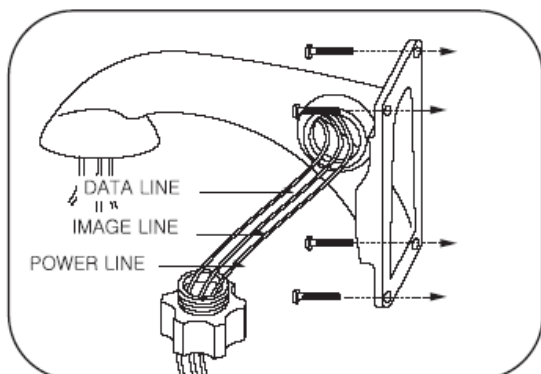


② Fix four bolts after connecting each line and block up the hole of the bracket's body with 34mm block rubber.

Connect the line as above the picture when you set in the concrete structure such as the wall and connect TAB/P1/11" flexible connector (28Ø)



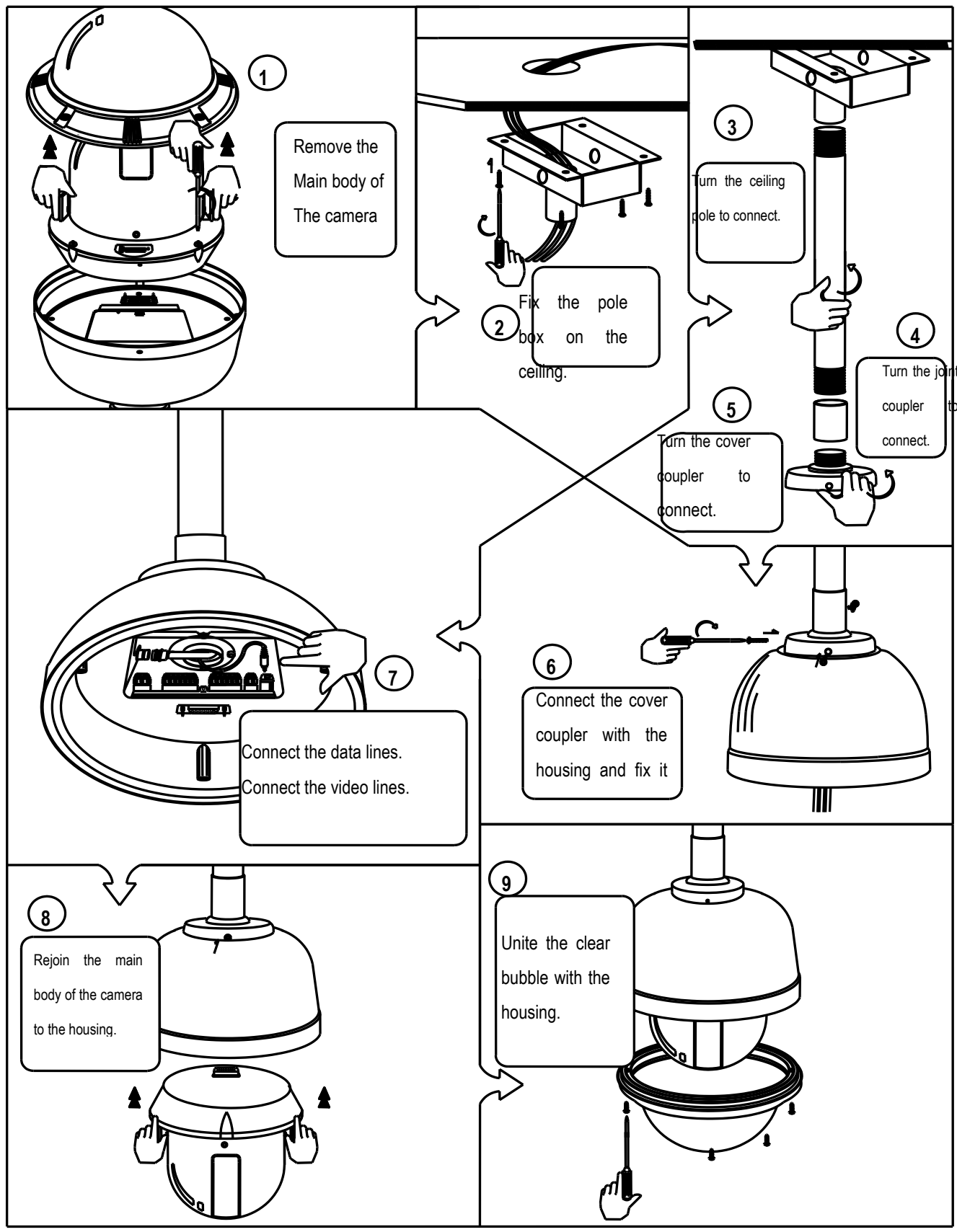
④ Connect the data cable, video cable and power source cable.



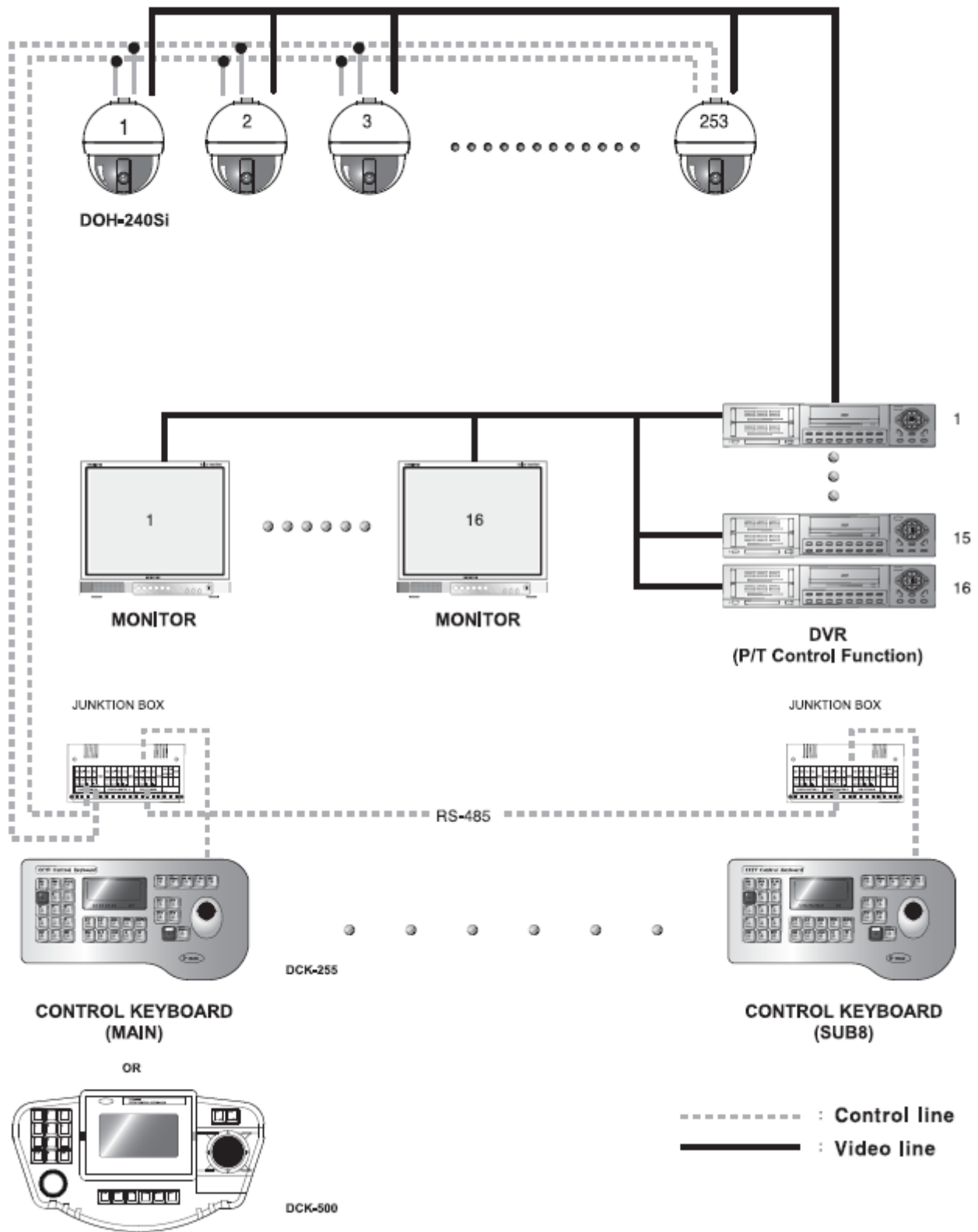
⑤ Unite the body of the camera to the housing.

# DSC-20ECP Wall mount bracket

## 17.2 Assembly of outdoor dome with pole mount pendant



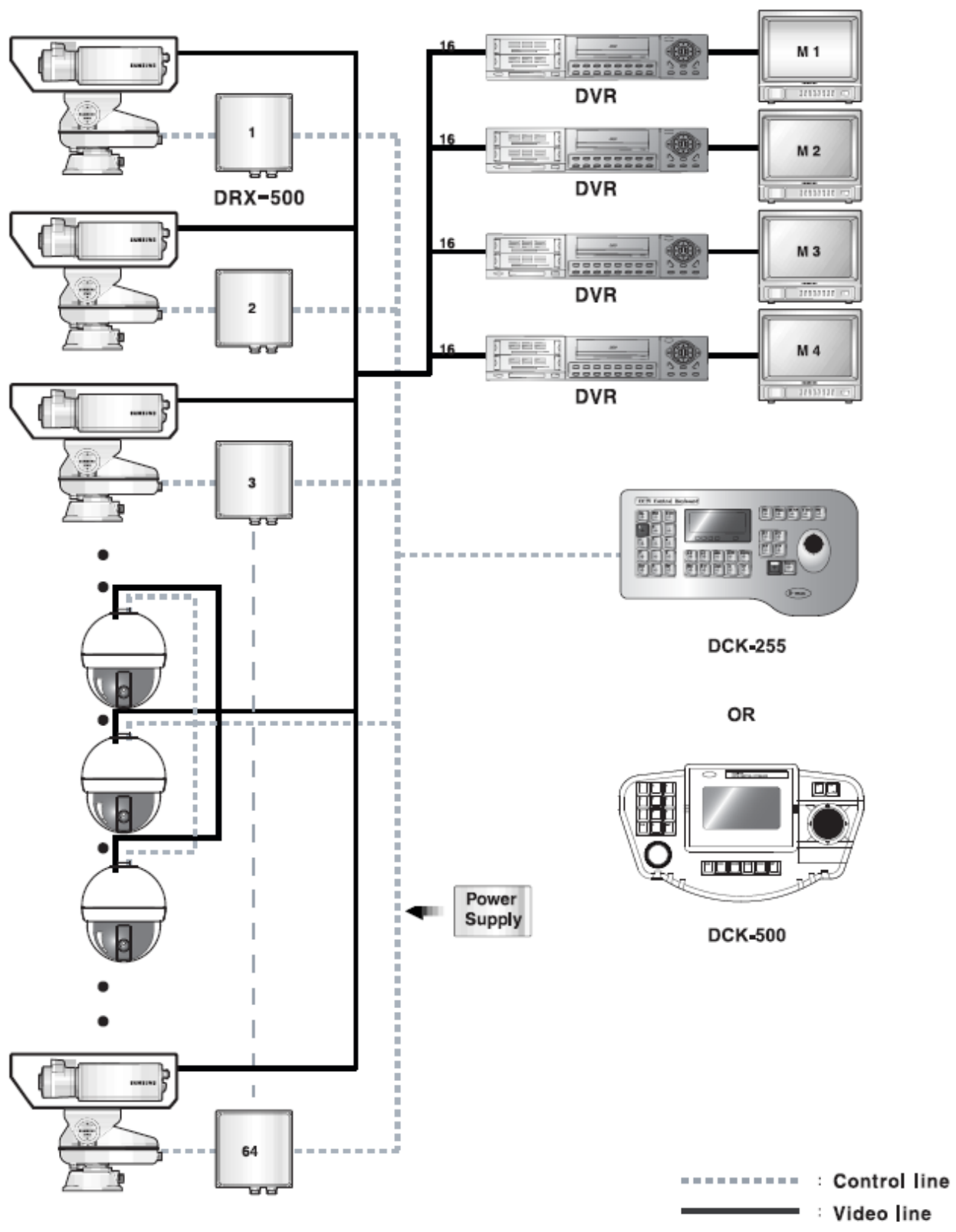
# Sub keyboard





# Set one main keyboard

## ■ Set one KEYBOARD



# 7. SPECIFICATION

MODEL	INDOOR	
Signal system	NTSC	PAL
Image sensor	1/4" Sony Ex-View CCD	
Effective pixels	768(H) X 494(V),	752(H) X 582(V),
Horizontal resolution	More than 520 TVL	
Lens	35x Optical zoom, f =3.4 –119mm	
Digital zoom	12x (Total zoom 420x)	
Angle of view	Approx 55.8° (Wide), Approx 1.7° (Tele),	
Minimum illumination	0.1Lux, MAX: 0.01Lux	
Luminance S/N ratio	More than 50dB	
Video output	1 Vp-p Composite video output 75Ω	
Focus mode	Auto / Manual	
Back Light	On / Off	
Shutter speed	Auto / 1/120 ~ 1/60,000 sec	
Sharpness control	Level (0 – 10)	
Stabilizer	On/Off	
Alarm in/out	4 Inputs / 1 Relay Output	
Pan/Tilt angle	360° Endless / 92°	
Pan speed	MAX 360°/sec (64 Levels)	
Preset point	250 Presets	
Preset Speed	Max 360°/sec (64 Levels)	
Privacy zones masking	8 Zones	
Operating temperature	- 10°C ~ 50°C (-14°F ~ 122°F)	
Communication system	RS-485 / 422	
OSD	Built-in	
Operating humidity	Less than 90%RH	
Dimensions	189mm(Diameter) x 224(Height) mm	
Weight	About 3.1Kg ( Without adaptor )	
Construction	ABS body , Clear vandal bubble (PC)	
Power consumption	18W (Max)	
Power supply	AC24V, 60/50 Hz	

MODEL	OUTDOOR	
Signal system	NTSC	PAL
Image sensor	1/4" Sony Ex-View CCD	
Effective pixels	768(H) X 494(V),	752(H) X 582(V),
Horizontal resolution	More than 520 TVL, B/W 570 TVL	
Lens	35x Optical zoom, f =3.4 –119mm	
Digital zoom	12x (Total zoom 420x)	
Angle of view	Approx 55.8° (Wide), Approx 1.7° (Tele),	
Minimum illumination	0.1Lux, MAX: 0.01Lux	
Luminance S/N ratio	More than 50dB	
Video output	1 Vp-p Composite video output 75Ω	
Focus mode	Auto / Manual	
Back Light	Off / Low / Middle / High	
Shutter speed	Auto / 1/120 ~ 1/60,000 sec	
Sharpness control	Level (0 – 10)	
Stabilizer	On / Off	
Alarm in/out	4 Inputs / 1 Relay Output	
Pan/Tilt angle	360° Endless / 92°	
Pan speed	MAX 360°/sec (64 Levels)	
Preset point	250 Presets	
Preset Speed	Max 360°/sec (64 Levels)	
Privacy zones masking	8 Zones	
Operating temperature	-40°C ~ 50°C (-40°F ~ 122°F)	
Communication system	RS-485 / 422	
OSD	Built-in	
Operating humidity	Less than 100%RH	
Dimensions	189mm(Diameter) x 224(Height) mm	
Weight	About 5.2Kg ( Without adaptor )	
Construction	Aluminum body , Clear vandal bubble (PC)	
Power consumption	21W (Max)	
Power supply	AC24V, 60/50 Hz	



