

MINI SPEED DOME CAMERA

USER MANUAL

DMS-200
DMS-200Se

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1. CAUTION



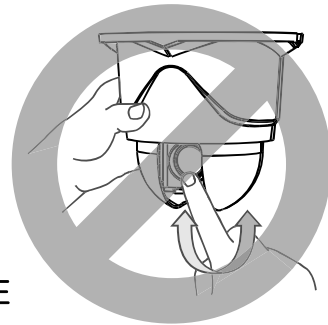
Thank you for purchasing mini speed dome camera DMS-200.

Please operate the product after being fully aware of the manual.

Please contact us if you have any queries or face any problems.

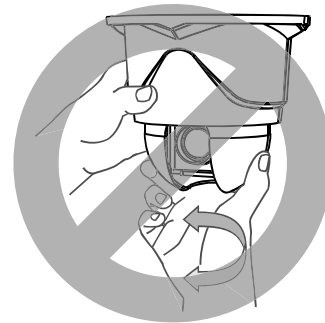
DO NOT CONTROL PAN, TILT BY FORCE

Do not move the inside Pan/Tilt motor by force after removing dome cover. It can cause damages.



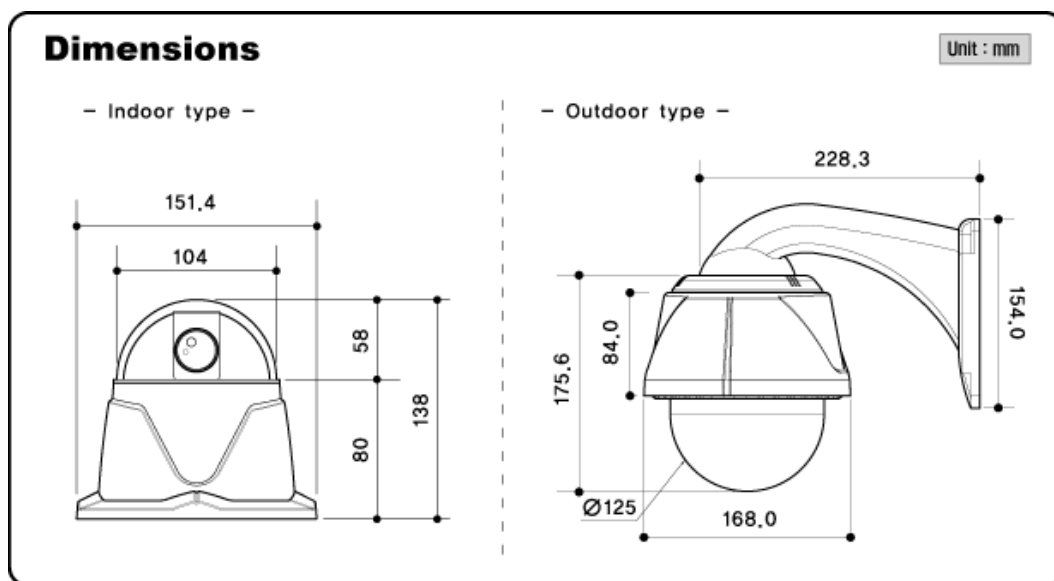
HANDLE WITH CARE OF CAMERA LENS AND DOME

Be careful of handle with dome cover. Please use a soft fabric due to a scratch when you clean the cover.



EXTERNAL SHOCK

Damages can be occurred through the carelessness Or shock when you take out the module.



CAUTION IN USE.

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

It can cause troubles.

Ensure 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 troubles.



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(EN61000-3-2:1995, EN61000-3-3:1995, EN50081-1:1992, EN50082-1:1997)

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

※ Components

- Mini Speed Dome Camera 1 Pcs
- Adaptor (AC24V 2.5A) 1 Pcs
- Manual 1Pcs

2. INSTRUCTION OF PRODUCT

1). DESCRIPTION AND FEATURES

– Description –

This camera has been designed elegantly for buildings, department stores that need to be in harmony with the interior as a mini speed dome camera, including various observation functions. It moreover is effective for true Day & Night.

– Features –

High magnification zoom lens

Max 192 times zoom
(optical x12 zoom, digital x16 zoom)

Horizontal resolution min. 600 TVL

Color: 600 TVL, B/W: 700 TVL
horizontal resolution

Low light and Day & Night

The result of improving sensitivity
0.00003Lux (DSS Control)

ICR Day & Night allows the filter to change
B/W mode in the night.

Additional functions

PTZ trace:
Memorize P/T/Z move for 120 seconds then
operate the registered trace.

Auto swing:
Repeat pan and tilt between two preset
positions.

Group:
12 Preset positions are chained in one Group.
(Max 12 Groups available)

Tour:
Max 12 Groups are bound.

410k Pixel CCD CAMERA

SONY CCD chip with high resolution and low
illumination condition.

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.

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.

Auto Tilt move

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

OSD (On Screen Display)

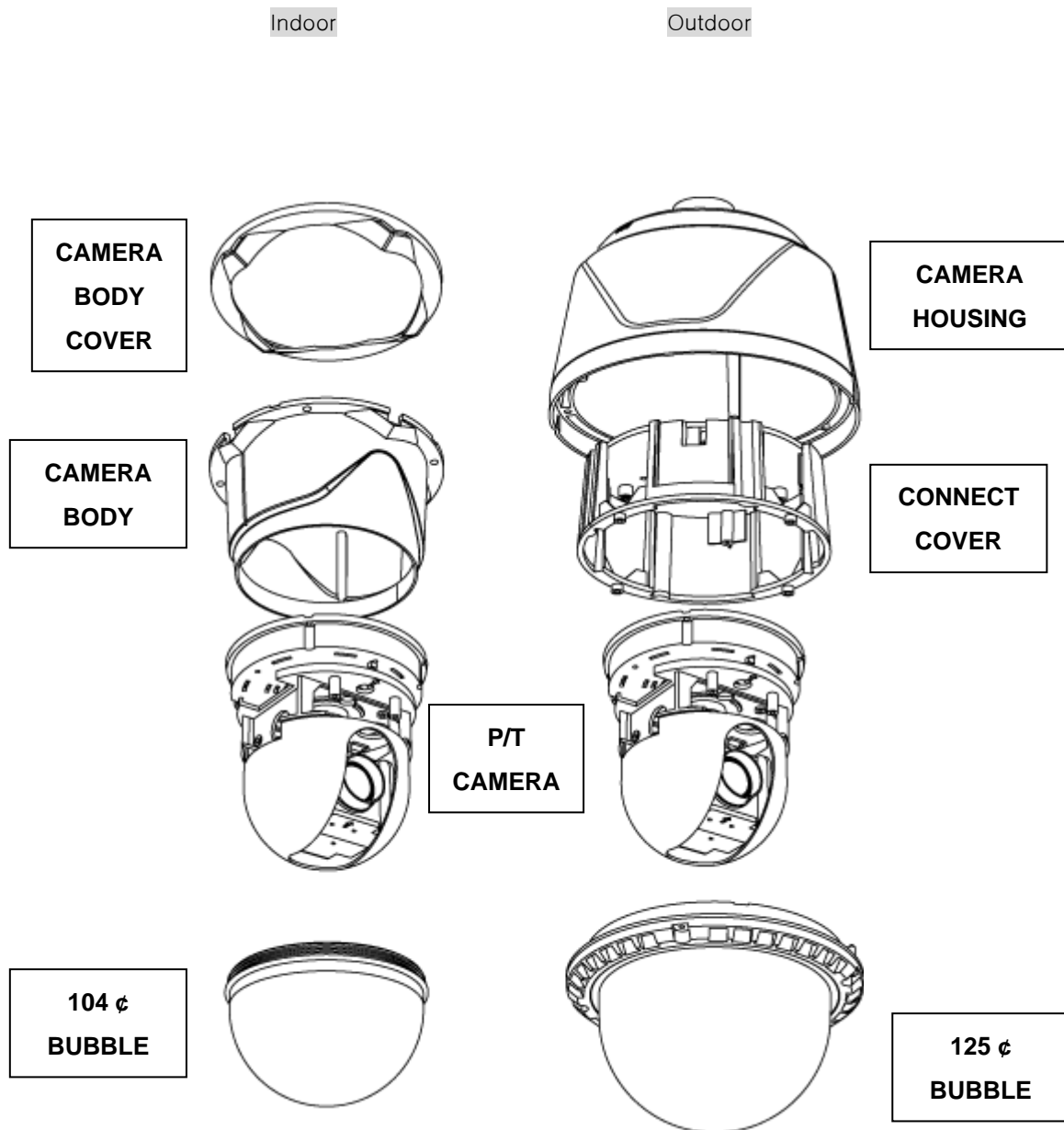
Provides character information displayed on the
monitor, such as the camera ID address,
camera name, preset number, sequence status,
and sets various functions of camera easily on
the OSD menu screen.

Privacy Zones

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

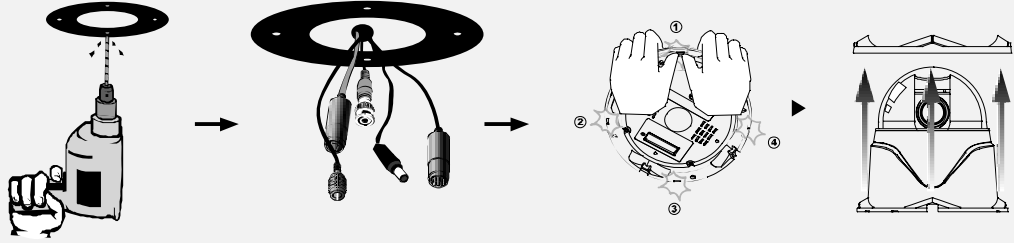
2) INSTALLATION AND CONNECTION

2-1. NAME AND FUNCTION OF EACH PART



2-2. INSTALLATION

Indoor

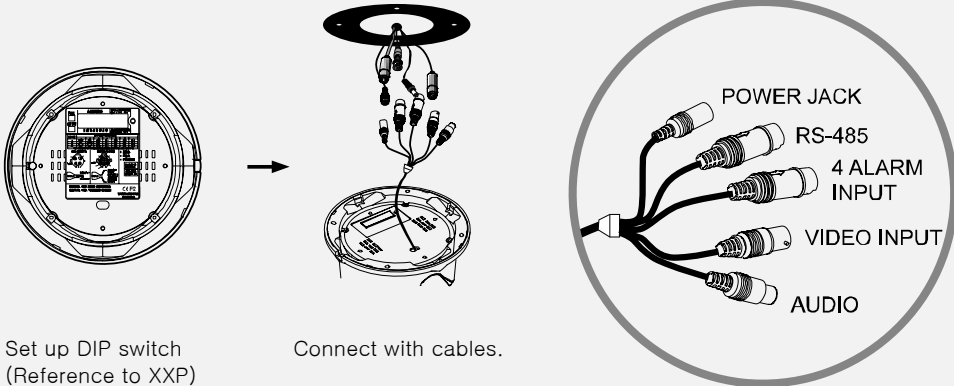


The first step shows a hand using a drill to make four holes in a circular ceiling guide. The second step shows the guide with four cables (power, RS-485, video, and audio) protruding from the ceiling. The third step shows hands pulling apart four bands on the back of the camera body cover, which are numbered 1 through 4.

Make 4 holes after attaching ceiling guide where the camera is set.

Take out the cables from the ceiling.

Take apart 4 bands of camera body cover

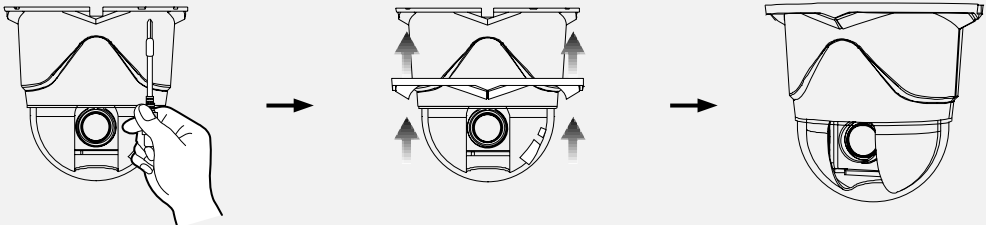


The first part shows the camera's internal DIP switch being set up. The second part shows the camera body cover being connected to the ceiling guide with cables. A circular inset provides a detailed view of the cable connections: POWER JACK, RS-485, 4 ALARM INPUT, VIDEO INPUT, and AUDIO.

Set up DIP switch (Reference to XXP)

Connect with cables.

POWER JACK
RS-485
4 ALARM INPUT
VIDEO INPUT
AUDIO



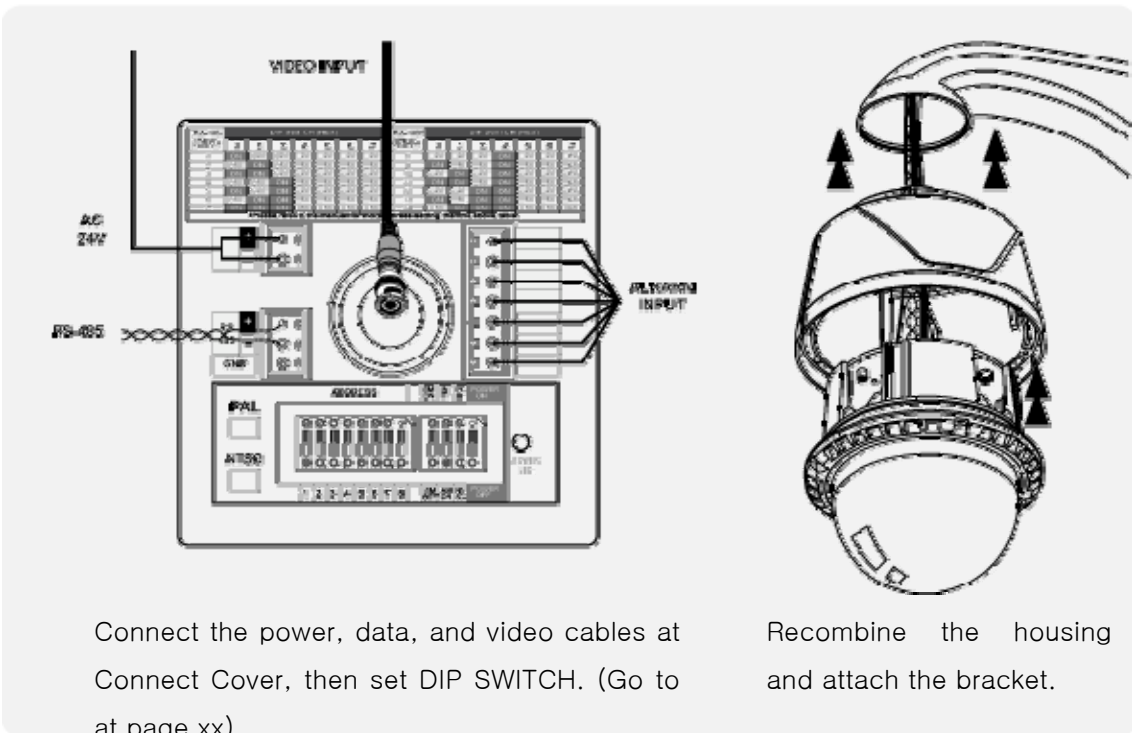
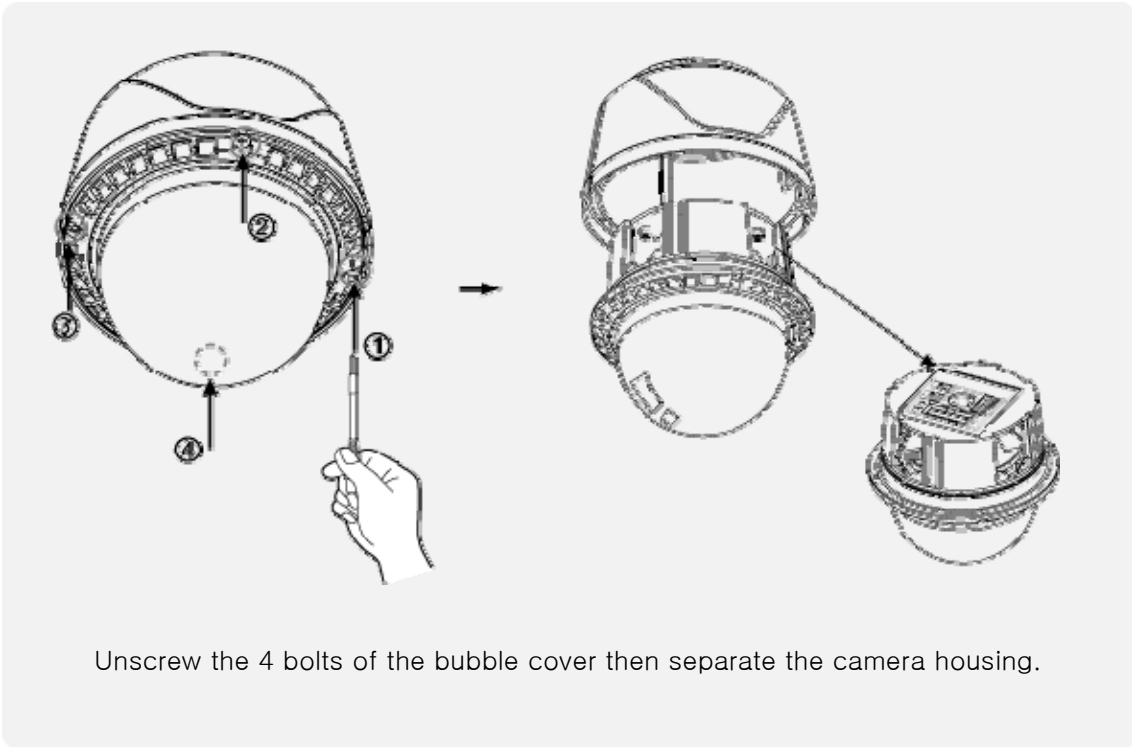
The first step shows a hand using a screwdriver to tighten four screws on the camera body cover. The second step shows the camera body cover being pushed up and attached to the ceiling guide. The final step shows the completed installation.

Tighten 4 screws.

Attach the camera body cover

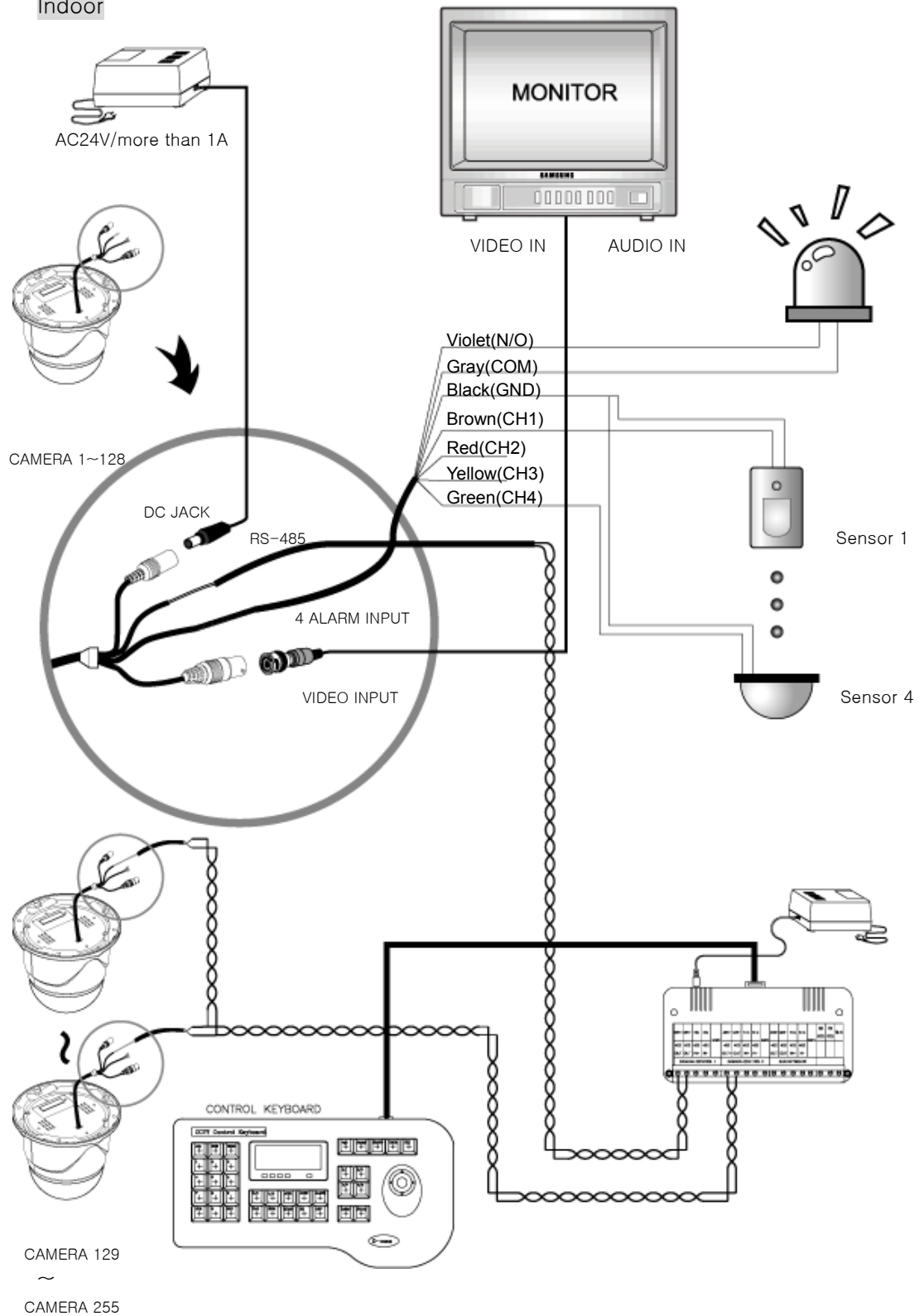
Completion

Outdoor

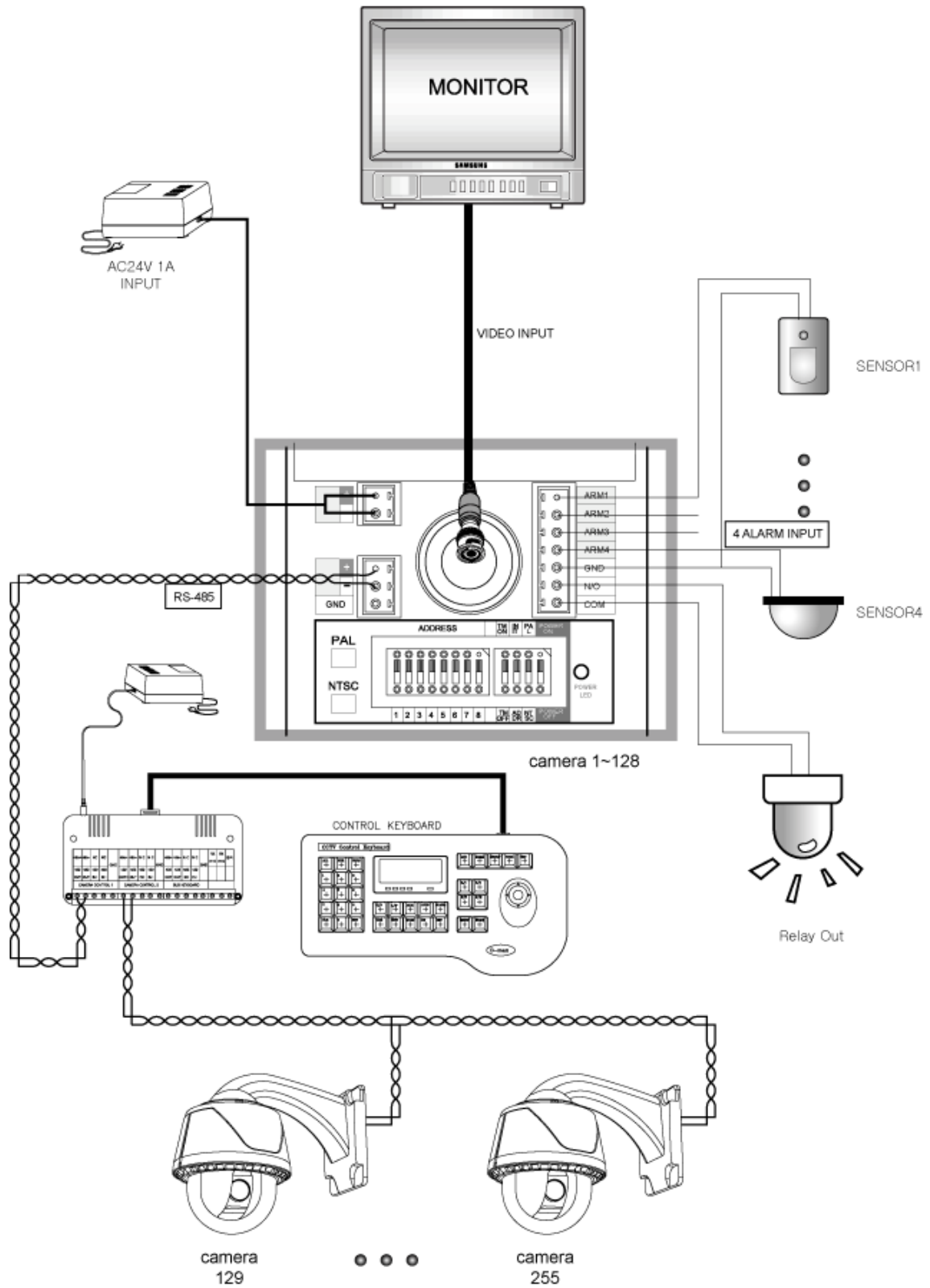


2-3. CONNECTION DIAGRAM

Indoor

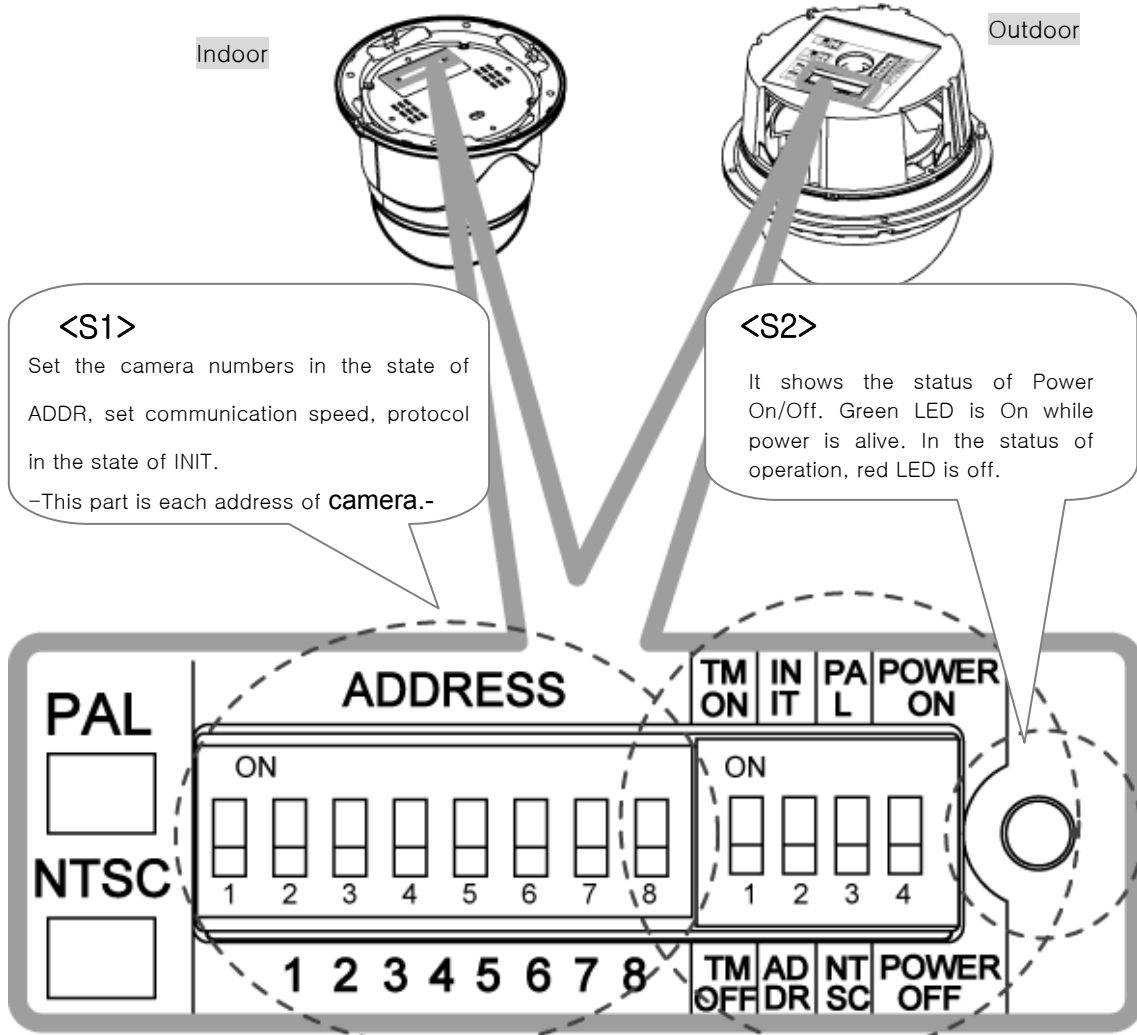


Outdoor



3. DIRECTIONS FOR USE

1) DIP SWITCH SETTING



<S1>
 Set the camera numbers in the state of ADDR, set communication speed, protocol in the state of INIT.
 -This part is each address of camera.-

<S2>
 It shows the status of Power On/Off. Green LED is On while power is alive. In the status of operation, red LED is off.

-TERMINALATION RESISTOR (DIP S2/SW1)
 ~Turn the last camera on the data line as a switch to turn on/off the terminal resistor on. Turn the DIP SW of some of the farthest cameras on in the case of the data lines distributed to several directions.
 * The first default is off.

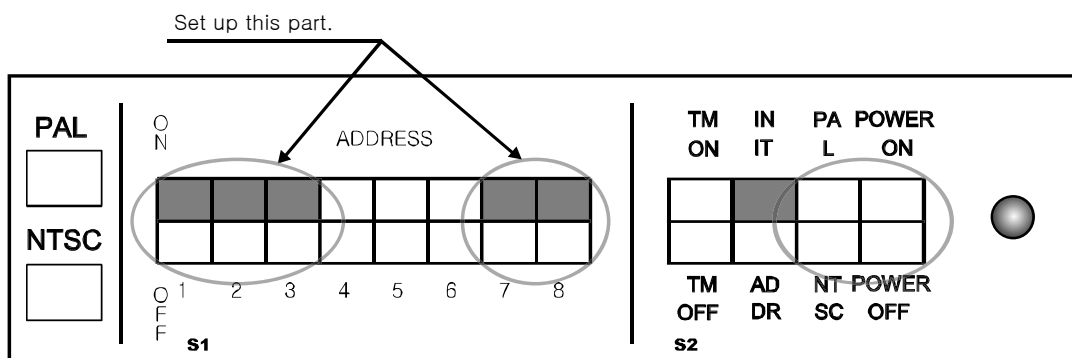
-ADDRESS/ INITIAL SELECT (DIP S2/SW2)
 ~Set ADDRESS DIP SW in the status of ADDRESS (*Reference to next page*)

(.*** The first default is ADDRESS.**)
 -Set the communication speed and Protocol (Demand for the technical inquiry) up in the state of the INITAIL.

-Select PAL / NTSC system. (DIP S2/SW 3)

-POWER ON/OFF (DIP S2/SW 4)
 Set DIP SW only in the status of Power off. Then turn on the power after setting DIP SW.

2) HOW TO CHANGE PROTOCOL



The switch that selects Protocol. The switch that selects Baud Rate.

PROTOCOL	S1					S2
	SW1	SW2	SW3	SW7	SW8	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 (9600 bps)	OFF	OFF	ON	OFF	OFF	INIT

Change No.3 at S2 to INIT if want to change Protocol.

- ① Please make Power off.
- ② Switch Protocol that wants to change on as above table.
- ③ Make Power on, then set Protocol and Baud rate are appealed.
- ④ Make Power off, if every setting is right. Then it is done.
- ⑤ Change No.3 of S2 to ADDR before Power on, then make 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) HOW TO SET ADDRESS 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 (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

-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

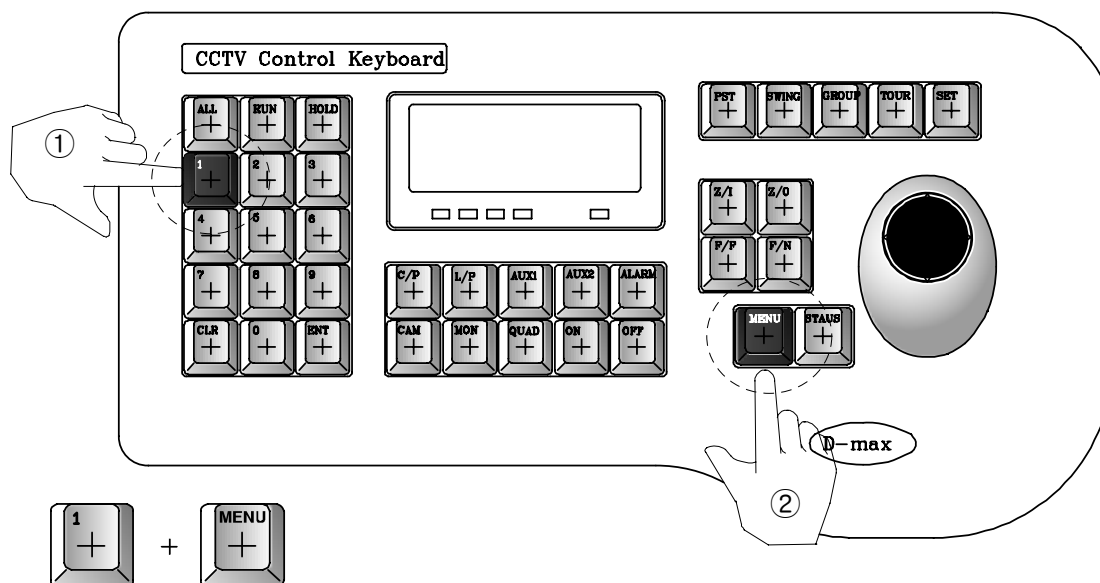
4-1. HOW TO CONTROL OSD MENU

● OSD (ON SCREEN DISPLAY) CONTROL

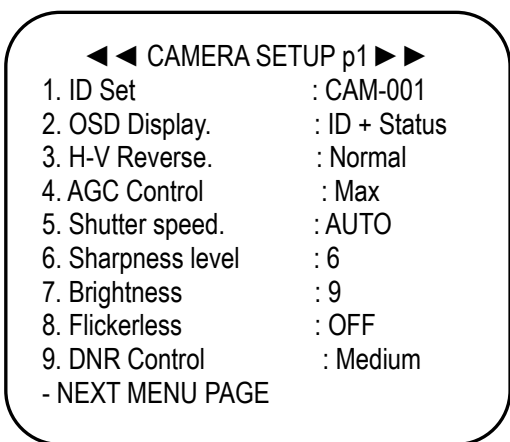
It is the function to call up the Menu

* 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 4-3 content)

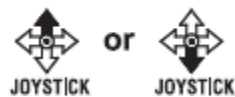
● ACCESSING OSD MENU



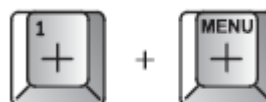
- The menu is displayed on the screen with the key tone when user presses No.1 and menu key.



- OSD Menu Control Up, Down, Right and Left moving of Cursor like under pictures



- Cancellation of OSD menu



4-1. FUNCTIONAL DESCRIPTIONS ON EACH MENU

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium
- NEXT MENU PAGE

1. ID SET.

This function is to set camera ID up to 16 letters on the monitor.

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

<< SET ID [●●●●●● CAM-001] >>

●!#\$%&'()*+`-./0123456789
 ::<=>?@ABCDEFGHIJKLMNO P
 RSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz

Zoom In/Out , OSD Shift
 Press SAVE F/F , ESC F/N

presses Z/I, Z/O or turn the head of the joystick to right/left

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium
- NEXT MENU PAGE

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

screen

- All off: Nothing displayed on the screen

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium
- NEXT MENU PAGE

3. H-V REVERSE

Set up H-V reverse mode.

- Normal
- H-REV : You can flip the picture horizontally on the screen.
- V-REV : You can flip the picture vertically on the screen.
- HV-REV : You can flip the picture horizontally and vertically on the screen.

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium

- NEXT MENU PAGE

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium

- NEXT MENU PAGE

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium

- NEXT MENU PAGE

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
- 2. OSD Display. : ID + Status
- 3. H-V Reverse. : Normal
- 4. AGC Control : Medium
- 5. Shutter speed. : AUTO
- 6. Sharpness level : 06
- 7. Brightness : 09
- 8. Flickerless : OFF
- 9. DNR Control : Medium

- NEXT MENU PAGE

4. AGC CONTROL

AGC(Automatic Gain Control)- It adjusts the amount of video amplification to maintain a full 1-volt peak-to-peak video signal output automatically.

- ▶ Low, Medium, Max

5. SHUTTER SPEED

As a setting shutter speed mode, it can be distinguished a fast moving subject easily by means of shutter speed up.

※ Attention-The illumination of the camera decreases if shutter speed is up.

※ The state of first default is 'AUTO'.

※ It can be worked in the state of Flickerless 'off'

- ▶ Range : Auto, 1/125, 1/250, 1/500, --- 1/120000

6. SHARPNESS LEVEL

Compensation of the shape of a subject

- ▶ Range : 0 ~ 10, Default : 6

7. BRIGHTNESS

Control brightness of a screen.

The screen gets dark because an iris is closed as the numerical value is low, whereas the screen gets bright because an iris

is opened as the numerical value is high.

- ▶ Range: 0~19, Default: 9

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
 - 2. OSD Display. : ID + Status
 - 3. H-V Reverse. : Normal
 - 4. AGC Control : Medium
 - 5. Shutter speed. : AUTO
 - 6. Sharpness level : 06
 - 7. Brightness : 09
 - 8. Flickerless : OFF
 - 9. DNR Control : Medium
- NEXT MENU PAGE

8. FLICKERLESS

Tremble on the screen is removed in the state of FLICKERLESS 'ON', the shutter speed, at the same time, is fixed in 1/120sec in NTSC and in 1/100sec in PAL.

▶ Off, Manual, On

◀◀ CAMERA SETUP p1 ▶▶

- 1. ID Set : Press F/F Key
 - 2. OSD Display. : ID + Status
 - 3. H-V Reverse. : Normal
 - 4. AGC Control : Medium
 - 5. Shutter speed. : AUTO
 - 6. Sharpness level : 06
 - 7. Brightness : 09
 - 8. Flickerless : OFF
 - 9. DNR Control : Medium
- NEXT MENU PAGE

9. DNR Control

It can remarkably reduce noise of minimum illumination by super noise removable technique and also file size becomes smaller while DVR is being recorded by the effective reduction of noise.

▶ Off, Low, Medium, Max

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
 - 11. Set Back Light Mode
 - 12. White Balance : Auto
 - 13. Focus Mode : Oneshot
 - 14. Zoom Max Limit : Off
 - 15. DSS Control : 10 Field
 - 16. Day&Night : Auto+Low
 - 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

10. BACK LIGHT

This camera is designed so that it delivers a distinctive subject and background at the same time, even when the subject is in backlight, unlike conventional cameras, by adopting a proprietary DSP chip.

.Please select a suitable mode below them (The Set Back Light Mode will be automatically changed by the selection)

▶ Off, WDR MODE, HLC MODE, BLC MODE

WDR : When there are both bright and dark areas at the same time, this mode makes both areas distinctive.

BLC : Enables a user to directly select a desired area from a picture, and to view the area more clearly..

HLC(High Light Compensation) : If there is a high light installed in dark environment such as an apartment parking garage or gas station entrance, removing the high light makes it possible to view car license plates efficiently

OFF : Deactivates the BACKLIGHT function.

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

11. SET BACK LIGHT MODE

▶ WDR MODE

- Limit: Adjust the WDR Sensitivity by selecting Low or Max
- Level: Adjust the WDR Brightness by controlling 0~15.

▶ HLC(High Light Compensation)MODE

- Limit: Adjust the HLC Sensitivity by selecting Low, Medium or Max

- Level: Adjust the WDR Brightness by controlling 0~15.

- This Function only operate in nighttime.

▶ **BLC MODE** : Select BLC mode or BLC Set area mode by using the joystick.

- BLC Level: Adjust the BLC Sensitivity by selecting Low, Medium or Max

- BLC Set AREA (Press F/F): Set BLC area location and size

- Select F/F button, and set the BLC area by using the joystick, and set are size by using Z/I, Z/O buttons. (The monitor shows as Exit BLC set(Press F/N))

After complete all setup, press F/N button, and then move to RETURN MENU PAGE. It is automatically saved.

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

12. WHITE BALANCE

It prevents from that white color is changed as illumination.

- ▶ Auto, Indoor, Outdoor

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

13. FOCUS MODE

Change Focus Mode to hand-worked or auto.

- ▶ OneShot : Auto Focusing mode works during non-working after zoom is worked.
- ▶ Auto: It adjusts the focus automatically as it monitors the screen.
- ▶ Manual: User can control the focus by hand-worked.

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

14. ZOOM MAX Limit

It is used when user corrects and limits the extensional range of the focus as a function to set the maximum value of zoom.

- ▶ Off,
- ▶ 12x zoom : 24X ~ 192X

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

15. DSS CONTROL

An object becomes clear as the field value gets higher in illumination, whereas a moving object becomes dim.

- ▶ Range : Off, 2 ~ 512 fields

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

16. DAY& NIGHT

The function is used to distinguish an object clearly in the dark condition.

- ▶ Auto-Low: This mode is worked automatically according to sensitivity, if the sensitivity is low
- ▶ Auto-Hi: This mode is worked automatically according to sensitivity, if the sensitivity is high.
- ▶ On: B/W mode ▶ Off: color mode
- ※ Auto-low mode will be changed from B/W to color fast as illumination.

◀◀ CAMERA SETUP p2 ▶▶

- 10. Back Light : WDR Mode
- 11. Set Back Light Mode
- 12. White Balance : Auto
- 13. Focus Mode : Oneshot
- 14. Zoom Max Limit : Off
- 15. DSS Control : 10 Field
- 16. Day&Night : Auto+Low
- 17. Stabilize On/Off : Off
- PREV MENU PAGE
- NEXT MENU PAGE

17. STABILIZE On/Off

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

- ▶ On / Off

◀◀ CAMERA SETUP p3 ▶▶

18. Select Alarm : Sensor
19. Motion Detection : Off
20. Preset Set & Run Page
21. Trace Set Page
22. Alarm CH On/Off Page
23. Alarm Preset Set Page
24. Privacy Zone Set Page
- PREV MENU PAGE
- NEXT MENU PAGE

18. SELECT ALARM

Set alarm mode you want to use.

- ▶ Sensor / Motion

◀◀ CAMERA SETUP p3 ▶▶

18. Select Alarm : Sensor
19. Motion Detection : Off
20. Preset Set & Run Page
21. Trace Set Page
22. Alarm CH On/Off Page
23. Alarm Preset Set Page
24. Privacy Zone Set Page
- PREV MENU PAGE
- NEXT MENU PAGE

19. Motion Detection

If you want to use motion detection, set "On" mode.

And then set area where you want to detect by using F/F key.

- How to set area
- Area size can be controlled by using Z/O and Z/I key
- Area position can be controlled by using joystick.

◀◀ CAMERA SETUP p3 ▶▶

18. Select Alarm : Sensor
19. Motion Detection : Off
20. Preset Set & Run Page
21. Trace Set Page
22. Alarm CH On/Off Page
23. Alarm Preset Set Page
24. Privacy Zone Set Page
- PREV MENU PAGE
- NEXT MENU PAGE

20. 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 press F/F key after setting Preset No

<< 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



<< SET CH:001[PRESET:001] >>

●!#\$%&'()*+,-./0123456789
 :;<=>?@ABCDEFGHIJKLMNO
 PQRSTUVWXYZ[\]^_`abcdefghijklmnopqr
 stuvwxyz

Zoom In/Out , OSD Shift
 Press SAVE F/F , ESC F/N

<< 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 : 001

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. 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] [DELETE] [ESC]
 F/F Save Return, F/N Select

※ Repeat the same way after changing the number of Preset, if user set another Preset



① Set the Preset point ② move the menu ③ check

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

<< 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



<< SWING SETUP PAGE >>

- P/T Swing : Undef (TILT/PAN)
- Start Preset : 000 (1~250)
- End Preset : 000 (1~250)
- Swing Time : 000 (1~127)
- Swing Speed : 000 (1~64)

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

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



③ Preset Swing SET : Set Preset Swing

Move next SWING page for the setting, if user presses F/F key in the state of selection of the menu

※ The preset must be set before the setting as Swing

Is a function to repeat an auto observation of 2 Preset points user fixes in Preset set



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

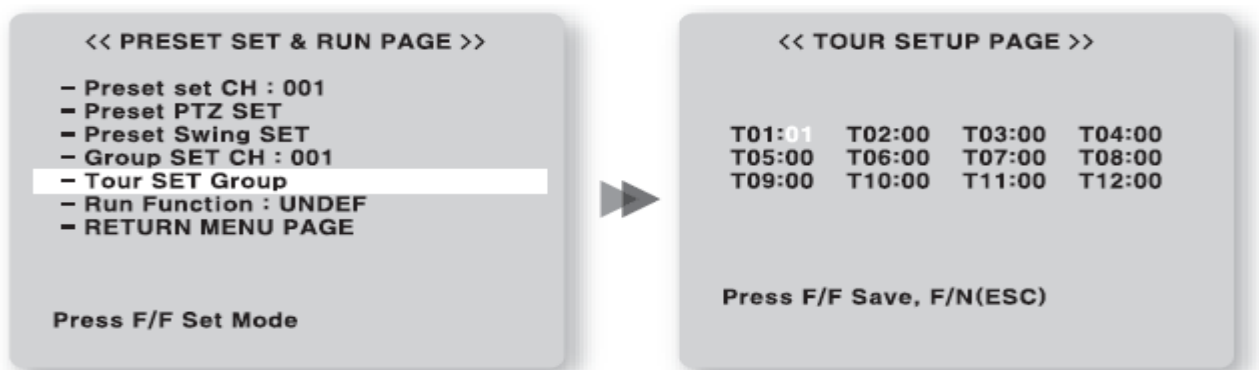
④ GROUP SET: User can set maximum 12 groups.

Select a channel then move to next page after pressing F/F key

※ The Preset point in the Group that 12 Preset points are set is observed repeatedly and order with regular speed and time.



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



⑤ Tour SET Group: User can set continual Group motion that can be put 12 Groups in 1 Tour Move to the setting page if user presses F/F key on this menu

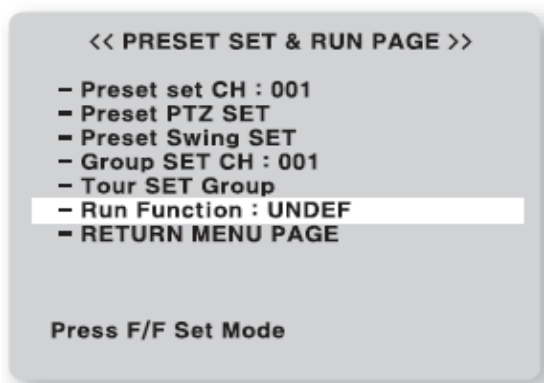
■ The Group user wants to set must be set firstly

※ Setting is only possible when Preset is set first in the state of setting of Swing, Group, Tour, otherwise, it displays the message “Sorry Undefined”.

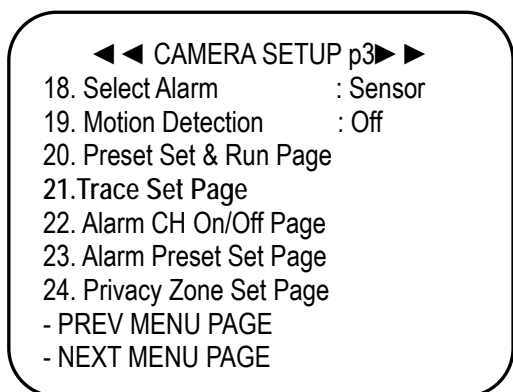
⑥ Run Function: Operate one of SWING/ * Set / Stop order with a control keyboard without menu GROUP / TOUR / TRACE. (It is operated on the screen. automatically after end of OSD menu)

■ User can look at how to set TRACE at TRACE SET PAGE”

⑦ RETURN MENU PAGE: Move to a higher menu page when control the joystick Right/Left in the selection of this menu.



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



21. TRACE SET PAGE

Set TRACE.

User can regenerate and save a change of the unrestricted location of ZOOM In/Out and a position of the camera by hand-worked control with a joystick.

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



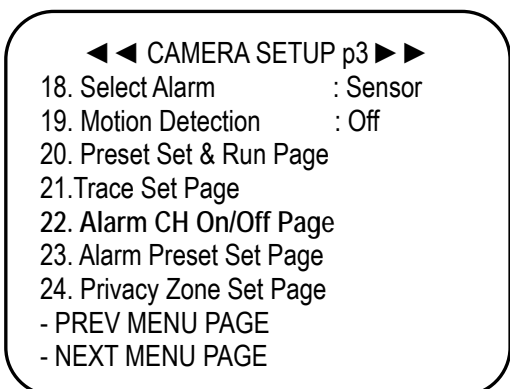
■ How to set TRACE

Press F/N button to select “SET” mode → move camera by using joystick toward position you want up to for 180/sec → after finishing all work, move cursor to save mode → press F/N button

- DELETE

All saved position will be deleted completely.

If user saves new positions without “DELETE”, all saved positions will be deleted automatically.



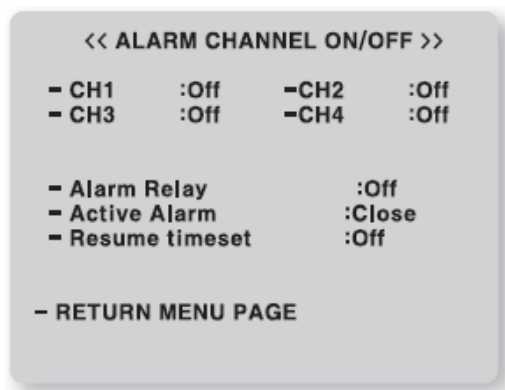
22. ALARM CHANNEL ON/OFF

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

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

- Alarm Relay : It can be set On or not when

ALARM OUTOUT PORT operate wrong.



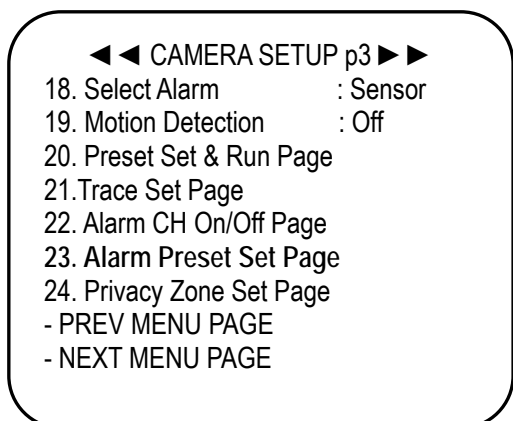
- Active Alarm : It selects ACTIVE OPEN or ACTIVE CLOSE by tangency when something is wrong. It is ACTIVE when ALARM INPUT is OPEN in ACTIVE OPEN, it is ACTIVE when ALARM INPUT is CLOSE in ACTIVE CLOSE

- Resume Time Set :

It can select the delay time that the camera move to the place alarming to observe where wrong signal is sensed.

User can set it for 1sec to 180sec and operate GROUP, TOUR, SWING again in a preset time. SWING, GROUP, TOUR are operated in a preset time when user stops the operating joystick in the case of not connecting with the ALARM.

Press SWING, GROUP, TOUR keys without stopping of the joystick to stop the operating completely (*Stopping the operating with the joystick affects the SET function.)



23. ALARM PRESET SET PAGE

■ The camera can move to a preset point automatically when something is wrong in each ALARM CHANNEL.

■ Set a preset point firstly to move if anything wrong, then use that sets the preset number into each ALARM CHANNEL.

■ PRESET is out of connecting in ALARM CHANNEL No.“0”

■ User can select PRESET number 1 to 250 and set it.

■ 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)

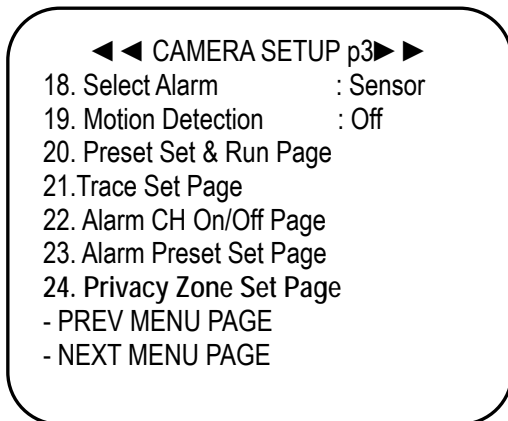
■ Home Position Time

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



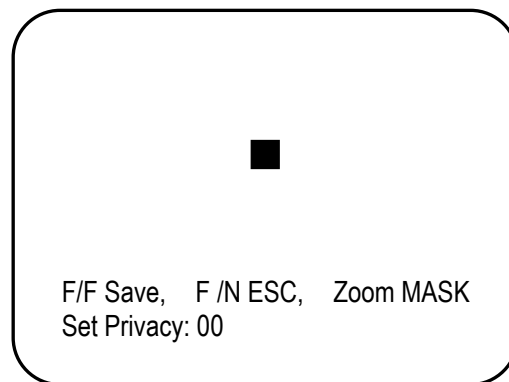
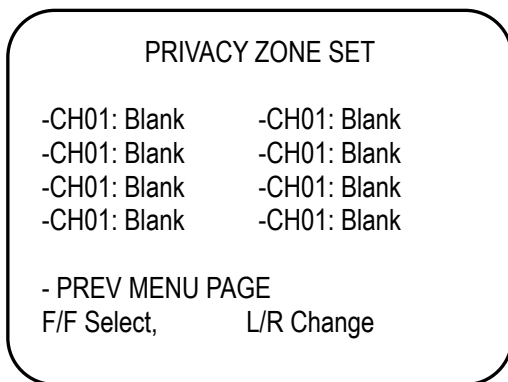
24. PRIVACY ZONE SET

Max 8 privacy zones can be configured for the protection of privacy.

■ How to set privacy zone

Select channel(if you select a channel, the channel will be changed “set” mode) → press “F/F” button → move camera position to where you want to protect → adjust privacy zone size by using zoom key → press “F/F” button to

save privacy zone you set → change mode to ON at the PRIVACY ZONE SET menu → press “F/F” button → you can see privacy zone you set → press “PREV MENU PAGE”



◀◀ CAMERA SETUP p4 ▶▶

- 25. Auto Tilt Mode : Off
 - 26. Smart Pan/tilt : ON
 - 27. Manual P/T Speed : Medium
 - 28. Auto Refresh Time :1day
 - 29. Shortcut Key : On
 - 30. Use Password :Off
 - 31. Language :English
 - 32. Factory Reset Warning
- PREV MENU PAGE

25. 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



◀◀ CAMERA SETUP p4 ▶▶

- 25. Auto Tilt Mode : Off
 - 26. Smart Pan/tilt : ON
 - 27. Manual P/T Speed : Medium
 - 28. Auto Refresh Time :1day
 - 29. Shortcut Key : On
 - 30. Use Password :Off
 - 31. Language :English
 - 32. Factory Reset Warning
- PREV MENU PAGE

25-26. SMART PANTILT

It is a function that P/T speed is getting slower as Zoom in.

It is hard to observe objects with the high PANTILT speed in operating of Zoon In

This function makes the speed less automatically for the effective observation

◀◀ CAMERA SETUP p4 ▶▶

- 25. Auto Tilt Mode : Off
 - 26. Smart Pan/tilt : ON
 - 27. Manual P/T Speed : Medium
 - 28. Auto Refresh Time :1day
 - 29. Shortcut Key : On
 - 30. Use Password :Off
 - 31. Language :English
 - 32. Factory Reset Warning
- PREV MENU PAGE

27. MANUAL P/T SPEED

User can control the maximum speed in controlling of up and down.

It can be set Low, Medium, Max and one turn (360°/sec) is possible in Max.

◀◀ CAMERA SETUP p4 ▶▶

- 25. Auto Tilt Mode : Off
 - 26. Smart Pan/tilt : ON
 - 27. Manual P/T Speed : Medium
 - 28. Auto Refresh Time :1day
 - 29. Shortcut Key : On
 - 30. Use Password :Off
 - 31. Language :English
 - 32. Factory Reset Warning
- PREV MENU PAGE

28. AUTO REFRESH TIME

Auto refresh can be set from 1 to 7days (each) for good focus performance

◀◀ CAMERA SETUP p4 ▶▶

25. Auto Tilt Mode : Off
 26. Smart Pan/tilt : ON
 27. Manual P/T Speed : Medium
 28. Auto Refresh Time :1day
 29. Shortcut Key : On
 30. Use Password :Off
 31. Language :English
 32. Factory Reset Warning
 - PREV MENU PAGE

29. SHORTCUT KEY

The Shortcut Key can make some of the functions to perform faster and easily.

★ How to use shortcut key (All protocols is operated it at the same way)

Function	Operation	Function	Operation
Group 1	51 + Preset	Run Trace	66 + Preset
Group 2	52 + Preset	Run Spiral	67 + Preset
Group 12	62 + Preset	B/W Mode	68 + Preset
Run Tour	63 + Preset	Color Mode	69 + Preset
Run Pan Swing	64 + Preset	OSD Menu ON/OFF	95 + Preset
Run Tilt Swing	65 + Preset		

◀◀ CAMERA SETUP p4 ▶▶

25. Auto Tilt Mode : Off
 26. Smart Pan/tilt : ON
 27. Manual P/T Speed : Medium
 28. Auto Refresh Time :1day
 29. Shortcut Key : On
 30. Use Password :Off
 31. Language :English
 32. Factory Reset Warning
 - PREV MENU PAGE

30. USE PASSWORD

- input the password
 - available set On/Off mode; off mode is factory set
 - press the F/F button as On mode
 - A window will be pop-up for input Old and New passwords. Old password is set as '0000'. To input a new password, use the joystick as up, down, right, and left
 - Press F/F button to save the new password.
- The new password will be needed when access the OSD mode

◀◀ CAMERA SETUP p4 ▶▶

25. Auto Tilt Mode : Off
 26. Smart Pan/tilt : ON
 27. Manual P/T Speed : Medium
 28. Auto Refresh Time :1day
 29. Shortcut Key : On
 30. Use Password :Off
 31. Language :English
 32. Factory Reset Warning
 - PREV MENU PAGE

31. LANGUAGE

English, Portuguese, Polish

◀◀ CAMERA SETUP p4 ▶▶

- 25. Auto Tilt Mode : Off
 - 26. Smart Pan/tilt : ON
 - 27. Manual P/T Speed : Medium
 - 28. Auto Refresh Time : 1day
 - 29. Shortcut Key : On
 - 30. Use Password : Off
 - 31. Language : English
 - 32. Factory Reset Warning
- PREV MENU PAGE

32. FACTORY RESET WARNING

Please be careful of that all setting data of OSD MENU are reset into the first default when operates FACTORY RESET WARNING.

The setting data of Preset, Swing, Group, Tour, Trace, also is deleted all

4-3. SETTING FUNCTIONS BY KEYBOARD

1. Preset setting

User can set Preset point up to 250.

① Preset Input



Preset setting can be set 1 to 250 sequentially after moves the camera to the place to will be memorized

② Preset Move



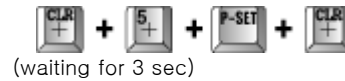
Move to the fixed point if user presses P-SET button after pressing Preset number that user wants.

③ Delete a separate Preset

Go on in order as follow when the sound is heard in 3 sec after pressing

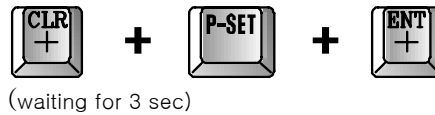


Ex) Delete 5th Preset



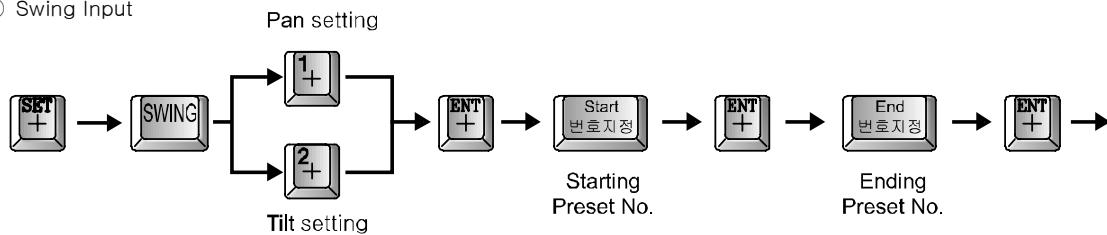
④ Delete all Preset

Go on in order as follow when the sound is heard in 3 sec after pressing



2. Swing setting

① Swing Input



Set the dwell time. (1~127sec)

Set the move speed (1~64 steps)

② Swing setting



(Run Pan)

(Run Tilt)

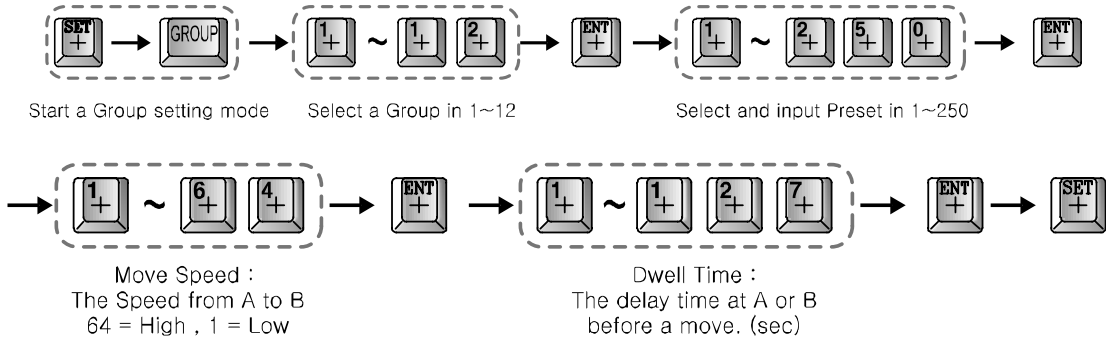
③ End Swing

Press SWING or Touch



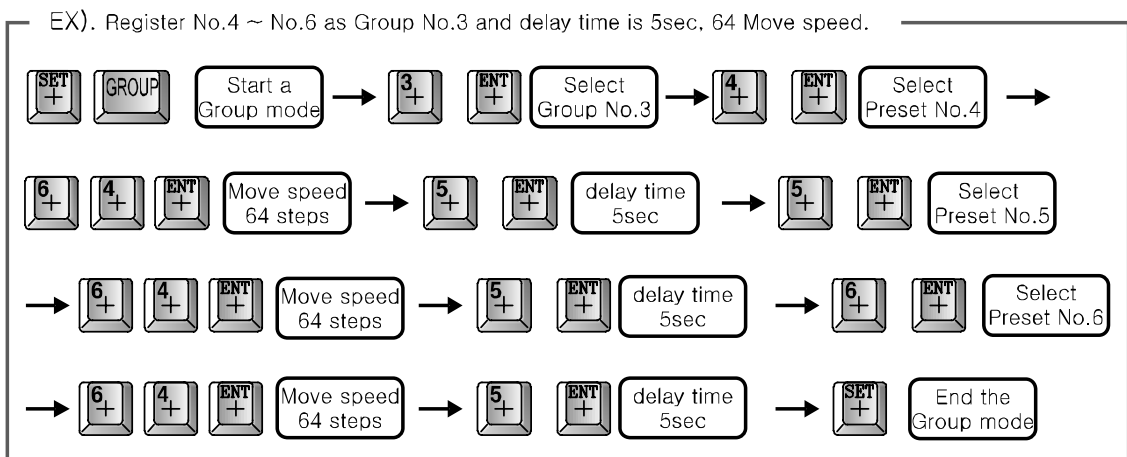
3. Group setting

① Start Group setting mode



Set again in continual input.

Set a GROUP again from the first after ending with , if user wants to finish Preset input in one Group to input another Group.



② Run Group

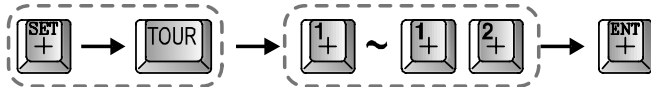


③ Stop Group

It can be stopped when user presses or controlling the joystick.

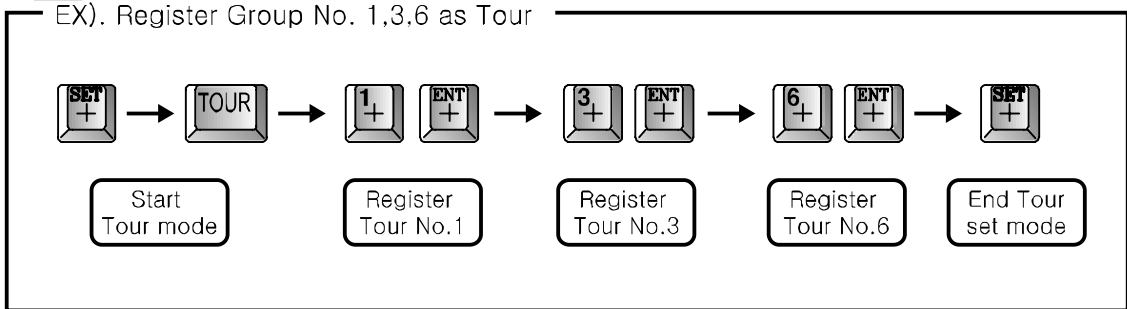
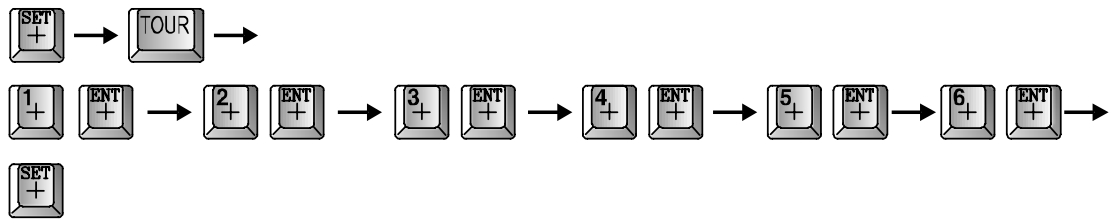
4. Tour set mode

① Tour set mode



Start a Tour set mode Select a Group in 1 ~ 12 Groups

- Repeat input in continual input



② Start / End Tour



or



Start Tour

End Tour

③ Delete Tour



→



5. Spiral Function

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

① Spiral On



② Off

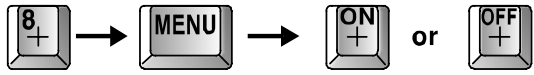


* 26. "67+PRESET key" is also available in Shortcut key 'On' mode

6. PTZ Trace

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

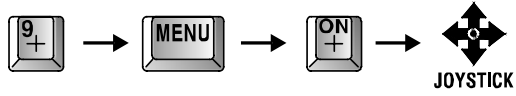
① Start / End Trace



② Off



② Set Trace



Control the joystick
and Lens

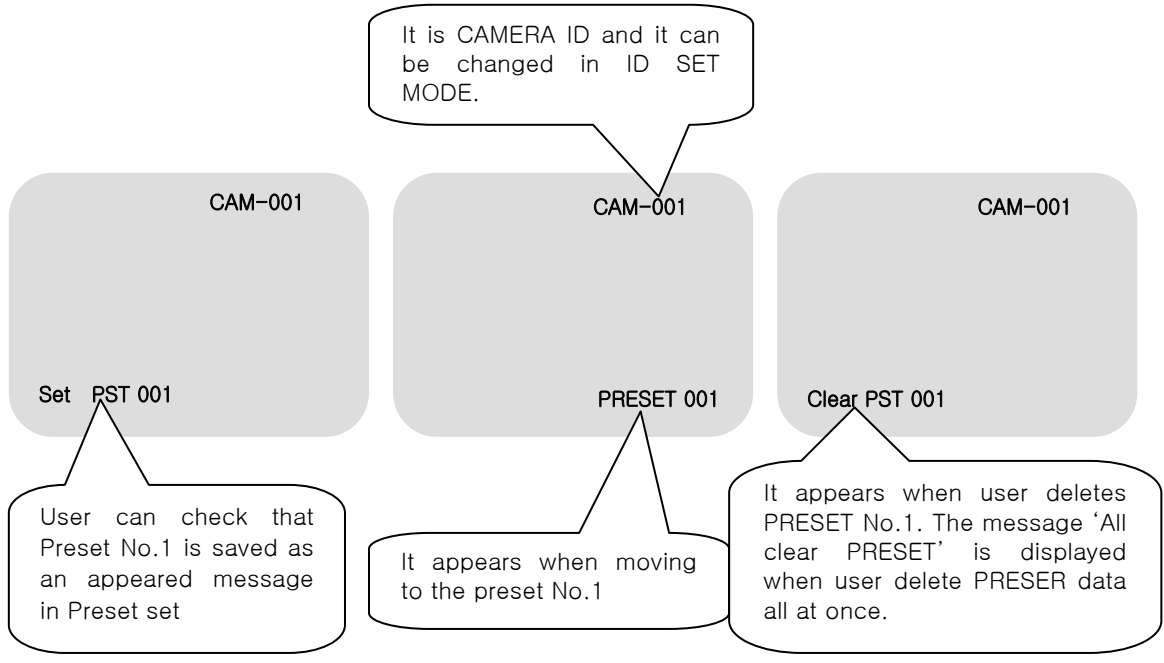
③ Delete Trace



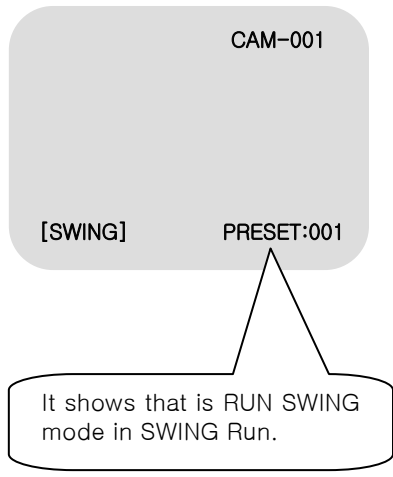
* 26. "66+PRESET key" is also available in Shortcut key 'On' mode

4-4. OSD MESSAGE DESCRIPTION

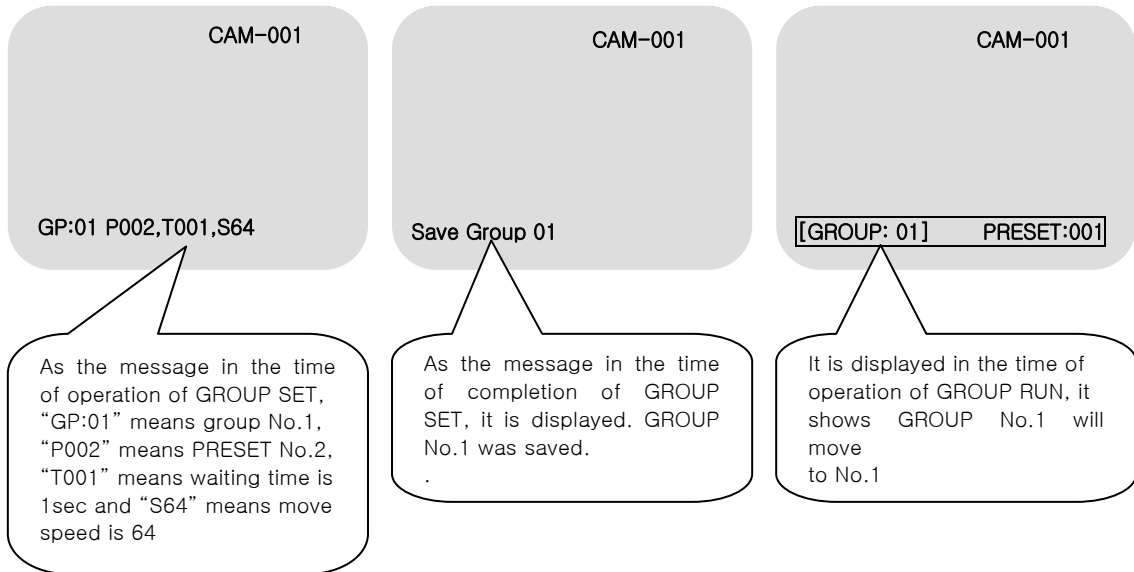
1. PRESET MESSAGE



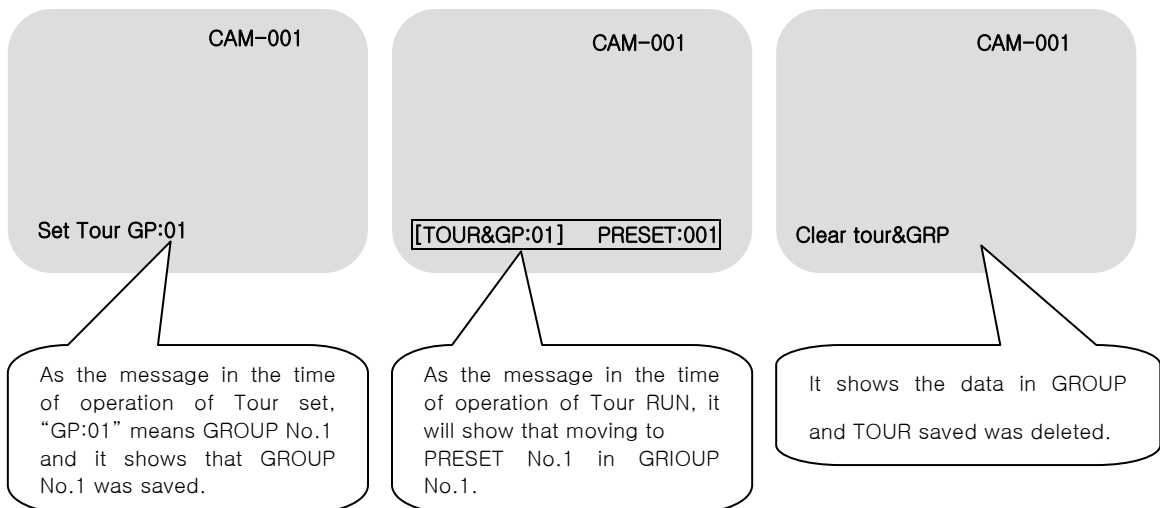
2. SWING MESSAGE



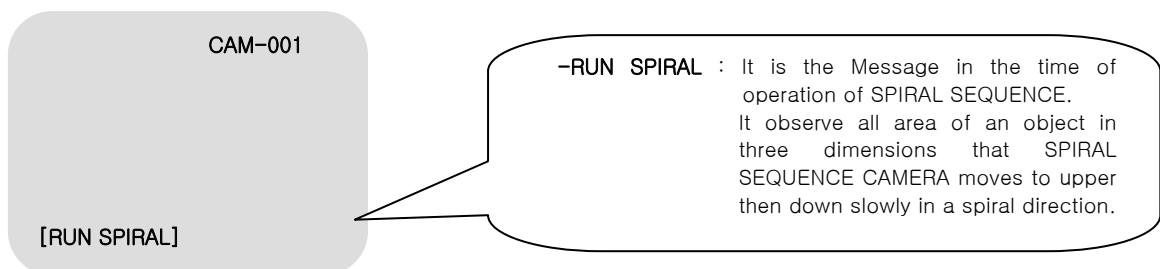
3. GROUP MESSAGE



4. TOUR MESSAGE



5. Spiral SEQ MESSAGE



4. TROUBLE SHOOTING

CAUTION IN USE

- Make sure that turn the power switch off before installation.
- Avoid the places where is the high/low temperature and humid.
- Power supply must be min AC24V/1A for indoor (DMS-200) and min AC24V/1.5A for outdoor (DMS-200Se)
- Please be careful of that you connect respective wires without mismatching in installation.
- Supply to power sources after checking the state of insulation of cables which is connected to the exterior
- Please keep the product from a strong shock or vibration which is the cause of troubles.

Checking in under using

Check the product as following, if something is wrong in installation or using.

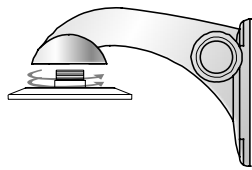
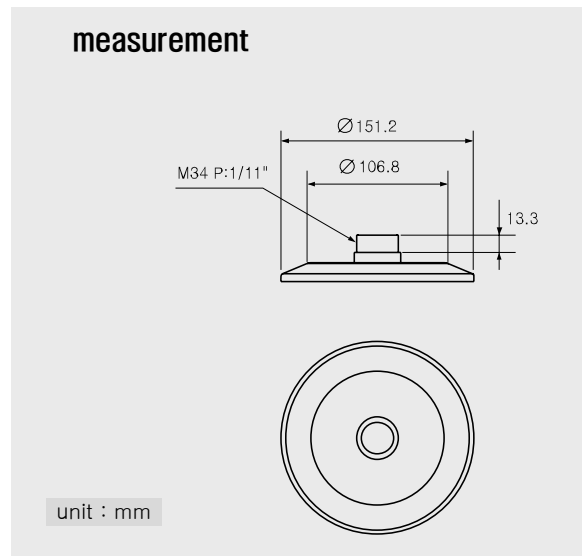
TROUBLE SHOOTING	CHECK POINT	MEASURE
Power is not turned on.	Does the electric power supply into the product well?	Check the POWER LED is "ON" at the BOTTOM COVER.
Does not work in Power On.	In operating, does the LED beside POWER SW light on red?	Check the status of DATA CABLE, if it is not lit. Check ADDRESS and DIP SW of communication speed setting, if it is not lit.
	Have you selected to RS485 or RS422 right?	Check the status of OPTION DIP SW No.2
Poor condition of PAN/TILT	Have you turned the ending terminal register 'ON'?	Turn 'ON' the ending terminal register of the camera which is set in farthest away.
A image is not clear or black lines are displayed on the screen.	Is the power adapter AC24V, 1.5A over?	Exchange the adapter to for an adapter which has higher current.
The message 'P/T POSITION ERROR' is displayed continuously.	Is the camera pressed by something heavy or put it between others?	Check that a rotation of the camera's body works smoothly and remove a object that hinders the operation of the camera.
The message 'SORRY NOT MEMORY' is displayed continuously.	Have you set the related functions?	Please refer to the manual book and setting the function you want.
ALARM RELAY is not changed to 'ON' in the state of being alarmed.	Have you set the ALARM RELAY 'ON' in the SET MODE?	Make sure ALARM RELAY 'ON' in the SET MODE.
In abnormal condition, even if the sensor is well.	Is it correct ALARM ACTIVE setting status and the sensor is either opened or closed?	Fit ALARM ACTIVE MODE setting with the connection of the SENDOR in the SET MODE.(It means either sensor is opened or closed)
PRESET point is different or out of moving when the ALARM occurs. The warning does not work from the keyboard when the ARLAM occurs.	Have you set ALARM PRESET in the SET MODE?	Check the status of the ALARM PRESET setting in the SET MODE.
	Have you used the exclusive control keyboard?	The warning is only reacted to the exclusive control keyboard.
	YES.	Make sure ALARM "ON" of the camera.

5. ASSEMBLES

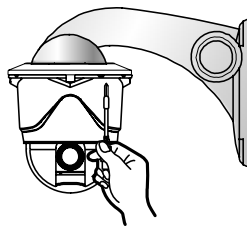
Indoor Wall Mount Bracket

It can be connected with D-max bracket by using mount.

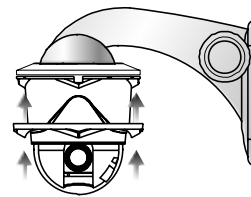
(The mount and bracket are optional for indoor, DMS-200)



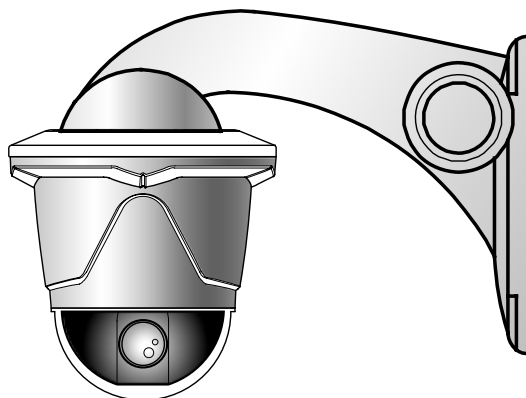
① Connect MOUNT with Wall bracket



② Fix 4 screws.

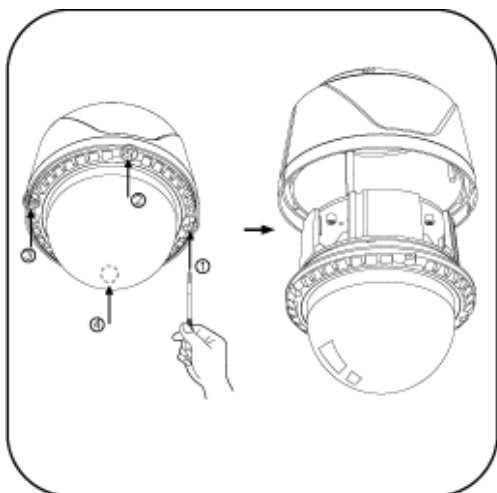


③ Connect Camera body cover.

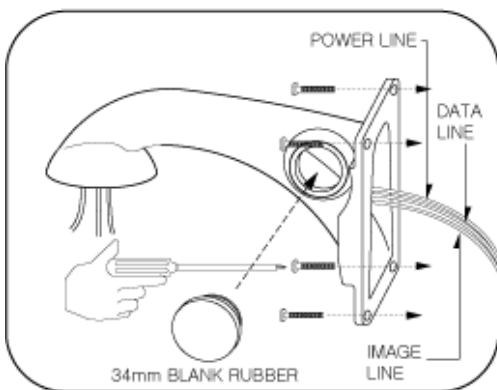


④ Completion

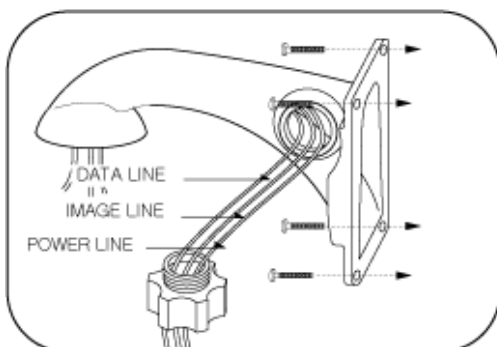
Outdoor Wall Mount Bracket



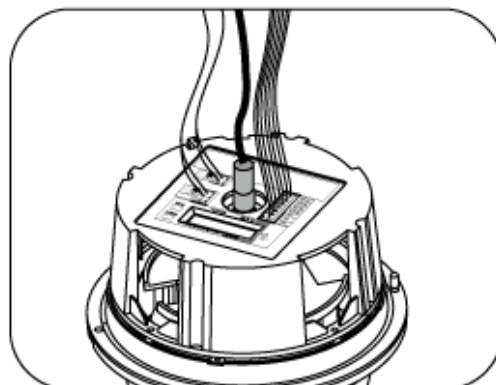
- ① Unscrew the 4 bolts of the bubble cover then separate the camera housing.



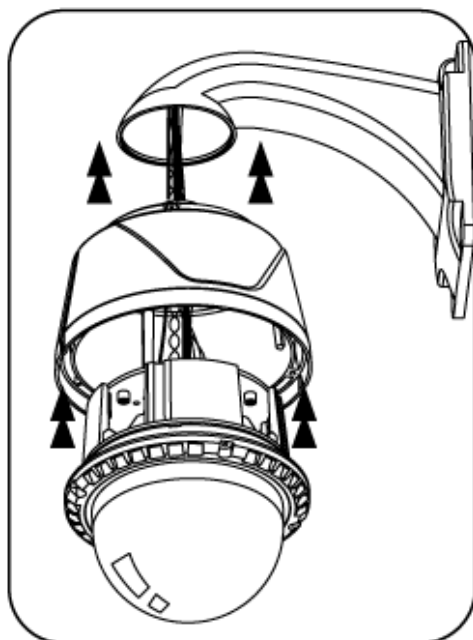
- ② -1. Fix four bolts after connecting each line and block up the side hole of the bracket with 34mm block rubber.



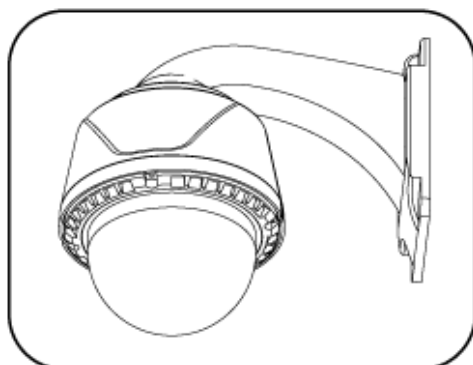
- ② -2. Connect the lines as above the picture when setting on the concrete structure such as retaining wall. Then connect TAB/P1/11" flexible connector (28Ø).



- ③ Connect the power, data, and video cables at Connect Cover



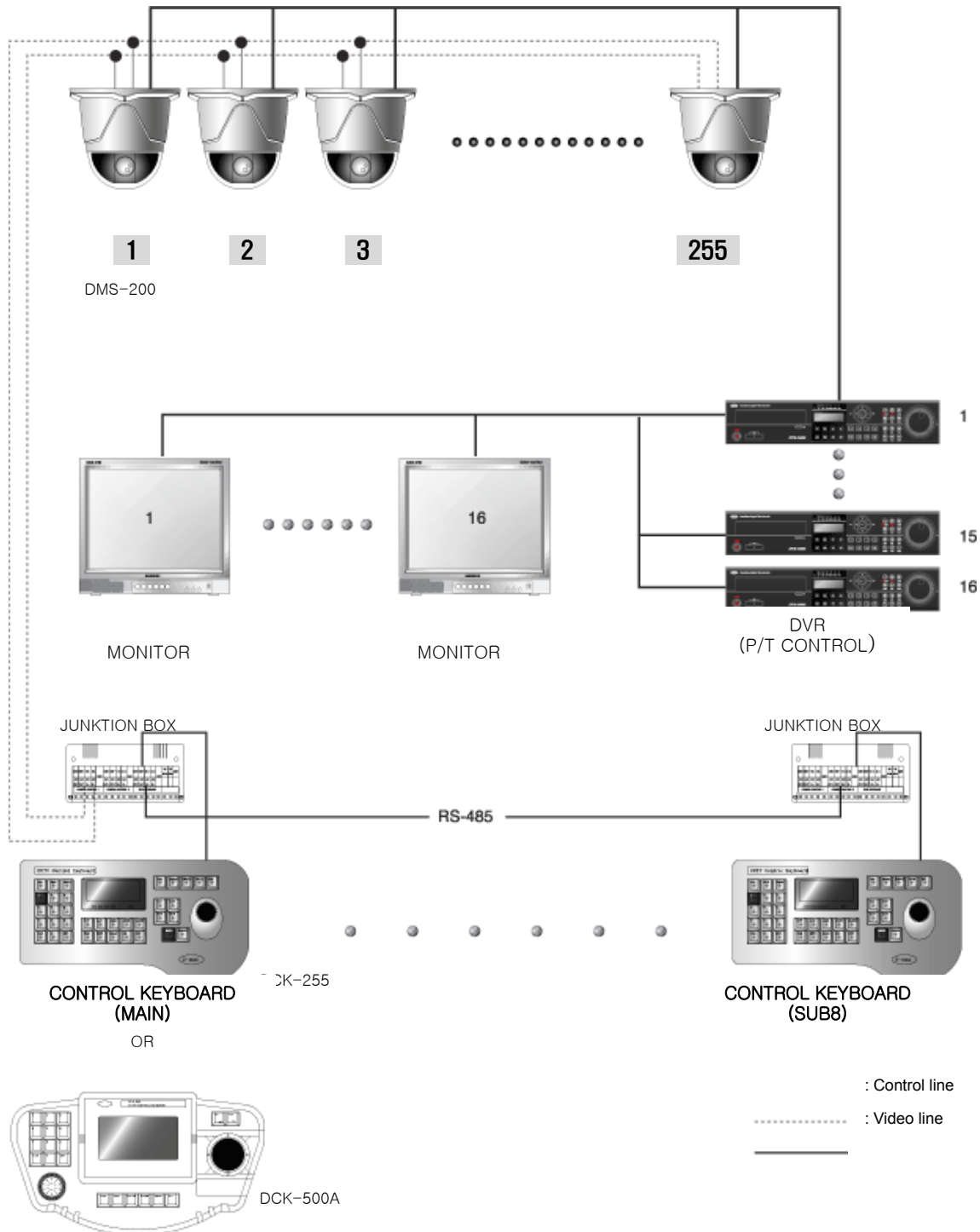
- ④ Recombine the housing and body then attach the bracket.



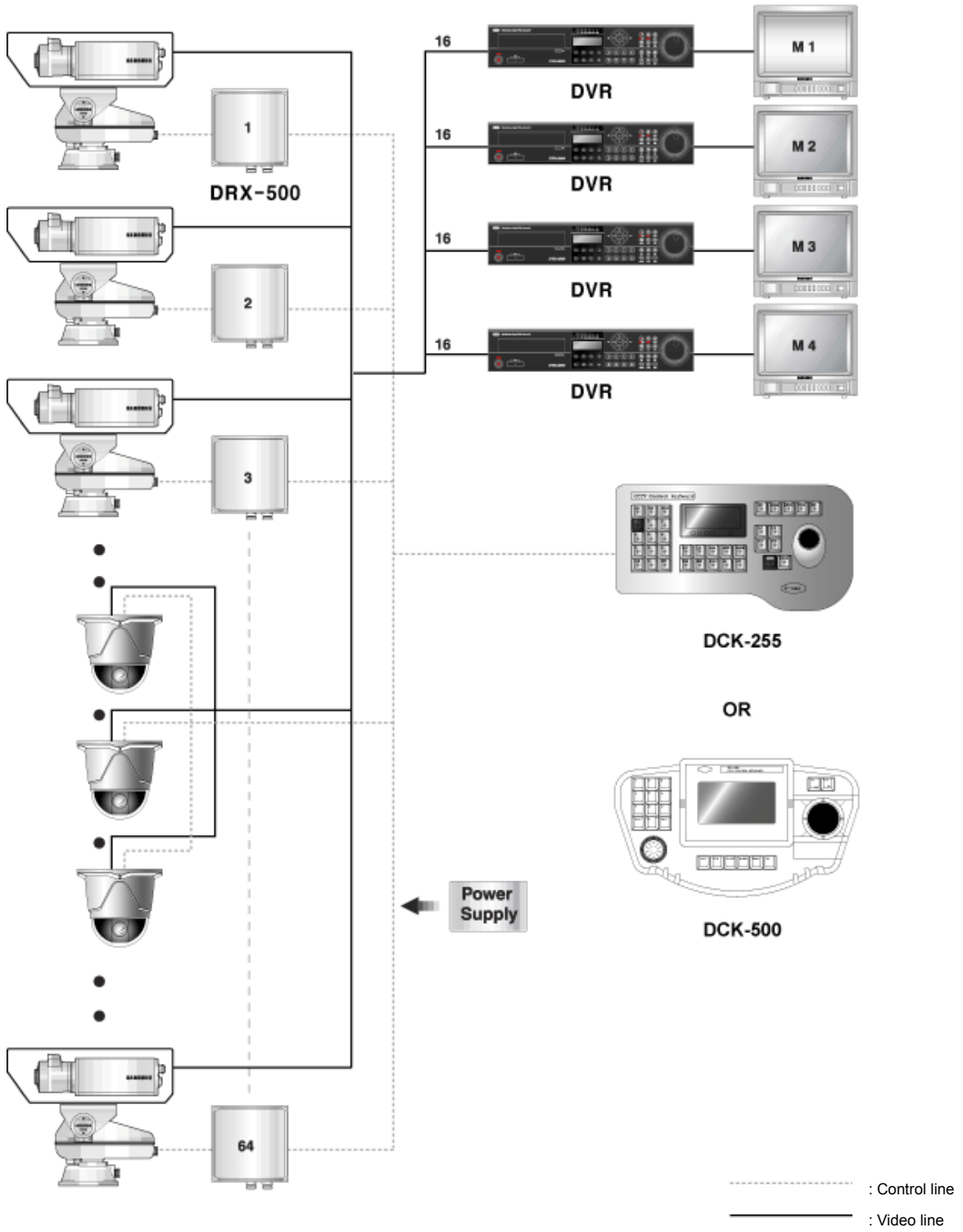
- ⑤ Complete

6. CONFIGURATIONS

▪ SUB KEYBOARD SETTING



▪ SETTING ONE KEYBOARD



7. SPECIFICATION

MODEL	DMS-200	
Signal system	NTSC	PAL
Image sensor	410K Pixel, 1/4 " SONY Super HAD CCD	
Effective pixels	768(H) X 494(V),	752(H) X 582(V),
Horizontal resolution	More than 600 TVL B/W 700 TVL	
Lens	10x Optical zoom, f=3.94 – 46.05mm, F1.67~1.88	
Digital zoom	12x (Total zoom 192x)	
Angle of view	H: 51.54° (Wide) x 4.49° (Tele), V: 39.28° (Wide) x 3.39°(Tele)	
Minimum illumination	0.00003Lux(with DSS)	
Luminance S/N ratio	More than 50Db	
Video output	1 Vp-p Composite video out 75Ω	
Focus mode	Auto / Manual / Oneshot	
DNR	Off / Low / Medium / High	
Back Light	Off /WDR/HLC/BLC	
Shutter speed	Auto / 1/128 ~ 1/120,000 sec	
Sharpness control	Level (0 – 10)	
Motion Detection	On/Off	
Alarm in/out	4 Inputs / 1 Relay Output	
Pan/Tilt angle	360° Endless / 92°	
Pan speed	0.1° ~ 240°/sec (64 Levels)	
Preset point	250 Presets	
Preset Speed	Max 360°/sec (64 Levels)	
Privacy zones masking	4 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	151.4 mm(Diameter) x 138(Height) mm	
Weight	About 0.5Kg	
Construction	PC body , Clear vandal bubble (PC)	
Power consumption	Max. 10W	
Power supply	AC24V / 1A	

MODEL	DMS-200Se	
Operating temperature	-40°C ~ 50°C (-40°F ~ -122°F)	
Operating humidity	Less than 100%RH	
Dimensions	168 mm(Diameter) x 175.6(Height) mm	
Weight	About 1.7Kg (Without adaptor)	
Construction	Aluminum body , Clear vandal bubble (PC)	
Power consumption	Max. 12W	
Power supply	AC24V 1.5A	



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