

MINI SPEED DOME CAMERA

User MANUAL

GSD-200

TABLE OF CONTENTS

1. CATION	3
2. INTRODUCTION OF PRODUCT	5
1). DESCRIPTION AND FEATURES	5
2). INSTALLING AND CONNECTING	6
2-1. NAME AND FUNCTION OF EACH PART	6
2-2. INSTALLATION	7
2-3. CONNECTION DIAGRAM	8
3. DIRECTIONS FOR USE	9
1). DIP SWITCH SETTING	9
2). HOW TO CHANGE PROTOCOL	10
3). HOW TO SET ADDRESS DIP SWITCHES	11
4). HOW TO USE OSD MENU	12
4-1. HOW TO CONTROL OSD MENU	12
4-2. FUNCTIONAL DESCRIPTIONS ON EACH MENU	13
4-3. SETTING FUNCTIONS BY KEYBOARD	23
4-4. OSD MESSAGE DESCRIPTION	27
4. TROUBLE SHOOTING	29
5. DIMENSIONS & ASSEMBLES	30
6. CONFIGURATION	31
7. SPECIFICATIONS	33

1. CAUTION

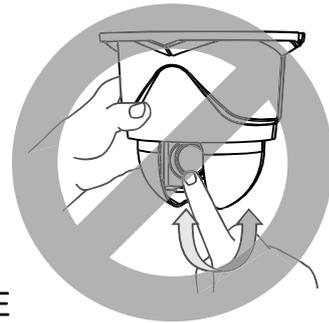
Thank you for purchasing mini speed dome camera GMS-200.

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.

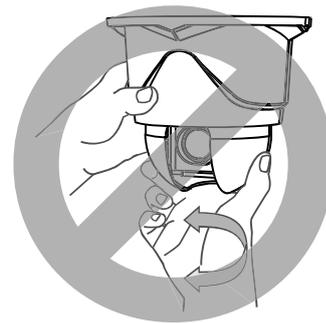


HANDLE WITH CARE OF CAMERA LENS AND DOME

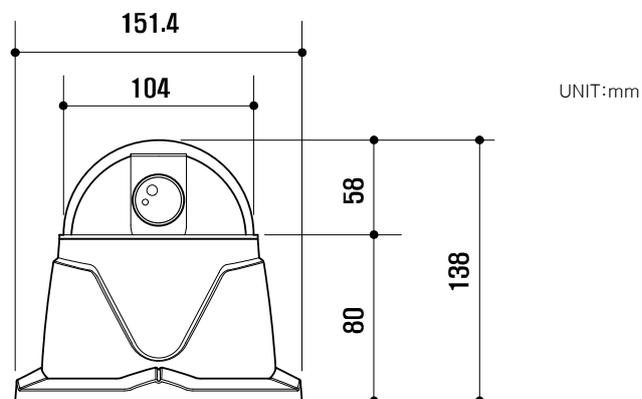
Be careful of handle with dome cover. Please use a soft fabric due to a scratch when you clean the cover.

EXTERNAL SHOCK

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



Dimensions



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

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 high speed dome camera, including various observation functions. It moreover is effective for true Day & Night.

– Features –

High magnification zoom lens

Max 100 times zoom
(optical x10 zoom, digital x10 zoom)

Horizontal resolution min. 520 TVL

Color: min.520 TVL, B/W: min.570 TVL
horizontal resolution

Low light and Day & Night

The result of improving sensitivity
0.0007Lux (DSS Control)

ICR Day & Night allows the filter to change
B/W mode (0.1 Lux) 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

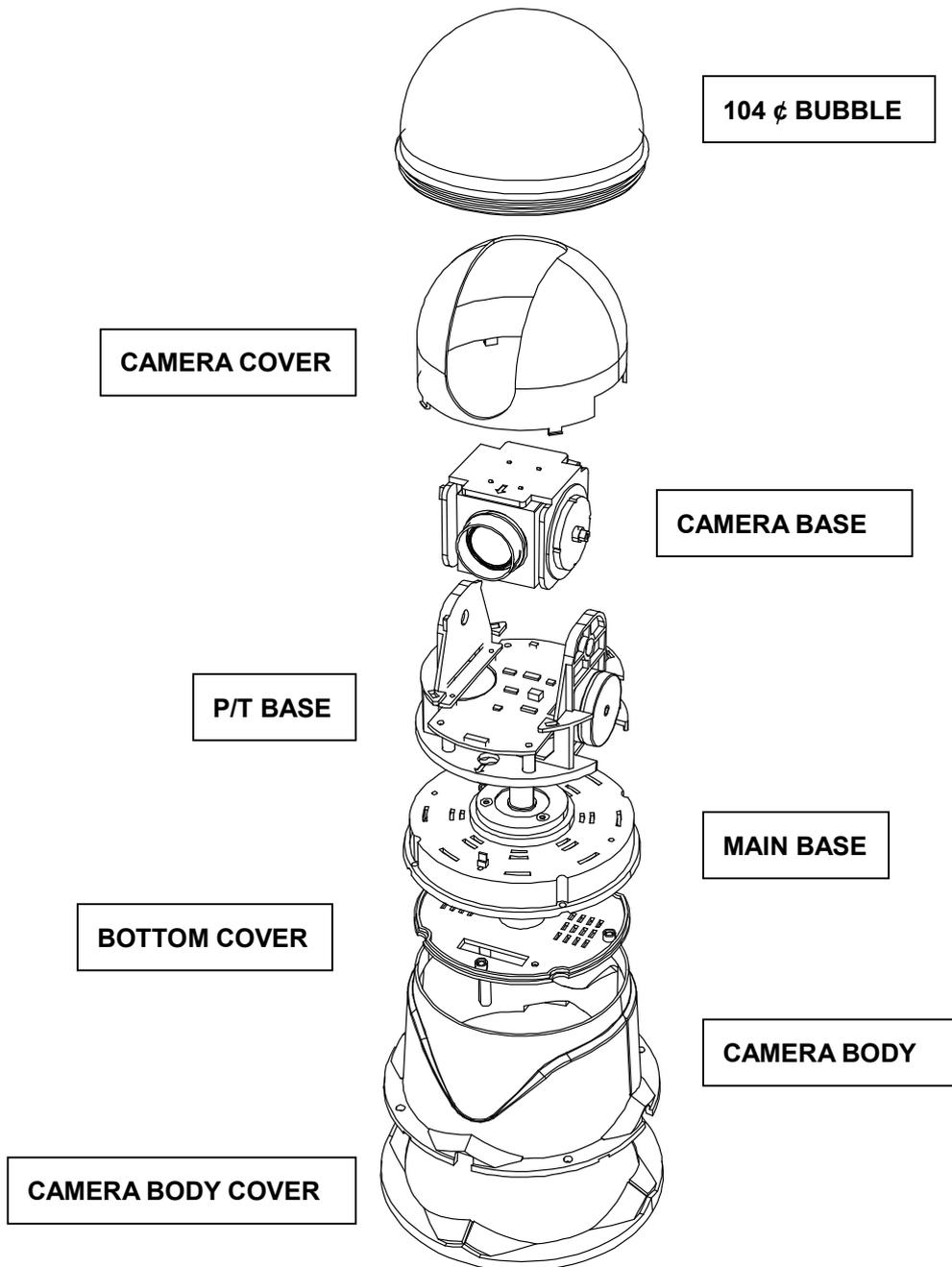
For the privacy, it can be programmed for
masking zone up to 4 locations on the
OSD menu screen.

Audio out (Option)

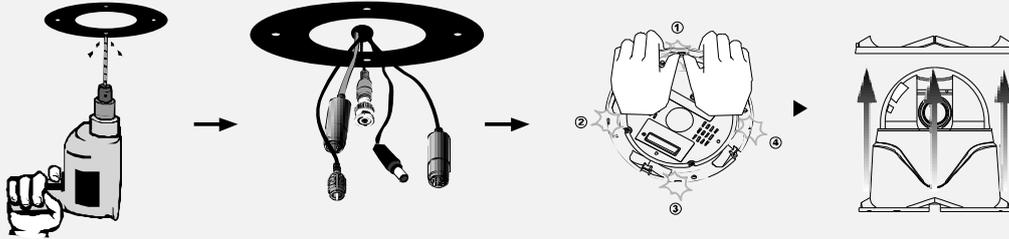
Built-in mono microphone without Amplifier.

2). INSTALLATION AND CONNECTION

2-1. NAME AND FUNCTION OF EACH PART



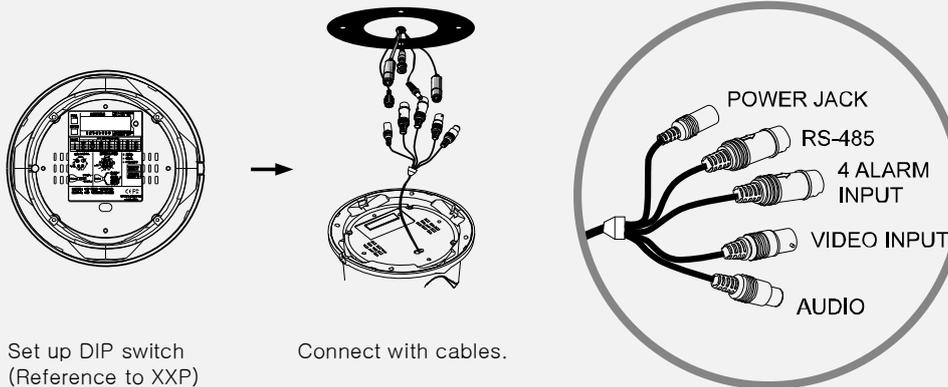
2-2. INSTALLATION



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

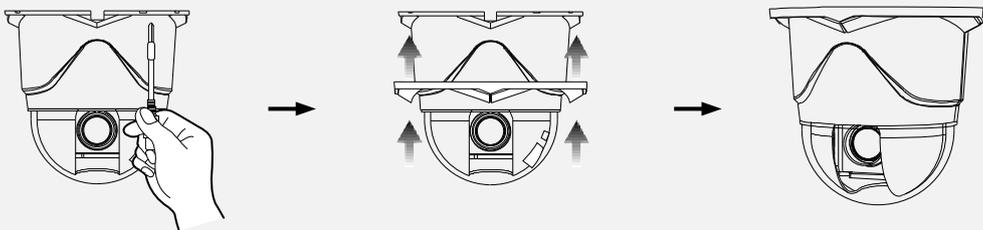
Take out the cables from the ceiling.

Take apart 4 bands of camera body cover



Set up DIP switch (Reference to XXP)

Connect with cables.

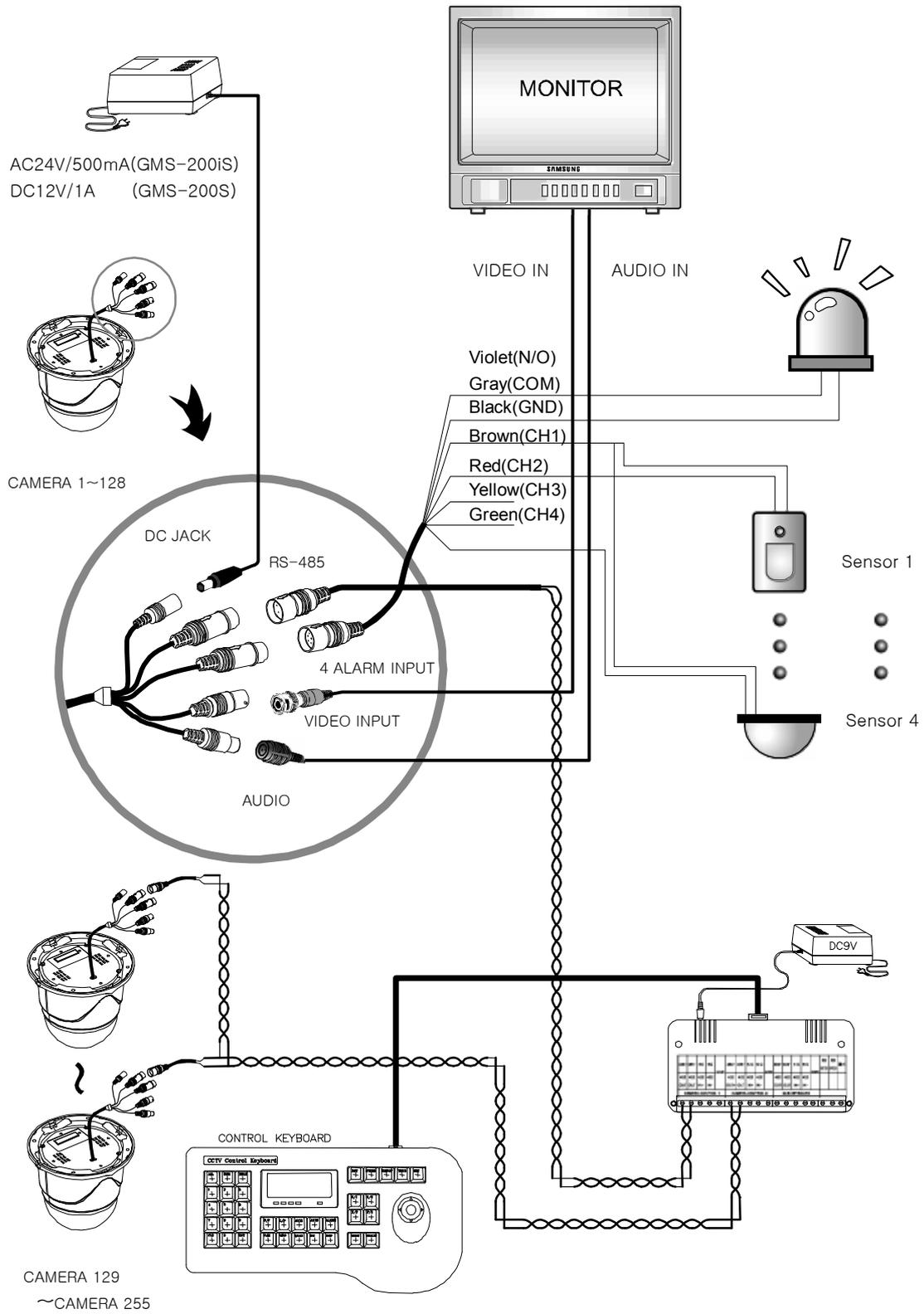


Tighten 4 screws.

Attach the camera body cover

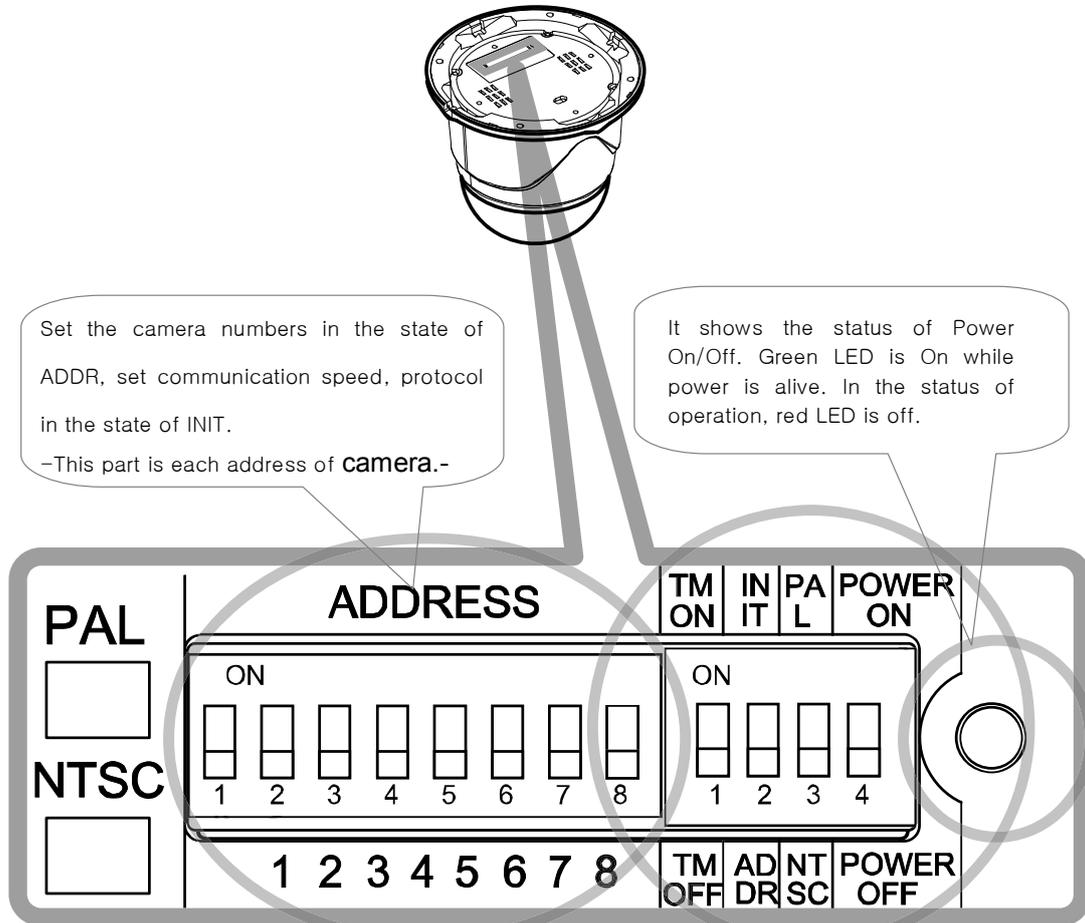
Completion

2-3. CONNECTION DIAGRAM



3. DIRECTIONS FOR USE

1) DIP SWITCH SETTING



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.-

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 SW NO1)
~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.

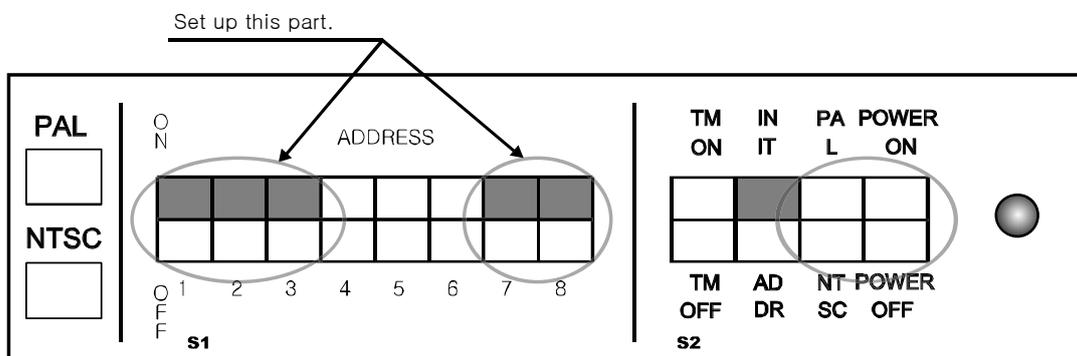
-ADDRESS/ INITIAL SELECT (DIP SW NO3)
~Set ADDRESS DIP SW in the status of ADDRESS
(*Reference to next page*)

(.*** 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.

-POWER ON/OFF (DIP SW NO4)
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

- 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

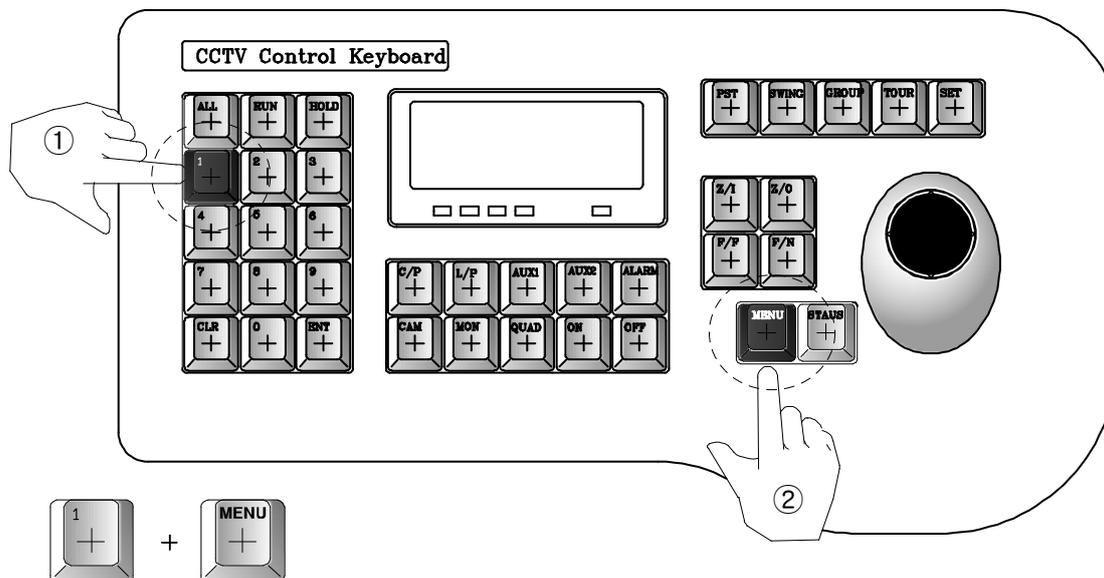
4-1. HOW TO CONTROL OSD MENU

● OSD (ON SCREEN DISPLAY) CONTROL

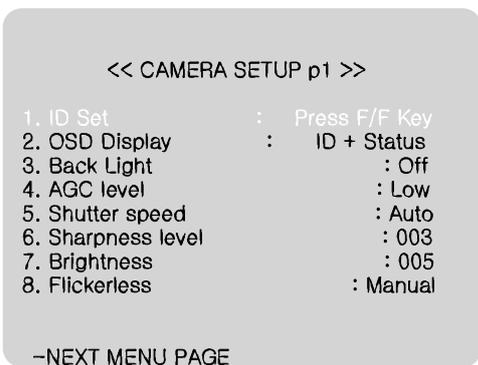
It is the function to call up the Menu

* 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



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



● OSD Menu Control

- Cursor Moving :  or  JOYSTICK JOYSTICK
- Feed Letters :  or  JOYSTICK JOYSTICK
- Changing Setting :  JOYSTICK

● RELEASE OSD MENU



4-2. FUNCTIONAL DESCRIPTIONS ON EACH MENU

1. ID SET

It is the function to set ID of the camera.

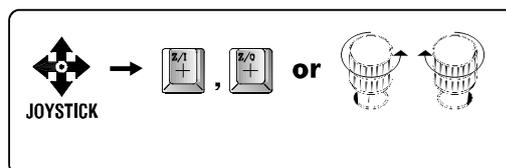
Move to No.1 menu and the screen moves as following when user presses F/F key.

<< SET ID [●●●●●● CAM-001] >>

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

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

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/l, Z/O or turn the head of the joystick to right/left.

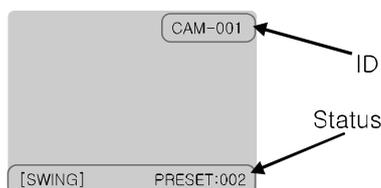


" ● " is not displayed on the screen as a blank letter, user can input letters in Japanese and in Chinese if user moves the joystick down continuously.

2. OSD DISPLAY

Set up whether 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.



Ex).

<< CAMERA SETUP p1 >>

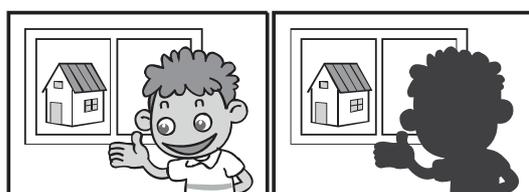
- | | | |
|--------------------|---|---------------|
| 1. ID Set | : | Press F/F Key |
| 2. OSD Display | : | ID + Status |
| 3. Back Light | : | Off |
| 4. AGC level | : | Low |
| 5. Shutter speed | : | Auto |
| 6. Sharpness level | : | 003 |
| 7. Brightness | : | 005 |
| 8. Flickerless | : | Manual |

-NEXT MENU PAGE

3. Back Light

Set up backlight compensation mode.

- ▶ **On:** It compensates a dark subject to a light object by BACK LIGHT function.
(Low, Middle, High)
- ▶ **Off:** Release BACK LIGHT compensation mode



BACKLIGHT ON

BACKLIGHT OFF

<< CAMERA SETUP p1 >>

- | | | |
|--------------------|---|---------------|
| 1. ID Set | : | Press F/F Key |
| 2. OSD Display | : | ID + Status |
| 3. Back Light | : | Off |
| 4. AGC level | : | Low |
| 5. Shutter speed | : | Auto |
| 6. Sharpness level | : | 003 |
| 7. Brightness | : | 005 |
| 8. Flickerless | : | Manual |

-NEXT MENU PAGE

4. AGC level

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

- ▶ Range: Low, Middle, High

```
<< CAMERA SETUP p1 >>
1. ID Set           : Press F/F Key
2. OSD Display     : ID + Status
3. Back Light      : Off
4. AGC level       : Low
5. Shutter speed   : Auto
6. Sharpness level : 003
7. Brightness      : 005
8. Flickerless     : Manual
```

–NEXT MENU PAGE

5. Shutter speed

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

- * The illumination of the camera decreases if shutter speed is getting up.
- * The default value is 'AUTO'
- * It can be worked in the status of Flickerless 'off'.

Range: AUTO, 1/120, 1/250, 1/500,....1/60000

```
<< CAMERA SETUP p1 >>
1. ID Set           : Press F/F Key
2. OSD Display     : ID + Status
3. Back Light      : Off
4. AGC level       : Low
5. Shutter speed   : Auto
6. Sharpness level : 003
7. Brightness      : 005
8. Flickerless     : Manual
```

–NEXT MENU PAGE

6. Sharpness level

Compensation of the shape of a object.

- ▶ Range: 0 ~ 10 , Default value : 03

```
<< CAMERA SETUP p1 >>
1. ID Set           : Press F/F Key
2. OSD Display     : ID + Status
3. Back Light      : Off
4. AGC level       : Low
5. Shutter speed   : Auto
6. Sharpness level : 003
7. Brightness      : 005
8. Flickerless     : Manual
```

–NEXT MENU PAGE

7. Brightness

Control brightness of the screen.

- ▶ Range: 0 ~ 99 , Default value: 50

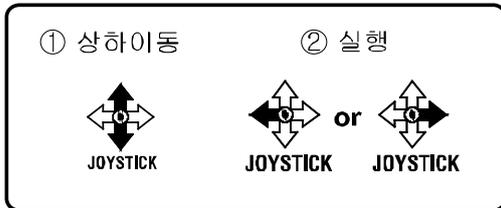
```
<< CAMERA SETUP p1 >>
1. ID Set           : Press F/F Key
2. OSD Display     : ID + Status
3. Back Light      : Off
4. AGC level       : Low
5. Shutter speed   : Auto
6. Sharpness level : 003
7. Brightness      : 005
8. Flickerless     : Manual
```

–NEXT MENU PAGE

8. Flickerless

Tremble on the screen is removed in the status of Flickerless 'ON', the shutter speed, at the same, is Fixed in 1/120 sec in NTSC and in 1/100 sec in PAL.

Move the joystick down then choose "NEXT MENU PAGE" on the screen to move next page.



9. SSNR level

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.

▶ Range: Off, Low, Middle, High

10. White balance

It prevents from that white color is changed as illumination, user can set it up in 2 ways.

▶ INDOOR, OUTDOOR

<< CAMERA SETUP p1 >>

- | | | |
|--------------------|---|---------------|
| 1. ID Set | : | Press F/F Key |
| 2. OSD Display | : | ID + Status |
| 3. Back Light | : | Off |
| 4. AGC level | : | Low |
| 5. Shutter speed | : | Auto |
| 6. Sharpness level | : | 003 |
| 7. Brightness | : | 005 |
| 8. Flickerless | : | Manual |

-NEXT MENU PAGE

<< CAMERA SETUP p1 >>

- | | | |
|--------------------|---|---------------|
| 1. ID Set | : | Press F/F Key |
| 2. OSD Display | : | ID + Status |
| 3. Back Light | : | Off |
| 4. AGC level | : | Low |
| 5. Shutter speed | : | Auto |
| 6. Sharpness level | : | 003 |
| 7. Brightness | : | 005 |
| 8. Flickerless | : | Manual |

-NEXT MENU PAGE

<< CAMERA SETUP p2 >>

- | | | |
|--------------------|---|---------|
| 9. SSNR level | : | Middle |
| 10. White balance | : | Outdoor |
| 11. Focus mode | : | Oneshot |
| 12. Zoom MAX Limit | : | x20 |
| 13. DSS CONTROL | : | Off |
| 14. DAY & NIGHT | : | Auto |

- PREV MENU PAGE
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

- | | | |
|--------------------|---|---------|
| 9. SSNR level | : | Middle |
| 10. White balance | : | Outdoor |
| 11. Focus mode | : | Oneshot |
| 12. Zoom MAX Limit | : | x20 |
| 13. DSS CONTROL | : | Off |
| 14. DAY & NIGHT | : | Auto |

- PREV MENU PAGE
- NEXT MENU PAGE

11. 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..

12. 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, x20 ~ x100

The camera is reset when user is out of Menu mode after end the setting, and the changed magnification is registered in the camera.

13. DSS CONTROL

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

- ▶ Default value: Off, 2 ~ 128 field

14. DAY & NIGHT

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

- ▶ **Auto** : Day & Night mode is worked automatically, if it is dark.
- ▶ **On** : Change into DAY & NIGHTY mode by hand-worked
- ▶ **Off** : Set DAY & NIGHTY mode 'Off'

<< CAMERA SETUP p2 >>

9. SSNR level	: Middle
10. White balance	: Outdoor
11. Focus mode	: Oneshot
12. Zoom MAX Limit	: x20
13. DSS CONTROL	: Off
14. DAY & NIGHT	: Auto

- PREV MENU PAGE
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. SSNR level	: Middle
10. White balance	: Outdoor
11. Focus mode	: Oneshot
12. Zoom MAX Limit	: x20
13. DSS CONTROL	: Off
14. DAY & NIGHT	: Auto

- PREV MENU PAGE
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

9. SSNR level	: Middle
10. White balance	: Outdoor
11. Focus mode	: Oneshot
12. Zoom MAX Limit	: x20
13. DSS CONTROL	: Off
14. DAY & NIGHT	: Auto

- PREV MENU PAGE
- NEXT MENU PAGE

<< CAMERA SETUP p2 >>

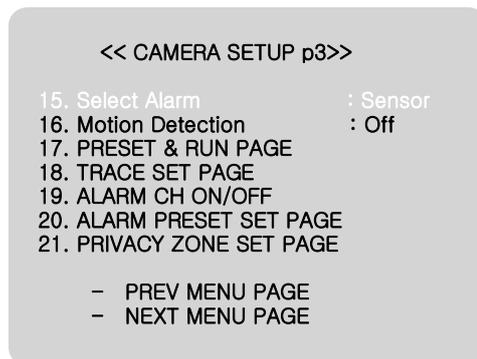
9. SSNR level	: Middle
10. White balance	: Outdoor
11. Focus mode	: Oneshot
12. Zoom MAX Limit	: x20
13. DSS CONTROL	: Off
14. DAY & NIGHT	: Auto

- PREV MENU PAGE
- NEXT MENU PAGE

15. Select Alarm

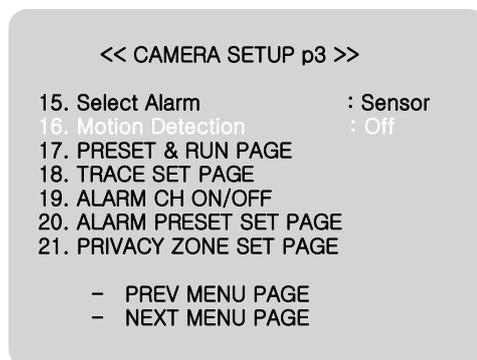
It selects whether it moves the preset point automatically or it moves by MOTION function when being alarmed.

- ▶ Motion, Sensor



16. Motion Detection

Set Motion 'On' after move the camera where user wants. It displays the message 'Motion Detected' on the screen when the moving of an object is sensed on the same screen.



17. PRESET & RUN PAGE

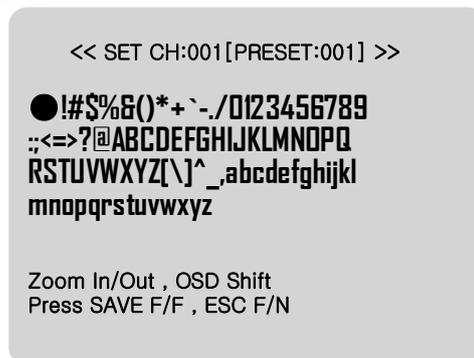
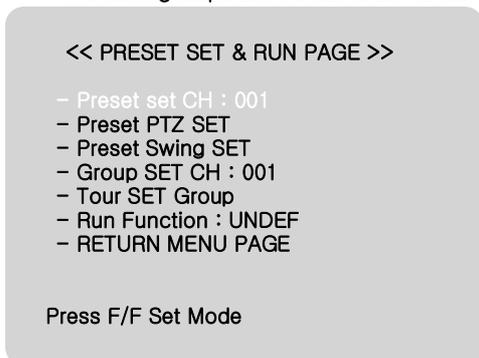
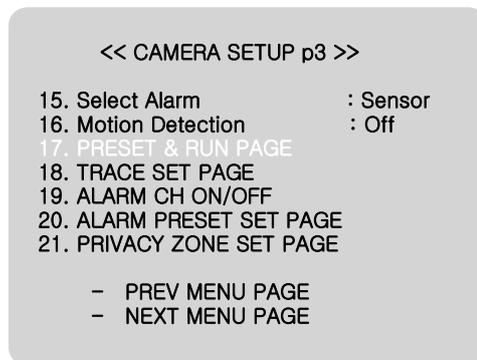
It is a function to set and operate Preset, Group, Tour.

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:
 Set Preset No. and title.
- Preset No.: Set it by moving the joystick to Right/Left
- Preset Title: It displays "SET ID" when presses F/F key after setting Preset No.

* The setting steps are the same as "ID Set" at the part 4-2-1.



<< 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



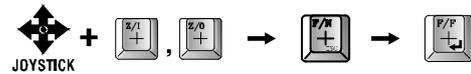
PRESET : 001

[SAVE] [DELETE] [ESC]

F/F Save Return, F/N Select

② Preset PTZ: Set preset points.

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.



- ① Set preset point ② Move to menu ③ Check

- [SAVE]: Previous screen after saving
- [DELETE]: Remove
- [ESC]: Cancel

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

<< 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)

③ Preset Swing SET : Set Preset Swing.
Move next SWING page for the setting, when pressing F/F key in the state of selection of the menu.

- The preset must be set before the setting because Swing is a function to repeat an auto observation of 2 Preset points user select in Preset set

- 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: Dwell time after moving
- Swing Speed: Moving speed



<< 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



<< GROUP SET CH:01 >>

[P]	[S]	[T]	[P]	[S]	[T]
000	000	000	000	000	000
000	000	000	000	000	000
000	000	000	000	000	000
000	000	000	000	000	000
000	000	000	000	000	000
000	000	000	000	000	000

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

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 in order with regular speed and time.

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



- ① Set Preset
- ② Next setting
- ③ Set moving speed
- ④ Next setting
- ⑤ Set dwell time
- ⑥ Out of menu after saving

<< 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

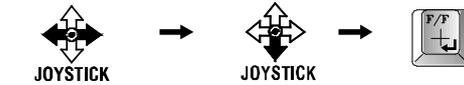
Press F/F Save, F/N(ESC)

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 first.

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".

Set the value of "00" part of T01~T12 to Group channel that User wants, then the setting is saved when user is out of the menu after pressing F/F key.



- ① Select Group channel
- ② Set next Channel
- ③ Out of menu saving after channel

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

* Set / Stop order with a control keyboard without 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

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

- User can look at how to set TRACE at "18. 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.

18. 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

- It displays the screen when moves the joystick to Right/Left after fixing the cursor on the menu
- How to set TRACE.
Move to [SET] after pressing 



Check – Control scenes that user wants by hand-worked with a joystick after the message “Set Trace: 00%” on the middle of the screen. If user finishes this part

Move to [SAVE] with 

It goes a higher menu after being saved data when pressing 

with a display of the message “Save TRACE”.

<< CAMERA SETUP p3 >>

- 15. Select Alarm : Sensor
- 16. Motion Detection : Off
- 17. PRESET & RUN PAGE
- 18. TRACE SET PAGE
- 19. ALARM CH ON/OFF
- 20. ALARM PRESET SET PAGE
- 21. PRIVACY ZONE SET PAGE

- PREV MENU PAGE
- NEXT MENU PAGE

<< P/T/Z TRACE SET >>

[SET] [SAVE] [DELETE] [ESC]

F/F Save Return, F/N Select

19. ALARM CH ON/OFF

■ What is 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 OUTPUT 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 waiting 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.)

<< CAMERA SETUP p3 >>

- 15. Select Alarm : Sensor
- 16. Motion Detection : Off
- 17. PRESET & RUN PAGE
- 18. TRACE SET PAGE
- 19. ALARM CH ON/OFF
- 20. ALARM PRESET SET PAGE
- 21. PRIVACY ZONE SET PAGE

- PREV MENU PAGE
- NEXT MENU PAGE

<< ALARM CHANNEL ON/OFF >>

- CH1 :Off -CH2 :Off
- CH3 :Off -CH4 :Off

- Alarm Relay :Off
- Active Alarm :Close
- Resume timeset :Off

- RETURN MENU PAGE

20. 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**
Master user can observe a previous area automatically when another user move the camera's sight to other area. (It is possible 1 to 250)
 - **Home Position Time**
It sets waiting time of Home Position Preset. The camera moves to observe a preset area in a set time Master set after observing another area, in the operating of Home Position Time. (It is possible 1 to 180sec. Set a concurrent control of Home Position Preset and Home Position Time for using this function.)
- As above the setting menu, ALARM setting MENU can not set only in CAMERA SET MENU MODE, but also a keyboard in direct.

<< CAMERA SETUP p3>>

15. Select Alarm : Sensor
16. Motion Detection : Off
17. PRESET & RUN PAGE
18. TRACE SET PAGE
19. ALARM CH ON/OFF
20. ALARM PRESET SET PAGE
21. PRIVACY ZONE SET PAGE

- PREV MENU PAGE
- NEXT MENU PAGE

<< 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

21. PRIVACY ZONE SET PAGE

Up to 4 privacy zones can be configured for the protection of privacy.

- How to set.

In <PRIVACY ZONE SET>, move to the channel that user wants by joystick and press F/F key, then the screen will be turned over.

①  : Select channels

②  : Select Set/On/Off/Del

Set : Set a new privacy **On** : Display privacy areas
Off : Hide privacy areas **Del** : Delete privacy areas

Display only "Set" on channel where PRIVACY ZONE is not set.

③  : check, next page

<< CAMERA SETUP p3 >>

15. Select Alarm : Sensor
16. Motion Detection : Off
17. PRESET & RUN PAGE
18. TRACE SET PAGE
19. ALARM CH ON/OFF
20. ALARM PRESET SET PAGE
21. PRIVACY ZONE SET PAGE

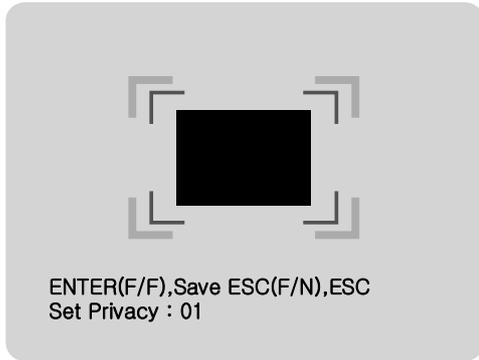
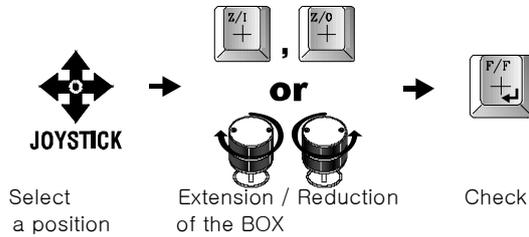
- PREV MENU PAGE
- NEXT MENU PAGE

<< PRIVACY ZONE SET >>

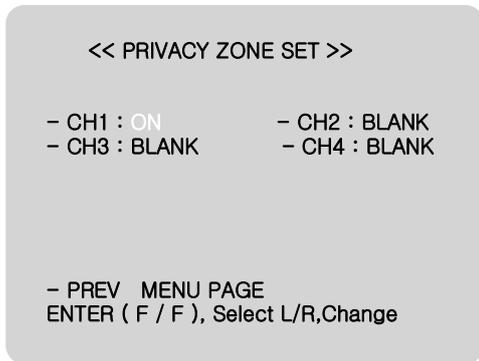
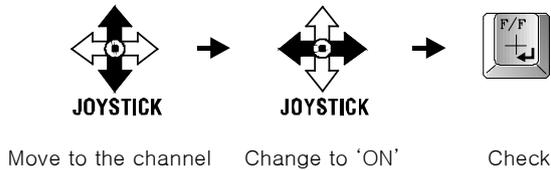
- CH1 : BLANK - CH2 : BLANK
- CH3 : BLANK - CH3 : BLANK

- PREV MENU PAGE
ENTER (F/F), Select L/R, Change

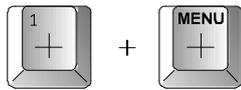
④ fix the black square on the middle of area that user wants to hide with using the joystick (Z/I, Z/O Key), then go back to the previous page on the screen (F/F Key) after fixing the size of the square.



⑤ The Channel is changed from Blank to OFF. The black box is displayed when pressing F/F key after changing it to 'ON' as left picture.

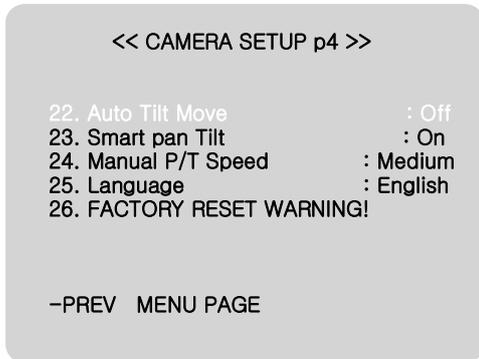


⑥ Out of OSD MENU



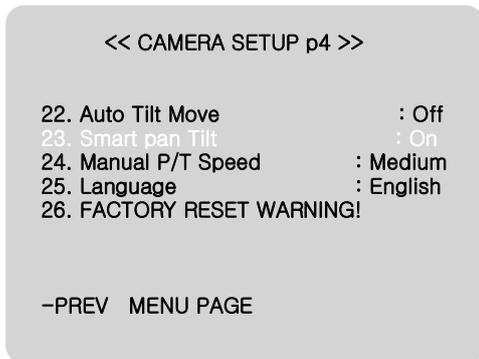
22. AUTO TILT MOVE

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.



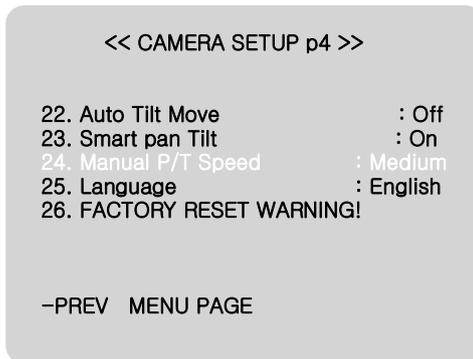
23. SMART PANTILT

It is a function that PANTILT speed is getting slower as Zoom in. It is hard to observe objects with the high PANTILT speed in operating of Zoom In This function makes the speed less automatically for the effective observation.



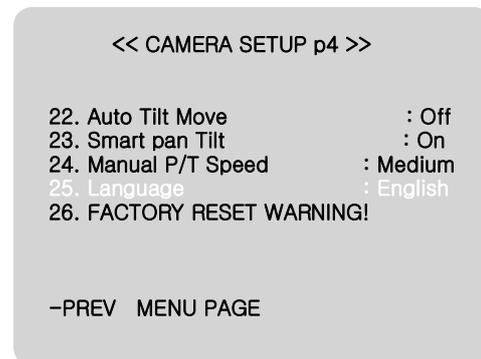
24. MANUAL P/T SPEED

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.



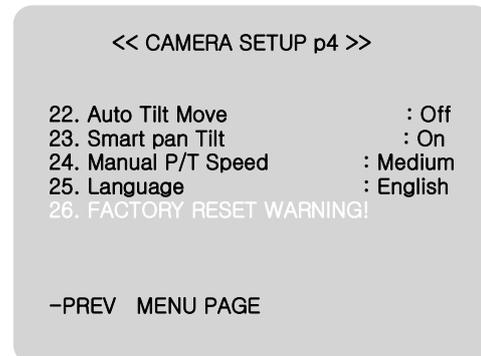
25. LANGUAGE

English	: ENGLISH
Portugu-	: PORTUGU
Polish	: POLISH



26. 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

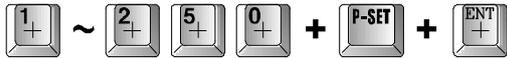
Go on in order as follow when the sound is heard in 3 sec after pressing



Ex) Delete 5th Preset



(waiting for 3 sec)



④ Delete all Preset

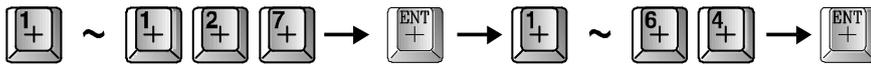
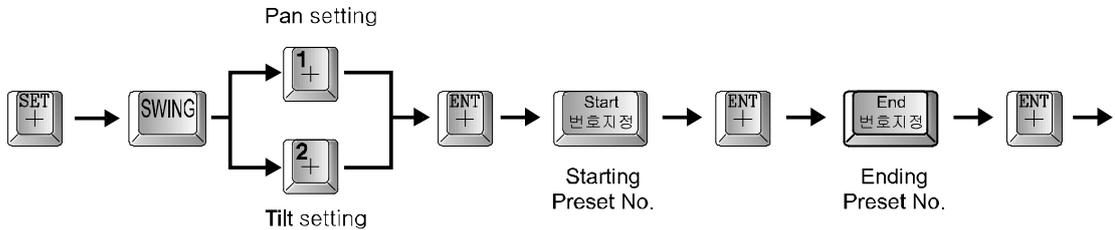
Go on in order as follow when the sound is heard in 3 sec after pressing



(waiting for 3 sec)

2. Swing setting

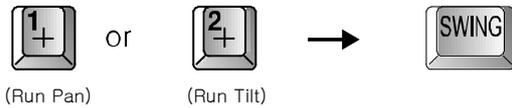
① Swing Input



Set the dwell time. (1~127sec)

Set the move speed (1~64 steps)

② Swing setting



③ End Swing



3. Group setting

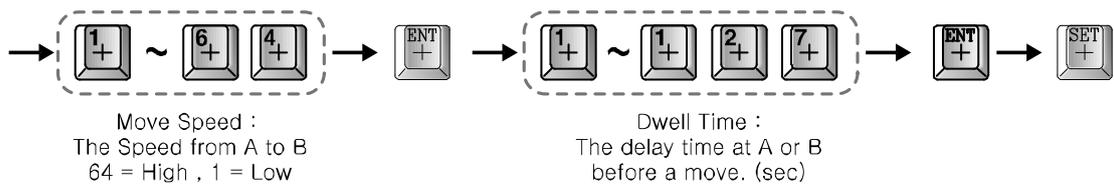
① Start Group setting mode



Start a Group setting mode

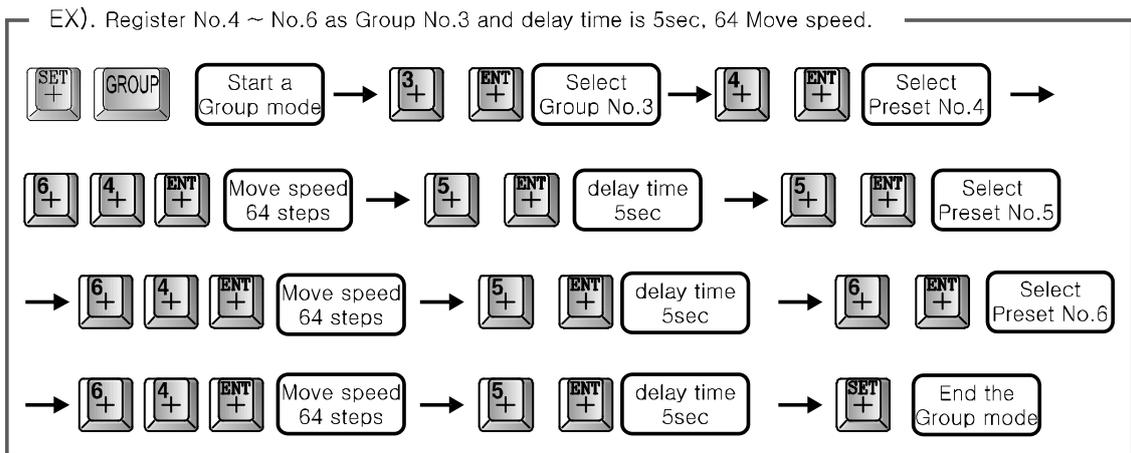
Select a Group in 1~12

Select and input Preset in 1~250

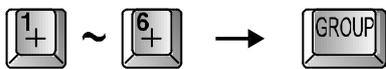


Set [Preset No.] again in continual input.

Set a GROUP again from the first after ending with [SET+], 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 [GROUP] or controlling the joystick.

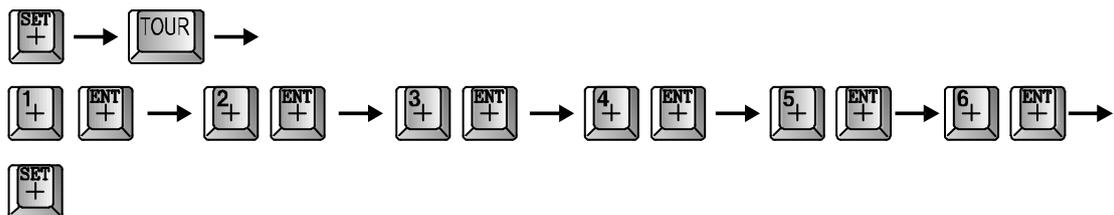
4. Tour setting

① Tour set mode

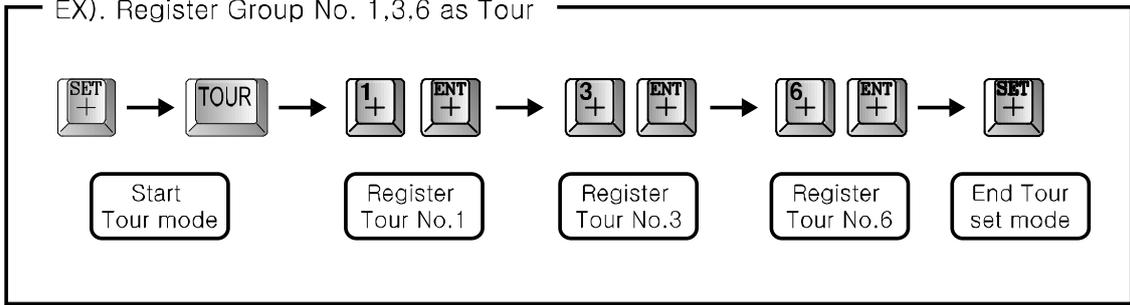


Start a Tour set mode Select a Group in 1 ~ 12 Groups

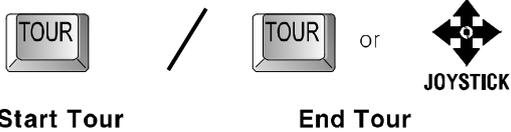
■ Repeat input in continual input



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 automatically in the spiral direction.

① Spiral On



② Off



6. PTZ Trace

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

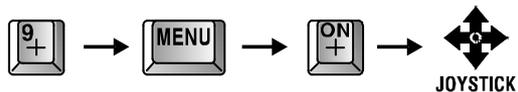
① Start / End Trace



② Off



② Set Trace



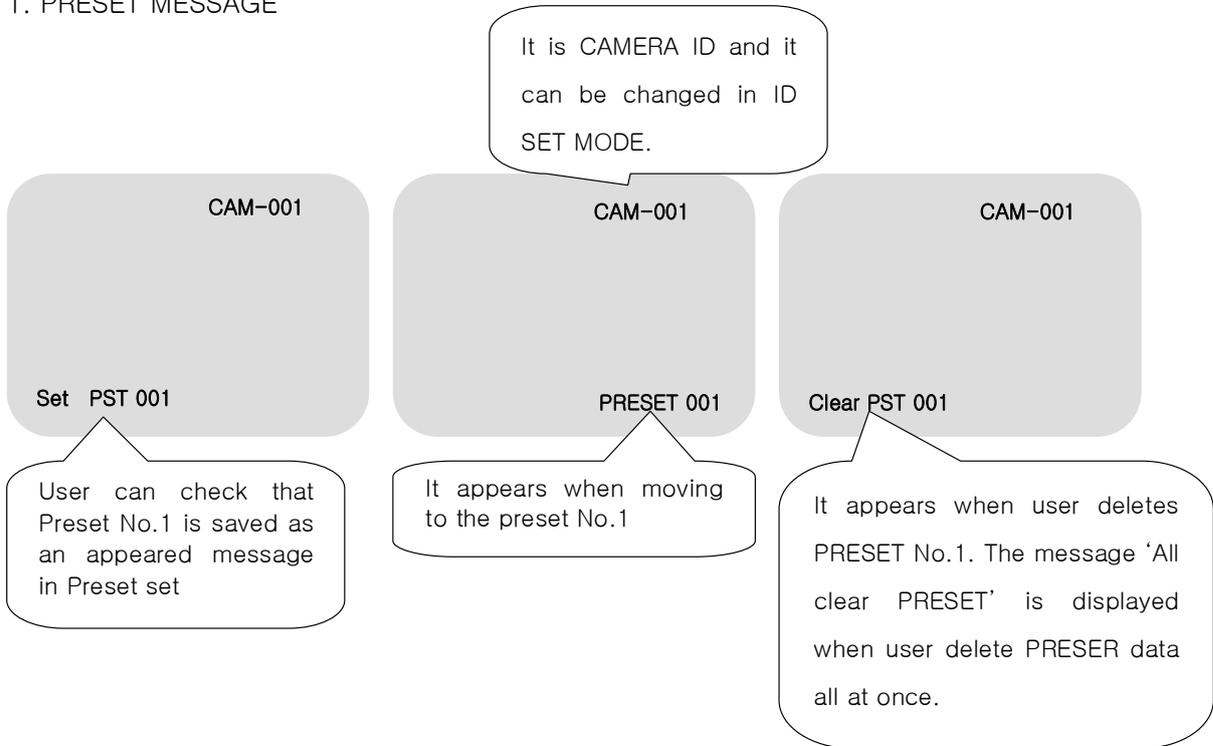
Control the joystick and Lens

③ Delete Trace

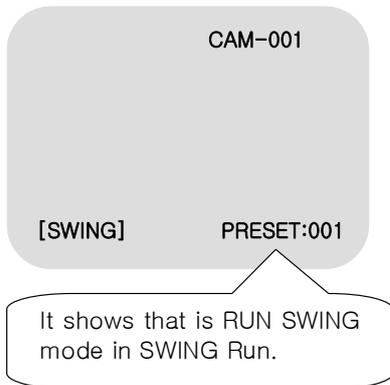


4-4. OSD MESSAGE DESCRIPTION

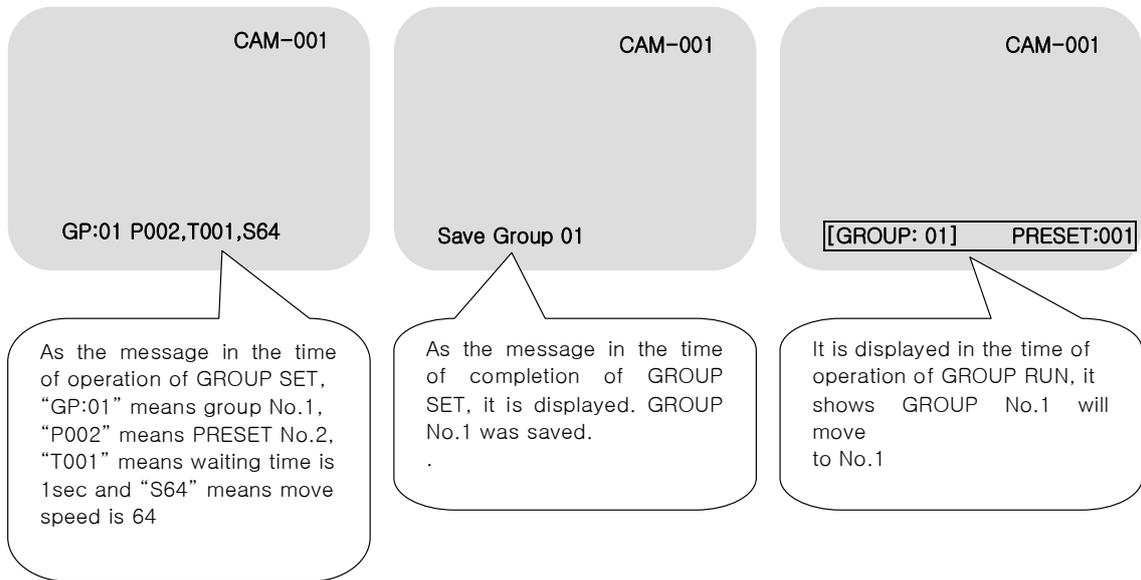
1. PRESET MESSAGE



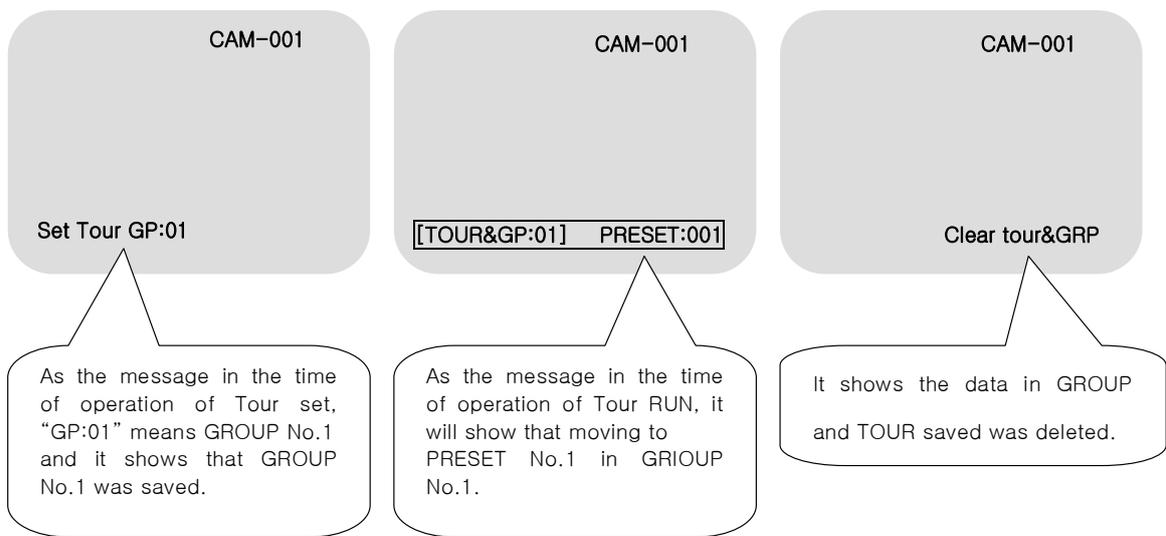
2. SWING MESSAGE



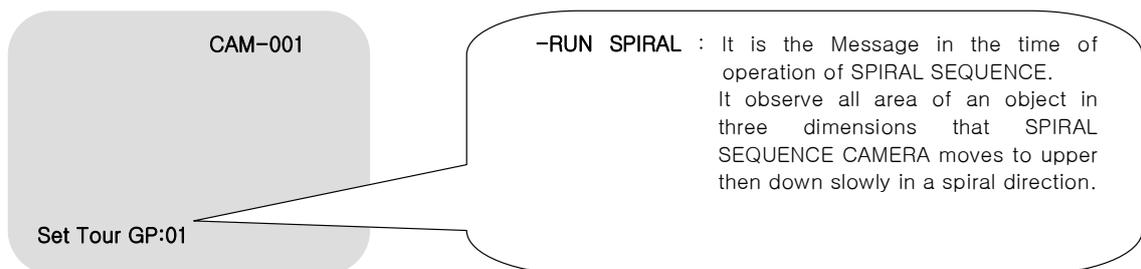
3. GROUP MESSAGE



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.
- Use a power supply of AC24 / 1.5A output
- 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.

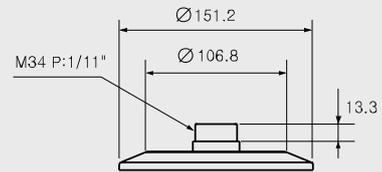
TROUBLE SHOOTING	CHECK POINT	MEASURE
Power is not turned on.	Does the electric power supply into the product well?	Check the POWER LED is "ON" at the BOTTOM COVER.
Does not work in Power On.	In operating, does the LED beside POWER SW light on red?	Check the status of DATA CABLE, if it is not lit. Check 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'?
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

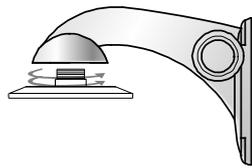
Mount assemble

It can be connected with bracket by using mount.

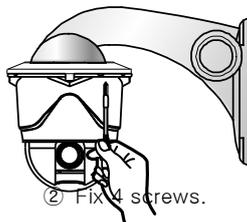
measurement



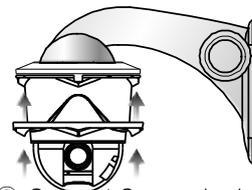
unit : mm



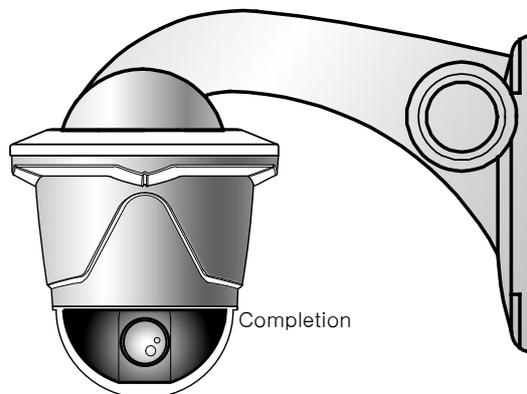
① Connect MOUNT with Wall bracket



② Fix 4 screws.

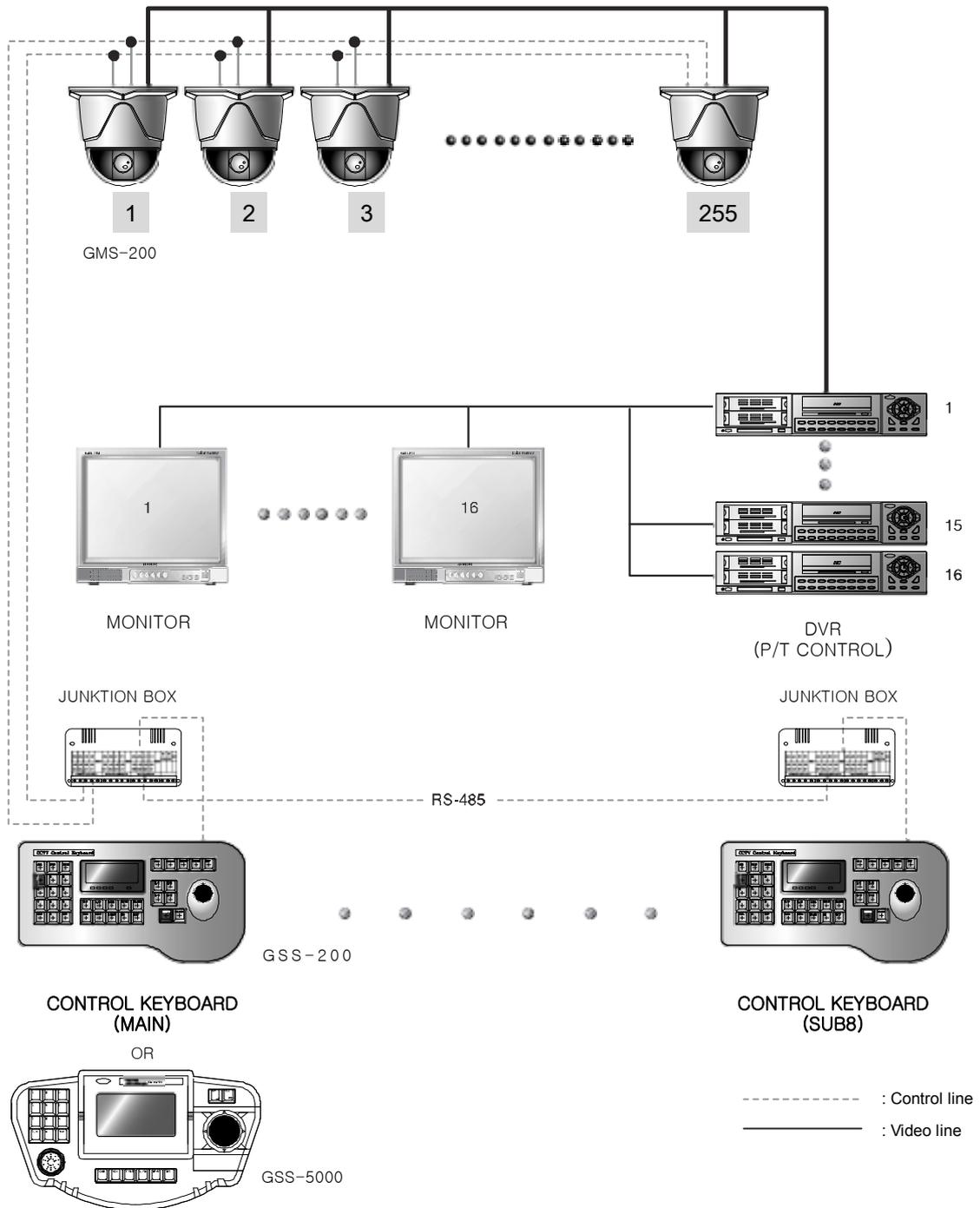


③ Connect Camera body cover.

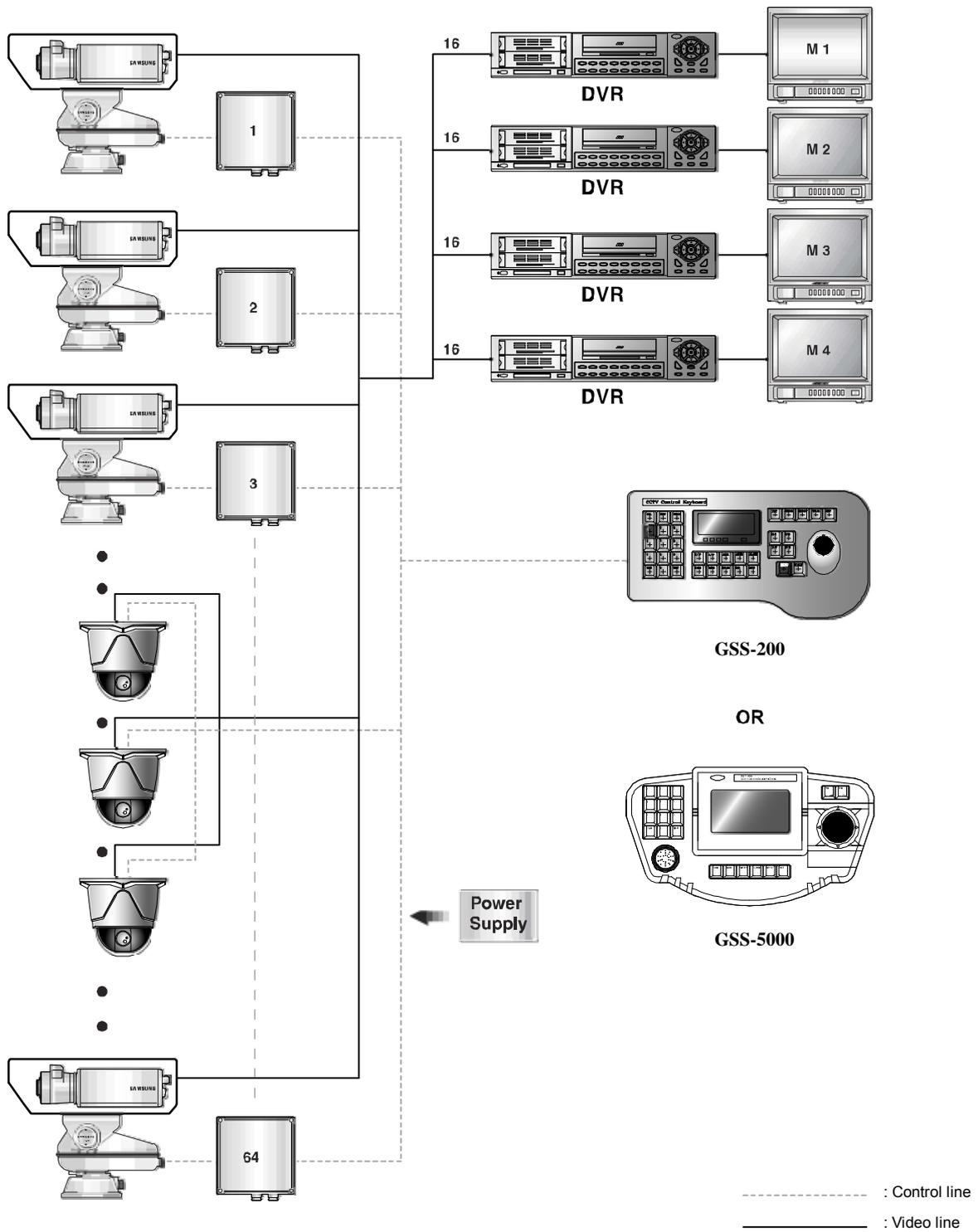


PRODUCT STRUCTURE

▪ SUB KEYBOARD SETTING



▪ SETTING ONE KEYBOARD



7. SPECIFICATION

MODEL	GSD-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 500 TVL B/W 570 TVL	
Lens	10x Optical zoom, f=3.3 – 33mm, F1.8	
Digital zoom	10x (Total zoom 100x)	
Angle of view	Approx 51.2° (Wide) , Approx 5.58° (Tele)	
Minimum illumination	0.7Lux , 0.02Lux(D&N) , 50IRE	
Luminance S/N ratio	More than 50dB	
Video output	1 Vp-p Composite video out 75Ω	
Focus mode	Auto / Manual / Oneshot	
SSNR	Off / Low / Middle / High	
Back Light	Off / Low / Middle / High	
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	6W	
Power supply	AC24V / 500mA , DC12V / 1A	

DISTRIBUTED BY