INSTALLATION / OPERATING MANUAL

IR PTZ Camera

- Before attempting to connect or operate this product,
  please read these instructions carefully and save this manual for future use.

- The design and specifications are subject to be changed without prior notice to improve
  product's quality.

TABLE OF CONTENTS

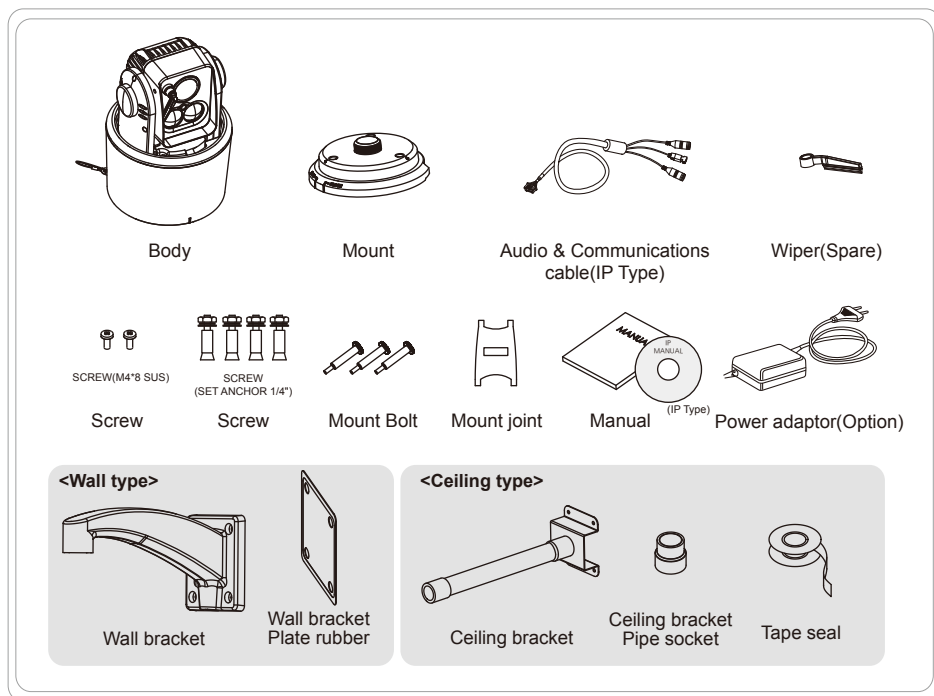# 1. PRECAUTIONS

1. 1   Important Safety Instruction

- Read these instructions.

- Pay attention on all the warnings.

- Follow all instructions.

- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

- Do not dissemble or insert foreign objects.

- Do not install near any heat sources such as radiation, beat registers, stoves, or other apparatus. (Including amplifiers) that produce heat.

- Do not aim the camera at the sun or any other strong light source.

- Do not install the camera in intermittent lighting environments.

- Only use attachments/accessories specified by the manufacturer.

- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Installation should be done only by qualified personnel and conform to all local codes.

- Installation should be done in a place strong enough to hold it.

- Use only installation methods and materials capable of supporting four times the maximum specified load.

- It is designed for indoor use only and it must not be installed where exposed to rain and moisture without additional outdoor housing and bracket.

- To prevent damage from water leakage when installing a mount outdoors on a roof or wall, apply sealant around the bolt holes between the mount and mounting surface.

- These instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other that contained in the operating instructions unless you are qualified to do so.

- Only use replacement parts recommended by manufacturer.ad these instructions.

- Please contact the manufacturer when there is a problem with a lithium battery that is built into the product. In the case of a lithium battery, which is built there is a danger of explosion when leaving the product at high temperatures.

2. GETTING STARTED

2. 1   Unpacking

The following parts are supplied with the outdoor speed PTZ system.
＜Figure 1. package Components＞

Body   Mount   Audio & Communications   Wiper(Spare)
                                              cable(IP Type)

SCREW(M4*8 SUS)   SCREW
                    (SET ANCHOR 1/4")
Screw   Screw   Mount Bolt   Mount joint   Manual   Power adaptor(Option)

<Wall type>   **<Ceiling type>**

                        Wall bracket
Wall bracket   Plate rubber   Ceiling bracket   Ceiling bracket   Tape seal
                                                                Pipe socket

2. 2   Part name

Front   Back   Bottom

① Safety loop

② ID setting

③ Commnucation setting
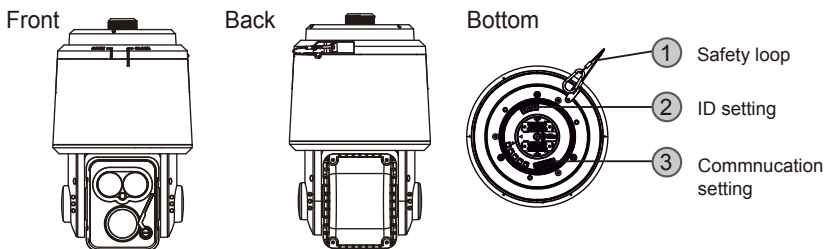
2. 3　DIP Switch Setting

Before start up the camera, set the protocol and camera address and termination set with dip-switches and click-switches as shown in the below diagram.

1.Set the camera address (ID)

Open the top cover of the product to set camera address.

Address switch

* ID setting is 1~255 available

S1　　S3　　S4

S1 : 1-digit number of address
S3 : 10-digit number of address
S4 : 100-digit number of address
Ex) S4 = 1
　　　S3 = 2
　　　S1 = 8
　　　The ID number is 128.

2. Protocol, Baudrate, Camera setting
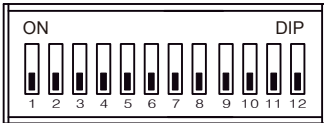
1	2	3	PROTOCOL
OFF	OFF	OFF	PELCO-D
OFF	OFF	ON	PELCO-P
OFF	ON	OFF	WTX
OFF	ON	ON	EZP
ON	OFF	OFF	NC
ON	OFF	ON	NC
ON	ON	OFF	NC
ON	ON	ON	NC

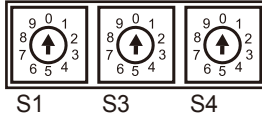| 4	5	6	BAUDRATE
OFF	OFF	OFF	2400
OFF	OFF	ON	4800
OFF	ON	OFF	9600
OFF	ON	ON	19200
ON	OFF	OFF	38400
ON	OFF	ON	57600
ON	ON	OFF	115200
ON	ON	ON	NC

7	RS TYPE	8	NTSC/PAL	9	LOOP	10	SDI
OFF	RS-422	OFF	NTSC	OFF	ON	OFF	HD-SDI
ON	RS-485	ON	PAL	ON	OFF	ON	EX-SDI

11	IP Module	12	UCC
OFF	OFF	OFF	OFF
ON	ON	ON	ON

3.Set the termination On/Off

ON : Terminated
OFF : Not terminated

The device which is connected at the end of the line must have the cable communication terminated. Without proper termination, there is potential for control signal errors.
The product have the cable communication terminated by setting the appropriate dip switch.

2. 4 Cable connection

2. 4. 1 Power/Data communication cable connection

1	2	GND	1	SPK
	4	GND	3	MIC
	6	GND	5	DIN
	8	DOB	7	DOA
	10	GND	9	N.C

2	1	ALM1
	2	ALM2
	3	GND
	4	ALM3
	5	ALM4
	6	R1-NC
	7	R1-NO
	8	R1-COM

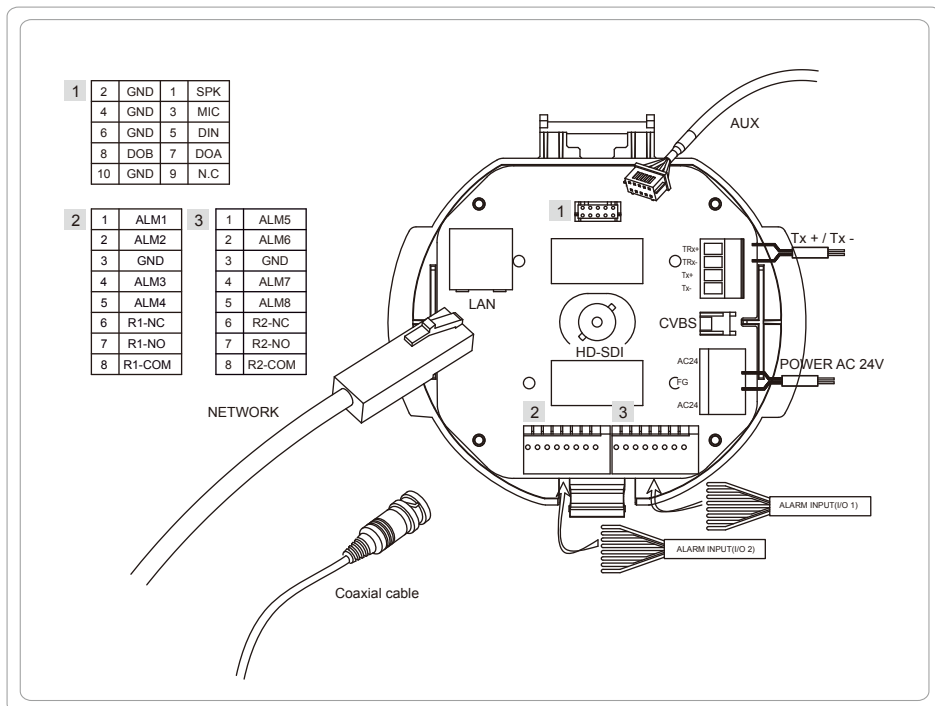| 3	1	ALM5
	2	ALM6
	3	GND
	4	ALM7
	5	ALM8
	6	R2-NC
	7	R2-NO
	8	R2-COM

AUX

Tx + / Tx -

LAN

CVBS

HD-SDI

POWER AC 24V

NETWORK

Coaxial cable

ALARM INPUT(I/O 1)

ALARM INPUT(I/O 2)

2. 4. 2 RS-485/RS-422 Connection

RS-422/485 connection
The PTZ can be remotely controlled by an external device or control system, such as a control keyboard or DVR, using RS-485 half-duplex, RS-422 duplex or simplex serial communication signals. Connect marked TRx+, TRx- to Tx+ and Tx- of the RS-485 control system.
If control system is RS-422, connect Tx+,Tx- of controller to Rx+ and Rx- of the PTZ Camera series. And also connect the Tx+, Tx- to Rx+, Rx- of the control device respectively. Total length of the cable for communication should not exceed 1.2Km.

2. 4. 3 SDI Output connection

Connect the SDI out (BNC) connector to the monitor or video input of DVR. Video cable and RS-485/422 communication cable are not provided in this product's package.

2. 4. 4 Network Lan connection(IP Type)

Used to connect the LAN cable.

⚡ **Caution** ⚠

Do not connect the AC24V power terminal to the communication terminal.
- Power Terminal: 2PIN
- Com Terminal: 4PIN

3.Installation

- The following steps of installation and connection work should be done by qualified service personnel or system installers and should conform to all local codes.
- Be sure to switch the camera off before installation is completed.
- Do not install the camera near the air outlet of an air conditioner.
- Before installation, set the system with Dip switch on the back side of the mechanism part, and assemble the mechanism and housing according to the below instruction

3. 1 Installation
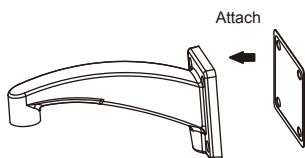
Attach

Attach the provided wall bracket rubber to a wall bracket as shown in the below picture.
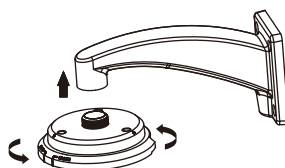
Set the mount to the wall bracket by trun it to clockwise.

Ceiling Pipe
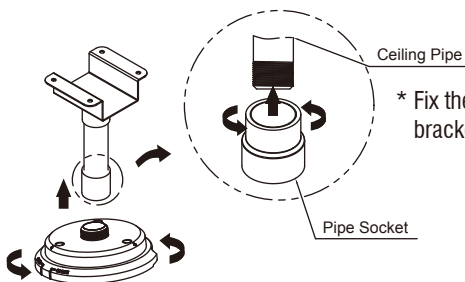
Pipe Socket

* Fix the socket into the ceiling pipe when install the ceiling bracket. The socket is included in the accessory package.

Set the mount to the ceiling bracket by trun it to clockwise.
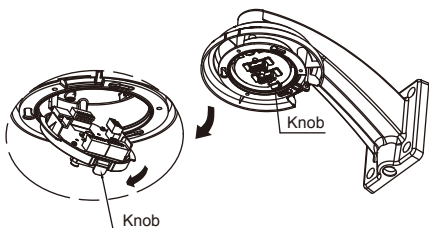
Knob

Knob

Push the knob of mount and pull down. Connect the cable. (See the page6)

Front

Front
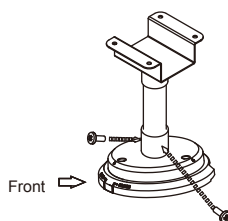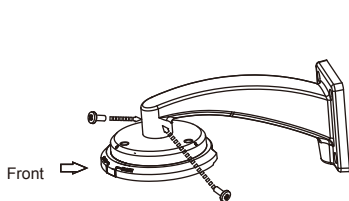
After connecting the cable, set the mount in the proper position and fix the 2 screws (M4*8)
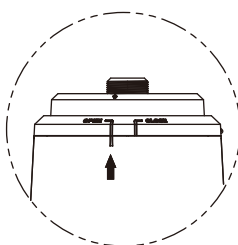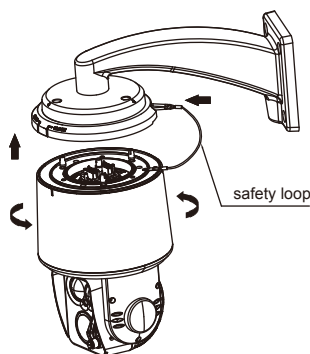
safety loop

OPEN
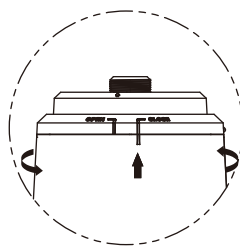
CLOSE
(Turn the body to clockwise)

1. Connect the safety loop on the body and mount back side.
2. Align the arrow mark in the body and mount.
3. Fix the body by turn it to clockwise.
 * Please check the direction of connector in the camera body and mount.
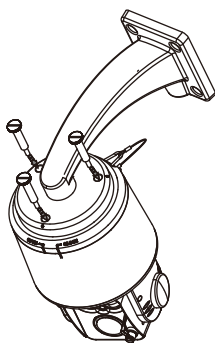
Fix the provided mount screws
to the PTZ camera tightly.
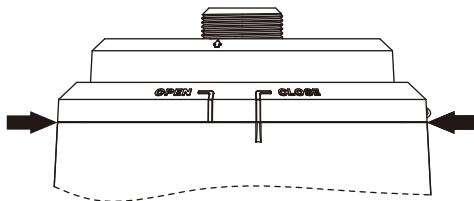
※ Fix the bolt tighten not to make a room
between combinatorial parts to avoid
any water-leakage from outside.

SD CARD Insert/Remove   * IP Model only
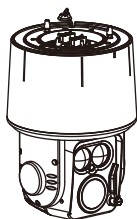
Prepare the body with the mount removed.
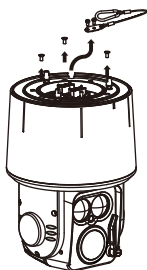
Loosen the bolts and safety hooks fastened to the housing cover.
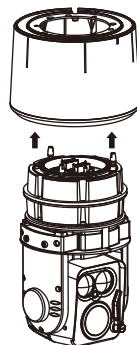
Lift the housing cover up and detach from the body.
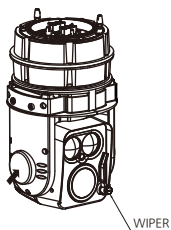
WIPER

The opposite cover of the wiper position must be removed.
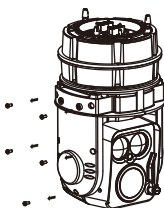
Loosen the bolt on the left side cover.
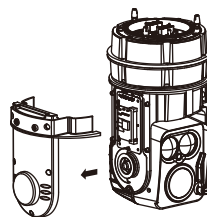
Remove the left side cover from the body that released the bolt.

*The assembly proceeds in reverse order of this description.

Slide the SD CARD in the direction of the arrow to insert/remove it.
(Product SD-CARD MEMORY always included)

※ Precautions ※

1. Work in a place away from moisture and water.
2. To prevent static electricity, wear gloves or work after grounding.
3. When reassembling, check that the waterproof rubber of the housing is in place before assembling.

4. MAIN SETUP MENU

4. 1　Initialize

When the device is powered on, you can check the address, version, protocol and video setting values.

```
              INITIALIZE
PTZ ID       : 001
VERSION      : X. XX
D-OUTPUT     : 1080p30/NTSC
IP INFO      : IP PROTOCOL
               2400 (CU)
RS INFO      : PELCO D
               2400, N, 1/422
CAMERA       : XX XXX..OK
               VER: XX, XX
▷ PAN INIT    . . . .     OK
▷ TILT INIT   . . . .     OK
▷ NORMAL SETTING WAIT . .
```
IP

```
              INITIALIZE
PTZ ID       : 001
VERSION      : X. XX
D-OUTPUT     : 1080p30/NTSC
UCC INFO     : UCC PROT. (9600)

RS INFO      : PELCO D
               2400, N, 1/422
CAMERA       : XX XXX..OK
               VER: XX, XX
▷ PAN INIT    . . . .     OK
▷ TILT INIT   . . . .     OK
▷ NORMAL SETTING WAIT . .
```
UCC

4. 2　Motion Setting

4. 2. 1　Preset

```
          MAIN MENU


MOTION        ▶
DOME          ▷
CAMERA        ▷
CLEAR         ▷
FACTORY SET
PTZ RESET


  EXIT
< NEAR / RIGHT   ▷ MOTION >
```

```
          MOTION MENU

PRESET       ▶
TOUR         ▷
GROUP        ▷
SCAN         ▷
PATTERN      ▷
AREA         ▷
ALARM        ▷
PRIVACY      ▷
HOME POS ▷
 BACK              EXIT
< NEAR / RIGHT   ▷ PRESET >
```

Preset function enables to move the specific zoom position that saved by user.
Preset will be able to define 255 as maximum.

(1) Select the Preset number

P001 : Defined Preset number / 001 : Undefined Preset number

Move :　**JOYSTICK**　　Select :　**NEAR**

```
          PRESET MENU


NUMBER    : 001
TITLE     : NONE
FOCUS     : DISABLE
POSITION SET ▶
EXIT TIME : DISABLE
MOVE SPEED : DISABLE


 SAVE      CLR      BACK        EXIT
< NEAR / RIGHT   ▷ NUMBER >
```

```
          PRESET MENU
       PRESET SELECT : 001

P001 P002 P003 P004 P005
 006  007  008  009  010
 011  012  013  014  015
 016  017  018  019  020
 021  022  023  024  025
 026  027  028  029  030
 031  032  033  034  035
 036  037  038  039  040
 041  042  043  044  045

<EXIT ▷FOCUS NEAR>
```

(2) Set the Preset TITLE

Move : [JOYSTICK]   Select : [TELE] or [JOYSTICK]   Delete : [WIDE] or [JOYSTICK]

It's available to set the desired TITLE, displayed on the executing screen of Preset.

```
          PRESET MENU
          _____

NUMBER    : 001 SET
TITLE     :
FOCUS     : ONESHT
POSITION SET : 000 000
EXIT TIME : 10 SEC
MOVE SPEED : 64

  SAVE      CLR      BACK      EXIT
< CHANGE ▷ UP/DN  SEL ▷ NEAR  >
```

```
          PRESET TITLE EDIT ( 01 )
----------------------------------------
TITLE :

        0 1 2 3 4 5 6 7 8 9 (
        ) A B C D E F G H I J K
        L M N O P Q R S T U V W
        X Y Z . / , + - = < > ( )

< STORE   ▷ TELE    MOVE   ▷  JOYSTICK >
< DELETE  ▷ WIDE    BACK   ▷  NEAR     >
```

After the TITLE is set, push the NEAR button to exit.

(3) Select the focus mode for Preset

① Select the Focus menu   ② Move and set the Focus Menu

[NEAR] or [JOYSTICK]   [JOYSTICK]

```
          PRESET MENU
          _____

NUMBER    : 001
TITLE     :
FOCUS     : AUTO
POSITION SET ▶
EXIT TIME  : OFF
MOVE SPEED : OFF

  SAVE      CLR      BACK      EXIT
< NEAR / RIGHT  ▷  PRESET FOCUS >
```

On focus menu, there are 3 modes
: AUTO, MANUAL, ONESHT.
* Focus will be adjusted once after preset moving.

(4) Define the Preset position

① Select the Position menu   ② Move and set the position   ③ Set & Back
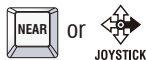
[NEAR] or [JOYSTICK]   [JOYSTICK]   [NEAR]

```
          PRESET MENU
          _____

NUMBER    : 001
TITLE     :
FOCUS     : AUTO
POSITION SET ▶
EXIT TIME  : OFF
MOVE SPEED : OFF

  SAVE      CLR      BACK      EXIT
< NEAR / RIGHT  ▷  PRESET POSITION >
```

```
          PRESET POSITION
          _____




<EXIT ▷ FOCUS  NEAR  >
     SET POSITION  P: 000 T:000 Z : x01
```

(5) EXIT TIME

```
              PRESET MENU


NUMBER    : 001
TITLE     :
FOCUS     : AUTO
POSITION SET ▶
EXIT TIME  : OFF
MOVE SPEED  : OFF


SAVE       CLR       BACK       EXIT
< NEAR / RIGHT   ▷   EXIT TIME >
```

Setting the dwell time to exit Preset mode after completing Preset working.
(OFF ∼ 30MIN) ※ Default : 10SEC

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
              PRESET MENU


NUMBER    : 001
TITLE     :
FOCUS
POSITION SET ▶
EXIT TIME  : OFF
MOVE SPEED : 64


SAVE       CLR       BACK       EXIT
< NEAR / RIGHT   ▷   EXIT TIME >
```

(6) MOVE SPEED
: Set the move speed(1∼64)

```
              PRESET MENU


NUMBER    : 001
TITLE     :
FOCUS
POSITION SET ▶
EXIT TIME  : OFF
MOVE SPEED  : OFF


SAVE       CLR       BACK       EXIT
< NEAR   ▷   DATA SAVE >
```

(7) "Save" above setting Pattern data to the memory.

(8) "CLR" means above setting Pattern data will not be saved and be cleared.

(9) "BACK" means it goes back to the previous menu :Motion.

(10) "EXIT" means it goes out of MENU.

4. 2. 2 Tour

```
            MAIN MENU
         ─────────────

  MOTION      ▶
  DOME        ▷
  CAMERA      ▷
  CLEAR       ▷
  FACTORY SET
  PTZ RESET


   EXIT
 < NEAR / RIGHT   ▷  MOTION >
```

```
                MOTION MENU
             ─────────────

  PRESET      ▷
  TOUR          ▶
  GROUP       ▷
  SCAN        ▷
  PATTERN     ▷
  AREA        ▷
  ALARM       ▷
  PRIVACY     ▷
  HOME POS ▷
  BACK                EXIT
 < NEAR / RIGHT   ▷  TOUR >
```

The Tour function consists of several presets run by turn. It is also adjusts the moving speed
(1~64 step) and dwell time (1~99secs). Maximum of 8 Tour functions are toured in order.

(※ 1 Tour can be set for 15 presets.)

(1) Select the Tour number

T01 : Defined Tour number / 01 : Undefined Tour number

Move : [JOYSTICK]   Select : [NEAR]
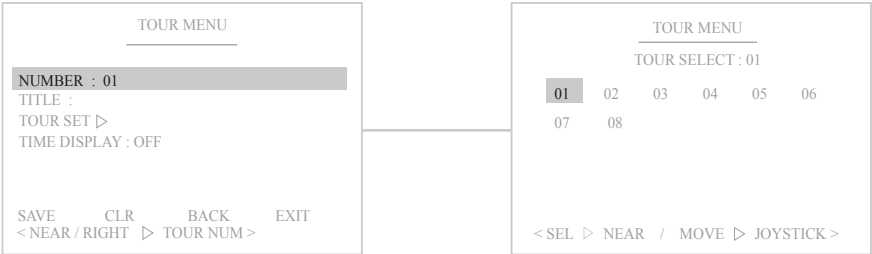
```
            TOUR MENU
         ─────────────

  NUMBER  :  01
  TITLE  :
  TOUR SET ▷
  TIME DISPLAY : OFF



   SAVE      CLR      BACK      EXIT
 < NEAR / RIGHT   ▷  TOUR NUM >
```

```
              TOUR MENU
           ─────────────
           TOUR SELECT : 01

    01    02    03    04    05    06
    07    08



 < SEL  ▷  NEAR   /   MOVE  ▷  JOYSTICK >
```

(2) Set the Tour TITLE

Move : [JOYSTICK]   Select : [TELE] or [JOYSTICK]   Delete : [WIDE] or [JOYSTICK]

It's available to set the desired TITLE, displayed on the executing screen of Tour.

```
            TOUR MENU
         ─────────────

  NUMBER  :  01
  TITLE  :
  TOUR SET ▷
  TIME DISPLAY : OFF



   SAVE      CLR      BACK      EXIT
 < NEAR / RIGHT   ▷  TITLE >
```

```
              TOUR TITLE EDIT ( 01 )
   --------------------------------------
 TITLE  :
        0  1  2  3  4 5 6  7 8 9 (
        ) A  B  C D E F G H  I  J  K
        L M N O P Q R S T U V W
        X Y Z  .  /  ,  + - = < >○

 < STORE   ▷  TELE    MOVE   ▷    JOYSTICK >
 < DELETE  ▷ WIDE    BACK   ▷    NEAR    >
```
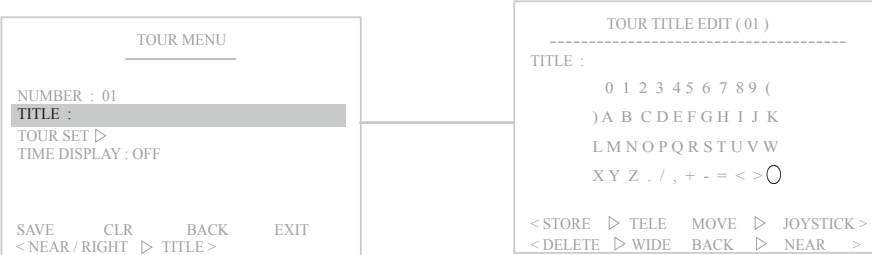
After the TITLE is set, push the NEAR button to exit.

(3) Define the Preset position

① Move to the set-up window   ② Move and set the position   ③ Set & Back

NEAR or JOYSTICK   JOYSTICK   NEAR

TOUR MENU

NUMBER : 01
TITLE :
TOUR SET ▶
TIME DISPLAY : OFF

SAVE   CLR   BACK   EXIT
< NEAR / RIGHT   ▷ TOUR SET >

TOUR EDIT (01)

NO	PRESET	SPEED	DWELL
01	◀ 01	63	01
02	◁ 02	63	01
03	XX	XX	XX
04	XX	XX	XX
05	XX	XX	XX
06	XX	XX	XX
07	XX	XX	XX
08	XX	XX	XX

< SEL & NEAR   PRESET & LEFT >
< SEL & NEAR   DELETE   WIDE >

TOUR MENU
PRESET SELECT : 001

P001 P002 P003 P004 P005
006   007   008   009   010
011   012   013   014   015
016   017   018   019   020
021   022   023   024   025
026   027   028   029   030
031   032   033   034   035
036   037   038   039   040
041   042   043   044   045

<EXIT ▷ FOCUS NEAR >

(4) Time Display

TOUR MENU

NUMBER : 01
TITLE :
TOUR SET ▷
TIME DISPLAY : OFF

SAVE   CLR   BACK   EXIT
< NEAR / RIGHT   ▷ TIME DISPLAY >

Display the remain time of each Preset dwell time during Tour operation.(OFF / ON) ※ Default : OFF

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

TOUR MENU

NUMBER : 01
TITLE :
TOUR SET ▷
TIME DISPLAY : OFF

SAVE   CLR   BACK   EXIT

< NEAR ▷ DATA SAVE >

(5) "Save" above setting Pattern data to the memory.

(6) "CLR" means above setting Pattern data will not be saved and be cleared.

(7) "BACK" means it goes back to the previous menu :Motion.

(8) "EXIT" means it goes out of MENU.

4. 2. 3　Group

```
          MAIN MENU
      _____

 MOTION      ▶
 DOME        ▷
 CAMERA      ▷
 CLEAR       ▷
 FACTORY SET
 PTZ RESET


    EXIT
 < NEAR / RIGHT  ▷  MOTION >
```

```
          MOTION MENU
      _____

 PRESET     ▷
 TOUR       ▷
 GROUP      ▶
 SCAN       ▷
 PATTERN    ▷
 AREA       ▷
 ALARM      ▷
 PRIVACY    ▷
 HOME POS ▷
 BACK              EXIT
 < NEAR / RIGHT  ▷  GROUP >
```
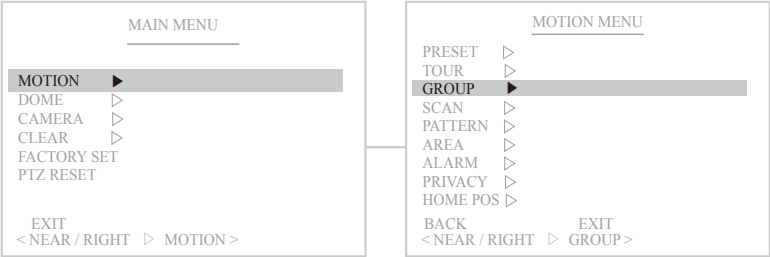
GROUP　: You can make Max. 6 groups and call the saved tour by turn.

(1) Select the Group number
　　G01 : Defined Group number / 01 : Undefined Group number
　　 Set from 1to 6 groups.

　Move :　[JOYSTICK]　　Select :　[NEAR]

```
          GROUP MENU
      _____

 NUMBER  :  01
 TITLE  :
 GROUP SET ▷



 SAVE      CLR      BACK      EXIT
 < NEAR / RIGHT  ▷  GROUP NUM >
```

```
          GROUP MENU
      _____
      GROUP SELECT : 01

  G01    02      03      04      05      06



 < SEL ▷ NEAR  /  MOVE ▷ JOYSTICK >
```

(2) Set the Group TITLE

　Move :　[JOYSTICK]　Select :　[TELE] or ↻[JOYSTICK]　Delete :　[WIDE] or ↻[JOYSTICK]

It's available to set the desired TITLE, displayed on the executing screen of Group.

```
          GROUP MENU
      _____

 NUMBER  :  01
 TITLE  :
 GROUP SET ▷



 SAVE      CLR      BACK      EXIT
 < NEAR / RIGHT  ▷  TITLE >
```

```
        GROUP TITLE EDIT
 --------------------------------------
 TITLE :
        0 1 2 3 4 5 6 7 8 9 (
        ) A B C D E F G H I J K
        L M N O P Q R S T U V W
        X Y Z . / , + - = < >

 < STORE  ▷ TELE    MOVE   ▷   JOYSTICK >
 < DELETE ▷ WIDE    BACK   ▷   NEAR    >
```
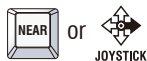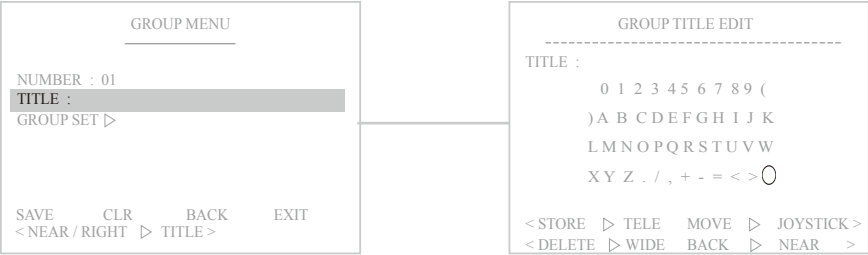
After the TITLE is set, push the NEAR button to exit.

(3) GROUP SET

① Move to the set-up window   ② Move and set the position   ③ Set & Back

NEAR or JOYSTICK   JOYSTICK   NEAR

```
           GROUP MENU

NUMBER : 01
TITLE :
GROUP SET ▶


SAVE      CLR      BACK      EXIT
< NEAR / RIGHT   ▷  GROUP SET >
```

```
              GROUP EDIT (01)

NO      TOUR
01      <001>
02      002
03      XXX
04      XXX
05      XXX
06      XXX
< SEL  &  NEAR          PRESET  &  LEFT >
< SEL  &  NEAR          DELETE      WIDE >
```

- GROUP EDIT : Set the tour from 1 to 6 of group.

```
           GROUP MENU

NUMBER : 01
TITLE :
GROUP SET ▷


SAVE      CLR      BACK      EXIT

< NEAR   ▷  DATA SAVE >
```

(4) "Save" above setting Pattern data to the memory.

(5) "CLR" means above setting Pattern data will not be saved and be cleared.

(6) "BACK" means it goes back to the previous menu :Motion.

(7) "EXIT" means it goes out of MENU.

4. 2. 4 Scan

```
            MAIN MENU
         ─────────────

MOTION        ▶
DOME          ▷
CAMERA        ▷
CLEAR         ▷
FACTORY SET
PTZ RESET


  EXIT
< NEAR / RIGHT   ▷   MOTION >
```

```
            MOTION MENU
         ─────────────

PRESET    ▷
TOUR      ▷
GROUP     ▷
SCAN          ▶
PATTERN   ▷
AREA      ▷
ALARM     ▷
PRIVACY   ▷
HOME POS ▷
 BACK              EXIT
< NEAR / RIGHT   ▷   SCAN >
```

The Scan function means that the camera keeps panning between two programmed pan positions.
It is also adjusts the moving speed(1~64 step). Maximum 8 Scan functions are toured in order.

(1) Select the Scan number

S01 : Defined Scan number / 01 : Undefined Scan number

Move : [JOYSTICK]   Select : [NEAR]

```
            SCAN MENU
         ─────────────

NUMBER     : 01
TITLE      : NONE
SPEED      : NONE
DWELL      : NONE
MOTION TYPE  : NONE
DIRECTION    : NONE
START POS    ▷
END  POS     ▷
SAVE      CLR      BACK      EXIT
< NEAR / RIGHT   ▷   SCAN NUM >
```

```
            SCAN MENU
         ─────────────
        SCAN SELECT : 01

 01   02     03     04     05     06

 07    08




< SEL ▷  NEAR   /   MOVE & JOYSTICK >
```

(2) Set the Scan TITLE

Move : [JOYSTICK]   Select : [TELE] or [JOYSTICK]   Delete : [WIDE] or [JOYSTICK]

It's available to set the desired TITLE, displayed on the executing screen of Scan.

```
            SCAN MENU
         ─────────────

NUMBER     : 01
TITLE      :
SPEED      : NONE
DWELL      : NONE
MOTION TYPE  : NONE
DIRECTION    : NONE
START POS    ▷
END  POS     ▷
SAVE      CLR      BACK      EXIT
< NEAR / RIGHT  ▷  TITLE >
```

```
        SCAN  TITLE EDIT ( 01 )
   - - - - - - - - - - - - - - - - - - - - - - - - - -
TITLE :

      0  1  2  3  4 5 6 7 8 9 (

     ) A  B  C D E F G H  I  J  K

     L M N O P Q R S T U V W

     X Y  Z  . / , + - = < > ○

< STORE   ▷  TELE     MOVE   ▷    JOYSTICK >
< DELETE  ▷ WIDE    BACK    ▷    NEAR      >
```
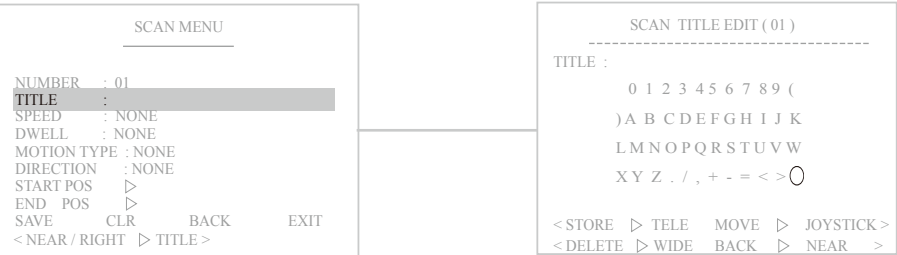
After the TITLE is set, push NEAR button to go out.

(3) Set the Scan speed

Increase : [TELE] or [JOYSTICK ↻]

Decrease : [WIDE] or [JOYSTICK ↺]

It adjusts the moving speed from 1~64 steps.

```
                    SCAN MENU
                    ─────────

NUMBER      : 01
TITLE       :
SPEED       : NONE
DWELL       : NONE
MOTION TYPE : NONE
DIRECTION   : NONE
START POS      ▷
END  POS       ▷
SAVE        CLR      BACK       EXIT
< NEAR / RIGHT  ▷  MOVE SPEED>
```
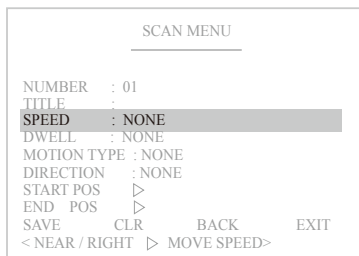
(4) Set the Dwell Time

Increase : [TELE] or [JOYSTICK ↻]

Decrease : [WIDE] or [JOYSTICK ↺]

Dwell time means the time that the camera stay at the start & end pan positions.
It's adjustable from 00~59 seconds.

```
                    SCAN MENU
                    ─────────

NUMBER      : 01
TITLE       :
SPEED       : NONE
DWELL       : NONE
MOTION TYPE : NONE
DIRECTION   : NONE
START POS      ▷
END  POS       ▷
SAVE        CLR      BACK       EXIT
< NEAR / RIGHT  ▷  DWELL>
```
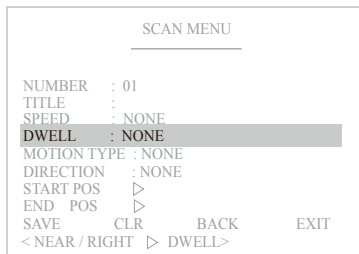
(5) Set the Motion Type

Set PAN/TILT direction
When PAN is set,PAN SCAN is proceeded with the specified coordinate value.
When TILT is set,TILT SCAN is proceeded with the specified coordinate value.

Select : [JOYSTICK ⬌] or [NEAR]   Set ON : [JOYSTICK ⬍]

Set OFF : [NEAR]

```
                    SCAN MENU
                    ─────────

NUMBER      : 01
TITLE       :
SPEED       : NONE
DWELL       : NONE
MOTION TYPE : NONE
DIRECTION   : NONE
START POS      ▷
END  POS       ▷
SAVE        CLR      BACK       EXIT
< NEAR / RIGHT  ▷ MOTION TYPE>
```
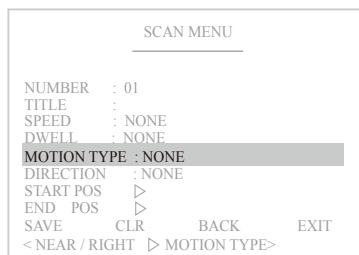
(6) Set the Direction

PAN : Select Clock Wise or C_Clock Wise direction

When select C_Clock WISE, counterclockwise progression

When select Clock WISE, clockwise progression

TILT : Set the UP & DOWN.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
                SCAN MENU

NUMBER      : 01
TITLE       :
SPEED       : NONE
DWELL       : NONE
MOTION TYPE  : NONE
DIRECTION    : NONE
START POS       ▷
END   POS       ▷
SAVE        CLR        BACK        EXIT
< NEAR / RIGHT   ▷ DIRECTION>
```

(7) Define the Start position

① Select Start Pos menu   ② Move and set the position   ③ Go back

[NEAR] or [JOYSTICK]   [JOYSTICK]   [NEAR]

```
                SCAN MENU

NUMBER      : 01
TITLE       :
SPEED       : NONE
DWELL       : NONE
MOTION TYPE  : NONE
DIRECTION    : NONE
START POS       ▶
END   POS       ▷
SAVE        CLR        BACK        EXIT
< NEAR / RIGHT   ▷ START POS >
```

```
            STRAT POSITION




< EXIT   ▷ FOCUS NEAR >

SET POSITION P : 000 T : 000 Z : x01
```

(8) Define the End position

① Select End Pos menu   ② Move and set the position   ③ Go back

[NEAR] or [JOYSTICK]   [JOYSTICK]   [NEAR]

```
                SCAN MENU

NUMBER      : 01
TITLE       :
SPEED       : NONE
DWELL       : NONE
MOTION TYPE  : NONE
DIRECTION    : NONE
START POS       ▶
END   POS       ▶
SAVE        CLR        BACK        EXIT
< NEAR / RIGHT   ▷ END POS >
```

```
            SCAN END POSITION




< EXIT   ▷ FOCUS NEAR >

SET POSITION P : 000 T : 000 Z : x01
```

- When Motion type is PAN, Pan is available.
- When Motion type is TILT, TILT is available.

(9) "Save" above setting Pattern data to the memory.

(10) "CLR" means above setting Pattern data will not be saved and be cleared.

(11) "BACK" means it goes back to the previous menu :Motion.
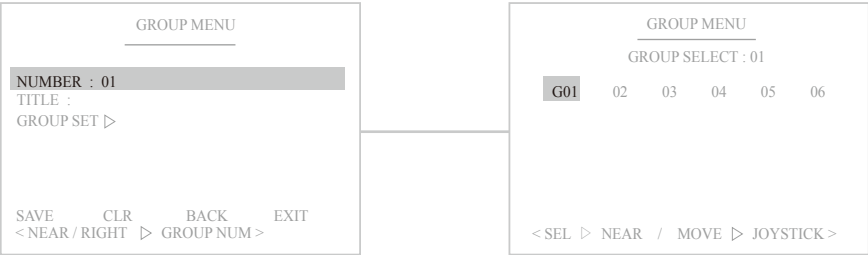
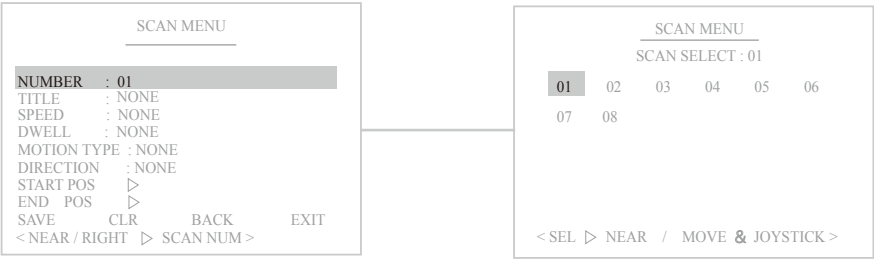(12) "EXIT" means it goes out of MENU.

```
                SCAN MENU
                _____

NUMBER      : 01
TITLE       : NONE
SPEED       : NONE
DWELL       : NONE
MOTION TYPE : NONE
DIRECTION   : NONE
START POS       ▶
END   POS       ▶

SAVE        CLR       BACK      EXIT
< NEAR  ▷ DATA SAVE >
```

4. 2. 5 Pattern

```
              MAIN MENU                               MOTION MENU
              ─────────                               ──────────

 MOTION        ▶                        PRESET    ▷
 DOME       ▷                           TOUR      ▷
 CAMERA     ▷                           GROUP     ▷
 CLEAR      ▷                           SCAN      ▷
 FACTORY SET                            PATTERN   ▶
 PTZ RESET                              AREA      ▷
                                        ALARM     ▷
                                        PRIVACY   ▷
                                        HOME POS  ▷
   EXIT                                  BACK              EXIT
 < NEAR / RIGHT  ▷  MOTION >            < NEAR / RIGHT  ▷  PATTERN >
```
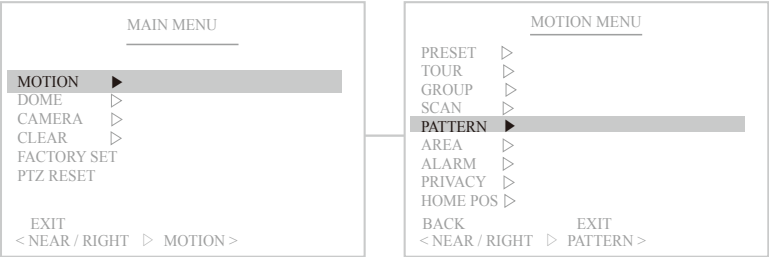
The Pattern function memorizes User's random moving path and zoom ratio. Total recording time limit is 65secs and maximum 4 Pattern functions are toured in order.

(1) Select the Pattern number

PAT01 : Defined Pattern number / 01 : Undefined Pattern number

Move : [JOYSTICK]   Select : [NEAR]

```
           PATTERN MENU                             PATTERN MENU
           ────────────                             ────────────
                                                  PATTERN SELECT:01

 NUMBER : 01                             01       02       03       04
  TITLE    :
  RECORD  ▷
  PLAY    ▷


  SAVE       CLR       BACK      EXIT   < SEL ▷ NEAR  /  MOVE & JOYSTICK >
 < NEAR / RIGHT  ▷ NUMBER >            < EXIT ▷ FOCUS NEAR >
```
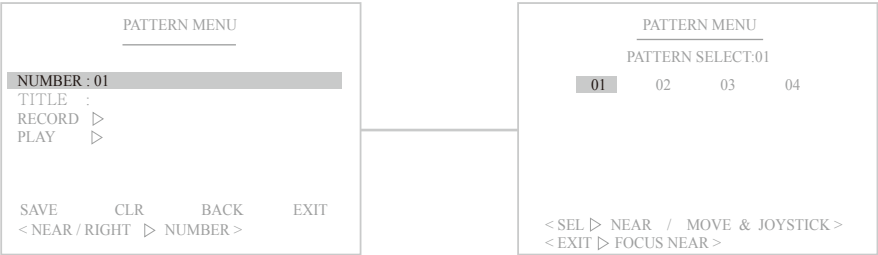
(2) Set the Pattern TITLE

Move : [JOYSTICK]   Select : [TELE] or [JOYSTICK]   Delete : [WIDE] or [JOYSTICK]

It's available to set the desired TITLE, displayed on the executing screen of Pattern.

```
           PATTERN MENU                        PATTERN TITLE EDIT ( 01 )
           ────────────                    --------------------------------------
                                           TITLE :
 NUMBER : 01
  TITLE    :                                    0 1 2 3 4 5 6 7 8 9 (
  RECORD  ▷                                    ) A B C D E F G H I J K
  PLAY    ▷                                    L M N O P Q R S T U V W
                                               X Y Z . / , + - = < >

  SAVE       CLR       BACK      EXIT     < STORE  ▷ TELE    MOVE  ▷   JOYSTICK >
 < NEAR / RIGHT  ▷ TITLE >               < DELETE  ▷ WIDE    BACK  ▷   NEAR     >
```
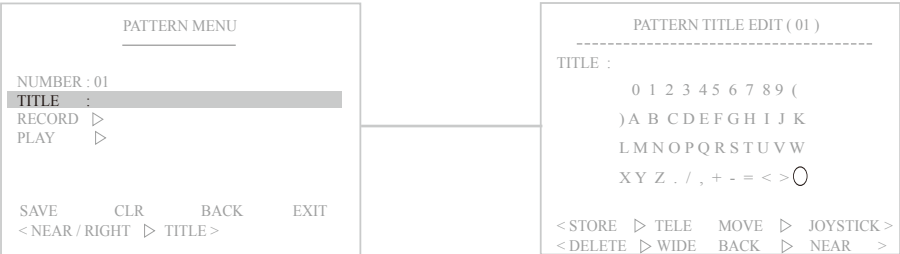
After the TITLE set, push NEAR button to go out.

(3) Record and Save the User's random Pattern data
  ① Select the "Record" Menu   ② Move and record the pattern   ③ NEAR -> EXIT
                                                                         FAR -> RECORD ON

NEAR or JOYSTICK   JOYSTICK

```
              PATTERN MENU
              _____

  NUMBER : 01
  TITLE    :
  RECORD   ▶
  PLAY       ▷


    SAVE      CLR       BACK       EXIT
  < NEAR / RIGHT  ▷  RECORD >
```

```
              PATTERN RECORD
  ------------------------------------------




  <NEAR ▷ EXIT>

  <FAR  ▷ ON   >
    SET POSITION P : 000 T : 000 Z : x0
```

(4) Play back the recorded Pattern data

```
              PATTERN MENU
              _____

  NUMBER : 01
  TITLE    :
  RECORD   ▷<08SEC>
  PLAY       ▶


    SAVE      CLR       BACK       EXIT
  < NEAR / RIGHT  ▷  PLAY >
```

(5) "Save" above setting Pattern data to the memory.

(6) "CLR" means above setting Pattern data will not be saved and be cleared.

(7) "BACK" means it goes back to the previous menu :Motion.

(8) "EXIT" means it goes out of MENU.

```
              PATTERN MENU
              _____

  NUMBER : 01
  TITLE    :
  RECORD   ▷<08SEC>
  PLAY       ▷


    SAVE      CLR       BACK       EXIT
  < NEAR  ▷  DATA SAVE >
```

4. 2. 6   Area

```
           MAIN MENU
    ─────────────────

  MOTION        ▶
  DOME          ▷
  CAMERA        ▷
  CLEAR         ▷
  FACTORY SET
  PTZ RESET


    EXIT
  < NEAR / RIGHT   ▷  MOTION >
```

```
              MOTION MENU
          ─────────────────

  PRESET      ▷
  TOUR        ▷
  GROUP       ▷
  SCAN        ▷
  PATTERN     ▷
  AREA        ▶
  ALARM       ▷
  PRIVACY     ▷
  HOME POS ▷
   BACK              EXIT
  < NEAR / RIGHT   ▷  AREA >
```

The Area function means that it displays the Area name between two programmed pan positions.
Maximun 16 Area functions are toured in order.

(1) Select the Area number

AR 01 : Defined Area number / 01 : Undefined Area number

Move :   [JOYSTICK]   Select :   [NEAR]

```
            AREA MENU
      ─────────────────

  NUMBER  : 01
  TITLE      :
  DIRECTION  : NONE
  S PAN POS.  ▷
  E PAN  POS.  ▷


   SAVE        CLR        BACK        EXIT
  < NEAR / RIGHT   ▷  AREA  NO >
```

```
              AREA MENU
          ─────────────────
            AREA SELECT : 01

   01       02       03       04       05

   06       07       08       09       10

   11       12       13       14       15

   16


  <SEL & MEAR / MOVE & JOYSTICK>
```

(2) Set the Area TITLE

Move :   [JOYSTICK]   Select :   [TELE] or [JOYSTICK]   Delete :   [WIDE] or [JOYSTICK]

It's available to set the desired TITLE, displayed on the executing screen of Area.

```
            AREA MENU
      ─────────────────

  NUMBER  : 01
  TITLE      :
  DIRECTION  : NONE
  S PAN POS.  ▷
  E PAN  POS.  ▷


   SAVE        CLR        BACK        EXIT
  < NEAR / RIGHT   ▷  TITLE >
```

```
              AREA  TITLE EDIT
  ------------------------------------
  TITLE  :

         0  1  2  3  4 5 6  7 89 (

         )  A  B  C D E F G H  I  J  K

         L M N O P Q R S T U V W

         X Y  Z  .  /  ,  + - = < >

  < STORE   ▷  TELE     MOVE   ▷   JOYSTICK >
  < DELETE  ▷ WIDE     BACK   ▷    NEAR     >
```

After the TITLE set, push NEAR button to go out.

(3) Set the Direction

Select : or NEAR   Set ON :   Set OFF : NEAR

C_Clock WISE is counterclockwise mark, Clock WISE is clockwise mark.

```
                AREA MENU
                ─────────

NUMBER  : 01
TITLE      :
DIRECTION  : <C_CLOCK WISE>
S PAN POS.   ▷
E PAN  POS.  ▷


 SAVE        CLR        BACK       EXIT
 < NEAR / RIGHT   ▷  DIRECTION >
```

(4) Define the Start pan position

① Select the "Start Pan Pos" menu   ② Move and set the position   ③ Set & Back

NEAR or   NEAR
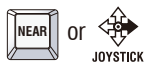
```
                AREA MENU
                ─────────

NUMBER  : 01
TITLE      :
DIRECTION  : NONE
 S PAN POS.   ▶
 E PAN  POS.  ▷


 SAVE        CLR        BACK       EXIT
 < MOVE & NEAR / START POS >
```

```
            AREA START PAN POSITION
            ───────────────────────




 < EXIT   ▷ FOCUS NEAR >
 SET POSITION P : 000 T : 000 Z : x01
```

(5) Define the END pan position

① Select the "END Pan Pos" Menu   ② Move and set the position   ③ Set & Back

NEAR or   NEAR
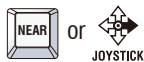
```
                AREA MENU
                ─────────

NUMBER  : 01
TITLE      :
DIRECTION  : NONE
S PAN POS.   ▷
 E PAN  POS.  ▶


 SAVE        CLR        BACK       EXIT
 < MOVE & NEAR / END POS >
```

```
            AREA STOP PAN POSITION
            ──────────────────────




 < EXIT   ▷ FOCUS NEAR >
 SET POSITION P : 000 T : 000 Z : x01
```

(6) "Save" above setting Area data to the memory.

(7) "CLR" means above setting Area data will not be saved and be cleared.

(8) "BACK" means it goes back to the previous menu :Motion.

(9) "EXIT" means it goes out of MENU

```
                    AREA MENU
                _____

     NUMBER  : 01
     TITLE      :
     DIRECTION  : NONE
     S PAN POS.   ▷
     E PAN  POS.  ▷


      SAVE        CLR        BACK       EXIT
     < NEAR  ▷ DATA SAVE >
```

4. 2. 7   Alarm

```
            MAIN MENU                              MOTION MENU

                                        PRESET      ▷
  MOTION      ▶                         TOUR        ▷
  DOME        ▷                         GROUP       ▷
  CAMERA      ▷                         SCAN        ▷
  CLEAR       ▷                         PATTERN     ▷
  FACTORY SET                           AREA        ▷
  PTZ RESET                             ALARM       ▶
                                        PRIVACY     ▷
                                        HOME POS ▷
   EXIT                                  BACK                EXIT
  < NEAR / RIGHT   ▷  MOTION >          < NEAR / RIGHT   ▷  ALARM >
```

The Alarm function means that the camera moves to the programmed Preset position by the Alarm trigger.
Maximum 8 Alarm functions are toured in order.

(1) Select the Alarm number
   E01 : Defined Alarm number / 01 : Undefined Alarm number

   Move :   [JOYSTICK]   Select :   [NEAR]

```
            ALARM MENU                             ALARM MENU
                                                 ALARM SELECT : 01

  NUMBER  : 01                            01    02    03    04    05    06
  TITLE     :
  PRESET NUM : NONE                       07    08


   SAVE        CLR        BACK      EXIT
  < NEAR / RIGHT   ▷  NUMBER >            <EXIT ▷ FOCUS NEAR >
```
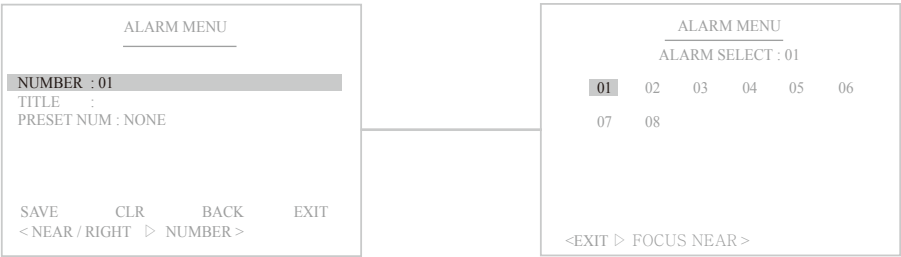
(2) Set the Alarm TITLE

   Move : [JOYSTICK]   Select : [TELE] or [JOYSTICK]   Delete : [WIDE] or [JOYSTICK]

   It's available to set the desired TITLE, displayed on the executing screen of Alarm.

```
            ALARM MENU                         ALARM  TITLE EDIT ( 01 )
                                            ---------------------------------------
                                            TITLE  :
  NUMBER  : 01
  TITLE     :                                      0  1  2  3  4 5  6  7 8 9 (
  PRESET NUM : NONE
                                                 ) A  B  C D E F G H  I  J  K

                                                 L M N O P Q R S T U V W
                                                 X Y  Z  .  /  ,  + - = < >  ○
   SAVE        CLR        BACK      EXIT
  < NEAR / RIGHT   ▷  TITLE >               < STORE   ▷  TELE    MOVE    ▷    JOYSTICK >
                                            < DELETE  ▷ WIDE    BACK    ▷    NEAR      >
```
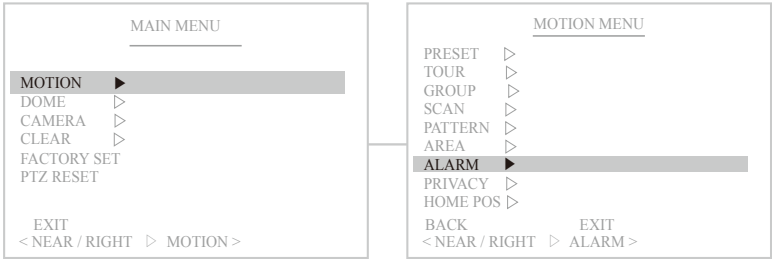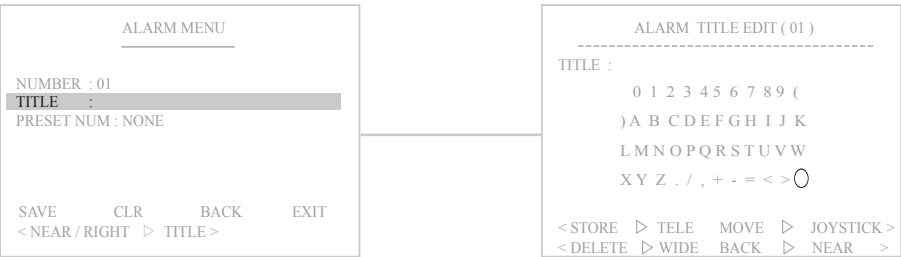
After the TITLE is set, push the NEAR button to exit.

(3) Define the Preset position with Alarm trigger

① Select the "Preset Num"   ② Move and set the position   ③ Set & Back

NEAR or JOYSTICK   JOYSTICK   NEAR

```
         ALARM MENU
      _____

 NUMBER  : 01
 TITLE     :
 PRESET NUM : NONE




 SAVE       CLR       BACK       EXIT
 < NEAR / RIGHT   ▷ JOYSTICK >
```

```
          ALARM MENU
       PRESET SELECT : 001

 P001  P002  P003  P004  P005
  006   007   008   009   010
  011   012   013   014   015
  016   017   018   019   020
  021   022   023   024   025
  026   027   028   029   030
  031   032   033   034   035
  036   037   038   039   040
  041   042   043   044   045
 <EXIT ▷FOCUS NEAR >
 <SEL ▷NEAR /MOVE ▷ JOYSTICK>
```

(4) "Save" above setting Alarm data to the memory.

(5) "CLR" means above setting Alarm data will not be saved and be cleared.

(6) "BACK" means it goes back to the previous menu :Motion.

(7) "EXIT" means it goes out of MENU

```
          ALARM MENU
       _____

 NUMBER  : 01
 TITLE     :
 PRESET NUM : NONE




 SAVE         CLR        BACK        EXIT
 < NEAR   ▷  DATA SAVE >
```
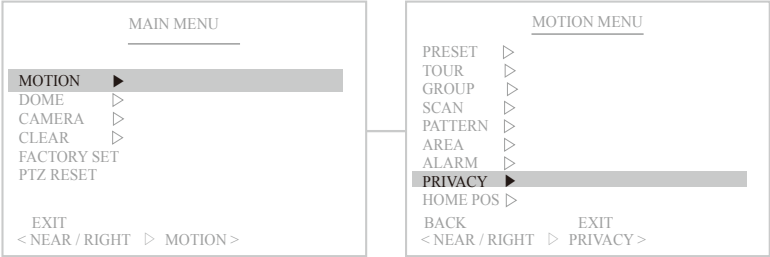
4. 2. 8 Privacy Zone Masking

```
                MAIN MENU                              MOTION MENU

                                            PRESET    ▷
   MOTION      ▶                            TOUR      ▷
   DOME        ▷                            GROUP     ▷
   CAMERA      ▷                            SCAN      ▷
   CLEAR       ▷                            PATTERN   ▷
   FACTORY SET                              AREA      ▷
   PTZ RESET                                ALARM     ▷
                                            PRIVACY   ▶
                                            HOME POS ▷
     EXIT                                    BACK              EXIT
   < NEAR / RIGHT  ▷  MOTION >              < NEAR / RIGHT  ▷  PRIVACY >
```
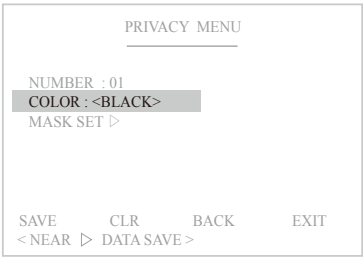
The Privacy Zone Masking function means that it sets the blocking territories to prevent camera functions for the privacy of personal reasons. Maximum of 8 Privacy Zone Masking functions are toured in order.

(1) Select the Privacy Zone number
   R01 : Defined Alarm number / 01 : Undefined Alarm number

   Move : **JOYSTICK**   Select : **NEAR**

```
             PRIVACY MENU                              PRIVACY MENU
                                                    PRIVACY SELECT : 01
   NUMBER  : 01                               01       02      03      04      05
   COLOR : XXXXX
   MASK SET ▷                                 06       07      08


   SAVE      CLR       BACK      EXIT
   < NEAR / RIGHT  ▷  NUMBER >                < SEL ▷ NEAR  /  MOVE ▷ JOYSTICK >
```

(2) Color : BLACK/WHITE

```
             PRIVACY  MENU
                                        You can change the color of the privacy mask.
   NUMBER  : 01                         Choose the color you want from the menu.
   COLOR : <BLACK>                      ※ Default color: WHITE
   MASK SET ▷


   SAVE      CLR       BACK      EXIT
   < NEAR  ▷  DATA SAVE >
```
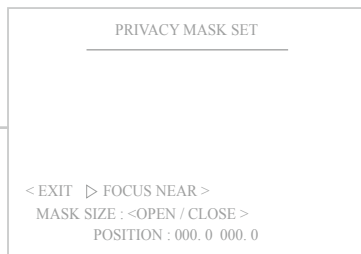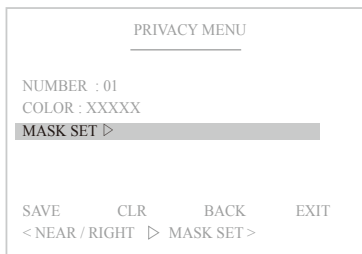
(3) Mask set

Move : ![JOYSTICK] Select : [TELE] or ![JOYSTICK] Delete : [WIDE] or ![JOYSTICK]

It's available to set the desired position and size of the blocking territories freely.

```
          PRIVACY MENU                              PRIVACY MASK SET
    ─────────────────                         ─────────────────────

NUMBER  : 01
COLOR : XXXXX
MASK SET ▷

                                        < EXIT   ▷ FOCUS NEAR >
 SAVE       CLR        BACK       EXIT     MASK SIZE : <OPEN / CLOSE >
 < NEAR / RIGHT   ▷  MASK SET >               POSITION : 000. 0  000. 0
```

After the Privacy Zone is set, push the NEAR button to go out.

(4) "Save" above settings of Privacy Zone data to the memory.

(5) "CLR" means above setting of Privacy Zone data will not be saved and be cleared.

(6) "BACK" means it goes back to the previous menu :Motion.

(7) "EXIT" means it goes out of MENU.

```
          PRIVACY  MENU
    ─────────────────────

NUMBER  : 01
COLOR : XXXXX
MASK SET ▷


 SAVE        CLR        BACK         EXIT
 < NEAR  ▷  DATA SAVE >
```

4. 2. 9   Home Position

```
              MAIN MENU                                    MOTION MENU
        _____                          _____

 MOTION         ▶                                PRESET      ▷
 DOME           ▷                                TOUR        ▷
 CAMERA         ▷                                GROUP       ▷
 CLEAR          ▷                                SCAN        ▷
 FACTORY SET                                     PATTERN     ▷
 PTZ RESET                                       AREA        ▷
                                                 ALARM       ▷
                                                 PRIVACY     ▷
                                                 HOME POS ▶
   EXIT                                           BACK              EXIT
 < NEAR / RIGHT   ▷  MOTION >                    < NEAR / RIGHT   ▷  HOME POS >
```
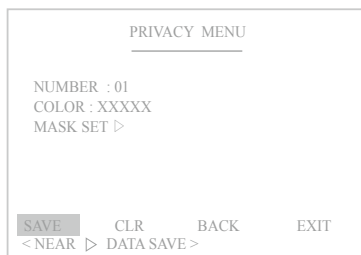
Home Postion : Move to selected home position.(255＋PRESET)

(1) Home Position ON/OFF setting

Move :   JOYSTICK   Select :   NEAR

```
           HOME POS MENU
        _____

 ON/OFF  : OFF
 POSITION SET ▷




 SAVE        CLR        BACK        EXIT
 < NEAR / RIGHT   &  ON/OFF >
```

(2) Home Position SET

Move :   JOYSTICK   Select :   NEAR

```
           HOME POS MENU                                  HOME POSITION
        _____                          _____

 ON/OFF  : OFF
 POSITION SET ▷




 SAVE        CLR        BACK        EXIT             < EXIT   ▷ FOCUS NEAR >
 < NEAR / RIGHT ▷ POSITION SET >                    SET POSITION P : 000 T : 000 Z : x01
```

4. 3   Dome Setting

```
              MAIN MENU
              _____

MOTION        ▷
DOME          ▶
CAMERA        ▷
CLEAR         ▷
FACTORY SET
PTZ RESET


  EXIT
< NEAR / RIGHT   ▷  DOME >
```

Pan, Tilt, Zoom motion is adjustable in the "Dome Setting" Menu.

4. 3. 1   Set the Dome camera title

Move : **JOYSTICK**   Select : **TELE** or **JOYSTICK**   Delete : **WIDE** or **JOYSTICK**
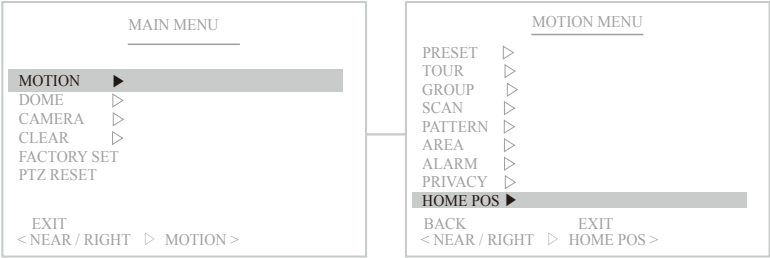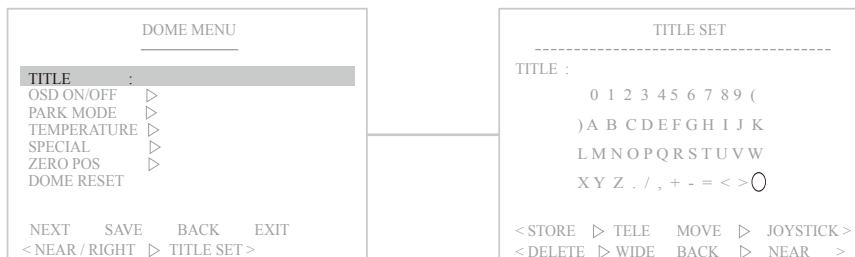
It's available to set the desired camera title.

```
         DOME MENU
         _____

TITLE        :
OSD ON/OFF      ▷
PARK MODE       ▷
TEMPERATURE     ▷
SPECIAL         ▷
ZERO POS        ▷
DOME RESET

 NEXT    SAVE    BACK    EXIT
< NEAR / RIGHT  ▷  TITLE SET >
```

```
              TITLE SET
     --------------------------------------
TITLE :

        0 1 2 3 4 5 6 7 8 9 (
        ) A B C D E F G H I J K
        L M N O P Q R S T U V W
        X Y Z . / , + - = < > ◯

< STORE  ▷  TELE    MOVE  ▷   JOYSTICK >
< DELETE  ▷ WIDE    BACK  ▷   NEAR     >
```
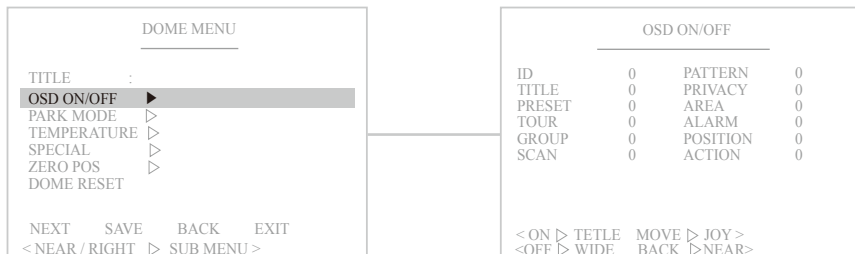
After the TITLE is set, push NEAR button to exit.

4. 3. 2   OSD ON/OFF Set

You can select the OSD ON to shown on the screen or clear by selecting OFF in this function.

Select : **JOYSTICK** or **NEAR**   Set ON : **JOYSTICK**   Set OFF : **NEAR**

```
         DOME MENU
         _____

TITLE        :
OSD ON/OFF      ▶
PARK MODE       ▷
TEMPERATURE     ▷
SPECIAL         ▷
ZERO POS        ▷
DOME RESET

 NEXT    SAVE    BACK    EXIT
< NEAR / RIGHT  ▷  SUB MENU >
```

```
              OSD ON/OFF
              _____

ID         0      PATTERN    0
TITLE      0      PRIVACY    0
PRESET     0      AREA       0
TOUR       0      ALARM      0
GROUP      0      POSITION   0
SCAN       0      ACTION     0




< ON ▷ TETLE   MOVE ▷ JOY >
<OFF ▷ WIDE    BACK ▷NEAR>
```
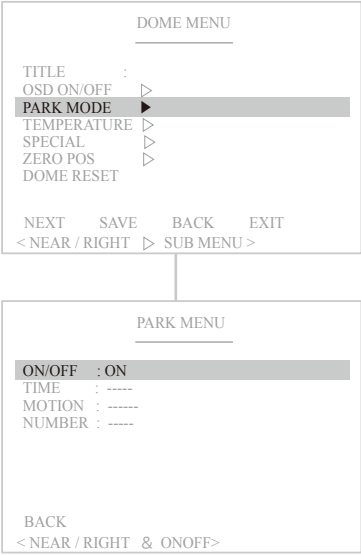
4. 3. 3 PARK MODE

This function enables to locate the camera to specific position automatically if operator doesn't operate the controller for a while.
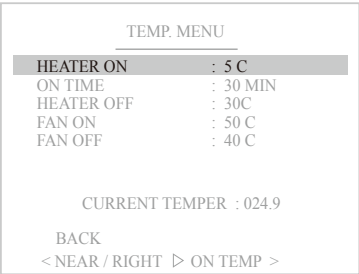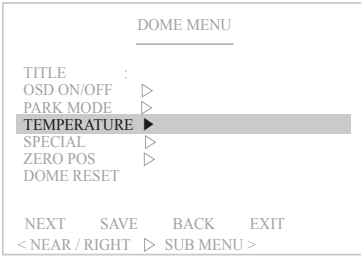
 or

- ON/OFF : Select ON/OFF
- TIME : Select 10 sec~1 HOUR
- MOTION : Set PRESET / TOUR / GROUP /
            SCAN / PATTERN / HOMEPOS
- NUMBER
  PRESET : 1~255
  TOUR : 1~8
  GROUP : 1~6
  SCAN : 1~8
  PATTERN : 1~4

```
                DOME MENU
               _____

TITLE           :
OSD ON/OFF       ▷
PARK MODE        ▶
TEMPERATURE     ▷
SPECIAL          ▷
ZERO POS         ▷
DOME RESET

 NEXT    SAVE    BACK    EXIT
< NEAR / RIGHT  ▷ SUB MENU >
```

```
                PARK MENU
               _____

ON/OFF    : ON
TIME      : -----
MOTION    : ------
NUMBER  :  -----




 BACK
< NEAR / RIGHT  &  ONOFF>
```

4. 3. 4 TEMP MODE

It shows you the current temperature and you can also set the value manually. The compulsory Fan & Heater operation is a useful function to remove humidity.
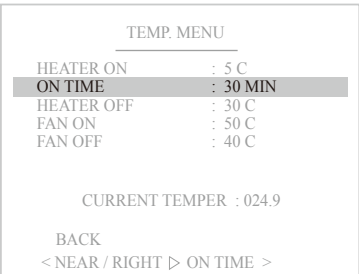
```
                    DOME MENU
                  ─────────────

  TITLE        :
  OSD ON/OFF      ▷
  PARK MODE       ▷
  TEMPERATURE  ▶
  SPECIAL         ▷
  ZERO POS        ▷
  DOME RESET


  NEXT     SAVE     BACK     EXIT
  < NEAR / RIGHT  ▷  SUB MENU >
```

```
               TEMP. MENU
             ────────────────

  HEATER ON          : 5 C
  ON TIME            : 30 MIN
  HEATER OFF         : 30C
  FAN ON             : 50 C
  FAN OFF            : 40 C


        CURRENT TEMPER  : 024.9

    BACK
  < NEAR / RIGHT  ▷ ON TEMP  >
```

(1) HEATER ON

Set the operating temperature of the heater.(0~70℃)

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
               TEMP. MENU
             ────────────────

  HEATER ON          : 5 C
  ON TIME            : 30 MIN
  HEATER OFF         : 30 C
  FAN ON             : 50 C
  FAN OFF            : 40 C


        CURRENT TEMPER  : 024.9

    BACK
  < NEAR / RIGHT ▷ ON TIME  >
```

(2) ON TIME

Set the operating time of the heater.
- By 10min. (10~60 min.)

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
               TEMP. MENU
             ────────────────

  HEATER ON          : 5 C
  ON TIME            : 30 MIN
  HEATER OFF         : 30 C
  FAN ON             : 50 C
  FAN OFF            : 40 C


        CURRENT TEMPER  : 024.9

    BACK
  < NEAR / RIGHT  ▷ OFF TEMP  >
```
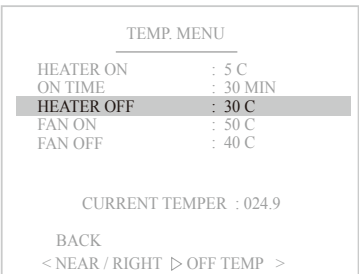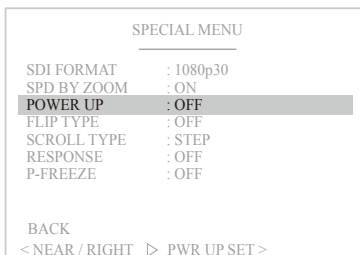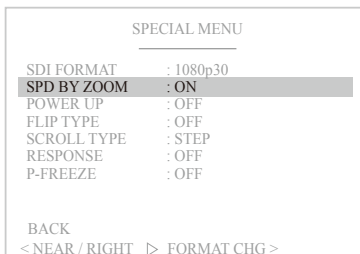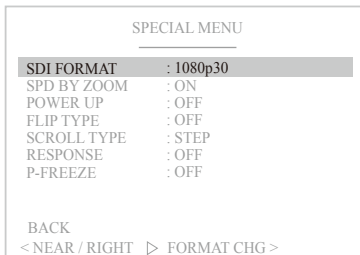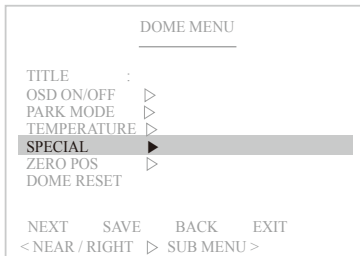
(3) HEATER OFF

Set the temerature of heater OFF. (0~70℃)

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
          TEMP. MENU
    ─────────────────
HEATER ON          :  5 C
ON TIME            :  30 MIN
HEATER OFF         :  30 C
FAN ON             :  50 C
FAN OFF            :  40 C


    CURRENT TEMPER  : 024.9

  BACK
 < NEAR / RIGHT ▷ FAN ON   >
```

(4) FAN ON

Set the operating temperature of the Fan. (0~70℃)

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
          TEMP. MENU
    ─────────────────
HEATER ON          :  5 C
ON TIME            :  30 MIN
HEATER OFF         :  30 C
FAN ON             :  50 C
FAN OFF            :  40 C


    CURRENT TEMPER  : 024.9

  BACK
 < NEAR / RIGHT ▷ FAN OFF  >
```

(5) FAN OFF

Set the temperature of Fan OFF. (0~70℃)

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

4. 3. 5   Special

```
                    DOME MENU
                    ─────────

TITLE         :
OSD ON/OFF       ▷
PARK MODE        ▷
TEMPERATURE   ▷
SPECIAL          ▶
ZERO POS         ▷
DOME RESET


NEXT     SAVE     BACK     EXIT
< NEAR / RIGHT   ▷  SUB MENU >
```

```
                SPECIAL MENU
                ────────────

SDI FORMAT           : 1080p30
SPD BY ZOOM          : ON
POWER UP             : OFF
FLIP TYPE            : OFF
SCROLL TYPE          : STEP
RESPONSE             : OFF
P-FREEZE             : OFF


 BACK
< NEAR / RIGHT   ▷  FORMAT CHG >
```

(1) SDI FORMAT

720p30(25) ∼ 1440p30(25)

* Video format setting depends upon the models.
* Video format is not applied for analogue output.

Select : JOYSTICK   or   NEAR   Set ON : JOYSTICK

Set OFF :   NEAR

```
                SPECIAL MENU
                ────────────

SDI FORMAT           : 1080p30
SPD BY ZOOM          : ON
POWER UP             : OFF
FLIP TYPE            : OFF
SCROLL TYPE          : STEP
RESPONSE             : OFF
P-FREEZE             : OFF


 BACK
< NEAR / RIGHT   ▷  FORMAT CHG >
```

(2) SPEED BY ZOOM

Adjust PAN/Tilt Speed by Zoom ration.
(Available to check with max zoom rate.)

Select : JOYSTICK   or   NEAR   Set ON : JOYSTICK

Set OFF :   NEAR

```
                SPECIAL MENU
                ────────────

SDI FORMAT           : 1080p30
SPD BY ZOOM          : ON
POWER UP             : OFF
FLIP TYPE            : OFF
SCROLL TYPE          : STEP
RESPONSE             : OFF
P-FREEZE             : OFF


 BACK
< NEAR / RIGHT   ▷  PWR UP SET >
```

(3) POWER UP

When this function is ON, the camera memorizes
the latest action and restores, it from sudden power
failure.

Select : JOYSTICK   or   NEAR   Set ON : JOYSTICK

Set OFF :   NEAR

```
            SPECIAL MENU
           ─────────────
  SDI FORMAT        : 1080p30
  SPD BY ZOOM       : ON
  POWER UP          : OFF
  FLIP TYPE         : OFF
  SCROLL TYPE       : STEP
  RESPONSE          : OFF
  P-FREEZE          : OFF

  BACK
< NEAR / RIGHT   ▷  AUTOFLIP >
```

(4) FLIP TYPE

- OFF: TILT movement ranges from 0 ~90°
- AUTO: When TILT move to 90°, PAN 180° automatically reversed moved
- DIGITAL: TILT movement ranges from 0 ~ 180° (Reversal of Image with 90° degree angle.)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
            SPECIAL MENU
           ─────────────
  SDI FORMAT        : 1080p30
  SPD BY ZOOM       : ON
  POWER UP          : OFF
  FLIP TYPE         : OFF
  SCROLL TYPE       : STEP
  RESPONSE          : OFF
  P-FREEZE          : OFF

  BACK
< NEAR / RIGHT   ▷  TYPE >
```
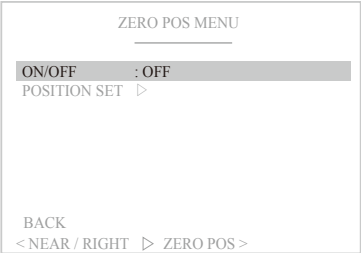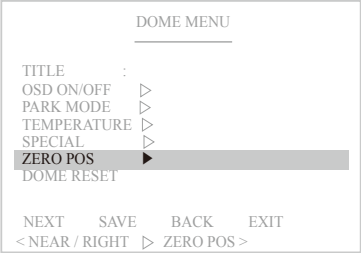
(5) SCROLL TYPE

Set the cursor progress
STEP : by 1 STEP
AUTO : Continuous scroll

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
            SPECIAL MENU
           ─────────────
  SDI FORMAT        : 1080p30
  SPD BY ZOOM       : ON
  POWER UP          : OFF
  FLIP TYPE         : OFF
  SCROLL TYPE       : STEP
  RESPONSE          : OFF
  P-FREEZE          : OFF

  BACK
< NEAR / RIGHT   ▷  ON/OFF >
```

(6) RESPONSE TXD

Tx communication line to transfer the unique value of protocal response.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
            SPECIAL MENU
           ─────────────
  SDI FORMAT        : 1080p30
  SPD BY ZOOM       : ON
  POWER UP          : OFF
  FLIP TYPE         : OFF
  SCROLL TYPE       : STEP
  RESPONSE          : OFF
  P-FREEZE          : OFF

  BACK
< NEAR / RIGHT   ▷  ON/OFF >
```

(7) P-FREEZE

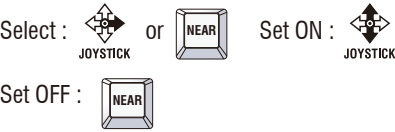The screen is stopped while the camera is operating motion funtion.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

4. 3. 6 ZERO POS

```
              DOME MENU
            ─────────────

  TITLE         :
  OSD ON/OFF      ▷
  PARK MODE       ▷
  TEMPERATURE  ▷
  SPECIAL          ▷
  ZERO POS         ▶
  DOME RESET

  NEXT     SAVE     BACK     EXIT
 < NEAR / RIGHT  ▷ ZERO POS >
```

```
           ZERO POS MENU
          ─────────────

  ON/OFF        : OFF
  POSITION SET   ▷




  BACK
 < NEAR / RIGHT  ▷ ZERO POS >
```

When select ON, the zero position is changeable.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

4. 3. 7 DOME RESET

```
              DOME MENU
            ─────────────

  TITLE         :
  OSD ON/OFF      ▷
  PARK MODE       ▷
  TEMPERATURE  ▷
  SPECIAL          ▷
  ZERO POS         ▷
  DOME RESET

  NEXT     SAVE     BACK     EXIT
 < NEAR / RIGHT  ▷ DOME INIT >
```
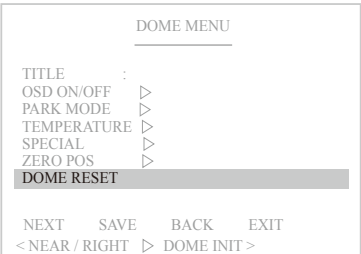
DOME MENU initialization function.

```
        DOME MENU                              DOME NEXT MENU
    ─────────                              ─────────

TITLE        :                         DATA BACK/LOAD    ▶
OSD ON/OFF     ▷                        EXT IR SET        ▷
PARK MODE      ▷                        WIPER SETTING     ▷
TEMPERATURE  ▷                         INIT. SETTING     ▷
SPECIAL        ▷
ZERO POS       ▷
DOME RESET


  NEXT    SAVE    BACK    EXIT            NEXT    SAVE    BACK    EXIT
< NEAR / RIGHT  ▷ TITLE >              < NEAR / RIGHT  ▷ SUB MENU >
```

4. 3. 8   DATA BACK/LOAD : Save or load the Motion, Camera and PTZ Setting Data.

```
       DATA BACK/LOAD                          DATA BACK/LOAD
    ──────────                              ──────────

MOTION          : SAVE                 MOTION          : SAVE      YES  <NO>
CAMERA          : SAVE                 CAMERA          : SAVE
DOME            : SAVE                 DOME            : SAVE
ALL             : SAVE                 ALL             : SAVE
MOTION          : LOAD                 MOTION          : LOAD
CAMERA          : LOAD                 CAMERA          : LOAD
DOME            : LOAD                 DOME            : LOAD
ALL             : LOAD                 ALL             : LOAD

  BACK                                   BACK
< NEAR / RIGHT  ▷ DATA SAVE>           < NEAR / RIGHT  ▷ DATA SAVE>
```

4. 3. 9   EXTERNAL IR SET

```
         EXT IR SET
    ──────────

IR SYNC MODE     : ALS SYNC
IR ILLUMINATE    : HIGHEST
ICR CHG LUX      : 2 LUX
IR CONT. TYPE    : AUTO
IR OFFSET        : 0




  BACK
< NEAR / RIGHT  ▷ SYNC SET>
```

(1) IR SYNC MODE

ALS SYNC : Synchronized in visible light.
ALL ON : IR always on.
ALL OFF : IR always off.
ICR SYNC : Operate External IR connected Camera ICR
※ Factory default is ALS SYNC .

Select : or [NEAR]   Set ON :

Set OFF : [NEAR]

```
         EXT IR SET
    ──────────

IR SYNC MODE     : ALS SYNC
IR ILLUMINATE    : HIGHEST
ICR CHG LUX      : 2 LUX
IR CONT. TYPE    : AUTO
IR OFFSET        : 0




  BACK
< NEAR / RIGHT  ▷ ILLUMINATE >
```

(2) IR ILLUMINATE

HIGHEST : Output the Max.IR light
HIGH : Output the hight level of IR light
LOWEST : Out put the Min. IR light
LOW : Output the low level of IR light
※ Factory default is HIGHEST.

Select : or [NEAR]   Set ON :

Set OFF : [NEAR]

```
        EXT IR SET

IR SYNC MODE      : ALS SYNC
IR ILLUMINATE     : HIGHEST
ICR CHG LUX       : 2 LUX
IR CONT. TYPE     : AUTO
IR OFFSET         : 0




 BACK
< NEAR / RIGHT  ▷ ICR LUX >
```

(3) ICR CHG LUX

Set the Day / Night ICR illumination. (0.5~20)

※ Factory default is 2 LUX.

※ Support ALS Sync Mode only.

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
        EXT IR SET

IR SYNC MODE      : ALS SYNC
IR ILLUMINATE     : HIGHEST
ICR CHG LUX       : 2 LUX
IR CONT. TYPE     : AUTO
IR OFFSET         : 0




 BACK
< NEAR / RIGHT  ▷ IR CONT. TYPE>
```

(4) IR CONT. TYPE

Select AUTO or MANUAL mode in IR Zoom function.

AUTO : CAMERA , IR ZOOM

MANUAL : IR ZOOM

※ factory default is AUTO.

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
        EXT IR SET

IR SYNC MODE      : ALS SYNC
IR ILLUMINATE     : HIGHEST
ICR CHG LUX       : 2 LUX
IR CONT. TYPE     : AUTO
IR OFFSET         : 0




 BACK
< NEAR / RIGHT  ▷ IR OFFSET>
```

(5) IR OFFSET

Set the IR sensitivity. (-4~4)

※ Factory default is 0

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

4. 3. 10 WIPER SETTING

```
       WIPER SETTING

WIPER MODE        : OFF MODE
WIPER POSITION    : RIGHT
WIPER INT. TIME   : XXXX
WIPER ON TIME     : XXXX




 BACK
< NEAR / RIGHT  ▷ WIPER MODE >
```

(1) WIPER MODE

Select ON MODE / OFF MODE / TIME SET to use the wiper function.
（Default : OFF MODE)

Select : JOYSTICK or NEAR   Set ON : JOYSTICK

Set OFF : NEAR

```
        WIPER SETTING

WIPER MODE        : ON MODE
WIPER POSITION    : RIGHT
WIPER INT. TIME   : XXXX
WIPER ON TIME     : 10MIN




 BACK
< NEAR / RIGHT  ▷ WIPER POS.>
```

(2) WIPER POSITION

Set wiper position function.

Select : [JOYSTICK]   or   [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
        WIPER SETTING

WIPER MODE        : TIME SET
WIPER POSITION    : RIGHT
WIPER INT. TIME   : 8MIN
WIPER ON TIME     : ALWAYS




 BACK
< NEAR / RIGHT  ▷ WIPER TIME>
```
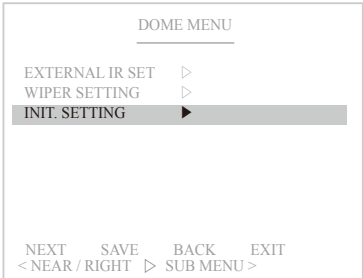
(3) WIPER INTERVAL TIME

10SEC ~ 4HOUR

The wiper will be operated on as the time set on the interval.

* The wiper will be operated during the time set on the Wiper On Time.

Select : [JOYSTICK]   or   [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

```
        WIPER SETTING

WIPER MODE        : ON MODE
WIPER POSITION    : RIGHT
WIPER INT. TIME   : XXXXX
WIPER ON TIME     : <ALWAYS>




 BACK
<CHANGE▷UP/DN  SEL▷NEAR>
```

(4) WIPER ON TIME

1MIN ~ ALWAYS

The wiper will be operated during the time set on the Wiper On Time.

Select : [JOYSTICK]   or   [NEAR]   Set ON : [JOYSTICK]

Set OFF : [NEAR]

4. 3. 11   INIT. SETTING MENU

```
            DOME MENU
         ─────────────

EXTERNAL IR SET      ▷
WIPER SETTING        ▷
INIT. SETTING        ▶




NEXT    SAVE    BACK    EXIT
< NEAR / RIGHT   ▷  SUB MENU >
```

This function performs re-energization of the product and
the initialization operation continuously after the specified
time has elapsed.

```
         INIT. SETTING

INIT. MODE          : <ON>
INIT. TIME          : XXXXX





  BACK
<CHANGE▷UP/DN   SEL▷NEAR>
```
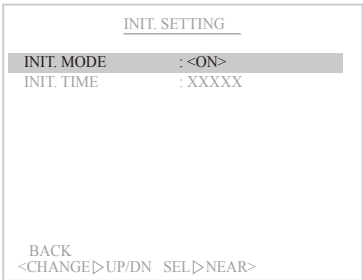
INIT. MODE : OFF, ON

(1) INIT. Setting

Set whether to use the initialization operation function
when the specified time has elapsed.
※ Factory default value is OFF

Select :   JOYSTICK   or   NEAR   Set ON :   JOYSTICK

Set OFF :   NEAR

```
         INIT. SETTING

INIT. MODE          : <ON>
INIT. TIME          : 2 DAYS





  BACK
<NEAR/RIGHT  ▷TIME  >
```

(2) INIT. TIME

Set the cycle to perform the initial operation.
After the product is turned off, initialization is performed
at each startup time.
12 hours / 1 day / 2 days / 3 days / 5 days
It can be selected when INIT.MODE is ON.

Select :   JOYSTICK   or   NEAR   Set ON :   JOYSTICK

Set OFF :   NEAR
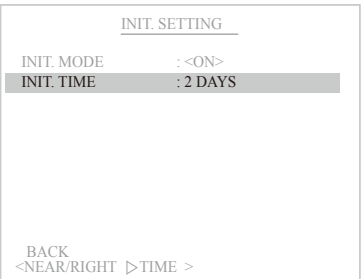
4. 4   Clear Setting

Clears the PTZ position and function value.   Select : ⊕ JOYSTICK   or [NEAR]   Set ON : ⊕ JOYSTICK   Set OFF : [NEAR]

```
              MAIN MENU
         ─────────────────

   MOTION      ▷
   DOME        ▷
   CAMERA      ▷
   CLEAR       ▶
   FACTORY SET
   PTZ RESET

    EXIT
   < NEAR / RIGHT   ▷   CLEAR>
```

```
              CLEAR MENU
         ─────────────────

   PRESET    <X>        ALARM        X
   TOUR       X         PRIVACY      X
   GROUP      X         HOME POS.    X
   SCAN       X         ZERO POS.    X
   PATTERN    X         MOTION ALL   X
   AREA       X


   < ON ▷ TELE   BACK ▷ NEAR>
   < OFF ▷ WIDE   EXIT ▷ FAR  >
```

4. 5   Factory set

```
              MAIN MENU
         ─────────────────

   MOTION       ▷
   DOME         ▷
   CAMERA       ▷
   CLEAR        ▷
   FACTORY SET
   PTZ RESET

    EXIT
   < NEAR / RIGHT   ▷   FACTORY SET>
```

Clear the DOME, CAMERA and MOTION setting value.

⚠

Restore setting values to the factory default.
All existing setting value will be erased.

4. 6   PTZ Reset

```
              MAIN MENU
         ─────────────────

   MOTION      ▷
   DOME        ▷
   CAMERA      ▷
   CLEAR       ▷
   FACTORY SET
   PTZ RESET

    EXIT
   < NEAR / RIGHT   ▷   PTZ RESET >
```

It is a reset function.

4. 7   Other Quick Opercating Guide

ICR AUTO (ON) = 240 + F1 Long Preset
ICR DAY (ON) = 241 + F1 Long Preset
ICR NIGHT (ON) = 242 + F1 Long Preset
WIPER (ON / OFF) = 244 + F1 Long Preset
HEATER (ON / OFF) = 245 + F1 Long Preset
IR ZOOM (AUTO / MANUAL) = 248 + F1 Long Preset
LIGHT (ON / OFF) = 252 + F1 Long Preset
INFO (ON / OFF) = 255 + F1 Long Preset

5. SPECIFICATION

5. 1   Mechanism Specification

5. 1. 1   MECHANICAL

- Pan   : 360°Continuous Pan, 0.1° to 120°/sec (proportional to zoom)
- Pan Preset Speed   : 250°/sec, ± 0.1° Accuracy
- Tilt   : -8º(352º) to 90º(188º) movement, 0.8°~80°/sec (proportional to zoom)
- Tilt Preset Speed   : 250°/sec, ± 0.05° Accuracy
- Weight   : Approximately 6.8 Kg(MECHANICAL)
- Dimensions Set   : 231(Ø) x 385(mm)

5. 1. 2   ENVIRONMENTAL

- Construction   : Aluminum
- Ingress Protection   : IP66 (Outdoor Housing)
- Operating Temp   : Outdoor -40°C to 60°C (-40° F to 140° F)/ with 30W Heater
- Humidity   : 0% to 90% (non-condensing)
- Fan operate   : 50°C on , 40°C off
- Heater operate   : 5°C on , 15°C off

5. 1. 3   FUNCTIONS

- Preset   : 255 points, less than 0.1° accuracy
- Tour   : 8 programmable
- Group   : 6 group(Max.6 Tours are programmable in each Group)
- Scan   : 8 (programmable speed and diagonal scan)
- Pattern   : 4 patterns for 60 second.
- Area   : 16 Area
- Alarm   : 8 alarm
- Privacy Zone   : 8 block with title (Mask)
- ID Address   : Up to 255 selectable ID (Rotary switch)
- Data Communication Control : RS-485 / RS-422 / UCC(Only PELCO D / Baud 9600)
- Protocol   : Multiple protocol (PELCO D/P, WTX, EZP)
- Baud rate   : 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps selectable

5. 1. 4   ELECTRICAL
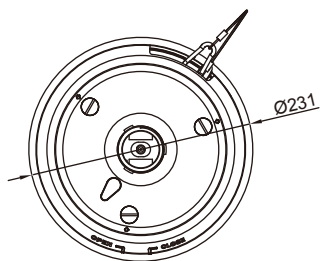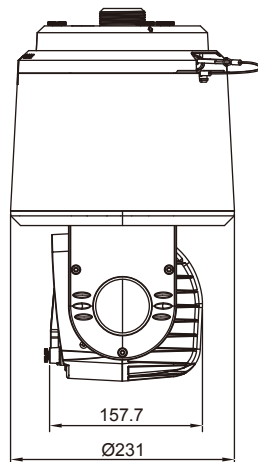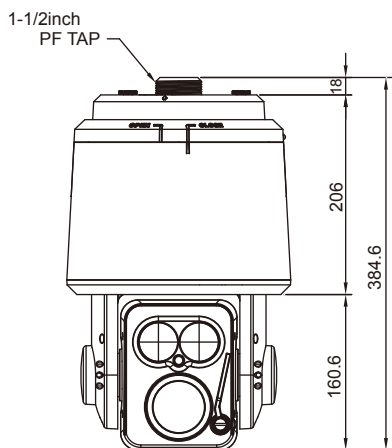
- Power   : AC21~26V 60Hz / 50Hz(Power adaptor not included)
- Consumption   : Operation(5A) / MAX 6A
- Fan & Heater   : 10 W / 30 W
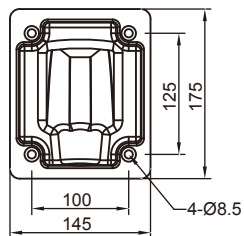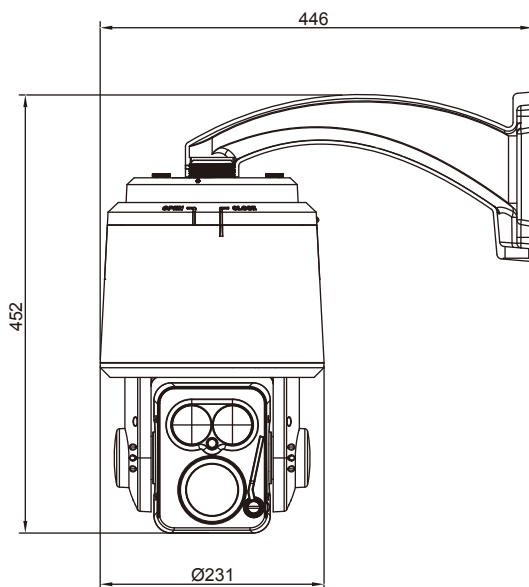
5. 1. 5   USER CONNECTIONS

- Data communication connection : RS-422, 485   + / - Optional Control Data
- SDI connection   : BNC
- Alarm Inputs   : 8 Programmable
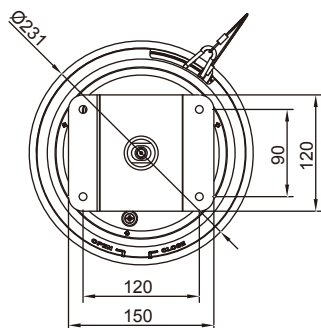- Relay   : 2 Dry Contact Output Rating: 2A @30VAC

6. DIMENSION

6. 1   DIMENSION

1-1/2inch
PF TAP

18
206
384.6
160.6

157.7
Ø231

Ø231

446

452

Ø231

OPEN ← → CLOSE

175
125
100
145
4-Ø8.5

VIEW "A"