INSTRUCTION MANUAL Ver 1.0

Speed Dome Camera / SE Series

DOME 5" | 220X ZOOM | DAY & NIGHT | ON SCREEN DISPLAY 123 | 360° CONTINUOUS | 240°/sec SPEED | 0.1°/sec LOW SPEED | PRESET 64 | SWING 8 | GROUP 8 | VECTOR MOTION | ALARM 2 IN / 2 OUT | DC 12V
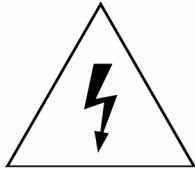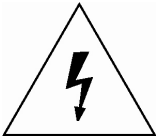
CAUTION

RISK OF ELECTRIC
SHOCK DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS.
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONAL.

This lightning flash with arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING : TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE
THIS CAMERA TO RAIN OR MOISTURE.

Important Safeguard

1. **Read Instructions**

   Read all of the safety and operating instructions before using the product.

2. **Retain Instructions**

   Save these instructions for future reference.

3. **Attachments / Accessaries**

   Do not use attachments or accessories unless recommended by the appliance manufacturer as they may cause hazards, damage product and void warranty.

4. **Water and Moisture**

   Do not use this product near water or moisture.

5. **Installation**

   Do not place or mount this product in or on ana unstable or improperly supported location. Improperly installed product may fall, causing serious injury to a child or adult, and damage to the product. Use only with a mounting device recommended by the manufacturer, or sold with the product. To insure proper mounting, follow the manufacturer's instructions and use only mounting accessories recommended by manufacturer.

6. **Power source**

   This product should be operated only from the type of power source indicated on the marking label.

Precautions

❑ **Operating**

- Before using, make sure power supply and others are properly connected.
- While operating, if any abnormal condition or malfunction is observed, stop using the camera immediately and then contact your local dealer.

❑ **Handling**

- Do not disassemble or tamper with parts inside the camera.
- Do not drop or subject the camera to shock and vibration as this can damage camera.
- Care must be taken when you clean the clear dome cover. Especially, scratch and dust will ruin your quality of camera.

❑ **Installation and Storage**

- Do not install the camera in areas of extreme temperature, which exceed the allowable range.
- Avoid installing in humid or dusty places.
- Avoid installing in places where radiation is present.
- Avoid installing in places where there are strong magnetic fields and electric signals.
- Avoid installing in places where the camera would be subject to strong vibrations.
- Never expose the camera to rain and water.

CONTENTS

Features

❑ Camera Specifications

- CCD Sensor   : 1/4" Super HAD CCD

- Zoom Magnification : × 22 Optical Zoom, × 10 Digital Zoom (Max. × 220 Zoom in Total)

- Day & Night Function → SE-x22DC Model

❑ Powerful Pan/Tilt Functions

- Max. 240°/sec high speed Pan/Tilt Motion

- Using Vector Drive Technology, Pan/Tilt motions are accomplished in a shortest path. As a result, time to target view is reduced dramatically and the video on the monitor is very natural to watch.

- For jog operation using a controller, since ultra slow speed 0.1°/sec can be reached, it is very easy to locate camera to desired target view.

❑ Preset, Swing and Group Functions

- Max. 64 sets of position and zoom magnification are designated and stored as Preset. For each Preset, additional information such as Dwell time (pause time in Group action when camera reaches to a certain Preset position), Alarm action and area Label can be assigned independently to meet to your requirements.

- 8 of Swing action can be stored. This enables to move camera repetitively between two preset positions with designated speed.

- 8 set of Group action can be stored. This enables to move camera repetitively with combination of Preset or Swing. A Group is composed of max. 20 entities of Preset or Swings.

❑ PTZ Control

- With RS-485 communication, max. 255 of cameras can be controlled at the same time.

- Pelco-D or Pelco-P protocol can be selected as a control protocol in the current version of firmware.

### ❑ OSD(On Screen Display) Menu

- OSD menu is provided to display the status of camera and to configure the functions interactively.

- The information such as Camera ID, Pan/Tilt angle, Alarm I/O, Preset info can be displayed on the screen.

❑ Alarm I/O Functions

- 2 alarm sensor Inputs and 2 alarm Output relays are available.

- To reject external electric noise and shock perfectly, alarm sensor Input is decoupled with photo coupler and the relay is used for alarm output.

- The signal range of sensor input is from DC 5.0 to 12.0 volts to adopt various applications. Meanwhile, the maximum load of relay contact is AC 250V, 5A or DC 28V, 5A.

- If an external sensor is activated, camera can be set to move to the corresponding Preset position. Meanwhile, the output relay can be matched to some specific Preset positions to do counteractions such as turning on the light or sound the alarm.

Product & Accessories

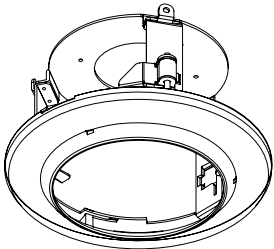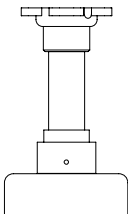❑ Product & Accessories
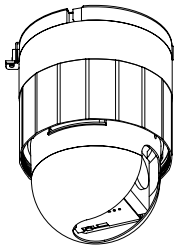
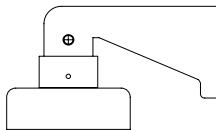● Camera Body   ● Dome Cover   ● Screws

❑ Options

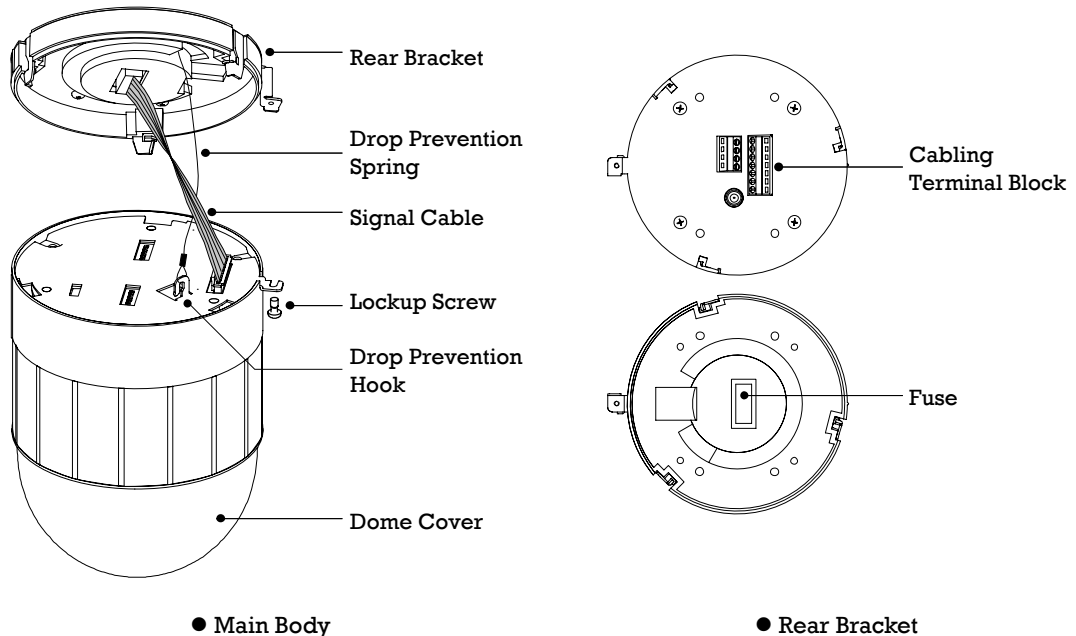● In-Ceiling Mount Bracket   ● Ceiling Mount Bracket   ● Wall mount bracket

(SBI-100)   (SBC-100)   (SBW-100)

Parts Name & Functions

● Main Body   ● Rear Bracket

|	
● Dome Cover	Care must be taken when you clean the clear dome cover. Since scratch, finger print and dust on the dome cover will ruin quality of camera, do not remove the vinyl tape on cover before installation is completed.
● Rear Bracket	This rear bracket is used to install the camera directly on the ceiling or attach to the other brackets such as wall, ceiling, and outdoor mount. After separating this bracket first and then attach this directly to ceiling or to the other bracket. Camera must be assembled at the last stage.
● Drop Prevention Spring Drop Prevention Hook	This part keeps the camera from dropping during installation and maintenance. After install the Rear Bracket, please, hang the spring to the drop prevention hook of main body as shown in picture for further tasks.
● Signal Cable	Do not forget to connect this cable before you assemble Rear bracket and Main body of camera.
● Lockup Screw	Tighten this screw to fix the camera into the bracket after you assemble Rear bracket and Main body by turning the Main body.
● Fuse	If the fuse is burnt to protect your came from over-current damage, the fuse have to be replace with new one. The fuse specification is 250V 2A. However, we recommend consulting with supplier to remove the cause of over-current.
● Cabling Terminal Block	During installation, Power, Video, Communication, Alarm I/O cables are connected on to this cabling terminal block.

Rear Bracket Disassembling

① Remove the fixing screw as shown bellow.

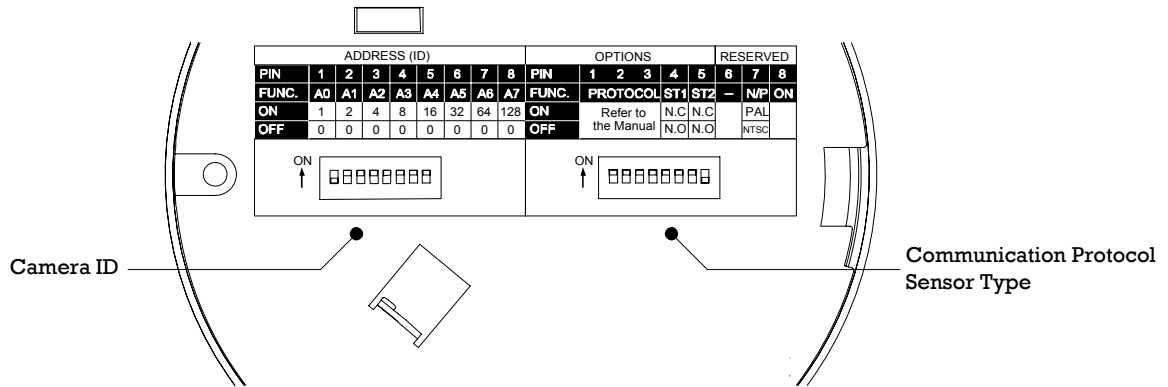② Dismantle the Rear bracket by turning main body about 15°.

15°
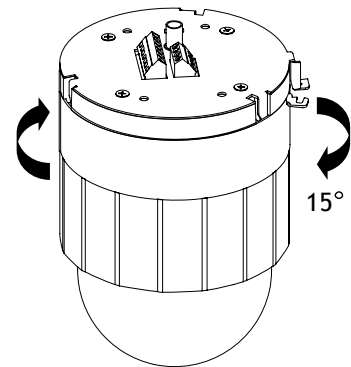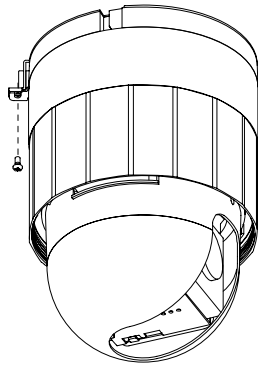
Rear Bracket Assembling

① After you locate the internal cable properly, place the Rear Bracket on to Main body by considering the matching line of both parts as show in picture bellow. Then, slightly turn the Rear Bracket clockwise to assemble.
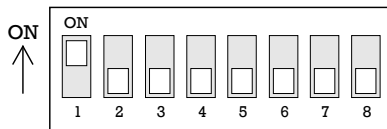
② Tighten the fixing screw as shown bellow.
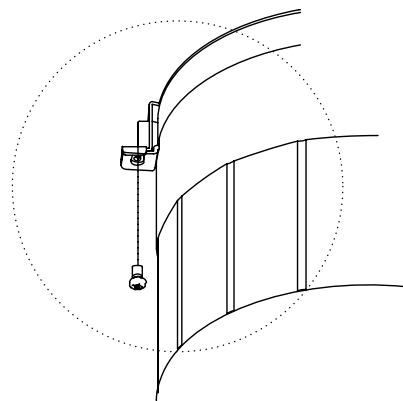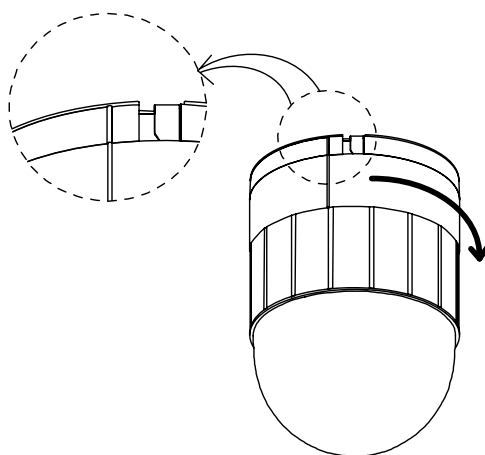
DIP Switch Setup

Before you install the camera, you should set the DIP switches to configure the camera ID, communication protocol.


	ADDRESS (ID)									OPTIONS					RESERVED		
PIN	1	2	3	4	5	6	7	8	PIN	1	2	3	4	5	6	7	8
FUNC.	A0	A1	A2	A3	A4	A5	A6	A7	FUNC.	PROTOCOL			ST1	ST2	—	N/P	ON
ON	1	2	4	8	16	32	64	128	ON	Refer to the Manual			N.C	N.C		PAL	
OFF	0	0	0	0	0	0	0	0	OFF				N.O	N.O		NTSC	

Camera ID

Communication Protocol
Sensor Type

❑ Camera ID Setup

● ID number of camera is set using binary number. The example is shown bellow.

Pin	1	2	3	4	5	6	7	8
ID Value	1	2	4	8	16	32	64	128
ex) ID=5	on	off	on	off	off	off	off	off
ex) ID=10	off	on	off	on	off	off	off	off

● The range of ID is 1~255. Do not use 0 as camera ID. Factory default of Camera ID is 1.

● If you want to control a certain camera, you must match the camera ID with Cam ID setting of DVR or Controller. Don't forget Camera ID.

❑ Communication Protocol Setup
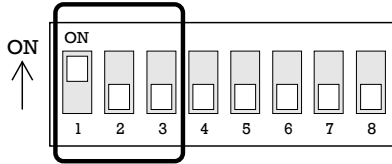
● Select the appropriate Protocol with DIP switch combination.

Switch State			Protocol/Baud rate
Pin 1	Pin 2	Pin 3	
OFF	OFF	OFF	PELCO-D, 2400 bps
ON	OFF	OFF	PELCO-D, 9600 bps
OFF	ON	OFF	PELCO-P, 4800 bps
ON	ON	OFF	PELCO-P, 9600 bps
Otherwise			Reserved

● If you want to control using DVR or P/T controller, their protocol must be identical to camera. Otherwise, you can not control the camera.

● If you changed camera protocol by changing DIP S/W, the change will be effective after you reboot the camera.

● Factory default of protocol is 'Pelco-D, 2400 bps.

❑ Sensor Type Setup
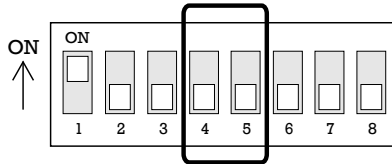
● If you want to use Alarm Input, the types of sensor must be selected. The sensor types are Normal Open and Normal.

⊙ Normal Open　　Output Voltage is high state when sensor is activated.

⊙ Normal Close　　Output Voltage is high state when sensor is not activated.

Pin No.	Switch State	Sensot Type
Pin4	ON	Sensor 1 : Normal Close Type
	OFF	Sensor 1 : Normal Open Type
Pin5	ON	Sensor 2 : Normal Close Type
	OFF	Sensor 2 : Normal Open Type

● If sensor type is not selected properly, the alarm can be activated reversely.

❑ Reserved for Supplier
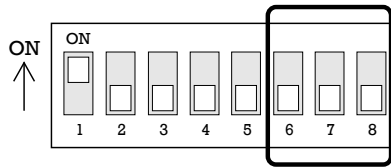
● Since Pin 6 ~ Pin 8 is only for supplier, <u>DO NOT CHANGE THESE ITS ORIGINAL STATE</u>. If you change one of these, proper operation can not be achieved.

    ⊙ Pin 6   Reserved for future upgrade.

    ⊙ Pin7   PAL / NTSC system selection of Camera.

    ⊙ Pin 8   Factory default is ON state. This pin is used for system firmware upgrade. <u>DO NOT CHANGE THIS PIN</u>.

Direct Installation on the Ceiling

① To pass cables to upside of ceiling, please, make about 50~60mm hole on the ceiling panel.

② Attach the Rear Bracket to the Ceiling Plate.
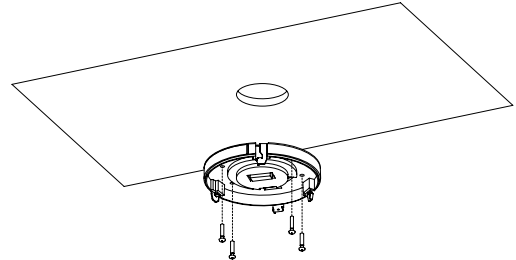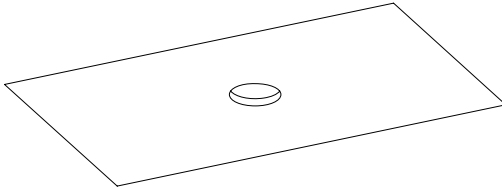
③ After install the Rear Bracket, please, hang the spring to the hook of the Main body. And plug the connector cable properly.

④ After you locate the internal cable properly, place the Rear Bracket on to Main body by considering the matching lines of both parts as show in picture bellow. Then, slightly turn the Rear Bracket clock-wise to assemble.
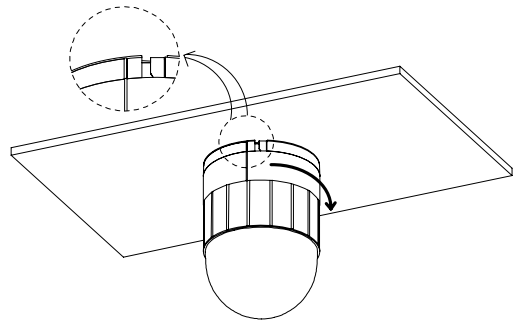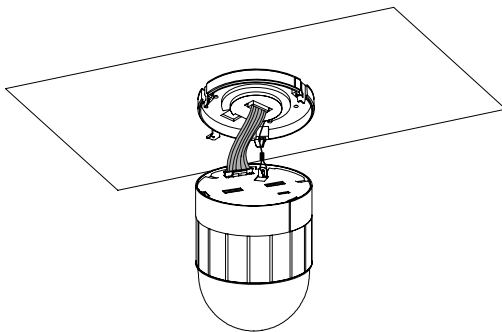
⑤ Tighten the fixing screw as shown bellow.
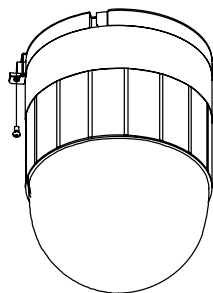
Installation using In-Ceiling Mount Bracket (SBI-100)

① Cut the panel of Ceiling as shown bellow.

3-φ35

φ165

120°   120°

Hole Dimension(mm)
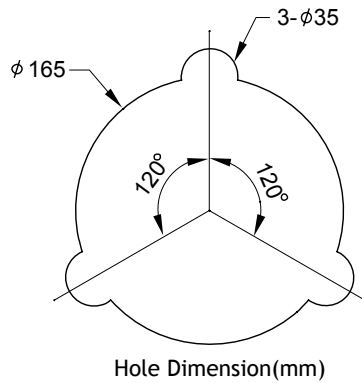
② Assemble Rear bracket of camera to the In-Ceiling Mount Bracket as shown bellow.
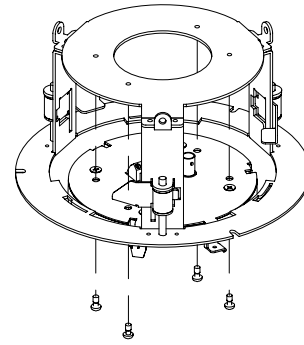
③ Place the In-Ceiling Mount Bracket into the hole of Panel made in step ①.
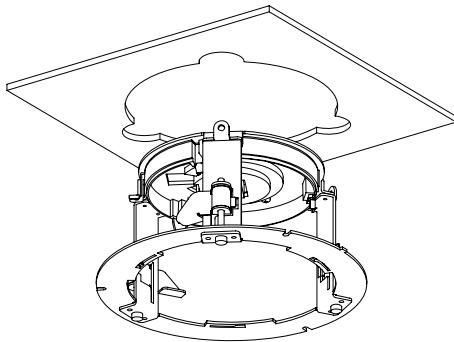
④ Fasten 3 screws to fix the In-Ceiling Mount Bracket. The 3 legs of bracket must be located properly .
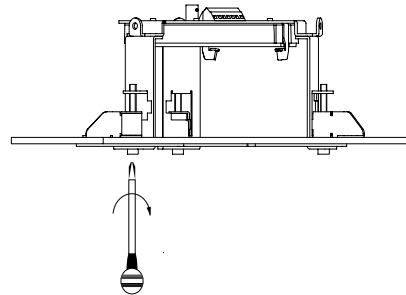
⑤ After Insert the camera from bottom, please, hang the spring to the hook of the Main body. And plug the connector cable properly.
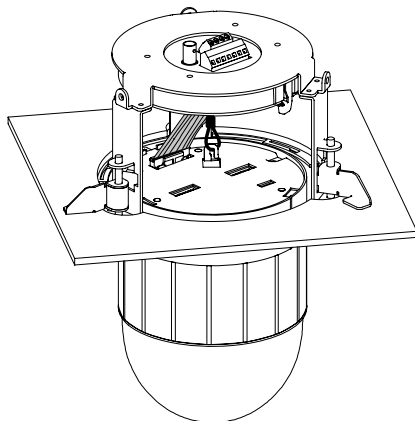
⑥ After you locate the internal cable properly, place Main body to the Rear Bracket by considering the matching lines of both parts. Then, slightly turn the camera clock-wise to assemble.
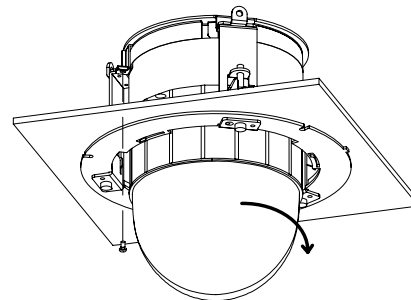
⑦ To assemble Deco. Ring, please, place side cut of
Deco. Ring into contact with protrusion of in-ceiling
mount as shown in the figure. Then, turn the deco.
Ring clock-wise.

Installation using Ceiling Mount Bracket (SBC-100)

① To pass cables to upside of ceiling, please, make about 50~60mm hole on the ceiling panel and attach the Ceiling mount bracket on it.

② Assemble the Rear Bracket of camera on to Ceiling mount bracket.
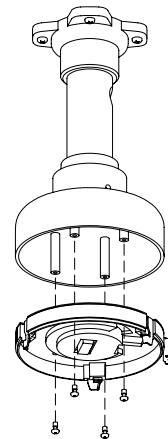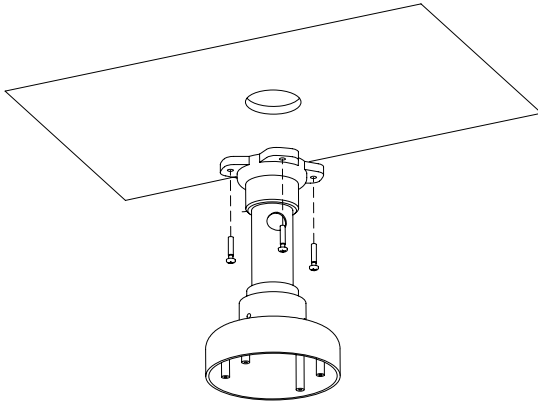
③ After install the Rear Bracket, please, hang the spring to the hook of the Main body. And plug the connector cable properly.

④ After you locate the internal cable properly, place Main body to the Rear Bracket by considering the matching lines of both parts. Then, slightly turn the camera clock-wise to assemble .
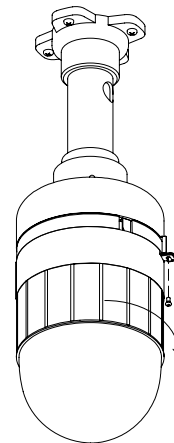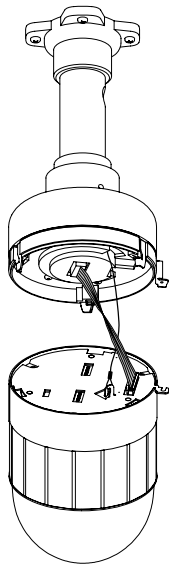
Installation using Wall Mount Bracket (SBW-100)

① After removing the back plate of wall mount bracket, attach the back cover on to the wall. After hang the wall mount bracket on to back plate, tighten the screw in the bottom to fix. Make sure cable is passed though properly.

② Assemble the Rear Bracket of camera on to wall mount bracket.
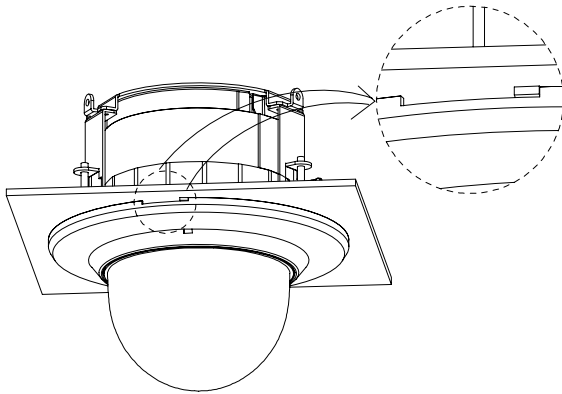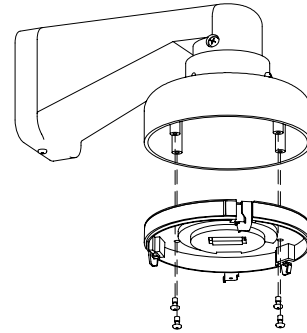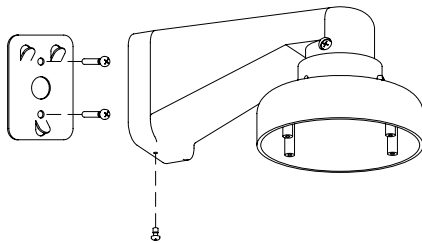

③ After install the Rear Bracket, please, hang the spring to the hook of the Main body. And plug the connector cable properly.

④ After you locate the internal cable properly, place Main body to the Rear Bracket by considering the matching lines of both parts. Then, slightly turn the camera clock-wise to assemble.
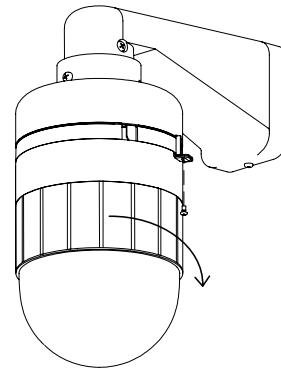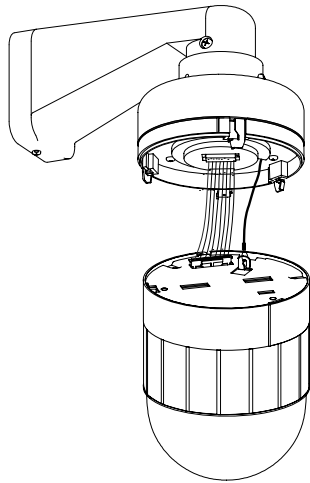
Cabling
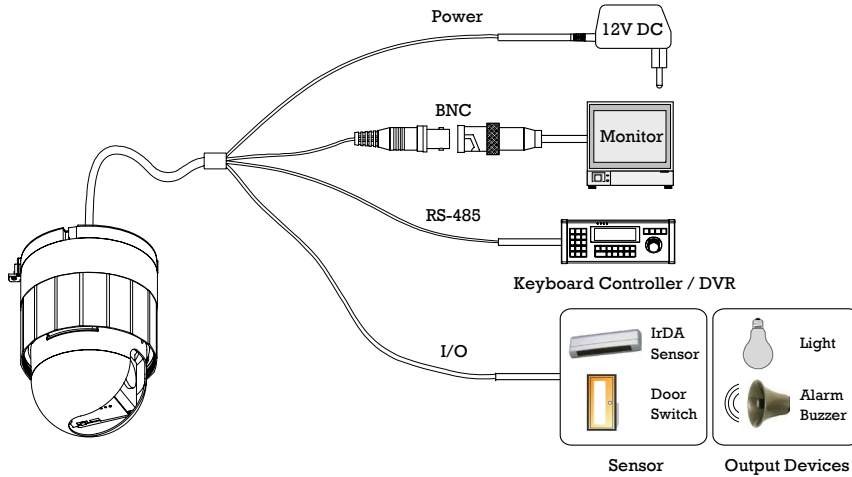
❑ Power Connection

- Please, check the voltage and current capacity of power carefully. The rated electrical power to operate this camera is DC 12V / 1A. The current must be 1A or higher.

- Be careful with polarity of power, the polarity is molded on the connector. If reverse polarity is applied, the camera will be damaged seriously.

❑ Video Connection

- Connect with BNC coaxial cable.

❑ RS-485 Communication

- For PTZ control, connect this line to keyboard and DVR. To control multiple cameras at the same time, RS-485 communication lines of them is connected in parallel as shown below.
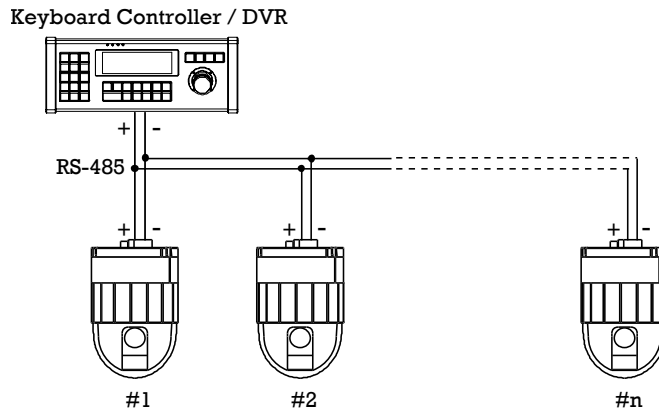
❑ Alarm I/O Connection

● Sensor Input
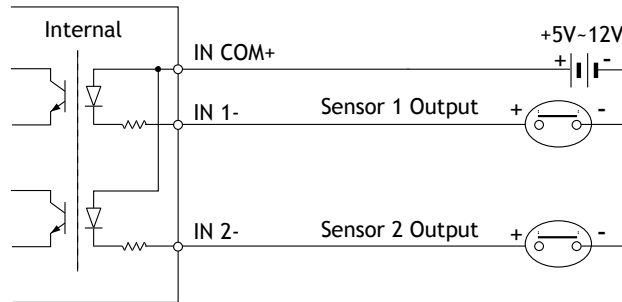
Before connecting sensors, check driving voltage and output signal type of the sensor. Since output signal types of the sensors are divided into Open Collector and Voltage Output type in general, the cabling must be done properly after considering these typed. Also, the sensor type, i.e. "Normal Open" or "Normal Close" in Dip switch in Rear bracket of camera must be set properly.

Signal	Description
IN COM+	Connect (+) cable of electric power source for Sensors to this port as shown in the circuit above.
IN1 -, IN2 -	Connect output of sensors for each port as shown in the circuit above.

● Relay Output
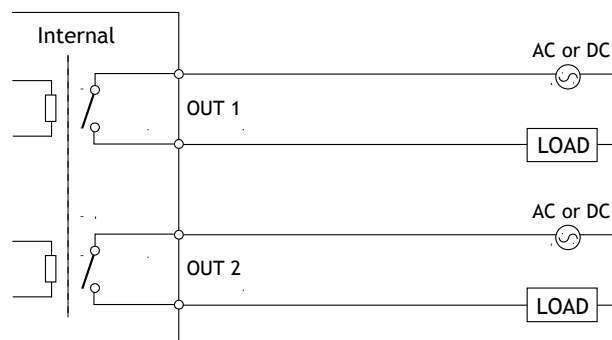
Maximum allowable electrical load of relay is shown bellow table.

Drive Power	DC Power	AC 110V Power	AC220V Power
Max. Load	DC 28V, 5A	AC110V, 10A	AC250V, 5A

Check points before operation

- Before power is applied, please, check the cables carefully.

- The camera ID of the controller must be identical to that of the target camera. The camera ID can be checked by reading DIP switch of the camera.

- If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.

- If you changed camera protocol by changing DIP S/W, the change will be effective after you reboot the camera.

- Since the operation method can be different for each controller available, refer to the manual for your controller if camera can not be controlled properly. The operation of this manual is based on the standard Pelco® Controller.

Starting OSD Menu

- Function

Using the OSD menu, Preset, Swing, Group and Alarm I/O function can be configured for each application.

- Start Menu

After type the numeric key **95,** press the **Preset** key to start OSD menu.

[**95**] + [**Preset**]

Reserved Preset

- Description

Some Preset numbers are reserved to special functions.

- Function

Preset 95	: Menu Select
Preset 71~78	: Swing Move
Preset 81~88	: Group Move
Preset 91~92	: Relay Output Control

Relay Ouput Control

- Function

From keyboard or DVR, the relay output can be controlled by using Preset function. It is noted that the output can be changed according to preset settings if you send the preset command.

- To set "ON"

After typing (Relay Number + 90), press **Preset** key longer than 2 seconds.

[**91~92**] + [**Preset**] (longer than 2 sec.)

Ex) To set "ON" Relay 1: [91] + [Preset] (longer than 2 sec)
   To set "ON" Relay 2: [92] + [Preset] (longer than 2 sec)

- To set "OFF"

After typing (Relay Number + 90), press **Preset** key.

[**91~92**] + [**Preset**]

Ex) To set "OFF" Relay 1: [91] + [Preset]
   To set "OFF" Relay 2: [92] + [Preset]

Preset

- Function
  Max. 64 positions can be stored as Preset position. Using Preset key together with numeric keys in the controller, Preset can be stored or executed quickly. If you want to change the factory default of Preset configuration (i.e. Label of preset is blank, Dwell time is 3 sec and Relay out is OFF.), those settings for each preset can be configured using the OSD menu.

- Set Preset
  After you type **1 ~ 64** numeric key, press Preset key for longer than 2 seconds.

  [**1 ~ 64**] + [**Preset**] (press longer than 2 seconds)

- Run Preset
  After you type **1 ~ 64** numeric key, press Preset key shortly.

  [**1 ~ 64**] + [**Preset**] (press shortly)

- Delete Preset
  To delete Preset, use OSD menu.

Swing

- Function
  By using Swing function, we can make camera to move between 2 Preset positions repeatedly. Swing speed can be selected from 3 steps i.e. FAST, NORMAL and SLOW. To maintain observing capability regardless of zoom, the swing speed is automatically adjusted to be proportional to zoom magnification. When zoom magnification is x1, the nominal speed for FAST, NORMAL and SLOW mode is 60°/sec, 30°/sec and 15°/sec respectively.

- Set Swing
  To set Swing, use OSD menu.

- Run Swing
  < Using controller with **Pattern** key >

  After you type a numeric key Swing No. + 10 (i.e. **11~18),** press Pattern key in the controller.

  [**11~18**] + [**Pattern**]   Ex) If Swing number is 3, press 13 + **Pattern**

  < Using controller without **Pattern** key >

  After type 70+Swing No. (i.e. **71~78**), press Preset key in the controller.

  [**71~78**] + [**Preset**]   Ex) If Swing number is 3, press 73 + **Preset**

- Delete Swing
  To delete Swing, use OSD menu.

Group

● Function

The group function allows running sequence of Presets and/or Swings. Max 8 group can be stored. Each group can have max 20 action entities which can be preset or swing. The group can be created, modified and deleted using menu. Also, dwell time defined in the preset menu is effective when group is running.

Dwell Time

Preset 1 → Preset 5 ------------→ Swing 1

Max 20 Entities
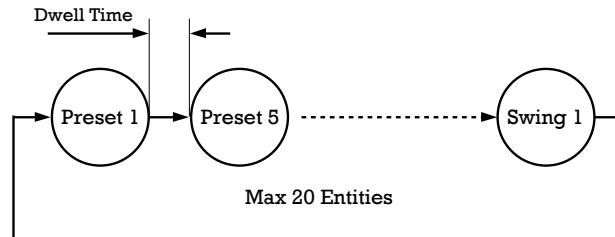
● Set Group

Use OSD Menu to create a Group.

● Run Group

< Using controller with **Pattern** key >

After you type a numeric key 20+Group No. (i.e. **21~28),** press **Pattern** key in the controller.

[**21~28**] + [**Pattern**]   Ex) If group number is 5, press 25 + **Pattern**

< Using controller without **Pattern** key >

After type 80+Group No. (i.e. **81~88)**, press **Preset** key in the controller.

[8**1~88**] + [**Preset**]   Ex) If Swing number is 5, press 85 + **Preset**

● Delete Group

Use OSD Menu to delete.

Other Functions

- Power Up Action

This function enables to resume the last action executed before power down. Most of actions such as Preset, Swing and Group are available for this function but Jog actions are not available to resume.

- Park Action

This function enables to locate the camera to specific position automatically if operator doesn't operate the controller for a while. The Park Time can be defined as a interval from 1 min. to 4 hours.

- Origin Position

Using this function, the Origin position can be defined by operator. The Pan angle display will be changed if you change the origin position. It is noted that tilt angle is not affected by this function. The factory default of origin is the canter of pan range i.e. home position.

- Alarm I/O

2 Alarm Input and 2 Alarm output (Relay output) are used. If an external sensor is activated, camera can be set to move to corresponding preset position. Also, the output relay can be matched to some specific preset positions to do counteractions such as turning on the light or sounding the alarm. It is noted that the latest alarm input is effective if multiple sensors are activated.

OSD Display of Main Screen

```
┌─────────────────────────────┐
Preset Label ──●LABEL12345        PRESET 1●── Action Title
│                             │
│                             │
│                             │
│                             │
│                             │
│                    I:1- O:-2●── Alarm Information
Camera ID ──●CAM 1    28/-42 x1●── P/T/Z Information
└─────────────────────────────┘
```
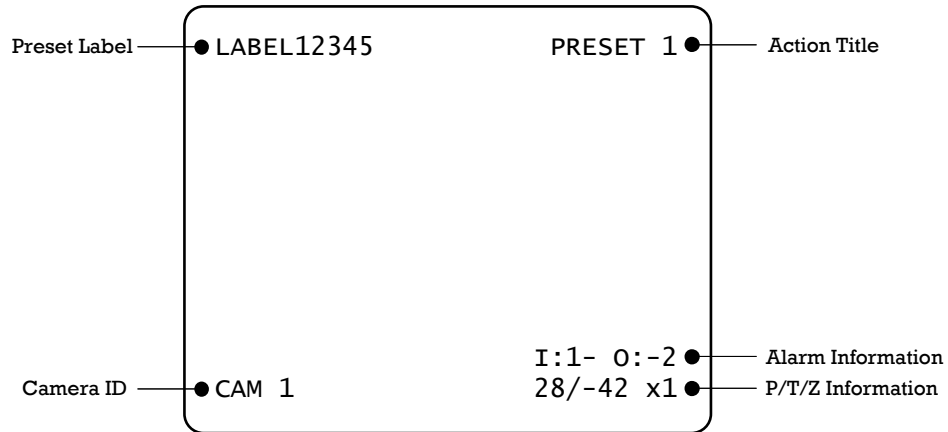
- P/T/Z Information   Current Pan/Tilt angle in degree and zoom magnification.

- Camera ID   Current Camera ID.

- Action Title   Followings are possible Action Titles and their meaning.

    "SET PRESET ××"   When Preset xx is stored

    "PRESET ××"   When camera reach to Preset xx

    "UNDEFINED"   When undefined Preset number is called to move

    "SWG ×-PRESET ××"   When Swing x is in action

    "PARKING"   When Park function is executed

- Preset Label   The Label stored for specific Preset.

- Alarm Information   This information shows current state of Alarm I/O. The character 'O' stands for Output and 'I' means Input. If an I/O point is **ON** state it will show a number corresponding to each point. If an I/O point is **OFF** state, '−' will be displayed.

    Ex) Point 2 of inputs are **ON** and 1 of outputs are **ON** state. OSD will show as bellow.

    ```
    I:-2 O:1-
    ```

General Rules of Key Operation for Menu

- The menu items surrounded with ( ) always has its sub menu.

- For all menu level, to go into sub menu, press **Near** key, to go up to upper menu, press **Far** key. If you learn by heart a rule that **Near** key is always similar to **Enter** key and **Far** key is always **Esc** key, many other functions of these keys will be easy to understand.

- To move from items to item in the menu, use joystick in the **Up/Down** or **Left/Right**.
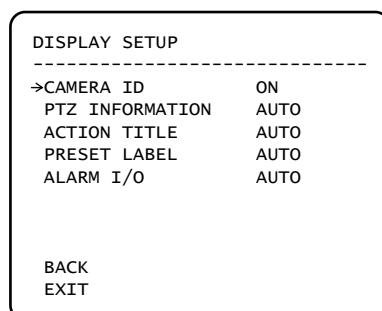
- If you want to confirm a menu item, press **Near**.

- To change a value of an item, use **Up/Down** of the joystick in the controller.

- After you change a value, press **Near** key to save it or press **Far** key to cancel it.

Main Menu

```
SPEED DOME CAMERA
------------------------------
→(SYSTEM INFORMATION)
 (OSD DISPLAY SETUP)
 (DOME SETUP)

 (FACTORY RESET)




 EXIT
```
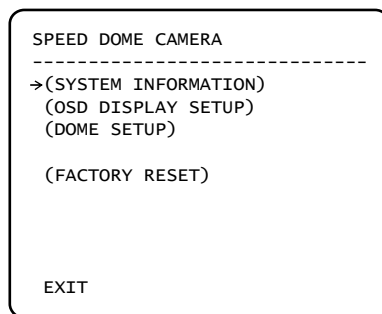
- System Information   Display System Information.

- OSD Display Setup   Enable/Disable of OSD display on Main Screen.

- Dome Setup   Configure Various Functions of this camera.

- Factory Reset   Return to Factory default configuration.

Display Setup

```
DISPLAY SETUP
------------------------------
→CAMERA ID         ON
 PTZ INFORMATION   AUTO
 ACTION TITLE      AUTO
 PRESET LABEL      AUTO
 ALARM I/O         AUTO



 BACK
 EXIT
```
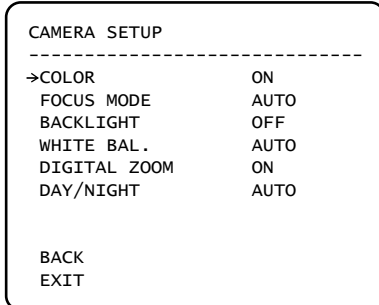
This menu defines Enable/Disable of OSD display on Main Screen. If an item is set to be AUTO, the item is displayed only when the value of it is changed.

- Camera ID   - Camera ID

- PTZ Information   - PTZ Information

- Action Title   - Action Title

- Preset Label   - Preset Label

- Alarm Information   - Alarm Information

CAMERA SETUP

```
CAMERA SETUP
------------------------------
→COLOR                ON
 FOCUS MODE           AUTO
 BACKLIGHT            OFF
 WHITE BAL.           AUTO
 DIGITAL ZOOM         ON
 DAY/NIGHT            AUTO


 BACK
 EXIT
```
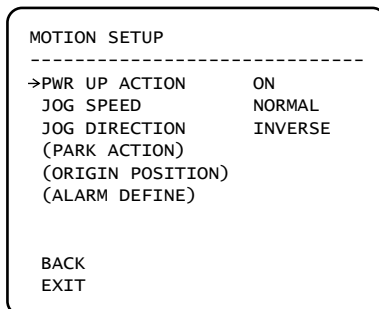
Setup the general functions of zoom camera module.

- Color [ON/OFF]

- Focus Mode [AUTO/MANUAL]

- Backlight [ON/OFF]

- White Balance [AUTO/SPECIAL/INDOOR/OUTDOOR/ MANUAL/ PUSH AUTO]

- Digital Zoom [ON/OFF]

- Day / Night [AUTO/NIGHT/DAY] ♣

♣ Day & Night function is available for SE-x22DC model.

Motion Setup

```
MOTION SETUP
------------------------------
→PWR UP ACTION       ON
 JOG SPEED           NORMAL
 JOG DIRECTION       INVERSE
 (PARK ACTION)
 (ORIGIN POSITION)
 (ALARM DEFINE)


 BACK
 EXIT
```

Setup the general functions of Pan/Tilt motions.

- Power Up Action [ON/OFF]

- Jog Speed [FAST/NORMAL/SLOW]

  The nominal jog speed is listed below when zoom is x1. As zoom magnification is increased, the speed will be decreased to maintain equal controllability.

FAST	120°/sec
NORMAL	60°/sec
SLOW	30°/sec

- Jog Direction [INVERSE/NORMAL]

  If you set this to 'Inverse', the view in the screen is moving same direction with jog tilting. If 'Normal' is selected, the view in the screen is moving reversely.

- Park Action Activate Park function.

- Origin Position Redefine particular pan position to Origin.

- Alarm Define Match the Alarm sensor input to one of current Preset positions.

❑ Park Action Setup
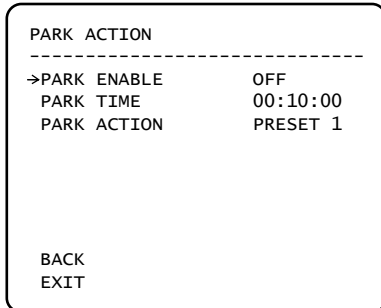
```
PARK ACTION
------------------------------
→PARK ENABLE        OFF
 PARK TIME          00:10:00
 PARK ACTION        PRESET 1



 BACK
 EXIT
```

This function enables to locate the camera to specific position automatically if operator doesn't operate the controller for a while. The Park Time can be defined as an interval from 1 min. to 4 hours.

● Park Enable   [ON/OFF]

● Park Time   [1 min ~ 4 hours]

The time is displayed with "hh:mm:ss" format and you can change this by 1 min unit.
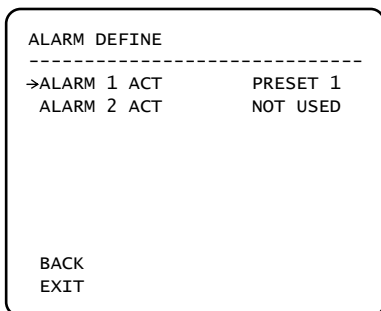
● Park Action   [Preset 1~64]

❑ Origin Position Setup

```
ORIGIN POSITION SETUP
------------------------------
→USER ORIGIN         ON
 (ORIGIN POSITION)




 BACK
 EXIT
```
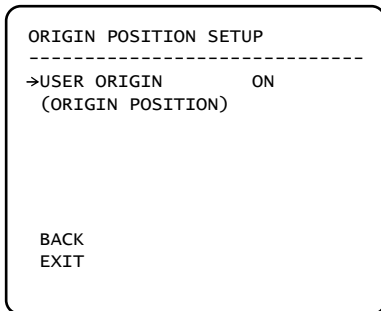
You can redefine particular pan position to Origin position.

● User Origin   [ON/OFF]

● Origin Position   If you choose this menu, you can move pan position by joystick and redefine Origin.

❑ Alarm Input Setup

```
ALARM DEFINE
------------------------------
→ALARM 1 ACT        PRESET 1
 ALARM 2 ACT        NOT USED




 BACK
 EXIT
```
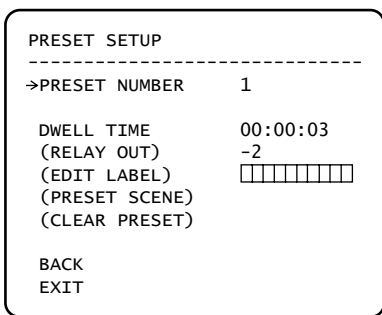
Match the Alarm sensor input to one of Preset positions. If an external sensor is activated, camera will move to corresponding preset position when this item is predefined.

● Alarm × Action   [NOT USED, PRESET 1~64]

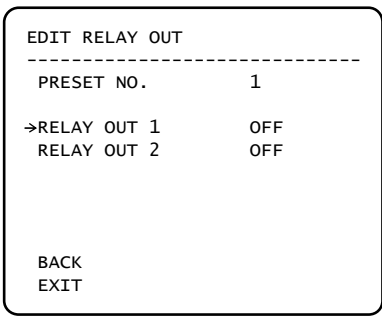Assign counteraction Preset position to each Alarm input.

PRESET Setup

```
 PRESET SETUP
 ------------------------------
→PRESET NUMBER      1

 DWELL TIME         00:00:03
 (RELAY OUT)        -2
 (EDIT LABEL)       ⬚⬚⬚⬚⬚⬚⬚⬚
 (PRESET SCENE)
 (CLEAR PRESET)

 BACK
 EXIT
```
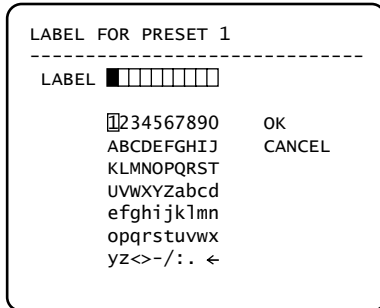
- **Preset Number**   [1~64]

  Select a preset number to create or modify. If the current Preset number is predefined, camera will move to stored position and zoom automatically to check them.

- **Dwell Time**   [1 sec ~ 4 min]

  The time is displayed with "hh:mm:ss" format.

- **Relay Out**   Define Relay output. If an Output point is **ON** state it will show a number corresponding to each point. Otherwise, '–' will be displayed.

- **Edit Label**   Edit the Label for a specific Preset position. A Label can be named with max 10 characters. This label is automatically displayed on the upper left corner of the screen whenever you move to the corresponding preset position.

- **Preset Scene**   Redefine current Preset scene position (i.e. PTZ).

- **Clear Preset**   Delete current Preset data.

❏ Relay Output Setup

```
 EDIT RELAY OUT
 ------------------------------
 PRESET NO.         1

→RELAY OUT 1        OFF
 RELAY OUT 2        OFF




 BACK
 EXIT
```

- **Relay Out ×**   [ON/OFF]

  Toggle corresponding relay output state to [ON/OFF].

❑ Edit Preset Label

```
LABEL FOR PRESET 1
------------------------------
 LABEL  ■■■■■■■■■

       1234567890    OK
       ABCDEFGHIJ    CANCEL
       KLMNOPQRST
       UVWXYZabcd
       efghijklmn
       opqrstuvwx
       yz<>-/:. ←
```
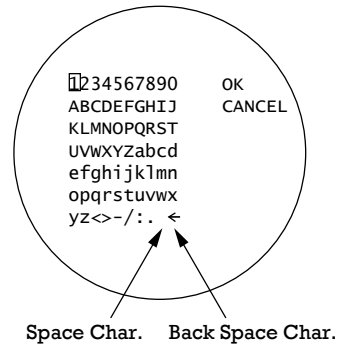
① The blinked cursor of LABEL represents current position to be selected from the set of characters bellow. If you choose a character, the cursor will move to the right.
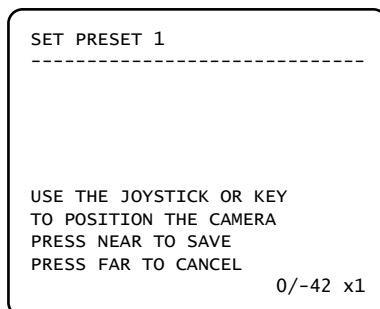
```
■■■■■■■■■■
```

    ↑
Current Cursor Position
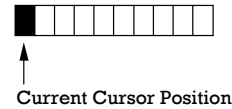
② Using Left/Right/Up/Down of joystick, move to an appropriate character from the Character set. To choose that character, press the Near key.

```
1234567890    OK
ABCDEFGHIJ    CANCEL
KLMNOPQRST
UVWXYZabcd
efghijklmn
opqrstuvwx
yz<>-/:. ←
```

Space Char.   Back Space Char.

If you want to use blank, choose Space character (" "). If you want to delete a character before, use back space character (" ←").
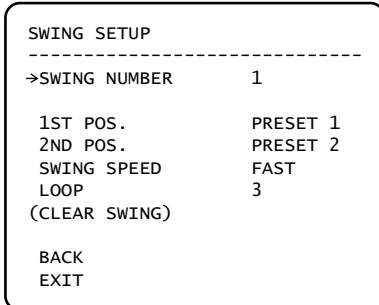
③ If you complete the Label editing, move cursor to "OK" and press Near key to save completed label. To abort current change, move cursor to "Cancel" and press Near key.

❑ Edit Preset Scene

```
SET PRESET 1
------------------------------




USE THE JOYSTICK OR KEY
TO POSITION THE CAMERA
PRESS NEAR TO SAVE
PRESS FAR TO CANCEL
                    0/-42 x1
```

① Using Joystick, move camera to desired position.

② By pressing **Near** key, save current PTZ data.

③ Press **Far** key to cancel.

Swing Setup

```
SWING SETUP
------------------------------
→SWING NUMBER      1

 1ST POS.          PRESET 1
 2ND POS.          PRESET 2
 SWING SPEED       FAST
 LOOP              3
 (CLEAR SWING)

 BACK
 EXIT
```
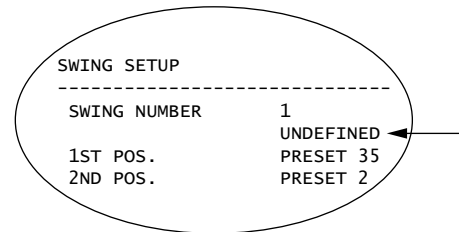
● Swing Number   [1~8]

Select Swing number to create or modify. If the current Swing number is not defined, the text "UNDEFINED" is displayed at the right side of 1st Position and 2nd Position.

● 1st Position   [PRESET 1~64]

  2nd Position

Define 2 Preset positions for Swing motion. If you assign undefined Preset to one of these positions, "UNDEFINED" will be displayed as shown bellow.

```
SWING SETUP
------------------------------
 SWING NUMBER      1
                   UNDEFINED  ←
 1ST POS.          PRESET 35
 2ND POS.          PRESET 2
```

● Swing Speed   [FAST/NORMAL/SLOW]

Set the Swing speed level. Actually, the speed will be varied as zoom ratio is changed. The bigger zoom ratio, the slower swing speed. The nominal swing speeds when zoom is x1 is as shown bellow.
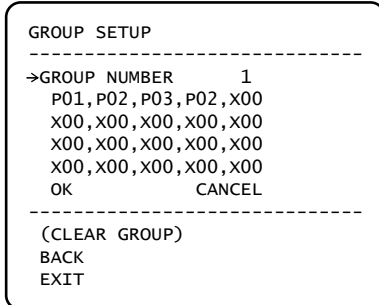
FAST	60°/sec
NORMAL	30°/sec
SLOW	15°/sec

● Loop   [1~3]

This number represents how many swing motion will be repeated when swing is executed within a Group. However, Swing motion will be repeated forever if you execute Swing function.

● Clear Swing   Delete current Swing data.

Group Setup

```
GROUP SETUP
-----------------------------
→GROUP NUMBER     1
 P01,P02,P03,P02,X00
 X00,X00,X00,X00,X00
 X00,X00,X00,X00,X00
 X00,X00,X00,X00,X00
 OK         CANCEL
-----------------------------
 (CLEAR GROUP)
 BACK
 EXIT
```

● Group Number   [1~8]

● Action   [x00, P1~P64, S1~S8]

x00 means no Action is selected. If you assign Preset it will shows P1~P64. If you assign Swing, S1~S8 will be displayed. If no action is defined, it will be skipped when Group function is executed.

● Clear Group   Delete all of 20 Action entities. All entities will become x00 if you execute this.

❑ Action Setup
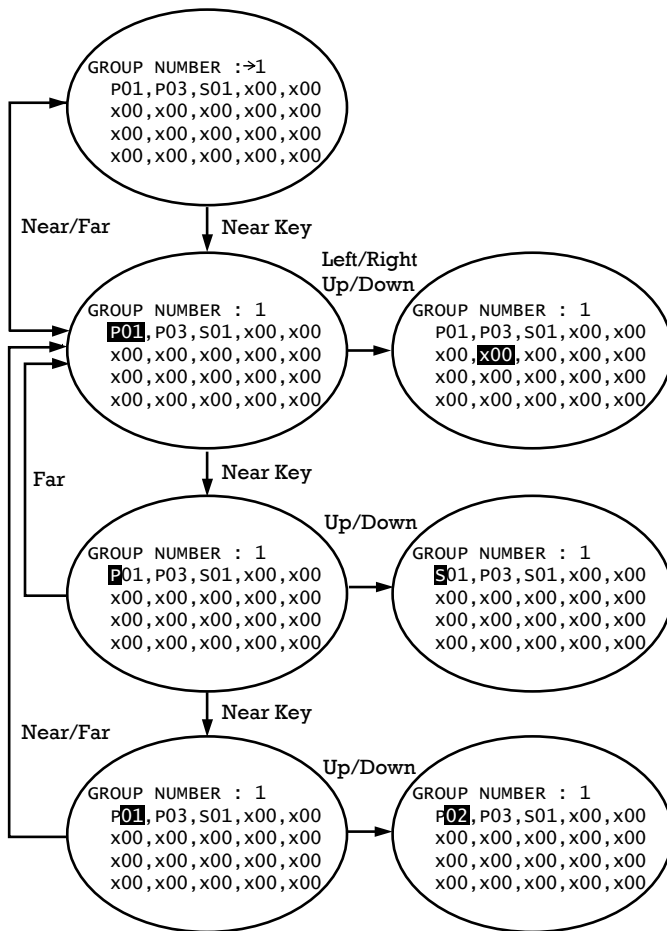
① Using Up/Down key select a Group Number to modify. Then press Near key.

② Using Joystick, move to an entity to be modified. Then press Near key.

③ Using Up/Down key, select appropriate Action (x or P or S). Then press Near key. If you press Far key, the value changed will be ignored and cursor will be jump to upper level (i.e. ②).

④ Using Up/Down key, select a number you want. Then press Near key. If you press Far key, the number will be ignored and cursor will be jump to upper level (i.e. ②).
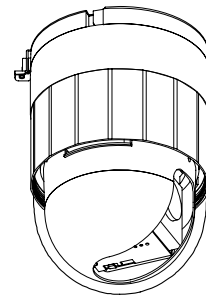
⑤ If modification is completed, move to "OK" position in the right of the map and press Near key to finish.
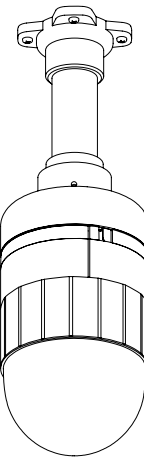
SE-N(P)22CC

Model		SE-N22CC	SE-P22CC
Video Signal		NTSC	PAL
Camera	CCD	SONY 1/4" Super HAD CCD	
	Max. Pixels	811(H)×508(V) 410K	795(H)×596(V) 470K
	Effective Pixels	768(H)×494(V) 380K	752(H)×582(V) 440K
	Horizontal Res.	480 TV Lines	
	S/N Ratio	48 dB	
	Zoom	×22 Optical Zoom, ×10 Digital Zoom	
	Focal length	f=3.9~85.8mm	
	Min. illumination	1 Lux (30 IRE)	
	Focus	Auto / Manual	
	Iris	Auto	
	White Balance	Auto / Manual / Indoor / Outdoor	
	Backlight	On / Off	
Pan/Tilt	Range	Pan 360°(Endless) / Tilt 90°	
	Pan/Tilt Speed	Preset : 240°/sec	
		Manual : 0.1 ~ 120°/sec (proportional to zoom)	
		Swing : ~ 60°/sec (proportional to zoom)	
	Preset	64 Preset with editable Labels	
	Swing	8 Swing	
	Group	8 Group (20 action entities per Group)	
	Other Functions	Auto Parking, Power Up Action etc	
General	Communication	RS-485 (Max. 255 unit.)	
	Protocol	Pelco-D, Pelco-P selectable	
	Alarm I/O	Points: 2 inputs / 2 outputs	
		Input Voltage : DC 5V ~ 12V	
		Max. Load : DC 28V, 5A or AC 250V, 5A	
	OSD	Menu / PTZ info.	
	Rated Power	DC 12V / 1A	
	Dimension	Dome : ∅130	
		Housing : ∅135 × 206.5(H) mm	
	Weight	Approx. 1.5 Kg	
	Operating Temp.	0°C ~ 40°C	

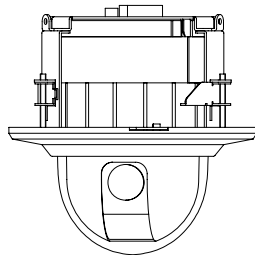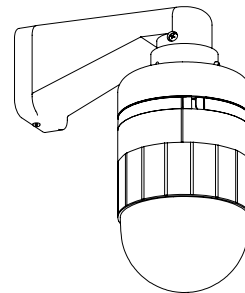* Specifications of this product can be subjected to change without notice.

■ Appearance
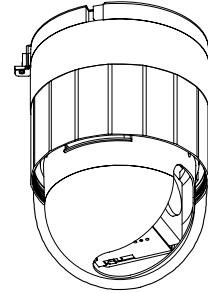

● Main Body

● Ceiling Mount

● In-Ceiling Mount

● Wall Mount

SE-N(P)22DC

Model		SE-N22DC	SE-P22DC
Video Signal		NTSC	PAL
Camera	CCD	SONY 1/4" Super HAD CCD	
	Max. Pixels	811(H)×508(V) 410K	795(H)×596(V) 470K
	Effective Pixels	768(H)×494(V) 380K	752(H)×582(V) 440K
	Horizontal Res.	480 TV Lines	
	S/N Ratio	48 dB	
	Zoom	×22 Optical Zoom, ×10 Digital Zoom	
	Focal length	f=3.9~85.8mm	
	Min. illumination	1 Lux (Day) / 0.001 Lux (Night)	
	Day & Night	Auto / Day/ Night	
	Focus	Auto / Manual	
	Iris	Auto	
	White Balance	Auto / Manual / Indoor / Outdoor	
	Backlight	On / Off	
Pan/Tilt	Range	Pan 360°(Endless) / Tilt 90°	
	Pan/Tilt Speed	Preset : 240°/sec	
		Manual : 0.1 ~ 120°/sec (proportional to zoom)	
		Swing : ~ 60°/sec (proportional to zoom)	
	Preset	64 Preset with editable Labels	
	Swing	8 Swing	
	Group	8 Group (20 action entities per Group)	
	Other Functions	Auto Parking, Power Up Action etc	
General	Communication	RS-485 (Max. 255 unit.)	
	Protocol	Pelco-D, Pelco-P selectable	
	Alarm I/O	Points: 2 inputs / 2 outputs	
		Input Voltage : DC 5V ~ 12V	
		Max. Load : DC 28V, 5A or AC 250V, 5A	
	OSD	Menu / PTZ info.	
	Rated Power	DC 12V / 1A	
	Dimension	Dome : 130∅	
		Housing : 135∅ × 206.5(H) mm	
	Weight	Approx. 1.5 Kg	
	Operating Temp.	0°C ~ 40°C	

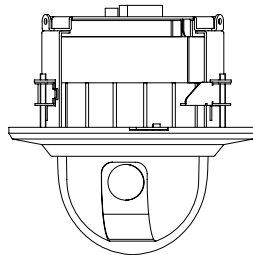* Specifications of this product can be subjected to change without notice.
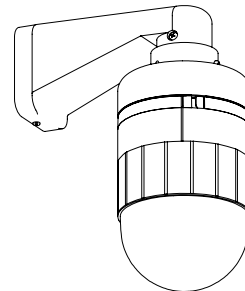
■ Appearance
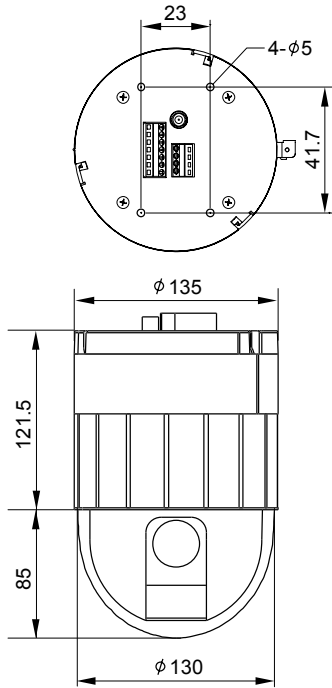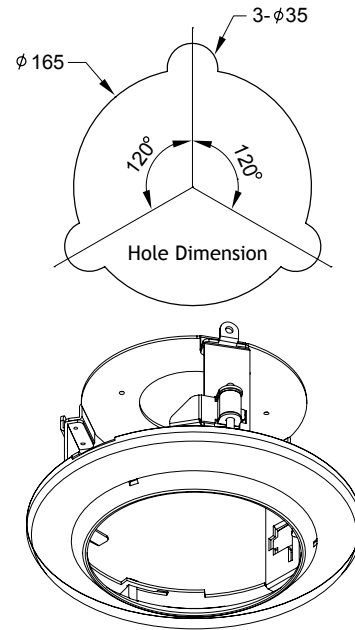

● Main Body

● Ceiling Mount

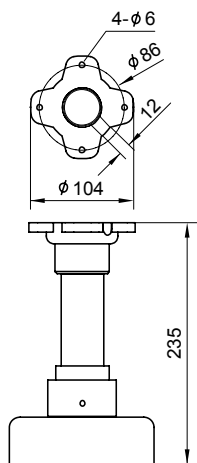● In-Ceiling Mount
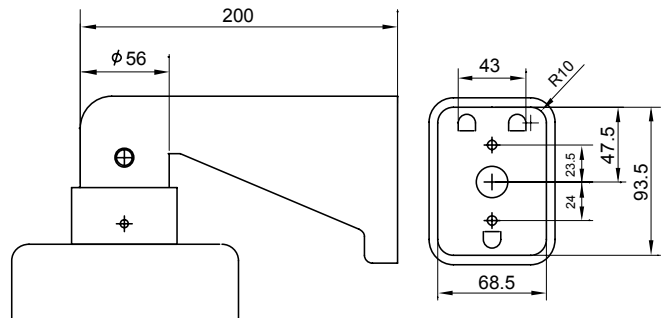

● Wall Mount

Dimension

● Main Body & Rear Bracket

● In-Ceiling Mount Bracket (SBI-100)

Hole Dimension

● Ceiling Mount Bracket (SBC-100)

● Wall Mount Bracket (SBW-100)

Unit (mm)

MEMO