

Super Speed Dome

PTZ39XFM PTZ39X with In-Ceiling Mount

User's Manual

Before installing and using the camera, please read this manual carefully.
Be sure to keep it handy for future reference.

Safety Information



CAUTION

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.



CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (BACK). THERE ARE NO USER SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



Warning

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.



Precaution

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 damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
When installing the camera, fasten it securely and firmly. A falling camera may cause personal injury.
5. Do not place conductive objects (e.g. screw drivers, coins, metal objects) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
6. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
7. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
8. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way.
9. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

Safety Information

PRECAUTION

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 Special 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 the camera.
- Care must be taken when you clean the clear dome cover. Scratch and dust will ruin the quality of the 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 or water.

Safety Instructions

1. Read these instructions.
2. Keep these instructions for future reference.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this camera near water.
6. Clean only with a dry cloth. Unplug the camera from the wall outlet before cleaning.
7. Do not block any ventilation openings to ensure reliable operation of the product and to protect it from over-heating. Install in accordance with the manufacturer's instructions.
8. Do not install the camera near any heat sources such as radiators, heat registers, or other apparatus that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for a replacement.
10. Protect the power cord from being walked on or pinched particularly at or near plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. Unplug this camera when a cart is used. Use caution when moving the cart that contains the camera to avoid injuries that can result from the camera falling over.
13. Unplug the camera during lightning storms or when it is not being used for long periods of time.
14. 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 on the camera, objects have fallen into the camera, the camera has been exposed to rain or moisture, the camera does not operate normally, or the camera has dropped.

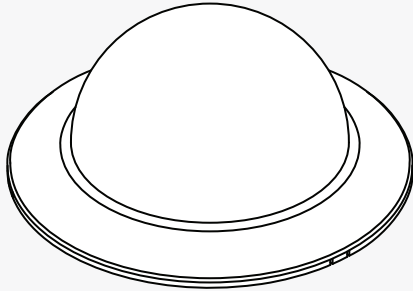


Contents

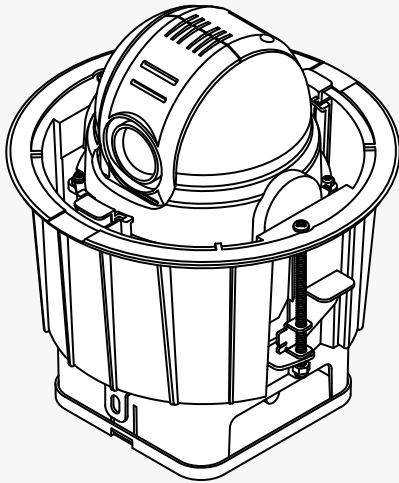
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1 Introduction - Product & Accessories

Product



Dome Cover

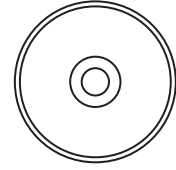


In-Ceiling Housing
with PTZ Mechanism

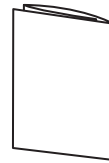
Accessories



Safety Wire X2

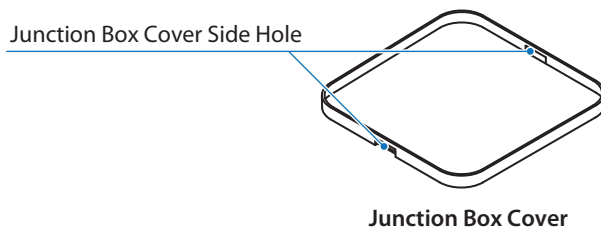
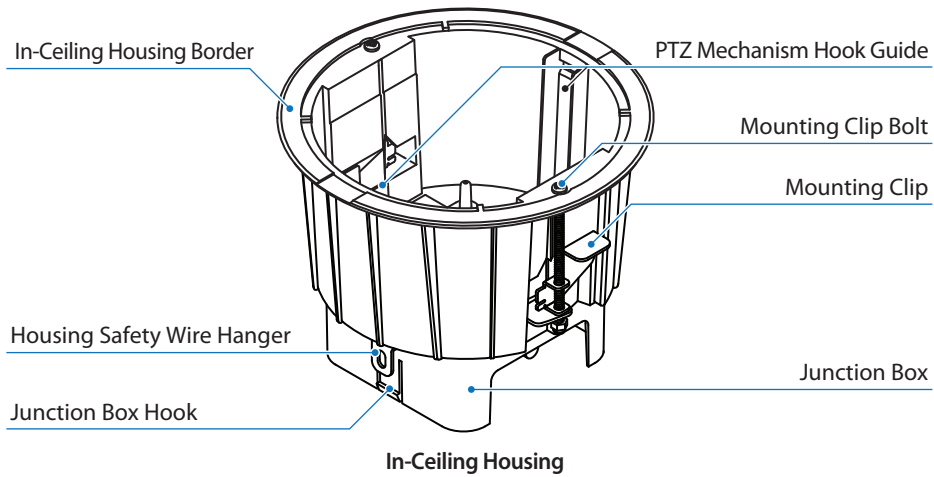
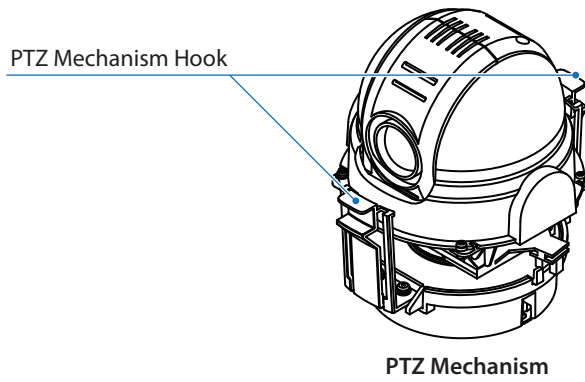
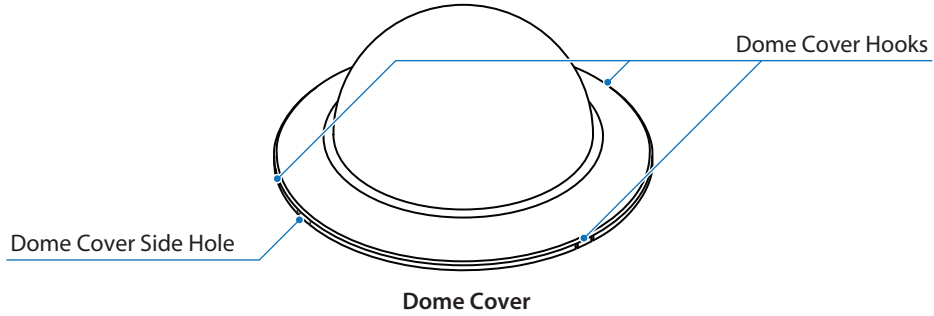


CD with
User's Manual



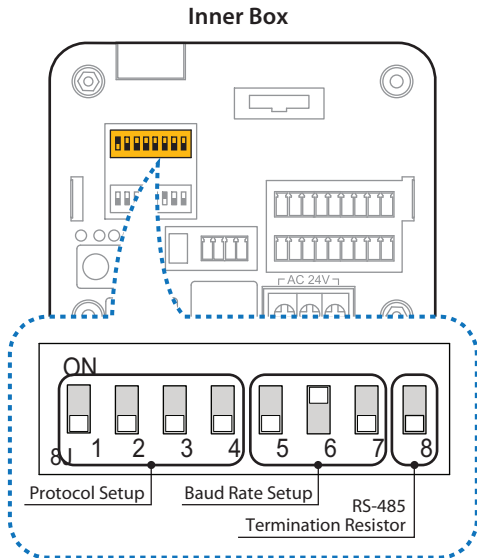
Quick Start Guide

1 Introduction - Part Name



2 Installation - DIP Switch Setup

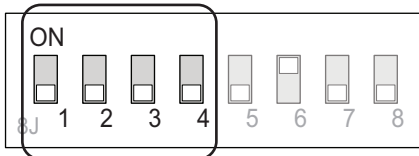
✘ Before installing the camera, you should set the DIP switch to configure the camera ID (Communication Protocol).



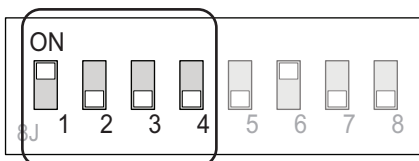
1. Communication Protocol Setup

Configure the appropriate protocol with DIP switch using the DIP switch combination.

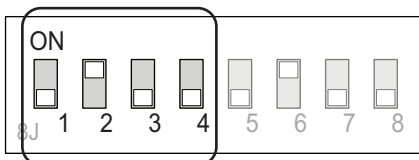
1 AUTO - Factory Default



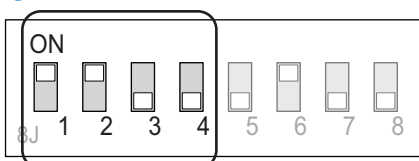
2 PELCO-D



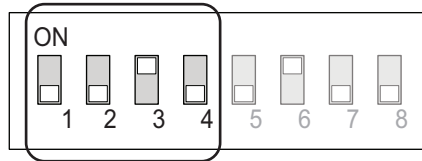
3 PELCO-P



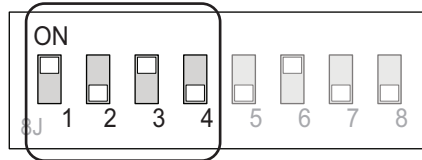
4 SAMSUNG



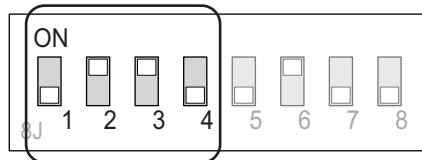
5 PANASONIC



6 GE (Kalatel)



7 AD (American Dynamics)



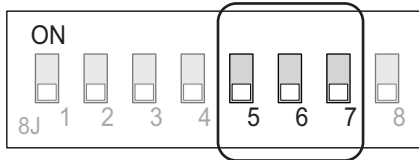
- If you set the protocol as AUTO protocol, camera will automatically recognize the type of protocol being used; however, this will not recognize the AD protocol.
- If you want to control the camera using the DVR or system keyboard, the protocol must be identical to the camera protocol. Otherwise, you will not be able to control the camera.
- If you change the camera protocol by adjusting the DIP switch, the change will be effective after you reboot the camera.

2 Installation - DIP Switch Setup

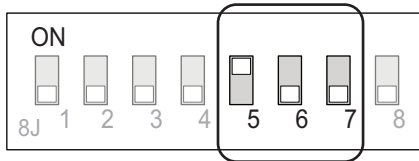
2. Communication Baud Rate Setup

Select the appropriate baud rate with DIP switch combination.

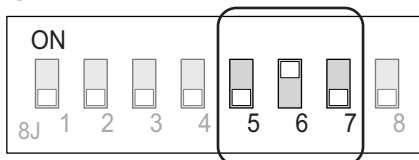
1 2400 BPS - Factory Default



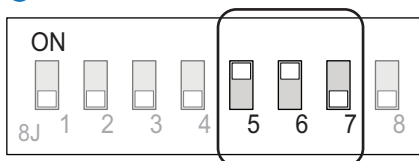
2 4800 BPS



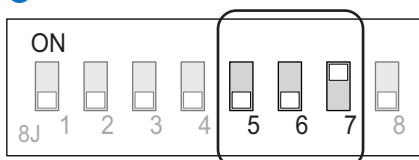
3 9600 BPS



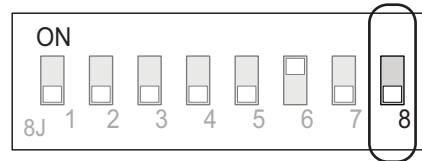
4 19200 BPS



5 38400 BPS



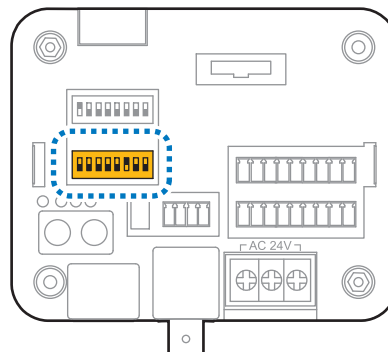
3. RS-485 Termination Resistor



- Pin 8 is used to control RS-485 termination.
- Normally, it must be set to OFF state.
- When you have trouble with long daisy chain style connection, turn ON this termination switch for the last camera.

4. Camera ID Setup

Inner Box

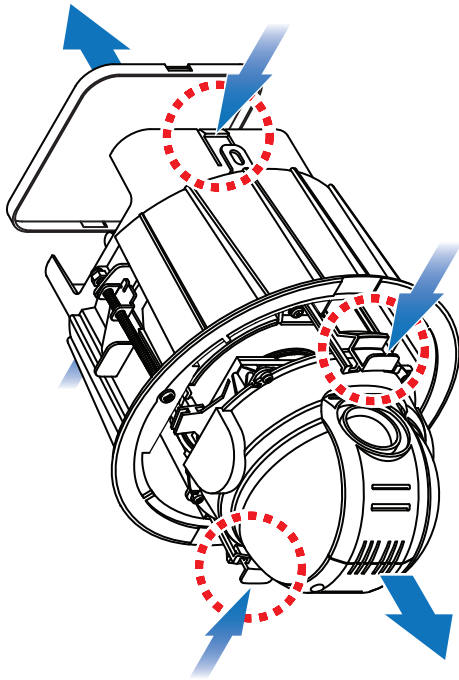


ID number of camera is set using binary number. The example is shown below.

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

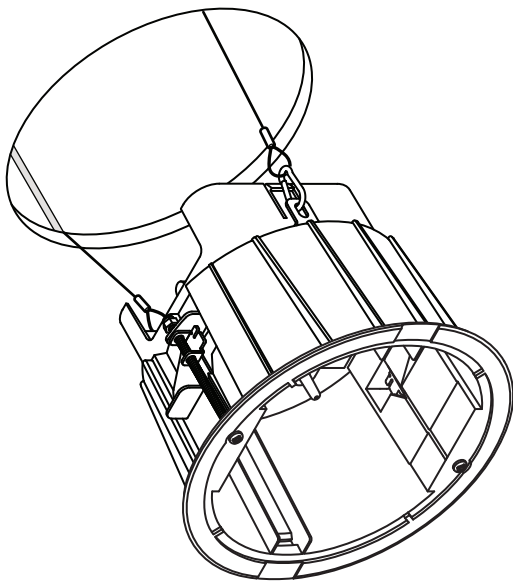
- If you want to control the camera with another device, you must match the Camera ID with CAM ID, setting on DVR or the keyboard controller.
- ID number of the camera is set using binary number.
- The range of ID is 0~255.
- Factory default of camera ID is 1.
- Camera ID will be effective without rebooting the camera.

2 Installation - Installation



1 DETACH PTZ MECHANISM AND JUNCTION BOX COVER

By pressing down and holding up the hooks located on both sides of the PTZ Mechanism, detach PTZ Mechanism from the housing. Then, detach the junction box cover by pressing down the hooks on both sides of the junction box.



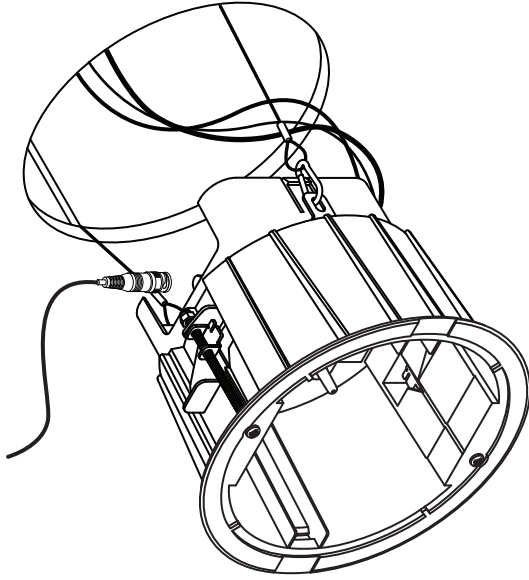
2 DRILL THE HOLE ON THE CEILING

To install the in-ceiling housing in the ceiling, first drill a 190mm diameter hole on the ceiling.

3 HOOK THE SAFETY WIRES

Connect one of the rings for the safety wire with the housing safety wire hanger to prevent the junction box cover from falling down. Then, connect the other ring with the hanger bolt of the ceiling.

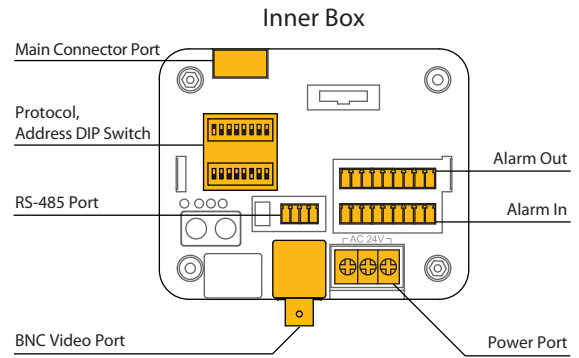
2 Installation - Installation



4 CONNECT THE WIRES AND TERMINAL BLOCKS

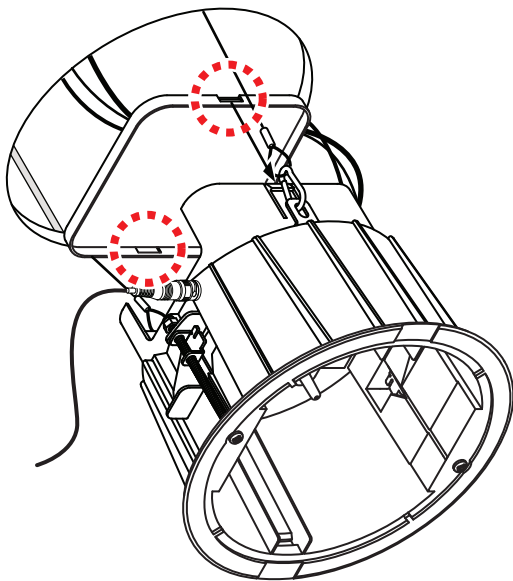
Connect the cables to terminal blocks and BNC located in the inner box of the junction box.

❖ See "Installation - Cabling" in the next section.

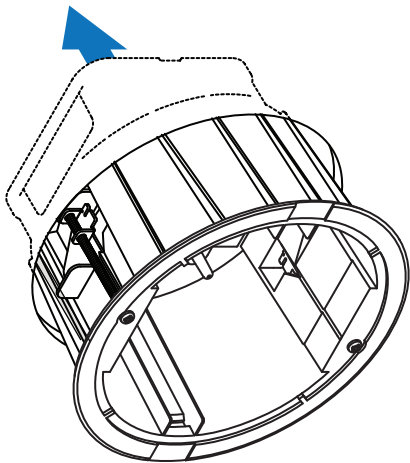


5 CLOSE THE JUNCTION BOX COVER

Close the junction box cover by attaching the junction box hooks to the side holes on the junction box cover.

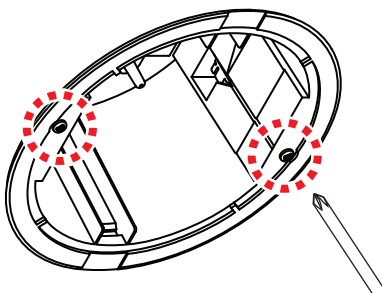


2 Installation - Installation



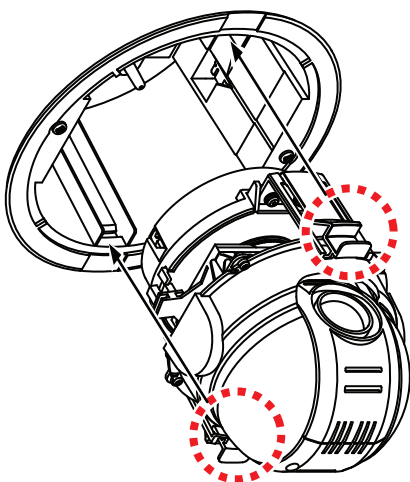
6 INSERT THE IN-CEILING HOUSING

Insert the housing into the ceiling hole and press the edge of the housing against the ceiling.



7 INSERT THE IN-CEILING HOUSING

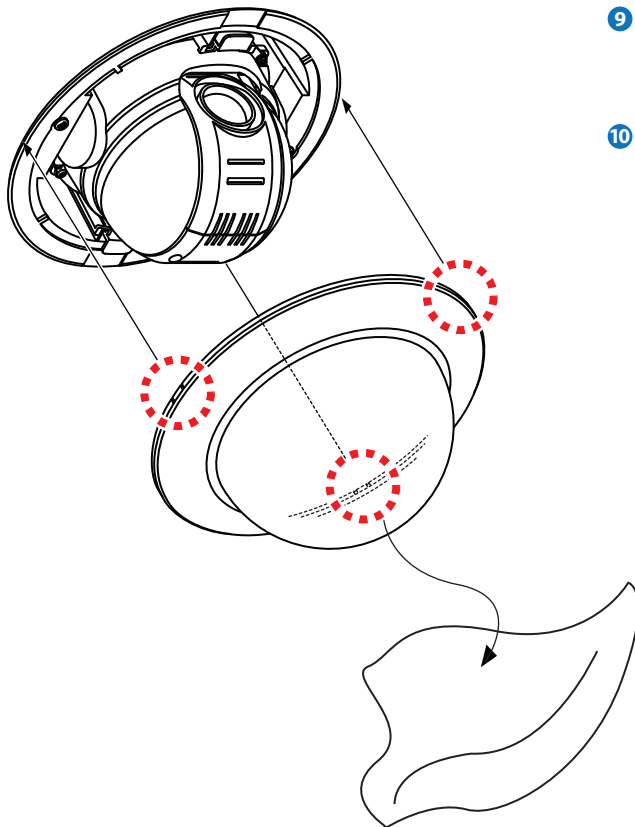
Fix the in-ceiling housing by turning the clip bolts located on the housing clockwise.



8 INSERT THE PTZ MECHANISM

Insert the PTZ mechanism into the upper housing by aligning the hooks of the PTZ mechanism to the hook guides located on the housing.

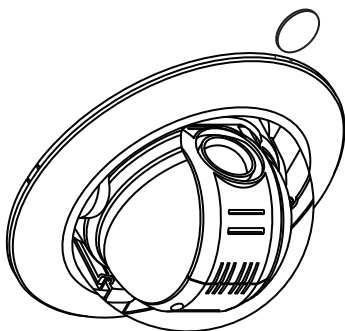
2 Installation - Installation



9 ATTACH THE DOME COVER

Attach the dome cover by fixing the dome cover side hooks to the edge of the housing.

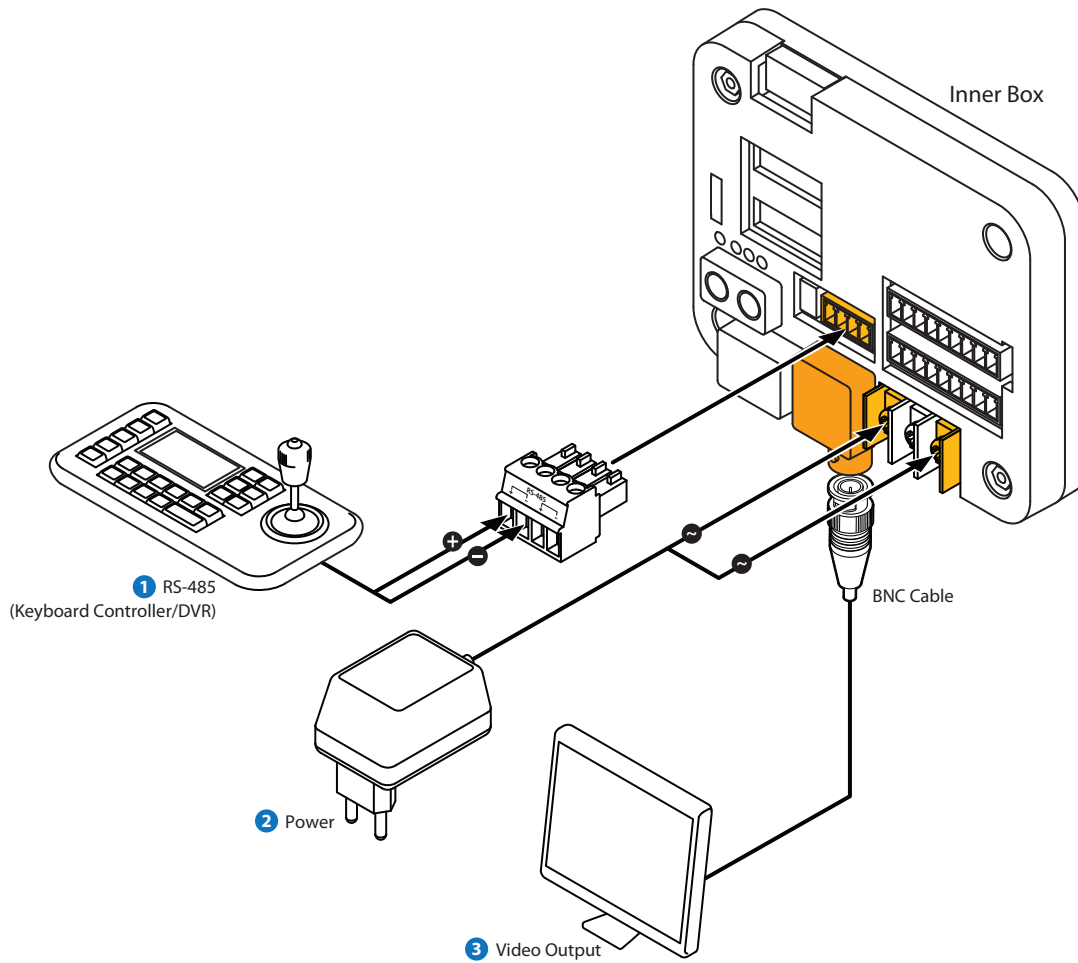
10 DETACH THE PROTECTION VINYL



✳ DETACH THE DOME COVER

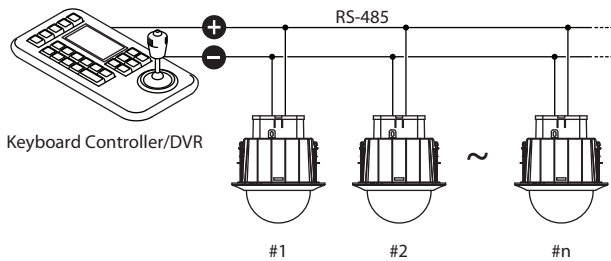
Detach the dome cover from the cover side hole by using a flathead screwdriver or a coin.

2 Installation - Cabling



1 RS-485 Communication (DVR/Keyboard)

For PTZ control, connect this line to keyboard and DVR. To control multiple cameras at the same time, the RS-485 communication lines should be connected in parallel as shown below.



2 Power Connection

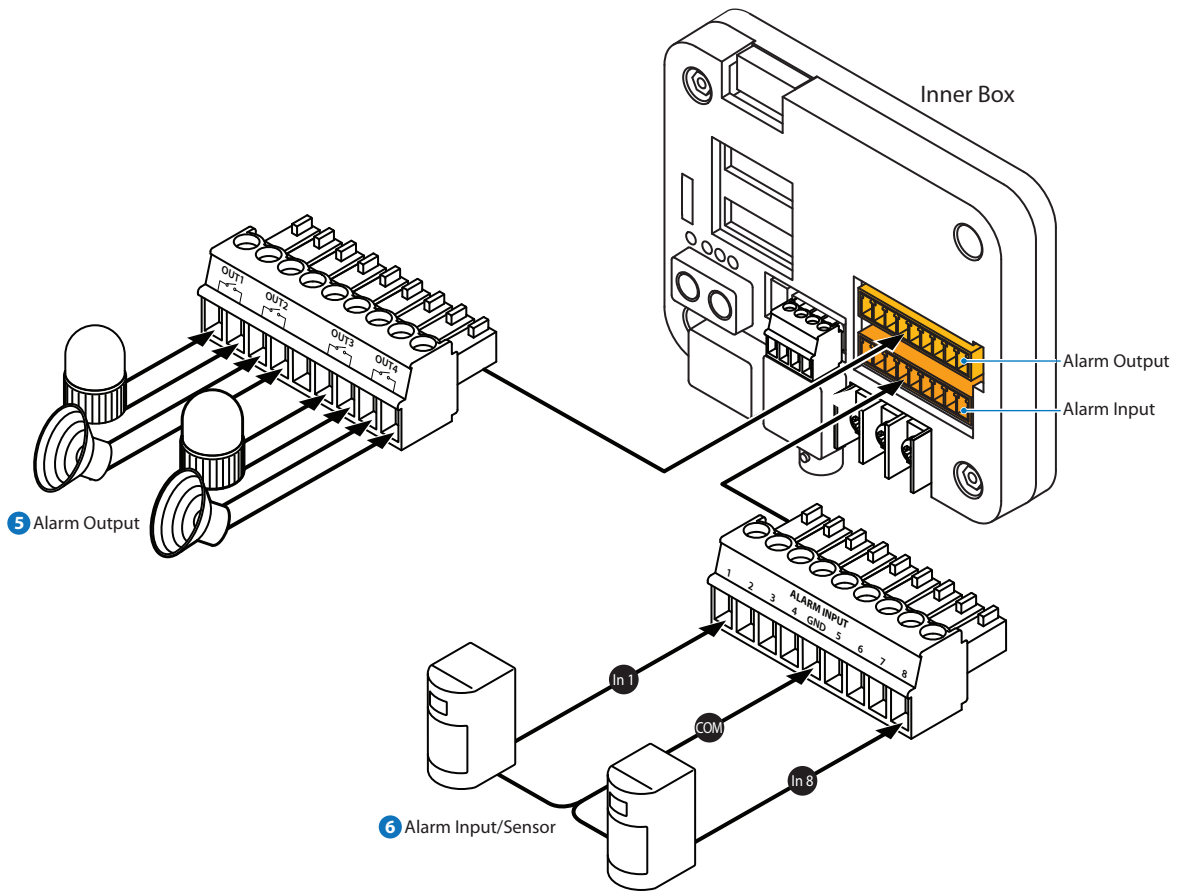
Please check the voltage and the current capacity of rated power carefully.

Rate Power	Current Consumption
AC 24V	24W

3 Video Output

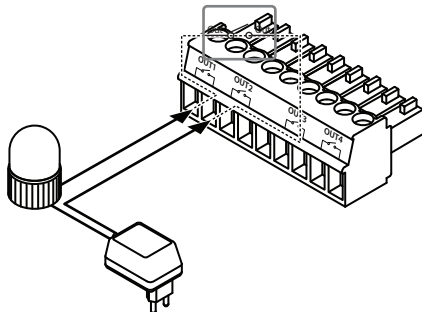
Connect with BNC coaxial cable.

2 Installation - Cabling



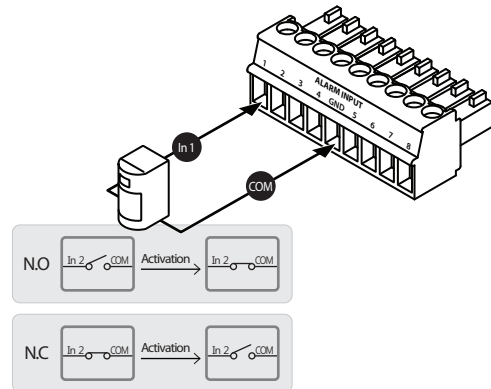
5 Alarm Output

There are 4 alarm outputs, and they are the relay contact type. Therefore, you do not have to worry about the polarity, AC or DC, and the isolations between channels. However, care must be taken for the power capacity of the relay contact written above.



6 Sensor Input

To use alarm input, select the type of sensor you wish to use in OSD menu. The sensor types are "Normal Open" and "Normal Close." If sensor type is not selected properly, the alarm can be activated reversely.



⚠ Please note that short circuit between GND and Input Pin means alarm activation.

3 OSD - Check Points Before Operation

Check Points Before Operation

1. Before power is applied, please check the cables carefully.
2. The camera ID of the controller must be identical to that of the camera you wish to control. Check the camera ID in "System Information" of the OSD menu.
3. If your controller supports multi-protocols, the protocol must be changed to match to that of the camera.
4. If you changed camera protocol by changing DIP switch, the change will be effective after you reboot the camera.
5. Since the operation method can be different for each controller available, refer to the manual for your controller if camera cannot be controlled properly.

1 Preset and Pattern Function Pre-Check

Check how to operate preset, pattern, scan, and group functions with the keyboard controller or DVR in advance to operate the camera functions using those devices. (Refer to your DVR or system keyboard manual.)

2 Auto Calibration

If the camera is continuously subjected to very high temperatures (over 50°C or 122°F) for a long period, the camera can lose focus and produce blurry images. In this case, it is recommended to turn on AUTO CALIBRATION.

If you execute AUTO CALIBRATION, camera will calibrate its focus every six hours.

3 Open OSD Menu

Preset, pattern, scan, group, and alarm input function call all be configured for your camera using the OSD menu. Enter "Preset Key + 0" or "Pattern + 30."

3 OSD - Functions

1 Preset

A maximum of 255 positions can be stored as preset positions. The numbers 1 to 255 can be assigned as preset numbers.

*See section ROOT MENU > FUNCTION SETUP > PRESET SETUP.

1. Set Preset

Method 1) Use keyboard controller:

☒ Refer to keyboard controller manual.

Method 2) Use OSD menu.

2. Run Preset

Method 1) Use keyboard controller:

Preset key + Number key(1~255)

3. Delete Preset

To delete preset, use OSD menu.

2 Scan

The scan function allows the camera to move repeatedly between 2 preset positions.

See section ROOT MENU > FUNCTION SETUP > SCAN SETUP.

1. Set Scan

To set scan, use OSD menu.

2. Run Scan

Method) Pattern key + Scan number(1~8) + 10

Ex) Run scan 2 = Pattern key + [12] + Enter key

3. Delete Scan

To delete scan, use OSD menu.

3 Pattern

Pattern function allows the camera to memorize a path created by a joystick controller and then revive the exact path for an assigned time.

See the section ROOT MENU > FUNCTION SETUP > PATTERN SETUP.

1. Set Pattern

To set pattern, use OSD menu.

2. Run Pattern

Method 1) Pattern key + Pattern number(1~4) + Enter key

Ex) Run pattern 2 = Pattern key + [2] + Enter key

3. Delete Pattern

To delete pattern, use OSD menu.

☒ When the pattern is saved or executed, the pan/tilt is operated with AUTO FLIP-OFF.

4 Group

The group function allows you to run a sequence of presets, patterns, and/or scans.

See the section ROOT MENU > FUNCTION SETUP > GROUP SETUP.

1. Set Group

To set group, use OSD menu.

2. Run Group

Method) Pattern key + [Group number(1~8) + 20]

Ex) Run group 2 = Pattern key + [22] + Enter key

3. Delete Group

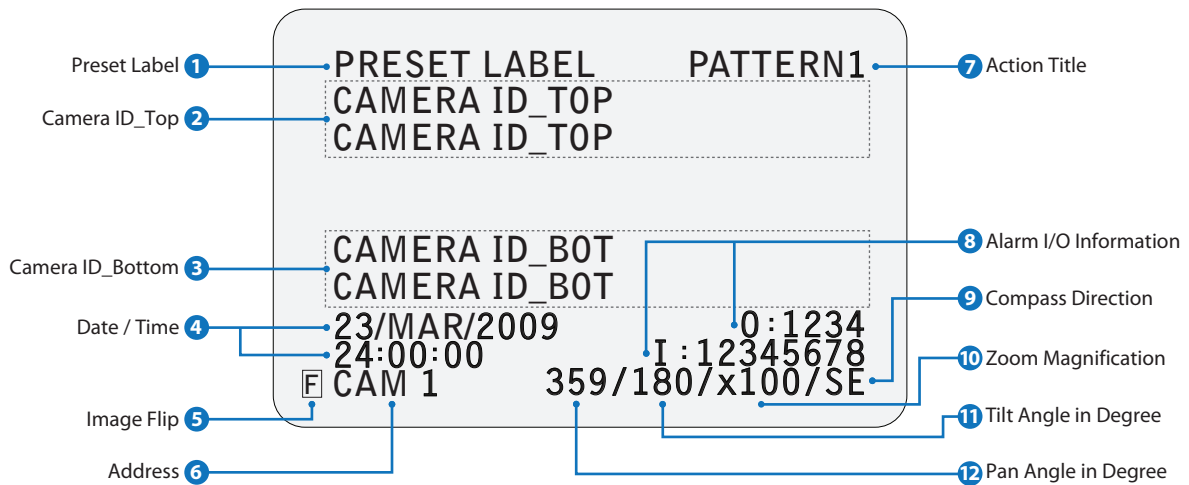
To delete group, use OSD menu.

5 Schedule

The schedule function allows you to run an appropriate function like preset, scan, group, pattern, home, or move at a designated day and time.

See the section ROOT MENU > FUNCTION SETUP > SCHEDULE SETUP.

3 OSD - OSD Display of Main Screen



1 Preset Label

- The label stored for a specific preset.
- See section ROOT MENU > FUNCTION SETUP > PRESET SETUP > LABEL.

2 Camera ID_Top

- If CAMERA ID is set to TOP, Camera ID displayed in this area.
- See section ROOT MENU > DISPLAY SETUP > CAMERA ID.

3 Camera ID_Bottom

- If Camera ID is set to BOT, Camera ID will display in this area.
- See section ROOT MENU > DISPLAY SETUP > CAMERA ID.

4 Date / Time

- Shows the current date and time.
- See section ROOT MENU > SYSTEM SETUP > DATE/TIME SETUP.

5 Image Flip

- Indicates that the image has been reversed by the auto flip function.
- See section ROOT MENU > CAMERA SETUP > IMAGE FLIP.

6 Address

- Displays the current RS-485 address information.
- See section ROOT MENU > SYSTEM INFORMATION.

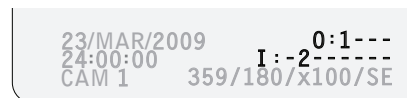
7 Action Title

- The following are examples of action titles with their descriptions.

Action Title	Descriptions
SET PRESET 123	Store preset 123.
PRESET 123	It reached preset 123.
PATTERN 1	The camera is running pattern 9.
SCN 1/PRESET 123	The camera is running scan 1.
RANGE OVER	The action received is not within the range supported.
UNDEFINED	The action received is not defined.

8 Alarm I/O Information

- This information displays the current status of alarm input and output.
- "I" means input, and "O" means output.
- If the alarm input is ON, it will show the number of the input. If an input is OFF, "-" will be displayed.
- "O:1---" means output 1 is ON and the other outputs are OFF.
- EX. When input 2 is ON and output 1 is ON, OSD will display as below.



9 Compass Direction

- Shows the current compass direction of the camera.
- The direction is shown as N(North), S(South), E(East), W(West), NE(Northeast), NW(Northwest), SE(Southeast), or SW(Southwest).
- See section ROOT MENU > SYSTEM SETUP > SET NORTH DIRECTION.

10 Zoom Magnification

- Shows the current zoom magnification.

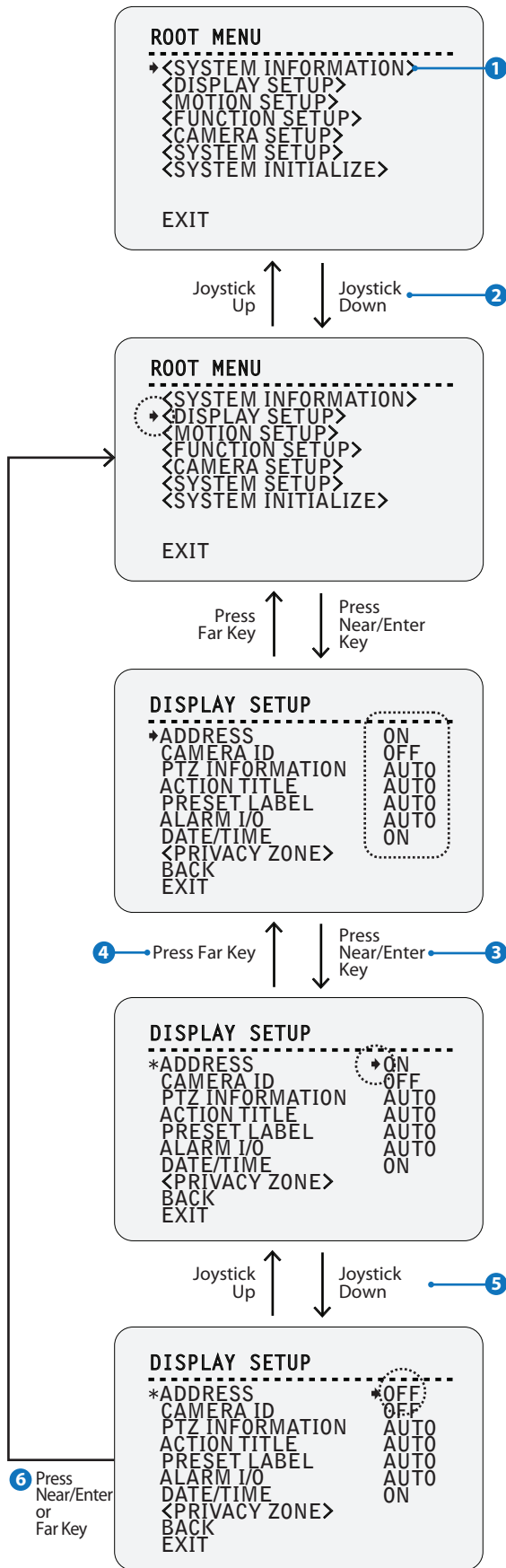
11 Tilt Angle in Degree

- Shows the current tilt (0 ~ 180°) angle.

12 Pan Angle in Degree

- Shows the current pan (0 ~ 359°) angle.

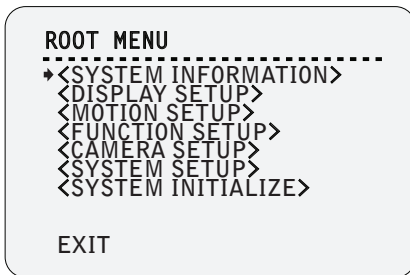
3 OSD - General Rules of Menu Operation



- 1 The characters < >, that surround the menu item, indicate that there is a sub menu.
- 2 Move among the different selections in the menu list using the joystick in the Up/Down or Left/Right direction.
- 3 To enter a sub-menu, press Near or Enter key.
- 4 To go back a menu, press Far key.
- 5 To change a value of an item, move the joystick in the Up/Down direction.
- 6 Press Near or Enter key to save values and press Far key to cancel values.

3 OSD - ROOT MENU > SYSTEM INFORMATION

1



1 ROOT MENU

<SYSTEM INFORMATION>

Shows system information and current system configuration.

<DISPLAY SETUP>

Enable or disable the OSD display on main screen.

<MOTION SETUP>

Configures motion related settings.

<FUNCTION SETUP>

Configures various functions such as preset, scan, pattern, group, and schedule.

<CAMERA SETUP>

Configures camera related functions and data.

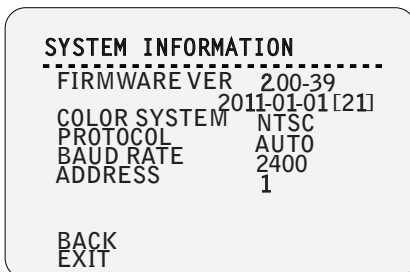
<SYSTEM SETUP>

Configures the basic system setup.

<SYSTEM INITIALIZE>

Initializes system configuration and sets all data to factory default configuration.

1



1 SYSTEM INFORMATION

FIRMWARE VER

Shows the current firmware version and date of upgrade.

COLOR SYSTEM

Shows the current analog video system.

PROTOCOL

Shows the current PTZ control protocol.

BAUD RATE

Shows the current baud rate of the PTZ control.

ADDRESS

Shows the current camera ID of the PTZ control.

3 OSD - DISPLAY SETUP > CAMERA ID

1

```

DISPLAY SETUP
-----
ADDRESS                ON
*CAMERA ID             BOT
PTZ INFORMATION        ON
ACTION TITLE           ON
PRESET LABEL           ON
ALARM I/O              ON
DATE/TIME              ON
<PRIVACY ZONE>
BACK
EXIT
    
```

Press Near/Enter Key

2

```

DISPLAY SETUP
-----
ADDRESS                ON
*CAMERA ID             BOT
PTZ INFORMATION        ON
ACTION TITLE           ON
PRESET LABEL           ON
ALARM I/O              ON
DATE/TIME              ON
<PRIVACY ZONE>
BACK
EXIT
    
```

Joystick Right

3

```

DISPLAY SETUP
-----
ADDRESS                ON
*CAMERA ID             BOT
PTZ INFORMATION        ON
ACTION TITLE           ON
PRESET LABEL           ON
ALARM I/O              ON
DATE/TIME              ON
<PRIVACY ZONE>
BACK
EXIT
    
```

Press Near/Enter Key

4

```

CAMERA ID
-----
 1 2 3 4 5 6 7 8 9 0 OK
 ABCDEFGHIJ CANCEL
 KLMNOPQRST
 UVWXYZabcd
 efghijklmn
 opqrstuvw
 yz < > - / : . <
    
```

Press Near/Enter Key

5

```

CAMERA ID
-----
AAAAAAAAAAAAAAAAAAAA
BBBBBBBBBBBBBBBBBB
 1 2 3 4 5 6 7 8 9 0 OK
 ABCDEFGHIJ CANCEL
 KLMNOPQRST
 UVWXYZabcd
 efghijklmn
 opqrstuvw
 yz < > - / : . <
    
```

1 DISPLAY SETUP

This menu defines what is displayed on the OSD of the main screen. If an item is set as AUTO, the item is displayed only when it is changed.

ADDRESS	ON / OFF
CAMERA ID	BOT / TOP / OFF Select the camera ID location. Refer to "OSD Display of Main Screen."
PTZ INFORMATION	ON / OFF / AUTO
ACTION TITLE	ON / OFF / AUTO
PRESET LABEL	ON / OFF / AUTO
ALARM I/O	ON / OFF / AUTO
DATE/TIME	ON / OFF
<PRIVACY ZONE>	Starts Privacy Zone Mask Setup Menu.

3 CAMERA ID

- Set the Camera ID to display on top (TOP) or bottom (BOT). Give the Camera ID a unique name. The menu will appear when TOP or BOT is selected.
- Maximum 48 characters, including space, are allowed.

```

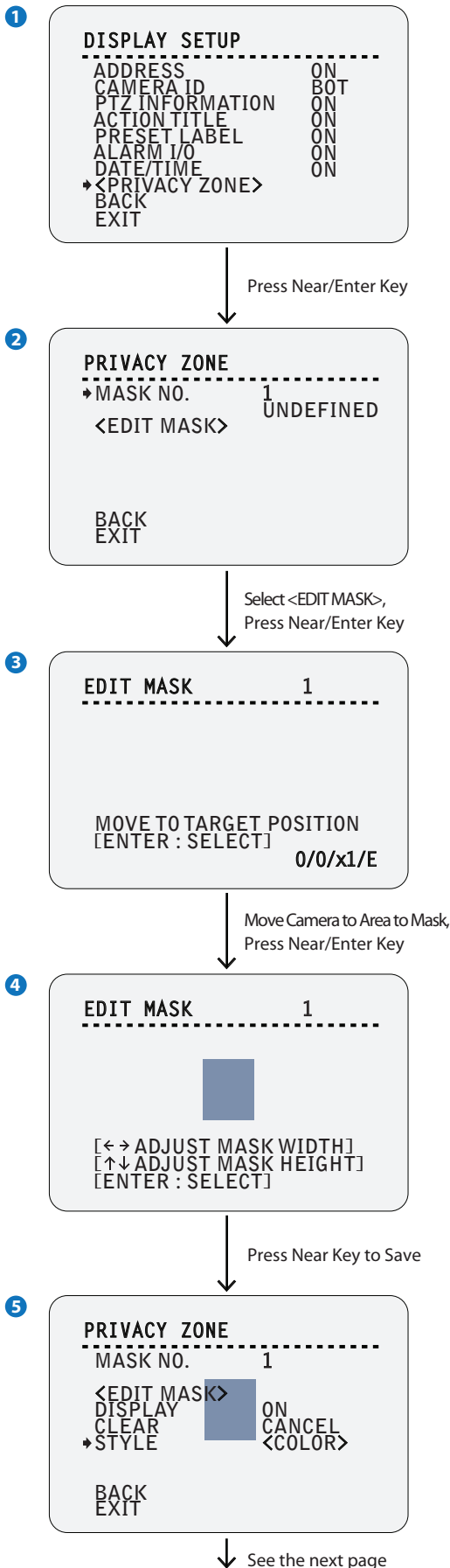
          LABEL          PRESET1
          -----
          [ ]
          1 2 3 4 5 6 7 8 9 0 OK
          ABCDEFGHIJ CANCEL
          KLMNOPQRST
          UVWXYZabcd
          efghijklmn
          opqrstuvw
          yz < > - / : . <
    
```

- a Current Cursor Position:** In the CAMERA ID menu, a black box functions as a cursor. As soon as a character is selected, the cursor moves to the next digit.
- b Selecting Alphabet:** Move the joystick Up/Down/Left/Right to the appropriate character from the character set you wish to select. To choose the character, press the Near or Enter key.
- c Space:** If you want to use a blank space, choose space character.
- d Backspace:** If you want to delete a character in front, use backspace character.

4 CAMERA ID - Complete Editing

When you complete the camera ID editing, move the cursor to OK and press Near key to save the completed camera ID. To disregard the current change, move the cursor to CANCEL and press the Near key.

3 OSD - DISPLAY SETUP > PRIVACY ZONE



1 DISPLAY SETUP

See the previous page.

3 EDIT MASK - Move to Target Position

Move the camera to the area you wish to mask. Then, the menu to adjust the mask size will be displayed.

⊠ If the tilt angle is located in the range between 0° to 90°, you can not set up a privacy zone mask.

⊠ If a tilt angle over 90° (image flipped region) is designated, camera will automatically move to that position by moving the pan angle 180° and adjusting the tilt angle as necessary.

4 EDIT MASK - Adjust Mask Size

Adjust mask size. Use joystick or arrow buttons to adjust mask size.

- Move Joystick Left/Right(◀▶): Adjust Mask Width.

- Move Joystick Up/Down(▲▼): Adjust Mask Height.

⊠ To hide a certain zone completely regardless of high speed pan/tilt motions, it is recommended that the size of mask must be 20% bigger than original target size.

⊠ It is noted that during pan/tilt control like jog action, the object behind the privacy mask can be disclosed in a short period of time.

5 PRIVACY ZONE

Selects an area in the image to mask.

MASK NO. 1 ~ 8

Selects mask number. If the selected mask has already been saved, camera moves as it was set. Otherwise, UNDEFINED will be displayed under MASK NO.

DISPLAY ON / OFF

Sets the camera to display or hide the masks on images.

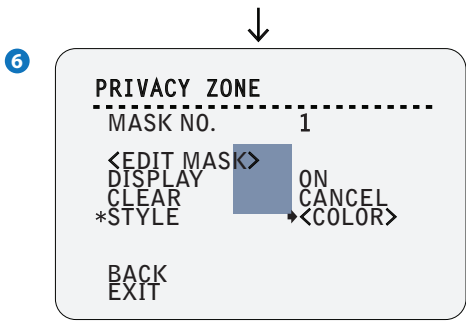
CLEAR MASK CANCEL / OK

Deletes data in the selected mask no.

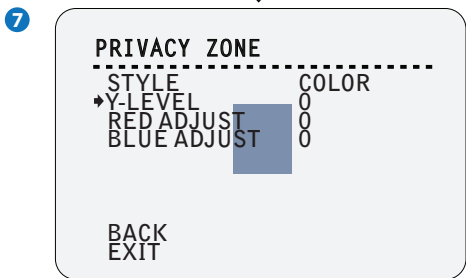
STYLE <COLOR> / MOSAIC 1 ~ 4

Set the style of the mask. See the next page.

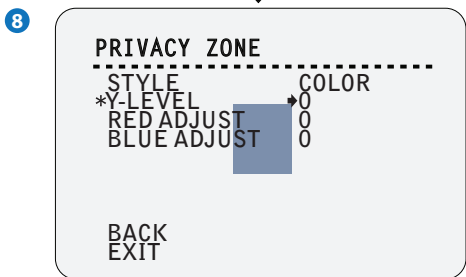
3 OSD - DISPLAY SETUP > PRIVACY ZONE



Press Near/Enter Key



Press Near Key to Save



7 PRIVACY ZONE - STYLE > COLOR

Set the color of the mask.

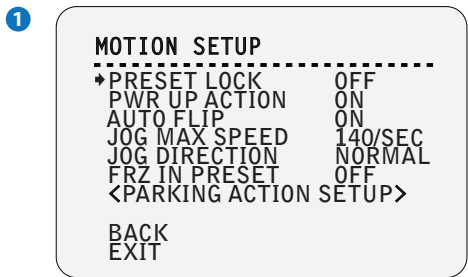
Y-LEVEL 0 ~ 100

Set the Y-LEVEL of the mask.

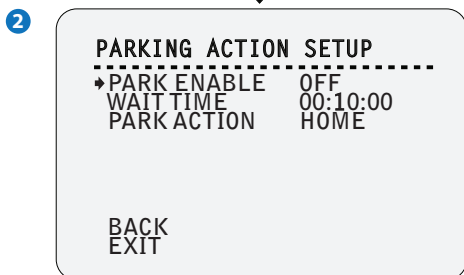
RED ADJUST 0 ~ 100

BLUE ADJUST 0 ~ 100

3 OSD - MOTION SETUP



Press Near/Enter Key



1 MOTION SETUP

Configures the general functions of pan/tilt motions.

PRESET LOCK ON / OFF

If motion lock is set to ON, it will be impossible to setup or delete a preset, scan, pattern, and/or group. It will only be possible to run those functions. To setup and delete those functions, go to OSD menu.

PWR UP ACTION ON / OFF / <PWR P>

This functions sets an action for your camera to execute when it restarts.

- **ON**: Camera resumes the last action executed before power went down. Most actions such as preset, pattern, scan, and group resume for this function, but jog action does not resume with this function.

- **OFF**: Camera will move to the home position.


- <PWR P>: Camera will move to the set <PWR P> position.

☒ If AUTO CAL is turned ON, PWR UP ACTION should also be set as ON.

If AUTO CAL is set to ON and PWR UP ACTION is set to PWR P, the camera will most likely cause a malfunction.

☒ If PWR UP ACTION is set as PWR P, FOCUS MODE should be set as AUTO. If FOCUS MODE is set as SEMIAUTO while PWR UP ACTION is set to ON, the camera will most likely cause a malfunction.

AUTO FLIP ON / OFF

When the tilt angle arrives to the top of the tilt orbit (90°), zoom module camera continues moving opposite of the tilt direction (180°) to continue tracing targets. As soon as zoom module camera passes through the top of tilt direction (90°), images should be reversed automatically and  appears on the screen. If this function is set to OFF, tilt movement range is 0° ~ 90°.

JOG MAX SPEED 2/SEC ~ 200/SEC

Sets maximum jog speed. Jog speed is inversely proportional to zoom magnification. As zoom magnification goes up, pan/tilt speed goes down.

JOG DIRECTION INVERSE / NORMAL

If you set this to NORMAL, the view on the screen is moving in the same direction with jog tilting. If INVERSE is selected, the view on the screen is moving in the reverse direction.

FRZ IN PRESET ON / OFF

When preset movement begins, the camera captures the image of the beginning point. Camera will display the captured image during the preset movement and will not display the images the camera receives during the movement. As soon as the camera stops at the preset end point, the camera begins to display the live images it receives at the end point.

<PARKING ACTION SETUP>

Opens to PARKING ACTION SETUP screen.


2 PARKING ACTION SETUP

If PARK ENABLE is set to ON, camera runs assigned function automatically if there is no PTZ command during assigned WAIT TIME.

PARK ENABLE ON / OFF

WAIT TIME 00:00:05 ~ 04:00:00

The time is displayed in "hh:mm:ss" format, and the time can be changed by 1 second unit.

1. To place the cursor on the time marked as shown below, press Near key. 

2. Move joystick Left/Right to adjust hours, minutes, and seconds.

3. Move joystick Up/Down to select the digit.

4. Press Near key to save the current setting.

PARKING ACTION HOME / PRESET 1~128 / SCAN 1~8 /
PATTERN 1~4 / GROUP 1~8

Ex) If HOME is selected for park action, camera will move to home position when there is no PTZ command during the assigned WAIT TIME.

3 OSD - MOTION SETUP

1

```

MOTION SETUP
-----
PRESET LOCK      OFF
PWR UP ACTION   ON
AUTO FLIP       ON
JOG MAX SPEED   140/SEC
JOG DIRECTION   NORMAL
FRZ IN PRESET   OFF
<PARKING ACTION SETUP>
* <ALARM INPUT SETUP>
BACK
EXIT
    
```

Press
Near/Enter
Key

2

```

ALARM INPUT SETUP
-----
*ALARM 1 N.O NOT USED
ALARM 2 N.O NOT USED
ALARM 3 N.O NOT USED
ALARM 4 N.O NOT USED
ALARM 5 N.O NOT USED
ALARM 6 N.O NOT USED
ALARM 7 N.O NOT USED
ALARM 8 N.O NOT USED
BACK
EXIT
    
```

Press
Near/Enter
Key

3

```

ALARM INPUT SETUP
-----
*ALARM 1 N.O NOT USED
ALARM 2 N.O NOT USED
ALARM 3 N.O NOT USED
ALARM 4 N.O NOT USED
ALARM 5 N.O NOT USED
ALARM 6 N.O NOT USED
ALARM 7 N.O NOT USED
ALARM 8 N.O NOT USED
BACK
EXIT
    
```

Joystick
Right

4

```

ALARM INPUT SETUP
-----
*ALARM 1 N.O NOT USED
ALARM 2 N.O NOT USED
ALARM 3 N.O NOT USED
ALARM 4 N.O NOT USED
ALARM 5 N.O NOT USED
ALARM 6 N.O NOT USED
ALARM 7 N.O NOT USED
ALARM 8 N.O NOT USED
BACK
EXIT
    
```

Joystick
Down

5

```

ALARM INPUT SETUP
-----
*ALARM 1 N.O PRESET 1
ALARM 2 N.O NOT USED
ALARM 3 N.O NOT USED
ALARM 4 N.O NOT USED
ALARM 5 N.O NOT USED
ALARM 6 N.O NOT USED
ALARM 7 N.O NOT USED
ALARM 8 N.O NOT USED
BACK
EXIT
    
```

2 ALARM INPUT SETUP

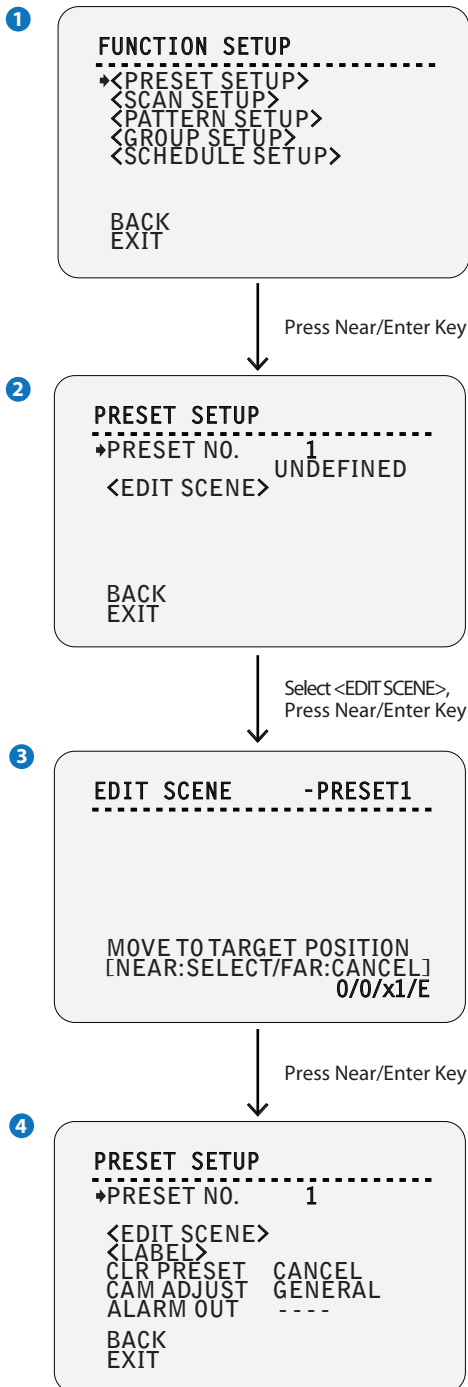
If an external sensor is activated, camera will move to the corresponding action.

Alarm Type: N.O(Normal Open) / N.C(Normal Close)
Sets the sensor input type.

Alarm Action NOT USED / HOME / PRESET 1~128 / SCAN 1~8 / PATTERN 1~4 / GROUP 1~8

For each alarm input, you can assign the counteraction functions (Preset, Scan, Pattern, Group).

3 OSD - FUNCTION SETUP > PRESET SETUP



1 FUNCTION SETUP

Configure 5 special functions with this menu.

2 PRESET SETUP - Undefined

127 presets (1~128) can be assigned excluding the number 95, which is reserved for the OSD menu.

PRESET NO. 1 ~ 128 (Excluding 95)

If a selected preset is already defined, camera moves to pre-defined position, and preset characteristics such as label and relay outputs appear on monitor. Refer screen 4. If a selected preset is not defined, UNDEFINED will appear on the monitor.

<EDIT SCENE>

Redefine the current preset scene position (i.e. PTZ).

3 EDIT SCENE

- Using joystick, move camera to the desired position.
- By pressing Near key, save the current PTZ data.
- Press Far key to cancel.

☒ PRESET configuration should be used only for Optical Zoom. If Optical Zoom and Digital Zoom are used together and PRESET is set, it is likely to cause malfunction.

4 PRESET SETUP

If the preset is defined, the information will be shown on the OSD menu with the setting, and the alarm device will be activated, if it has been defined.

PRESET NO. 1 ~ 128 (Excluding 95)

<EDIT SCENE>

<LABEL>

Edits Label to show on monitor when preset runs. Maximum ten characters are allowed.

CAM ADJUST GENERAL / SPECIAL

- WB (White Balance) and AE (Auto Exposure) can be set independently for each preset.
- **GENERAL:** WB or AE can be set completely and simultaneously for all presets in ROOT MENU > CAMERA SETUP menu.
- **SPECIAL:** WB or AE can be set independently or separately for each preset in each preset setup menu.
- Each special WB and AE value should be activated correspondingly when camera arrives at each preset location. During jog operation, the general WB and AE value should be applied.
- The special WB and AE values should not be changed when the general WB and AE value is changed. If SPECIAL is selected, the menu to set the special WB and AE appears on the monitor.

ALARM OUT ---- ~ 1 2 3 4

The status of four alarm outputs can be freely controlled in conjunction with preset run. The character "-" means the alarm output is OFF, and the number which represents the alarm means ON.

Ex) "- 2 3 -" means output relay 2 and 3 will be ON, and 1 and 4 will be OFF, when you run this preset.

3 OSD - FUNCTION SETUP > PRESET SETUP

1

```

PRESET SETUP
-----
PRESET NO.    1
<EDIT SCENE>
*<LABEL>
CLR PRESET   CANCEL
CAM ADJUST   GENERAL
ALARM OUT   -----
BACK
EXIT
    
```

Press Near/Enter Key

2

```

LABEL          PRESET1
-----
[ ]
1 2 3 4 5 6 7 8 9 0 OK CANCEL
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 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 < > - / : . <
    
```

Press Near/Enter Key

3

```

LABEL          PRESET1
-----
[SKY ]
1 2 3 4 5 6 7 8 9 0 OK CANCEL
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 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 < > - / : . <
    
```

2 LABEL
- Edits the label to display on the monitor when camera arrives at presets.

```

LABEL          PRESET1
-----
[ ]
1 2 3 4 5 6 7 8 9 0 OK CANCEL
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 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 < > - / : . <
    
```

- a Current Cursor Position:** In edit label menu, a black box acts as a cursor. As soon as you select a character, the cursor moves to the next digit.
- b Selecting Alphabet:** Using the joystick, move to an appropriate character from the character set. To select the character, press the Near or Enter key.
- c Space:** If you want to use blank, choose space character.
- d Backspace:** If you want to delete a character in front of the black box, use backspace character.

3 LABEL – Complete Editing
If you complete the label editing, move the cursor to OK and press NEAR key to save the completed label. To disregard the current change, move the cursor to CANCEL and press the Near key.

1

```

PRESET SETUP
-----
PRESET NO.    1
<EDIT SCENE>
<LABEL>
CLR PRESET   CANCEL
*<CAM ADJUST> *<SPECIAL>
ALARM OUT   -----
BACK
EXIT
    
```

Press Near/Enter Key

2

```

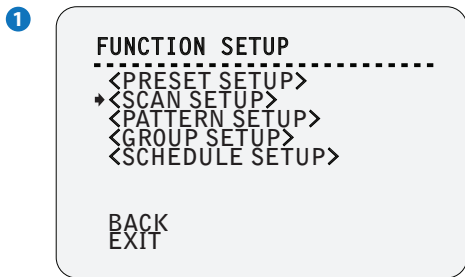
CAM ADJUST     -PRESET1
-----
*<WHITE BALANCE SETUP>
<AUTO EXPOSURE SETUP>
BACK
EXIT
    
```

2 CAM ADJUST
Edits label to show on monitor when the camera arrives at the presets.

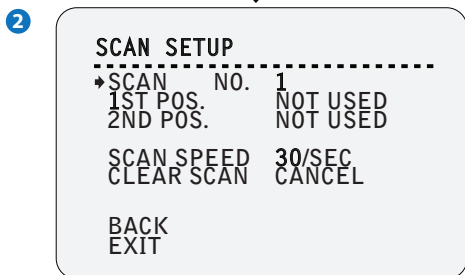
<WHITE BALANCE SETUP>
See section ROOT MENU > CAMERA SETUP > WB SETUP.

<AUTO EXPOSURE SETUP>
See section ROOT MENU > CAMERA SETUP > AE SETUP.

3 OSD - FUNCTION SETUP > SCAN SETUP



Press Near/Enter Key

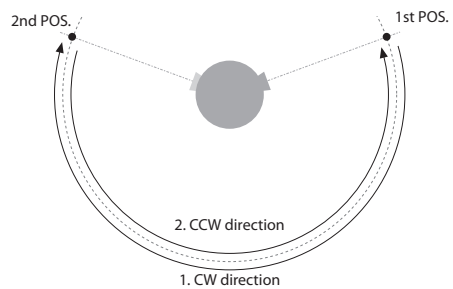


2 SCAN SETUP

With the scan function, you can set the camera to move between 2 preset positions repeatedly.

When the scan function runs, the camera moves from the preset assigned as the 1st point to the preset assigned as the 2nd point in CW (clockwise) direction. Then, the camera moves from the preset assigned as the 2nd point to the preset assigned as the 1st point in CCW (counterclockwise) direction.

In case the preset assigned as the 1st point is same as the preset assigned as the 2nd point, the camera turns on its axis by 360° in CW direction and then it turns on its axis by 360° in CCW direction.

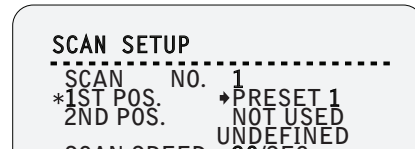


SCAN NO. 1 ~ 8

Selects the scan number to edit. If a selected scan has not been defined, NOT USED is displayed in 1st position and 2nd position.

1ST POS. / 2ND POS. PRESET 1 ~ 128 / NOT USED

Set up the 2nd Position for scan function. If a selected preset is not defined, UNDEFINED will be displayed as shown below.



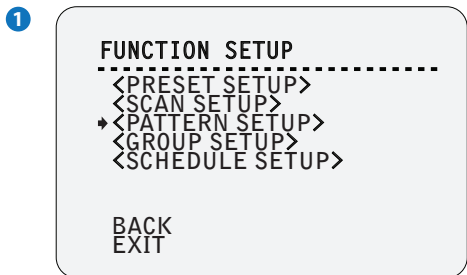
SCAN SPEED 1/SEC ~ 180/SEC

Sets the speed of the scan.

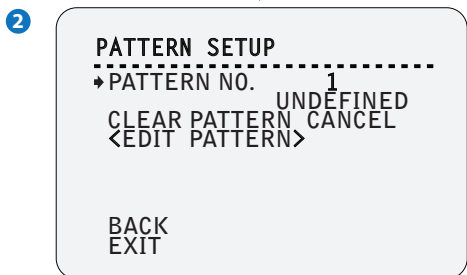
CLEAR SCAN CANCEL / OK

Deletes the current scan data.

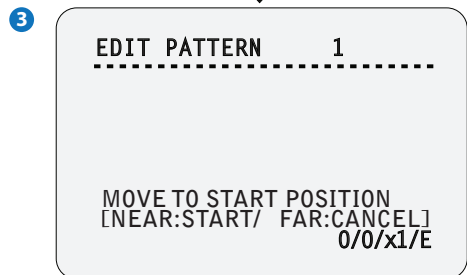
3 OSD - FUNCTION SETUP > PATTERN SETUP



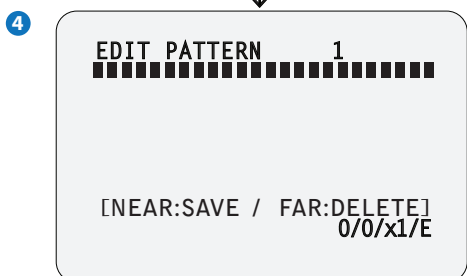
Press Near/Enter Key



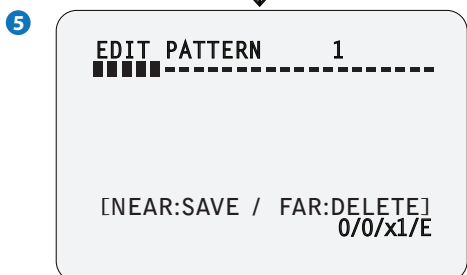
Select <EDIT PATTERN>, Press Near/Enter Key



Move Camera to Area, Press Near/Enter Key



Record the Path of the Pattern by Camera Control



2 PATTERN SETUP

Pattern function is when a camera memorizes the path (mostly curve path) created by a joystick controller and revives the path exactly as it memorized for an assigned time.

4 patterns are available and maximum 1000 communication commands can be stored in a pattern.

PATTERN NO. 1 ~ 4

Select pattern number to edit. If a selected pattern number is not defined, UNDEFINED will be displayed under selected pattern number.

CLR PATTERN CANCEL / OK

Deletes data in the current pattern.

<EDIT PATTERN>

Starts editing pattern.

3 EDIT PATTERN - Select the Position

1. By using joystick, move to the start position with appropriate zoom.

2. To start the pattern recording, press Near or Enter key.

3. To exit this menu, press Far key.

4 EDIT PATTERN - Records

1. Move the camera with joystick of the controller or run preset function to memorize the path (mostly curve path) in a selected pattern.

2. The total memory size and the rest memory size is displayed in the form of a bar.

3. To save data and exit, press Near key.

4. To cancel recording and delete the recorded data, press Far key.

3 OSD - FUNCTION SETUP > GROUP SETUP

1

```

FUNCTION SETUP
-----
<PRESET SETUP>
<SCAN SETUP>
<PATTERN SETUP>
* <GROUP SETUP>
<SCHEDULE SETUP>

BACK
EXIT
    
```

Press Near/Enter Key

2

```

GROUP SETUP
-----
* GROUP NO.      1
CLEAR GROUP    UNDEFINED
<EDIT GROUP>   CANCEL

BACK
EXIT
    
```

Select <EDIT GROUP>, Press Near/Enter Key

3

```

EDIT GROUP      1
-----
* NO. ACTION NO. DWELL OPT
  1 NONE
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-----
SAVE
CANCEL [NEAR:EDIT]
    
```

Press Near/Enter Key

4

```

EDIT GROUP      1
-----
NO. ACTION NO. DWELL OPT
-----
* 1 NONE
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-----
SAVE [NEAR:EDIT ACT]
CANCEL [FAR :EDIT END]
    
```

Press Near/Enter Key

5

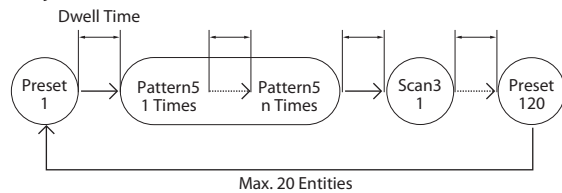
```

EDIT GROUP      1
-----
NO. ACTION NO. DWELL OPT
-----
* 1 NONE
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-----
SAVE [←→:MOVE CURSOR]
CANCEL [↑↓:CHANGE VAL.]
    
```

2 GROUP SETUP SCREEN

The group function allows you to run sequence of presets, pattern, and/or scans. Maximum 8 groups can be stored. Each group can have a maximum of 20 action entities which can be preset, pattern, or scan.

The preset speed and the repeat number of patter & scan can be configured in group setup. Dwell time between actions can also be adjusted.



GROUP NO. 1 ~ 8

Selects group number to edit. If a selected group number is not defined, UNDEFINED will be displayed under the selected group number.

CLEAR GROUP CANCEL / OK

Deletes data in the current group.

<EDIT GROUP>

Starts editing group.

3 EDIT GROUP - Initial Screen

Select a # from the list to begin group setup.

ACTION NO. NONE / PRESET 1~128(Excluding 95) / PATTERN 1~4 / SCAN 1~4

DWELL TIME 00:03 ~ 04:00 (min:sec)

Sets dwell time between function by moving joystick up/down.

OPT PRESET: 1~360 / PATTERN & SCAN: 1~255

Represents preset speed (1~360) when preset is selected. It should be the number of repetition (1~255), when pattern or scan is selected for ACTION.

4 EDIT GROUP – Select Function Sequence

Note that a maximum of 20 functions are allowed in a group.

Move cursor up/down and press Near or Enter key to set up.

5 6 EDIT GROUP - Assign Function

Set up ACTION, DWELL, and OPT. Note that selected item is displayed in reverse. Move cursor left/right to select items and move cursor up/down to change each value.

3 OSD - FUNCTION SETUP > GROUP SETUP

6

```

EDIT GROUP                1
-----
NO. ACTION NO. DWELL OPT
-----
▶ 1 PATTERN 1  00:03  1
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-----
SAVE   [← →: MOVE CURSOR]
CANCEL [↑ ↓: CHANGE VAL.]
    
```

↓ Press Near/Enter Key

7

```

EDIT GROUP                1
-----
NO. ACTION NO. DWELL OPT
-----
▶ 1 PATTERN 1  00:03  1
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-----
SAVE   [NEAR: EDIT ACT]
CANCEL [FAR : EDIT END]
    
```

↓ Press Far Key

8

```

EDIT GROUP                1
-----
NO. ACTION NO. DWELL OPT
-----
  1 PATTERN 1  00:03  1
  2 NONE
  3 NONE
  4 NONE
  5 NONE
-----
▶ SAVE
  CANCEL
    
```

7

EDIT GROUP - Selects Function Sequence

When you finish setting up an ACTION, press Near or Enter key. Move cursor up/down to select another ACTION NO. and repeat steps 4~ step 6 to edit the selected group.

8

EDIT GROUP - Saves the Setting

After completing the setup of all actions, press Far key to exit. Then, move the cursor to SAVE. Press Near or Enter key to save the data.

3 OSD - FUNCTION SETUP > SCHEDULE SETUP

1

```

FUNCTION SETUP
-----
<PRESET SETUP>
<SCAN SETUP>
<PATTERN SETUP>
<GROUP SETUP>
<SCHEDULE SETUP>

BACK
EXIT
    
```

Press Near/Enter Key

2

```

SCHEDULE SETUP
-----
▶ MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  UNDEFINED
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

Joystick Down,
Press Near Key

3

```

SCHEDULE SETUP
-----
MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  UNDEFINED
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

Joystick Down

4

```

SCHEDULE SETUP
-----
MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  ALL 00:00 HOM  OFF
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

Assign Value

5

```

SCHEDULE SETUP
-----
MASTER ENABLE      OFF
  DAY TIME  ACT NO  ON
1  ALL 12:00 PRS 128 ON
2  UNDEFINED
3  UNDEFINED
4  UNDEFINED
5  UNDEFINED
6  UNDEFINED
7  UNDEFINED
BACK
    
```

2 SCHEDULE SETUP SCREEN

The schedule function allows you to run an appropriate function like preset, scan, pattern, or group at a designated day and time.

EX) If you set the rule "Tuesday at 9:00AM" and "Preset 1 (EX: Main Gate)", the camera will move to the main gate every Tuesday at 9:00 AM. If you choose weekday, camera will move to main gate everyday except on weekends.

It is noted that due to the real time clock (ROOT MENU > SYSTEM SETUP > DATA/TIME SETUP), the time data will be kept regardless of a blackout. The initial time and day setup is essential to proper schedule function.

MASTER ENABLE	ON / OFF
----------------------	----------

Decide whether schedule function is active or not.

DAY	UNDEFINED / ALL / WKD / SUN ~ MON
------------	-----------------------------------

Set the day for scheduling.

- **Undefined:** Inactivate.

- **All:** Applies to every day of the week.

- **WKD:** Applies to every day except Saturday and Sunday.

- **SUN-MON:** Applies to the designated day only.

TIME	00:00 ~ 23:59 (hour:min)
-------------	--------------------------

Set the time.

ACT NO	HOM(HOME) / PRS(Preset) 1~128(Excluding 95) / SCN(Scan) 1~8 / PTN(Pattern) 1~4 / GRO(Group) 1~8
---------------	---

Set the function and number.

ON	ON / OFF
-----------	----------

Turn ON / OFF this rule.

4 5 SCHEDULE SETUP - Assign Value

Each field (DAY, TIME, ACT, NO, ON) can be selected by left/right keys, and the values in the field are changed using up/down keys.

3 OSD - FUNCTION SETUP > SCHEDULE SETUP

6

SCHEDULE SETUP

```
-----  
MASTER ENABLE          ON  
DAY TIME ACT NO ON  
1 MON 01:20 HOM 12 ON  
2 WED 07:00 PRS 12 ON  
3 THU 11:40 SCN 3 ON  
4 ALL 12:00 SCN 1 ON  
5 UNDEFINED  
6 UNDEFINED  
7 UNDEFINED  
BACK
```

EXAMPLE:

The second rule means camera will move to preset 12 at 7:00 every wednesday.

- ☒ If the rules conflict with each other, the higher number will have priority over the others.
- ☒ If you assign an undefined function, there will be no action that takes place.

3 OSD - CAMERA SETUP > WB SETUP

1

```

ZOOM CAMERA SETUP
-----
FOCUS MODE          SEMIAUTO
DIGITAL ZOOM       ON
IMAGE FLIP         OFF
FLICKERLESS       OFF
DIS MODE          OFF
* <WHITE BALANCE SETUP>
<AUTO EXPOSURE SETUP>
<SPECIAL>
BACK
EXIT
    
```

Press Near/Enter Key

2

```

WB SETUP
-----
* DAY/NIGHT        DAY
- WB MODE          ATW2
- RED ADJUST       0
- BLUE ADJUST      0

BACK
EXIT
    
```

Joystick Down,
Press Near Key

3

```

WB SETUP
-----
DAY/NIGHT        DAY
*- WB MODE       * ATW2
- RED ADJUST     0
- BLUE ADJUST    0

BACK
EXIT
    
```

Joystick Down

4

```

WB SETUP
-----
DAY/NIGHT        DAY
*- WB MODE       * AWC>
- RED ADJUST     0
- BLUE ADJUST    0
- R-GAIN         0
- B-GAIN         0

BACK
EXIT
    
```

Joystick Right

5

```

WB SETUP
-----
DAY/NIGHT        DAY
*- WB MODE       * AWC>
- RED ADJUST     0
- BLUE ADJUST    0
- R-GAIN         74
- B-GAIN         52

BACK
EXIT
    
```

1 ZOOM CAMERA SETUP

Setup the general functions of zoom camera module.

FOCUS MODE AUTO / MANUAL / SEMIAUTO

Sets the camera focus mode.

- **SEMIAUTO**: Alternates the focus mode automatically from MANUAL to AUTO. MANUAL activates during preset operation, and AUTO activates when jog operation begins.

- **MANUAL**: A unique focus can be set for a specific preset. When MANUAL is selected as the focus mode, camera will go to the set focus for the corresponding preset.

DIGITAL ZOOM ON / OFF

Sets digital zoom function to ON or OFF. If this is set to OFF, optical zoom function runs, but zoom function stops at the end of optical zoom magnification.

☒ If DIGITAL ZOOM is set to OFF, DIS will turn off automatically.

IMAGE FLIP ON / OFF

Set the image to display as is or in reverse.

FLICKERLESS ON / OFF

Turn ON or OFF Flickerless function. If this is turned on, AE becomes the priority shutter mode, and shutter speed value will be fixed to 1/100 seconds.

DIS ON / OFF

Sets the Digital Image Stabilization mode.

☒ If DIS MODE is set to ON, DIGITAL ZOOM will turn off automatically.

<WHITE BALANCE SETUP>

Opens WHITE BALANCE SETUP screen.

<AUTO EXPOSURE SETUP>

Opens AUTO EXPOSURE SETUP screen.

<SPECIAL>

Opens SPECIAL SETUP screen.

2 WB SETUP - DAY

DAY/NIGHT DAY / NIGHT

The day and night mode can be set independently.

☒ Night mode will only be deactivated if AGC in CAMERA SETUP is set to OFF or FIX.

WB MODE ATW1 / ATW2 / AWC / 3200K / 5600K / OFF

- **ATW1**: The color temperature is adjusted automatically between 2500K and 9300K.

- **ATW2**: The color temperature is adjusted automatically between 2000K and 10000K.

- **AWC**: The color temperature is adjusted automatically. Then, adjusted value of R-GAIN and B-GAIN are maintained. Gain value can be adjusted manually by the user. It can be fixed as 3200K or 5600K.

- **OFF**: Only activated when NIGHT is selected. At night, the setting will be same as day's setting.

RED/BLUE ADJUST -32 ~ +32

In every mode except OFF, users can adjust the red/blue color value to have the image they want.

R/B - GAIN 0 ~ 1000

If AWC is ON, the adjusted value will be marked. Also, the user can adjust the values even after it has been adjusted automatically.

3 OSD - CAMERA SETUP > WB SETUP

6

```
WB SETUP
-----
DAY/NIGHT      NIGHT
*- WB MODE     → AWC>
- BRIGHTNESS  MIDDLE
- RED ADJUST   0
- BLUE ADJUST  0
- R-GAIN       74
- B-GAIN       52

BACK
EXIT
```

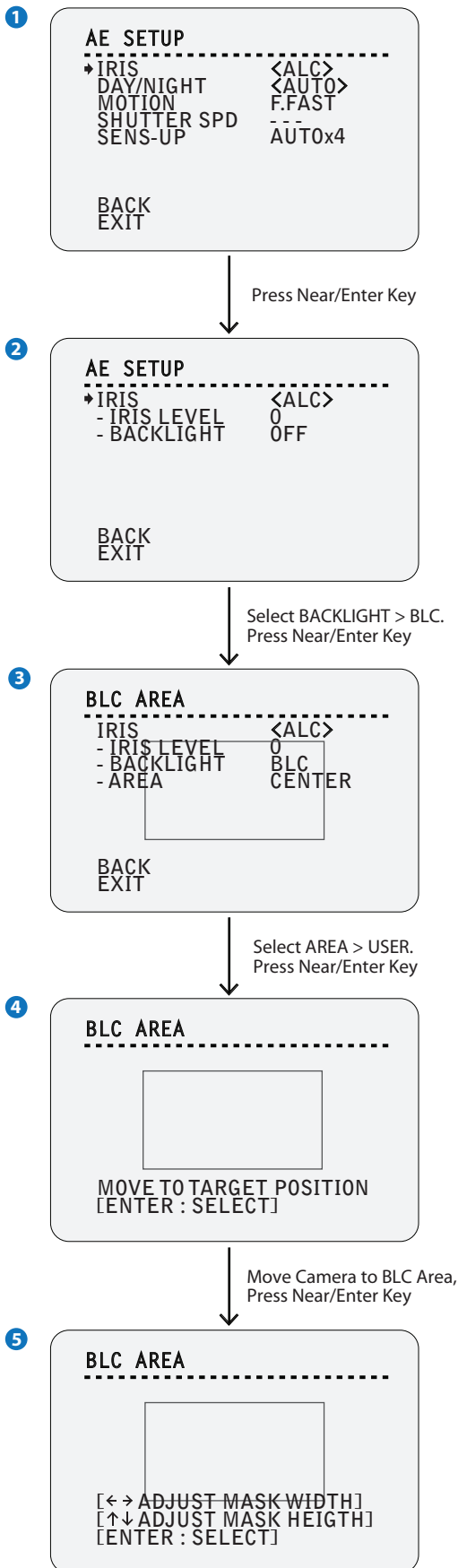
6 WB SETUP - NIGHT

BRIGHTNESS LOW / MIDDLE / HIGH

When NIGHT is selected, it sets the criterion of the automatic day/night selection.

If set to LOW, the image has to be very dark to be recognized as night among the 3 settings. If set to HIGH, the image will be recognized as night even though it is a little dark.

3 OSD - CAMERA SETUP > AE SETUP



1 AE SETUP

IRIS ALC / MANUAL
See below "2 AE SETUP - IRIS > ALC."

DAY/NIGHT DAY / NIGHT / AUTO
Color filter or B/W filter can be selected. If DAY/NIGHT is set to AUTO, starts 'DAY/NIGHT' editing. See the next page "2 DAY/NIGHT."

⊠ This is changed to AGC or MOTION according to the SENS-UP setting.

AGC VERY LOW / LOW / MIDDLE / HIGH / VERY HIGH / USER 1~16 / FIX 1~16

Enhances the brightness of the image by amplifying gain when the illumination is low.

MOTION S.SLOW / SLOW / NORMAL / FAST / F.FAST
If MOTION is set to S.SLOW, the shutter speed will be slower to obtain more light. There will be less noise, but this can cause the ghost effect of the moving object.
If MOTION is set to F.FAST, there will be less noise, but this will reduce the ghost effect for any moving object.

SHUTTER SPD OFF / 1/100 ~ 1/10K
If this speed is faster, the moving object can be photographed without the ghost effect. However, the images can be dark if the scene lacks sufficient lighting.

⊠ If SENS-UP is set to AUTO, SHUTTER SPD is deactivated.

SENS-UP OFF / AUTO x2 ~ AUTO x256 / FIX x2 ~ FIX x256
Activates the slow shutter function when luminance of the image is too dark for the CCD to accumulate the amount of light it is set to obtain.

2 AE SETUP - IRIS > ALC

If ALC is selected, the iris will be controlled automatically.

IRIS LEVEL -32 ~ +32

BACKLIGHT OFF / BLC / WDR

This function improves the backlight effect, which is when the subject is dark on the monitor because the intensive backlight.

- **BLC**: You can select the desired area you wish to brighten. If it is set on a bright area, note that the area will appear even brighter.
- **WDR**: See "AE SETUP - IRIS > ALC > BACKLIGHT > WDR" on the next page.

3 BLC AREA

AREA TOP / BOTTOM / LEFT / RIGHT / USER
If set to USER, the user can set the specific area.
See the screens 4 5 on this page.

3 OSD - CAMERA SETUP > AE SETUP

1

```

AE SETUP
-----
IRIS                <ALC>
*DAY/NIGHT          <AUTO>
MOTION              F.FAST
SHUTTER SPD        ---
SENS-UP            AUTOx4

BACK
EXIT
    
```

Press Near/Enter Key

2

```

DAY/NIGHT
-----
->BURST             OFF
[DAY->NIGHT]
-BRIGHTNESS        MIDDLE
-DWELL TIME         5 SEC
[NIGHT->DAY]
-BRIGHTNESS        MIDDLE
-DWELL TIME         5 SEC
-MASK AREA          1 2
BACK
EXIT
    
```

2 DAY/NIGHT

The camera automatically detects the change by the brightness of the scene.

BURST ON / OFF

If BURST is set to ON, the burst signal is produced although the camera is changed to B/W filter.

BRIGHTNESS LOW / MIDDLE / HIGH

As the camera switches from Color to B/W with BRIGHTNESS set as LOW, the images will appear darker. As the camera switches from B/W to Color with BRIGHTNESS set as HIGH, the image will appear brighter.

DWELL TIME 2 SEC / 3 SEC / 5 SEC / 10 SEC / 15 SEC / 20 SEC / 25 SEC / 30 SEC

When the switching criterions are satisfied, the filter is changed after the status is maintained during the dwell time.

MASK AREA 1 / 2

If streetlights or traffic lights are present in a night scene, the mode might not change to B/W. In this incident, setting MASK AREA to those lights will correct the problem.

☒ If BACKLIGHT is set to BLC, MASK AREA function is deactivated.

1

```

AE SETUP
-----
IRIS                <ALC>
- IRIS LEVEL        0
*- BACKLIGHT         <OFF>

BACK
EXIT
    
```

Joystick Down

2

```

AE SETUP
-----
IRIS                <ALC>
- IRIS LEVEL        0
-> BACKLIGHT         WDR
- WEIGHT             MIDDLE
- WDR LEVEL          0
- WHITE BAL          INDOOR

BACK
EXIT
    
```

2 AE SETUP - IRIS > ALC > BACKLIGHT > WDR

In WDR mode, the brightness is adjusted in all area of the picture by combining high speed shutter and low speed shutter.

WEIGHT LOW / MIDDLE / HIGH

If 'WEIGHT is set to HIGH, the area applying high speed shutter is expanded.

WDR LEVEL -9 ~ +9

As WDR LEVEL gets higher, the speed of the high speed shutter gets faster.

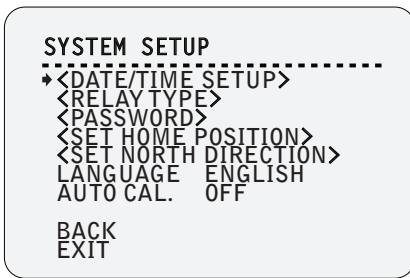
WHITE BAL INDOOR / OUTDOOR

If WHITE BAL is set to INDOOR, the color temperature adjusts based on the darker areas. If WHITE BAL is set to OUTDOOR, the color temperature adjusts based on the brighter areas.

☒ When WDR is used, the internally operating VPS function stops.

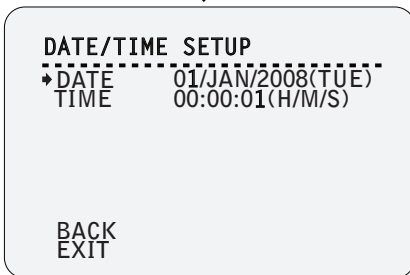
3 OSD - SYSTEM SETUP

1

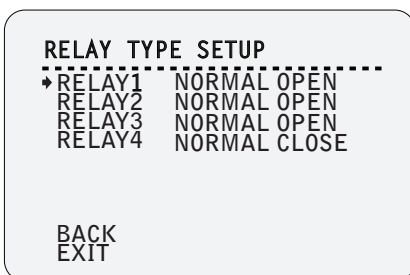


Press
Near/Enter
Key

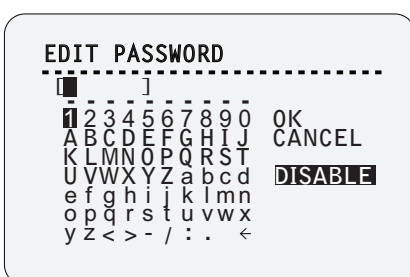
2



3



4



1 SYSTEM SETUP

<DATE/TIME SETUP>
Opens DATE/TIME SETUP menu.

<RELAY TYPE>
Opens RELAY TYPE menu.

<PASSWORD>
Opens PASSWORD menu.

<SET HOME POSITION>
Opens SET HOME POSITION menu.

<SET NORTH DIRECTION>
Opens SET NORTH DIRECTION menu.

LANGUAGE ENGLISH / ESPAÑOL / FRANÇAIS / DEUTSCH / ITALIANO / РУССКИЙ / PORTUGUÊS

You can select a preferred language for the OSD display. After selecting a language, press Near or Enter key.

AUTO CAL. ON / OFF

If the camera is continuously subjected to very high temperatures (over 50°C or 122°F) for a long period of time, it is possible for the camera to lose focus and produce blurry images. When this happens, it is recommended to turn ON the auto calibration feature.

If AUTO CAL is set to ON, it will be conducted for 10 seconds every 24 hours.

- During auto calibration, unexpected images can appear due to unordinary PTZ movement.
- During auto calibration, the figures "A.C" will be displayed on the bottom left corner of the screen.
- During auto calibration, some functions including PTZ cannot be executed.

2 RELAY TYPE SETUP

RELAY1, 2, 3, 4 NORMAL OPEN (N.O) / NORMAL CLOSE (N.C)
Define the type of relay output for each of the four relays.

3 EDIT PASSWORD

Set a password that consist of 4 characters. If this function is set to ENABLE, the password is required whenever you open the OSD menu.

⊗ The default password is "4321," and the master password is "- - > g."

3 OSD - SYSTEM SETUP

5

SET HOME POSOTION

MOVE TO TARGET POSITION
[NEAR:SELECT/FAR:CANCEL]
0/0/x1/E

6

SET NORTH DIRECTION

MOVE TO TARGET POSITION
[NEAR:SELECT/FAR:CANCEL]
0/0/x1/N

5 SET HOME POSITION

Home position means the origin of pan angle calculation. The value of the pan angle displayed on the screen is based on this home position.

By using the joystick, move the camera to the desired position and press Near key.

Home position does not effect the tilt angle.

If you change the location of the home position, all horizontal locations of your set functions such as preset, scan, pattern, group, and privacy zones mask will be shifted based on the new home position.

If there are no saved locations for the preset, pattern, scan, and/or group, the camera will automatically move to the home position after rebooting.

If power up action is set as ON, camera will continue the last function that was executed right before reboot.

⊠ Set Home Position?

When the camera block is replaced or the orientation of the camera is changed due to maintenance operations, it is very difficult to maintain the same pan orientation. All the data for the functions that depend on pan orientation, such as preset, scan, pattern, group, and privacy zone mask, are no longer useful. However, even in this case, you can reuse the data if you redefine the set home position to the previous home position.

6 SET NORTH DIRECTION

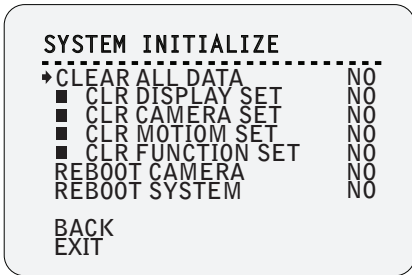
By using the joystick, move the camera to the desired northern position and press Near or Enter key. The direction will be displayed on the screen.

LINEAR.SELECT/FAR.CANCEL
0/0/x1/N

Direction will be displayed as one of the following:

- N (North)
- S (South)
- E (East)
- W (West)
- NE (Northeast)
- NW (Northwest)
- SE (Southeast)
- SW (Southwest)

3 OSD - SYSTEM INITIALIZE



SYSTEM INITIALIZE

CLEAR ALL DATA	YES / NO	Deletes all configuration data such as display, camera, motion setup, etc.
CLR DISPLAY SET	YES / NO	Initializes display configuration.
CLR CAMERA SET	YES / NO	Initializes camera configuration.
CLR MOTION SET	YES / NO	Initializes motion configuration.
CLR FUNCTION SET	YES / NO	Deletes preset data, scan data, pattern data, group data, and schedule data.
REBOOT CAMERA	YES / NO	Reboots zoom camera module.
REBOOT SYSTEM	YES / NO	Reboots speed dome camera.

Initial Configuration Table

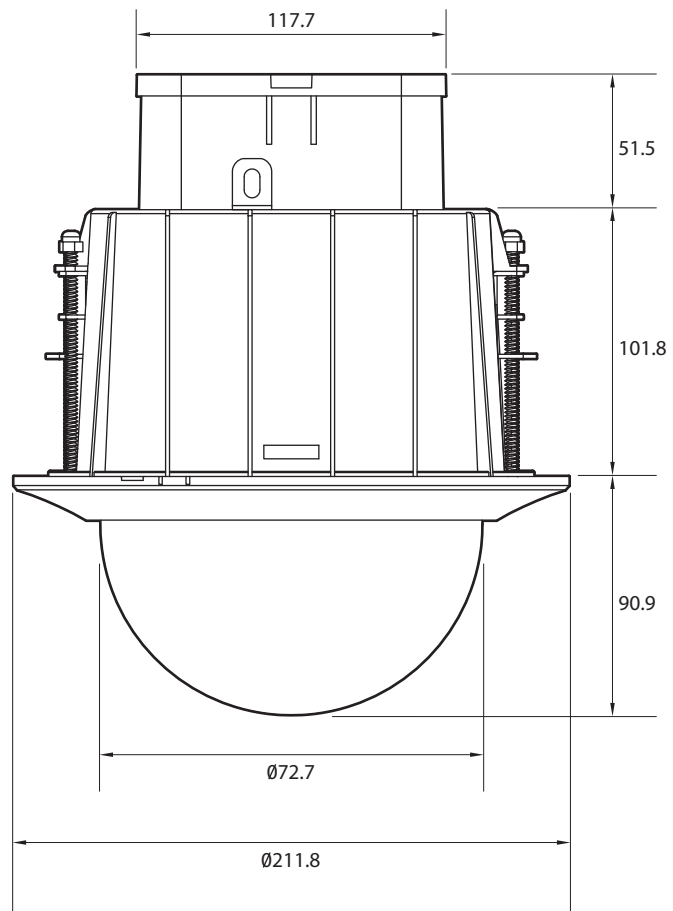
Address	ON	
Camera ID	OFF	
PTZ Information	AUTO	
Action Title	AUTO	Display
Preset Label	AUTO	
Alarm I/O	AUTO	
Date/Time	ON	
Privacy Zone	Undefined	
Preset Lock	OFF	
Power Up Action	ON	
Auto Flip	ON	
Jog Max Speed	140°/sec	Motion
Jog Direction	NORMAL	
Freeze In Preset	OFF	
Park Action	OFF	
Preset 1~255	Undefined	
Auto Pan 1~8	Undefined	
Pattern 1~4	Undefined	Function
Scan 1~8	Undefined	
Schedule 1~7	Undefined	
Focus Mode	AUTO	
Digital Zoom	OFF	
Image Flip	OFF	
Flickerless	OFF	
DIS Mode	OFF	

Day/Night	DAY	
WB Mode	ATW2	
Red Adjust	0	
Blue Adjust	0	
Day/Night	NIGHT	
WB Mode	OFF	

Iris	ALC	Camera
Iris Level	0	
Backlight	OFF	
Day/Night	AUTO	
Burst	OFF	
Brightness	MIDDLE	
Dwell Time	5 SEC	
Mask Area	Undefined	
Motion	F.FAST	
Sens-up	AUTOx4	
DNR	MIDDLE	
Zoom Speed	4	
Detail	2	
PIP	OFF	
Posi/Nega	+	
LANGUAGE	ENGLISH	SYSTEM
AUTO CAL.	ON	

4 Specifications - Dimension

unit: mm



4 Specifications - Specification PTZ39XFM

Camera

Image Device	1/4" Sony EX-View HAD Progressive Scan CCD
Total Pixel	811 (H) × 508 (V) 410K Pixels
Effective Pixel	768 (H) × 494 (V) 380K Pixels
H. Resolution	Color: 550 TV Lines • B/W: 600 TV Lines
S/N Ratio	52dB (AGC OFF)
Zoom	X39 Optical Zoom, X12 Digital Zoom (Total X468)
Focal Length	f = 3.4 (W) ~ 132.6 (T) mm, F1.6 (W) ~ 3.7 (T)
Angle of View	H: 57.54° (W) ~ 1.56° (T) • V: 44.44° (W) ~ 1.16° (T)
Min. Illuminance	Color: 1.2 Lux (Star-Light OFF), 0.004 Lux (Star-Light X256) at F1.6 50IRE B/W: 0.12 Lux (Star-Light OFF), 0.0004 Lux (Star-Light X256) at F.16 50IRE
Shutter Speed	1/60 ~ 1/120,000 SEC
Day & Night	AUTO / DAY / NIGHT (ICR)
Focus	AUTO / MANUAL / SEMIAUTO
Iris	ALC / MANUAL
White Balance	ATW1 / ATW2 / AWC / 3200K / 5600K / OFF
AGC	OFF / VERY LOW / LOW / MIDDLE / HIGH / VERY HIGH / USER 1~16 / FIX 1~16
DNR	OFF / LOW / MIDDLE / HIGH / USER 1~16
DIS	ON / OFF
BLC	OFF / ON (AREA)
WDR	OFF / ON (WEIGHT, WDR LEVEL, WHITE BAL)
Other Functions	Frame Freeze Function, System Image Flip by Installation Type

Pan/Tilt

Pan Range	360° (Endless)
Tilt Range	0° ~ 180° (Auto-Flip ON) • 0° ~ 90° (Auto-Flip OFF)
Pan/Tilt Speed	Preset: 360° Scan: 1° ~ 180°/sec. Manual: 0.05° ~ 200°/sec. (Zoom Proportional)
Preset	127 Presets with Labels / Independent Camera Setup
Pattern	4 Patterns
Scan	8 Scans
Group	8 Groups (Maximum 20 Entries per Group)
Schedule	7 Rules (Condition: Day, Time → Action: Preset, Scan, Group, Pattern)
Other Functions	Image Auto Flip, Auto Parking, Power-Up Action, etc.

General

Video Out	CVBS: 1.0 V p-p / 75Ω
Communication	RS-485
Protocol	Auto, Pelco-D/P, Samsung, Panasonic, GE (Kalatel), AD Selectable
Privacy Zone	8 Zones
Sensor In/Out	8 Input / 4 Relay Output
OSD	Available, Supports 7 Languages: ENGLISH / ESPAÑOL / FRANÇAIS / DEUTSCH / ITALIANO / РУССКИЙ / PORTUGUÊS
Power	AC 24V: 24 W, 1A
Approvals	FCC, CE, RoHS
Material	Body: Plastic • Clear Dome: Polycarbonate
Weight	Net: 3.2 Kg • Package: 4 Kg
Operating Temp.	-10° ~ 50° C (14° ~ 122° F)

Warranty Information

Digital Watchdog (referred to as the “Warrantor”) warrants the Digital Watchdog camera against defects in materials or workmanship as follows:

LABOR: For the initial two (2) years from the original purchase date, if the camera is determined to be defective, the Warrantor will display or replace the unit with a new or refurbished product at its option at no charge.

PARTS: In addition, the Warrantor will supply replacement parts for the initial two (2) years.

To obtain warranty or out-of-warranty service, please contact a Technical Support Representative at 1-866-446-3595 Monday through Friday from 8:30AM to 8:00PM Eastern Standard Time.

A purchase receipt or other proof of the original purchase date is required before warranty service is rendered. This warranty only covers failures due to defects in materials and workmanship which arise during normal use. The warranty does not cover damage which occurs in shipment or failures which are caused by products not supplied by the Warrantor or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, rental use of the product or service by anyone other than an authorized repair facility or damage that is attributable to acts of God.

Limits and Exclusions

There are no express warranties except as listed above. The warrantor will not be liable for incidental or consequential damages (including without limitation or damage to recording media) resulting from the use of these products or arising out of any breach of the warranty. All express and implied warranties, including the warranties of merchantability and fitness for particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the exclusions or limitations listed above may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state-to-state.

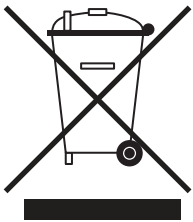
If the problem is not handled to your satisfaction, then write to the Address listed on the next page.

Service calls which do not involve defective materials or workmanship as determined by the Warrantor, in its sole discretion, are not covered. Costs of such service calls are the responsibility of the purchaser.



5436 W Crenshaw St. Tampa, FL 33634
Tel : 866-446-3595 / 813-888-9555
Fax : 813-888-9262
www.Digital-Watchdog.com
technicalsupport@dwcc.tv
Technical Support Hours : Monday-Friday
8:30am to 8:00pm Eastern Time

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)



(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product and its electronic accessories should not be mixed with other commercial wastes for disposal.



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.