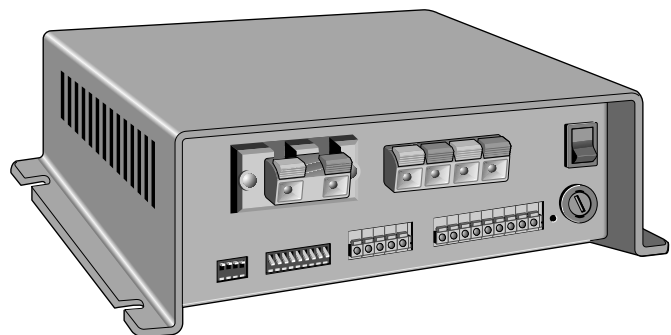


## INSTRUCTION MANUAL

## VCC-9250P

### Colour Compact Pre-set Camera



#### **About this manual**

- Before installing and using this unit, please read this manual carefully. Be sure to keep it handy for later reference.
- This manual gives basic connections and operating instructions.

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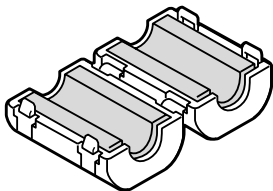
# FEATURES

This compact preset camera can be controlled remotely for horizontal and vertical movement. It is used with a system controller (VSP-7000), sold separately. The camera 24V AC power supply is connected through the power unit, and the camera operation is controlled remotely from the system controller through a serial connection to the RS-485 connector using a twisted-pair cable.

- **1/3 inch solid state image device CCD (approx. 470,000 picture elements)**
- **Up to 96x zoom possibility (12x optical zoom, 8x electronic zoom)**
- **Horizontal resolution of more than 450 TV lines, video S/N ratio more than 48 dB for high resolution. High sensitivity, with a minimum required illumination of 3.5 lux**
- **Horizontal, vertical turn function**  
**Preset movement speed:**  
**horizontal 240°/s, vertical 120°/s**  
**Manual movement minimum speed:**  
**horizontal 0.6°/s, vertical 0.3°/s**  
**Speed ratio: 400:1**  
**Continuous horizontal turn range (360°)**

# ACCESSORY

- Clamping core .....2 pc.



# PRECAUTIONS

## ■ In case of problem

Do not use the camera if smoke or a strange odour comes from the unit, or if it seems not to function correctly. Disconnect the power cord immediately, and consult your dealer (or a Sanyo Authorized Service Centre).

## ■ Do not open or modify

Do not open the cabinet, as it may be dangerous and cause damage to the unit. For internal settings and repairs, consult your dealer (or a Sanyo Authorized Service Centre).

## ■ Do not put objects inside the unit

Make sure that no metal objects or flammable substance get inside the camera. If used with a foreign object inside, it could cause a fire, short-circuits or damages.

If water or a liquid gets inside the camera, disconnect the power cord immediately, and consult your dealer (or a Sanyo Authorized Service Centre). Be careful to protect the camera from rain, sea water, etc.

## ■ Be careful when handling the unit

To prevent damages, do not drop the camera or subject it to strong shock or vibration.

## ■ Install away from electric or magnetic fields

If installed close to a TV, radio transmitter, magnet, electric motor, transformer, audio speakers the magnetic field they generate will distort the image.

## ■ Protect from humidity and dust

To prevent damages to the camera, do not install it where there is greasy smoke or steam, where the dampness may get too high, or where there is a lot of dust.

## ■ Protect from high temperatures

Do not install close to stoves, or other heat generating devices, such as spotlights, etc., or where it could be subject to direct sunlight, as that could cause deformation, discoloration or other damages.

Be careful when installing close to the ceiling, in a kitchen or boiler room, as the temperature may raise to high levels.

Install where the temperature range will stay between 0°C and 45°C. (no condensation)

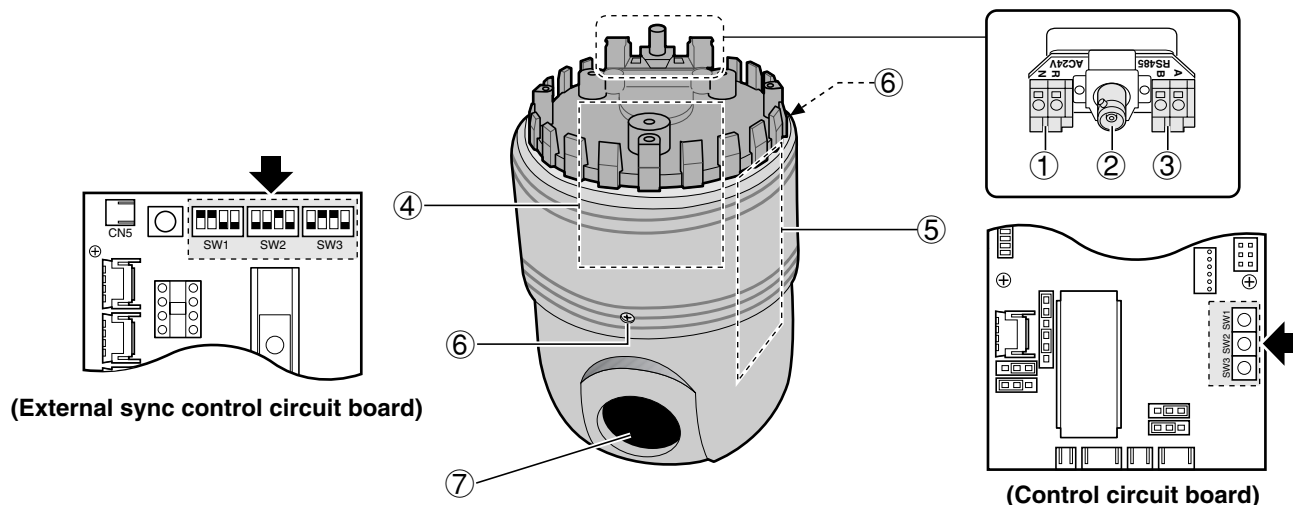
## ■ Cleaning

- Dirt can be removed from the cabinet by wiping it with a soft cloth. To remove stains, wipe with a soft cloth moistened with a soft detergent solution and wrung dry, then wipe dry with dry soft cloth.
- Do not use benzine, thinner or other chemical product on the cabinet, as that may cause deformation and paint peeling. Before using a chemical cloth, make sure to read all accompanying instructions. Make sure that no plastic or rubber material comes in contact with the cabinet for a long period of time, as that may cause damage or paint peeling.

**This camera should be used together with the power unit which is supplied with the camera. Other commercially-available power units should never be used, as they may damage the camera or result in electric shocks.**

# PARTS NAMES

## ■ Camera



### ① 24V AC power input terminals (AC24V)

Connect the camera power input terminals to the power unit output terminals (AC24V OUT).

### ② Video output terminal (BNC connector)

To connect this camera to a device such as a monitor or timelapse VCR.

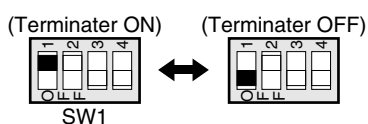
### ③ RS-485 serial signal input terminals (RS485)

Make the connection between the RS-485 terminals of the camera, power unit, system controller, using twisted-pair cables or modular cables (sold separately).

### ④ External sync control circuit board

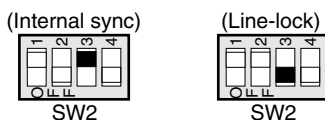
#### ■ Termination setting (SW1)

Set the termination ON/OFF using DIP switch No. 1 of switch SW1. The default setting in : "ON"



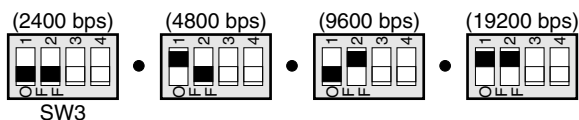
#### ■ Sync setting (SW2)

Set the internal sync or line-lock using DIP switch No. 3 of switch SW2. The default setting in : "ON (INT)"



#### ■ Data transmission speed setting (SW3)

Set the data transmission speed using DIP switch No. 1 and 2 of switch SW3. The default setting in : "19200"



### ⑤ Control circuit board

#### ■ Address setting

When using the camera with a power unit, the address for both must be the same.

Assign the hexadecimal (base 16) address using switches SW1 and SW2. Address settings are from 1 to 127. Refer to "ADDRESS SETTING TABLE" on page 11, for details. The default setting in : "1"



### ⑥ Cover attaching screw

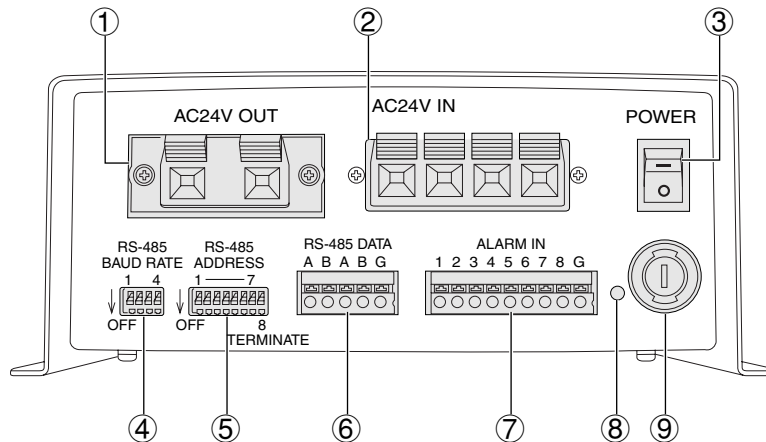
Loosen the two screw the remove the cover to access the external sync control circuit board and address setting panel. Make sure to turn off the power to the camera before removing the cover.

### ⑦ Lens

**Always be sure to turn off the power supply before changing any of the switch settings on the external sync control circuit board or the control circuit board.**

# PARTS NAMES

## Power unit



① **24V AC output terminals (AC24V OUT)**

Connect the camera power input terminals (AC24V) to the power unit output terminals.

② **24V AC input terminals (AC24V IN)**

Connect the AC 24V power input to the power unit. When making the connections, make sure to turn off the power at the source.

③ **Power switch (POWER)**

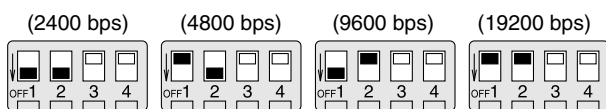
To turn the power on or off. Will also control the power to the camera.

④ **Transmission speed setting switch (RS-485 BAUD RATE)**

The default setting is all "ON".

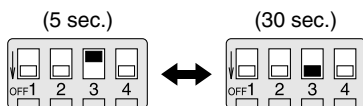
■ **Transmission speed setting (SW1, 2)**

The default setting is 19200 bps. If necessary, change the setting according to the maximum transmission speed supported by the peripheral devices.



■ **Alarm duration setting (SW3)**

The default setting is 5 sec. If necessary, change the setting according to the type of alarm signal input.



■ **Alarm list display setting (SW4)**

The alarm list can be displayed on the menu screen of the system controller.

The default setting is "ON".



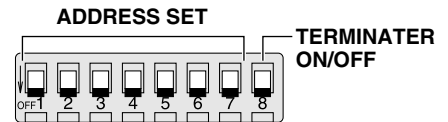
⑤ **Address/Terminate setting switch (RS-485 ADDRESS/TERMINATE)**

■ **Address setting (SW1 to SW7)**

Set the power unit address. See the table on page 12, for details.

■ **Termination setting (SW8)**

The power unit termination must be set. The default setting is all OFF (up).



⑥ **RS-485 control terminal (RS-485 DATA)**

Make the connections between the RS-485 terminals of the camera, power unit, system controller, etc. using twisted-pair cable or modular cable (sold separately). Signal A must be connected to A, and signal B to B.

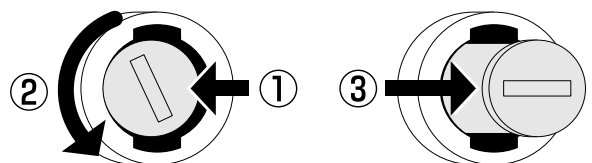
⑦ **Alarm input terminals (ALARM IN)**

Connect alarm input sources such as a door bell, an interphone, etc. to the ALARM IN terminals. Refer to "Connections to the ALARM IN terminal" on page 4, for more information on connections.

⑧ **Power indicator viewing hole**

The indicator inside the hole illuminates when the power is turned on.

⑨ **Fuse socket**

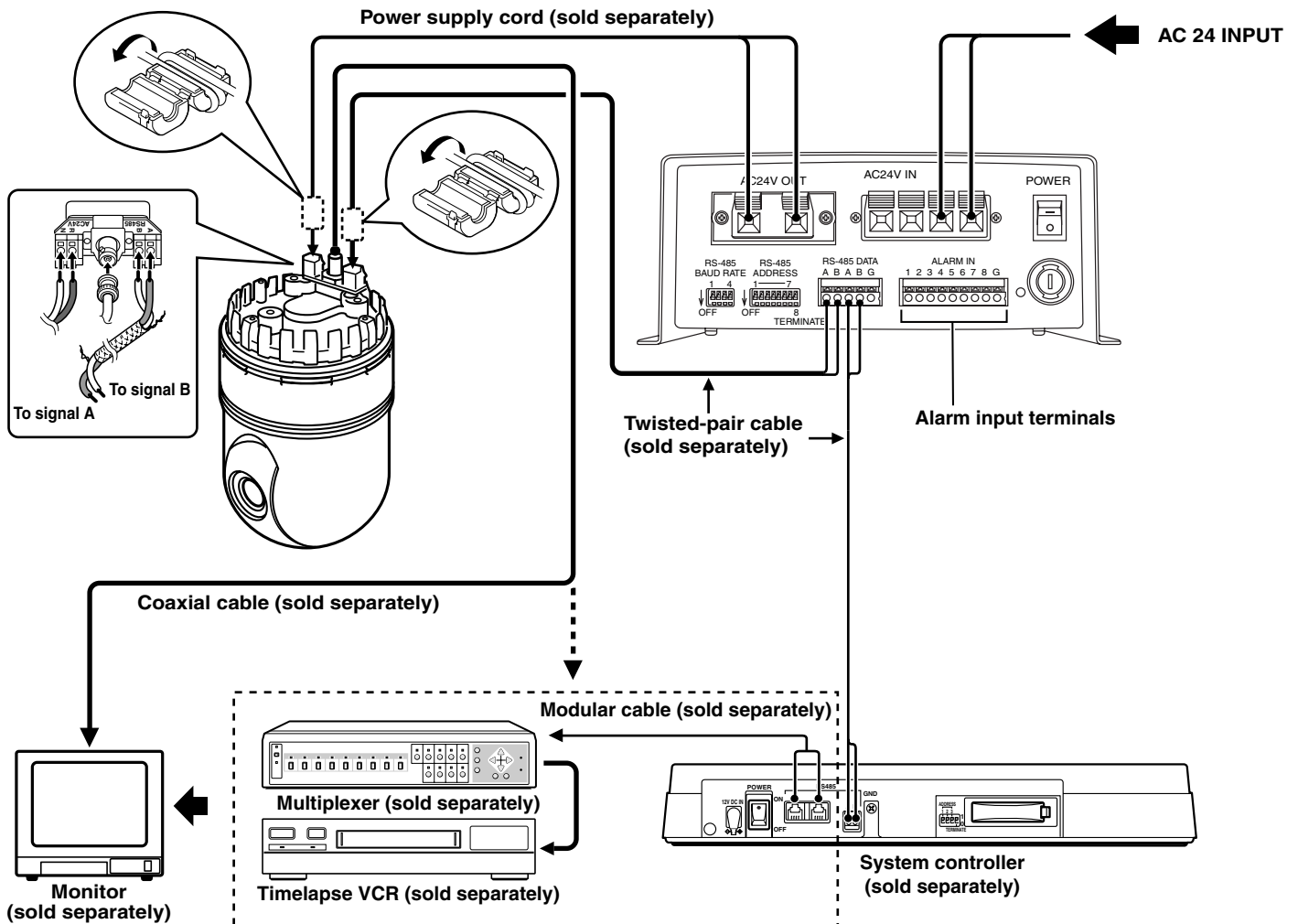


# CONNECTIONS

Before making any connection, make sure all the devices are turned off.

Before making the connections, please refer to the instruction manual accompanying each device.

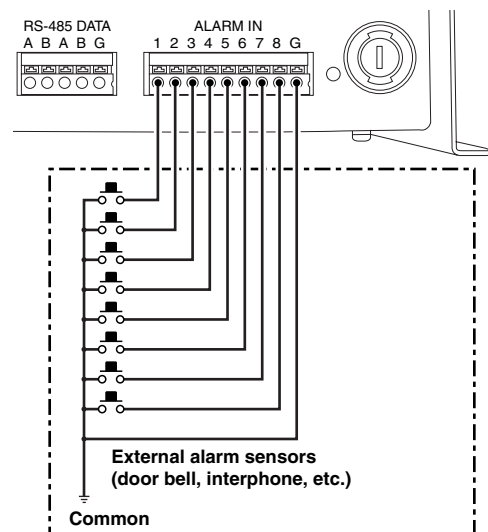
## Basic connections



**Note:** When using this unit, the supplied clamping core must be installed on the power cord and twisted-pair cable, in order to prevent electromagnetic interference to the other devices connected.

## Connections to the ALARM IN terminal

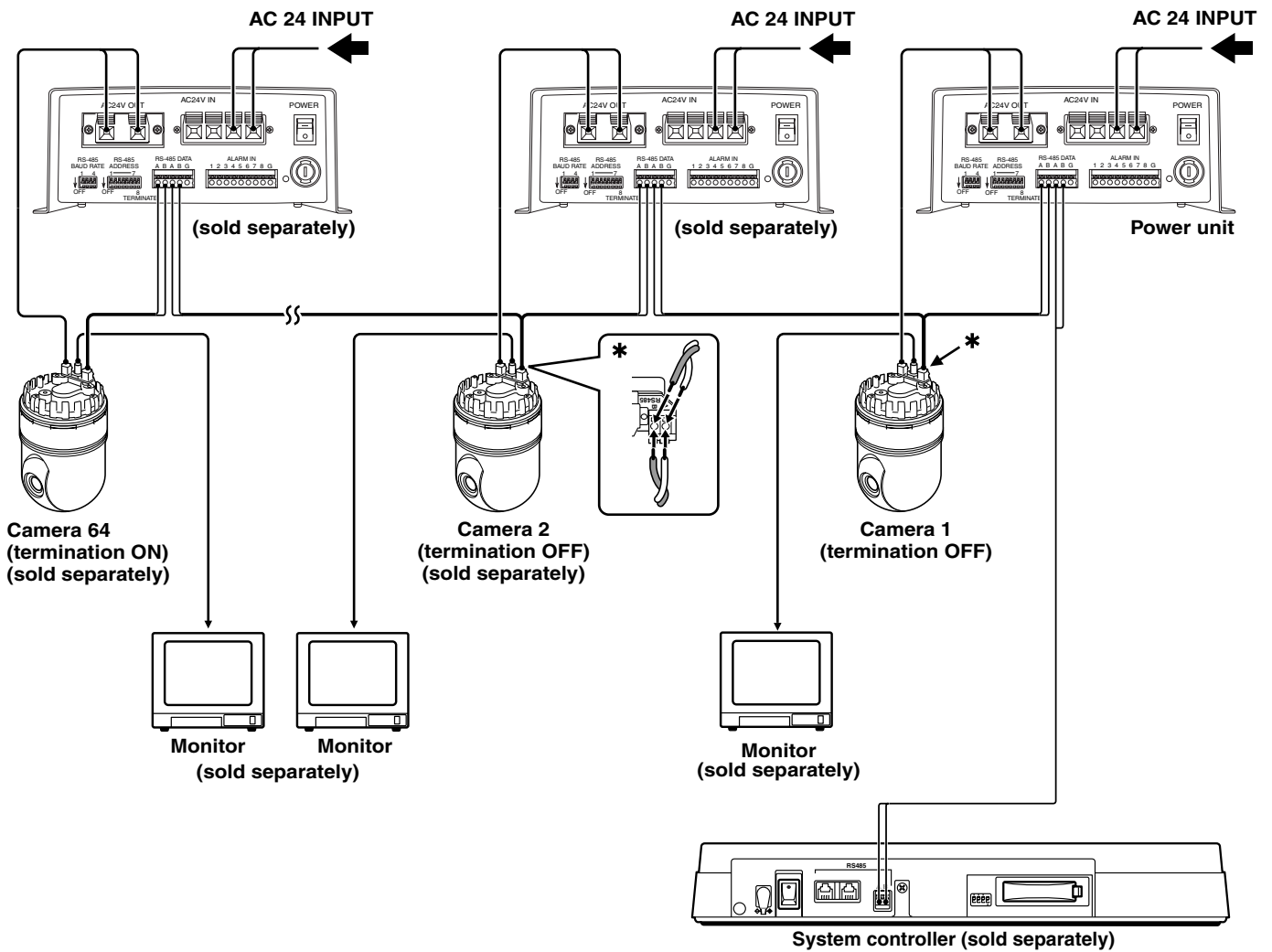
Connect alarm input sources such as a door bell, an interphone, etc. to the ALARM IN terminals. When an alarm trigger is received at the alarm input terminals, the camera will move to its corresponding preset position.



# CONNECTIONS

## Multiple cameras connections

- When the cameras are connected to the power units without an RS485 control terminal connection, up to 127 sets can be used. However, if the connection is made between the power unit RS485 control terminal and the camera, a power unit can only control one camera and up to 64 sets only can be used.
- To connect multiple units, connect the RS-485 cables to the power units and the RS-485 cables to the cameras in a daisy chain fashion.
- The termination should be set to ON for the last camera connected to the daisy chain.



# FUNCTIONS

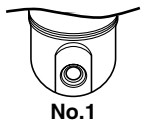
## ■ Preset memory function

The preset memory function will memorise camera positions and zoom, focus, etc. settings. Up to 255 preset camera positions can be memorised. Later, you can easily recall any of the preset camera positions by entering its corresponding number, and the camera will move to the memorised position with all the preset settings.

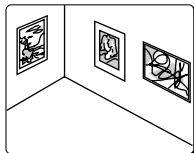
## ■ Home position

The camera position preset as number 1 is called the “Home position”.

- Use the home position as the normal camera position.



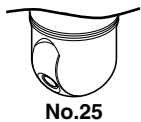
No.1



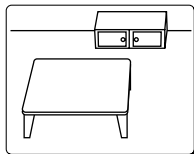
Preset position No. 1 (Home position)

## ■ Moving to a preset position

When camera positions have been preset, you can enter a memorised camera position number (ex.: 25), using the numeric keypad buttons on the system controller to select it. The camera will set itself to the select preset position.



No.25



Preset position No. 25

## ■ Pan/tilt function

The pan function will move the camera on an horizontal plane, to a surveillance position.

The tilt function will move the camera on a vertical plane, to a surveillance position.

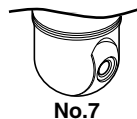
## ■ Auto pan function

The auto pan function allows you to have the camera move back and forth automatically, at a preset speed, between the 2 preset camera positions memorised in numbers 7 (start position) and 8 (end position).

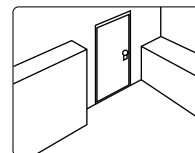
- Before this function can be used, the auto pan start position (No. 7) and the auto pan end position (No. 8) must be preset.

### When the auto pan function is started

- 1 The camera will move from its actual position to the auto pan start position (No. 7).



No.7



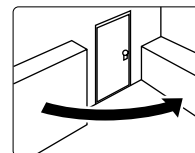
Preset position No. 7

- 2 The camera will move from the auto pan start position (No. 7) to the auto pan end position (No. 8).

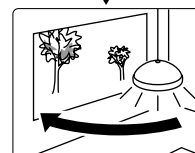
**Note:** The camera will turn counterclockwise when moving from the start position to the end position.



No.8 No.7



Preset position No. 7

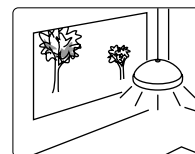


Preset position No. 8

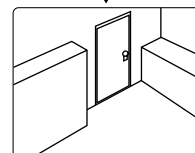
- 3 The camera will move back from the auto pan end position (No. 8) to the auto pan start position (No. 7).



No.8 No.7



Preset position No. 8



Preset position No. 7

- 4 Steps 2 and 3 are repeated.

# FUNCTIONS

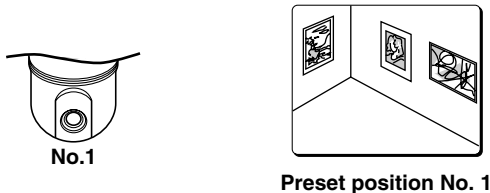
## Sequential pan function

You can set the camera to move sequentially to the 6 preset camera positions memorised in numbers 1 to 6.

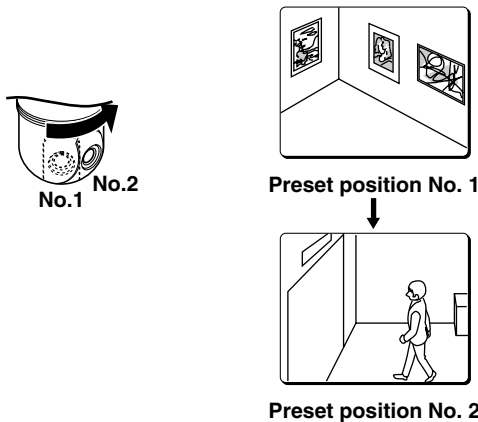
- Before this function can be used, the 6 sequential pan positions (No. 1 to 6) must be preset.

### When the sequential pan function is started

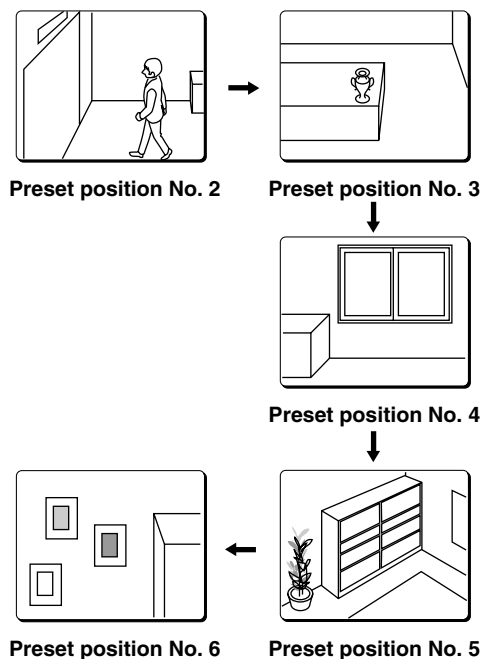
**1** The camera will move from its actual position to the home position (No. 1).



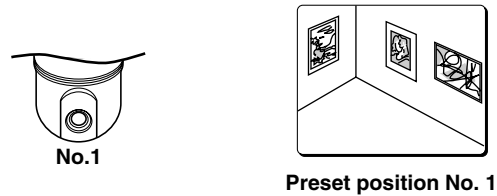
**2** The camera will move from the home position (No. 1) to preset position No. 2.



**3** The camera will then move sequentially to positions No. 3, No. 4, No. 5 and No. 6.



**4** The camera will move back from position No. 6 to the home position (No. 1).



**5** Steps 2 to 4 are repeated.

## Iris function

The camera iris level can be adjusted. 15 different iris levels can be set.

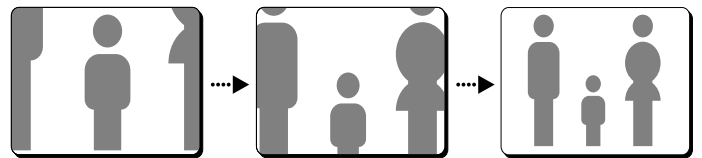
## One-push (AWC SET) white balance function

White balance adjustment can be carried out to compensate for the type of lighting (daylight, incandescent lighting, etc.). Depending on the lighting conditions, true colours may not always be obtained.

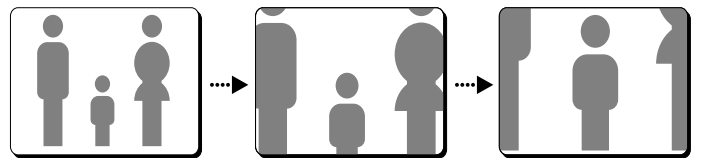
## Zoom function

The filming range can be set using the zoom function.

### Wide angle zoom

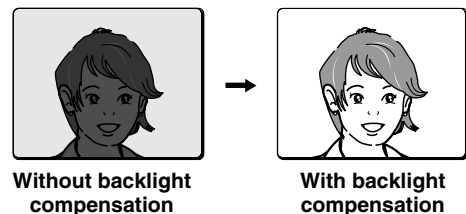


### Telephoto zoom



## Backlight compensation function (BLC)

The backlight compensation is used when the background is bright and the subject comes out too dark.



## Electronic shutter function

The shutter speed can be set according to the filming conditions. 4 different speed settings can be set.

## Focus function

The focus can be set automatically or manually.



# BASIC OPERATION

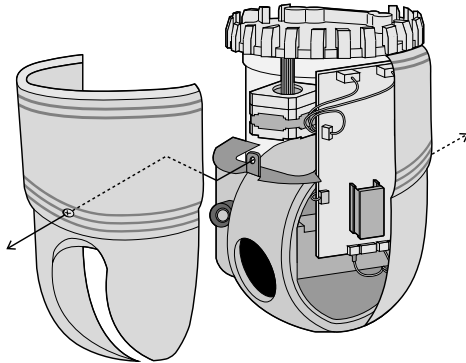
Connect the camera to the power unit and to the system controller (sold separately), then use the system controller to operate the camera. This section principally gives instructions concerning the camera and the power unit.

## 1 Make all the connections.

Turn off the power to all the devices.

## 2 Remove the camera cover.

Remove the cover attaching screw, then remove the cover.



## 3 Termination setting

**Camera:** The termination is set using **DIP switch No. 1** of switch SW1 on the external sync control panel. Set the termination to **ON** for the last unit only, termination on all other units must be set to **OFF**.

**Power unit:** The termination is set using **DIP switch No. 8** of the **RS-485 ADDRESS** switch on the power unit.

**System controller:** The termination is set using the **TERMINATE DIP** switch on the system controller rear panel.

## 4 Data transmission speed setting

**Camera:** Set the data transmission speed using **DIP switches No. 1 and 2** of switch SW3 on the external sync control circuit board. The default setting is 19200 bps.

**Power unit:** Set the data transmission speed using **DIP switches No. 1 and 2** of the **RS-485 BAUD RATE** switch on the power unit.

**System controller:** Set the data transmission speed in **BAUD RATE SET** on the menu screen.

**Note:** Make sure all connected devices transmission speed settings are the same.

## 5 Address setting

**Camera:** Set the address using switches SW1 and SW2 of the control circuit board. The address default setting is "01".

**Power unit:** Set the address using switches **DIP switches No. 1 to 7** of the **RS-485 ADDRESS** switch.

**System controller:** Set the address using the **ADDRESS DIP** switches on the system controller rear panel.

**Note:**

- Address settings are from 1 to 127. See the tables on pages 11 and 12, for details on setting the addresses for the camera and the power unit.
- Make sure the address of the power unit is the same as the one for the corresponding camera.

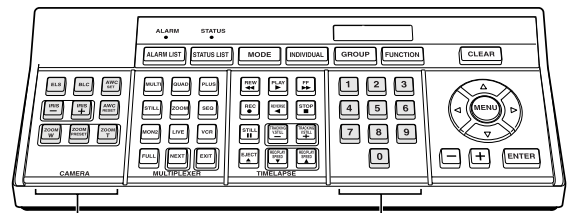
## 6 Tighten the cover attaching screw to install the cover, then turn all the devices on.

## 7 Operation using the system controller

The following two operating modes are available. For detailed instructions, please refer to the system controller instruction manual.

### ■ Direct operation using the Camera command (CAMERA) buttons on the system controller

This method allows you to set the backlight correction, the electronic shutter function, etc., to adjust the image according to the conditions when filming by adjusting the camera basic settings.

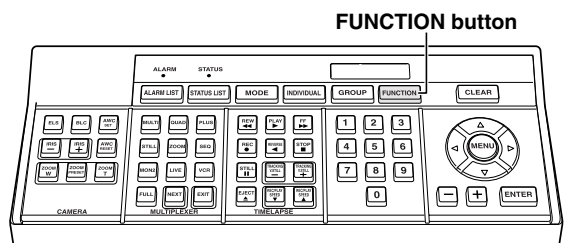


Camera command (CAMERA) buttons

Numeric keypad buttons

### ■ Operation using the FUNCTION button to call-up commands, and selecting a command from the six types of commands available

This method allows you to use the special functions of the camera, such as the auto vertical and horizontal movement function, and to memorise camera angles that can then be used with the auto-pan or the sequential pan functions.



### (Call-up commands)

- ALARM OUT
- AUTO PAN
- SEQUENCE
- PRESET MEMORY
- L-L PAHSE
- RESET

# BASIC OPERATION

## ■ Alarm operation

If alarm input sources such as a door bell, an interphone, etc., are connected to the ALARM IN terminals on the power unit, when an external alarm trigger is received at the alarm input terminals, the camera will move to its corresponding preset position.

Also, the alarm list can be displayed on the menu screen of the system controller. Refer to page 4, for more information on connections.

### 1 Alarm operation setting

Select "**ALARM OUT**" on the system controller call-up commands, then set it to "**ON**".

### 2 Alarm duration setting

Set the duration using **DIP** switch No. 3 of the **RS-485 BAUD RATE** switch.

For example, if the duration is set to ON (5 seconds), after an alarm is triggered another alarm will not be received for 5 seconds.

The default settings are ON (5 sec.).

#### (Displaying the alarm list)

This is done using **DIP** switch No. 4 of the **RS-485 BAUD RATE** switch.

The default setting is **ON** (alarm list displayed), if set to **OFF** the alarm list will not be displayed.

## ■ Power supply synchronization setting (L-L)

Make this adjustment if the image on monitor rolls vertically.

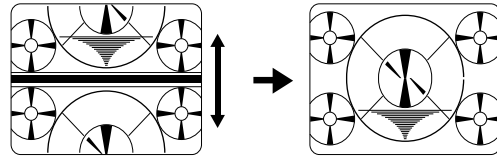
### 1 Select the sync signal

Select the internal sync (INT) or the line-lock using **DIP** switch No. 2 of switch **SW1** and **DIP** switch No. 3 of switch **SW2** on the external sync control panel.

- When the internal sync is set to **OFF**, **DIP** No. 3 of **SW2** must also be set to **ON**.
- When the line-lock is set to **ON**, **DIP** No. 3 of **SW2** must also be set to **OFF**.

### 2 Vertical sync adjustment

Select "**L-L PHASE**" on the system controller call-up commands, then adjust the vertical sync phase.



# INSTALLATION

This camera unit is designed to be hanged from a ceiling. Other installation method may cause abnormal operation. Refer to the mounting bracket (sold separately) etc. instruction manual.

## ■ Location

### ● Ceiling structure

The ceiling must be strong enough to support the weight of the camera and its accessories. Do not mount to a surface that may vibrate when the camera is operating.

### ● Protect from water leaks

This unit is to be used indoors exclusively. Do not install it where it may be exposed to water leaking from pipes, rain, etc.

### ● Protect from vibrations

Never mount to a ceiling surface that may be subjected to vibration or shocks.

### ● Protect from damages due to humidity

The camera must be installed at a minimum distance of 1.5 m from the air outlet of an air conditioning. If it cannot be helped, and the camera is installed close to an air conditioning, make sure the air flow is not directed towards the camera. If necessary, install a cover or other protection to deflect the air. If cold air is directed onto the camera, that may fog the lens and the image may be blurred. Also, condensation may form on metal parts inside the unit and that may cause corrosion and other damages.

### ● Maintaining safety

This camera unit is designed to be used hanging from a ceiling. It is therefore very important to ensure safety by carefully reading the mounting bracket instruction manual and making sure it is secure and that there is no risk of the bracket falling down.

## ■ Filming results

### ● Ghosting

If a light source (such as a spotlight, etc.) is directed to the camera lens, even if it is not in the filming range, there may be ghosting (apparition of a secondary image).

This can be corrected by changing the light source direction or position, or the camera location.

### ● Reproduction of colours



If the lighting in the area covered by the camera is of a single type (all fluorescent or all incandescent), the colours can be reproduced accurately. However, if the lighting type is mixed (fluorescent and incandescent), the colours may not be reproduced properly.



### ● Subject illumination



This camera can accommodate a wide range of lighting intensities. However, the minimum lighting intensity for the main subject is 20 lux with the zoom in wide angle position and 40 lux in telephoto position. This level should be maintained with additional lighting, in particular at night or in a dark environment.

# ADDRESS SETTING TABLE

## ■ Camera

Address (camera number)	Switch number	
	SW2 	SW1 
0 (no use)	0	0
1	0	1
2	0	2
3	0	3
4	0	4
5	0	5
6	0	6
7	0	7
8	0	8
9	0	9
10	0	A
11	0	B
12	0	C
13	0	D
14	0	E
15	0	F
16	1	0
17	1	1
18	1	2
19	1	3
20	1	4
21	1	5
22	1	6
23	1	7
24	1	8
25	1	9
26	1	A
27	1	B
28	1	C
29	1	D
30	1	E
31	1	F
32	2	0
33	2	1
34	2	2
35	2	3
36	2	4
37	2	5
38	2	6
39	2	7
40	2	8
41	2	9
42	2	A

Address (camera number)	Switch number	
	SW2 	SW1 
43	2	B
44	2	C
45	2	D
46	2	E
47	2	F
48	3	0
49	3	1
50	3	2
51	3	3
52	3	4
53	3	5
54	3	6
55	3	7
56	3	8
57	3	9
58	3	A
59	3	B
60	3	C
61	3	D
62	3	E
63	3	F
64	4	0
65	4	1
66	4	2
67	4	3
68	4	4
69	4	5
70	4	6
71	4	7
72	4	8
73	4	9
74	4	A
75	4	B
76	4	C
77	4	D
78	4	E
79	4	F
80	5	0
81	5	1
82	5	2
83	5	3
84	5	4
85	5	5

Address (camera number)	Switch number	
	SW2 	SW1 
86	5	6
87	5	7
88	5	8
89	5	9
90	5	A
91	5	B
92	5	C
93	5	D
94	5	E
95	5	F
96	6	0
97	6	1
98	6	2
99	6	3
100	6	4
101	6	5
102	6	6
103	6	7
104	6	8
105	6	9
106	6	A
107	6	B
108	6	C
109	6	D
110	6	E
111	6	F
112	7	0
113	7	1
114	7	2
115	7	3
116	7	4
117	7	5
118	7	6
119	7	7
120	7	8
121	7	9
122	7	A
123	7	B
124	7	C
125	7	D
126	7	E
127	7	F

# ADDRESS SETTING TABLE

## Power unit

Address (camera number)	Switch number							
	OFF	1	2	3	4	5	6	7
0								
1	ON							
2		ON						
3	ON	ON						
4			ON					
5	ON		ON					
6		ON	ON					
7	ON	ON	ON					
8				ON				
9	ON			ON				
10		ON		ON				
11	ON	ON		ON				
12			ON	ON				
13	ON		ON	ON				
14		ON	ON	ON				
15	ON	ON	ON	ON				
16					ON			
17	ON				ON			
18		ON			ON			
19	ON	ON			ON			
20			ON		ON			
21	ON		ON		ON			
22		ON	ON		ON			
23	ON	ON	ON		ON			
24				ON	ON			
25	ON			ON	ON			
26		ON		ON	ON			
27	ON	ON		ON	ON			
28			ON	ON	ON			
29	ON		ON	ON	ON			
30		ON	ON	ON	ON			
31	ON	ON	ON	ON	ON			
32						ON		
33	ON					ON		
34		ON				ON		
35	ON	ON				ON		
36			ON			ON		
37	ON		ON			ON		
38		ON	ON			ON		
39	ON	ON	ON			ON		
40				ON		ON		
41	ON			ON		ON		
42		ON		ON		ON		

Address (camera number)	Switch number							
	OFF	1	2	3	4	5	6	7
43	ON	ON		ON		ON		
44			ON	ON		ON		
45	ON		ON	ON		ON		
46		ON	ON	ON		ON		
47	ON	ON	ON	ON		ON		
48					ON	ON		
49	ON				ON	ON		
50		ON			ON	ON		
51	ON	ON			ON	ON		
52			ON		ON	ON		
53	ON		ON		ON	ON		
54		ON	ON		ON	ON		
55	ON	ON	ON		ON	ON		
56				ON	ON	ON		
57	ON			ON	ON	ON		
58		ON		ON	ON	ON		
59	ON	ON		ON	ON	ON		
60			ON	ON	ON	ON		
61	ON		ON	ON	ON	ON		
62		ON	ON	ON	ON	ON		
63	ON	ON	ON	ON	ON	ON		
64							ON	
65	ON						ON	
66		ON					ON	
67	ON	ON					ON	
68			ON				ON	
69	ON		ON				ON	
70		ON	ON				ON	
71	ON	ON	ON				ON	
72				ON			ON	
73	ON			ON			ON	
74		ON		ON			ON	
75	ON	ON		ON			ON	
76			ON	ON			ON	
77	ON		ON	ON			ON	
78		ON	ON	ON			ON	
79	ON	ON	ON	ON			ON	
80					ON		ON	
81	ON				ON		ON	
82		ON			ON		ON	
83	ON	ON			ON		ON	
84			ON		ON		ON	
85	ON		ON		ON		ON	

Address (camera number)	Switch number							
	OFF	1	2	3	4	5	6	7
86		ON	ON		ON		ON	
87	ON	ON	ON		ON		ON	
88				ON	ON		ON	
89	ON			ON	ON		ON	
90		ON		ON	ON		ON	
91	ON	ON		ON	ON		ON	
92			ON	ON	ON		ON	
93	ON		ON	ON	ON		ON	
94		ON	ON	ON	ON		ON	
95	ON	ON	ON	ON	ON		ON	
96						ON	ON	
97	ON					ON	ON	
98		ON				ON	ON	
99	ON	ON				ON	ON	
100			ON			ON	ON	
101	ON		ON			ON	ON	
102		ON	ON			ON	ON	
103	ON	ON	ON			ON	ON	
104				ON		ON	ON	
105	ON			ON		ON	ON	
106		ON		ON		ON	ON	
107	ON	ON		ON		ON	ON	
108			ON	ON		ON	ON	
109	ON		ON	ON		ON	ON	
110		ON	ON	ON		ON	ON	
111	ON	ON	ON	ON		ON	ON	
112					ON	ON	ON	
113	ON				ON	ON	ON	
114		ON			ON	ON	ON	
115	ON	ON			ON	ON	ON	
116			ON		ON	ON	ON	
117	ON		ON		ON	ON	ON	
118		ON	ON		ON	ON	ON	
119	ON	ON	ON		ON	ON	ON	
120				ON	ON	ON	ON	
121	ON			ON	ON	ON	ON	
122		ON		ON	ON	ON	ON	
123	ON	ON		ON	ON	ON	ON	
124			ON	ON	ON	ON	ON	
125	ON		ON	ON	ON	ON	ON	
126		ON	ON	ON	ON	ON	ON	
127	ON	ON	ON	ON	ON	ON	ON	

# SPECIFICATIONS

## ■ Camera functions

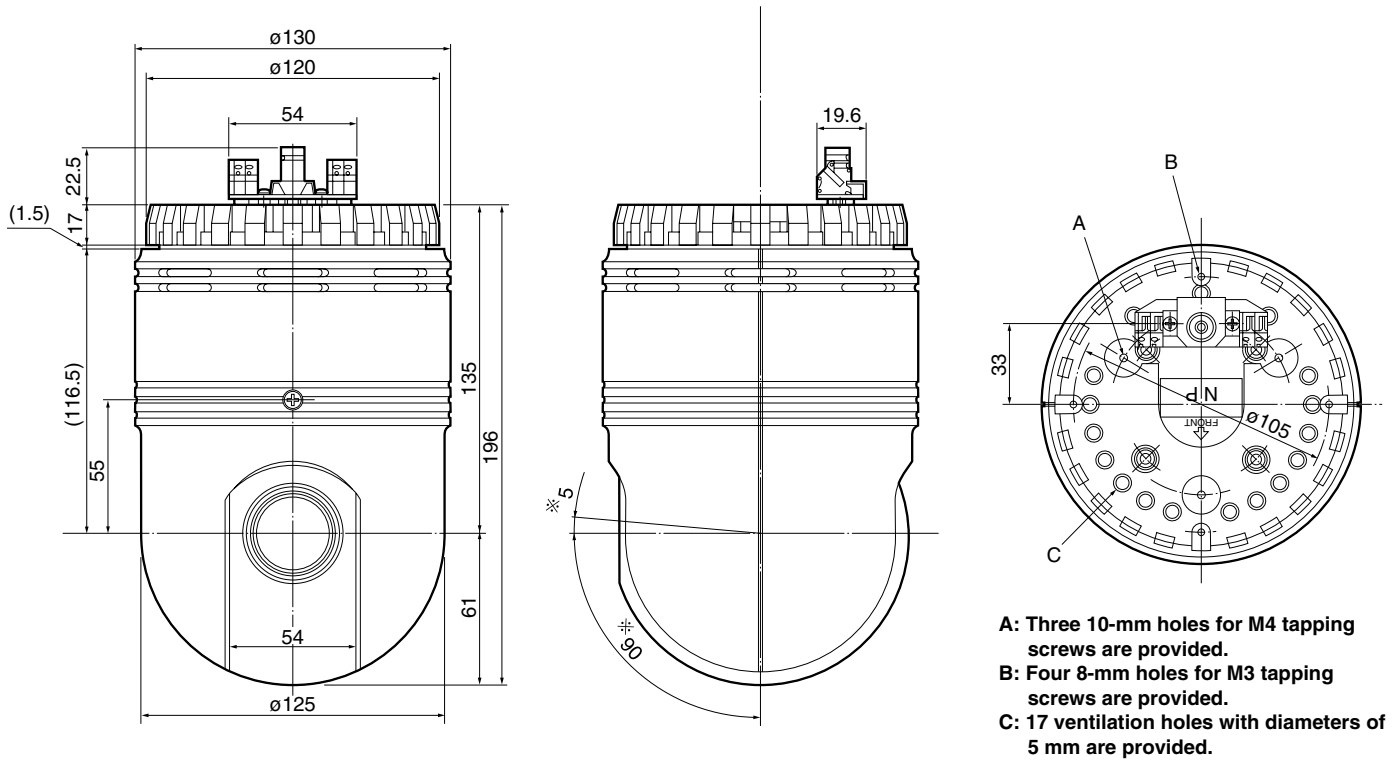
Signal format	: PAL standard (625 TV line, 25 frame/sec.)
Image device	: 1/3 inch solid state image device CCD
Picture elements	: 795 (H) x 596 (V)
Effective picture elements	: 752 (H) x 582 (V)
Synchronizing system	: Internal sync, Line lock sync switchable
Resolution	: 450 TV lines horizontally, 400 TV lines vertically
Video out put level	: VBS 1.0 Vp-p, 75 Ω composite
Video S/N ratio	: More than 48 dB
Minimum required illumination (incandescent lighting)	: Approx. 3.5 lux
Backlight correction	: Center-zone light measuring system
White balance	: ATW/AWC
Electronic shutter	: 4 speed, selectable setting (1/50, 1/120, 1/500, 1/2000)
Electronic zoom	: X8
Rotation angle	: Horizontally 360° endless, vertically +5 to -90°
Rotation speed	: Horizontal Manual: approx. 0.6°/s (telephoto) to approx. 40° (wide angle) Preset: 240°/s Auto pan: approx. 9°/s Vertical Manual: approx. 0.3°/s (telephoto) to approx. 20°/s (wide angle) Preset: 120°/s
Preset position	: 1 ~ 255
Lens functions	
• Focal length	: f = 5.4 to 64.8 mm (X12 zoom)
• Aperture ratio	: F = 1:1.8 (wide angle) to 1:2.7 (telephoto)
• Iris range	: F1.8 ~ F28
• Picture angle	: Horizontally 48.8° (wide angle) to 4.3° (telephoto) Vertically 37.6° (wide angle) to 3.3° (telephoto)
• Minimum distance	: 10 mm (wide angle) to 800 mm (telephoto)
Communication method	: RS-485, operation via SSP
Communication speed (band rate)	: 2400, 4800, 9600, 19200 bps
Address setting	: 1 ~ 127
Transmission method	: Binary transmission
Power source	: 24V AC (20 to 26V), 50 Hz
Environmental conditions	: Temperature: 0 to 45 °C Humidity: 35 to 90 %
Weight	: 1.6 kg

## ■ Power unit

AC 24 V input terminal	: 2
AC 24 V output terminal	: 1
RS-485 Baud rate switch	: Communication speed (2400, 4800, 9600, 19200 bps) Alarm duration time (5 sec./ 30 sec.), Alarm list setting
RS-485 Address/Terminate switch	: Address setting (SW1 ~ 7), terminate setting (SW8)
Alarm input terminal	: No voltage, make-contact switch input x 8 (Low input)
RS-485 control terminal (DATA)	: Push-lock type 5 terminals (A, B, A, B: Ground)
Fuse	: 125 V 3 A
Power consumption	: 42 W
Weight	: Approx. 3.0 kg

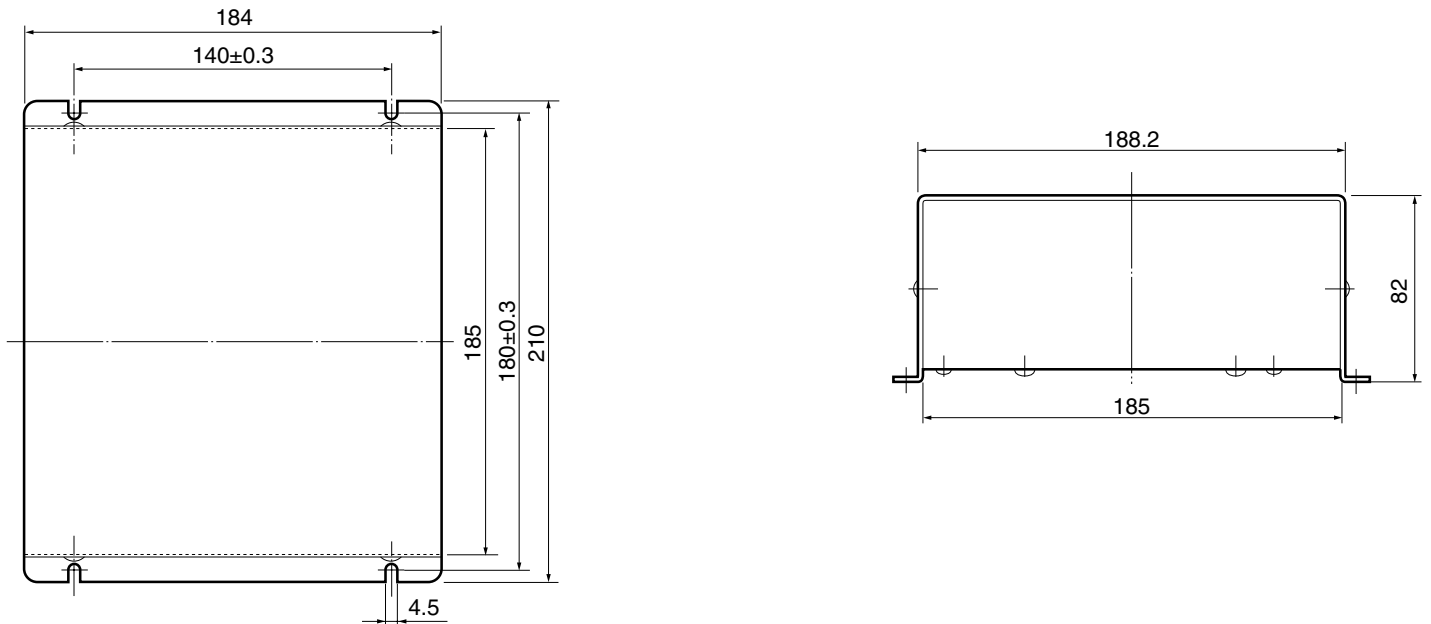
# SPECIFICATIONS

## ■ Camera dimensions: mm



- A:** Three 10-mm holes for M4 tapping screws are provided.
- B:** Four 8-mm holes for M3 tapping screws are provided.
- C:** 17 ventilation holes with diameters of 5 mm are provided.

## ■ Power unit dimensions: mm



Features and specifications and subject to change without prior notice or obligations.



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**SANYO Electric Co., Ltd.**

1AC6P1P2289--  
L53Y4/XE (1000KP-DSP)

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