



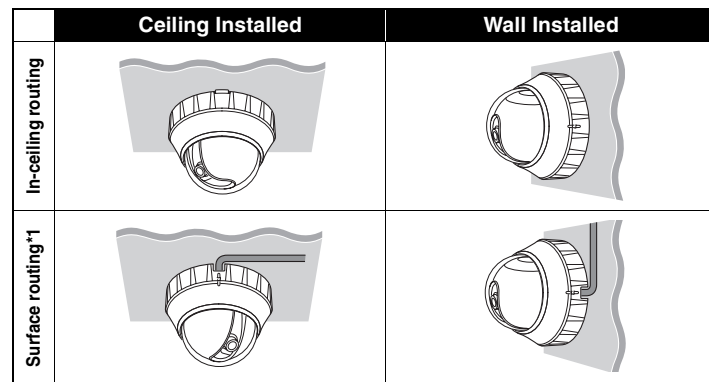
# INSTRUCTION MANUAL

# VCC-9685VP

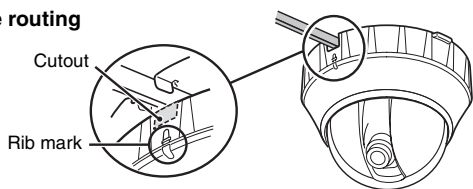
## Color CCD Camera

### About this manual

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



### \*1 Surface routing



## For EU Users

**Please note:**  
Your SANYO product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please dispose of this equipment at your local community waste collection/recycling centre. In the European Union there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

**This symbol mark and recycle system are applied only to EU countries and not applied to countries in other areas of the world.**

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## For Russian Users

This product certified by official certification company which is authorized by Russian Federation.  
**для ПОЛЬЗОВАТЕЛЕЙ РОССИИ**  
Данная продукция сертифицирована официальным органом по сертификации Российской Федерации.



Printed on recycled paper



# PRECAUTIONS

## Important

- Be careful when opening holes for installing the unit. Work with the power and video cables pulled out for easy installation.
- Make sure to properly perform waterproofing for the ceiling or wall where you are installing the unit.
- Make sure that the surface in the installation location has no unevenness and is strong enough to bear the total weight of the unit.
- Install this unit in an environment where the temperature range stays between -10°C and +50°C/14°F and 122°F (no condensation allowed).
- As a precaution against static electricity damage, touch a nearby metal object (door knob, etc.) to dissipate static electricity in your body before touching this unit.

### In case of a problem

Do not use the unit if smoke or a strange odor comes from the unit, or if it seems not to function correctly. Turn off the power immediately and disconnect the power cord, and then consult your dealer or an Authorized Sanyo Service Center.

### Do not open or modify

Do not open the cabinet, as it may be dangerous and cause damage to the unit. For repairs, consult your dealer or an Authorized Sanyo Service Center.

### Do not put objects inside the unit

Make sure that no metal objects or flammable substance get inside the unit. If used with a foreign object inside, it could cause a fire, a short-circuit or damage. Be careful to protect the unit from rain, sea water, etc. If water or liquid gets inside the unit, turn off the power immediately and disconnect the power cord, and then consult your dealer or an Authorized Sanyo Service Center.

### Be careful when handling the unit

To prevent damage, do not drop the unit or subject it to strong shock or vibration.

### Do not install this unit close to magnetic fields

The magnetic fields may result in unstable operation.

### Protect from humidity and dust

To prevent damage, do not install the unit where there is greasy smoke or steam, where the humidity 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 sources, such as spotlights, etc., or where it could be subject to direct sunlight, as this 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 rise to high levels.

### 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 dry by wiping with a soft cloth.

- Do not use benzine, thinner or other chemical products on the cabinet, as this 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 into contact with the cabinet for a long period of time, as this may cause damage or paint peeling.

# SPECIFICATIONS

Scanning system	: PAL standard 625 lines, 50 fields/sec.
Image sensor	: 1/4" interline transfer method CCD
Number of effective pixels	: 752 (H) x 582 (V)
Horizontal resolution	: 540 TV lines, typical
Minimum illumination (approx.)	: 0.5 lx (F0.95)
Video output	: 1.0 V(p-p)/75 Ω, composite, BNC UTP support (VA-10T: option board)
Video S/N ratio	: More than 48 dB (AGC off: More than 50 dB)
Vari-focal lens	: f2.8 - 8 mm, F=0.95 - 1.7
Rotation range	: (On the ceiling) Pan: ± 100 degrees Tilt: 0 - 90 degrees (On the wall) Pan: ± 90 degrees Tilt: 0 - 90 degrees
Backlight compensation	: OFF, Multi-spot metering (High/Normal), Center zone metering
White balance	: ATW/Manual
Electronic shutter	: 1/50, 1/120, 1/1000, 1/2000 sec.
Aperture compensation	: Sharp/Normal
Sync system	: Internal sync/Line-lock
Operating Environment	: Temperature: -10°C - +50°C (14°F - 122°F) Humidity: less than 90 % RH (no condensation)
Power supply	: 24 V AC ±10%, 50 Hz / 12 - 15 V DC
Power consumption (approx.)	: 2.4 W
Weight (approx.)	: 500 g (16 oz.)
Accessory	: Screw x1

Appearance and specifications are subject to change without prior notice or obligations.

# INSTALLING BASE PLATE AND CONNECTIONS

### Open the base plate.

### Ceiling Installed

- **Length:** 35 mm/1.4 in. or more
- **Diameter:** 3.5 to 5.0 mm/0.1 to 0.2 in.
- **Height of screw head:** 5 mm/0.2 in. or less (washer included)

Make sure to tighten the screws properly. Using screws of sizes other than specified may cause the unit to fall.

### Wall Installed

Place the base plate so that the arrow points downward.

# SERVICE

The camera is a precision instrument. Handle it carefully and always follow the safety precautions. If the camera requires service, never try to repair it yourself or open the casing.

For servicing, maintenance, or repairs, consult your dealer or an Authorized Sanyo Service Center.

### Monitor Connection

Cable type	Length
RG-59U (3C-2V)	250 m (273 yd) max.
RG-6U (5C-2V)	500 m (547 yd) max.
RG-11U (7C-2V)	600 m (656 yd) max.

- When using an RG-59U (3C-2V) cable, do not let it dangle in the air or attach it to piping.
- If you use a cable other than the types above, the image or sync signal will be attenuated and will not be transmitted correctly.

### Power Supply Connection

■ With AC 24 V

■ With DC 12 V

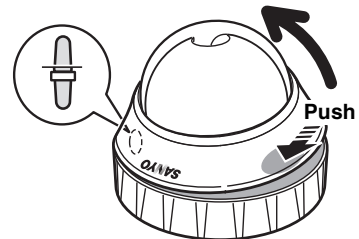
Check that +/- polarity is correct.

For the connections, use cables thicker than 18 AWG.

# INSTALLATION

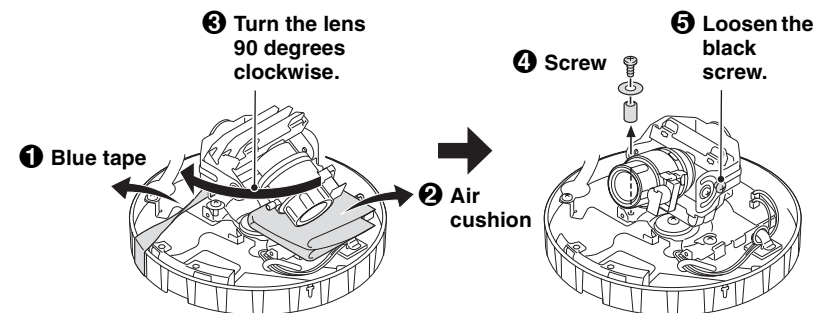
## Preparation

**1** Remove the dome cover.



**2** Remove the blue tape, air cushion and screw.

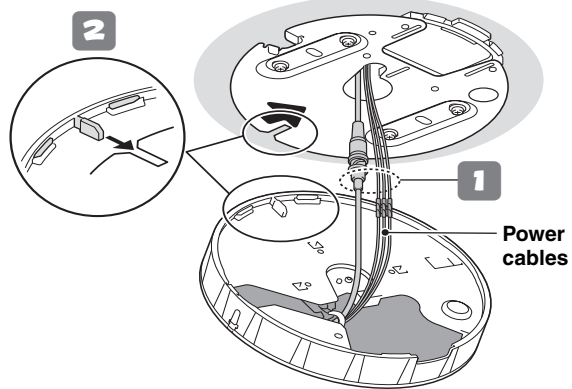
Do not touch the lens and lens barrel.



## A Installing on the Ceiling

**1** Connect the cables from the ceiling.

**2** Mount the camera unit to the base plate.



Push the camera unit until it clicks taking care not to pinch the cable.

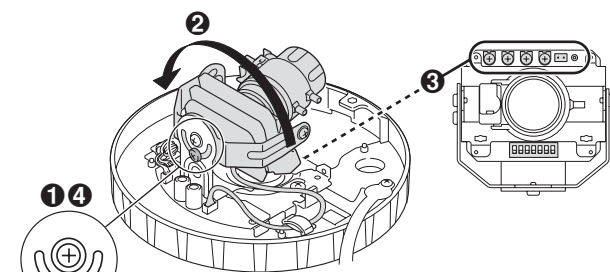
Supplied screw

Make sure that the camera unit and base plate fit perfectly.

## B Installing on the Wall

**1** Set the lens in the correct direction.

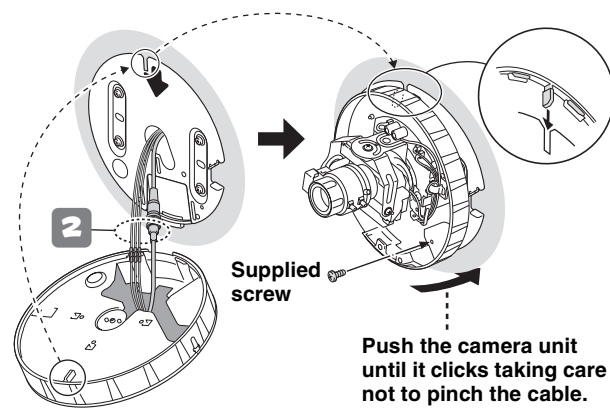
- 1** Remove the black screw (A).
- 2** Turn the lens in the arrow direction to reverse the orientation.
- 3** Confirm that the dials are located at the top.
- 4** Temporarily tighten the removed black screw (A).



(A) Black screw

**2** Connect the cables from the wall.

**3** Mount the camera unit to the base plate.



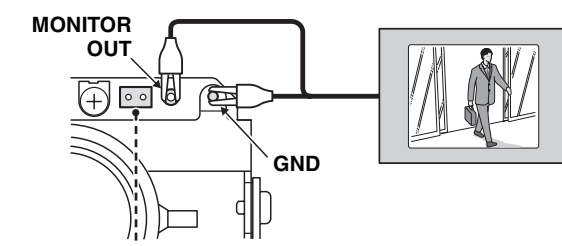
Push the camera unit until it clicks taking care not to pinch the cable.

Make sure that the camera unit and base plate fit perfectly.

# ADJUSTING CAMERA IMAGE

## Checks on monitor

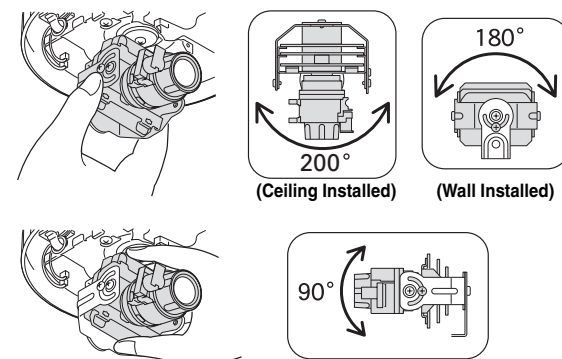
Connect a portable monitor.



A dedicated MONITOR OUT connector is provided for portable monitor.

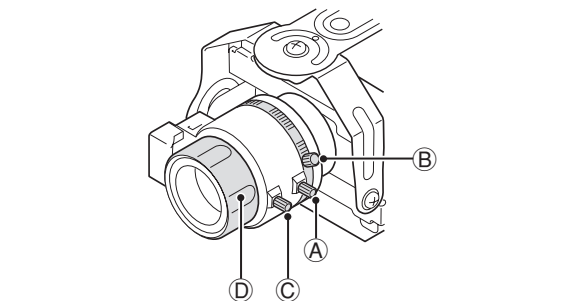
## Angle-of-view adjustment

Adjust the angle of view by moving the lens unit.



- Do not touch the lens and lens barrel.
- When rotating the lens unit, make sure a metal edge does not damage the cables.

## Zoom and focus

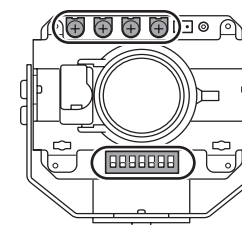


- 1** Zoom  
Loosen the zoom ring knob (A), and turn the zoom ring (B) to zoom in or out.
- 2** Focus  
Loosen the focus ring knob (C), and turn the focus ring (D) to focus on the object.

When finished, tighten the zoom and focus ring knobs (A C) securely.

When monitoring lighting or other extremely bright objects (which exceed the maximum required illumination), smearing may occur in the vertical or horizontal direction (either above and below the high-brightness object or as a perpendicular band). In such a case, adjust the angle of illumination and other factors while observing the monitor.

## Camera adjustments/settings



The camera comes pre-adjusted and ready to install at the time of factory shipment, but you can make adjustments or settings if you need.

If you have trouble adjusting the camera, consult your dealer or an Authorized Sanyo Service Center.

### Electronic shutter speed setting

(unit: second)

1/50	1/120	1/1000	1/2000
1 2	1 2	1 2	1 2

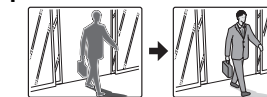
Switch1: MSB Switch2: LSB

- Using the high speed electronic shutter indoors with low lighting, will give darker pictures. In such a case, add some lights to make sure the lighting is sufficient.
- If the lighting is very bright, pay attention to the light angle in order to avoid or minimize the smear phenomenon effect.

### Aperture compensation

Sharp outline	Normal outline
3	3

### Backlight compensation



Only when using an auto-iris lens

Multi-spot metering Backlight compensation to the entire screen*	High	Normal
4 5	4 5	4 5
Center zone metering Backlight compensation to the central portion of the screen		
OFF	4 5	4 5

\* If the background of the object is extremely dark, set to Center zone metering.

### White balance (color compensation)

Manual White Balance	Auto-Tracing White balance
6	6

Turn clockwise to augment the color.

### Sync setting

Line-Lock Synchronizes the unit with power frequency*	Internal sync
7	7

\* Adjust the roll by turning the LINE PHASE dial on the second and subsequent cameras.

If the vertical roll cannot be corrected by adjusting the LINE PHASE dial on the second and subsequent cameras, try adjusting the LINE PHASE dial on the first camera. If it still cannot be corrected, please check that the polarity of the power cords of all connected devices is correct.

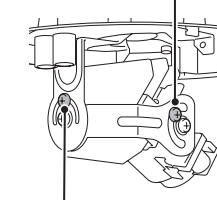
### Lens iris level adjustment

If the entire image is too dark or too bright, adjust the condition.



## After finishing camera adjustments/settings ...

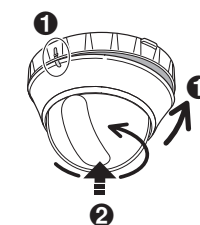
**1** Tighten the screw.



For wall installation, securely tighten the screw you temporarily tightened.

**2** Install the dome cover.

Push the dome cover until it clicks.



While holding down the dome cover, turn it in the direction of the arrow until the lens is completely visible through the camera window.