

# C-CV854D-9

## Vandal Resistant Day/Night Camera



### DESCRIPTION

The C-CV854D-9 is a high-resolution, indoor/outdoor, vandal-resistant, 24V AC/12V AC power, dome type surveillance camera capable of both day and night coverage. The camera body is made of die-cast aluminum alloy, with a polycarbonate dome cover, ensuring a high degree of resistance to even strong impacts with an energy of up to 50 Joules. It operates as a color camera in daylight, and as a highly sensitive monochrome camera in darkness. This selectable automatic dual operating capability makes it ideal for applications where around the clock coverage is essential. Thanks to a noise-reduction function, clear images can be viewed, even under poor lighting conditions. The C-CV854D-9 incorporates a 3-axis (horizontal, vertical and rotational) adjustment mechanism and a 2X varifocal lens, which facilitate adjustment of the camera's orientation and view angle during installation. The unit's dustproof and waterproof construction enables it to be mounted to an outdoor wall or ceiling without requiring any extra equipment to protect the camera against dust or rain. In addition, by installing the TOA C-A854H heater unit inside the camera housing, the camera may be used at ambient temperatures as low as  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ).

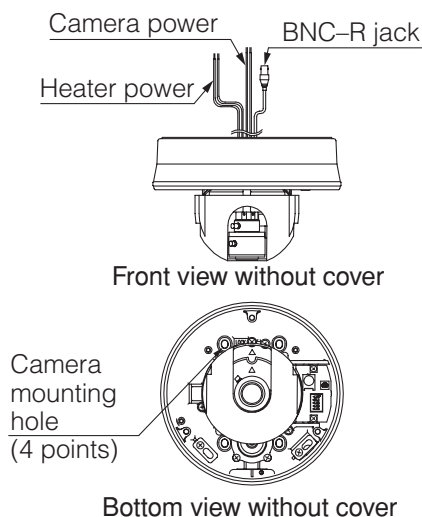
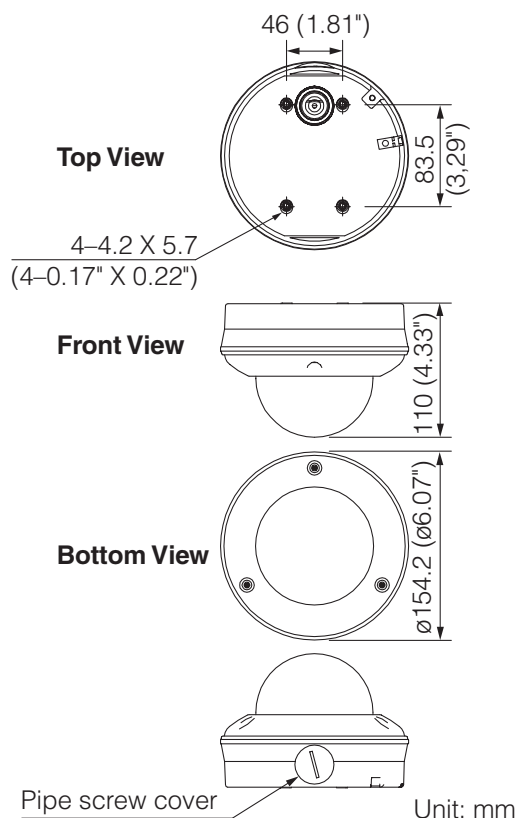
### FEATURES

- **Vandal-resistant, sturdy design**
  - Impact-resistance against up to 50-joule energy
- **Dust- and water-proof construction (IP66)**
- **Wide range of view angles (2X varifocal lens)**
  - Horizontal:  $30.6^{\circ}$  –  $13.0^{\circ}$ , Vertical:  $22.6^{\circ}$  –  $9.8^{\circ}$
- **High resolution (horizontal: 480 lines)**
  - 1/3" CCD with a resolution of 380,000 pixels
- **High sensitivity**
  - 0.5lx in color mode and 0.05lx in B/W mode, with electronic sensitivity boost of up to 4X
- **Day/Night operation**
  - Clear monochrome image is provided even under poor lighting conditions.
- **Backlight compensation**
  - Allows optimal viewing of dark areas in a backlight condition.
- **Easy viewing**
  - Flicker-free function
  - Noise reduction function
- **Easy installation**
  - 3-axis (horizontal, vertical and rotational) adjustment mechanism
  - Direct output to the monitor
- **Easy focusing without requiring an ND filter**
- **Flexible camera power source**
  - Compatible with 24V AC or 12V DC
- **Operating temperature of as low as  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ )**
  - With optional heater unit C-A854H



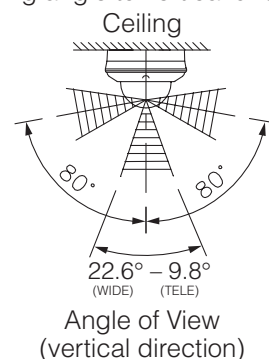
NTSC

# APPEARANCE AND DIMENSIONAL DIAGRAM

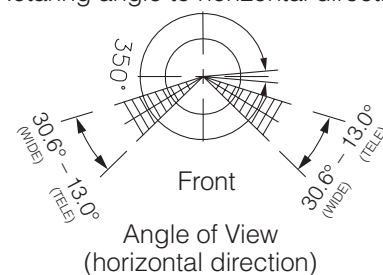


Note: When installing the camera outdoors, the 4 camera mounting holes must be protected to prevent rainwater from leaking into the enclosure.

Camera angle setting range  
(Rotating angle to vertical direction)



(Rotating angle to horizontal direction)

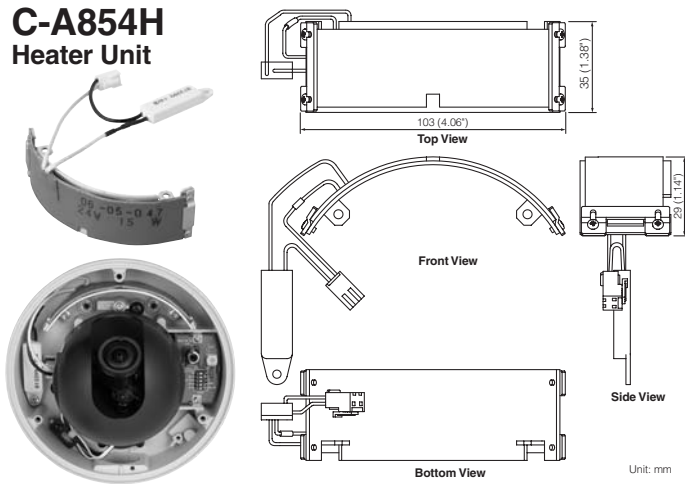


# SPECIFICATIONS

<b>Power Source</b>	For camera: 24V AC, 50/60Hz or 12V DC, for heater: 24V AC, 50/60Hz
<b>Power Consumption</b>	4W (300 mA, maximum current 800 mA)
<b>Image Device</b>	1/3 type IT-CCD
<b>Number of Effective Pixels</b>	771 (H) × 492 (V) (380,000 pixels)
<b>Scanning System</b>	2:1 interlace
<b>Scanning Frequency</b>	Horizontal: 15.734kHz, Vertical: 59.94Hz
<b>Monitor Output</b>	VBS 1.0V (p-p) 75Ω, RCA pin jack
<b>Video Output</b>	VBS 1.0V (p-p) 75Ω, BNC-R jack
<b>Synchronizing System</b>	Internal synchronization
<b>Resolution</b>	Horizontal: 480 lines (at center)
<b>S/N Ratio</b>	50dB
<b>Minimum Illumination</b>	0.5 lx (50 IRE, color operation), 0.1 lx (20 IRE, color operation) 0.05 lx (50 IRE, black-and-white operation, incandescent lamp) *Flickerless: OFF
<b>Threshold Illumination for mode switching</b>	Color-to B/W mode: Approx. 5 lx, B/W to color mode: Approx. 25 lx (incandescent lamp)
<b>White Balance mode</b>	ATW/AWB (switch selector)
<b>Focal Length</b>	f = 9.0 - 22.0mm
<b>Maximum Aperture Ratio</b>	1:1.5 - 2.9
<b>Iris</b>	Auto-iris
<b>Angle of View</b>	Horizontal: 30.6° - 13.0°, Vertical: 22.6° - 9.8°
<b>Adjustment Switch</b>	ON/OFF (used for focus adjustment)
<b>Day/Night Mode</b>	Automatic/Off (switch selector)
<b>Other Function</b>	Backlight compensation, Shutter speed, Iris control, Max. 4X sensitivity increase (auto), Noise reduction
<b>Dust/Water Protection</b>	IP66
<b>Operating Temperature</b>	-10°C to +50°C (14°F to 122°F) (When an optional heater unit is attached: -30°C to +50°C (-22°F to 122°F))
<b>Operating Humidity</b>	90% RH or less (no condensation)
<b>Application</b>	Outdoor/Indoor use
<b>Finish</b>	Case, bezel: Die-cast aluminum, light gray, paint/Dome cover: PC resin (transparent)
<b>Dimensions</b>	ø154.2 × 110 (H)mm (ø6.07" × 4.33") (excluding the cables)
<b>Weight</b>	1.1kg (2.43lb)
<b>Accessory</b>	L-type wrench × 1, Base gasket × 1
<b>Option</b>	Heater unit: C-A854H, Flush mounting bracket: C-BC850U, Wall mounting bracket: C-BC850W. Pole mounting bracket: C-BC450PM

# OPTIONAL ACCESSORIES

## C-A854H Heater Unit

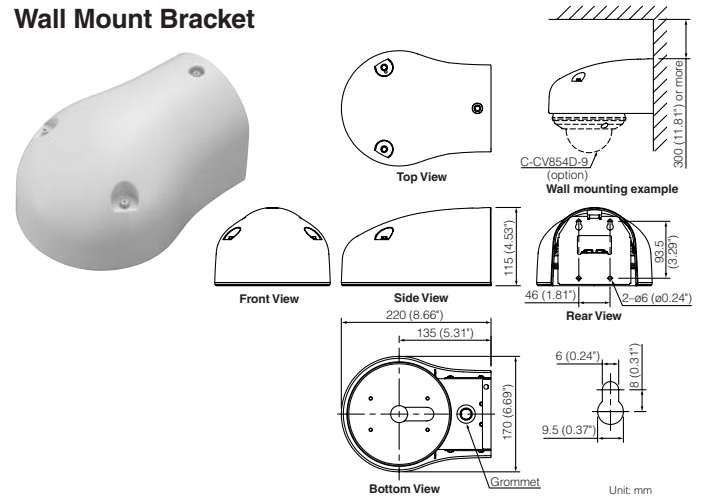


Installing this Heater Unit in C-CV854D-9 allows the camera to be used in location exposed to extremely low ambient temperature.

### SPECIFICATIONS

Power Req.	24V AC, 50/60Hz
Power Consumption	15W (630mA)
Heater Operating Temperature	Turns on at under approx. 10°C (50°F)
Operating Temperature	-30°C to +50°C (-22°F to +122°F)
Dimensions	103 (W) × 35 (H) × 29 (D)mm (4.06" × 1.38" × 1.14") (excluding connector and thermostat)
Weight	35g (0.08 lb)
Accessory	Mounting screw × 3
Applicable Camera	C-CV854D-3/-9

## C-BC850W Wall Mount Bracket

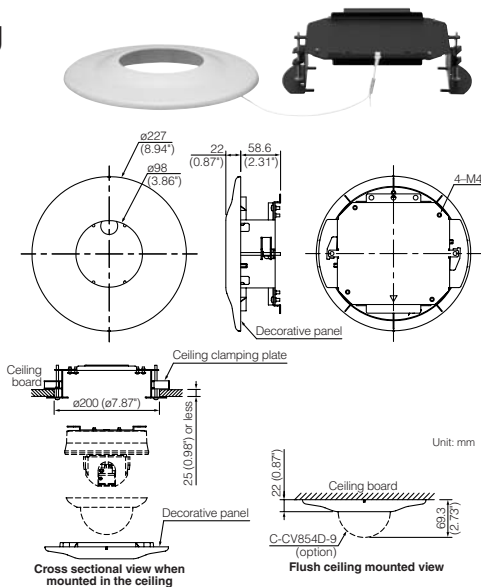


Designed to mount C-CV854D-9 to a wall.  
Can mount the camera on pole with optional C-BC450PM and YS-60B.

### SPECIFICATIONS

Finish	Cover: PC resin, light gray/Bracket: Stainless steel
Dimensions	170 (W) × 115 (H) × 220 (D)mm (6.69" × 4.53" × 8.66")
Weight	1.1kg (2.43 lb)
Accessory	Joint base × 1, Base mounting screw (M4×16, with washer) × 4 Camera mounting screw (M4×12) × 4
Applicable Camera	C-CV854D-3/-9

## C-BC850U Flush Mount Bracket



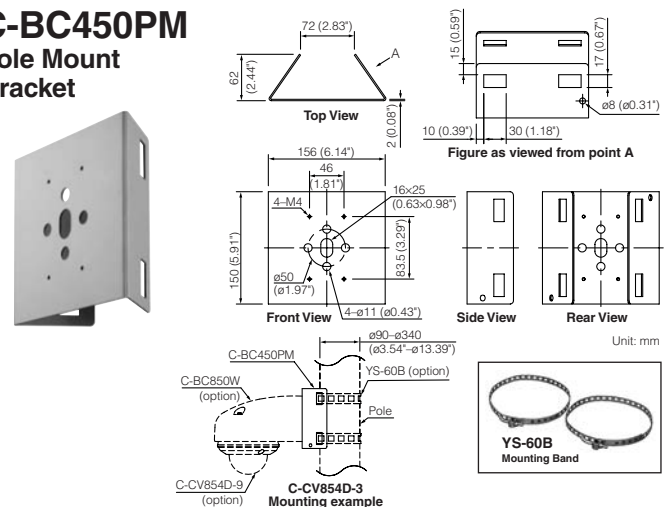
Designed to mount C-CV854D-9 in a ceiling, with only the camera dome cover exposed.

Can mount the camera to a double-layer ceiling with gypsum board.

### SPECIFICATIONS

Board Thickness for Mounting	25mm (0.98") or less
Finish	Decorative panel: PC resin, light gray Mounting bracket: Rolled steel plate, black, paint
Mounting Hole Diameter	ø200mm (ø7.87")
Dimensions	ø227 × 80.6 (H)mm (ø8.94" × 3.17")
Weight	930g (2.05 lb)
Accessory	Camera mounting screw (M4×10) × 4, Decorative panel × 1
Applicable Camera	C-CV854D-3/-9

## C-BC450PM Pole Mount Bracket



Designed to mount C-CV854D-9 on a pole in conjunction with the optional C-BC850W and YS-60B.

### SPECIFICATIONS

Applicable Pole Diameter	ø90 - ø340mm (ø3.54" - ø13.39")
Finish	Stainless steel
Dimensions	156 (W) × 150 (H) × 62 (D)mm (6.14" × 5.91" × 2.44")
Weight	660g (1.46 lb)
Applicable Camera	C-CV44-3, C-CV854D-3/-9
Option	Mounting band: YS-60B Wall Mounting bracket: C-BC850W

# ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

## GENERAL REQUIREMENTS

The product specified shall be a surface-mounted, vandal proof, IP66 rated, 24V AC or 12V DC type color dome camera system designed for indoor/outdoor surveillance applications. The camera system shall consist of a high resolution CCD camera (NTSC: 380,000 pixels) using 1/3" type CCD image device with an auto-iris 2X varifocal lens with 9.0 – 22.0 mm focal length, 30.6° – 13.0° horizontal range, 22.6° – 9.8° vertical range. The specified camera's body shall be made of die-cast aluminum alloy, with a polycarbonate dome cover to withstand impact within up to 50-joule energy.

The specified camera shall operate as a color camera in daylight, and as a highly sensitive monochrome camera in darkness, and automatically boost electronic sensitivity up to 4X according to the objects' illumination.

The camera shall have a noise reduction function to ensure clear images even under poor lighting conditions and a function to reduce monitor image flicker caused by fluorescent lighting.

The specified product shall offer a backlight compensation function which allows optimal viewing of dark areas in a backlight condition, and focus adjustment switch which allow the installer to easily perform focus adjustment without using an ND (Neutral Density) filter.

Monitor output shall provide a convenient monitor connection for installer to align the camera.

By installing optional heater unit inside the camera housing, the camera shall be used at ambient temperatures as low as -30°C (-22°F).

The optional mounting brackets shall allow the camera to be mounted in a ceiling and wall and on a pole.

## CAMERA SPECIFICATIONS

Resolution: Horizontal: 480 lines (at center)  
Scanning System: 2:1 interlace  
Scanning Frequency: Horizontal: 15.734 kHz,  
vertical: 59.94 Hz  
S/N Ratio: 50 dB  
Minimum Illumination: 0.5 lx (50 IRE, color operation),  
0.1 lx (20 IRE, color operation),  
0.05 lx (50 IRE, black-and-white  
operation, incandescent lamp)

## LENS SPECIFICATIONS

Focal Length: f=9.0-22.0 mm  
Maximum Aperture Ratio: 1 : 1.5-2.9

## ELECTRICAL SPECIFICATIONS

Power Requirement: 24V AC, 50/60Hz or 12V DC/  
Optional heater unit: 24V AC, 50/60Hz  
Power Consumption: 4W (300mA, maximum current: 800 mA)  
Video Output: VBS 1.0V (p-p) 75 ohms, BNC-R jack  
Monitor Output: VBS 1.0V (p-p) 75 ohms, RCA pin jack

## MECHANICAL SPECIFICATIONS

Dimensions: ø154.2 × 110(H) mm (6.07" × 4.33")  
(excluding the cables)  
Weight: 1.1 kg (2.43 lb)

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -10°C to +50°C (14°F to 122°F)  
(When an optional heater unit is  
attached: -30°C to +50°C (-20°F to 122°F))  
Operating Humidity: Under 90%RH (no condensation)

## CERTIFICATIONS AND RATINGS

This device complies with part 15 of FCC rules (class B equipment).  
Safety: cULus (UL2044)

The vandal-resistant day/night camera shall be TOA model C-CV854D-9.

The heater unit shall be C-A854H.

The wall mount bracket shall be C-BC850W.

The flush mount bracket shall be C-BC850U.

The pole mount bracket shall be C-BC450PM.