

# C-CV854D-3

## Vandal Resistant Day/Night Camera



### DESCRIPTION

The C-CV854D-3 is a high-resolution, indoor/outdoor use vandal-resistant 24V AC/12V DC type surveillance camera capable of both day and night coverage. 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-3 incorporates a 3-axis (horizontal, vertical and rotational) adjustment mechanism and a 3X 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 minus 30 degrees centigrade. 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 50 Joules.

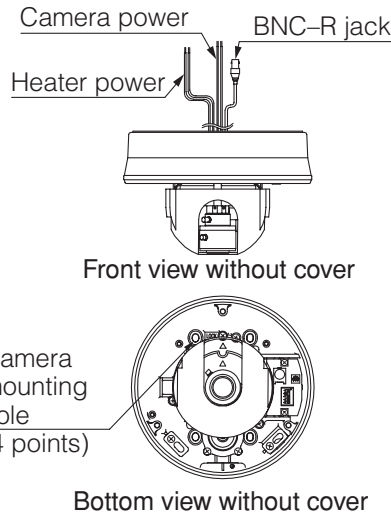
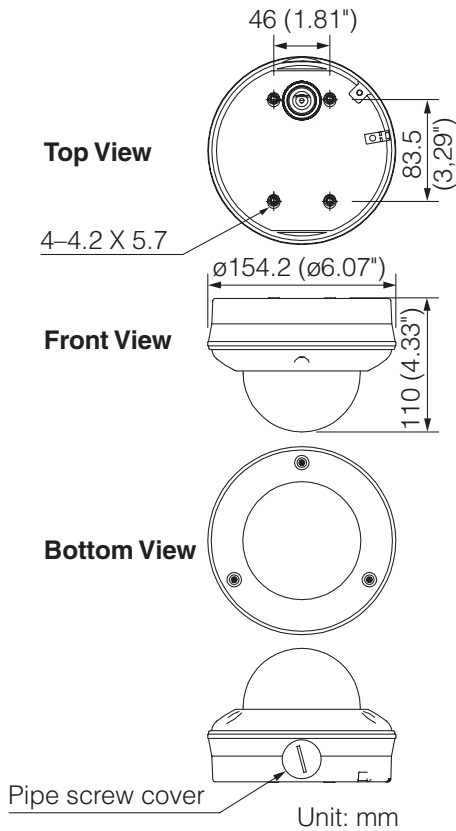
### FEATURES

- **High resolution (horizontal: 500 lines)**
  - 1/3" CCD with a resolution of 380,000 pixels (NTSC)  
(PAL: 440,000 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
- **Dust- and water-proof construction (IP66)**
- **Tamper-proof, sturdy design**
  - Impact-resistance against 50-joule energy
- **Wide range of view angles (3X varifocal lens)**
  - Horizontal: 90.3° – 31.9°, Vertical: 66.4° – 23.9°, Diagonal: 115.4° – 39.8°
- **Easy installation**
  - 3-axis (horizontal, vertical and rotational) adjustment mechanism
  - Direct output to the monitor
- **Easy focusing without requiring an ND filter\***
  - \*see rear page for more feature information.
- **Flexible camera power source**
  - Compatible with 24V AC or 12V DC
- **Operating temperature of as low as -30°C (-22°F)**
  - With optional heater unit C-A854H



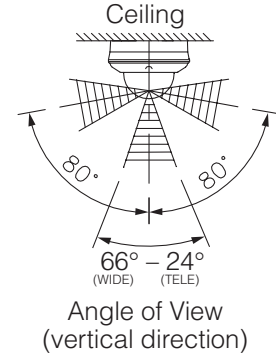
NTSC/PAL

## APPEARANCE AND DIMENSIONAL DIAGRAM

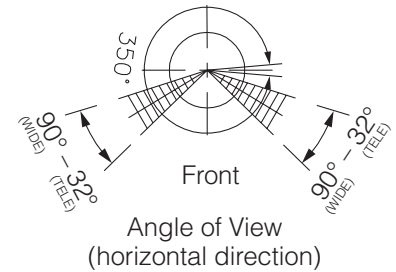


Note: When installing the camera outdoors, the 4 camera mounting holes must be protected to prevent rainwater from leaking into the enclosure.

Camera angle setting range  
(Rotating angle to vertical direction)



(Rotating angle to horizontal direction)



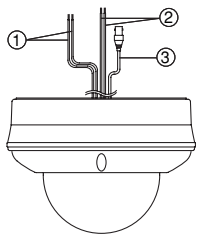
## SPECIFICATIONS (NTSC)

Power Requirement	For camera: 24V AC, 50/60Hz or 12V DC, for heater: 24V AC, 50/60Hz
Power Consumption	4W (300 mA, maximum current 800 mA)
Image Device	1/3 type IT-CCD
Number of Effective Pixels	768 (H) × 494 (V) (380,000 pixels)
Scanning System	2:1 interlace
Scanning Frequency	Horizontal: 15.734kHz, Vertical: 59.94Hz
Monitor Output	VBS 1.0V (p-p) 75Ω, RCA pin jack
Video Output	VBS 1.0V (p-p) 75Ω, BNC-R jack
Synchronizing System	Internal synchronization
Resolution	Horizontal: 500 lines (at center), Vertical: 350 lines (at center)
S/N Ratio	50dB
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)
White Balance mode	ATW/AWB (switch selector)
Focal Length	f = 3.0 – 9.0mm
Maximum Aperture Ratio	1:1.4 – 2.4
Iris	Auto-iris
Angle of View	Horizontal: 90.3° – 31.9°. Vertical: 66.4° – 23.9°. Diagonal: 115.4° – 39.8°
Adjustment Switch	ON/OFF (used for focus adjustment)
Day/Night Mode	Automatic/Off (switch selector)
Other Function	Backlight compensation, Shutter speed, Iris control, Max. 4X sensitivity increase (auto), Noise reduction
Dust/Water Protection	IP66
Operating Temperature	-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))
Operating Humidity	Under 90% RH (no dew condensation)
Application	Outdoor/Indoor use
Finish	Case, bezel: Die-cast aluminum, light gray, paint Dome cover: PC resin (transparent)
Dimensions	ø154.2 × 110 (H)mm (ø6.07" × 4.33") (excluding the cables)
Weight	1.1kg (2.43lb)
Accessory	L-type wrench x 1, Base gasket x1
Option	Heater unit: C-A854H Flush mounting bracket: C-BC850U Wall mounting bracket: C-BC850W Pole mounting bracket: C-BC450PM

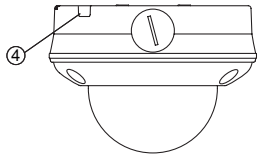
## SPECIFICATIONS (PAL)

Power Requirement	For camera: 24V AC, 50/60Hz or 12V DC, for heater: 24V AC, 50/60Hz
Power Consumption	4W (300 mA, maximum current 800 mA)
Image Device	1/3 type IT-CCD
Number of Effective Pixels	752 (H) × 582 (V) (440,000 pixels)
Scanning System	2:1 interlace
Scanning Frequency	Horizontal: 15.625kHz, Vertical: 50Hz
Monitor Output	VBS 1.0V (p-p) 75Ω, RCA pin jack
Video Output	VBS 1.0V (p-p) 75Ω, BNC-R jack
Synchronizing System	Internal synchronization
Resolution	Horizontal: 500 lines (at center), Vertical: 410 lines (at center)
S/N Ratio	50dB
Minimum Illumination	0.5 lx (350mV, color operation), 0.1 lx (140mV, color operation) 0.05 lx (350mV, black-and-white operation, incandescent lamp)
White Balance mode	ATW/AWB (switch selector)
Focal Length	f = 3.0 – 9.0mm
Maximum Aperture Ratio	1:1.4 – 2.4
Iris	Auto-iris
Angle of View	Horizontal: 90.3° – 31.9°. Vertical: 66.4° – 23.9°. Diagonal: 115.4° – 39.8°
Adjustment Switch	ON/OFF (used for focus adjustment)
Day/Night Mode	Automatic/Off (switch selector)
Other Function	Backlight compensation, Shutter speed, Iris control, Max. 4X sensitivity increase (auto), Noise reduction
Dust/Water Protection	IP66
Operating Temperature	-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))
Operating Humidity	Under 90% RH (no dew condensation)
Application	Outdoor/Indoor use
Finish	Case, bezel: Die-cast aluminum, light gray, paint Dome cover: PC resin (transparent)
Dimensions	ø154.2 × 110 (H)mm (ø6.07" × 4.33") (excluding the cables)
Weight	1.1kg (2.43lb)
Accessory	L-type wrench x 1, Base gasket x1
Option	Heater unit: C-A854H Flush mounting bracket: C-BC850U Wall mounting bracket: C-BC850W Pole mounting bracket: C-BC450PM

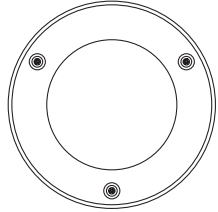
## NOMENCLATURE



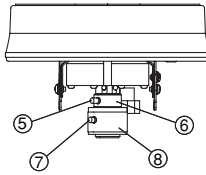
Side view with dome cover



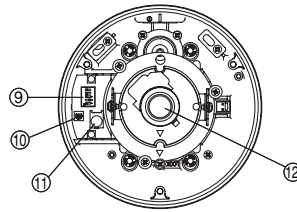
Bottom view with dome cover



Side view without inner cover



Bottom view without inner cover



- (1) Camera power input cable (Red, Black) (24V AC or 12 V DC)
- (2) Heater power input cable (White, White) (24V AC)
- (3) Video output terminal (cable with BNC)
- (4) Safety wire fixing hole (M4)
- (5) Zoom ring-fixing screw
- (6) Zoom ring
- (7) Focus ring fixing screw
- (8) Focus ring
- (9) Mode setting switch
- (10) Iris control
- (11) Monitor output terminal (RCA pin jack)
- (12) Varifocal lens

## 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/PAL: 440,000 pixels) using 1/3" type CCD image device with an auto-iris 3X varifocal lens with 3.0 – 9.0 mm focal length, 90.3° – 31.9° horizontal range, 66.4° – 23.9° vertical range and 115.4° – 39.8° diagonal range. The specified camera's body shall be made of die-cast aluminum alloy, with a polycarbonate dome cover to withstand impact within 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.

The manufacturer of the specified dome cameras shall provide optional heater unit which extends the operating temperature range to –30°C.

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

### CAMERA SPECIFICATIONS

Resolution:	Horizontal: 500 lines (at center), vertical: 410 lines(at center)
Scanning System:	2:1 interlace
Scanning Frequency:	Horizontal: 15.625 kHz, vertical: 50 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=3.0-9.0 mm
Maximum Aperture Ratio:	1 :1.4-2.4

### 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

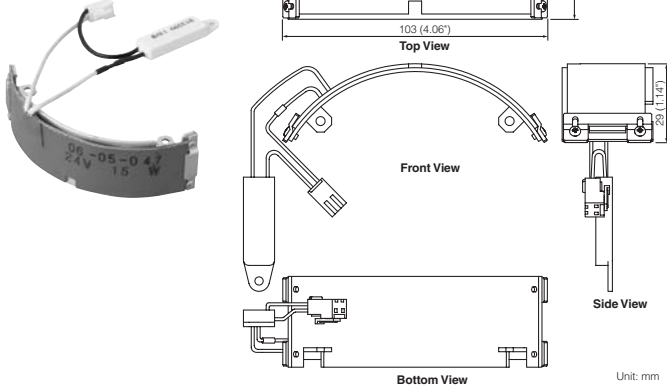
### MECHANICAL SPECIFICATIONS

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)
Operating Humidity:	Under 90%RH (no condensation)

## C-A854H Heater Unit

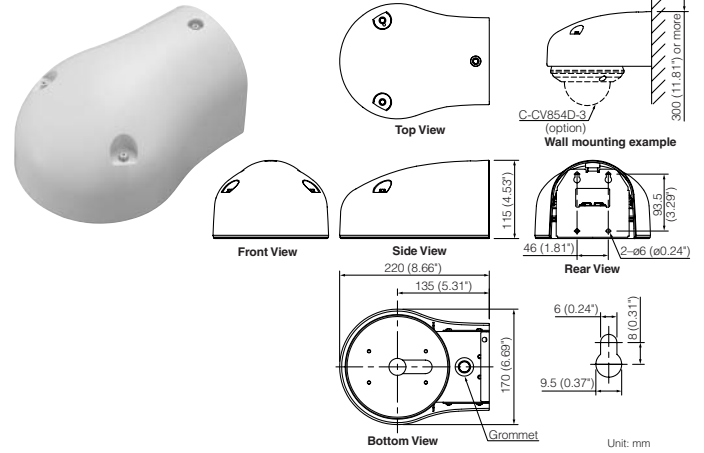


Installing this Heater Unit in C-CV854D-3 allows the camera to be used in location exposed to extremely low ambient temperature.

### 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

## C-BC850W Wall Mounting Bracket



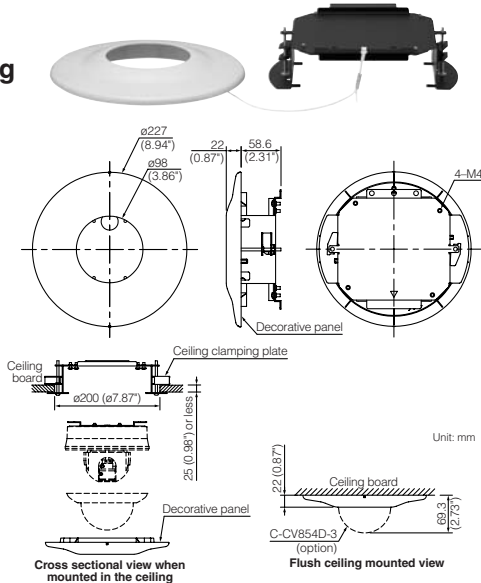
Designed to mount C-CV854D-3 to a wall.

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

## C-BC850U Flush Mounting Bracket



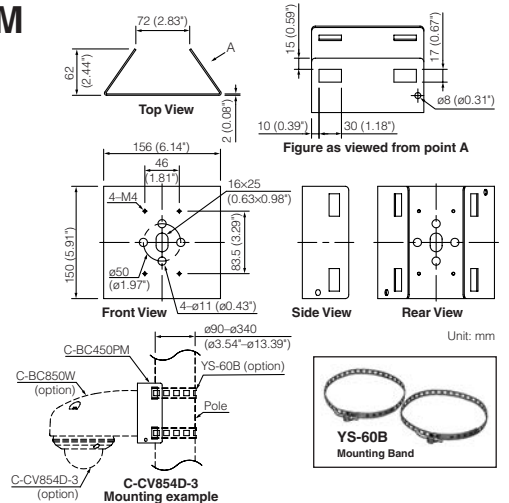
Designed to mount C-CV854D-3 in a ceiling, with only the camera dome cover exposed.

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	200mm (7.87")
Dimensions	227 × 80.6 (H)mm (8.94" × 3.17")
Weight	930g (2.05 lb)
Accessory	Camera mounting screw (M4×10) × 4, Decorative panel × 1
Applicable Camera	C-CV854D-3

## C-BC450PM Pole Mounting Bracket



Designed to mount C-CV854D-3 on a pole in conjunction with the optional C-BC850W and YS-60B.

### SPECIFICATIONS

Applicable Pole Diameter	90 – 340mm (3.54" – 13.39")
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
Option	Mounting band: YS-60B Wall Mounting bracket: C-BC850W