

COMBINATION DOME CAMERA SYSTEMS

Combination Dome Cameras

For Outdoor Use



C-CC764
multi function type
C-CC714
standard type

For Indoor Use



C-CC564
multi function type
C-CC514
standard type

with Ceiling Mount
Cover C-BC511C

Brackets and Cover

For Outdoor Use



C-BC711P
Ceiling Suspension
Bracket



C-BC711PM
Pole Mounting
Bracket



C-BC711W
Wall Mounting
Bracket



C-A711DM
Smoked Dome
Cover



C-BC511C
Ceiling Mount
Cover



C-BC511C-S
Ceiling Mount
Cover (Smoked)



C-BC511P
Ceiling Suspension
Bracket



C-BC511W
Wall Mounting
Bracket



C-BC511U
Flush Ceiling
Mounting Bracket



C-BC511U-S
Flush Ceiling Mounting
Bracket (Smoked)



C-BC511A
Anchor Bracket

Controller and Units



C-RM500
Remote Controller



C-AL80
Alarm Unit



C-IF500
Interface Unit



TOA

Combination Dome Cameras

Configuring a perfect surveillance system.

Higher resolution delivers better images.

TOA cameras now feature a higher horizontal resolution of 480 lines (NTSC) to deliver images of enhanced quality.

All points coverage at high speed.

TOA's new combination dome cameras help to improve monitoring environments with an ideal coverage area that is made possible with a 360° rotation range to cover any possible position. Capable of a maximum rotating speed (panning/tilting) of 360°/second, these versatile cameras allow rotation speed to be slowed down as desired.



Expanded zooming ability.

TOA cameras are capably equipped for zooming as needed. C-CC564 and C-CC764 incorporate a 23X ultra wide-angle zoom lens for better coverage of a desired image. If even more zooming is required, 12X digital zooming can be activated, resulting in an extraordinary combined zoom factor of up to an 276X*.

* C-CC564 and C-CC764 cameras are equipped with a high-speed, wide-angle lens having a 23X zoom while C-CC514 and C-CC714 cameras are equipped with a high-speed, wide-angle lens having a 22X zoom. With the 12X digital zoom activated, a total 276X zoom is possible for C-CC564 and C-CC764 cameras and 264X zoom for C-CC514 and C-CC714 cameras.

Intelligent image optimizing using the Wide Dynamic Range function.*

If the area of coverage exhibits varying brightness levels, it causes various problems that prevent achieving superb image quality. These problems pose severe difficulties for cameras that utilize conventional technology for dealing with brightness variations. The following two examples illustrate the problem.



Placing the focus on the outdoors results in the indoors being too dark to see well. (Photo A)

However, setting the focus on the indoors now "whites out" the outdoor area. (Photo B)



TOA Combination Dome Cameras incorporate a special Digital Signal Processor (DSP) that works to optimize image, producing a single image of exceptional clarity that is comparable to the same image when viewed with human eyes.

Sophisticated autofocus modes add versatility.

TOA cameras are equipped with advanced auto-focusing. Three independent modes are offered: Auto focus for normal operation is activated with a single push. Stop Auto Focus activates if the camera view or viewing angle changes. To keep auto focus working continuously, the Continuous auto focus can be engaged.

Motion detection function initiates operation.*

Incorporated into the C-CC564 and C-CC764 are a motion detection function. When a moving object enters a camera's field of view, the camera will initiate a preprogrammed operation or a series of operations. The camera's view can be monitored onscreen with a window that is divided into 64 segments and from these, eight 8 areas can be selected as motion detection zones.

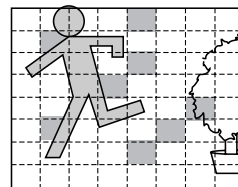


Image clarity maintained for day and night with sensitivity boost.

In night or dark lighting conditions, the camera's shutter speed is automatically reduced so that more light can enter. This function effectively increases the camera's sensitivity so that dark areas can be made up to 32 times brighter.

B/W mode improves low light performance.*

Combination dome cameras also incorporate a separate B/W mode. At night, as light intensity decreases, this mode automatically activates, boosting camera sensitivity and making it possible to capture clear images even in unsatisfactory light conditions. When light conditions are satisfactory, the camera will revert to its primary function as a color camera. Used together, the sensitivity boost and B/W modes allow TOA combination dome cameras to efficiently function for 24-hour monitoring.

Note: B/W mode allows monitoring target areas that are not possible in normal light conditions.



Sensitivity boost allows cameras to provide good color image quality for dark areas.



(color image)



B/W mode.



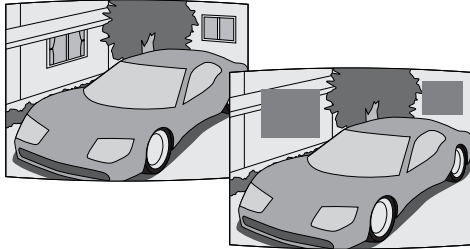
(B/W image)

■ Protecting user privacy.

a) Privacy Masking function.*

Depending on system use requirements, there may be several areas that the system administrator decides does not require surveillance for whatever reason. Users are allowed to select in advance the locations they wish to be excluded from surveillance in a camera's field of view.

Onscreen selected areas can be masked with a rectangle and a maximum of 8 areas (a single screen can have 2 masked areas) can be masked for privacy.



b) Restricting camera movement.

In addition to masking areas for privacy, a hardware-oriented method is also available. A camera's rotation range in both horizontal and vertical directions can be restricted to exclude areas from surveillance.

■ Outdoor installation ready. (meets IP66 standards)

C-CC714 and C-CC764 utilize a waterproof and dustproof design that fully conforms to IP66 standards and can be safely installed outdoors. Cameras are cased in a special housing that withstands outdoor conditions, allowing them to be installed outdoors, even if the location is directly exposed to rain.

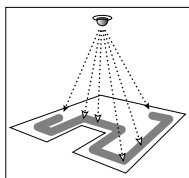
■ Withstands cold weather conditions.

C-CC714 and C-CC764 incorporate a heating circuit that allows operation in severe temperatures down to -40°C . Heating is automatically turned on when ambient temperatures go below 0°C and will automatically switch off when the temperatures rise.

Note: Turning the camera on if the camera interior is below 0°C may not result in producing an immediately viewable image. Once the camera interior temperature rises above 0°C , images will be viewable.

■ Route tracing facilitates subject monitoring.

In order to make it easy to follow a subject along a route, the camera can be set to automatically monitor preset points for up to 60 seconds. Two different routes can be programmed.



■ Configuring programmable tours.

Through combinations of the 255 preset positions and trace function, a camera can be programmed to automatically and continuously repeat a travel pattern as a tour. Up to 16 tour patterns can be programmed. Any tour program is able to have a different travel pattern that can be activated by an alarm input or timer.

■ Programmable camera operation initiated by alarm input.

A useful Alarm function allows programming camera operation that can be activated by an alarm input.

Desired camera operations such as position replay, touring, tracing, and control of the auxiliary terminal can be programmed to activate when the camera receives an alarm input. Each camera is equipped with three (C-CC564 has eight) alarm inputs and each alarm input can be set to respond with different preprogrammed operation.

■ Preset operation start with Timer program function.

A camera can conveniently be set to begin operation at a preset time with an builtin timer. Each camera has a clock function that can be set to initiate operation at a preset time. The timer can be set for a specific date, day of the week, or daily. Up to 16 different timer programs can be set.

■ Software for maintenance.

TOA cameras include dedicated software that allows easy titles to be set and to create a backup of parameters with a PC.

■ Flexible installation options.

TOA cameras can easily be installed on ceilings, walls or on poles thanks to the wide range of mounting brackets available.

■ Titring options.

To facilitate camera use, various titles can be input and displayed on the monitor. In addition to camera and position titles, other titles for display include trace title, displayed while the trace function is on, tour title, displayed when tour function is activated, and alarm title displayed when an alarm input is received.

■ Other functions.

- Tilt (vertical) range: $+5^{\circ}$ — -185° .*
- Auto flip function*
- Rotation speed can be varied to match lens zooming ratio in manual operation mode.
- Freeze preset function*
Displays the still image during camera movement between preset positions.
- Flicker-free operation
- The camera is equipped with 3 (C-CC564 has 8) alarm inputs and 1 auxiliary contact output.
- RS-485 protocol control.

Function Comparison Chart

| | C-CC514 | C-CC564 | C-CC714 | C-CC764 |
|--|--|---------------------------------|--|---------------------------------|
| Minimum Illumination (High-Sensitivity: OFF) | 1 lx (50 IRE) 0.3 lx (20 IRE) | 3 lx (50 IRE) 1 lx (20 IRE) | 1 lx (50 IRE) 0.3 lx (20 IRE) | 3 lx (50 IRE) 1 lx (20 IRE) |
| Wide Dynaic Function | — | ● | — | ● |
| B/W Mode Function | — | ● | — | ● |
| Optical Zooming | 22x | 23x | 22x | 23x |
| Zoom Speed (WIDE end to TELE end) (preset operation) (manual operation) | Approx. 1.3s Approx. 2.4s | Approx. 1.6s Approx. 2.9s | Approx. 1.3s Approx. 2.4s | Approx. 1.5s Approx. 2.9s |
| Rotating Range (Titring) | $+5^{\circ}$ to -95° | $+5^{\circ}$ to -185° | $+5^{\circ}$ to -90° | $+5^{\circ}$ to -185° |
| Operating Temperature | -10°C to $+50^{\circ}\text{C}$ | | -40°C to $+50^{\circ}\text{C}$ | |
| Dust/Water Capability | — | | IP66 | |
| Auto Flip Function | — | ● | — | ● |
| Freeze Preset Function | — | ● | — | ● |
| Privacy Mask Function | — | Up to 8 (up to 2 each frame) | — | Up to 8 (up to 2 each frame) |
| Motion Detection Function | — | ● | — | ● |

C-CC764/C-CC-714

COMBINATION DOME CAMERA (OUTDOOR USE)



C-CC764 FEATURES

- 255 preset positions
- 276X zoom (optical 23X, electronic 12X)
- Tilt rotation range +5° – -185° (using Auto-Flip function)
- Pan rotation range continuous 360°
- Pan/tilt maximum rotating speed is 360°/sec
- 1/4 type CCD image device
- 480 lines high resolution
- Wide dynamic range
- Autofocus
- High-sensitivity function (color and B/W modes)
- Preset sequency function
- Privacy masking function
- Restricting camera movement
- Auto-trace function
- Auto-tour function
- Motion detection function
- Auto-pan function
- Preset image freeze function
- Dust/Water Protection: IP66
- RS-485 protocol compatible

C-CC714 FEATURES

- 255 preset positions
- 264X zoom (optical 22X, electronic 12X)
- Tilt rotation range +5° – 90°
- Pan rotation range continuous 360°
- Pan/tilt maximum rotating speed is 360°/sec
- 1/4 type CCD image device
- 480 lines high resolution
- Autofocus
- High-sensitivity function (color mode)
- Preset sequency function
- Restricting camera movement
- Auto-trace function
- Auto-tour function
- Auto-pan function
- Dust/Water Protection: IP66
- RS-485 protocol compatible

C-CC764 SPECIFICATIONS

| | |
|----------------------------------|---|
| Power source | 24V AC 50/60Hz (2P loose end) |
| Power consumption | 10W (normal operation), 80W max. |
| Control | RS-485 communications system (new protocol compatible) |
| Video Output | VBS 1.0V(p-p), 75Ω, BNC-R jack |
| Camera Control Terminal | RS-485 camera control connector, multi-pair cable 8P, loose end (3P of 8P) |
| Alarm Input | 3 channels, no-voltage make contact input, open voltage: 18V DC, short-circuit current: Under 2mA (settable alarm action), multi-pair cable 8P, loose end (3P of 8P) |
| Auxiliary Contact Output | 1 channel, open collector output, withstand voltage: 30V DC, permissible current: Under 100mA, multi-pair cable 8P, loose end (1P of 8P) |
| Synchronization | Internal synchronization/power synchronization (phase adjustable when in power synchronization mode) |
| ID | 8 characters (alphanumeric and symbols) Camera, Position, Trace, Auto-pan, Tour, Home, Alarm, Sector, AUX |
| No. of Preset Positions | 255 Positions |
| Automatic Operation | Auto-pan, Preset sequence, Auto-trace (2 preset patterns (60s)), Tour (16 preset patterns) |
| Timer | Refresh: Starts at the preset time every day or every week by timer settings Program: Settable 16 actions |
| Camera | |
| Image device | 1/4 type CCD |
| Resolution | Horizontal: 480 lines (at center) |
| S/N ratio | 50dB |
| Minimum Illumination | High-sensitivity function OFF: 3 lx (50 IRE), 1 lx (20 IRE) High-sensitivity function ON: 0.03 lx (50 IRE), 0.01 lx (20 IRE) |
| Backlight Compensation | WIDE DYNAMIC/Pattern 1/Pattern 2/Pattern 3/OFF |
| Dynamic Range | 46dB (backlight compensation: WIDE DYNAMIC operation) |
| High-Sensitivity Function | B/W mode and slow shutter mode (32 times max.) |
| White Balance | ATW/AWB |
| Flicker Reduction | Automatic correction |
| Electronic Zooming | 12x zooming |
| Auto-Focus | One push/stop AF/continuous |
| Lens | |
| Zooming | 23x |
| Effective Focal Length | f = 3.6 – 82.8mm (23X) |
| Effective Angle of View | Horizontal: 54° (W) – 2.5° (T), Vertical: 41.6° (W) – 1.9° (T) |
| Maximum Aperture | F 1.6 (W) – F 3.7 (T) |
| Zoom Speed | WIDE end to TELE end Approx. 1.5s (preset operation), Approx. 2.9s (manual operation) |
| Pan/Tilt Head | |
| Rotating Range | Panning: Endless 360° rotation, Tilting: +5° to –185° |
| Rotating Speed | Panning/Tilting: 360°/s max. (preset operation), 360°/s max. (manual operation) |
| Other Function | |
| Other Function | Auto-Pan, Freeze Preset, Manual Limit, Privacy Masking (up to 8), Motion Detect (each 8 presets at each 4 positions) |
| Operating Temperature | -40°C to +50°C |
| Operating Humidity | Under 90% RH (no due condensation produced) |
| Application | Indoors and outdoors (except seaside, industrial districts and locations exposed to fine particles, where the unit is subject to corrosion, and heights that expose the unit to strong wind pressure) |
| Dust/Water Protection | IP66 |
| Finish | Case, top cover and decorative frame: PC resin, light gray Sunshade: Aluminum, light gray, paint Dome cover: PC resin (transparent) |
| Dimensions | Camera section external diameter: ø230 × 330.5 (H)mm Dome external diameter: ø 150mm |
| Weight | 3.9kg |
| Accessory | Top cover mounting screw (Hexagon socket screw M4 × 8) × 3, CD-R (Camera controller software, manual (PDF)) × 1 |
| Option | Wall mounting bracket: C-BC711W, Suspension bracket: C-BC711P, Pole mounting bracket: C-BC711PM, Smoked dome cover: C-A 711DM |

C-CC714 SPECIFICATIONS

| | |
|----------------------------------|---|
| Power source | 24V AC 50/60Hz (2P loose end) |
| Power consumption | 10W (normal operation), 80W max. |
| Control | RS-485 communications system (new protocol compatible) |
| Video Output | VBS 1.0V(p-p), 75Ω, BNC-R jack |
| Camera Control Terminal | RS-485 camera control connector, multi-pair cable 8P, loose end (3P of 8P) |
| Alarm Input | 3 channels, no-voltage make contact input, open voltage: 18V DC, short-circuit current: Under 2mA (settable alarm action), multi-pair cable 8P, loose end (3P of 8P) |
| Auxiliary Contact Output | 1 channel, open collector output, withstand voltage: 30V DC, permissible current: Under 100mA, multi-pair cable 8P, loose end (1P of 8P) |
| Synchronization | Internal synchronization/power synchronization (phase adjustable when in power synchronization mode) |
| ID | 8 characters (alphanumeric and symbols) Camera, Position, Trace, Auto-pan, Tour, Home, Alarm, Sector, AUX |
| No. of Preset Positions | 255 Positions |
| Automatic Operation | Auto-pan, Preset sequence, Auto-trace (2 preset patterns (60s)), Tour (16 preset patterns) |
| Timer | Refresh: Starts at the preset time every day or every week by timer settings Program: Settable 16 actions |
| Camera | |
| Image device | 1/4 type CCD |
| Resolution | Horizontal: 480 lines (at center) |
| S/N ratio | 50dB |
| Minimum Illumination | High-sensitivity function OFF: 1 lx (50 IRE), 0.3 lx (20 IRE) High-sensitivity function ON: 0.03 lx (50 IRE), 0.01 lx (20 IRE) |
| Backlight Compensation | Pattern 1/Pattern 2/Pattern 3/OFF |
| High-Sensitivity Function | Slow shutter mode (32 times max.) |
| White Balance | ATW/AWB |
| Flicker Reduction | Automatic correction |
| Electronic Zooming | 12x zooming |
| Auto-Focus | One push/stop AF/continuous |
| Lens | |
| Zooming | 22x |
| Effective Focal Length | f = 4.0 – 88mm (22X) |
| Effective Angle of View | Horizontal: 47.3° (W) – 2.2° (T), Vertical: 36.5° (W) – 1.7° (T) |
| Maximum Aperture | F 1.6 (W) – F 3.8 (T) |
| Zoom Speed | WIDE end to TELE end Approx. 1.3s (preset operation), Approx. 2.4s (manual operation) |
| Pan/Tilt Head | |
| Rotating Range | Panning: Endless 360° rotation, Tilting: +5° to –90° |
| Rotating Speed | Panning/Tilting: 360°/s max. (preset operation), 360°/s max. (manual operation) |
| Other Function | |
| Other Function | Manual Limit |
| Operating Temperature | -40°C to +50°C |
| Operating Humidity | Under 90% RH (no due condensation produced) |
| Application | Indoors and outdoors (except seaside, industrial districts and locations exposed to fine particles, where the unit is subject to corrosion, and heights that expose the unit to strong wind pressure) |
| Dust/Water Protection | IP66 |
| Finish | Case, top cover and decorative frame: PC resin, light gray Sunshade: Aluminum, light gray, paint Dome cover: PC resin (transparent) |
| Dimensions | Camera section external diameter: ø230 × 330.5 (H)mm Dome external diameter: ø 150mm |
| Weight | 3.9kg |
| Accessory | Top cover mounting screw (Hexagon socket screw M4 × 8) × 3, CD-R (Camera controller software, manual (PDF)) × 1 |
| Option | Wall mounting bracket: C-BC711W, Suspension bracket: C-BC711P, Pole mounting bracket: C-BC711PM, Smoked dome cover: C-A 711DM |

C-CC564/C-CC514

COMBINATION DOME CAMERA (INDOOR USE)



C-CC564 FEATURES

- 255 preset positions
- 276X zoom (optical 23X, electronic 12X)
- Tilt rotation range +5° – -185° (using Auto-Flip function)
- Pan rotation range continuous 360°
- Pan/tilt maximum rotating speed is 360°/sec
- 1/4 type CCD image device
- 480 lines high resolution
- Wide dynamic range
- Autofocus
- High-sensitivity function (color and B/W modes)
- Preset sequency function
- Privacy masking function
- Restricting camera movement
- Auto-trace function
- Auto-tour function
- Motion detection function
- Auto-pan function
- Preset image freeze function
- RS-485 protocol compatible

C-CC514 FEATURES

- 255 preset positions
- 264X zoom (optical 22X, electronic 12X)
- Tilt rotation range +5° – 90°
- Pan rotation range continuous 360°
- Pan/tilt maximum rotating speed is 360°/sec
- 1/4 type CCD image device
- 480 lines high resolution
- Autofocus
- High-sensitivity function (color mode)
- Preset sequency function
- Restricting camera movement
- Auto-trace function
- Auto-tour function
- Auto-pan function
- RS-485 protocol compatible

C-CC564 SPECIFICATIONS

| | |
|----------------------------------|--|
| Power source | 24V AC 50/60Hz |
| Power consumption | 9W (normal operation), 19W max. (1.3A max.) |
| Control | RS-485 communications system (new protocol compatible) |
| Video Output | VBS 1.0V(p-p), 75Ω, BNC-R jack |
| Camera Control Terminal | RS-485 camera control connector |
| Alarm Input | 8 channels, no-voltage make contact input, open voltage: 18V DC, short-circuit current, Under 2mA (settable alarm action) |
| Auxiliary Contact Output | 2 channels, open collector output, withstand voltage: 30V DC, permissible current: Under 100mA, relay contact output, permissible voltage: 110V DC, 125V AC, permissible current: Under 1A |
| Synchronization | Internal synchronization/Power synchronization (phase adjustable when in power synchronization mode) |
| ID | 8 characters (alphanumeric and symbols) Camera, Position, Trace, Auto-pan, Tour, Home, Alarm, Sector, AUX |
| No. of Preset Positions | 255 Positions |
| Automatic Operation | Auto-pan, Preset sequence, Auto-trace (2 preset patterns (60s)), Tour (16 preset patterns) |
| Timer | Refresh: Starts at the preset time every day or every week by timer settings Program: Settable 16 actions |
| Camera | |
| Image device | 1/4 type CCD |
| Resolution | Horizontal: 480 lines (at center) |
| S/N ratio | 50dB |
| Minimum Illumination | High-sensitivity function OFF: 3 lx (50 IRE), 1 lx (20 IRE) High-sensitivity function ON: 0.03 lx (50 IRE), 0.01 lx (20 IRE) |
| Backlight Compensation | WIDE DYNAMIC/Pattern 1/Pattern 2/Pattern 3/OFF |
| Dynamic Range | 46dB (backlight compensation: WIDE DYNAMIC operation) |
| High-Sensitivity Function | B/W mode and slow shutter mode (32 times max.) |
| White Balance | ATW/AWB |
| Flicker Reduction | Automatic correction |
| Electronic Zooming | 12x zooming |
| Auto-Focus | One push/stop AF/continuous |
| Lens | |
| Zooming | 23x |
| Effective Focal Length | f = 3.6 – 82.8mm (23X) |
| Effective Angle of View | Horizontal: 54° (W) – 2.5° (T), Vertical: 41.6° (W) – 1.9° (T) |
| Maximum Aperture | F 1.6 (W) – F 3.7 (T) |
| Zoom Speed | WIDE end to TELE end Approx. 1.5s (preset operation), Approx. 2.9s (manual operation) |
| Pan/Tilt Head | |
| Rotating Range | Panning: Endless 360° rotation, Tilting: +5° to –185° |
| Rotating Speed | Panning/Tilting: 360°/s max. (preset operation), 360°/s max. (manual operation) |
| Other Function | |
| Operating Temperature | Auto-Pan, Freeze Preset, Manual Limit, Privacy Masking (up to 8), Motion Detect (each 8 presets at each 4 positions) |
| Operating Humidity | –10°C to +50°C (continuously active for operation at temperature below 0°C) |
| Application | Under 90% RH (no due condensation produced) |
| Application | Indoor used |
| Finish | Base: PC/ABS resin, cool gray Camera: PC/ABS resin, black |
| Dimensions | ø168 × 234 (H)mm |
| Weight | 1.7kg |
| Accessory | Camera mounting screw × 4, Safety wire × 1, CD-R (Camera controller software, manual (PDF)) × 1 |
| Option | Ceiling mount cover: C-BC511C, C-BC511C-S Flush ceiling mounting bracket: C-BC511U, C-BC511U-S Ceiling suspension bracket: C-BC511P Wall mounting bracket: C-BC511W Anchor bracket: C-BC511A |

C-CC514 SPECIFICATIONS

| | |
|----------------------------------|--|
| Power source | 24V AC 50/60Hz |
| Power consumption | 9W (normal operation), 19W max. (1.3A max.) |
| Control | RS-485 communications system (new protocol compatible) |
| Video Output | VBS 1.0V(p-p), 75Ω, BNC-R jack |
| Camera Control Terminal | RS-485 camera control connector |
| Alarm Input | 3 channels, no-voltage make contact input, open voltage: 18V DC, short-circuit current, Under 2mA (settable alarm action) |
| Auxiliary Contact Output | 1 channel, open collector output, withstand voltage: 30V DC, permissible current: Under 100mA |
| Synchronization | Internal synchronization/power synchronization (phase adjustable when in power synchronization mode) |
| ID | 8 characters (alphanumeric and symbols) Camera, Position, Trace, Auto-pan, Tour, Home, Alarm, Sector, AUX |
| No. of Preset Positions | 255 Positions |
| Automatic Operation | Auto-pan, Preset sequence, Auto-trace (2 preset patterns (60s)), Tour (16 preset patterns) |
| Timer | Refresh: Starts at the preset time every day or every week by timer settings Program: Settable 16 actions |
| Camera | |
| Image device | 1/4 type CCD |
| Resolution | Horizontal: 480 lines (at center) |
| S/N ratio | 50dB |
| Minimum Illumination | High-sensitivity function OFF: 1 lx (50 IRE), 0.3 lx (20 IRE) High-sensitivity function ON: 0.03 lx (50 IRE), 0.01 lx (20 IRE) |
| Backlight Compensation | Pattern 1/Pattern 2/Pattern 3/OFF |
| High-Sensitivity Function | Slow shutter mode (32 times max.) |
| White Balance | ATW/AWB |
| Flicker Reduction | Automatic correction |
| Electronic Zooming | 12x zooming |
| Auto-Focus | One push/stop AF/continuous |
| Lens | |
| Zooming | 22x |
| Effective Focal Length | f = 4.0 – 88mm (22X) |
| Effective Angle of View | Horizontal: 47.3° (W) – 2.2° (T), Vertical: 36.5° (W) – 1.7° (T) |
| Maximum Aperture | F 1.6 (W) – F 3.8 (T) |
| Zoom Speed | WIDE end to TELE end Approx. 1.3s (preset operation), Approx. 2.4s (manual operation) |
| Pan/Tilt Head | |
| Rotating Range | Panning: Endless 360° rotation, Tilting: +5° to –90° |
| Rotating Speed | Panning/Tilting: 360°/s max. (preset operation), 360°/s max. (manual operation) |
| Other Function | |
| Operating Temperature | Manual Limit |
| Operating Humidity | –10°C to +50°C (continuously active for operation at temperature below 0°C) |
| Application | Under 90% RH (no due condensation produced) |
| Application | Indoor used |
| Finish | Base: PC/ABS resin, cool gray Camera: PC/ABS resin, black |
| Dimensions | ø168 × 234 (H)mm |
| Weight | 1.7kg |
| Accessory | Camera mounting screw × 4, Safety wire × 1, CD-R (Camera controller software, manual (PDF)) × 1 |
| Option | Ceiling mount cover: C-BC511C, C-BC511C-S Flush ceiling mounting bracket: C-BC511U, C-BC511U-S Ceiling suspension bracket: C-BC511P Wall mounting bracket: C-BC511W Anchor bracket: C-BC511A |

Brackets and Dome Cover for C-CC764/C-CC-714 (Outdoor Use)



C-BC711P Suspension Bracket

The C-BC711P is exclusively designed to be used to suspend TOA's outdoor combination camera from a ceiling or eaves.

| | |
|-------------------|---|
| Finish | Base: Aluminum, light gray, paint Pipe: Stainless steel (SUS304) |
| Dimensions | 140 (W) × 164 (H) × 200 (D)mm |
| Weight | 1kg |
| Accessory | Camera mounting screw (M5×12, with washer) × 3 |

Note: pay attention to the strength of the attaching portion.



C-BC711W Wall Mounting Bracket

The C-BC711W is designed to be used to mount TOA's outdoor combination camera on a wall.

| | |
|-------------------|---|
| Finish | Base: Aluminum, light gray, paint Pipe: Stainless steel (SUS304) |
| Dimensions | 140 (W) × 240 (H) × 188.1 (D)mm |
| Weight | 1.3kg |
| Accessory | Camera mounting screw (M5×12, with washer) × 3 |

Note: pay attention to the strength of wall surface.



C-A711DM Smoked Dome Cover

The C-A711DM Smoked Dome Cover is specially designed to be used in conjunction with TOA's Combination Cameras. The Dome Cover is used to make it difficult for individuals to see the camera's orientation.

| | |
|-----------------------|--|
| Transmissivity | Approx. 30%* |
| Finish | Dome: PC resin, smoked Frame: PC resin, light gray |
| Dimensions | ø219.8 × 128 (H)mm (Dome external diameter: ø150mm) |
| Weight | 400g |

*As a general guideline, the minimum object illumination of the camera equipped with the Smoked Dome Cover is approximately 3.3 times that of the camera without the cover.
Note: Be careful when installing the camera with this cover in low illumination location as the cover may cause camera sensitivity to decrease.



C-BC711PM Pole Mounting Bracket

Using the optional YS-60B and C-BC711W, the C-BC711PM can mount the outdoor combination camera on a pole.

| | |
|-------------------|------------------------------|
| Finish | Stainless steel (SUS304) |
| Dimensions | 140 (W) × 200 (H) × 60 (D)mm |
| Weight | 700g |

Note: Reinforce the pole mounting bracket and mounting band separately for security when installing the camera in locations exposed to vibration or strong winds.
Maintenance the unit, mounting bracket and mounting band periodically to ensure that there are no loose joint nor rickety parts.

Brackets and Dome Cover for C-CC564/C-CC-514 (Indoor Use)



C-BC511A Anchor Bracket

The C-BC511A is specially designed to mount TOA's Combination Cameras directly on the wall. The bracket facilitates mounting of the camera on the plasterboard in the double ceiling or other locations where the mounting screws cannot be installed securely.

| | |
|-------------------|---|
| Finish | Surface-treated steel plate, black, paint |
| Dimensions | 132 (W) × 30 (H) × 70 (D)mm |
| Weight | 1.1kg |
| Accessory | Camera mounting screw × 4, Safety wire × 1, Paper pattern × 1 |



C-BC511C Ceiling Mount Cover

The C-BC511C is a camera installation cover designed solely for mounting TOA's Combination Cameras. The cover is used when mounting the Combination camera directly to a ceiling or wall or suspending it from the ceiling. The cover is used to make it difficult for individuals to see the camera's orientation.

| | |
|-------------------|---|
| Finish | Case: PC/ABS resin, cool gray Dome cover: Acrylic resin, transparent |
| Dimensions | ø168 × 182.2 (H)mm (Dome external diameter: ø125mm) |
| Weight | 220g |



C-BC511C-S Ceiling Mount Cover (Smoked)

The C-BC511C-S is a camera installation cover designed solely for mounting TOA's Combination Cameras. The cover is used when mounting the Combination camera directly to a ceiling or wall or suspending it from the ceiling. The cover is used to make it difficult for individuals to see the camera's orientation.

| | |
|-----------------------|--|
| Transmissivity | Approx. 20%* |
| Finish | Case: PC/ABS resin, cool gray Dome cover: Acrylic resin, smoked |
| Dimensions | ø168 × 182.2 (H)mm (Dome external diameter: ø125mm) |
| Weight | 220g |

*As a general guideline, the minimum object illumination of the camera equipped with the Ceiling Mount Cover is approximately 5 times that of the camera without the cover.
Note: Be careful when installing the camera with this cover in low illumination location as the cover may cause camera sensitivity to decrease.



C-BC511P Ceiling Suspension Bracket

The C-BC511P is a Ceiling Suspension Bracket designed solely for suspending TOA's Combination Cameras from the ceiling.

| | |
|-------------------|--|
| Finish | Top cover: PC/ABS resin, cool gray Pipe: Stainless steel (SUS304) Bracket: Surface-treated steel plate, black, paint |
| Dimensions | ø150 × 233mm |
| Weight | 1.2kg |
| Accessory | Top cover × 4, Safety wire × 1, Pattern paper × 1 |



C-BC511U Flush Ceiling Mounting Bracket

The C-BC511U bracket is designed to be exclusively used for flush ceiling mounting of TOA's combination camera. Use this bracket when mounting the camera to the ceiling surface where the fixing screws cannot be securely installed, such as on the plaster panel of the dual-construction ceiling. Also, use this bracket to minimize the exposure of the camera.

| | |
|-------------------|--|
| Finish | Bezel: PC/ABS resin, cool gray Dome cover: Acrylic resin, transparent Bracket: Aluminum, black, paint Surface-treated steel plate, black, paint |
| Dimensions | ø250 × 282.7 (D)mm (Dome external diameter: ø125mm) |
| Weight | 1.2kg |
| Accessory | Safety wire × 1, Paper pattern × 1 |



C-BC511U-S Flush Ceiling Mounting Bracket (Smoked)

The C-BC511U-S bracket is designed to be exclusively used for flush ceiling mounting of TOA's combination camera. Use this bracket when mounting the camera to the ceiling surface where the fixing screws cannot be securely installed, such as on the plaster panel of the dual-construction ceiling. Also, use this bracket to minimize the exposure of the camera. The bracket is used to make it difficult for individuals to see the camera's orientation.

| | |
|-----------------------|---|
| Transmissivity | Approx. 20%* |
| Finish | Bezel: PC/ABS resin, cool gray Dome cover: Acrylic resin, smoked Bracket: Aluminum, black, paint Surface-treated steel plate, black, paint |
| Dimensions | ø250 × 282.7 (D)mm (Dome external diameter: ø125mm) |
| Weight | 1.2kg |
| Accessory | Safety wire × 1, Pattern paper × 1 |

*As a general guideline, the minimum object illumination of the camera equipped with the Flush Ceiling Mounting Bracket is approximately 5 times that of the camera without the bracket.
Note: Be careful when installing the camera with this bracket in low illumination location as the cover may cause camera sensitivity to decrease.



C-BC511W Wall Mounting Bracket

The C-BC511W Wall Mounting Bracket is specially designed to mount TOA's Combination Cameras to wall surfaces. Install the unit only in a location that can structurally support weight of the unit and camera.

| | |
|-------------------|--|
| Finish | Top cover: PC/ABS resin, cool gray Pipe: Stainless steel (SUS304) Bracket: Surface-treated steel plate, black, paint |
| Dimensions | 150 (W) × 203 (H) × 203 (D)mm |
| Weight | 1.1kg |
| Accessory | Top cover × 4, Safety wire × 1, Paper pattern × 1 |

Combination Dome Camera

SETTING GUIDE

SETTING GUIDE

The camera menu screens are comprised of the following setting item screens.



Setting Item

PRESET SETTING

Programs the camera position (camera orientation), displays setting status, and performs reset.

- PRESET MEMORY*1** Programs the camera position.
- GLOBAL PRESET MEMORY CORRECTION** Corrects all preset camera positions.
- PRESET MEMORY RESET** Resets preset camera position.
- PRESET MEMORY ALL RESET** Resets all preset camera positions.
- AUTOMATIC RETURN** The camera returns to the preset position automatically when the preset period of time elapses by external control.
- HOME** Designates the program the camera automatically returns to.
- FREEZE PRESET** Displays the still image during camera movement between preset positions.

ID (TITLE) SETTINGS

Sets the title.

- DISPLAY** Sets to display or hides the title.
- ID SETTINGS*2** Sets ID.
- DISPLAY POSITION SETTINGS*2** Sets title display position and its length.
- FRAME ADJUSTMENT SETTINGS** Sets the character display position.
- ANGLE ORIGIN POINT SETTING** Sets the origin point of the angle display.

CAMERA SETTINGS

Sets camera properties.

- WHITE BALANCE*2** Sets the camera's white balance.
- BACKLIGHT COMPENSATION*2** Sets the backlight compensation.
- BRIGHTNESS*2** Adjusts the camera's brightness.
- DAY AND NIGHT*2 *3** Sets to give operation priority to black & white mode or slow shutter mode depending on the subject's brightness.
- AUTO FOCUS** Sets Auto Focus mode.
- AGC*2** Sets AGC.
- SLOW SHUTTER*2** Sets slow shutter.
- SHUTTER SPEED*2** Sets shutter speed.
- ELECTRONIC ZOOM** Sets a maximum enlargement of electronic zoom.
- ENHANCER*2** Sets contour enhancement.
- CHROMA*2** Adjusts the chroma.
- SYNC SYSTEM** Switches sync. system and adjusts phase.
- INITIALIZING** Return each item on the camera setting screen to the factory default status.

AUTOMATIC OPERATION

Sets automatic operation of Auto-Pan, Preset sequence, Trace and Tour.

- AUTO KEY** Assigns automatic functions to the Auto key.
- AUTO PAN** Sets the Auto-Pan operations.
- SEQUENCE** Sets the preset sequence order.
- TRACE** Stores trace movements.
- TRACE 1 PAUSE TIME** Sets the stop duration of trace movements.

ALARM SETTINGS

Sets alarm operations.

- TRACE 2 PAUSE TIME** Sets the stop duration of trace movements.
- TOUR** Sets the operation to be programmed.
- INPUT** Sets input number of alarm input.
- REPORT** Sets the terminal that transmits the alarm information.
- ACTIVE** Selects whether to activate the alarm input with make or break contacts.
- PRIORITY*4** Sets whether to forcibly execute action or to set priority order to operation.
- ACTION*4** Sets camera operation when alarm signal is received.
- CLOCK** Sets the period of time that alarm conditions are maintained.
- RESET ACTION*4** Sets camera operation when the alarm conditions are released.
- ALARM LOGS** Verify alarm logs.

CONTACT OUTPUT SETTINGS

Sets contact output.

- AUX1** Sets contact output.
- AUX2*5** Sets contact output.

TIMER SETTINGS

Sets the timer.

- PROGRAM*4** Sets predetermined operations to be performed at preset times.
- TIME DISPLAY** Sets time display to 12-hour or 24-hour display formats.
- DATE DISPLAY** Sets date display.
- TIMER** Sets the time.
- DATE** Sets the date.

MANUAL SETTINGS

Individual settings.

- ZOOM INTERLOCKING** Resets zoom interlocking.
- ROTATION LIMIT** Designate the pan and tilt rotation limits.
- ROTATION LIMIT SETTING** Sets the pan and tilt rotation limits.
- MANUAL SPEED** Sets the maximum speed of pan and tilt operation.
- FLIP*3** Sets whether to set the tilt rotation range to 90 or over.
- TILT ANGLE LIMIT** Sets the tilt angle limit.

MAINTENANCE SETTINGS

Sets functions during maintenance.

- INITIALIZING** Corrects deviation of stepping motor.
- REFRESH** Corrects deviation of position.
- PASSWORD** Sets the password required when activating maintenance menu screen.
- MOTOR POWER** Improves deviation of preset position.
- INITIAL STATUS** Returns all setting to initial status set by the factory.
- AUTOMATIC CORRECTION** Automatically corrects deviation of position.
- DATA BACKUP** Sets data writing and reading.
- MOTION DETECTION*3 *4** Sets motion detection.
- PRIVACY MASKING*3** Sets privacy masking area.

*1 Setting for this item can be entered by the Main Menu screen not by the Camera Menu screen when the equipments other than the C-RM500 are connected.

*2 Can also be changed for individual positions at the Camera setting screen for individual positions.

*3 Can be only set for the C-CC564 and C-CC764.

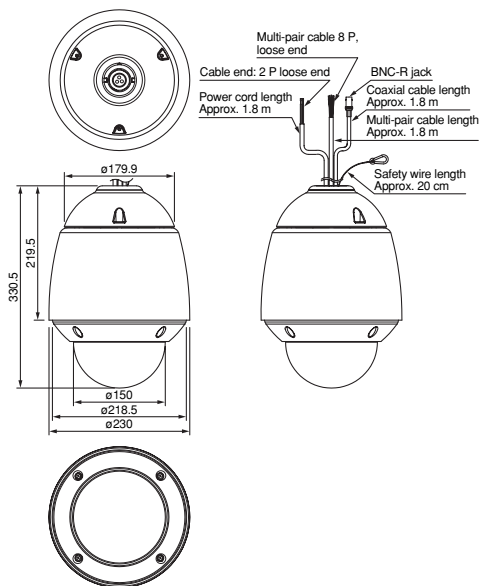
*4 Can be only set when the C-RM500 is connected.

*5 Can be only set for the C-CC564.

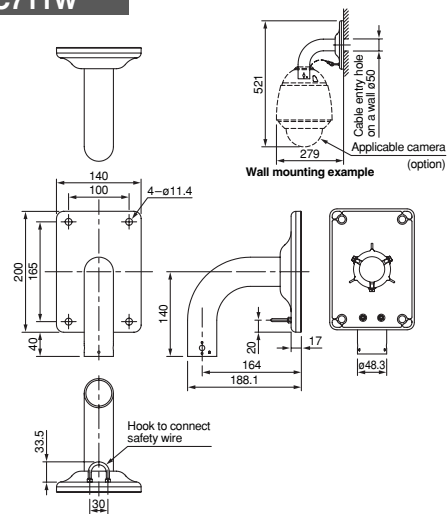
C-CC764/C-CC714

APPEARANCE AND DIMENSIONAL DIAGRAM

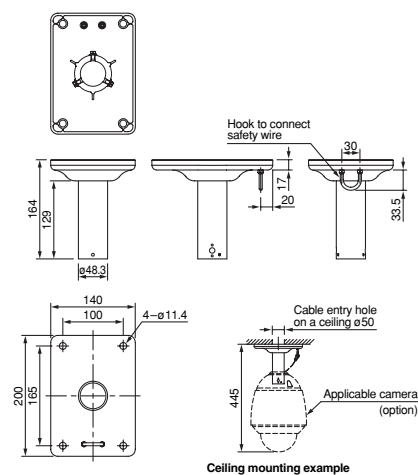
C-CC764/C-CC714



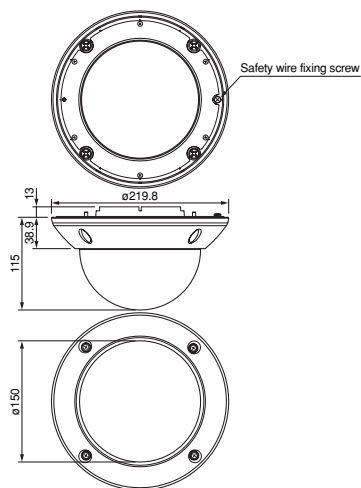
C-BC711W



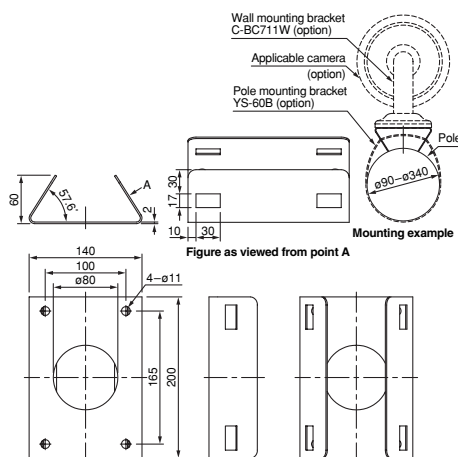
C-BC711P



C-A711DM



C-BC711PM

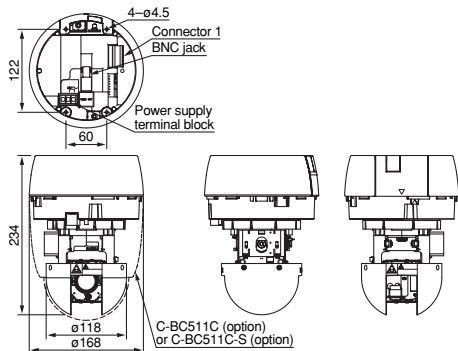


Unit: mm

C-CC564/C-CC514

APPEARANCE AND DIMENSIONAL DIAGRAM

C-CC564/C-CC514

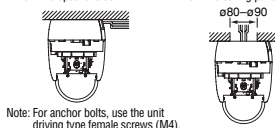
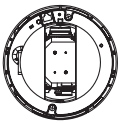


(View of an optional camera installation cover attached)

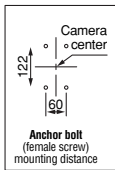
■ INSTALLATION EXAMPLE

Mounting to a heavy-duty ceiling (such as a concrete ceiling)

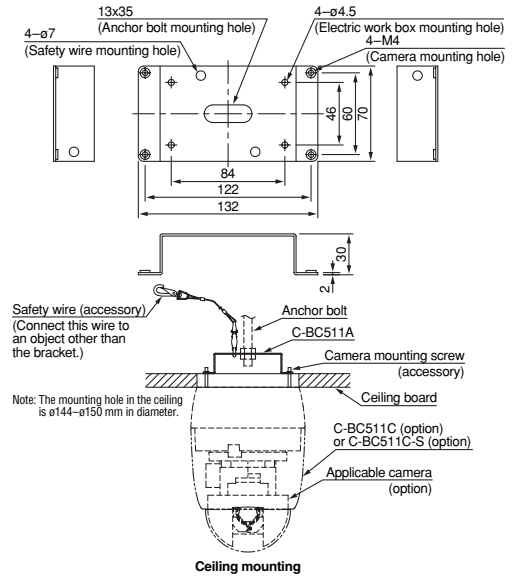
1. When routing both the coaxial, power cables and signal cable from the speaker side.
2. When routing both the coaxial, power cables and signal cable from the ceiling panel.



Note: For anchor bolts, use the unit driving type female screws (M4).

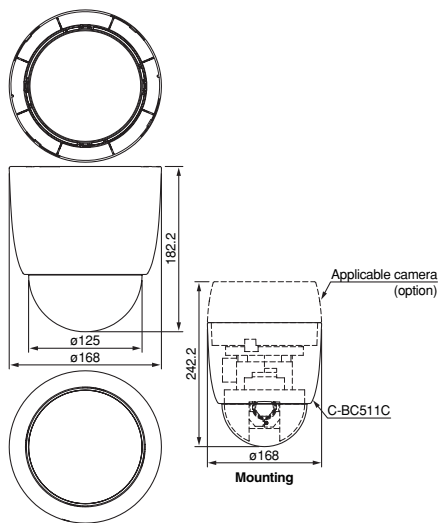


C-BC511A

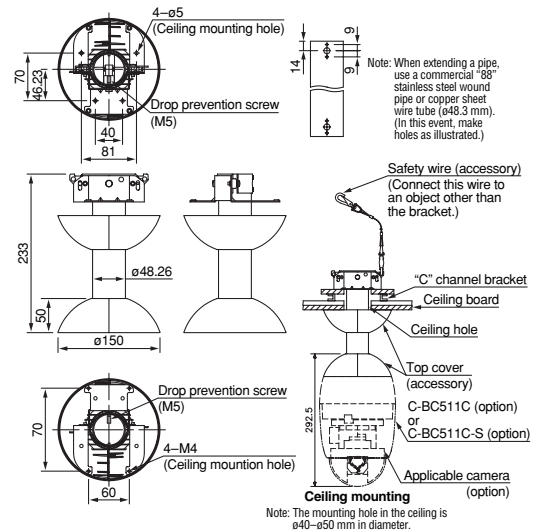


Ceiling mounting

C-BC511C/C-BC511C-S

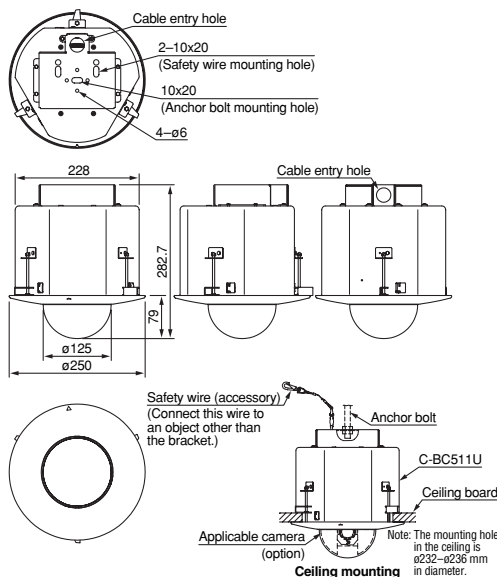


C-BC511P

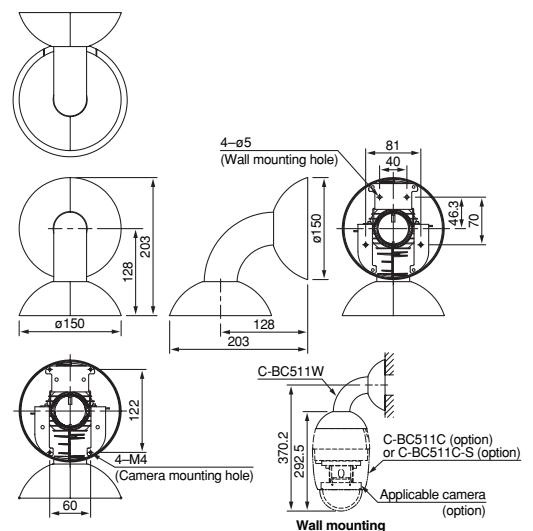


Ceiling mounting

C-BC511U/C-BC511U-S



C-BC511W



Wall mounting

Unit: mm

C-RM500

REMOTE CONTROLLER



The C-RM500 Remote Controller is designed for use in camera-based systems that allow remote control from up to 1.2km away over RS-485 communication lines. It allows video images to be switched remotely and can handle a maximum of 16 TOA's Combination Dome Cameras when used together with the TOA Multiplexer. Easy-to-see LEDs inform status of control, alarm, focus and other functions.

● Control up to 16 TOA's Combination Dome Cameras

Realtime control as well as preprogrammed position retrieval of up to 255 positions is provided. Each position allows providing a specific title as well remote image quality adjustment.

● Instant position recall

The most used camera and position numbers can be assigned to function keys A through H for one-touch instant recall. Other camera numbers and position numbers can be assigned to ID numbers from 1 through 512 and easily retrieved using the ten-key pad.

● Controls Multiplexer

The C-RM500 can also control the TOA multiplexers and allows switching video image display modes – single screen, single screen in sequence, 4-screens in sequence, as well as 4, 9, 10 and 16-segment split screens.

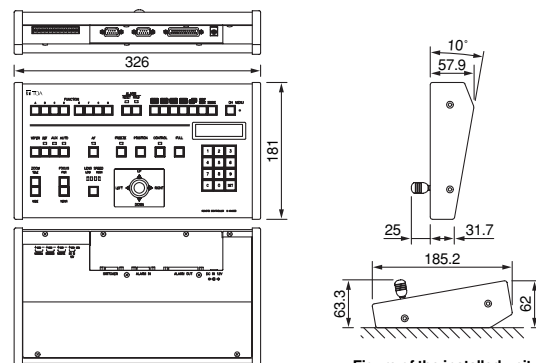
● Alarm capability

Alarm signals received by the alarm input of combination dome cameras can be transmitted to the C-RM500 via a pair of RS-485 communication line where the C-RM500's alarm operations can be activated, based on the alarm signal type received. This has reduced the number of signal lines that were conventionally required in an expanded system. An Alarm Hold function allows temporarily suspending automatic switching of video images triggered by an alarm to enable the operator to prioritise the screen currently being viewed. In addition, the C-RM500 can receive alarm signals from an C-AL80 unit through the RS-232C port.

● 2 Location Control

The system can be independently controlled in two separate locations by installing 2 C-RM500 units.

APPEARANCE AND DIMENSIONAL DIAGRAM



Unit: mm

SPECIFICATIONS

| | |
|--|--|
| Power Source | 12 V DC |
| Current Consumption | 150 mA |
| Slave Remote Controller | RS-485, screwless connector |
| Camera Control | RS-485, screwless connector (*1) |
| Switcher Control | RS-485, screwless connector RS-232C, D-sub connector (9 pins, male) |
| Alarm Input | RS-232C, D-sub connector (9 pins, male) |
| Alarm Output/ Control Input | Alarm output: 16 channels, NPN open collector output, withstand voltage: 30 V DC, control current: 20 mA Alarm input: 1 channel, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: 5 mA max. Home position selection input: 1 channel, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: 5 mA max. D-sub connector (25-pins, female) |
| Display | LED indication of control status, alarm status, alarm hold status, still picture status, defroster, auxiliary setting, auto, auto focus, and lens speed LCD indication of key entry confirmation |
| Alarm Signal | Continuous alarm tone (can be turned on and off) |
| Number of Unit Connections | Up to 2 (one to be set for MASTER unit, another for SLAVE unit) |
| Maximum Cable Distance | 1.2 km (*2) (between the Remote controller and the Combination cameras) |
| Operating Temperature | 0°C to +50°C |
| Operating Humidity | Under 90% RH (no due condensation produced) |
| Finish | Panel: Surface-treated steel plate, sand gray, paint Sides: Rubber |
| Dimensions | 326 (W) × 62 (H) × 185.2 (D) mm |
| Weight | 1.8 kg |
| Accessory | D-sub connector (9 pins, male) × 1, D-sub connector(25 pins, male) × 1 |
| Applicable Model (option) | Combination dome camera: C-CC504S, C-CC554S Switcher: C-MS161D, C-MS91D Slave remote controller: C-RM500 Interface unit: C-IF500 Alarm unit: C-AL80 |

(*1) Can connect up to 31 units mixing with combination cameras and interface units.

(*2) Applies to the system where the unit and combination camera are connected in a matched pair.
Represents the total of connected cable distances if multiple combination cameras or interface units are connected in the system (when the CPEV-S cable thicker than 0.65 mm in diameter is used).

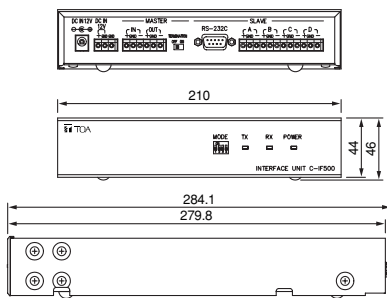
C-IF500

INTERFACE UNIT



A useful option for configuring camera systems, the C-IF500 functions as a splitter. It provides control over expanding a camera system when the distance is over 1.2km (max. 3km) between the dedicated C-RM500 Remote Controller and system cameras linked to it. It will also allow configuring a star connection. Receiving the RS-485 communication line serial signals, the C-IF500 splits the signals into 4-channel data for slave units and converts into RS-232C data to be used for public line or fiber optics communication. Data communication between master and slave terminals is bidirectional. The C-IF500 also allows easily setting the data communication data transfer rate in four increments via DIP switch to suit network requirements.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

| | |
|-------------------------------|--|
| Power Source | 12 V DC |
| Current Consumption | 100 mA |
| External Control | Master: RS-485, screwless connector terminating resistance (100 Ω) switch ON/OFF Slave ^(*) : 4 channel, RS-485, screwless connector RS-232C, D-sub connector (9-pin, male) |
| Display | Power LED indicator, communication LED indicators (TX, RX) |
| Maximum Cable Distance | RS-485: 1.2 km ^(**) RS-232C: 10 m |
| Communication Speed | 4800 bps, 9600 bps, 19200 bps, 38400 bps |
| Operating Temperature | -10°C to +50°C |
| Operating Humidity | Under 90% RH (no due condensation produced) |
| Finish | Panel: Aluminum, black, 30% gloss, paint Case: Pre-coated steel plate, 30% gloss, black |
| Dimensions | 210 (W) x 46 (H) x 284.1 (D) mm |
| Weight | 1.4 kg |
| Option | Rack mounting bracket: M-15B-BK (for rack mounting one C-IF500 unit) MB-15B-J (for rack mounting two C-IF500 units) |

(*) Communications cannot be made between slave terminals.

Each slave terminal can connect up to 31 cameras. (except RS-232C port)

(**) Applies to the system where the unit and combination camera are connected in a matched pair. Represents the total of connected cable distances if multiple combination cameras or interface units are connected in the system (when the CPEV-S cable thicker than 0.65 mm in diameter is used).

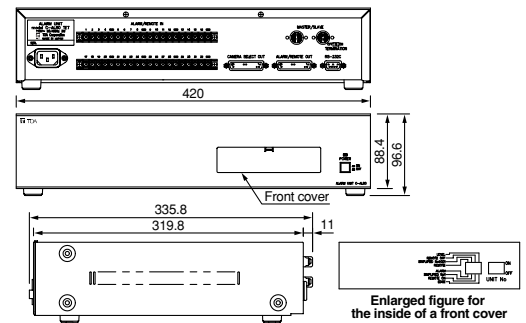
C-AL80

ALARM UNIT



The C-AL80 Alarm Unit serves as the main controller for the alarm requirements of a system by converting alarm signals initiated by externally connected equipment into RS-232C-compatible signal data. In addition to its 32 alarm or remote inputs, the C-AL80 can also be linked to a maximum of 8 other C-AL80 units in master/slave configurations. This provides a total of 256 alarm or remote inputs to be transmitted to the C-RM500 remote controller.

APPEARANCE AND DIMENSIONAL DIAGRAM

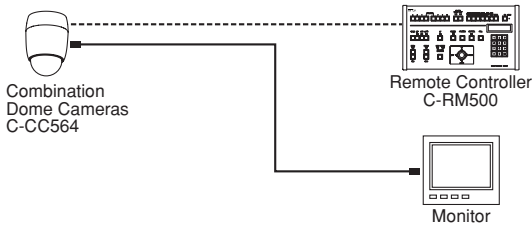


SPECIFICATIONS (H/L)

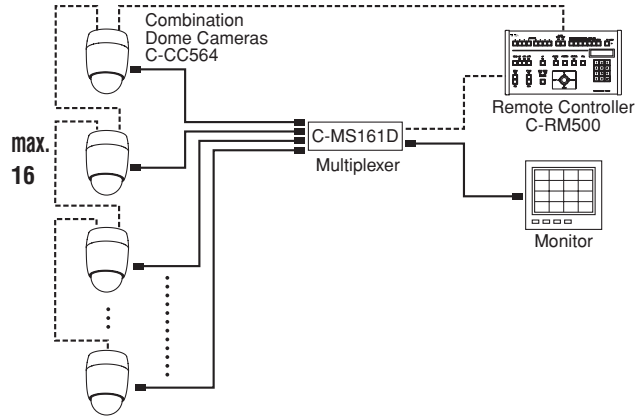
| | |
|---------------------------------------|--|
| Power Source | H: 230 V AC, 50/60 Hz L: 120 V AC, 50/60 |
| Power Consumption | under 3 W |
| Alarm/Remote Input | 32 channels, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: max. 5 mA, M3 screw terminal, distance between barriers: 7.62 mm |
| Control Input/Output | 1 channel, RS-232C, D-sub connector (9 P, male) (only valid for master unit), fixed to 38,400 bps |
| Master/sub Connection Terminal | 2 channels, RS-485, maximum cable length: 1200m, DIN connector (5 P) |
| Alarm Reset Input | 1 channel, no-voltage make contact input, open voltage: 5 V DC, short-circuit current: max. 5 mA, D-sub connector (25 P) |
| Setting Switches | Master/Slave: 3-bit DIP switch (Selection of Master or Slave 1—7) Alarm/Remote: 1-bit DIP switch (Alarm/Remote selection) Alarm time: 1-bit DIP switch (Edge/Level selection) RS-485 terminal: Rear-mounted slide switch (RS-485 termination, Enable/Disable selection) |
| Application | Indoor use |
| Operating Temperature | 0°C to +50°C |
| Finish | Panel: Aluminum extrusion, black, 30% gloss Case: Pre-coated steel plate, black, 30% gloss |
| Dimensions | 420 (W) × 96.6 (H) × 335.8 (D) mm |
| Weight | 3.6 kg |
| Accessory | DIN plug × 2, RS-232C cable (2 m) × 1, D-sub connector (25 P) × 2, Power cord (2 m) × 1 |
| Option | Rack mounting bracket: MB-23B |
| Application Model | Remote controller: C-RM500 |

SYSTEM EXAMPLES

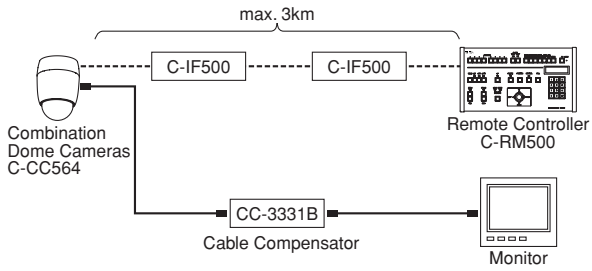
1. Combination Dome Camera (1 unit)



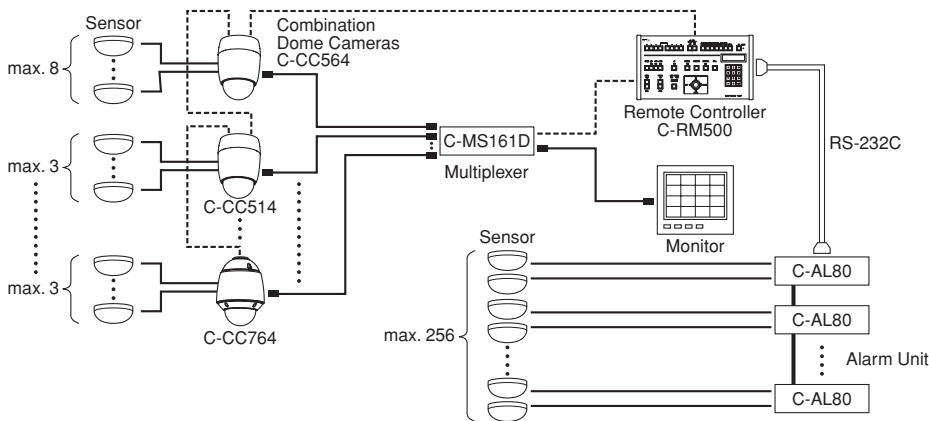
2. Combination Dome Camera (16 units)



3. When Combination Dome Camera and Remote Controller are separated by more than 1.2km.



4. Sensor-activated Dome Camera operation.



TOA Corporation

URL : <http://www.toa.jp/>

Specifications are subject to change without notice.
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