# Panasonic

**Super Dynamic 6 Weather Resistant Dome Camera**

# WV-CW590 Series
# WV-CW590A Series

| | | |
|---|---|---|
| **NTSC** WV-CW594 (24 V AC) | **PAL** WV-CW590 (220 ~ 240 V AC) | WV-CW594 (24 V AC) |
| WV-CW590A (24 V AC) | WV-CW590A (220 ~ 240 V AC) | WV-CW590A (24 V AC) |

## SD6 *Super Dynamic*

WV-CW590A / WV-CW594A

RAIN WASH COATING

WV-CW590   WV-CW590A

**IP66** standard   **36x** OPTICAL ZOOM   day/night IR removable

## All-in-one 24-hour outdoor surveillance camera featuring 36x zoom and *Super Dynamic 6* technology

### Key Features

- *Super Dynamic 6* technology delivers 128x (NTSC) / 160x (PAL) wider dynamic range compared to conventional cameras.
- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.5 lx (Color) at F1.4 (Wide), 0.04 lx (B/W) at F1.4 (Wide). IR cut filter switches on/off to enhance the sensitivity in B/W mode.
- Adaptive Digital Noise Reduction: Integration of 2D-DNR and 3D-DNR ensures noise reduction in various conditions.
- Electronic sensitivity enhancement: Auto (Up to 32x) / Manual (Up to 512x)
- Electronic shutter from 1/100(NTSC), 1/120 (PAL) to 1/10,000 s
- 36x zoom lens: 3.3 ~ 119 mm (approx. 720x with digital zoom)
- Pan/Tilt speed of max. 400°/s at preset mode and 0.065°/s super fine control at manual mode
- 5 degrees upper view for various applications
- 256 preset positions that can be activated from the system controller with a switcher or recorder (specific models).
- Auto tracking: The camera follows the largest movement in the image automatically. The camera will pan and tilt to keep the subject in the center of the image.
- VMD (Video Motion Detector) with Mask 8 x 6 areas
- Scene Change Detection alarms when lens is covered, spray painted, removed or defocused.
- 4 alarm inputs and 2 outputs terminals
- Alarm actions include Terminal output, Camera positioning, Auto pan, Patrol, SEQ, Sort, Auto track, B/W and command output.
- Auto Image Stabilizer for applications where vibration or wind is a concern.
- Internal <NTSC/PAL> / Multiplexed Vertical Drive (VD2) <NTSC> synchronization

- Over the coaxial cable or RS485 data (Panasonic, Pelco P/D Protocol) communication
- 16 alphanumerics camera title display
- Multi language: English, French, Italian, Spanish, German, Russian, Chinese, Japanese
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard.
- Built-in fan/heater for temperature changes of –50 °C ~ +50 °C(-58°F ~122°F)
- Built-in sun shield permits camera locations in direct sunlight.
- **Rain wash coating dome cover (WV-CW590A/WV-CW594A)**

### Standard Accessories

| | |
|---|---|
| • Operating Instructions ................. 1 pc. | The following items are for installation. |
| • CD-ROM* ..................................... 1 pc. | • Front and Rear sunshields ... 1 pc.each |
| | • Front and Rear sunshield fixing screw |
| | .............................. 2 pcs. (incl., 1 spare) |

*The CD-ROM contains the operating instructions (PDF).

### Optional Accessory

Wall Mount Bracket
**WV-Q122**
(PAL model only)

## Specifications

| TV System | | NTSC | PAL |
|---|---|---|---|
| Camera | Image Sensor | 1/4 type interline transfer CCD | |
| | Effective Pixels | 976 (H) x 494 (V) | 976 (H) x 582 (V) |
| | Scanning Mode | 2:1 interlace | |
| | Scanning Area | 3.66 mm(H) x 2.74 mm(V) (5/32"(H) x 3/32"(V)) | 3.66 mm (H) x 2.73 mm (V) (5/32"(H) x 3/32"(V)) |
| | Scanning Frequency | Horizontal: 15.734 kHz Vertical: 59.94 Hz | Horizontal: 15.625 kHz Vertical: 50 Hz |
| | Horizontal Resolution | 650 TV lines | |
| | Minimum Illumination | Color (30 IRE): 0.5 lx (SENS UP: OFF), 0.016 lx (SENS UP: 32x) at F1.4<br>B/W (10 IRE): 0.04 lx (SENS UP: OFF), 0.0013 lx (SENS UP: 32x) at F1.4 | |
| | Signal-to-Noise Ratio | 52 dB minimum (AGC: OFF) | |
| | White Balance | AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 8,000 K), ATW2 (2,400 ~ 8,000 K) | |
| | Light Control | ALC (Adjustable OPEN/CLOSE output target level) / MANUAL | |
| | AGC | ON (LOW, MID, HIGH) / OFF | |
| | Super Dynamic 6 | ON / OFF | |
| | Dynamic Range | 52 dB typical (Super Dynamic 6 : ON) | 54 dB typical (Super Dynamic 6 : ON) |
| | Electronic Shutter | OFF (1/60), AUTO, 1/100, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 | OFF (1/50), AUTO, 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 |
| | Electronic Sensitivity UP | 32x max. AUTO, 512x max. FIX | |
| | Digital Noise Reduction | High or Low | |
| | Black and White Mode | Auto / ON / OFF | |
| | Scene File | 10 patterns (Shutter, AGC, Sens UP, White balance, VMD) | |
| | Scene Select Setting | INDOOR (L) / INDOOR (H) / OUTDOOR (L) / OUTDOOR (H) | |
| | Video Motion Detection | OFF / MOTION DET / SCENE CHANGE | |
| | Privacy Zone | ON / OFF (8 zone settings) | |
| | Auto Image Stabilizer | ON / OFF | |
| | Camera Title | 16 alphanumeric characters | |
| | Auto Focus | MANUAL / AUTO (PAN,TILT,ZOOM linked) | |
| | Synchronization | Internal (INT), Multiplexed Vertical Drive (VD2) | Internal (INT) |
| Lens | Focal Length | 3.3 mm ~ 119 mm | |
| | Zoom Ration | 36x (Approx. 720x with digital zoom) | |
| | Zoom Speed | approx. 6.0 seconds (Tele ~ Wide) in manual mode | |
| | Zoom Limit | 1x ~ 720x (Over 36x is digital zoom) | |
| | Angular Field of View | H: 1.7° (Tele) ~ 60.2° (Wide), V: 1.3° (Tele) ~ 46.0° (Wide) | |
| | Maximum Aperture Ratio | 1:1.4 (Wide) ~ 4.2 (Tele) | |
| | Focusing Range | 2.0m (6.6ft.) ~ ∞ | |
| | Aperture Range | F1.4 ~ 22, Close | |
| Pan and Tilt | Panning Range | 360° endless | |
| | Panning Speed *1 | Manual: approx. 0.065 °/s ~ 120 °/s, 8 steps, 16 steps, 64 steps, Preset: approx. 400 °/s | |
| | Tilting Range | –5° ~ 185° (horizontal - vertical - horizontal) (According to the TILT ANGLE) | |
| | Tilting Speed *1 | Manual: approx. 0.065 °/s ~ 120 °/s, 8 steps, 16 steps, 64 steps, Preset: approx. 400 °/s | |
| | Pan/tilt accuracy | Less than ±0.3° | |
| | Proportional Pan/Tilt Control | ON / OFF | |
| | Number of Preset Positions | 256 | |
| | Auto Mode | OFF, SEQ, SORT, AUTO PAN, PATROL, AUTO TRACK | |
| | Auto Track | Standard Auto Track | |
| | Patrol | STOP / PLAY / LEARN | |
| | Image Hold | ON / OFF | |
| | Digital Flip | ON / OFF | |
| | Area Title | 8 area titles, 16 characters/area | |
| | Preset Alarm | ON / OFF | |
| Alarm | Alarm Source | Terminal input, VMD, Command alarm | |
| | Alarm Actions | Preset position 1 ~ 4, PATROL 1 ~ 4, AUTO TRACK 1 ~ 4, SEQ, SORT, AUTO PAN, B/W | |
| Input / Output | Video Output | 1.0 V [p-p] / NTSC composite 75 / BNC Connector | 1.0 V [p-p] / PAL composite 75 / BNC Connector |
| | Controller Interface | Coaxial Multiplex System, RS485 | |
| | External I/O Terminals | 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 outputs (ALARM / AUX1, BW / AUX2) | |
| General | Setup Method | OSD setup menu | |
| | Password Lock | All menus | |
| | Safety/EMC Standard | UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) | CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) |
| | Language | English, Russian, German, French, Italian, Spanish, Portuguese, Chinese, Japanese | |
| | Power Source and Power Consumption | 24 V AC, 60 Hz, 98 W | WV-CW590: 220-240 V AC, 50 Hz, 80 W<br>WV-CW594: 24 V AC, 50 Hz, 98 W |
| | Ambient Operating Temperature | –50 °C ~ +50 °C (–58 °F ~ 122 °F) *2 | |
| | Ambient Operating Humidity | 90 % or less (without condensation) | |
| | Water and Dust Resistance | IP66, IEC60529 measuring standard compatible | |
| | Dimensions | 229 mm (D) x 360 mm (H)<br>diameter of the dome: 150 mm (9"(D) x 14-1/8"(H) dome:5-7/8") | |
| | Mass (approx.) | 4.5 kg (9.9 lbs.) (including front and rear sunshields) | |
| | Finish | Camera: Die cast aluminum, coated (Paint color: Natural Silver)<br>Sunshield*3: ASA resin, coated (Paint color: Natural Silver)<br>Dome: Clear polycarbonate resin | |

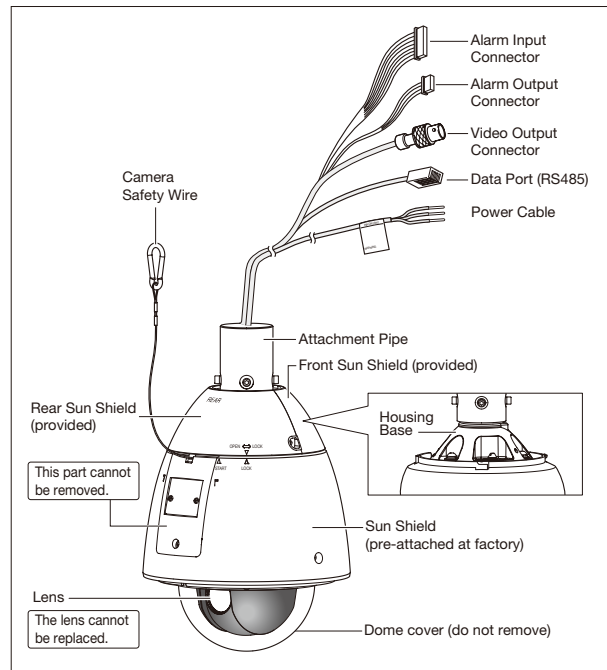*1 Actual speed depends on type of controller being used.
*2 When power is on continuously (however, the camera's interior temperature is -10 °C or higher)
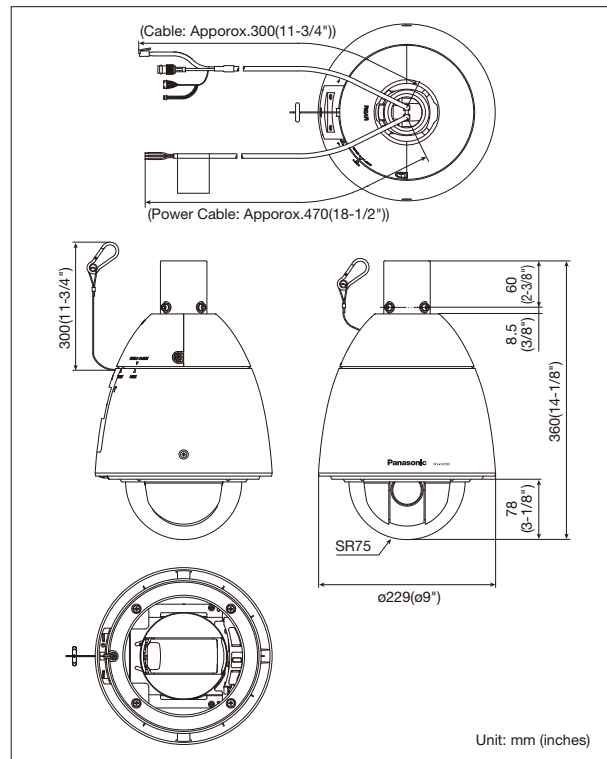*3 Sunshield cannot be removed

Avoid installing this product in the following locations.
• Locations where a chemical agent is used such as a swimming pool.
• Locations subject to steam and oil smoke such as a kitchen, Locations near flammable gas or vapor.
• Locations where radiation or x-ray emissions are produced.
• Locations where corrosive gas is produced, Locations where it may be damaged by briny air such as seashores.
• Locations where the temperature is not within –50 °C to +50 °C (–58 °F to +122 °F}.
• Locations subject to vibrations (This product is not designed for on-vehicle use.)
• Locations subject to condensation as the result of severe changes in temperature (In case of installing the product in such locations, the dome cover may become foggy or condensation may be caused on the cover.)

## Part Names and Functions



- Alarm Input Connector
- Alarm Output Connector
- Video Output Connector
- Data Port (RS485)
- Power Cable
- Camera Safety Wire
- Attachment Pipe
- Front Sun Shield (provided)
- Rear Sun Shield (provided)
- Housing Base
- This part cannot be removed.
- Sun Shield (pre-attached at factory)
- Lens / The lens cannot be replaced.
- Dome cover (do not remove)

## Appearance



(Cable: Apporox.300(11-3/4"))
(Power Cable: Apporox.470(18-1/2"))
300(11-3/4")
60 (2-3/8")
8.5 (3/8")
360(14-1/8")
78 (3-1/8")
SR75
ø229(ø9")

Unit: mm (inches)

• All TV pictures are simulated.
• Masses and dimensions are approximate.
• Specifications are subject to change without notice.
• These products may be subject to export control regulations.

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