

# Super Dynamic 6 Weather Resistant Dome Camera WV-CW590 Series

 INTSC
 WV-CW594 (24 V AC)
 PAL
 WV-CW590 (220 ~ 240 V AC)

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# 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  $\sim$  +50 °C(-58°F  $\sim$ 122°F)
- Built-in sun shield permits camera locations in direct sunlight.

### **Standard Accessories**

- Operating Instructions ...... 1 pc.
   CD-ROM\* ...... 1 pc.
- The following items are for installation. • Front and Rear sunshields ... 1 pc.each • Front and Rear sunshield fixing screw

\*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 Resolution	Horizontal: 15.734 kHz Vertical: 59.94 Hz 650 TV lines	Horizontal: 15.625 kHz Vertical: 50 Hz
	Minimum Illumination	Color (30 IRE): 0.5 lx (SENS UP: OFF B/W (10 IRE): 0.04 lx (SENS UP: OFF	
	Signal-to-Noise Ratio White Balance	52 dB minimum (AGC: OFF) 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 Super Dynamic 6	ON (LOW, MID, HIGH) / OFF	
	Dynamic Range Electronic Shutter	52 dB typical (Super Dynamic 6 : ON) OFF (1/60), AUTO, 1/100, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000	54 dB typical (Super Dynamic 6 : ON) 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 Digital Noise Reduction		
	Black and White Mode		
	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 16 alphanumeric characters	
	Camera Title Auto Focus	MANUAL / AUTO (PAN,TILT,ZOOM linked)	
	Synchronization	Internal (INT), Multiplexed Vertical Drive (VD2) Internal (INT)	
Lana		3.3 mm ~ 119 mm	
Lens	Focal Length	36x (Approx. 720x with digital zoom)	
	Zoom Ration	approx. 6.0 seconds (Tele ~ Wide) in manual mode	
	Zoom Speed		
	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	Panning Range	360° endless	
Tilt	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	
	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		
	Alarm Actions	Terminal input, VMD, Command alarm Preset position 1 ~ 4, PATROL 1 ~ 4, AUTO TRACK 1 ~ 4, SEQ, SORT,	
	Alam Actions		, AUTO TRACK 1 ~ 4, SEQ, SURT,
		AUTO PAN, B/W	
	Video Output	1.0 V [p-p] / NTSC composite 75 / BNC Connector	1.0 V [p-p] / PAL composite 75 / BNC Connector
	Video Output Controller Interface	1.0 V [p-p] / NTSC composite 75 /	
		1.0 V [p-p] / NTSC composite 75 / BNC Connector	BNC Connector
Output	Controller Interface	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485	BNC Connector
Output	Controller Interface External I/O Terminals	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2	BNC Connector
Output	Controller Interface External I/O Terminals Setup Method	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA),	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB,
Output	Controller Interface External I/O Terminals Setup Method Password Lock	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It	2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558)
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (660065), DOC (ICES003 ClassA)	2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558)
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6600), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese, WV-CW590: 220-240 V AC, 50Hz, 80W
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Source and Power Consumption	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese,
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Source and Power Consumption Ambient Operating Temperature	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W ~50 °C ~ +50 °C (-58 °F ~ 122 °F) *2	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese WV-CW590: 220-240 V AC, 50Hz, 80W
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Source and Power Consumption Ambient Operating Humidity	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARI IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DCC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W -50 °C ~ +50 °C (-58 °F ~ 122 °F) *2 90 % or less (without condensation)	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese WV-CW590: 220-240 V AC, 50Hz, 80W WV-CW594: 24V AC, 50Hz, 98W
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Source and Power Consumption Ambient Operating Temperature Ambient Operating Temperature	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W ~50 °C ~ +50 °C (-58 °F ~ 122 °F) *2 90 % or less (without condensation) IP66, IEC60529 measuring standard	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese WV-CW590: 220-240 V AC, 50Hz, 80W WV-CW594: 24V AC, 50Hz, 98W compatible
Input / Output General	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Source and Power Consumption Ambient Operating Humidity	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W -50 °C ~ +50 °C (-58 °F ~ 122 °F) *2 90 % or less (without condensation) IP66, IEC60529 measuring standard 229 mm (D) x 360 mm (H) (9°(D) x 14	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese WV-CW590: 220-240 V AC, 50Hz, 80W WV-CW594: 24V AC, 50Hz, 98W compatible -1/8"(H))
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Consumption Ambient Operating Temperature Ambient Operating Humidity Water and Dust Resistance Dimensions	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W -50 °C ~ +50 °C (-58 °F ~ 122 °F) *2 90 % or less (without condensation) IP66, IEC60529 measuring standard 229 mm (D) x 360 mm (H) (9°(D) x 14 diameter of the dome: 150 mm (5-7/	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese WV-CW590: 220-240 V AC, 50Hz, 80W WV-CW594: 24V AC, 50Hz, 98W compatible =1/8"(H)) B")
Output	Controller Interface External I/O Terminals Setup Method Password Lock Safety/EMC Standard Language Power Source and Power Consumption Ambient Operating Temperature Ambient Operating Temperature	1.0 V [p-p] / NTSC composite 75 / BNC Connector Coaxial Multiplex System, RS485 4 inputs (ALARM IN 1 ~ ALARM IN 4), 2 OSD setup menu All menus UL (6500), FCC (Part15 ClassA), C-UL (E60065), DOC (ICES003 ClassA) English, Russian, German, French, It Japanese 24 V AC, 60Hz, 98W -50 °C ~ +50 °C (-58 °F ~ 122 °F) *2 90 % or less (without condensation) IP66, IEC60529 measuring standard 229 mm (D) x 360 mm (H) (9°(D) x 14	BNC Connector 2 outputs (ALARM / AUX1, BW / AUX2) CE (EN60065, EN55022 ClassB, EN55024), GOST (GOST R 51558) alian, Spanish, Portuguese, Chinese WV-CW590: 220-240 V AC, 50Hz, 80W WV-CW594: 24V AC, 50Hz, 98W compatible -1/8"(H)) 8") ear sunshields)

\*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

DISTRIBUTED BY:

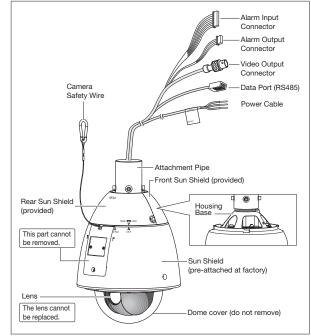
Avoid installing this product in the following locations.

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.

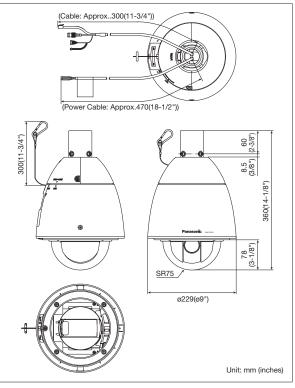
Locations where radiation or x-ray emissions are produced.
 Locations where radiation or x-ray emissions are produced.
 Locations where corrosive gas is produced. Locations where it may be damaged by briny air such as seashores.
 Locations where the temperature is not within -50 °C to +50 °C (-58 °F 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



Appearance



#### Trademarks and registered trademarks

· Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.

- "Super Dynamic", "SDII", "SDII", "SD5", "SD5Link", "SD6", "i-PRO" and "i-PRO SmartHD" logos are trademarks or registered trademarks of Panasonic Corporation.

Important

- Safety Precaution: carefully read the operating instructions and installation manual before using this product. Panasonic can not be responsible for network performance and/or other manufacturer products that
- reside on the network.

#### • 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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