



# SD III

Super Dynamic



## All-in-one 24-hour outdoor surveillance camera featuring 30x zoom and *Super Dynamic III*

### Key Features

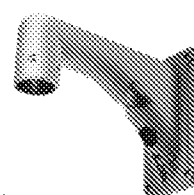
- **Super Dynamic III** technology delivers 128x (NTSC) / 160x (PAL) wider dynamic range compared to conventional cameras.
- High resolution: 540 TV lines typical / 520 TV lines minimum (Color HIGH mode), 480 TV lines minimum (Color NORMAL mode), 570 TV lines minimum (B/W mode)
- High sensitivity with Day-Night function: 0.5 lux (Color) at F1.4 (WIDE), 0.04 lux (B/W) at F1.4 (WIDE). IR cut filter switches on and off to ensure optimal picture quality in both color and B/W.
- Adaptive Digital Noise Reduction: 2D-DNR and 3D-DNR integration ensures reduced noise in various conditions.
- Electronic sensitivity enhancement Auto (Up to 32x), Manual (Up to 32x).
- Electronic shutter from 1/100 (NTSC), 1/120 (PAL) to 1/10,000 sec.
- 30x zoom lens: 3.8mm ~ 114mm (approx. 300x with digital zoom)
- Panning 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.
- Built-in Video Motion Detector with Sensitivity 256 steps, Mask 8 x 6 areas
- Scene Change Detection alarms when lens is covered, spray painted, removed or defocused.
- Four alarm inputs and two 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 / Line-lock / Multiplexed Vertical Drive (VD2) synchronization.
- Over the coaxial cable or RS-485 data communication.
- 16 alphanumeric camera title display.
- Multi language setup menu: English, French, Italian, Spanish, German, Russian
- IP66 rated water and dust resistant. IEC60529 measuring standard compatible.
- Built-in fan/heater for temperature changes of -40 °C ~ +50 °C (-40 °F ~ +122 °F).
- Built-in sun shield permits camera locations in direct sunlight.

### Standard Accessories

- |                                           |       |                                                   |                                |
|-------------------------------------------|-------|---------------------------------------------------|--------------------------------|
| • Operating Instructions .....            | 1 pc. | • Connector for 24 V AC (only for WV-CW964) ..... | 1 pc.                          |
| • Warranty Card .....                     | 1 pc. | • Front/rear sun shield .....                     | 1 set                          |
| The following items are for installation. |       |                                                   |                                |
| • 8P Alarm Cable .....                    | 1 pc. | • Front/rear sun shield mounting screws .....     | 2 pcs. (*one screw is a spare) |
| • 4P Alarm Cable .....                    | 1 pc. | • Waterproof cap .....                            | 3 pcs.                         |

### Optional Accessory

Wall Mount Bracket  
WV-Q122



This catalog is provided for all over the world.  
Some accessories may not be available in some countries.

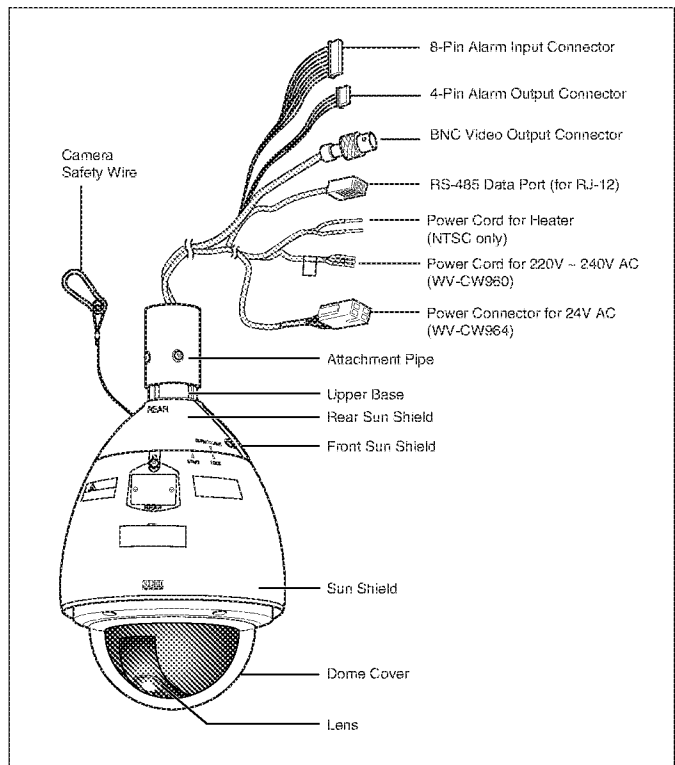
## Specifications

| TV System                     |                                                                                                                                                                        | NTSC                                                                                                                                                                  | PAL                                                                                                                 |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Camera                        | Image Sensor                                                                                                                                                           | 1/4-type interline transfer CCD                                                                                                                                       |                                                                                                                     |
|                               | Effective Pixels                                                                                                                                                       | 768 (H) x 494 (V)                                                                                                                                                     | 752 (H) x 582 (V)                                                                                                   |
|                               | Scanning Mode                                                                                                                                                          | 2:1 interlace                                                                                                                                                         |                                                                                                                     |
|                               | Scanning Area                                                                                                                                                          | 3.65 (H) x 2.74 (V) mm                                                                                                                                                | 3.65 (H) x 2.71 (V) mm                                                                                              |
|                               | Scanning Frequency                                                                                                                                                     | Horizontal: 15.734 kHz Vertical: 59.94 Hz                                                                                                                             | Horizontal: 15.625 kHz Vertical: 50.00 Hz                                                                           |
|                               | Scanning Line                                                                                                                                                          | 525 lines                                                                                                                                                             | 625 lines                                                                                                           |
|                               | Horizontal Resolution                                                                                                                                                  | 540 TV lines typical / 520 TV lines minimum (Color HIGH mode), 480 TV lines minimum (Color NORMAL mode), 570 TV lines minimum (BW mode)                               |                                                                                                                     |
|                               | Minimum Illumination                                                                                                                                                   | Color (50 IRE): 0.5 lux (SENS UP: OFF), 0.016 lux (SENS UP: 32x) at F1.4 B/W (10 IRE): 0.04 lux (SENS UP: OFF), 0.0013 lux (SENS UP: 32x) at F1.4                     |                                                                                                                     |
|                               | Signal-to-Noise Ratio                                                                                                                                                  | 50 dB (AGC: OFF, Weight: ON)                                                                                                                                          |                                                                                                                     |
|                               | White Balance                                                                                                                                                          | AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)                                                                                                |                                                                                                                     |
|                               | Light Control                                                                                                                                                          | ALC / MANUAL                                                                                                                                                          |                                                                                                                     |
|                               | AGC                                                                                                                                                                    | ON (LOW, MID, HIGH) / OFF                                                                                                                                             |                                                                                                                     |
|                               | Super Dynamic III                                                                                                                                                      | ON / OFF (With BLC masking 8 x 8 areas)                                                                                                                               |                                                                                                                     |
|                               | Dynamic Range                                                                                                                                                          | 52 dB typical (Super Dynamic III : ON)                                                                                                                                | 54 dB typical (Super Dynamic III : 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 s                                                                                          | OFF (1/50), AUTO, 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s                                        |
|                               | Electronic Sensitivity UP                                                                                                                                              | OFF / AUTO (2x, 4x, 6x, 10x, 16x, 32x) / FIX (2x, 4x, 6x, 10x, 16x, 32x)                                                                                              |                                                                                                                     |
|                               | Digital Noise Reduction                                                                                                                                                | High or Low                                                                                                                                                           |                                                                                                                     |
|                               | Resolution Mode                                                                                                                                                        | Normal or High                                                                                                                                                        |                                                                                                                     |
|                               | Black and White Mode                                                                                                                                                   | Mode: AUTO / ON / OFF, Level: High / Low, with external control                                                                                                       |                                                                                                                     |
|                               | Digital Zoom                                                                                                                                                           | 10x                                                                                                                                                                   |                                                                                                                     |
| 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 / Mode1 (VMD) / Mode2 (Scene change), Sensitivity 256 steps, Mask 8 x 8 areas                                                                                      |                                                                                                                                                                       |                                                                                                                     |
| Privacy Zone                  | OFF / Gray / Mosaic, 8 zones                                                                                                                                           |                                                                                                                                                                       |                                                                                                                     |
| Auto Image Stabilizer         | ON / OFF                                                                                                                                                               |                                                                                                                                                                       |                                                                                                                     |
| Area Title                    | 8 Area titles, 16 Characters / area                                                                                                                                    |                                                                                                                                                                       |                                                                                                                     |
| Camera Title                  | 16 alphanumeric characters                                                                                                                                             |                                                                                                                                                                       |                                                                                                                     |
| Auto Focus                    | Manual S/M/L (one push) / AUTO S/M/L (after PTZ operation)                                                                                                             |                                                                                                                                                                       |                                                                                                                     |
| Synchronization               | Internal (INT), Multiplexed Vertical Drive (VD2), Line-Lock (LL)                                                                                                       |                                                                                                                                                                       |                                                                                                                     |
| Lens                          | Focal Length                                                                                                                                                           | 3.8 mm ~ 114 mm, 30x zoom (approx. 300x with digital zoom)                                                                                                            |                                                                                                                     |
|                               | Zoom Speed                                                                                                                                                             | approx. 6.0 second (TELE ~ WIDE) in manual mode                                                                                                                       |                                                                                                                     |
|                               | Zoom Limit                                                                                                                                                             | 1x ~ 300x (Over 30x is digital zoom)                                                                                                                                  |                                                                                                                     |
|                               | Angular Field of View                                                                                                                                                  | H: 1.8° (TELE) ~ 52.3° (WIDE), V: 1.4° (TELE) ~ 39.9° (WIDE)                                                                                                          |                                                                                                                     |
|                               | Maximum Aperture Ratio                                                                                                                                                 | 1:1.4 (WIDE) ~ 3.6 (TELE)                                                                                                                                             |                                                                                                                     |
|                               | Focusing Range                                                                                                                                                         | 1.5 m (4.9 ft) ~ ∞                                                                                                                                                    |                                                                                                                     |
|                               | Aperture Range                                                                                                                                                         | F1.4 ~ 22, Close                                                                                                                                                      |                                                                                                                     |
|                               | Pan and Tilt                                                                                                                                                           | Panning Range                                                                                                                                                         | 360° endless                                                                                                        |
| Panning Speed                 |                                                                                                                                                                        | Manual: approx. 0.065 °/s ~ 120 °/s, 256 steps, Preset: approx. 400 °/s                                                                                               |                                                                                                                     |
| Tilting Range                 |                                                                                                                                                                        | -5° ~ 185° (5° upper view available)                                                                                                                                  |                                                                                                                     |
| Tilting Speed                 |                                                                                                                                                                        | Manual: approx. 0.065 °/s ~ 120 °/s, 256 steps, Preset: approx. 400 °/s                                                                                               |                                                                                                                     |
| Proportional Pan/Tilt Control |                                                                                                                                                                        | Supported                                                                                                                                                             |                                                                                                                     |
| Number of Preset Positions    |                                                                                                                                                                        | 256                                                                                                                                                                   |                                                                                                                     |
| Auto Mode                     |                                                                                                                                                                        | OFF, Home, SEQ, SORT, AUTO PAN, PATROL 1 ~ 4, AUTO TRACK                                                                                                              |                                                                                                                     |
| Auto Track                    |                                                                                                                                                                        | Standard Auto Track                                                                                                                                                   |                                                                                                                     |
| Patrol                        |                                                                                                                                                                        | Selectable: 2 min. (1 program) / 1 min. (2 programs) / 30 sec. (4 programs)                                                                                           |                                                                                                                     |
| 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 Ω / BNC Connector, Multiplexed VD2 and control data capable                                                                           | 1.0 V [p-p] / PAL composite 75 Ω / BNC Connector, Multiplexed VD2 and control data capable                          |
|                               | RS-485 Control IF                                                                                                                                                      | RS-485 (RJ-11) x1, 2/4wire, full/half duplex                                                                                                                          |                                                                                                                     |
|                               | 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                                                                                                                                                          | ON / OFF                                                                                                                                                              |                                                                                                                     |
|                               | Language                                                                                                                                                               | English, Russian (For setup menu and camera ID), German, French, Italian, Spanish (For setup menu), Chinese, Japanese (For camera title, Setup menu will be English.) |                                                                                                                     |
|                               | Safety/EMC Standard                                                                                                                                                    | UL (E6008), FCC (Part15 ClassA), CE (EN60065, EN55022, EN55024, C-UL (E6008), DOC (ICES003 ClassA), ClassB), GOST (R 51558)                                           |                                                                                                                     |
|                               | Power Source and Power Consumption                                                                                                                                     | 24 V AC, 60 Hz, 17 W, (for camera)<br>62 W (for heater)                                                                                                               | WV-CW964:<br>24 V AC, 50 Hz, 77 W (including heater)<br>WV-CW960:<br>220 ~ 240 V AC, 50 Hz, 90 W (including heater) |
|                               | Ambient Operating Temperature                                                                                                                                          | -40 °C ~ +50 °C (-40 °F ~ 122 °F)                                                                                                                                     |                                                                                                                     |
|                               | Ambient Operating Humidity                                                                                                                                             | 90 % or less (without condensation)                                                                                                                                   |                                                                                                                     |
|                               | Water and Dust Resistance                                                                                                                                              | IP66, IEC60529 measuring standard compatible.                                                                                                                         |                                                                                                                     |
|                               | Dimensions                                                                                                                                                             | ø239 mm (D) x 395.5 mm (H) (ø9-7/16" (D) x 15-9/16" (H))                                                                                                              |                                                                                                                     |
|                               | Weight (approx.)                                                                                                                                                       | 4.7 kg (10.4 lbs.)                                                                                                                                                    |                                                                                                                     |
| Finish                        | Camera: Die cast Aluminum, backed on coating (Paint color: Fine Silver)<br>Sun Shield: ASA resin, coated (Paint color: Fine Silver)<br>Dome: Clear polycarbonate resin |                                                                                                                                                                       |                                                                                                                     |

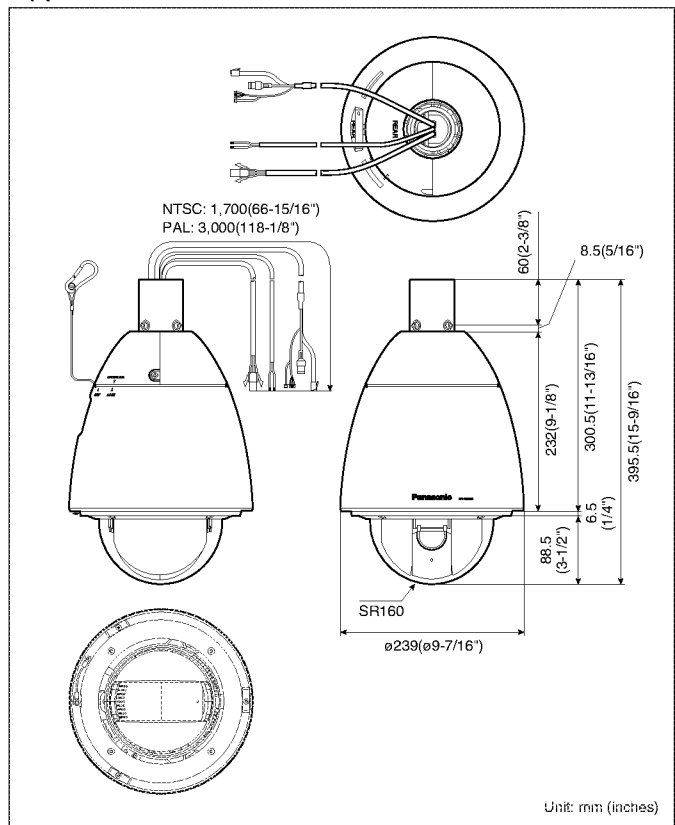
### Important

– Safety Precaution: carefully read the operating instructions and installation manual before using this product.

## Part Names and Functions



## Appearance



- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- Product pictures shown in this catalog are all NTSC models.

## DISTRIBUTED BY:

**Panasonic®**

<http://panasonic.co.jp/pss/cctv/en/>

Printed in Japan (2A-012AA)