Panasonic
ideas for life

Vandal Proof Super Dynamic III
Colour Dome Cameras

WV-CW480 Series

Vandal Proof

Blur
Proof

SD III
Super Dynamic

Weather
Proof

Advanced Vandal Proof Dome Camera

Auto Back Focus

day/night

IP66 standard

Heavy Duty   Highly reliable advanced design

Features Anti-shock Auto Back Focus (ABF) and IP66 rating for heavy duty use

Easy Installation

Removable Attachment

Reduces labour costs and provides a simple-to-install waterproofing solution.
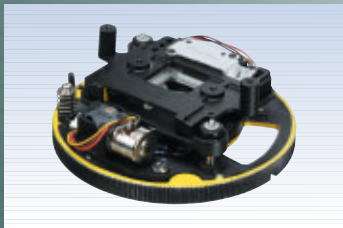
Waterproof Section

Electrolysis Dehumidification Device

Functioning as an electric dryer, it reduces condensation by electrolyzing internal moisture and continuously discharging it from the camera.

Anti-shock Auto Back Focus (ABF)

New miniaturized mechanism provides greater accuracy and shock resistance.

Waterproof Seal

New material effectively prevents water from entering the housing, even under the harshest conditions.

IP66
Water and Dust Proof   IP66 standard

IP66 rated Water and Dust proof allows use under various circumstance.

Dehumidification Device
Withstands Humidity

New dehumidification device reduces condensation caused by sudden temperature changes.
In addition, the optional Heater Unit (WV-CW4H) senses temperature and automatically adjusts to optimal levels. The operating temperature becomes −30 °C to +50 °C.

Die cast aluminum body
Withstands Severe Shocks

The die cast aluminum body is complemented by a 3.5 mm thick, polycarbonate dome.

A spring mounted lens unit protects the camera and lens by absorbing external shock.

Superior surveillance performance, waterproofing and ease of installation. Introducing the WV-CW480 Series Vandal Proof Super Dynamic III Camera.

The new WV-CW480 Series, a high-end model equipped with **Super Dynamic III** joins Panasonic's Vandal Proof Camera line. In addition to a Day/Night feature, the camera is equipped with a newly developed Anti-shock Auto Back Focus (ABF), ensuring crystal clear surveillance around the clock. Its robust body with waterproof properties meets the IP66 standard and is fully equipped with intelligent surveillance performance and high image quality, including 160x Dynamic Range.
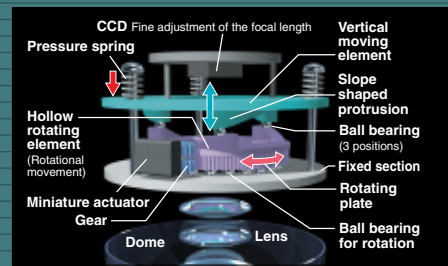
Panasonic

SDIII
Super Dynamic

Actual Size
(WV-CW480S)

Panasonic offers industry leading features to handle installation in severe environments
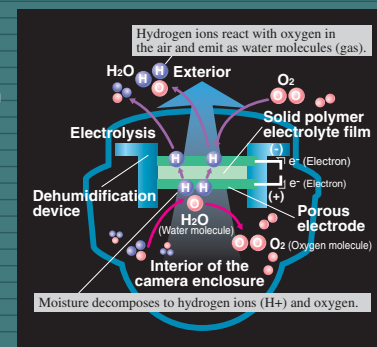
Anti-shock Auto Back Focus (ABF)

For the first time, the WV-CW480 Series Vandal Proof cameras are equipped with an Auto Back Focus function. This will ensure perfect focus when switching from colour to black and white, while simplifying installation. Miniaturization of the mechanism, smooth and highly precise CCD migration and greater shock resistance are benefits realized by driving the cam and ball bearing structure with a miniature actuator.

CCD Fine adjustment of the focal length
Pressure spring
Hollow rotating element (Rotational movement)
Miniature actuator Gear
Dome
Lens
Vertical moving element
Slope shaped protrusion
Ball bearing (3 positions)
Fixed section
Rotating plate
Ball bearing for rotation

Electrolysis Dehumidification Device

A special electrolyte film dissolves humidity inside the camera into hydrogen ions and oxygen molecules. The hydrogen ions are discharged as a vapor outside of the camera. This Electrolysis Dehumidification Device keeps the humidity inside the camera low and reduces condensation during sudden temperature changes.

Hydrogen ions react with oxygen in the air and emit as water molecules (gas).
H_2O Exterior
O_2
Electrolysis
Solid polymer electrolyte film
H^+ (Electron)
e^- (Electron)
Dehumidification device
H_2O (Water molecule)
H^+ (Ion)
Porous electrode
O_2 (Oxygen molecule)
Interior of the camera enclosure
Moisture decomposes to hydrogen ions (H+) and oxygen.

Super Dynamic III equipped, 24-hour highly reliable surveillance

SDIII Super Dynamic

Adaptable to contrast
Pixel Based 160x Dynamic Range

Objects on every area of the screen are reproduced faithfully by Area Free Natural Contrast Image Correction that performs pixel-based correction. Furthermore, 160x Dynamic Range is realized by shutter images of 1/50 seconds and 1/8,000 seconds. Even under changing contrast situations like time of day, weather or season, superb natural images are realized.
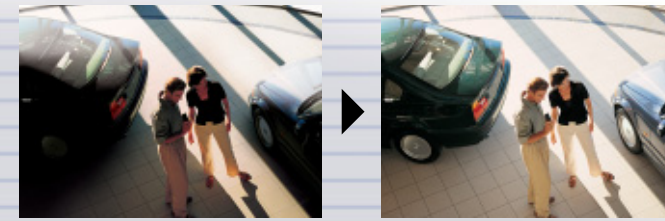
Conventional
Depending on object position, the image may be marred by black spots or halo effects.

Super Dynamic III
Pixel Based 160x Dynamic Range reproduces every object.

Clear details
Horizontal resolution of 540 TV lines (colour mode)

Horizontal resolution is 540 TV lines in colour mode (typical), 570 TV lines in black and white mode.

Real colour reproduction
Colour Processing Enhancements

By improving the reproduction of low intensity areas and subtle colours, individuals and objects are produced in natural, clear colours.

24 hour surveillance
Day/Night Switching

When the surrounding area becomes dark, the operating mode automatically switches from colour to black and white increasing sensitivity. In the morning, the operating mode automatically switches to colour, allowing for complete surveillance both day and night. Mode switching can also be performed manually.

Works effectively in dim light
Full colour images at 0.6 lux
Black and white images at 0.08 lux

Minimum illumination needed is 0.6 lux in colour and 0.08 lux in B/W mode, with the standard clear dome.

Day and night Focus
Auto Back Focus (ABF)

When switching from colour imaging to black and white imaging, the back focus automatically adjusts the position of the CCD, thus eliminating the focus shift caused by the deviation of the IR cut filter on conventional cameras. In addition, when switching back from black and white to colour mode, the CCD returns to its original position, offering true 24 hour day/night surveillance.

Day   Night   Night

Conventional   **Super Dynamic III**

Tampering Alarm
Scene Change Detection

The camera sends an alarm when various acts of tampering are detected. These acts include spray painting the lens and covering the lens with a cloth.

Alarm   Alarm
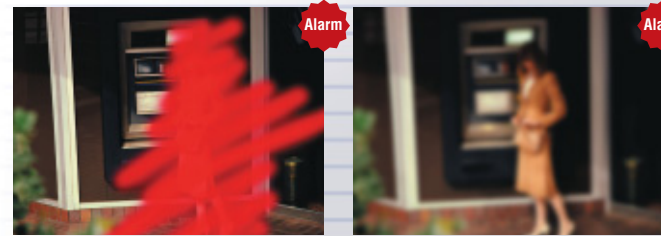
After Image reduction
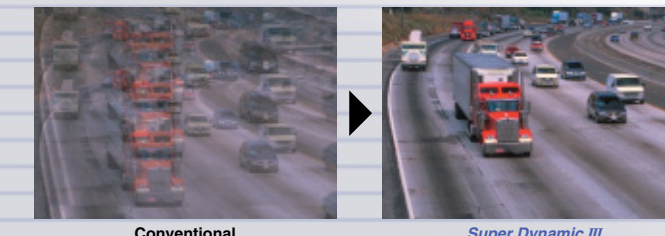#### Adaptive Digital Noise Reduction

Double processing of 2D DNR and 3D DNR reduces unwanted images such as car headlights seen in conventional 3D DNR.

Conventional   **Super Dynamic III**

Image vibration reduction
Auto Image Stabilizer

When trains or passing vehicles cause the camera to vibrate, images are automatically stabilized.

Conventional   **Super Dynamic III**

Sensing object movement
Video Motion Detector

When object movement is detected on screen, an alarm is transmitted. An automatic recording system can be implemented using an optional digital disk recorder.

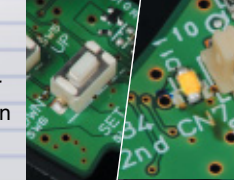### Displaying camera titles
16 Alphanumeric Characters

A maximum of 16 characters, including alphanumeric and symbols can be displayed on screen.

Labour saving Auto Back Focus (ABF) and attachment of removable structures

Easy to adjust focus
Auto Back Focus (ABF)

After adjusting the viewing angle, simply push the Auto Back Focus (ABF) button on the camera; or adjust via the optional system controller. The dome cover should be attached during the three minute LED timer flashing to ensure proper focus. Perfect focus and reduced installation time is achieved.

No special waterproofing measures necessary
Removable Attachments

By using removable attachments, no special measures are required to protect the waterproof section, thus reducing installation labour.

Easy adjustment of various settings
Menus in Eight Languages

Menus can be selected in English, German, French, Italian, Spanish, Russian, Chinese or Japanese.

Can be installed in a junction box
Flush Mount Type: WV-CW484F

The flush mount WV-CW484F can be neatly installed within existing junction boxes.

Easy viewing angle adjustment
2x Variable Focal Lens

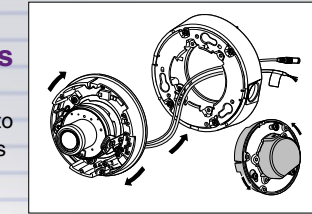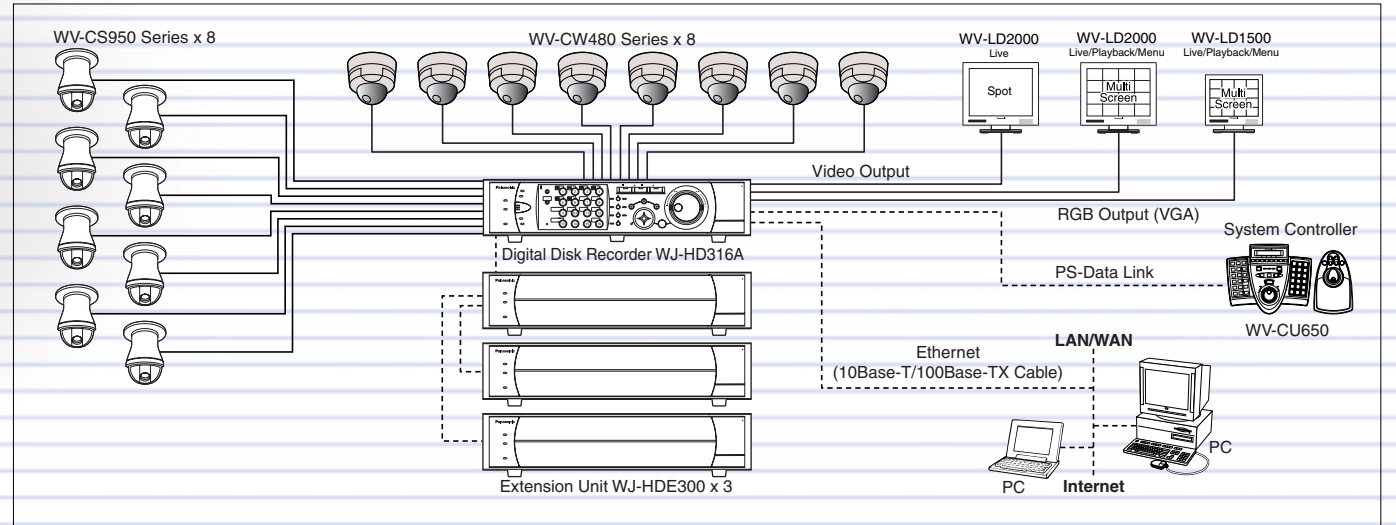The standard 3.8–8.0mm 2x variable focal lens enables easy angle adjustment for optimal viewing.

Easy angle and focus adjustments
Monitor output terminal

When connecting a portable LCD to the monitor output terminal, you can adjust the viewing angle while confirming the image on the spot. In addition, when connecting the monitor the camera automatically switches to ELC mode so you can accurately set the spot you want to monitor.

Trouble-free installation any where
Three-way hinge

The camera platform inside the dome has a three-way hinge that allows horizontal, vertical and swivel rotation. In addition, an upside-down function allows images to be digitally flipped both vertically and horizontally. These flexible camera angle adjustments provide trouble-free installation.

Can be embedded in the ceiling
Embedded Ceiling Installation with WV-Q166

For indoor installations where the entire camera body requires concealment, use the optional WV-Q166 bracket.

	Surface Mount	Flush Mount	Embedded Mount
WV-CW480S	Mount Base is provided with Camera	–	with WV-Q166 Embedded Ceiling Mount Bracket (Need to change the attachment)
WV-CW484F	with WV-Q114 Mounting Base	as it is	with WV-Q166 Embedded Ceiling Mount Bracket

SYSTEM EXAMPLE

WV-CS950 Series x 8   WV-CW480 Series x 8   WV-LD2000 Live   WV-LD2000 Live/Playback/Menu   WV-LD1500 Live/Playback/Menu

Spot

Video Output

Digital Disk Recorder WJ-HD316A

RGB Output (VGA)   System Controller

PS-Data Link   WV-CU650

LAN/WAN

Ethernet (10Base-T/100Base-TX Cable)

Extension Unit WJ-HDE300 x 3

PC   Internet   PC

The above photographs were taken for the purpose of this explanation; actual performance and images may vary depending on environmental or other conditions.

MAJOR OPERATING CONTROLS & TERMINALS

①	Power Cable (WV-CW480S, 220 ~ 240 V AC)	⑥	Zoom Lock Lever	⑭	LED Indicator
②	Power Cable (WV-CW484F, 24 V AC or 12 V DC)	⑦	Tilting Lock Screw	⑮	Operation Buttons
		⑧	Azimuth	⑯	SET Button
③	Video Output Cable with BNC Connector	⑨	Panning Table	⑰	DOWN Button
		⑩	Panning Lock Screw	⑱	UP Button
④	Enclosure	⑪	Camera Lock Screw	⑲	LEFT Button
⑤	Focus Lock Lever	⑫	Monitor Output Jack	⑳	RIGHT Button
		⑬	Optional Heater Connector		

SPECIFICATIONS PAL

Model No.		WV-CW480S	WV-CW484F
Type		Surface mount type	Flush mount type
Camera	Image Sensor	1/3-type interline transfer CCD	
	Effective Pixels	752 (H) x 582 (V)	
	Scanning Mode	2:1 interlace scan	
	Scanning Area	4.8 (H) x 3.6 (V) mm	
	Scanning Frequency	Horizontal: 15.625 kHz, Vertical: 50 Hz	
	Scanning Line	625 lines	
	Horizontal Resolution	540 TV lines typical at colour high mode, 480 TV lines at colour normal mode, 570 TV lines at B/W mode	
	Minimum Illumination	0.6 lux (Colour), 0.08 lux (B/W), (SENS UP: OFF) at F1.4 0.06 lux (Colour), 0.008 lux (B/W), (SENS UP: 10x) at F1.4	
	Signal-to-Noise Ratio	50 dB (AGC Off, weight On)	
	Dynamic Range	54 dB typical (Super Dynamic Ⅲ ON)	
	White Balance	ATW1, ATW2, or AWC	
	AGC/GAIN	ON (HIGH/MID/LOW), or OFF	
	Electronic Shutter	OFF(1/50), 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000 s	
	Sensitivity UP	OFF / AUTO (2x, 4x, 6x, 10x, 16x, 32x) / FIX (2x, 4x, 6x, 10x, 16x, 32x)	
	Digital Zoom	2x	
	Back Focus Adjustment	ABF, MANUAL, AUTO/PRESET/FIX	
	Light Control	ALC / ELC (only when monitor output is used)	
	Super Dynamic Ⅲ	ON or OFF (with BLC masking)	
	Synchronization	Internal (INT), Multiplexed Vertical Drive (VD2), Line-Lock (LL)	
	Digital Noise Reduction	High or Low	
	Resolution Mode	Normal or High	
	Black and White Mode	Mode: AUTO1/AUTO2/ON/OFF, Level: High/Low, with external control	
	Auto Image Stabilizer	ON or OFF	
	Video Motion Detector	MODE1, MODE2 (Scene change) or OFF	
	Privacy Zone	ON (Gray/Mosaic) or OFF	
	Camera Title	Up to 16 characters	
	Language	English, French, German, Spanish, Italian, Russian, Chinese or Japanese	
	Lens Mount	CS-mount	
Lens	Type	2x varifocal	
	Focal Length	3.8 ~ 8.0 mm	
	Angular Field of View	H: 35.6° (TELE) ~ 73.6° (WIDE) V: 26.6° (TELE) ~ 53.4° (WIDE)	
	Aperture Range	1:1.4 (WIDE) 1:1.8 (Tele)	
	Focusing Range	1.2 m ~ ∞ (3.9 ft. ~ ∞)	
Pan and Tilt	Panning Range	±175°	
	Tilting Range	±75°	
Input/ Output	Video Output	1.0 V [p-p] / PAL composite 75 Ω / BNC Connector Multiplexed VD2 and control data capable	
	Monitor Output	1.0 V [p-p] / 75 Ω / PAL composite signal / ø3.5 mm mini jack	
General	Power Source and Power Consumption	220 V ~ 240 V AC 50 Hz, 7 W, 13 W*	24 V AC 50 Hz, 4.1 W, 11 W* 12 V DC 340 mA**
	Ambient Operating Temperature	−10 °C ~ +50 °C, −30 °C ~ +50 °C*	
	Ambient Operating Humidity	90 % or less (no condensation)	
	Water and Dust Resistance	IP66 rated water and dust proof. IEC60529 measuring standard compatible.	
	Dimensions (D x H)	ø160 mm x 161.7 mm	ø153.9 mm x 141.2 mm
	Weight (approx.)	2.1 kg	1.4 kg

* With optional Heater Unit WV-CW4H
** Optional Heater Unit WV-CW4H cannot be used under 12 V DC operation

Important – Safety Precaution: carefully read the operating instructions and installation manual before using this product.
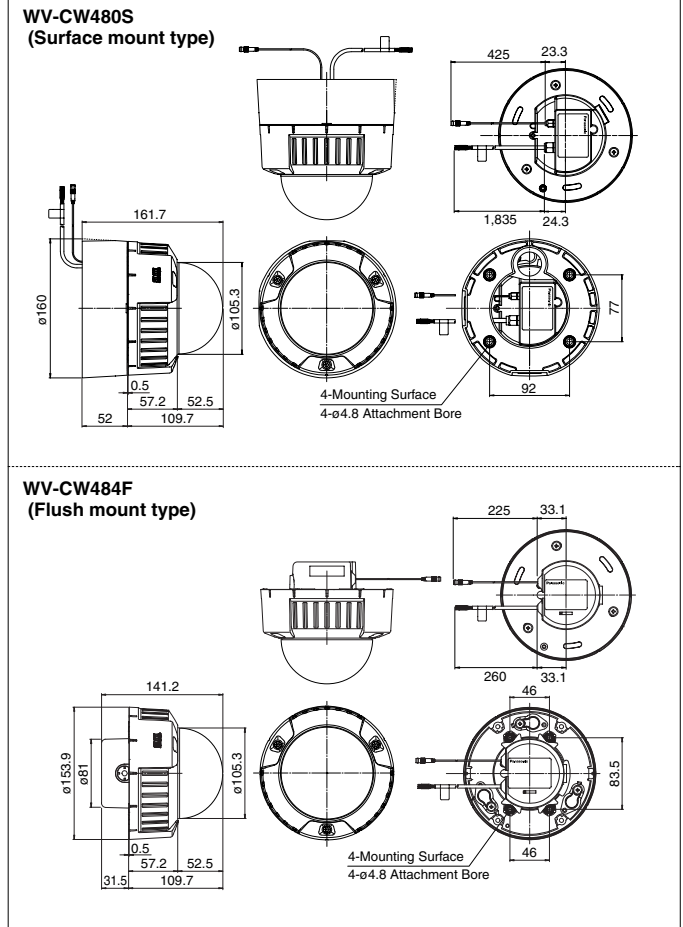• All TV pictures are simulated. • Weights and dimensions are approximate. • Specifications are subject to change without notice. • These products may be subject to export control regulations.

STANDARD PRODUCT CONFIGURATIONS

Vandal Proof Super Dynamic Ⅲ Colour Dome Camera
WV-CW480S
(Surface Mount Type)

Vandal Proof Super Dynamic Ⅲ Colour Dome Camera
WV-CW484F
(Flush Mount Type)

APPEARANCE
Unit: mm

WV-CW480S (Surface mount type)

4-Mounting Surface
4-ø4.8 Attachment Bore

WV-CW484F (Flush mount type)

4-Mounting Surface
4-ø4.8 Attachment Bore

OPTIONAL ACCESSORIES

Mounting Base for WV-CW484F **WV-Q114**	Heater Unit **WV-CW4H**	Smoke Dome Cover **WV-CW4S**	Embedded Ceiling Mount Bracket **WV-Q166**

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