Caution for installation and usage

1. Precautions for different DVR
Please use it with the corresponding PoC DVR. With PoC(Power over Coax) function, the DVR is able to supply camera with the power. And with CoC(Control over Coax) function, the DVR is able to send RS485 to the camera
- PoC DVR : When connecting to WEBGATE's PoC DVR, only the coaxial cable is needed between the camera and DVR to supply power and send RS485.
- Non PoC DVR : When connecting to Non PoC DVR, the user must use repeater, RP101P, to connect to the camera (but RP101P needs additional adapter)

2. Check Frame rate setting based on power frequency
Set Frame rate to 25Hz if your region is using 50Hz(PAL) power frequency, or set to 30Hz for 60Hz(NTSC) region. (OSD : System → Frame rate).

3. Focus setup
To avoid losing focus at night time, please make sure to set up focus as follows
1) Open the camera cover, and connect the OSD remote controller to the camera.
2) Press [SET] on the OSD remote controller and select "FOCUS ADJ" to enable "Adjust Focusing" mode.
3) Use the lens' lever to adjust zoom and focus. (※Check the Focus Gauge)
4) End the "Adjust Focusing" mode by pressing the [SET] on the OSD remote controller.
※ What is Focus Gauge?
When the user is manually adjusting the focus, the camera shows graphical bar to have the user look at the focus visually. When the yellow and green bar meets together, that's where the camera is focused.

4. Shutter mode setup based on installation environment
- INDOOR : Controls brightness for the best video quality at indoor environment.
- OUTDOOR : Controls brightness for the best video quality at outdoor environment.
- INDOOR/OUTDOOR-ANTI BLUR : Improves the motion blurring phenomenon than Indoor/Outdoor mode under dark environment but the brightness decreases relatively.

5. Do not expose this camera to rain or moisture to prevent malfunction, fire and shock hazard.

6. Please contact to qualified service personnel in case of product damage. Do not attempt to repair product by yourself.

7. Please avoid external shock and vibration on the product.

8. Do not install product under excessive heat or cold environment. (recommended operation temperature is -10°C~50°C)

9. Do not target lens to the sun. Image sensor might be damaged

10. Do not open the product under any circumstances, it could void the warranty. Natural disaster like lightning, flood will need charge for repair.

Feature

PoC / CoC
PoC(Power over Coax) : WEBGATE PoC DVR supplies camera with power through connected coaxial cable.
CoC(Control over Coax) : WEBGATE PoC DVR supplies camera with RS485 without additional communication line. Allowing OSD control, zoom, focus, f/w upgrade and more.
※ All PoC supported cameras support CoC function as well.

2MP, Full HD high resolution picture quality
Full HD(1920x1080) provides 6 times higher resolution than SD level camera, and more clear video image can be achieved through 1/3", 2Megapixel progressive CMOS.

High performance under low light environment
High performance quality can be achieved under low light environment by optimizing the image handling technology on CMOS sensor.
(B/W : 0.0005 Lux / Color : 0.2Lux@50IRE, F.1.4, 3100K, DSS OFF)

Indoor/Outdoor function
Minimizes the motion blur of object from slowly moving person(Indoor) to fast moving vehicle(outdoor) by optimizing the signal processing and controls brightness automatically to perform the best video image

3D-DNR
3D-DNR function efficiently removes video noise in dark environment, and shows clear image as a result.

True Day & Night function
Camera senses the surrounding brightness automatically, and insert/remove the IR-CUT filter to get the best sensitivity performance.

WDR/BLC/ACE/HLC
Under backlight condition, you can select the most suitable function among WDR, BLC, ACE and HLC.

DEFOG Function
Provides clear and undistorted images from fog, dust, sea fog and any bad weather conditions.

Auto Focusing function (AF models)
Auto Focusing function performs Correct and Quick focusing of camera by just one click. After the power is turned on, camera can judge reasonable brightness to execute Auto Focusing. If the environment is bright enough, it performs Auto focusing, meanwhile it keeps previous focus condition if the environment is dark.
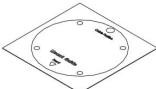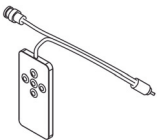
Adjust Focusing function
Even though D&N lens is in use, focus might be distorted in night time. To prevent this problem, camera supports Adjust Focusing function. After use this function, you can get clear video image both daytime and night time.

Privacy support
Camera can support up to 15 privacy masking areas.

Supplied accessories

Please check if all the supplied accessories are included.

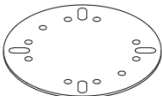|		
C1080PD Series Camera	C1080PVD Series Camera	Installation / User Manual
Cap(PVD)	L Wrench(PVD)	Screw&Plastic Anchor (PVD)
Set Screw(PVD)	Vibration Proof Pad(PVD)	Guide Pattern(PD)
Camera Remote Controller	※ PD + C1080PD + C1080PD-IR + C1080PD-AF + C1080PD-IR-AF	※ PVD + C1080PVD + C1080PVD-IR + C1080PVD-AF + C1080PVD-IR-AF

Product description
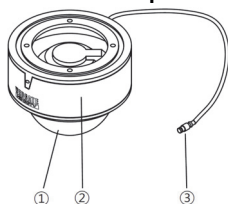
No	Name
1	Dome cover
2	Camera
3	Video Out Port(PoC,CoC)

① ② ③

Camera installation

1. How to connect it with the WEBGATE PoC DVR
- Does not need any additional power adapter. Just connect coaxial cable higher than
  4C-HFBT to the DVR.

PoC Camera   PoC DVR

2. How to connect it with the conventional DVR
- Connect the PoC repeater, RP101P, between the camera and DVR. And put additional
  power adopter.

PoC Camera   PoC Repeater   DC24V   Non PoC DVR
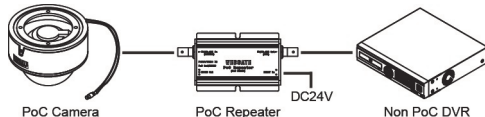
How to Set up Auto Focus
Manual Focus Model : C1080PD / C1080PVD / C1080PD-IR / C1080PVD-IR
To prevent out focus due to weather or environmental changes, please follow the bottom
instruction.
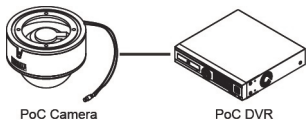　1) Press [SET] on the OSD remote controller and select "FOCUS ADJ" to enable "Adjust
　　　Focusing" mode.
　2) Use the lens' lever to adjust zoom and focus.
　3) End the "Adjust Focusing" mode by pressing the [SET] on the OSD remote controller.

Auto Focus Model : C1080PD-AF / C1080PVD-AF / C1080PD-IR-Af / C1080PVD-IR-AF
　1) Press [SET] on the OSD remote controller and select "FOCUS ADJ" to enable "Adjust
　　　Focusing" mode.
　2) Hit "MANUAL", go into "Manual Focusing mode".
　3) Hit "Tele" or "Wide" button to adjust.
　4) Press [SET] on the OSD remote controller and to end Manual Focusing Mode.
　5) Select "CORRECT AF" and hit [SET] to run "Auto Focusing function".

<Note>

1) When adjusting focus, AF Models(C1080PBL-IR18-AF, C1080PBL-IR48-AF) will
   automatically run "Adjust Focusing function".

How to use OSD remote controller

1. CVBS output
- Connect CCTV monitor to OSD remote controller's CVBS outport to check the image.
  (SD quality)
- When images stop coming out, press any button on the OSD remote controller to see
  the image again.
2. OSD Control
- Press OSD remote controller to control camera's OSD menu after connected.

Notice for Auto Focus operation

Following conditions might make failure of auto focusing .
1. When there are changes of the scene while Auto Focus is working(sudden movement,
   appearance or disappearance).
2. When there are sudden change of the brightness.
3. When shooting low contrast image.
4. When there is strong light in the scene.
5. When there is foreign substance on the lens.
6. If auto focusing is failed, please try to adjust focus manually or try auto focus again with
   the scene which have strong contrast.

Cautions when you connect BNC cable

The impedance of BNC connector should be 75Ω.
If 50Ω connector is used, the transmission distance will be reduced approx. 10m.

Caution in cable selection

The maximum transmission distance of HD-SDI will vary depending on cable manufacturer
and installation environment. Please refer to the below table to select suitable coaxial cable.

Cable Type	Distance	Details
5C2V	Approx. 90M	Analogue Cable
4C-FB(T), 4C-HFB(T), RG59	Approx. 140M	High-expansion foam cable,recommends double(or triple) shielded cable
5C-FB(T), 5C-HFB(T), L-6CHD, RG6	Approx. 180M	Customized HD-SDI Cable

How to upgrade F/W by using CoC(RS485)

1. Connect WEBGATE DVR with camera.
2. Run [HD-SDI Camera Network Upgrader] and select [CoC] on [Serial Port].
   - PC and DVR must be connected through network.
3. Select the desired camera's channel, then write down that DVR's IP address.
   - HD camera upgrade program and F/W can be downloaded from the website.
     (http://www.webgateinc.com/)

4. Insert DVR's Port, User ID, Password and press "Connect" to log-in to the DVR.
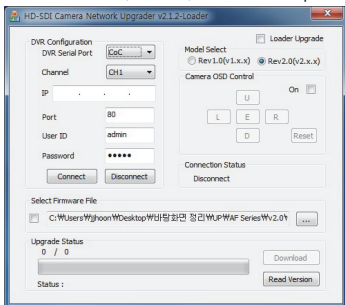
5. Select [ON] in Camera OSD Control, then press E,L,R,U,D buttons to check camera's OSD control.
   - When OSD control is not available, check DVR and camera's configuration.
6. Select the F/W and press "Load" to upgrade the camera. The camera will reboot.
   - Images will be stopped until the boot is complete.
7. When the upgrade is finished, the DVR and CMS (Control CenteR) can be used to remotely change the camera's settings.

<Note>

1) When upgrading F/W, the setting will be reset.

How to use OSD menu
OSD menu function

Press [SET] on the remote controller to show OSD configuration menu.
   - If OSD menu is not closed, it will be closed automatically in 1 minute.
   (Changed configuration value will not be saved)
   - Bold font with underline means factory default.

OSD MENU		Function
FOCUS ADJ		This mode is only enabled in manual lens model. This function prevents out-focus during day/night.
LENS	DC	Only in AF models : focus can be adjusted either automatically or manually. - PWR-ON AF : After power is turned on, camera judges the ambient brightness. If the brightness is enough, it performs Auto Focusing automatically, but if the brightness is not enough, it keeps the previous

		focus condition. - Correct AF : Camera performs focusing over the full-range (it takes max. 40seconds) - Quick AF : If the angle of view and focus is roughly adjusted condition, Quick AF performs fast focusing. But, if the focus is vague condition, Quick AF may not show good result. (it takes max. 10seconds) - Manual : Move joystick to up(Tele), down(Wide), left(Near),right(Far) to adjust angle and focus manually. When controlling "Zoom", "Zoom Tracking" function will run automatically. This function only works if the camera is focused correctly
DAY & NIGHT	Color	Maintains Color(Day) mode regardless brightness.
	B&W	Maintains B&W(Night) mode regardless brightness.
	Auto	In accordance with brightness, camera switches Color mode and B&W mode automatically. - LUX LEVEL(LOW, MIDDLE, HIGH) : This value is the standard for Day & Night switching. If high is selected, camera will turn to Night(B/W) mode at higher LUX level than MIDDLE or LOW. - ANTI HUNT(LOW, MIDDLE, HIGH) : This value is the standard for threshold of Day & Night switching. Higher setting value will reduce the flickering by IR-CUT filter switching caused from misjudgment. - DELAY TIME(3~30sec) : Judgment period for Day & Night switching
D-EXPOSURE / N-EXPOSURE	BRIGHTNESS (**8**, 0~20)	Adjust the brightness of image. The more High value it has, the more bright image it shows
	SHUTTER	- INDOOR : controls brightness to show the best video quality at indoor environment. - OUTDOOR : controls brightness to show the best video quality at outdoor environment. - INDOOR-ANTI BLUR : It shows better anti-blur performance at dark indoor environment, but the brightness level decrease a little. - OUTDOOR-ANTI BLUR : It shows better anti-blur performance at dark outdoor environment, but the brightness level decrease a little. - MANUAL : It fixes shutter speed within 1/30 ~ 1/60000.

7

	ANTI-FLICKER	Removes Flicker problem due to the discordance of light frequency.	
	DSS (**AUTO ,** OFF, x2~x10)	During night or low light environment, incrase the scale factors to maintainet the clear image. However, larger scales will have motion blurring effect on moving objects. In AUTO mode, DSS is ON when there are no motion detection. And when the camera detects a movement, DSS mode is automatically turned off for better quality.	
	AGC (**4**, 1~10)	It will amplify video gain according to the light condition, but it will also increase noise level.	
COLOR	AWB	- **AUTO** : This mode automatically adjusts color white balance between 1,700°K ~ 11,000°K. - PRESET : Shoot a white paper in front of camera and press MENU button then white balance working will stop suitable for the condition. You must do this process again if light condition is changed. - MANUAL : User can select color temperature among 3300°K, 4300°K, 7600°K and adjust the details by KELVIN, R-GAIN and B-GAIN value.	
	CHROMA (**10**, 0~20)	Adjust Chroma level.	
IMAGE	SHARPNESS (**5**, 0~10)	Adjust sharpness. The higher value will show more clear video image	
	H-MIRROR	Mirror image. Left and right will be reversed	
	V-MIRROR	Flip image. Up and down will be reversed.	
	Digital ZOOM	Zoom image by 16 steps. (1~16)	
	PRIVACY	This is for privacy zone masking - ZONE NO : Supports total 15 areas (1~15) - ZONE OP : Whether to use or not of selected area - X, Y-POS : Set the X,Y start position of an area - X, Y-SIZE : Set the width and height of an area - COLOR(WHT,YEL,CYN,GRN,MAG,RED,BLU,BLK) : Select color for masking. - TRANS(0~4) : Set transparency of masking.	
	SHADING DET	Before execute the SHADING function, shoot a white paper in front of the camera, and do SHADING DET. If not, abnormal video might be output.	
	SHADING	It compensates the difference of light caused by lens. To use this function, you should run Shading DET function first at System menu.	

8

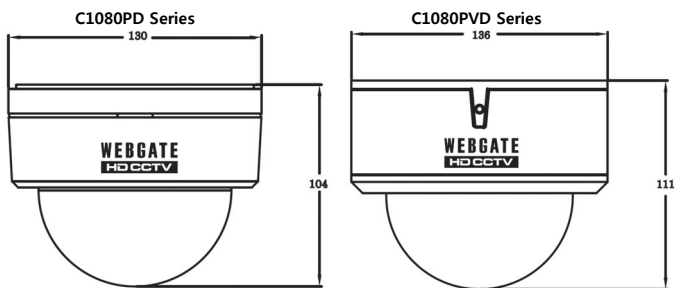|		
	DEFOG	Images can be corrected on Fog, Dust environment.
		- AUTO : Automatically corrects the images.
		- MANUAL : can be set to LOW, MIDDLE, HIGH
	COLOR BAR	Prints "COLOR BAR" for testing. (2 types)
		If there are no action, it will close in one minuate.
WDR	This 3D backlight compensation function allows bright and dark area to be seen clearly together. - WDR WGT(0~4) : Select image mix ratio. The higher value, the bright part of the image appear more clearly	
BLC	Back light compensation function. - BLC LEVEL(LOW, MIDDLE, HIGH) : Set BLC level. - BLC OSD : Displays BLC area on the screen. - BLC POS-X, Y : Set X, Y start position. - BLC SIZ-X,Y : Set Width and Height size. - MASK : If there is very bright portion inside BLC area, this portion can be removed from the calculation of BLC compensation. This brightness level for masking can be decided by below MASK LEVEL. - MASK LEVEL(0~10) : Set brightness level for Masking.	
HLC	High Light Compensation. If there is very bright portion inside a scene, camera can mask the portion, and the portion is removed from the calculation for exposure control. - LEVEL(**5**, 0~10) : Set the brightness level for masking. - Color : Set masking color	
ACE (ON, **OFF**)	Adaptive Contrast Enhancement. Enhances image quality by raising the brightness of dark areas.	
DNR (LOW, **MIDDLE**, HIGH)	Reduce image noise under low light condition	
FRAMERATE (25Hz, 30Hz)	Power frequency 60Hz(NTSC) : 30Hz(fps) video output Power frequency 50Hz(PAL) : 25Hz(fps) video output	
SYSTEM	MODEL	Displays model name
	CAM ID	Max. 8 digits for camera name.
		Supports alphanumeric and some special characters
	RS485 ID	Set ID for RS485
	VERSION	Displays firmware version
	VIDEO	Full-Scale(BT 709), Comp-Scale(BT 601) support
	RESOLUTION	Set output resolution (**1080p**/720p).
	IR-LED (**ON**,OFF)	- Controls IR-LED. - Smart-IR : When there are no motion detected. It keeps the image at the brightest. When the camera detects a motion, it automatically controls its shutter

		speed to aquire the best image.
	BAUDRATE (9600, **57600**)	Set RS485 communication speed.
	RESET	Makes all setting values to factory default condition
EXIT	SAVE&EXIT	Save configuration and exit menu.
	EXIT	Without saving configuration, exit menu.
		If there is no further action in menu, after 1 minute, OSD menu will exit without saving changes.

Product Specification

Model		**C1080PD, C1080PVD, C1080PD-IR, C1080PVD-IR C1080PD-AF, C1080PVD-AF, C1080{D-IR-AF, C1080PVD-IR-AF**
Video		
Sensor Type		1/3", 2.1Megapixel CMOS
Total Pixels		1920(H) x 1080(V) = 2.1M pixels
Scanning System		Progressive Scan
Min Illumination	**B/W**	0.0005Lux@50IRE, F1.4, 3100K, DSS(OFF), AGC(10)
	Color	0.2Lux@50IRE, F1.4, 3100K, DSS(OFF), AGC(10)
Lens	**Lens**	DC iris, 2.8mm~11mm, F1.4, IR Corrective Mega Pixel Lens
	Type	DC Auto Iris, Manual
Video Output	**Output**	1(BNC 1.0 Vp-p, 75Ω)
	Resolution	1080p 30fps / 25fps, 720p 25fps / 30fps
	HD-SDI	SMPTE 292M compatible
	Distance	approx. 180m of RG6, 140m of RG59
Video Control	**Control Method**	DVR, CMS(Control Center),Remocon(5Push Bottons)
	Filter	True Day & Night
	AGC	1 ~ 10 steps
	Mirror	Horizontal / Vertical
	WDR	OFF, 0 ~ 4 setup
	BLC	OFF, LOW, MIDDLE, HIGH
	ACE	OFF, ON
	DNR	OFF, LOW, MIDDLE, HIGH
	DSS	AUTO, OFF, x2 ~ x10
	White Balance	AUTO, PRESET, MANUAL
	Defog	OFF, AUTO, MANUAL
	Electric Shutter	INDOOR, OUTDOOR, INDOOR-ANTI BLUR, OUTDOOR-ANTI BLUR, MANUAL(12 steps),

		ANTI-FLICKER
	Digital Zoom	0 ~ 16 steps
	Lens Shading	OFF, ON
	HLC	0 ~ 10 steps
	Privacy	OFF/ON (15 Zones)
	Smart IR	OFF/ON

Control Interface

CoC	Upgrade Firmware / OSD Control
Strobe for internal light	24PCS
Camera Control Remocon	OSD Control / 5Push Bottons
	CVBS(NTSC/PAL-Auto change)

Electricity

Power Consumption	**C1080PD**	PoC(DC 24V ± 10%), 3W
	C1080PVD	
	C1080PD-AF	
	C1080PVD-AF	
	C1080PD-IR	PoC(DC 24V ± 10%), 4W
	C1080PVD-IR	
	C1080PD-IR-AF	
	C1080PVD-IR-AF	

Mechanical

Dimension	**C1080PD**	130(ø) x 104(H)mm
	C1080PD-IR	
	C1080PD-AF	
	C1080PD-IR-AF	
	C1080PVD	136(ø) x 111(H)mm
	C1080PVD-IR	
	C1080PVD-AF	
	C1080PVD-IR-AF	
Weight	**C1080PD**	359g
	C1080PD-IR	369g
	C1080PVD	759g
	C1080PVD-IR	769g
	C1080PD-AF	370g
	C1080PD-IR-AF	380g
	C1080PVD-AF	770g
	C1080PVD-IR-AF	780g

Environments

Operation Temp. / Humidity	-10 ºC ~ 50 ºC / 0%RH ~ 80%RH

Certifications

Certifications	KC, FCC, CE, RoHS, HD cctv

Dimension (unit : mm)

C1080PD Series

130
104

C1080PVD Series

136
111

Warranty

Product name	HD-SDI Camera	Warranty term
Model name	C1080PD, C1080PVD, C1080PD-IR, C1080PVD-IR, C1080PD-AF, C1080PVD-AF, C1080PD-IR-AF, C1080PVD-IR-AF	**2 years after purchase**
Date of purchase	20 - -	
Warranty term	20 - -	
Serial number		

Customer's address	Name	
	Contact	
Address of shop(Company name)	Name	
	Contact	

◈ Please fill out vacant area before sending products.

★ **For customer service** ★
Please read this manual again before requesting customer service.
Any simple malfunctions due to customer's misunderstanding on the product could be resolved by customer.

How to request service?
Please inform details of malfunctions correctly.
Free or non free repair will be decided based on details of warranty card.

WebGate Division Daemyung Enterprise Co., Ltd.
6F Hanlim Venture Town B/D 689-6, Geumjeong Dong, Gunposi, Gyeonggido,Korea
Main   : TEL : +82-31-428-9300
Client Service : TEL : +82-1644-3421

The damages caused from following conditions will be repaired by customer's cost.
    1. Any damage comes from customer's carelessness
    2. When improper power is entered
    3. When you repair unit by yourself
    4. Any damage comes from natural disaster like lightning, flood, etc.
    5. Consumable parts replacement

ENTERPRISE **WEBGATE**

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