

960H SNAP-IT Outdoor Dome Camera

DWC-V4567WD

DWC-V4567WTIR



ABOUT MANUAL

Before installing and using the camera, please read this manual carefully.
Be sure to keep it handy for future reference.

 **INFINITY 960H**

PRECAUTIONS

- Do not open or modify.
- Do not open the case except during maintenance and installation, for it may be dangerous and can cause damages.
- Do not put objects into the unit.
- Keep metal objects and flammable substances from entering the camera. It can cause fire, short-circuits, or other damages.
- Be careful when handling the unit.
- To prevent damages, do not drop the camera or subject it to shock or vibration.
- Do not install near electric or magnetic fields.
- Protect from humidity and dust.
- Protect from high temperature.
- Be careful when installing near the ceiling of a kitchen or a boiler room, as the temperature may rise to high levels.
- Cleaning :
To remove dirt from the case, moisten a soft cloth with a soft detergent solution and wipe.
- Mounting Surface :
The material of the mounting surface must be strong enough to support the camera.

FCC COMPLIANCE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and radiates radio frequency energy; and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications.

WARNING : Changes or modifications are not expressly approved by the manufacturer.

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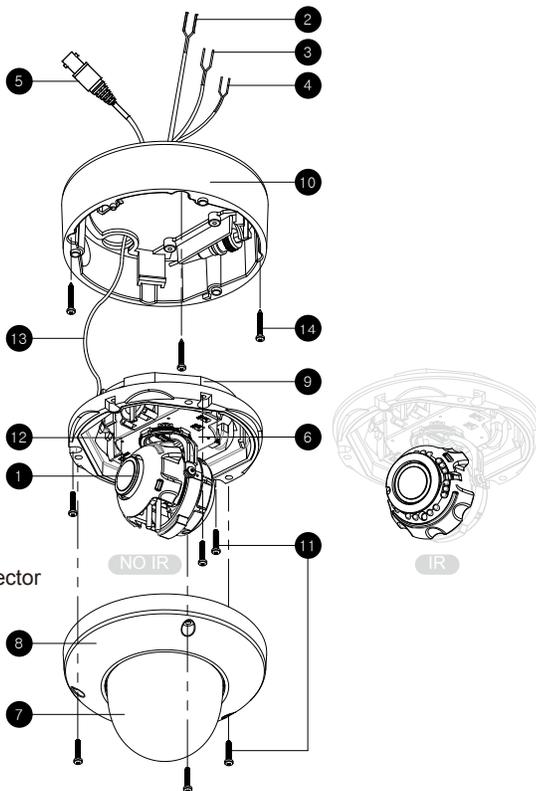
FEATURES*

DWC-V4567WD/ DWC-V4567WTIR

- 1/3" 960H High Resolution CCD
- 700 TV Lines
- 3.3~12mm Varifocal Auto Iris Lens
- 70ft Range IR with Intelligent Camera Sync **[V4567WTIR Only]**
- True Day and Night **[V4567WTIR Only]**
- Star-Light (Super Low Light Technology)
- EWDR (Electronic Wide Dynamic Range)
- 3D-DNR (3D Digital Noise Reduction)
- HME (Highlight Masking Exposure)
- AGC / SMART BLC / AWB
- Night-Up
- Negative Imaging
- Mirror Image Control
- UTP / RS485 Built-in
- Programmable Privacy Zones (6) & Motion Detection
- Easy Icon Driven OSD Menu with Built-In Joystick
- Auto Sensing 12VDC or 24VAC with Line Lock
- Secondary Video-BNC Output
- IP68 Certified (Waterproof)

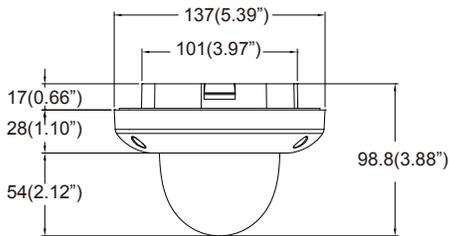
PART & DESCRIPTIONS*

- 1 Lens
- 2 Power Input Connector
DC 12V /AC 24V Voltage
- 3 UTP
- 4 RS 485
- 5 Primary Video-BNC Output Connector
- 6 Camera Control Board
- 7 Bubble Dome Cover
- 8 Upper Case
- 9 Flush Mount Case
- 10 Surface Mount Case
- 11 Assembly Screws
#8 - 32 x 0.75
- 12 Secondary Video-BNC Output Connector
- 13 Safety Wire
- 14 Mounting Screws

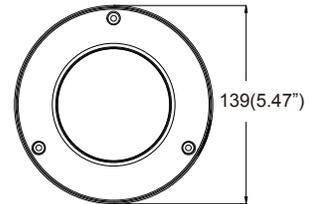
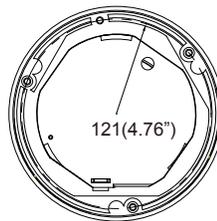


DIMENSIONS IN MILLIMETERS (INCHES)*

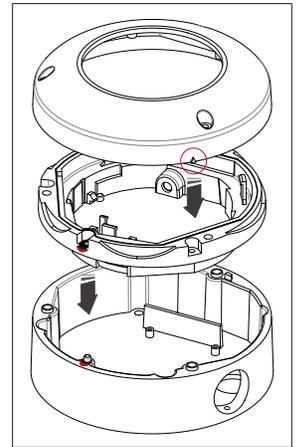
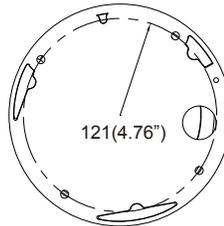
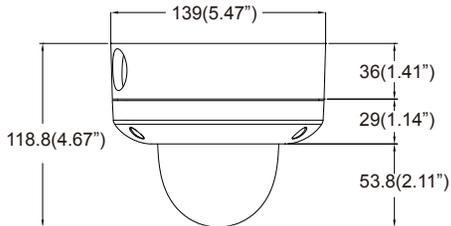
Flush Mount



Top View



Surface Mount



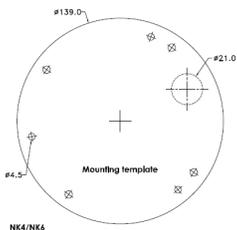
INSTALLATION*

Included with Outdoor Dome Camera

- | | |
|--|--------------------|
| 1. User Manual | 5. L-Wrench |
| 2. Mounting Template | 6. TORX-T20 Bolt |
| 3. Second Video Jack | 7. DC Plug |
| 4. Four (4) Screws and Four (4) Dry Wall Anchors | 8. TORX-T20 Wrench |



1



2



3



4

5



6



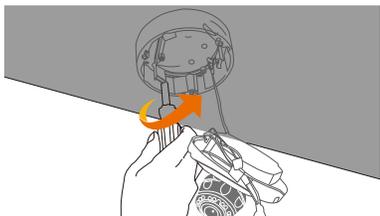
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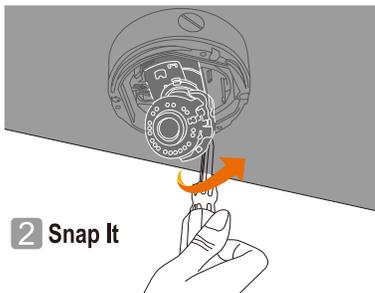
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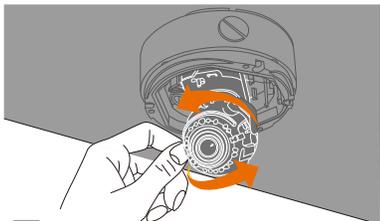
EASY INSTALLATION*



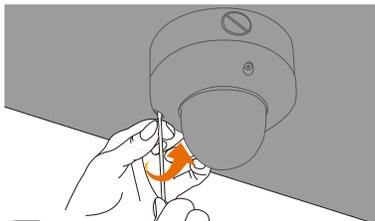
1 Junction Box Installation



2 Snap It

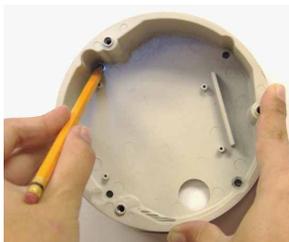


3 Adjustment

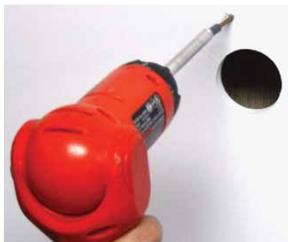


4 Cover

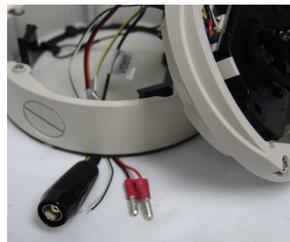
SURFACE MOUNT INSTALLATION INSTRUCTIONS*



1. Use the camera's mounting template or your camera to mark the holes as required.



2. Drill holes into the drywall and insert the drywall mounts into the holes.



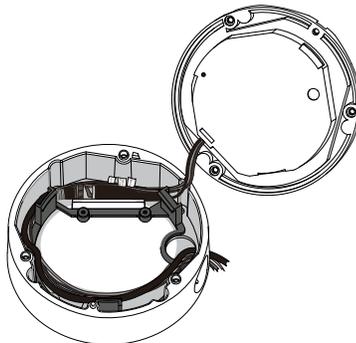
3. Pull wires through and make connections.
If you need to keep the wiring within the housing, refer to the diagram below.



4. Mount the surface mount base (junction box) to the wall.



5. Snap the camera module onto the base by aligning the red and black markings on the base and the camera module.





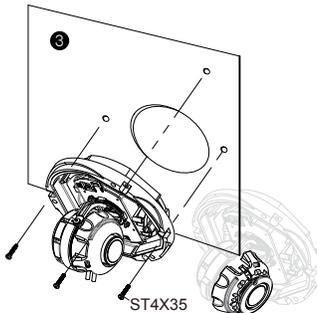
6. Secure the three (3) assembly screws.



7. Adjust the camera's position by using the 3-Axis Gimbal.



8. Tighten the three locking screws with the L-Wrench to secure the cover dome over the camera.



Flush Mount Installation

For a flush mount housing, remove the surface mount base (junction box). Cut a large hole on a flat surface for the top part of the flush mount base. Use the three screws fixed to the base to secure it to the surface of the wall or ceiling. Follow steps 6 through 8 of the Surface Mount Installation Instructions to complete the installation.

WALL MOUNT INSTALLATION INSTRUCTIONS*



1. Verify all parts are in the box.



2. Insert the wires from the camera through the wall mount housing.



3. Use the mounting template to make pilot holes. Use the dry wall anchors and woods screws to attach the assembly.



4. Attach the camera's surface mount base (junction box) to the wall mount.



5. Connect all cables and snap the camera module onto the base.



6. Adjust the camera and secure the dome cover over the camera module.

PENDANT MOUNT INSTALLATION INSTRUCTIONS*



1. Verify all parts are in the box.



2. Attach the top shield to the pendant mount.



3. Run all necessary cables from the ceiling to the mount.



4. Use the mounting template to make pilot holes. Use the dry wall anchors and wood screws to attach the assembly to the wall.



5. Connect all cables and verify camera is operating properly.



6. Attach the camera to the ceiling mount and secure the dome cover properly.

CORNER MOUNT INSTALLATION INSTRUCTIONS*



1. Verify all parts are in the box.



2. Attach the two compression fittings to the corner bracket.



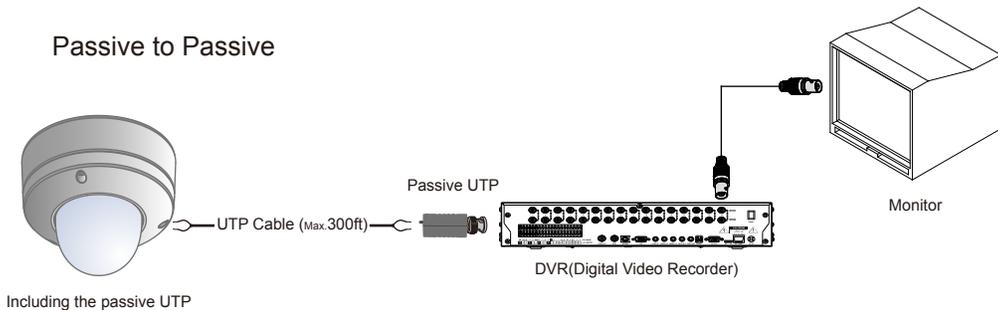
3. Attach the wall mount bracket to the corner mount using the machine screws.



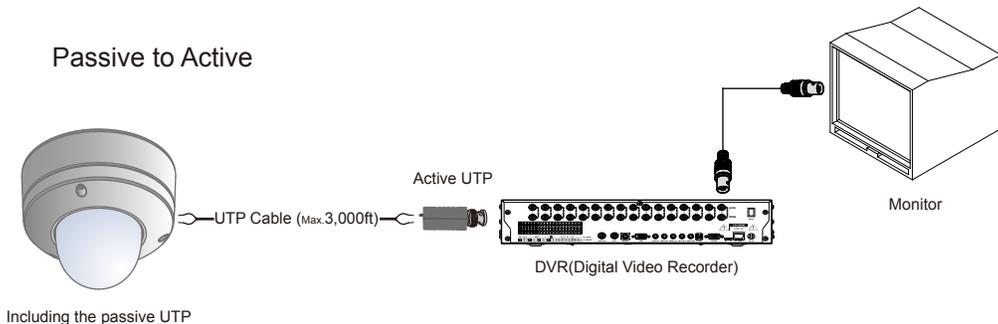
4. Mount the camera assembly to the corner of the wall, using wall mount anchors and machine screws.

UTP SYSTEM*

Passive to Passive

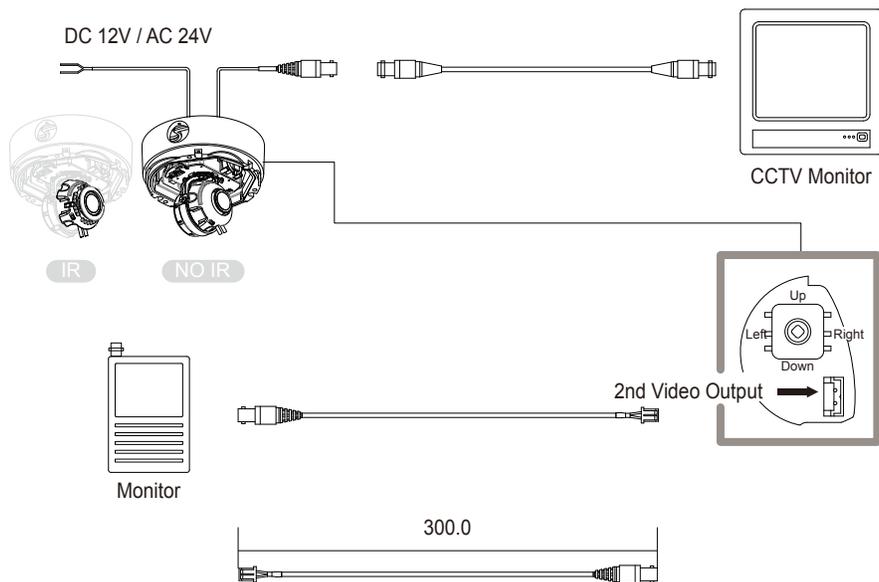


Passive to Active



CONNECTING TO MONITORS*

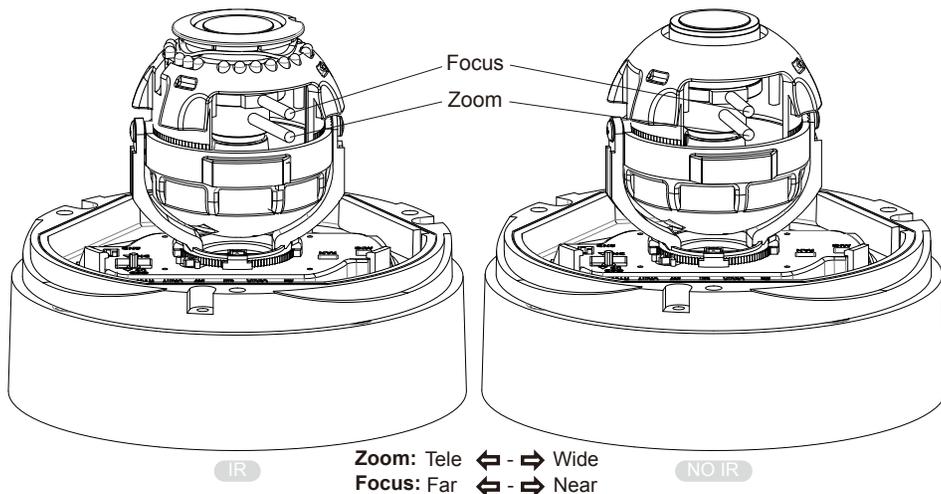
Follow the diagram below to make proper connections to a Monitor or CRT Monitor.



- Power Connection - 12V DC / 24V AC Dual Voltage (Auto Polarity Detection and Protection)
- All cameras are equipped with a second video output on the camera's Control Board.

ADJUSTING THE CAMERA*

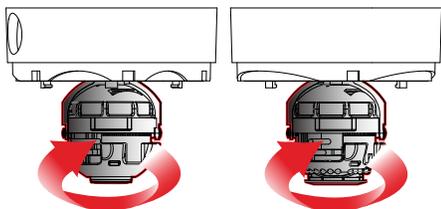
Follow the instructions provided below to make any lens adjustments.



- 1 Loosen the Zoom & Focus Handles by rotating them counter-clockwise.
- 2 Adjust the Field of View by moving the handle to the RIGHT (Tele) to zoom in, or to the LEFT (Wide) to zoom out.
- 3 Adjust the Focus the same way as described above AFTER the desired Zoom position is established.
- 4 Once all desired adjustments have been made, please tighten the handles back by turning them clockwise.

ADJUSTING 3-AXIS GIMBAL*

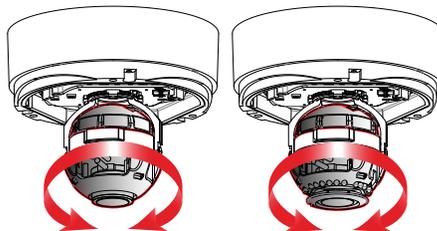
The Gimbal mechanism yields maximum rotation and placement as show below.



NO IR

Rotation 360°

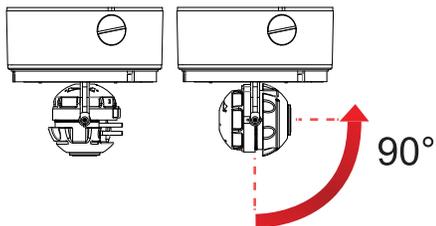
IR



NO IR

Panning 360°

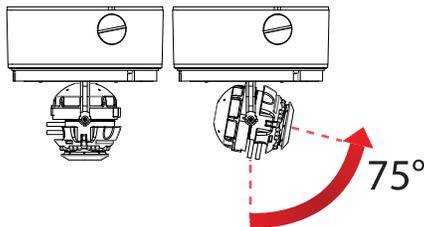
IR



NO IR

Tilting 90°

90°



IR

Tilting 75°

MODULE OSD MENU*

EXPOSURE	COLOR	DAY NIGHT
<ul style="list-style-type: none"> LENS Manual / DC (0-99) E. SHUTTER x256 ~ x2, 1/60, 1/100 FLC, 1/120 ~ 1/100000 BLC (Backlight Compensation) OFF / ON MAX-DR (Electronic Wide Dynamic Range) OFF / ON (0 ~ 20) AGC (Auto Gain Control) OFF / LOW / MIDDLE / HIGH STARLIGHT OFF, X2 ~ X256 EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET 	<ul style="list-style-type: none"> WB MODE AWC / ATW / MANUAL / PUSH R-Y GAIN 0-255 B-Y GAIN 0-255 EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET 	<ul style="list-style-type: none"> D&N MODE AUTO / COLOR / B&W C-SUP 0-100 A-SUP 0-100 EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET
FUNCTION	MOTION	PRIVACY
<ul style="list-style-type: none"> MIRROR OFF / MIRROR SHARPNESS 0-25 GAMMA 0.45-1.00 / USER NEGA OFF / ON 3D DNR (3D Digital Noise Reduction) OFF / LOW / MIDDLE / HIGH HME (Highlight Masking Exposure) OFF / ON EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET 	<ul style="list-style-type: none"> MOTION OFF / ON SET WINDOW ALL SET (Set the Entire Screen) ALL CLEAR (Clear the Entire Screen) SENSITI. (0-120) SHOW INDI. (OFF / ICON / TRACE) DELAY OUT (1-15) (Motion Alarm Zoom-In Delay) EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET 	<ul style="list-style-type: none"> MASK1 OFF / ON MASK2 OFF / ON MASK3 OFF / ON MASK4 OFF / ON MASK5 OFF / ON MASK6 OFF / ON EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET
SYNC	SET-UP	EXIT
<ul style="list-style-type: none"> SYNC MODE INTER. / AUTO V-PHASE 0-159 EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET 	<ul style="list-style-type: none"> CAMERA ID 0-254 (RS485 ID) TITLE OFF / ON DPC (Dead Pixel Cancellation) OFF / AUTO MONITOR CRT / LCD LANGUAGE ENGLISH / CHINESE BAUDRATE, 2400/ 4800/ 9600/ 14400/ 19200/ 38400 (Pico-D fixed) OMNI LENS OFF / 0 (OMNI-Plus Camera only) EXIT JUMP EXIT / SAVE & EXIT / FACTORY SET 	<ul style="list-style-type: none"> EXIT SAVE & EXIT FACTORY SET



EXPOSURE

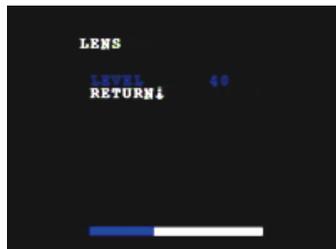
LENS



MANUAL MANUAL mode supports a Fixed Board lens or a Manual Iris lens.



DC DC mode supports an Auto-Iris Varifocal lens.



Select DC and control Joystick to adjust the brightness level from **0~99**.

E. SHUTTER



1/60 is the default shutter speed. Select a shutter speed from **X256** to **1/100000**.



Select **1/100FLC** for flickerless mode.

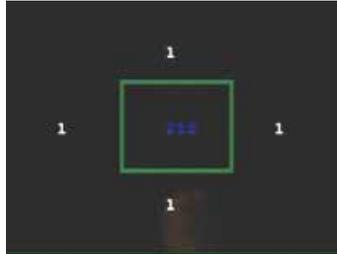


EXPOSURE

BLC



Backlight compensation prevents subjects in defined areas of the scene from appearing too dark when backlighting is present.



When BLC is enabled, adjust the BLC Level in five areas in the screen. Each level can be adjusted from 0 to 255. Move the joystick controller LEFT and RIGHT to adjust the values in each area. Move the joystick controller UP and DOWN to switch between areas. When all adjustments have been made press the joystick controller to return to the main menu.

MAX-DR



Max Dynamic Range provides clear images even when strong backlighting is present. Select MAX-DR **ON** or **OFF**. When MAX-DR is ON, BLC will be disabled.



When ON selected, the Max-DR level can be adjusted from 0 to 20.



EXPOSURE

AGC



Auto Gain Control automatically adjusts the video gain to enhance picture brightness in low light conditions.

Select AGC **OFF / LOW / MIDDLE / HIGH**

STARLIGHT



Starlight automatically activates the slow shutter function when a scene is too dark. Adjust the frame integration level from **X2 to X256**.

EXIT JUMP

EXIT

Exit the OSD without saving.

SAVE & EXIT

Exit the OSD after saving the current settings.

FACTORY SET

Go back to factory default settings.



COLOR

WB MODE



- AWC** Auto White Balance Control mode compensates for color temperature changes between 2000K and 18000K.
- ATW** Auto Tracking White Balance Control mode compensates for color temperature changes between 2500K and 9500K.
- MANUAL** Users can control the white balance manually by changing RED GAIN and BLUE GAIN below.
- PUSH LOCK** Push Lock is to fix the white balance based on current lighting.

R- Y GAIN

0~255

Adjusts the amount of red in the image.

B- Y GAIN

0~255

Adjusts the amount of blue in the image.

EXIT JUMP

EXIT
SAVE & EXIT
FACTORY SET

Exit the OSD without saving.
Exit the OSD after saving the current settings.
Go back to factory default settings.



DAY NIGHT

DAY & NIGHT



- AUTO** Camera switches between day and night automatically depending on certain light levels.
- COLOR** Camera always stays in day mode.
- BW** Camera always stays in night mode.

※ If **AUTO** is selected, please define the following settings.

- **BURST: ON / Off.** If ON is selected, the camera provides a color burst signal in night mode. If OFF, no color burst signal is provided.
- **COLOR → BW:** Adjusts the light level at which the camera switches from day (color) to night (BW) mode. The higher the number, the lower the light level.
- **BW → COLOR:** Adjusts the light level at which the camera switches from night (BW) to day (color) mode. This number should be lower than the value of COLOR→BW above.
- **Read Time:** Sets how many seconds camera waits to adjust between COLOR → BW and BW → COLOR . Select from 3~12 seconds.

C-SUP. Adjusts the color suppressing level. (3D-DNR must be OFF to adjust this level.)

0~100

A SUP. Adjusts aperture suppressing level. (3D-DNR must be OFF to adjust this level.)

0~100

EXIT JUMP

EXIT

Exit the OSD without saving.

SAVE & EXIT

Exit the OSD after saving the current settings.

FACTORY SET

Go back to factory default settings.



FUNCTION



MIRROR

MIRROR / OFF

Flips the image horizontally.

SHARPNESS

0~25

Sets the image sharpness.

The higher number, the sharper the image. However, the higher the number, the more digital noise the image may have.

GAMMA

Controls the output signal level. The higher the setting, the darker the dark colors will be. 0.45 is default.

NEGA

ON / OFF

Negative reverses the color signals (C and Y).



3D DNR

Digital Noise Reduction reduces the noise/distortion on the screen at night, allowing for clearer images in low light conditions.

Select **OFF** / **LOW** / **MIDDLE** / **HIGH**



FUNCTION



HME

Highlight Masking Exposure masks highlights allowing objects to appear more clearly.



If ON is selected, the HME level can be adjusted from 0 to 60.

EXIT JUMP

EXIT
SAVE & EXIT
FACTORY SET

Exit the OSD without saving.
Exit the OSD after saving the current settings.
Go back to factory default settings.

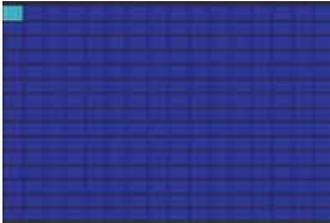


MOTION



MOTION

The camera can detect movement and display an alarm on the screen when movement is detected.



SET WINDOW

If ON is selected, 1 ~ 240 motion areas appear. Select from **1** to **240** cells. To exit: go to cell in upper right-hand corner and move joystick to the right to return to the OSD menu.

ALL SET

Select all cells.

ALL CLEAR

Cancel selection.



SENSITI.

Adjusts sensitivity level of motion detection from **0** to **120**.

Note: This menu will be disabled if MOTION is OFF.



MOTION



SHOW INDI. TRACE

Set the motion detection indicator to OFF / ICON / TRACE. If ICON is selected, a blue bell will appear in the upper left hand corner of the screen when motion is detected. If TRACE is selected, the area where motion was detected will be highlighted. This menu will be disabled if Motion is OFF.



DELAY OUT

Select how long the alarm will be displayed on the screen when motion is detected. Select from 1 to 15 seconds. This menu will be disabled if Motion is OFF.

EXIT JUMP

EXIT
SAVE & EXIT
FACTORY SET

Exit the OSD without saving.
Exit the OSD after saving the current settings.
Go back to factory default settings.



PRIVACY



Parts of the screen can be hidden by privacy masking. A total of 6 different privacy masking zones are available.

MASK 1~ MASK 6

OFF / ON Select ON or OFF for each mask (MASK 1 through 6).



If ON is selected, you can set the area to be masked and the shape and color of the mask. Select SET WINDOW. The masking zone will appear. Press the joystick button to select or deselect the gray squares on the corner(s), then move the joystick left, right, up, or down to adjust the shape of the masking zone. Continue pressing the joystick button to return to the OSD menu. To change the color of the box, select COLOR SET.

EXIT JUMP

EXIT Exit the OSD without saving.
SAVE & EXIT Exit the OSD after saving the current settings.
FACTORY SET Go back to factory default settings.



SYNC

SYNC MODE



Select AUTO / INTER.

- Select AUTO (L/L) to synchronize video signals when two or more cameras are using AC power in a switching system.

V-PHASE



When more than two cameras are installed in a switching system, phase difference in the AC powder line can occur. Therefore, the vertical phase must be adjusted. Select from **0** to **199**.

Note: This feature is available only when the camera's Sync Mode is set to AUTO.

EXIT JUMP

EXIT

Exit the OSD without saving.

SAVE & EXIT

Exit the OSD after saving the current settings.

FACTORY SET

Go back to factory default settings.



SET-UP



CAMERA ID

Assign an ID number for the camera. Select a value from **0** to **254** .



TITLE

Display a title for the camera on the screen. Select **ON** / **OFF** .



If ON is selected, define the following settings.

- EDIT to select characters.
- RESET to clear the title.
- POSITION to select where to display the title.



SET-UP



DPC (Dead Pixel Cancellation)

Dead Pixel Cancellation automatically removes defective pixels in real time.

Select **OFF** or **AUTO**.



If **AUTO** is selected, define the following:

- **WHITE THR.:** Cancels the white defective pixels.
- **BLACK THR.:** Cancels the black defective pixels.
- **DPC Level (0 ~ 255)** - Adjusts the sensitivity level of the dead pixel cancellation.



MONITOR

Select monitor settings based on the monitor you use.

Select **CRT / LCD**.



SET-UP



LANGUAGE

Select language to display on the monitor.

Select **ENG / CHN**.



BAUDRATE

Adjust the data communication speed.

Select **2400 / 4800 / 9600 / 14400 / 19200 / 38400**.



SET-UP



OMNI LENS

Set the OMNI LENS menu when you use an Omni Focus Lens.

If 0(=ON) is selected, set the following sub-menus.

- **ALARM** Works with the MOTION DETECT function. When motion is detected, the camera gives off an alarm. Select ON or OFF.
- **READ TIME** Set how many seconds to stay zoomed in when alarm occurs. Select from **3** to **12** seconds.
- **ALARM ZOOM** Set zoom rate when alarm occurs. Select from **0** to **44**.
- **STAND BY** The zoom rate in a normal scene. Therefore, when an alarm disappears the zoom rate goes back to the STAND BY rate. Select from 0-44.

EXIT JUMP

EXIT
SAVE & EXIT
FACTORY SET

Exit the OSD without saving.
Exit the OSD after saving the current settings.
Go back to factory default settings.



EXIT

EXIT

Exit the OSD without saving.

SAVE & EXIT

Exit the OSD after saving the current settings.

FACTORY

Go back to factory default settings.



TROUBLESHOOTING

Before sending your camera for repair, check the following or contact our technical specialist.

No VIDEO

Check the coaxial cable and make sure it is connected securely.

Check the lens' iris adjustment at the menu setup of the camera.

Check the power supply and make sure the camera has the proper voltage and current.

Out-of-Focus VIDEO

Check the clear dome cover and the lens for dirt or fingerprints. Use a soft cloth and gently clean.

Check the lens manual focal and zoom adjustment. A field test monitor is recommended.

WARRANTY INFORMATION*

Digital Watchdog (referred to as “the Warrantor”) warrants the Digital Watchdog Camera against defects in materials or workmanship as follows:

LABOR : For the initial five (5) years and one (1) year on IR LED from the original purchase date, if the camera is determined to be defective, the Warrantor will repair or replace the unit with a new or refurbished product at its option at no charge.

PARTS : In addition, the Warrantor will supply replacement parts for the initial five (5) years and one (1) year on IR LED.

To obtain warranty or out of warranty service, please contact a Technical Support Representative at **1-866-446-3595** Monday through Friday from 8:30AM to 8:00PM Eastern Standard Time.

A purchase receipt or other proof of the original purchase date is required before warranty service is rendered. This warranty only covers failures due to defects in materials and workmanship which arise during normal use. This warranty does not cover damage which occurs in shipment or failures which are caused by products not supplied by the Warrantor or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, rental use of the product or service by anyone other than an authorized repair facility or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS*

There are no express warranties except as listed above. The Warrantor will not be liable for incidental or consequential damages (including without limitation or damage to recording media), resulting from the use of these products or arising out of any breach of the warranty. All express and implied warranties, including the warranties of merchantability and fitness for particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the exclusions or limitations listed above may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

If the problem is not handled to your satisfaction, then write to the address listed on the last page.

Service calls which do not involve defective materials or workmanship as determined by the Warrantor, in its sole discretion, are not covered. Costs of such service calls are the responsibility of the purchaser.

SPECIFICATIONS*

VIDEO

Image Sensor	960H CCD
Total Pixels	1020 (H) x 507 (V), 520K Pixels
Scanning System	2 : 1 Interlace
Frequency	15.734KHz (H), 59.95Hz (V)
Synchronization	Internal or Auto
Horizontal Resolution	650 TV Lines [Color], 700 TV Lines [B/W]
Minimum Illumination	F1.2 (30IRE): 0.3 Lux [Color] F1.2 (30IRE): 0.0 Lux [B/W]
S/N Ratio	50dB (AGC off)
Video Output	CVBS: 1.0Vp-p / 75 Ω

LENS

Focal Length	3.3-12mm
Lens Type	DC Auto Iris
IR Distance	70ft Range

OPERATIONAL

Shutter Speed	MANUAL / 1/60s-1/100000s
Backlight	OFF / ON
Auto Gain Control	OFF / LOW / MID / HIGH
MAX-DR	OFF / ON
Star-Light	OFF / X2-X256
3D Digital Noise Reduction	OFF / LOW / MID / HIGH
White Balance	AWC / ATW / MANUAL / PUSH
Day and Night	AUTO / COLOR / BW
Mirror	OFF / MIRROR

OPERATIONAL	
Sharpness	0~25
Gamma	MANUAL / 0.45 / 0.60 / 1.00
Motion Detection	OFF / ON
Privacy Zones	OFF / ON (6 Programmable Zones)
Title	ON / OFF (Up to 16 Characters)
Language	ENGLISH / CHINESE
ENVIRONMENTAL	
Operating Temperature	-10°C ~ 55°C (14°F ~ 131°F)
Operating Humidity	Less than 90% (Non-Condensing)
Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F)
IP Rating	IP68 (Protects against dust and immersion beyond 3ft.)
ELECTRICAL	
Power Requirement	Dual (DC12V & AC24V)
Power Consumption	DC12V: 2.2W, 183.3mA / LED ON 5.0W, 416.7mA AC24V: 2.3W, 95.8mA / LED ON 4.7W, 195.8mA
MECHANICAL	
Housing Material	Aluminum
Dome Cover Material	Polycarbonate
Dimensions	ø139 X 118.8 mm (ø5.47 X 4.7 in)
Weight	2.05 lbs

*Specification is subject to change without prior notice.



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Fax : 813-888-9262
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technicalsupport@dwcc.tv
Technical Support Hours : Monday-Friday
8:30am to 8:00pm Eastern Time