Vandal Dome Camera

DWC-V6563D

DWC-V6563DIR

STAR-LIGHT™ 960H

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

12162013

PRECAUTIONS

- Do not open or modify.
- Do not open the case except during maintenence 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.

TABLE OF CONTENTS

FEATURES*

- 960H CCD Image Sensor (960 Horizontal Pixels)
- 720 TV Lines [B/W], 700 TV Lines [Color]
- 2.8~12mm Varifocal Auto Iris Lens
- 100ft Range IR with Intelligent Camera Sync, Smart IR
- Electronic Day & Night
- 3D DNR (3D Digital Noise Reduction)
- Star-Light (Super Low Light Technology)
- HME (Highlight Masking Exposure)
- SLC (Side Light Compensation)
- Programmable Privacy Zones (8) & Motion Detection
- AGC / BLC / AWB
- Easy Icon Driven OSD Menu with Built-in Joystick
- IP66 Certified (Weatherproof)
- Auto Sensing 24VAC/12VDC with Line Lock
- Secondary Video-BNC Output

PARTS & DESCRIPTION*
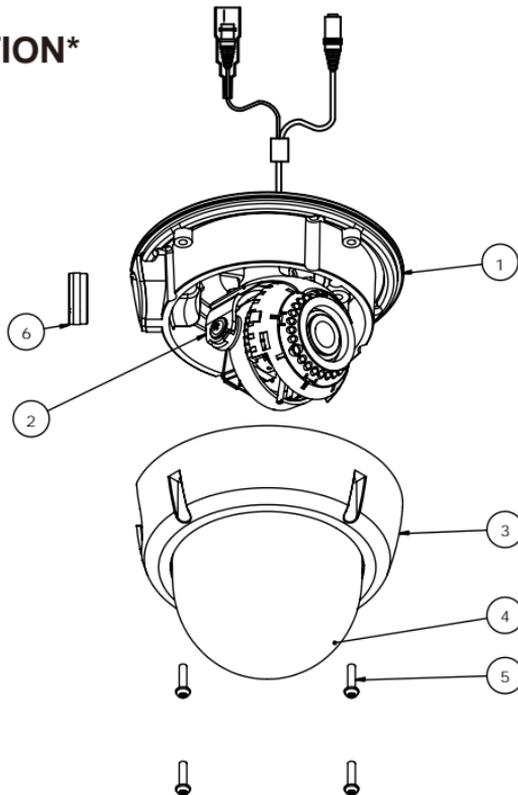
❶ Bottom Case
❷ Camera Gimbal
❸ Upper Case
❹ Dome Cover
❺ Cover Screws (x4)
❻ Side Port for Cabling

DIMENSIONS IN MILLIMETERS (IN)*
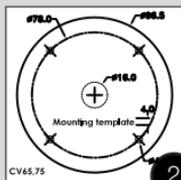
Ø144.0[5.7]

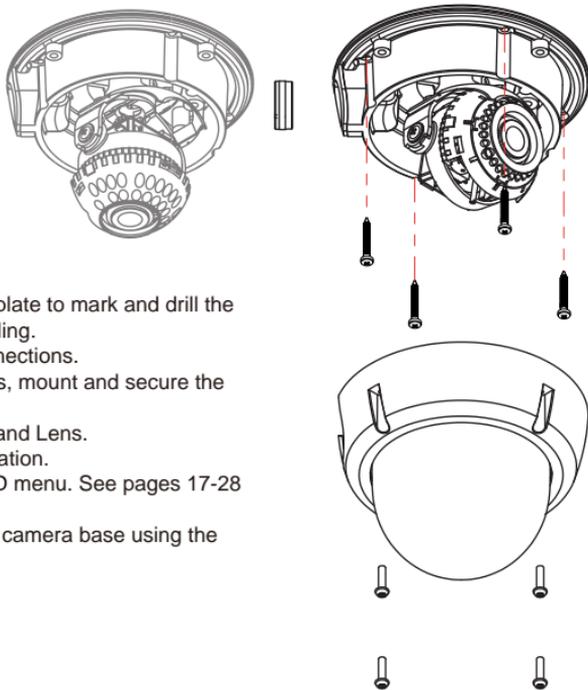47.0[1.9]

61.8[2.4]

Ø145.0[5.7]

117.0[4.6]

125.0[4.9]
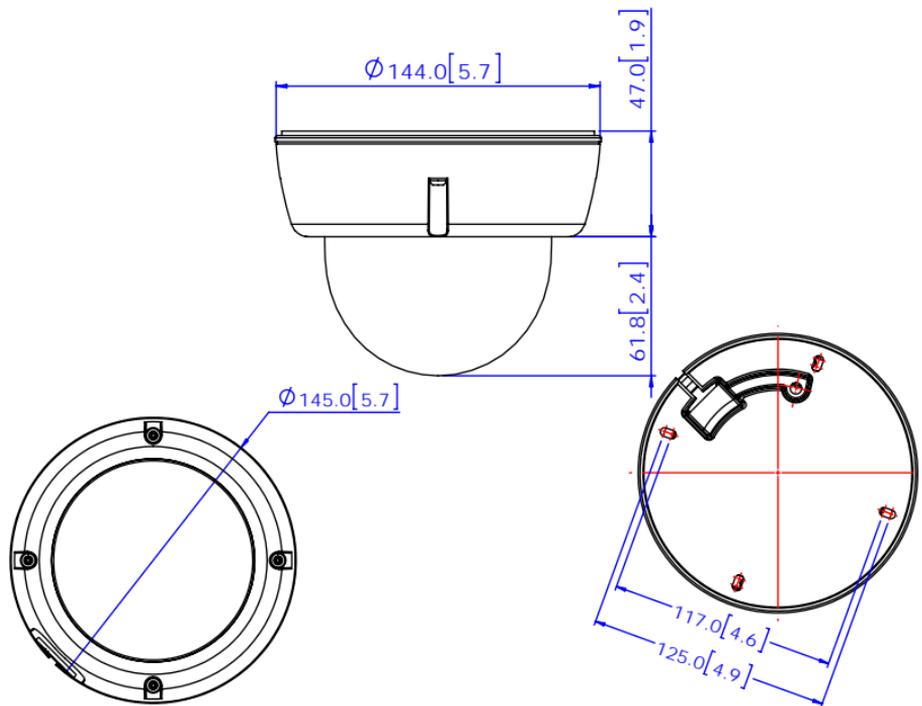
INSIDE THE BOX*

Included with Camera:

1 User Manual
2 Mounting Template
3 4 Machine Screws and 4 Dry Wall Anchors

4 Secondary Video-BNC Cable
5 L-Key

SURFACE MOUNT INSTALLATION INSTRUCTIONS*

1. Use the camera or mounting template to mark and drill the necessary holes in the wall or ceiling.
2. Pull wires through and make connections.
3. Using the four (4) included screws, mount and secure the camera to the wall or ceiling.
4. Adjust the camera's Pan and Tilt and Lens.
   See pages 15-16 for more information.
5. Use the joystick to adjust the OSD menu. See pages 17-28 for more information.
6. Attach the camera housing to the camera base using the assembly screws.

JUNCTION BOX INSTALLATION INSTRUCTIONS*

❶ Check to see all parts are in the box.

❷ Use the dry wall anchors and machine screws to mount the junction box and rubber gasket to the wall.

❸ Insert wires through the wall and make the appropriate connections.

❹ Attach the camera to the junction box using the machine screws.

❺ Attach the camera housing to the junction box using the assembly screws.

WALL MOUNT INSTALLATION INSTRUCTIONS*

❶ Check to see all parts are in the box.

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

❸ Attach the camera to the wall mount housing.

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

❺ Attach the camera housing to the fixture.

PENDANT MOUNT INSTALLATION INSTRUCTIONS*

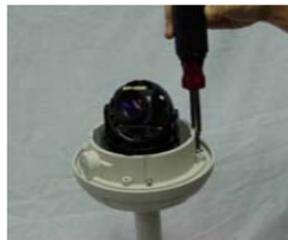❶ Check to see all parts are in the box.

❷ Attach the top shield to the pendant mount.

❸ Slide the wires from the camera through the pendant mount.

❹ Attach the camera to the pendant mount using the machine screws.

❺ Attach the camera housing to the fixture.

❻ Use the mounting template to make pilot holes. Mount the camera assembly to the ceiling using wall mount anchors and machine screws.

CORNER MOUNT INSTALLATION INSTRUCTIONS*

❶ Check to see all parts are in the box.

❷ Attach the two compression fittings to the corner bracket.

❸ Attach the wall mount to the corner bracket with the 4 machine screws.

❹ Attach the assembly to a wall corner with dry wall anchors and machine screws.

CONNECTING TO MONITORS*

Use the diagram below to connect to a Monitor or CRT Monitor properly.

12VDC/24VAC

CCTV Monitor

Second Video Output — Up / Left / Right / Down

Monitor
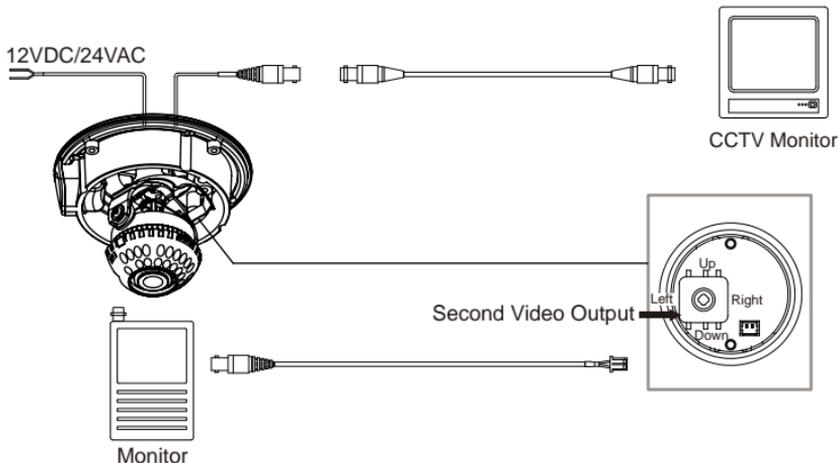
■ Power Connection - 12VDC/24VAC Dual Voltage (Auto Polarity Detection and Protection)
■ All cameras are equipped with a second video output for on-site configuration.

CONTROL BOARD*

Secondary Connector:
Video Output Connector for
On-Site Configuration

Joystick: Controls the OSD menu.
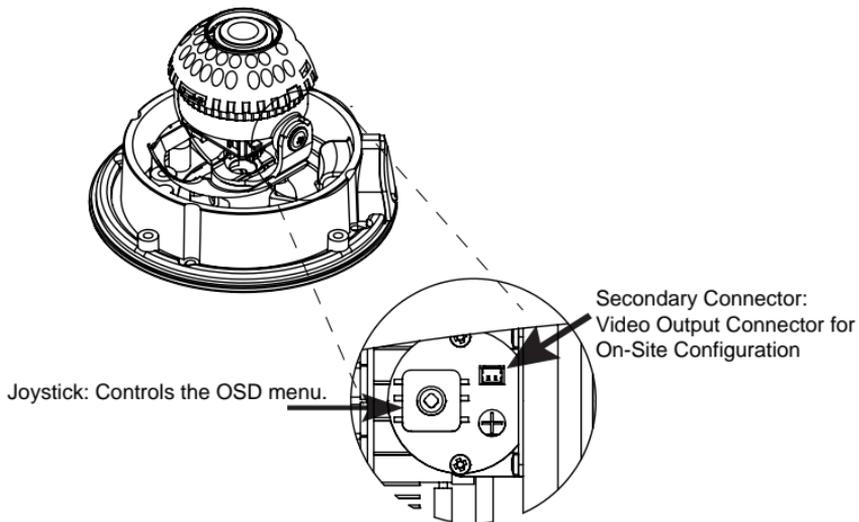
❶ Remove the camera's cover dome to access the OSD joystick controller.
❷ Use the Joystick to control the camera's OSD options.

ADJUSTING THE CAMERA LENS*

Follow the instructions provided below to make any lens adjustments.

ZOOM
FOCUS

Non IR

Zoom: Wide ⬅ - ➡ Tele
Focus: Far ⬅ - ➡ Near

IR
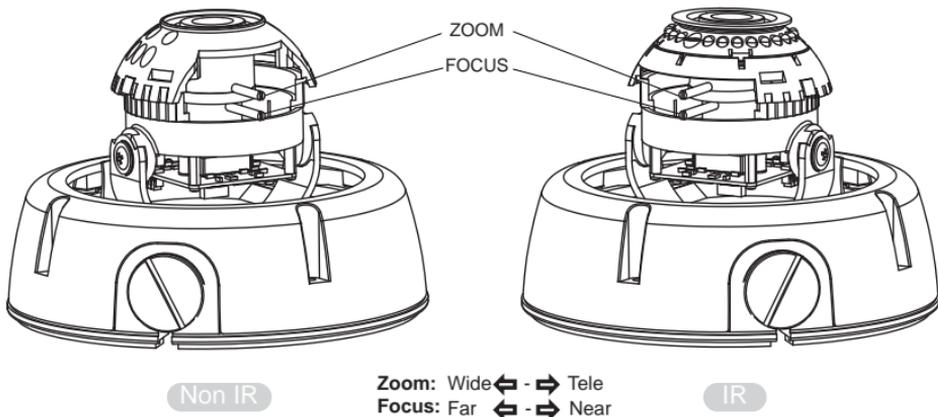
❶ To adjust the field of view, use the L-Key to turn the zoom screw (located on the bottom of the camera) counter-clockwise to zoom in, or clockwise to zoom out.

❷ Adjust the focus the same way as descriped above AFTER the desired zoom position is established.

ADJUSTING THE CAMERA GIMBAL*

1 Rotation 360º

2 Panning 360º

3 Tilting 70º IR LED

3 Tilting 90º

DW
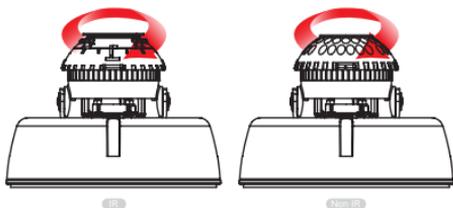
MODULE OSD MENU*

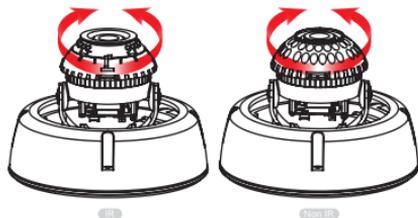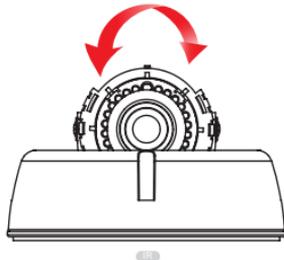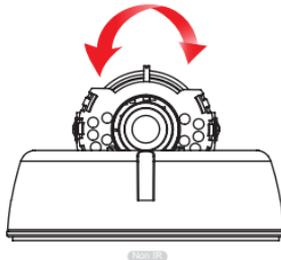| EXPOSURE	COLOR	DAY & NIGHT	FUNCTION
LENS MANUAL / DC BACKLIGHT OFF / BLC / HME DRC/ DEFOG OFF / DRC/ DEFOG AGC 0~20 STARLIGHT OFF / x2 ~ x512 3D DNR OFF / LOW / MID / HIGH EXIT JUMP SAVE & EXIT / EXIT	WB BAL. ATW / MANUAL / PUSHLOCK COLOR GAIN 0~20 EXIT JUMP SAVE & EXIT / EXIT	D&N MODE AUTO / COLOR / B&W CONTROL AUTO / EXTERN DELAY 0 ~ 15 B/W BURST OFF / ON SMART IR ANTI-SAT / SAT. AREA EXIT JUMP SAVE & EXIT / EXIT	MIRROR OFF / ON SHARPNESS 0 ~ 20 GAMMA 0.35 ~ 0.70 POSI/NEGA POSI / NEGA SLC 0~20 EXIT JUMP SAVE & EXIT / EXIT

MOTION	PRIVACY	SETUP	EXIT
MOTION OFF / ON SENSITIV. 0 ~ 30 MOTION SET AREA NO./ AREA USE / TOP/ BOTTOM / LEFT / RIGHT EXIT JUMP SAVE & EXIT / EXIT	COLOR BLACK / GRAY-1/ GRAY-2/ GRAY-3/ GRAY-4/ WHITE / YELLOW / GREEN / BLUE / RED / CYAN / MAGENTA PRIVACY SET AREA SET / DISPLAY / TOP / BOTTOM / LEFT / RIGHT / RET/INI. EXIT JUMP SAVE & EXIT / EXIT	CAMERA TITLE OFF / ON SYNC INT COMMUNICA. CAM ID / ID DISP. / BAUDRATE / PROTOCOL / UTC LANGUAGE ENGLISH FONT COLOR BLUE / GREEN / CYAN / RED / MAGENTA / YELLOW / BLACK/ GRAY SPECIAL O.L.P.F / DPC EXIT JUMP SAVE & EXIT / EXIT	SAVE RESTORE EXIT

⊚ EXPOSURE
EXPO

LENS

Manual	Manual mode supports the fixed board lens or the manual iris lens.
DC	DC mode supports the auto-iris varifocal lens.

NOTE: Both MANUAL and DC mode have FOCUS SET. You can adjust the focus by finding the highest number on the FOCUS SET. See page 15 for focus information.

MANUAL Lens Submenu
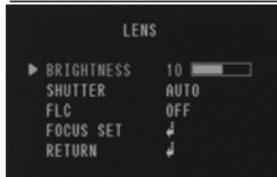
Brightness: Adjust the camera's brightness from 0~20. The higher the number, the brighter the image will appear.

Shutter: Sets the shutter speed levels from 1/60 to 1/120000.
*For LENS-MANUAL Mode, the default SHUTTER is AUTO.
*For LENS-DC Mode, the default SHUTTER is 1/60. Select DC-AUTO for outdoor use.

DC Lens Submenu

FLC: Enable or disable to adjust the camera's view and prevent the image from flickering.

👁 EXPOSURE

BACKLIGHT

OFF

BLC   BACK LIGHT COMPENSATION

If BLC is selected, adjust the following options in the submenu:

- LEVEL: Set the BLC level from the available options: LOW/ MIDDLE/ HIGH)
- DISPLAY: Selet to show or hide the BLC mask.
- POSITION: Set the BLC masks' size and position.

>   TOP: Set level from 0~54. The higher the number, the higher the
>   top border of the BLC mask will be in the camera's view.
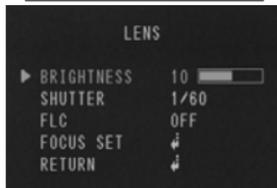>   BOTTOM: Set level from 1~55. The higher the number, the lower
>   the bottom border of the BLC mask will be in the camera's view.
>   LEFT: Set level from 0~217. The lower the number, the closer the
>   BLC mask will be to the camera's left border.
>   RIGHT:Set level from 1~218. The lower the number, the closer the
>   BLC mask will be to the camera's right border.

- RET/ INI.: Select whether to return to the main menu, or reset the BLC settings
to factory default.

HME   HIGHLIGHT MASKING EXPOSURE

>   HME masks highlights to allow objects to appear clearly
>   on the screen. If ON is selected, HME levels are
>   adjustable. The lower the setting, the darker the masking
>   areas. Select from: LOW / MIDDLE / HIGH.

👁 EXPOSURE

DRC **DYNAMIC RANGE COMPRESSOR**
DRC enables dark spots in images to become more visible without overexposing the bright spots to create one perfect image.

- DEFOG: AUTO / Manual: If AUTO is selected, the WDR and DRC levels will be set automatically based on the environment. If MANUAL is selected, set the WDR and DRC level from LOW / MIDDLE / HIGH.
- MODE: * ONLY DAY: DRC and WDR will work in day time.
       * ALL DAY: DRC and WDR will work in day and night time.

AGC **AUTO GAIN CONTROL**
1~20   AGC enhances the picture brightness in low light conditions. A higher level AGC setting makes the images brighter; however, it could increase the amount of noise.

STARLIGHT   Automatically activates slow shutter function when the image is too dark.
OFF / x2 ~ x512   High values are not recommended as they may causes the image to lag.
Starlight menu cannot be controlled if the SHUTTER setting is above 1/60.

3D DNR   **3D DIGITAL NOISE REDUCTION-** 3D-DNR reduces the noise on the screen
OFF/ LOW/ MID/ HIGH   in low light conditions and allows for clearer images, even at night.

♨ COLOR

WB MODE

ATW — Auto Tracking White Balance Control mode compensates for color temperature changes between 2500K and 9500K.

PUSHLOCK — Pushlock is to fix the white balance based on the lighting.

MANUAL — Users can control the white balance manually by changing RED GAIN and BLUE GAIN (see below).

RED GAIN

0 ~ 40 — Adjusts the amount of red in the image.

BLUE GAIN

0 ~ 40 — Adjust the amount of blue in the image.

COLOR GAIN

Set the color gain from 0~20.

🌓 DAY & NIGHT

D&N MODE

AUTO / COLOR / B&W

In AUTO mode, the camera switches between day and night automatically depending on light level. If COLOR is selected, the camera always stays in day/color mode. If B&W is selected, camera always stays in night/B&W mode. If AUTO is selected, please define the following settings:

CONTROL: AUTO/EXT. If using IR LEDs built into the camera, select AUTO. If using external IR LEDs separately, select EXT.

Adjust the following submenu options:

```
            CONTROL

▶ EXT SIGNAL      LOW/HIGH
  NIGHT S/W       HIGH
  CDS D→N         NOT USED
  CDS N→D         NOT USED
  EXT LED         AUTO
  D→N:HIGH   N→D:LOW
       EXT:LOW

    ENTER → RETURN
```

* EXT SIGNAL: Select from CDS or LOW/HIGH.
  If CDS is selected: Day & Night will work by CDS signal level.
  If LOW/ HIGH is set for EXT SIGNAL: Day & Night will work by CDS's Low/High signal.
  - CDS D>N : Set D>N level from 0 ~ 40. Adjusts the light level at which the camera switches from day to night. Higher values, the lower the light level.
  - CDS N>D : Set N>D level from 0 ~ 20. Adjusts the light level at which the camera switches from night to day. This should be lower than the value of D>N above.
  - NIGHT S/W : Decide the Low/High signal of CDS.
* EXT LED: If you want to turn off the external LED by force, you can change the value from AUTO to OFF.
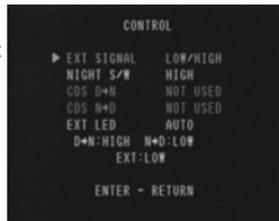
DELAY

0 ~ 15 Sec. Time interval delay before switching from day mode to night mode.

B/W BURST

OFF / ON If ON is selected, the camera provides a color burst signal in night mode.

SMART IR - ANTI-SAT: Select level value from 1 ~ 20.
              - SAT. AREA : Set SMART IR area from 0 ~ 20.

🎛 FUNCTION

MIRROR

OFF

MIRROR   Reflects the camera horizontally.

Mirror OFF   Mirror ON

SHARPNESS

0 ~ 30   Sets the image sharpness. The higher the number, the sharper the image.

GAMMA

0.35 ~ 0.7   Select the desired gamma level. 0.45 is default setting.

POSI / NEGATIVE

OFF / ON   If NEGATIVE is enabled, the camera's image will appear in negative colors.

SLC (SIDE LIGHT COMPENSATION)

0~20   Increase the brightness on sides of the image.

MOTION

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

MOTION

OFF / ON   Select to enable or disable the camera's motion detection. If ON is selected:

SENSITIV.

0 ~ 30   Sensitivity level of the motion detection is adjustable. Motion Detection will be more sensitive at a higher number.
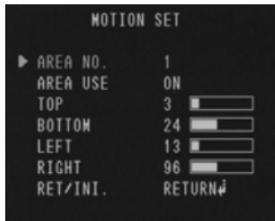
MOTION SET

- Area Number: The camera supports up to 4 different motion detection masks. Select which ones to display.
- Area Use: Select which one of the motion areas to enable.
- TOP: The higher the number, the higher the top border of the mask will be in the camera's view.
- BOTTOM: The higher the number, the lower the bottom border of the mask will be in the camera's view.
- LEFT: The lower the number, the closer the mask will be to the camera's left border.
- RIGHT: The lower the number, the closer the mask will be to the camera's right border.
- RET/ INI.: Select whether to return to the main menu, or reset the motion settings to factory default.

PRIVACY

You can hide some parts of the screen for privacy masking.
A total of 8 different privacy masking zones are available.

MASK COLOR
Privacy zones can be set with eight different colors-Gray-1, Gray-2, Gray-3, Gray-4, White, Yellow, Green, Blue, Red, Cyan, and Magenta.

PRIVACY SET
- Area Number: The camera supports up to 8 different privacy masks. select 1~8 which masks to display.
- Area Use: Select which one of the motion areas to enable.
- TOP: The higher the number, the higher the top border of the mask will be in the camera's view.
- BOTTOM: The higher the number, the lower the bottom border of the mask will be in the camera's view.
- LEFT: The lower the number, the closer the mask will be to the camera's left border.
- RIGHT: The lower the number, the closer the mask will be to the camera's right border.
- RET/ INI.: Select whether to return to the main menu, or reset the motion settings to factory default.

⚙ SETUP

TITLE

OFF / ON   If ON is selected, you can display the camera title on the screen. If enabled,
             manually enter the camera's display name using the joystick controller.

INTERNAL SYNC.

INT/   Select whether the camera syncronizes internally or using Line Lock.

COMMUNICATION

The Communications settings allow you to setup the camera's ID, Baudrate, Protocol,
and UTC.

- CAM ID: Provide an ID number for the camera (0 ~ 255).
- ID DISP.: Decide to show the ID on screen or not. Select ON & OFF.
- BAUDRATE: 9600bps is default. Select the baudrate from the following options:
  2400/4800/9600/57600 and 115200bps.
- PROTOCOL: Set as PELCO-D/ PELCO-P.
- UTC: Automatically set UTC as 15/ 32 BIT.

⊞ SETUP

LANGUAGE
The camera supports the following languages: ENGLISH.

FONT COLOR
The following colors are available for the OSD menu: BLUE, GREEN, CYAN, RED, MAGENTA, YELLOW, BLACK, and GRAY.

SPECIAL
 OLPF: Select the filter that you use from BLUE/RED and PASS, then reboot the camera
      to use.
 DPC: Set as START and compensate the white dot by changing
      the THRESHOLD value.

⚓ EXIT

EXIT
SAVE   Exit the OSD menu after saving the recent changes.
RESTORE Exit the OSD menu without saving recent changes.
INITIAL   Exit the OSD menu after resetting the camera to factory default.

TROUBLESHOOTING

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

FOR NO VIDEO
Check the coaxial cable and make sure it is connected securely.
Check the lens' iris adjustment at the camera's OSD menu.
Check the power supply and make sure the camera has the proper voltage and current.

FOR 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. The use of 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 9:00AM 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 & EXCLUSIONS*

There are no express warranties except as listed. The warrantor will not be liable for incidental or consequential damages (including damage to recording media without limitation) 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 limitatons 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 following address:

Digital Watchdog, Inc.
ATTN: RMA Department
5436 W. Crenshaw Street
Tampa, FL 33634

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	960 (H) x 478 (V)
Scanning System	2 : 1 Interlace
Frequency	15.734KHz (H), 59.95Hz (V)
Synchronization	Internal or Line Lock
Horizontal Resolution	720 TV Lines [B/W], 700 TV Lines [Color]
Minimum Illumination	F1.2 (30IRE): 0.14 Lux [Color]
	F1.2 (30IRE): 0.03 Lux [B/W]
	0.0 Lux (DWC-V6563DIR)
S/N Ratio	52dB (AGC off)
Video Output	CVBS: 1.0Vp-p / 75 Ω
LENS	
Focal Length	2.8~12 mm
Lens Type	Varifocal Auto Iris Lens
IR Distance	100ft Range IR (DWC-V6563DIR)
OPERATIONAL*	
Shutter Speed	1/60s~1/120000s
Backlight	OFF / ON
Star-Light	X2 ~ X512
3D-DNR	OFF / Low / Middle / High

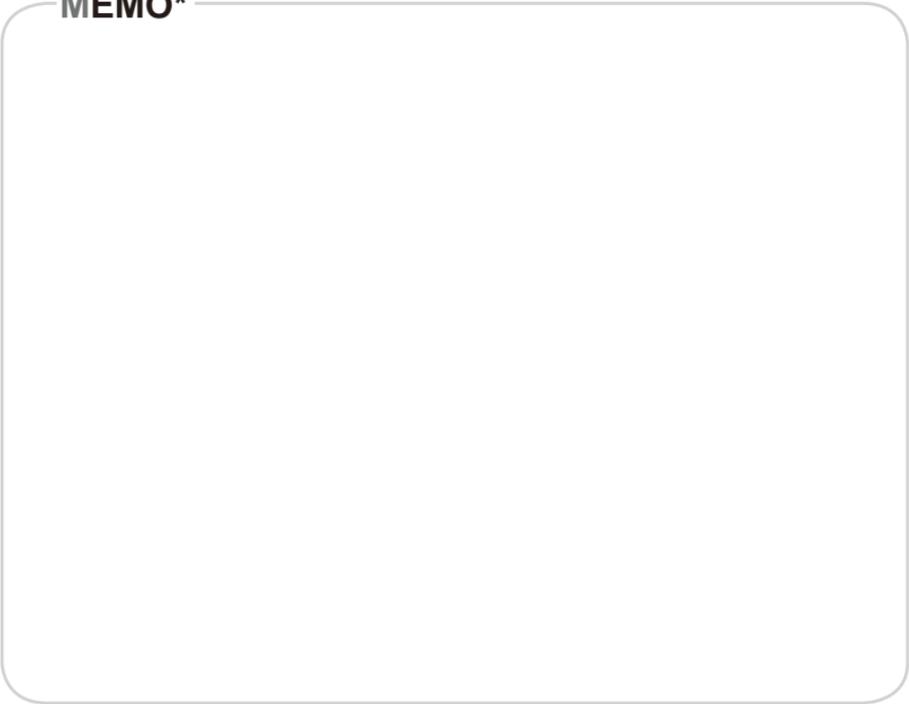| OPERATIONAL*	
White Balance	ATW/ PUSH/ MANUAL
Day and Night	Auto / Day / Night
Mirror	OFF / V. Flip / Rotate
Auto Gain Control	1 ~ 20
Gamma	0.35 ~ 0.7
Motion Detection	4 Motion Regions
Privacy Zones	8 Programmable Privacy Masks
Dynamic Range Compressor	OFF / Low / Middle / High
Sharpness	0 ~ 20
Highlight Masking Exposure	OFF / Low / Middle / High
DPC (Dead Pixel Cancellation)	OFF / ON
ENVIRONMENTAL	
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)
Operating Humidity	Less than 90% (Non-Condensing)
IP Rating	IP66 (Protects against dust and high pressure water.)
ELECTRICAL	
Power Requirement	DC12V (V6553D) Dual Voltage
Power Consumption	DC12V: 1.8W, 150mA, LED On: 4.3W, 358mA
	AC24V: 1.8W, 75mA, LED On: 4.3W, 180mA
MECHANICAL	
Housing Material	Aluminum
Dimensions	145 x 108.8 mm (5.7 X 4.28 in)
Weight	1.65 lbs

*Specification is subject to change without prior notice.

MEMO*

MEMO*