Star-Light Plus™ 5MP Universal HD over Coax® ultra low-profile vandal dome camera

DWC-V7553W
DWC-V7553WTIR

c UL us LISTED

User Manual ver.: 02/22

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

STAR-LIGHT PLUS™
Color in Darkness Universal HD over Coax® cameras

Safety Information

WARNING

1. In the use of the product, you must be strict compliance with the electrical safety regulations of the nation and region. When the product is mounted on a wall or ceiling, the device shall be firmly fixed.
2. Be sure to use only the standard adapter specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
3. Make sure the power supply voltage is correct before using the camera.
4. Incorrectly connecting the power supply or replacing the battery may cause an explosion, fire, electric shock, or damage to the product.
5. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause excessive heat generation or fire.
6. Securely plug the power cord into the power source. An insecure connection may cause a fire.
7. When installing the camera, fasten it securely and firmly. A falling camera may cause personal injury.
8. Do not install in a location subject to elevated temperature, low temperature, or high humidity. Doing so may cause fire or electric shock.
9. Do not place conductive objects (e.g. screwdrivers, coins, metal items, etc.) or containers filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
10. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.

11. Do not install near any heat sources such as radiators, heat registers, or other products (including amplifiers) that produce heat.

12. Keep out of direct sunlight and heat radiation sources. It may cause a fire.

13. If any unusual smells or smoke come from the unit, stop using the product at once. Immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.

14. If this product does not operate normally, contact the nearest service center. Never disassemble or change this product in any way.

15. When cleaning the product, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

CAUTION

1. Use proper safety gear when installing and wiring the product.

2. Do not drop objects on the product or apply strong shock to it. Keep away from a location subject to excessive vibration or magnetic interference.

3. Do not use this product near water.

4. The product shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the product.

5. Avoid aiming the camera directly towards extremely bright objects such as the sun, as this may damage the image sensor.

6. The Main plug is used as a disconnect device and shall stay readily operable at any time.

7. Remove the power adapter from the outlet when then there is lightning. Neglecting to do so may cause fire or damage to the product.

8. Do not block any ventilation openings. Install following the manufacturer's instructions.

9. A polarized or grounding-type plug is recommended for this product. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. If the provided plug does not fit into your outlet, consult an electrician for replacement.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.

11. If any laser equipment is used near the product, make sure the surface of the sensor is not exposed to the laser beam as that may damage the sensor module.

12. If you want to move the already installed product, be sure to turn off the power and then move or reinstall it.

13. Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

14. If cleaning is necessary, please use a clean cloth to wipe it gently. If the device will not be used for a long time, please cover the lens cap to protect the device from dirt.

15. Do not touch the camera's lens or sensor module with fingers. If cleaning is necessary, please use a clean cloth to wipe it gently. If the device will not be used for a long time, please cover the lens cap to protect the device from dirt.

16. Use only attachments/accessories specified by the manufacturer.

17. Always use hardware (e.g. screws, anchors, bolts, locking nuts, etc.) compatible with the mounting surface and of sufficient length and construction to ensure a secure mount.

18. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the product.

19. Unplug this product when a cart is used. Use caution when moving the cart/product combination to avoid injury from tip-over.

20. Refer all servicing to qualified service personnel. Servicing is needed when the product has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

Legal considerations

Video surveillance can be regulated by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

Important Safety Instructions

Liability
Every care has been taken in the preparation of this document. Digital Watchdog cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without notice.
Digital Watchdog makes no warranty of any kind regarding the material contained within this document.
Digital Watchdog shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance, or use of this material. This product is only to be used for its intended purpose.

Equipment modifications
This equipment must be installed and used in strict accordance with the instructions given in the user documentation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to use the equipment.

Trademark acknowledgments
Digital Watchdog, DW, DW Spectrum, MEGApix and Star-Light are registered trademarks or trademark applications of Digital Watchdog in various jurisdictions.
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 microSD, microSDHC, and microSDXC Logos are trademarks of SD-3C LLC. microSD, microSDHC, microSDXC are trademarks or registered trademarks of SD-3C, LLC in the United States, other countries, or both.

Safety
This product is intended to be supplied UL Listed Power Supply Unit marked "Class 2" or "LPS" or "PS2" and rated 12 Vdc, 0.16A min (DWC-V7253) or 0.26A min (DWC-V7253TIR).

Regulatory Information

USA

This device complies with part 15 of the FCC Rules, subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, according to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used following the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help

Canada

This digital apparatus complies with CAN ICES-3 (Class B). The product shall be connected using a shielded network cable (STP) that is properly grounded. Cet appareil numérique est conforme à la norme CAN NMB-3 (classe B). Le produit doit être connecté à l'aide d'un câble réseau blindé (STP) qui est correctement mis à la terre.

Disposal and recycling

Digital Watchdog cares for the environment at all product manufacturing stages and is taking measures to provide customers with more environmentally friendly products. When this product has reached the end of its useful life, dispose of it according to local laws and regulations. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. Following local legislation, penalties may be applicable for incorrect disposal of this waste.

Contents

Features

- Universal HD over Coax® technology with HD-Analog, HD-TVI, HD-CVI and all analog to 960H signal support
- Star-Light Plus™ color in darkness technology
- 1/2.8" image sensor
- 5MP at 20fps, 4MP at real-time 30fps
- 2.8mm fixed lens (DWC-V7553W)
- 4.0mm fixed lens (DWC-V7553WTIR)
- True wide dynamic range (WDR)
- OSD control via coaxial (UTC)
- 50' Smart IR™ with intelligent camera sync (DWC-V7553WTIR)
- Smart DNR™ 3D digital noise reduction
- True day/night mechanical IR cut filter
- De-Fog™ extreme weather image compensation
- Easy icon driven OSD menu with built-in joystick
- Programmable privacy zones
- Auto gain control (AGC)
- Backlight compensation (BLC)
- Auto white balance (AWB)
- IP66 environmental-rated dust-tight and water-resistant
- IK 10-rated impact-resistant
- 5 year warranty

Product and Accessories

※ Please check if all the camera and accessories are included in the package.
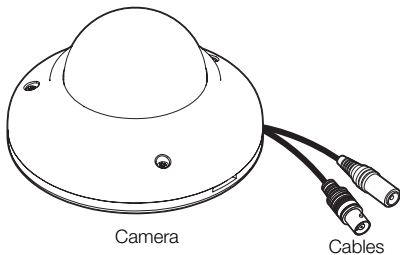
Camera

Cables

Mount bolt and nut

Star wrench (T-20)

Screw and plastic anchor - 2pcs
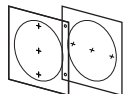
Mounting templates for regular and mount and bolt installations

Quick setup guide

Test video cable

※ **NOTE:** The test video cable should be used to test the camera by connecting to a portable display.

Part name (DWC-V7553W)

Dome cover

Panning stopper

Tilt/rotation screw

Lens

OSD joystick

Bottom case

Test video output

BNC cable

Power cable

Part name (DWC-V7553WTIR)

Dome cover

Panning stopper

Ambient light sensor

Lens

IR switch

Tilt/rotation screw

IR LED

OSD joystick

Test video output

Bottom case

BNC cable

Power cable
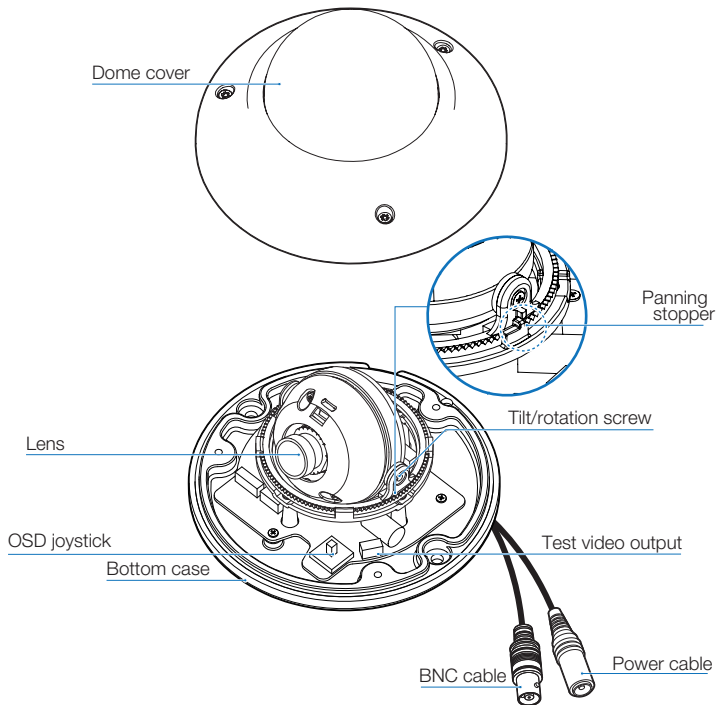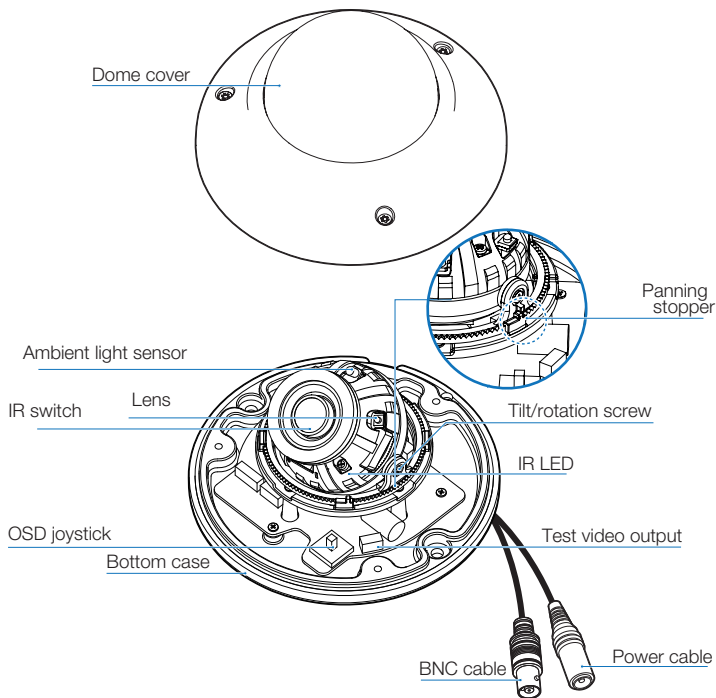
Dimension

Unit: inches (mm)

4.13" (105mm)

1.11" (28.2mm)

1.27" (32.5mm)
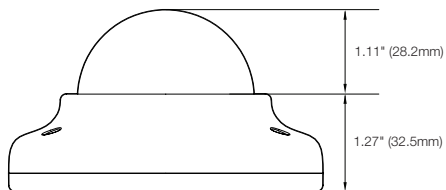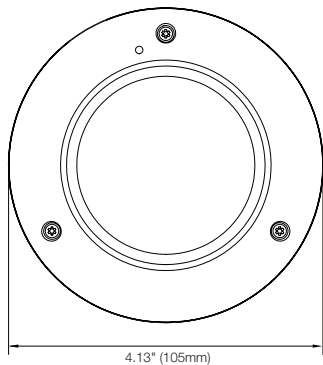
Before installing your camera, read the following cautions.
1. The mounting surface must withstand five times the camera weight.
2. Do not let the cables get caught in improper places or the electric line cover can be damaged. This may cause a short or fire.
3. When installing your camera, do not allow any person to approach the installation site. If you have any valuable things under the place, move them away.
4. To remove the camera's dome for installation, use the included torque wrench.
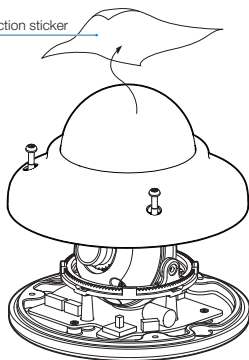
DWC-V7553W   DWC-V7553WTIR

Protection sticker   Protection sticker
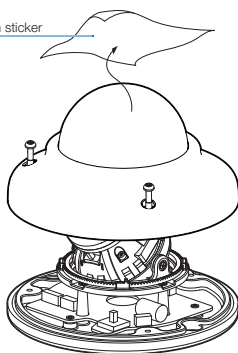
Installation - Instructions

❶ Using the mounting template or your camera, mark and drill the necessary holes to mount the bracket to a wall or ceiling.

❷ Pull a necessary wires through and make the proper connections. See pages 14-15.

❸ Use the three mounting screws to install the camera on the wall or ceiling. See page 16 for tilting and pan adjustment options.

❹ Adjust the camera's tilt and rotation as needed. See page 16 for more information.

❺ DWC-V7553WTIR models: the camera has a manual IR switch, located under the camera's lens. You can use this switch to manually turn the IR LED board on or off according to the installation needs.
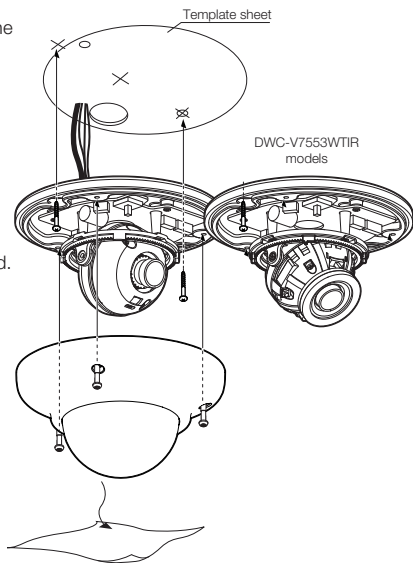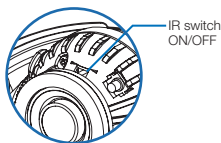
IR switch ON/OFF

Template sheet

DWC-V7553WTIR models

❻ When the installation is completed, place the camera's dome over the camera's body by clicking the dome into place.

❼ Remove the dome's protective film. Softly wipe the dome/lens cover with lens tissue or a microfiber cloth with ethanol to remove any dust or smudges left from the installation process.

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❶ Using the mounting template or your camera, mark and drill the necessary holes to mount the bracket to a wall or ceiling.

❷ Secure the two long mounting screws to the camera's base.

❸ Pull a necessary wires through and make the proper connections. See pages 14-15.

❹ Mount the camera to the mounting surface using the two mounting nuts.

❺ Adjust the camera's tilt and rotation as needed. See page 17 for more information.

❻ When the installation is completed, place the camera's dome over the camera's body by clicking the dome into place.

❼ Detach the protection film from the dome to complete the installation.

Template Sheet

DWC-V7553WTIR models

DWC-V7553WTIR models
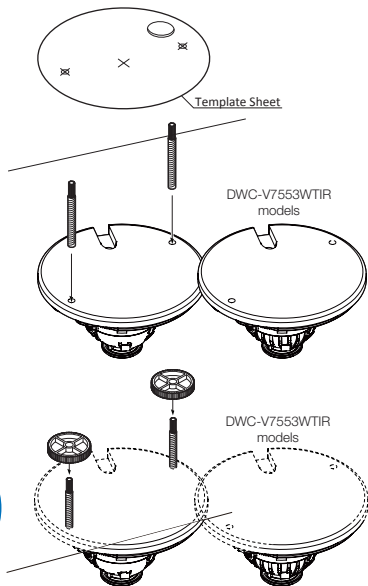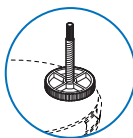
Connecting to Monitors

Use the diagram below to connect the camera to a Universal HD over Coax® DVR.
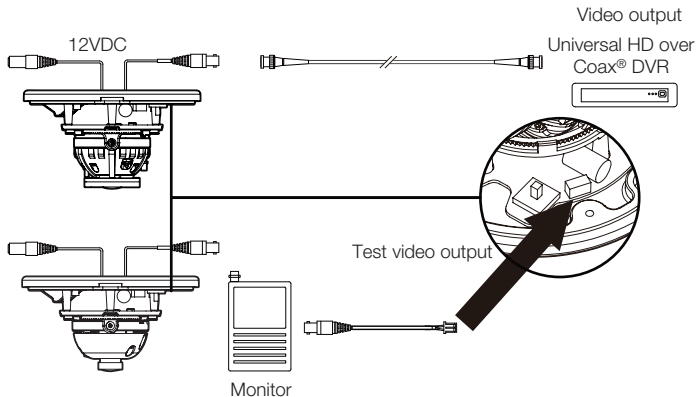
- Power connection - the camera supports 12VDC voltage only.
- All cameras are equipped with a test video output for on-site configuration.
- ※ **NOTE:** To use your Star-Light Plus™ 5MP cameras at a lower resolution, you must use a VMAX® A1 Plus™ DVR to access the camera's menu due to the cameras being set to 5MP as the default. A DVR that does not support 5MP resolution may recognize the camera, but will not deliver a picture.

Adjusting the camera angle

Adjust the camera angle. Locate the screw at the base of the camera's lens. Loosen the screw slightly to allow the camera module to move as needed. Using force to rotate the camera's module without loosening the screw may damage the camera. To loosen the screw, use a Philips head screwdriver and twist the screw counterclockwise. To tighten the screw back after adjusting the camera module's pan and tilt, twist the screw clockwise

- Panning: 355°
- Rotation: 360°
- Tilting: 70°

DWC-V7553WTIR

DWC-V7553W

Panning 355°

Panning 355°

Rotation 360°
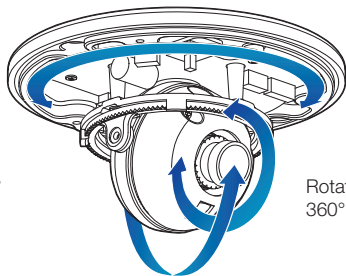
Rotation 360°

Tilting 70°

Tilting 70°

OSD Menu Tree

EXPOSURE

LENS	MANUAL / AUTO
EDGE DET	OFF / ON
BRIGHTNESS	0 ~ 20
SHUTTER	AUTO / MANUAL / FLICKER
BACK-LIGHT	OFF / HME / BLC / WDR
STAR-LIGHT	OFF / x2 ~ x32
AGC	0 ~ 10
3D DNR	OFF / LOW / MIDDLE / HIGH
RETURN	

COLOR

WHITE BAL.	AUTO / AUTOext / PRESET / MANUAL
COLOR GAIN	0 ~ 20
RETURN	

DAY & NIGHT (IR OPTION)

MODE	AUTO / COLOR / B&W
IR LED	ON / OFF
SMART IR	0 ~ 20
D>N THRES	0~ 20
N>D THRES	0 ~ 20
DELAY	LOW / MIDDLE / HIGH
RETURN	

FUNCTION

SHARPNESS	0 ~ 10
GAMMA	0.45 ~ 0.75
MIRROR	OFF / ON
FLIP	OFF / ON
D-ZOOM	X1.0 ~ X16.0
DRC	OFF / ON
DEFOG	OFF / ON
RETURN	

OSD Menu Tree

MOTION

DET WINDOWS	
SENSITIVITY	0 ~ 10
MOTION OSD	OFF / ON
TEXT ALARM	OFF / ON
SIGNAL OUT	OFF / ON
RETURN	

PRIVACY

BOX	OFF / ON
POLYGON	OFF / ON
RETURN	

SETUP

COMM.	CAM ID / BAUDRATE / CONFIRM
OUTPUT	FRAME RATE / FREQ / ANALOG MODE / CONFIRM
LANGUAGE	ENG / CHN / CHN(S) / JPN / KOR
CAM TITLE	RIGHT UP / LEFT DOWN
RESET	OFF / ON
RETURN	

EXIT

SAVE & EXIT
EXIT
RETURN

❶ Lens

Manual: Manual mode supports the fixed board lens or the manual iris lens.

Auto: AUTO mode sets the camera's iris automatically.

```
          🎥 EXPOSURE                    LENS                    EDGE DET

❶ ─────  LENS        AUTO⏎      LEVEL        20        LEVEL        5
         EDGE DET     ON        RETURN       ⏎         COLOR      YEL
         BRIGHTNESS   10                               RETURN       ⏎
         SHUTTER      AUTO⏎
         BACK-LIGHT   OFF
         STARLIGHT    X4
         AGC          10
         3D DNR       HIGH
         RETURN       ⏎
```
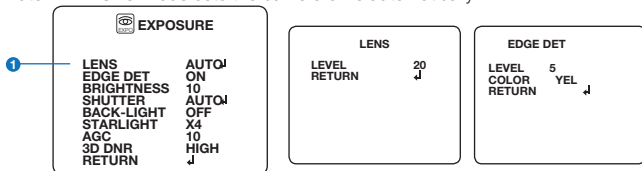
Under the lens sub-menu, you can adjust the following settings:

Level

Change the camera's iris value manually. If auto is selected, this option is disabled.

Edge DET

Adjust the camera's focus according to the camera's view.

- Level: Set the focus range.
- Color: Set the color to be displayed in the focus range from: yellow, cyan, green, magenta, red, blue, black or white.

Brightness

0 ~ 20: The higher the number, the brighter the image will appear.

Shutter

Set the shutter speed to auto, manual or flicker mode.

- Auto: If selected, adjust the following options :
  - Normal: Set when the camera is installed in an indoor environment.
  - De-blur: Set when the camera is installed in an outdoor environment.
- Flicker: Select when the camera is experiencing flickering in the image. The shutter speed will be set automatically to 1/100.
- Manual: If selected, set the shutter speed from the options: 1/30 ~ 1/30000.

❸ **Back-light**

Off

HME (highlight masking exposure)

HME allows objects to appear clearly on the screen by masking extremely bright areas.
To setup HME, set the level and color of the HME mask.
The lower the number, the darker the areas have to be in order to be masked. Select from: 0 ~ 20.
Color: Set the color of the HME masks. Select from:
black, white, yellow, cyan, green, magenta, red and blue.

BLC (back-light compensation)

If BLC is selected, adjust the size and position of the BLC mask:

- H-POS: Move the mask's position left or right.
          The higher the number, the mask will move to the right.
- V-POS: Move the mask's position up or down.
          The higher the number, the mask will move down.
- H-Size: Adjust the mask's width. The higher the number, the
          right side panel of the mask will move further to the right.
- V-Size: Adjust the mask's height. The higher the number, the
          bottom side panel of the mask will move further down.

WDR (Wide Dynamic Range)

If WDR is selected, adjust the WDR level (weight) in the sub-menu.
Select from low, middle, or high (default).

- WDR mode: Line (sensor WDR), frame (double scan WDR)
- ROI mode: Enable WDR only in a set interest area.
- Weight: Available only in when normal mode is selected.

※ ROI (region of interest)

   For a more efficient WDR distribution across the scene, you can setup
   up to 4 WDR regions.

```
        📷 EXPOSURE

  LENS           AUTO
  2-MOTOR          ↵
  BRIGHTNESS     10
  SHUTTER        AUTO↵
  BACK-LIGHT     OFF
  STARLIGHT      X4
  AGC            10
  3D DNR         HIGH
  RETURN           ↵
```

```
        BACK-LIGHT

  LEVEL      10
  COLOR      BLK
  RETURN       ↵
```

```
        BACK-LIGHT

  H-POS      11
  V-POS      10
  H-SIZE      3
  V-SIZE      3
  RETURN       ↵
```

```
        BACK-LIGHT

  WDR MODE   FRAME
  ROI MODE   OFF
  WEIGHT     HIGH
  RETURN       ↵
```

```
      🔲 EXPOSURE

      LENS          AUTO
      2-MOTOR       ↵
      BRIGHTNESS    10
      SHUTTER       AUTO↵
❹ ──  BACK-LIGHT    OFF
❺ ──  STARLIGHT     X4
❻ ──  AGC           10
      3D DNR        HIGH
      RETURN        ↵
```
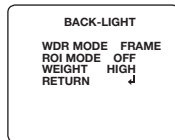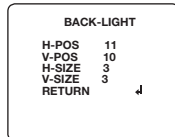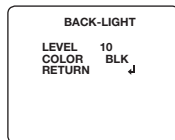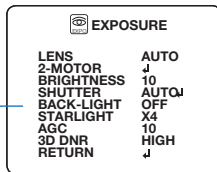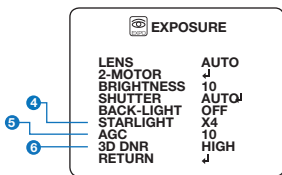
❹ **Star-Light™**

Off / x2 ~ x32 (default : x4) - Automatically activate the camera's slow shutter when the image is too dark. High values are not recommended as they may causes the image to lag and increase digital noise. The Star-Light™ menu cannot be controlled if the shutter settings are above 1/30.

❺ **AGC (auto gain control)**

0~10 - AGC enhances the picture brightness in low light conditions. A higher level AGC will make the image brighter. This could also increase the amount of digital noise in the image.

❻ **3D DNR (3d digital noise reduction)**

Off, low, middle, high - 3D-DNR reduces digital noise on the camera's view in low light conditions and allows for clearer images, even at night.

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OSD Menu_Color

WB mode

```
   COLOR

WHITE BAL.  AUTO  ↵
COLOR GAIN  10
RETURN            ↵
```

```
      WHITE BAL.

C-TEMP   5000K
R-GAIN   10
B-GAIN   10
RETURN        ↵
```
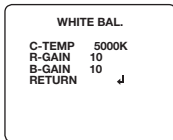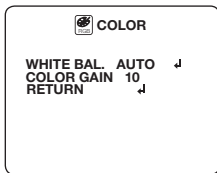
Auto   Compensates for color temperature changes between 2400K° and 12000K°.

AUTOext   Compensates for color temperature changes under 2400K° and over 12000K°.

Preset   Automatically set the white balance based on the current lighting conditions.

Manual   Manually set the white balance by changing red gain and blue gain.
                C-Temp: Select the color temperature for the white balance setup.
                         If enabled, the red and blue gain settings will be set automatically
                         according to the C-TEMP selected.
                Red gain: 0 ~ 20. Adjusts the amount of red in the image.
                Blue gain: 0 ~ 20. Adjust the amount of blue in the image.

Color gain Set the color gain from 0~20.
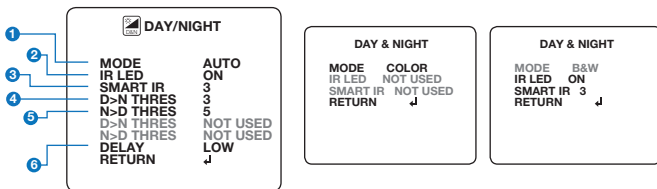
❶ Mode

Auto:	The camera will switch between day and night modes according to the CDS levels.
Color:	The camera will remain in color/day mode.
B&W:	The camera will remain in B/W/night mode.

❷ IR LED

On, off: Enable or disable the IR LEDs in the camera.

❸ Smart IR™

Setting the level for the Smart IR™ function.

❹ D>N THRES

Adjust the time settings when the camera will switch from color to BW mode.

❺ N>D THRES

Adjust the time settings when the camera will switch from BW to color mode.

❻ Delay

Set a delay for when the camera switches between day and night modes.

OSD Menu_Function

```
┌─────────────────────────────┐      ┌─────────────────────────────┐
│         🎛️ FUNCTION         │      │           DEFOG             │
│                             │      │                             │
│   SHARPNESS    5            │      │   MODE     MANUAL           │
│   GAMMA        0.55         │      │   LEVEL    MIDDLE           │
│   MIRROR       OFF          │      │   RETURN     ↵              │
│   FLIP         OFF          │      │                             │
│   D-ZOOM       1.0X         │      │                             │
│   DRC          OFF          │      │                             │
│   DEFOG        ON↵          │      │                             │
│   RETURN         ↵          │      │                             │
└─────────────────────────────┘      └─────────────────────────────┘
```
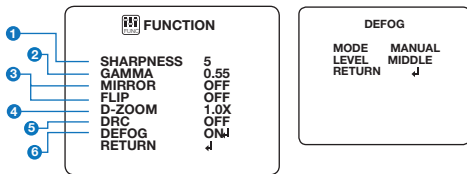
❶ Sharpness

0 ~ 10: Set the image's sharpness. The higher the number, the sharper the image.

❷ Gamma

0.45 ~ 0.75: Select the desired gamma level. 0.55 is the default setting.

❸ Mirror, flip

Off
Mirror: Reflects the camera horizontally.
Flip: Reflects the camera vertically.

Mirror and flip Off	Mirror On	Flip On	Mirror and flip On

❹ D-Zoom

1.0x ~ 16.0x: Sets the digital zoom.

❺ DRC (digital image stabilizer)

Low, middle, high: Set the DRC levels.

❻ DEFOG

Off, on: Set the De-fog levels.

OSD Menu_Motion

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

```
┌─────────────────────┐        ┌─────────────────────┐
│  [M] MOTION         │        │     DET WINDOW      │
│                     │        │                     │
│  DET WINDOW      ┘  │        │  WINDOW USE    0    │
│  SENSITIVITY     5  │        │  WINDOW ZONE   ON   │
│  MOTION OSD      OFF │        │  DET H-POS     1    │
│  TEXT ALARM      OFF │        │  DET V-POS     1    │
│  SIGNAL OUT      ON  │        │  DET H-SIZE    77   │
│  RETURN          ┘  │        │  DET V-SIZE    58   │
│                     │        │  RETURN          ┘  │
└─────────────────────┘        └─────────────────────┘
```
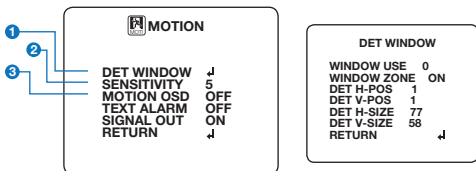
❶ DET window

- Window use: Select which one of the motion areas to enable.

- Window zone: The camera supports up to 4 different masks. Select which ones to display.

- DET H-POS:	Move the zone's position left or right. The higher the number, the zone will move to the right.
- DET V-POS:	Move the zone's position up or down. The higher the number, the zone will move down.
- DET H-Size:	Adjust the zone's width. The higher the number, the right side panel of the zone will move further to the right.
- DET V-Size:	Adjust the zone's height. The higher the number, the bottom side panel of the zone will move further down.

❷ Sensitivity

The smaller the movement you want to detect, the higher the sensitivity value must be.

❸ Motion OSD

Enable or disable showing the motion detection on the camera's OSD.

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

```
┌─────────────────────────┐       ┌─────────────────────────┐
│  🅗 MOTION              │       │    DET WINDOW           │
│                         │       │                         │
│  DET WINDOW      ↵      │       │  🅗WINDOW USE    0       │
│  SENSITIVITY     5      │       │   WINDOW ZONE   ON      │
│  MOTION OSD      OFF    │       │  DET H-POS      1       │
│  TEXT ALARM      OFF    │       │  DET V-POS      1       │
│  SIGNAL OUT      ON     │       │  DET H-SIZE     77      │
│  RETURN          ↵      │       │  DET V-SIZE     58      │
│                         │       │  RETURN         ↵       │
└─────────────────────────┘       └─────────────────────────┘
```

❹ Text alarm

Setup a text to appear on the screen when motion is detected.

- Window motion: Will appear when a motion alarm is detected in the set motion window.
- Camera moving: Will appear if the camera is shaken abruptly.
- Bright change: Will appear if the camera detects sudden changes in brightness.

❺

Signal out (off, on)

- Off: Signal output is disable regardless of motion detection.
- On: Signal output will be activated when motion is detection in the motion window.

OSD Menu_Privacy

You can hide some parts of the camera's view to protect privacy and sensitive data. A total of 24 privacy masking zones are available, including 16 square zones and 8 polygon shaped zones.

```
      PRIVACY                        BOX

                            ZONE NUM     0
BOX        ON               ZONE DISP    ON
POLYGON    OFF              H-POS        12
RETURN     ↵                V-POS        2
                            H-SIZE       3
                            V-SIZE       3
                            Y LEVEL      10
                            CB LEVEL     10
                            CR LEVEL     10
                            TRANS        0
                            RETURN       ↵
```
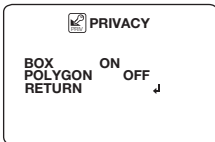
❶ Box

- Zone num: Select the zone number between 0~15.
- Zone disp: Select to show or hide the selected zone.
- H-POS: Move the zone's position left or right. The higher the number, the zone will move to the right.
- V-POS: Move the zone's position up or down. The higher the number, the zone will move down.
- H-Size: Adjust the zone's width. The higher the number, the right side panel of the zone will move further to the right.
- V-Size: Adjust the zone's height. The higher the number, the bottom side panel of the zone will move further down.
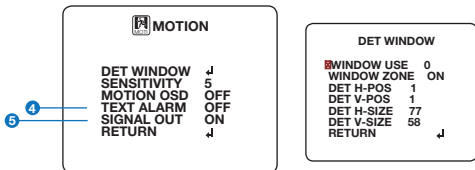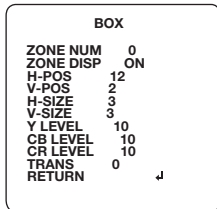- Y level: The higher the number, the brighter the color of the zone will appear.
- CR level: The higher the number, the more red tone will be added to the zone's color. The lower the number, the more green will be added to the zone's color.
- CB level: The higher the number, the more red tone will be added to the zone's color. The lower the number, the more red will be added to the zone's color.
- Trans: Set the mask's transparency level from 0~3. The default value is 0.

You can hide some parts of the camera's view to protect privacy and sensitive data. A total of 24 privacy masking zones are available, including 16 square zones and 8 polygon shaped zones.
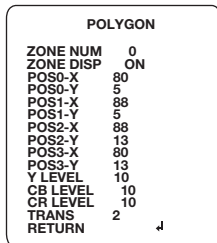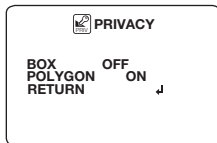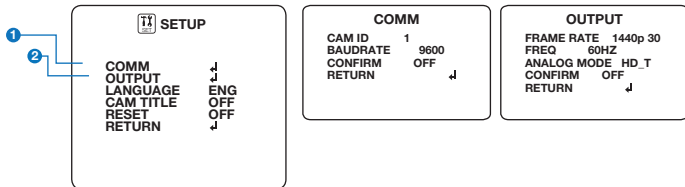
```
┌─────────────────────────┐   ┌─────────────────────────┐
│     🖉 PRIVACY          │   │         POLYGON          │
│                         │   │                          │
│  BOX      OFF           │   │  ZONE NUM     0          │
│  POLYGON  ON            │   │  ZONE DISP    ON         │
│  RETURN        ↵        │   │  POS0-X       80         │
│                         │   │  POS0-Y       5          │
│                         │   │  POS1-X       88         │
│                         │   │  POS1-Y       5          │
└─────────────────────────┘   │  POS2-X       88         │
                              │  POS2-Y       13         │
                              │  POS3-X       80         │
                              │  POS3-Y       13         │
                              │  Y LEVEL      10         │
                              │  CB LEVEL     10         │
                              │  CR LEVEL     10         │
                              │  TRANS        2          │
                              │  RETURN          ↵       │
                              └─────────────────────────┘
```

❶ Polygon
- Zone num: Select the zone number between 0~7.
- Zone disp: Select to show or hide the selected zone.
- POS0-X: Move the zone's upper left angle left and right.
- POS0-Y: Move the zone's upper left angle up and down.
- POS1-X: Move the zone's upper right angle left and right.
- POS1-Y: Move the zone's upper right angle up and down.
- POS2-X: Move the zone's lower right angle left and right.
- POS2-Y: Move the zone's lower right angle up and down.
- POS3-X: Move the zone's lower left angle left and right.
- POS3-Y: Move the zone's lower left angle up and down.
- Y level: The higher the number, the brighter the color of the zone will appear.
- CR level: The higher the number, the more red tone will be added to the zone's color. The lower the number, the more green will be added to the zone's color.
- CB level: The higher the number, the more red tone will be added to the zone's color. The lower the number, the more red will be added to the zone's color.
- Trans: Set the mask's transparency level from 0~3. The default value is 2.

```
     ┌─────────────────────┐    ┌─────────────────────┐   ┌─────────────────────┐
  ❶──│  [TX] SETUP         │    │       COMM          │   │       OUTPUT        │
  ❷  │                     │    │  CAM ID      1      │   │  FRAME RATE 1440p 30│
     │  COMM           ↵   │    │  BAUDRATE    9600   │   │  FREQ       60HZ    │
     │  OUTPUT         ↵   │    │  CONFIRM     OFF    │   │  ANALOG MODE HD_T   │
     │  LANGUAGE       ENG │    │  RETURN        ↵    │   │  CONFIRM    OFF     │
     │  CAM TITLE      OFF │    └─────────────────────┘   │  RETURN        ↵    │
     │  RESET          OFF │                              └─────────────────────┘
     │  RETURN         ↵   │
     └─────────────────────┘
```

❶ COMM

Adjust the camera's ID and baudrate. The camera's default protocol is Pelco-D.

- Cam ID: Provide an ID number for the camera (0 ~ 255).
- Baudrate: Select the baudrate from the following options: 2400, 4800, 9600 (default), 57600 and 115200 bps.
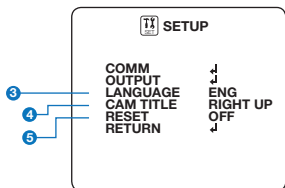- Confirm: Off, on

⌗ **NOTE :** Set confirm to "on" after setting the camera's ID and baudrate.
Be sure to press "Save&Exit" button on the EXIT Menu.

❷ Output

- Framerate: Set the camera's display frame rate and resolution. Select from: 5MP/1944p_20 (HD-A/HD-T only), 4MP/1440_30P, 2.1MP/1080p_30, 720p_30.
- FREQ: When the camera's image appears flickering, you can change its frequency to adjust the image. Select from 60HZ and 50HZ.
- Analog mode: Set the camera's video signal output:
HD-A: HD-Analog (supports up to 5MP @ 20fps)
HD-T: HD-TVI (supports up to 5MP @ 20fps)
HD-C: HD-CVI (supports up to 4MP @ 30fps)
CVBS (supports up to 960H @ 30fps)
- Confirm: Off, on

⌗ **NOTE :** Set confirm to "on" after setting the camera's output values.
Be sure to press "Save&Exit" button on the EXIT Menu.

```
          ⊞ SETUP

     COMM          ↵
     OUTPUT        ↵
❸──── LANGUAGE     ENG
     CAM TITLE     RIGHT UP
❹──── RESET        OFF
❺──── RETURN       ↵
```

❸ Language
Select from the following: English (default), Chinese, Chinese (S), Japanese and Korean.
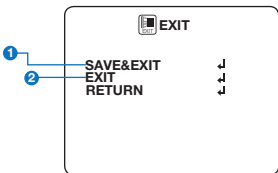
❹ CAM title
Add a name to the camera. Set the title by using the joystick right up / left down.

❺ Reset
Reset the camera to its default settings. Change to on, then press and hold the selection button on the camera's joystick for five (5) seconds.

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❶ Save and exit

Exit the OSD menu after saving the recent changes.

❷ Exit

Exit the OSD menu without saving any changes.

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 power supply and make sure the camera has the proper voltage and current. Check UTP/COAX switch inside the camera's housing and confirm the switch's position matches the signal connection type.

FOR OUT-OF-FOCUS VIDEO
Check the Front case cover and the lens for dirt or fingerprints.
Use a soft cloth and gently clean.
The use of a field test monitor is recommended.

WHEN CHANGING VIDEO SIGNAL
To use your Star-Light Plus™ 5MP cameras at a lower resolution, you must use a VMAX® A1 Plus™ DVR to access the camera's menu due to the cameras being set to 5MP as the default. A DVR that does not support 5MP resolution may recognize the camera, but will not deliver a picture.

Specifications

VIDEO	
Image sensor	1/2.8" CMOS sensor
Active pixels	2608(H) x 1960(V)
Scanning system	Progressive scan
Frequency	60Hz / 50Hz
Signal technology	Max 5.MP Universal
Synchronization	Internal
Resolution	2592x1944 (1944p(20fps)
	(CVI Max 1440p)/1440p30(25)fps/
	1080p30(25)fps/720p30(25)fps)
Minimum scene illumination	F1.8 (30IRE): 0.13 lux (color) (DWC-V7553W) F2.0 (30IRE): 0.16 lux (color) (DWC-V7553WTIR)
	F2.0 (30IRE): 0 lux (B&W) (DWC-V7553WTIR)
Video output	BNC (Universal : HD-A/HD-TVI/HD-CVI/CVBS)
LENS	
Focal length and lens type	2.8mm, fixed lens (DWC-V7553W) 4.0mm, fixed lens (DWC-V7553WTIR)
IR distance	50ft (DWC-V7553WTIR)
OPERATIONAL	
Alarm output	-
Shutter speed	1/30(25) - 1/30,000
Backlight	OFF/HME/BLC/WDR
Star-Light™	OFF, x2 - x32

Specifications

OPERATIONAL (CONT.)	
Wide Dynamic Range(WDR)	LOW/MIDDLE/HIGH
Digital Noise Reduction	OFF / LOW / MIDDLE / HIGH
White balance	AUTO / AUTOext / PRESET / MANUAL
Day and night	AUTO / COLOR / BW
Auto gain control	0 ~ 10
Motion detection	ON/OFF (4 zones)
Privacy zones	ON/OFF (box 16 zones / polygon 8 zones)
Sharpness	0 ~ 10
Gamma	0.45 ~ 0.75
Remote control	Coaxial (UTC)
ENVIRONMENTAL	
Operating temperature operating humidity	-4°F ~ 122°F (-20°C ~ 50°C) no more than 90% (non-condensing)
IP rating	IP66
Other certifications	FCC, CE, ROHS
ELECTRICAL	
Power requirements	DC12V only
Power consumption	LED off: 2W, 176mA LED on: 2.69W, 224mA (DWC-V7553WTIR)
MECHANICAL	
Housing material and dimensions	Aluminum, 4.13 x 2.38 in (105 x 60.7mm)
Weight	0.77 lbs

Limits and Exclusions

There are no express warranties except as listed. The warranter 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 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 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 Warranter, in its sole discretion, are not covered. Costs of such service calls are the responsibility of the purchaser.

Go to https://digital-watchdog.com/page/rma-landing-page/ to learn more about Digital Watchdog's warranty and RMA.

To obtain warranty or out of warranty service, please contact a technical support representative at:
1+ (866) 446-3595, Monday through Friday from 9:00 AM to 8:00 PM EST.

A purchase receipt or other proof of the date of the original purchase 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 damages that 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, setup adjustments, improper antenna, inadequate signal pickup, maladjustments 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.

DW. DIGITAL WATCHDOG™

Complete Surveillance Solutions

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Technical Support hours:
Monday-Friday 9:00am to 8:00pm Eastern Standard Time