960H SNAP-IT
Indoor Dome Camera

DWC-D4567WD
DWC-D4567WTIR

INFINITY *960H*

ABOUT MANUAL

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

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 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*

DWC-D4567WD / DWC-D4567WTIR

- 1/3" 960H High Resolution CCD
- 700 TV Lines
- 3.3~12mm Varifocal Auto Iris Lens
- 70ft Range IR with Intelligent Camera Sync **[D4567WTIR Only]**
- True Day and Night **[D4567WTIR 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
- 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

PARTS & DESCRIPTIONS*
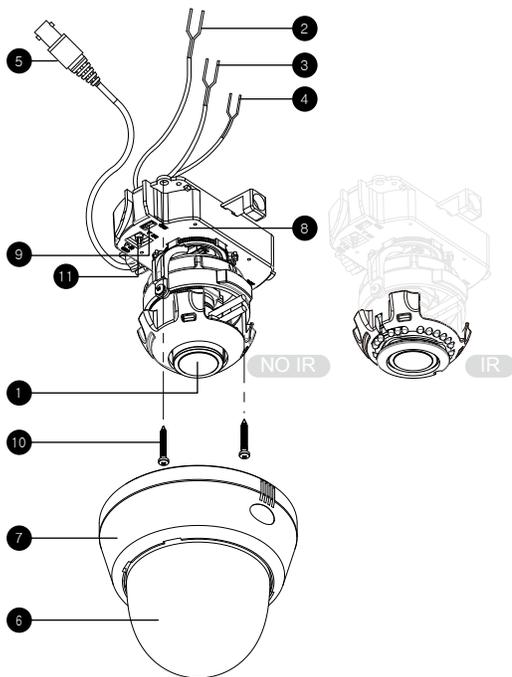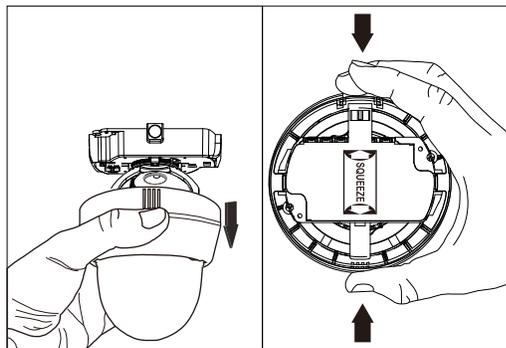

1. Lens
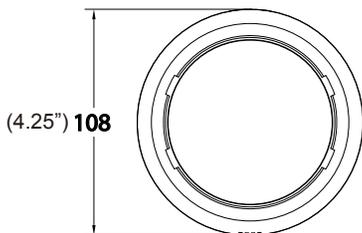
2. Power Input Conne ctor
   12VDC/24VAC Dual Voltage

3. UTP

4. RS 485

5. Primary Video BNC Output Connector

6. Dome Cover

7. Upper Case

8. Control Board

9. Secondary Video BNC Output Connector

10. Mounting Screws

11. Joystick

DIMENSIONS IN MILLIMETERS (INCHES)*

Indoor Surface Mount

108 (4.25")

(1.59") 40,5

96,8 (3.81")

(2.22 ") 56,3

89
3.50")

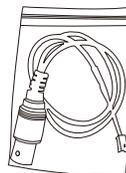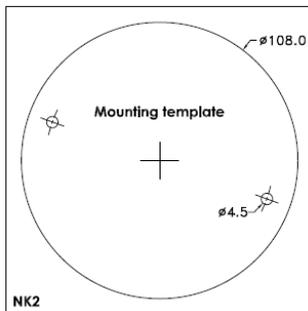TOP VIEW

(4.25") 108

SQUEEZE
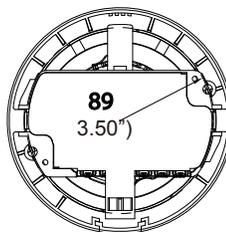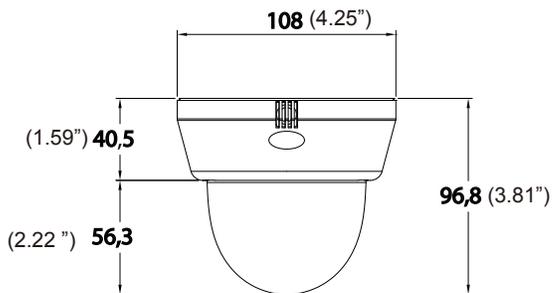
INSTALLATION*

Included with Indoor Dome Camera

1. User Manual
2. Mounting Template
3. Second Video Jack
4. Two (2) Assembly Screws and Two (2) Wall Anchors
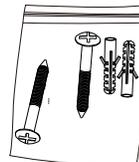
EASY INSTALLATION*
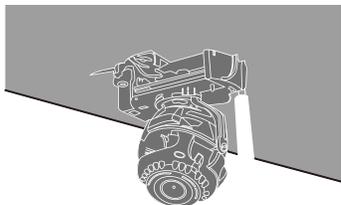
Two Screw Installation
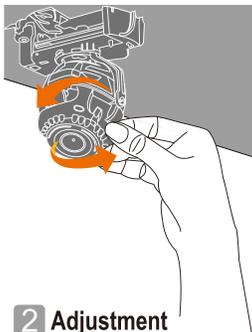
2 Adjustment
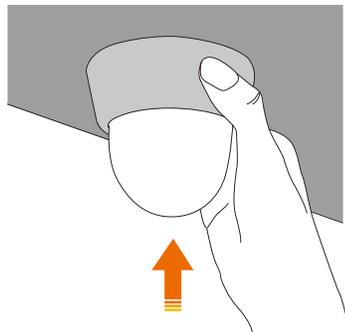
3 Snap It

SURFACE MOUNT INSTALLATION INSTRUCTIONS*

❶ Squeeze the sides of the camera and separate the camera module from the dome cover.

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

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

❹ Pull wires through and make connections. Then, mount the camera to the wall using the included machine screws.

❷ Adjust the camera lens position by using the 3-Axis Gimbal.

❸ Snap the dome cover over the camera module.

WALL MOUNT INSTALLATION INSTRUCTIONS*

❶ Check to see all parts are in the box.

❷ Use the mount to mark the pilot holes required. Drill holes into the drywall and insert the drywall mounts.

❸ Secure the wall mount to the wall using the mounting screws.
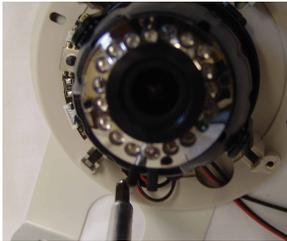
❹ Attach the base of the camera to the wall mount with the smaller machine screws.
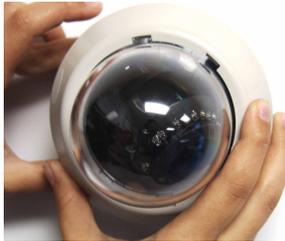
❺ Adjust the camera lens, and snap the dome cover over the camera module.

MOUNTING ON ELECTRICAL JUNCTION BOX*

2S

NO IR

IR

Philips #8-32 x 0.75
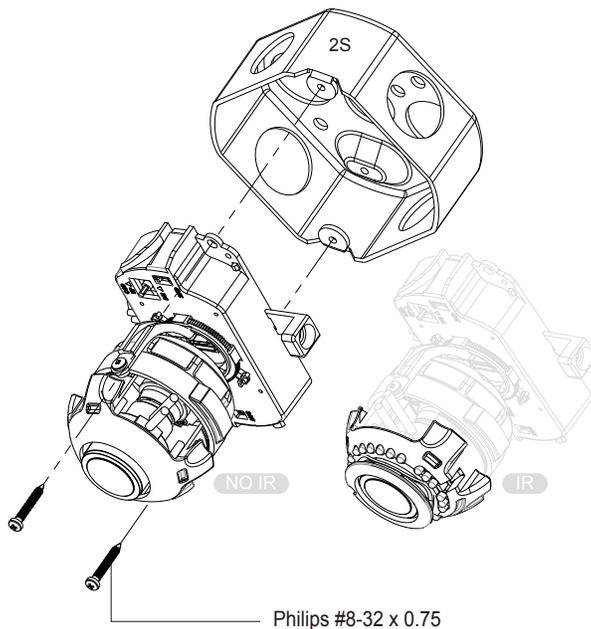
NOTE: Screws required for electrical junction boxes are not supplied. These screws are readily available at an electrical supply store.

CONNECTING TO MONITORS*

DC 12V / AC 24V

CCTV Monitor

IR   NO IR

Up

Left   Right

Down

2nd Video Output

Monitor

300.0
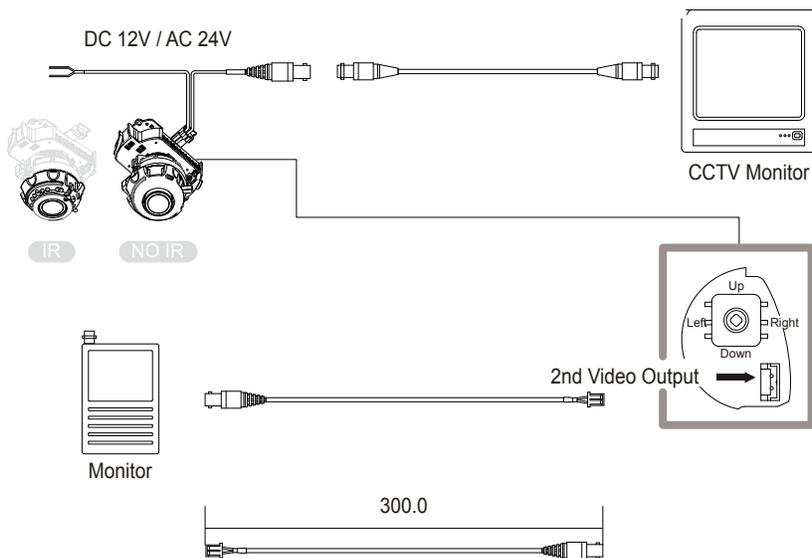
- Power Connection - 12V DC / 24V AC Dual Voltage (Auto Polarity Detection and Protection)
- All cameras are equipped with a second video output on the camera's Control Board for easy on-site configuration.

UTP SYSTEM*

Passive to Passive

Passive UTP

UTP Cable (Max.300 ft)

DVR (Digital Video Recorder)

Monitor

Including the Passive UTP

Passive to Active

Active UTP

UTP Cable (Max.3,000 ft)

DVR (Digital Video Recorder)

Monitor

Including the Passive UTP
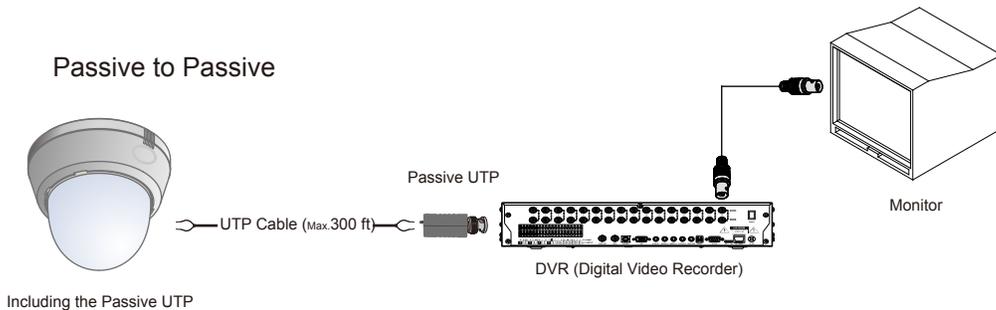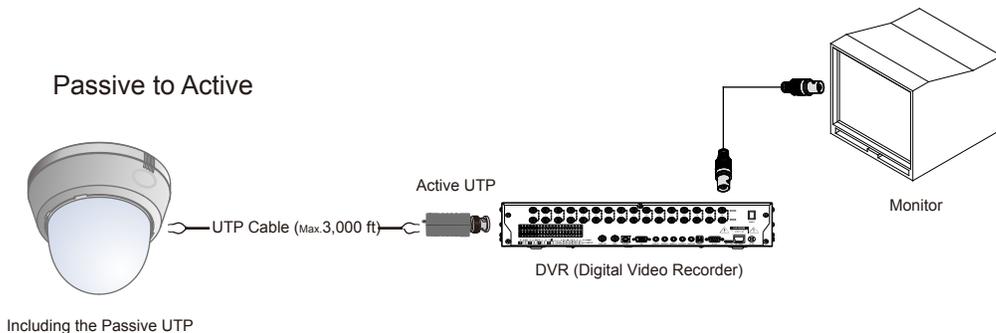
ADJUSTING THE CAMERA*

Follow the instructions provided below to make any lens adjustments.

ZOOM
FOCUS

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

NO IR   IR
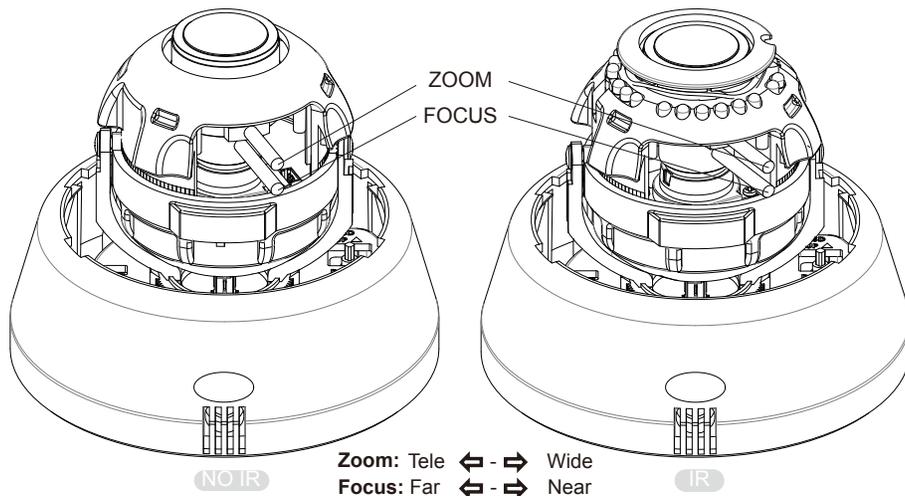
❶ Loosen the Zoom & Focus Handles by rotating them counter-clockwise.

❷ Adjust the Field of View by moving the handle to the RIGHT (Tele) to zoom in, or to the LEFT (Wide) to zoom out.

❸ Adjust the Focus the same way as described above AFTER the desired Zoom position is established.

❹ Once all desired adjustments have been made, please tighten the handles back by turning them clockwise.

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ADJUSTING THE 3-AXIS GIMBAL*

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

NO IR   IR

Rotation 360°

NO IR   IR

Panning 360°

90°

NO IR

Tilting 90°

75°
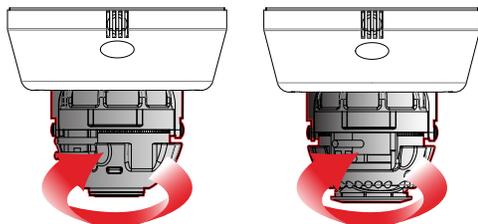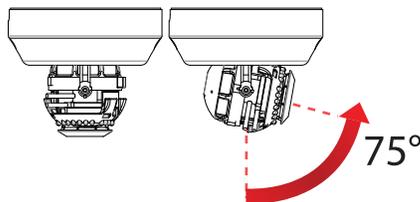
IR

Tilting 75°

MODULE OSD MENU*

EXPOSURE	COLOR	DAY NIGHT
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	WB MODE 　AWC / ATW / MANUAL / PUSH R-Y GAIN 　0~255 B-Y GAIN 　0~255 EXIT JUMP 　EXIT / SAVE & EXIT / FACTORY SET	D&N MODE 　AUTO / COLOR / B&W C-SUP 　0~100 A-SUP 　0~100 EXIT JUMP 　EXIT / SAVE & EXIT / FACTORY SET

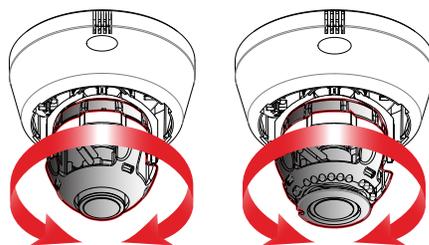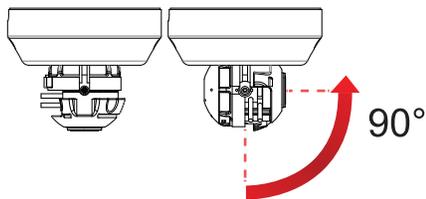| FUNCTION	MOTION	PRIVACY
MIRROR 　OFF/ MIRROR SHARPNESS 　0~25 GAMMA 　0.45~1.00 / USER NEGA 　OFF / ON 3D DNR (3D Digital Noise Reduction) 　OFF / LOW / MIDDLE / HIGH HME (Highlight Masking Exposure) 　OFF / ON EXIT JUMP 　EXIT / SAVE & EXIT / FACTORY SET	MOTION 　OFF / ON 　SET WINDOW 　ALL SET (Set the Entire 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	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
SYNC MODE 　INTER. / AUTO V-PHASE 　0~199 EXIT JUMP 　EXIT / SAVE & EXIT / FACTORY SET	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 　(Pelco-D fixed) OMNI LENS 　OFF / 0 (OMNI-Plus Camera only) EXIT JUMP 　EXIT / SAVE & EXIT / FACTORY SET	EXIT SAVE & EXIT FACTORY SET

⊚ EXPOSURE
EXPO

LENS

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

DC DC mode supports an
Auto-Iris Varifocal lens.
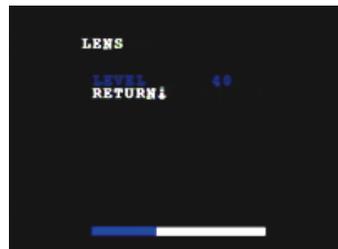
Select DC and control Joystick to
adjust the brightness level from
0~99.

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.

MAX-DR

Max Dymanic Range provides clear images even when strong backlighing is present.
Select MAX-DR **ON** or **OFF**.
When MAX-DR is ON, BLC will be disabled.
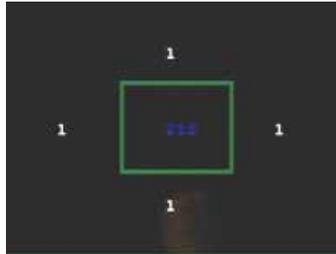
When BLC is enabled, adjust the BLC Level in five areas in the screen. Each can be adjusted from 0 to 255. Move the joystick controller LEFT and RIGHT to adjust the values in each area. Move the joystick controller UP and DOWN to switch between areas. When all adjustments have been made press the joystick controller to return to the main menu.

When ON selected, you can adjust the Max-DR level 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. You can adjust the frame integration level from **X2** to **X256**, or select **OFF**.

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 (M.WB R) and Blue Gain (M.WB B).
PUSH	Push fixes 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	Exit the OSD without saving.
SAVE & EXIT	Exit the OSD after saving the current settings.
FACTORY SET	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
3~12
Sets how many seconds camera waits to adjust between COLOR → BW and BW → COLOR .

C_SUP.
0~100
Adjusts the color suppressing level. (3D-DNR must be OFF to adjust this level.)

A_SUP.
0~100
Adjusts aperture suppressing level. (3D-DNR must be OFF to adjust this level.)

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 image sharpness.
The higher the number, the
sharper the image.

GAMMA

Controls the output signal level. The higher the
setting, the darker the dark colors will
be. 0.45 is the 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 and allows objects to appear more clearly.

```
FUNCTION
MIRROR        OFF
SHARPNESS     17
GAMMA         0.45
NEGA.         OFF
3D DNR        OFF
HME           OFF
EXIT JUMP⌐
```

```
HME

SET LEVEL  10
RETURN⌐
```

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

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.

MOTION

MOTION
The camera can detect movement and
display an alarm on the screen.

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**.

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.

DELAY OUT

Select how long the alarm will be dispayed on the screen when motion is detected.

Choose from **1** to **15** seconds.

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.

25

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).
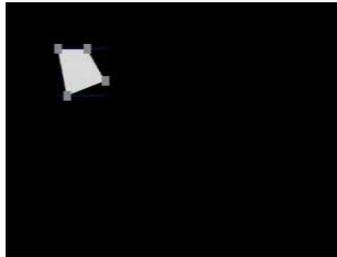
If ON is selected, you can set the area to be masked and the shape and color of the mask.
Select SET WINDOW. The masking zone will appear. Press the joystick button to select or deselect the gray squares on the corner(s), then move the joystick left, right, up, or down to adjust the shape of the masking 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
power line can occur. Therefore, the vertical
phase must be adjusted.

Select from **0** to **199**.

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.

⟨**TX SET**⟩ **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

```
SETUP
🔲🔲🔲🔲🔲🔲🔲🔲
CAMERA ID   1
TITLE       OFF
DPC         MANUAL↵
MONITOR     CRT
LANGUAGE    ENG
BAUDRATE    9600

EXIT JUMP↕
```

OMNI LENS

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

```
OMNI LENS


ALARM       ON
READ TIME   5
ALARM ZOOM  44
STAND BY    0
RETURN↕
```

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   Exit the OSD without saving.
SAVE & EXIT   Exit the OSD after saving the current settings.
FACTORY SET   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 one of our technical specialists.

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 Sharp 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 / BLC / HME / E.WDR
AGC	OFF / LOW / MID / HIGH
Star-Light	OFF / X2-X256
3D-DNR	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)
ELECTRICAL	
Power Requirement	Dual (DC12V & AC24V)
Power Consumption	DC12V: 2.2W / LED ON 5.0W
	AC24V: 2.3W / LED ON 4.7W
MECHANICAL	
Housing Material	Plastic
Dome Cover Material	Polycarbonate
Dimensions	⌀108 X 96.8 mm (⌀4.25 X 3.8 in)
Weight	0.529 lbs

* Specification is subject to change without prior notice.

MEMO

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