

# EVERFOCUS



High Resolution Vandal Proof  
Weather Resistant 3-Axis IR Dome Camera

Operation Instructions

Model No. **EHD360**

Please read this manual first for correct installation and operation. This manual should be retained for future reference. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

## **PRECAUTIONS**

**1. Do not install the camera near electric or magnetic fields.**

Install the camera away from TV/radio transmitters, magnets, electric motors, transformers and audio speakers since the electromagnetic fields generated from these devices may distort the video image or otherwise interfere with camera operation.

**2. Never disassemble the camera beyond the recommendations in this manual nor introduce materials other than those recommended herein.**

Improper disassembly or introduction of corrosive materials may result in equipment failure or other damage.

**3. Try to avoid facing the camera toward the sun.**

In some circumstances, direct sunlight may cause permanent damage to the sensor and/or internal circuits, as well as creating unbalanced illumination beyond the capability of the camera to compensate.

**4. Keep the power cord away from water and other liquids and never touch the power cord with wet hands.**

Touching a wet power cord with your hands or touching the power cord with wet hands may result in electric shock.

**5. Never install the camera in areas exposed to oil, gas or solvents.**

Oil, gas or solvents may result in equipment failure, electric shock or, in extreme cases, fire.

**6. Cleaning**

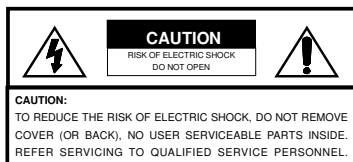
For cameras with interchangeable lenses, do not touch the surface of the sensor directly with the hands. Use lens tissue or a cotton tipped applicator and ethanol to clean the sensor and the camera lens. Use a damp soft cloth to remove any dirt from the camera body. Please do not use complex solvents, corrosive or abrasive agents for cleaning of any part of the camera.

**7. Do not operate the camera beyond the specified temperature, humidity or power source ratings. This camera is suitable for indoor and outdoor operation.**

Use the camera at temperatures within -10°C to +50°C (14°F to 122°F) and in an IP66 compliant environment; this device is not rated as submersible. The input power source is 12VDC. **Be sure to connect the proper + / - polarity and voltage, as incorrect polarity or too high a voltage will likely cause the camera to fail, and such damage is not covered by the warranty. The use of properly fused or Class 2 power limited type supplies is highly recommended.**

## 8. Mounting

Use care in selecting a solid mounting surface which will support the weight of the camera plus any wind, snow, ice or other loading, and securely attach the camera to the mounting surface using screws and anchors which will properly support the camera. If necessary (e.g. when mounting to drop ceilings) use a safety wire to provide additional support for the camera.



## OVERVIEW

The EHD360 is an outdoor, vandal resistant 3-axis IR dome camera which utilizes a Sony 1/3" Super HAD CCD Sensor to provide high resolution 540TVL color video for security surveillance applications. Vandal Proof materials and an IP66 weather resistant housing allow reliable operation in outdoor and indoor environments. True day/night operation combined with 25m (~80ft.) range high efficiency IR LEDs makes the EHD360 suitable for a wide range of day and night surveillance situations. Plus, the 3-axis mechanical design and built-in f=3.7~12mm varifocal auto iris lens bring flexibility to installation and field of view adjustment.

## FEATURES

- Color dome camera with SONY 1/3" Super HAD CCD sensor.
- High resolution 540 TVL.
- 3-Axis design for flexible fens positioning.
- High sensitivity, low smear, high anti-blooming and high S/N ratio.
- Built-in Auto Gain Control (AGC), Auto Tracing White Balance (ATW).
- Built-in 3.7~12mm varifocal DC-drive auto iris lens.
- 25m (~80ft.) range IR-LEDs.
- True day/night auto switching with IR filter removal for B/W images in low light environments.
- Vandal proof to withstand impact of a 10 pound sledgehammer.
- Weather resistant, IP66 rated.

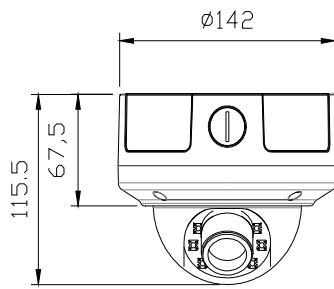
## PACKAGE CONTENTS

- Camera Unit x 1
- Mounting kit includes:
  - Screws x 4
  - Security wrench for housing screws x 1
  - Expanding Screws x 4
  - Washers x 4
- Operation Instructions (this document) x 1
- Weatherproof bushing x 1
- Power cable x 1
- Video cable x 1
- Power adapter pigtail (for NTSC model only) x 1
- Mounting template x 1

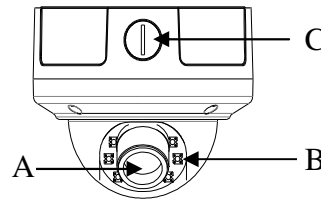
## **SPECIFICATIONS**

|                       |  |
|-----------------------|--|
| Pickup Device         | 1/3" SONY Super HAD CCD Sensor                     |
| Video Format          | NTSC or PAL (depends on model selected)            |
| Picture Elements      | 768 x 494 (NTSC), 752 x 582 (PAL)                  |
| Horizontal Resolution | 540 TVL  |
| Sensitivity           | 0.12 LUX / F1.6 ; 0 LUX (IR LED ON)                |
| S/N Ratio             | Over 48dB (AGC off)                                |
| Electronic Shutter    | 1/60(1/50)s~1/100,000s                             |
| Video Output          | BNC 1.0Vp-p 75Ω                                    |
| Gamma Correction      | 0.45   |
| Lens Type             | Vari-Focal 3.7~12mm / F1.4 DC Drive Auto Iris Lens |
| Day/Night             | True day/night with motorized IR cut filter        |
| Gain Control          | Automatic  |
| White Balance         | ATW (2500°K~9500°K)                                |
| Sync. Mode            | Internal Sync.                                     |
| IR LED                | 11 Units High Efficiency IR LED                    |
| IR Wavelength         | 850nm  |
| IR Distance           | 25m (~80ft.) nominal; depends on environment       |
| Weather Resistant     | IP 66  |
| Vandal Proof          | Yes  |
| Power Source          | 12VDC  |
| Power Consumption     | 283mA @12VDC                                       |
| Operating Temperature | -10°C~50°C / 14°F~122°F                            |
| Dimensions (O.D. x H) | 142mm x 115.5mm / 5.6" x 4.55"                     |
| Weight                | 979 g / 2.16 lbs                                   |
| Certifications        | CE / FCC   |

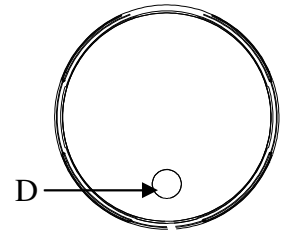
## DIMENSIONS



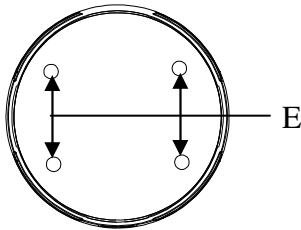
Dimensions



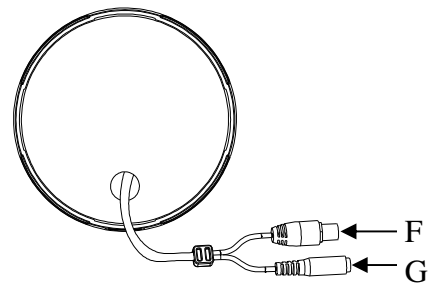
Front View



Bottom View



Top View



Bottom View

- A. Lens
- B. IR-LED
- C. Side conduit entry
- D. Back conduit entry

- E. Inner plate mounting holes
- F. BNC Connector
- G. DC Connector

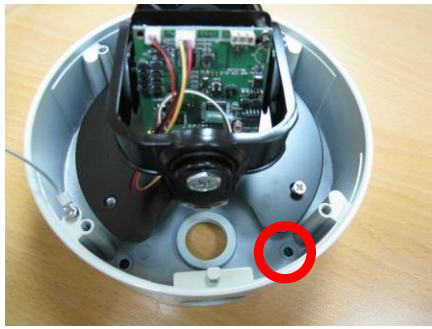
## INSTALLATION INSTRUCTIONS

### Drill the Holes

1. Locate the desired mounting location; position housing with camera pointed generally in the desired direction and mark location.
2. Use template to fix hole locations. Drill 4 holes for mounting screws and insert plastic anchors into holes after drilling.

### Mounting Steps

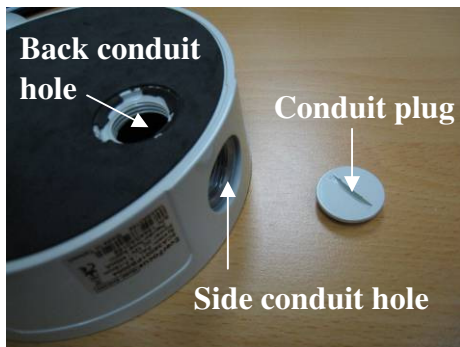
1. Use the security wrench provided to loosen the 4 screws holding the dome cover.
2. Remove the dome cover. Attach the camera body to the mounting surface with the mounting screws provided



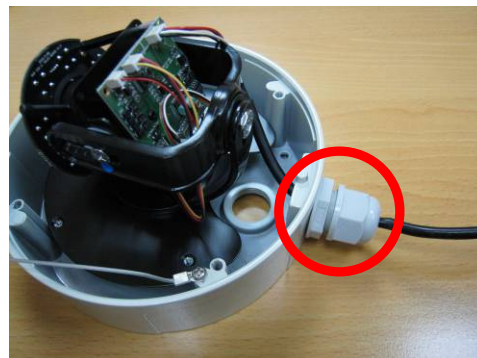
3. Tighten the 4 mounting screws to secure the camera body to the mounting surface.



3. If you need to wire cable through side conduit hole, use a coin to remove the conduit plug; save the plug as it will be used to close the rear conduit hole.



4. Disconnect the power and video wire from the camera board end of the wire. Gently pull the wire out from under the plate until it is free. Using wrench or pliers, remove the weather tight bushing from the rear conduit hole. Using the plug removed in step 3 above, close the rear conduit hole (additional caulk or other sealant recommended).

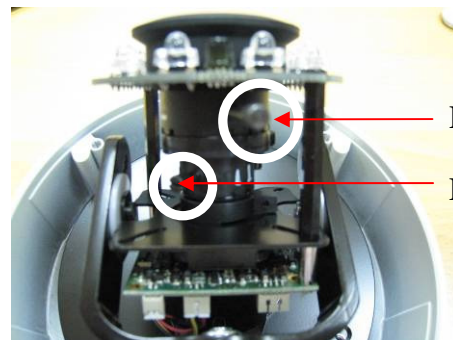
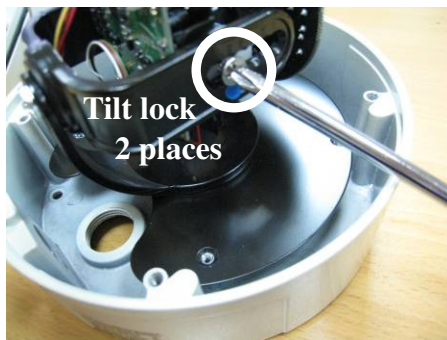


5. Pass the camera end of the power/video cable through side conduit hole. Using wrench or pliers, carefully tighten the weather tight bushing into the side conduit hole.

6. (Optional) Pass the power/video wire under the base plate and up through the center hole.
7. Position the power/video wire so that it does not interfere with the camera module and carefully attach the connector to the camera board, being sure to position the connector so it fit properly onto the tiny pins within. Failure to properly align this connector may permanently damage the camera.

### General Connection and Setup

1. Connect the power cord to DC 12V power supply (observe polarity for power – connecting reverse polarity will damage the camera and void the warranty).
2. Connect the camera to a monitor with 75ohm type coaxial cable.
3. Loosen the screws which lock the tilt mechanism. Rotate the pan and tilt mechanisms to point the camera in the desired direction. Rotate the camera module on its axis if necessary to align the image 'upright'. Loosen the lens adjusting screws and adjust the lens to obtain the desired field of view and focus.



4. Lock the lens and tilt screws. Put the dome cover back and align the clear window in the dome cover with the lens. Attach the dome cover to dome base with the 4 mounting screws.

**NOTE:** The cover only goes on in ONE direction. There is a key and slot; if not aligned, cover will not close properly.

**NOTE: If you move the camera module,** it is necessary to loosen the dome and liner and reposition the liner so the lens points out through the slot, and the rubber seal presses onto the clear part of the dome and not the liner. Loosen 4 Philips screws, reposition liner, **TIGHTEN** four screws (else seal and vandal resistance is compromised).

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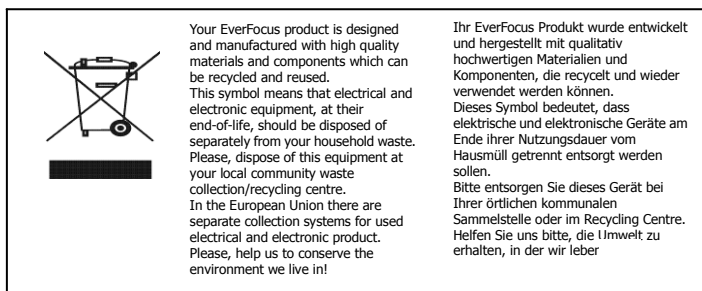
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