
OPERATION INSTRUCTION



EHD705
OUTDOOR / VANDAL DOME

ED705
INDOOR DOME

***HIGH PERFORMANCE
TRUE WDR LOW PROFILE DOME***

***EHD705
ED705***

Operation Instruction

2013 EverFocus Electronics Corp

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.

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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~50°C (14°F~122°F) and in an IP66 compliant environment; this device is not rated as submersible. The input power source is 12VDC. **The use of properly fused or Class 2 power limited type supplies are 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.



ATTENTION! This is a class A product which may cause radio interference in a domestic environment; in this case, the user may be urged to take adequate measures.



Federal Communication Commission Interference Statement

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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the users' authority to operate this equipment.

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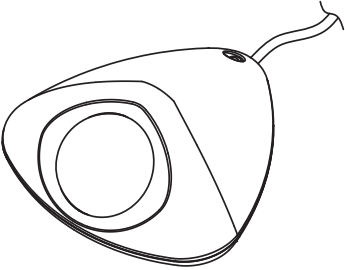
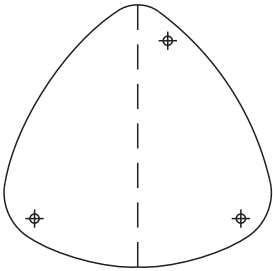
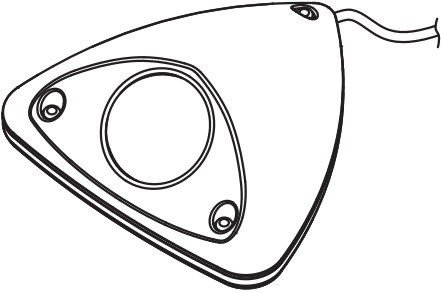
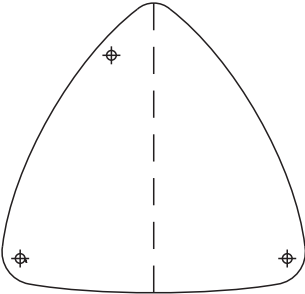
1. Product Overview

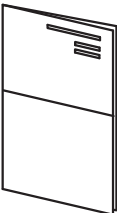
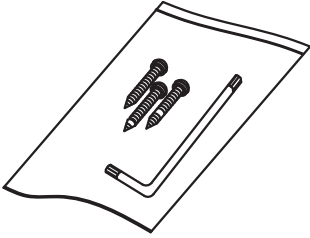
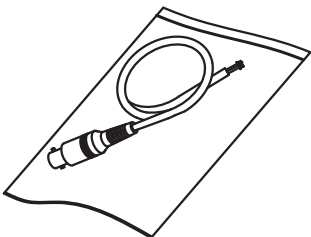
Get incredible bright light *and* low light performance plus the resolution listed in the specs from the actual cameras you install. To take full advantage of the amazing images produced by this advanced imaging technology, the EverFocus Ultra Series ED705 uses a Sony Double Scan 960H_WD sensor together with a megapixel lens to produce **True Wide Dynamic Range (WDR)** performance with 720 horizontal TV lines of resolution from this unique Ultra Series 720+ camera. Combine a *native low light sensitivity of 0.05 lux* with field programmable digital slow shutter and this camera truly provides **color without compromise**: over 720TVL resolution, plus your choice of full motion color or day/night images in ultra low light (no ghosting when using *practical* DSS setting of ~4X) and Double Scan True Wide Dynamic Range for clear color images in the most challenging of bright or unbalanced scene lighting conditions. The ED705 offers a unique low profile housing with 3 axis positioning for wall or ceiling surface mounting flexibility; 3.7mm *megapixel* lens that covers a **65°** wide field of view; dual voltage operation and a full suite of OSD Menu and DSP functions controllable at the camera (3D-DNR to save DVR HDD space, digital image stabilization, privacy masking, mirroring, and much more). This is the camera that you have been waiting for to create analog CCTV systems that produce **astounding image clarity** in the widest range of indoor applications **under almost any lighting conditions**.

1.1 Features

- True Wide Dynamic Range expansion from double scan sensor plus electronic ATR-EX to deliver properly exposed images despite bright or unbalanced lighting in the scene
- Ultra resolution of over 720 horizontal TV lines for astounding image quality
- Unique low profile housing design with 3-Axis positioning for convenient wall or ceiling mounting
- Fixed 3.7mm megapixel lens captures a 67° wide field of view
- Video test output point for convenient aim and focus during installation, and ease of service
- Exview HAD II sensor delivers amazing ultra high sensitivity of .05 lux - low light sensitivity before DSS low light boost
- Adjustable low light enhancement for superlative performance without ghosting
- Color without compromise: your choice of full motion color or day/night images in low light without ghosting
- Easy to use OSD setup menu control includes a wide range of image control options
- Back light compensation (BLC) and Highlight Compensation (HLC)
- Adjustable 3D-Noise Reduction increases picture clarity while improving DVR disk storage utilization
- Privacy mask function for 15 configurable zones
- Dual voltage (12VDC/24VAC) with Anti Color Roll for stability even without line lock

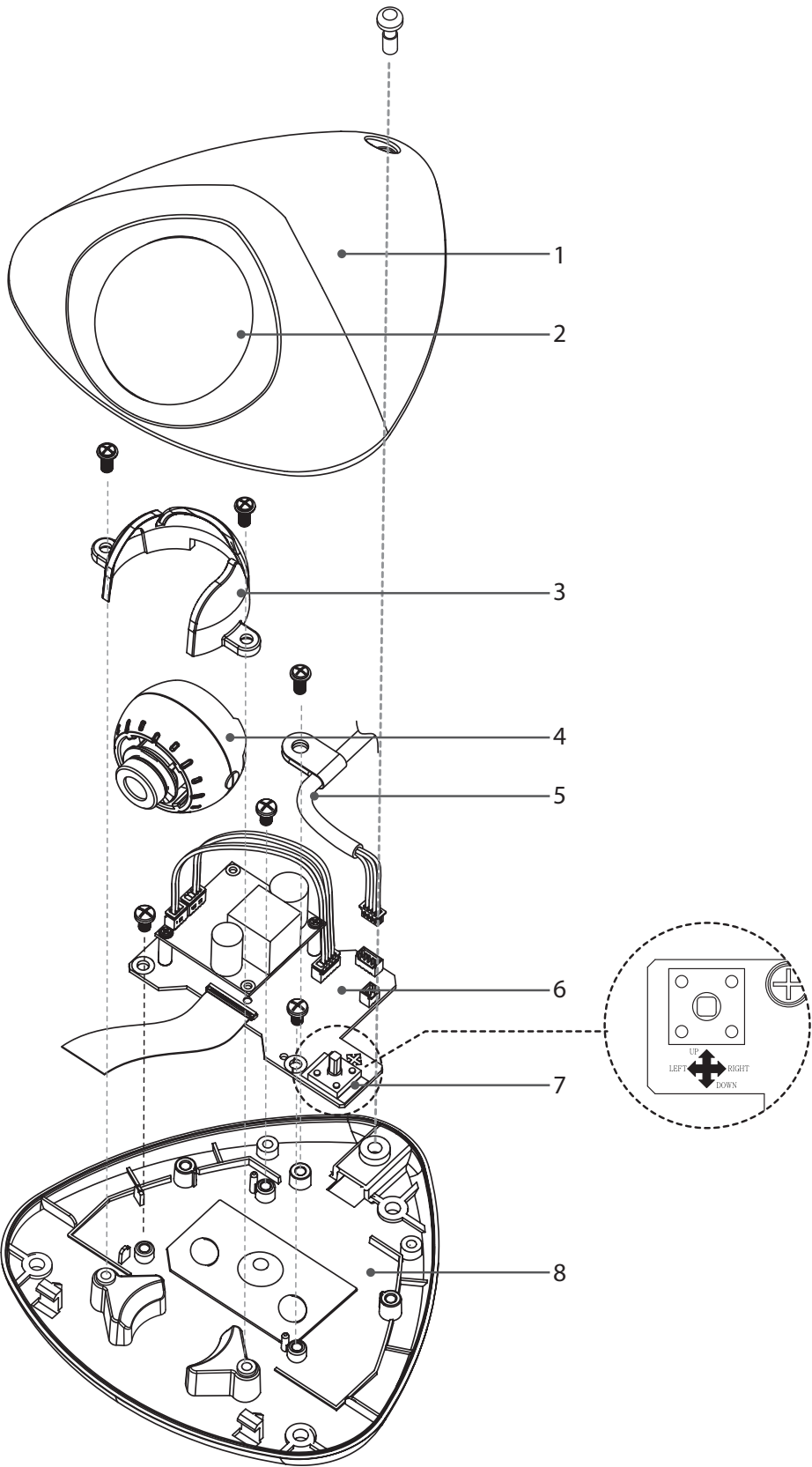
3. EQUIPMENT AND ACCESSORIES

Indoor Dome Type	Mount Guide (Indoor Dome Type)
	
Outdoor Vandal Dome Type	Mount Guide (Outdoor Vandal Dome Type)
	

Manual	
	
Screws(3ea) / L-Wrench	Service Video Output Test Cable
	

4. CAMERA COMPONENT DESCRIPTIONS

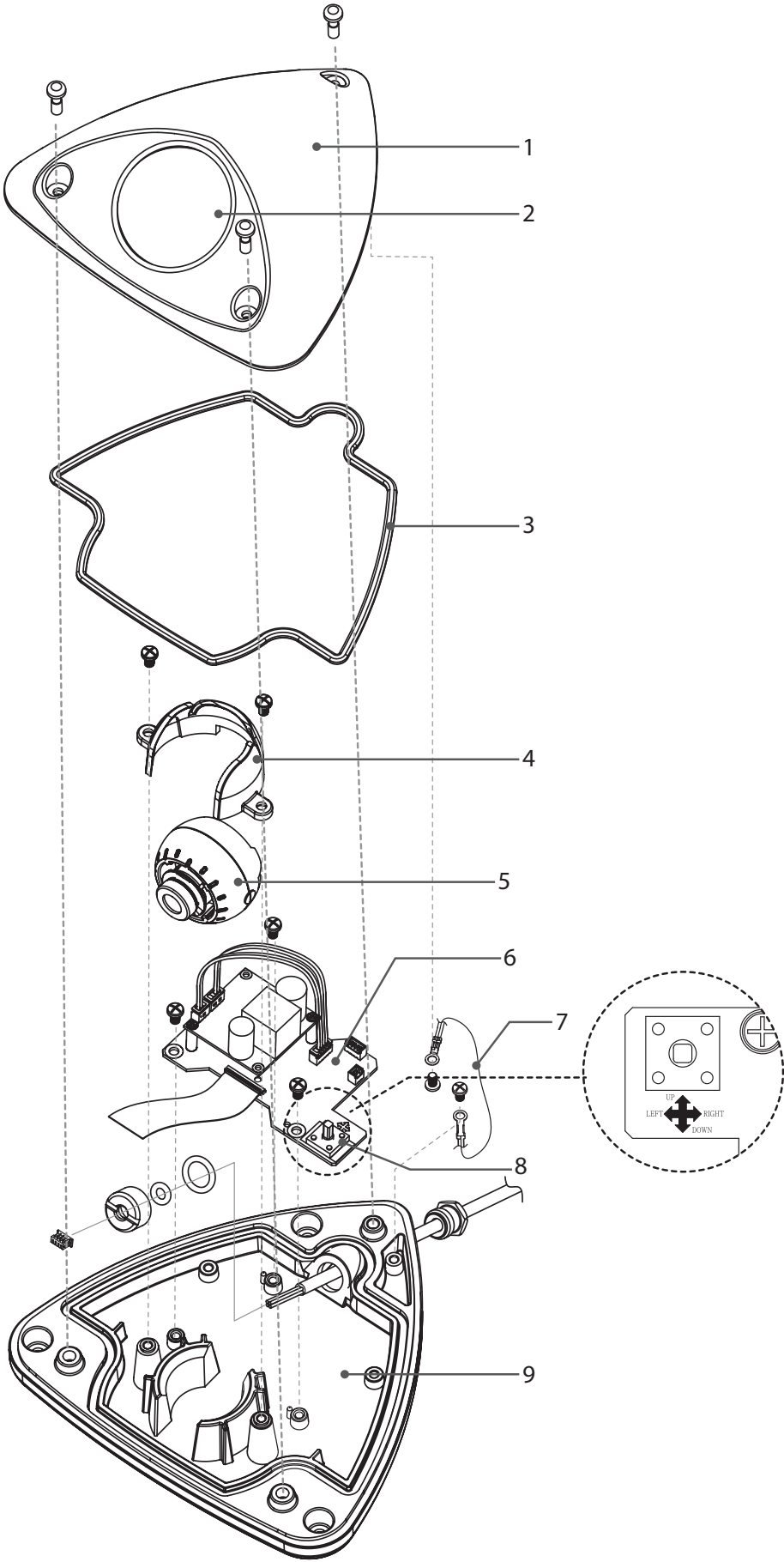
• Indoor Dome Type



NO	PART NAME
1	Top Case
2	Lens Cover
3	Camera Module Bracket
4	Camera Module Ass'y
5	Cable
6	Main PCB
7	OSD Controller
8	Base

4. CAMERA COMPONENT DESCRIPTIONS

• Vandal Dome Type

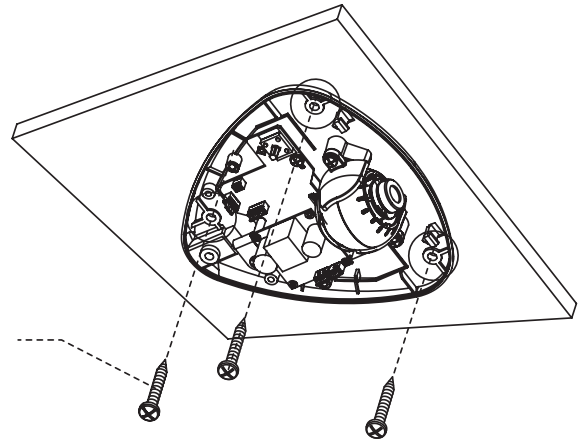


NO	PART NAME
1	Top Case
2	Lens Cover
3	Case Rubber
4	Camera Module Bracket
5	Camera Module Ass'y
6	Main PCB
7	Safety Wire
8	OSD Controller
9	Base

5. INSTALLATION(Plastic Dome)

1. Attach the Low Profile Dome on the ceiling using the screws provided. Considering the camera angle required for the viewing angle.
2. Adjust the Lens Angle to the desired location.

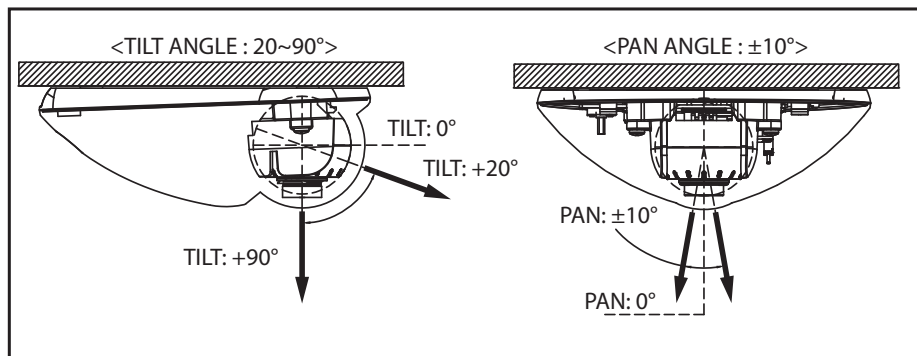
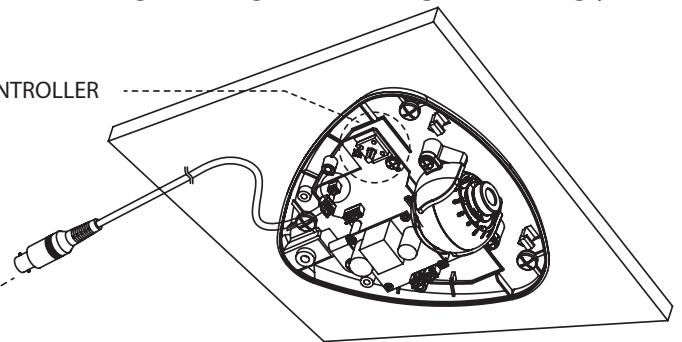
TAPPING SCREW (4 x 20L) - 3EA



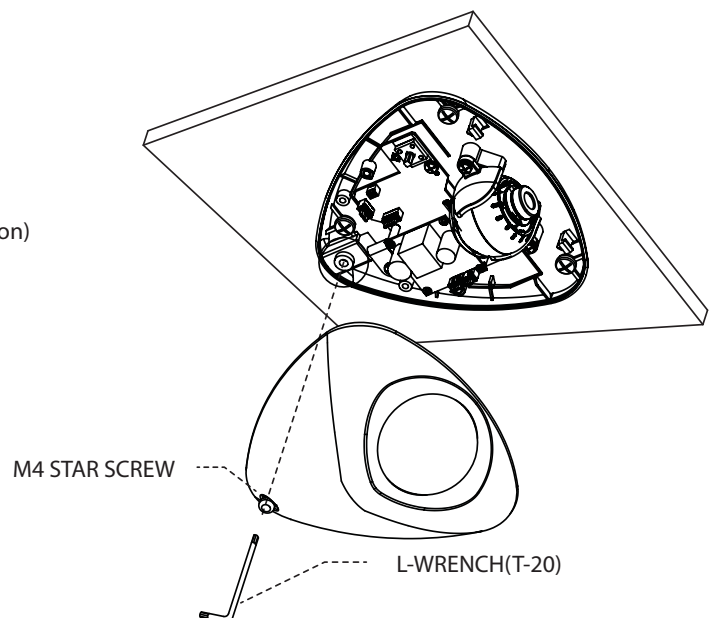
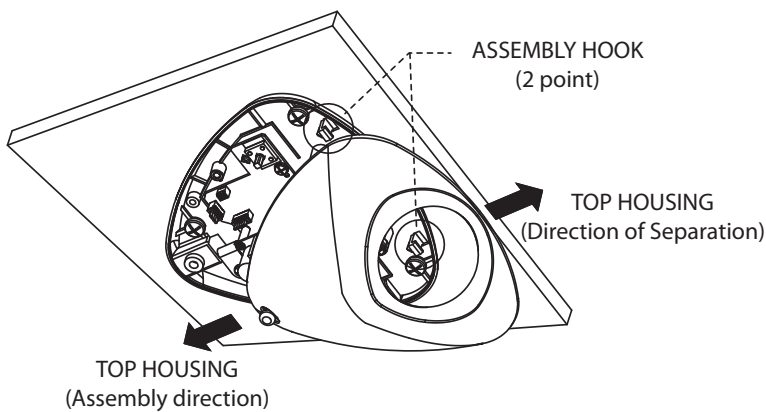
3. Connect the Service Video Output Cable and check the video image. Change the Settings accordingly using the OSD Controller.

OSD CONTROLLER

SERVICE VIDEO TEST CABLE



4. After adjusting the Lens, install the Top Cover.



5. INSTALLATION (Vandal Dome)

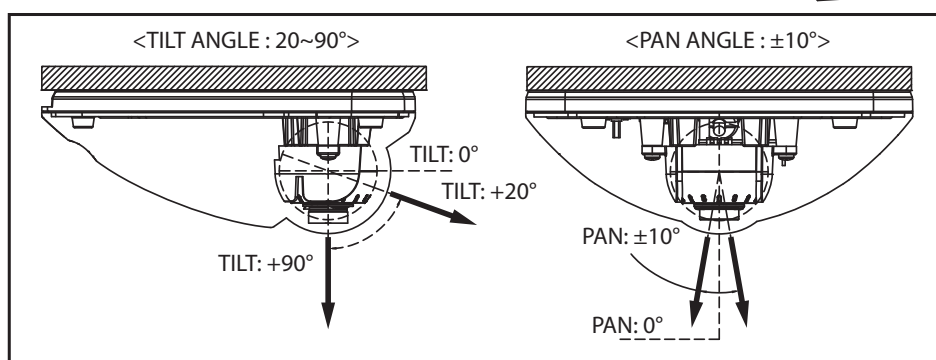
1. Attach the Low Profile Dome on the ceiling using the screws provided. Considering the camera angle required for the viewing angle
2. Adjust the Lens Angle to the desired location.

TAPPING SCREW (4 x 20L) - 3EA

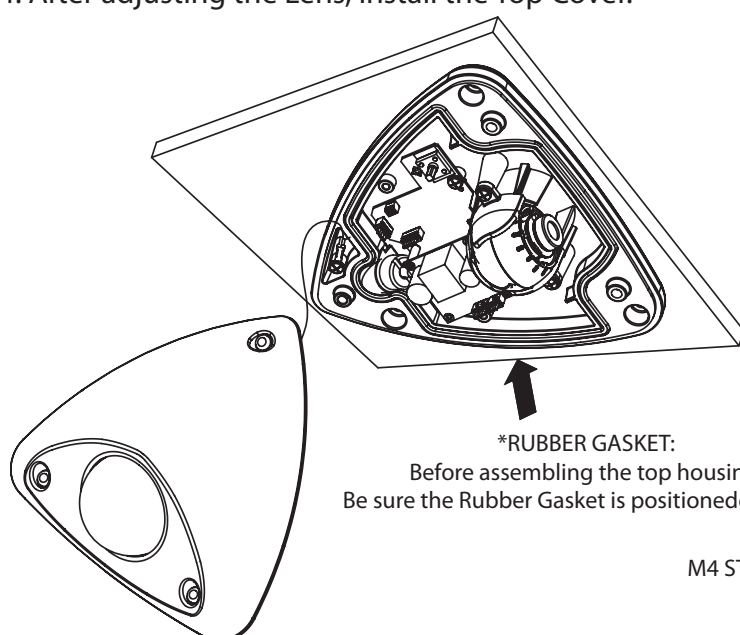
3. Connect the Service Video Output Cable and check the video image. Change the Settings accordingly using the OSD Controller.

OSD CONTROLLER

SERVICE VIDEO TEST CABLE



4. After adjusting the Lens, install the Top Cover.



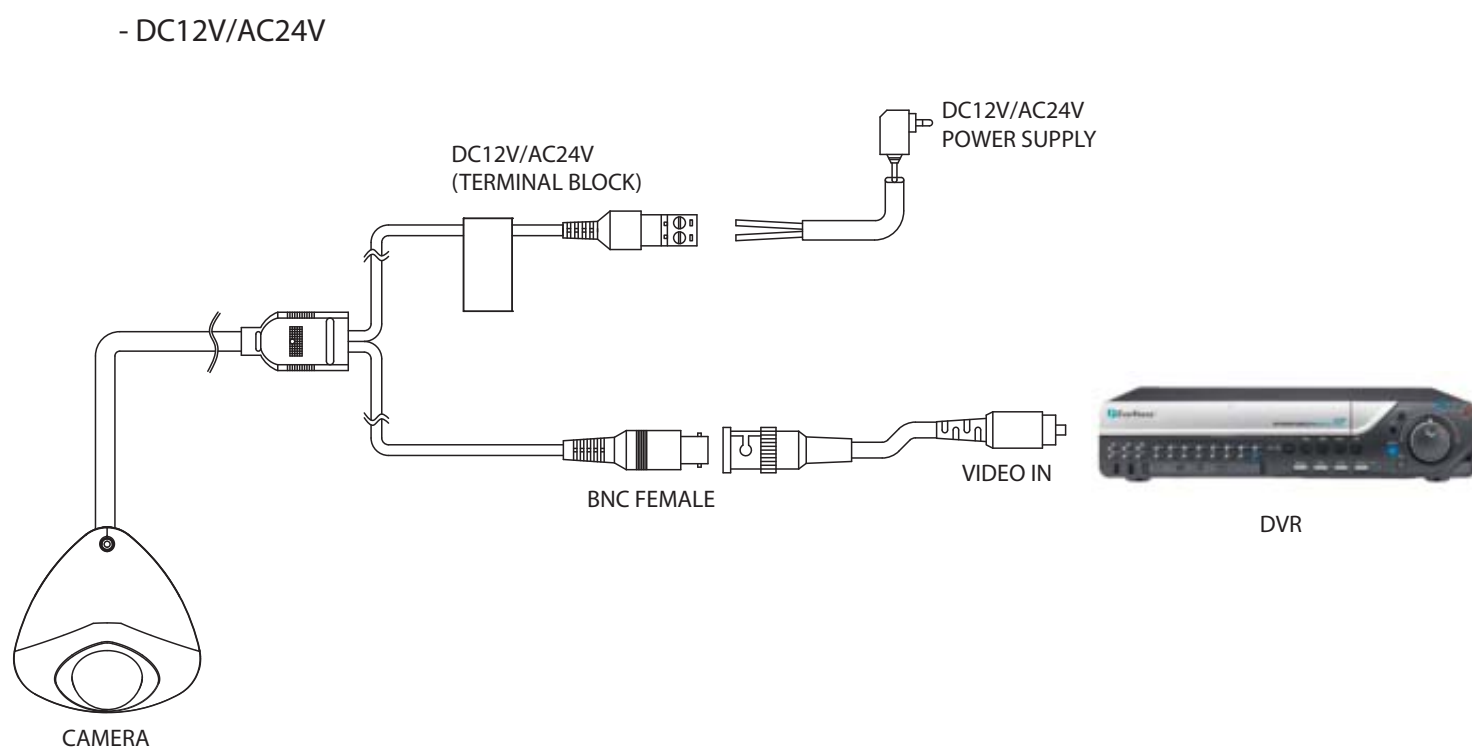
*RUBBER GASKET:
Before assembling the top housing,
Be sure the Rubber Gasket is positioned correctly.

M4 STAR SCREW

L-WRENCH(T-20)

5. INSTALLATION

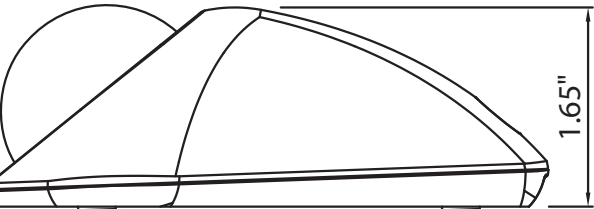
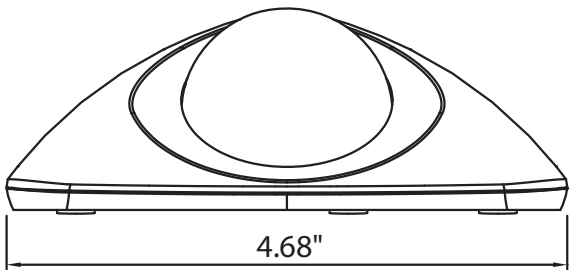
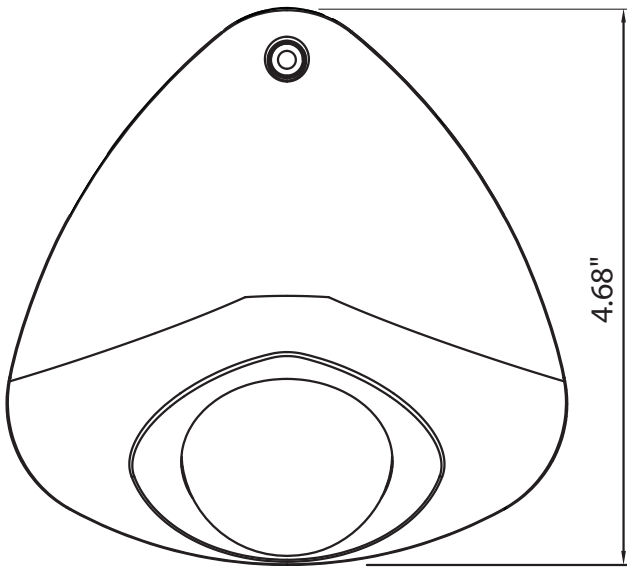
• MONITOR CONNECTION



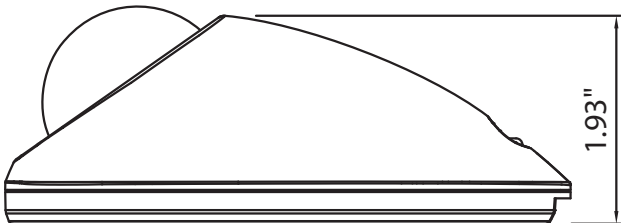
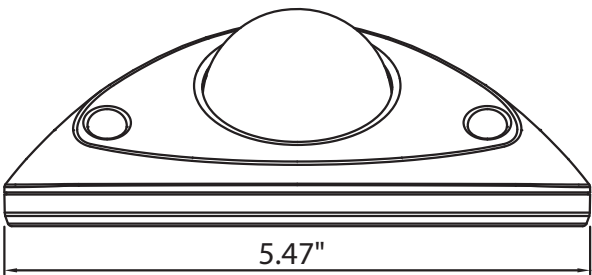
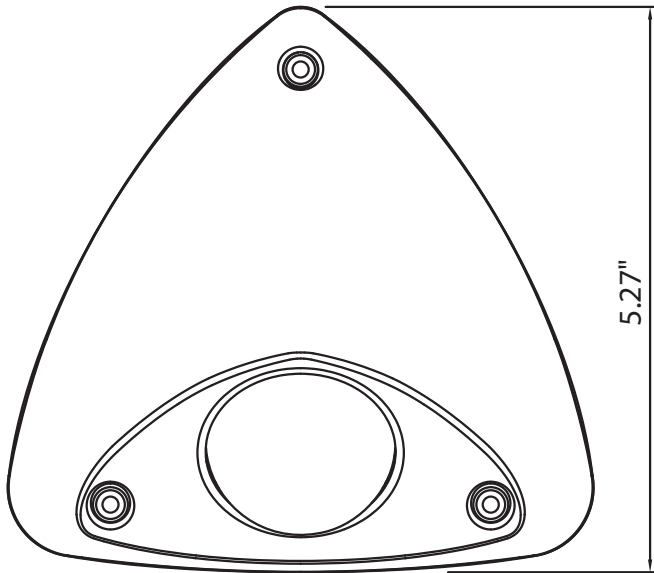
When you install the camera, please glue up the end of cable to keep it stable in order to protect the camera from the humidity problems.

6. DIMENSIONS

• Indoor Dome Type



• Outdoor Vandal Dome Type



Unit(Inches)

7. SPECIFICATION

	NTSC	PAL
Image Sensor	1/3" 960H SONY Double Scan Super HAD CCD II	
Scanning System	2 : 1 Interlace	
H Resolution.	700TV Lines	
Scanning Frequency	15.734KHz(H), 59.94Hz(V)	15.625KHz(H), 50Hz(V)
Total Pixels No.	1028(H) X 508(V)	1028(H) X 596(V)
Effective Pixels No.	976(H) X 494(V)	976(H) X 582(V)
S/N Ratio	More than 50dB(AGC OFF, 3DNR ON)	
Min. Illumination	Color:0.1Lux, BW:0.1Lux (30IRE@F2.0, AGC 36dB) 0.000001Lux (DSS x256)	
Sync System	Internal	
Gamma	r= 0.45	
Video Output	1.0 Vp-p Composite(75Ω)	
Lens	Board Lens	
Digital Zoom Ratio	3x	
Electronic Shutter	1/60 ~1/100,000sec	1/50 ~1/100,000sec
Digital Slow Shutter	OFF, 2 ~ 256 Field	
Flickerless	ON / OFF	
Dynamic Range	52dB (WDR OFF) / 116.4dB (WDR ON)	
WDR	ON / OFF (Level adjustable)	
BLC	ON / OFF (Level adjustment, Area selection)	
HLC	ON / AUTO / OFF (Level adjustable)	
AGC	OFF, 6 ~ 36dB	
DNR(2D/3D)	ON / OFF (Level adjustable)	
Image Function	Image Flip, Freeze, Contrast, Sharpness	
Day & Night	COLOR / BW / AUTO(DIGITAL D/N)	
Motion Detection	4 Zones (Level adjustable, Area adjustment)	
Privacy Masking	15 Zones (Area adjustment)	
White Balance	ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH-LOCK	
OSD	Built in (Joystick)	
Language	ENGLISH / JAPANESE / GERMAN / FRENCH / RUSSIAN / PORTUGUESE / SPANISH / CHINESE	
Operating Temperature	14°F~122°F(-10°C~+50°C)	
Storage Temperature	-4°F~140°F(-20°C~+60°C)	
Humidity	Less than 80%	
Power Consumption	DC12V (±10%), Max. 190mA AC24V (±10%), Max. 2.5W	
Dimension (mm)	Indoor Dome Type: 119mm x 119mm x 42mm Outdoor Vandal Dome Type: 139mm x 134mm x 49mm	

Specifications and designs are subject to change for improving the functionality of this product without notice.

8. OSD MANUAL

• Menu structure

Main MENU	1st Sub MENU	2nd Sub MENU	3rd Sub MENU	4th Sub MENU	5th Sub MENU	
EXPOSURE	AUTO	HIGH LUMINANCE	FLICKERLESS	OFF / ON		
			BRIGHTNESS	0 ~ 255		
		LOW LUMINANCE	MODE	AGC, SLOW, AGC > SLOW, SLOW > AGC, OFF		
			AGC MAX	6, 12, 18, 24, 30, 36		
			DSS MAX	2, 4, 8, 16, 32, 64, 128, 256		
			BRIGHTNESS	x0.25, x0.5, x0.75, x1.0		
		RETURN				
	MANUAL	MODE	SHUT, SLOW			
		SHUT	MODE (SHUT) ONLY 1/50(PAL), 1/60(NTSC), 1/100(NTSC), 1/120(PAL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 MODE (SLOW) ONLY 2, 4, 8, 16, 32, 64, 128, 256			
		AGC	6, 12, 18, 24, 30, 36, 42, 44.8			
		RETURN				
WHITE BALANCE	ATW	SPEED	0 ~ 255			
		DELAY CNT	0 ~ 255			
		ATW FRAME	x0.5, x1.0, x1.5, x2.0			
		ENVIRONMENT	INDOOR, OUTDOOR			
		RETURN				
	PUSH					
	USER1	B-GAIN	0 ~ 255			
		R-GAIN	0 ~ 255			
		RETURN				
	USER2	B-GAIN	0 ~ 255			
		R-GAIN	0 ~ 255			
		RETURN				
	ANTI CR					
	MANUAL	LEVEL UP	PUSH ENTER			
		LEVEL DOWN	PUSH ENTER			
		PRESET				
		RETURN				
	PUSH LOCK					
	DAY&NIGHT	COLOR				
		AUTO	BURST	OFF, ON		
DELAY CNT			0 ~ 255			
DAY > NIGHT			0 ~ 255			
NIGHT > DAY			0 ~ 255			
RETURN						
BW		BURST	OFF, ON			
		RETURN				

8. OSD MANUAL

Main MENU	1st Sub MENU	2nd Sub MENU	3rd Sub MENU	4th Sub MENU	5th Sub MENU
WDR/BLC	WDR MODE	OFF, ON	LEVEL	0 ~ 15	
			CONTRAST1	0 ~ 7	
			CONTRAST2	0 ~ 4	
			RETURN		
	BLC MODE	OFF, ON	ZONE	CENTER, TOP, BOTTOM, LEFT, RIGHT	
			LEVEL	0 ~ 15	
			RETURN		
	HLC MODE	OFF, ON, AUTO	CLIP LEVEL	0 ~ 255	
			SCALE	0 ~ 15	
RETURN					
DNR	2DNR MODE	OFF, ON			
	2DNR LEVEL	0 ~ 15			
	3DNR MODE	OFF, ON			
	3DNR LEVEL	0 ~ 63			
	RETURN				
IMAGE	HV-FLIP	OFF, ON			
	FREEZE	OFF, ON			
	EZOOM	1.0x, 1.5x, 2.0x, 2.5x, 3.0x			
	CONTRAST	0 ~ 63			
	SHARPNESS	0 ~ 15			
	RETURN				
SPECIAL	CAMERA TITLE	OFF, ON	DISPLAY THE TITLE EDITING MENU		
			RETURN		
	LANGUAGE	ENGLISH / 中文 / Р у с с к и й / ESPAÑOL / DEUTSCH / FRANCAIS / PORTUGUÊS / 日本語			
	PRIVACY	AREA SEL	1/15 ~ 15/15		
		MODE	OFF, ON		
		POSITION	NEXT: PUSH ENTER		
		COLOR	"WHITE, BLACK, RED, GREEN, BLUE, YELLOW, CYAN, MAGENTA"		
		TRANSP	0.00, 0.50, 0.75, 1.00		
		MOSAIC	OFF, ON		
		RETURN			
	MOTION DET	OFF, ON	DETECT SENSE	0 ~ 127	
			BLOCK DISP	OFF, ON	
			MONITOR AREA	AREA SEL	1/4 ~ 4/4
				MODE	OFF, ON
				TOP	0 ~ 15
				BOTTOM	0 ~ 15
				LEFT	0 ~ 23
				RIGHT	0 ~ 23
				RETURN	
FACTORY DEFAULT					
EXIT					
SAVE&EXIT					

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Your EverFocus product is designed and manufactured with high quality materials and components which can be recycled and reused.
This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.
Please, dispose of this equipment at your local community waste collection/recycling centre.
In the European Union there are separate collection systems for used electrical and electronic product.
Please, help us to conserve the environment we live in!

Ihr EverFocus Produkt wurde entwickelt und hergestellt mit qualitativ hochwertigen Materialien und Komponenten, die recycelt und wieder verwendet werden können.
Dieses Symbol bedeutet, dass elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer vom Hausmüll getrennt entsorgt werden sollen.
Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen kommunalen Sammelstelle oder im Recycling Centre.
Helfen Sie uns bitte, die Umwelt zu erhalten, in der wir leben!



EverFocus®