




**20X/30X D/N 1080p 60FPS FULL HD  
FAST DOME IP Camera**




**PSD4624EX20, PSD4624EX30  
Instruction Manual**

# IMPORTANT SAFEGUARDS



CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION  
TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE FRONT OR BACK COVER.  
NO USER SERVICEABLE PARTS INSIDE.  
FOR MAINTENANCE, CONTACT QUALIFIED  
SERVICE PERSONNEL.

## SYMBOL DEFINITION

The lightning within a triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance instructions in this guide.



CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED  
WITH AN INCORRECT TYPE.  
DISPOSE OF USED BATTERIES ACCORDING  
TO THE INSTRUCTIONS



## WARNINGS & CAUTIONS

Please read the manual before attempting installation or operation

1. Do not use any chemical detergent to clean the machine surface; use a damp cotton cloth only. Regularly clean the dome cover to ensure focusing accuracy.
2. Install the Fast Dome in a dry area. Water and high humidity may damage internal parts. External housing should be used for outdoor installation.
3. Use parts supplied by the manufacturer only; use of unqualified part will void the warranty.
4. Avoid installing the equipment on an unstable surface. Make sure the installation location is solid and stable. Falling equipment may injure personnel and damage the equipment.
5. Do not install the equipment near any flammable gas. Violation may cause fire or injury.
6. Avoid running video and signal cables through or passing interference sources such as electromagnetic wave, broadcast station, power generator, elevator motor, or high voltage are, etc. Interference may cause the equipment not to function properly.
7. Make sure the power cable is properly connected. Loosened power cables may cause serious short circuit or fire.
8. Make sure all cables are properly connected. Do not place any object on the cables. Replace the cable if damaged. Violation may cause short circuit, fire, and injury.
9. Make sure all wires and cables are properly grounded to avoid damage caused by lightning.
10. Do not put any foreign objects inside the equipment and do not spray any liquid on the equipment to avoid short circuit and subsequent damage.
11. Do not touch power connection with wet hands to avoid short circuit or electric shock.
12. Do not apply external force on the equipment. Violation may cause damage.
13. Do not expose the equipment directly to sunlight. Violation may cause color fading or damage.
14. Do not install the equipment in high or low temperature environment to avoid damage. The operating temperature is between  $-40^{\circ}\text{C}$  -  $+50^{\circ}\text{C}$ .
15. The Fast Dome consists of highly sensitive electronic parts inside. Do not try to repair the equipment. Only a qualified technician may disassemble and repair the equipment. Shut off the power before disassembling the equipment and do not power it on unless the casing is completely closed.
16. Turn off the power immediately and contact the technician when the following occurs:
  - A. Damage on power cable or plug.
  - B. Water leak into the equipment.
  - C. Fast Dome does not function normally.
  - D. Equipment falling on the ground or damage on external casing.



## Introduction

LILIN PSD4624EX20 / PSD4624EX30 is a day&night 2M resolution color high speed dome camera, which supports HD/Full HD resolution and digital signal processing (DSP) technology. The camera features 20/30X optical lens, digital zoom, auto focus/iris control, IR cut, auto gain control, wide dynamic range (WDR), back-light compensation, digital noise reduction, and electronic stabilization.

PSD4624EX20/30 is only 192mm in diameter. Within the adjustable range, this camera can either move smoothly or in high speed. The camera's moving speed ranges from 0.1 /s to 360 /s. The continuous 360 pan capability is free from the restriction of direction. Every PSD4624 camera supports 256 preset positions, which can be automatically monitored if set to the auto-scan mode.

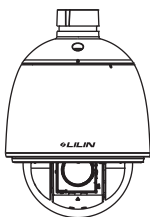
PSD4624EX20/30 supports 4 sets of alarm-input. In a matter of seconds, your dome camera can be targeted to any preset position. The alarm inputs correspond to the preset positions for even more secure perimeter monitoring.

The new PSD4624EX20/30 camera has a compact and streamlined design. With the comprehensive functions that deliver maximum ease of use, the PSD4624 series is your ideal surveillance camera.

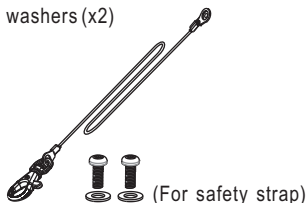
The cutting-edge H.264 AVC encoding technology delivers better compression rate and superior video quality at 56 Kbps to 3 Mbps bit rate. The dual streaming design supports both MJPEG and H.264 AVC formats to allow video streaming at low bandwidth (Internet) and high bandwidth (LAN) for quality optimization.

## Package Contents

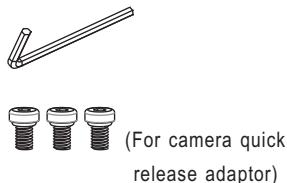
### 1. Dome camera



### 2. 350mm safety strap +M3x8L machine bolts with washers (x2)



### 3. 5mm hex key +M6x10L hex machine bolts(x3)



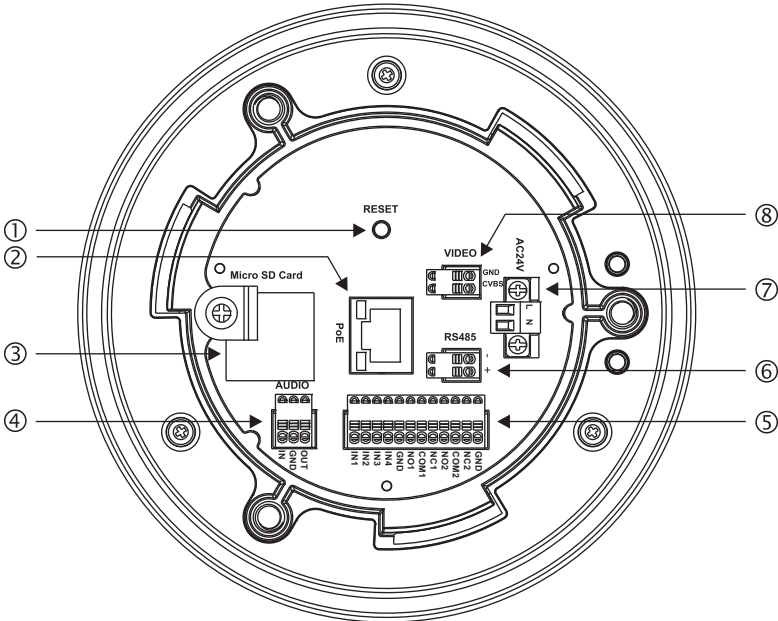
### 4. Installation guide



### 5. Software CD



## Connector Hub



- ① Reset button
- ② RJ-45 network connector (PoE supported)  
LAN: 10/100Mbps  
Recommended cable: CAT5
- ③ Micro SD card slot: supports Micro SD and SDHC card
- ④ Audio In  
Audio signal: 1.4Vp-p(1 Vrms)  
Recommended cable: shielded signal cable
- ⑤ Alarm In/Out  
Every camera provides 4 external alarm inputs and 2 alarm outputs  
Voltage for alarm inputs: 5.6Vmax; alarm output: 1A 24VDC  
Recommended cable: UL 26AWG 80°C 300V  
UL 24AWG 80°C 300V

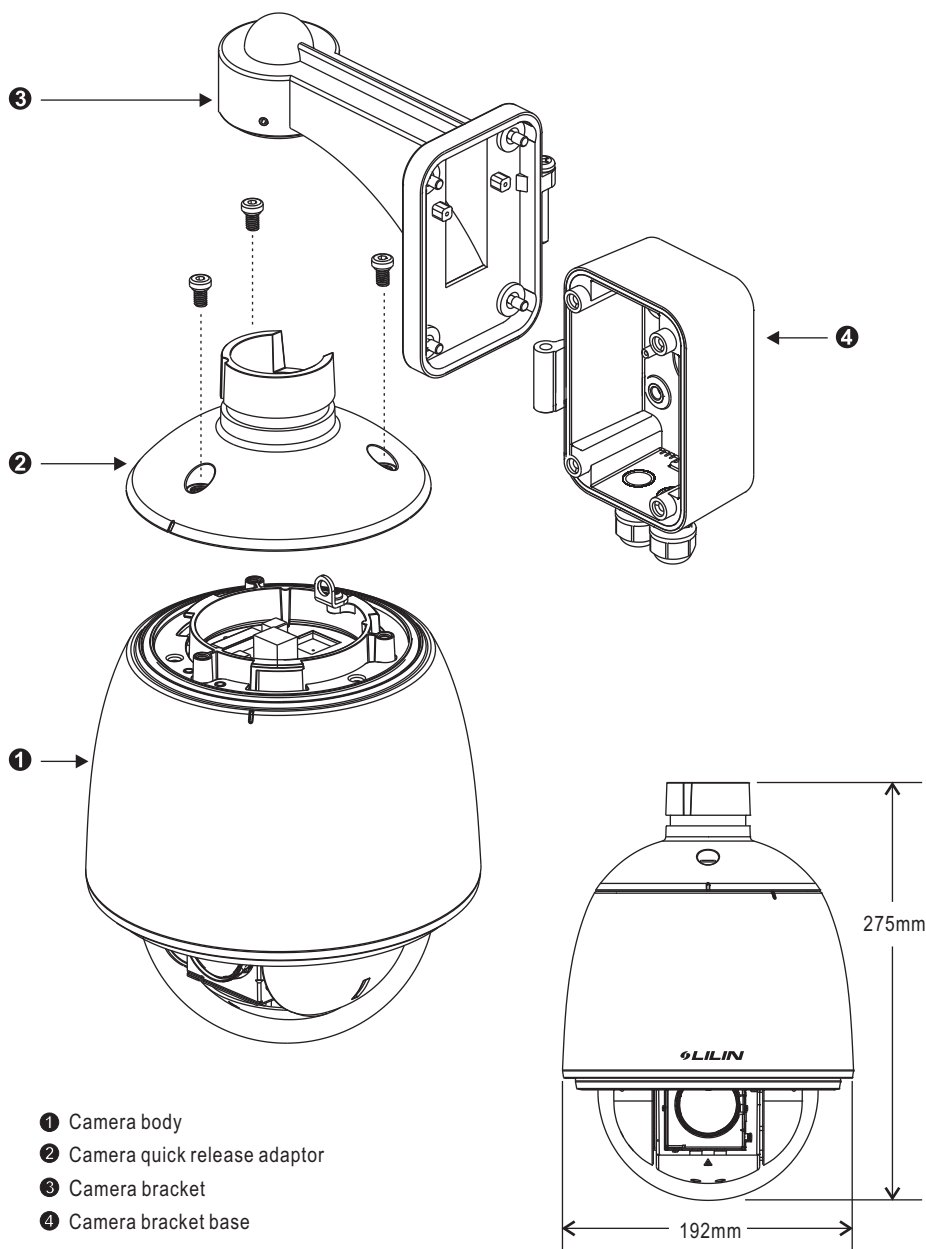
- ⑥ RS-485 connector  
⑦ Power cable (AC24V)  
Recommended cable:

Copper Wire (AWG)		#24 (0.22mm <sup>2</sup> )	#22 (0.33mm <sup>2</sup> )	#20 (0.52mm <sup>2</sup> )	#18 (0.83mm <sup>2</sup> )
Cable Length (approx.)	(m)	20	30	45	75
	(ft)	65	100	160	260

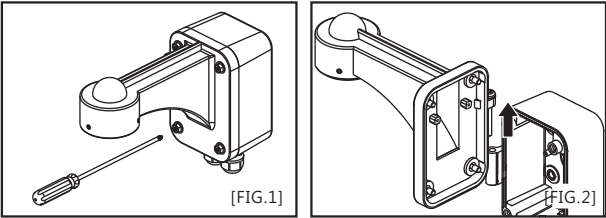
- ⑧ Video Out  
Video signal output: CVBS 1.0Vp-p 75Ω BNC  
Recommended cable: CABLE 5C2V

# Installation

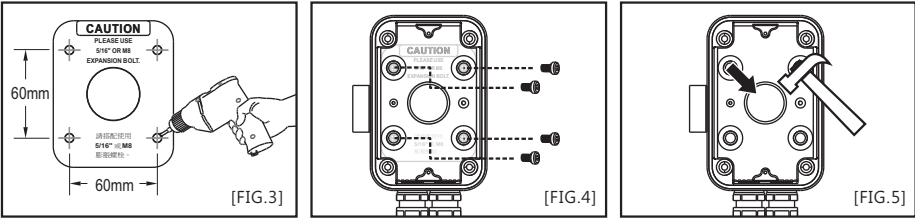
## Structural Diagram



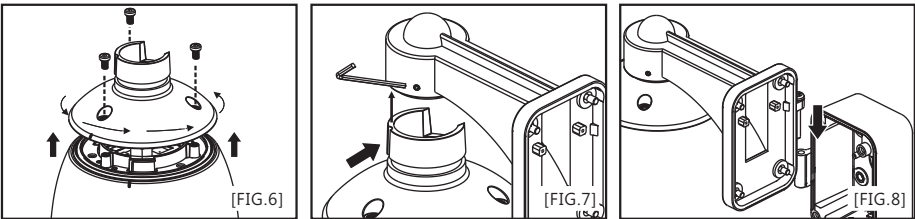
- Step 1 Remove the bracket from the base**  
 Loosen the four bolts from the base (FIG.1) and push the hinge upwards to separate it from the base (FIG.2).



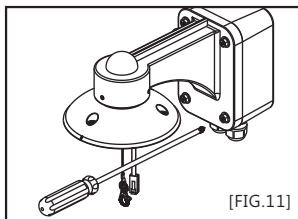
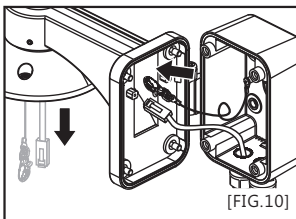
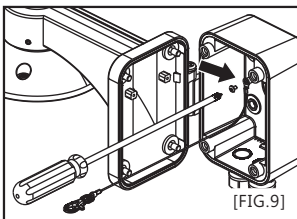
- Step 2 Secure the bracket base to the wall**  
 Attach the installation sticker to the wall and drill four holes according to the instructions (FIG.3). Tighten four bolts to secure the base to the wall (FIG. 4). To use the central hole on the base, first hammer the lid off (FIG.5).  
 Note The bolts are not included in the package.



- Step 3 Attach the quick release adaptor to the bracket**  
 First remove the quick release adaptor from the camera body. Align the adaptor with the bracket before tightening the bracket bolts (FIG. 6 & FIG.7). Then slide the adaptor and bracket together down the hinge to connect to the base (FIG.8). Note: The three bolts on the adaptor must be loosened first to remove the adaptor.

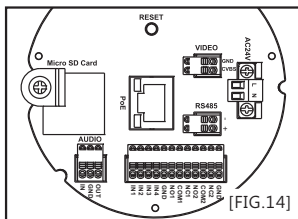
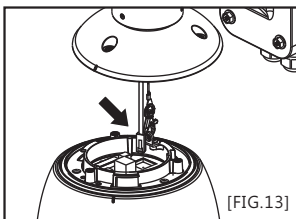
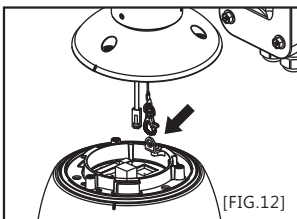


- Step 4 Slip the control wires through the bracket**  
 Properly secure the safety strap to the bracket, and slip the safety strap, RJ-45 cable, and AC24V power connector through the bracket (FIG.9 & FIG.10). Secure the bracket to the base (FIG.11)  
 Note: The AC24V power connector is not needed to be connected when a PoE device is used.



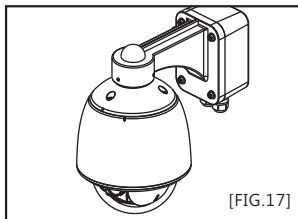
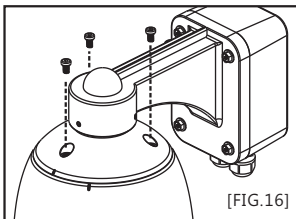
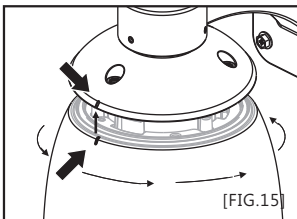
#### Step 5 Connect the control wires

To prevent the camera from falling, you should first secure the safety strap to the camera body (FIG. 12). Next, connect the RJ-45 cable and AC24V power connector to the hub on the body (FIG. 13 & FIG. 14).



#### Step 5 Install the camera body

Align markings on the quick release adaptor and the camera body. Twist the camera body clockwise into the adaptor (FIG. 15). Tighten the three bolts on the adaptor (FIG. 16) to secure the camera and finish the installation (FIG. 17).



### Low Temperature Power-Up

Camera may perform abnormally at low temperature. Hence, follow the below procedure when the camera is off due to power outage or other issues and needs to be restarted under  $-40^{\circ}\text{C}$  to  $-5^{\circ}\text{C}$ .

#### Low temperature power-up procedure

Power up and wait for the heater to warm up for 15 minutes before you operate the camera.



# Specifications

20X/30X D/N 1080P 60FPS FULL HD FAST DOME IP CAMERA		
General		
Model No.	PSD4624EX20	PSD4624EX30
Power Supply	AC24V ±10% / PoE+	
Power Consumption	max.30W, 55W (heater on)	
Image Pickup Device	1/2.8" CMOS sensor	
Effective Pixels	1944(H) x 1224(V) = 2,379,456 (pixels)	
Total Number of Pixels	1952(H) x 1236(V) = 2,412,692 (pixels)	
Scanning System	Progressive Scan	
Video Output	CVBS 1.0Vp-p/ 75ΩBNC	
Minimum Illumination	0.5Lux (Color, F1.6 (1/30 sec, 50%, AGC on) 0.1Lux (Mono, F1.6 (1/30 sec, 50%, AGC on)	
IP Rating	IP66	
Operating Temperature	-40°C ~ +50°C (-40°F ~ 122°F)	
Operating Humidity	0% ~ 90%	
Dimensions	275mm(H) x 192mm(D)	
Weight	2750 g	
Heater Activation	On: 15°C, Off: 25°C	
Fan Activation	On: 35°C, Off: 25°C	
Pan & Tilt		
Pan Range	360° Endless	
Pan Mode	Manual, Auto, Manual Position, Sequential Position	
Pan Speed	Manual Speed: 8 Steps, 0.1°-120°/s, Preset Speed: 1° - 255°/s, Alarm Speed: 360°/s	
Tilt Range	-0° ~ +180°	
Tilt Mode	Manual, Auto, Manual Position, Sequential Position	
Tilt Speed	Manual Speed: 8 Steps, 0.1°-120°/s, Preset Speed: 1° - 255°/s, Alarm Speed: 360°/s	
Lens		
Zoom Ratio	20X Optical Zoom	30X Optical Zoom
Focal Length	4.3mm ~ 86mm	4.3mm ~ 129mm
F-number	1 : 1.6 (Wide) ~ 5.0 (Tele)	1 : 1.6 (Wide) ~ 5.0 (Tele)
Minimum Object Distance	10mm (Wide) , 1.5m (Tele)	10mm (Wide) , 1.5m (Tele)
Iris range	F1.6 ~ 32, Off	F1.6 ~ 32, Off
Field of View	Wide: 64.45°(H) 39.27°(V), Tele: 3.58°(H) 2.01°(V)	Wide: 64.45°(H) 39.27°(V), Tele: 2.41°(H) 1.36°(V)
Main Function		
Control Function	Pan and Tilt/ Zoom and Focus/ Iris and ICR/ 256 Preset Position/ Home Position	
Digital Zoom Ratio	16X	
Manual Zoom Speed	0~7 Selectable [Fast: Approx. 6.0 Sec (Tele to Wide)]	
Manual Focus Speed	0~7 Selectable [Fast: Approx. 6.0 Sec (Far to Near)]	
Focus	Auto/Manual	
Iris	Auto/Manual	
Day & Night	Auto/Day/Night	
Shutter Speed	Auto/Manual (1/30(25) ~ 1/100,000Ⅱ)	
Exposure Mode	Auto/Manual	
Backlight Compensation	Off/On/WDR	
Sharpness	Adjustable	
White Balance	Auto/Indoor (3200K)/Outdoor (5800K)/Manual (2000K~10000K)	
Auto Gain Control	0~20dB	
Digital Noise Reduction	Off/On (2D, 3D)	
Digital Stabilization	Off/On	
Defog	Off/On	
Auto Mode	Off/On/SEQ/Patrol	
Privacy Mask	Off/On (Up to 16 Areas)	
Digital Effect	Off/Mirror	
Alarm Input/Output	4 Inputs (TTL 5Vdc), 2 Outputs (0.5A 120Vac, 1A 24Vac)	
Scheduling Setting	Off/Auto Mode/Preset Position	

**Design and specifications are subject to change without notice.**

Network Function	
Video Encoding Format	H.264 Main and High Profile, Motion JPEG
Resolution	1080P(1920x1080), 720P(1280x720), D1(720x480), CIF(352x240)
FPS	Multiple Streaming, H.264: Up to 1920x1080 @60fps, Motion JPEG: Up to 720x480 @30fps
	2WDR, H.264: Up to 1920x1080 @30fps, Motion JPEG: Up to 720x480 @30fps
Streaming Protocol	RTP/HTTP, RTP/TCP, RTP/UDP, Multicast
Video Bitrate	128Kbps ~ 12Mbps
	Frame rate and bitrate controllable on-the-fly
	VBR/ CBR/ GOP supported
Security	Base64 HTTP encryption
	Multiple user access levels with password protection
	10 user accounts available
Users	8 simultaneous users
OSD	Text overlay for date, time, camera name, angle, and zoom ratio
Alarm Function	Audio detection/motion detection/external trigger for SD card recording and sending to FTP or Email
CPU & Memory	Embedded SoC, 1.2GHz, Dual ARM Cortex-A9 & 600MHz ARM11, 1GB DDR3 Memory, 256MB Flash Memory
Web PTZ Control	Pan, tilt, zoom in/ out, absolute position, and video-click-n-move
PTZ Preset Scheduling	Yes, via web interface
Maintenance	Firmware update via HTTP
	Firmware available at website
Network Interface	10/ 100/ 1000 Mbps Base-T, RJ-45
PC Requirement	OS : Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8
	Internet Browser: Windows Internet Explorer 6 or above
	CPU : Intel Core 2 Duo e6400 2.13GHz or above
	RAM : GB or above, dedicated graphics card
Network Protocols	Ipv4, Ipv6, TCP, UDP, HTTP, SMTP, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, RTSP, RTCP, Telnet, ICMP, IGMP, Onvif Profiles, SNMP, SIP
Mobile Devices	iPhone, iPad and Android support
System Integration	Onvif & Universal HTTP API
CMX	CMX 3.6/ NAV 1.0 support
Video Display	Universal ActiveX & Java Applet
OS	Embedded Linux 3.80
Two-Way Audio	G.711/ PCM
SD Card Recording	Supports Micro SD/ SDHC/ SDXC card

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