



OWNER'S MANUAL


High Definition Network Camera

Please read this manual carefully before operating your set and retain it for future reference.


To view the instructions of advanced features, visit <http://www.lgcommercial.com> and then download Owner's Manual.

MODEL
LND3110R series







CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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This lightning flash with arrowhead symbol within an equilateral 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 to persons.
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The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

REGULATORY INFORMATION: FCC Part 15

This equipment has been tested and found to comply with the limits for a Class A 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 commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- A suitable conduit entries, knock-outs or glands shall be provided in the cable entries of this product in the end user.
- Caution: Danger of explosion if battery is incorrectly replaced. Replaced only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
- Holes in metal, through which insulated wires pass, shall have smooth well rounded surfaces or shall be provided with brushings.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.



Specification

Item		LND3110R series
Camera	Image Device	6.28 mm (1/3 type) CMOS
	Lens Type	4 mm F2.0
	Day/Night	ICR (Auto / Day / Night)
	Minimum Illumination	Color: 0.03 lx @ F2.0 (1/30 sec, 50 IRE) B/W: 0 lx @ IR LED on
	IR Distance	20 m
	WDR	Digital (Dynamic Range Enhancer)
	Image Enhancement	Backlight Compensation, DNR, Exposure Control, AGC, White Balance, Privacy Masking, Sharpness
Video	Compression	H.264_HIGH, H.264, MJPEG
	Resolution	1280 x 1024 / 1280 x 720 / D1 (704 x 480) / CIF (352 x 240)
	Maximum Frame Rate	30 fps @ 1280 x 1024
	Multi-Streaming	Up to 2
	Video Analytics	Motion detection, Tampering alarm
Event	Event Notification	Email, FTP
	Pre Event Buffering	Support
Network	Ethernet	RJ-45 10 / 100BASE-T
	Security	Password Protection, HTTPS(SSL, TLS), IP filtering, IEEE 802.1X
	Open Protocol	ONVIF 2.2 Profile S, PSIA 1.1
	Protocol	IPv4 and IPv6: TCP, UDP, HTTP, HTTPS, RTP, RTSP, DHCP, ICMP, QoS, UPnP IPv4: FTP, SMTP, NTP, ARP, SNMPv1/v2c/v3, DDNS(LG)
	Connections	Up to 10
	Integrated Software	LG Ipsolute VMS Suite / Mobile application (iPhone, iPad, Android)

Warning: Do not install this equipment in a confined space such as a bookcase or similar unit.

Warning: Wiring methods shall be in accordance with the National Electric Code, ANSI/NFPA 70.

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Warning: To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

Warning: Please adopt the power adapter which can meet the safety extra low voltage (SELV) standard. And source with DC 12 V or AC 24 V (depending on models) according to the IEC60950-1 and Limited Power Source standard.

Warning: Install the camera on a ceiling or wall where can withstand the weight of 5 times of the camera including mounting bracket.

Caution: This installation shall be made by a qualified service person and shall conform to all local codes.

Caution: To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Caution: The apparatus shall not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Caution: Make sure the power supply voltage is correct before using the camera.

Caution: Do not drop the camera or subject it to physical shock.

Caution: The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.

Caution: While shipping, the camera should be packed in its original packing.

The Power Plug is the disconnecting device. In case of an emergency, the Power Plug must remain readily accessible.

Contact office for compliance of this product:
LG Electronics European Shared Service Center B.V.
European Standard Team
Krijgsman 1
1186 DM Amstelveen
The Netherlands

Disposal of your old appliance



- This crossed-out wheeled bin symbol indicates that waste electrical and electronic products (WEEE) should be disposed of separately from the municipal waste stream.
- Old electrical products can contain hazardous substances so correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health. Your old appliance may contain reusable parts that could be used to repair other products, and other valuable materials that can be recycled to conserve limited resources.
- You can take your appliance either to the shop where you purchased the product, or contact your local government waste office for details of your nearest authorised WEEE collection point. For the most up to date information for your country please see www.lg.com/global/recycling

General	Power Source	DC 12 V
	Maximum Power Consumption	5.4 W
	Maximum Input Current	450 mA (DC 12 V)
	Operation Temperature/ Humidity	-10 °C to 55 °C / 0 % RH to 80 % RH
	Dimension (Ø x H)	140 mm x 122 mm
	Weight	465 g

Note that design and specification of this unit may change from the manual as quality and improvement without prior notice.

Component

Camera, Installation Manual, Screws (4 EA), Installation sticker, Camera mounting bracket

Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.





OPEN SOURCE SOFTWARE NOTICE

To obtain the source code under GPL, LGPL, MPL and other open source licenses, that is contained in this product, please visit <http://opensource.lge.com>.

In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.

	Символ «не для пищевой продукции» применяется в соответствии с техническим регламентом Таможенного союза «О безопасности упаковки» 005/2011 и указывает на то, что упаковка данного продукта не предназначена для повторного использования и подлежит утилизации. Упаковку данного продукта запрещается использовать для хранения пищевой продукции.	Символ Көдендік одақтың 005/2011 техникалық регламентіне сәйкес қолданылады және осы өнімнің қаптамасын екінші рет пайдалануға арналмағанын және жоюға жататынын көрсетеді. Осы өнімнің қаптамасын азық-түлік өнімдерін сақтау үшін пайдалануға тыйым салынады.
	Символ «петля Мебиуса» указывает на возможность утилизации упаковки. Символ может быть дополнен обозначением материала упаковки в виде цифрового и/или буквенного обозначения.	Символ қаптаманы жою мүмкіндігін көрсетеді. Символ сандық код және/немесе әріп белгілері түріндегі қаптама материалының белгісімен толықтырылуы мүмкін.

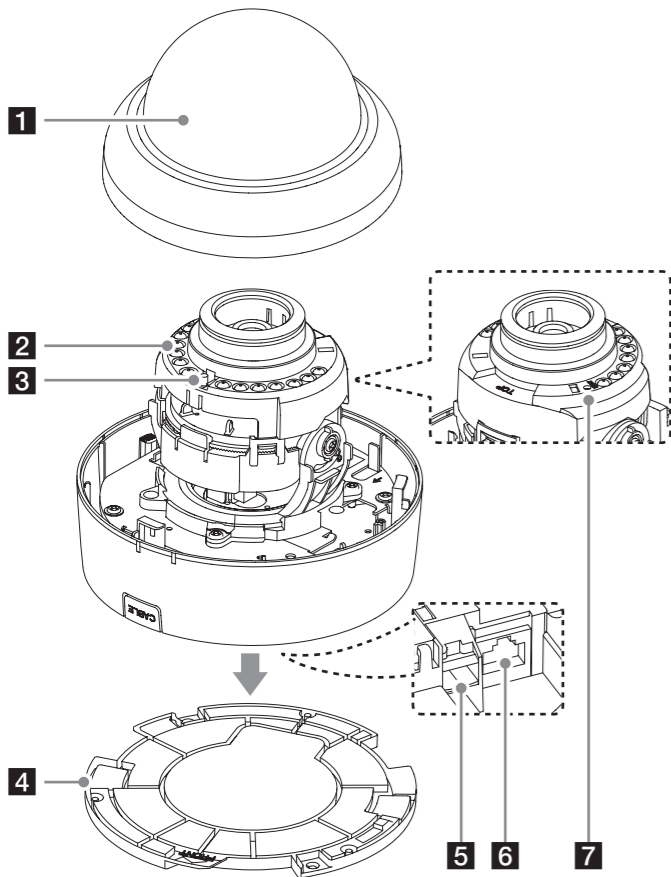
Handling of the unit

Be careful not to spill water or other liquids on the unit. Be cautious not to get combustible or metallic material inside the body. If used with foreign matter inside, the camera is liable to fail or to get cause of fire or electric shock.

- Remove dust or dirt on the surface of the lens with a blower.
- Use a soft and lint-free, dry cloth(such as glass cleaner) to clean the body. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent then wipe dry.
- Avoid the use of volatile solvents such as thinners, alcohol, benzene and insecticides. They may damage the surface finish and/ or impair the operation of the camera.
- This camera is designed for mounting on the ceiling or wall. If you install this camera upside down, it may cause malfunction.
- Extremely hot or cold places (operating temperature -10 °C to 55 °C, however, we recommend that the unit be used within a temperature range of 0 °C to 45 °C)
- Damp or dust place
- Places exposed to rain
- Places subject to strong vibration
- Close to generators of powerful electromagnetic radiation such as radio or TV transmitters.
- Do not use the camera in such place where rapid temperature fluctuation by switching an air conditioner on and off.



Part Names and Functions



1 Dome Cover

2 IR LED

- Do not stare at operating IR LED within hazard distances (1 m).

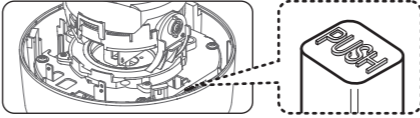
3 IR Sensor

4 Camera mounting bracket

You can lock the camera mounting bracket by tighten the screws.



- To disassemble the camera from the mounting bracket, rotate the camera counterclockwise with pressing the PUSH button inside the camera body.



5 Power input terminal

Connects to a DC 12 V power supply using proper cables. This camera must always be operated a DC 12 V. Certified/Listed Adaptor which comply with LPS.

6 ETHERNET

Connects to a PC or a network via a hub with a 10 BASE-T/100 BASE-TX cable attached RJ-45 connector.

7 RESET button

Push the button more than 3 seconds, this would restore the factory default network related settings.

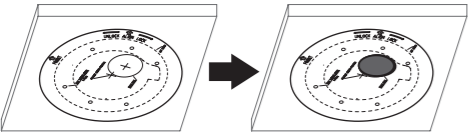


Installation

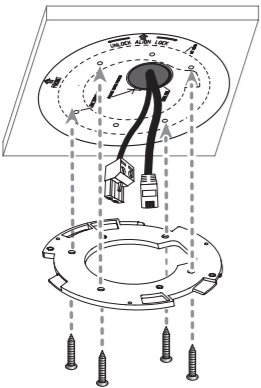
Mounting the camera

Follow the instructions below to surface mount the camera with supplied camera mounting bracket.

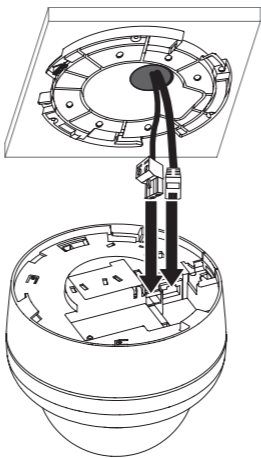
- Use the installation guide template to check the mounting location. Face the front of the label toward the area of interest. Using the template as a guide, make a hole through the ceiling.



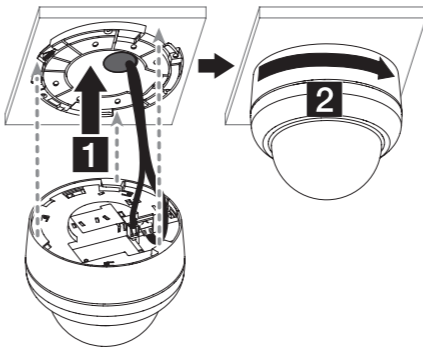
- Disassemble the camera from the mounting bracket. Install the camera mounting bracket to the ceiling.



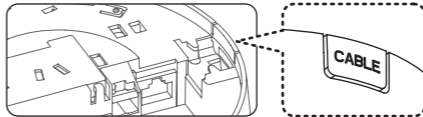
- Connect the cables to the cable jacks of the camera body.



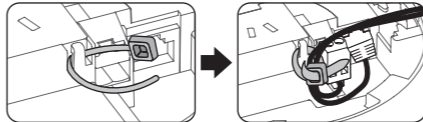
- Assemble the camera and mounting bracket after align the front part of the camera and mounting bracket. Connect the unit by following step 1 and 2.



- Be careful of sharp edge after removing the cap of cable conduit.

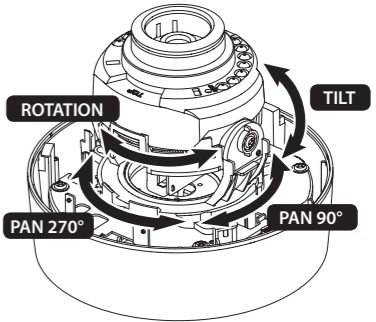


- Arrange the cables by cable tie after installation.



Camera Adjustment

Adjust the Pan/Tilt/Rotation position of the camera.



- When you assemble the dome cover, make sure the arrow of base bracket position is aligned with the LG logo.
- Manual adjustment: PAN: 360° / TILT: 75° / ROTATION: 355°
- When you adjust PAN/TILT/ROTATION manually, be careful your hand is not to hurt by protrusions of other part.
- When you adjust PAN/TILT/ROTATION manually, be careful the cable is not damaged or pinched.



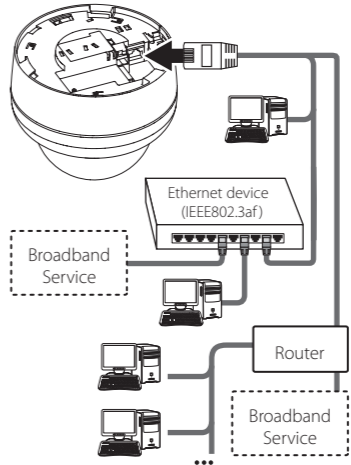
Connection

Precautions

- Be sure to switch off the unit before installation and connection.
- The installation should be made by qualified service personnel or system installers.
- Do not expose the power and connection cables to moisture, which may cause damage to the unit.

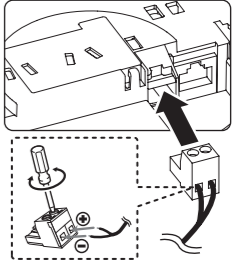
Connecting Network

You can control and monitor the system via network. With the remote control (monitoring), you can change the system configuration or monitor the image via network. After the installation, check the network settings for the remote control and monitoring work. Connect the IP camera to your network using a standard RJ-45 network cable as shown below.



Connecting Power Source

Connect a DC 12 V power source to the power input terminal as shown below. (Recommended power adapter is DC 12 V/ 1.5 A or above)



- When the connecting power adapter, tighten the screws as shown above.
- Put your finger between the power connector and the camera body to pull out the connector.

