OWNER'S MANUAL

Color Video Camera

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

MODEL

LCB5100-BN
LCB5100-BP

MFL67409485

AB28

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.

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.

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.

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: The product has been dropped or the case is broken, turn off the power and unplug the power cord. (This may cause fire, electric shock, or injury.)

Warning: If the product has no video out or sound, please stop using. Unplug the power cable immediately and contact the service center. (This may cause fire or electric shock.)

Caution: This installation should be made by a qualified service person and should 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: Prevent the power cable from being severely bent or having pressure exerted on it by a heavy object.

To disconnect power from mains, pull out the mains cord plug. When installing the product, ensure that the plug is easily accessible.

LG Electronics hereby declares that this/these product(s) is/are in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC and 2011/65/EU.

Contact office for compliance of this product:

LG Electronics Inc.

EU Representative, Krijgsman 1,1186 DM Amstelveen, The Netherlands

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

EEE Yönetmeliğine uygundur.

	Символ «не для пищевой продукции» применяется в соответствие 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 Кедендік 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.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. 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.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Power Supply

This camera must always be operated AC 24 V or DC 12 V. Certified/Listed Adaptor which comply with LPS.

Handling of the unit

Be careful not to spill water or other liquids on the unit. Be cautions 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 dry soft cloth 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.

Operating and storage location

Avoid viewing a very bright object (such as light fittings) during an extended period. Avoid operating or storing the unit in the following locations.

- Extremely hot or cold places (operating temperature -10 °C to 50 °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.

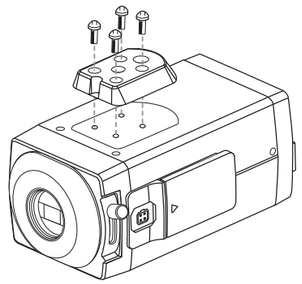
Specification

Item	LCB5100-BN	LCB5100-BP
Signal System	NTSC	PAL
Total Pixels number	520 000 Pixels	610 000 Pixels
Effective Pixels number	480 000 Pixels	570 000 Pixels
Image Sensor	6 mm (1/3 Type) Exview HAD II CCD	
ISP	XDI-V	
Lens	C/CS Mount	
Horizontal Resolution	650 TV Lines (Color), 700 TV Lines (B/W)	
S/N Ratio	50 dB	
Day & Night	Digital (AUTO / DAY / NIGHT)	
Sens-up	OFF / AUTO(x2, ... x512) /MANUAL(x2, ... x512)	
Minimum Illumination (F1.2, 30 IRE)	0.03 lx (Sens-up Off), 0.0003 lx (Sens-up Auto), 0.000 001 (Sens-up x512)	
White Balance	ATW / AUTO / AWC➡SET KEY /MANUAL	
Digital Zoom	X16	
IRIS Control	DC	
Scanning Frequency (H/V)	15.734 kHz / 59.94 Hz	15.625 kHz / 50 Hz
Sync. System	Internal / Line Lock	
Auto Gain Control	OFF/ LOW/ MIDDLE/ HIGH	
Exposure	ALC / ELC	

Item	LCB5100-BN	LCB5100-BP
Video Output	1 Vp-p Composite (75 Ω)	
Electronic Shutter	1/60 to 1/120 000	1/50 to 1/120 000
Backlight Compensation	BLC / HSBLC / OFF	
Motion Detection	8 Zones	
Privacy Masking	14 Mask Zones	
DNR	2D + 3D-DNR	
Digital Effect	OFF / MIRROR / ROTATE / V-FILP	
Control Method	Coaxial Communication	
Power Source	DC 12 V / AC 24 V	
Power Consumption	240 mA	
Operating Temperature/ Humidity	-10 °C to 50 °C / 0 % RH to 80 % RH	
Storage Temperature/ Humidity	-20 °C to 60 °C / 0 % RH to 85 % RH	
Dimension (W x H x D)	68.6 mm x 54.0 mm x 121.5 mm	
Weight	362 g	

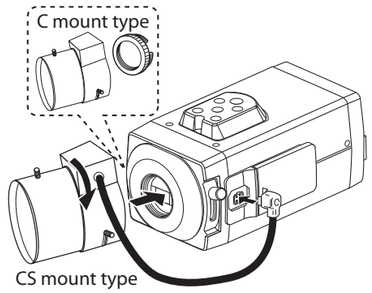
Installation

1. Install the camera and mounting bracket securely.



<ITALIANO>	Montare la videocamera alla staffa in maniera sicura.
<ESPAÑOL>	Monte la cámara y el soporte.
<PORTUGUÊS>	Instale a câmera e o suporte de montagem firmemente.
<РУССКИЙ>	Надежно установить камеру и монтажный кронштейн.
<TÜRKÇE>	Kamera ve kamera bağlantı parçasını sağlam bir şekilde monte edin.

2. Install the C or CS mount type lens.

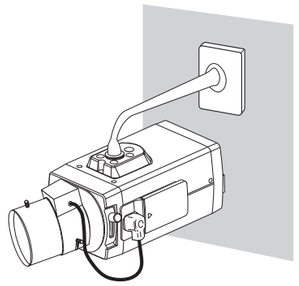


Note:

Turn off the camera essentially before the lens connection or replacement.

<ITALIANO>	Installare un obiettivo di tipo C o CS.
<ESPAÑOL>	Instale un objetivo C o CS.
<PORTUGUÊS>	Instale as lentes de montagem do tipo C ou CS.
<РУССКИЙ>	Установить оправы объектива типа C или CS.
<TÜRKÇE>	C ve CS tipi lens takın.

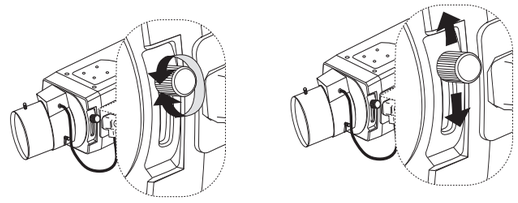
3. Install the camera and mounting arm.



<ITALIANO>	Montare la videocamera al braccio.
<ESPAÑOL>	Monte la cámara y el brazo de soporte.
<PORTUGUÊS>	Instale a câmera e o braço de montagem.
<РУССКИЙ>	Установить камеру и монтажный кронштейн.
<TÜRKÇE>	Kamera ve kamera bağlantı parçası kolunu monte edin.

4. Loosen the flange-back fixing lever. Up and down the flange-back adjusting lever to obtain a focused point.

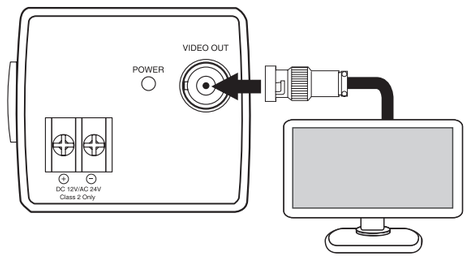
<To loosen the lever.> **<To adjust the focus.>**



<ITALIANO>	Allentare la leva per il fissaggio della flangia posteriore. Sollevare e abbassare la leva di regolazione della flangia posteriore per ottenere un punto di messa a fuoco.
<ESPAÑOL>	Afloje la palanca de fijación. Suba o baje la palanca de ajuste para obtener un punto de enfoque
<PORTUGUÊS>	Afrouxe o nivelador de fixação da flange traseira. Suspenda e abaixe o nivelador de fixação da flange traseira para obter o ponto do foco.
<РУССКИЙ>	Ослабить крепежные винты заднего фланца. Использовать регулирующее кольцо заднего фланца для достижения точки фокуса.
<TÜRKÇE>	Flanş arka kolu tutan vidaları gevşetin. Flanş arka ayar halkasını kullanarak odak noktasını belirleyin.

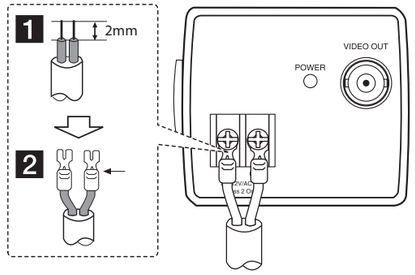
Connections

1. Connect the display device.



<ITALIANO>	Collegare il dispositivo del display.
<ESPAÑOL>	Conecte el dispositivo de visualización.
<PORTUGUÊS>	Ligue o visor.
<РУССКИЙ>	Подключите устройство отображения.
<TÜRKÇE>	Görüntüleme aygıtını bağlayın.

2. Connect the power source.

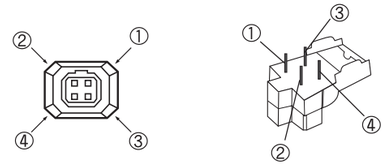


<ITALIANO>	Collegare ad alimentazione di energia a CC 12 V / CA 24 V UL indicata, Classe 2 solo sull'unità.
<ESPAÑOL>	Conecte a la alimentación eléctrica de 12 VCD / 24 VCA en lista UL, de Clase 2 sólo en la unidad.
<PORTUGUÊS>	Ligue ao DC 12 V / AC 24 V UL listado, fornecimento de energia Classe 2 apenas na unidade.
<РУССКИЙ>	Данная камера должна подключаться только к сертифицированному/указанному в списке источнику питания переменного тока напряжением 24 В или постоянного тока напряжением 12 В класса 2.
<TÜRKÇE>	Kameranın bağlantısını sadece 12V AA / 24V DA UL Sınıf 2 güç kaynağı ile gerçekleştirin.

Additional Information

Lens iris output connector

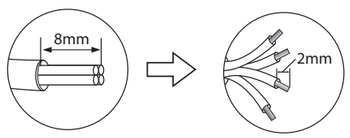
Pin layout for the lens iris output connector.



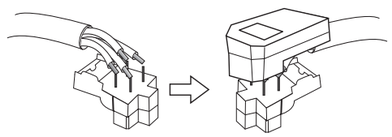
No.	DC type lenses
1	Damping -
2	Damping +
3	Drive +
4	Drive -

Rewire the lens iris plug

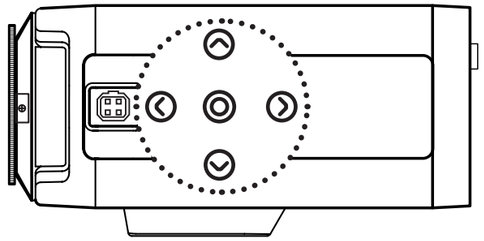
1. Cut off the plug of the lens cable, cut off approximately 8 mm of the insulation, and then strip approximately 2 mm of the ends of the cable sheaths.



2. Solder the ends of the cable wires to the ends of the pins, and then attach the cover of the lens iris plug.



OSD Menu Control Buttons



BUTTON	Description
UP	Used to move upper direction on the menu screen. Use this button to select an item or adjust the parameters.
DOWN	Used to move lower direction on the menu screen. Use this button to select an item or adjust the parameters.
RIGHT	Moves the cursor to the right. Used to increment the value selected in the menu. The parameter changes each time this button is pressed.
LEFT	Moves the cursor to the left. Used to decrement the value selected in the menu. The parameter changes each time this button is pressed.
SET	Executes selections and displays a submenu for an item with the ▲ mark.