

OWNER'S MANUAL

Color Video Camera


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

MODEL

L322-BN
 L322-BP
 L322 Series

P/NO : MFL67260101(A)

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.
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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.



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.

Power Supply

This camera must always be operated by AC 24 V or DC 12 V Certified/Listed, class 2 power supply only.

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 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.

- 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.

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.

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

Specification

ITEM	L322-BN	L322-BP
Signal System	NTSC	PAL
Total Pixels No./ Effective Pixels No.	410 000 / 380 000 Pixels	470 000 / 440 000 Pixels
Image Device	6 mm CCD	
DSP	XDI-S2	
Lens	CS Mount (C Mount using adaptor ring)	
Digital Zoom	X 8	
IRIS Control	DC / ELC	
Sync. System	Internal	
Scanning Frequency (H/V)	15.734 kHz / 59.94 Hz	15.625 kHz / 50 Hz
Horizontal Resolution	600 TV Lines	
S/N Ratio	52 dB	
Minimum Illumination (Color, F1.2, 30 IRE)	Color : 0.1 lux (Sens-up OFF, F1.2) B/W : 0.00003 lux (Sens-up Auto, F1.2)	
Control Method	Key button	
Video Output Signal	1 Vp-p Composite (75 Ω)	
Day & Night	Day/Night/EXT/AUTO	
BACKLIGHT	OFF / WDR / BLC / HSBL	



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, 2006/95/EC, and 2009/125/EC.

European representative :

LG Electronics Service Europe B.V.
 Veluwezoom 15, 1327 AE Almere,
 The Netherlands (Tel : +31-(0)36-547-8888)

Disposal of your old appliance

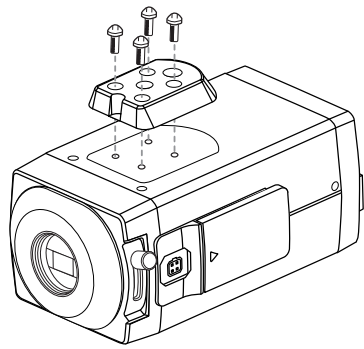


1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government 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 Compliance with Directive. (for Turkey only)

Installation Guide

1 Install the camera and mounting bracket securely.



<FRANÇAIS> Installez solidement la caméra et le support de montage.

<ITALIANO> Montare la videocamera alla staffa in maniera sicura.

<ČEŠTINA> Připevněte řádně kameru a mechanismus pro uchycení.

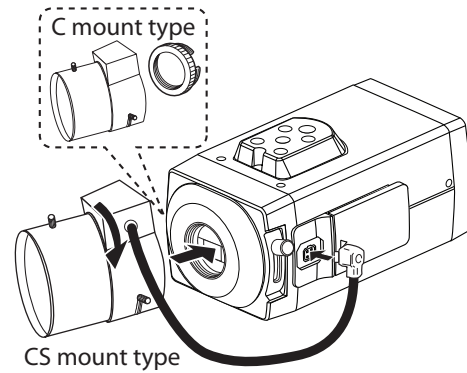
<POLSKI> Zamontować dokładnie kamerę oraz wspornik montażowy.

<ESPAÑOL> Monte la cámara y el soporte.

<NEDERLANDS> Zet de camera en de montagebeugel stevig vast.

<PORTUGUÊS> Instale a câmara e o suporte de montagem firmemente.

2 Install the C or CS mount type lens.



<FRANÇAIS> Installez l'objectif à monture C ou CS.

<ITALIANO> Installare un obiettivo di tipo C o CS.

<ČEŠTINA> Nainstalujte připevňovací čočky typu C nebo CS.

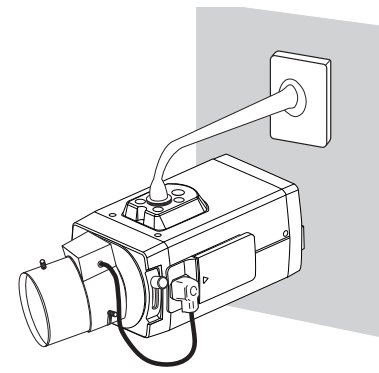
<POLSKI> Malować obiektyw typu C lub CS.

<ESPAÑOL> Instale un objetivo C o CS.

<NEDERLANDS> Monteer een C-mount- of CS-mount-objectief ('lens').

<PORTUGUÊS> Instale as lentes de montagem do tipo C ou CS.

3 Install the camera and mounting arm.



<FRANÇAIS> Installez la caméra et le bras de montage.

<ITALIANO> Montare la videocamera al braccio.

<ČEŠTINA> Připevněte kameru a připevňovací rameno.

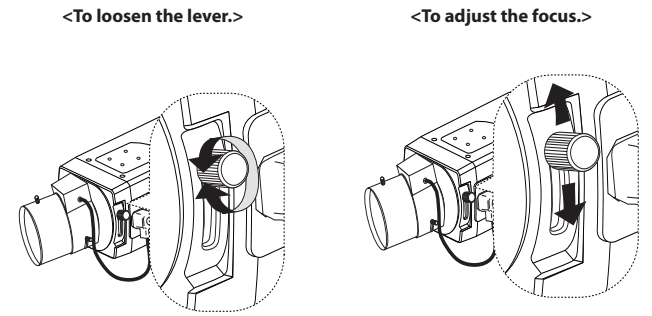
<POLSKI> Zamontować kamerę oraz ramię montażowe.

<ESPAÑOL> Monte la cámara y el brazo de soporte.

<NEDERLANDS> Monteer de camera en de montagearm.

<PORTUGUÊS> Instale a câmara e o braço de montagem.

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



<FRANÇAIS> Desserrez le levier de fixation de l'embase. Levez ou abaissez le levier de réglage de l'embase pour obtenir un point net.

<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.

<ČEŠTINA> Povolte zpětnou přírubu upevňovací páčky. Pohybuje směrem nahoru a dolů zpětnou upevňovací páčkou pro získání zaměřovacího bodu.

<POLSKI> Poluzować dźwignię mocowania kołnierza. Aby uzyskać punkt ogniskowania poruszyć dźwignię regulacji kołnierza do góry i na dół.

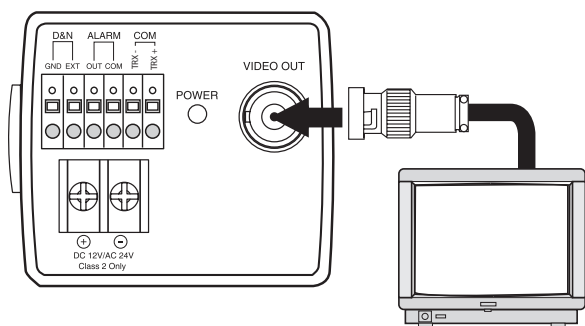
<ESPAÑOL> Afloje la palanca de fijación. Suba o baje la palanca de ajuste para obtener un punto de enfoque.

<NEDERLANDS> Maak de flange-back bevestigingshendel los. Beweeg de flange-back instelheldel op en neer om een scherpestelpunt te bereiken.

<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.

Connection Guide

1 Connect the display device.



<FRANÇAIS> Branchez l'écran de visualisation.

<ITALIANO> Collegare il dispositivo del display.

<ČEŠTINA> Připojte zobrazovací zařízení.

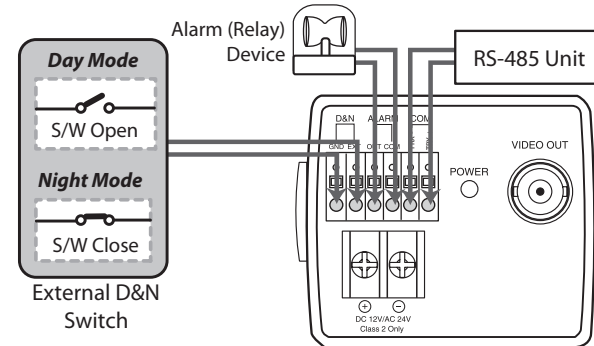
<POLSKI> Podłącz wyświetlacz.

<ESPAÑOL> Conecte el dispositivo de visualización.

<NEDERLANDS> Sluit het weergave-apparaat aan.

<PORTUGUÊS> Ligue o visor.

2 Connect the external device.



<FRANÇAIS> Branchez l'appareil externe.

<ITALIANO> Collegare il dispositivo esterno.

<ČEŠTINA> Připojte externí zařízení.

<POLSKI> Podłącz urządzenie zewnętrzne.

<ESPAÑOL> Conecte el aparato externo.

<NEDERLANDS> Sluit het externe apparaat aan.

<PORTUGUÊS> Ligue o dispositivo externo.

! RS-485 Protocol

Data Communication Format

- Data Length: 1 Byte (8 Bit)
- Start/Stop Bit: 1 Bit
- Parity Bit: None
- Baud rate: 9 600 bps

Format

BYTE1	BYTE2	BYTE3	BYTE4	BYTE5	BYTE6
0xE5	0x86	Camera ID	CODE1	CODE2	*C.S.

*C.S. = Check Sum

- The data of total 6 bytes is transmitted from the external RS-485 device to the camera.

• BYTE 6 : The value of Check Sum from 'BYTE 1 ' to 'BYTE 5 '.

ex) In case of transmission, 0xC5, 0x5F, 0x02, 0x00, 0x0A"

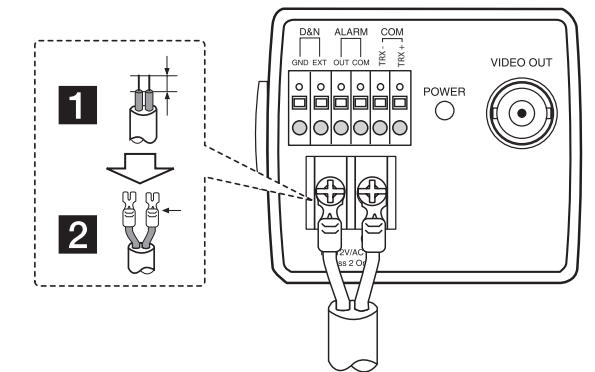
C.S. = 0xC5 + 0x5F + 0x02 + 0x00 + 0x0A = 0x0130

therefore, C.S. = 0x30

Commands

Function	Command
OSD Menu ON/OFF	E5, 86, ID, 41, 02, C.S.
LEFT Button	E5, 86, ID, 12, 80, C.S.
Right Button	E5, 86, ID, 12, 90, C.S.
Up Button	E5, 86, ID, 11, 80, C.S.
Down Button	E5, 86, ID, 11, 90, C.S.
Menu Button	E5, 86, ID, 41, 01, C.S.

3 Connect to the DC 12 V / AC 24 V UL Listed, Class 2 Power Supply only on the unit.



<FRANÇAIS> Branchez exclusivement à l'alimentation électrique de l'unité CC 12 V / CA 24 V certifiée UL, classe 2.

<ITALIANO> Collegare ad alimentazione di energia a CC 12 V / CA 24 V UL indicata, Classe 2 solo sull'unità.

<ČEŠTINA> Připojte pouze ke schválenému zdroji napájení DC 12 V / AC 24 V UL, Třída 2.

<POLSKI> Podłącz do zasilania DC 12 V / AC 24 V UL Listed, klasy 2 jedynie z urządzenia.

<ESPAÑOL> Conecte a la alimentación eléctrica de 12 VCD / 24 VCA en lista UL, de Clase 2 sólo en la unidad.

<NEDERLANDS> Sluit de camera alleen aan op 12 V gelijkstroom- of 24 V wisselstroomvoeding, UL listed, klasse 2.

<PORTUGUÊS> Ligue ao DC 12 V / AC 24 V UL listado, fornecimento de energia Classe 2 apenas na unidade.