

## OWNER'S MANUAL

# Color Video Camera


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


### MODEL

LC903  
LC902  
LC901


P/NO : MFL66987626

## 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.
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- Unplug this apparatus during lightning storms or when unused for long periods of time.
  - 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**  
**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.

## Power Supply

This camera must be operated 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	LC901N	LC902N	LC903N	LC901P	LC902P	LC903P
Signal System	NTSC		PAL			
Total Pixels No.	811 (H) X 508 (V)		795 (H) X 596 (V)			
Image Device	4.5 mm EX-View CCD					
Lens	x37 Zoom ( F1.5 (Wide End) , F4.1 (Tele End) ) ( f = 3.5 mm to 129 mm )					
IRIS Control	DC IRIS					
Sync. System	Internal					
Scanning Frequency (H)	15.734 kHz		15.625 kHz			
Scanning Frequency (V)	59.94 Hz		50 Hz			
Horizontal Resolution	More than 540 TV Lines					
S/N Ratio	More Than 50 dB (AGC Off)					
Minimum Illumination	Color Mode	0.003 (0.6) lx (Sens-up OFF)	0.6 lx	0.003 (0.6) lx (Sens-up OFF)	0.003 (0.6) lx (Sens-up OFF)	0.003 (0.6) lx (Sens-up OFF)
	B/W Mode	0.0001 (0.1) lx (Sens-up OFF)	0.1 lx	0.0001 (0.1) lx (Sens-up OFF)	0.0001 (0.1) lx (Sens-up OFF)	0.0001 (0.1) lx (Sens-up OFF)
Video Output Signal	1 Vp-p Composite (75 Ω)					
Control Method	RS-485					
Auto Gain Control	Off / Low / Medium / High					
Day & Night	Day / Night / Auto / EXT					
Electronic Shutter	1/60 to 1/90 000		1/50 to 1/90 000			
White Balance	Auto / ATW / ONE PUSH / Manual					
Electronic Sensitivity	OFF / Auto					

**CE** 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



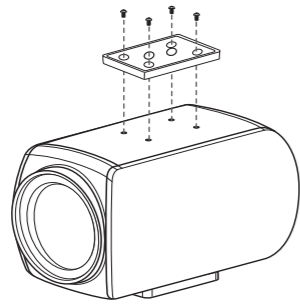
- When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
- All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
- The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
- 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)



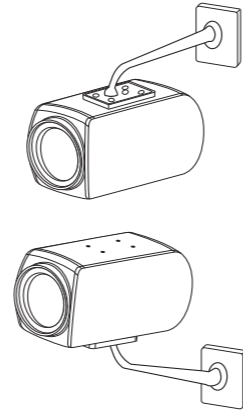
ITEM	LC901N	LC902N	LC903N	LC901P	LC902P	LC903P
WDR (BLC)	OFF / BLC / HSBLC	OFF / WDR / BLC	OFF / WDR / BLC / HSBLC	OFF / BLC / HSBLC	OFF / WDR / BLC	OFF / WDR / BLC / HSBLC
Motion detection	On / Off					
Privacy Zone Masking	8 Zones					
Power Source	DC 12 V ± 20 %					
Power Consumption	4.4 W					
Operation Temp. / Humidity	-10 °C to 50 °C / 0 % RH to 80 % RH					
Storage Temp. / Humidity	-20 °C to 60 °C / 0 % RH to 85 % RH					
Weight	520 g					
Dimension (H x V x D)	64 mm x 78.6 mm x 118.2 mm					

**1** Install the camera and mounting bracket securely.



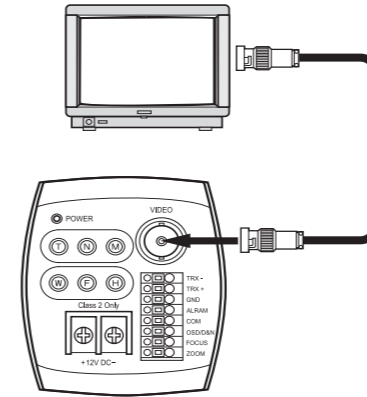
- <DEUTSCH> Befestigen Sie die Kamera fest an der Montagehalterung.
- <FRANÇAIS> Installez solidement la caméra et le support de montage.
- <ITALIANO> Montare la videocamera alla staffa in maniera sicura.
- <ESPAÑOL> Monte la cámara y el soporte.
- <PORTUGUÊS> Instale a câmara e o suporte de montagem firmemente.
- <NEDERLANDS> Zet de camera en de montagebeugel stevig vast.
- <РУССКИЙ> Надежно установить камеру и монтажный кронштейн.

**2** Install the camera and mounting arm.



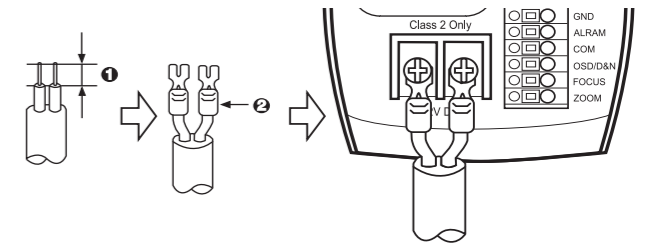
- <DEUTSCH> Befestigen Sie die Kamera am Montagearm.
- <FRANÇAIS> Installez la caméra et le bras de montage.
- <ITALIANO> Montare la videocamera al braccio.
- <ESPAÑOL> Monte la cámara y el brazo de soporte.
- <PORTUGUÊS> Instale a câmara e o braço de montagem.
- <NEDERLANDS> Monteer de camera en de montagearm.
- <РУССКИЙ> Установить камеру и монтажный кронштейн.

**3** The video signal connection between the camera and the monitor or DVR.



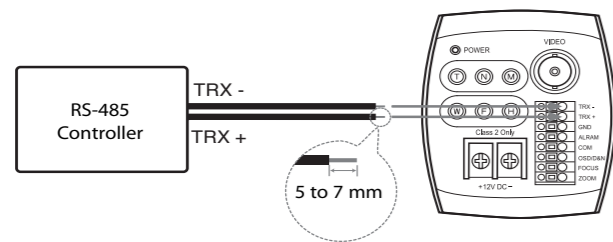
- <DEUTSCH> Videosignal-Anschluss zwischen Kamera, Monitor oder DVR-Gerät.
- <FRANÇAIS> La connexion du signal vidéo entre l'appareil-photo et le moniteur ou le DVR.
- <ITALIANO> Il collegamento del segnale video tra la videocamera e il monitor o il DVR.
- <ESPAÑOL> La conexión de señal de video entre la cámara y el monitor o un DVR.
- <PORTUGUÊS> A ligação do sinal de vídeo entre a câmara e o monitor ou DVR.
- <NEDERLANDS> De videosignaal verbinding tussen de camera en de monitor of DVR.
- <РУССКИЙ> Передача видеосигнала с камеры на монитор или цифровой видеомagneфон.

**4** Connect to the 12 V DC UL Listed, Class 2 Power Supply only on the camera.



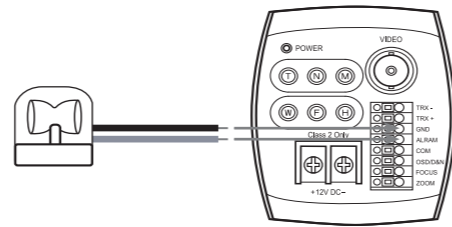
- <DEUTSCH> Schließen Sie die Kamera nur an ein UL eingetragenes 12 V-Gleichstromnetzteil der Klasse 2 an.
- <FRANÇAIS> Raccordez uniquement une alimentation 12 Vcc de classe 2 conforme UL sur l'appareil-photo.
- <ITALIANO> Collegare alla videocamera solo alimentatori in DC da 12 V UL Listed, Classe 2.
- <ESPAÑOL> Conéctelo a la fuente de alimentación de 12 V CC con clasificación UL, de clase 2 sólo en la cámara.
- <PORTUGUÊS> Ligue a Fonte de Alimentação 12 V DC UL Listed, Classe 2, apenas à câmara.
- <NEDERLANDS> Sluit alleen de 12 V DC UL Vermeelde, Klasse 2 Voeding aan op de camera.
- <РУССКИЙ> Подключите камеру к сертифицированному источнику питания постоянного тока класса напряжением 12 В.

**1** Connect to an external controller of RS-485 format.



- <DEUTSCH> Anschluss für eine externe Steuerung mit RS-485-Anschluss.
- <FRANÇAIS> Connecter à un contrôleur externe au format RS-485.
- <ITALIANO> Collegare a un controller esterno formato RS 485.
- <ESPAÑOL> Conectar a un controlador externo de formato RS-485.
- <PORTUGUÊS> Ligar a um controlador externo de formato RS-485.
- <NEDERLANDS> Aansluiten op een externe controller van RS-485 formaat.
- <РУССКИЙ> Подключите внешний контроллер формата RS-485.

**2** Connect an external device such as a buzzer or lamp to the ALARM terminal.

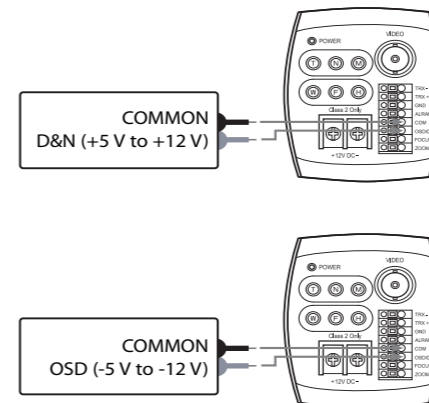


**Contact Ratings**

- Maximum load current is  $\pm 130$  mA.
- Do not connect any system or device that has over 40 Vp-p (DC 30 V) bias voltage on the contact terminal.

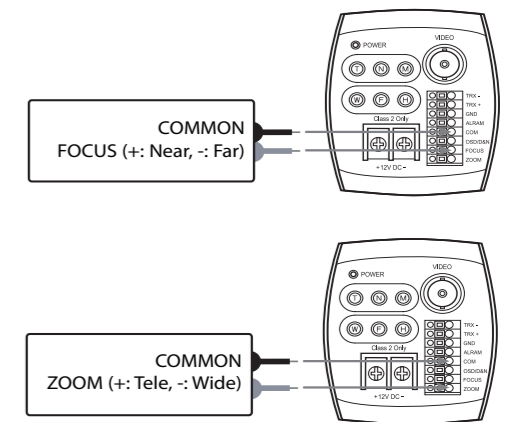
- <DEUTSCH> Schließen Sie ein Zusatzgerät an den Anschluss ALARM an, wie z. B. ein Summer oder eine Leuchte.
- <FRANÇAIS> Raccordez un appareil externe tel qu'un avertisseur ou une lampe à la borne ALARM.
- <ITALIANO> Connettere un dispositivo esterno, come un buzzer o una lampada al terminale ALARMA.
- <ESPAÑOL> Conecte un dispositivo externo, como un zumbador o una luz, al terminal de ALARMA.
- <PORTUGUÊS> Ligue um dispositivo externo, como um vibrador ou lâmpada ao terminal do ALARME.
- <NEDERLANDS> Sluit een extern toestel zoals een buzzer of een lamp aan op de ALARM terminal.
- <РУССКИЙ> Подключите внешнее устройство, например зуммер или лампу, к разъему ALARM.

**3** You can set the D&N and OSD function manually.



- <DEUTSCH> Die Funktionen D&N und OSD können manuell eingestellt werden.
- <FRANÇAIS> Vous pouvez régler manuellement les fonctions D&N et de OSD.
- <ITALIANO> È possibile impostare manualmente le funzioni D&N e OSD.
- <ESPAÑOL> Puede configurar la función D&N y OSD manualmente.
- <PORTUGUÊS> Pode definir manualmente as funções D&N e OSD.
- <NEDERLANDS> U kunt de D&N en OSD functie manueel instellen.
- <РУССКИЙ> Функции D&N и OSD можно настроить вручную.

**4** You can set the FOCUS and ZOOM function manually.



- <DEUTSCH> Die Funktionen FOKUS und ZOOM können manuell eingestellt werden.
- <FRANÇAIS> Vous pouvez régler manuellement les fonctions FOCUS et de ZOOM.
- <ITALIANO> È possibile impostare manualmente le funzioni FOCUS e ZOOM.
- <ESPAÑOL> Puede configurar la función FOCUS y ZOOM manualmente.
- <PORTUGUÊS> Pode definir manualmente as funções FOCUS e ZOOM.
- <NEDERLANDS> U kunt de FOCUS en ZOOM functie manueel instellen.
- <РУССКИЙ> Функции FOCUS и ZOOM можно настроить вручную.