

www.philipscsi.com

Dinion
DIGITAL CCTV CAMERA

**LTC 0435 & LTC 0455
SERIES COLOR CAMERAS**



INSTALLATION
INSTRUCTIONS

- EN
- FR
- DE
- ES
- NL
- IT
- PT
- ZH

Philips
Communication,
Security & Imaging



PHILIPS

IMPORTANT SAFETY INSTRUCTIONS

The 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 to persons.



The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance accompanying the appliance.

1. Read these instructions
2. Keep these instructions.
3. Heed all Warnings.
4. Follow all instructions.
5. Do not use the apparatus near water.
6. Clean with a dry cloth only.
7. Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus that generates heat (including amplifiers).
8. Do not defeat the purpose of a polarized or grounded mains plug. A polarized plug has dissimilar prongs (one wider than the other) to ensure correct polarity, while a grounded plug has an additional 'ground' prong provided for your safety. If the plug supplied with the apparatus does not fit into your outlet, consult an electrician for advice.
9. Protect the power-supply cord from being walked on or pinched, particularly close to plugs, receptacles and the point where it exits from the apparatus.
10. Only use attachments and accessories (including stands, tripods, mounting brackets and housings) specified or recommended by the manufacturer.
11. Unplug the apparatus during lightning storms and when unused for extended periods.
12. Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. Servicing is required when the apparatus does not function in the normal way, has been dropped, if liquid has been spilled on it, or if it has been exposed to rain or water. Unplug the unit from the outlet and refer servicing to qualified service personnel.
14. An all-pole mains switch with contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

Warning

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

FCC Information

Caution: Any changes or modifications to construction of this device that are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

SPECIFICATIONS

	LTC 0435/x0		LTC 0455/x0	
	Standard resolution		High resolution	
Standard	PAL	NTSC	PAL	NTSC
Active pixels (H x V)	512 x 582	512 x 492	752 x 492	768 x 492
Imager	1/3" interline CCD			
Resolution	330 TV lines		480 TV lines	
Minimum illumination	<0.7 lux		<0.8 lux	
			<0.3 lux with Nightsense™	
Signal-to-noise ratio	> 50 dB			
Video output	1 V _{pp} , 75 Ω			
Y/C output	NA		Y: 1 V _{pp} , 75 Ω; C: 0.3 V _{pp} 75 Ω	
Synchronization	Internal or Line-Lock (selectable)			
Shutter	Auto / Flickerless / Off (selectable)			
	PAL: 1/50 - 1/125000 - NTSC: 1/60 - 1/150000			
Nightsense™	NA		Auto / Forced / Off (selectable)	
Autoblack	On / Off (selectable)			
AGC	On (0-21 dB)/ Off (0 dB) (selectable)			
BLC	On / Off (selectable)			
ATW	Auto/Hold selectable 2500 to 9000 K			
Lens mount	C and CS compatible			
ALC	Video-iris or DC-iris (auto detect)			
Power supply	LTC 04x5/10 & /20: 12 to 28 VAC or 11 to 36 VDC LTC 04x5/50 & /60: 85 to 265 VAC			
Power consumption	<4 W			
Dimensions (HxWxL)	58 x 66 x 122 mm (2.28 x 2.6 x 4.8 inch without lens)			
Weight	450 g (0.99 lbs) (without lens)			
Camera mount	Two 1/4" 20 UNC - isolated (bottom) and non-isolated (top)			
Operating temperature	-20°C to +50°C (-4°F to +122°F)			
Controls	On-screen display (OSD) with softkey controls			

Type number overview

	Low voltage		High voltage	
	PAL (Europe)	NTSC (USA)	PAL (Europe)	NTSC (USA)
Standard resolution	LTC 0435/10	LTC 0435/20	LTC 0435/50	LTC 0435/60
High resolution	LTC 0455/10	LTC 0455/20	LTC 0455/50	LTC 0455/60

English **UNPACKING**

Unpack carefully and handle the equipment with care. The packaging contains:

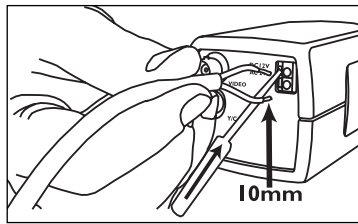
- Camera
- CCD protection cap
- Spare lens connector (male)
- These Instructions

Note: If equipment appears to have been damaged during shipment, repack it in the original packaging and notify the shipping agent or supplier.

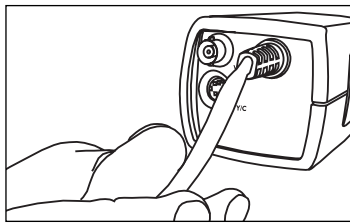
CONNECTION

Power

LTC 04x5/10 and /20



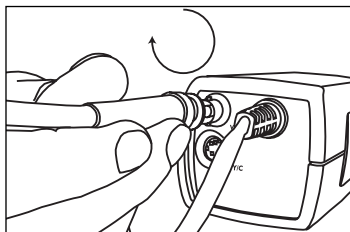
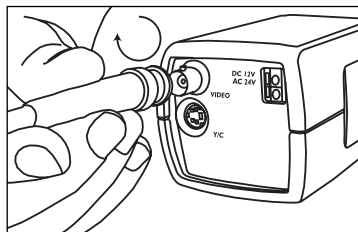
LTC 04x5/50 and /60



To open the quick-connect, push in on the tabs.

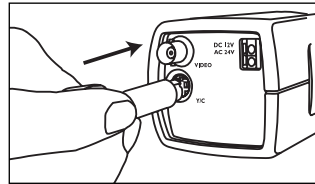
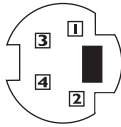
Connections are not polarity sensitive
Use stranded or solid wire AWG16 to
AWG22, cut back 10mm (0.4") of
insulation.

Composite Video



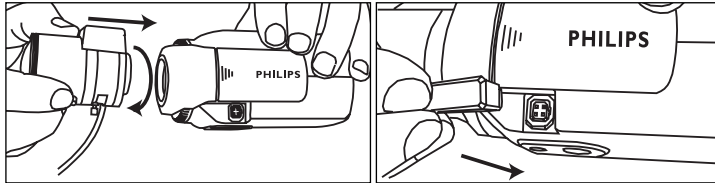
Y/C output (LTC 0455/x0 only)

Pin	Y/C Socket
1	GND Y
2	GND C
3	Y
4	C

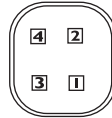


English

LENS MOUNTING



Pin	Video iris lens	DC iris lens
1	Supply (11 V, 50 mA max.)	Damp-
2	Not used	Damp+
3	Video signal 1 Vpp, 1 kΩ	Drive+
4	Ground	Drive-



- Video-iris and DC-iris lenses are recommended for the best picture performance.
- The camera automatically detects the type of lens used, and optimizes performance accordingly.
- A spare male lens connector is provided if required.

Cautions:

- To avoid damaging the CCD sensor when using a C-mount lens, turn the 'green' back-focus ring counter clockwise until it stops ('Back focus adjustment') before mounting the lens.
- Lenses weighing more than 0.5 kg (1.1lbs) must be separately supported.

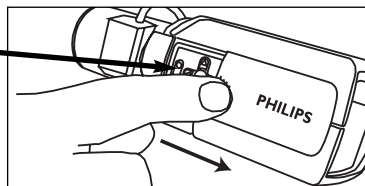
Note: If a short circuit is detected on the lens connector, the on-screen display (OSD) failure message 'LENS SHORT CIRCUIT' is shown. The lens circuit is automatically disabled to avoid internal damage. Remove the lens connector and check the pin connections.

English

Back focus adjustment

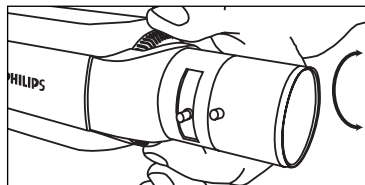
- Camera accepts both C and CS-mount lenses.

1. Unlock the back focus locking button.
2. Turn the back focus adjustment as required. (See Note 1).
3. Lock the back focus locking button.



Notes:

1. To optimize picture sharpness in both bright and low-level lighting, it is recommended to adjust the back focus when carrying out the set-up procedure. The camera's unique 'Lens Wizard' allows focusing at maximum lens opening to ensure that the object of interest always remains in focus.
2. When back focusing vari-focus lenses, it must be possible to obtain a sharp picture in both wide-angle and tele positions, and for both far and near focus.
3. When back focusing zoom lenses, ensure the object of interest remains in focus throughout the entire zoom range of the lens. (See Advanced Set up).

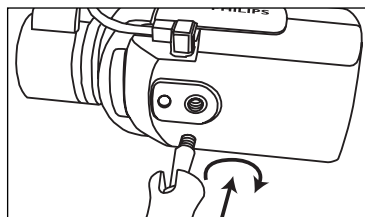


Caution: Do not point the camera/lens into direct sunlight. When viewing an outdoor scene, a video- or DC-iris lens is recommended.

MOUNTING THE CAMERA

The camera can be mounted from the top or bottom.

Note: The BOTTOM mounting is isolated from ground.

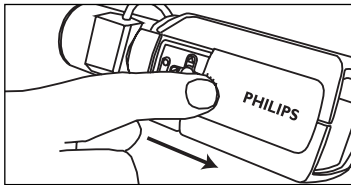


ADVANCED SET-UP

The camera will normally give an optimal picture without the need for further adjustments. However for special circumstances advanced set up options are available.

Accessing and navigating menus

- Five softkeys are used for navigating menus (located under the side panel).
- To access set-up menus, press the menu/select key.
- The main menu appears on the OSD.
-



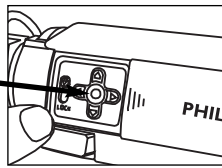
Key	Function
Menu button (O)	Access the menus, or move to next or previous menu.
← →	Toggle through options, set parameters
↑ ↓	Scroll up and down menu

Note: A downward-pointing arrow (↘) indicates a sub-menu follows.

English

Menu Navigation

Press the menu button



MAIN MENU	
LEVEL	0
SHUT/AGC	\
BLC	OFF
COLOR	ATW
SYNC	LINE LOCK
VPHASE	0°
EXIT	

Main Menu

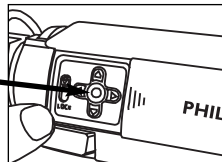
SHUT/AGC MENU	
SHUTTER	AES
AGC	ON
AUTOBLACK	ON
NIGHTSENSE	OFF
EXIT	

Shutter/AGC Menu

COLOR MENU	
WHITE BAL	ATW
RED-GAIN	0
BLUE-GAIN	0
EXIT	

Color Menu

Press the menu button for more than 5sec.



INSTALLER	
VERSION	00.0010.XX
LENS	AUTO
SPEED	FAST
WIZARD	\
DEFAULTS	\
EXIT	

Installer Menu

LENS WIZARD	
DETECTED LENS	DCIRIS
SET BACK FOCUS NOW	
EXIT	

Lens Wizard Menus

LENS WIZARD	
DETECTED LENS	VIDEO
SET BACK FOCUS NOW	
SET LVL	
EXIT	

Main menu

Function	Selection	Description
LEVEL	-15 - 0 - +15	Adjusts video level.
SHUT/AGC	Select next menu	Shutter / Automatic Gain Control menu.
BLC	ON OFF	When 'ON', the level is optimized at the center of the screen. Parts outside the center may be under- or over-exposed (this is normal).
COLOR*	ATW ATB HOLD Select next menu	Select to access the color menu. (See Color menu for detailed explanation).
SYNC	LINE LOCK INTERNAL	Select 'LINE LOCK' to synchronize with the power supply frequency. Select 'INTERNAL' for use with internal synchronization (automatically selected with DC supply).
V PHASE	0-358°	Adjusts the vertical phase offset (when in 'LINE LOCK' mode).
EXIT		Exit the menu.

*Note: If the camera (LTC 0455/x0 only) is in black & white high sensitivity mode (via NightSense™), the color settings and color menu are not accessible. The NightSense™ sensitivity boost must be selected OFF to make color adjustments.

Shutter/AGC menu

Function	Selection	Description
SHUTTER	AES FL OFF	(AES) Auto-shutter sets the optimum shutter speed for manual iris lenses. (FL) Flickerless mode avoids interference from light sources (recommended for use with video-iris or DC-iris lenses only).
AGC	ON/OFF	Automatic gain control
AUTOBLACK	ON/OFF	Autoblack automatically increases the visibility of details.
NIGHTSENSE	AUTO FORCED OFF	Nightsense™* extends the low-light performance of the camera. AUTO mode, the camera automatically inches to monochrome in low-light conditions. In Forced mode, the picture remains a high-sensitivity monochrome image. Some active noise or white spots may appear in the picture.
EXIT		Exit this menu.

*Note: NightSense™ is only available on the LTC 0455/x0 cameras.

English **Color menu**

Note: Auto Tracking White Balance must be selected OFF.

Function	Selection	Description
WHITE BAL	ATW	ATW: Auto tracking white balance allows the camera to constantly adjust for optimal color reproduction.
	AWB HOLD	AWB HOLD: Puts the ATW on hold and saves the color settings.
RED- GAIN*	-5 - 0 - +5	Offset factory white point alignment (reducing red introduces more cyan).
BLUE- GAIN*	-5 - 0 - +5	Offset factory white point alignment (reducing blue introduces more yellow).
EXIT		Exit the menu.

*Note: For special scene conditions only, it will be necessary to change the white point offsets.

Accessing installer menu

- To access the installer menu, press and hold the menu/select key for five seconds.

Installer menu

Function	Selection	Description
VERSION		Read-only firmware release number (for service purposes).
LENS	AUTO	Automatically detect lens type. A different lens type can be selected.
SPEED	FAST	Selects the response time of DC-iris lenses. Some lenses require slow lens control to avoid overshoots.
WIZARD		Access the lens wizard menu.
DEFAULTS	Select next menu	Return all set-up settings to factory defaults.
EXIT		Exit the menu.

Lens wizard menu

Function	Description
SET BACK FOCUS NOW	Back focus the lens (see 'Back focus adjustment'). The scene is focused at maximum lens opening to ensure that the object of interest remains in focus in bright and low-light conditions.
SET LVL	When a Video-iris lens is detected, a level potentiometer is displayed to obtain the best picture performance. The lens wizard includes a level detector meter that must be set to the center using the potentiometer for best results.
EXIT	Exit the menu.

Adjustment procedure DC-iris Lens:

1. Unlock the back focus locking button.
2. Access the "Lens Wizard" menu.
3. The "SET BACK FOCUS NOW" option is highlighted in the menu.
4. Turn the back focus adjustment as required.
5. Lock the back focus locking button.
6. Exit the menu.

Adjustment procedure Manual-iris Lens:

1. Unlock the back focus locking button.
2. Adjust the lens to the maximum lens opening.
3. Turn the back focus adjustment as required.
4. Lock the back focus locking button.
5. Exit the menu.

Adjustment procedure Video-iris Lens:

1. Unlock the back focus locking button.
2. Access the "Lens Wizard" menu.
3. The "SET BACK FOCUS NOW" option is highlighted in the menu.
4. Turn the back focus adjustment as required.
5. Select the "SET LVL" option in the menu, and the LEVEL bar appears.
6. Adjust the level potentiometer located on the lens until the LEVEL bar is in the central position.
7. Lock the back focus locking button.
8. Exit the menu.

English

