

CX Series Instruction Manual

B/W, Color and Day/Night Outdoor Cameras



CBC (AMERICA) Corp.
www.cbcamerica.com

Please carefully read and observe all instructions and warnings contained in this manual or on the product. Improper installation may damage the device and void the warranty.

CONTENTS

BASIC DESCRIPTION	1
MAJOR FEATURES	1
WIRING CONNECTIONS	1
MOUNTING THE CAMERA	2
ADJUSTING CAMERA ORIENTATION	2
LENS ADJUSTMENT	2
NOTES	3
FCC RULES: PART 15	3
DIP Switch Setup: Color Cameras	4
DIP Switch Setup: Black and White Cameras	5
CAMERA SPECIFICATIONS	
CX-NV310A-2 Color/CXH-NV310A-2 Hi-Res Color	6
CAMERA SPECIFICATIONS	
CX-EV310A-2 B&W Camera	7
CAMERA SPECIFICATIONS	
DXH-NV39A Hi-Res Color Day/Night	8
MODEL CX-EV310A-2 B/W Camera Components	9

BASIC DESCRIPTION

CX Series cameras utilize a high-sensitivity CCD camera with auto iris varifocal lens in a compact weatherproof housing. Four versions are available:

- 1) Model **CX-EV310A-2** (B/W with 2.8-10mm auto iris varifocal lens)
- 2) Model **CX-NV310A-2** (Color with 2.8-10mm auto iris varifocal lens)
- 3) Model **CXH-NV310A-2** (Hi-Res Color with 2.8-10mm auto iris varifocal lens)
- 4) Model **DXH-NV39A** (Hi-Res Color Day/Night with 3-9mm A/I varifocal lens)

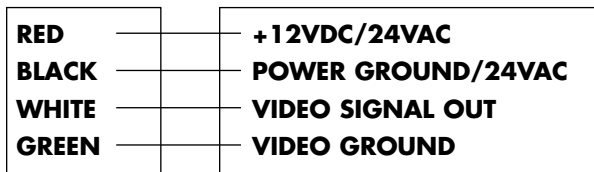
MAJOR FEATURES

- Compact and stylish design for use in commercial or residential applications
- Anodized aluminum weather-proof housing with removable sunshield
- Auto-iris varifocals compensate for changing light conditions and provide maximum depth of field
- Wide Operating Temperature Range for use in any climate
- Adjustable swivel mount for ceiling or wall installations
- Phase adjustment for synchronizing multiple cameras in 24VAC systems
- 12VDC/24VAC auto-sensing power input
- Optional Day/Night Model with retractable IR cut filter (DXH112-V39A).

WIRING CONNECTIONS

WARNING: Make wiring connections only after it has been determined that power has been disconnected. Use either a 12VDC regulated power supply (C12DCR-500 recommended) or a 24VAC power supply (C24AC recommended). For 12VDC power input, determine the polarity prior to connection to the camera. Failure to do so could lead to permanent damage to the device and void the warranty.

NOTE: A BNC connector (included) can be crimped to the WHITE and GREEN video signal wires using the supplied butt connectors.



MOUNTING THE CAMERA

The camera base has two mounting holes for #8 screws (#8 screws and anchors are supplied). To mount the camera, loosen the swivel set screw with the 1/8" Allen wrench (supplied) and mount the base in the desired location. The mounting base can be removed completely from the bracket if necessary.

ADJUSTING CAMERA ORIENTATION

Loosen the swivel set screw and rear end cap set screw with supplied Allen keys. Orient the camera and tighten both set screws. Be sure to tighten the rear end cap set screw to maintain a water-tight seal.

LENS ADJUSTMENT

- 1) Completely loosen the two Phillips screws on the rear endcap that hold the housing cover in place, and remove the cover.
- 2) Loosen the focus and zoom adjustment locking screws.
- 3) Connect the camera to power and a monitor to adjust focal length and focus for best image.
- 4) Tighten focus and zoom locking screws. Recheck image after tightening.
- 5) Replace cover carefully in order to prevent damage to the camera components.
- 6) Make sure cover is tight against back plate and tighten two Phillips screws on housing with equal force.

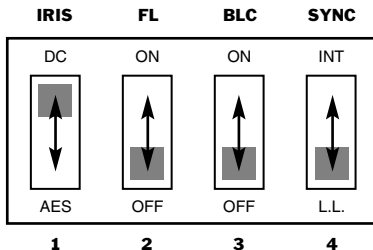
NOTES

- A) **Do not remove desiccant pack!** There is a desiccant pack attached to the housing base under the board camera that is designed to absorb any moisture trapped inside the housing during adjustment. To avoid excessive moisture buildup, it is recommended that the camera not be installed in rainy or excessively damp conditions. It is also advisable to limit the number of times the housing cover is removed. The desiccant pack can be replaced if condensation develops inside the housing.
- B) If the housing cover is opened frequently or if the gasket dries out, apply a light coat of good quality silicone-based grease to the gasket to maintain a watertight seal.
- C) Make sure that the end of the cable, including BNC connector and power connection, are not exposed to the elements. Exposed cable may cause a power short.

FCC RULES: PART 15

This device can be expected to comply with part 15 of the FCC Rules, provided it is assembled in exact accordance with the instructions provided with this kit. Operation is subject to the following conditions: (1) This device may not cause harmful interference; and (2) this device must accept any interference received including interference that may cause undesired operation.

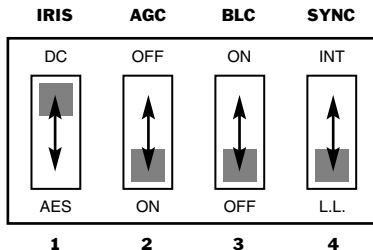
DIP Switch Setup: Color Cameras



(Factory settings shown. Do not change settings except for BLC function as needed)

1	Iris	DC	DC Iris
		AES	Auto Electronic Shutter
2	Flickerless (FL)	ON	Shutter speed to be fixed at 1/100 sec.
		OFF	Normal position
3	Back Light Compensation (BLC)	ON	Set to this position when a strong light is in the background
		OFF	Normal position
4	Synchronization Mode	INT	Internal synchronization mode
		LL	Line lock mode

DIP Switch Setup: Black and White Cameras



(Factory settings shown. Do not change settings except for BLC function as needed)

1	Iris	DC	DC Iris
		AES	Auto Electronic Shutter
2	Auto Gain Control (AGC)	ON	Gain level to be fixed at min.
		OFF	Set to this position to improve camera sensitivity in low light conditions
3	Back Light Compensation (BLC)	ON	Set to this position when a strong light is in the background
		OFF	Normal position
4	Synchronization Mode	INT	Internal synchronization mode
		LL	Line lock mode

CX Series Instruction Manual

CAMERA SPECIFICATIONS

CX-NV310A-2 Color/CXH-NV310A-2 Hi-Res Color

Video Signal System	NTSC Standard
Image Output	1 Volt p-p/75 Ohms
Scanning System	2:1 Interlace
Resolution	330 lines horz (standard)/480 lines horz (hi-res)
Sensitivity @f1.2	1.0 lux (50 IRE) / 1.5 lux (50 IRE) 0.4 lux (30 IRE) / 0.7 lux (30 IRE)
S/N Ratio	More than 50dB
Image Sensor	1/4" Interline Transfer CCD
Effective Picture Elements	510(H) x 492(V) / 768(H) x 492(V)
Scanning Frequency	Horz. 15.734KHz/Vert 59.9Hz
Sync System	Internal / Line Lock
Gamma	0.45
Gain Control	Automatic
Iris	DC Auto Iris
Power Source	DC 12V \pm 1.0 volt or 24VAC
Power Consumption	min 200 mA
Operating Temperature Range	-30°F to +140° F
Lens	2.8 ~ 10mm f1.2 Auto Iris

CAMERA SPECIFICATIONS
CX-EV310A-2 B&W Camera

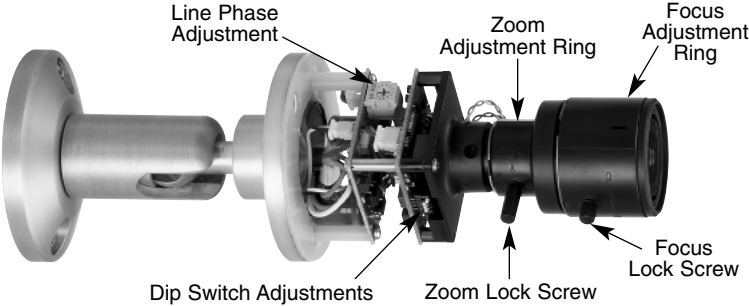
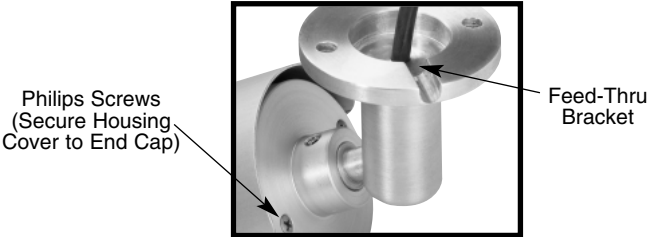
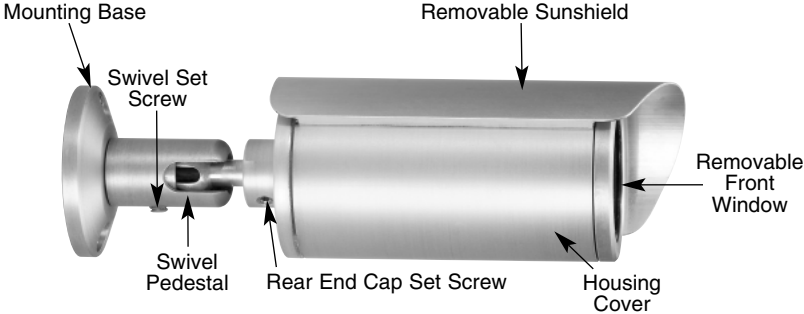
Video Signal System	EIA Standard
Image Output	1 Volt p-p/75 Ohms
Scanning System	2:1 Interlace
Resolution	380 lines horz
Sensitivity @f1.2	0.1 lux (50 IRE) 0.04 lux (30 IRE)
S/N Ratio	50dB (AGC off)
Image Sensor	1/4" Interline Transfer CCD
Pixel Size	9.60 um(H) x 7.50 um(V)
Effective Picture Elements	510(H) x 492(V)
Scanning Frequency	Horz. 15.734KHz/Vert 59.9Hz
Sync System	Internal / Line Lock
Gamma	0.45
AGC	+12dB
Iris	DC Auto Iris
Power Source	DC 12V \pm 1.0 volt or 24VAC
Power Consumption	min 200 mA
Operating Temperature Range	-30°F to +140° F
Lens	2.8 ~ 10mm f1.2 Auto Iris

CX Series Instruction Manual

CAMERA SPECIFICATIONS DXH-NV39A Hi-Res Color Day/Night

Video Signal System	NTSC Standard
Image Output	1 Volt p-p/75 Ohms
Scanning System	2:1 Interlace
Resolution	480 lines horz
Sensitivity @f1.4	0.21 lux (50 IRE-Night Mode/B/W) 0.07 lux (30 IRE-Night Mode/B/W)
S/N Ratio	More than 50dB
Image Sensor	1/4" Interline Transfer CCD
Effective Picture Elements	768(H) x 494(V)
Scanning Frequency	Horz. 15.734KHz/Vert 59.9Hz
Sync System	Internal / Line Lock
Gamma	0.45
Gain Control	Automatic
Iris	DC Auto Iris
Power Source	DC 12V \pm 1.0 volt or 24VAC
Power Consumption	300 mA recommended
Operating Temperature Range	-30°F to +140° F
Lens	3-9mm f1.4 Auto Iris Day/Night Lens with ED glass and filter removal mechanism

MODEL CX-EV310A-2 B/W Camera Components





TOKYO, JAPAN



COMMACK, NEW YORK



TORRANCE, CALIFORNIA

©2005 CBC (AMERICA) CORP. All Rights Reserved. 11/05



CBC (AMERICA) Corp.

www.cbcamerica.com

NEW YORK: 55 MALL DRIVE • COMMACK, NY 11725

TEL 1-800-422-6707 • 631-864-9700 • FAX 631-543-5426

CALIFORNIA: 20521 EARL ST. • TORRANCE, CA 90503

TEL 1-800-888-0131 • 310-793-1500 • FAX 310-793-1506

TOKYO HEADQUARTERS: 2-15-13, TSUKISHIMA, CHUO-KU

• TOKYO 104, JAPAN • TEL 03 536-4500 • FAX 03 536-4780