

# Infrared Dome CCD Camera User Manual

Products: CDC3115IR, CDC3114VF, CDC3114VF2, CDC3114IR2



Please read this manual before installing and using this camera and always follow instructions for proper use. Please file this manual away for future reference.

## **WARNING**

#### RISK OF ELECTRIC SHOCK. DO NOT OPEN.

To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

#### **LEGAL NOTICE**

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Security Cameras Direct

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#### **WARNINGS & CAUTIONS**



Do not use the camera if fumes, smoke or a strange odor is emitted from the unit, or if it seems to not function correctly. Disconnect the power source immediately and consult your supplier.



Always follow the instructions in the installation guide when applying power. Fire and equipment damage can occur if power is applied incorrectly. For the correct power supply, refer to the specification sheet.



Do not install or operate in small, unventilated areas. Heat build up can significantly reduce the performance and operating life of the product and may cause a fire.



To prevent damage, do not drop the camera or subject it to strong shock or vibration.



If installed close to a TV, radio transmitter, magnet, electric motor transformer or audio speakers the magnetic field generated may interfere with or distort the image.

### **WARNINGS & CAUTIONS**



Whether or not the camera is used outdoors, never point it toward the sun. Use caution when operating the camera in the vicinity of spot lights or other bright lights and light reflecting objects.



Do not use the camera in extreme environments where high temperatures or high humidity exists. Use the camera under conditions where temperatures are between  $-4^{\circ}F \sim 122^{\circ}F$  ( $-20^{\circ}C \sim 50^{\circ}C$ ), and humidity is below 85%.

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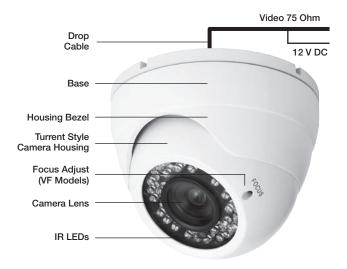
## **SECTION 1: FEATURES**

## Features

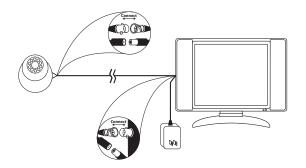
The CDC311 series weatherproof, vandal resistant turret dome cameras are ideal for exterior locations where surveillance in low-light environments is required. These cameras include:

- Advanced image sensors for greater picture clarity
- Precision lenses to achieve the perfect view
- The ability to see in the dark with built-in IR array
- A turrent design for increased vandal resistance

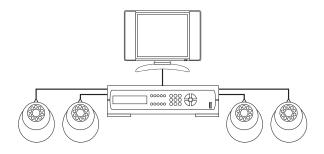
## 1.1 Camera components



## 1.2 Camera connections



Single camera with monitor (above); Multiple camera system with DVR and monitor (below)



## SECTION 2 Installation

## 2.1 What's in the box

The camera package contains:

- Camera assembly
- Instruction manual
- Hardware kit, including four 1" screws and four wall inserts

## 2.2 Tools you need

To install the camera, you will need:

- Phillips #2 screwdriver
- Small blade screwdriver (for adjusting VF model cameras)

Depending on how the camera is mounted, you may also need:

- Hammer
- Drill with 3/32" and 3/16" drill bits
- 3/4" hole saw

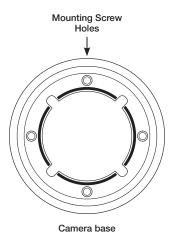
## 2.3 Installation instructions

 Separate the base from the rest of the camera assembly by unscrewing the housing bezel.



Removal of housing bezel

- 2. Determine where the camera will be mounted.
- Using the base as a template, mark the location of the four mounting screw holes.



4. Drill mounting screw holes into the mounting surface.

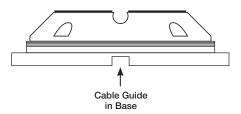
- If the mounting surface is a soft material, such as a drywall, a. use a 3/16" bit to drill the mounting holes. Use a hammer to tap the wall inserts provided into each hole until they are flush with the surface.
  - **OR** (continued on next page)

#### **SECTION 2: INSTALLATION**

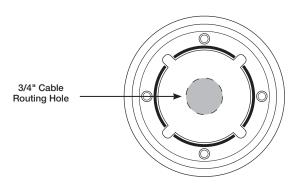
b. If the mounting surface is a very soft material, such as ceiling tile, place a wood block behind the tile. Screws longer than 1" may be required. Drill holes for the mounting screws through the surface and into the wood block.

### 0R

 If mounting the camera on a harder surface, such as wood, drill the mounting screw holes with a 3/32" bit.



5. Determine the cable routing. If the cable is to be routed through a hole in the mounting location within the coverage of the base, perform the following steps. If the cable will be routed through a cable guide in the base, **skip to step 9.** 



- Drill a 3/4" hole through the mounting surface at the center of the base.
- Use a #2 Phillips screwdriver to mount the base with the provided screws.
- 8. With the camera in the camera housing, route the drop cable through the 3/4" hole until the camera housing is fitted onto the base. Place the housing bezel over the camera housing and screw it onto the base until the camera and camera housing are held in place. Skip to step 12.

### **SECTION 2: INSTALLATION**

- Set the camera on the base with the camera cable pressed into one of the cable guides of the base. Allow some slack in the cable within the base to allow for camera positioning later.
- Use a #2 Phillips screwdriver to mount the base with the provided screws.



Tighten housing bezel

 Without allowing the camera to hang by the drop cable, place the camera housing with the housing bezel over the camera and fit

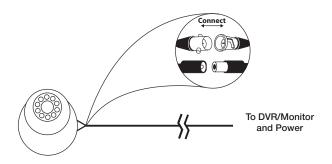
## **SECTION 2: INSTALLATION**

it onto the base. Screw the housing bezel onto the base until the camera and camera housing are held in place.

Attach the BNC video/power cable to the camera cable as required.



Notice that power connectors on the BNC video/power cable are different at each end!



Cable attachment

### **SECTION 3: AIMING THE CAMERA**

## SECTION 3 Aiming the Camera

- Connect the video cable from the camera to (a test monitor or to) the BNC input on the DVR.
- 2. Connect the DC12V adapter to the camera.
- Loosen the housing bezel until the housing can be rotated on the base.
- While observing the video from the camera, rotate the camera housing and/or tilt the camera within the housing to point it at your surveillance target.
- 5. Tighten the housing bezel to hold the camera in place.
- If you have a CDC3114VF or CDC3114VF2 camera, use a small blade screwdriver to adjust the focus and zoom if necessary.

## SECTION 4 Cleaning

Clean the camera lens and IR lamp shield with an approved glass cleaning solution and a lint free cloth.

- Dust can be removed from the unit by wiping it with a soft damp cloth. To remove stains, gently rub the surface with a soft cloth moistened with a mild detergent solution, then rinse and dry it with a soft cloth.
- Remove all foreign particles, such as plastic or rubber materials, attached to the camera housing. These may cause damage to the surface over time.



Do not use benzene, thinner or other chemical products on the camera assembly; these may dissolve the paint and promote damage of the surfaces. Before using any chemical product, read the accompanying instructions carefully.

### **SECTION 5: SPECIFICATIONS**

Table 1. Specifications for CDC3115IR and CDC3114IR2 cameras

Model	CDC3115IR	CDC3114IR2	
Image Sensor	1/4" Sharp CCD	1/3" SONY CCD	
TV system	NTSC		
CCD total pixels	537 (H) x 505 (V) 811 (H) x 508 (		
Scanning system	525 Lines, 60 fields/sec		
SYNC system	Inte	rnal	
Horizontal resolution	420 TV lines 540 TV line		
Minimum illumination	0 Lux /F2.0 (LED on)		
Lens	Standard 3	.6mm lens	
IR range	50 ft (15.24 m)	65 ft (19.81 m)	
Infrared status	Under 10 Lux by CDS Auto Control		
B.L.C. control	Au	ito	
White balance	Auto		
Gain control	Auto		
Electronic shutter	1/60 ~ 1/120,000 sec		
S/N ratio	>48 dB (AGC off)		
Gamma correction	>0.45		
Video output	1.0v p-p / 750		
Operating temp.	-4°F ~ 122°F (-20°C ~ 50° C)		
Operating humidity	Below 85% RH		
Power supply	12 V DC (±10%) 230mA		
Dimensions	3.7 in (D) x 3.25 in (H) (94mm (D) x 68.5mm (H))		
Weight-Net (g)	Approx. 1 lb (450 g)		

### **SECTION 5: SPECIFICATIONS**

Table 2. Specifications for CDC3114VF and CDC3114VF2 cameras

Model	CDC3114VF	CDC3114VF2	
Image Sensor	1/3" SONY CCD	1/3" SONY CCD	
TV system	NTSC		
CCD total pixels	537 (H) x 505 (V)	811 (H) x 508 (V)	
Scanning system	525 Lines, 60 fields/sec		
SYNC system	Internal		
Horizontal resolution	420 TV lines	540 TV lines	
Minimum illumination	0 Lux /F2.0	O (LED on)	
Lens	4 ~ 9 mm varifocal lens		
IR range	90 ft (2	7.43 m)	
Infrared status	Under 10 Lux by CDS Auto Control		
B.L.C. control	Auto		
White balance	Au	ito	
Gain control	Auto		
Electronic shutter	1/60 ~ 1/12	20,000 sec	
S/N ratio	>48 dB (	AGC off)	
Gamma correction	>0.	.45	
Video output	out 1.0v p-p / 750		
Operating temp.	-4°F ~ 122°F (-20°C ~ 50°C)		
Operating humidity	ty < 85% RH		
Power supply	12 V DC (±10%) 320 mA		
Dimensions	4.69 in (D) x 3.25 in (H) (119 mm (D) x 68.5mm (H))		
Weight-Net (g)	t-Net (g) Approx. 3 lbs (1361 g		

## SECTION 6 Troubleshooting

Before sending the camera for repair, please check below to make sure that the camera is installed correctly. If it still does not perform adequately, please consult your supplier or contact Security Cameras Direct at 1.800.316.6027.

- 1. No picture on the monitor screen.
  - a. Check that all connected devices are powered on.
  - b. Confirm that the voltage is correct.
  - Confirm that the power supply provides enough current to power the camera.
  - d. Check that all video cables are correctly connected.
- 2. The picture is not clear.
  - a. Check that your monitor is correctly adjusted.
  - b. Confirm that the glass in front of the lens is clean. If there is dust, dirt or fingerprints on the glass, the image quality will be affected. To clean the glass use a soft, dry and non-abrasive cloth or a commercially available lens cleaning set.
  - c. Correctly adjust the focus (varifocal models only.)

#### **SECTION 6: TROUBLESHOOTING**

- 3. The picture has interference.
  - The camera may be close to a high voltage source, such as a power generator.
  - b. The BNC cable is not terminated properly.
  - c. The video cables are not connected properly.



This camera is a precision instrument and when treated with care, will provide years of satisfactory performance. If a problem does occur, do not open the camera to make repairs. Servicing should always be referred to your supplier.