

690 TVL WDR CS Mount Camera

Quick Installation Guide

This document guides you through the basic steps to install your DIGIOP™ Black BLK-CWS208NH camera. The camera is designed for CS type lenses, and C-type lenses with an adapter. The lens is not included. The camera features:

- Ultra-compact box size with CS mounting
- 1/3" Pixim Digital Pixel System WDR sensor and DSP
- Resolution 690 HTVLe
- Sensitivity 0.1 Lux (F1.2, 50 IRE, 30 fps, 2850°K Color)
- Programmable OSD via optional BLK-UTCR controller
- Selectable Progressive Scan



BLK-DWS208NH camera with ED-IR pro lens

Precautions

- Please read this manual carefully before installing the camera.
- Precision components are contained in this camera. Avoid violent vibrations during installation and maintenance. Do not connect the power until you have completed the installation.
- Obey all local electrical wiring regulations when using this unit.
- Do not use abrasive or corrosive materials for cleaning. Use only a soft cloth for cleaning.
- To prevent damage to the lens and sensor, do not point the camera directly into the sun or toward a strong light source.
- Operate the camera only within the recommended temperature and humidity ranges.
- Ensure that the power supply meets the current requirements of the camera and that the supply voltage is inside the tolerances of the camera.
- Ensure that the mounting hardware is adequate to support the weight of camera and lens.
- Do not dismantle or service the camera. Refer it to qualified service personnel for repair.

Connections

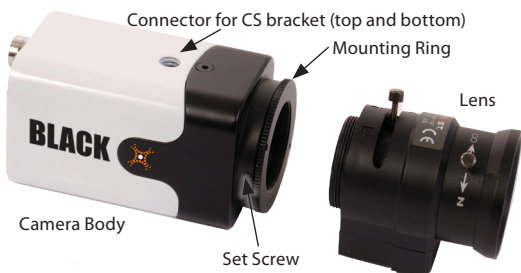
All connections to the camera are made at the back panel.



- 1 **Video out** connector (75Ω BNC): Connect to a monitor, DVR, etc.
- 2 **IRIS:** Lens connector for auto-iris lens.
- 3 **LED power indicator:** Illuminated when power is applied.
- 4 **Power input:** 12 VDC or 24 VAC.

Attaching the lens

1. Remove the protective cap covering the camera image sensor.
2. Attach the lens assembly to the camera by screwing it clockwise onto the camera mounting ring until it is fully seated.



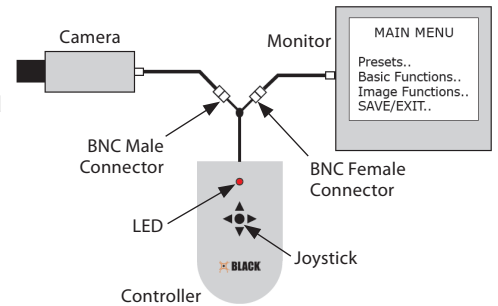
3. If the lens assembly has an auto-iris feature, attach the lens cable to the lens connector on the back of the camera.

Installing the camera

1. Install the camera mounting bracket using the instructions provided with the bracket.
2. Attach the camera to the mounting bracket.
3. Route a video/power extension cable between the camera and a video monitor and power source.
4. Apply power to the camera. **NOTE:** When connecting 12 VDC power, observe the polarity marked on the power input connector
5. While observing video from the camera on the monitor, aim the camera at your surveillance target.
6. Adjust the lens focus and zoom if controls are provided. If you installed a fixed lens to the camera, you can adjust the focus by:
 - a. Loosening the set screw on the side of the camera (see photo above).
 - b. Slowly rotate the mounting ring until the best focus is achieved.
 - c. Tighten the set screw.

Using the BLK-UTCR controller

The camera is supplied in a general configuration that will suit the most installation requirements. Should advanced configuration be required, the optional BLK-UTCR (up the coax) Controller may be connected to the camera to access the camera On Screen Display (OSD) for user programming.



1. Connect the BLK-UTCR controller BNC male connector to the VIDEO OUT connector of the camera.
2. Connect the BLK-UTCR controller BNC female connector to a display monitor.
3. Activate the camera OSD by pressing the controller joystick button for 2 seconds. The controller is activated when the LED lights.

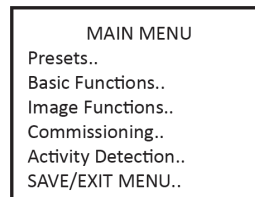
In general, you can navigate through the OSD menus as follows.

- Push the joystick ▲▼ to select a menu from the list.
- Push the joystick ◀▶ to change the selected value.
- Press down on the joystick button to call the sub-menu or execute a command.
- To return to the previous menu, select "Previous Page", then press the joystick down.

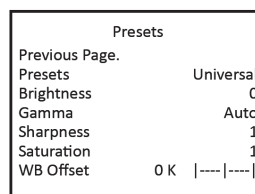
NOTE: For more information, refer to the BLK-UTCR quick instruction guide provided with the controller.

OSD Menus

With the BLK-UTCR controller in-line with the video signal, press the joystick in to open the MAIN MENU.

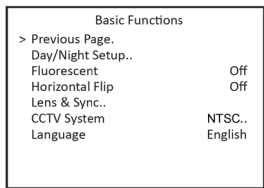


The OSD MAIN MENU provides links to submenus. Submenu links are indicated by the ".." string at the end of the line.



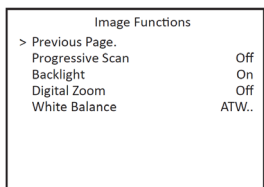
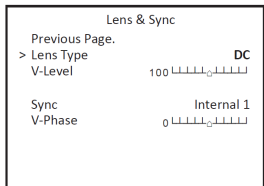
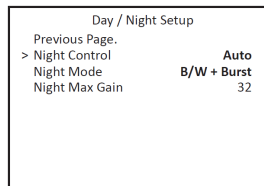
Select **Previous Page** to return to the Main Menu. Other parameters are defined below.

- **Presets** includes the following options:
 - **Universal:** This is the default preset. It gives good all round performance and will suit most installations.
 - **Details 1 / Details 2:** Use this setting for high-contrast scenes where there is no specific focus on lighter or darker areas.
 - **Indoor/Shadow:** Indoor scenes full of contrast with strong backlights. Details are displayed from the shadows.
 - **Indoor:** Indoor scenes full of contrast with medium backlights, details are displayed in high resolution.
 - **Low Light:** Preset for low light scenes with slowly moving objects. The slow shutter operates between x2 and x16.
- **Brightness:** Adjusts the image brightness
- **Gamma:** Adjusts the contrast of the video signal to compensate for displays with a nonlinear response. Options are CRT, LCD, 1..8
- **Sharpness:** Affects the fine detail of the image. Note this setting is automatically reduced in low light to reduce the visibility of noise in the image.
- **Saturation:** Adjusts to the color content of the image. Saturation is decreased under high AGC levels to reduce color noise.
- **WB Offset:** this modifies AWB performance in images with minimal color content, to compensate for unsatisfactory color metering.

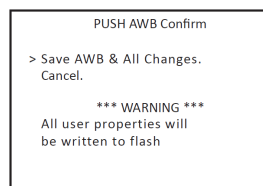
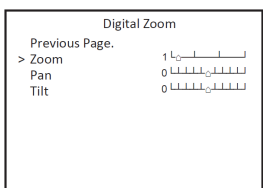


The Basic Functions menu includes settings for the video system of your camera, including video setup, day/night features, and OSD language.

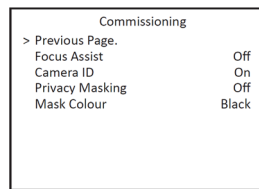
- **Day/Night Setup** submenu includes:
 - **Night control:** Auto, selects night mode in low light; Color, disables night mode; Mono, forces night mode
 - **Night Mode:** Defines if burst is present in mono
 - **Night Max Gain:** Defines Max AGC integration gain in mono
- **Fluorescent:** Off, CRR reduces color roll under fluorescent lighting, CRR2 reduces color roll with DC lenses (n/a with fixed lenses.)
- **Horizontal Flip:** Mirror the image horizontally.
- **Lens & Sync** submenu includes:
 - **Lens Type:** DC or manual
 - **Video Level:** Adjusts the video signal output level.
 - **Sync:** Options are Internal 1 and AC-Line lock.
 - **V-Phase:** Set the sync phase (with AC power source only)
- **CCTV System:** Changes the TV Standard. Select NTSC.
- **Language:** Options are English, Chinese, and Spanish.



- **Progressive Scan:** If Off, the image is captured as two fields. If On, image is captured as a single frame and transmitted as two fields.
- **Backlight:** If On, the camera is configured to against silhouetting effects of strong backlighting of a subject

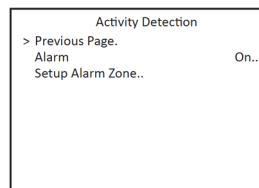


- **Digital Zoom:** Default is Off. If set to On, the Digital Zoom Sub-Menu is available when joystick is pressed.
 - Note:** Enabling zoom disables the Backlight feature.
 - **Zoom:** Select up to 4x zoom.
 - **Pan, Tilt:** When Zoom is >1, pan and tilt by shifting the view of the image. 0 indicates the central point of the image.
- **White Balance:** Configures the operational white balance mode of the camera.
 - NOTE:** After making white balance adjustments, select Save AWB and ALL Changes from the Confirm window. Saving the changes writes all configuration settings to flash.



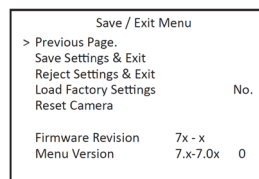
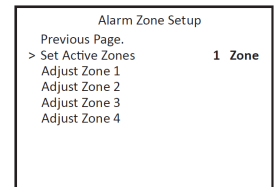
- **Focus Assist:** when ON, provides an on-screen indication of optimum focus. Use **Set Focus Region** to set the area of interest. Move the area with the **▲▼◀▶** keys. Press the joystick to return to the focus indicator, then adjust for peak reading for optimum focus.

- **Camera ID:** Assign a name to the camera (maximum 8 characters). Press the joystick for character selection. **▲▼** Selects character. Press joystick to accept and move to next character. **◀▶** Escapes back to menu.
- **ID Position:** Selects one of 6 preset positions for camera ID: upper left, center or right, and lower left, center or right.
- **ID Display:** Sets title display On or Off
- **Privacy Masking:** Enables up to 12 Privacy masks to obscure areas of the image. Setting a privacy mask ON opens a configuration screen. In the configuration screen, use **▲▼◀▶** to position the mask, press the joystick in briefly to set its position, then use **▲▼◀▶** to enlarge/ reduce the size of the mask. Press the joystick in for 2 seconds to return to the Enable Masks screen.
- **Mask Color:** Black, White, or Red. Sets the color of any enabled privacy masks.



- **Alarm:** Alarm ON or OFF. Setting the alarm ON opens the Activity Detection Menu. Highlight Activity Thr. and use **◀▶** to set the threshold. Enabling activity detection displays an on-screen indication when motion is detected in any of 4 zones..

- **Set Active Zones** enables 1 to 4 individual active alarm zones. Select Adjust Zone 1..4 to configure the size and position of each zone. On the configuration screen, press the joystick in to change the zone border color. When white, use **▲▼◀▶** to position the zone, when red use **▲▼◀▶** to reduce the size, when green use **▲▼◀▶** to increase the size. Press the joystick in for 2 seconds to return to the Alarm Zone Setup screen



- **Save / Reject Settings & Exit:** Save or Reject changes made to the menus since the last Save.*
- **Load Factory Settings:** Restores all menu settings to the factory defaults
- **Reset:** Performs a software reset (reboot)
- **Firmware / Menu Version:** Shows the camera firmware and menu versions

* **Note:** Select **Save** to write the current configuration to the flash memory. Otherwise, the new settings will not loaded during the next software reboot.

Specifications

| | |
|------------------------|---|
| Image Sensor | 1/3" DPS M8800 |
| Signal System | NTSC |
| Effective Pixels | 758 x 540 pixels |
| Resolution | 690 HTVLe |
| Minimum Illumination | 0.1 Lux (F1.2, 50 IRE, 30 fps, 2850°K, Color) |
| S/N Ratio | 50 dB |
| White Balance | Auto, 2000°K ~ 11000°K |
| Dynamic Range | 120 dB max, 102 dB typical |
| Line Lock | Selectable (dual power) |
| Shutter | 1/60 ~ 1/100000 |
| Supported Lenses | DC, manual |
| Lens Mount | CS (C with adaptor) |
| Video Output | 1.0 V p-p, 75Ω |
| Power Supply | 12VDC +15% ~10%, 24 VAC ±20% |
| Power Consumption | 2.5 W |
| Dimensions (L x W x H) | 2.87" x 1.57" x 1.57" (73 mm x 40 mm x 40 mm) |
| Weight | 8.11 oz (230 g) |
| Operating Temp | 14°F ~ 122°F (-10°C ~ 50°C) |
| Operating Humidity | 90% non-condensing |