



# TruVision HD-TVI 3MPX Camera Configuration Manual

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# Introduction

This is the configuration manual for following camera models:

## HD-TVI 3MPX IR Bullet Cameras

- TVB-2407 (3MPX TVI Bullet Camera, Fixed Lens, IR, PAL)
- TVB-4407 (3MPX TVI Bullet Camera, Fixed Lens, IR, NTSC)
- TVB-2408 (3MPX TVI Bullet Camera, VF Motorized Lens, IR, PAL)
- TVB-4408 (3MPX TVI Bullet Camera, VF Motorized Lens, IR, NTSC)

## HD-TVI 3MPX IR Turret Cameras

- TVT-2401 (3MPX TVI Turret Camera, Fixed Lens, IR, PAL)
- TVT-4401 (3MPX TVI Turret Camera, Fixed Lens, IR, NTSC)
- TVT-2402 (3MPX TVI Turret Camera, VF Motorized Lens, IR, PAL)
- TVT-4402 (3MPX TVI Turret Camera, VF Motorized Lens, IR, NTSC)

# Programming

Once the camera hardware has been installed, the camera can be configured using the built-in OSD button (if supported) and the TVI DVR menu. The TVS-C200 controller (Service Tool) does not support the 3MPX cameras.

You can also configure the camera settings via a TVI DVR. Select the PTZ protocol **TruVision Coax** and click the menu button to call up the menu.

When using the TVI output, the 3MPX TVI cameras must be used with the higher resolution (3MPX or higher) TVI DVRs. They are not compatible with lower resolution TVI DVRs. Only the 960H/CVBS output is supported by the lower resolution recorders (TVR 12HD/TVR 44HD).

**Note:** When making adjustments to the motorized lens bullet, it is important to make sure that the access cover for the area that contains the video test cable connector, OSD menu button, and the 960H/TVI selection switch is properly tightened to prevent leakage. The access cover should be rotated until it is tight, up against the camera body.

## Call up the camera OSD menu

### To set up the camera:

1. Set up the camera hardware as described in the Installation Manual.
2. In **Camera Settings** of the DVR, access the PTZ menu and set the protocol for the TruVision HD-TVI camera to **TruVision-Coax**.
3. In live view of the desired camera, click the PTZ Control icon on the live view toolbar to access the PTZ control panel.
4. To call up the camera setup menu:

From the camera, press the **Menu** button (if present).

— or —

From the camera OSD of the DVR, select **Menu**.

— or —

From the DVR, select **Iris+**.

The camera setup menu appears (see “Menu trees” on page 5 for the menu structure).

5. Select the menu options:

**From the DVR:** To select an OSD item, click the directional buttons up/down. To adjust the value of a selected item, click the directional buttons left/right.

**From the camera (if it has a menu button):** To select an OSD item, push the Menu button up/down. To adjust the value of a selected item, push the Menu button left/right.

6. Click **Iris+** to enter the submenu or to confirm the selected item.

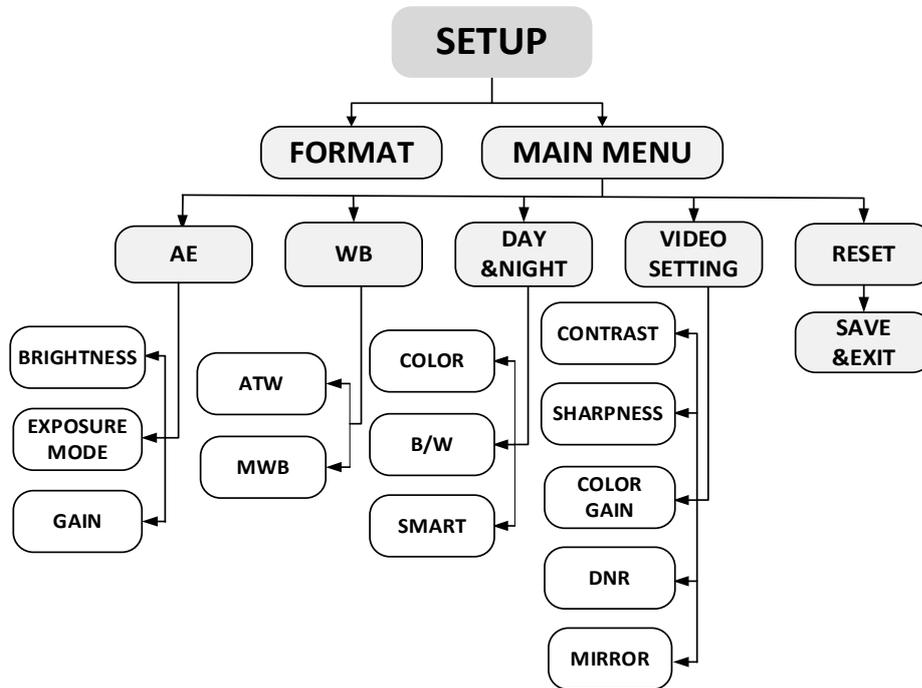
7. When the setup is complete, select **Exit** and click Iris+ to exit the camera OSD.

**Note:** You cannot exit the camera setup menu using the Menu button on the camera.

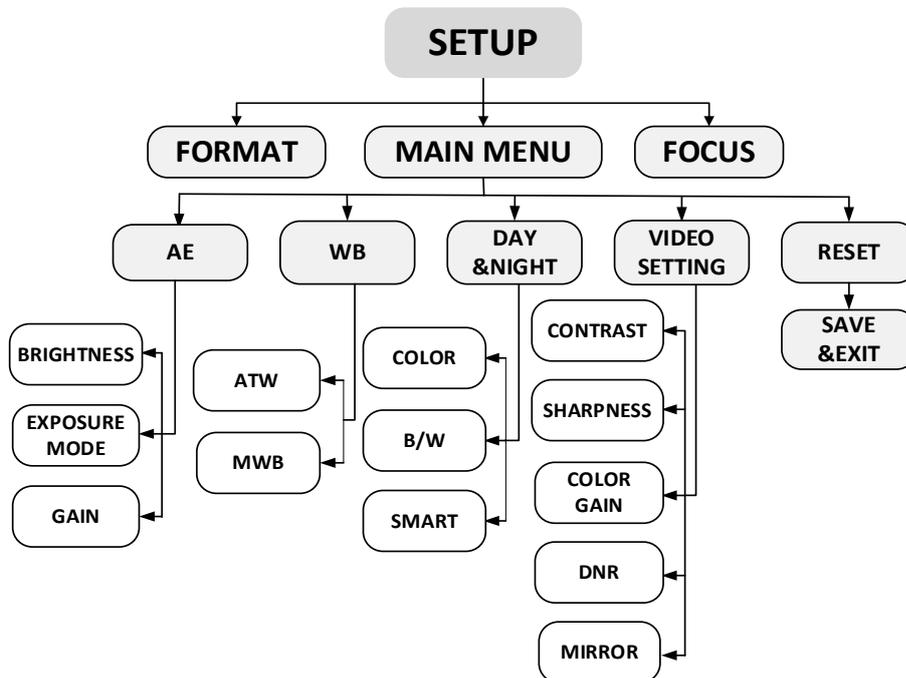
# Menu trees

The menu trees of the TruVision TVI 3MPX cameras are shown below.

## TVB-2407/4407 (fixed lens bullet) and TVT-2401/4401 (fixed lens turret) cameras



## TVB-2408/4408 (motorized VF lens bullet) and TVT-2402/4402 (motorized VF lens turret) cameras



# Configuration

This section describes how to set up the menu settings.

## FORMAT

Move the cursor to **FORMAT**, and press the menu button to enter the submenu. Set the format of the camera and confirm.

## FOCUS

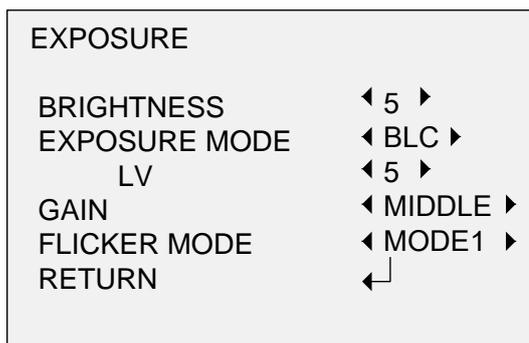
Move the cursor to **FOCUS** and press the menu button to enter the submenu. Move the cursor to **FOCUS+**, **FOCUS-**, **ZOOM+** and **ZOOM-** to adjust the camera lens.

**Note:** As TVB-2407/4407 and TVT-2401/4401 are fixed lens cameras, they do not support this feature.

## MAIN MENU

### AE (Auto Exposure)

AE describes the brightness-related parameters. Modify the image brightness by adjusting the values for **BRIGHTNESS**, **EXPOSURE MODE**, and **GAIN** depending on the lighting conditions.



- BRIGHTNESS** Brightness refers to the brightness of the image. Set the brightness value from 1 to 10 to darken or brighten the image. The higher the value, the brighter the image.
- EXPOSURE MODE** Select **GLOBAL**, **BLC** or **WDR** from the menu.
- GLOBAL:** This is the normal exposure mode to use for a wide range of situations to achieve an optimum image.
- BLC:** BLC (Backlight Compensation) improves image quality when the background illumination is high. It prevents the object in the center of the image from appearing too dark. Set the LV value from 1 to 8 to increase the backlight compensation level
- LV** (level of backlight compensation) is only available when the BLC mode is selected.
- WDR:** WDR (Wide Dynamic Range) provides clear images when there are both very bright and very dark areas on the image. WDR

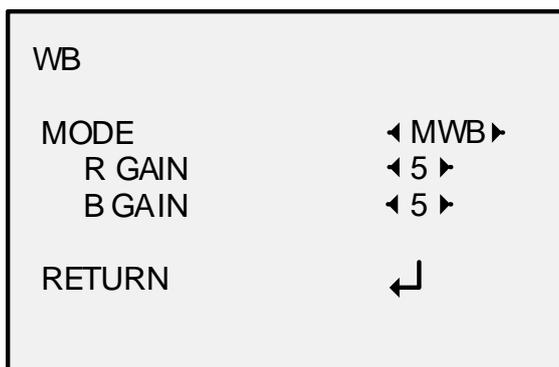
	balances the brightness level of the whole image.
GAIN	This optimizes the clarity of image under poor lighting conditions. Set the gain as <b>HIGH</b> , <b>MIDDLE</b> , or <b>LOW</b> . The higher the gain value, the clearer the image. Select <b>OFF</b> to disable the function. <b>Note:</b> The noise will be amplified if the gain is enabled.
FLICKER MODE	This is an anti-flicker function that is used when the camera is close to a light source. There are two modes that can be selected: <b>MODE1</b> and <b>MODE2</b> . <b>MODE1:</b> It is used in a normal situation that is set to default. <b>MODE2:</b> It is used when the camera is close to a light source. <b>Note:</b> This function is only available for motorized VF lens cameras (TVB-2408/4408 and TVT-2402/4402).

## WB (White Balance)

White balance (WB) tells the camera what the color white looks like. Based on this information, the camera will then continue to display all colors correctly even when the color temperature of the scene changes such as from daylight to fluorescent lighting, for example.

Set the WB mode to **ATW** or **MWB**.

ATW	Use ATW (automatic tracing white balance) to automatically adjust the WB in real time as the lighting conditions change.
MWB	Manually adjust the color temperature to meet your own requirements by modifying the blue and red gain parameters. Only use this function when there is steady light. Set the <b>R GAIN</b> and <b>B GAIN</b> values from 0 to 255 to adjust the shades of red and blue color of the image.



## DAY/NIGHT

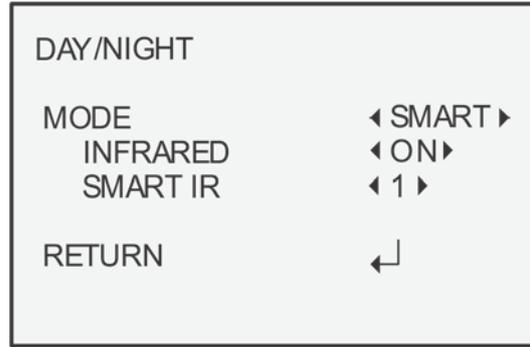
This function defines whether the camera is in day or night mode. The day (color) option should be used, for example, if the camera is located indoors where light levels are always good.

Set the DAY/NIGHT mode as **Color**, **B/W**, or **SMART**.

COLOR	The camera is always in day mode. The image is in color. Use this for normal lighting conditions.
B/W	The camera is always in night mode. The image is black and white. The IR LED turns on in low lighting conditions.

## SMART

Select to turn on/off the **INFRARED** and to set the value of **SMART IR**.

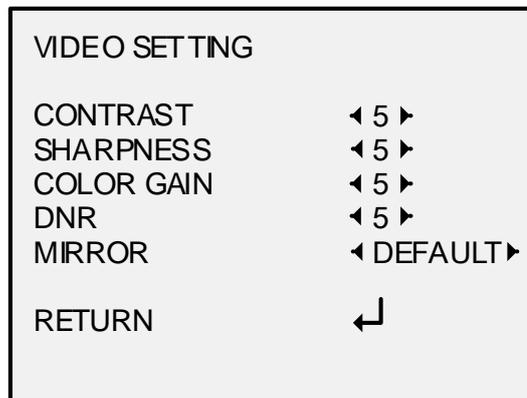


**INFRARED:** Select to turn on/off the IR LED depending on lighting conditions.

**SMART IR:** Use it to avoid over exposure of an image due to IR LED glare. Adjust the **SMART IR** value from 0 to 3. The higher the value, the more obvious the effects. The option is disabled when the value is 0.

## VIDEO SETTING

Move the cursor to **VIDEO SETTING** and press the confirm button to enter the submenu. Adjust the **CONTRAST**, **SHARPNESS**, **COLOR GAIN**, **DNR** and **MIRROR** values to achieve the desired effect.



### CONTRAST

This function enhances the difference in color and light between parts of an image. Set the value from 1 to 10. The higher the value, the stronger the contrast.

### SHARPNESS

This function determines the level of detail of an image. Set the value from 1 to 10. The higher the value, the clearer and sharper the image appears.

### COLOR GAIN

Adjust this function to change the saturation of the color. Set the value from 1 to 10. The higher the value, the clearer the color of the image.

### DNR

DNR (Digital Noise Reduction) reduces noise especially in low lighting conditions to provide a more accurate and sharper image quality. Set the value from 1 to 10. The higher the value, the higher the noise reduction and the clearer the image.

## MIRROR

Use this function to flip the original image into a mirror image. This could be used, for example, when the camera needs to be installed upside down. Select one of the functions:

**DEFAULT:** The mirror function is disabled.

**H:** The image flips 180 degrees horizontally.

**V:** The image flips 180 degrees vertically.

**HV:** The image flips 180 degrees both horizontally and vertically.

## RESET

Reset all the settings to the default.

## SAVE & EXIT

Move the cursor to **SAVE &EXIT** and press **OK** to save the setting and exit the menu.

# Preventing IR reflection

For cameras supporting IRs (infrared illuminators), please take the following precautions into consideration when selecting a camera location, in order to prevent IR reflection:

- Make sure that there are no large items that may act as a reflective surface near the camera lens. If the camera lens is pointed at a wall, tree, ground covered with snow or water (keep in mind that scenes change over time), the IR light from the camera may reflect back into the lens, impacting the image quality.