Analog Cameras User Manual

Manual Version: V1.03

Revision History

Manual Version	Description
V1.03	Delete OSD DIP category in chapter 3.2 Video Format; delete DIP switch hyperlinks in chapter 3.4 485 Settings.
V1.02	Add video format
V1.01	Add PTZ and 485 settings
V1.00	Initial release

Thank you for your purchase. If you have any questions, please do not hesitate to contact your dealer.

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Safety Instructions

Be sure to read this manual carefully before use and strictly comply with this manual during operation.

The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.

- This manual is intended for multiple product models, and the photos, illustrations, descriptions, etc, in this manual may be different from the actual appearances, functions, features, etc, of the product.
- Uniview reserves the right to change any information in this manual without any prior notice or indication.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.
- Users are fully responsible for the damages and losses that arise due to improper operations.

Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

Safety Symbols

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
 **WARNING!**	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.
 **CAUTION!**	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
 **NOTE!**	Indicates useful or supplemental information about the use of product.

Contents

Disclaimer ii
Safety Instructions ii
Environmental Protection ii
Safety Symbols ii
1 Startup 1
2 Control Operations 1
2.1 PTZ Control 1
2.2 OSD Menu Control 2
3 Parameter Configuration 3
3.1 Main Menu 3
3.2 Video Format 3
3.3 Image Settings 4
3.3.1 Exposure Mode 4
3.3.2 Day/Night Switch 5
3.3.3 Light Control 6
3.3.4 Video Settings 7
3.4 485 Settings 9
3.5 PTZ Control 10
3.5.1 Preset 10
3.5.2 Home Position 11
3.5.3 PTZ Limit 12
3.5.4 PTZ Speed 13
3.5.5 Power Off Memory 13
3.5.6 PTZ Calibration 13
3.6 Language 14
3.7 Advanced Functions 14
3.8 Restore Defaults 15
3.9 Exit 15

NOTE!

- The on-screen display and operations may vary with the DVR to which the analog camera is connected.
- The contents of this manual are illustrated based on a Uniview DVR.

1 Startup

Connect the analog camera's video output connector to the DVR. When video is displayed, you can proceed to the following actions.

2 Control Operations

Choose PTZ Control or OSD Menu to perform operations. This manual takes PTZ Control as an example.

2.1 PTZ Control

Choose **PTZ Control**, and the control page is displayed.

The relevant buttons are described below.

Button	Function
/	• Select menu items on the same level. • Control the PTZ camera to rotate up or down.
/	• Choose a value or switch mode. • Control the PTZ camera to rotate left or right.
/ / /	Adjust the rotation direction of the PTZ camera.
Iris	• Open OSD menu. • Enter sub-menu. • Confirm a setting.
PTZ Speed	Adjust PTZ speed through 485 serial port.

2.2 OSD Menu Control

Choose **OSD Menu Control**, and the control page is displayed.

/ : Select menu items on the same level.

/ : Choose a value or switch mode.

: Open OSD menu; enter sub-menu; confirm a setting.

: Back to main menu.

3 Parameter Configuration

3.1 Main Menu

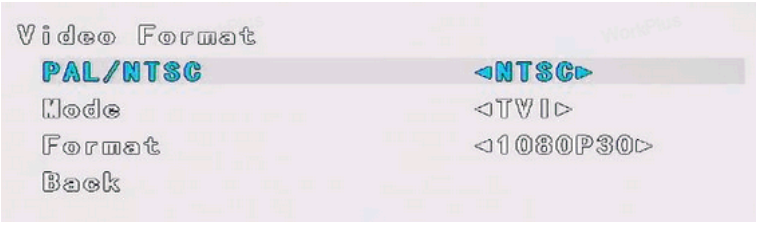
Click Iris. The OSD menu appears.

NOTE!
The OSD menu exits automatically if there's no user operation in 2 minutes.

3.2 Video Format

Set the transmission mode, resolution, and frame rate for the analog video.

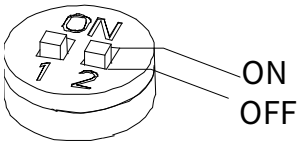
1. On the main menu, click / to select **Video Format**, click Iris. The video format page is displayed.

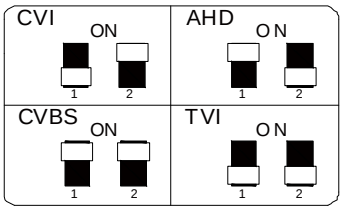


2. Click / to switch items, click < / > to set video format:

NOTE!

For cameras with DIP switches on the tail cable, you can use the DIP switches to change the video mode.





1	2	Video Mode
OFF	ON	CVI
ON	OFF	AHD
ON	ON	CVBS
OFF	OFF	TVI

- TVI: Default mode, which provides optimum clarity.
- AHD: Provides long transmission distance and high compatibility.
- CVI: The clarity and transmission distance are between TVI and AHD.
- CVBS: An early mode, which provides relatively poor image quality, including PAL and NTSC.

3. Select **SAVE AND RESTART**, click + Iris to save the settings and restart the device.

3.3 Image Settings

3.3.1 Exposure Mode

Adjust exposure mode to achieve the desired image quality.

1. On the main menu, click ^/v to select **EXPOSURE MODE**, click + Iris. The **EXPOSURE MODE** page is displayed.

2. Click ^/v to select **EXPOSURE MODE**, click </> to choose an exposure mode.

Mode	Description
GLOBAL	Default mode. The exposure weight takes the brightness of the entire image into account.
BLC	The camera divides the image into multiple areas and exposes these areas separately, so as to effectively compensate for the relatively dark subject when shooting against the light.

Mode	Description
	Note: In this mode, you can click < / > to adjust the backlight compensation level. Range: 1-5. Default: 3. The greater the value, the stronger the suppression of ambient brightness.
DWDR	Suitable for scenes with high contrast between bright and dark areas on the image. Turning it on enables you to clearly see both the bright and dark areas on the image.
HLC	Used to suppress strong light to improve image clarity.

3. If the power frequency is not a multiple of the exposure frequency at each line of the image, ripples or flickers appear on the image. You can address this issue by enabling **ANTI-FLICKER**.

   Click ^ / v to select **ANTI-FLICKER**, click < / > to choose the power frequency.

NOTE!

Flicker refers to the following phenomena caused by the difference in the energy received by the pixels of each line of the sensor.

- There's a great difference in brightness between different lines of the same frame of image, causing bright and dark stripes.
- There's a great difference in brightness in the same lines between different frames of images, causing obvious textures.
- There's a great difference in the overall brightness between the successive frames of images.

Mode	Description
OFF	Default mode.
50HZ/60HZ	Eliminates flickers when the power frequency is 50Hz/60Hz.

4. Click ^ / v to select **BACK**, click + Iris to exit the page and return to the OSD menu.
5. Click ^ / v to select **SAVE AND EXIT**, click + Iris to save the settings and exit the OSD menu.

3.3.2 Day/Night Switch

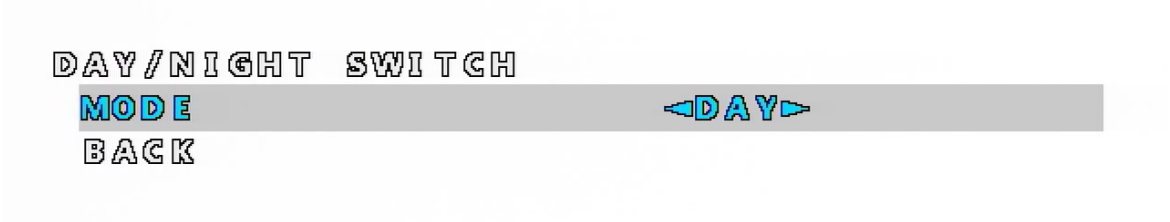
Use day/night switch to turn on or off the IR light to improve image quality.

NOTE!

This feature is only applicable to IR cameras.

1. On the main menu, click ^ / v to select **DAY/NIGHT SWITCH**, click + Iris.

   The **DAY/NIGHT SWITCH** page is displayed.



2. Click < / >, choose a day/night switch mode.

Parameter	Description
AUTO	Default mode. The camera automatically turns on or off IR according to ambient lighting to get the best images.
DAY	The camera uses bright light in the environment to provide color images.
NIGHT	The camera uses infrared to provide black and white images in low light environment. **Note:** In night mode, you can turn on/off the IR light manually. By default the IR light is turned on.

3. Click ^ / v to select **BACK**, click + Iris to exit the page and return to the OSD menu.
4. Click ^ / v to select **SAVE AND EXIT**, click + Iris to save the settings and exit the OSD menu.

3.3.3 Light Control

NOTE!
This feature is only applicable to full color cameras.

1. On the main menu, click ^ / v to select **LIGHT CONTROL**, click + Iris. The **LIGHT CONTROL** page is displayed.

2. Click < / >, choose a light control mode.

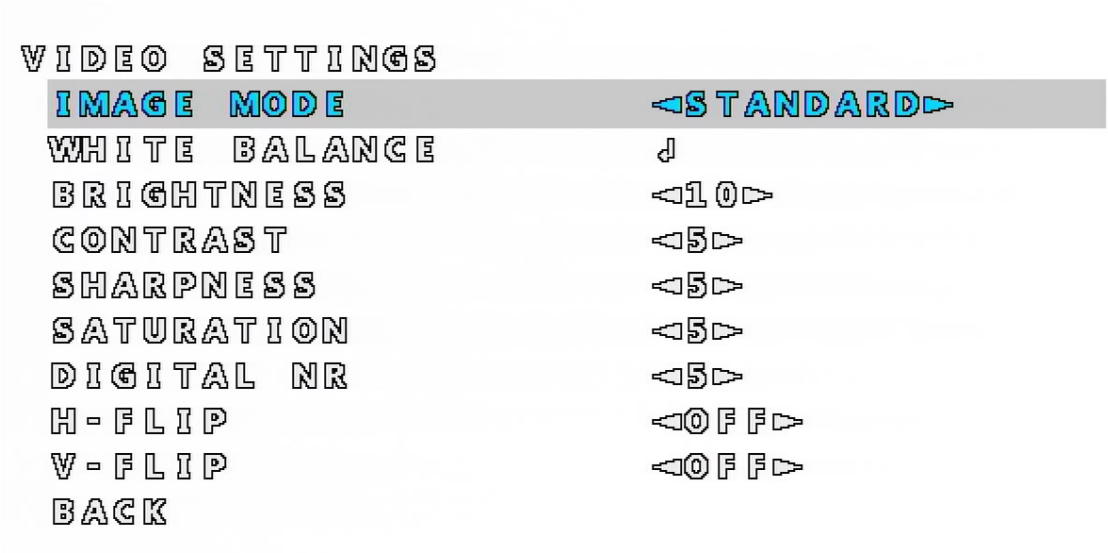
Parameter	Description
AUTO	Default mode. The camera automatically uses the white light for illumination.
MANUAL	Click < / >, set illumination intensity level. Range: 0 to 10. 0 means “off”, and 10

Parameter	Description
	means the strongest intensity. The light intensity is 0 when you select MANUAL mode for the first time. You can change and save the setting as needed.

3. Click / to select **BACK**, click + Iris to exit the page and return to the OSD menu.
4. Click / to select **SAVE AND EXIT**, click + Iris to save the settings and exit the OSD menu.

3.3.4 Video Settings

1. On the main menu, click / to select **VIDEO SETTINGS**, click + Iris. The **VIDEO SETTINGS** page is displayed.



2. Set the video parameters.

Parameter	Description
IMAGE MODE	Choose an image mode, and image settings preset for this mode are displayed. You may also fine-tune the settings as needed. Click < / > to choose an image mode. STANDARD: Default image mode. VIVID: Increases saturation and sharpness on the basis of the STANDARD mode.

Parameter	Description
WHITE BALANCE	Adjust red gain and blue gain of the entire image according to different color temperatures to correct errors caused by ambient light to render images that are closer to the visual habits of human eyes. 1. Select **WHITE BALANCE**, click + Iris. The **WHITE BALANCE** page is displayed.  Click < / > to choose a white balance mode. AUTO: Default mode. The camera automatically controls red gain and blue gain according to ambient light. MANUAL: Manually adjust red gain and blue gain (both ranges from 0 to 255). Select **BACK**, click + Iris to return to the **VIDEO SETTINGS** page.
BRIGHTNESS	Image brightness. Click < / > to choose the value. Range: 1-10. Default: 5. The greater the value, the brighter the image appears.
CONTRAST RATIO	The black-to-white ratio in the image, that is, the gradient of color from black to white. Click < / > to choose the value. Range: 1-10. Default: 5. The greater the value, the more obvious the contrast.
SHARPNESS	Sharpness of the edges of the image. Click < / > to choose the value. Range: 1-10. Default: 5 (STANDARD mode), 7 (VIVID mode). The greater the value, the higher the sharpness level.
SATURATION	Vividness of colors in the image. Click < / > to choose the value. Range: 1-10. Default: 5 (STANDARD mode), 6 (VIVID mode) The greater the value, the higher the saturation.
DNR	Increase digital noise reduction to reduce noises in the images. Click < / > to choose the value. Range: 1-10. Default: 5. The greater the value, the smoother the images.
2 NR	Reduce noise by individually analyzing each frame, which may cause image blur.
3 NR	Reduce noise by analyzing the difference between successive frames, which may cause image smearing or ghosting.
H-FLIP	Flips the image around its vertical central axis. Disabled by default.
V-FLIP	Flips the image around its horizontal central axis. Disabled by default.
DIGITAL DEFOG	Improve image visibility in foggy, hazy and other low-visibility scenes.

3. Click ^ / v to select **BACK**, click + Iris to exit the page and return to the OSD menu.
4. Click ^ / v to select **SAVE AND EXIT**, click + Iris to save the settings and exit the OSD menu.

3.4 485 Settings

NOTE!
After you complete 485 settings, select **SAVE** for the settings to take effect.

1. On the main menu, click / to select **485 SETTINGS**, and click Iris. The **485 SETTINGS** page is displayed.

2. Set the parameters.

Parameter	Description
PROTOCOL	Supports PELCO-P and PELCO-D.
ADDR Type	Supports ADDR-Hard and ADDR-Soft ● ADDR-Hard: Use DIP switch (see Quick Guide) to configure address, and the software can read and display the hardware address. ● ADDR-Soft: Configure address via OSD menu. Range: 0 to 255. Default: 0 **Note:** The DIP switch settings can take effect only after the device is powered off and restarted.
BR Type	Choose BR-Hard or BR-Soft. ● BR-Hard: Use DIP switch (see Quick Guide) to configure baud rate, and the software can read and display the baud rate. ● BR-Soft: Supports 9600bps/4800bps/2400bps/1200bps. The default is 9600bps. **Note:** The DIP switch settings can take effect only after the device is powered off and restarted.
PARITY	Configure parity check on OSD menu. The function is disabled by default.

3. Click / to select **SAVE**, click / to select **SAVE**, and then click Iris to confirm.

3.5 PTZ Control

This function is only available for PTZ cameras.

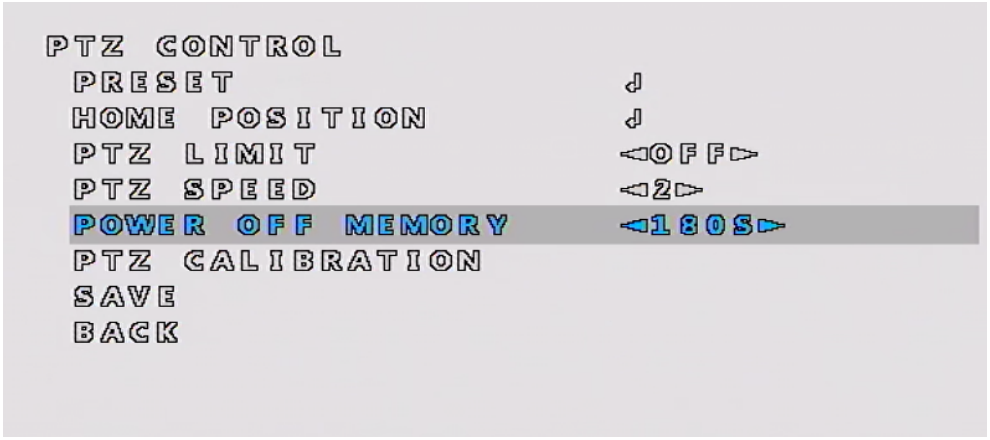
NOTE!
After you complete PTZ settings, select **SAVE** for the settings to take effect.

3.5.1 Preset

A preset position (preset for short) is a saved view used to quickly steer the PTZ camera to a specific position. Up to 32 presets are allowed.

1. Add Preset

1. On the main menu, click / to select **EXIT**, click Iris to exit menu.
2. Use **PTZ Control** to rotate the camera direction.
3. Click Iris to go to the menu page.
4. Click / to select **PTZ CONTROL**, and click Iris. The **PTZ CONTROL** page is displayed.



5. Click / to select **PRESET**, and click Iris. The **PRESET** page is displayed.

6. Click < / > to select the preset number.
7. Click ^ / v to select **SET**, and click + Iris to confirm the settings.
8. Click ^ / v to select **SAVE**, and click + Iris to save the settings.

2. Call Preset

1. On the main menu, click ^ / v to select **PTZ CONTROL**, and click + Iris. The **PTZ CONTROL** page is displayed.
2. Click ^ / v to select **PRESET**, and click + Iris. The **PRESET** page is displayed.
3. Click < / > to select the preset number.
4. Click ^ / v to select **CALL**, and click + Iris to go to the preset.

3. Delete Preset

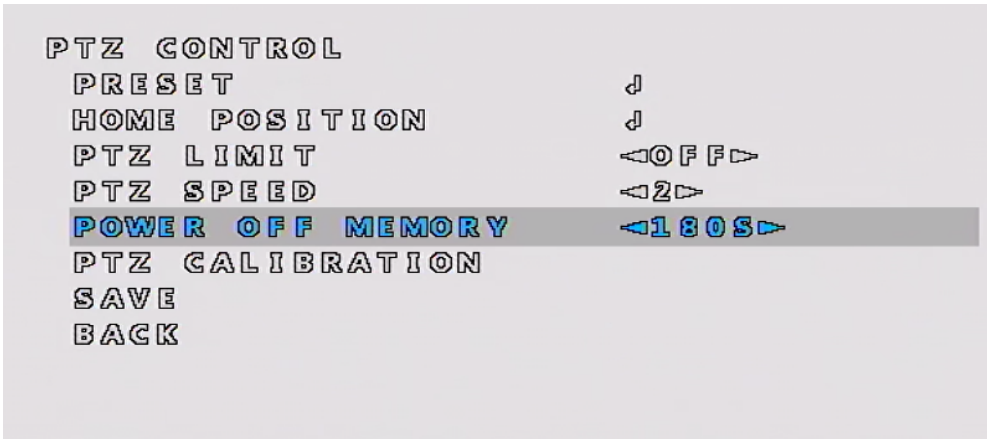
1. On the main menu, click ^ / v to select **PTZ CONTROL**, and click + Iris. The **PTZ CONTROL** page is displayed.
2. Click ^ / v to select **PRESET**, and click + Iris. The **PRESET** page is displayed.
3. Click < / > to select the preset number.
4. Click ^ / v to select **DELETE**, and click + Iris.
5. Click ^ / v to select **SAVE**, and click + Iris to delete the selected preset.

3.5.2 Home Position

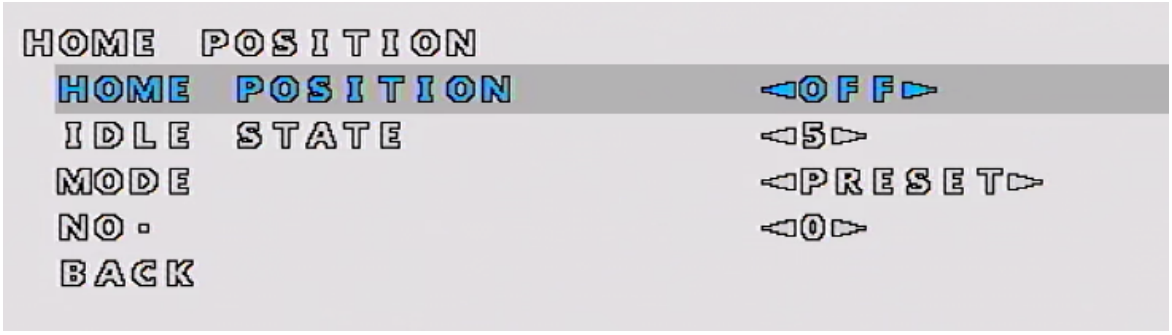
The PTZ camera can automatically operate as configured (e.g., go to a preset) if no operation is made within a specified period.

NOTE!
Before use, you need to add a preset.

1. On the main menu, click ^ / v to select **PTZ CONTROL**, and click + Iris



2. Click / to select **HOME POSITION**, and click Iris. The **HOME POSITION** page is displayed.



3. Click / to select **HOME POSITION**, and click / to select **ON**.
4. Click / to select **IDLE STATE**, click / to set the idle duration. The range is from 1s to 720s.

NOTE!
To set another preset, please extend the idle duration appropriately or turn off home position.

5. Click / to select **MODE**, and click / to select **PRESET**.
6. Click / to select **NO.**, and click / to select the preset number.
7. After you change the settings, **SAVE** will appear in the page, click / to select **SAVE**, and then click Iris to save the settings.

3.5.3 PTZ Limit

Filter out the undesired scenes by limiting the pan and tilt movements.

NOTE!
The PTZ limit is turned off by default. The settings will not take effect after the device is restarted.

1. On the main menu, click / to select **PTZ CONTROL**, and click Iris.
2. Click / to select **PTZ LIMIT**, and click / to select **OFF**, **LEFT**, **RIGHT**, **TOP**, or **DOWN**.
3. Click / to select **SAVE**, and click Iris to save the settings. The settings will not take effect after the device is restarted.

3.5.4 PTZ Speed

Set the speed level for manually controlling the PTZ. It does not affect the speed of PTZ Calibration, Preset Calling, Home Position, etc.

1. On the main menu, click / to select **PTZ CONTROL**, and click Iris.
2. Click / to select **PTZ SPEED**, and click / to adjust the speed. The range: is from 1 to 3. The default is 2. The higher the value, the faster the speed.
3. Click / to select **SAVE**, and click Iris to save the settings.

3.5.5 Power Off Memory

The system records the last position of the PTZ in case of power failure. This function is enabled by default.

1. On the main menu, click / to select **PTZ CONTROL**, and click Iris.
2. Click / to select **POWER OFF MEMORY**, click / to set the time. You can choose 10s, 30s, 60s, 180s, and 300s. The default is 180s.

NOTE!
For example, if you set to 30s, the system can record the last position where the device does not rotate for more than 30s before power failure.

3. Click / to select **SAVE**, and click Iris to save the settings.

3.5.6 PTZ Calibration

Check for PTZ zero point offset and perform calibration.

1. On the main menu, click / to select **PTZ CONTROL**, and click Iris.

2. Click / to select **PTZ CALIBRATION**, and click Iris. The PTZ camera will perform rectification immediately.

NOTE!

- The range of PTZ calibration depends on the device limit points.
- After calibration, the PTZ camera will return to Home Position if applicable. If not applicable, it will return to the position of Power-off Memory.

3.6 Language

Choose the desired language as needed.

1. On the main menu, click / to select **LANGUAGE**, click / to select the desired language.

2. Click / to select **SAVE AND EXIT**, click Iris to save the settings and exit the OSD menu.

3.7 Advanced Functions

View firmware version information.

1. On the main menu, click / to select **ADVANCED**, click Iris. The **ADVANCED** page is displayed.

2. Set the parameters.

Parameter	Description
AUDIO INPUT	Supports audio collection and transmission. **Note:** Audio is enabled by default. The device restoration will not affect this configuration item.
FIRMWARM VERSION	View the device firmware version.

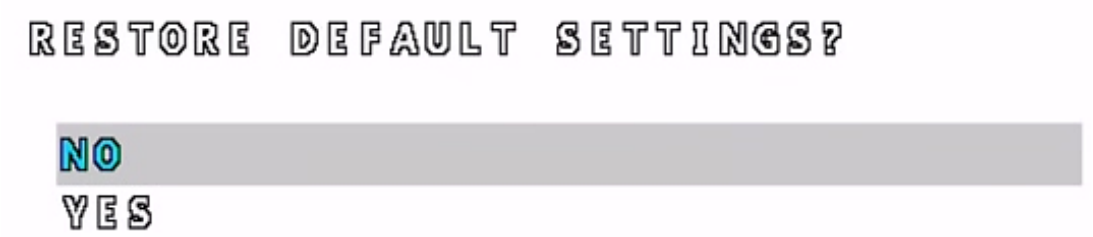
Parameter	Description
PTZ VERSION	View the device PTZ version.
RESTORE DEFAULTS	Restore the default settings for advanced functions.

3. Click / to select **BACK**, click Iris to exit the page and return to the OSD menu.
4. Click / to select **SAVE AND EXIT**, click Iris to save the settings and exit the OSD menu.

3.8 Restore Defaults

Restore default settings of all the parameters of the current video format except video format, switch mode, language, audio, 485 settings, and PTZ control.

1. On the main menu, click / to select **RESTORE DEFAULTS**, click Iris. The **RESTORE DEFAULTS** page is displayed.



2. Click / to select **YES** and then click Iris to restore all the settings in the current video format to defaults, or click / to select **NO** and then click Iris to cancel the operation.

3.9 Exit

On the main menu, click / to select **EXIT**, click Iris to exit the OSD menu without saving any changes.