



Analog Cameras User Manual

Manual Version: V1.05

Revision History

Manual Version	Description
V1.05	Modify light level descriptions and added descriptions of day/night, smart light, sensitivity, and light mode in chapter 3.3.3.
V1.04	Add zoom and focus in 2.1 PTZ Control
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

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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 Cygnus 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.

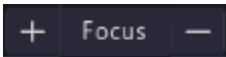

2.1 PTZ Control

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



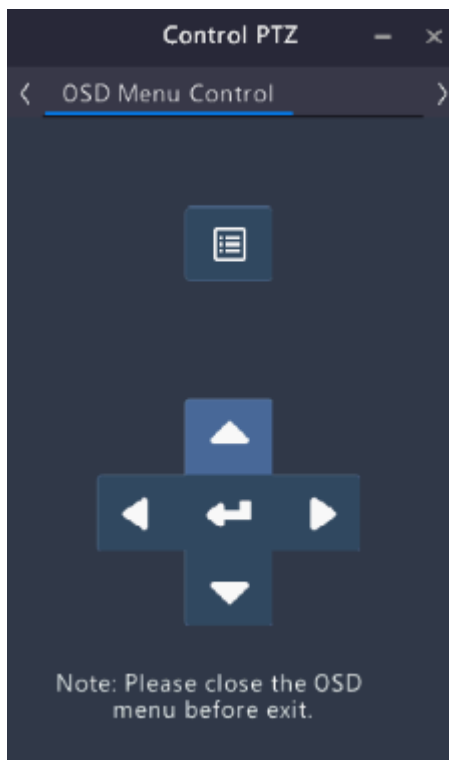
The relevant buttons are described below.





Button	Function
 / 	<ul style="list-style-type: none"> • Select menu items on the same level. • Control the PTZ camera to rotate up or down.
 / 	<ul style="list-style-type: none"> • Choose a value or switch mode. • Control the PTZ camera to rotate left or right.
 /  /  / 	Adjust the rotation direction of the PTZ camera.
 Iris	<ul style="list-style-type: none"> • Open OSD menu. • Enter sub-menu. • Confirm a setting.
 Zoom 	Zoom in or out on images.

Button	Function
	Focus far or near for clear images at a distance/at close range.
	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

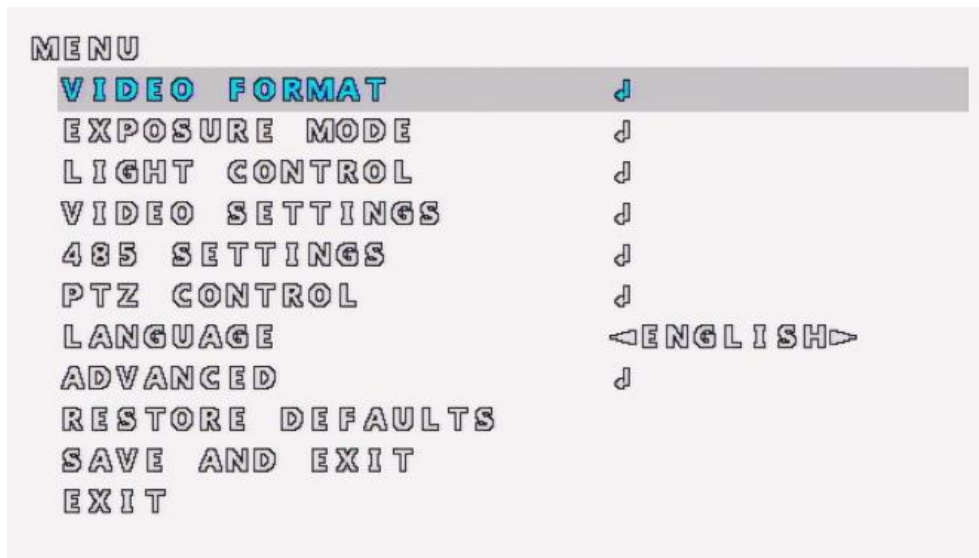
3.1 Main Menu

Click . The OSD menu appears.





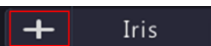
NOTE!

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 . The video format page is displayed.

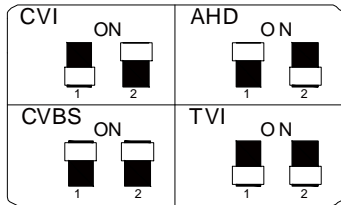
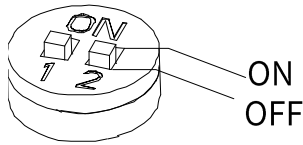


2. Click  /  to switch items, click  /  to set video format:



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 / to select **EXPOSURE MODE**, click Iris. The **EXPOSURE MODE** page is displayed.



2. Click / 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
	<p>Note:</p> <p>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.</p>
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.

- 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  /  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.

- Click  /  to select **BACK**, click  Iris to exit the page and return to the OSD menu.

- Click  /  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.

- On the main menu, click  /  to select **DAY/NIGHT SWITCH**, click  Iris .
The **DAY/NIGHT SWITCH** page is displayed.



- Click / , choose a day/night switch mode.

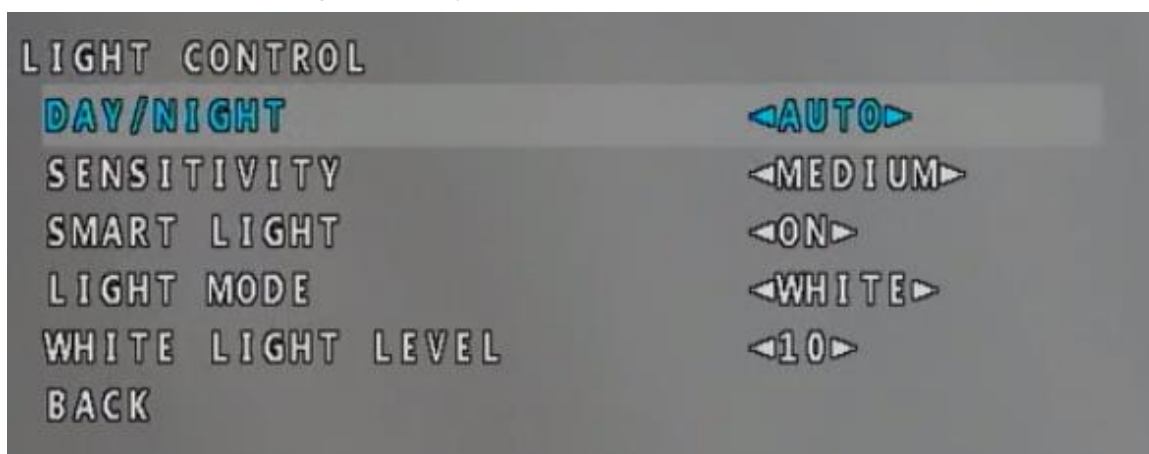
Parameter	Description
AUTO	Default mode. The camera automatically turns on or off IR according to ambient lighting to get the best images.
DAY	The camera uses bright light in the environment to provide color images.
NIGHT	The camera uses infrared to provide black and white images in low light environment.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

- Click / to select **BACK**, click Iris to exit the page and return to the OSD menu.

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

3.3.3 Light Control

- On the main menu, click / to select **LIGHT CONTROL**, click Iris. The **LIGHT CONTROL** page is displayed.






- Click / , to configure light control parameters.




Parameter	Description
DAY/NIGHT	Choose a light control mode: AUTO, DAY/NIGHT.

Parameter	Description
	Note: The supported modes may vary with device model. Please refer to the actual interface.
SENSITIVITY	Choose a sensitivity level: MEDIUM, HIGH, and LOW. The higher the sensitivity level, the easier the light will be triggered. The sensitivity can only be set when Day/Night is AUTO mode.
SMART LIGHT	Enable or disable smart light.
LIGHT MODE	Choose a light mode: WHITE, INFRARED. Note: The light mode is switchable to dual light cameras (white + infrared). Infrared or White light cameras show only the supported mode.
WHITE LIGHT / INFRARED LEVEL	Set the light level. Range: 1 to 10. The greater the value, the higher the light intensity.

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.




```

VIDEO SETTINGS
IMAGE MODE          <STANDARD>
WHITE BALANCE      ↓
BRIGHTNESS         <10>
CONTRAST           <5>
SHARPNESS          <5>
SATURATION         <5>
DIGITAL NR         <5>
H-FLIP             <OFF>
V-FLIP             <OFF>
BACK
    
```

2. Set the video parameters.

Parameter	Description
IMAGE MODE	<p>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.</p> <p>STANDARD: Default image mode. VIVID: Increases saturation and sharpness on the basis of the STANDARD mode.</p>
WHITE BALANCE	<p>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.</p> <p>1. Select WHITE BALANCE, click  Iris. The WHITE BALANCE page is displayed.</p>  <p>Click  /  to choose a white balance mode.</p> <p>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).</p> <p>Select BACK, click  Iris to return to the VIDEO SETTINGS page.</p>
BRIGHTNESS	<p>Image brightness. Click  /  to choose the value.</p> <p>Range: 1-10. Default: 5. The greater the value, the brighter the image appears.</p>
CONTRAST RATIO	<p>The black-to-white ratio in the image, that is, the gradient of color from black to white. Click  /  to choose the value.</p> <p>Range: 1-10. Default: 5. The greater the value, the more obvious the contrast.</p>
SHARPNESS	<p>Sharpness of the edges of the image. Click  /  to choose the value.</p> <p>Range: 1-10. Default: 5 (STANDARD mode), 7 (VIVID mode). The greater the value, the higher the sharpness level.</p>
SATURATION	<p>Vividness of colors in the image. Click  /  to choose the value.</p> <p>Range: 1-10. Default: 5 (STANDARD mode), 6 (VIVID mode) The greater the value, the higher the saturation.</p>
DNR	<p>Increase digital noise reduction to reduce noises in the images. Click  /  to choose the value.</p> <p>Range: 1-10. Default: 5. The greater the value, the smoother the images.</p>
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.

- Click  /  to select **BACK**, click  Iris to exit the page and return to the OSD menu.




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

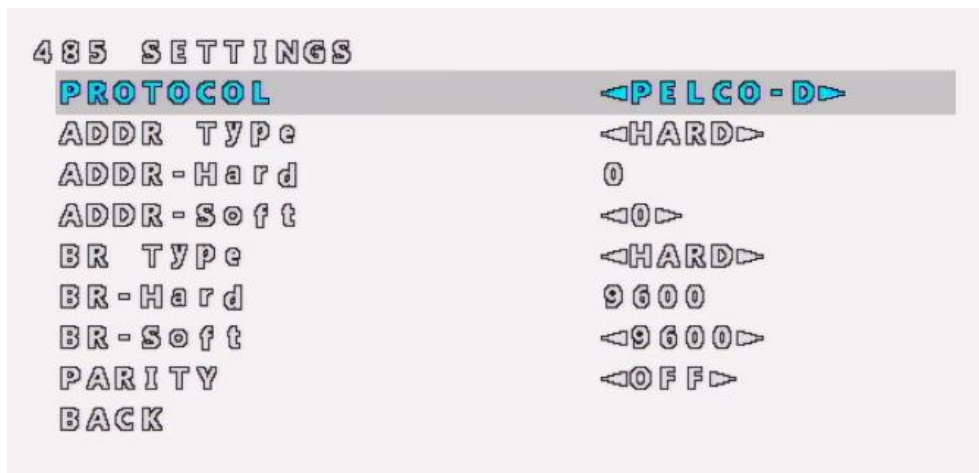
3.4 485 Settings



NOTE!


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

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



- Set the parameters.

Parameter	Description
PROTOCOL	Supports PELCO-P and PELCO-D.
ADDR Type	Supports ADDR-Hard and ADDR-Soft <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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!

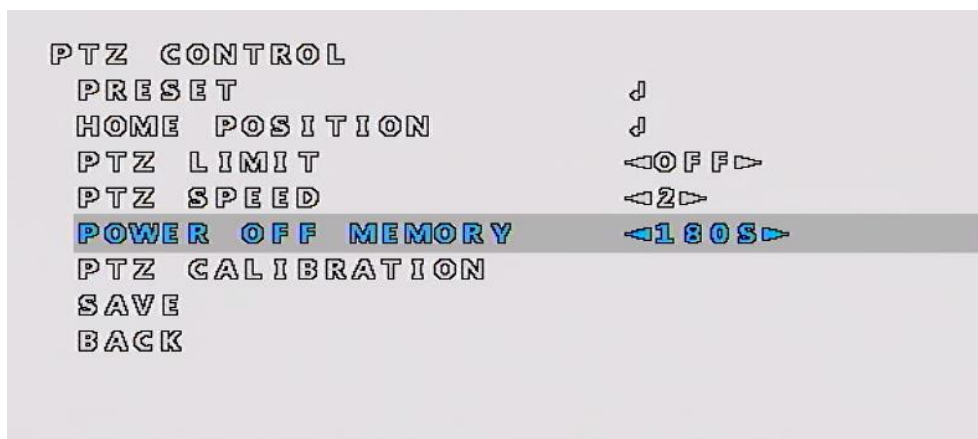
After you complete PTZ settings, select **SAVE** for the settings to take effect.




3.5.1 Preset

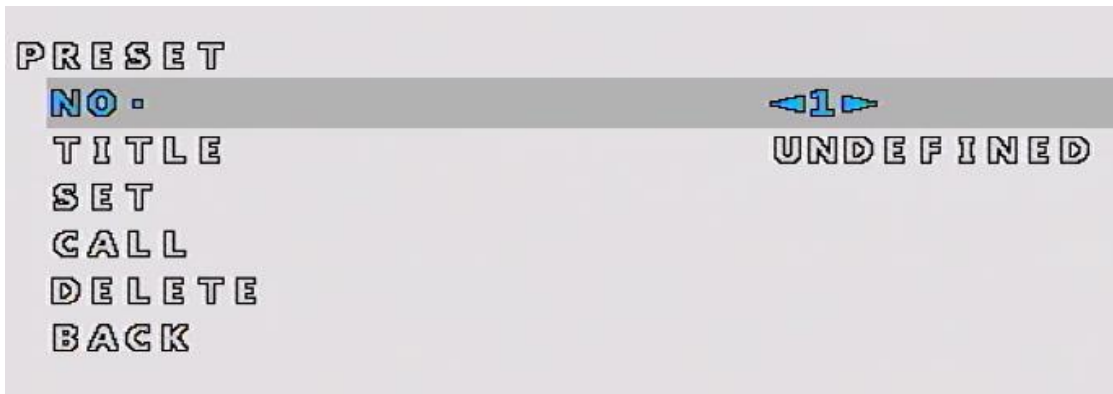
A preset position (preset for short) is a saved view used to quickly steer the PTZ camera to a specific position. Up to 32 presets are allowed.

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 / to select **SET**, and click Iris to confirm the settings.
8. Click / to select **SAVE**, and click Iris to save the settings.

2. Call Preset

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

3. Delete Preset

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

3.5.2 Home Position

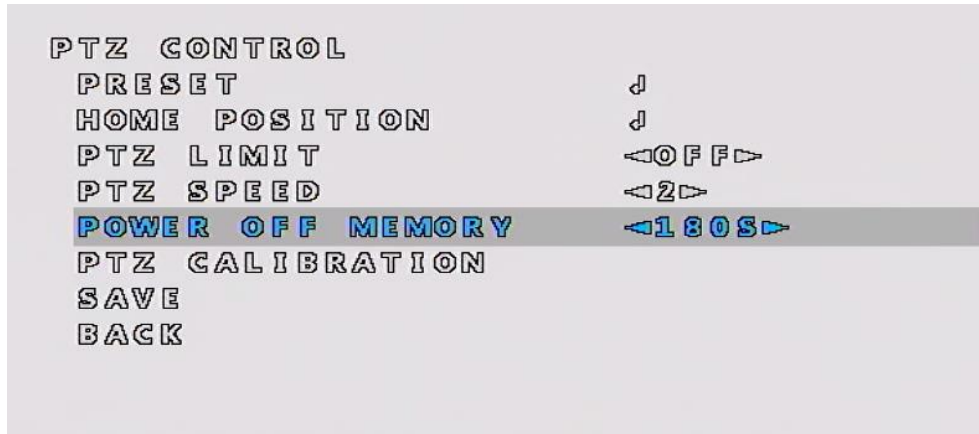
The PTZ camera can automatically operate as configured (e.g., go to a preset) if no operation is made within a specified period.





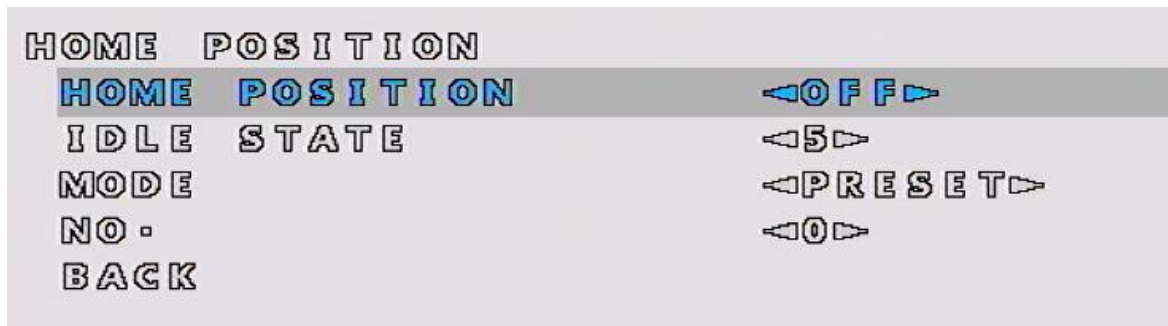
NOTE!





Before use, you need to add a preset.

1. On the main menu, click  /  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.

- 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.

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

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




LANGUAGE

◀ENGLISH▶

- 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.

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

ADVANCED

FIRMWARE VERSION

GUAC-B1101-1-3

BACK

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.
FIRMWARE VERSION	View the device firmware version.
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.




RESTORE DEFAULT SETTINGS?

NO

YES

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.