



8MP UHD Motorized Vari-focal Lens Bullet & Turret Camera

User Manual

Thank you for purchasing our product. If there are any questions, or requests, do not hesitate to contact suuport@annke.com.

This manual may contain technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

About this Manual

This Manual is applicable to Digital Video Recorder (DVR).

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website.

Please use this user manual under the guidance of professionals.

Legal Disclaimer

REGARDING TO THE PRODUCT WITH INTERNET ACCESS, THE USE OF PRODUCT SHALL BE WHOLLY AT YOUR OWN RISKS. OUR COMPANY SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, OUR COMPANY WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED. SURVEILLANCE LAWS VARY BY JURISDICTION. PLEASE CHECK ALL RELEVANT LAWS IN YOUR JURISDICTION BEFORE USING THIS PRODUCT IN ORDER TO ENSURE THAT YOUR USE CONFORMS THE APPLICABLE LAW. OUR COMPANY SHALL NOT BE LIABLE IN THE EVENT THAT THIS PRODUCT IS USED WITH ILLEGITIMATE PURPOSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Regulatory Information

FCC Information

Please take attention that changes or modification are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU and Amendment (EU)2015/863.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.

For more information see: www.recyclethis.info



2013/56/EU (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point.



For more information see: www.recyclethis.info

Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss. The precaution measure is divided into [Warnings] and [Cautions].

Warnings: Serious injury or death may occur if any of the warnings are neglected.

Cautions: Injury or equipment damage may occur if any of the cautions are neglected.

	
Warnings: Follow these safeguards to prevent serious injury or death.	Cautions: Follow these precautions to prevent potential injury or material damage.



Warnings

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100 to 240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

Preventive and Cautionary Tips

- Before connecting and operating your device, please be advised of the following tips:
- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only. Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

1 Introduction

1.1 Product Features

The main features are as follows:

- High performance CMOS sensor
- IR cut filter with auto switch
- OSD menu with configurable parameters
- Auto white balance
- Internal synchronization
- SMART IR mode
- 3-axis adjustment

1.2 Overview

1.2.1 Overview of Type I Camera

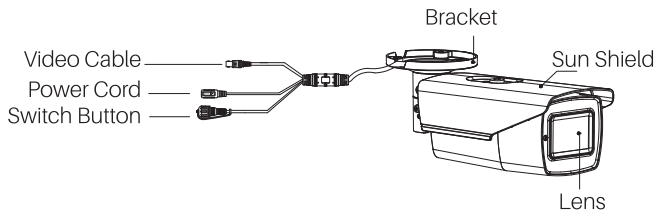


Figure 1-1 Overview of Type I Camera

Note: Press and hold the switch button for 5 seconds to switch the video output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

1.2.2 Overview of Type II Camera

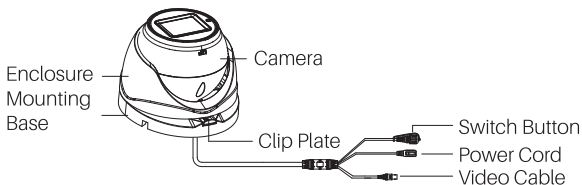


Figure 1-2 Overview of Type II Camera

Note: Press and hold the switch button for 5 seconds to switch the video output. Four kinds of video outputs are available: TVI, AHD, CVI, and CVBS.

2 Installation

Before you start:

- Make sure that the device in the package is in good condition and all the assembly parts are included.
- Make sure that all the related equipment is power-off during the installation.
- Check the specification of the products for the installation environment.
- Check whether the power supply is matched with your power output to avoid the damage.
- Make sure the wall is strong enough to withstand three times the weight of the camera and the mount.
- If the wall is cement, insert expansion bolts before installing the camera. If the wall is wooden, use self-tapping screws to secure the camera.
- If the product does not function properly, contact your dealer or the nearest service center. Do NOT disassemble the camera for repair or maintenance by yourself.

2.1 Installation of Type I Camera

2.1.1 Ceiling Mounting without Junction Box

Before you start:

Both wall mounting and ceiling mounting are suitable for the bullet camera. Ceiling mounting will be taken as an example in this section. And you can take steps of ceiling mounting as a reference for wall mounting.

Steps:

1. Paste the drill template (supplied) to the place where you want to install the camera.
2. Drill the screw holes and the cable hole (optional) in the ceiling according to the drill template.

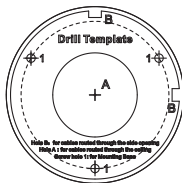


Figure 2-1 Drill Template

Note: Drill the cable hole, when adopting ceiling outlet to route the cable.

3. Route the cables through the cable hole, or the side opening.
4. Fix the camera to the ceiling with supplied screws.

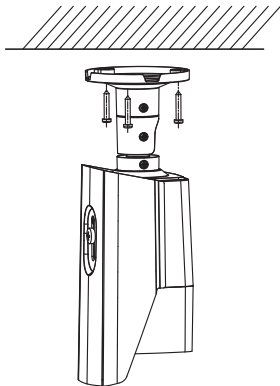


Figure 2-2 Fix the Camera to the Ceiling

Note:

- The supplied screw package contains self-tapping screws, and expansion bolts.
 - For cement wall, expansion bolts are required to fix the camera. For wooden wall, self-tapping screws are required.
5. Connect the corresponding power cord, and video cable.
 6. Power on the camera to check whether the image on the monitor is gotten from the optimum angle. If not, adjust the surveillance angle.

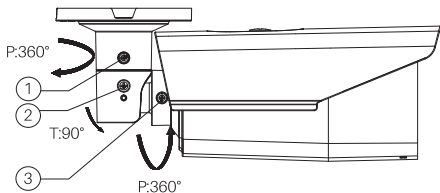


Figure 2-3 3-axis Adjustment

1. Loosen the No.① adjusting screw to adjust the pan position [0° to 360°]. Tighten the No.① adjusting screw.
2. Loosen the No.② adjusting screw to adjust the tilting position [0° to 90°]. Tighten the No.② adjusting screw.
3. Loosen the No.③ adjusting screw to adjust the rotation position [0° to 360°]. Tighten the No.③ adjusting screw.

2.1.2 Ceiling Mounting with Junction Box

Before you start:

- You need to purchase a junction box separately.
- Both wall mounting and ceiling mounting are suitable for the bullet camera. Ceiling mounting will be taken as an example in this section. And you can take steps of ceiling mounting as a reference for wall mounting.

Steps:

1. Paste the junction box's drill template on the ceiling.
2. Drill screw holes and the cable hole (optional) in the ceiling according to the holes of the drill template.

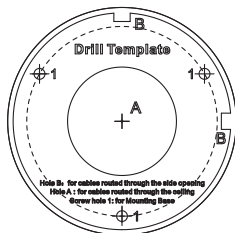


Figure 2-4 Drill Template

Note: Drill the cable hole, when adopting ceiling outlet to route the cable.

3. Take apart the junction box, and align the screw holes of the bullet camera with those on the junction box's cover.
4. Fix the camera on the junction box's cover.

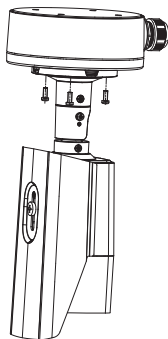


Figure 2-5 Fix the Camera with the Junction Box

5. Attach the junction box's body to the ceiling by aligning the screw holes of the junction box.
6. Secure the junction box's body with supplied screws on the ceiling.

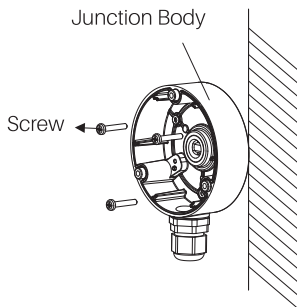


Figure 2-6 Fix the Camera to the Ceiling

7. Route the cables through the cable hole, or the side opening of the junction box.
8. Combine the junction box cover with its body.

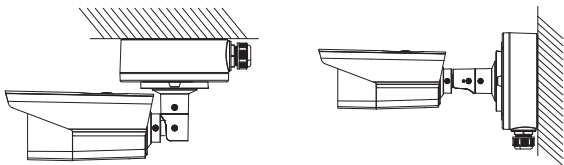


Figure 2-7 Fix the Junction Box Cover back to its Body

9. Refer to step 6 of 2.1.1 Ceiling Mounting without Junction Box to complete the installation.

2.2 Installation of Type II Camera

2.2.1 Ceiling Mounting without Junction Box

Before you start:

Both wall mounting and ceiling mounting are suitable for the turret camera. Ceiling mounting will be taken as an example in this section. And you can take steps of ceiling mounting as a reference for wall mounting.

Steps:

1. Paste the drill template to the place where you want to install the camera.
2. Drill the screw holes according to the drill template and the cable hole (optional) in the ceiling.

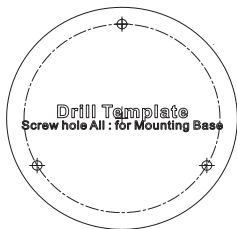


Figure 2-8 Drill Template

Note: Drill the cable hole, when adopting the ceiling outlet to route the cable.

3. Loosen screws to remove the clip plate, and take out the main body.

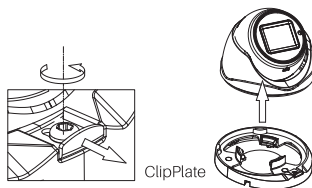


Figure 2-9 Remove the Clip Plate

4. Fix the mounting base on the ceiling with supplied screws.

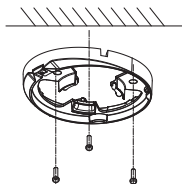


Figure 2-10 Fix the Mounting Base on the Ceiling

Note:

- The supplied screw package contains self-tapping screws, and expansion bolts.
- For cement wall, expansion bolts are required to fix the camera. For wooden wall, self-tapping screws are required.

5. Route the cables through the cable hole, or the side opening.

6. Install the main body to the mounting base and insert the clip plate.

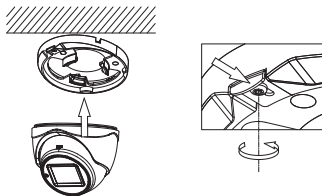


Figure 2-11 Install the Turret Camera

7. Tighten the screws with the screw driver.
8. Connect the corresponding cables, such as power cord, and video cable.
9. Power on the camera to check whether the image on the monitor is gotten from the optimum angle. If not, adjust the camera according to the figure below to get an optimum angle.



Figure 2-12 3-axis Adjustment

1. Hold the camera body and rotate the enclosure to adjust the pan position $[0^{\circ}$ to $360^{\circ}]$.
2. Move the camera body up and down to adjust the tilt position $[0^{\circ}$ to $75^{\circ}]$.
3. Rotate the camera body to adjust the rotation position $[0^{\circ}$ to $360^{\circ}]$.

2.2.2 Ceiling Mounting with Junction Box

Before you start:

- You need to purchase a junction box separately.
- Both wall mounting and ceiling mounting are suitable for the turret camera. Ceiling mounting will be taken as an example in this section. And you can take steps of ceiling mounting as a reference for wall mounting.

Steps:

1. Paste the junction box's drill template on the ceiling.
2. Drill screw holes and the cable hole (optional) in the ceiling according to the holes of the drill template.

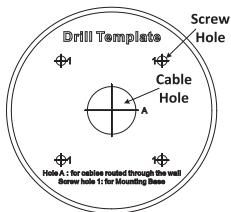


Figure 2-13 Drill Template of the Junction Box

Note: Drill the cable hole, when adopting the ceiling outlet to route the cable.

3. Refer to step 3 of 2.2.1 Ceiling Mounting without Junction Box to take out the camera's main body.
4. Take apart the junction box, and align the screw holes of the camera with those on the junction box's cover.
5. Fix the camera's mounting base on the junction box's cover with three PM4 × 10 screws.

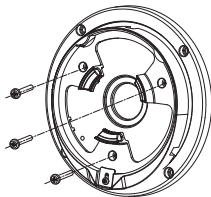


Figure 2-14 Secure Screws on Junction Box's Cover

6. Secure the junction box's body on the ceiling with four PA4x25 screws.

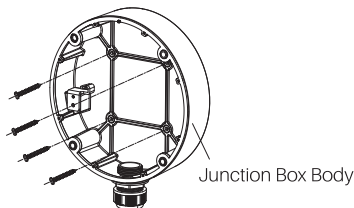


Figure 2-15 Secure the Junction Box's Body on Ceiling

7. Combine the junction box cover with its body by tightening four screws on junction box's cover.

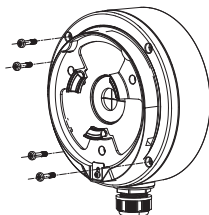


Figure 2-16 Fix the Junction Box

8. Repeat steps 5 to 9 of 2.2.1 Ceiling Mounting without Junction Box to complete the installation.

3 Menu Description

Purpose:

Call the menu by clicking the button  on the PTZ Control interface, or call preset No.95.

Steps:

1. Connect the camera with the TVI DVR, and the monitor, shown as the figure 3-1.

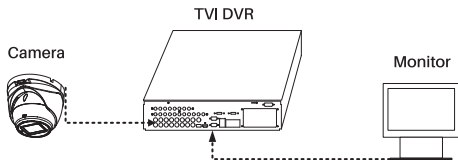

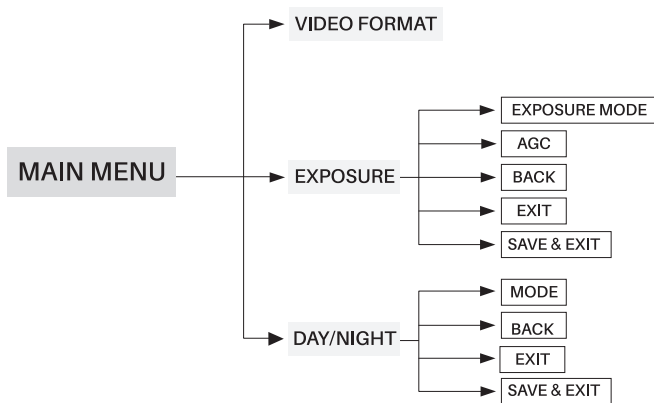


Figure 3-1 Connection

2. Power on the analog camera, TVI DVR, and the monitor to view the image on the monitor.
3. Click PTZ Control to enter the PTZ Control interface.
4. Call the camera menu by clicking  button, or call preset No. 95.



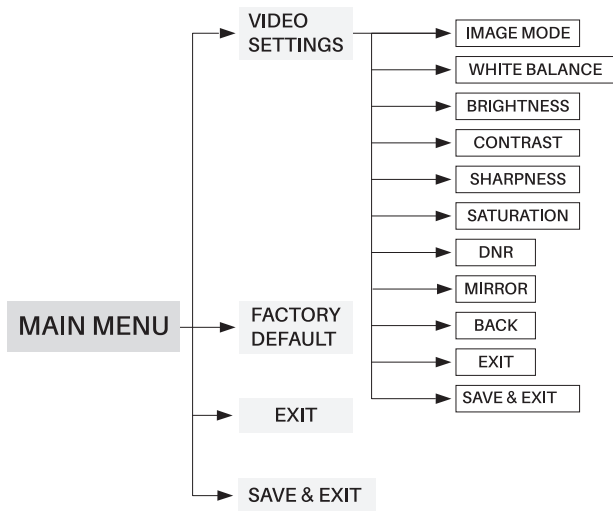


Figure 3-2 Main Menu Overview

5. Click the direction arrow to control the camera.

- 1). Click up/down direction button to select the item.
- 2). Click Iris + to confirm the selection.
- 3). Click left/right direction button to adjust the value of the selected item.

3.1 VIDEO FORMAT

You can set the video format as 8MP@12.5 fps, 8 MP@15fps, 5MP@20fps, 4MP@25fps, 4MP@30fps, 2MP@25fps, and 2MP@30fps.

Note:

- When switching the video output as CVBS, you can set the video format as PAL, or NTSC.
- When switching the video output as AHD, only 5MP@20fps is supported.
- When switching the video output as CVI, you can set the video format as 8MP@12.5 fps, or 8MP@15fps.
- Click **SAVE & EXIT** to validate the video format settings.

3.2 EXPOSURE

Exposure describes the brightness-related parameters, which can be adjusted by **EXPOSURE MODE**, and **AGC**.

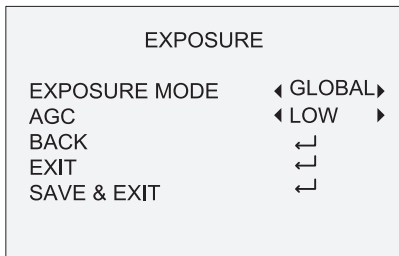


Figure 3-3 EXPOSURE

EXPOSURE MODE

You can set the **EXPOSURE MODE** as **GLOBAL**, **BLC**, and **DWDR**.

- **GLOBAL**

GLOBAL refers to the normal exposure mode which performs exposure according to the whole image brightness.

- **BLC (Backlight Compensation)**

BLC (Backlight Compensation) compensates light for the front object to make it clear, but this may cause the over-exposure of the background, where the light is strong.

- **DWDR (Digital Wide Dynamic Range)**

The **DWDR** helps the camera provide clear images even under backlight circumstances. When both very bright and very dark areas simultaneously exist in the image, **DWDR** balances the brightness level of the whole image to provide clear images with details.

AGC (Automatic Gain Control)

It optimizes the clarity of the image in poor light conditions. The **AGC** level can be set as **HIGH**, **MEDIUM**, or **LOW**.

Note: The noise will be amplified when setting the **AGC** level. The higher the level is, the more obvious the noise is.

3.3 DAY/NIGHT

COLOR, **BW** (Black White), and **AUTO** are selectable for DAY/NIGHT switch.

COLOR

The image is colored in day mode all the time.

B & W (Black and White)

The image is black and white all the time, and the **IR LIGHT** turns on in the poor light conditions. You can turn on/off the **IR LIGHT** and set the value of **SMART IR** in this menu.

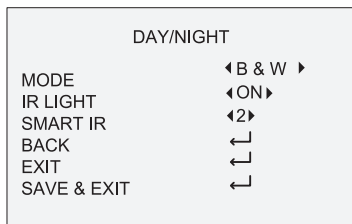


Figure 3-4 B & W

IR LIGHT

You can turn on/off the **IR LIGHT** to meet the requirements of different circumstances.

• SMART IR

The **Smart IR** function is used to adjust the light to its most suitable intensity, and prevent the image from over exposure. The **SMART IR** value can be adjusted from 0 to 3. The higher the value is, the more obvious effects are.

AUTO

Automatically switch Color, or BW (Black and White) according to actual scene brightness. You can turn on/off the **IR LIGHT**, and set the value of **SMART IR** in this menu.

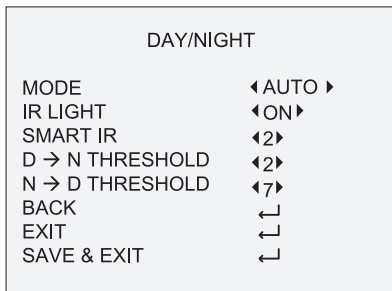


Figure 3-5 AUTO

- **IR LIGHT**

You can turn on/off the **IR LIGHT** to meet the requirements of different circumstances.

- **SMART IR**

The **Smart IR** function is used to adjust the light to its most suitable intensity, and prevent the image from over exposure. The **SMART IR** value can be adjusted from 0 to 3. The higher the value is, the more obvious effects are.

- **D→N Threshold (Day to Night Threshold)**

Day to Night Threshold is used to control the sensitivity of switching the day mode to the night mode. You can set the value from 1 to 9. The larger the value is, the more sensitive the camera is.

- **N→D Threshold (Night to Day Threshold)**

Night to Day Threshold is used to control the sensitivity of switching the night mode to the day mode. You can set the value from 1 to 9. The larger the value is, the more sensitive the camera is.

3.4 VIDEO SETTINGS

Move the cursor to **VIDEO SETTINGS** and click Iris+ to enter the submenu. **IMAGE MODE**, **WHITE BALANCE**, **BRIGHTNESS**, **CONTRAST**, **SHARPNESS**, **SATURATION**, **DNR**, and **MIRROR** are adjustable.

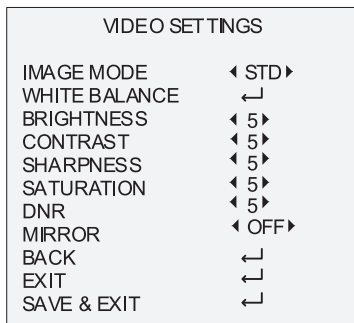


Figure 3-6 VIDEO SETTINGS

IMAGE MODE

IMAGE MODE is used to adjust the image saturation, and you can set it as **STD** (Standard), or **HIGH-SAT** (High Saturation).

WHITE BALANCE

White balance, the white rendition function of the camera, is to adjust the color temperature according to the environment. It can remove unrealistic color casts in the image. You can set the mode as **AUTO**, or **MANUAL**.

- **AUTO**

Under **AUTO** mode, white balance is being adjusted automatically according to the color temperature of the scene illumination.

- **MANUAL**

You can set the **R-GAIN/B-GAIN** value from 1 to 255 to adjust the shades of red/blue color of the image.

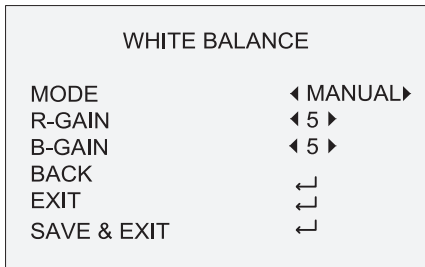


Figure 3-7 MANUAL MODE

BRIGHTNESS

Brightness refers to the brightness of the image. You can set the **BRIGHTNESS** value from 1 to 9 to darken or brighten the image. The higher the value is, the brighter the image is.

CONTRAST

This feature enhances the difference in color and light between parts of an image. You can set the **CONTRAST** value from 1 to 9.

SHARPNESS

Sharpness determines the amount of detail an imaging system can reproduce. You can set the **SHARPNESS** value from 1 to 9.

SATURATION

Adjust this feature to change the saturation of the color. The value ranges from 1 to 9.

DNR (Digital Noise Reduction)

The DNR function can decrease the noise effect, especially when capturing moving images in poor light conditions and delivering more accurate and sharp image. You can set the **DNR** value from 1 to 9.

MIRROR

OFF, **H**, **V**, and **HV** are selectable for mirror.

OFF: The mirror function is disabled.

H: The image flips 180° horizontally.

V: The image flips 180° vertically.

HV: The image flips 180° both horizontally and vertically.

3.5 FACTORY DEFAULT

Move the cursor to **FACTORY DEFAULT** and click Iris+ to reset all the settings to the factory default.

3.6 EXIT

Move the cursor to **EXIT** and click Iris+ to exit the menu without saving.

3.7 SAVE & EXIT

Move the cursor to **SAVE & EXIT** and click Iris+ to save the settings, and exit the menu.



BEDIENUNGSANLEITUNG CCTV KAMERA

Warnhinweis:

Bitte lesen Sie die Bedienungsanleitung sorgfältig durch, bevor Sie das Gerät verwenden. Diese Bedienungsanleitung enthält möglicherweise mehrere Parameter-Abweichungen oder Druckfehler. Wenn Sie Fragen haben, wenden Sie sich bitte an den Online-Kundendienst oder den Händler.

WARNHINWEIS:

Es besteht die Gefahr eines elektrischen Schlages
Warnhinweis: Um das Risiko eines Stromschlags zu reduzieren, sollten nur ein Techniker die vordere oder hintere Abdeckung entfernen.
Warnhinweis: Zur Vermeidung von elektrischen Schlägen und Brandgefahr wählen Sie bitte das entsprechende Netzteil für die Kamera.

Warnhinweis:

gliche Änderungen oder Modifikationen, die nicht durch unser Unternehmen bei der Konstruktion des Produkts genehmigt wurden, können den Betrieb durch den Benutzer beeinträchtigen.

WARNHINWEIS:

01/ Installieren Sie die Kamera nicht in einer Umgebung, die nicht im vorgeschriebenen Temperaturbereich liegt.

Installieren und verwenden Sie die Kamera in Umgebungen zwischen -20°C und ~+50°C und bei guter Belüftung.

02/ Verwenden Sie die Kamera nicht in Umgebungen mit hohem Druck und stark ätzenden oder anderen speziellen Umgebungen.

Dies kann dazu führen, dass die Kamera nicht richtig arbeitet oder beschädigt werden kann.

03/ Verwenden Sie die Kamera nicht an einem Ort, der voller Staub ist und an dem Gas austritt.

Dies kann dazu führen, dass die Kamera nicht mehr funktioniert.

04/ Versuchen Sie nicht, die Kamera auseinander zu nehmen.

Wenn dies notwendig ist, tun Sie es bitte unter der Anleitung von professionellen Technikern.

05/ Lassen Sie die Kamera nicht fallen und schütteln Sie sie nicht.

Dies kann dazu führen, dass die Kamera nicht mehr funktioniert.

05/ Lassen Sie die Kamera nicht fallen und schütteln Sie sie nicht.

Dies kann dazu führen, dass die Kamera nicht mehr funktioniert.

06/ Berühren Sie das vordere Objektiv und den Sensor der Kamera nicht.

Achten Sie darauf, dass Sie keine Fingerabdrücke oder andere Flecken hinterlassen. Wenn die Kamera Blitzen oder anderem intensiven Licht ausgesetzt ist, kann das Bild unscharf werden. Vor dem Anschluss an die Stromversorgung prüfen Sie bitte, ob diese die Anforderungen der Spezifikation erfüllt oder nicht.

PRODUKTEIGENSCHAFTEN

- High-Performance Chips, hohe Auflösung, klare und feine Bilder.
- Unterstützt automatischen Weißabgleich, hohe Farbanpassung, realistisches Bild.
- Unterstützt automatische elektronische Klappe, Anpassung an verschiedene Monitoring-Umgebungen.
- Hohes S/N-Verhältnis, das Bild ist klar und angenehm für die Augen.
- Unterstützt Privatzonenabdeckung, BLC und digitale, breite Dynamik-Funktion.
- Unterstützt Auto-AGC, automatische Helligkeitsanpassung.
- Fortschrittliche doppelt verglaste Struktur, kein Lichtaustritt.
- Lange Lebensdauer.
- Einfache Installation und Fehlersuche.

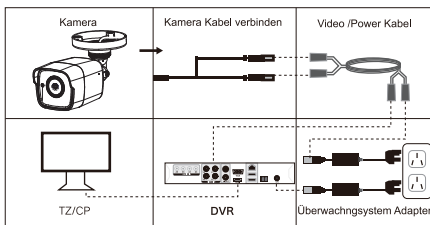
INSTALLATION

Mit DVR als Überwachungs-Mainframe Erforderliche Ausrüstung: Kamera, Halterung (Dome Kamera unnötig); Netzteil; Kabel; DVR; Festplatte (HDD); Monitor oder Fernseher.

Installationsschritte:

- A. Die Installation der Festplatte in den DVR. Einschalten des DVR, dann verbinden Sie das Gerät mit der Kamera zum Debugging der gesamten Überwachungs-ausrüstung.
- B. Installation der Kamera und Bestätigung der Position des DVR..
- C. Verkabelung und Anschluss des Steckers der Videokamera und des DVR-Kabels. Siehe die Abbildungen unten für die genaue Verbindung.

Hinweis: Dieser Vorgang ist nur für den Anschluss gedacht. Bitte bereiten Sie DVR, Netzteil, Videokabel vorab vor.



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For more information,
please visit:

www.annke.com



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For technical help please visit help.annke.com

Tech support: support@annke.com

