2 Installation

Before you start:

- Please 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 required output to avoid damage.
- Please make sure the wall is strong enough to withstand three times the weight of the camera and the mounting.
- If the wall is the cement wall, you need to insert expansion screws before you install the camera. If the wall is the wooden wall, you can use self-tapping screw to secure the camera.
- If the product does not function properly, please 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

Steps:

1. Disassemble the turret camera by rotating the camera to align the notch to one of the marks, as shown in Figure 2-1.

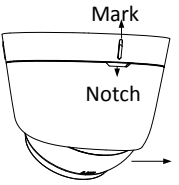

Figure 2-1 Disassemble the Camera

2. Pry the mounting base to remove the mounting base with the camera body with a flat object, e.g., a coin.
3. Attach the drill template (supplied) to the place where you want to fix the camera, and then drill the screw holes and the cable hole in the ceiling according to the drill template.

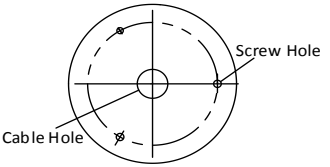

Figure 2-2 Drill Template

4. Fix the mounting base to the ceiling with the screws.

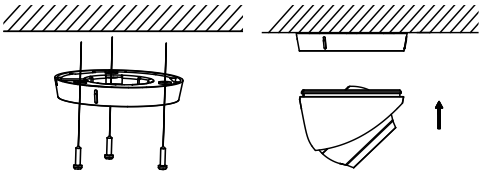

Figure 2-3 Fix the Mounting Base and Camera

5. Route the cables through the cable hole and connect the video cables and power cord.
6. Secure the camera to the mounting base.

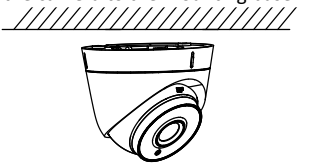

Figure 2-4 Fix the Camera to the Ceiling

7. Adjust the camera according to Figure 2-5 to get an optimum angle.
   1). Hold the camera body and rotate the enclosure to adjust the pan angle [0° to 360°].
   2). Move the camera body up and down to adjust the tilt angle [0° to 75°].
   3). Rotate the camera body to adjust the rotation angle [0° to 360°].

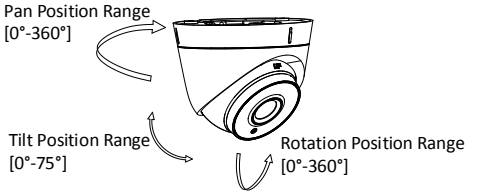

Figure 2-5 3-axis Adjustment

2.2 Installation of Type II Camera

2.2.1 Ceiling Mounting without Gang Box

Steps:

1. Disassemble the turret camera by rotating the camera to align the notch to the clip plate, as shown in Figure 2-6.

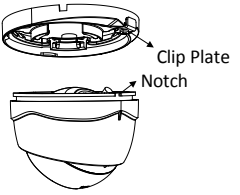

Figure 2-6 Disassemble the Camera

2. Pry the mounting base to remove the mounting base with the camera body.
3. Attach the drill template (supplied) to the place where you want to fix the camera, and then drill the

screw holes and the cable hole in the ceiling according to the drill template.

Figure 2-7 Drill Template

4. Route the cables through the cable hole.
5. Secure the mounting base to the ceiling with the supplied screws. (You can drill the expansion screws first or drill the fixing screws directly)

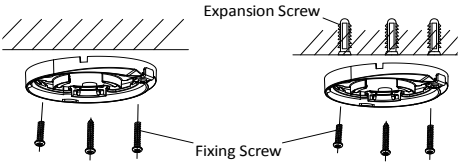

Figure 2-8 Fix the Mounting Base to the Ceiling

6. Route the cables. Connect the power cord and network cable.
7. Secure the camera to the mounting base.

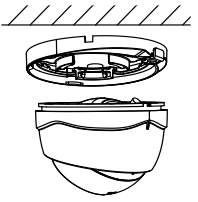

Figure 2-9 Secure the Camera

8. Adjust the camera according to Figure 2-10 to get an optimum angle.
   1). Hold the camera body and rotate the enclosure to adjust the pan angle [0° to 360°].
   2). Move the camera body up and down to adjust the tilt angle [0° to 75°].
   3). Rotate the camera body to adjust the Loosen No.3 adjusting azimuth angle [0° to 360°].

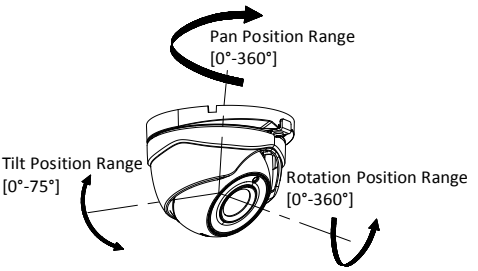

Figure 2-10 3-axis Adjustment

2.2.2 Ceiling Mounting with Gang Box

NOTE

You need to purchase a gang box separately if you adopt celling mounting with gang box.

Steps:

1. Disassemble the gang box from the gang box cover.
2. Attach the drill template (supplied) to the place where you want to fix the gang box, and then drill the holes in the ceiling according to the template.

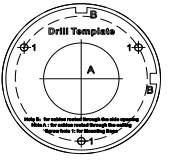

Figure 2-11 Disassemble the Gang Box

3. Fix the gang box body to the ceiling according to the template with the supplied screws.
4. Fix the gang box cover to the gang box body

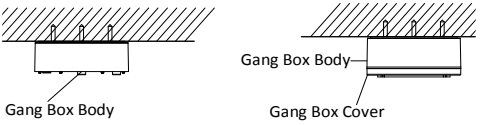

Figure 2-12 Fix the Gang Box

5. Repeat step 1-8 of ***2.2.1*** to install the camera to the gang box.

2.2.3 Wall Mounting with Pendent Cap

NOTE

You need to purchase a pendent cap separately if you adopt wall mounting with pendent cap.

Steps:

1. Fix the pendent cap bracket on the wall, as shown in Figure 2-13.

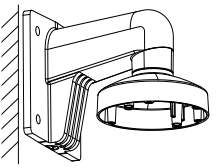

Figure 2-13 Install the Pendent Cap

2. Fix the adapter to the pendent cap with two screws. (Optional)

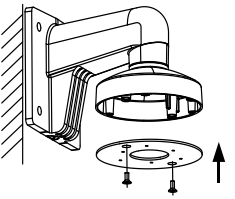

Figure 2-14 Install the Adapter to the Pendent Cap

3. Repeat step 1-8 of ***2.2.1*** to install the camera to the pendent cap.

3 Menu Description

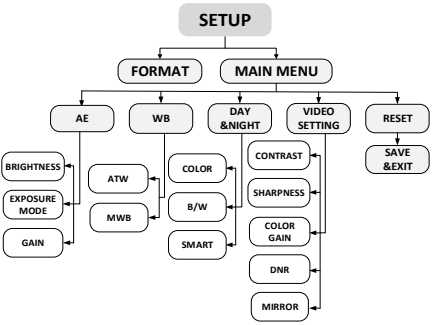

Figure 3-1 Main Menu Overview

NOTE

- With a camera controller (purchased separately) or calling the preset No. 95 of DVR you can select the menu and adjust the parameters.
- Move the cursor up/down to select the menu item.
- Move the cursor left/right to adjust the value of the selected item.
- Press the **OK** key to confirm a selection.

3.1 Format

Move the cursor to **FORMAT**, and press the menu button to enter the FORMAT sub menu. You can set the format of camera and confirm.

3.2 Main Menu

3.2.2 AE (Auto Exposure)

AE describes the brightness-related parameters. You can adjust the image brightness by the **BRIGHTNESS**, **EXPOSURE MODE**, and **GAIN** in different light conditions.

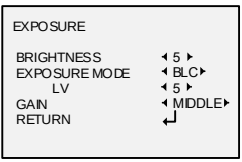

Figure 3-2 AE

BRIGHTNESS

Brightness refers to the brightness of the image. You can set the brightness value from 1 to 10 to darken or brighten the image. The higher the value is, the brighter the image is.

EXPOSURE MODE

You can set **AE** mode as **GLOBAL**, **BLC**, and **WDR**.

- **GLOBAL**

GLOBAL refers to the normal exposure mode which is for adjusting the situations including unusual lighting distribution, variations, non-standard processing, or other conditions of under exposure to get an optimum image.

- **BLC (Backlight Compensation)**

BLC (Backlight Compensation) compensate light to the object in the front to make it clear, but this causes the over-exposure of the background where the light is strong.

When BLC is selected as the exposure mode, the BLC level can be adjusted from 0 to 8.

- **WDR (Wide Dynamic Range)**

The wide dynamic range (WDR) function helps the camera provide clear images even under back light circumstances. WDR balances the brightness level of the whole image and provide clear images with details.

GAIN

It optimizes the clarity of image in poor light scene. The **GAIN** level can be set to **HIGH**, **MIDDLE**, and **LOW**. Select **OFF** to disable the **GAIN** function.

NOTE

The noise will be amplified if the **GAIN** is on.

3.2.3 WB (White Balance)

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

ATW

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

MWB

You can set the **R GAIN**/**B GAIN** value from 0 to 255 to adjust the shades of red/blue color of the image.

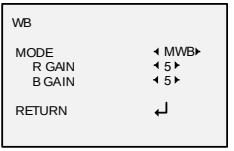

Figure 3-3 MWB Mode

3.2.4 DAY-NIGHT

Color, **B/W**, and **SMART** are selectable for DAY and NIGHT switches.

COLOR

The image is colored in day mode all the time.

B/W

The image is black and white all the time, and the IR LED turns on in the low-light conditions.

SMART

You can select to turn on/off the **INFRARED** and set the value of SMART IR in this menu.

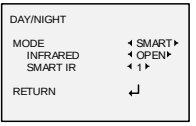

Figure 3-4 Day & Night

- **INFRARED**

You can select to turn on/off the IR LED to response to the requirements of different circumstances.

- **SMART IR**

The **Smart IR** function is used to adjust the light to its most suitable intensity, and to 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, and it is disabled when the value is 0.

3.2.5 VIDEO SETTING

Move the cursor to **VIDEO SETTING** and press the confirm button to enter the submenu. **CONTRAST**, **SHARPNESS**, **COLOR GAIN**, **DNR** and **MIRROR** are adjustable.

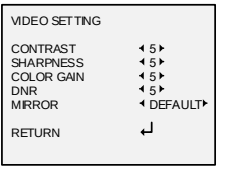

Figure 3-5 Video Setting

CONTRAST

This feature enhances the difference in color and light between parts of an image. You can set the **CONTRAST** value from 1 to 10.

SHARPNESS

Sharpness determines the amount of detail an imaging system can reproduce. You can set the **SHARPNESS** value from 1 to 10.

COLOR GAIN

Adjust this feature to change the saturation of the color. The value ranges from 1 to 10.

DNR (Digital Noise Reduction)

The DNR function can decrease the noise effect, especially when capturing moving images in low light conditions and delivering more accurate and sharp image quality.

You can set the **DNR** value from 1 to 10.

MIRROR

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

DEFAULT: The mirror function is disabled.

H: The image flips 180 degree horizontally.

V: The image flips 180 degree vertically.

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

3.2.6 RESET

Reset all the settings to the default.

3.2.7 SAVE &EXIT

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