HD-TVI
Bullet Camera

KEY FEATURES

- 1080p HD-TVI
- Main Output: HD-TVI
- 2nd Output: Analog
- 2.8-12mm Vari-focal Lens
- OSD Setup
- Day-Night w/IR
- D-WDR / 3DNR
- UTC
- DC12V
- Outdoor / Ivory Housing

CAUTION : Any changes or modifications in construction of this device which are not expressly approved by the party

NOTE : 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.
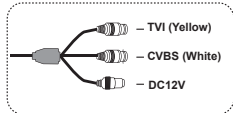

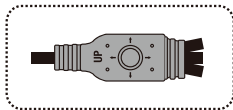# HD-TVI
Bullet Camera
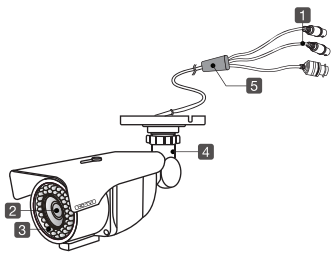
❶ Power Input Video Connectors

- ─ TVI (Yellow)
- ─ CVBS (White)
- ─ DC12V

❷ Lens
❸ IR LED
**❹ Bracket**
❺ OSD Joystick

⚠ REMINDER
For longer, more consistent performance, avoid installation locations prone to direct sunlight.
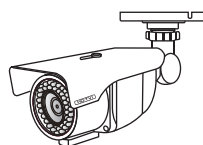
Before installing the camera, please make sure that all of the following itmes are included in the box.

IR LED BULLET CAMERA
1. Bullet Camera
2. Sun Shield
3. Installation Manual

Screws   Plastic Anchors   L-Wrench

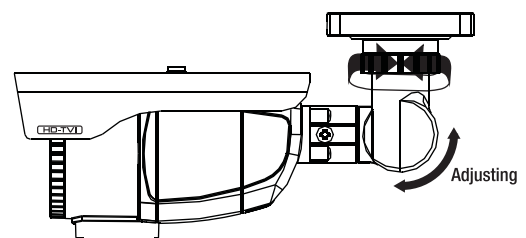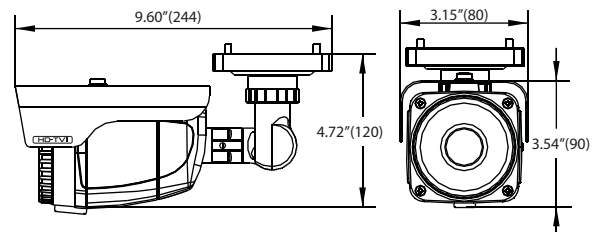Sunshield Bolt   PIG Tail   RED (+)   BLACK (-)
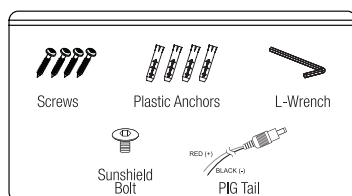
Mounting Accessories   IR LED Bullet Camera

HD-TVI
Bullet Camera

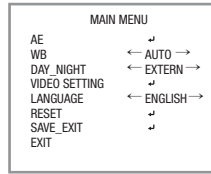For the specific camera dimensions, please refer to the diagram below.

Unit: Inch (mm)

9.60"(244)   3.15"(80)   4.72"(120)   3.54"(90)

Adjusting

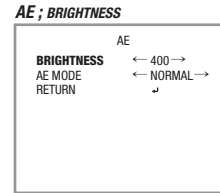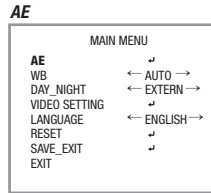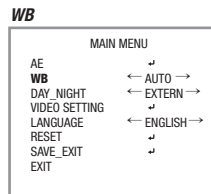| Imaging Sensor	1/3" CMOS
Effective Pixels	1920(H) x 1080(V)
Dynamic range	90dB
Video Frame Rate	25 / 30 fps@1080P
Video format	NTSC
Mini-illumination	0LUX (IR ON)
S/N Ration	More than 50dB (with AGC OFF)
OSD	English / Chineses
AGC	AUTO
White Balance	AUTO
Backlight	AUTO
NR	2DNR / Y-NR / C-RN
Brightness	Adjustable
Day/Night	EXTERN / INTERNAL / COLOR / MONO
Sync code	Internal
DAY/NIGHT	Support ICR
Video output	TVI / CVBS
OPERATING TEMPERATURE	-10℃~50℃ RH90% MAX
STORAGE TEMPERATURE	-20℃~70℃
Lens	2.8-12mm Varifocal Lens
Input Voltage	DC12V
IR LEDs	36
IR LEDs Distance	100ft

You may select the OSD menu items to adjust by using OSD buttons for your desire.
To use OSD menu, press SET button and SET UP will appear as shown on the screen.

```
            MAIN MENU
AE                      ↵
WB              ← AUTO →
DAY_NIGHT       ← EXTERN →
VIDEO SETTING           ↵
LANGUAGE        ← ENGLISH →
RESET                   ↵
SAVE_EXIT               ↵
EXIT
```

Move the arrow to select functions by use
UP/Down & LEFT/RIGHT buttons.

AE

```
            MAIN MENU
AE                      ↵
WB              ← AUTO →
DAY_NIGHT       ← EXTERN →
VIDEO SETTING           ↵
LANGUAGE        ← ENGLISH →
RESET                   ↵
SAVE_EXIT               ↵
EXIT
```

AE ; BRIGHTNESS

```
                AE
BRIGHTNESS      ← 400 →
AE MODE         ← NORMAL →
RETURN                  ↵
```

1) BRIGHTNESS   - 400 -
   -> 256 ~ 1024
2) AE MODE   - NORMAL -
   -> BACK LIGHT / FRONT LIGHT / NORMAL
3) RETURN

WB

```
            MAIN MENU
AE                      ↵
WB              ← AUTO →
DAY_NIGHT       ← EXTERN →
VIDEO SETTING           ↵
LANGUAGE        ← ENGLISH →
RESET                   ↵
SAVE_EXIT               ↵
EXIT
```
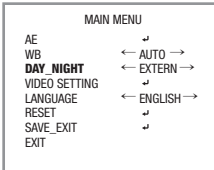
1) WB   - AUTO -
   -> AUTO / GRAY WORLD

DAY/NIGHT

```
            MAIN MENU
AE                      ↵
WB              ← AUTO →
DAY_NIGHT       ← EXTERN →
VIDEO SETTING           ↵
LANGUAGE        ← ENGLISH →
RESET                   ↵
SAVE_EXIT               ↵
EXIT
```

1) DAY / NIGHT   - EXTURN -
   -> COLOR / MONO / INTERNAL / EXTURN

VIDEO SETTING

```
            MAIN MENU
AE                      ↵
WB              ← AUTO →
DAY_NIGHT       ← EXTERN →
VIDEO SETTING           ↵
LANGUAGE        ← ENGLISH →
RESET                   ↵
SAVE_EXIT               ↵
EXIT
```

VIDEO SETTING ; VIDEO STANDARD

```
            VIDEO SETTING
VIDEO STANDARD  ← NTSC →
NR                      ↓
SHARPNESS               ↓
SATURATION           104→
RETURN                  ↵
```
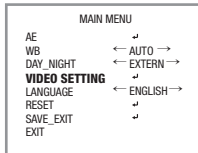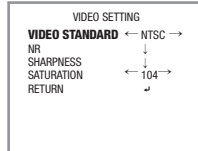
1) VIDEO STANDARD   - NTSC -
   -> NTSC / PAL

VIDEO SETTING ; NR

```
                NR
VIDEO STANDARD  ← NTSC →
NR                      ↓
2D-RN               OPEN
Y-NR                OPEN
C-NR                    ↓
SHARPNESS           104
SATURATION
RETURN
```
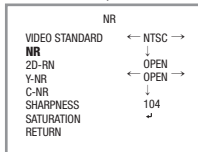
1) 2D- NR - OPEN -
   -> OPEN / CLOSE
2) Y - NR   -OPEN -
   -> OPEN / CLOSE
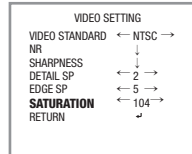3) C- NR   -OPEN-
   -> OPEN / CLOSE

VIDEO SETTING ; SHARPNESS

```
            VIDEO SETTING
VIDEO STANDARD  ← NTSC →
NR                      ↓
SHARPNESS               ↓
DETAIL SP       ← 2 →
EDGE SP         ← 5 →
SATURATION      ← 104 →
RETURN                  ↵
```
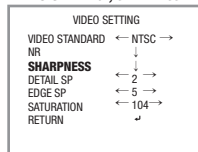
1) DETAIL SP   - 2 -
   -> 0 ~ 15
2) DETAIL SP   - 5 -
   -> 0 ~ 15

VIDEO SETTING ; SATURATION

```
            VIDEO SETTING
VIDEO STANDARD  ← NTSC →
NR                      ↓
SHARPNESS               ↓
DETAIL SP       ← 2 →
EDGE SP         ← 5 →
SATURATION      ← 104 →
RETURN                  ↵
```

1) SATURATION   - 104 -
   -> 0 ~ 504

LANGUAGE

```
            MAIN MENU
AE                      ↵
WB              ← AUTO →
DAY_NIGHT       ← EXTERN →
VIDEO SETTING           ↵
LANGUAGE        ← ENGLISH →
RESET                   ↵
SAVE_EXIT               ↵
EXIT
```
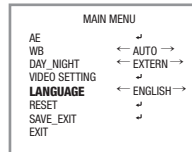
1) LANGUAGE
   -> ENGLISH / CHINESES

RESET

SAVE_EXIT

EXIT