MANUAL Of PROFESSIONAL 1080P HD-TVI BULLET CAMERA SERIES
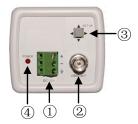
① POWER INPUT

⑤ DC DRIVE OUTPUT

② HD-TVI VIDEO OUTPUT

⑥ BACK FOCUS

③ OSD SETTINGS

⑦ CS LENS

④ POWER LIGHT

READ THIS MANUAL CAREFULLY BEFORE INSTALLING AND OPERATING THIS PRODUCT

CAUTIONS:

1. Please don't touch the sensor and lens with your hand.
2. Please don't install the camera in following unstable conditions: shake, extremely hot,extremely cold etc.
3. The recommended conditions of the installation are temperature from -10 to 50℃ and moisture under 85%.
4. Please kindly contact your sales person in case you have any question on assembly or installation.

Features & Attachment:

1. Features:
   * 1/2.8" Sensor
   * Video Output: HD 1080P@30fps / 25fps
   * 2D-NR/3D-NR/Smart IR/Sense-up Functions etc.
   * C/CS Mount Lens
   * High-quality IR Cut Filter
   * Support UTC Remote Control OSD Function by Default (Coaxitron) Protocol
2. Attachment:
   * One User Manual
   * Tools & Installation Screws

Assembly & Installation

1. Install CS lens (2.8-12mm/5-50mm) as ⑦ shows. Connect lens DC cable as ⑤ shows.
2. Input the power to the power connector① indicated in the drawing. Check the input voltage according to the camera label.
3. Connect the HD-TVI video output connector② indicated in the drawing to the monitor or other video equipment.
4. Set the zoom and focus to minimum, adjust BACK FOCUS as ⑥ shows, until the image is at its best, fix it with screw.
5. Find a suitable position to install the camera, install the bottom bracket(Case) on the ceiling by screws.
6. Fixed the camera on the bottom bracket.
7. Adjust the camera level until you can get a good image of the target by adjusting the camera bracket.

Note: Mark ① ② ③, please refer to the upper picture on this manual.

OSD Menu Function Introduction

MAIN MENU:

```
▶ 1.LENS              MANUAL
  2.EXPOSURE          ⌐
  3.BACKLIGHT         OFF
  4.WHITE BAL         ATW
  5.DAY&NIGHT         AUTO ⌐
  6.NR                ⌐
  7.SPECIAL           ⌐
  8.ADJUST            ⌐
  9.EXIT              SAVE&END ⌐
```

MENU ADJUSTMENT:

Press Menu Button to enter main menu, and then main menu options will display on the screen. Use the UP/DOWN Button to move cursor to different menu options, and use the LEFT or RIGHT Button to set or adjust the menu parameter. Please press Menu Button to EXIT after finishing adjustment.

SUBMENU OPTION:

Some menu options have its submenus ,if the right side of menu option display ⌐ ,please press Menu Button to enter submenu for parameter settings.

SUB-MENU :

```
▶ 1.SHUTTER            AUTO
  2.AGC                ·········15
  3.SENS-UP            AUTO ⌐
  4. BRIGHTNESS        ·········40
  5.D-WDR              OFF
  6.DEFOG              OFF
  7.RETURN             RET ⌐
```

MAIN MENU OPTIONS FUNCTIONS

1. LENS OPTION:
Select the lens type, MANUAL / DC Lens selectable.

2. EXPOSURE OPTION:
1) SHUTTER: Selecting shutter mode: AUTO and FLK and it is also adjustable from 1/25(1/30)-1/50000. It is adjustable from X2-X30 under Sense-up condition.
2) AGC: Auto Gain Control, It is adjustable from 0-15.
3) SENSE-UP: AUTO/OFF. It is only available under the AUTO shutter mode. It is adjustable from X2-X30.
4) BRIGHTNESS: Output brightness settings. Default setting is 40.
5) D-WDR: Digital WDR mode settings, ON/OFF selectable.
6) DEFOG: Setting fog penetrating function, ON/OFF selectable.
 • POS/SIZE: Adjust the defog area position and size.
 • GRADATION: Gradation settings. 0-2 selectable.
 • DEFAULT: reset HSBLC option to default settings.
 • RETURN: return to the upper menu.
7) RETURN: return to upper menu.

3.BACKLIGHT:
Backlight compensation: Backlight Compensation(BLC)/Super Backlight Compensation(HSBLC)/OFF selectable.
   ●SUBMENU OF BLC:
   GAIN: backlight gain settings, HIGH/MIDDLE/LOW selectable.
   AREA: adjust BLC area and set the compensation area size after entering AREA menu.
   DEFAULT: reset BLC option to default settings.
   RETURN: Return to the upper menu.
   ●SUBMENU OF HSBLC:
   SELECT: select the backlight compensation area, 4 areas selectable.
   DISPLAY: setting to ON/OFF the selected area.
   BLACK MASK: configure ON/OFF of Black Masks.
   LEVEL: the sensitivity of compensation area settings.
   MODE: HSBLC mode settings. the super backlight compensation available only at night or all day.
   DEFAULT: reset HSBLC option to default settings.
   RETURN: return to upper menu.

4. WHITE BALANCE:
Auto Tracking White Balance/Auto White Balance/Indoor Mode/Outdoor Mode/Manual White Balance/AWC-SET selectable.
(White balance function is unavailable if the setting of DAY&NIGHT function is black-white mode.)
●SUBMENU OF MANUAL WHITE BALANCE:
   It is adjustable from 0-100 in the blue or red gain.

5. DAY&NIGHT:
Setting day and night mode, AUTO/COLOR/ B/W /EXT selectable.
●SUBMENU OF AUTO DAY&NIGHT FUNCTION:
   DELAY: adjust delay time of switching, it is selectable from 0-60 seconds.
   D-N(AGC): adjust the sensitivity for Day switching to Night, it is selectable from 0-255.
   N-D(AGC): adjust the sensitivity for Night switching to Day, it is selectable from 0-255.
   RETURN: return to upper menu.
●SUBMENU OF B/W:
   Burst: ON/OFF are selectable to set burst when DAY switching to NIGHT.

IR SMART: smart IR function settings, ON/OFF selectable.
• LEVEL: adjust IR SMART level from 0-15.
• AREA: Choose IR SMART area.
• RETURN: return to the upper menu.
RETURN: return to upper menu.

6. NR:
Digital noise reduction setting.
●2D-NR: 2D noise reduction settings, LOW/MIDDLE/HIGH selectable.
●3D-NR: 3D noise reduction settings, LOW/MIDDLE/HIGH selectable.

7. SPECIAL: the special functions settings
1) CAM TITLE: camera name settings, ON/OFF selectable.
   Press the MENU button to enter ON sub-menu, then press LEFT/RIGHT or LEFT/RIGHT to move cursor to target character, press MENU button to select character, move cursor to END to return to upper menu.
2) D-EFFECT: other functions settings.
   ●FREEZE: freeze function, ON/OFF selectable.
   ●MIRROR: mirror function, OFF/ROTATE/V-FLIP/ MIRROR selectable.
   ●NEG.IMAGE: negative image function settings, ON/OFF selectable.
   ●RETURN: return to upper menu.
3) MOTION: motion detection function settings, ON/OFF selectable. If turn the MOTION function ON, then enter the submenu to set.
   •SELECT: detection areas settings, 4 areas are selectable.
   •DISPLAY: setting to turn on or turn off the MOTION function on the selected area; adjust sizes of the selected area.
   •SENSITIVITY: adjust the sensitivity of motion detection, it is selectable from 0-100.
   •COLOR:Set color of motion detection area, 1-4 colors are selectable.
   •TRANS: Set transparency of motion detection area, 4 levels are selectable.
   •ALARM:Set alarm mode of motion detection.
   •DEFAULT: reset MOTION options to default settings.
   •RETURN: return to upper menu.
4) PRIVACY: private protection area settings, ON/OFF selectable.
   If turn the PRIVACY function ON, then enter the submenu to set.
   •SELECT to set the privacy protection areas, 1-4 areas are selectable.
   •DISPLAY: privacy areas display settings.
   COLOR/MOSAIC/INV/OFF selectable. it is can adjust the position and shape of the privacy area in COLOR, MOSAIC and INV.
   •COLOR: setting the color on the privacy protection area, 1-8 colors are selectable.
   •TRANS: choose to change the transparency on the privacy protection area, 4 levels are selectable.
   •DEFAULT: reset PRIVACY option to default settings.
   •RETURN: return to upper menu.
5) LANGUAGE: language settings, support 16 languages. E.g., ENG/CHN1/CHN2/GER/FRA/ITA/SPA/POL/RUS/POR/NED/TUR/KOR/JAP/ HEB/ARB
6) DEFECT: dead pixel correction function.
   ● LIVE DPC: Auto dynamic dead pixel compensate. ON/OFF selectable. Select ON and press MENU to enter the submenu.
   • AGC LEVEL: Set DEFECT and adjust AGC level, it is adjustable from 0-255.
   • LEVEL: setting sensitivity of live dead pixel correction, it is selectable from 0-100.
   • RETURN: return to upper menu.
   ● WHITE DPC: Adjust sensitivity of white pixel compensate.ON/OFF selectable. Select ON and press MENU to enter the submenu.
   • POS/SIZE: Set the range of white pixel compensate.
   • START: open static DPC function
   • LEVEL: adjust sensitivity of white pixel compensate, it is selectable from 0-100.
   • SENS-UP:X2-X30 selectable
   • AGC: Auto Gain Control,0-15 levels selectable.
   • RERTURN: return to the upper menu.
   ● BLACK DPC: Adjust sensitivity of black pixel compensate .ON/OFF selectable. Select ON and press MENU to enter the submenu.
   • POS/SIZE: Set the range of black pixel compensate.
   • START: open static DPC function
   • LEVEL: adjust sensitivity of black pixel correction, it is selectable from 0-100.
   • RERTURN: return to the upper menu.

7) RS485:RS485 communication settings.
• CAM ID: camera ID settings,0-255 for selectable.
• ID DISPLAY: camera ID display settings, ON/OFF selectable.
• BAUDRATE: baudrate settings. E.g., 2400/ 4800/ 9600/ 19200/ 34800.
• RETURN: return to the upper menu.
8) RETURN: return to upper menu.

8. ADJUST:
Setting other image functions.
1) SHARPNESS: setting the sharpness, AUTO/OFF selectable, It is adjustable from 0-10.
2) MONITOR: select the monitor to display image, LCD/CRT are selectable.
●SUBMENU OF LCD:
● GAMMNA: setting the output GAMMNA characteristic, User/0.45-1.00 selectable.
• BLUE GAIN: blue gain settings, it is adjustable from 0-100.
• RED GAIN: red gain settings, it is adjustable from 0-100.
• RETURN: return to upper menu.
●SUBMENU OF CRT:
• BLUE GAIN: adjust blue gain, it is adjustable from 0-100.
• RED GAIN: adjust red gain, it is adjustable from 0-100.
• RETURN: return to upper menu.
3) LSC: Lens Edge Correction settings, ON/OFF Selectable.
4) VIDEO OUT: Signal System settings, NTSC/PAL Selectable.

9. EXIT:
Press RIGHT to select exit mode. SAVE&END/RESET/NOT SAVE.
1)SAVE&END:Save and exit OSD.
2)RESET:Choose this option to reset camera to factory default settings or save the changed settings.
3)NOT SAVE: Exit without saving.

SPECIFICATIONS

Solution	1/2.8"Mega Pixel Sensor
Signal System	PAL/NTSC
Sync. System	Internal Sync
Effective Pixels	2.0 Mega Pixels
Sensing Area	5.42mm×3.41mm
Horizontal Resolution	PAL:1920×1080P 25F/S NTSC:1920×1080P 30F/S
OSD Menu	Support（Sense-up/2DNR,3DNR,D-EFFECT/DEFOG/D-WDR/…etc. functions）
Video Output	1 BNC, HD-TVI high definition video output
S/N Ratio	More than 62dB(AGC OFF)
White Balance	Auto Tracking White Balance
Shutter Speed	1/25-1/50000
ICR	Night/Day ON/OFF
Mimimum Illumination	0.01 Lux
Auto Iris Lens	DC drive
Lens Mount	C/CS Mount
Working Temperature	-10C° ~50C°
Storage Temperature	-20C°~60C°
Power Requirement	DC 12V

The content of this manual is subject to change without notice.