USER MANUAL

IV-HDCM-500D
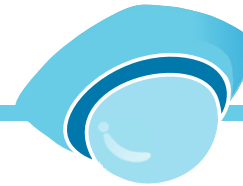
1/3" COLOR DAY/NIGHT CCD CAMERA

MAIN FEATURES

1 3-Axis Bracket
Support can rotate separately in the XYZ axes Vandal-proof design.

2 Auto ICR
For lowlight conditions automatically switches IR Cut Filter on/off.

3 Dual Power Supply Design
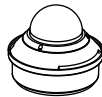Dual power supply board provides DC 12V/AC 24V inputs.

CAUTIONS

1 Do not adjust lens in a wet environment to avoid damage to the circuitry.

2 Do not install next to another light source as this may cause light reflection.

3 When assembly is complete, check that all screws in the unit are properly secured.

PACKING LIST

Camera unit	User manual	Wall anchors plastic sheath X3	Wall anchors X3	Wrenches
1	2	3	4	5
O-ring X3	Plugs			
6	7			

INSTALLATION

INSTALLATION

STEP 1

Position the Junction box to the right place and screw half into 3 big hole.

Revolve the Junction box to the smaller side and screw in tightly.

STEP 2

BNC the cable pass through the Junction Box.

STEP 3

Find the 2 red dots, one in camera base; another one on the Junction box. Position the camera box into the fillister.

STEP 4

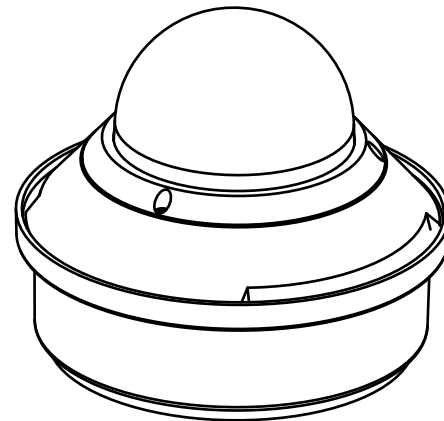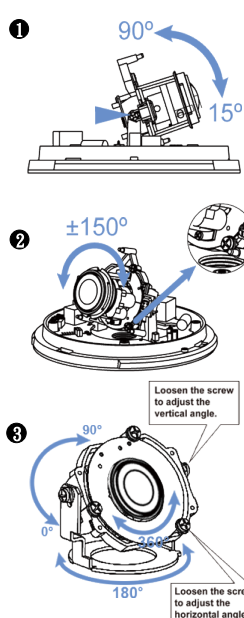Open the IR module ,and adjust the zoom lens.

STEP 5

❶ 90°
15°
❷ ±150°
❸ 90°
0°
180°
360°

Loosen the screw to adjust the vertical angle.

Loosen the screw to adjust the horizontal angle.

❶ Loosen the screws to adjust camera direction,the vertical angle is 15° to 90°.
Tighten the screws after adjustment.

❷ Loosen the screws to adjust horizontal angle,the angle is ±150°.
Tighten the screws after adjustment.

❸ Maximum range of rotation adjustment is 350°.
Tighten the screws after adjustment.
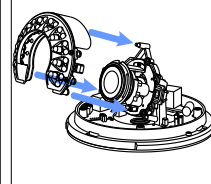Caution:While rotating object to 360 ,take care to drop.

STEP 6
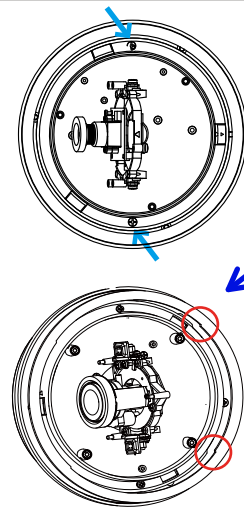
Turn the camera base to the diretion you want to project and fix the plate by nickel screw.
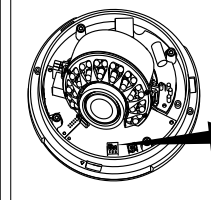
Tear adhesive paper from the accessory O-ring and place it according the shape.
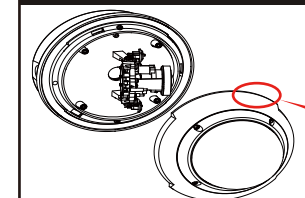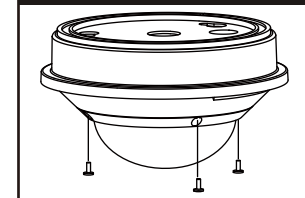
STEP 6

Click IR module

STEP 7

SMART IR
IR LEVEL

STEP 7

Align the marks of black mount plate and camera cover according the shape.

Internal View

STEP 8

Spin the camera cover and tighten the vandal screw as figure.

SPECIFICATIONS

DC JACK
MINI DIN
SDI BNC
POWER
VIDEO

MINI DIN
UP
LEFT SET RIGHT
DOWN
VIDEO
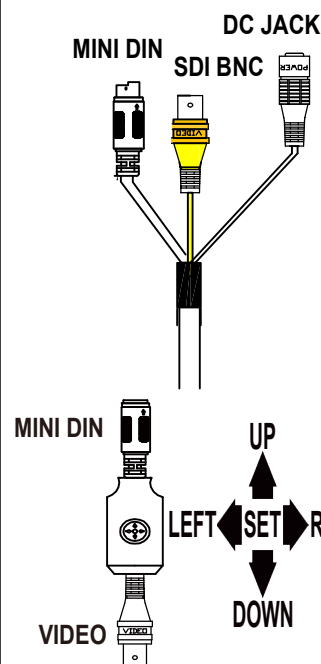
MODEL NO.	IV-HDCM-500D
IMAGE SENSOR	1/2.7" 2.1MP CMOS Sensor
SCANNING SYSTEM	PROGRESSIVE SCAN
RESOLUTION	2.1Megapixel 1080p, 1920*1080(30FPS)
LENS TYPE	2MP 2.8 ~ 12mm
SENSITIVITY (F1.2)	1.0 Lux
EFFECTIVE PIXELS	1944(H)*1092(V)
S/N RATIO	More than 50dB
SYNCHRONIZATION	Internal
GAMMA CORRECTION	0.45
DEFOG	ON / OFF (FOG OR RAIN)
ELECTRONIC SHUTTER	1/30 / 1/60 (1/50) / FLK / 1/250 ~ 1/50000
O.S.D. LANGUAGE	ENG / JPN / CHN1 / CHN2
GAIN CONTROL	OFF / LOW / MID / HIGH
3DNR	ON / OFF
MOTION DETECTION	3 AREA
PRIVACY	8 AREA
Mirror (H-REV)	OFF / MIRROR / V-FLIP / ROTATE
SHARPNESS	Level Adjustable
D & N SELECTION	AUTO / COLOR / B&W / EXT(ICR)
BLEMISH COMPENSATION	OSD Control
VIDEO OUTPUT (BNC Type)	HD-SDI : 1.485G/s(SMPTE292M)1.0Vpp-75Ω
POWER SUPPLY	DC 12V / AC 24V
POWER CONSUMPTION	IR OFF : 400 mA (MAX) / IR ON : 800mA (MAX)
WHITE BALANCE	ATW / AWC -->SET / INDOOR / OUTDOOR / MANUAL
BACK LIGHT COMPENSATION	OFF / BLC / HBLC (Selectable)
IR LED	28 IR LED
DIMENSION	150mm * 90mm
NET WEIGHT	650g
STORAGE TEMPERATURE	-30° ~ +60° C
OPERATING TEMPERATURE	-10° ~ +45° C

* The above specifications are subject to change without prior notice.

SET UP MENU	
LENS	・DC ・MANUAL
EXPOSURE	・SHUTTER ・AGC ・SENS-UP ・BRIGHTNESS ・ACCE ・DEFOG ・BACKLIGHT ・RETURN
WHITE BAL	・ATW ・AWC→SET ・INDOOR ・OUTDOOR ・MANUAL
DAY&NIGHT	・AUTO ・COLOR ・B/W
NR	・2NR ・3NR ・LEVEL ・SMART NR ・RETURN
SPECIAL	・CAM TITLE ・FREEZE ・MOTION ・PRIVACY ・LANGUAGE ・DEFECT ・RS485 ・VERSION ・RETURN
ADJUST	・SHARPNESS ・MONITOR ・OSD ・LSC ・NTSC/PAL ・RETURN
RESET	・FACTORY ・RETURN
EXIT	

Note
► RETURN :
RET(RETURN) : Select this to save the setting for this menu and
return to the upper menu.
END : Select this to save the setting for this menu and exit the
SET UP menu.

LENS

● **DC** : Select Auto Iris Lens
When DC is select, you can control screen brightness. The range
of bright control is between 0 and 100 (45 in case of WDR mode).
Adust the brightness appropriately for optimal screen brightness.

● **Manual** : Select Manual Lens

Note
►Some lenses may not work properly, depending on the setting of
the BRIGHTNESS LEVEL.
► It may not work properly depending on the installed lens. Set the
Level of the lens to the optimal value.

EXPOSURE

・SHUTTER : 1/30,FLK, 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/10000,
1/50000, x2, X3, AUTO.
・AGC : LOW, MIDDLE, HIGH.
・SENSE-UP : x2 , x3. (In Auto mode)
・BRIGHTNESS : 1 ~ 100.
・ACCE (D-WDR) : OFF / LOW / MIDDLE /HIGH

・DEFOG : DEFOG or Rain
・BACKLIGHT : OFF, BLC,HBLC
–BLC : Enables a user to directly select a desired area from a picture, and to
video the area more clearly.
> GAIN : MIDDLE, HIGH, LOW.
> AREA : Select POSITION, SIZE, RET, AGAIN.
> DEFAULT : Reset the BLC setting to the factory defaults.
> RETURN : (RET / END)
–HSBLC : If there is a high light installed in a limited environment such as an
apartment parking garage or gas station entrance, removing the high
light makes it possible to view car license plates efficiently.
> SELECT : AREA 1 ~ AREA 4.
> DISPLAY : (ON / OFF) You can use ↑, ↓, ←, → to adjust POSITION and SIZE.
> LEVEL : 0 ~ 100.
> MODE : ALL DAY / NIGHT.
> BLACK MASK : ON / OFF
> DEFAULT : Reset the HSBLC setting to the factory defaults.
> RETURN : (RET / END)
・RETURN : (RET /END)

WHITE BAL.< WHITE BALANCE >

・ATW : 1800°K ~ 10500°K.
・AWC→SET : Shoot a white paper push SET button..
・INDOOR : 4500°K ~ 8500°K.
・OUTDOOR : 1800°K ~ 10500°K.
・MANUAL : Select this to fine-tune White Balance manually.
Set White Balance first by using the ATW or AWC mode.
After that switch to MANUAL mode, fine-tune the White
Balance and then press SET button.

DAY NIGHT

・AUTO : If use IR LED with Light Sensor, it is no function.
- DELAY : 0 ~ 60 seconds.
- D→N (AGC) : 0 ~ 100.
- N→D (AGC) : 0 ~ 100.
・COLOR : This picture is always displayed in color.
・B/W : This picture is always displayed in black and white.
- BURST : (ON / OFF)
- IR SMART:OFF/ON
> LEVEL : 0 ~ 15.
> AREA : You can use ↑, ↓, ←, → to adjust POSITION and SIZE.
> IR LED : ON /OFF
> IR PWM : 0 ~ 15.
> RETURN : RET/END.

NR

・2 DNR : OFF/ON
・3 DNR : OFF/ON
- OFF : Deactivates the DNR Function. Noise in not reduced.
- ON : Activates the DNR so that noise is not reduced.
Press the SET button then you can adjust the noise reduction level.
> S-LEVEL : 0 ~ 100.
> E -LEVEL : 0 ~ 100.
・LEVEL : 0 ~ 100.
・SMART NR : OFF/ON (SMART NR working when 3DNR level >40)
・RETURN : (RET/END)

SPECIAL

・CAM TITLE : If you enter a title, the title will appear on the monitor.
- OFF : No title will be displayed on the monitor even if you enter one.
- ON : Press the SET button to the menu.
Use the 4 direction button to move to a desired letter and select the
letter by pressing the SET button. Repeat this to enter multiple letters.
You can enter up to 15 letters.

Enter a title, move the cursor to "POS" and press
SET button. The entered title appears on the screen.
Select the positon to displayed the title on the screen
by using the 4 direction button and press the SET
button. When the position is determined, select
"END" and press the SET button to return to the
SPECIAL menu.

```
ABCDEFGHIJK
LMNOPQRSTUV
WXYZ► ( )
-▉ / = & : ~ , .
1 2 3 4 5 6 7 8 9
→  ←  CLR POS END
```

Note
►If you move the cursor to CLR and press the SET button, all the
letters are deleted. To edit a letter, change the cursor to the bottom
left arrow and press the SET button. Move the cursor over the letter
to be edited, move the cursor to the letter to be inserted and then
press the SET button.

• D-EFFECT : Select this to adjust the image.
  - FREEZE : OFF/ON
  - MIRROR : OFF/MIRROR/V-FLIP/ROTATE
  - D-ZOOM : x 2.0~64.0. (Analog video no picture when D-Zoom ON)
    > PIP : ON/OFF
    > D-Z00M : x 2.0~64.0
    > PAN&TILT : PIP / D-ZOOM
    > DEFAULT : Reset the D-ZOOM setting to the factory default.
  - NEG. IMAGE : Yan can make the negative image effect.
  - RETURN : (RET/END)

• MOTION : If you connect an alarm device to this camera, you can monitor
           activity more efficiently, because a signal is generated by the
           camera whenever motion detection signal is output through the
           MD OUT port.
  - SELECT : You can select up to 3 area.
  - DISPLAY : (OFF/ON) You can use ↑ , ↓ , ←, →
              to adjust POSITION and SIZE.

- SENSITIVITY : 0 ~ 60.
- MOTION VIEW : ON/OFF
- DEFAULT : Reset the motion setting to the factory defaults.
- RETURN : (RET/END)

·PRIVACY : Hide an area you want to hide on the screen.
  - SELECT : You cam select up to 8 area
  - DISPLAY : Determines weather to use the area selected. You can use
              ↑ , ↓ , ←, → to adjust POSITION and SIZE.
  - COLOR : Determines area color. You can select 16 kinds of color.
  - DEFAULT : Reset the privacy setting to the factory defaults.
  - RETURN : (RET/END)

·LANGUAGE : You can select the menu language according to your
             requirement.(ENG / JPN / CH1)

·DEFECT :
  - LIVE DPC : Dead pixel compensation on live.
  - LEVEL : 0 ~ 60.
  - STATIC DPC : Dead pixel compensation on static.
  - START : Close the lens then press the enter key.
  - LEVEL : 0 ~ 60.
  - SENS-UP : When it is night or dark, the camera automatically
              detects the light level and maintains a clear picture
              if this mode is activated.

Note

► If you press the SET button in "x3" or "x2" mode, you can
  adjust brightness by increasing or decreasing the Shutter speed.(x2~x3)
► Note that the higher the zoom level, the brighter the screen, but the more
  likely it is that an after-image will appear.
► Although Noise, Spots, and Whitish symptoms may occur in SENSE-UP
  operation when the zoom level is increased, this is normal.

- RETURN : (RET/END)

·RS485 : (Communication adjust menu)
This function sets up the camera communication status when
controlling the camera through an external control device.
  - CAM ID : 0 ~ 255
  - ID DISPLAY : Display camera title on the screen.
  - BAUD RATE : 2400 / 4800 / 9600 / 19200 / 38400 bps.
  - RETURN : (RET/END)

·VERTION : 000000

·RETURN : (RET/END)

ADJUST

• SHARPNESS : As you increase this value, the picture outline becomes
              stronger and clearer. Adjust this appropriately depending
              on the sharpness of the picture.
• MONITOR : LCD / CRT monitor.
  - LCD MONITOR :
    > GAMMA : USER / 0.45 / 0.50 / 0.55 / 0.60 / 0.65 /0.70 / 0.75 / 0.80 / 0.85
              / 0.90 / 0.95 / 1.00 value.
    > BLUE GAIN : 0 ~ 100.
    > RED GAIN : 0 ~ 100.
    > RETURN : (RET/END)
  - CRT MONITOR :
    > BLACK LEVEL : -30 ~ +30.
    > BLUE GAIN : 0 ~ 100.
    > RED GAIN : 0 ~ 100.
    > RETURN : (RET/END)

• OSD :
  - TEXT COLOR : You can select 0 to 8 text color.
  - OUTLINE : ON/OFF
  - RETURN : (RET/END)
• LSC : (Lens Shielding Compensation)
• NTSC/PAL : You can select NTSC / PAL system.
• RETURN : (RET/END)

RESET

• FACTORY : Reset the camera setting to the factory defaults.
• RETURN : (RET/END)

EXIT

Press the SET button in the EXIT menu to save the current setting and exit the
SET menu.