

SPECIFICATION

Model No.	HTC-9AH2810D
IMAGE SENSOR	1 / 3" 960H Color CCD Sensor
EFFECTIVE PIXELS	976(H) X 582(V)
SYNC. FORMAT	INTERNAL
RESOLUTION	HORIZONTAL 700TVL
VIDOE OUTPUT	1.0V (P-P) NTSC COMPOSITE, 75Ω
MIN. ILLUMINATION	0.00LUX (IR LED: On)
IR CONFIGURATION	18 IR LEDs (850nm)
S/N RATIO	52dB (AGC OFF, WEIGHT OFF) OR MORE
OSD	BUILT-IN
AGC	OFF / LOW / MIDDLE / HIGH SELECTABLE
SHUTTER	AUTO / FLK / MANUAL / 1/50
SENS-UP	OFF / AUTO (X2~X256)
BRIGHTNESS	1~100 STEPS (LEVEL ADJUSTABLE)
D-WDR	ON/OFF Level Selectable
BLC	LOW / MIDDLE / HIGH SELECTABLE
HSBLC	LOW / MIDDLE / HIGH SELECTABLE
WHITE BALANCE	ATW / AWB / AWC-SET / MANUAL
DAY / NIGHT	COLOR / AUTO / EXT / B/W SELECTABLE
SMART 3DNR	ON/ OFF SELECTABLE
D-EFFECT	FREEZE / MIRROR/ D-ZOOM / NEG. IMAGE
MOTION DET.	4 AREA
PRIVACY MASKING	8 AREA
D-ZOOM	ON / OFF (X32)
SMART D-ZOOM	ON / OFF (X5)
DIS	ON / OFF SELECTABLE
LESN SHADING CORRECT.	ON / OFF SELECTABLE
LENS	TDN2.8-12MM AUTO IRIS
POWER SOURCE	12VDC / 24VAC (OPTIONAL)
POWER CONSUMPTION.	400mA @12VDC
OPERATIONAL TEMP.	-10Deg. C ~ +50 Deg. C RH95% MAX.
STORAGE TEMP.	-20Deg. C ~ +50 Deg. C RH95% MAX.
WEIGHT	1.65Kg

GENERAL FEATURES

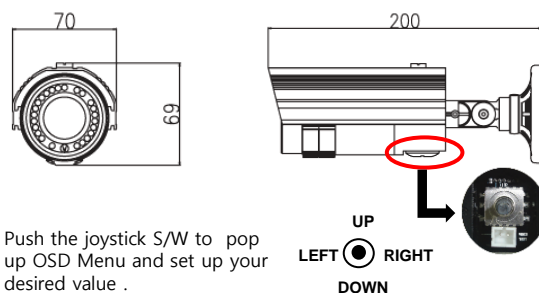
1. HORIZONTAL 700TVL RESOLUTION
2. 18 IR LEDs CONFIGURATION WITH 30MTR IR DISTANCE
3. MECHANICAL TRUE DAY / NIGHT
4. SMART NOISE REDUCTION
5. SENSE-UP X256
6. D-WDR (WIDE DYMAIC RANGE)
7. DEFOG
8. SMART DIGITAL ZOOM
9. MOTION DETECTION & PRIVACY MASKING
10. DIS (DIGITAL IMAGE STABILIZER)

PACKAGE CONTENTS

Please make sure the following items are included in the package

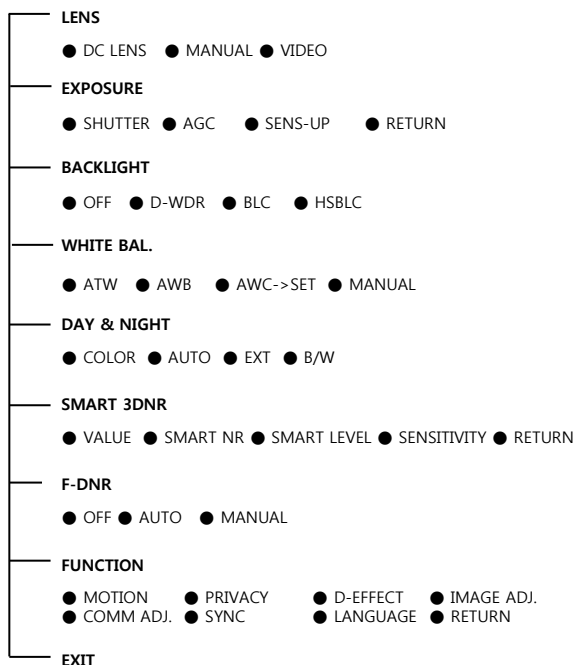
1. 1 pc of Camera
2. 3 pcs of Mounting Screws
3. 1 Pc of Manual
4. 1 pc of Sunshield

OSD CONTROL & DIMENSION



- Push the joystick S/W to pop up OSD Menu and set up your desired value .

OSD MENU TREE & MAIN MENU



1) LENS <DC LENS / MANUAL>

- Recommend Lens set as the designated camera default

DC LENS <Brightness / IRIS Speed / Return>

Brightness : 1-100 steps adjustable

Iris Speed : If necessary, control Iris speed (1-5 steps)

MANUAL <Brightness / Return>



SETUP Menu Functions

2) EXPOSURE

<SHUTTER / AGC / SENS-UP / RETURN>

SHUTTER :

Adjust shutter settings : Auto / FLK / Manual / 1/50 / 1/60

- AUTO mode adjust shutter speed automatically.
- FLK mode reduces on-screen flickering.
- Manual mode allows you to adjust the shutter speed from 1/50,1/60, 1/100000 ~X2~X256.

AGC (Auto Gain Control) : Off / Low / Middle / High

- Control Gain Noise to get proper image quality.
- Set AGC Mode as High to get brighter image but more noises of the picture.

SENS-UP : On / Off

- Automatically detect light level and maintains a clear picture. Set a desired level upto X256.

Return

3) BACKLIGHT

<SHUTTER / AGC / SENS-UP / RETURN>

D- WDR : (Wide Dynamic Range) :

- To distinguish an object in both bright and dark areas
- Set desired Low & High level. 0~15 level selectable
- Return : Return the main menu.

BLC : Deliver a distinctive subject and background at the same time, even when the subject is in backlight

- Value : Low / Middle / High selectable
- Area : Single / Double mode supported. Set the BLC position and size.
- Default : Go back to Factory Default setting value.

HSBLC : To mask a strong light at the designated area.

- Gain : Set the desired HSBLC Gain level. (0-100 Steps)
- Mode : Set the desired mode. (Night only / All Day)
- Mask Level : Set the desired mask level. (0-100 Steps)
- Default : Go back to Factory Default setting.
- M. Skip Area : Designate an area which you want to skip.

Return

4) WHITE BAL.

<ATW / AWB / AWC-SET / MANUAL>

ATW : Auto Tracking White Balance.

- Use this mode when the color temp. is between 1,800~10,000K

AWB : Auto White Balance with the factory default value.

AWC->SET :

- To find the optimal setting for current luminance environment in this mode. Set the point the camera towards a sheet of white paper and press the Joystick S/W. If the environment changes, readjust it.

MANUAL

- To fine-tune White Balance manually. Set White balance first by using ATW or AWC mode before Manual mode. After that, if there is still a white balance issue, switch to manual mode and have a fine-tune. Manual mode allows you to increase or decrease the red or blue factor.

5) DAY / NIGHT <COLOR / AUTO / EXT / B/W>

COLOR : Display always color picture

AUTO : Automatic D/N switching according to ambient illumination.
Delay / D-N / N-D / Return Modes are provided.

EXT : Automatic D/N switching by using external signals.
IR LED (Photocell sensor) version must set with EXT mode.

B/W : Display always B/W picture

- **IR Smart** : IR Saturation Control. Set a designated value & area.

6) SMART 3DNR <On / Off>

- To reduce the background noise in a low luminance environment with 2D + 3D filtering system.

VALUE : Set the desired 3DNR value.

SMART NR : Set Smart NR On for the level and Sensitivity .

SMART LEVEL : Adjust Smart NR level (1-200 Steps).

SENSITIVITY : Set Smart NR sensitivity for activation.

7) F-DNR <AUTO / MANUAL/OFF>

- To defog when the video or the weather is foggy by controlling F-DNR level.

AUTO : Set the detect level for activation.

MANUAL : Set the detect level manually by adjusting level, Color Gain, Edge Gain, Gamma value.

8) FUNCTION

8-1) MOTION :

- A signal is generated by the camera whenever motion is detected. You can define 4 areas and control its sensitivity.

8-2) PRIVACY :

- To mask area which you want to mask. 8 areas selectable with 16 colors and controllable transparency.

8-3) D-EFFECT :

<D-Zoom/Smart D-Zoom/DIS/FREEZE/MIRROR/NEG. IMAGE>

- **D-Zoom** : Digital Zoom In / Out up to X32.
PAN/TILT : Set Pan/Tilt location when D-Zoom is activated.
- **Smart D-Zoom** : Set the zoom in /out value upto X5.
Range : Set the zoom in/out range from x2 to x5
Position : Designate the zoom area. When a movement is detected, it automatically Zoom in/out with PIP.
Sensitivity : Set the sensitivity level for activation.
Time : Set your desired time value for display of Zoom in/out.
* Smart D-Zoom will not be activated when D-Zoom is acting.
- **DIS** : Digital Image Stabilizer (On/Off)
* DIS will not be activated when D-Zoom & Smart D-Zoom is on
- **Freeze** : To hold the image to analyze precisely.
- **Mirror** : Change the video direction. Mirror / V-Flip/Rotate
- **Neg. Image** : Negative Image (On/ Off)

8-4) IMAGE ADJUST

- **Sharpness** : Set the sharpness level of the picture (3-31 Steps)
- **Monitor** : CRT / LCD modes are provided.
- **LSC** : Lens Shading Correction.(On/Off)
- **Defect** : Activate this mode when "White Spot (Dead Pixel)" on screen is occurred.

8-5) COMM ADJ :

- **CAM TITLE** : To display a title on the monitor. (On / Off)
- **PROTOCOL** : To define a proper protocol for communication.
- **RS-485** : Set Camera ID and Baud rate.

8-6) SYNC : Set the synchronization. If the power of the camera is AC, L/L will be provided

8-7) LANGUAGE : Set the proper language of Main Menu