



HCS-3316HDB Videoconference Camera

Excellent solutions for conferences



Installation and Operating Manual

V 1.1

Safeguard

1. Before installing the camera, please read this manual carefully, please follow this manual during installation and operation, and keep it manual for future use.
2. Before powering up the camera, please check the local power supply; make sure it complies with the requirements of the camera power adapter.
3. During installation, please settle the cables (power/video/control) into the right position, not to be stressed by heavy load. Don't place other objects over the power connection; make sure that cable connections are well-protected and well-contacted.
4. Please operate the camera within a temperature and a humidity range as described in this manual (operating temperature/humidity: 0°C to 50°C (32°F to 122°F) /0 to 95%). Avoid heavy pressure, strenuous vibration and soaking during transportation, storage and installation.
5. Don't disassemble the camera by yourself, please turn to professional and qualified personnel for help when necessary.
6. Hold the bottom of the camera when installing, do not touch very easily damageable parts.
7. Video and control cables should be well-shielded to keep stable signal transmission.
8. When cleaning the camera, please use soft cloth. If the camera is very dirty, wipe it off gently with a soft cloth moistened with a weak solution of water and a neutral kitchen detergent. Wring all excess liquid from the cloth before wiping the camera. Next, wipe off all remaining solution with a soft, dry cloth. Use lens cleaning paper to clean the lens.

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1. Overview

1.1 Introduction

This high-definition, all-in-one, Pan/Tilt/Zoom (PTZ) Video Camera brings the HD scenes to your life. This unique camera is equipped with a DVI-I interface designed to maximize high video quality displays and is capable of displaying both digital and analog signals (output options are Y/Pb/Pr, HDMI, DVI-D, VGA, RGBHV and HD-SDI, etc.). It utilizes a direct drive motor mechanism for achieving high-speed, quiet and smooth P/T/Z operations. The camera covers a wide shooting range, with a pan angle of -150° to $+150^{\circ}$, with a max pan speed of $300^{\circ}/s$, tilt angle of -30° to $+90^{\circ}$, with a max tilt speed of $125^{\circ}/s$.

This unique camera employs a 1/2.7-type HD CMOS image sensor with five mega effective pixels and can be used in combination with any number of codecs and other systems to produce high-quality, high-resolution images. With its wide field of view, built-in 20x optical zoom lens, 16:9 aspect ratio video and high-speed, quiet pan/tilt operation, the camera can cover subjects across wider space with minimal disturbance. Combining convenient features such as auto focus/ auto exposure, 64-position presets, auto cruise, configurable scan mode, remote control, and external control by standard RS-485/232 interface, it is ideal for application including videoconferencing, distance learning, corporate training, etc.

1.2 Features

Features	Benefit
Superb Picture Quality 5 Mega Pixels HD CMOS Sensor	The camera incorporates a 1/2.7-type HD CMOS sensor (a total of five mega effective pixels) providing outstanding picture quality and high resolution images.
Video Format Compatible with Multiple Formats from NTSC/PAL to Full HD	The camera allows for HD 720p to 1080p60 migration. It enables you to shoot an image using the 1080p full high definition video format and output in one of video formats (e.g. 720p, 1080p, 1080i and HD-analog and HD-digital).
Quiet, High-Speed Pan/Tilt Action	By adopting the direct drive motor mechanism similar to the drive motor found in the camera, the camera is extremely quiet and moves smoothly and quickly to the designated positions.
DVI-I Interface	The camera is equipped with a DVI-I interface designed to maximize high video quality displays and is capable of displaying both digital and analog signals (output is selectable from Y/Pb/Pr, HDMI, DVI-D, VGA, and RGBHV).
High-Quality Image Transmission via the Digital Interface (HD-SDI)	This new camera outputs an HD image that conforms to the SMPTE 292M serial digital interface standard which allows a long distance transmission of high-quality images.
Built-in Conversion Lens for Wide Angle View	The camera incorporates a newly developed wide-angle lens for wide field of view image capture.

Features	Benefit
RS-485/422 and RS-232 Serial Control by PELCO-D/VISCA Protocol	All camera settings and pan/tilt/zoom functions for the camera can be controlled remotely via PC.
240x Zoom Ratio(20x Optical + 12x Digital)	The fast and stable auto-focus zoom lens on the camera has an impressive 240x zoom ratio.

1.3 Specifications

Items	Specifications
Image Sensor	1/2.7-type HD CMOS sensor, 5 mega pixels
Signal System	HD: 1080p60/1080p50/1080p30/1080p25/1080i60/ 1080i50/720p60/720p50/720p30/720p25; SD: NTSC, PAL
Lens	20x optical zoom lens, f=4.7-94mm, Fw/1.6-Ft/3.5
Zoom ratio	20x optical zoom, 12x digital zoom
Minimum object distance	0.5m (wide) - 1.5m (tele)
Horizontal viewing angel	58.7° (wide) - 3.2° (tele)
Focus	Auto / Manual / One-push
Minimum Illumination	0.5Lx (50IRE, F1.6)
Exposure	Auto / Manual / Shutter priority / Iris priority / Exposure control
Shutter speed	1/60 to 1/10,000s (60 Hz) 1/50 to 1/10,000s (50 Hz)
Gain	Auto / Manual
White balance	Manual / Outdoor / Indoor1 / Indoor2 / Indoor3 / Indoor4 / Auto / One-push
Video effect	Backlight compestaion, vertical flip
OSD Menu	English / Simplified chinese / Traditional chinese
S/N ratio	>50dB
Synchronization	Internal
Backlight Compensation	On / Off
Pan/Tilt Speed	Pan: 0.1°~200°/sec, Tilt: 0.1°~150°/sec
Pan/Tilt range	Pan: ±150°, Tilt: -30°~90°
Preset	64
Video Output	HD: HD-SDI, DVI-I (is selectable from Y/Pb/Pr, HDMI, DVI-D, VGA, RGBHV) SD: CVBS

Items	Specifications
Multiple video output	3-ways HD and 1-way SD
Control Protocol	PELCO-D, VISCA
Control Interface	RS-485/422, RS-232
Baud Rate	2400/4800/9600/19200/38400 bps
Address	0~255
Temperature	Operating temperature: 0℃~+50℃ Storage temperature: -20℃~+70℃
Relative Humidity	0~95% (not condensing)
Power Requirements	DC 12 V
Power Consumption	<10 W
Dimensions (mm)	144(H)×259(W)×166(D)

1.4 Structure

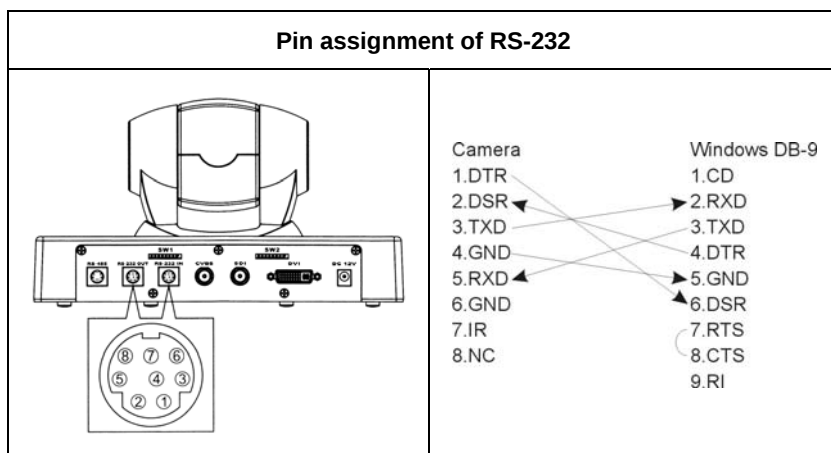


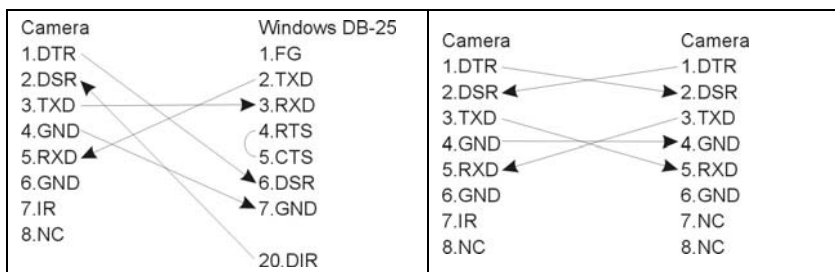
- 1--Lens
- 2--Sensor for Remote Controller
- 3--Control Lamp
- 4--Power Lamp



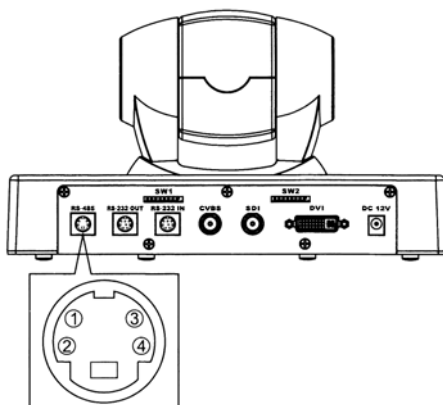
- 1--Switch 1
- 2--Switch 2
- 3--RS-485 Jack
- 4--RS-232 Out Jack
- 5--RS-232 In Jack
- 6--SD Video Jack
- 7--HD-SDI Jack
- 8--DVI-I Jack
- 9--DC IN 12 V Jack

Note: for HD-SDI interface (HD), the maximum transmission distance is 100 meters.





Pin assignment of RS-485/422



No	Pin	Corresponding pin of RS-485 cable	Corresponding pin of RS-422 cable
1	RXD-	Black	White
2	TXD-		Red
3	RXD+	Red	Green
4	TXD+		Black

2. Camera Installation

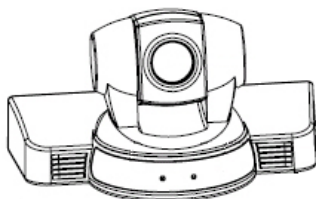
2.1 Matters Needing Attention

1. All of the installation work should be serviced by qualified technical personnel or system installers.
2. Handle with care when unpacking and removing the camera; do not impact the camera and other parts of the camera with hard objects to avoid preventable problems.
3. Do not handle the camera head when holding the camera; do not randomly rotate the camera head.
4. Hold the bottom of the camera when installing, do not touch very easily damageable parts.
5. Camera installation location should be as far as possible from high voltage, and protective measures should be done if necessary.
6. If the control system cannot setup the address of the camera, the address of the camera must be setup with code switch before installation.
7. Please carefully hold the camera and be sure to follow the steps and methods of operation described in this specification.
8. The total weight of this product is no more than 1.5 kg. For safety, all mechanical connections and connecting devices for supporting this product must be able to withstand more than 5 times loads of the total weight.

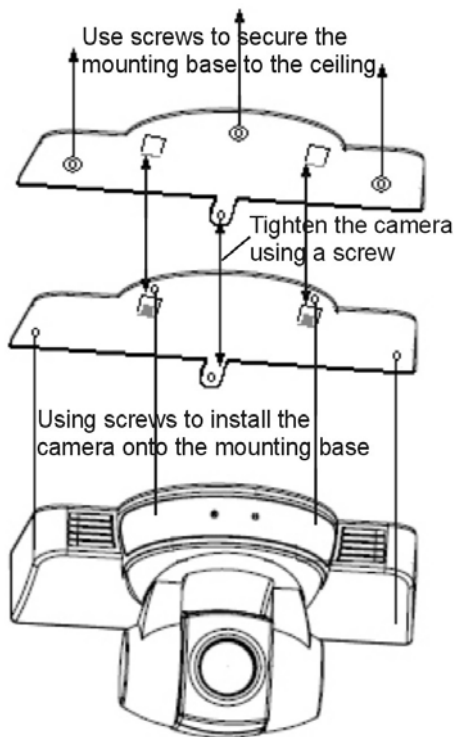
2.2 Installation

There are two installation methods of the camera: a) tabletop installation and b) ceiling installation.

a) Tabletop installation

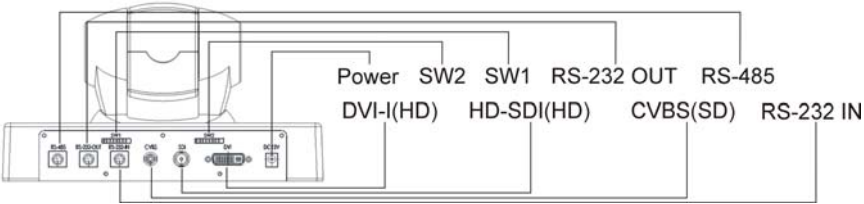


b) Ceiling installation



3. Camera Video Out Mode

3.1 Switch Configuration



Before using the camera, configure the DVI interface output color format, etc. Switch 2, to configure these settings is located on the back panel of the camera. The below figure shows switch 2 on the back panel, the ON direction is marked beside the switches.



➤ SW2 Pos 3

Pos 3	Setting
OFF	DVI-I output color format is YUV. This mode is used for DVI-YPbPr and DVI-HDMI interface.
ON	DVI-I output color format is RGB. This mode is used for DVI - DVI-D, DVI - VGA and DVI - 5-BNC (RGBHV) interface.

➤ SW2 Pos 4

Pos 4	Setting
OFF	Doom speed is related with current optical zoom position. The more to the telephoto end, the slower (and more accurate) it goes.
ON	Doom speed is not related with current optical zoom position.

➤ SW2 Pos 5

Pos 5	Setting
OFF	Camera video default format: (SD: PAL, HD: 1080i50).
ON	Camera video format defined by user.

➤ SW2 Pos 6

Pos 6	Setting
OFF	50 Hz format
ON	60 Hz format

➤ SW2 Pos 8

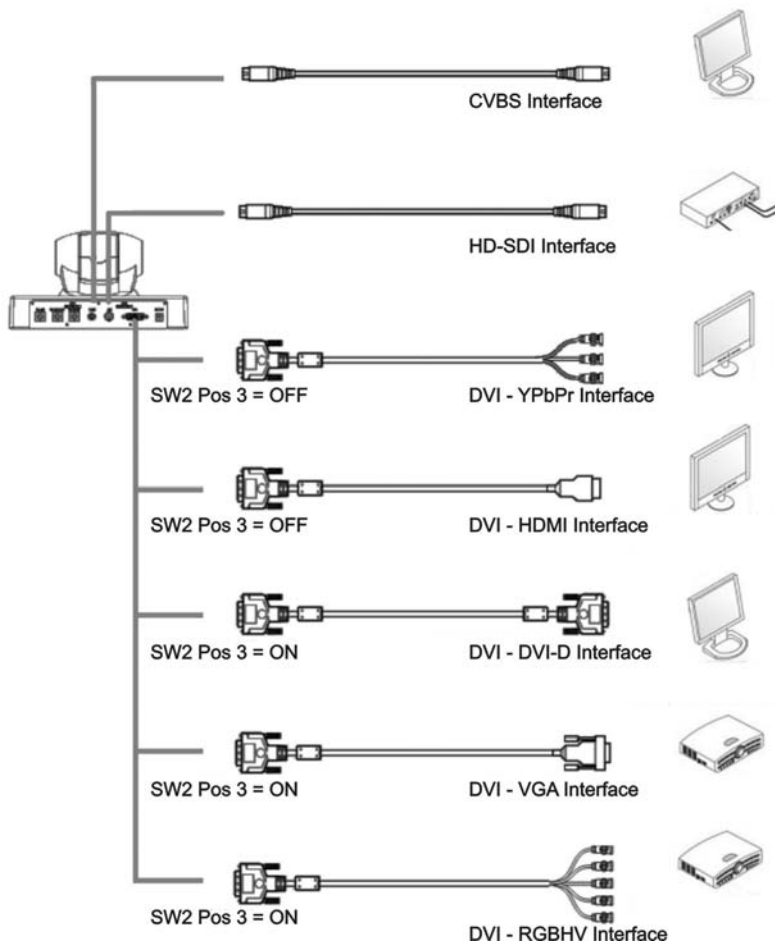
Pos 8	Setting
OFF	Open the remote control sensor
ON	Close the remote control sensor

➤ SW2 Pos 1, 2, 7

Reserved.

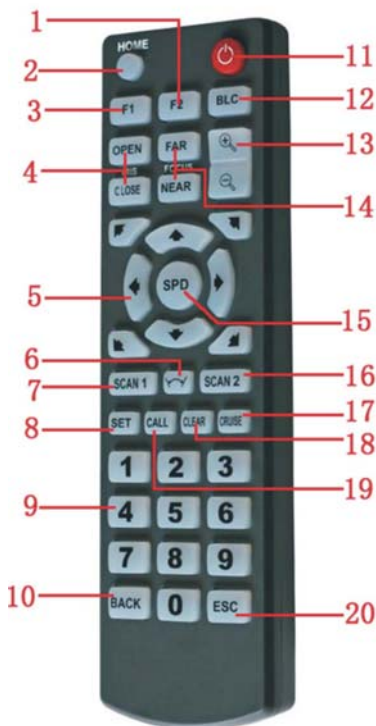
3.2 Format Configuration

Video Format	HD-SDI	YPbPr	HDMI	DVI-D	VGA	5-BNC
1080p60	√	√	√	√	√	√
1080p50	√	√	√	√	√	√
1080p30	√	√	√	√	√	√
1080p25	√	√	√	√	√	√
1080i60	√	√	√	√	√	√
1080i50	√	√	√	√	√	√
720p60	√	√	√	√	√	√
720p50	√	√	√	√	√	√
720p30	√	×	√	√	×	×
720p25	√	×	√	√	×	×
Optimize Menu	Digital	Analog	Digital	Digital	Analog	Analog
Switch 2	—	Pos 3 is set to OFF		Pos 3 is set to ON		
Color Format	YUV			RGB		



Note: perhaps, some common display devices cannot support 1080p30/1080p25/720p30/720p25 format.

4. Remote Control



1. Reserved
2. HOME (PAN/TILT init)
3. Reserved
4. IRIS control (Iris opened or closed)
5. PAN/TILT control (up, down, left, right, left-up, left-down, right-up, right-down)
6. Frame scan
7. SCAN1 (Scan 300°)
8. SET (Set preset)
9. Number keys (0~9)
10. BACK (Menu ON/OFF button)
11. POWER (Power control)
12. BLC (Backlight compensation mode switch)
13. Zoom control (Zoom wide or tele)
14. Focus control (Focus far or near)
15. SPD (Speed switch)
16. SCAN2 (Scan 180°)
17. CRUISE (Auto cruise)
18. CLEAR (Clear preset)
19. CALL (Call preset)
20. Reserved

1. Power-on initialization

When the camera is powered on, the power lamp is on, and pan/tilt will rotate automatically, finally pan/tilt stops and the camera lens is pointing forward.

2. Pan/Tilt control

Press the arrow buttons to change camera direction. While adjusting the picture on the screen, press the desired arrow button. To move the camera little by little, press the button just for a moment. To move the camera in a wide range, press and hold the button.

3. Change camera speed

The camera's pan/tilt speed can be switched between fast and slow mode, when the fast mode is on, press the SPD (speed change) button, the camera will switch to slow speed mode and vice versa.

4. Focus control

The camera is in the focus auto mode by default, but sometimes you should control the focus manually. It can be realized by pressing the focus control button, first switch the camera to the manual focus mode, and afterwards adjust the focus until the button is released. When controlling pan, tilt or zoom, the camera switches automatically to the focus mode automatically.

5. Zoom control

The camera is equipped with a 20X optical lens, you can adjust the zoom ratio by the WIDE/TELE button. When the WIDE/TELE button is pressed, the video will zoom in/zoom out until you release the button.

6. Camera reset

Press the HOME button, the camera will reset and reinitialize the Pan/tilt direction.

7. Back light ON/OFF control

When one portion of an image is brilliantly bright while the other portions are dark, video will become dark. You can improve the video quality by turning on the backlight compensation function. Pressing the BLC button will switch the camera to the BLC ON mode. Pressing the BLC button again will switch the camera to the BLC OFF mode.

8. Preset control

Through the remote controller, you can set / clear / call preset positions.

Set preset: [Number keys] (input the preset number) + [SET button];

Call preset: [Number keys] (input the preset number) + [CALL button];

Clear preset: [Number keys] (input the preset number) + [CLEAR button].

9. Cruise

Press the [CRUISE] button to enable the camera to automatically scan the preset positions constantly back and forth in the order.

10. Camera Scan

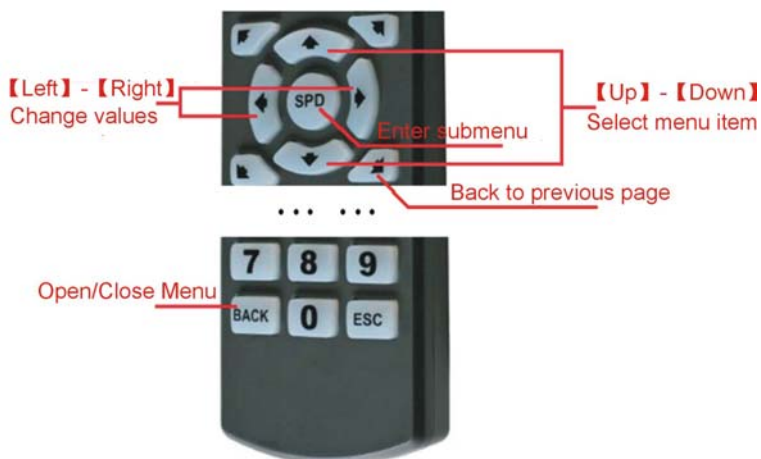
Press the  button to scan within the range of the preset left and right positions back and forth at a constant speed automatically.

Press the [SCAN1] button to scan within the range of 0~300° automatically.

Press the [SCAN2] button to scan within the range of 0~180° automatically.

5. Menu Function

5.1 Remote Control Menu



Note:

- ☞ Camera has no response for Remote Control command and COM command under OSD menu mode;
- ☞ There is no OSD menu for SD video;
- ☞ To make new setting valid, please exit menu and restart system.

5.2 Menu Item

Menu Item	Sub Menu Item	Content Item	
VIDEO	HD OUT	1080p60	
		1080p50	
		1080p30	In general, HDTV cannot support these two formats
		1080p25	
		1080i60	
		1080i50	
		720p60	
		720p50	
		720p30	In general, HDTV cannot support these two formats
		720p25	
	3D DNR	AUTO	
		1-15	
		OFF	
	PICTURE FLIP	OFF	
		ON	
	DIGITAL ZOOM	X1.5/X2/X4/X8/X10/X12/OFF	
	ADVANCED SETTING	BRIGHTNESS (0-255)	
		CONTRAST (0-16)	
		SHARPNESS (0-16)	
		SATURATION (0-255)	
		GAMMA (LOW/MID/HIGH)	
		LOCAL ENHANCEMENT (0-7)	
		LOAD DEFAULT VALUE	

Menu Item	Sub Menu Item	Content Item	
EXPOSURE	MODE	AUTO	
		SHUTTER PRIORITY	
		IRIS PRIORITY	
		EXPOSURE SET	
	GAIN LIMIT	0-45 dB, 3dB/step	
	BCAKLIGHT	OFF	
		ON	
	SHUTTER	Display under “SHUTTER PRIORITY” mode	
	IRIS	Display under “IRIS PRIORITY” mode	
WHITE BALANCE	WB MODE	0-40	
		Display under “EXPOSURE SET” mode	
		MAUNAL	
		OUTDOOR	
		INDOOR1	
		INDOOR2	
		INDOOR3	
		INDOOR4	
		AUTO	
		ONE PUSH	
	ONE PUSH TRIGGER	PRESS OK	Display under “ONE PUSH” mode
	RED GAIN	0-255	Display under “MANUAL” mode
	BLUE GAIN	0-255	Display under “MANUAL” mode

Menu Item	Sub Menu Item	Content Item
SYSTEM	CONTROL PORT	RS-232
		RS-422
	BAUD RATE	2400/4800/9600/19200/38400
	PROTOCOL	VISCA
		PELCO-D
	ADDRESS	XXXX
	LANGUAGE	ENGLISH
		Simplified Chinese
		Traditional Chinese
	PRESET FOCUS	AUTO
MANUAL		
ABOUT		MODEL
		SN
		VERSION
		MODULE VERSION
		ROM VERSION
RESTORE FACTORY DEFAULTS		

6. Presets Description

1. Set presets

Input the preset number by pressing the NUM button. Then press the SET button to save the preset.

2. Call presets

Input the preset number by pressing the NUM button. Then press the CALL button to call the preset.

3. Clear presets

Input the preset number by pressing the NUM button. Then press the CLEAR button to clear the preset.

4. Short-cut call presets

A few buttons (see picture) have short-cut functions to access the presets directly.



5. Presets Table

Presets	Function		
1 - 31	VISCA: 0 - 30	General use presets	
32	VISCA: 31	Frame scan (scan between preset 30 and 31)	
33	VISCA: 32	Auto cruise	
34	VISCA: 33	Scan 300°	
35	VISCA: 34	Scan 180°	
36	VISCA: 35	Clear all presets	
37	VISCA: 36	General use presets	
38	VISCA: 37	General use presets	
39	VISCA: 38	Close video output	
40	VISCA: 39	1080p60	Setting takes effect after 5 s
41	VISCA: 40	1080p50	
42	VISCA: 41	1080p30	
43	VISCA: 42	1080p25	
44	VISCA: 43	1080i60	
45	VISCA: 44	1080i50	
46	VISCA: 45	720p60	
47	VISCA: 46	720p50	
48	VISCA: 47	720p30	
49	VISCA: 48	720p25	
50 - 64	VISCA: 49 - 63	General use presets	

Note: when connected TAIDEN Conference Management System software and setup predefined positions, if you want to recall predefined positions by HCS-3316HDB remote controller, only general use presets can be recalled by remote controller and predefined positions of 32 – 36 and 39 – 49 are reserved as system command. But for PC software, all of predefined positions of 1 - 64 can be recalled and has no system command.

7. RS Control

7.1 Switch Configuration

Before using the camera RS Control, configure the camera address. Switch 1 to configure these settings is located on the back panel of the camera. The below figure shows switch 1 on the back panel, the ON direction is marked beside the switches.



SW1 sets the camera's address, for details please refer to table.

Camera Address	SW1							
	1	2	3	4	5	6	7	8
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
...	...	...	...	...	...	...	...	...
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

7.2 Menu Configuration

Before using the camera RS Control, it must be configured by Menu Operation.

Enter the menu item: [SYSTEM], and configure “CONTROL PORT”, “BAUD RATE” and “PROTOCOL” properly.

The camera supports

- a) Control modes: RS-232 and RS-485/422
- b) Protocols: VISCA and PELCO-D
- c) Baud rates: 2400, 4800, 9600, 19200 and 38400 bps

7.3 Control Cables

1. RS-232 Cable



2. RS-485/422 Cable



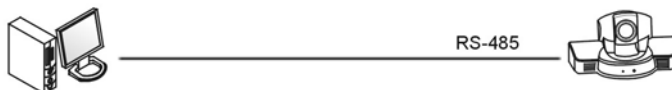
Note: when connecting more than one HCS-3316HDB with RS-485/422 cable, simply merge the lines with the same color and connect to the console.

7.4 Control Mode

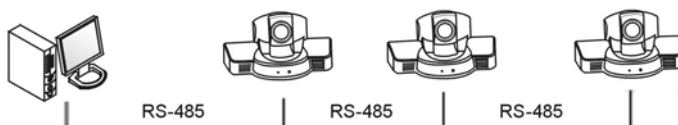
Mode 1: Use RS-232 Control One Camera



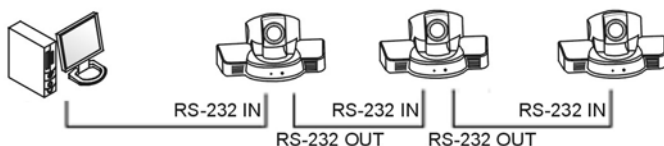
Mode 2: Use RS-485 Control One Camera



Mode 3: Use RS-485 Control Cameras



Mode 4: Use RS-232 Control Cameras



Note: when connecting cameras in daisy chain mode, the addresses of the cameras should begin with 1, up to 7. Please set the correct address for each camera.

7.5 Connection

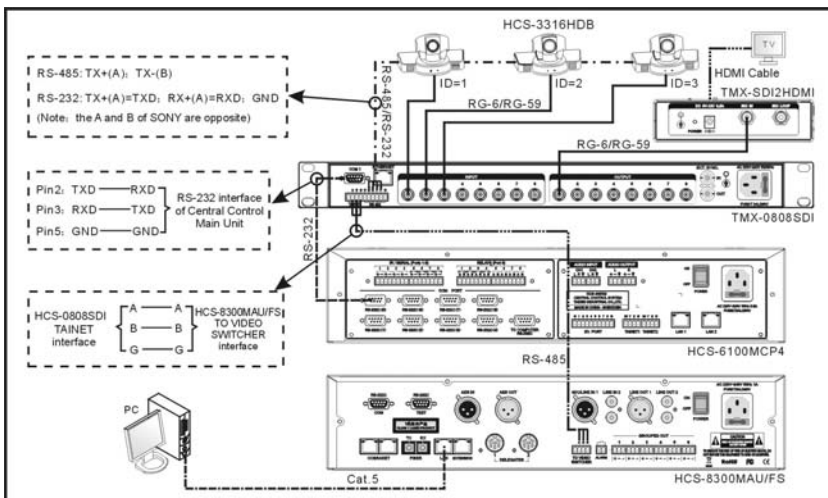


Figure: Connection with TMX-0808SDI

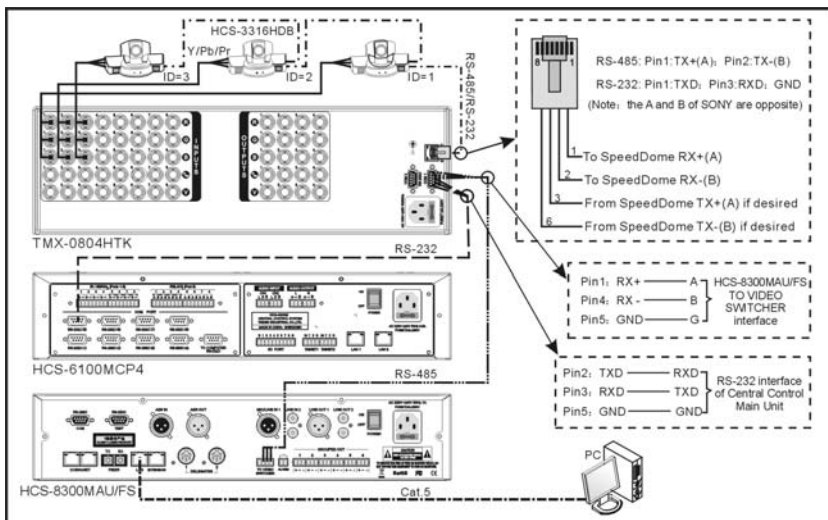
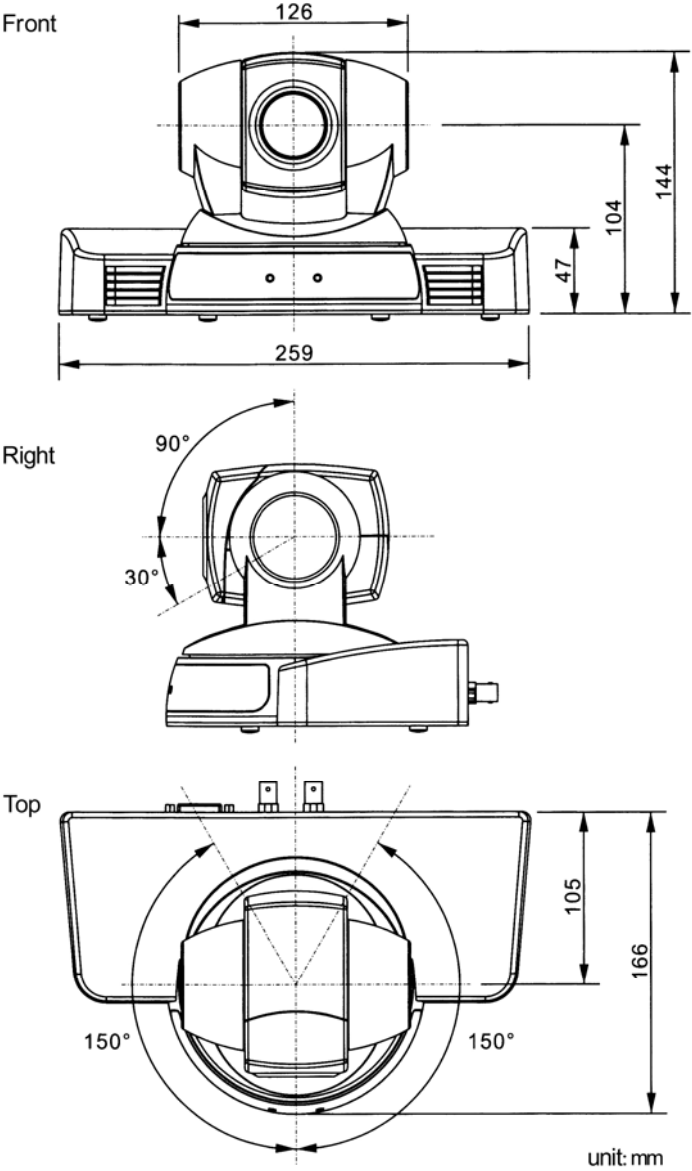


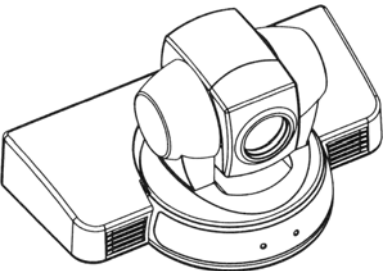
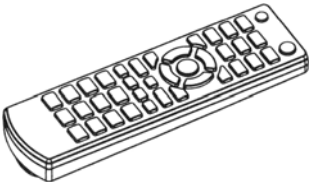
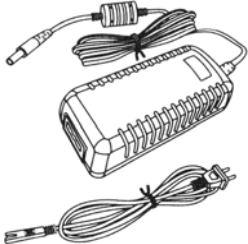
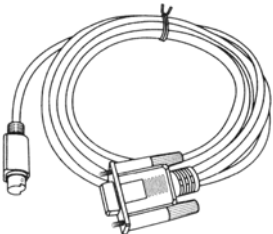
Figure: Connection with TMX-0804HTK

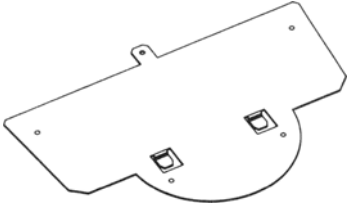
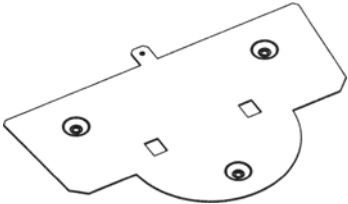
Note: when using PELCO-D protocol, please use RS-485 as control interface, and use HCS-3316RS485 as video switch (TMX-0808SDI, TMX-0804HTK) protocol. When using VISCA protocol, please use RS-232 as control interface, and use HCS-3316RS232 as video switch (TMX-0808SDI, TMX-0804HTK) protocol.

8. Dimensions



9. Product and Accessories

1	Camera	
2	Remote controller	
3	Power adaptor	
4	RS-232 cable	
5	RS-485/422 cable	

6	User manual	
7	Ceiling installation template	
		
8	Screws	

Notes:

There are two types of installation----tabletop and ceiling mounting.

Accessory 7 and 8 are only provided for ceiling mounting.

10.Troubleshooting

1. Self-checking exceptions, noise

Check power supply (input 100 - 240 V, 50/60 Hz, 0.8 A; output 12 V, 2.5 A), mechanical failures need manufacturer repairing.

2. DVI - DVI-D / DVI-VGA interface has no image output

Confirm that Pos 3 of SW2 is ON and the color format is RGB.

3. DVI-YPbPr interface has no image outputS

Confirm that Pos 3 of SW2 is OFF and the color format is YUV.

4. NO image output

Check as following:

- a) Check camera self-checking normally, and can be controlled by Remote Control;
- b) Confirm that the color format (YUV or RGB) is match with the display or encoder;
- c) Check the video format;
- d) Confirm that the device can support HD video; you can select the video format of 720p60 to test, and then test other formats;
- e) Replace video cable;
- f) If camera cannot work with encoder normally, suggest that connect the camera video output to HDTV or HD display to check whether the camera is normally.

5. Image with abnormal color.

Check as following:

- a) Confirm that the color format (YUV or RGB) is match with the display or encoder;
- b) Replace video cable;
- c) Confirm that the device can support HD video; you can select the video format of 720p60 to test, and then test other formats;
- d) If camera cannot work with encoder normally, suggest that connect the camera video output to HDTV or HD display to check whether the camera is normally;

- e) Open the OSD menu < MAIN > < WHITE BALANCE > to set < WEB MODE > as < MANUAL > or < ONE PUSH > .

Note: there are some effects for WHITE BALANCE if no white/gray object in camera visual field, please put a white object in the visual field to check and adjust.

6. Image with normal color but with bias of light or deep

- Check and adjust color effects of display or encoder;

Note: you can select < LOAD DEFAULT VALUE > to reset the advanced setting.

7. Images are too bright.

Check as following:

- a) Press the BLC button on the Remote Control, check whether the backlight compensation is ON, if ON, please press the BLC button again to close backlight compensation;
- b) Open the OSD menu < MAIN > < EXPOSURE > to set < MODE > as < AUTO > ;
- c) Open the OSD menu < MAIN > < VIDEO > < ADVANCED SETTING > < BRIGHTNESS > to adjust brightness value or select < LOAD DEFAULT VALUE > ;
- d) Check the setting of display or encoder.

8. Images are too dark.

Check as following:

- a) Open the OSD menu < MAIN > < EXPOSURE > to set < MODE > as < AUTO > ;
- b) Open the OSD menu < MAIN > < VIDEO > < ADVANCED SETTING > < BRIGHTNESS > to adjust brightness value or select < LOAD DEFAULT VALUE > ;
- c) Check the setting of display or encoder.

9. Has horizontal ripple disturbance

Check the Pos 6 of SW2, OFF for 50 Hz power, ON for 60 Hz power.

10. Change the camera parameters, but cannot take effect after restart.

If change the camera parameters through Remote Control menu, please exit the OSD menu to save the changes, and then restart.

11. Change the HD output format, but cannot take effect after restart.

- If change the HD output format through Remote Control menu, please exit the OSD menu to save the change, and then restart;
- Confirm that Pos 5 of SW2 is ON. If Pos 5 of SW2 is OFF, the HD output format is 1080i50 forever after repower.

12. After power on, camera circumrotate to some position, not in the middle.

After power on, camera call the preset number (set by Remote Control) 1, the default preset number 1 is for circumrotating to the middle.

13. Pan and Tilt range are limited.

Default range: Pan: $-150^{\circ} \sim 150^{\circ}$, Tilt: $-30^{\circ} \sim 90^{\circ}$. If small than default range, it should be changed through COM command. If you want to reset the range, please refer to technical introduction or contact with manufacturer.

14. Cannot control camera through COM interface

Check as following:

- a) Set correct serial port type/ control protocol/ baud rate and camera address;
Note: SW1 is used for setting camera address, if select VISCA protocol, the range is 1-7; if select PELCO protocol, the range is 1-255.
- b) In daisy-chain mode, the order of the camera addresses should be carried out from 1 to 7;
- c) Replace the COM cable.

15. The predefined position of the camera does not match with the remote control unit and central control system

$(\text{Preset number of the remote control}) - 1 = (\text{preset number saved in the device})$, please see presets table for details on page 23.

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