

CV345-CSB/CS Quick Start Guide

Full-HD (3G/HD-SDI) 2.5MP Compact Broadcast Camera with AUDIO + HDMI (CS/C mount w/ Auto-Iris)

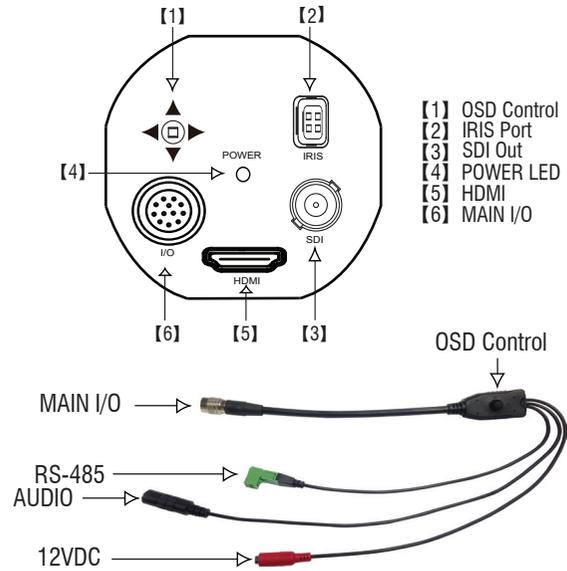


- WARNING** Do not use the camera if fumes, smoke or a strange odor is emitted from the unit, or if it seems to not function correctly. Disconnect the power source immediately and consult your supplier.
- CAUTION** Always follow the instructions in the installation guide when applying power. Fire and equipment damage can occur if power is applied incorrectly. For the correct power supply, refer to the specification sheet.
- CAUTION** Do not install or operate in small, unventilated areas. Heat build up can significantly reduce the performance and operating life of the product and may cause a fire.
- CAUTION** To prevent damage, do not drop the camera or subject it to strong shock or vibration.
- CAUTION** If installed close to a TV, radio transmitter, magnet, electric motor transformer or audio speakers the magnetic field generated may interfere with or distort the image.
- CAUTION** Whether or not the camera is used outdoors, never point it toward the sun. Use caution when operating the camera in the vicinity of spot lights or other bright lights and light reflecting objects.
- CAUTION** Do not use the camera in extreme environments where high temperatures or high humidity exists. Use the camera under conditions where temperatures are between 14°F ~ 122°F (-10°C ~ 50°C), and humidity is below 90%.

Features

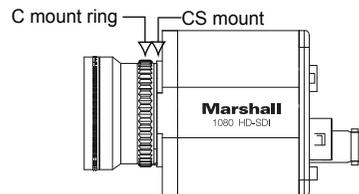
- 2.5 Megapixel 1/3-inch CMOS Sensor
- CS/C Mount with DC-Auto Iris (lens sold separately)
- **CV345-CSB:** 1920x1080p59.94/29.97, 1920x1080i59.94, 1280x720p59.94/29.97fps
- **CV345-CS:** 1920x1080p60/50/30/25, 1920x1080i60/50, 1280x720p60/50/30/25fps
- Lemo-style (I/O) connector contains: RS-485(+/-), 12V power connector & TRS microphone input with 2.5V power supplied
- 3G/HD-SDI (BNC) & HDMI (full size-v1.3) built into rear panel
- Audio Mic 3.5mm TRS Stereo input embedding w/ 2.5V power supplied
- OSD Menu Joystick, RS-485 (Pelco/Visca)
- 12VDC

Rear Panel Video/Power Connection



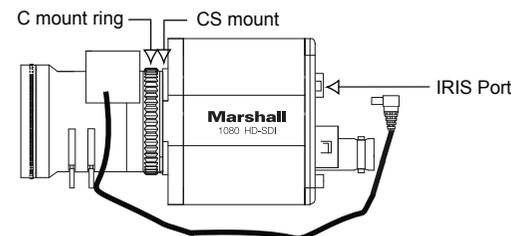
Manual Iris Lens Connection

1. Please check whether lens mount type is C mount or CS mount.
2. CS mount type: Mount the lens after removing the rubber cap. C mount type: attach the C mount ring and mount the lens.
3. Go to the camera setup and set the LENS mode as ESC.



Auto Iris Lens Connection

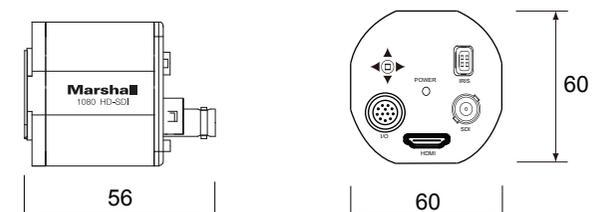
1. Mount the lens as described in the manual lens connection.
2. Connect the auto IRIS lens connector to the connector on IRIS port on the rear panel.
3. Go to the camera setup and set the LENS mode as DC IRIS



Specifications

| CV345 | | SPECIFICATIONS | |
|------------------------|-------------------------------------|--|---|
| Sensor | Image Sensor | 1/3" Progressive CMOS (Approx. 2.1 mega) | |
| | Scanning System | 16:9 Progressive | |
| | Sync. System | Internal | |
| | Effective Pixel | 1920(H) x 1080(V) | |
| | Min. Illumination | 0.2Lux (Day), 0.1Lux (Night), 0.005Lux (DSS on) | |
| | Horizontal Resolution | 1,000TVL | |
| Optics | Lens | C/CS Mount, DC-IRIS | |
| Functions | Back Light Compensation | WDR/BLC HLC (High Light compensation) | |
| | Exposure | Auto / Manual | |
| | White Balance | Auto (3,000°K~8,000°K) ATW (1,900°K~11,000°K) Manual | |
| | Day & Night System | AGC / TDN (ICR) | |
| Electronic Shutter | Electronic Shutter | NTSC: 1/30~1/30000 PAL: 1/25~1/30000 DSS (~X64) | |
| | Functions | Privacy Mask, Image Mirror, 3DNR, Flickerless Sharpness, Defog, DIS (Digital Image Stabilizer) Motion Detection, DSS (Digital Shutter Speed) | |
| Video Output | SDI (BNC) | SMPT E 292M (1.485Gbps) 1080p@25/30 or 29.97 1080i@50/60 or 59.94 720p@50/60 or 59.94 720p@25/30 | |
| | | SMPT E 424M (2.97Gbps) 1080p@50/60 or 59.94 800mVp-p, 75Ω, Unbalanced Generator (Single-Ended) | |
| | | HDMI (HDMI Type A) | HDMI 1.3 compliant (Embedded Audio) 1920x1080p@50/60 or 59.94 1920x1080i@50/60 or 59.94 1920x1080p@25/30 or 29.97 1280x720p@50/60 or 59.94 1280x720p@25/30 |
| | MIC Input | MIC Input | Mic Level (1Vrms). 2.5V Mic bias Bit Depth: 16,20,24,32Bits. 48KHz sample rates Gain : -12dB ~ 59.5dB |
| | | Control | RS-485 PELCO-P/D, SONY-VISCA Protocol 8Bits Data, 1Stop Bit, No Parity, 2400~115200bps |
| | General | Operation Temperature | -10°C ~ 50°C |
| Power Input | | 12VDC (7VDC to 15VDC) | |
| Power consumption | | Max 6W | |
| Dimensions (W X H X D) | | 60 X 60 X 56mm / 2.36 X 2.36 X 2.20Inches | |
| Net Weight | Approx. 160g/0.35Lbs (Without Lens) | | |

Dimensions



HD-SDI 1080p Camera Setup: CV345-CS, CV345-CSB

| SETUP | SUB MENU | SUB MENU | DESCRIPTION | |
|-----------------------|---------------|---|---|---|
| LENS | ESC | | IRIS is fixed. Shutter controls exposure automatically if shutter is set as auto. | |
| | DC IRIS | | Controls exposure automatically. | |
| WB CONTROL | AUTO | | Color temperature is automatically adjusted to 3,000°K ~ 8,000°K | |
| | ATW | | Continuously adjusts camera color balance in accordance with any change in color temperature. Compensates for color temperature changes within the range of 1,900K to 11,000K. | |
| | PUSH | | Color temperature will be manually adjusted by pushing the OSD button. Place the white paper in front of the camera when OSD button is pressed to obtain the optimum result. | |
| | MANUAL | COLOR TEMPERATURE | | Select color temperature from LOW, MIDDLE, or HIGH. |
| | | RED GAIN | | Adjust the Red tone level manually. Adjust the red tone of the image (0~20). |
| | BLUE GAIN | | Adjust the Blue tone level manually. Adjust the Blue tone of the image (0~20). | |
| AE CONTROL (EXPOSURE) | BRIGHTNESS | 0~20 | Adjust the screen brightness. The bright control function adjusts gain and iris, to keep a brightness level. | |
| | AGC LIMIT | 0~20 | A function which controls the amplification/gain process automatically if the illumination falls under the usable level. Camera raises up gain to selected gain limit when dark conditions. | |
| | SHUTTER | AUTO | | Shutter controls exposure automatically when IRIS is manual. Shutter control has the exposure control priority |
| | | MANUAL | | Shutter speed is fixed. The exposure control priority is given to other resources. |
| | | FLICKERLESS | | Use this function when you experience picture flicker, this happens when there is a conflict with the installed lighting frequency. |
| | DSS (SENS-UP) | OFF, x2~64 | When luminance condition is low, DSS can adjust the picture quality by maintaining the light level. Minimum slow shutter limit is down to x64. | |
| BACK LIGHT | BACK LIGHT | WDR | Enable user to view both object and background more clearly when background is too bright. (LOW, MIDDLE, HIGH). | |
| | | BLC | Enable a back light compensation feature. | |
| | | SPOT | Enables a user to select a desired area on a picture and view that area more clearly when background is too bright. | |
| | ACE | LOW, MIDDLE, HIGH | Brightness correction of the dark image area. | |
| | ECLIPSE | LEVEL | Highlight the bright area with a masking box with a selected color. Adjust the masking level (0~20). | |
| DAY/NIGHT | AUTO | COLOR | Select the color for masking (GRN, MAG, RED, BLUE, BLK, WHT, YEL, CYN) | |
| | | ANTI-SAT. | Adjust the anti-saturation level manually. This feature will reduce the saturation phenomenon in which part of the camera receiving the light affected by the IR or light in Night mode. | |
| | | AGC LEVEL | The camera will stay in DAY in a normal environment, but switched to NIGHT mode when ambient illumination become this pre-set level. This level is threshold for switching day to night. It is same as the exposure gain level. | |
| | | AGC MARGIN | Set the margin between Day →Night switching level and Night →Day switching level. | |
| | | DWELL TIME | Select the checking time of light condition to confirm to change from the day mode to the night mode. | |
| | | COLOR | | The camera keeps color mode constantly. |
| | NIGHT | | The camera keeps black/white mode constantly. | |
| IMAGE STABILIZER | RANGE | 10%, 20%, 30% | This function will reduce image blurriness due to vibrations caused by hand shake or Pan/Tilt operation. The image will be digitally zoomed in to compensate the shifted pixels. Set the digital zoom level for image stabilizing. (Max. 30% : x1.4 Digital Zoom) | |
| | FILTER | LOW, MIDDLE, HIGH | Select the level of correction hold filter for the worst case of image. HIGH: Less image correction. Low: More image correction. | |
| | AUTO C | OFF, HALF, FULL | OFF: Disable the auto centering function. FULL: The camera will correct the blurriness due to vibrations caused by both hand shake or Pan/Tilt operation. HALF: The camera will correct the blurriness due to vibrations caused by hand shake. | |
| AUDIO | AUDIO LEVEL | 0~143 | Enabled when AUDIO AGC is set OFF. Adjust the audio level manually. | |
| | AUDIO AGC | OFF, ON | Automatically adjusts the MIC gain as the input signal becomes overly loud or very weak. | |
| | AGC MAX | 0~119 | Enabled when AUDIO AGC is set ON. Set the maximum level of AUDIO AGC. | |
| | SAMPLE BITS | 16, 20, 24, 32 BITS | Select the bit depth of audio. | |
| IMAGE CONTROL | COLOR LEVEL | 0~20 | Adjust the color level value for a fine color tune. | |
| | SHARPNESS | 0~20 | Adjust the sharpness of the image. As you increase this value, the picture outline becomes stronger and clearer. | |
| | MIRROR | | Video output is rotated horizontally. | |
| | FLIP | | Video output is rotated vertically. | |
| | D-ZOOM | 1.0X ~ 16.0X | Enlarge digitally the video output up to 16X. | |
| | DEFOG | AUTO | | This feature will help increase visibility in extreme weather conditions, such as fog, rain or in a very strong luminous intensity. |
| | | MANUAL | | Set the level of defogging function (LOW, MIDDLE, HIGH). |
| | DNR | OFF, LOW, MIDDLE, HIGH | This feature will reduce the video noise at low ambient light. | |
| | MOTION | | This feature will observe the object movement by motion zone and sensitivity that are pre-set with sub menu. | |
| | SHADING | | This feature will correct the inconsistent brightness level in the image. | |
| GAMMA | | This feature will adjust video output brightness (STANDARD, STRAIGHT, LOW, MIDDLE, HIGH). | | |
| FRAME RATE | | Change video output format. | | |
| DISPLAY CONTROL | CAM VERSION | | Display the firmware version of the camera. | |
| | CAM TITLE | | The camera title can be entered and it will appear over the video output. | |
| | PRIVACY | | Mask an area you want to hide on the screen with sub menu. | |
| | CAM ID | 0~255 | Select the camera ID number for RS-485 communication. | |
| | BAUDRATE | | Set the baudrate of RS-485 communication (2400, 4800, 9600, 19200, 38400, 57600, 115200). | |
| | LANGUAGE | | Select the menu language. | |
| RESET | | | Reset the camera settings to the factory defaults. | |
| EXIT | | | Exit the setup. | |