

# 960H 700TVL Color Indoor Dome Camera with 24LEDs

**HLED33D1B** – 2.8~12mm auto iris lens, black housing

**HLED33D1W** – 2.8~12mm auto iris lens, white housing

**HLED33D7B** – 3.6mm lens, black housing

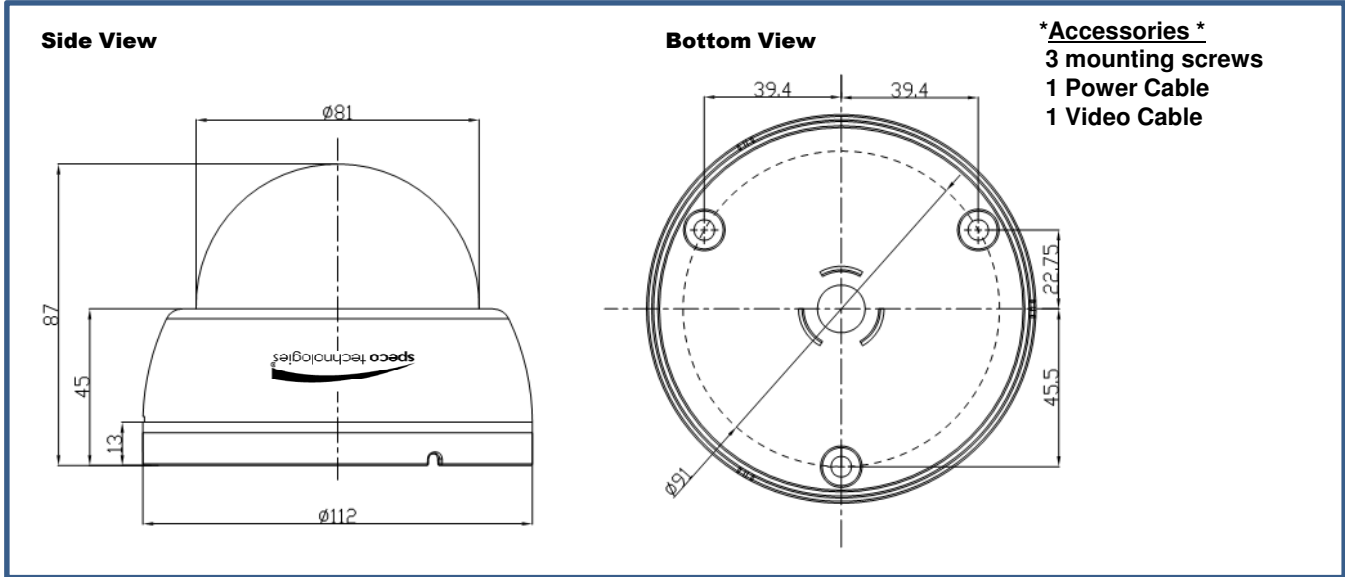
**HLED33D7W** – 3.6mm lens, white housing



200 New Highway, Amityville, NY 11701

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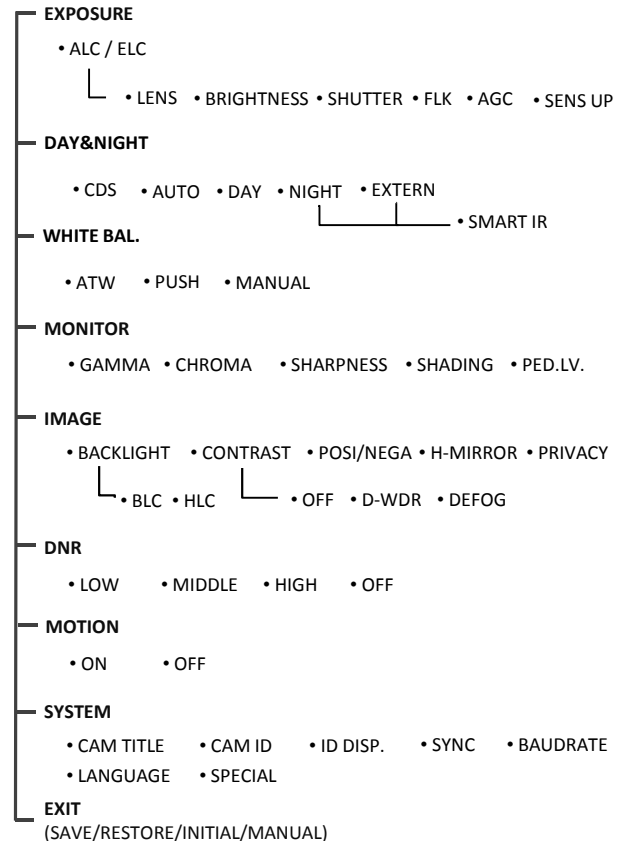
## DIMENSIONS



## SPECIFICATIONS

ITEM	960H 700TVL IR Indoor Dome Camera
Lens	HLED33D1B(W) – 2.8~12mm auto iris lens HLED33D7B(W) - 3.6mm fixed lens
Image Sensor	1/3" COLOR 960H CCD
Resolution	700TV lines
Total Pixels	1020(H) x 508(V) (NTSC)
Effective Pixels	976(H) x 494(V) (NTSC)
Scanning System	2 : 1 Interlace
Synchronization	Internal
Min. Illumination	0.00Lux (LED-On)
Number of IR LEDs	24LEDs
IR Range	65' (depending on scene reflection)
S/N (Y signal)	50dB
AGC	Level Adjustable
Shutter	1/60~1/120,000sec (NTSC)
DAY / NIGHT	AUTO / NIGHT / DAY
Image	BLC / D-WDR / DEFOG
White Balance	ATW / PUSH / MANUAL
DNR	LOW / MIDDLE / HIGH
Motion Detection	ON   OFF (4 Programmable Zone)
Privacy Masking	ON   OFF (8 Programmable Zone)
Power Consumption	350mA
Power Supply	12VDC / 24VAC Dual Voltage
Operational Temp.	14° F - 122° F
Storing Temp.	-4° F - 140° F
Dimensions	3.4" (H) x 4.4" (Dia.)
Weight	8oz.

## OSD MENU TREE



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**HLED33D7B – 3.6mm lens, black housing**

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## OSD MENU FUNCTIONS

**EXPOSURE** : Adjusts exposure settings.

**ALC (Automatic Light Control)** : Used with auto iris lens only - HLED33D1B(W)

**ELC (Electronic Light Control)** : Used with fixed lens only - HLED33D7B(W)

**LENS** : Select the lens type (ALC/ELC)

**BRIGHTNESS** : Adjusts image brightness. (0~20)

**SHUTTER** : Auto / Manual Shutter can be selectable.

You can control manually from 1/60 to 1/120000.

**FLK (Flicker Less)** : Selects this when picture flickering. The picture flickering can be caused by a clash with the frequency of the installed lighting.(ON/OFF)

**AGC**: Adjusts the Automatic Gain Control level. (0~20)

**SENS-UP** : Automatically provides a clear image under low-light conditions.

You can control the maximum low-light magnification from x2 to x1024 (increasing magnification may cause noise/distortion).

**IRIS OFFSET** : Adjusts the Iris Offset level. (0~20)

**DAY / NIGHT** : Adjust Day / Night options.

**EXTERN** : Day / Night is switching automatically by built-in Photo Sensor.

**EXTERN S/W** : Adjusts the Extern switching level (LOW/HIGH)

**D/N DELAY** : Adjusts the calculation time for the trigger(0~15sec)

**B/W BURST** : Selects the B/W BURST Mode (ON/OFF)

**SMART IR** : Uses to produce the best image quality by preventing IR saturation when IR LEDs are on. (LED Power/Anti-SAT/SAT.AREA)

**NIGHT** : Full time B/W mode.

**B/W BURST & SMART IR** : same as above

**DAY** : Full time color mode.

**CDS & AUTO** : Not used for this camera

**WHITE BAL** : Adjusts white balancing options.

**ATW** : Automatically white balances the image.

**PUSH** : If you press the PUSH switch in the appropriate item position, Auto White Balance will perform once.

**MANUAL** : Selects the MANUAL white balancing mode to manually adjust the scene to your desired settings.

**RED** : Adjusts the red gain level. (0~20)

**BLUE** : Adjusts the blue gain level. (0~20)

**MONITOR** : Sets the video output to main input types.

**GAMMA** : Sets the desired Gamma value. (0.35/0.40/0.45/0.50/0.55/0.60/0.65/0.70)

**CHROMA** : Sets the color gain (0~20)

**SHARPNESS** : Sets the amount of sharpness applied on the image(0~20)

**SHADING** : Sets the Lens Shading Compensation value. (0~20)

**PED. LV** : Sets the Pedestal Level (0~20)

**IMAGE** : Adjusts various effect options.

**BACKLIGHT** : Adjusts backlight options.

**BLC** : Produces a clearer image of an object darkened by strong backlighting.

**HLC** : Uses to contain extremely bright areas such as from car headlight, the light can be masked out much of the on-screen details.

**CONTRAST** : Adjusts Contrast options.

**D-WDR** : Uses a digital wide dynamic range to balance dark and over saturated areas within the image.

**DEFOG** : Activated this mode when the video or the weather is foggy. It maintains a clear picture.

**POSI/NEGA** : Changes to Positive or Negative image.

**H-MIRROR** : Flips the image along the y-axis.

**PRIVACY** : Used to hide regions of the image.

**ON : MASK LV** : Selects the desired mask color

**AREA NO.:** Selects the current mask area from 1 to 8 zones

**DISPLAY**: Selects ON/OFF to display of mask zone or not.

**TOP/BOTTOM/LEFT/RIGHT** : Adjusts the mask zone size for directions.

**DNR** : Reduces the background noise caused by the digital enhancement of a low light environment. If AGC is turned OFF, the 2D-DNR will be disabled. (LOW/MIDDLE/HIGH)

**MOTION** : Adjusts motion detection settings.

**ON : SENSITIVITY** : Sets the desired multiple of the digital exposure length.(0~20)

**AREA NO** : Selects the current motion zone from area1 to 4.

**AREA USE** : Adjusts the motion detection zone size.

**TOP/BOTTOM/LEFT/RIGHT** : Adjusts the mask zone size for directions

**SYSTEM** : Adjusts various System options.

**CAM TITLE** : Determines the camera name. (ON/OFF)

**CAM ID** : Sets the ID for the RS-485 (0~255)

**ID DISP** : ON(Disables camera NO/ID)/OFF(Displays camera No/ID)

**BAUDRATE** : Sets the baud rate for the RS-485 (2400~115200)

**LANGUAGE** : Sets the desired OSD language. (ENGLISH/CHINESE)

**SPECIAL** : Adjusts special options.

**DEFECT DET** : Uses this mode when "White Spot(Dead Pixel)" on screen is occurred.

**FONT COLOR** : Sets the camera OSD color(0~8)

**EXIT**

**SAVE** : Press to save the current settings and exit main menu.

**RESTORE** : Press to exit main menu without saving settings.

**INITIAL** : Resets all settings to it's factory defaults.



## LIMITED WARRANTY - VIDEO PRODUCTS

THIS WARRANTY IS VALID ONLY ON PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA AND CANADA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER.

SUBJECT TO CONDITIONS AND EXCLUSIONS FOUND BELOW, THIS PRODUCT IS WARRANTED AGAINST MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR THE FOLLOWING PERIOD FOR PARTS AND LABOR:

SPECO TECHNOLOGIES CAMERAS.....	5 YEARS	DVRS.....	3 YEARS
SPECO TECHNOLOGIES IP CAMERAS.....	2 YEARS	NVRS.....	3 YEARS
SPECO PTZ AND VL CAMERAS.....	1 YEAR	BALANCE OF	
SPECO TECHNOLOGIES MONITORS.....	1 YEAR	SPECO TECHNOLOGIES LINE.....	1 YEAR
IR LEDs.....	90 DAYS		

SPECO TECHNOLOGIES WILL REPAIR OR REPLACE (AT OUR DISCRETION) ANY PARTS FOUND TO BE DEFECTIVE FOR THE WARRANTY PERIOD SPECIFIED. WE WILL PROVIDE A REPLACEMENT FOR ANY DEFECTIVE PART.

### CONDITIONS

1. YOU MUST OBTAIN A RETURN AUTHORIZATION (RA) NUMBER FOR ANY MERCHANDISE BEING RETURNED TO SPECO TECHNOLOGIES, WHETHER FOR RETURN/EXCHANGE OR REPAIR, WHETHER IN OR OUT OF WARRANTY.

2. THIS WARRANTY WILL BE HONORED ONLY UPON PRESENTATION OF THE ORIGINAL DATED BILL OF SALE OR SALES SLIP.

3. TRANSPORTATION OF THE PRODUCT TO OUR SERVICE DEPARTMENT IS THE RESPONSIBILITY OF THE USER. REPAIRED OR REPLACED PRODUCT WILL BE RETURNED PREPAID DURING THE WARRANTY PERIOD.

4. SPECO TECHNOLOGIES DOES NOT AUTHORIZE ANY INTERNET OR MAIL ORDER PRODUCT SALES. IF A SPECO TECHNOLOGIES PRODUCT IS PURCHASED FROM AN UNAUTHORIZED DISTRIBUTOR OR OTHER SOURCE, INCLUDING RETAILERS, MAIL ORDER SELLERS AND ONLINE SELLERS, IT WILL NOT BE HONORED OR SERVICED UNDER THE EXISTING SPECO TECHNOLOGIES WARRANTY POLICY. ANY SPECO TECHNOLOGIES PRODUCT PURCHASED FROM THESE ONLINE MERCHANTS WILL VOID THE APPLICABLE WARRANTY AND IS INELIGIBLE FOR TECHNICAL SUPPORT. IF YOU HAVE QUESTIONS ABOUT A RESELLER, PLEASE CONTACT SPECO TECHNOLOGIES AT 1-800-645-5516 FOR A LIST OF UNAUTHORIZED DEALERS. VISIT: [www.specotech.com/unauthorized](http://www.specotech.com/unauthorized).

### EXCLUSIONS

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPLAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, ABUSED, OR HAVE MISSING OR ALTERED SERIAL NUMBERS.

2. THIS WARRANTY SHALL NOT APPLY TO UNCRATING, SETUP, INSTALLATION, OR THE REMOVAL AND REINSTALLATION OF PRODUCTS AFTER REPAIR.

3. THIS WARRANTY SHALL NOT APPLY TO REPAIRS OR REPLACEMENTS NECESSITATED BY ANY CAUSE BEYOND THE RESULT OF MANUFACTURE INCLUDING, BUT NOT LIMITED TO, ANY MALFUNCTION, DEFECTS OR FAILURE CAUSED BY OR RESULTING FROM UNAUTHORIZED SERVICE OR PARTS, IMPROPER MAINTENANCE, MODIFICATION OR REPAIR BY THE USER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD, OR OTHER ACTS OF NATURE, INCORRECT LINE VOLTAGE, DAMAGE OR IMAGE BURNS TO TELEVISION PICTURE TUBES CAUSED BY OR ATTRIBUTABLE TO THE USE OF ANY ACCESSORY, ELECTRONICS GAME OR DEVICE, OR DAMAGE CAUSED TO IMAGE PICKUP DEVICES BY EXCESSIVE LIGHT.

THE FOREGOING IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND WE DO NOT AUTHORIZE ANY PARTY TO ASSUME FOR US ANY OTHER OBLIGATION OR LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE USE OF THIS PRODUCT DUE TO CAUSES BEYOND OUR CONTROL. SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES. THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

**NOTE: FOR YOUR PROTECTION IN THE EVENT OF THEFT OR LOSS OF THIS PRODUCT, PLEASE FILL IN THE INFORMATION REQUESTED BELOW AND RETAIN WITH YOUR SALES RECEIPT.**

MODEL NO.: \_\_\_\_\_ SERIAL NO.: \_\_\_\_\_  
(LOCATED ON BACK OR BOTTOM OF UNIT)

DATE OF PURCHASE: \_\_\_\_\_

WHERE PURCHASED: \_\_\_\_\_ PURCHASE PRICE: \_\_\_\_\_

Speco Technologies  
200 New Highway  
Amityville, NY 11701  
[www.specotech.com](http://www.specotech.com)

FOR MORE INFORMATION REGARDING SERVICE OR RETURN,  
CALL US TOLL FREE: 1-800-645-5516 IN METRO NY: 631-957-8700

ALWAYS USE DISCRETION WHEN INSTALLING VIDEO AND/OR AUDIO SURVEILLANCE EQUIPMENT ESPECIALLY WHEN THERE IS AN EXPECTATION OF PRIVACY. INQUIRE REGARDING FEDERAL, STATE AND/OR LOCAL REGULATIONS APPLICABLE TO THE LAWFUL INSTALLATION OF VIDEO AND/OR AUDIO RECORDING OR SURVEILLANCE EQUIPMENT. PARTY CONSENT MAY BE REQUIRED.

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