



## VTC-IRH70/650 Long Range Weatherproof IR Bullet Camera



- 1/3" Super HAD Color CCD
- High Resolution with 560 TV Lines Resolution in Color (600 TV Lines in B/W mode)
- 70 IR LEDs at 850nm enable viewing in Total Darkness up to 300 Feet
- Simultaneous Color and Black & White Focus Adjustment
- Infrared LED Dynamic Intensity Control with automatic brightness adjustment of IR LEDs to help prevent washed out images when objects are too close
- Camera and IR LED compartments are separated using a dual glass design to prevent stray IR light from entering the lens
- Vari-Focal 6~50mm DC Auto Iris IR Lens
- Virtual Wide Dynamic Range
- OSD control
- Secondary Video Output & OSD Control Joystick are accessible inside a gasket sealed removable side panel
- Externally adjustable Focus & Zoom with clutch mechanism to eliminate over-tightening
- Gasket sealed external focus and zoom controls with clutch mechanism to eliminate over-tightening for ease of installation and adjustment
- Heavy Duty IP68 rated Weather/Vandal Resistant Aluminum Construction is 100% water and dust proof
- Fully adjustable 3 axis wire feed-through mount
- Dual Voltage: 12VDC / 24VAC

# VITEK

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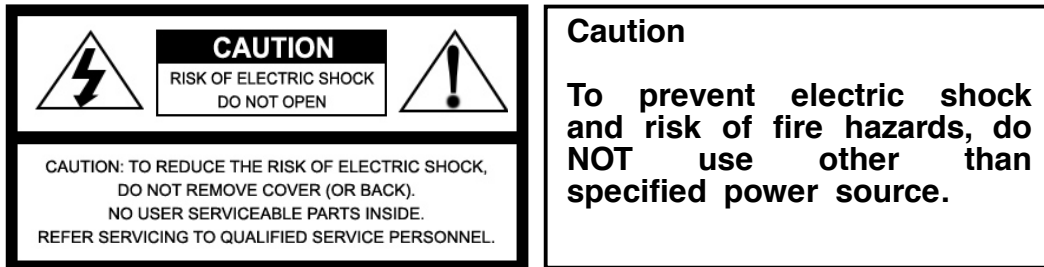
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**WARNING**

The symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the unit.



The symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



Warning(NTSC version) -- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Caution -- Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## 1. Safety Instructions and Notes

- Please read these safety and operating instructions before placing the camera into operation.
- Keep the manual in a safe place for later reference.
- Pay attention to safety when laying the connection cable and observe that the cable is not subjected to heavy loads, kinks, damage or moisture.
- Never open the device to expose boards or lens.  
The warranty becomes void if repairs are undertaken by unauthorized persons.
- Maintenance and repair must be carried out only by authorized service centers.
- Use only a mild detergent to clean the housing.
- Keep the window surface clean from dirt or dust, which may reflect the infrared light into the lens..
- The camera should never be operated in an environment that exceeds the technical specifications as this may result in the destruction of the product and will also void the factory warranty.

## 2. General Descriptions

### Main Features

- Fully external adjustment controls for lens, OSD or Dip switch settings
- 1/3" Super HAD II CCD
- High Resolution 560TVL (Color), 600TVL (B/W)
- **3-DNR (3 Dimensional Digital Noise Reduction)**
- Extended Dynamic Range by the use of D-WDR technology
- Sensitivity: COLOR: 0.35Lux (@50IRE, F1.2), B/W: 0.04Lux (@50IRE, F1.2), SENSE-UP(x4): 0.0035Lux (@50IRE, F1.2), 0 Lux with built-in 70 Infrared LEDs on
- Cable feed-through wall bracket (Concealed Wiring Bracket)
- 6~50mm Variable Focal Length Lens
- Weatherproof (IP68) Optimized for Outdoor Use
- OSD (On Screen Display) Function Control
- Sense-up (~ x128)
- AWB, Flickerless, Digital Zoom, BLC and HSBLC
- Motion Detection (4 Zone), Privacy Zone (8 zones), Flip Function
- 24VAC / 12VDC Dual Power
- Secondary Video output for simple installation & maintenance
- Easy adjustment for zoom, focus and OSD controls
- 70x Self Adjusting IR LEDs
- 300' Night observation range

### Contains Sony Super HAD II CCD image sensor,

- Provides a brighter image and true color reproduction while extending the viewing range in low lux (light) conditions with double the sensitivity of other sensors.

### Extensive DAY-NIGHT capabilities,

- True (ICR) DAY-NIGHT Function
- No compromising image color under low color temperature (incandescent light).
- Features 70 Infrared LEDs affording clear images up to 300' where no illumination is available.

### With 24VAC/12VDC dual power design,

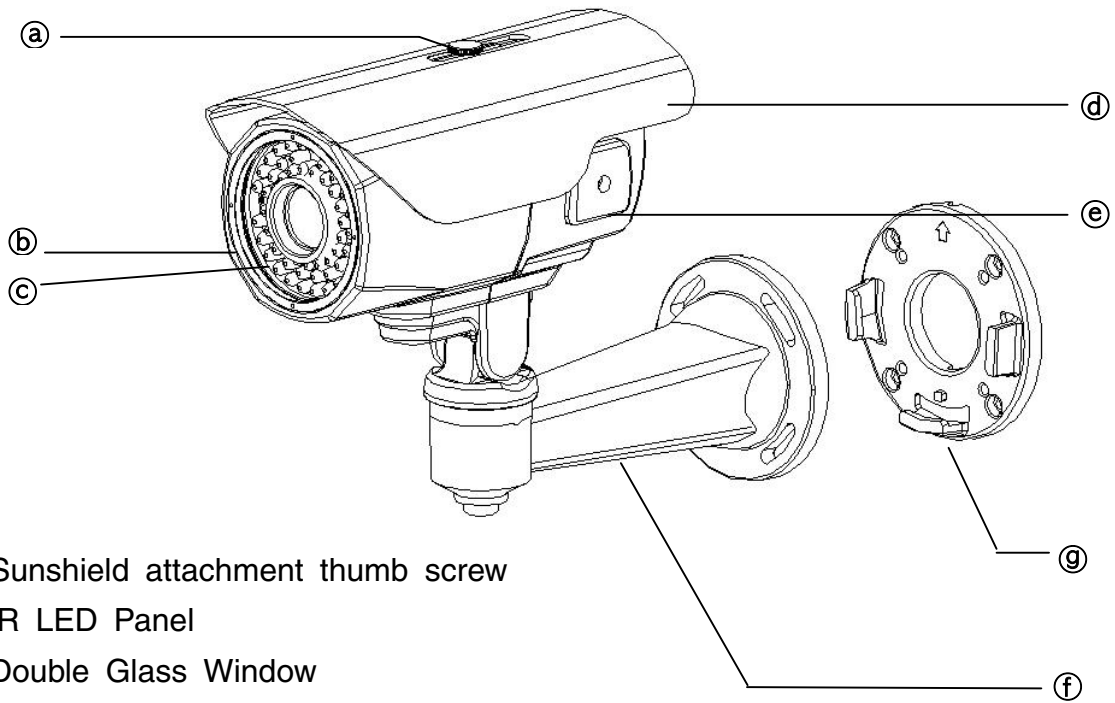
- Offering flexibility during installation and reduces risk of damage due to voltage

## 3. Supplied Items

- 1x VTC-IR70650 3-DNR Weatherproof IR Bullet Camera
- 1x @ Sunshield with @ attachment thumb screw
- 1x 3mm Hex L-wrench
- 1x 5mm Hex L-wrench
- 4x Wall mounting screws with anchors
- 1x Installation and Operating manual
- 1x Mounting template
- 1x Video Sub-output cable
- 1x Mounting plate adaptor for easy installation

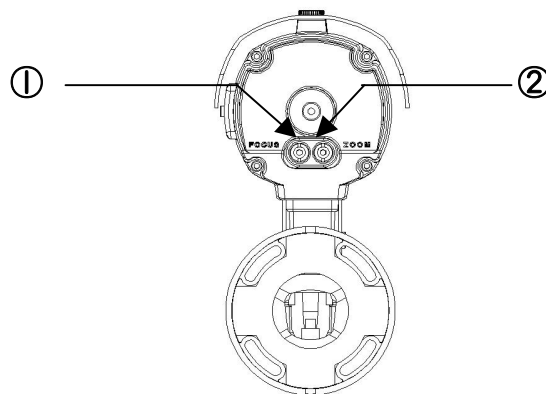
## 4. Part Names

### 4.1 Front view



- Ⓐ Sunshield attachment thumb screw
- Ⓑ IR LED Panel
- Ⓒ Double Glass Window
- Ⓓ Sunshield
- Ⓔ On Screen Display control cover
- Ⓕ Wall Mounting Bracket
- Ⓖ Mounting Plate Adaptor

### 4.2 Rear side view



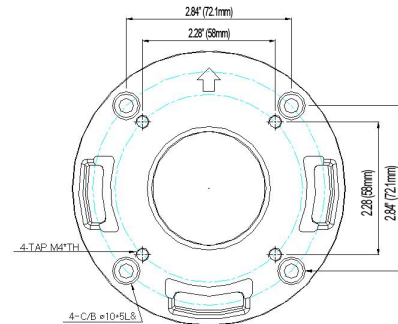
- ① Focus adjustment
- ② Zoom adjustment

## 5. Installation Instructions

- Make sure the power is not applied before installation.
- Once the camera is installed you may first connect the low voltage (DC12V or AC24V) wire to the camera power connector, then plug the AC adapter to AC outlets to avoid an improper reset from power jitter and possible damage from voltage surge.

### 5.1. Mounting the camera on a wall

- 1) Make the drill holes with using the supplied template.
- 2) Insert the anchors into the drilled holes
- 3) Match the mounting plate to the drilled position
- 4) Fix the mounting plate by using the supplied screws
- 5) Slide the Mounting Bracket into place
- 6) Fix the Mount to the Plate using supplied screws



### 5.2. Power Supply Connections

Camera can work with either 24AC or 12VDC, dual voltage power.

**It is strongly required the polarity-matched connection for 12VDC supply, otherwise IR LEDs will not operate at night.**

Primary and secondary grounds are completely isolated to avoid the possibility of ground-loop problems.



Clamp connectors of power input

AC24V/DC12V (RED WIRE)

AC24V/GND (BLACK WIRE)

### 5.3. Setup of the Zoom and FOCUS

- 1) Power up the camera and connect a monitor.
- 2) Enter LENS>DC>FOCUS ADJUST in MENU
- 3) Set ②Zoom adjustment first, then adjust ①Focus adjustment. The lens adjustment is completed.
- 4) Exit MENU.

## 6. SETUP Menu

The Setup menu can be accessed and controlled by OSD control joy stick on the side of camera.

Five commands are available with the use of the joy stick.



SYMBOL descriptions for joystick operation;

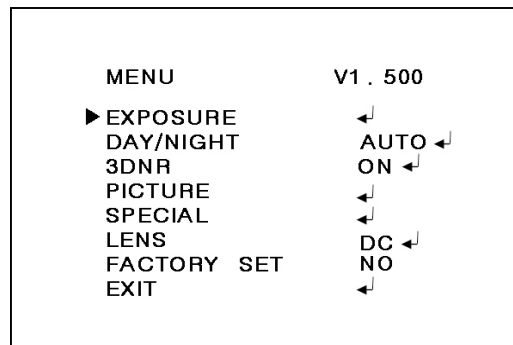


- ▲,▼,◀,▶ denotes the directions of Joystick lever operation.
- denotes Pressing straight down of Joystick lever

In the menu, use ▲,▼ to move menu, ◀,▶ to change the settings and press ● to select or enter.

**FACTORY DEFAULT** in this manual may **NOT** be identical to the default values set by the **FACTORY** due to feature improvements or custom requirements.

**6.1 MAIN menu - To enter menu, press ● when MENU is not active..**



MAIN	Factory Default	Descriptions
EXPOSURE	-	Sets SHUTTER, AGC, SENSE-UP, BLC and D-WDR.
DAY/NIGHT	AUTO	Sets DAY / NIGHT to AUTO, NIGHT and DAY. <b>AUTO</b> – Camera switches DAY from/to NIGHT automatically. DELAY, D-->N LEVEL, N-->D LEVEL and NIGHT MODE can be set in the menu. <b>NIGHT</b> – Forced to remove IR cut filter and switch to B/W. <b>DAY</b> – DAY/NIGHT is disabled and outputs color video..
3DNR	ON	Sets 3DNR (Digital Noise Reduction) LEVEL.
PICTURE	-	sets SHARPNESS, BLUE, RED, GAMMA and WHITE BALANCE.
SPECIAL	-	Sets CAM TITLE, D-EFFECT, MOTION, PRIVACY, SYNC, LANGUAGE and OSD (On Screen Display) COLOR.
LENS	DC	Selects DC (Auto Iris) or MANUAL lens. BRIGHTNESS for both lenses can be set in the menu. Provides FOCUS ADJ. Mode for both Day (Color) and Night (B/W) With Adjustable Time intervals for best image sharpness in all conditions.
FACTORY SET	NO	Restores and saves FACTORY DEFAULTS.
EXIT	-	Save and Exit.

## 6.2 EXPOSURE menu

To enter EXPOSURE menu, press ● at MAIN>EXPOSURE.

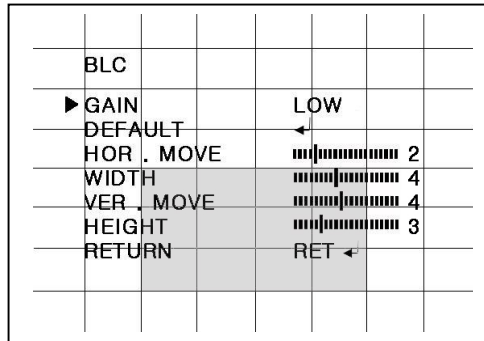
EXPOSURE	
▶ SHUTTER	1/60
AGC	---
SENSE-UP	OFF
BLC	OFF
D-WDR	OFF
RETURN	RET ←

EXPOSURE	Factory Default	Descriptions
SHUTTER	1/60 (1/50)	1) If LENS at MAIN menu was set to DC, a fixed shutter is selectable from 1/60(NTSC) or 1/50(PAL), FLK, 1/250, 1/500, 1/2000, 1/5000, 1/10000, 1/100000 and a fixed sense-up rate is selectable from x256, x128, x64, x32, x16, x8, x4, x2. At x2~x256, DSS(Digital Slow Shutter) is operating with the selected frame integration rates regardless of the light level. When TV system is NTSC(PAL) and Main power is 50Hz(60Hz), set to FLK(Flickerless mode). FLK makes the sensitivity lower about 30% at low light. <b>DC lens must be used for these settings to get a proper video level.</b>
	AUTO	2) If LENS at MAIN menu was set to MANUAL, SHUTTER should be set to AUTO to get a proper video level with the automatic shutter range between 1/60(1/50)~1/100,000sec. Color rolling or Video level hunting under Fluorescent or similar lighting may occur in this configuration.
AGC	---	1) If DAY / NIGHT at MAIN menu was set to AUTO or NIGHT, AGC is not user adjustable.
	MIDDLE	2) AGC can be set to MIDDLE, HIGH, OFF or LOW. Settings are not available if DAY /NIGHT at MAIN menu is set to AUTO
SENSE-UP	OFF or AUTO	SENSE-UP is available only when SHUTTER is 1/60(1/50) or AUTO. If set to AUTO, max. integration rate for DSS can be set to x2, x4, x8, x16, x32, x64, x128 or x256.. <b>The integration frames vary automatically within the max. rate according to the light level when light becomes low and DSS is operating.</b> The higher sense-up rate, the higher sensitivity but the slower refresh rate. Some white dots may appear by sense-up due to CCD's long accumulation caused by a long shutter period.
BLC	OFF	OFF, BLC and HSBLIC are available. See BLC & HSBLIC menus at 6.2.1 & 6.2.2 for detail.
D-WDR	OFF	COMP. and HIGH SUP. can be set. See D-WDR menu at 6.2.3 for details



### 6.2.1 BLC menu

To enter BLC menu, press ● at EXPOSURE > BLC > BLC.



BLC	Factory Default	Descriptions
GAIN	LOW	Sets the compensation gain to LOW, MIDDLE or HIGH. For best compensation results, adjust window for size and location as well as GAIN. Back Light Compensation (BLC) may not be precise if the background is varying continuously between bright and dark.
DEFAULT	-	Loads the default for BLC settings.
HOR. MOVE	2	◀ moves BLC window leftward and ▶ moves it rightward
WIDTH	4	◀ decreases and ▶ increases WIDTH of BLC window from the right.
VER. MOVE	4	◀ moves BLC window upward and ▶ moves it downward.
HEIGHT	3	◀ decreases and ▶ increases HEIGHT of BLC window from the bottom.



BLC OFF

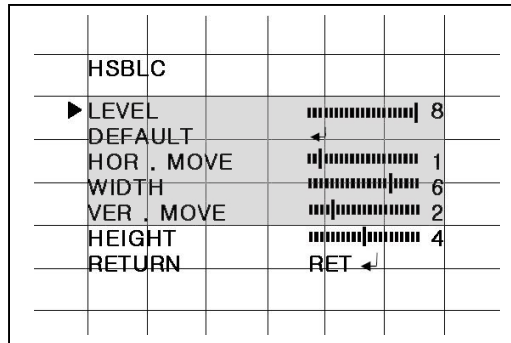


BLC ON

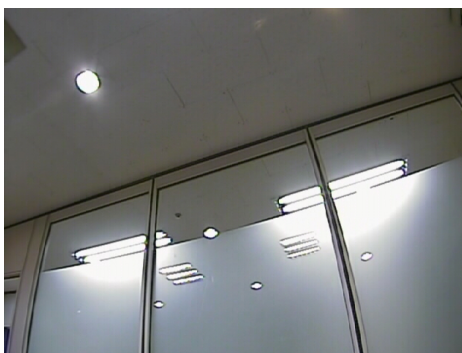
### 6.2.2 HSBLC menu - High Light Masking

To enter HSBLC (High Sensitivity BLC) menu, press ● button at EXPOSURE > BLC > HSBLC.

HSBLC cuts out the highlighted video and processes that area as black masked. The cut out video is excluded in measuring light level by the signal processor.



BLC	Factory Default	Descriptions
LEVEL	8	Sets the threshold for highlight cut out between 0~8. Lower setting is more sensitive and starts cutting out from lower level of highlight. The cut out area is masked by black color.
DEFAULT	-	Loads the default for HSBLC settings.
HOR. MOVE	1	◀ moves BLC window leftward and ▶ moves it rightward.
WIDTH	6	◀ decreases and ▶ increases WIDTH of BLC window from the right.
VER. MOVE	2	◀ moves BLC window upward and ▶ moves it downward.
HEIGHT	4	◀ decreases and ▶ increases HEIGHT of BLC from the bottom.



HSBLC OFF

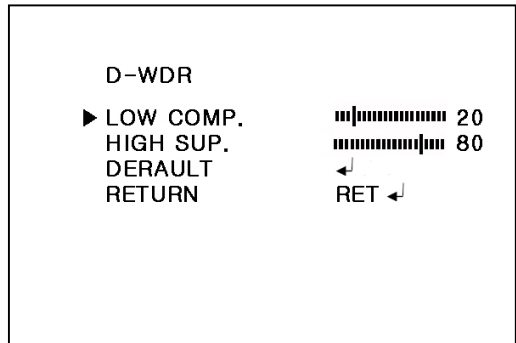


HSBLC ON

### 6.2.3 D-WDR menu

To enter D-WDR (Digital Wide Dynamic Range) menu, press ● at EXPOSURE > D-WDR > ON.

D-WDR improves the dynamic range of video by means of digital compensation for the dark and highlighted areas.



D-WDR	Factory Default	Descriptions
LOW COMP.	10	LOW COMP. is a compensation gain for the dark area level. Higher value gets higher compensation. Noise will also be increased by this compensation.
HIGH SUP.	95	HIGH SUP. is a suppression gain for the highlighted area level. Higher value gets higher suppression.
DEFAULT	-	Loads the default for D-WDR.

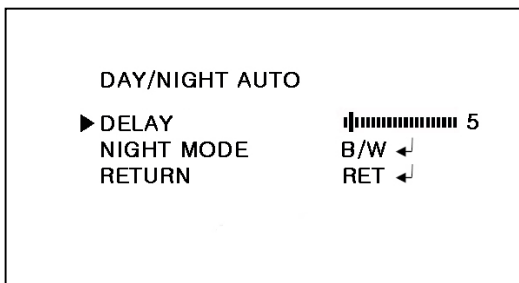
### 6.3 DAY / NIGHT menu

#### 6.3.1 DAY / NIGHT AUTO menu

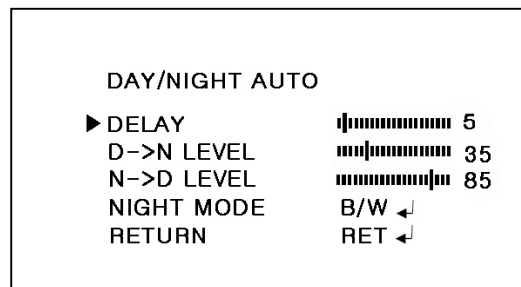
To enter DAY/NIGHT AUTO menu, press ● at MAIN > DAY/NIGHT > AUTO.

Threshold levels for D->N and N->D can be set.

When switched to NIGHT, camera removes its IR cut filter and switches to B/W mode.



IR LED version



Non-IR LED version

**IMPORTANT!!! DAY->NIGHT and NIGHT->DAY operations must be examined and verified at the final step of the installation.** Block the lens for a few seconds for NIGHT mode and release and let it return to DAY mode. If camera stays at NIGHT mode more than 10sec, decrease N->D LEVEL a little and repeat the fore-mentioned steps. If the scene is too

DAY NIGHT AUTO	Factory Default	Descriptions
DELAY	5	<p>DELAY is the duration which should maintain its status before making the D--&gt;N or N--&gt;D switches. Camera checks the light level seamlessly to determine if it crosses over the threshold levels of D--&gt;N LEVEL or N--&gt;D LEVEL. The state must maintain unchanged for longer than DELAY time in order to force switchover. DELAY is used to avoid the unwanted switching by short term lights such like the light from the passing car.</p>
D-->N LEVEL	35	<p>D--&gt;N LEVEL is a threshold level to switch from DAY to NIGHT. Higher value makes camera enter NIGHT mode at a brighter light level. To enter NIGHT mode at a lower illumination, decrease the value.  <b>Try NOT to make the gap too small between D--&gt;N LEVEL and N--&gt;D LEVEL to avoid continual switching.</b></p>
N-->D LEVEL	85	<p>N--&gt;D LEVEL is a threshold level to switch from NIGHT to DAY. Higher value makes camera exited NIGHT at brighter light level.          TO EXIT NIGHT MODE AT BRIGHTER ILLUMINATION, INCREASE it and vice versa  <b>Try NOT to make the gap too small between D--&gt;N LEVEL and N--&gt;D LEVEL to avoid the switch repeating.</b></p>
NIGHT MODE	B/W	<p>If set to B/W, camera will output B/W video at NIGHT. In B/W mode, BURST can be set to OFF(default) or ON in DAY/NIGHT B/W menu. BURST OFF shows sharper and better resolution however some equipment may function inconsistently with BURST OFF.</p> <p>If set to COLOR, video will remain in color at NIGHT when DAY/NIGHT in main menu is set to AUTO. The ICR (Infrared Cut Removal) function will be disabled however this may result in poor or inaccurate color due to the presence of the IR light spectrum. The settings for BURST will also affect any NIGHT mode.</p>

**CAUTION**

- 1) DAY / NIGHT AUTO menu is strongly recommended to be adjusted for the actual object after completing all settings of the lens.
- 2) If the gap between D-->N LEVEL and N-->D-LEVEL becomes too small, it is easy to repeat switching from/to DAY/ NIGHT continuously.  
The recommended Gap is greater than 45.  
If the switching between DAY and NIGHT repeats, decrease D-->N and increase N-->D  
slightly in turn until the repeating stops.

**6.4 3DNR menu**

3DNR is a very sophisticated and powerful noise reduction technology. The camera evaluates the real image and the noise within the horizontal and vertical blocks frame by frame and reduces the noise over three dimensions.

To enter 3DNR menu, press ● at MAIN > 3DNR > ON.

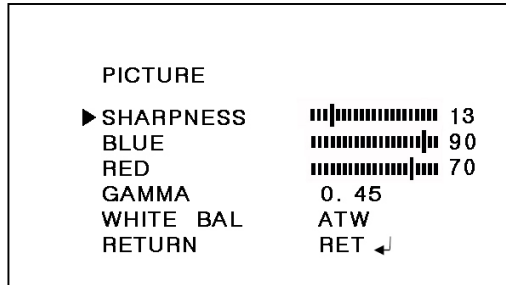
Higher settings in LEVEL will result as increased noise reduction.

When 3DNR is ON in MAIN menu, a short motion blur or comet effect may be seen on fast moving targets in low light.

## 6.5 PICTURE menu

In PICTURE menu, SHARPNESS, BLUE, RED, GAMMA and WHITE BAL. can be set.

To enter PICTURE menu, press ● at MAIN >PICTURE



PICTURE	Factory Default	Descriptions
SHARPNESS	13	Increases or decreases the sharpness of the picture. Too much sharpness makes the image harsh and shows increased noise and line flicker at the edges of objects in the picture.
BLUE	90	Increases or decreases the blue color gain of the picture
RED	70	Increases or decreases the red color gain of the picture
GAMMA	0.45	Adjustable by 0.05. Lower value increases the gain of the dark area and vice versa.
WHITE BAL	ATW	

## 6.6 SPECIAL menu

In SPECIAL menu, CAM TITLE, D-EFFECT, MOTION, PRIVACY, SYNC and LANGUAGE. can be set.

To enter SPECIAL menu, press ● at MAIN >SPECIAL

```

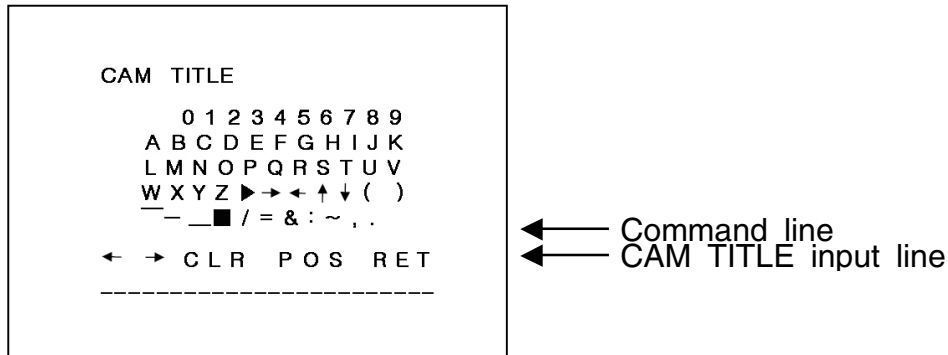
SPECIAL
▶CAM TITLE      OFF
D-EFFECT       ◀
MOTION         OFF
PRIVACY        OFF
SYNC           INT
LANGUAGE       ENGLISH ◀
OSD COLOR      3
RETURN        RET ◀

```

SPECIAL	Factory Default	Descriptions
CAM TITLE	OFF	If set to ON, CAM TITLE is displayed on the screen. See '6.6.1 CAM TITLE menu' for detail.
D-EFFECT	-	FREEZE: If set to ON, image freezes and shows a still image. FLIP:OFF(normal display), H-FLIP(Left & right mirrored), V-FLIP(upside down) and H/V FLIP. In case of V-FLIP or H/V-FLIP, ▲,▼,◀,▶ are rearranged to match the directions. D-ZOOM: If set to ON, Digital zoom can be set up to x32. When D-ZOOM is greater than x1.1, digital PAN/TILT can be set. NEG.IMAGE: If set to ON, Negative image is output and used to see as a negative film effect.
MOTION	OFF	If set to ON, motion is displayed on the monitor by means of digital effect. See '6.6.2 MOTION menu' for settings.
PRIVACY	OFF	If set to ON, up to 8 privacy masks are displayed on the monitor by means of blocks. See '6.6.3 PRIVACY menu' for settings.
SYNC	INT	Fixed to INTERNAL synchronization.
LANGUAGE	ENGLISH	ENGLISH, KOREAN, JAPANESE, CHINESE1, CHINESE2 are available. When changing LANGUAGE, select language and press ● to load new fonts. It takes about 8 seconds to load new language fonts.
OSD COLOR	3	OSD COLOR can be set to one of 16 colors.

### 6.6.1 CAM TITLE menu

To enter CAM TITLE menu, press ● at MAIN >SPECIAL>CAM TITLE>ON



Up to 15 characters from the character table can be input.

Use ▲, ▼, ◀, ▶ to move cursor (Blinking character is on the cursor position) in the character table.

Press ● to select and the selected character will be input and displayed on CAM TITLE input line.

To move the input position CAM TITLE input line, press ● on ← →

To clear CAM TITLE input line, press ● on CLR on command line.

To set the location of CAM TITLE to be displayed on the video, press ● on POS on command line

The menu will disappear and CAM TITLE will be displayed on the video.

Use ▲, ▼, ◀, ▶ to locate CAM TITLE in the proper position and press ● to fix.

The Menu will appear again.

To finish/close CAM TITLE menu, press ● on RET on command line.

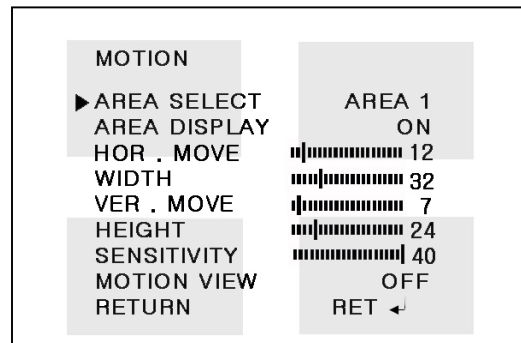


## 6.6.2 MOTION menu

To enter MOTION menu, press ● at MAIN >SPECIAL>MOTION>ON.

Up to 4 motion detection areas can be programmed by size, position, sensitivity and display on/off.

If MOTION in MAIN>SPECIAL menu is set to ON, 'MOTION' is displayed on the monitor whenever the motion is detected and the digital effect will appear if MOTION VIEW is set to ON.



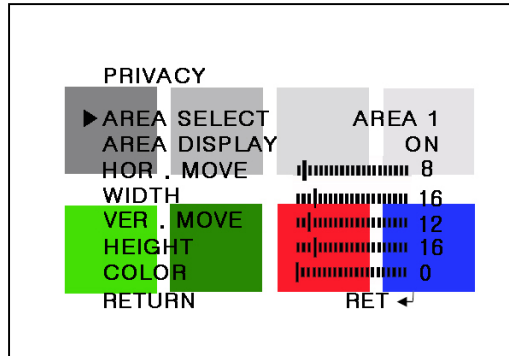
MOTION	Factory Default	Descriptions
AREA SELECT	AREA1	Selects one of 4 areas, AREA1~AREA4, to be adjusted.
AREA DISPLAY	ON	If set to ON, the window selected by AREA SELECT appears and enables the motion detection for that area and vice versa.
HOR. MOVE	12	Moves the window selected by AREA SELECT leftward or rightward. In order to see the area moving, AREA DISPLAY must be ON.
WIDTH	32	◀ decreases and ▶ increases WIDTH of the window selected by AREA SELECT from the right. In order to see the change, AREA DISPLAY must be ON.
VER. MOVE	7	Moves the window selected by AREA SELECT upward or downward. In order to see the area moving, AREA DISPLAY must be ON.
HEIGHT	24	◀ decreases and ▶ increases HEIGHT of window selected by AREA SELECT from the bottom. In order to see the change, AREA DISPLAY must be ON.
SENSITIVITY	40	Motion SENSITIVITY may be adjusted between 0 and 40 for the window selected by AREA SELECT.
MOTION VIEW	OFF	If set to OFF, motion result will not be displayed.

### 6.6.3 PRIVACY menu

To enter PRIVACY menu, press ● at MAIN >SPECIAL>PRIVACY>ON.

Up to 8 privacy detection areas can be programmed by size, position, mask color and display on/off.

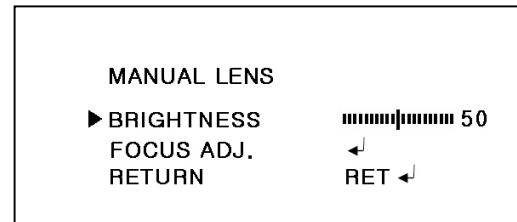
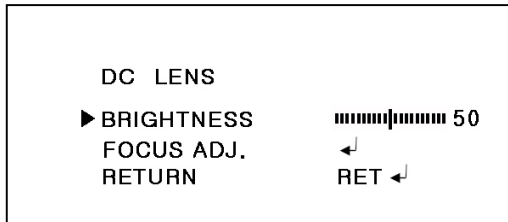
If PRIVACY in MAIN>SPECIAL menu is set to ON, the masked areas are displayed on the monitor.



PRIVACY	Factory Default	Descriptions
AREA SELECT	AREA1	Selects one of 8 areas, AREA1~AREA8, to be adjusted.
AREA DISPLAY	ON	If set to ON, the window selected by AREA SELECT appears and enables the privacy mask for that area and vice versa.
HOR. MOVE	8	In order to see the area moving, AREA DISPLAY must be ON.
WIDTH	16	◀ decreases and ▶ increases WIDTH of the window selected by AREA SELECT from the right. In order to see the change, AREA DISPLAY must be ON.
VER. MOVE	12	Moves the window selected by AREA SELECT upward or downward. In order to see the area moving, AREA DISPLAY must be ON.
HEIGHT	16	◀ decreases and ▶ increases HEIGHT of window selected by AREA SELECT from the bottom. In order to see the change, AREA DISPLAY must be ON.
COLOR	0	Sets one of 16 colors for the mask window selected by AREA SELECT. Each area color can be selected individually.

## 6.7 LENS menu

Lens can be selected as either DC (Auto Iris) or MANUAL (Disabled A/I function). To enter DC/MANUAL LENS menu, press ● button at MAIN >LENS>DC(MANUAL). BRIGHTNESS can be adjusted. It takes about 5 seconds for brightness to settle after the adjustment.



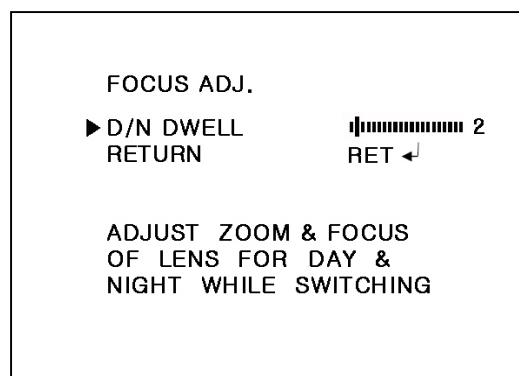
### CAUTION

**Be careful NOT to overly decrease the BRIGHTNESS.** If the DC iris is set too low, it may cause difficulty for the camera when it returns from NIGHT to DAY due to diminished or incidental light .

### 6.7.1 FOCUS ADJ. menu

Sometimes the focus - when adjusted in very bright daylight - becomes blurry at night. This condition is commonly referred to as "Focus Shift". The FOCUS ADJ. menu is used to assist with easy adjustments to sharpen the image with the use of ZOOM and FOCUS eliminating this kind of error by simulating the conditions of night time. D/N DWELL is used to adjust the period between switching from Color (day) to ICR (night).

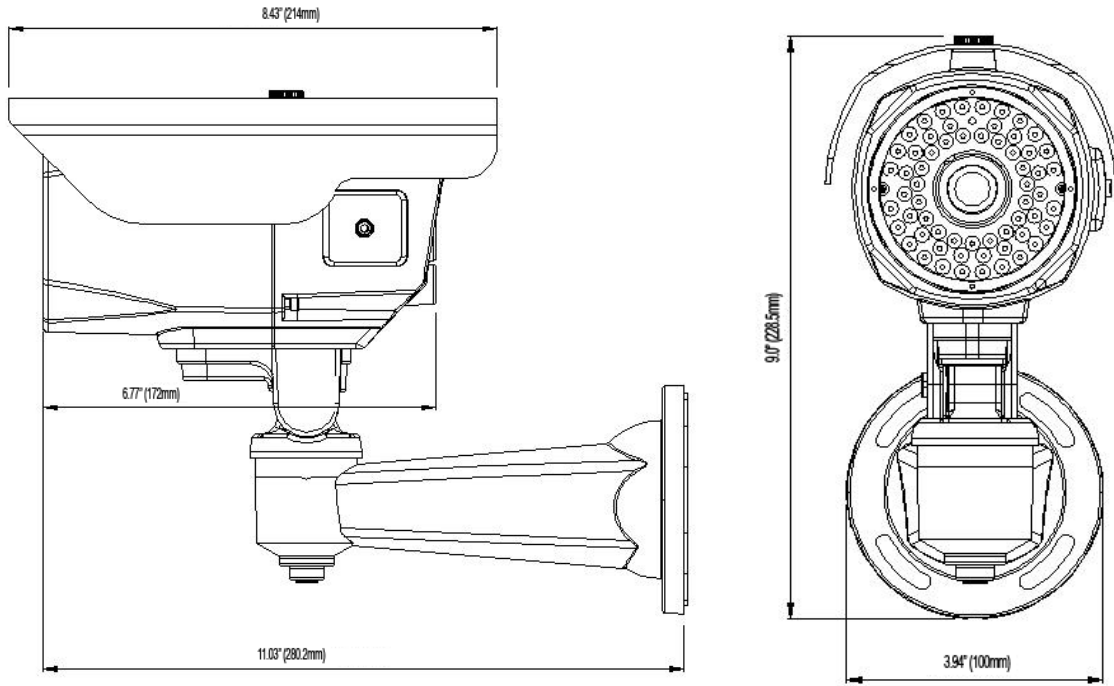
Set the ZOOM first and then adjust the FOCUS precisely in order to achieve a sharp image while switching between day and night modes.



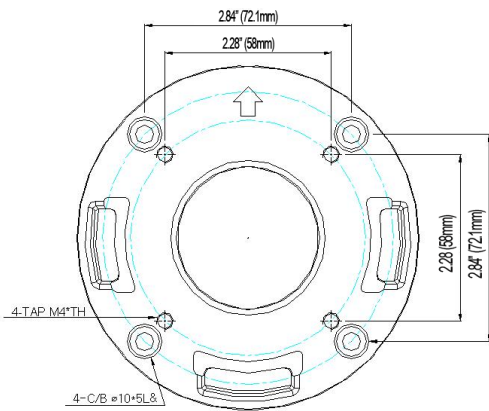
## 7. Specifications

Model Name	VTC-IRH70650
Image Device	1/3" Sony New Structure Super HAD Color CCD
TV System	NTSC, 2:1interlace
Scan Freq.	59.94Hz(V), 15.734Khz(H)
Effective Pixels	768(H) x 494(V)
Synchronization	Internal
H. Resolution	560TV Lines (COLOR) / 600TV Lines (B/W)
Sensitivity (@50IRE,F1.2)	COLOR: 0.35Lux, B/W: 0.04Lux, SENSE-UP(x4):0.0035Lux 0Lux with built-in 70 IR LEDs
S/N Ratio	More than 50dB with AGC OFF at 50IRE
Electronic Iris	1/60 ~ 1/100,000sec
Manual Shutter Speed	1/60, 1/250, 1/500, 1/2K, 1/5K, 1/10K, 1/100K
White Balance	2000 ~ 8000° K Automatic tracking
BLC	Built-in, Programmable in menu
AGC	Built-in, Programmable in menu
Language	English, Korean , Japanese, Chinese I, Chinese II
Zoom	Up to x32 Digital zoom
Flickerless	ON/OFF
Flip	OFF / H-FLIP / V-FLIP / H/V FLIP
Privacy Zone	ON/OFF (8 Programmable Zone)
Motion Detection	ON/OFF (4 Programmable Zone)
Day & Night	True D/N ICR
Built-in Lens	6-50mm DC Drive auto Iris, D/N lens
LED	70pcs x 850nm IR LEDs
Night View Range	300feet
Operating Power	24VAC/12VDC Dual power, 12W max.
Power Consumption	800ma LEDs on (12vdc) - 500ma LEDs on (24VAC) 120ma LEDs off (12vdc) - 70ma LEDs off (24VAC)
Operating Condition	-4°F~+122°F / -20°C~+50°C, 85% RH. Max. non-condensing
Dimensions	4.52"(W) x 9" (L) / 115mm(W) x 228.5mm(L)

## 8. Dimensional Drawings



### Mounting Plate Adapter



## 9. Warranty

### **VITEK LIMITED PRODUCT WARRANTY**

VITEK products carry a three (3) year limited warranty. Digital recording and storage products are also warranted for 3 years except for the hard drives which carry their own independent factory warranty from the hard drive manufacturer. VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is non-transferable and extends only to the original buyer or end user customer of a Vitek Authorized Reseller.

The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, caused by excessive voltage or lightning.

The product must not have been tampered with in any way then the guarantee will be considered null and void.

This guarantee does not affect your statutory rights.

Contact your local VITEK Reseller should servicing become necessary.

Vitek makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a Vitek Authorized Reseller.

**ALSO AVAILABLE FROM VITEK:**



**VT-EH Series**

**4, 8, and 16 Channel Digital Video Recorders with H.264 Compression**

Vitek industrial Video Products, Inc. understands the challenge that you, the Security Dealer, face everyday to continually provide the most powerful and cost effective solutions to your customers. You need products that deliver the very best performance without being overly complicated or difficult to manage. Our new "EH" series DVR does just that at a fraction of the price of our competitors, while still delivering state-of-the-art features like:

- Intuitive graphical user interface that will guide you quickly through all menu functions.
- Compatible with virtually any web- based browser, eliminating the need for a dedicated viewer.
- Expanded list of remote connectivity including: iPhone, Google Android, Palm based PDAs and Mac based computers.
- Increased recording speed up to 240 PPS for smooth, fluid movement.
- Available in 4, 8 and 16 channels with up to 4 Terabytes of internal storage.



Remote viewing with many popular phones including: Apple iPhone, Windows Mobile, Palm, Google, Blackberry, and Android based devices.



Mac and PC Web Browser based Remote Viewing and Control.



**WDR**  
Wide Dynamic Range

**DIGITAL PIXEL SYSTEM**  
FROM PIXIM



*Mighty Dome Inside (Shown in Black)*



*UTP Interface and Heater & Blower Options Available*

**Mighty Dome Series**

**The Ultra Versatile Dome Camera Series**

The VITEK Mighty Dome incorporates an industry leading combination of a Sony SuperHAD II Image Sensor with a Sony Digital Signal Processor to deliver the best possible performance. As a result, the Mighty Dome provides the truest colors with crisp, clean images in every lighting condition.

- Indoor and outdoor versions available
- High Resolution 480 or Super High Resolution 550 TV Line Cameras
- WDR Version Available with PIXIM Image Sensor
- True Mechanical Day/Night function available
- Flush or Surface Mount
- UTP Interface & Heater / Blower Options Available
- Dual Voltage 12VDC & 24VAC
- Infinity Ball Mount for Any Viewing Angle
- Gasketed IP68 Rated Weatherproof Design
- Lens options: 2.9-10mm, 9-22mm, and 18-50mm
- Available in Ivory or Black



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