200 New Highway
Amityville, NY 11701
Toll Free : 1-800-645-5516
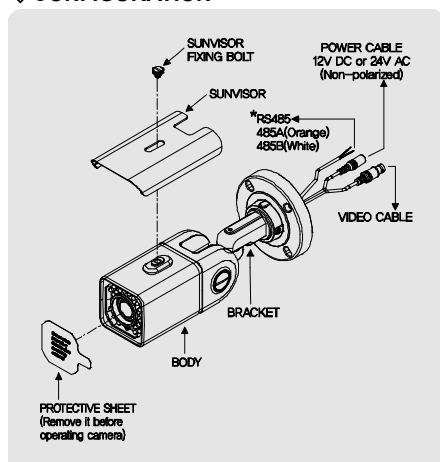www.specotech.com

HTB10X

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◆FEATURE

1. Long visible range at night.(50m Max. indoors, 40m Max. outdoors)
2. This camera uses split glass technology to prevent IR light reflection.
3. This camera has a Varifocal IR lens to prevent focus drift under IR lighting.
4. The IR cut filter is removed at night to receive maximum available light.
5. This product is weather proof to resist rain, snow and other environmental factors. (IP65)
6. This product is made of corrosion-free materials to resist rust and corrosion for extended periods of time.
7. The built-in sunshield helps the camera produce clear pictures under a variety of lighting conditions.
8. Power & video cables are concealed for extra security. (Cable through the mount).
9. Unique bracket allows the camera to be fully adjustable from both wall and ceiling mounting positions.
10. Dual voltage operation. You can connect 24V AC or 12V DC regardless of polarity. The Line-Lock function is available when you use 24V AC power.
11. The IR output level is adjustable to suit any lighting condition.
12. High magnification zoom / Auto focus
    - Max. 100X zoom is available.(Optical:10X, Digital:10X)
    - It features "Auto focus" for maximum versatility.
13. DNR (Digital Noise Reduction)
    By using this DSP chip and associated technology, the amount of low light noise has been significantly reduced, and the signal-to-noise ratio(S/N) as well as horizontal resolution has been improved, resulting in a clear and sharp image display even in the dark.
14. Privacy zoom masking (max. 32 zones/8 programmable zone per screen)
    The privacy zone function makes it possible to mask specific areas of the scene from view.
15. Motion Detection (4 programmable zone per screen)
    You can transmit an alert signal when it detects motion of an object on the screen. This feature is useful when you have to monitor several screens simultaneously.
16. High resolution Horizontal Resolution of 560TV Lines:
    Clear image quality has been achieved by employing a 1/4" SONY Super HAD CCD with 410,000 pixels, which provides a horizontal resolution of 560 TV lines.
17. OSD (On Screen Display)
    For easy adjustment of all features.
18. RS-485 control
    RS-485 communication is available to control the camera OSD and lens
19. Day & Night function
    The camera can distinguish between day and night and will make changes according to the conditions. It maintains the most suitable color in daytime and B/W at night.
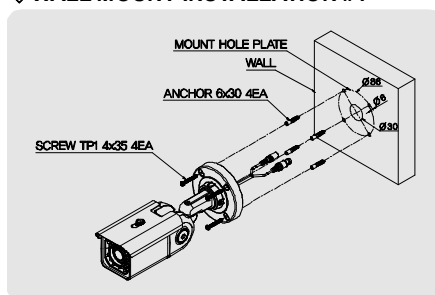
◆CONFIGURATION

<Caution>
RS485 signal only-Do not apply power to this cable.
To avoid product failure, connect ORANGE wire to RS485A and WHITE to RS485B, Never do it backwards.

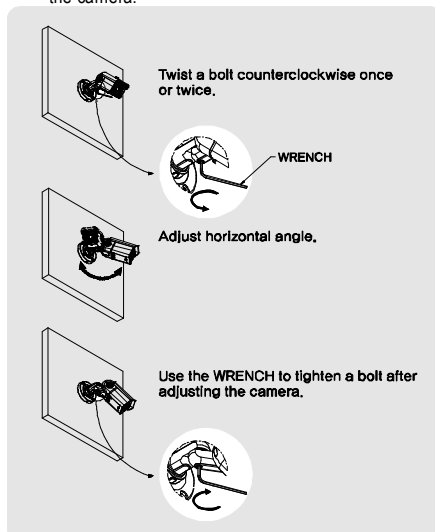## ◆WALL MOUNT INSTALLATION #1

1. Make a hole Ø30mm in diameter for routing cable.
2. Using the mounting plate, drill four holes on the wall.
3. Insert the anchors.
4. Attach the screws.
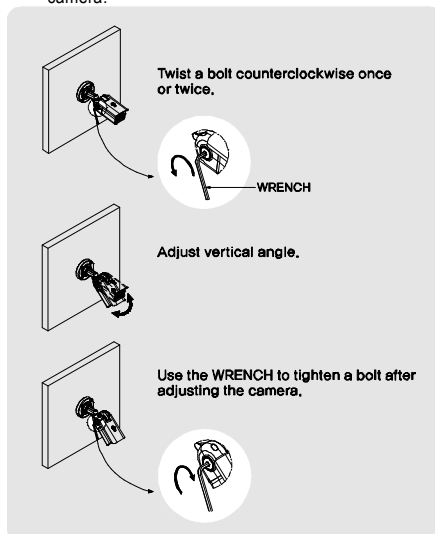
◆WALL MOUNT INSTALLATION #2

1. Adjust horizontal angle.
1) Loosen the bolt to adjust the horizontal angle of the camera.
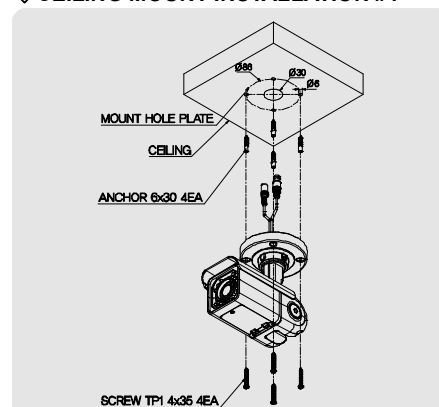2) Use the WRENCH to tighten the bolt after adjusting the camera.

2. Adjust vertical angle
1) Loosen a bolt to adjust vertical angle of the camera.
2) Use the WRENCH to tighten a bolt after adjusting the camera.

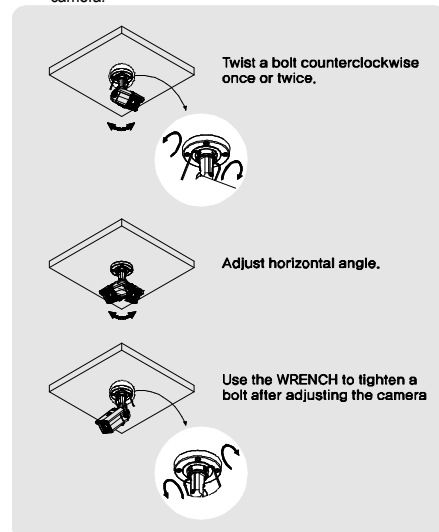## ◆CEILING MOUNT INSTALLATION #1

1. Make a hole Ø30mm in diameter for routing cable.
2. Using the mounting plate, drill four holes on the ceiling.
3. Insert the anchors.
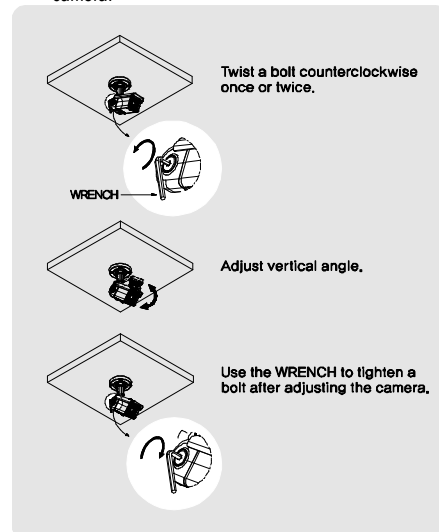4. Attach the screws.

◆CEILING MOUNT INSTALLATION #2

1. Adjust horizontal angle.
1) Loosen the bolt to adjust the horizontal angle of the camera.
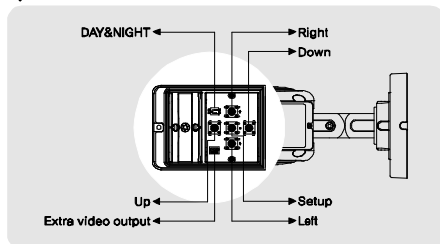2) Use the WRENCH to tighten the bolt after adjusting the camera.

2. Adjust vertical angle
1) Loosen the bolt to adjust the vertical angle of the camera.
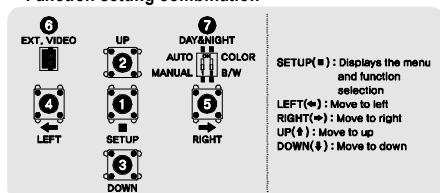2) Use the WRENCH to tighten a bolt after adjusting the camera.

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◆FUNCTIONS

1. Setup for camera functions
· Function setting combination

SETUP(■) : Displays the menu and function selection
LEFT(◀) : Move to left
RIGHT(▶) : Move to right
UP(▲) : Move to up
DOWN(▼) : Move to down

· OSD MENU

① SETUP :
To access the main menu.
Push this button for 1 second.
② TELE / UP :
To zoom in on a far object.(ZOOM-IN) /
Moves the arrow indicator to up.
③ WIDE / DOWN :
To widen the view (ZOOM-OUT) /
Moves the arrow indicator to down.
④ NEAR / LEFT :
To focus on a near object clearly. /
Moves the arrow indicator to the left.
⑤ FAR / RIGHT :
To focus on a far object clearly. /
Moves the arrow indicator to the right.
⑥ EXT. VIDEO :
Plug your test monitor in here.
⑦ DAY & NIGHT :
- AUTO : DAY & NIGHT auto
- MANUAL : DAY & NIGHT passive
 Color : Color fixed regardless illumination.
 B/W : B/W fixed regardless illumination.(IR ON)

2. Camera function setting

MAIN SETUP

CAMERA TITLE	OFF	Set Camera Title String and OSD Display Position.
	ON	
WHITE BAL	ATW -Mode: OUTDOOR INDOOR	ATW is controlled by color temperature range *MODE - INDOOR : 3000~10,500°K - OUTDOOR : color level
	AWC→SET	ONE PUSH
	MANUAL	RED / BLUE Adjustable.
BACKLIGHT	OFF / LOW / MIDDLE / HIGH	Backlight compensation.
MOTION DETECTION	OFF	Motion detection off
	ON	AREA(4 Programmable zone/SIZE) The words "MOTION DETECTED" appear on the screen when movement is detected.
FOCUS↵		Refer to focus setup
EXPOSURE↵		Refer to exposure setup
SPECIAL↵		Refer to special setup
RESET		Returns to the level which was set by the manufacturer for shipment.(except for communication and Day & Night)
EXIT		Saves all settings, then exits.

FOCUS SETUP TABLE

MODE	AUTO	Focus is controlled automatically
	MANUAL	Focus is controlled manually
	ONE-PUSH	Focus is automatically adjusted just once, after zoom position is changed.
ZOOM TRK	OFF	Zoom tracking off
	ON	Zoom tracking on
ZOOM SPEED	FAST/SLOW	Zoom speed Control
D-ZOOM	OFF	Digital zoom off
	ON	Digital zoom limit selectable (x2 ~ x10).
DIS ZOOM MAG	OFF	Zoom magnification display off
	ON	Zoom magnification display on.
ZOOM POS INIT	OFF	When initialized, zoom position is disabled.
	ON	Zoom magnification set at power on(x1 ~ x10)
LENS INIT		Execute lens initialization.

EXPOSURE SETUP TABLE

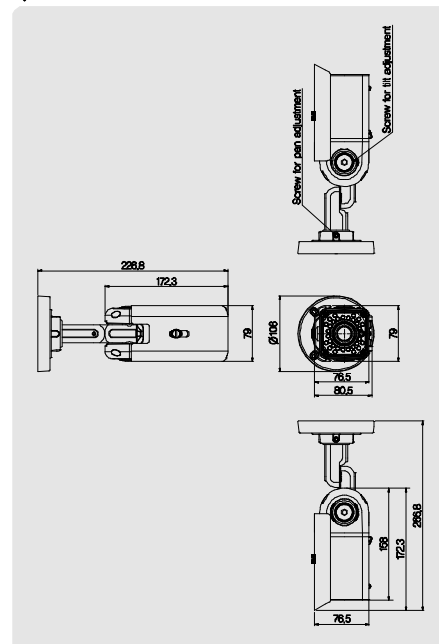| BRIGHTNESS		Brightness level adjustment.
IRIS	MANUAL	IRIS is controlled manually.
	AUTO	IRIS is controlled automatically.
SHUTTER	MANUAL	Shutter is controlled manually
	A. FLK	Anti-flicker
AGC	OFF	Automatic gain control off.
	NORMAL / HIGH	Automatic gain control limit set.
SSNR	OFF	Noise reduction off.
	LOW / MIDDLE / HIGH	Noise reduction level set.
SENS-UP	OFF	Sense-up off
	AUTO	Sense-up limit selectable (x2 ~ x128)

SPECIAL SETUP TABLE

USER PRESET	OFF	Turns function off
	ON	Using the position preset function, 8 sets of camera shooting conditions can be stored and recalled.
PRIVACY	OFF	Privacy mask off
	ON	AREA(4 Programmable zone) / SIZE / TONE adjustable.
SYNC	INT	Internal Sync.
	LL	External Sync(can adjust desired phase from 0° ~ 359°). Trigger Signal: Auto Detection.
COMM ADJ↵		Refer to communication setup
IMAGE ADJ↵		Refer to communication setup

COMMUNICATION SETUP TABLE

CAM ID	OFF	ID not displayed
	ON	Camera names are displayed
DISP CAM ID	OFF	Communication ID display off.
	ON	Communication ID display on.
BAUD RATE	2400 ~ 57600	Baud-rate set (factory default : 2400).
UART MODE	8-E-1 / 8-0-1 / 8-N-1	Parity bits selectable. (factory default : 8-N-1)
RET PKT	DISABLE	Do not send a command back to the control & device.
	ENABLE	Returning the data when communication. (Caution : Activate this function to use D&N.)

* Protocol: Pelco-D

IMAGE SETUP TABLE

FREEZE	OFF	Freeze image: OFF
	ON	Freeze image: ON
H-REV	OFF	Horizontal reverse: OFF
	ON	Horizontal reverse: ON
V-REV	OFF	Vertical reverse: OFF
	ON	Vertical reverse: ON
SHARPNESS	OFF	Sharpness control is disabled.
	ON	The Sharpness can be adjusted.
COLOR GAIN		The Color level can be adjusted (0~100)

◆DIMENSIONS

◆SPECIFICATION

Model	HTB10X
Type	Weatherproof x10 optical motorized zoom color camera
Image Sensor	1/4" SONY SUPER HAD CCD
Effective Pixel	768(H) X 494(V)
TV Type	NTSC
Scanning System	2:1 Interlace
Sync. System	Internal / Line lock
Scan. Freq.(HOR.)	INT : 15.734KHz L/L : 15.750KHz
Scan. Freq.(VERT.)	INT : 59.94Hz L/L : 60.00Hz
Resolution	580 lines resolution(IR ON) 560 lines resolution(IR OFF)
Video Output	1.0 Vp-p(Sync. Negative) with 75Ω Termination
S/N Ratio	More than 50dB(weight ON)
Min. Illumination	0.05 Lux (F1.8) : LED OFF 0 Lux (40M range) : LED ON
Gamma	r = 0.45
Shutter Speed	Auto(x128 ~ 1/60 ~ 1/120,000sec) Sense-up and Sense-up limit is selectable, Flickerless
White Balance	ATW / AWC / Manual(1,800 ~ 10,500°K)
SSNR	LOW / MIDDLE / HIGH / OFF
Motion Detection	ON / OFF(4 programmable zone per screen)
Privacy Function	ON / OFF(32 zones, It consists of 8 group 4 programmable, zone per screen)
Flip	Vertical, Horizontal, Vertical-Horizontal, OFF
Preset	8 position
OSD	Yes
ZOOM	Optical zoom 10X, Digital zoom 10X
FOCAL Length	f = 3.8(W) ~ 38.0(T) F 1.8(W) ~ F 2.8(T)
Angle of View	51.2°(Wide End), 5.58°(Tele End)
Min. Working Distance	0.1M
Communication	RS-485
Power Supply	24 Volts AC, 12 Volts DC - Dual Voltage
Current Consumption	Max. 600mA
Operation Temp.	-20 °F to 140 °F
Dimension	3.1"W x 3"H x 6.8"L
Weight	3.3 lbs.

※The specification is subject to change without any prior notice to improve the quality. Rev. 1/25/10.