

RFCONCEPTS LTD [www.rfconcepts.co.uk](http://www.rfconcepts.co.uk)  
**IR WATERPROOF CAMERA**  
**SK-P361IR/M863, SK-P371IR/M503**  
**MANUAL**

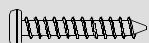


7. Due to the possibility of water leakage, do not cut or peel off the cable. In case you cut or peel off the cable, the warranty will be void.
8. Do not adhere dangerous articles to the camera.
9. Do not leave the unit along with an unstable stand or table.
10. DC power cable or video cable should be always loose.  
Do not keep the cables tight or twisted.
11. Please use the camera unit within given temperature and electricity limit.
12. Please make sure that installation should be done by qualified service person only.
13. Do not disassemble the unit by yourself. When there is problem with the unit please contact after-sale service center or the shop where you bought.

### ACCESSORIES



ANCHOR 6x30 3EA

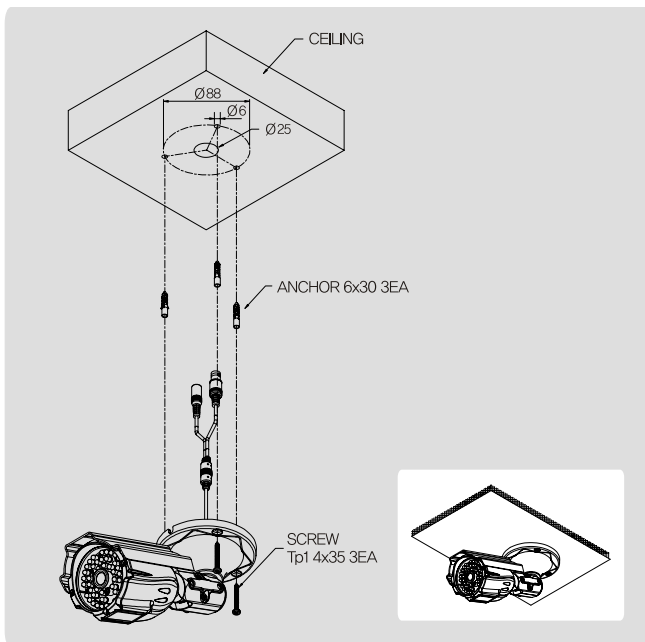


SCREW 4x35 TP1 PAN SUS 3EA

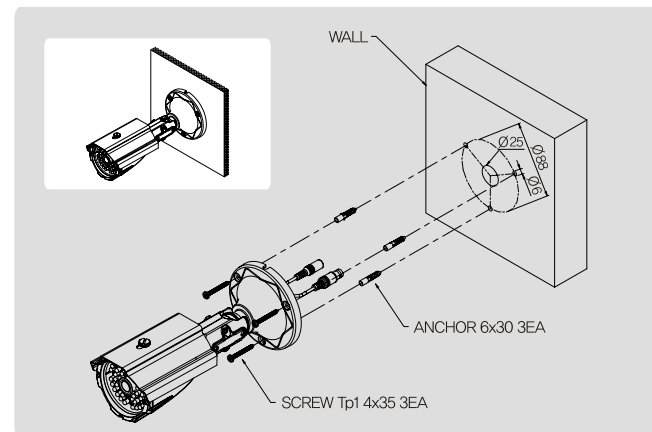


WRENCH 3,0mm L TYPE 1EA

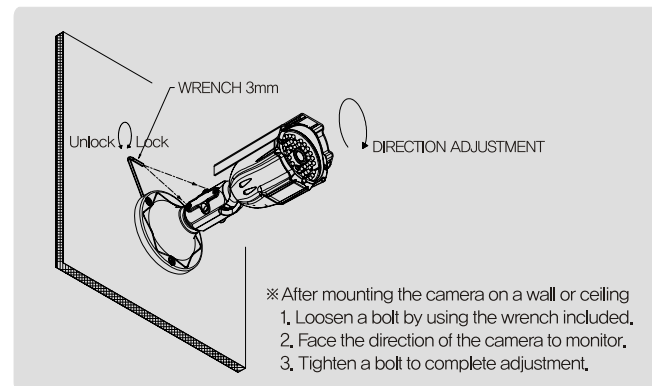
### INSTALLATION 1(Ceiling mount)



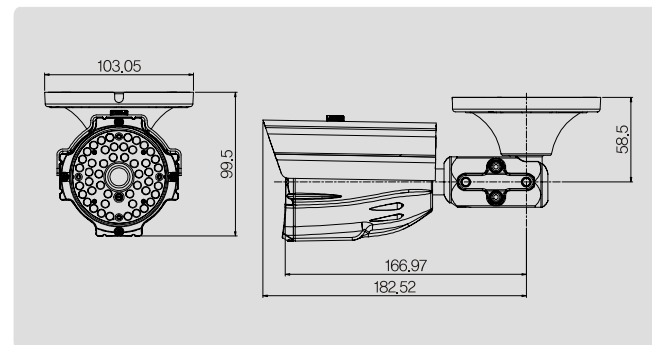
### INSTALLATION 2(Wall mount)



### ADJUST THE DIRECTION



### DIMENSION



### FEATURE

1. Long visible range at night,(40m range indoors)
2. IR LED can be on/off automatically by photoconductive sensor and AGC to perceive light condition in the circumstance.(Under 5 Lux do LEDs turn on.)
3. This camera adopts split glass technology to prevent IR light reflection.
4. This product is suitable for 24 hours surveillance with optical multi-coating filter according to IR LED and CCD.
5. This product is waterproof to resist rain, snow and other weather factors.(IP67)
6. This product is made of aluminum material with corrosion-free surface to resist rust and corrosion for a long time.
7. Survivor of this product can help the camera get the picture clearly.
8. Power & video cables are concealable.(Cable through bracket)



If the product is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

### CAUTION

1. Please study the instruction manual before your applications and keep it for your future reference.
2. Do not flash LED light directly on the eyes when LEDs are on.
3. Do not install the camera on a unstable surface.  
It will cause falling or other hazards.
4. Do not use improper power, it could cause fire or electric shock.  
(Use the AC adaptor 12V DC regulated, 1A)
5. Do not disassemble or re-model the camera, it could cause fire, electric shock or other hazards.
6. Stop using the camera when you find a malfunction like smoke or unusual heat, it could cause fire or electric shock.

● SPECIFICATION

Model No.	SK-P361IR/M863	SK-P371IR/M503
Image Sensor	1/3" SONY SUPER HAD CCD II	
Effective Pixel	768(H) X 494(V) PIXEL(NTSC) 752(H) X 582(V) PIXEL(PAL)	512(H) X 492(V) PIXEL(NTSC) 512(H) X 582(V) PIXEL(PAL)
Cell Size	6.35μm(H) X 7.4μm(V)(NTSC) 6.5μm(H) X 6.25μm(V)(PAL)	9.6μm(H) X 7.5μm(V)(NTSC) 9.6μm(H) X 6.34μm(V)(PAL)
Resolution	540 TV-LINE	380 TV-LINE
TV Type	NTSC / PAL	
Sync. Type	Internal	
Scanning System	2:1 Interlace	
Video Output	1.0 Vp-p(Sync, Negative) Termination 75Ω ±10%	
Gamma Characteristic	γ = 0.45 Typ.(Adjustable)	
Min. Illumination	0 Lux (40M Range) / LED ON 0.1 Lux / LED OFF	0 Lux (40M Range) / LED ON 0.05 Lux / LED OFF
OSD	Full OSD	-
Motion Detection	ON / OFF Selectable(64 Zone)	-
White Balance	ATW / AWC / MANUAL	-
Privacy Zone	ON / OFF(4 ZONE)	-
Day & Night	Electronic D&N(Automatic)	
RS-485 Protocol	PELCO-D&P	-
S/N Ratio	48dB over(AGC OFF)	
Mirror	ON/OFF	-
BLC	ON / OFF(LEVEL adjustable)	-
Reverse polarity protection	YES	
Control Interface	Extra Video connector for easy installation	-
Gain Control	Automatic(Adjustable)	Automatic
Shutter	1/60(1/50) ~ 1/100,000sec	
Test Illuminance Area	Average test illuminance by front view	
Power Supply	Regulated 12V DC	
Current Consumption	Max. 650mA(at 12V DC)	
Lens	Fixed focal lens	
LED	IR LED 48EA	
Operation Temp.	-10 ~ 50°C	
Preservation Temp.	-20 ~ 60°C	
Dimension	∅103.5 × 99.5(H)mm	
Weight	Approx. 870g	

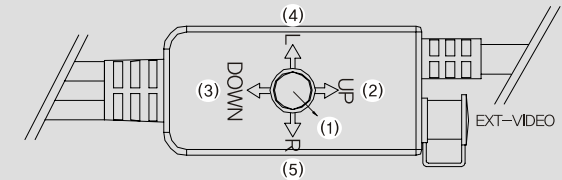
● FUNCTION SETTING(SK-P361IR/M863)

· OSD Menu Structure

Function setting menu	Select menu	Sub menu	Contents
1. EXPOSURE	LENS	MANUAL, DC	Fixed focal lens or Vari-focal auto iris lens
	BRIGHT	0 ~ 100	In case of manual lens selection, adjust the brightness
	DC LEVEL	0 ~ 20	In case of DC lens selection, adjust the brightness
	E.SHUTTER	AUTO	Shutter speed auto adjustable
		1/60(1/50) ~ 1/100000	Select shutter speed manually
	AGC	OFF, LOW, MIDDLE, HIGH	Determines that use the AGC function or not and AGC level selectable(You can not use the Auto D&N change mode when AGC is off)
	BLC	OFF, ON↵	BLC function, Press the set button to give the priority of section
	WIDE BLC	OFF, ON	BLC function in wide area
	HLC	OFF, ON, AUTO	High Light Mask function In case of AUTO mode, the function will off in daytime and on at night
	HLC THR	0 ~ 50	According to the threshold value, the camera will recognize as High light or not.

2. WHITE BALANCE	AWB MODE	ATW	Color temperature 2500 ~ 9500°K	
		MANUAL	Adjust the Red or Blue values to shift the color of the object	
3. DAY&NIGHT	D&N MODE	AWC ↓	Move the camera lens toward to white paper then press the set button to find the optimal white balance for current environment	
		AUTO	Auto day&night switching mode	
		COLOR	Fixed at color(LED OFF)	
	BURST	B&W	Fixed at B/W(LED ON)	
		OFF, ON	Determines whether to transmit the burst signal or not in B/W mode	
		COLOR & B&W	75 ~ 171 40 ~ 136	You can select brightness of illumination about changing the day ↔ night mode
		DELAY TIME	3 ~ 15	You can select the duration time about changing the day ↔ night mode
LED LEVEL	OFF, LOW, MIDDLE, HIGH	IR LED OFF/ON and output level adjustable		
4. IMAGE ADJUST	MIRROR	OFF, ON	Set a horizontal image inversion	
	SHARPNESS	0 ~ 49	The image outline will be strong and clear according to sharpness level increasing	
	GAMMA	0.45, 0.6, 1.00, USER	Gamma adjustable	
	LSC	OFF, ON	Determines whether to use the brightness compensation of four lens' corners(LSC) or not	
	LSC LEVEL	0 ~ 50	The LSC level selectable	
	R-Y GAIN	0 ~ 200	Adjust Red tone of the image	
	B-Y GAIN	0 ~ 200	Adjust Blue tone of the image	
PATTERN GENERATOR		Test signal, Press the set button, color bar appeared on the screen and press any key to return to menu		
5. MOTION & IMPACT	MOTION	OFF, ON	Determines whether to use the motion detection function or not	
	DISPLAY	NONE	No display on the screen though movement is detected	
		MESSAGE	The words 'MOTION' appear on the screen when movement is detected	
		MASK	Motion detection area appear on the screen when movement is detected	
	SET WINDOW		Press the set button to move into the motion detection area section to set the area(8x8). Press the set button for a few second to move out	
	ALL SET ↓		Press the set button to select all area	
	ALL CLEAR ↓		Press the set button to remove all area	
	SENSITIVITY	0 ~ 252	Motion detection sensitivity	
	HOLD TIME	1 ~ 15	Set the duration of outside alarm. If the way of display is message, it means display time of message	
	IMPACT	OFF, LOW, MIDDLE, HIGH	Determines whether to use impact detection function or not and sensitivity setting(N/A)	
HOLD TIME	1 ~ 15	Set the duration of outside alarm and display time of 'IMPACT' message(N/A)		
6. PRIVACY MASK	MASK 1, 2, 3, 4	OFF, ON↵	Display each privacy mask or not. Press the set button to move into the privacy mask setting section, whenever you press the set button, the mask color is changed. When the mask color is red you can adjust the size by up, down, left and right button. When the mask color is blue you can set the position of mask by up, down, left and right button. Press the set button for a few second to escape	
	MASK COLOR	BLACK, GRAY...	Select mask color	
7. COMMUNICATION	CAM ID	1 ~ 255	Select the camera ID for RS-485 communication	
	BAUDRATE	2400 ~ 38400	Select baud rate	
	PROTOCOL	PELCO-D, PELCO-P	Select protocol	
※ If you change the COMMUNICATION value through RS-485, you might not control the camera due to unmatched value. If your camera is out of working due to above reason, change your controller's value or wait a few minute till close the menu, it will be back to previous setting value)				
8. SPECIAL	LANGUAGE	ENGLISH, ...	Select language	
	NAME DISPLAY	OFF, ON	Display the camera ID on the screen	
	EDIT↵		Press the set button to move into the name setting section. You can choose the letter by using up and down button and move next letter by using left and right button. Press the set button for a few second to move out	
	POSITION↵		Press the set button to move into the position setting section. You can move the camera ID to your wanted position by using up, down, left and right button	
9. FACTORY SET	To reset your camera to factory default condition Notice : Lens, communication and Language is not changed			
10. EXIT	Save the value and then restart			

· How to use the jog lever(option)



(1) Enter

- Push the lever : Used to access the menu and confirm selection.
- Push the lever for one second : Used to return to previous menu from the motion detection setting section or privacy mask setting section.

(2) Up, (3) Down : Used to move the cursor to up or down,

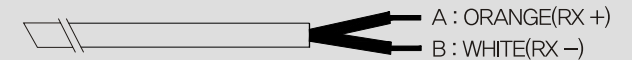
(4) Left, (5) Right : Used to move the cursor to left or right and change the value.

(6) EXT-VIDEO : Extra video output terminal for installation. Plug your test monitor in here. The cable is option.

· How to control through RS-485 communication(option)

1. Match the camera with controller's ID, baudrate and protocol
2. Up, Down, Left and right of Jog lever is same as Up, Down, Left and right of RS-485 controller
3. Enter of Jog lever is the same as menu key or IRIS open key of RS-485 controller
4. Return to previous menu from motion detection setting section and privacy mask setting section : Iris close or Iris open for a few second. Or press the button as Up → Right → Down → Left successively

· Cable array



Nb.	FUNCTION	REMARK
A	RX +	RS-485A
B	RX -	RS-485B