



# **TOP MAST 30**

PTZ Ccamera

User's Manual V1.3

[www.envirocams.com](http://www.envirocams.com)



**WARNING!**

Installation and removal of the unit and its accessories must be carried out by qualified personnel.

You must read all of the Safety Instructions supplied with your equipment before installation and operation.

If the product does not work properly, please contact your dealer. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.
- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.
- The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.
- While shipping, the camera should be packed in its original packing.

This PORTABLE MOBILE PTZ is designed for rough service and mobile applications. This tough, weatherproof PTZ Camera is completely waterproof to IP66 standards.

Compatible with IPC/ONVIF this rugged mobile PTZ camera has been designed to mount in any orientation on:

- Event surveillance, rapid deployment
- Police enforcement Vehicles
- Remote surveillance. Via Wifi
- Emergency vehicle, command Centers
- Telescoping Masts CCTV Trailer unit
- Patrol Ships & Boats



# Key Feature

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- Aluminum PTZ case with high strength;
- Powerful aux IR system, range up to 30-50meters;
- infrared or White Light Range, optional.
- High Beam & Low Beam Settings for both Lighting Models
- Model with Infrared Lights will automatically turn on Lamps in low light settings,
- and can be automatically switched from Low to High Beams, depending on  
Camera Zoom distance
- IP index up to IP66, full weather proof;
- New design of drive system, PTZ positioning precision up to +/-0.05°
- Image flip for stand / ceiling mount;
- Wide Voltage Range – perfect for Mobile applications (12-24V DC )
- Multiple video output formats, IPC,HDSDI,Analog camera, etc.
- Optional shock damper

# Parameter

Camera	Image Sensor	1/2.8 " progressive scan SONY CMOS
	Lens	4.5~135mm 30x optical zoom
	Focus mode	Auto
	Iris	Auto/Manual; F1.6 ~ F4.4
	Shutter	Auto/Manual; shutter time: 1/3 s ~ 1/30000 s
	Min.Illumination	Color: 0.005lux @(F1.4)B/W: 0.0005lux @(F1.4)
	Day/Night	IR-cut filter with auto switch (ICR)
Video	Max. Resolution	1920(H)x1080(V)
	Video Compression	H.265/H.264 main Profile/MJPEG
	Frame Rate	1080P (1920*1080) 30 fps; 720P (1280*720) 30 fps; D1 (720*576) 25 fps
Network	Protocols	IPv4/IPv6;HTTP;Qos;FTP;SMTP;UPnP;
		SNMP;DNS;DDNS;NTP;RTSP;RTP;
		TCP;UDP;ICMP;DHCP;PPPoE;onvif
	Compatible Integration	ONVIF, SONY VISCA
	GPS	N/A

Pan&Tilt	Pan Range	360°endless
	Pan Speed	0.05°~80°
	Tilt Range	-30°~40° (-20°~90°)
	Tilt Speed	0.05°~60°
	Number of Preset	255
	Patrol	6 patrols, up to 18 presets per patrol
	Pattern	4 with the total recording time not less than 10 minutes
	Power loss recovery	Support
Infrared	IR Distance	50m
	IR Angle	Adjustable by zoom
General	Power Supply	DC 12-24V
	Power consumption	20 W

# ATTENTION

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## ➤ **Careful transportation**

Protect the damages from heavy pressing, strong staking and soaking during the transportation and storage. This products have to be carried with split packages. Both in delivering by suppliers and on the returning way to factories to debugging, any damage happened because of comprehensive transport after assembling is out of the scope of guarantee repair.

## ➤ **When malfunctions happen**

When there are fume and unusual odor coming out of this product, please shut the switch, turn off the power wire, stop using and contact our company.

## ➤ **Be sure not to disconnect and refit**

Be sure not to open the body, or it may lead to danger or damage. If any inside setting or debugging is needed, please contact our company.

## ➤ **Be sure not to put other articles into this products**

Be sure that there is no medal or tinder in the camera. If there is any foreign body, it may lead fire, short circuit or other damages. If water or other liquid come into camera, please shut the power and ture off the power wire and contact our company. Carefully protect the camera from rain and seawater.

## ➤ **Carefully carry and put the product aside.**

To avoid damage, don't drop it or lash or shake it strongly.

## ➤ **Set this product far away from electric field and magnetic field**

If it is set near TVs, wireless transmitters, calutrons, electric motors, transformers, speakers which produce electromagnetic field to interfere with the images.

## ➤ **To avoid moisture and dust**

To avoid the damage to camera, don't put the camera in some places where there is a lot of lampblack and steam or high temperature and dust.

## ➤ **To avoid high temperature**

Don't set this product near heating stoves and other heat sources, such as spotlights.  
Don't set this product in the sun, or it will make it deformed, faded and so on.  
When it is set near ceiling, kitchen and boiler room, it will get high temperature.

➤ **Cleansing**

Wipe the dirt away with soft cloth. Wipe the fouling by soft cloth with washing agent on it when it is wired out, then dry it with dry soft cloth.

➤ **Don't aim at hard light articles.**

➤ **Use the products according to work environment requirements**

Used environment requirements of outdoor dome:

Environment temperature:  $-40\sim+60^{\circ}\text{C}$

Humidity:  $<90\%$

Atmospheric pressure:  $86\sim106\text{KPa}$

Direct current:  $12\text{V}\sim24\text{V}$



# MAIN FEATURE

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## ➤ **Built-in decoder**

- Programmable Digital design,keep the data or action after power outage.Integrated design,high reliability
- Memory protected when power outage:the dome auto resumes its prior position before the power outage after reboot.
- Power up memory function,setting automatically resumes its prior position or action before the power outage,run home position,preset,cruising tracks,pattern scan,right&left scan,frame scan
- Leisure auto run function,run home position,preset,cruising tracks,pattern scan,right&left scan,frame scan.
- 8 channels timing function,select timing start up preset,auto cruising,pattern scan,auto scan etc.actions(appoint type dome)
- 255 presets saved at casually
- Auto cruising function,8cruising tracks,each cruising track set up 18 preset positions,set staying time of each preset position and scan speed by menu.
- 4 pattern scan,each piece can record 5-500 minutes
- Three-dimensional position magnify, Point and magnify,point by mouse and frame the object,then it display in the center of screen and magnify.
- Coordinate display, display current flip and pan angle and lens magnify times. Support RS485 Bus interface.
- Hiding the title information (except dome title)
- Color/B& W Auto Shift (Timing translation)
- Time,temperature display and time calibrated function
- Soft address switch amend function,soft protocol and soft baud rate:amend front address switch of the dome by back controlling equipment,setup according to actual needs after installing all domes.
- Support broadcast address,the NO.255 is broadcast address.
- Front equipment malfunction information feedback:transfer front information to back command center through video signal that the malfunction users find cause of equipment malfunction conveniently.

### ➤ **Built-in holder**

- Exact driver,run placidly,sensitive response,accurate definition.
- Integrated design,compact fabric
- Ingenious mechanical driver device,support Pan 360° continue rotate,without monitorblind points.
- Horizontal 0.5°/s slowly rotate,image not quiver,maximum rotate speed 80°/s
- Vertical 75° continue monitor.

### ➤ **Built-in integrated digital color camera**

- auto focus
- auto light control
- auto white balance
- auto color/B&W shift

# FUNCTION INTRODUCTION

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## ➤ **Self-test**

When the dome is powered on, the camera automatically moves towards horizontal and vertical direction, the screen displays auto-check normally when it checks the pan and vertical origin point, the screen shows horizontal error or vertical error if it does not check the pan and vertical origin point, then check the camera, the screen displays the type or normal of the camera if auto identified, ensures the dome runs normally through auto-check. At the same time, the screen displays all dome information. They always display until operate the dome.

## ➤ **Focus/rotate speed auto matching**

The dome's fast response possibly makes the image move quickly and causes the loss of the image only through slightly operating the joystick when manually adjusting the long focus. However, the dome can automatically adjust the position of pan/tilt and vertical rotation speed and make it easy to operate the objective tracing manually.

## ➤ **Power up act**

Power up act is a prearranged one that starts as soon as the dome is power up, such as pattern tour, cruising scanning, preset and automatic scanning, and also put it back automatically to the situation before power cut. This function could be realized by 'Power up act' item in the menu. Sometimes dome will be accidentally stopped by some irresistible factors in monitoring system. For instance, the dome is back to reset when systematic power cut happens, the dome may stop at an angle that it should not watch, power up act is very important at that time.

## ➤ **Leisure time**

Leisure time means that dome waiting orders after a period time, it automatically performs one promissory action, such as pattern tracing, cruising scan, preset point, auto scan, etc., actualize to intelligently monitor. Through setting menu "Self act" and "Leisure Time" to realize this function. In the monitor system, sometimes because of nonresistant factors, which can stop current action accident, such as the dome goes into restoration state shortage the power, or goes into waiting orders state when users go away so that the dome possibly staying an unsuitable looking angle. The Self act and Leisure time are very important at this time. Time is 3 seconds to 100 minutes

## ➤ **Setting and call preset position**

Preset function is that dome can deposit the position data of currently PTZ's pan angle, tilt angle and camera's lens zoom in the storage, users can deposit and call preset position expediently and quickly through controlling keyboard to adjust the PTZ and camera towards it's position, this dome support 256pcs preset position.

## ➤ **Auto cruising**

Auto cruising is a built-in function of the dome, which let the dome automatically cruising according to definite sequeue in a group of many preset points, can set staying time of preset and the running scan speed.

This dome has 6 groups of cruising queue, every group can set 18pcs points. Cruising speed, preset and staying time can be adjusted by following sub-menu of 'PAN/TILT' → 'TOUR SCAN', call 75st-80th preset point to run 6 groups of auto cruising queue separately.

## ➤ **Auto scan function**

Auto scan is the built-in function of camera of intelligent dome, which can setup right and left limited position, only one outside order can let the dome move repeatedly according to the prior setting of menu between two liited position, so relize to auto cruising when no users operate it.

# Factory default parameters

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Camera IP address:192.168.1.88

Camera User name:admin

Camera Password:admin

# Button and indicator light

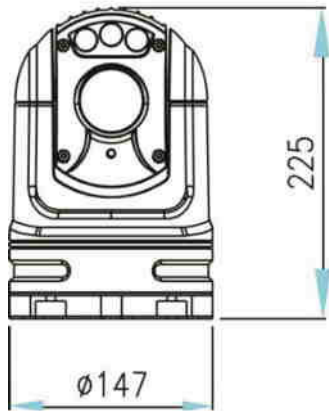
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- **Turn on the machine:** the power on the device is off state. In the shutdown state, press the button (greater than one second and less than 10 seconds). The green indicator of the button can be released by lighting, and the device will turn on.
- **Shut down:** when the device is in the boot state, press the button (greater than 3 seconds and less than 10 seconds). When the green indicator of the button goes out, it can release the button and turn off the equipment.
- **Router reset:** when the device is in the boot state, press the button (greater than 10 seconds), the green indicator light of the button is extinguished, and then light up, the button can be released, and the built-in router reset operation is performed. The device is still in the boot state.
- **Lights:** in the off state, short press the button (less than 1 second), the current power indicator light, light flashes 1-5 times on behalf of the battery is 1-5 grid battery, 1 grid power minimum, 5 peak; in the boot state, the power indicator light, updated every 3 seconds. When the battery is 2-5 cells, the green light flashes 2-5 times. When the battery is 1 cells, the red indicator flashes 1 times. When the battery power is exhausted, the red indicator light will flash 3 times. At this point, the device will be shut down in a short time due to the exhaustion of electric power. If conditions are available, please connect the power immediately.

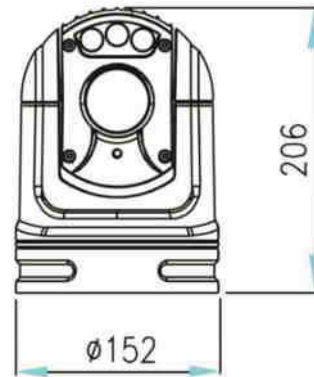
# Installation

Fixed Mounts:

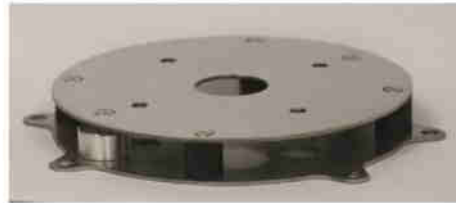
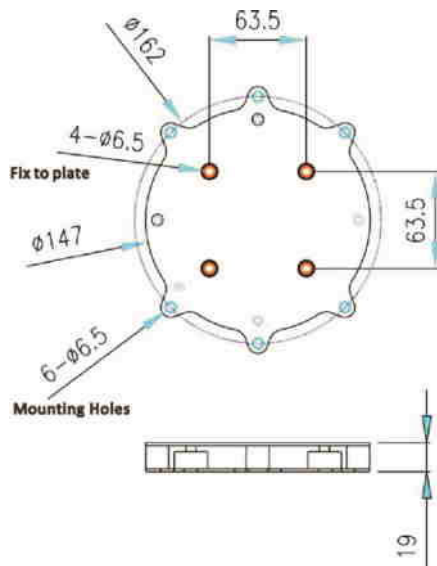
With Damper



Without Damper



PTZ Dimension(:mm)



Mounting Plate(:mm)

# Installation Overview

Disassembly of the camera is not required for installation. Disassembling the camera can cause permanent damage and will void the warranty.

In most installations, the camera will be connected via a System Cable and a Break-Out Connector Cable. The breakout cable provides the following connections (labels given in parentheses):

- BNC for composite video (VIDEO BNC)
- RJ45 Ethernet (ETHERNET Rj45)
- Power with 2 terminal rings (DC 12V, GND)
- Communication control rings (RS 485+, RS485-)



Each breakout end of the cable (away from the camera) must be protected from the weather.

## Camera Connections:



DC12V  
Net Port  
BNC  
Orange:RS485+  
Yellow:RS485-

12Pin Cable: Pin Definition	
1,2	Power+
3,4	Power-
5	Video-
6	Video+
7,8,9,10	RJ45,1,2,3,6
11	Rs485+
12	Rs485-

**Note:** For Analog/HDSDI case,Net Port inactive,For HDIP case,BNC&RS485,inactive



# Camera Mounting

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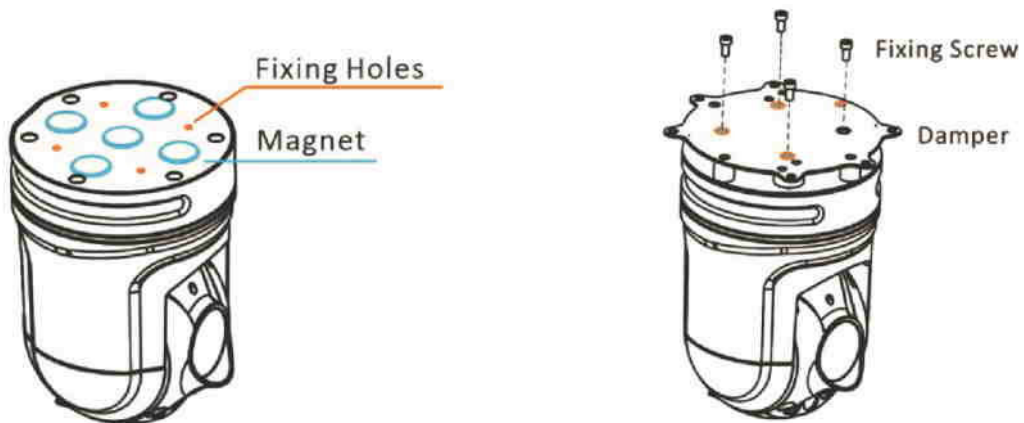
General installation information vehicle PTZ is given below:

Firmly secure the camera to a designated frame or structure capable of supporting the camera, using the mounting pattern shown below.

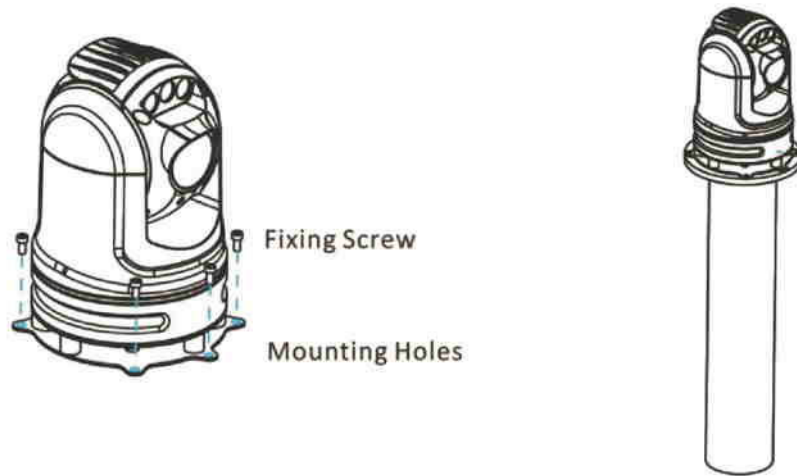
(For temporary deployment, skip this step)

The 30SBP971W enclosure can be mounted to a mast mount, pedestal mount.

1. Take the damper out of packing and fix it to the ptz plate (with magnet) with Four correct screws.



2. Put the above unit onto the installation plate. Make sure six mounting holes are in position with the mast/vehicle bracket. Fix the PTZ to the mounting place as per with six correct screws.

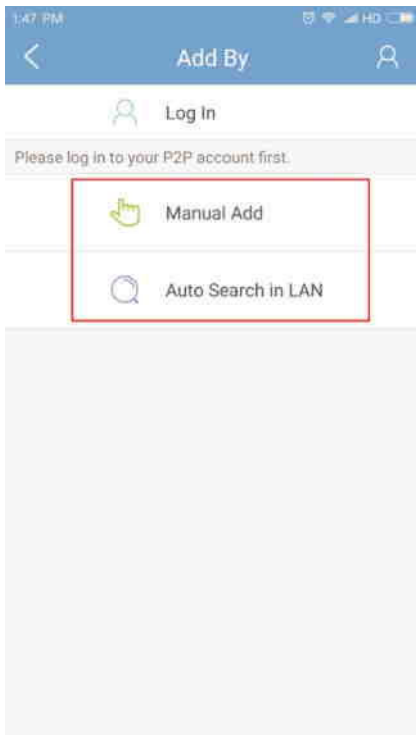
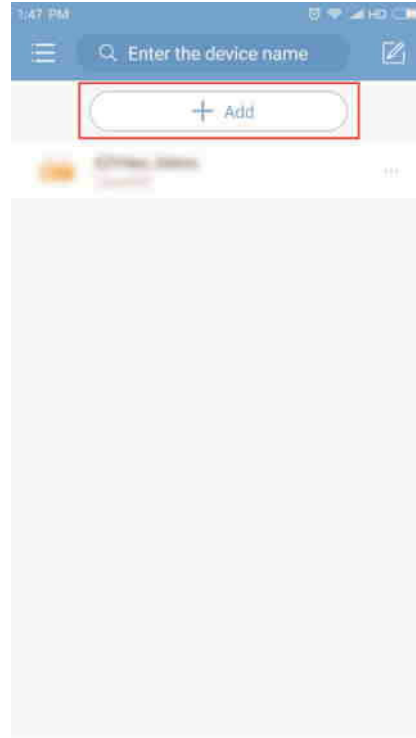
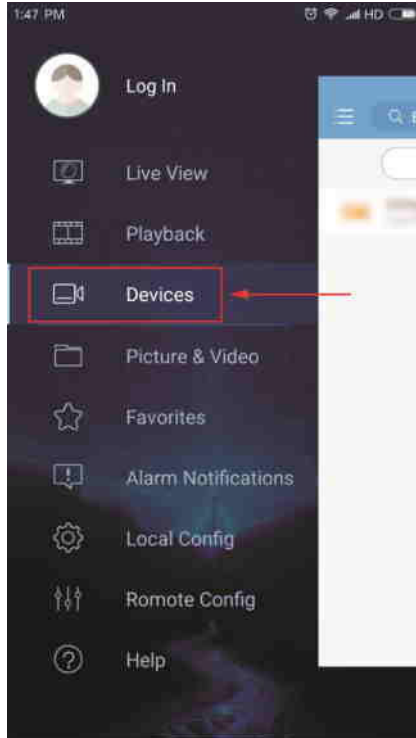


3. connect the cable with monitor, control device, power source.



**The following is the rapid use of “Guard Viewer” for Android mobile phone:**

1. when first entered, select "Device"→"Add"
2. Press Auto Search in LAN or Manual Add
3. Real-time monitoring, preview, cloud control



# Computer connection method

## Web connection

1. Open the web page, enter default IP address: http://192.168.1.88
2. Input the authorized user name and password, the default user name of the camera is admin, password is admin, The following page will be shown after correct password authentication



No.	Description
1	Menu
2	PTZ control area <b>Note:</b> This area is available for PTZ dome cameras and PTZ cameras.
3	Live view window
4	Live view toolbar

3. Click the "Download activx", POP-up as below, click run button, installation button;

4. Activx installation is completed, click "Monitor" can browse as below interface;

