



Visualint

MAXX

**High Definition Intelligent IR
IP Auto-tracking Speed Dome Camera**

User Manual



VIM-7150

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Chapter 1 Precautions

To avoid death, serious injury and or property damage, please read this manual carefully before installation. The precautions are identified by the following icons:

	
Warnings Alert the user to avoid the potential risk of death or serious injury	Cautions Alert the user to avoid the potential risk of injury or property damage



Warning:

- Please use a AC 24V power supply that meets SELV(Safety Extra Low Voltage) standards and is accordance with IEC60950-1 compliance.
- If the product does not work properly , please contact the nearest distributor or support center. ● Do not remove or modify the device in any way (unauthorized modification or repair voids the warranty and has the potential to cause death or serious injury).
- Do not expose any indoor product to outdoor conditions (rain, moisture etc).
- The installation of this product should be performed by professional staff, and must comply with any applicable local regulation.
- Please use a power protection device (surge protection).
- Please make sure the connection can withstand at least a 50 Newton vertical downward pull.



Note:

- Please check if the power supply is the correct voltage.
- When storing or transporting this device, please prevent stress, severe vibration and immersion in fluid.
- Please do not touch the image sensor or housing directly. If necessary, please gently clean with an alcohol dampened non abrasive cloth.
- Please do not touch the cooling components directly to avoid burns.
- Please do not focus the device directly into any light source (such as florescent lighting, sunlight, etc.). This will easily lead to light phenomena directly affecting the image sensor life.
- A laser beam may burn or damage the image sensor, so when using a laser please do not expose the image sensor to the laser beam.
- Please do not install this device in an area that is: damp, dusty, extremely hot, extremely cold, electromagnetic or radioactive.

- Please prevent heat buildup by keeping the surrounding area well ventilated.
- This product must be shipped in original packaging when returning to the factory for repair. If a product is not packaged in original packaging and damage in transportation occurs, the sustained damage will not be covered by warranty.
- When replacing the battery, please use batteries recommended by the manufacturer. Use of an incompatible battery will lead to damage to the device. We recommend the battery installation be performed by a qualified service technician. Please call support for assistance.
- Please do not dismantle the camera without permission from a support technician. Any seal broken or tampered without prior permission will result in voiding the warranty.
- Long-term high speed cruising may cause the slip rings to fail prematurely and can adversely affect the life of the drive belt.

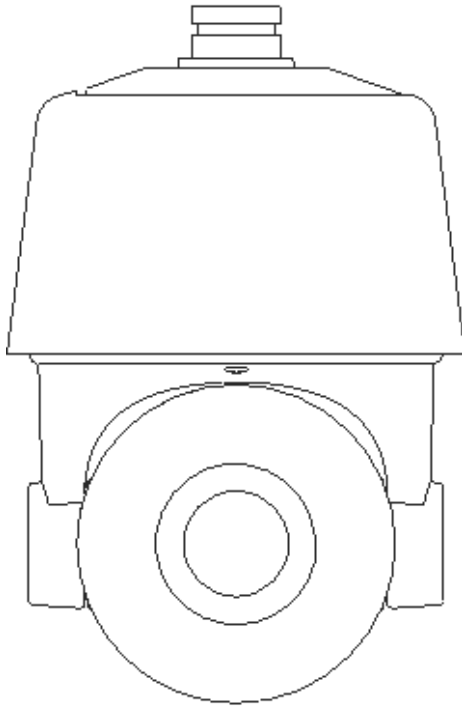
Working Environment

Environmental temperature	-40°C ~ +65°C
Moisture	<95% (Non-condensing)
Atmospheric pressure	86 ~ 106KPa
Power	AC24V/2.0A

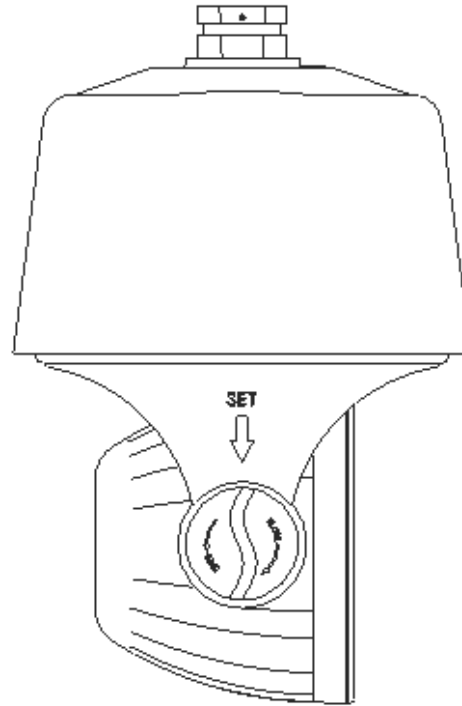
Note: Make sure outdoor sealant is used during installation to assist in the prevention of liquid intrusion.

Chapter 2 Structure

Front view



Side view



Chapter 3 Function Description

3.1 Features

1. Built-in Decoder

- HD IP Speed Dome, support for up to 30fps at 1080P.
- Supports Onvif standard.
- Data loss protection at loss of power.
- Built in RJ-45 network port.
- Support PELCO_P, PELCO_D protocols.
- Support for standby functionality.
- 225 programmable presets.
- 8 cruising tracks, each cruising track has 32 preset positions.
- 8 configurable auto scan tracks. With boundary limits and scan speed.
- On Screen Display support including date and time.
- Support for 8 alarm inputs and for 2 alarm outputs.
- Support for onboard flash storage.

2. Integrated Universal Speed Rotor

- Manual Speed:0.05°~160°/s, Max speed 240°/s
- 360° continuous pan rotation, tilt -11°~90° auto flip
- Step-less speed change, auto zoom / speed matching
- Classic double bearing structure provides stable operation
- Delicate stepping motor, stable, sensitive and attractive

3. All-weather Outdoor Design

- Sensor intelligent control
- Double housing structure
- IP66 waterproof
- Support for anti-lightning and anti-surge protection

4. Camera Module

- Support auto iris, auto focus and auto Back Light Compensation

- Minimum Illumination: 0.5Lux/F1.6 (color) , 0.095Lux/F1.6 (B/W)
- Support for 3D noise reduction and Wide Dynamic Range
- Starlight sensor provides full color images in a low light environment. (Starlight Cameras Only)

5. Network

- Support for Ethernet connectivity
- Support for remote viewing and control through a ActiveX enabled browser
- Support for Micro SD cards (Up to 64GB)
- Four tiered access control list with HTTPS support and IEEE 802.1x network access control
- Support for triple-stream, support H.264/MJPEG, support multi-level video quality configuration, and support real-time video output resolution 1080p, 960p and 720p
- Support for multiple network protocols, IPv4/IPv6, HTTP, HTTPS, 802.1x, QoS, FTP, SMTP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP / IP, DHCP.

6. IR Function

- Minimum Illumination 0Lux
- Adopt array IR, low consumption, IR distance 150m
- IR LEDs and zoom auto match
- Support for NFS
- Built-in heat treatment and defog systems
- Constant current circuit design, IR LED life >30,000 hours

3.2 Function Instruction

● Focus/Rotate Auto Match

The Speed Dome will auto adjust pan and tilt rotation speed depending on the focus distance.

● Preset Position Setting and Calling

Preset functions can store to memory a current pan/tilt angle, focus, zoom, etc.(location) The speed dome can be called to that Preset (Location). The speed dome support up to 255 preset positions.

● Auto Scan

Set the left and right boundaries. Start the auto scan and the speed dome will scan back and forth between the set boundaries.

● **Auto Cruising**

Users can program up to 32 preset positions, then set the speed dome to cruise between presets at predetermined intervals.

● **Pattern Tour**

The Speed Dome can store to memory a 180s recorded path. Once the Pattern Tour is started the speed dome will follow the recorded pattern. Support of up to 4 pattern tours.

● **Guard Location**

The dome will rotate back to predetermined preset position after a period of time.

● **Power-off Protection**

Speed dome can resume operation after power or data loss.

3.3 Specification – Dependent on PTZ model

Model 7150		HD IP IR Auto-tracking Speed Dome
Specification		
Camera	Sensor	2M:IMX222-1/2.8" CMOS
	Pixel	2.1
	Image Resolution	Color:0.5 Lux @ (F1.6,50 IRE, ICR close) B/W:0.095 Lux @ (F1.6,50 IRE, ICR open)
	Resolution	≥1000TVL
	White Balance	Auto / Manual/ATW
	GC	Auto /Manual
	S/N	>50dB
	Noise Reduction	3D&2D
	WDR	Support
	Electronic Shutter	1/25 ---1/10000s
	Day/Night	Auto ICR
	Starlight	Low Light Enhancement
	Focus	Auto / Manual

Lens	Focal Length	4.7~94mm,20X
	Zoom	3S
	Horizontal Angle	55.5°-3.0°
	Near Distance	20~1000mm
	Iris	F1.6 ~F3.0
PTZ	Horizontal Rotation Range	360° continuous rotation.
	Horizontal Speed	0.05°~160°/s (step-less speed)
	Vertical Rotation Range	11°~90°auto flip
	Vertical Speed	0.05°-120°/s
	Preset	255
	Auto Cruise	8 groups, each group can set 32 preset
	Auto Scan	Support track, horizontal, vertical, frame, whole view and random scan
	Guard Location	Link preset/scan/cruise/pattern
	Power off Memory	Support
	Position Information Display	On/Off
IR	IR Distance	150m
	IR Angle	Zoom matching, far/middle/near
Network	Image resolution	1920×1080
	Frame rate	50Hz: 25fps (1920×1080) 25fps (1280×960) 25fps (1280×720) 60Hz: 30fps (1920×1080) 30fps (1280×960) 30fps (1280×720)
	Video Compression	H.264/MJPEG
	Audio Compression	G711A/G711U/G726/ADPCM/AAC

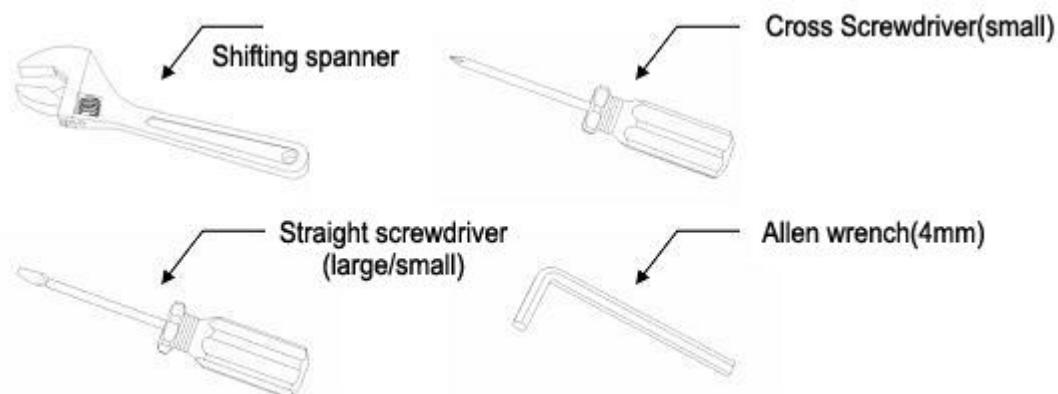
	Network Protocol	IPv4, HTTP, HTTPS, 802.1x, FTP, SMTP, SNMP DNS, DDNS, NTP, RTSP, RTP, TCP/IP, DHCP
	Preview Channel	Max 6ch
	Stream	Triple
	Authority	32 users, 4 levels: administrator, browse, browse&control, browse&control&setup
	Safe Mode	Authorized user name and password, HTTPS encryption; IEEE 802.1x network access control, IP address filtering
Interface	Audio Input	Support
	Audio Output	Support
	Network	10M/100M
	TF Card	Support
	Program	Support standard Onvif
	Browser	IE8, IE9, IE10, IE11, Chrome8+, Firefox3.5+
General	Power	AC24V / 40W max
	Working Temperature and Humidity	-40 °C -65 °C Humidity<90%
	Protection Level	IP66, TVS 4000V lightning protection
	Dimensions	Φ230 (mm) *350 (mm)
	Weight	4.8kg

Chapter 4 Installation Guide

4.1 Preparation

1. Tools:

Please prepare the necessary tools according to specific situations



2. Check installation space. Check the planned installation location so that the speed dome has enough space. The wall must be thick enough to install the expansion screws and be able to bear 4 times the weight of the dome camera. Speed dome cameras work best mounted at least 3 meters off the ground.

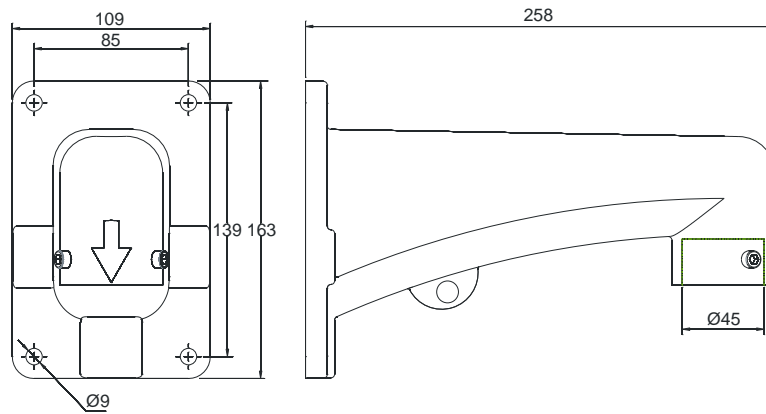
3. Please keep the original packaging shipped with the speed dome. The speed dome will need to be returned in original packaging should any unforeseen issue arise.

★Note: Use the original packaging when shipping the speed dome. Damage due to the result of using non-original packaging will not be covered under warranty.

4.2 Installation

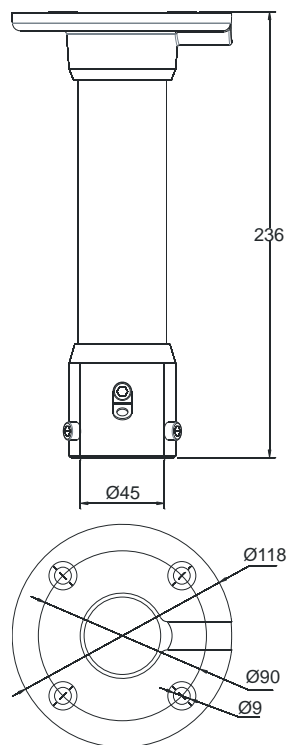
The speed dome supports four types of installation:

1: Wall mount and dimensions:



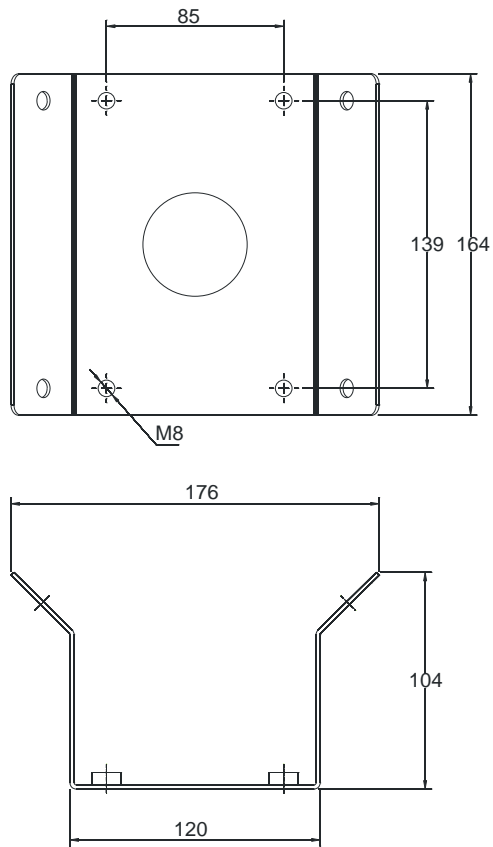
Wall Mount Bracket Dimensions

2: Pedant mount and dimension:



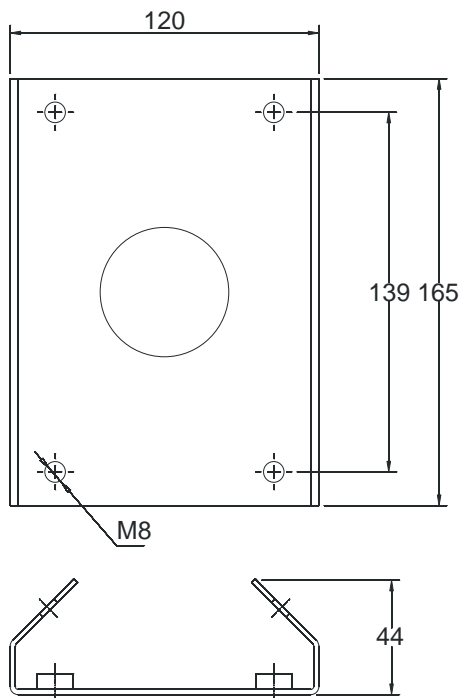
Pedant Mount Bracket Dimensions

3: External corner and dimensions



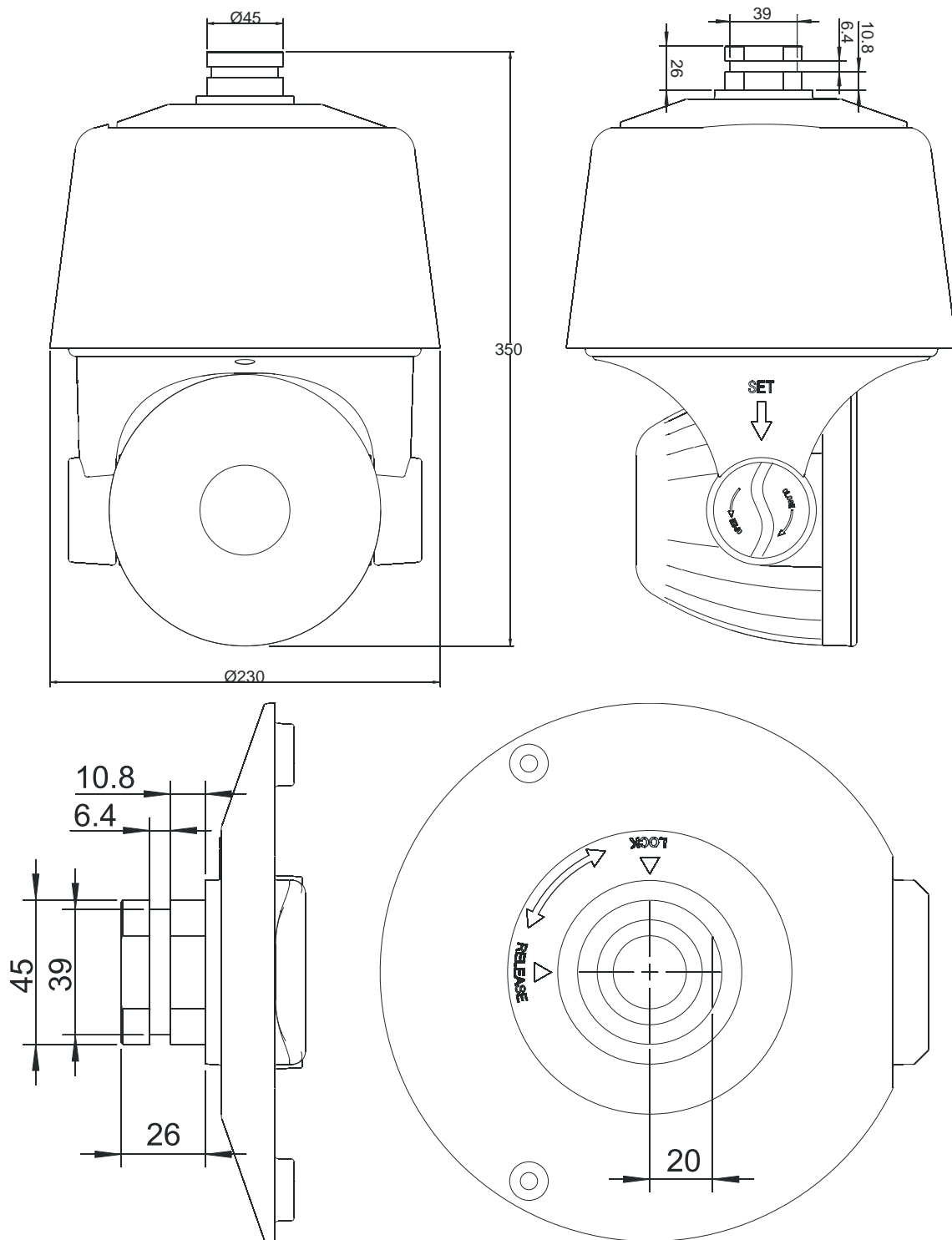
External Corner Bracket and Dimensions

4: Pole mount and dimensions:

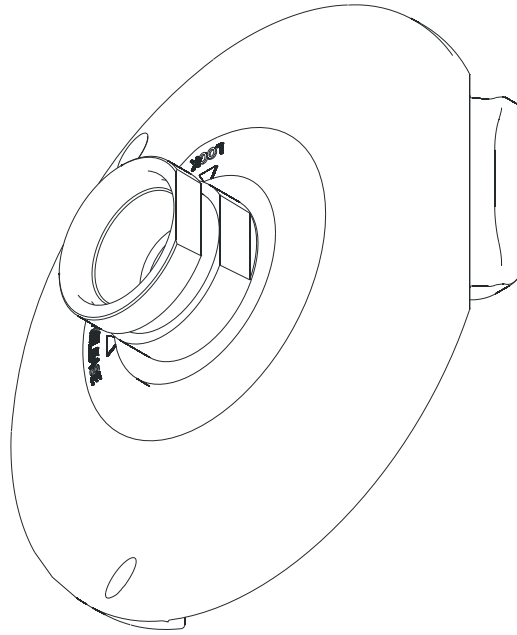


Pole Mount Bracket and Dimension

4.3 Interface Instructions



Speed Dome and Bracket Interface Dimensions



Speed Dome and Bracket Interface Perspective Picture

4.4 Installation Procedures (Wall Mount as Example)

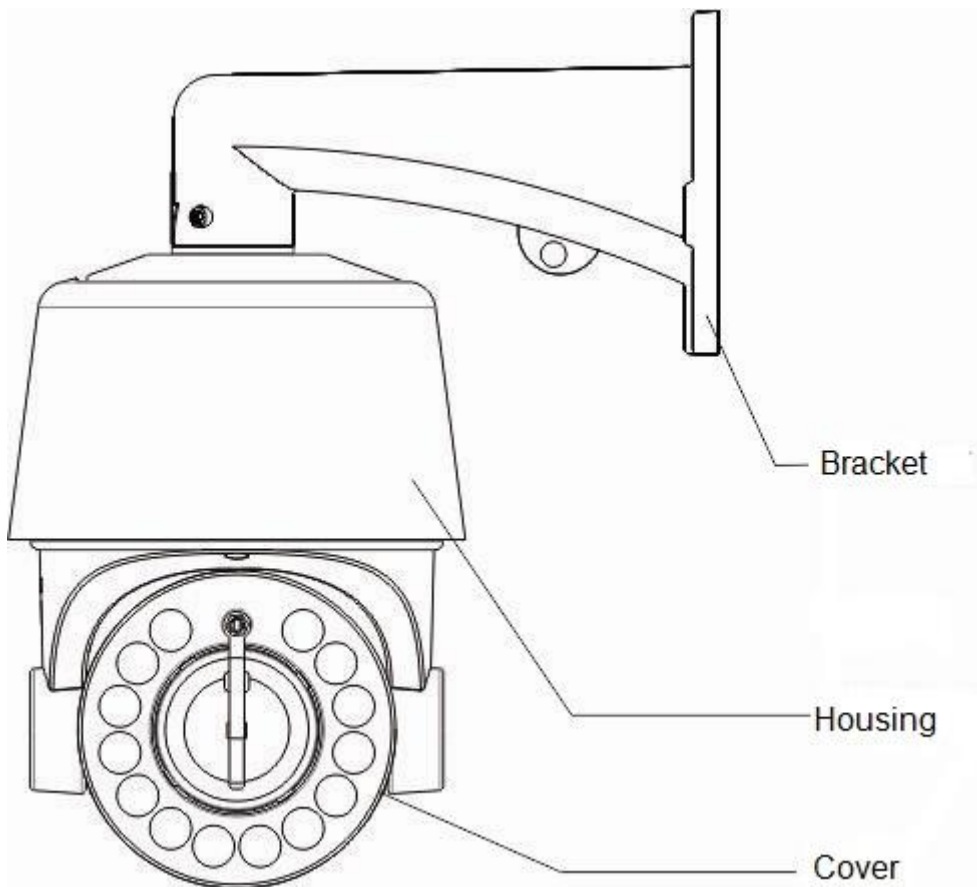


Figure 1

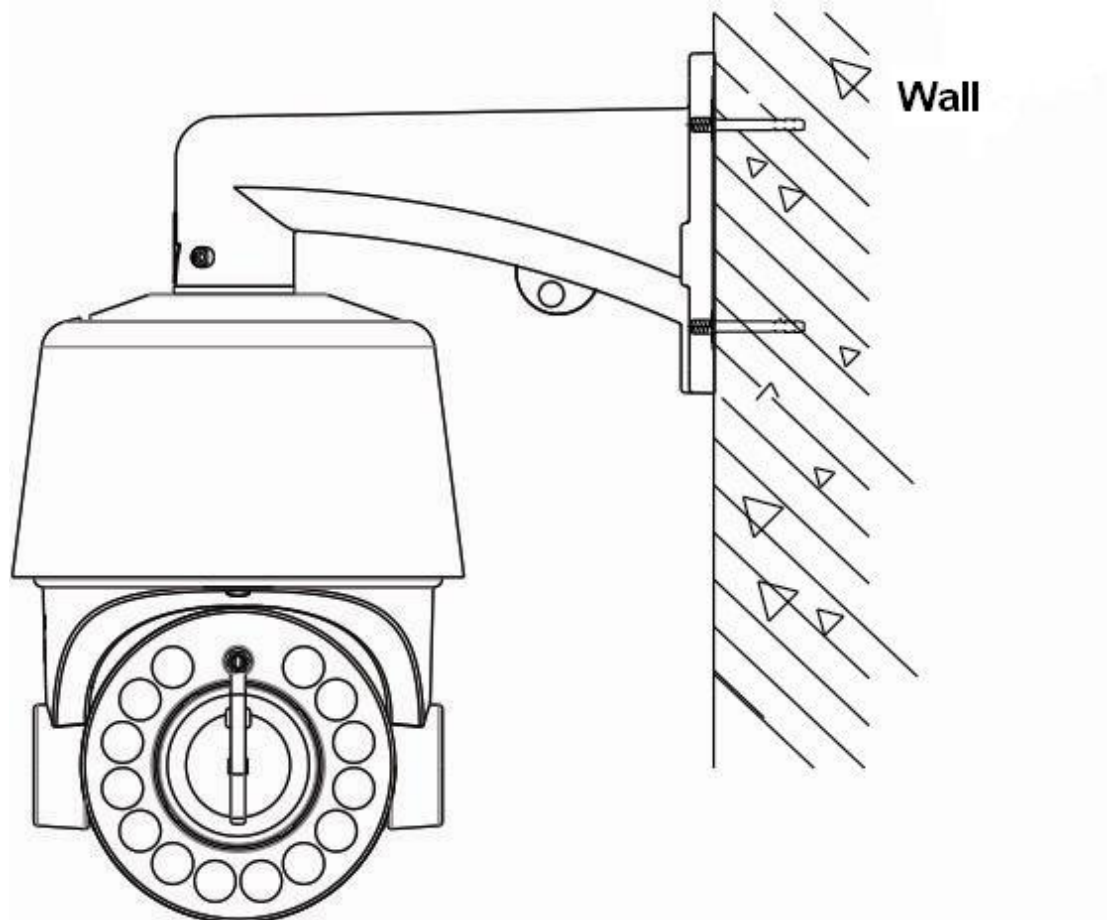


Figure 2

Steps:

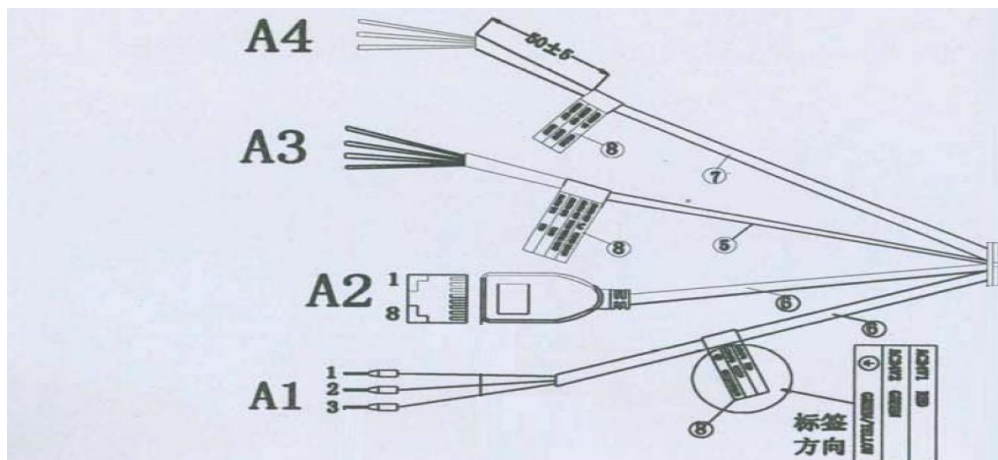
Unpack the wall mounting bracket and speed dome. Thread the cables through the bracket and set aside. Align the screw holes of speed dome to that of bracket, and use M6 screws to affix the speed dome to the wall mounting bracket (as Figure 1)

Mark the drill hole positions on wall with a marker for bracket installation. Drill the holes and install wall anchors, then fasten the bracket with M8 screws (as Figure 2)

Precautions:

- 1) The wall must have sufficient load-bearing capacity. (4 times the weight of the speed dome)
- 2) For outdoor installations be sure to completely seal the connections and any grommet / bulkhead. Wiring must be inside the wall mount bracket in such a way to minimize external corrosion. Water intrusion due to lack of sufficient sealant is not covered under warranty.

4.5 External Cable Connection Instruction



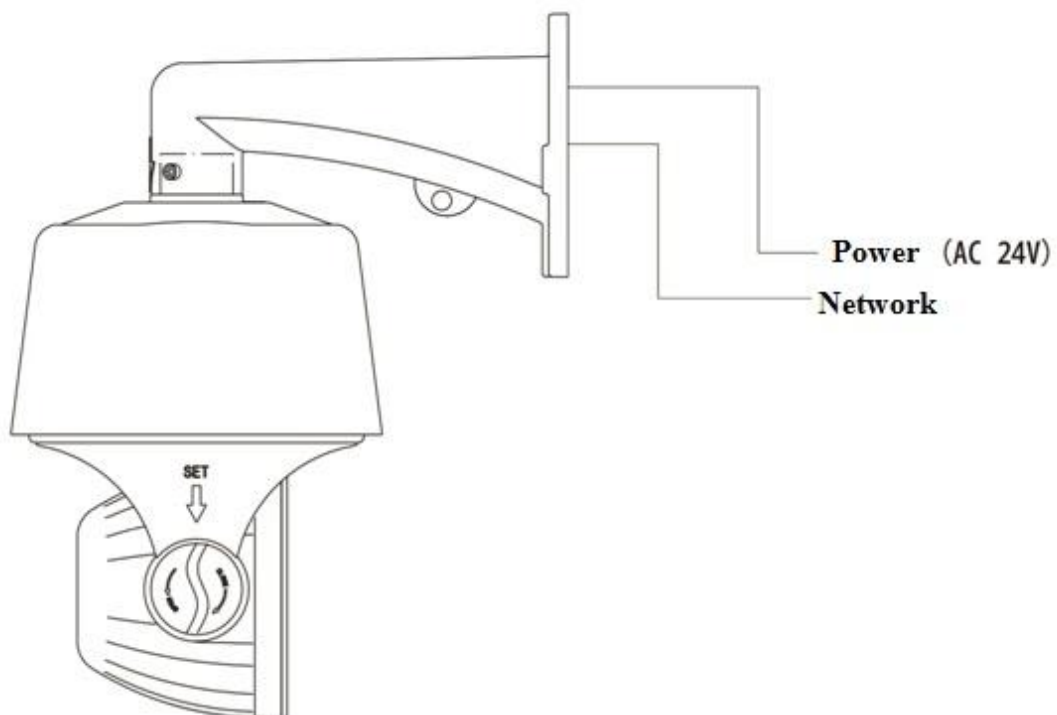
A1: Power Cable: AC / DC 24V

A2: Network: Connect to Ethernet device.

A3: Audio Cable: Audio input and output (mic and speaker)

A4: ALM IN: Connect up to 8 external devices

A5: ALM OUT: Connect up to 2 external devices



Note: Please refer to the labels on the cables

Chapter 5 WEB Browser Interface

5.1 System Requirement

The IP speed dome web interface supports Windows 7, 8.1 and 10, and internet explorer versions 8 and higher. (Windows 10 (edge) browser not supported)

- (1) Display resolution: 1920*1080 or higher, color: High Color (32-bit).
- (2) Dual core or better Processor with a minimum of 2 gigabytes of RAM.

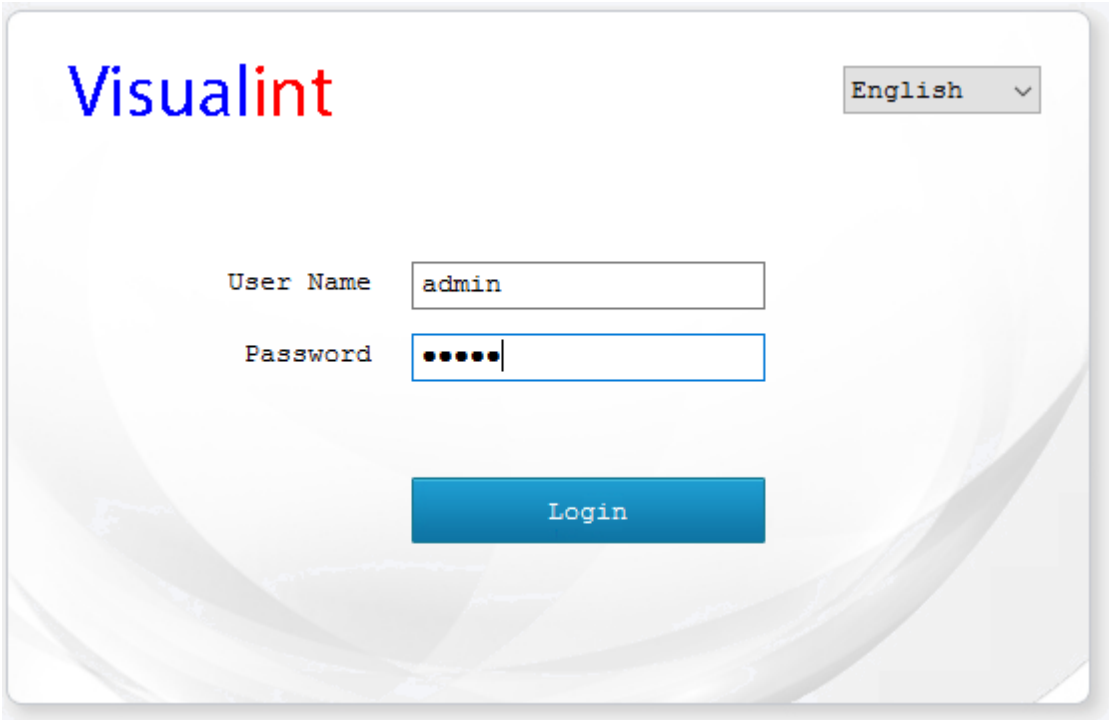
5.2 Built-in Web Instruction

When using the Visualint Maxx products for the first time, an ActiveX control is needed to be installed. Make sure that the program is ran as an administrator. Note: Please use the Internet Explorer (8 or higher) browser of windows. (Edge is not supported)

- (1) Login to IP address and click the link to download the ActiveX component.
- (2) Once the ActiveX component is downloaded click **【Run】** to install

5.3 Log in

Camera is shipped set to DHCP, please make sure computer and IP camera are in the same IP address range. (subnet) You will need to download and install the ActiveX plug-in when logging into the camera webpage for the first time.

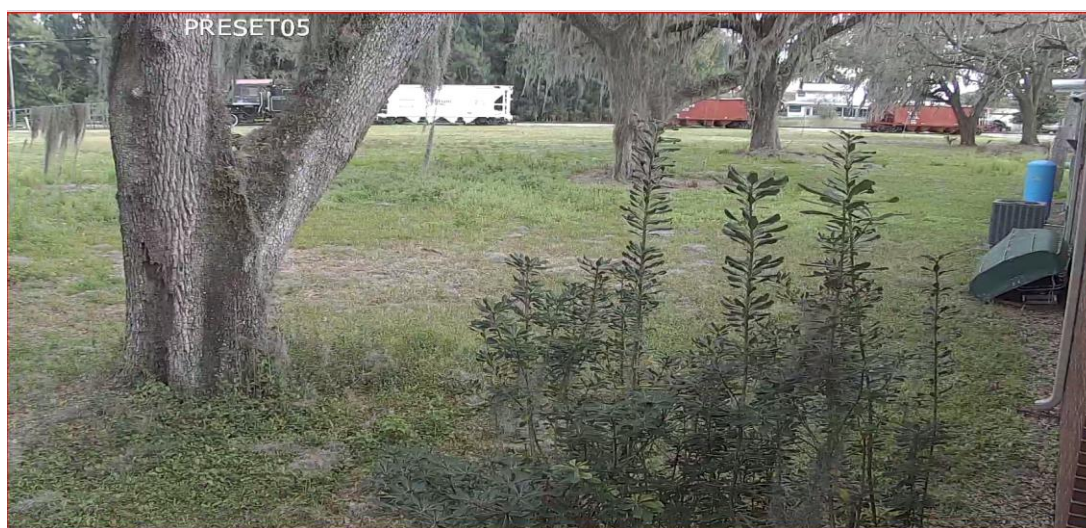


5.4 Preview

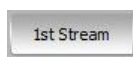

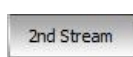

Descriptions of the live view page



5.4.1 Live View



Descriptions of live view parameters and toolbar

Icon	Description	Icon	Description
	Main stream		Manual recording on / off. Default storage path is D:\NetVideoBrowser\
	Sub stream		Manually capture snapshot. Default storage path is D:\NetVideoBrowser\

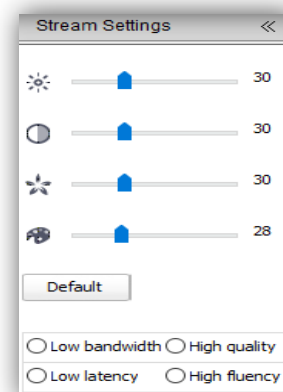
	Third stream		Talk down on/off
	Fixed Aspect Ratio		Full screen
	Wide Screen Aspect Ratio		Audio on, volume adjustment and mute

Note When stream type is **【Pure Video】** , the audio is disabled.

5.4.2 Stream Settings

(1) Click **<Default>** to restore the default settings.

(2) According to network bandwidth, choose between preview modes: **<Low bandwidth>**, **<Low latency>** to **<High quality>**, and **<High fluency>**



5.4.3 PTZ control

(1) Move speed dome in any direction by using the directional arrow


keys. Click  enable auto scan

(Default auto scan is 360° auto scan with a 45° Tilt)

(2) **<Zoom>**Zoom in /Zoom out

(3) **<Focus>** Manual Focus.

(4) **<Iris>**Manually adjust iris.

(5) Set PTZ speed 


(6)  Activate Wiper

(7)   Preserved for future functions

(8) Defog:  , HLC:  , WDR: 

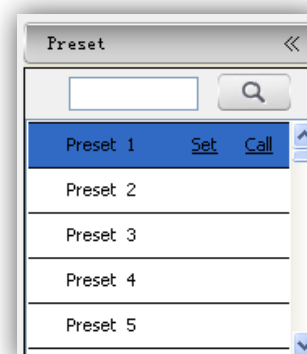


5.4.4 Preset position

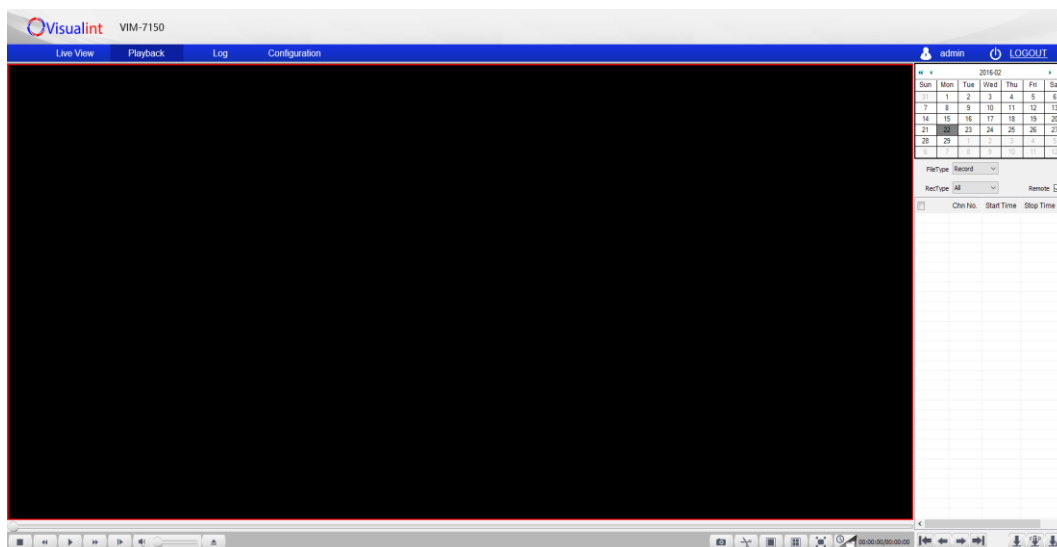
Click  to Search for the target preset number

Click **<Set>** to Setup preset position

Click **<Call>** to Call the preset position

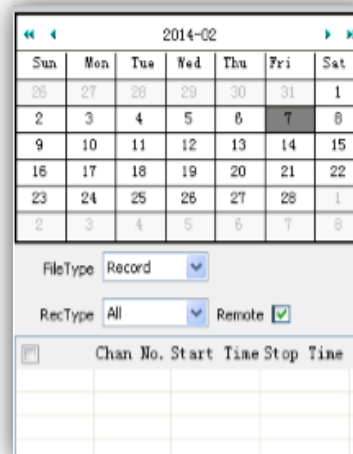


5.5 Playback













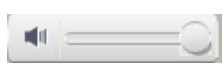



5.5.1 Search recording files

- (1) Select the date in the calendar
- (2) Select your **File Type**: <Record> or <Picture>
- (3) **Rec Type**: Select targeted file type video/picture.

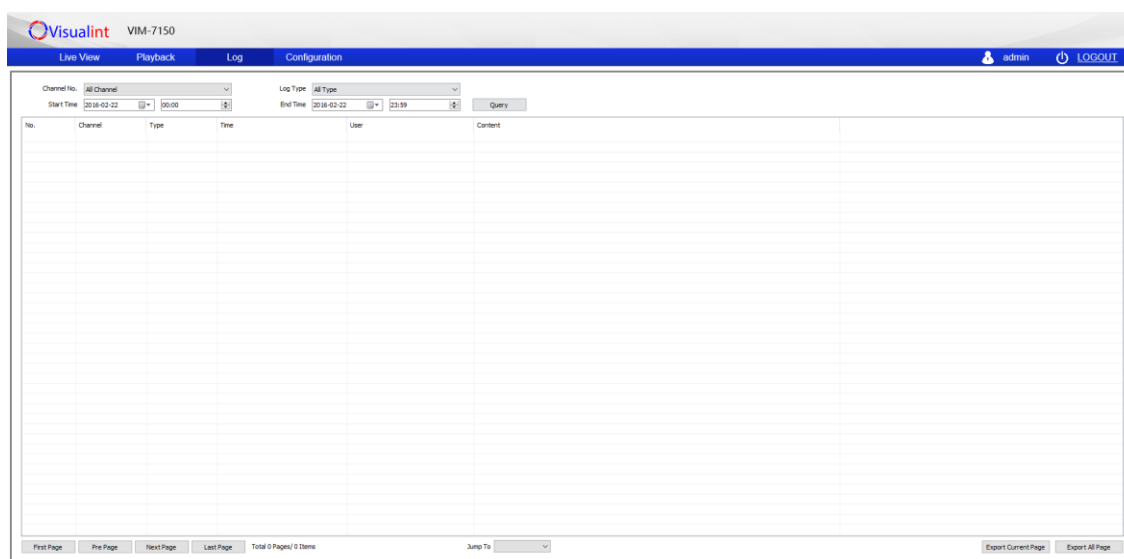


5.5.2 Descriptions of playback toolbar

con	Description	Icon	Description
	Stop recording		Clip video files, and default storage path is D:\NetVideoBrowser\
	Speed down in 1/2X,1/4X,1/6X and 1/8X		Single screen
	Play		Playback in 2x2 grid at the same time
	Speed up in 2X,4X,6X and 8X		Full Screen
	Playback by frame		Download recorded files

	Audio on, volume adjustment and mute		Download files into FTP server
	Capture, and default storage path is D:\NetVideoBrowser\ 		Preview download status

5.6 Log



- (1) **<Channel No>** Select target channel.
- (2) **<Log type>** All / system / warning / alarm / operation / user / others.
- (3) **<Start time>** Select start date and time.
- (4) **<End time>** Select end date and time.
- (5) **<Query>** Runs Query and displays log.
- (6) Check logs by **<First page><Pre page><Next page><Last page>** and **<Jump to>**target page.
- (7) **<Export current page>** to export the current log page. Default location: D:\NetVideoBrowser.
- (8) **<Export all page>**export all log pages from the query. Default location: D:\NetVideoBrowser.

Chapter 6 Configuration

NOTE*: All settings will be enabled in 3 seconds after <save>.

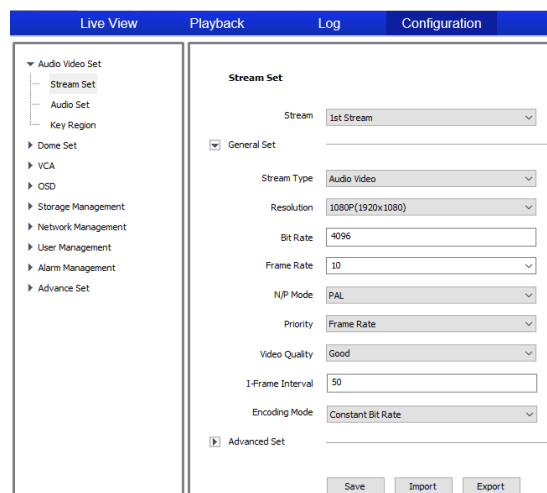
6.1 Audio Video Set

6.1.1 Stream Set


Stream: Select the target Stream number.

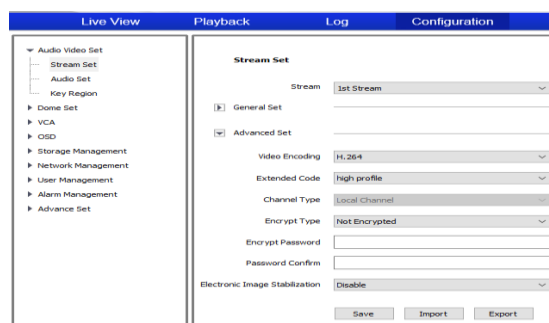
General Set

- (1) **Stream Type:** <Audio Video>/<Pure Video>
- (2) **Resolution:** <4CIF/VGA/720P/960P/1080P
- (3) **Bit Rate:** Displays onscreen the stream rate for the video, unit is Kbps. By choosing <Constant Bit Rate>, the <Bit Rate> represents actual rate of the stream. When <Dynamic code rate> is chosen, the <Bit Rate> represents the max stream rate, ranging from 32 ~ 8000Kbps.
- (4) **Frame Rate:** Options for 1/5/10/15/25/30fps.
- (5) **N/P Mode:** Select either <PAL> or <NTSC>.
- (6) **Priority:** Select either <Frame Rate> Fluency first or <Quality> Video quality first
- (7) **Video Quality:** Only active when <Dynamic code rate> is enabled. Set the **Video Quality:** <Best>, <Better>, <Good>, <Fair>, <Poor>. The better the quality the more stream and bandwidth utilization.
- (8) **I Frame Rate:** Set the interval time for between two I frames. (I frame is the key frame in the video stream)
- (9) **Encoding Mode:**
 <Constant Bit Rate> Fixed stream and bandwidth usage.
 <Dynamic Bit Rate> Stream will vary based on changes in video image, takes up less bandwidth when no changes are detected.



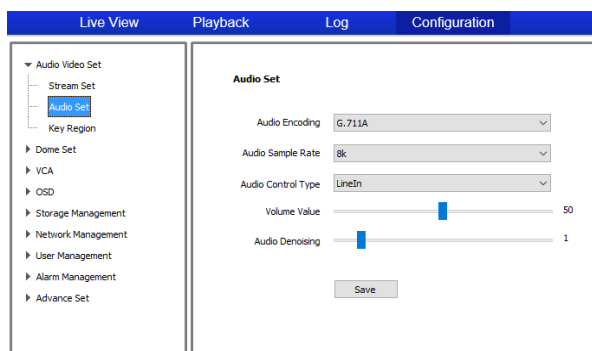
Advance Set

- (1) **Video Encoding:** <H.264> and <Motion JPEG>
- (2) **Extended Code:** Only available when <H.264> is selected, Choose between: <baseline>, <main profile>, <high profile>.
- (3) **Encrypt Type:** <Not Encrypted> and <AES>
Add password for the channel.
- (4) **Encrypt Password:** Enter password.
- (5) **Password Confirm:** Confirm the password.
- (6) **Electronic Image Stabilization:** <Enable> and <Disable>
- (7) Click <Save> to save changes. Wait for the  Saved confirmation dialogue popup.
- (8) **Export:** Click <Export> to backup the configuration file. Default location is: D:\NetVideoBrowser\VideoParam.dat.
- (9) **Import:** Click <Import> to import a configuration file. (Must be same model camera)



6.1.2 Audio Parameter

- (1) **Audio Encoding:** Select audio compression type.
- (2) **Audio Sample Rate:** Select <8k>, <32k>, or <64k>.
- (3) Use the sliders to adjust Volume and Gain/De-noising.
- (4)**Save:** Click Save to enable the setting.

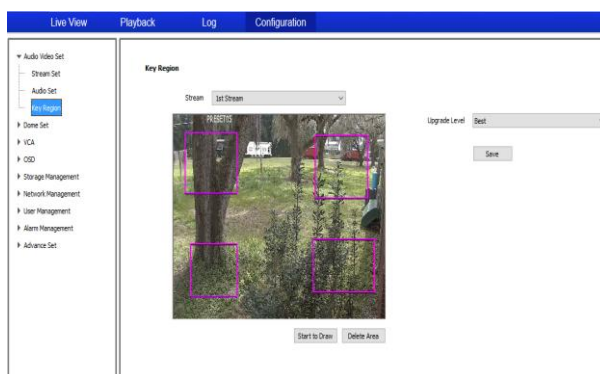


Note: some models need reboot after saving the setting.

6.1.3 Key Region

Key Region: Draw up to 4 regions to adjust the I-frame interval update speed. Allowing frames to update faster in the defined region(s).

- (1) **Draw Region:** Use mouse to draw the key region(s) on the video.
- (2) Click **Save** to enable the Key Region(s)
- (3) **Delete Region:** Delete the drawn region(s).



6.2 Dome Set

6.2.1 Image Set

Setting the video image parameters.

Image Presets

Provides up to 8 video templates for different video parameters. Each template can be revised, renamed and saved.

- (1) **Current:** Select Preset template.
- (2) **Name:** Displays the name of the current template.

Image Adjustment

Adjustment settings range from 0 to 255.

Exposure Set

Select Auto/Manual. Manual allows adjustment of Exposure, Aperture and Gain.

Focus Setting

Auto/Semi-Auto/Manual.

Adjustment for Minimum Focus Distance.

Day/Night Switch

Smart IR On/Off

Day/Night Auto/Night/Day

Sensitivity Low/Middle/High



Backlight Settings

- Back Light Compensation On/Off
- Wide Dynamic On/Off
- Level Low/Middle/High

White Balance

Auto, Manual and ATW.

When Manual is selected, Use the provided slider bars to set the white balance, R stands for red gain and B stands for blue gain.

Image

- Light Suppression On/Off
- Defog On/Off
- Digital Denoise Close/Ordinary Mode/Expert Mode
- Denoise Level Range from 1~255

Click button **Default** to recover the default settings for the target template.

Image Settings can be Exported and Imported into other VIM-7150 Speed Dome PTZs.

6.2.2 Schedule

Define different schedules for each video image parameter template. Supports up to 8 different time periods.

- (1) Select the check box to enable the time period.
- (2) Select template for each time period.
- (3) Enter the length of each time period. Colors correspond to different templates.
- (4) Click **Save** to save and enable.



6.2.3 Basic Set

6.2.3.1 Basic

Auto Flip Enable

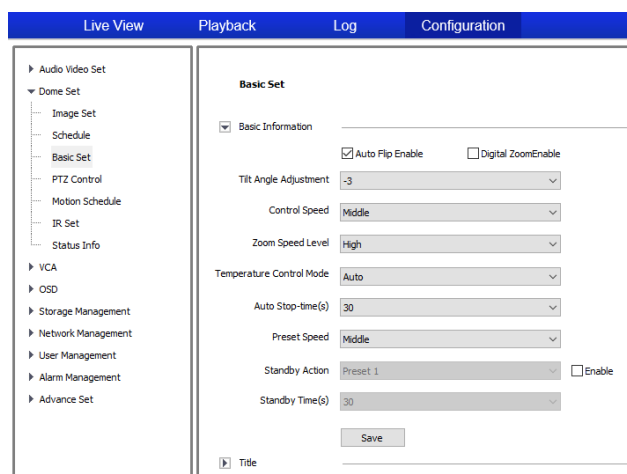
Check the box to Enable for 0 ~ 180° Auto Flip. Uncheck the box to Disable Auto Flip.

Tilt Angle Adjustment

Set the tilt angle for the camera. Tilt angle is adjustable from 0 to -11 degrees.

Control Speed

Set the limit for the max operation speed. Settings are High/Medium/Low. High =240°/s, Medium =160°/s, Low =80°/s.



Zoom Speed

Set the limit for the max zoom speed.

Settings are High/Medium/Low.

Auto Stop-time(s)

Set the time period for the speed dome camera to pause PTZ movement since the last operation before starting a new operation.

Settings are 5/15/30/60s.

Preset Speed

Set the preset speed for speed dome camera,

Settings are high/medium/low.

Temperature Control Mode

<Auto> and <OFF>

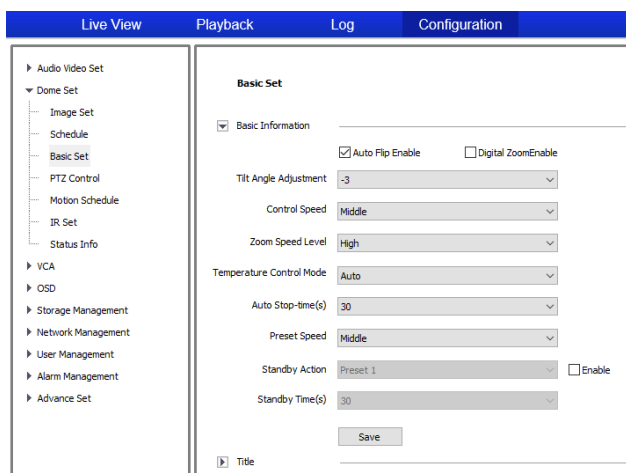
Standby Action

Define the action of the speed dome camera when it is idle. There are 4 options preset#1, scan#1, cruise#1 and pattern#1. These are set in the PTZ Control Section of the **Dome Set** menu.

Standby Time(s)

Define the idle time before the standby action is triggered. The available options are 30s,60s,300s,600s and 1800s for idle time.

Click **Save** to enable all the settings.



6.2.3.2 Title

Title Type

Types include: Preset, Scan, Cruise, Pattern and Zone No.

Title No.

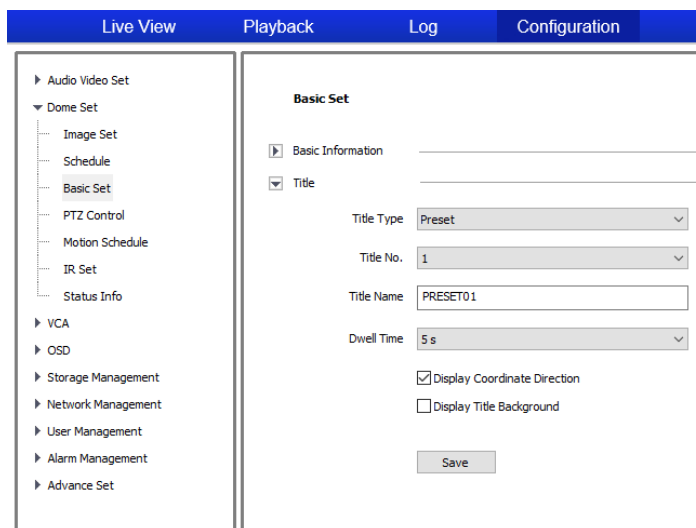
Preset number range from 1-32. Scan, Cruise, Pattern and Zone Number ranges are from 1-8.

Title Name

Set title name. (Max 15 characters)

Dwell Time

Amount of time the Title displays on the screen. Options are 2s/ 5s/ 10s/ close (off) / continued (on).



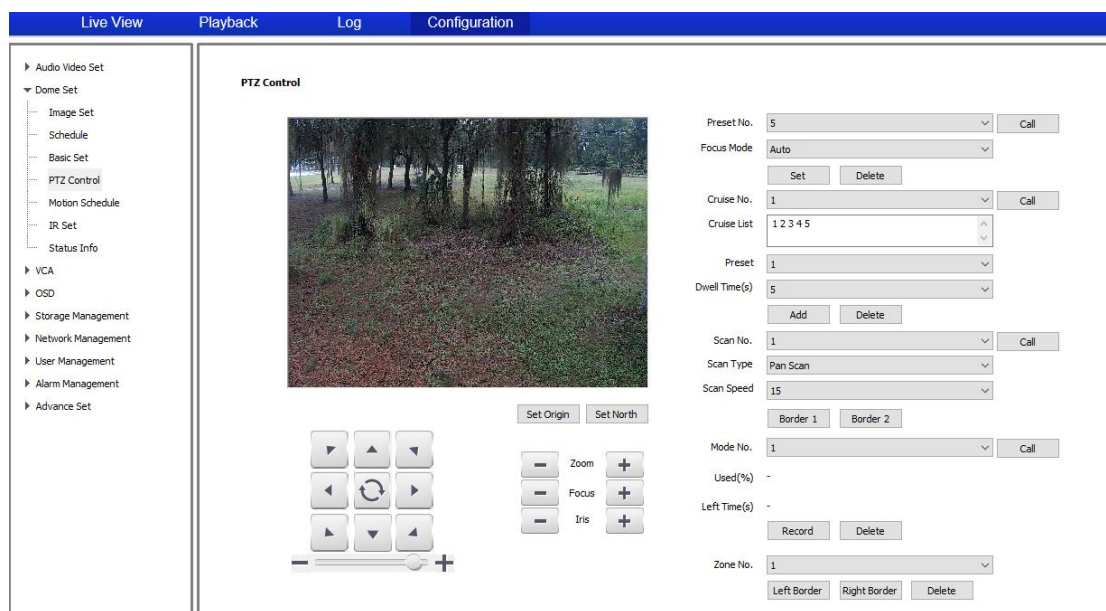
Display Coordinate Direction

Check the box to display the movement coordinates on screen (OSD).

Display Title Background

Check the box to display title on screen (OSD).

6.2.4 PTZ Control



6.2.4.1 Preset

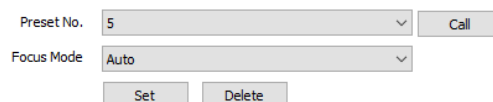
Preset No. This speed dome camera supports up to 220 presets. Number ranges from 1-64 and 100-255.

Focus Mode Adjust the focal mode for each preset from auto to manual.

Set Move the speed dome camera to the target position and press **Set** to save as the preset position set in **Preset No.**

Delete Click to delete the target **Preset No.**

Call Moves the speed dome camera to the set **Preset No.**



6.2.4.2 Cruise

Cruise No. This speed dome camera supports 8 cruises, numbers range from 1-8

Cruise Displays the current list of presets in the current order of **Cruise No.** sequence.

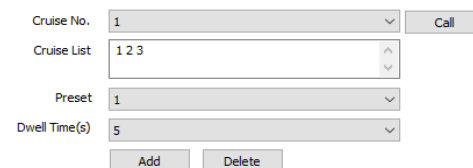
Preset Available preset numbers are 1-64 and 100-255, click **<Add>** to add the preset into **Cruise** list.

Dwell Time(s) Set interval time between presets, range is from 1-60 seconds.

Add Adds the presets into **Cruise** list.

Delete Click to delete the last **Preset No.** from the cruise list.

Call Starts the **Cruise No.** Interrupt the cruise by moving the speed dome camera or by Calling another **Preset No.**, **Cruise No.**, **Scan No.**, **Mode No.** or **Zone No.**



6.2.4.3 Scan

Scan No. This speed dome supports 8 Scans, numbers range from 1-8.

Scan Type This speed dome has 6 default scans. These scans are Pan Scan, Auto Scan, Frame Scan, Random Scan, Tilt Scan and Panorama Scan.

Scan Speed Set the speed dome camera speed for each scan. Speed range is 1-30

Border 1 Click to set the Left border of the Scan.

Border 2 Click to set the Right border of the Scan.

Call Starts the **Scan No.** Interrupt the cruise by moving the speed dome camera or by Calling another **Preset No., Cruise No., Scan No., Mode No.** or **Zone No.**

6.2.4.4 Mode No.

Mode No. This speed dome camera supports 8 mode tours, numbers range from 1-8. Record a customized scan. Move the speed dome in the desired pattern.

Used(%) Displays the percentage of used operations remaining in the mode record process.

Left Time(s) Displays the time remaining in the mode record process. (The speed dome camera supports up to 180s)

Record Starts the **Mode No** tour recording. Use the PTZ control buttons to move the speed dome camera in the desired pattern. Click **Stop** to stop recording the **Pattern No.** and end the recording.

Delete Click to delete the target **Pattern No.**

Call Starts the **Pattern No.** Interrupt the cruise by moving the speed dome camera or by Calling another **Preset No., Cruise No., Scan No., Mode No., Pattern** or **Zone No.**

6.2.4.5 Zone No.

Zone No. The speed dome camera supports 8 zones, range from 1-8.

Left Border Move the speed dome camera to the target position and set it as the left border of the zone.

Right Border Move the speed dome camera to the target position and set it as the right border of the zone.

Delete Click to delete the target zone.

Set Origin Move the speed dome camera to the target position and set it as original point of the coordinate.

Set North Move the speed dome camera to the target position and set it as north direction of the coordinate.

6.2.5 Motion Schedule

This speed dome camera supports up to 8 time periods. For each set time period an Action and Action No. can be assigned. Time periods include day of the week and start/end time.

Enable Click to enable the Motion Schedule.

Start Time Set the start time.(24H Format)

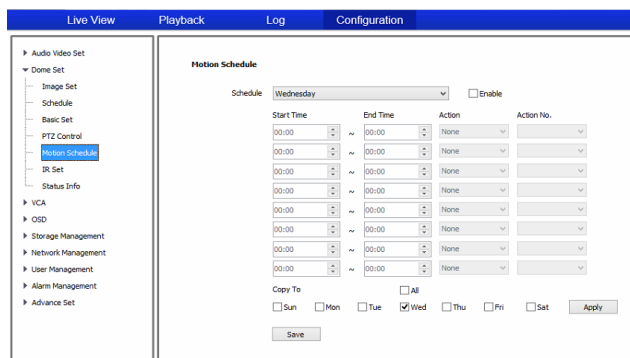
End Time Set the end time. (24H Format)

***Action** Use the dropdown to select the desired action in this time period.

***Action No.** Use the dropdown to select the desired action number.

All Click to enable every day in a week, including Saturday and Sunday.

Apply Click to copy the configuration to the selected day(s). Click **Save** to save all the settings.



*Each **Action** or **Action No.** represents the Preset, Cruise, Scan and Modes set in the **PTZ Control** Dome Set Menu.

6.2.6 IR Set

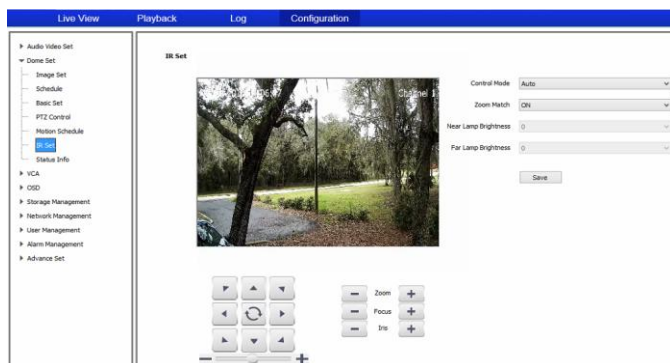
Control Mode Auto, Manual Open, Manual Close.

Zoom Match When set to ON, the brightness and power consumption of the IR LED will be matched with the camera zooming distance automatically.

Near Lamp Brightness Disable zoom match, set the Near lamp brightness level, range from 0 to 10.

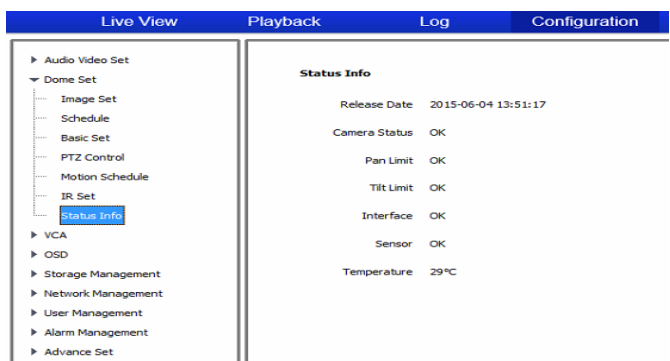
Far Lamp Brightness Disable zoom match, set the far lamp brightness level, range from 0 to 10.

Click **Save** to save all the settings.



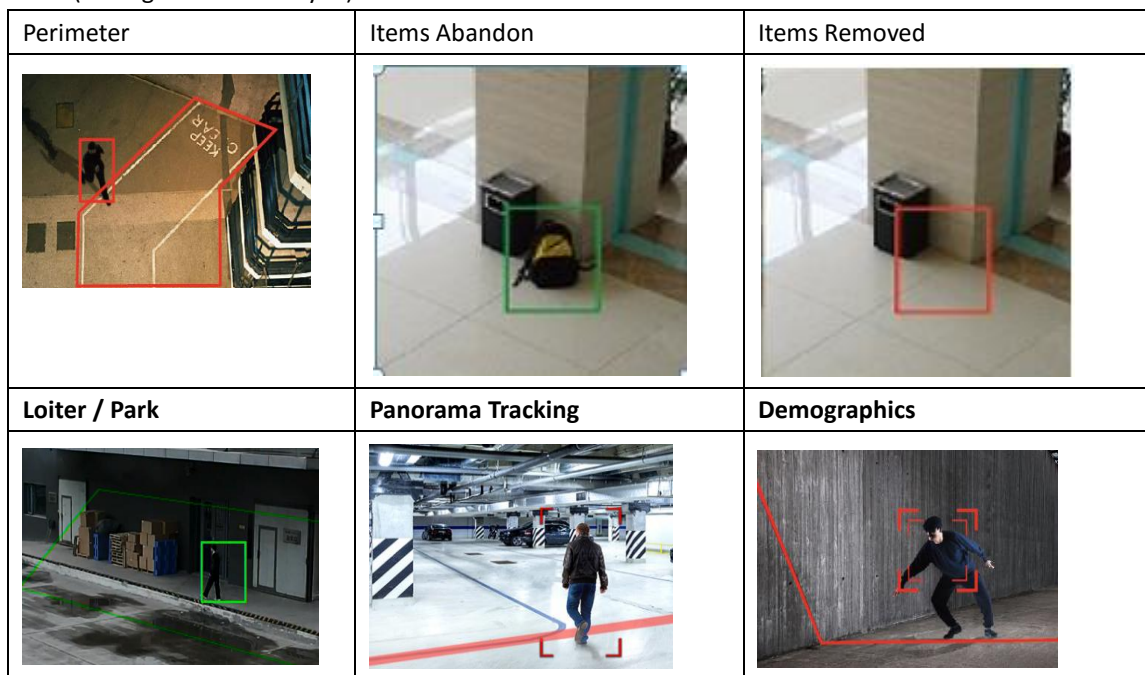
6.2.7 Status Info

Displays the current status of various components and features



6.3 VCA

VCA(intelligent video analysis) includes 8 functions:



Notes: Tripwire and Perimeter are able to activate PTZ auto-tracking.

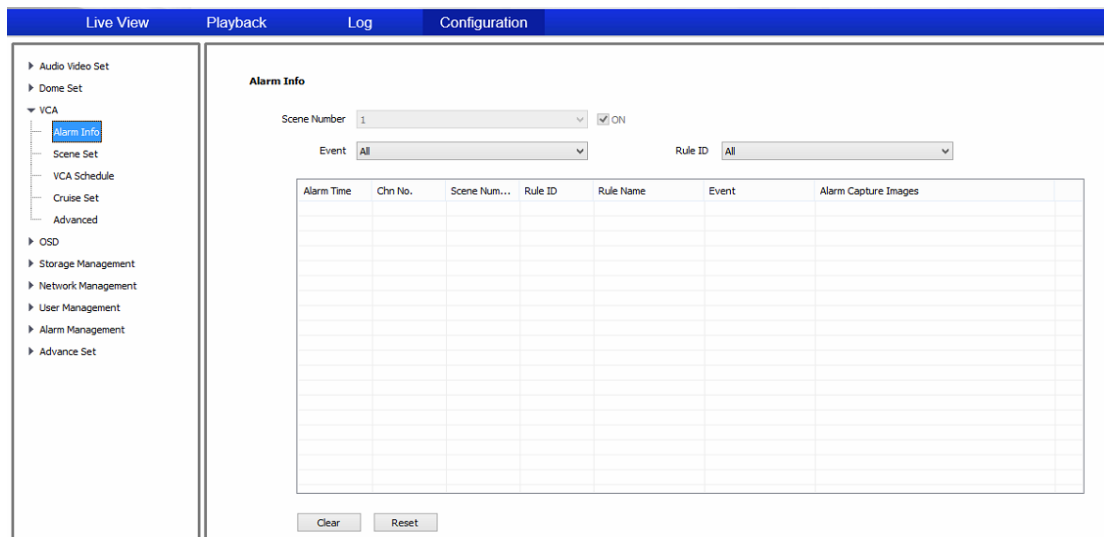
Specify detail operation of VCA in <Scene Set>, then setup <VCA Schedule> with the appropriate Link Type. Dependent on what Link Type was chosen navigate to the corresponding menu and set the Link Type parameters. Link Types include: Alarm Output, Link Rec, Link Snap and Link Visualint Event (HTTP)

6.3.1 Alarm Info

The Alarm information sub menu displays triggered Alarms in real time. When an Alarm is triggered the relevant information appears.

Reset Clear alarm numbers of the VCA rule.

Clear Delete all the alarm information in list.



6.3.2 Scene Set

Behavior Analysis Check to enable behavior analysis, including Tripwire, Perimeter, Items Abandon, Items Lost, Loiter.

Note: If **Linkage Tracking** is checked, then Tripwire / Perimeter analytic can activate auto-tracking.

Click **Save Scene** to activate settings.

Arithmetic Support for up to 8 rules for each scene.

Check the **Valid** box to activate the rule.

Rule Name Enter the name you would like to assign to this Rule.(max to 16 characters).

Rule Clear Click **Rule Clear** to clear current rule.

6.3.2.1 Event Set

After checking Behavior Analysis, the corresponding Behavior Arithmetic is displayed. Be sure to check the **Valid** box to enable the corresponding rule.

(1) Event Set--- -- Double Tripwire/Tripwire/Perimeter

Click the **Start to Draw** button to start drawing your Tipwire / Perimeter on the scene. Click once to set way point and Double - Click to stop drawing way points. **Line Clear** Use the button to clear the drawn **Tripwire / Perimeter**.

Two-way Alarm When a **Tripwire** is selected, choose the "two-way alarm" to trip the alarm in both directions.

Percentage represents the percentage of screen width to trigger the alarm (+/- 10%).

If setting up a **Perimeter** detection zone, be sure to set the **Detect Mode**. Options are: Intrusion, Enter and Leave

Show Alarm Count Displays onscreen the total alarm count.

Show Alarm Rule Displays the defined tripwire / perimeter on video.

Click **Save** to save and enable the VCA setting(s).

Linkage Tracking is only **available** when you check **Behavior Analysis** and a tripwire or a perimeter rule has been set.

Arithmetic Choose **Intelligent Tracking**

Longest Track Time(s) Set (seconds) how long the PTZ will follow the object before going back to the standby position.

Speed Dome Enter the value how high (meters) the PTZ is installed.

Static Tracking Set (seconds) how long the PTZ will attempt to re-acquire the object before the PTZ will go back to the standby position.

Limit Set the border of the tracking area. When the object goes beyond the area, the PTZ will stop tracking the alerted object.

Enable Limit Check to enable the tracking area borders.

Enable Anti-blocking Check to enable the Anti-blocking Alarm.

(2) Event Set --- Items Abandon

Click the **Start to Draw** button to start drawing your target area on the scene. Click once to set way point and Double - Click to stop drawing way points. Use the **Line Clear** button to clear the drawn detection zone.

Alarm Time(s) represents the amount of time(s) before alarm is triggered.

Show Alarm Count Displays onscreen the total alarm count.

Show Alarm Rule Displays the detection zone.

Click **Save** to save and enable the VCA setting(s).

(3) Event Set --- Missing Object Detection

Click the **Start to Draw** button to start drawing your target area on the scene. Click **Once** to set way point and **Double** - Click to stop drawing way points. Use the **Line Clear** button to clear the drawn detection zone.

Show Alarm Count Displays onscreen the total alarm count.

Show Alarm Rule Displays onscreen the detection zone.

Click **Save** to save and enable the VCA setting(s).

(4) Event Set --- Loiter/Park

Click the **Start to Draw** button to start drawing your target area on the scene. Click **Once** to set way point and **Double** - Click to stop drawing way points. Use the **Line Clear** button to clear the drawn detection zone.

Alarm Time(s) Amount of time to activate alarm.

Percentage (Park) represents the percentage of screen width to trigger the alarm (+/- 10%). **<Min Distance>** smaller value, higher sensitivity.

Speed Threshold represents the percentage of screen width per second.

Sensitivity (Loiter) Adjusts the Sensitivity of detection. Larger the value the more sensitive the detection.



Min Distance represents the minimum distance for the detection zone. Larger the value the further the detection zone is from the camera.

Show Alarm Count Displays onscreen the total alarm count.

Show Alarm Rule Displays onscreen the detection zone .

Click **Save** to save and enable the VCA setting(s).

6.3.3 VCA Schedule

Setup when the analytics will be active.

(1) **Channel No.** Select the target channel

Check the **VCA Enable** box to activate the VCA for the current channel.

(2) **Rule ID, Rule Name, Event and Schedule** will all populate from the settings set in the Scene Set / VCA Schedule sub menu(s).

(3) Check the **Enable** box to enable the **Scene Number** and **Event**.

(4) Use the drop down to select the **Schedule** for the selected **Event**. Upto 4 time periods are selectable in each day.

All Click to enable every day in a week, including Saturday and Sunday.

Apply Click to copy the configuration to the selected day(s).

Click **Save** to save all the settings.

(5) Select the desired **Link Type / Action** when the **Event** is triggered.

Alarm Output Triggers the selected alarm output when the **Event** is triggered.

Link Rec Triggers recording when the **Event** is triggered.

Link Snap Triggers a snapshot to be sent when the **Event** is triggered.

Visualint Event Triggers an HTTP event when the **Event** is triggered.

Click **Save** to save and enable settings.

Channel No. Channel 1 VCA Enable

Scene Number 1 Enable

Rule ID 1

Rule Name

Event Tripwire Enable

Schedule Wednesday

00:00 ~ 00:00

00:00 ~ 00:00

00:00 ~ 00:00

00:00 ~ 00:00

Copy To All Sun Mon Tue Wed Thu Fri Sat

Link Type Link Out

Channel No. All

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

6.4 OSD

6.4.1 OSD

Channel Name

(1) **Channel Name** enter the desired channel name. Once entered the **Channel Name** will appear on screen.

(2) **Customize Position** Once selected drag the **Channel Name** on screen to the target position on screen.

(3) **Color** Choose your favorite color.

Date

(1) **Date** Displays the date on screen.

(2) **Show Week** Display the week on screen.

(3) **Customize Position** Once selected drag the **Date** on screen to the target position on screen.

(4) **Color** Choose your favorite color.

Additional Text

(1) **Additional Text** Up to 5 areas available to put additional text on the screen.

(2) **Customize Position** Once selected drag the **Additional Text** on screen to the target position on screen.

(3) **Color** Choose your favorite color.

OSD Size

Adjust-Self Edit On Screen Text size.

Save Click save on all settings.

Channel Name

Customize Position Color

Date

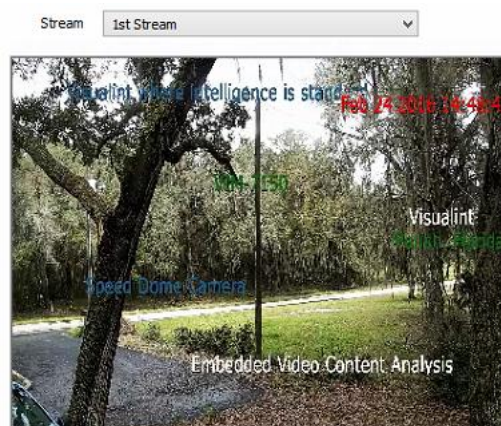
Show Week

24 hours 12 hours

Additional Text

Customize Position Color

OSD Size



6.4.2 LOGO

Add a Logo or Picture on screen.

Note logo picture format must a bit map (.bmp) and be less than 200x200 and the height / width must be multiples of 4.

be .bmp, and must be follow the size.

Click **Browse** to select logo picture, and Click **Upload** to upload the logo or picture to the camera.

Note: Device will restart after upload

(1)After restart, select **Enable** to show the logo on screen.

(2)Enable **Customize Coordinate Pos** to place the logo on the selected target position on screen.

LOGO File(*.bmp)

Enable

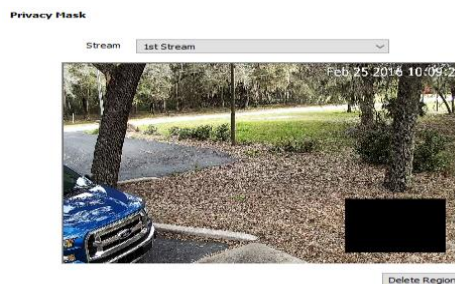
Customize coordinate(click video window)Pos

Requirements on the image format:
 1.The bitmap depth must be 24.
 2.The size shall be less than 200*200, and the height and width shall be multiple of 4.

6.4.3 Privacy Mask

Support for up to 4 masked areas on the screen.

- (1) Choose target Channel No.
- (2) Draw masked area on screen.
- (3) Multiple masked areas can be drawn.
- (4) Click Delete Region to remove all drawn masks.

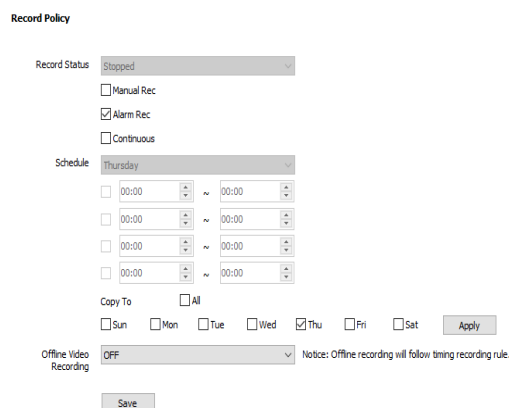


6.5 Storage Management

6.5.1 Record Policy

Setup the Recording Policy.

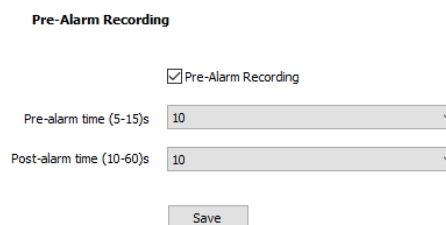
- (1) **Record Status** Display current record status.
- (2) Check the appropriate Recording Policy Type
Manual Rec Check box to manually start recording.
Alarm Rec Check box to trigger recording based on alarm activation.
Continuous Check continuous to enable the Schedule. Scheduled recordings can be assigned to 4 separate time periods.
- (4) **Offline Video** When set to ON, the speed dome camera will follow the set schedule.
- (5) Click to **Save** changes.



6.5.2 Pre-recorded Alarm

Pre-recorded Alarm settings allow time adjustment of recording before and after the alarm triggers.

- (1) **Pre-Alarm Recording** Check to enable
- (2) **Pre-Alarm Time** Amount of time (s) that the recording will be triggered before the alarm.
- (3) **Post-Alarm Time** Amount of time (s) that the recording will be triggered after the alarm.
- (4) Click to **Save** changes



6.5.3 Storage Set

Storage Policy Adjust to change recording policy.

Free Disk Space (MB) Pack the record files by the desired size. (>=512MB)

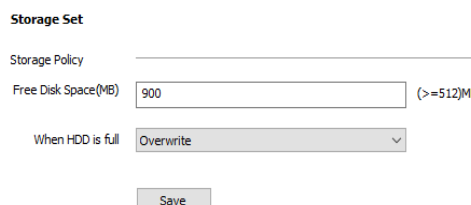
When HDD is full Select how to handle the recorded files when the disk is full.

Stop Rec Select to stop recording new files.

Overwrite Writes over existing recorded files starting with the earliest record files.

Overwrite (Except Alarm) Writes over existing recorded files starting with the earliest recorded files (except event recorded files)

Click to **Save** changes



6.6.2 Network Service

DDNS

Server Domain Enter the Visualint Server IP.

DDNS Domain Use the drop down to select the DDNS Domain.

DDNS ID Enter the Assigned Site ID.

DDNS Password Enter the Password.

Password Confirm Enter the Password again.

Click to **Save** changes

Network Service

DDNS

Enable

Server Domain

DDNS Domain

DDNS ID

DDNS Password

Password Confirm

Save

Visualint Time-Lapse FTP

Server URL Enter the server URL

Port Enter the assigned port

Path Enter the network path

User Name Enter the User Name

Password Enter the Password

Click to **Save** changes

Visualint Time-lapse

Usage Download

Server URL

Port

Path

User Name

Password

Save

PPPoE

Check to **Enable** PPPoE function

User Name Enter the assigned User Name

Password Enter the Password

Password Confirm Enter the Password again.

Click to **Save** changes

PPPoE

Enable

User Name

Password

Password Confirm

Save

NTP

NTP Server Enter the NTP server address.

Port Enter the assigned NTP server port.

Time Interval(min) Enter update interval.

Click to **Save** changes

NTP

NTP Server

Port

Time Interval(min)

Save

6.8 Alarm Management

6.8.1 Visualint Event Output

Click **New, Modify or Delete**

Name Enter the Name of the HTTP Event.

Description Enter the description for the HTTP Event.

Address Enter the address of the target device.

Port Enter the appropriate listening port.

Account Enter the User Name.

Message Enter the HTTP Command.

Visualint Event Output

<input type="checkbox"/>	Name	Description	Address	Port	Account	Message

Visualint Event Information

Name

Description

Address

Port

Account

Message

6.8.2 Alarm Input

Input Port Enter the Input port. This speed dome camera has 8 alarm inputs and 2 alarm outputs.

Alarm Mode Alarm mode includes closed circuit alarm (Normally Closed) and open circuit alarm (Normally Open). Dry Contact.

Schedule Select the day of the week. Enter the up to 4 time periods.

Link Type Use the drop down to select the Link Type. There are four independent

Link Types: Alarm Output, Link PTZ, Link Snap, Link Visualint (HTTP) Event

Click to **Save** changes

Alarm Input

Input Port Enable

Mode Set

Schedule

00:00 ~ 23:59

00:00 ~ 00:00

00:00 ~ 00:00

00:00 ~ 00:00

Copy To All

Sun Mon Tue Wed Thu Fri Sat

Link Type

Output Port All

1 2

Note: Multiple Link types can be assigned to the same Alarm Input.

6.8.3 Alarm Output

This speed dome camera has 2 Alarm outputs

ON is normally closed circuit alarm.

OFF is normally open circuit alarm.

Delay Time(s) is the amount of time before the alarm circuit returns to normal state.

Click to **Save** changes

Alarm Output

Output Port

Mode Set

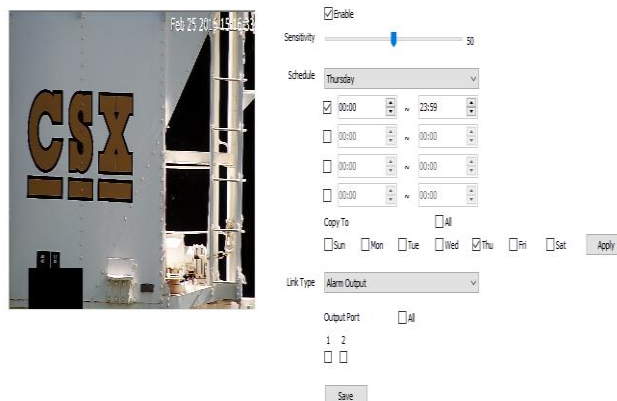
Delay Time(s)

6.8.4 Mask Alarm

Alarm when video image is masked.

- (1) Check to **Enable** Mask.
- (2) **Sensitivity** represents % of screen width.
- (3) **Schedule** Setup the **Mask Alarm** schedule.
- (4) **Link Type** Setup the Link Type.
- (5) **Link Types** include Alarm Output, Link PTZ and Link Snap. When **Link PTZ** options are no link/preset position/pattern/auto tour.
- (6) Click to **Save** changes

Mask Alarm



6.8.5 Email Alarm

- (1) Check to **Enable** Email Alarm .
- (2) **Email Server** Enter the SMTP server address.
- (3) **Email Port** Enter the SMTP server port.
- (4) **Email Account** Enter the Email account name.
- (5) **Email Password** Enter the Email account password.
- (6) **Email Mode** Use drop down to select Email Mode. Login mode is suggested.
- (7) **Encryption** Use drop down to select the Encryption type. (SSL/TLS)
- (8) **Email Subject** Enter the desired subject.
- (9) **Main Email Address** Enter the primary Email address.
- (10) **Email Address** Up to 3 additional email addresses can be added.
- (11) Click to **Save** changes.
- (12) Click to **Test** settings.

Email Alarm

Email Alarm Enable

Email Server

Email Port

Email Account

Email Password

Email Mode

Encryption

Email Subject

Main Email Address

Email Address 1

Email Address 2

Email Address 3

6.10 Advance Set

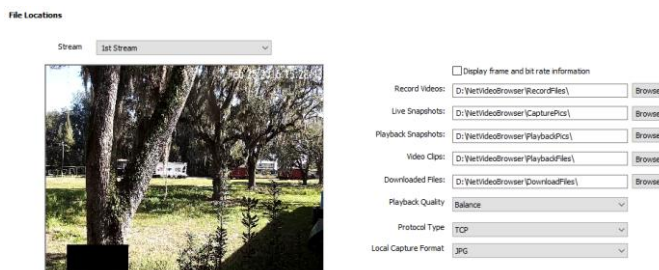
6.10.1 File locations

(1) Check to show frame-rate and bit-stream information on the video stream.

(2) Set the **Path** of Record Videos, Live Snapshots, Playback Snapshots, Video Clips and Download files.

(3) **Protocol Type** TCP, UDP or multicast.

(4) **Local Capture Format** Set the Snapshot format and resolution. (1080p by default)



6.10.2 System Set

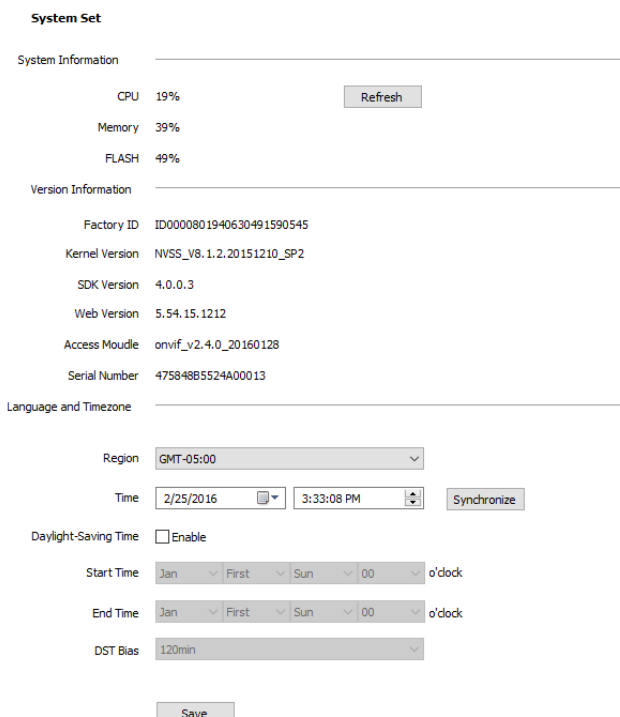
(1) **System Information** Displays % of use information on CPU, Memory and FLASH.

(2) **Version Information** Displays imbedded firmware information.

(3) **Language and Timezone** Set time zone and time synchronous.

(4) Check to **Enable** Daylight Saving Time.

(5) Click to **Save** changes.



6.10.3 System Maintenance

System maintenance includes **Device Controls** and **Version Upgrade**.

(1) **Device Control**

Restore Reset Device to factory defaults.

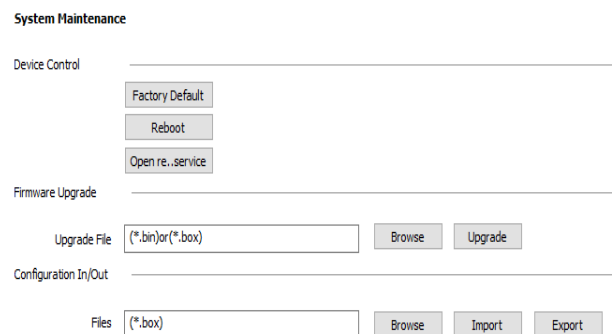
Reboot Reboot the device.

(2) **Upgrade File** Browse to firmware file to upgrade. (firmware format: .box/.bin)

Upgrade process normally needs a few minutes until indication for completion.

(3) **Configuration In/Out** Browse for the config. and click **Import** or click **Export** to export config.

Caution: Please follow the strict instruction of a support technician to upgrade the camera firmware.



6.10.4 Access Platform

This speed dome camera supports onvif V10, user can choose “enable” this protocol.

Platform Enabled

Platform List Enable

Chapter 7 Troubleshooting Methods

Symptom	Possible Causes	Solutions
Power on no action,	Power supply is damaged or not enough power	Replace the power supply
No Video	Power cable fault	Corrected
PTZ is not showing online	Cable problems	Troubleshoot Ethernet cable, measure IP speed dome's voltage at the installation location.
PTZ powers up, but can't ping	Network line or switch damaged	Test by IP speed dome by connecting to the PC Ethernet port directly.
	Speed dome's IP address and Client's IP address aren't in same network segment.	Change the IP address to insure they are in the same network segment and do not conflict with another IP device.
PTZ is reachable, but can't login to webpage.	User name or password error	Check user name or password
	Port number error	Check port number
	Number of logged in users exceeded	Disconnect other clients
No video after login	Number of logged in users exceeded	Disconnect other clients
	Camera is damaged	Check System logs
	Parameter setting error	Restore the default parameters
Image is not stable	IP address conflict; MAC address conflict; broadcast storm.	Check network settings
	Network line problem	Check Ethernet cable
Image is not stable, delay,	Poor Client Performance	Check CPU utilization, reduce bit rate, frame rate or resolution.
	Frame rate is low	Change frame rate to more than 20
	Network bandwidth shortage (Lag)	Verify network traffic and if replace the 10/100 switch with a gigabit.
	NVRs performance isn't enough	Check CPU utilization, reduce bit rate, frame rate or resolution.

No PTZ Control	Serial port Settings error	Check and change serial port setting. Try to move serial connection to "COM2"
	Protocol, Baud rate, address error	Check IP speed dome's protocol, baud rate, parity, bit and address
PTZ Restarts Continuously	Low Voltage or Power is not clean or not stable	Measure IP speed dome's voltage and insure stability
	PPPOE dialing failed	Check and change dialing parameter
	Camera is damaged	Replace the camera
	Parameter setting error	Restore the default parameters

Chapter 8 After-Sales Service

With the Speed Dome product, Visualint offers a three-year warranty. Product warranty, Visualint provides free of charge, but if any of the following circumstances is violated, Visualint reserves the right to charge a fee for time and material:

- Not operating the Speed Dome in accordance with the provisions of the manual
- The speed dome damage is caused by lightning strikes, fires and natural disasters
- Inadequate packaging causing damage to the Speed Dome.

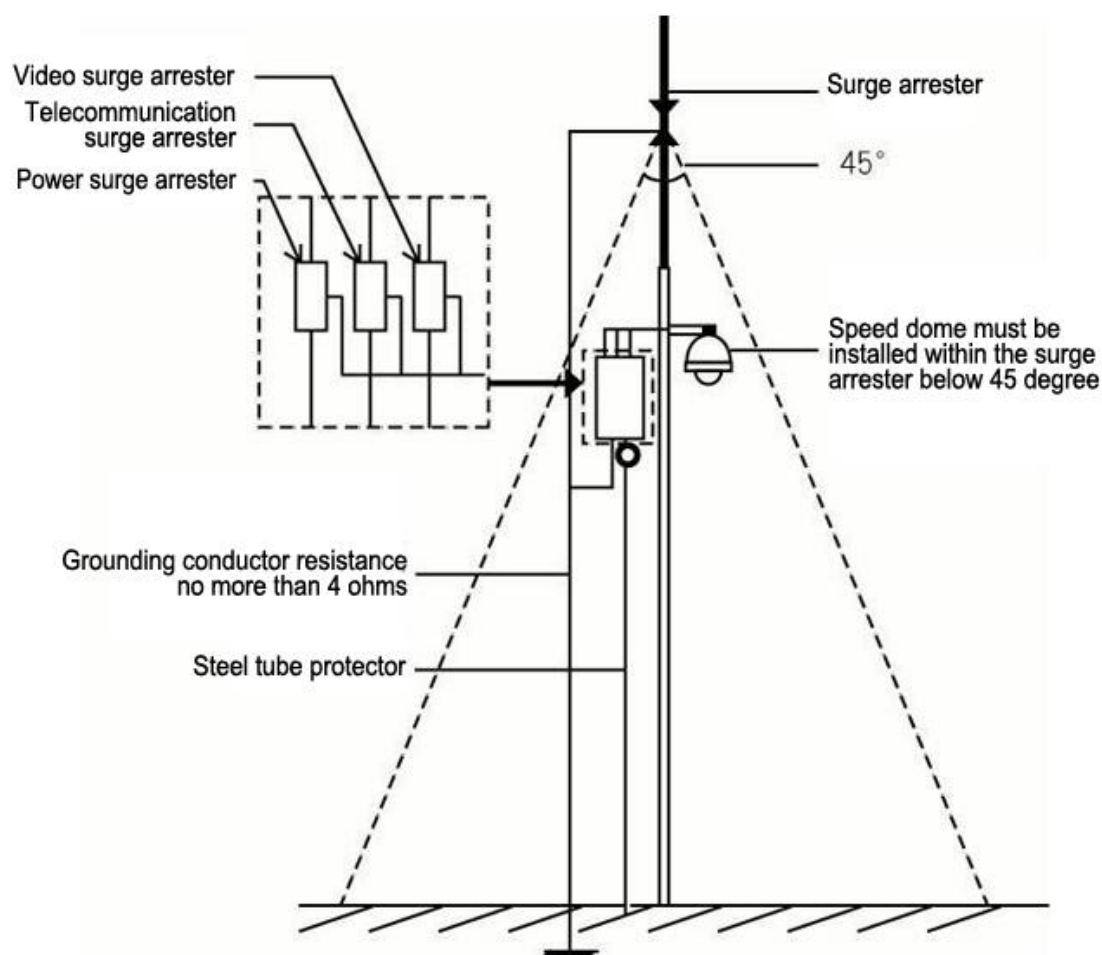
Company statement

- As we continue to introduce new technologies and product specifications are subject to change without prior notice.

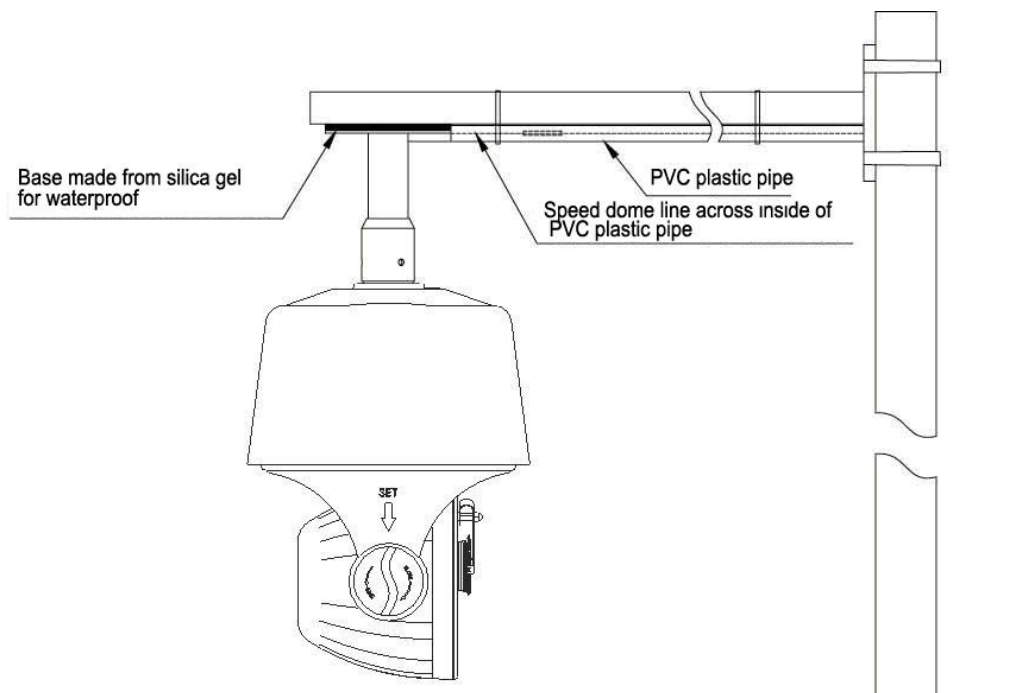
Appendix I Lightning and Surge

This High Speed Dome Camera needs to be grounded to ensure no damage is sustained from lightning or power surges. We suggest the following measures for electrical safety:

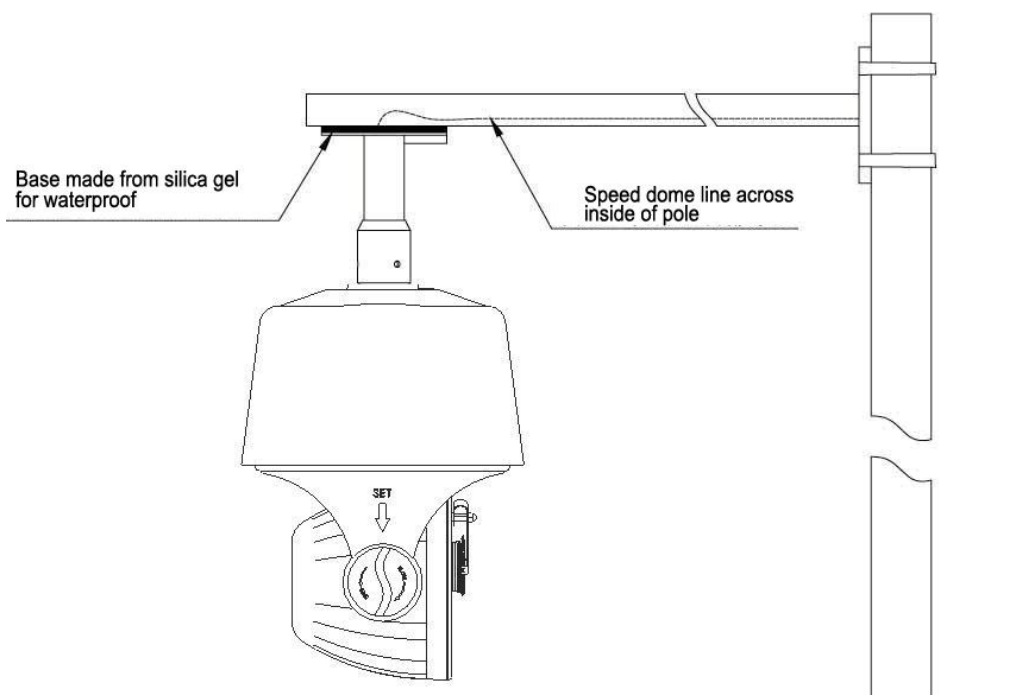
- Signal transmission lines and high voltage equipment or high voltage cables must be at least 50 meters distance away from the High Speed Dome Camera.
- Use outdoor wiring along the roof line
- In areas of severe thunderstorms or high-voltage areas (such as high-voltage substations), lightning protection equipment must be installed to protect the High Speed Dome Camera.
- Grounding of devices and circuits must be in accordance to national and industry standards.
- System must be equipotential bonded. A bonding system must be used in accordance with national and industry standards. In consideration of electrical safety, the speed dome power supply shall not be mixed with a strong power neutral wire or separately grounded. Grounding impedance must be less than 4 ohms, and the ground wire cut-area must be not greater than 25mm / with 2 lines stripped.



Appendix II: Hoisting Construction Guide



Pendent mount bracket outdoor waterproof construction scheme I



Pendent mount bracket outdoor waterproof construction scheme II

