

Veilux VPIP-D110X & VPIPI-S110X

Veilux MPEG-4 IP Speed Dome Camera



- Full D1 resolution
- Bidirectional Audio
- Powerful IP-Plus Speed Dome Control over IP network
- Virtual System Controller (Keyboard Emulator) for Full control of the Speed Dome
- Integrated Fan and Heater (iCanView240 only)
- High speed operation
 - Max 350 /sec panning, 250 /sec tilting.

Directions

Veilux VPIP-D110X / VPIPI-D110X series network cameras are designed for outdoor/indoor use. Don't use Veilux VPIP-D110X / VPIPI-D110X in an environment that exceeds the limited range.

Be careful not to cause any physical damage by dropping or throwing the Veilux VPIP-D110X / VPIPI-D110X network camera. Especially keep the network camera out of reach from children.

Do not disassemble Veilux VPIP-D110X / VPIPI-D110X or After Service Follow-up is not possible.

Use only the AC power adapter which conforms to the specification in data sheet or optionally provided AC power adapter with the Veilux VPIP-D110X / VPIPI-D110X.

If you would like to use the Veilux VPIP-D110X / VPIPI-D110X for security, monitoring, please check the legal regulations within the country.

Note

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, use and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Warning & Caution

If you fail to read this information and handle the product incorrectly, death or serious injury may occur.

The unit should be installed by trained personnel.

Always stop using when the product emits smoke or abnormal heat.

Never install the product in area exposed to water, oil or gas.

Never install the product on a ceiling that cannot hold its weight.

Never touch the power cord with wet hands.

Clean only with dry cloth.

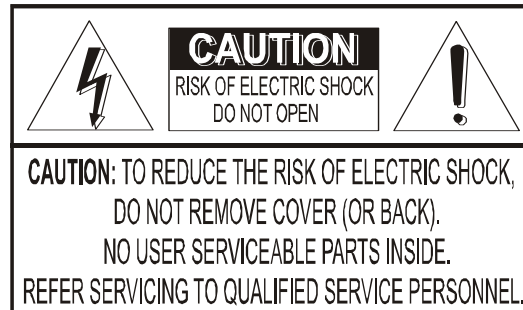
Never install the product in extremely high or low temperature.

Never drop, hit strongly nor vibrate the product.

Never expose the product to direct sunlight or severe ray.

Never touch the front glass of the product.

Never install the product in areas exposed to rain or water



This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that can cause electric shock.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the

Additional Warning &

Caution for Veilux VPIP-D110X

If you fail to read this information and handle the product incorrectly, death or serious injury may occur

Input power: With Camera - 24V AC
18 watts at 24V AC
Heater: 18watts
Fan: 2watts

The heater activates at +10°C (±5°C),
Deactivates at +15°C (±5°C)
The fan activates at +45°C (±5°C),
Deactivates at +35°C (±5°C)

Never install the product on a ceiling that cannot hold its weight.

Never install the product in area exposed to water, oil or gas.

Never install the product on a ceiling that cannot hold its weight.

Never touch the power cord with wet hands.

Revision History

Date	Rev. No	Description
2006-12-06	1.0	Creation of the document
2009-09-09	2.1	Revision of the Dip Switch and Specification.
2009-09-22	2.2	Revision of the wall bracket

Table of Contents

1. Introduction	8
1.1. Overview	8
1.2. Features of Veilux VPIP-D110X / VPIPI-D110X	8
1.3. Applications of Veilux VPIP-D110X / VPIPI-D110X	11
2. Product Description.....	12
2.1. Package Contents	12
2.2. Preview	12
2.3. PC Requirements	13
2.4. Physical description.....	13
2.5. Specification of the analog camera module and PTZ part	17
2.6. Quick Installation Guide	20
3. Connecting Veilux VPIP-D110X / VPIPI-D110X to IP Network.....	23
3.1. Connecting to LAN	23
3.2. Connecting to xDSL/Cable Modem.....	24
4. IP-Installer	25
4.1. Main window of IP-Installer	25
5. Configuring Veilux VPIP-D110X / VPIPI-D110X in Administrative Mode	26
5.1. Log On.....	26
5.2. Basic Setup.....	28
5.3. Network Configuration	30
5.4. Wireless Configuration (This is not applicable to Veilux VPIP-D110X / VPIPI-D110X network camera).....	Error! Bookmark not defined.
5.5. User Admin & Time Setup	33
5.6. Sensor & Capture Setup	36
5.7. Alarm Device Setup	37
5.8. Motion Region Setup	39
5.9. PTZ Setup.....	41
5.10. Encryption Set up	44
5.11. Upgrade & Reset	46
5.12. Status Report	48
6. Tips for Using Veilux VPIP-D110X / VPIPI-D110X.....	49
6.1. Alarm (for Sensor input) and AUX(for Relay output)	49
6.2. Trouble Shooting	52
6.3. Web Viewer.....	54

Appendix 1. On Site Installation of Veilux VPIPI-D110X.....	59
Appendix 2. On Site Installation of Veilux VPIPI-D110X.....	64
Appendix 3. DIP Switch Setting	73

1. Introduction

1.1. Overview

The Veilux VPIP-D110X / VPIPI-D110X is a state-of-the-art Speed Dome network camera which transmits synchronized video and audio data in real time with **D1 resolution at full frame rate**. This is possible through MPEG4 CODEC technology, which provides high quality video with highly compressed data streams. The Veilux VPIP-D110X / VPIPI-D110X can be connected, controlled and monitored from a remote location through an IP connection over internet or intranet. Unlike CCTV or DVR, the Veilux VPIP-D110X / VPIPI-D110X is easy to install and owner will experience cost and space savings in the installation owing to the state of the art technologies embedded in the system. Based on Embedded Software Solution (Embedded Web Server, Embedded Streaming Server, and Network Protocol), the Veilux VPIP-D110X / VPIPI-D110X ensures unprecedented performance and stability to be an ideal network camera solution for system integration solutions. Veilux VPIP-D110X / VPIPI-D110X is offered with standard Ethernet interface.

1.2. Features of Veilux VPIP-D110X / VPIPI-D110X

- **World Most Silent Speed Dome IP Camera**
- 1 channel synchronized real time Video/Audio streaming **MPEG-4 video, ADPCM audio**.
- Bi-directional audio communication
 - Real time audio communication between Veilux VPIP-D110X / VPIPI-D110X and Client PC
- The viewer assisted **recording and playback functions**
- **World Most Silent Speed Dome IP Camera (Outdoor Type)**
- 1/4 "Sony Ex-view CCD 26x,18x / Super HAD CCD 22x
- **Filter Changeable Type Day & Night**
- **IP66 water-resistant (VPIP-D110X only)**
- **432x Zoom (36X Optical with 12x Digital zoom) *Selectable***
- **Max 30 frames/sec(NTSC) and Max 25frames/sec(PAL) @ D1 resolution**
- **Support both interpolation and interlace**
- **Versatile PTZ control**
 - Client viewer assisted PTZ control,
 - Dedicated virtual system controller for PTZ control on the client
 - Simultaneous connection & control over IP and RS485
- **4 Alarm sensor inputs / 2 relay outputs**
- **Motion detection – Up to 3 motion detection zones. Arbitrary shape motion detection zone**
 - Motion detection can initiate video recording, which is sent to the user through FTP and/or E-mail.

- **Resolution**
 - NTSC : 704x480, 352x240, 176x144. - PAL/SECAM : 704x576, 352x288, 176x144
- **Remote administration control**
 - Entire operational parameter set up, Software upgrade
- **Various Mounting Brackets(optional)**
 - Wall, Pipe, Gooseneck mounting brackets
 - Corner mount adaptor, Pole mount adaptor
- **Built-in Fan / Heater(Veilux VPIP-D110X Only)**

• Detailed Features of Speed Dome part

World most silent speed dome camera

Adoption of timing belt, specialized gear, and other low-noise-technologies reduced mechanical vibration which significantly enhances durability and quality of the camera. This camera is the perfect match, both indoor and outdoor, for demanding security and monitoring applications.

0.024° dome system accuracy with 1/8 micro step

By adopting 1/8 micro step and twin gear system, the dome camera achieved 0.024° rotational accuracy. It provides excellent precision for delicate control such as preset positions.

Reliable RAM-Material

The mechanical stability achieved by using high quality materials (e.g., stepping motor, slip ring, timing belt and power condenser) improves the durability and lifetime of the camera. The camera housing is made of fire resistant material (UL grade 94 V-0).

Preset position compensation

It minimizes the effect of low frequency vibration caused by wind or other impact for maintaining precise positioning. It is useful for outdoor surveillance and traffic monitoring applications.

Long life-time Slip Ring (Passed 6 month test of 20million rotations)

Equipped with slip ring that passed 20 millions rotations performed for 6 months.

Protected RS485 terminals. (Against misconnection of the power line)

RS-485 circuit is protected against false connection of the power source for ensured communication channel.

Filter changeable True Day/Night

Automatic IR cut filter ensures near-true color video for day time while providing quality B/W video under low illumination. The efficiency of the monitoring can be improved by using this feature used together with DSS (Digital Slow Shutter). This feature is available only for 18X and 26X zoom module.

Hot Keys

This camera supports various hot key functions for ease of control by other controllers or DVRs.

Various Surveillance Functions

Auto Scan continuously repeats movement between two preset positions with various speed and dwell time.

8 Group Tour : Up to 8 Programmable Group tours are supported. Each group can be configured to have up to 60 preset positions with different speed and dwell time

165 Preset positions : Up to 165 programmable preset positions. Each preset position can be labeled by up to 16 characters

8 Patterns : up to 8 user-defined patterns. Each pattern can last up to 60 seconds and can be named with up to 16 characters. Total of 480 second of pattern monitoring is possible.

8 Sectors : Up to 8 user-defined sectors. Each sector can be labeled by up to 16 characters

24 Privacy Masking Zones : Up to 24 user-defined privacy masking zone. Each zone can be labeled by up to 16 characters (18X, 26X only)

4 Alarm input and 2 relay out : 4 alarm inputs and 2 relay outputs that can be matched with preset, tours, and patterns for versatile monitoring functions.

High speed Pan & Tilt movement

Maximum speed for the panning and tilting are 350° /sec and 250° /sec, respectively, for preset movement. The high speed will enable quick movement to the spot you want to watch..

200°/S – Manual Operation speed

This camera provides up to 200°/sec of manual speed and it's adjustable from 100°/sec to 200°/sec

1/4" Sony Ex-View CCD

Sony Ex-view HAD CCD for excellent sensitivity and low smear levels (18X 26X 36X only)

Multiple language support

Intelligent Pan/Tilt Controlling

Pan and tilt speed is adjusted in connection with zoom factor.

1.3. Applications of Veilux VPIP-D110X / VPIPI-D110X

- IP surveillance (buildings, stores, manufacturing facilities, parking lots, banks, government facilities, military, etc.,
- Real time Internet broadcasting
- Remote monitoring (hospitals, kindergartens, traffic, public areas, etc.,)
- Teleconference (Bi-directional audio conference)
- Remote Learning
- Weather and environmental observation

2. Product Description

2.1. Package Contents

Open the package and check if you have the followings:

Veilux VPIPI-D110X

1. Camera main body
2. CD(Manual, S/W)
3. Ceiling Mount Bracket
4. Wrench
5. Screw (Ø 3x6 screw 2EA,
Ø4x16 screw 5EA)
6. Safety Wire
7. Ceiling Cover
8. Cable ties
9. Terminal Block
(1 EA of 2Pin, 3Pin , 5Pin ,6Pin)


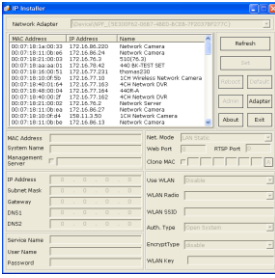
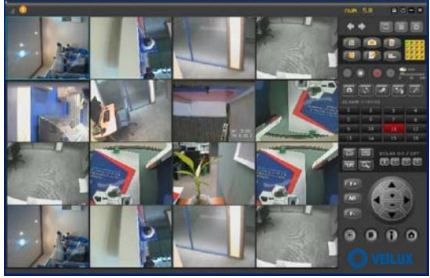
Veilux VPIP-D110X

1. All items of indoor speed dome network camera
2. Manual for outdoor housing
3. Outdoor Housing
4. Wall Mount Bracket
5. Screw (M4x15 screw 4EA)
6. Safety Cable

**VPIPI-D110X = VPIP-D110X +
Outdoor Housing +
Wall Mount Housing**

AC Adapter is optionally provided

2.2. Preview

Veilux VPIP-D110X / VPIPI-D110X	IP-Installer	NVXR-64
 <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid green; padding: 2px; background-color: #e0ffe0;">Veilux VPIP-D110X</div> <div style="border: 1px solid green; padding: 2px; background-color: #e0ffe0;">Veilux VPIPI-D110X</div> </div>		
<p>MPEG-4 Speed Dome Network Camera</p>	<p>PC software to allocate IP parameters to Veilux VPIP-D110X / VPIPI-D110X</p>	<p>PC software to view and record the A/V streaming data transmitted from Veilux VPIP-D110X / VPIPI-D110X</p>

2.3. PC Requirements

AV streaming data received from Veilux VPIP-D110X / VPIPI-D110X can be decoded or stored in a PC running i-NVR program which is a viewing & recording program for a PC. Minimum requirement of the PC is described below:

	Recommended
CPU	Pentium IV 2GHz above
Main Memory	512MB above
Operating system *	Windows XP/ Vista/ 7 (32 bit)
Web browser	Internet Explorer 6.0 above
Graphic Card	Ati Radeon Series
Network	100 Base-T Ethernet

* Operating Systems supported: Windows 2000 Professional

Windows XP Professional / Windows XP Home Edition/ Windows Vista/ 7

2.4. Physical description

2.4.1 Bottom View and Connections

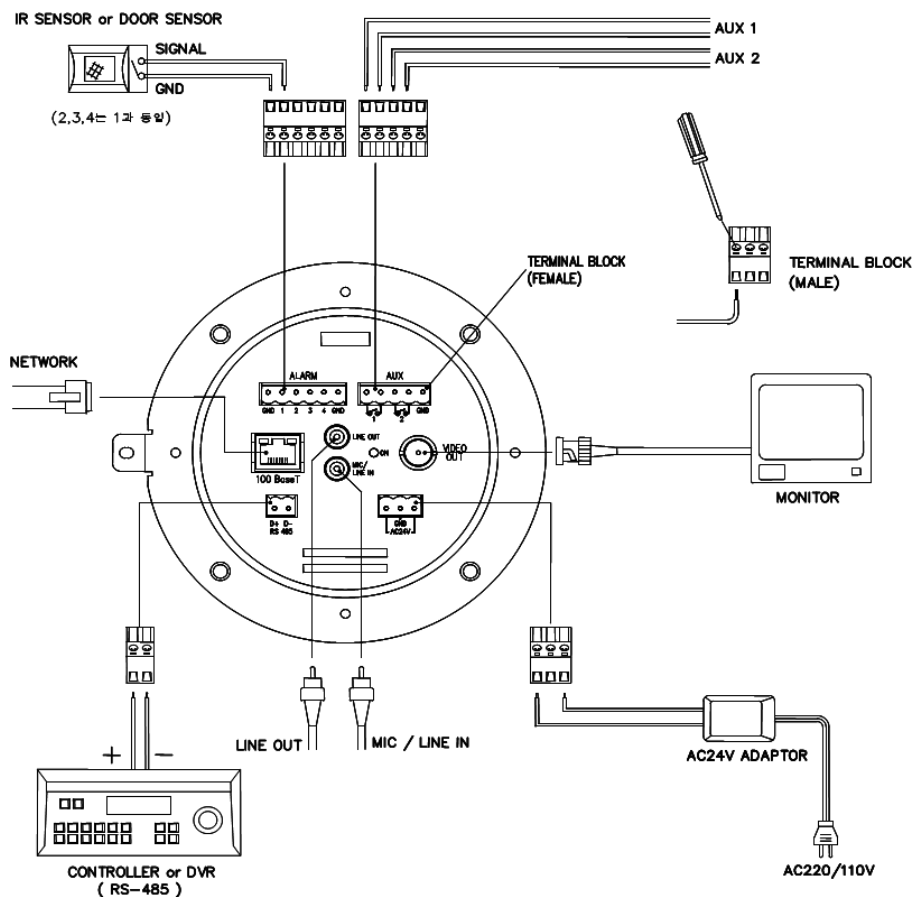


Fig. 2-1 Bottom View of Veilux VPIP-D110X / VPIPI-D110X

- Input/Output Connectors at Bottom panel of Veilux VPIP-D110X / VPIPI-D110X

Connector Name	Description
ALARM	<ul style="list-style-type: none"> . 4 Alarm inputs(Signal pin number : 1, 2, 3, 4), 2 GND(ground) signals . Connect external alarm sensors such as the infrared, heat, magnetic sensor to network camera. . Sensor type(Normal Open or Normal Close) can be selected using Virtual System Controller (Keyboard Emulator) in i-NVR (for detailed information, please refer to the i-NVR user's guide in CD)
AUX	<ul style="list-style-type: none"> . 2 Relay outputs and 1 ground (GND) signal . Connect external alarm generators such as sirens, flashing light, etc., to network camera. . Please refer to the section 6.1 for more detailed description.
NETWORK	<ul style="list-style-type: none"> . RJ45 connector, 100Base-T. . Connects Veilux VPIP-D110X / VPIPI-D110X to IP network
RS485	<ul style="list-style-type: none"> . Connect external device such as System Controller (Keyboard) or DVR to Veilux VPIP-D110X / VPIPI-D110X network camera
VIDEO OUT	<ul style="list-style-type: none"> . Composite video output from the camera.
LINE OUT	<ul style="list-style-type: none"> . Connect a speaker with amplifier. . Audio/voice from client at remote site can be output through the line out terminal in bi-directional audio mode of iNVR or NVR-Pro.
MIC/LINE IN	<ul style="list-style-type: none"> . Connect external Microphone or audio to network camera. . Input audio/voice is compressed in network camera for synchronized transmission with video to client PC through IP network
AC24V	<ul style="list-style-type: none"> . Connect 24 Volt AC adaptors to this terminal for supplying power to the network camera. . AC adapter which is compliant to the specification for Veilux VPIP-D110X / VPIPI-D110X should be used. Misuse of power supply can cause damage to Veilux VPIP-D110X / VPIPI-D110X. . Veilux assumes no responsibility for misuse of the power supply.

2.4.2 Dimension and basic parts of Veilux VVIP-D110X / VPIPI-D110X

A. Dimension

A-1. Veilux VPIPI-D110X

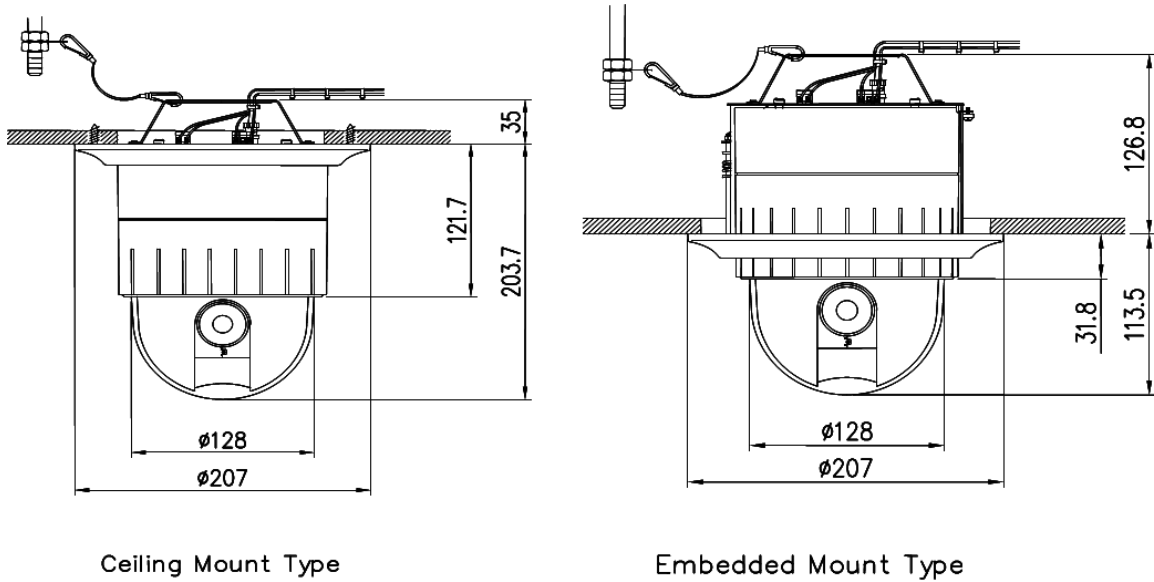


Fig 2.2 Dimension of Veilux VPIPI-D110X (unit : mm)

A-2. i Veilux VPIP-D110X (Veilux VPIPI-D110X + Outdoor Housing)

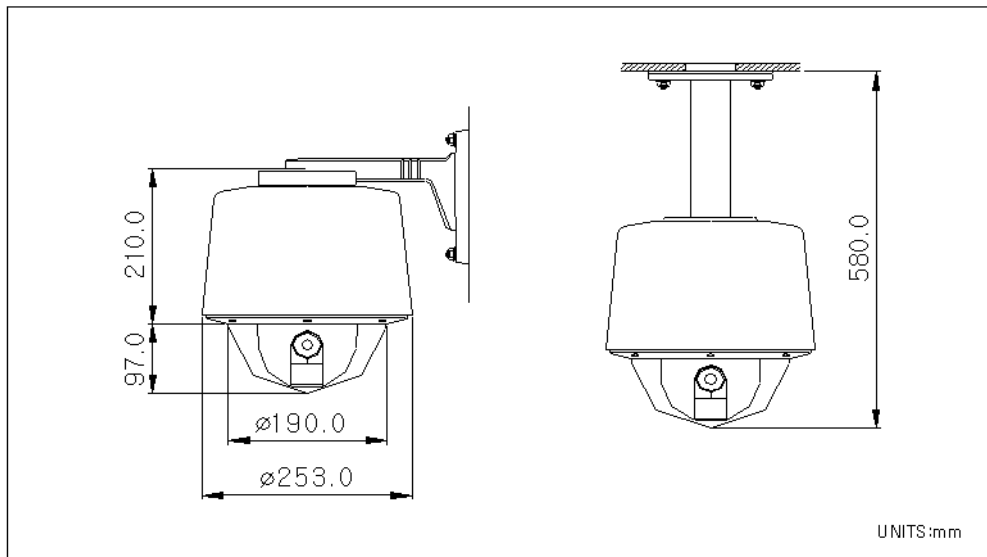


Fig.2-3 Dimension of Veilux VPIP-D110X

B. Exterior and Interior of View

B-1.Common part of Veilux VPIP-D110X / VPIPI-D110X

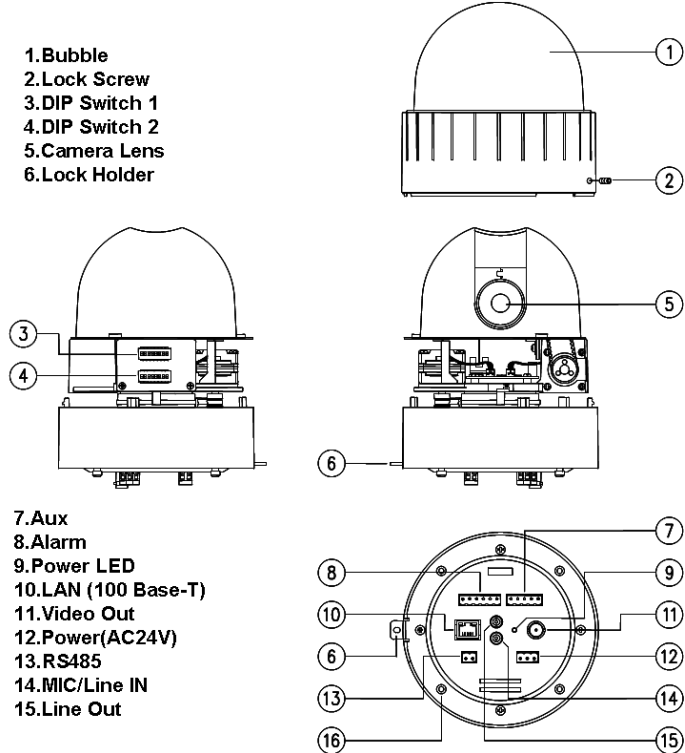


Fig.2-5 Common part of Veilux VPIP-D110X / VPIPI-D110X

B-2.Outdoor Housing

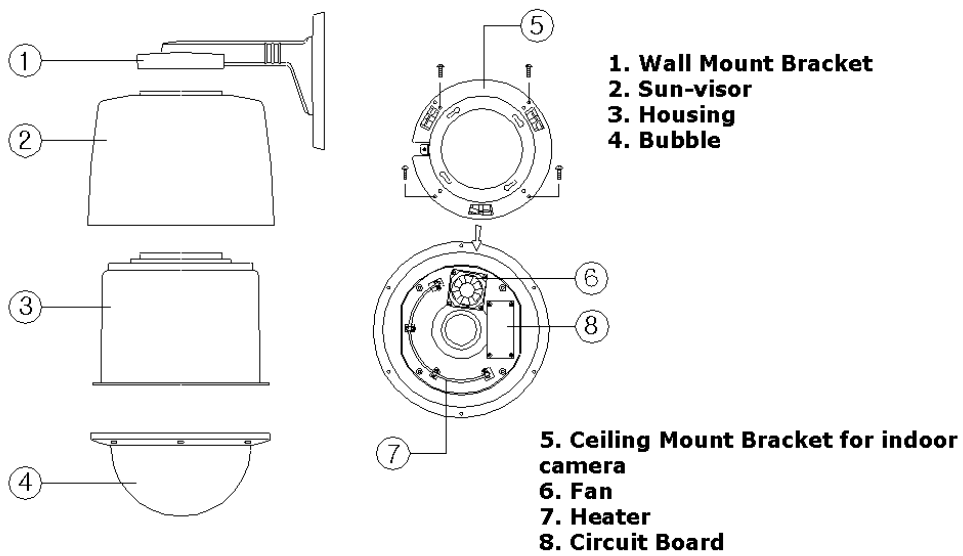


Fig.2-6. Outdoor housing

2.5. Specification of the analog camera module and PTZ part

2.5.1. Zoom cameras

Veilux VPIP-D110X / VPIPI-D110X are offered with 5 types of zoom camera modules as described in the following table.

Camera module	Lens	Misc.
18X Zoom	Sony Zoom Camera module	PAL or NTSC
10 & 23X Zoom	Samsung Zoom Camera module	PAL or NTSC
26X Zoom	Sony Zoom Camera module	PAL or /NTSC
30X Zoom	Samsung Zoom Camera module	PAL or /NTSC
36X Zoom	Sony Zoom Camera module	PAL or /NTSC

2.5.2 Detailed specifications

Model		18X Optical (Sony)	26X Optical (Sony)	27X Optical (Samsung)	33X Optical (Samsung)	36X Optical (Sony, WDR)	37X Optical (Samsung)
Pan / Tilt	Pan Rotation Angle	360° Endless					
	Pan Speed	Manual	0.5° ~ 200°/sec(64step)				
		Preset	Max 300°/sec, Min 10°/sec				
	Tilt Rotation Angle	-2° ~ 90°					
	Tilt Speed	Manual	0.5° ~ 45°/sec(64step)				
		Preset	Max 250°/sec, Min 200°/sec				
System Accuracy		0.024°					
Functions	Presets	165 positions with 16 character labels available for each position with different speed steps					
	Group Tour	Max. 8 Programmable group tours(each one consisting of up to 60 preset steps with different steps)					
	Auto Pan	Programmable Auto Scan					
	Pattern	8 Programmable Patterns(total 480 seconds)					
	Sector	8 Selectable Sectors with 16 characters					
	Password Protection	Yes					
	Privacy Zone	24	24	8	8	24	8
	Alarm Input	4 alarms (with various programmable states)					

	Alarm Actions		Activate preset, Group scanning or output per alarm input					
	Aux Output		2 Replay Output					
	Auto Flip		ON / OFF					
	OSD Menu		Yes					
	Communication		RS-485					
	Protocol		Built in Pelco-D, Pelco-P					
Others	Motor Type		Stepping motor					
	Micro Steps		1/8 Micro Step					
Camera Module	Image Sensor		1/4" Sony Exview HAD CCD	1/4"Sony Exview HAD CCD	1/4"Sony super HAD CCD	1/4"Sony super HAD CCD	1/4"Sony Exview HAD CCD	1/4"Sony super HAD CCD
	Total Image Pixels	NTSC	811(H) * 508(V) 410K					
		PAL	795(H) * 596(V) 470K					
	Number Of Effective Pixels	NTSC	768(H) * 494(V) 380K					
		PAL	752(H) * 582(V) 440K					
	Horizontal Resolution	NTSC	470TV line	470TV line	550TV line(Color)	550TV line(Color)	530TV line(Color)	550TV line(Color)
		PAL	460TV line	460TV line	680TV line(B/W)	680TV line(B/W)	530TV line(Color)	680TV line(B/W)
	Lens	Optical	18x Optical Zoom (F=1.4~3.0, f=4.1~73.8mm)	26x Optical Zoom (F1.6~3.8, f=3.5~91.0mm)	27x Optical Zoom (F= 1.6 ~ 2.9 , f=3.5 ~ 94.5mm)	33x Optical Zoom (F= 1.6 ~ 3.6 , f=3.5 ~ 115.5mm)	36x Optical Zoom (F=1.6 ~ 4.5 , f=3.4 ~ 122.4mm)	37x Optical Zoom (F= 1.6 ~ 3.9 , f=3.5 ~ 129.5mm)
		Digital	12x 216x with	12x 312x with	12x 324x with	12x 396x with	12x 432x with	12x 444x with
	Day & Night (ICR)		Auto/ Day/ Night					
Digital Slow Shutter		ON/ OFF						
Min. Illumination	Normal Mode	0.05Lux	0.14Lux	0.4Lux	0.4Lux	0.1Lux	0.7Lux	

	Night Mode	0.01Lux	0.05Lux	0.02Lux	0.02Lux	0.01Lux	0.061Lux
	Sens-up : 256x			0.00007Lux	0.00007Lux		0.00007Lux
	Luminance S/N Ratio	More than 50dB					
	Video Output	Composite video output 75 ohm terminated					
	BLC	ON / OFF					
	Flickerless	ON / OFF					

2.6. Quick Installation Guide

Brief information for rapid installation is provided in this section. For more detailed information you are recommended to refer to pertinent documentations provided with the product or refer to Veilux's home page (<http://www.Veilux.net>)

1. Apply power to Veilux VPIP-D110X / VPIPI-D110X and Connect Veilux VPIP-D110X / VPIPI-D110X to LAN like the following picture.

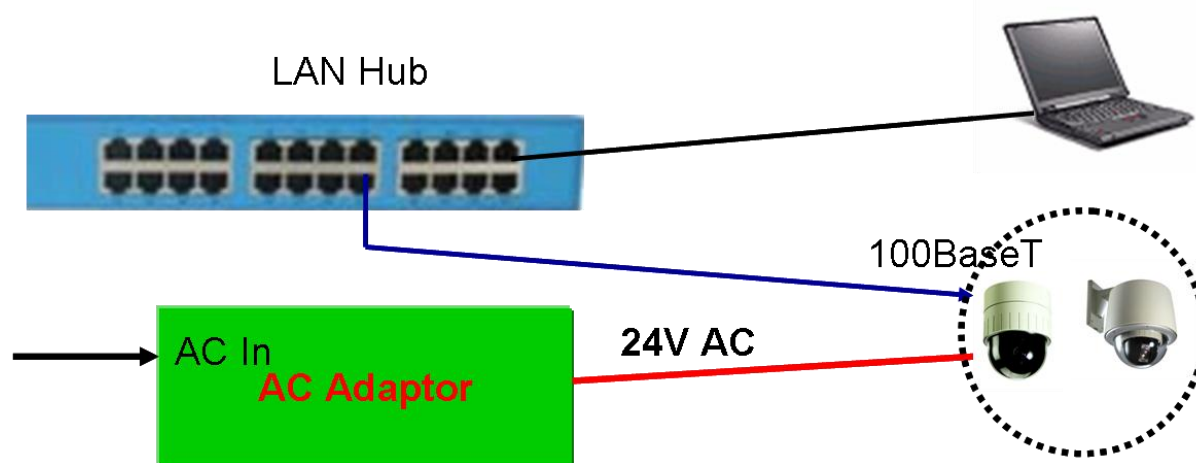


Fig. 2-5 Connecting Network camera and PC

2. Install "IP installer" and "NVXR-64" on your PC.

Detailed information for installing these programs can be found in [\[IP-Installer User's Guide\]](#) and [\[NVXR-64 User's Guide\]](#), respectively.

3. Assign IP address to Veilux VPIP-D110X / VPIPI-D110X using IP installer.

Identify the type of the network environment and set up IP address. Detailed process of setting up IP address can be found in [\[IP-Installer User's Guide\]](#). If network type is xDSL or Cable modem you need supplementary information provided by your ISP.

4. Connect to Veilux VPIP-D110X / VPIPI-D110X in Administrator Mode for initial parameter set-up.

All parameters are set to factory default state when Veilux VPIP-D110X / VPIPI-D110X are delivered. You are asked to configure the system for your environment in administration mode. Detailed information of using administration mode can be found in [\[5. Configuring Veilux VPIP-D110X / VPIPI-D110X in Administrative Mode\]](#). Among the parameters, the parameters in the following table should be set-up

with proper values. Detailed information for the parameters in Administrator Mode is found in [\[5. Configuring Veilux VPIP-D110X / VPIPI-D110X in Administrative Mode\]](#)

[Note]: Set-up values are preserved even the power is turned off.

Page	Parameter	Setup value	Factory default value
Basic Setup	Video Size	Set the resolution of the video transmitted from Veilux VPIP-D110X / VPIPI-D110X.	Make sure that you press Check button to find out the number of maximum possible simultaneous users then set the number of users smaller than or equal to the number.
	Max Upload Rate	Set this value smaller than the upload speed of your network.	
	Frame Rate	The number of frames to be transmitted per second.	
	Video Rate	Bandwidth assigned for video transmitted from Veilux VPIP-D110X / VPIPI-D110X.	
User Admin & Time Setup	Administrator name & password	For safety, you are recommended to change these values from factory default. For new connection, you need to input changed values for corresponding fields. Do not disclose these values to others and memorize these values.	Default value User name : root Password : dw2001
User Admin & Time Setup	Current Time	Input correct time in this field.	Default value : 2001/1/1

5. Connect the input and output signals to Veilux VPIP-D110X / VPIPI-D110X.

Connectors	Function	Signal description	Number
Mic/LINE-In	Audio/Voice in	Connect microphone or output from audio devices.	1
Line Out	Audio out for speaker	Audio from remote site is available from this connector in bi-directional audio mode. Connect speaker with amplifier.	1
Alarm /Aux	Connecting Alarm Sensor	IR sensor, Motion Sensor, Smoke Detector...	1
	Connecting Alarm annunciating device	Siren, Flashing Light, ...	1

Network	Network connection	Connect Veilux VPIP-D110X / VPIPI-D110X to the network, LAN, ADSL or Cable modem.	1
AC24V	Supply AC power	Apply AC24V power to network camera	1

6. Remote video connection to Veilux VPIP-D110X / VPIPI-D110X

Run NVXR-64 on your PC. Before connecting to Veilux VPIP-D110X / VPIPI-D110X it is needed to configure the connection information on the NVXR-64. More detailed information of using "NVXR-64" can be found in [[NVXR-64 User's Guide](#)].

3. Connecting Veilux VPIP-D110X / VPIPI-D110X to IP Network

Veilux VPIP-D110X / VPIPI-D110X support LAN, xDSL, and Cable modem. It also supports shared IP environment where single IP address is shared by at least 2 IP devices. Refer to [\[IP-Installer User's Guide\]](#) for details of setting the IP address for Veilux VPIP-D110X / VPIPI-D110X.

3.1. Connecting to LAN

In case of connecting the Veilux VPIP-D110X / VPIPI-D110X to LAN, it is generally connected as in Fig. 3-1.

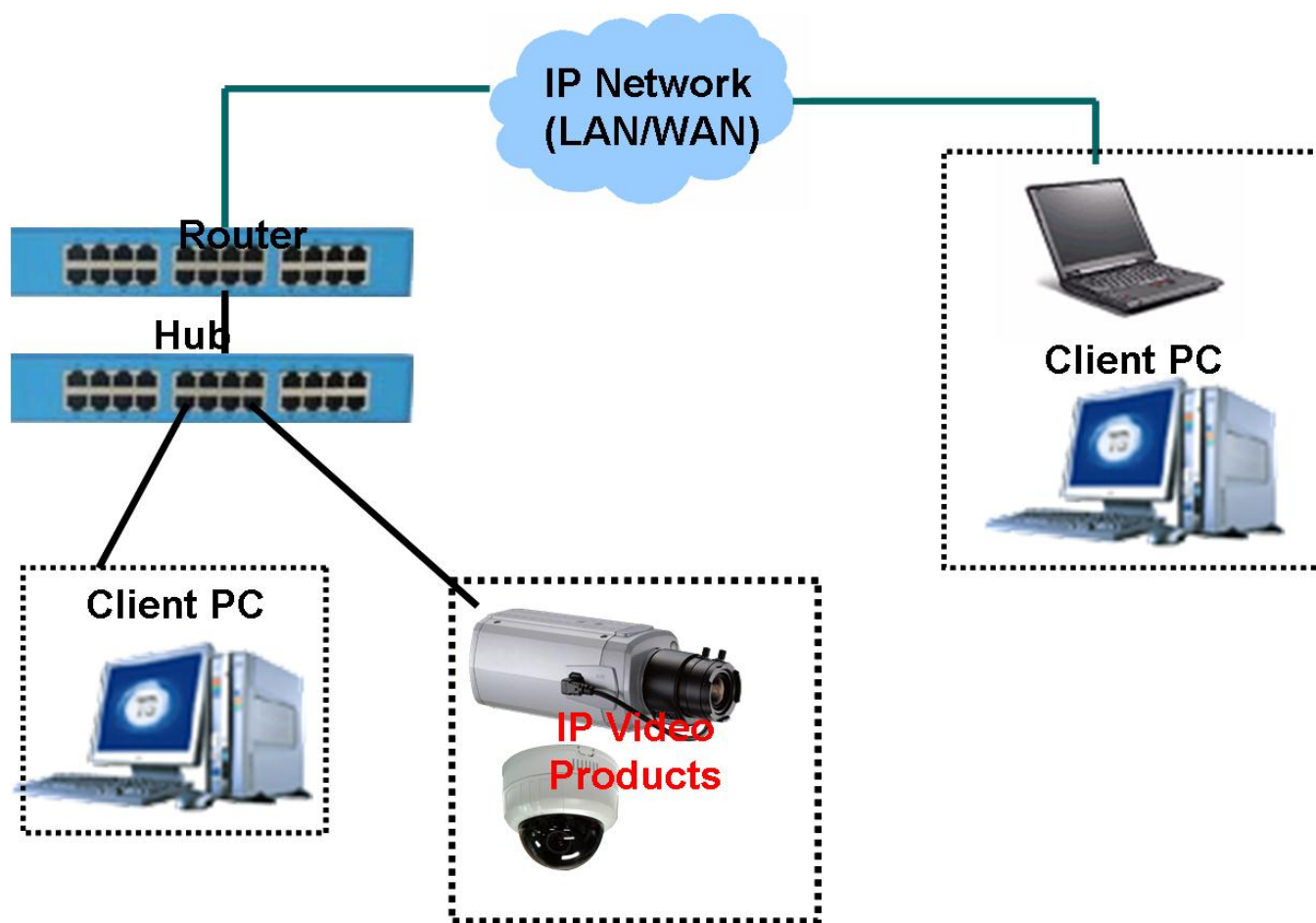


Fig. 3-1 Connecting Veilux VPIP-D110X / VPIPI-D110X to LAN

1. Follow through steps 1 to 3 in Section 2.6 to assign IP address to Veilux VPIP-D110X / VPIPI-D110X.
2. Check if you can receive video data when connecting to Veilux VPIP-D110X / VPIPI-D110X using the viewer program.
4. When one or more IP video products are connected through a IP sharing device (i.e. router) to a larger network

(i.e. the internet), in order to access each unit from outside the local area network, each device must have a unique RTSP (Real Time Stream Protocol) and HTTP port number. You must also configure your IP sharing device for "port forwarding". This is to enable the IP sharing device to forward packet data with unique port number (RTSP and HTTP) to unique internal IP address (local IP address). If you only plan to access multiple units from within a local area network, you do not need to change the RTSP and HTTP port numbers, unless other IP sharing devices sit in-between the client and the IP video products. For more detailed information regarding the use of IP sharing device refer to the document [\[Use of Private IP network using IP-sharing-device\]](#).

3.2. Connecting to xDSL/Cable Modem

1. Please connect Veilux VPIP-D110X / VPIPI-D110X to PC through Hub and then connect DC power adapter.
2. Install IP-Installer and i-NVR S/W on PC
3. Using IP Installer S/W set up some parameters for communication through IP network
Please refer to the IP installer and i-NVR user's guide.
4. Connect Veilux VPIP-D110X / VPIPI-D110X with ADSL/Cable Modem as Fig.3.2
5. Run i-NVR program and check if you can receive video data when connecting to Veilux VPIP-D110X / VPIPI-D110X.

Fig. 3-2 Connecting Veilux VPIP-D110X / VPIPI-D110X to ADSL/Cable Modem



When fixed IP address is assigned to the xDSL or Cable modem, follow the same way as assigning IP address for the case of LAN using IP-installer. To enable the notification of the changed IP address to the user over e-mail when the IP address is changed in floating IP environment, you have to assign the e-mail address when user name and password are input using IP-installer. **(Management server provides a convenient way of connecting to your network camera under dynamic IP environment. Please refer to the Application note regarding "Management Server" in the CD.)**



When connecting Veilux VPIP-D110X / VPIPI-D110X to xDSL or Cable modem, usually regular LAN cable is required. But since some modems have crossover connections, please contact your service provider for detailed information.

4. IP-Installer

Veilux VPIP-D110X / VPIPI-D110X need IP network parameters for connection to the network (Internet / Intranet). IP-Installer is a PC program for the initial network configuration to IP video products such as Network Camera or A/V Server. IP-Installer is provided in a CD supplied with Veilux VPIP-D110X / VPIPI-D110X or it can be downloaded from "www.Veilux.net".

Detailed information of Installing and running IP-installer can be found in [IP-installer user's guide]

4.1. Main window of IP-Installer

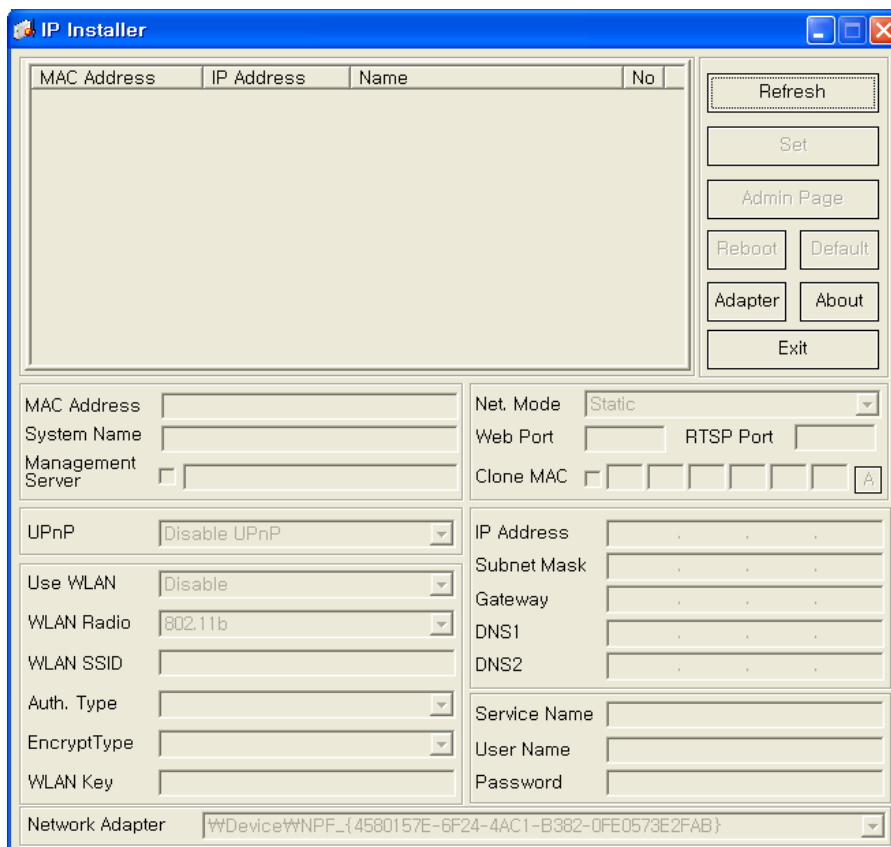


Fig. 4-1 IP Installer

All the basic network parameters needed for the initial connection to IP video products can be assigned by IP-Installer. Once the basic parameters are assigned and the initial connection is successfully made, you can connect to the administration page for more sophisticated control of the network parameters and other operational parameters. Refer to Chapter 5 for more details of the administration page.

5. Configuring Veilux VPIP-D110X / VPIPI-D110X in Administrative Mode

5.1. Log On

There are 2 ways of connecting to Veilux VPIP-D110X / VPIPI-D110X administrative mode. One is through Internet Explorer and the other is through “NVXR-64” program.

1. Using Internet Explorer

Type in the connection address of the network camera in the address window of the Internet Explorer as followings:

[http://\[Veilux VPIP-D110X / VPIPI-D110X IP address\]/admin.htm](http://[Veilux VPIP-D110X / VPIPI-D110X IP address]/admin.htm)

Example: <http://172.16.64.133/admin.htm>

If you changed the HTTP port from default value you can login by typing in:

[http://\[Veilux VPIP-D110X / VPIPI-D110X IP address\]:\[HTTP port\]/admin.htm](http://[Veilux VPIP-D110X / VPIPI-D110X IP address]:[HTTP port]/admin.htm)

Example: <http://172.16.64.133:8080/admin.htm>

2. Log on from “NVXR-64”

Select video channel in the viewing window of “NVXR-64”. Selected video channel will be highlighted. Click



button on the right side of the display screen.



Fig. 5-1 Main Screen of NVXR-64

3. Input User Name and Password in the display screen shown in Fig. 5-2.



Fig. 5-2 Log On Screen

Factory default User Name and Password are set as 'root' and 'dw2001', respectively. Click on "OK" button to enter into the Basic Setup page of Administrative Mode. If you have changed the username and password of the Administrator, you must log on with the changed username and password.

5.2. Basic Setup

Setup the basic parameters of the Veilux VPIP-D110X / VPIPI-D110X.

Fig. 5-3 Basic Setup

Field/Button	Sub Field /Button	Description
Language		Select a language of your choice
System Name		Logical name of the Veilux VPIP-D110X / VPIPI-D110X. It is same as the one set-up by IP-installer. You can reassign the system name.
Audio Input		Select the type of input audio.

Selection		<ul style="list-style-type: none"> ● Select Line In for using Line-out from audio devices. ● Select Mic for using microphone.
Video Quality & Bandwidth Control	Input Video Source	This field is set by the factory.
	Video Size	Select a video size for transmission <ul style="list-style-type: none"> ● NTSC (30frames/sec Max.): 176x144 / 352x240 / 704x480. ● PAL/SECAM (25frames/sec Max.) : 176x144 / 352x288 / 704x576
	Max upload rate	Assign maximum bandwidth of the uplink for the network connected to Veilux VPIP-D110X / VPIPI-D110X.
	Frame rate	Assign number of video frames to be transmitted for each second. You can improve picture quality by lowering frame rate for the same bandwidth.
	Video rate	Assign bandwidth for transmitting video data.
	Audio rate	Assign bandwidth for transmitting audio data. Audio data is not transmitted if you select "NA"
	Check	After you finish set up of video and audio for all the channels, click on this box to obtain the possible maximum number of users (Possible Max Users) and remaining network bandwidth (Remained) remaining when possible maximum users are connected.
	Possible Max Users	It shows the number of maximum simultaneous connections for the network connection set-up.
	Remained	It shows the network bandwidth remaining when Possible Max Users are connected.
	Limited users	Useful network bandwidth varies according to the condition of the network. This parameter is used to limit the number of the simultaneous connections below the number shown in Possible Max Users .
Save		Save the set-up parameters when the set-up parameters are done.

5.3. Network Configuration

Setup the network parameters appropriately in accordance with your network environment. Many of the parameters in this page are same as those set up by "IP-Installer".

<ul style="list-style-type: none"> Basic Setup Network Configuration User Admin & Time Setup Sensor & Capture Setup Alarm Device Setup Motion Region Setup PTZ Setup Encryption Setup Upgrade & Reset Status Report 	<p>IP Assign Type (*: System will be reset)</p> <p><input checked="" type="radio"/> Static IP Setup</p> <table border="1"> <tr> <td>IP Address</td> <td><input type="text" value="172.16.77.241"/></td> <td>Subnet Mask</td> <td><input type="text" value="255.255.0.0"/></td> </tr> <tr> <td>Gateway</td> <td colspan="3"><input type="text" value="172.16.0.1"/></td> </tr> <tr> <td>DNS1</td> <td><input type="text" value="168.126.63.1"/></td> <td>DNS2</td> <td><input type="text" value="0.0.0.0"/></td> </tr> </table> <p><input type="radio"/> PPPoE Setup</p> <table border="1"> <tr> <td>Username</td> <td><input type="text"/></td> <td>Password</td> <td><input type="text"/></td> </tr> </table> <p><input type="radio"/> DHCP Setup</p> <table border="1"> <tr> <td>Host Name</td> <td><input type="text"/></td> <td>Domain Name</td> <td><input type="text"/></td> </tr> </table> <p><input type="checkbox"/> Use Cloned MAC Address <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/> <input type="text" value="00"/></p>	IP Address	<input type="text" value="172.16.77.241"/>	Subnet Mask	<input type="text" value="255.255.0.0"/>	Gateway	<input type="text" value="172.16.0.1"/>			DNS1	<input type="text" value="168.126.63.1"/>	DNS2	<input type="text" value="0.0.0.0"/>	Username	<input type="text"/>	Password	<input type="text"/>	Host Name	<input type="text"/>	Domain Name	<input type="text"/>
	IP Address	<input type="text" value="172.16.77.241"/>	Subnet Mask	<input type="text" value="255.255.0.0"/>																	
	Gateway	<input type="text" value="172.16.0.1"/>																			
	DNS1	<input type="text" value="168.126.63.1"/>	DNS2	<input type="text" value="0.0.0.0"/>																	
	Username	<input type="text"/>	Password	<input type="text"/>																	
	Host Name	<input type="text"/>	Domain Name	<input type="text"/>																	
	<p>Port Change (*: System will be reset)</p> <table border="1"> <tr> <td>HTTP</td> <td><input type="text" value="80"/> (default: TCP 80)</td> <td>RTSP</td> <td><input type="text" value="554"/> (default: TCP 554)</td> </tr> </table>	HTTP	<input type="text" value="80"/> (default: TCP 80)	RTSP	<input type="text" value="554"/> (default: TCP 554)																
	HTTP	<input type="text" value="80"/> (default: TCP 80)	RTSP	<input type="text" value="554"/> (default: TCP 554)																	
	<p>IP Filtering</p> <p><input type="checkbox"/> Restrict Administrator Access</p> <table border="1"> <tr> <td>Base IP Address</td> <td><input type="text" value="0.0.0.0"/></td> <td>Mask</td> <td><input type="text" value="0.0.0.0"/></td> </tr> </table>	Base IP Address	<input type="text" value="0.0.0.0"/>	Mask	<input type="text" value="0.0.0.0"/>																
	Base IP Address	<input type="text" value="0.0.0.0"/>	Mask	<input type="text" value="0.0.0.0"/>																	
	<p>E-Mail Setup <input type="checkbox"/> Notify for IP Change</p> <table border="1"> <tr> <td>Recv E-mail Address</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>Return E-mail Address</td> <td colspan="2"><input type="text"/></td> </tr> </table> <p><input checked="" type="radio"/> Using Built-in SMTP Server</p> <p><input type="radio"/> Using External SMTP Server</p> <table border="1"> <tr> <td>SMTP Server</td> <td colspan="2"><input type="text"/></td> </tr> <tr> <td>Username</td> <td><input type="text"/></td> <td>Password</td> <td><input type="text"/></td> </tr> </table>	Recv E-mail Address	<input type="text"/>	<input type="text"/>	Return E-mail Address	<input type="text"/>		SMTP Server	<input type="text"/>		Username	<input type="text"/>	Password	<input type="text"/>							
	Recv E-mail Address	<input type="text"/>	<input type="text"/>																		
	Return E-mail Address	<input type="text"/>																			
	SMTP Server	<input type="text"/>																			
	Username	<input type="text"/>	Password	<input type="text"/>																	
<p>FTP Server Setup</p> <table border="1"> <tr> <td>IP Address</td> <td colspan="3"><input type="text"/></td> </tr> <tr> <td>Username</td> <td><input type="text"/></td> <td>Password</td> <td><input type="text"/></td> </tr> <tr> <td>Directory</td> <td><input type="text"/></td> <td>Port</td> <td><input type="text" value="21"/> (default: TCP 21)</td> </tr> </table>	IP Address	<input type="text"/>			Username	<input type="text"/>	Password	<input type="text"/>	Directory	<input type="text"/>	Port	<input type="text" value="21"/> (default: TCP 21)									
IP Address	<input type="text"/>																				
Username	<input type="text"/>	Password	<input type="text"/>																		
Directory	<input type="text"/>	Port	<input type="text" value="21"/> (default: TCP 21)																		
<p>Management Server</p> <p><input type="checkbox"/> Logon to server <input type="text"/></p>																					
<p><input type="button" value="SAVE"/></p>																					

Fig. 5-4 Network Configuration

Field/Button	Sub Field /Button	Description
IP Assign Type		The network types supported by the Veilux VPIP-D110X / VPIPI-D110X are LAN(fixed IP), PPPoE, and DHCP(automatic IP allocation)
	Static IP Setup	When the network environment is fixed IP, select 'LAN' in the network type, and put the IP address, Subnet Mask, Gateway, DNS1 and DNS2. Ask your network administrator or ISP for the information. DNS2 is used when DNS1 does not work.
	PPPoE Setup	When the network environment is PPPoE and IP address is assigned automatically, select 'PPPoE' in the network type. Next, fill in the 'User Name' and 'Password' fields with the values assigned by the ISP.
	DHCP Setup	When the network environment is "automatic IP allocation by DHCP", select 'DHCP' in the network type. For cable modem connection, select this mode. Refer to [IP-installer user's guide] for "Host name and domain for Cable Modem
	Clone MAC	Refer to [IP-installer user's guide] for "Clone MAC"
Port Change		Each port should have a number below 65,535.
	RTSP	The RTSP port is used for transmitting real time audio/video data from the network camera. Default is 554.
	HTTP	HTTP port is used for the connection to the admin page. Default is 80.
IP Filtering		You can restrict the access to the administrator page from IP addresses beyond certain IP address range.
	Restrict Administrator Access	Check at this box to restrict administrative log on.
	Base IP Address	Input IP address of the PC which is intended to be used for log on to administrative mode.
	Mask	This is same as subnet mask. It is used to allow administrative log on only to the PCs located in the same subnet as the base IP address. If you want to allow only one PC to access in administrative mode, set this value to 255.255.255.255.
E-Mail Setup		
	Notify for IP	If you check this, the IP address will be sent via E-mail whenever the

	Change	IP address changes. It is sent to the E-mail address set by “ Recv E-Mail Address ”.
	Recv E-Mail Address	Enter E-mail address to receive information sent from your network camera. This is same as E-mail field in IP-installer.
	Return E-Mail Address	Fill in this field with correct e-mail address to identify the mail sent from the network camera
	Using Built-in SMTP Server	If you are using web mail services having no SMTP server, check the radio button at the left of “ Using Built-in SMTP Server ” and enter valid e-mail address to avoid spam filtering on the receiving e-mail server.
	Using External SMTP Server	If you are using external mail server, fill in the fields with proper parameters.
FTP Server Setup		Setup IP address, Username, Password and Directory of FTP server to send data in case of alarm. Default FTP port number is 21.
Management Server		You can register the network camera to the Management Server (DDNS Server) for name service to your network camera.
	Log on to server	<p>Check this box to enable log on to the management server. By log on to the management server your network camera can use domain name instead of numeric IP address. This feature is particularly useful when your network camera is using dynamic IP address. Input valid management server (DDNS Server) name for the service.</p> <p>You must have an account on the management server (DDNS Server) and register your IP video devices under your account to use this feature.</p> <p>Domain name of your network camera can be assigned when you register your network camera to the management server under your account.</p> <p>One of the servers available is mgmt.net-video.net. For opening an account, visit www.net-video.net .</p>

5.5. User Admin & Time Setup

You can change the ID and password of users and also assign different attributes for each user.

USER ADMIN. & TIME SETUP

User Administration

Administrator

Username:

Password: (8 ~ 16 char)

Confirm Password:

Add User

Username:

Password: (8 ~ 16 char)

Attribute: Audio Bi-Audio PTZ

User List

Authentication for viewing

Yes

If no, default attribute: Audio Bi-Audio PTZ

Time Setup

Current Time Date: 2006-12-06 Time: 14:14:10

Time Setting

Synchronize with an Internet Time Server time.windows.com

Specific Time Server:

Select Time Zone: GMT +9:00 Daylight saving

Synchronize with this Computer Time

Date: 2006-12-06 Time: 14:14:02


Set Manually


Date: 2006-12-06 (yyyy-mm-dd)

Time: 14:14:08 (hh:mm:ss)

Fig. 5-7 User Administrator & Time Setup

Field/Button	Sub Field /Button	Description
User Administration	Administrator Username	Admin ID. Default ID is "root"
	Administrator password :	Admin password. The default password is "dw2001".

	Administrator Confirm Password	Enter the password once more to confirm the password.
	Add User Username	Enter the user ID you want to add. Up to 100 users are supported by Veilux VPIP-D110X / VPIPI-D110X.
	Add User Password	Enter the user password.
	Add User Attribute	<p>You can set different system resource access capabilities for each of the users.</p> <ul style="list-style-type: none"> ● Attributes are Audio, Bi-directional Audio and Pan/Tilt control. ● For example, if you want a specified user to hear the audio from the Veilux VPIP-D110X / VPIPI-D110X, check Audio in the check box.
	User List	<p>You can list "user ids" and "their attributes" here.</p> <ul style="list-style-type: none"> ● format : user id[A, BA, P] : <ul style="list-style-type: none"> ■ A – Audio, ■ B – Bi-directional audio, ■ P – PTZ, attribute. <p>You can delete specific user by clicking the DELETE button.</p>
Authentication for Viewing	YES SAVE	<p>If you want to restrict viewing access to the Veilux VPIP-D110X / VPIPI-D110X, check at the box left to Yes and click on Save. Users need to input ID and password to connect to Veilux VPIP-D110X / VPIPI-D110X in viewing mode in a pop up window as shown below..</p> <div style="text-align: center;">  </div> <p>Fig. 5-8. User Authentication in Veilux VPIP-D110X / VPIPI-D110X</p>
	If No, default attribute	<p>If you uncheck for the Authentication for Viewing, all users can access the Veilux VPIP-D110X / VPIPI-D110X with the same attribute set here. Checked attributes are enabled. Click "Save" to save the attribute.</p>
Time Setup	Current Time	It shows you the current time of Veilux VPIP-D110X / VPIPI-D110X.
	Synchronize	Synchronize the time with the internet time server at the right. When the

	with an Internet Time Server	time server is out of the reach from Veilux VPIP-D110X / VPIPI-D110X, you can assign time server by filling in Specific Time Server field.
	Synchronize With this Computer Time	Synchronize the time with the time of the PC.
	Set Manually	Set the time manually. Fill in the fields with desired formats.
SAVE		Save the set up parameters
 If you lost Administrator's ID and password, the only means of recovery is to reset the settings to factory default, but then you lose your previous settings.		

5.6. Sensor & Capture Setup

This is the setup page for sensors and video capture conditions. Captured video can be sent to user by FTP or E-mail upon configuration.

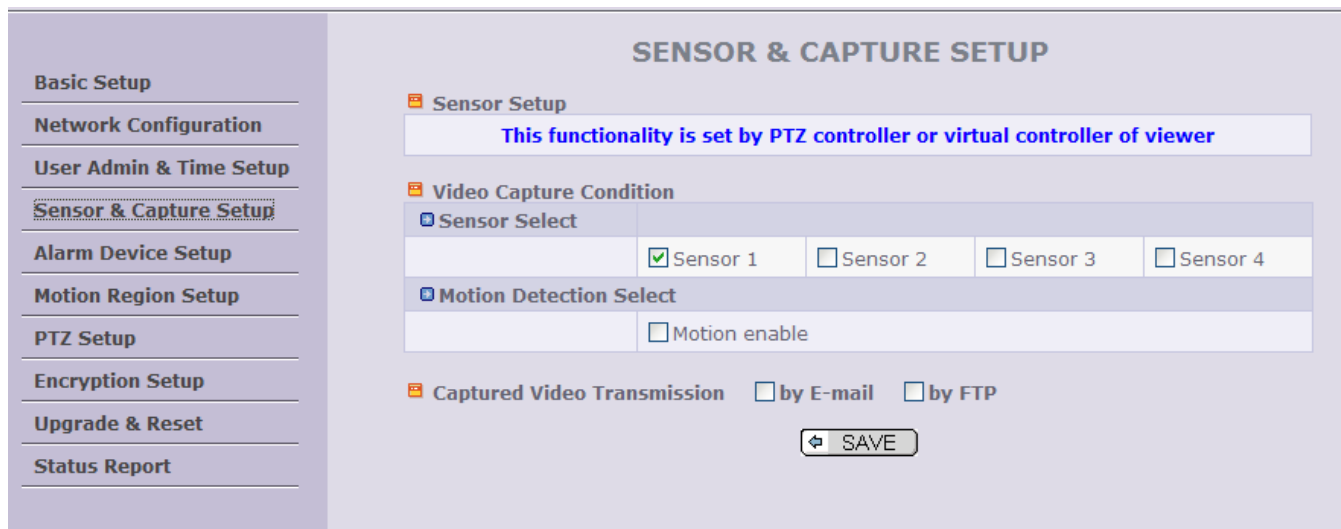


Fig. 5-9 Sensor & Capture Setup

Field/Button	Sub Field /Button	Description
Sensor Setup	Sensor 1	Not applicable for Veilux VPIP-D110X / VPIPI-D110X. For the sensor setup use the OSD menu available from virtual system controller. [Refer to iNVR user's guide]
	Name	Not applicable for Veilux VPIP-D110X / VPIPI-D110X.
Video Capture Condition		It sets the condition of video transmission via FTP or E-mail. The Veilux VPIP-D110X / VPIPI-D110X support 2 types of conditions which are mutually independent. <ol style="list-style-type: none"> 1. Sensor initiated: when at least one of the sensor detects alarm condition. 2. Motion-Detection initiated : when motion is detected from video channel
	Sensor Select	Check to enable Sensor initiated capture.
	Motion Detection	Check to enable motion detection initiated capture.

	Select	
Captured Video Transmission		Select a way of sending captured video. You can send captured video through FTP or E-mail, or both. -
	By E-Mail	Check to send captured video by e-mail. E-mail is sent to the Recv E-mail address . Refer to [Section 5.3.] Captured video data for E-mail consists of intra frames only in consideration of the limited storage space for E-mail account. FTP data contains entire video frames.
	By FTP	Check to send captured video by FTP. FTP is sent to the FTP Server . Refer to [Section 5.3.] If the FTP server is not properly assigned in “Network Configuration” mode , Veilux VPIP-D110X / VPIPI-D110X ignores the video transmission by FTP
SAVE		Save the setup parameters.

5.7. Alarm Device Setup

Test the alarm output and describe the condition of alarm annunciation.

Sensor related alarm operation, alarm device can operate only when the sensor is active at least over 2 seconds.

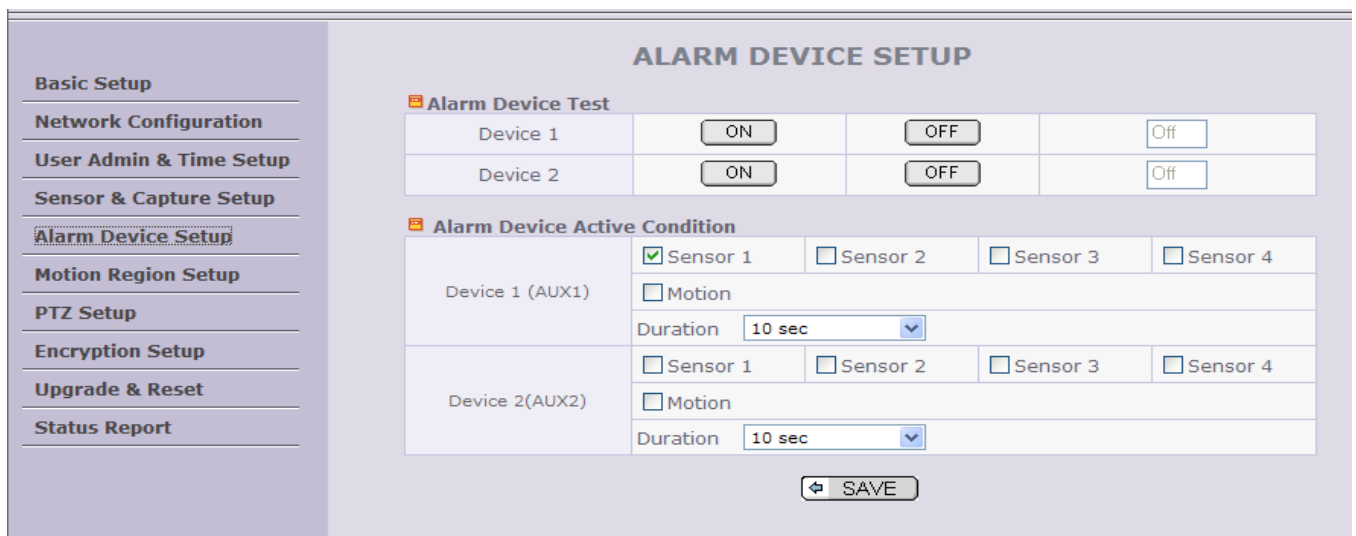


Fig. 5-10 Alarm Device Setup

Field/Button	Sub Field /Button	Description
Alarm Device Test		Test alarm devices. Click on On/Off for testing Small box with white background indicates the status of the relay by On/Off.
	ON	On the alarm output (close the relay contact)
	OFF	Off the alarm output (Open the relay contact)
Sound Test		
Alarm Device Active Condition		Setup the condition of activating alarm device. Select sensor or motion detection as the condition.
	Name	Logical name of the alarm device can be input into the box at the left.
	Sensor	Check at the box at the left of to allow alarm generation upon sensor input.
	Motion	Check at the box at the left to allow alarm generation upon Motion detection
	Duration	Set the duration of Alarm annunciation. 10 sec, 30 sec, 1 min, 2 min, 5 min, 10 min, 30 min, 1 hour.
SAVE		Save the setup parameters.

5.8. Motion Region Setup

Set the motion detection regions. Up to 3 regions can be defined.

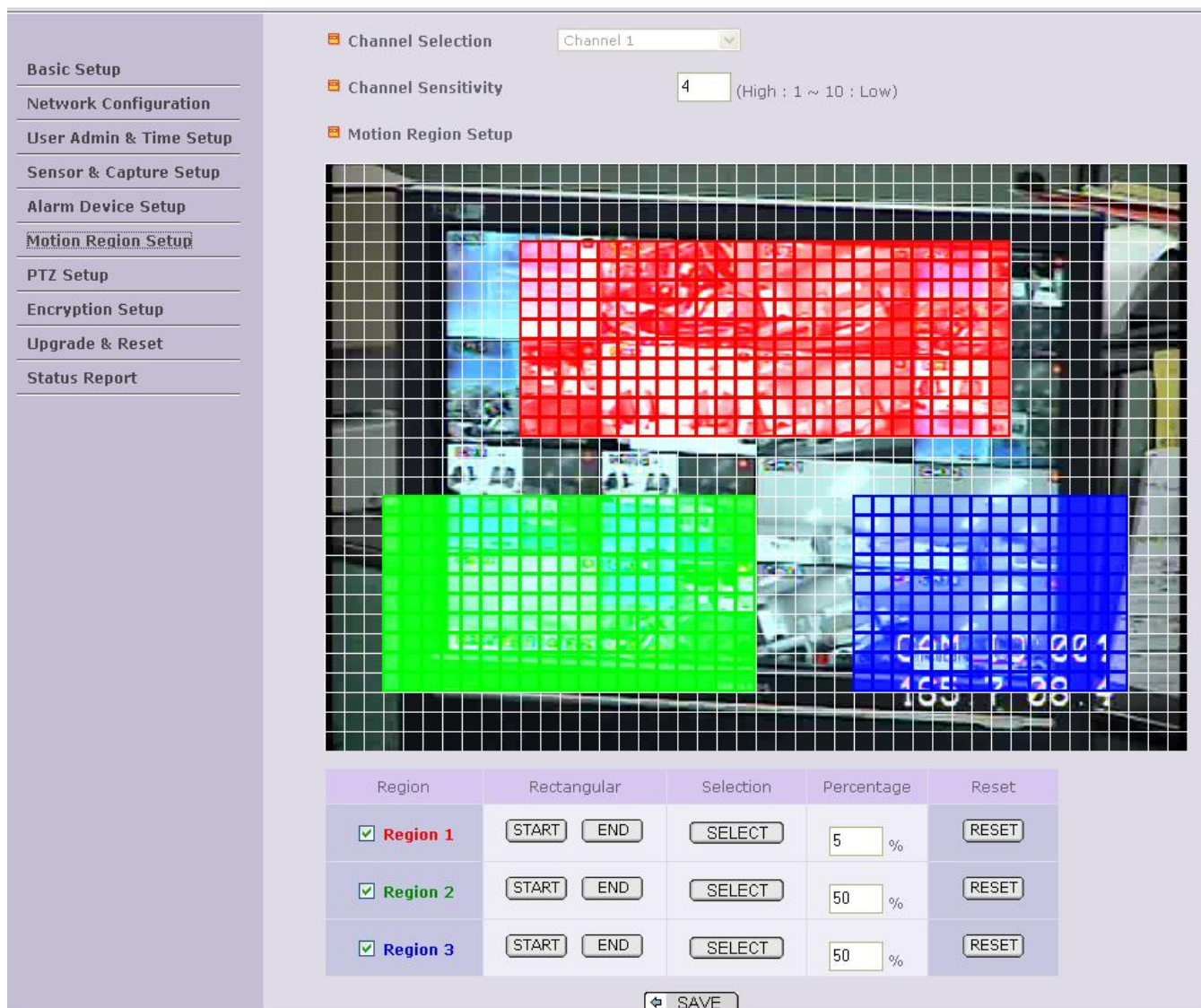


Fig. 5-11 Motion Region Setup

Field/Button	Sub Field /Button	Description
Channel Selection		Not applicable.
Channel Sensitivity		Set the sensitivity in motion detection for each channel. 1 is the most sensitive, and 10 is the least sensitive.

Motion Region Setup		Set up to 3 the motion detection zone
	Region 1, 2, or 3	<p>Enable each zone by checking the box at the left of each Region.</p> <p>. To set the region,</p> <ol style="list-style-type: none"> 1. Click on START and click on a box overlaid on the video 2. Click on END and click on a box overlaid on the video. 3. The defined motion detection zone will be indicated with corresponding colors. <p>Legend of the color :</p> <p style="padding-left: 40px;">red(region 1), green(region 2), blue(region3).</p>
	START	Enable selection of rectangular zone start.
	END	Enable selection of rectangular zone end.
	SELECT	Click on this button and click on desired rectangle to add or delete the rectangular region to the motion detection zone.
	Percentage	This value controls the sensitivity of each region. 1 is the most sensitive and 100 is the least sensitive
	RESET	Clears the start & end point to (0,0) & (0,0)
SAVE		Save the setup parameters.

5.9. PTZ Setup

















Fig. 5-12 PTZ Setup

The description below is applicable for Type-1 PTZ set up page.

Field/Button	Sub Field /Button	Description
Channel Selection		Not applicable
PTZ Model Selection		Choose the PTZ model. Do not change from the default selection for proper operation.
	Delete Button	Click on this button to delete a PTZ model. (Do not delete the default model.)
PTZ Device ID		Your PTZ device needs an ID. Input ID in this field. Click on SAVE to save the ID.
PTZ	Speed	Select this RADIO button to set the speed of the PTZ operation.

Operation Check	Step	Select this RADIO button to set the step size of PTZ operation.
	PAN	Move the slider to adjust the speed or step in panning.
	TILT	Move the slider to adjust the speed or step in tilting.
	ZOOM	Move the slider to adjust the speed or step in zooming.

		Camera Position Control Pan/Tilt control Zoom In Zoom Out
		Focus Far
		Focus Near
		Enter into OSD menu for camera setting. In the OSD menu, use Up/Down buttons to navigate through the menu item on the screen. Depending upon the situations Left/Right buttons will perform one of the followings. <ol style="list-style-type: none"> 1. Change parameter value in each submenu. 2. Decrement/increment the numbered value. 3. Go into lower level menu trees. 4. If clicked when the cursor is on "EXIT", upper menu will be activated or OSD menu mode will be finished. Refer to the Appendix-A for more details of OSD menu settings.
		Centering. Move the camera so that the clicked point is located at the center of the display
		Iris Control
		Set Pattern ¹
		Set Tour ²
		Set Preset ³
		GOTO Preset

		Run Pattern
		Run Scan
		Stop any PTZ command

1. Pattern Setting Procedure (Pattern is a recorded sequence of PTZ operation steps)

- a. Choose Number to be assigned as Pattern ID
- b. Click "SET PTRN" button to start recording the pattern. The OSD menu will appear on the screen.
- c. Operate the camera using Pan/Tilt/Zoom Control
- d. Click "SET PTRN" again to save the pattern.

2. Tour Setting Procedure: (Tour is a series of Preset)

- a. Choose Number to be assigned as Tour ID
- b. Click "SET TOUR" button to start tour setting. The OSD menu will appear on the screen.
- c. Choose preset number and Click "GOTO PRST".
- d. Repeat procedure "c" to assign a series of preset positions to the tour.
- d. Click "SET TOUR" again to save the tour.

3. Preset Setting Procedure

- a. Choose Number to be assigned as Preset ID
- b. Pan/Tilt/Zoom Control
- c. Click button to save the preset position.

5.10. Encryption Set up

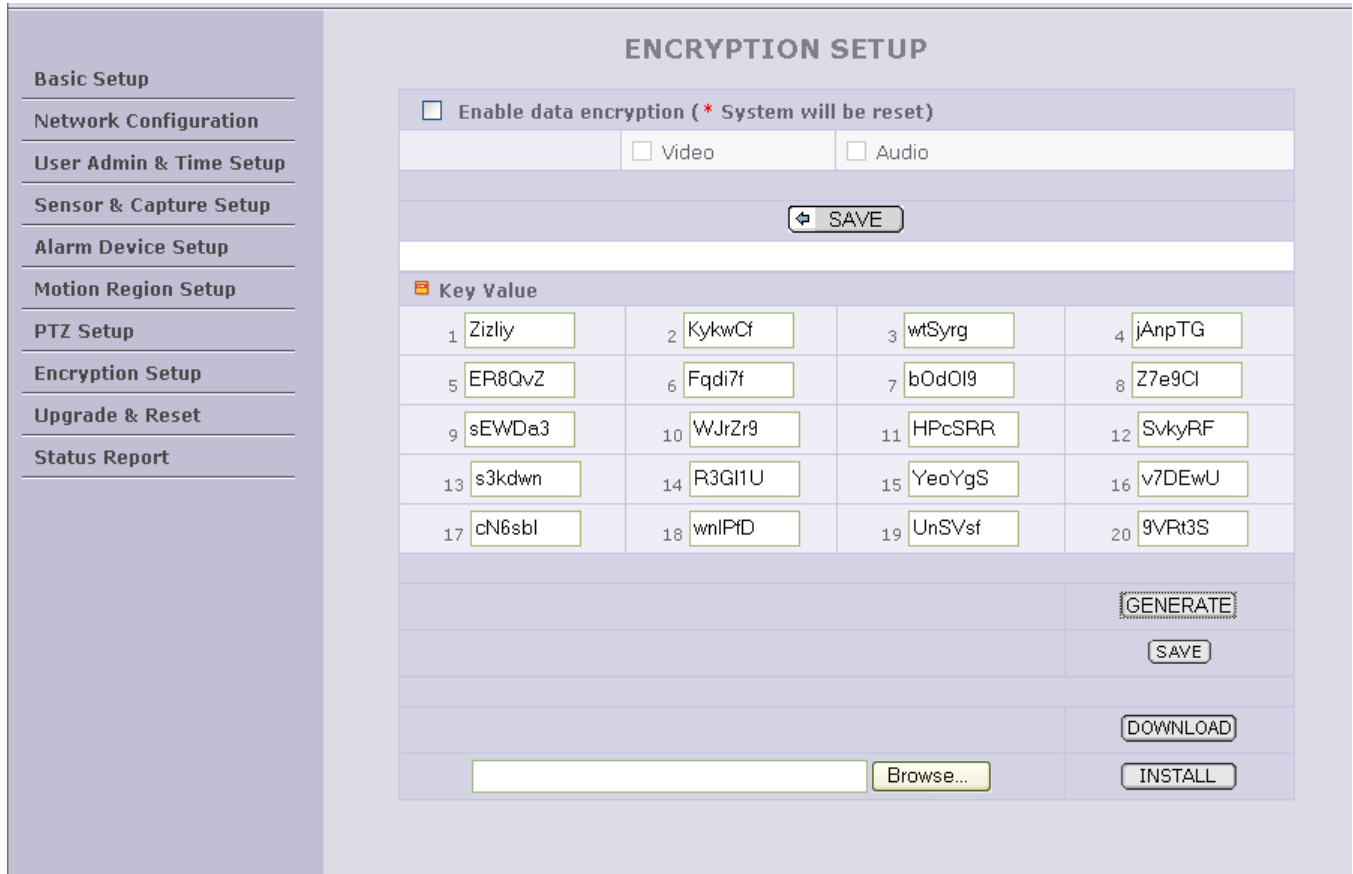


Fig. 5-13 Encryption Setup

For additional security to the video and audio data transmitted from the network camera, you can set key codes and use them for encrypting the data from the network camera.

You can selectively activate encryption for the video and audio data. For enabling the encryption, check at the box at the left of the “Enable data encryption” then check at the proper check boxes at the left of “Video” and “Audio”. After the selection, click on SAVE button beneath the “Video” and “Audio” check boxes.

Field/Button	Sub Field /Button	Description
Enable Data Encryption		Check at this box to apply data encryption. If it is unchecked encryption is applied on neither video nor audio data regardless of the selection below.
	Video	Check to enable encryption on the video data.
	Audio	Check to enable encryption on the audio data.

	SAVE	After the selection, click on SAVE button.
Key Value		You can use up to 20 different key codes for the encryption of the data
	GENERATE	To generate the key value click on "GENERATE" button. The boxes for the Key values will be filled with new values.
	SAVE	Save Key value on the network camera: Click on SAVE button beneath GENERATE button to save the key value generated by the network camera.
	DOWNLOAD	Download Key value to your PC: The key values can be downloaded and stored as a file to your PC for reference when you make connection. When encryption is enabled, the PC client program will ask for particular key value out of the 20 available key values.
	INSTALL	Upload key value to the network camera: The key value stored on your PC can be uploaded to your network camera. This feature is useful when you manage multiple network cameras having same key value sets. Select a file having key values then click on "INSTALL" button to upload the key values. Find file saving the Key value before uploading to the network camera.

5.11. Upgrade & Reset

You can upgrade the Veilux VPIP-D110X / VPIPI-D110X via IP network.

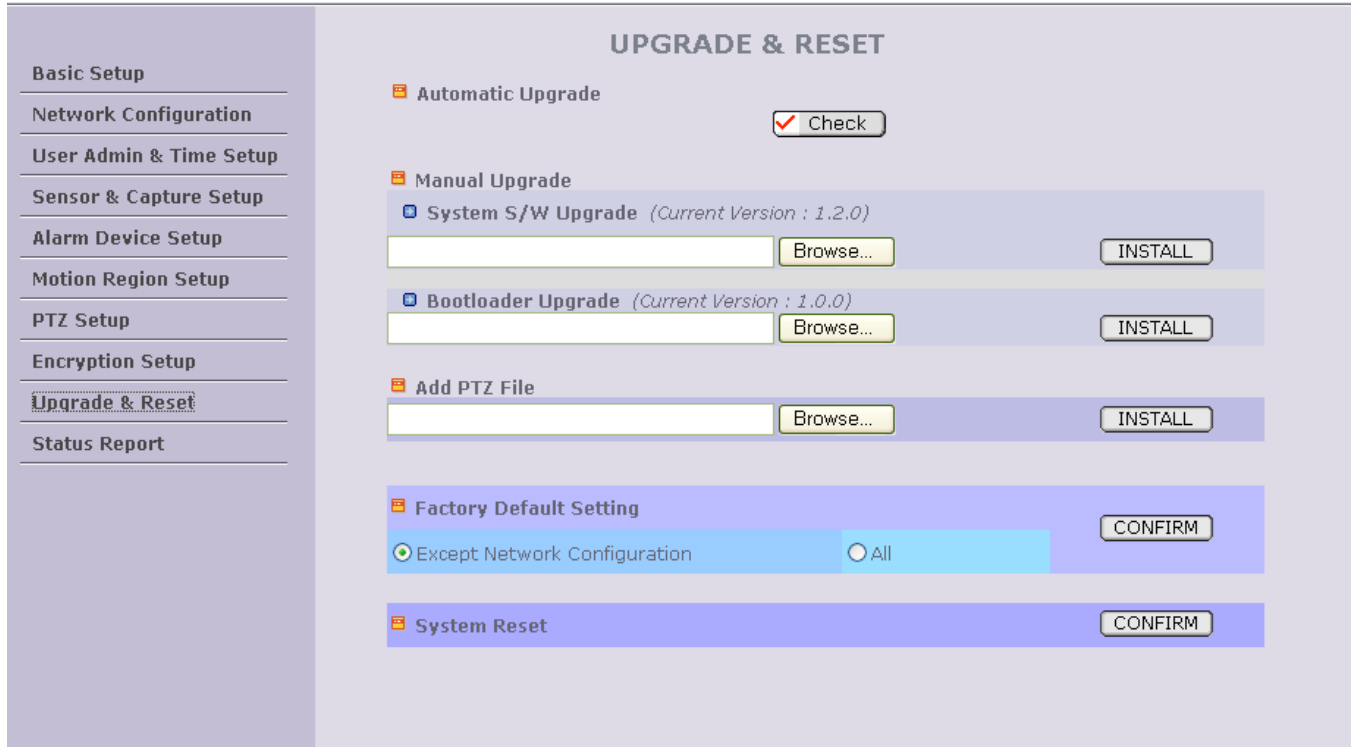


Fig. 5-14 Upgrade & Reset

For each of the upgrade of the system component, upgrade code should be downloaded from **Veilux's** home page before the system upgrade is performed.

(Refer to [\[6.4. How To Upgrade Your Veilux VPIP-D110X / VPIPI-D110X System\]](#))

Field/Button	Sub Field /Button	Description
Automatic Upgrade		This function will be supported in future. Automatic upgrade is a feature that enables network camera to upgrade to newly released system software by automatically connecting to upgrade server. Click on check button to find the availability of upgrade firmware.
Manual Upgrade		Upgrade the system manually.
	System S/W Upgrade	Upgrade the system software installed in the network camera via the network. System software needed for the upgrade can be downloaded

		<p>from Veilux's home page.</p> <p>Refer to [6.4. How To Upgrade Your Veilux VPIP-D110X / VPIPI-D110X System].</p>
	<p>Bootloader Upgrade</p>	<p>Upgrade the bootloader installed in the network camera via the network. Bootloader needed for the upgrade can be downloaded from Veilux's home page.</p> <p>Refer to [6.4. How to upgrade Veilux VPIP-D110X / VPIPI-D110X firmware]</p>
Add PTZ File		<p>Not applicable for Veilux VPIP-D110X / VPIPI-D110X</p>
<p>Factory Default Setting</p>		<p>Re-initialize the network camera to factory default state.</p> <p>By checking on a Radio button "Except Network Configuration", you can preserve the parameters for the network. Checking on "All", will return all the parameters to factory default state.</p> <p>Once Veilux VPIP-D110X / VPIPI-D110X are re-initialized as factory default state, it should be set-up again using IP-Installer.</p>
<p>System Reset</p>		<p>Perform remote reset by clicking the "CONFIRM" button.</p> <p>All previous connections will be disconnected upon reset. Veilux VPIP-D110X / VPIPI-D110X do not resume the connections and the users must re-connect to the server manually.</p>

5.12. Status Report

It shows you system records since the system started.

STATUS REPORT

```

[2008/11/07 14:43:20] DomeCamera      v.2.2.2 (08/10/21)
[2008/11/07 14:43:20] Management      v.2.2.0 (08/06/16)
[2008/11/07 14:43:20] Web Server       v.2.2.2 (08/09/24)
[2008/11/07 14:43:20] Stream Server    v.2.2.2 (08/08/12)
[2008/11/07 14:43:20] Audio            v.2.2.0 (08/06/24)
[2008/11/07 14:43:20] Video            v.2.2.2 (08/09/03)
[2008/11/07 14:43:20] Demon            v.2.2.2 (08/09/24)
[2008/11/07 14:43:20] Flash            v.2.2.2 (08/10/13)
[2008/11/07 14:43:20] Device Driver    v.2.2.2 (08/10/16)
[2008/11/07 14:43:20] Mgmt Client      v.2.0.8 (08/02/19)
[2008/11/07 14:43:20] IPInstaller      v.2.2.2 (08/10/21)
[2008/11/07 14:43:20] AccessNetwork    v.2.0.8 (08/02/19)
[2008/11/07 14:43:20] TCP/IP stack     v.2.2.2 (08/08/29)
                
```

Additional Information

MAC Address	00:07:18:11:08:a4
Public IP Address	0.0.0.0
Management Host Name	
System ID	01010105
Connected Session	0

Fig. 5-15 Status Report

You can check the problems as well as the versions and event status of the whole system and each module.

6. Tips for Using Veilux VPIP-D110X / VPIPI-D110X

6.1. Alarm (for Sensor input) and AUX(for Relay output)

Alarm terminal at the connector panel of Veilux VPIP-D110X / VPIPI-D110X is used to connect various sensing and alerting devices. Examples of sensing devices are infrared sensors, motion sensors, heat/smoke sensors, magnetic sensor, etc. Aux terminal is used for connecting alerting device such as loud speaker, flashing light, etc.

1. "ALARM" connector for Sensor Input to Veilux VPIP-D110X / VPIPI-D110X

Connect the two wires of the sensors. The sensor type can be set in NVR-64.

- 1) Please run NVXR-64, connect Veilux VPIP-D110X or VPIPI-D110X and click on the "Virtual System Controller" Button and then you will get Virtual System Controller screen
- 2) Select the "menu" button on Virtual System Controller, then OSD menus are displayed on the corresponding video display screen of the iNVR. Using the buttons on the "Virtual System Controller" select "ALARM", "ALARM NO." and then "ALARM INPUT" sequentially. The screen changes are illustrated in Fig.6-1



Fig.6-1 Setup the Sensor Type at NVXR-64

Please connect sensor between “Signal” and “GND” pin of the alarm terminal at the connector panel of Veilux VPIP-D110X / VPIPI-D110X

Fig. 6-2 shows equivalent alarm input circuit of Veilux VPIP-D110X / VPIPI-D110X.

“+” and “-” are “Signal” and “GND”, respectively.

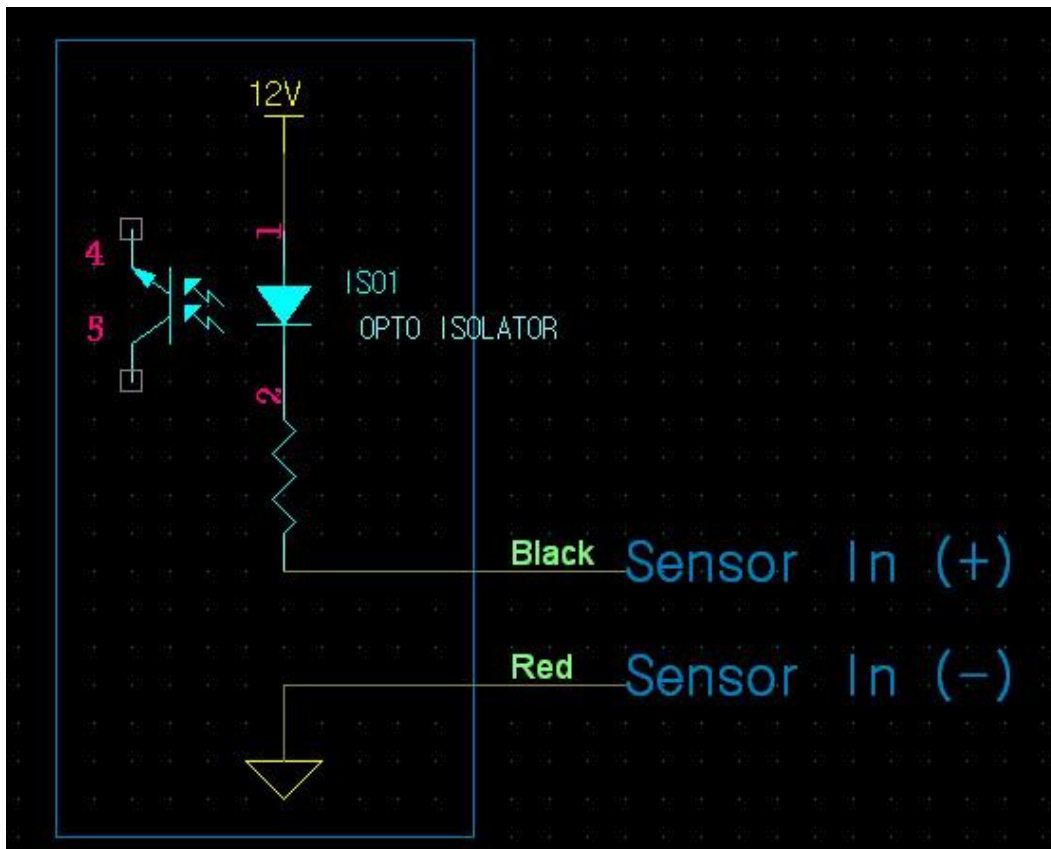


Fig. 6-2 Alarm input of Veilux VPIP-D110X / VPIPI-D110X

2. “AUX” connector for Relay Output from Veilux VPIP-D110X / VPIPI-D110X

A Relay output is provided for connecting alarm devices or for remote on/off devices such as light control. Relay circuits are normal open and circuits are closed upon alarm output or remote on. The relay is capable of switching AC/DC 30V, 1A electrical signal.

You can connect up relay to “AUX 1” and “AUX 2” at the bottom panel of Veilux VPIP-D110X / VPIPI-D110X. Fig. 6-3 shows the relay output circuit which is located at the inside of Veilux VPIP-D110X / VPIPI-D110X.

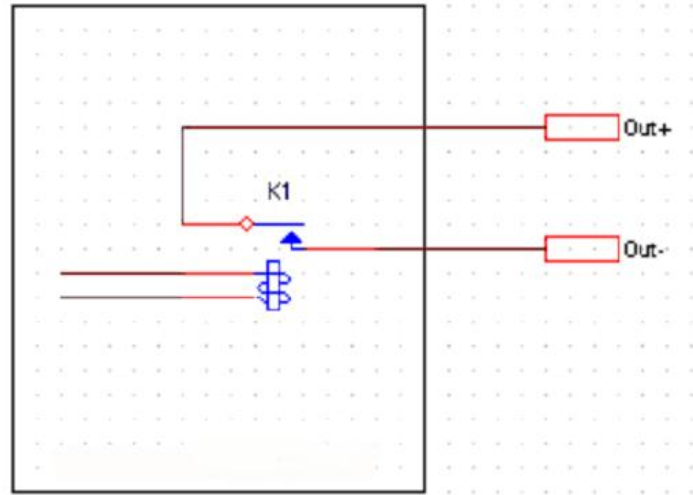


Fig. 6-3 RELAY Output of Veilux VPIP-D110X / VPIPI-D110X

3. Connection of Sensor, Alarm Device

3.1 Connection of Sensor (Fig.6-4)

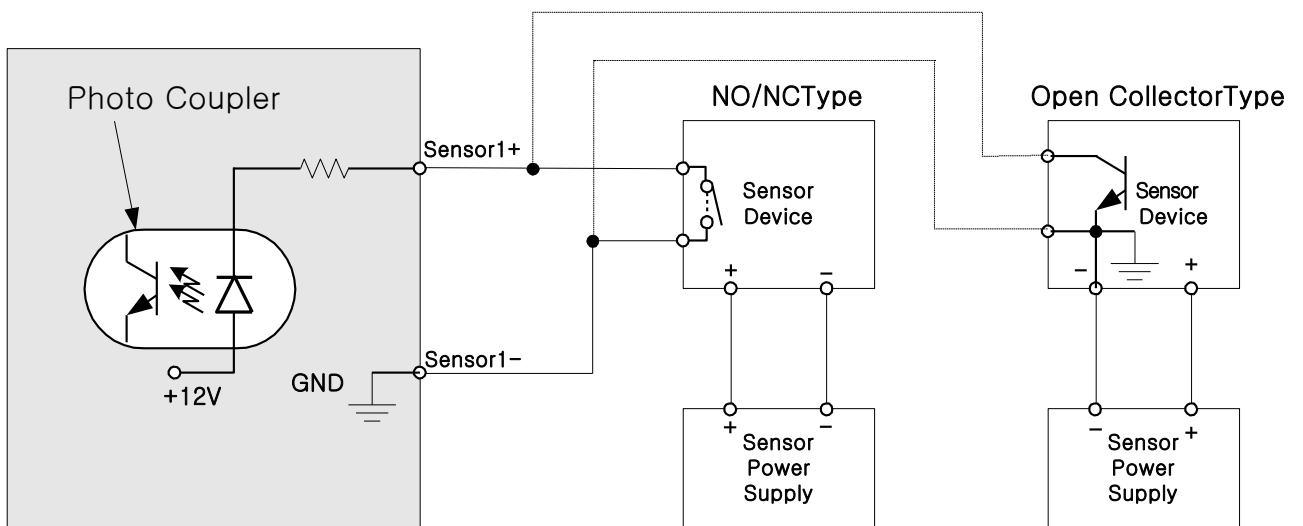


Fig. 6-4 Connection of Sensor to Veilux VPIP-D110X / VPIPI-D110X

3.2 Connection of Relay(Fig.6-5)

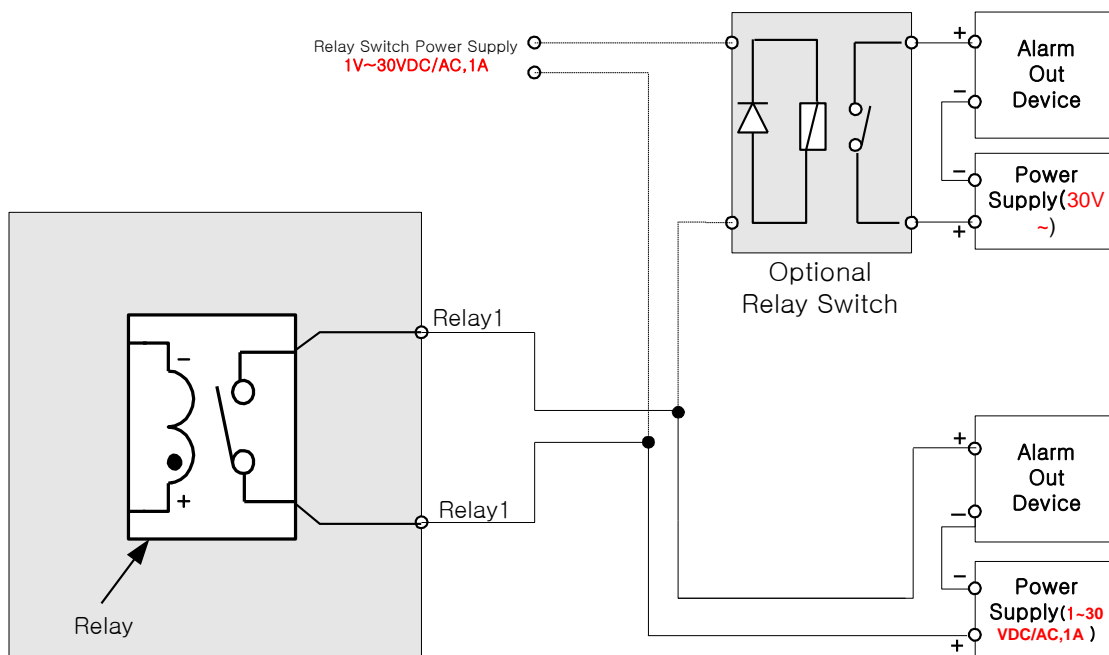


Fig. 6-5 Connection of Relay to Veilux VPIP-D110X / VPIPI-D110X



You can use the supported relay output to directly drive a maximum load of 30V AC/DC at 1A. By connecting additionally relay circuitry (such as optional relay switch), it can also drive heavier loads.

6.2. Trouble Shooting

1. After Veilux VPIP-D110X / VPIPI-D110X is successfully installed.

- Veilux VPIP-D110X / VPIPI-D110X in viewing mode, neither channel name nor video is display and eventually timeout message is shown up.

Check the power and network connection of Veilux VPIP-D110X / VPIPI-D110X.

To check if the network is properly operating, open the browser and try to connect to any server.

Example) <http://www.yahoo.com>

Or open the MS-DOS Prompt and type the following.

ping www.yahoo.com

Then press Enter. If you see the "Reply from ..." message it means that the network is working properly.

To check if the Veilux VPIP-D110X / VPIPI-D110X is connected, open the MS-DOS Prompt and type the following.

ping [the IP of the server]

Example) ping 192.168.1.112

If you see the “Reply from ...” message, it means that the server is properly connected.

If you do not see a Reply message, check if the network cable and power cable are properly connected.

2. After successfully connecting he Veilux VPIP-D110X / VPIPI-D110X to IP network

• **Video movement is slow.**

In Basic Setup of Admin Mode, lower the “Quality”. High quality means more data. You can also set the “Max. Bandwidth” to higher value. But this value must be lower than the maximum upload speed of your network. For example, if the maximum uploading bandwidth of the network is 400Kbps, set the total “Max. upload rate” as 384Kbps. If you set it higher, the video image can be corrupted with artifacts.

Ask your network manager or ISP for maximum uploading bandwidth of the network.

• **The image is dull and I see green, pink dots.**

This could be caused by performance limitation of the PC. Do not run too many programs while running viewer program. The other reason could be missing data while transmission from Veilux VPIP-D110X / VPIPI-D110X.

• **Mosaic phenomenon.**

Mosaic phenomenon occurs when not enough network bandwidth is available considering the resolution and frame rate of the video.

Example is 704x480 video with low Max. Bandwidth.

Users are recommended to adjust resolution and frame rates to lower values for lower bandwidth network.

3. Additional Trouble Shooting

Problem	Solution
No operating	. Check if the power supply is AC24V. . Check if RS-485 communication cable is connected correctly. . Check camera ID setting. . Check the termination.
No picture	. Check all cable connections.
Dark screen	. Adjust the monitor status.
Abnormal camera Operation status	. Check if voltage level is out of the specification. . Check the termination.
Screen not clear	. Check if there is dust on the lens. . If exposed to excessive light, change the camera angle or location. . Adjust the lens focus again.

6.3. Web Viewer


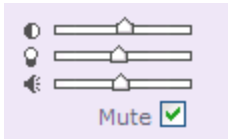
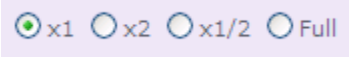




Veilux VPIP-D110X / VPIPI-D110X are designed to be connected through internet explorer, too. For connection to Veilux VPIP-D110X / VPIPI-D110X using internet explorer type in IP address or host address in the address input field of the internet explorer.







Fig. 6-6 Web Viewer











● Control Panel of Web Viewer

		Two way Audio Activation/Deactivation toggle
		Capture Video
		Flip the display.
		Play

		Stop
		Control for Contrast/Brightness/Volume The value saved to the PC through cookie.
	Mute	Check at the box for audio mute.
		Video Display Size Control
		Relay On/Off Control
		Sensor Status

● PTZ Control

		Camera Position Control Pan/Tilt control Zoom In Zoom Out
		Focus Far
		Focus Near

		<p>Enter into OSD Menu for Camera Setting. In the OSD menu, use Up/Down buttons to navigate through the menu item on the screen. Depending upon the situations Left/Right buttons will perform one of the followings:</p> <ol style="list-style-type: none"> 1. Change parameter value for each submenu. 2. Decrement/increment the numbered value. 3. Go into lower level menu trees. 4. If clicked when the cursor is on "EXIT", upper menu will be activated or OSD menu mode will be finished. <p>Refer to the appendix for more details of OSD menu settings.</p>
		<p>Centering. Move the camera so that the clicked point is located at the center of the display</p>
		<p>Iris Control</p>
		<p>Set Pattern¹</p>
		<p>Set Tour²</p>
		<p>Set Preset³</p>
		<p>GOTO Preset</p>
		<p>Run Pattern</p>
		<p>Run Scan</p>
		<p>Stop any ptz command</p>

-
- **1. Pattern Setting Procedure (Pattern is a recorded sequence of PTZ operation steps)**
- a. Choose Number to be assigned as Pattern ID
- b. Click "SET PTRN" button to start recording the pattern. The OSD menu will appear on the screen.
- c. Operate the camera using Pan/Tilt/Zoom Control
- d. Click "SET PTRN" again to save the pattern.
-
- **2. Tour Setting Procedure : (Tour is a series of Preset)**

- a. Choose Number to be assigned as Tour ID
- b. Click "SET TOUR" button to start tour setting. The OSD menu will appear on the screen.
- c. Choose preset number and Click "GOTO PRST".
- d. Repeat procedure "c" to assign a series of preset positions to the tour.
- d. Click "SET TOUR" again to save the tour.
-
- **3. Preset Setting Procedure**
- a. Choose Number to be assigned as Preset ID
- b. Pan/Tilt/Zoom Control
- c. Click button to save the preset position.

6.4. How to upgrade Veilux VPIP-D110X / VPIPI-D110X firmware

Unless otherwise instructed, the owners of the Veilux VPIP-D110X / VPIPI-D110X are recommended to upgrade the system when upgraded firmware is released using manual upgrade procedure.

Followings are the procedure to apply for the manual upgrade

- 1) Save the upgrade system software to your PC. Upgrade software can be downloaded from Veilux's home page or provided in CD.
- 2) Log on to administrative mode and select "Update & Reset" menu.
- 3) Click "Browse..." to find the files you want to use for upgrade. This will open a "Choose file" dialogue window. The file extension is "ief".
- 4) When you've found the file, click "Open." This will select the file and close the "Choose file" dialogue window.
- 5) Click the "INSTALL" button. An alert message box will pop up. Click "OK" button then it will start uploading the file. This may take some time.
- 6) Upgrade completion message will appear after the system upgrade has been completed.
- 7) Reboot Veilux VPIP-D110X / VPIPI-D110X by performing "System Reset".
- 8) After rebooting, log on to the server in administrative mode again and click the "Status Report".
- 9) Check the version number and release date of the Veilux VPIP-D110X / VPIPI-D110X.



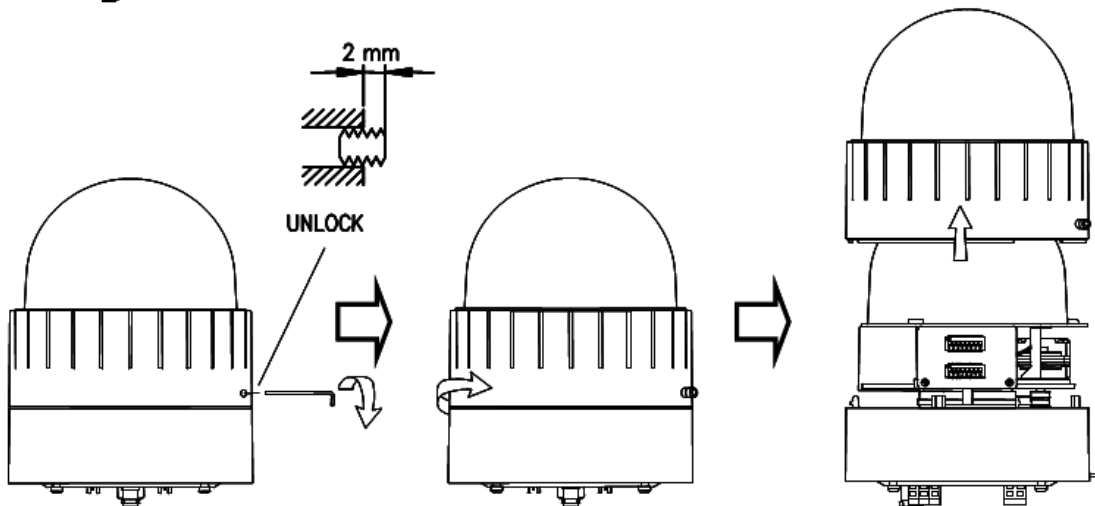
You can download Veilux VPIP-D110X / VPIPI-D110X system software from Veilux's homepage.
<http://www.Veilux.net>

Appendix 1. On Site Installation of Veilux VPIPI-D110X

A. Preparations for the installation

A-1. Open the Cover of the Dome Camera

Opening Dome Cover

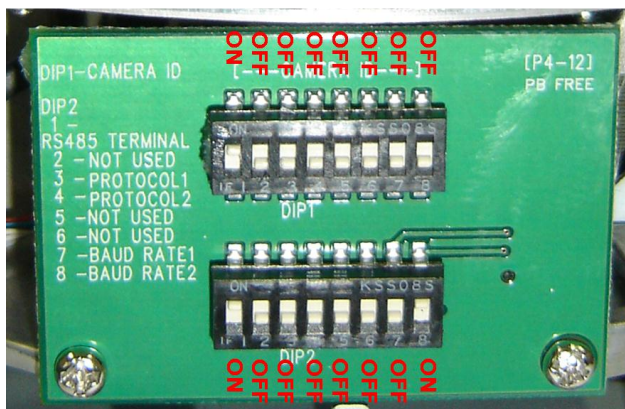


Unlock the screw

Rotate the cover to remove

A-2. Set the DIP switches as in the following picture.

DIP Switches : Make sure to set the switch positions as illustrated below.

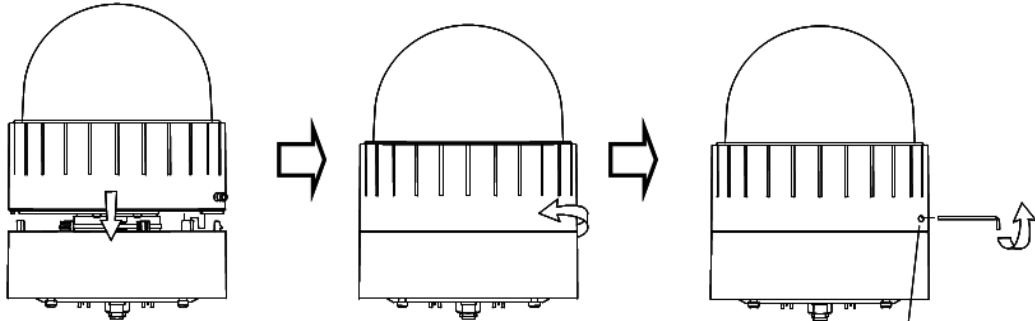


When using system controller for the control of the dome, always set the RS-485 communication channel to be :

2400 bps, 8 bit, 1 stop bit, no parity.

A-3. Place the Dome Cover.

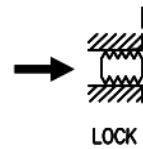
Placing Dome Cover



Place the cover & rotate to tighten

Lock the screw

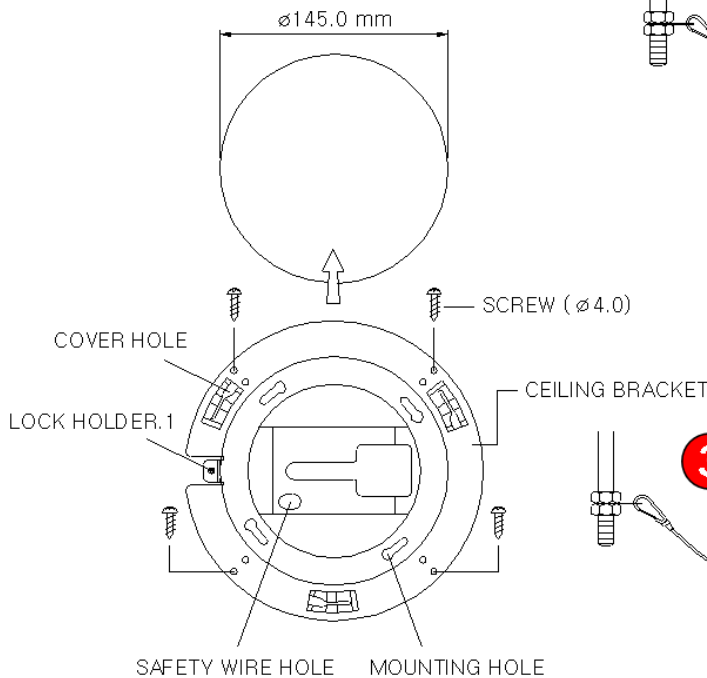
Screw head should be even with the surface when locked.



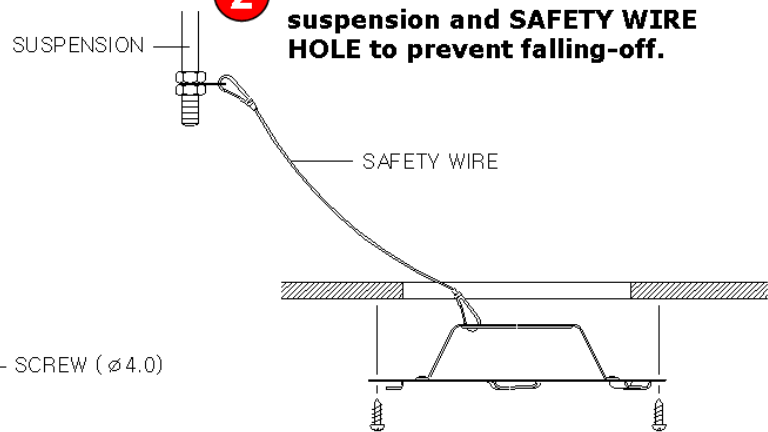
B. Installation using Ceiling Mount

Notice : Ceiling board should be strong enough to hold the weight of approx. 2kg.

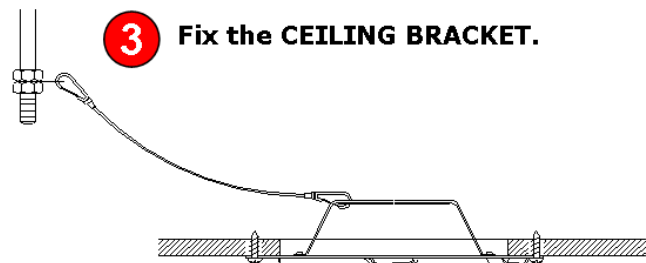
1 Prepare 145mm Diameter Hole on the Ceiling



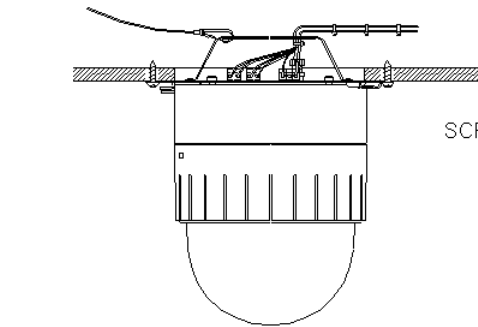
2 Place SAFETY WIRE between suspension and SAFETY WIRE HOLE to prevent falling-off.



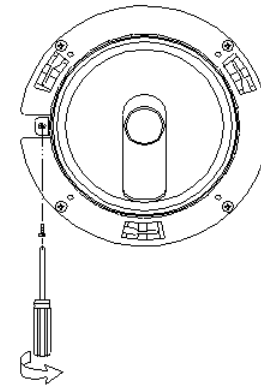
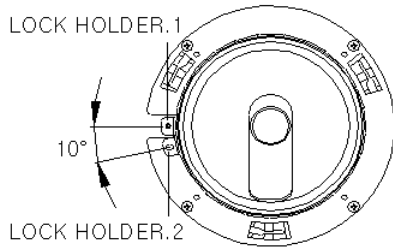
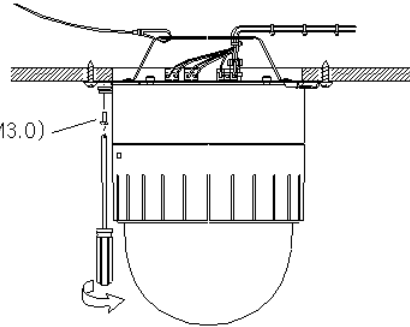
3 Fix the CEILING BRACKET.



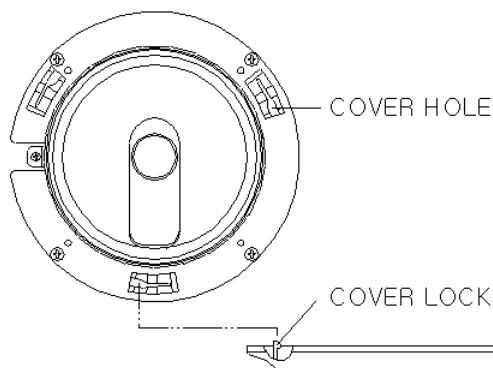
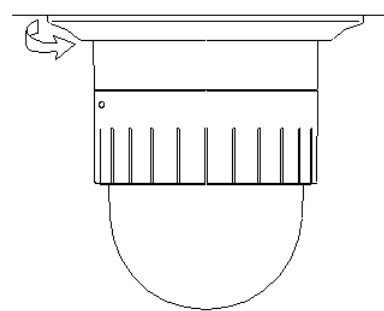
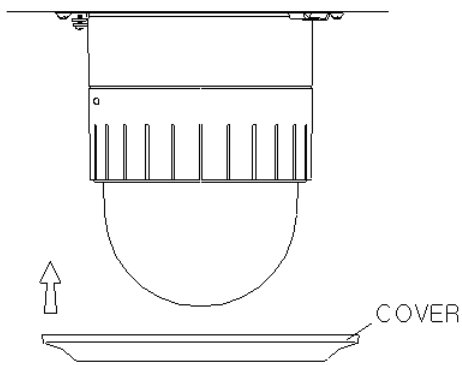
5 Attach the CAMERA to the CEILING MOUNT. TO attach the CAMERA to the CEILING MOUNT, insert the CAMERA MOUNT HOLES into the BRACKET MOUNT HOLES and twist the camera by 10° toward locked position.



6 Place M3 screw to fix the CAMERA.

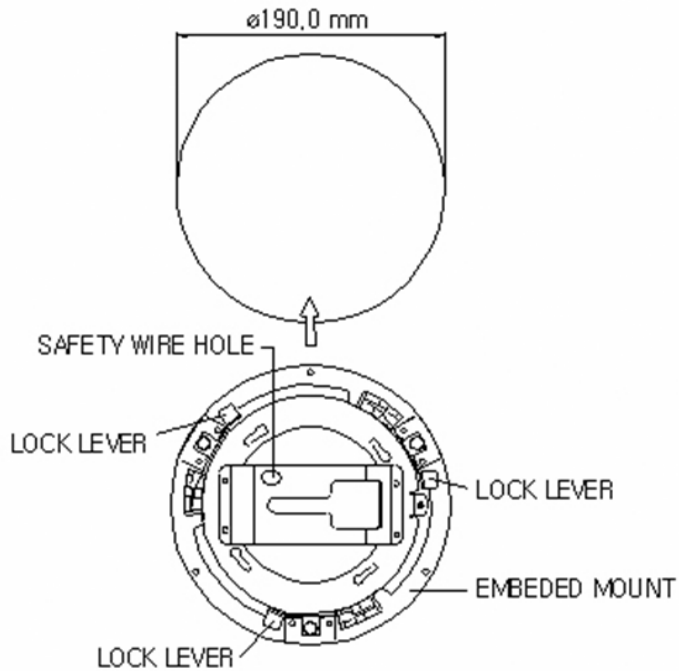


7 Place the cover

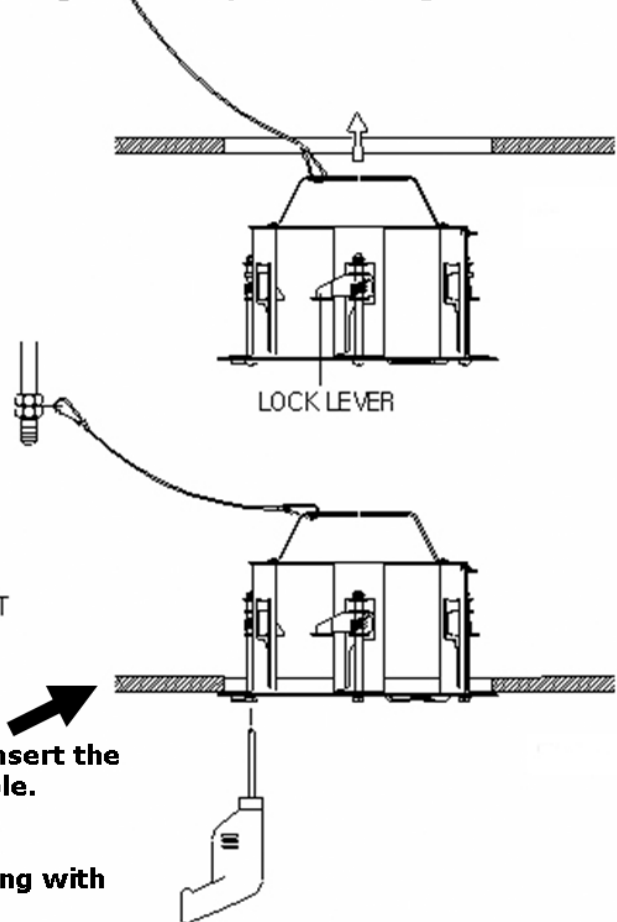


C. Installation using Embedded Mount Type

- 1 Prepare 190mm Diameter Hole on the Ceiling**

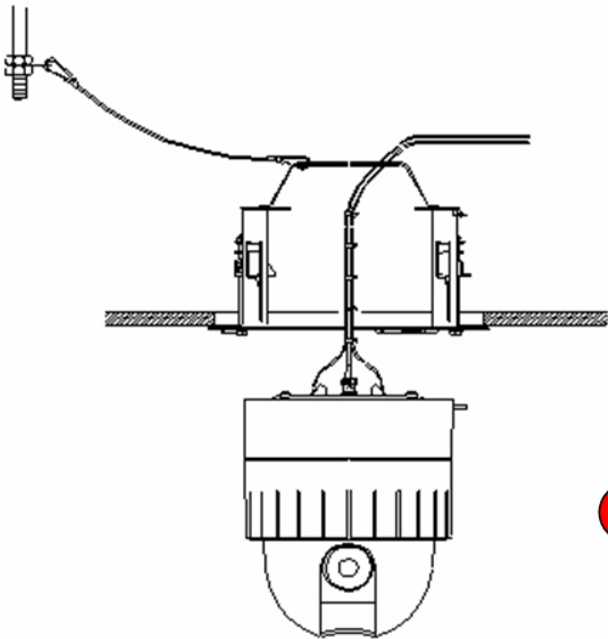


- 2 Place SAFETY WIRE between suspension and SAFETY WIRE HOLE to prevent falling-off.**

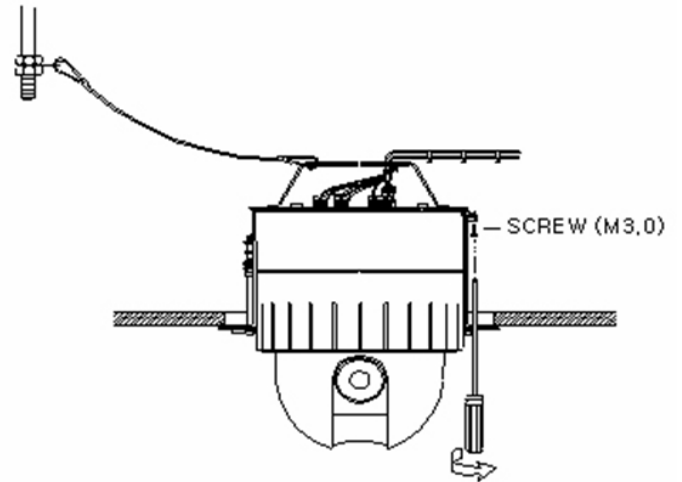


- 3 Fold the LOCK LEVERs and insert the BRACKET into the Ceiling Hole.**
- 4 Fix the BRACKET to the Ceiling with screws.**

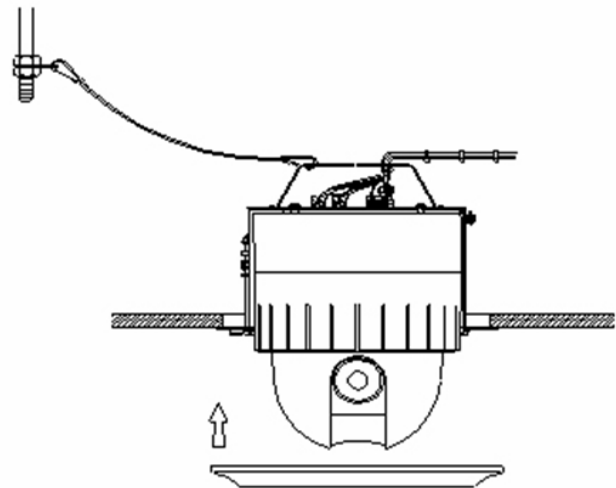
5 Insert the CAMERA into the MOUNT.



6 APPLY screw to fix the CAMERA.



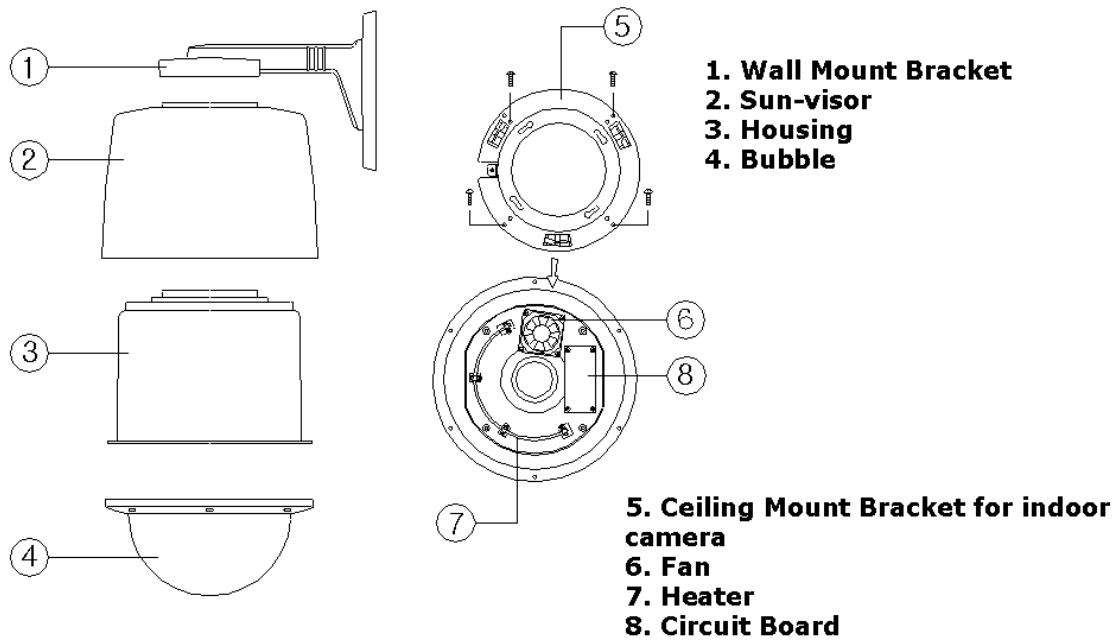
7 Place the COVER to finish the installation



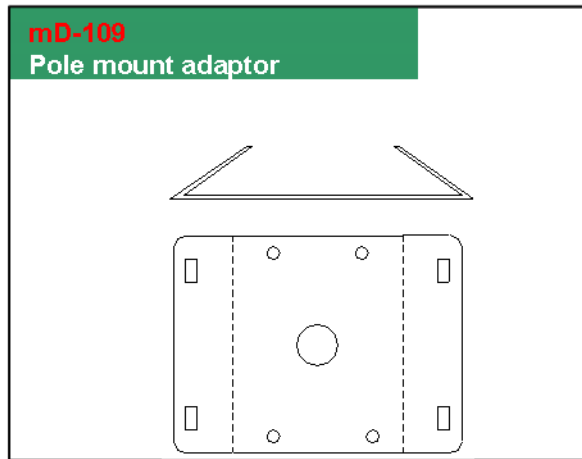
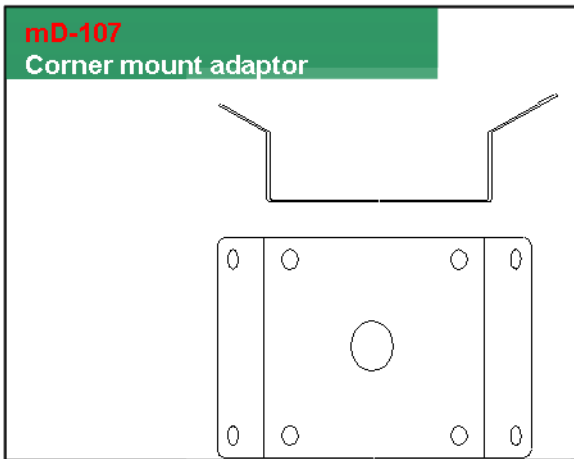
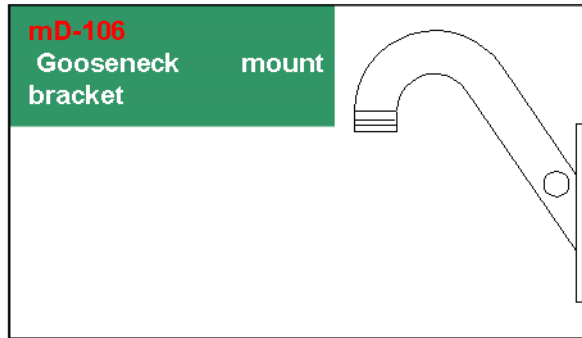
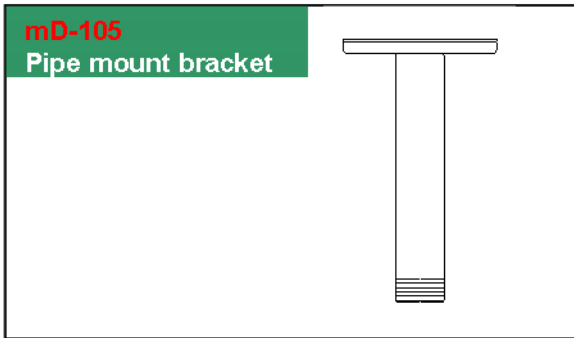
Appendix 2. On Site Installation of Veilux VPIP-D110X

A. Basic Components and Mounting Accessories

A-1. Basic Components



A-2. Mounting Accessories (Optional)



B. Wall Mounting using Wall Mount Bracket

The wall should be strong enough to hold 4 times of the weight of the camera (5.3 KG). This means that the wall should withstand weight of 21.2 KGs in the minimum.

B-1. Pass the combined cable through the inside Cable Gland.

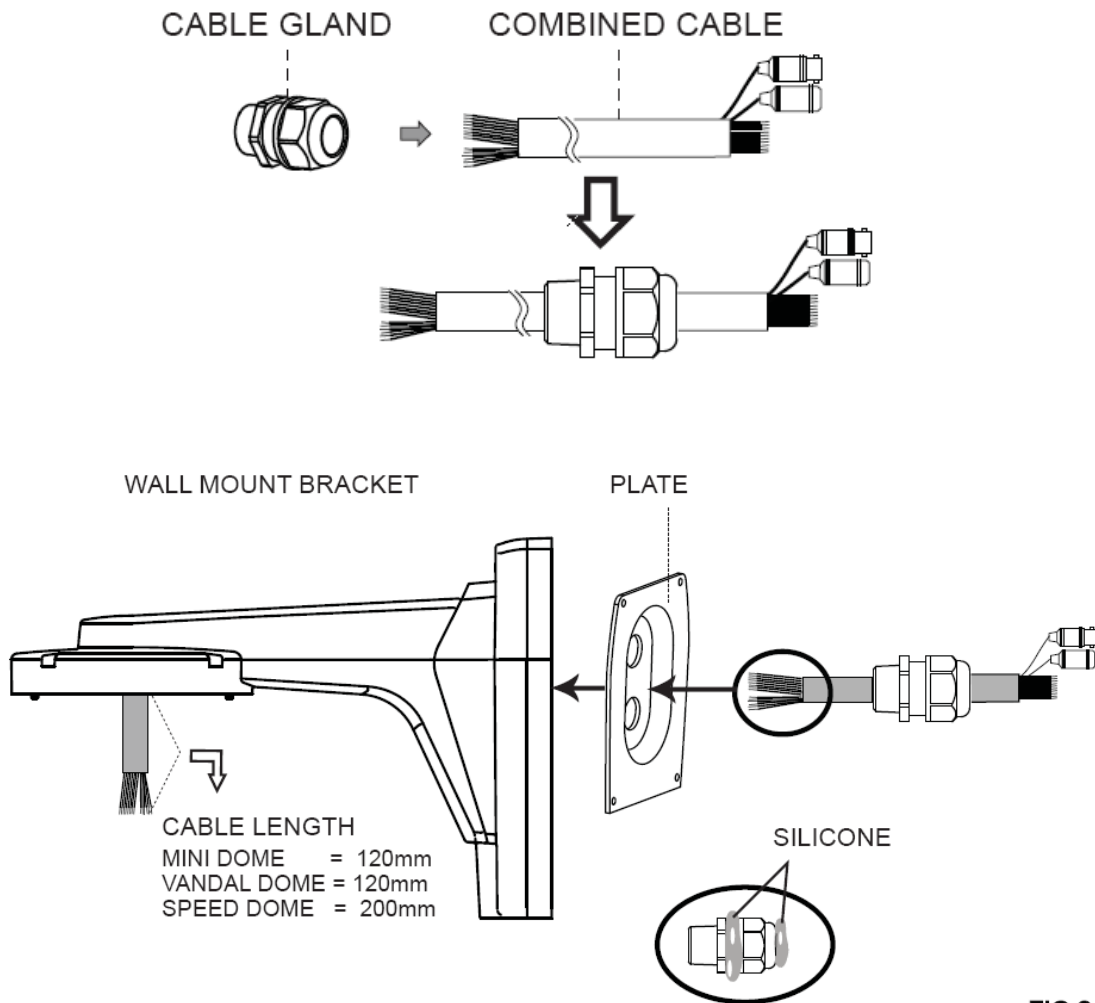
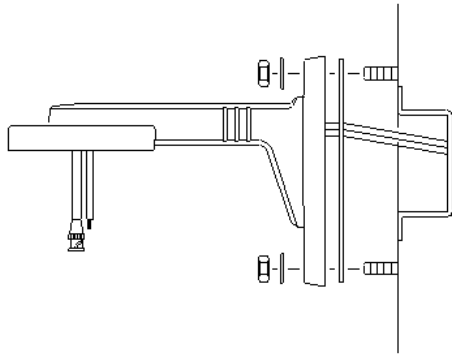
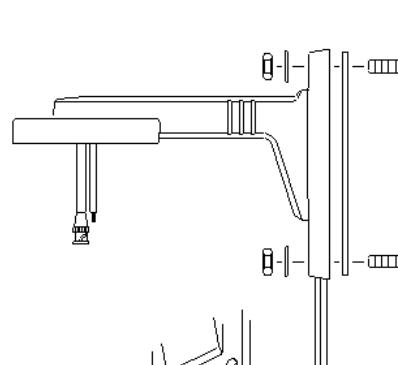


FIG 2

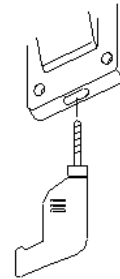
Fix the end of Cable Gland on the bottom case and coat the attached line between top & bottom of Cable Gland bottom case with silicone.



Hidden Cable

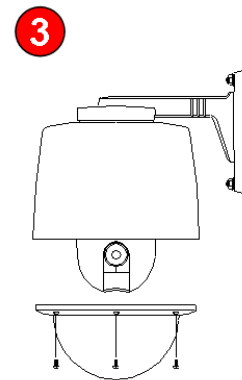
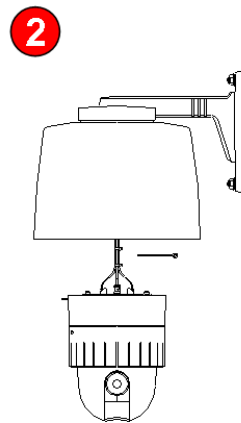
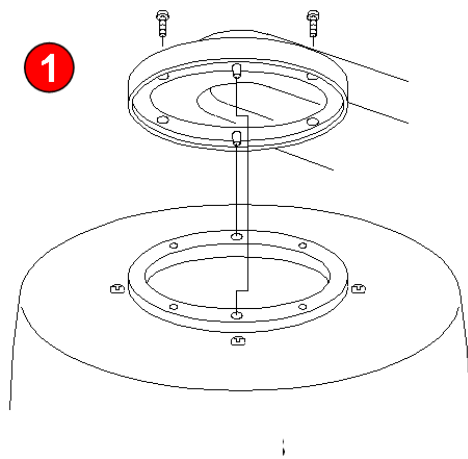


Exposed Cable



Two ways of cabling in the installation of Wall Mount Bracket

B-2. Install the Wall Mount Bracket.

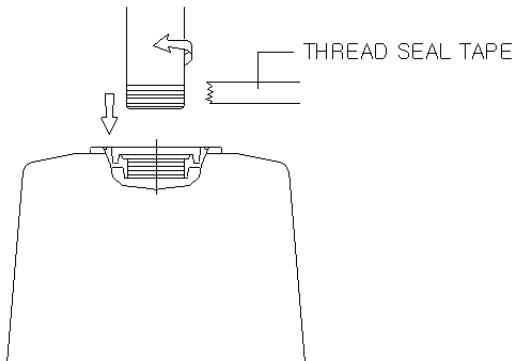


Mount (1) Sun-visor, (2) Camera, and (3) Bubble.

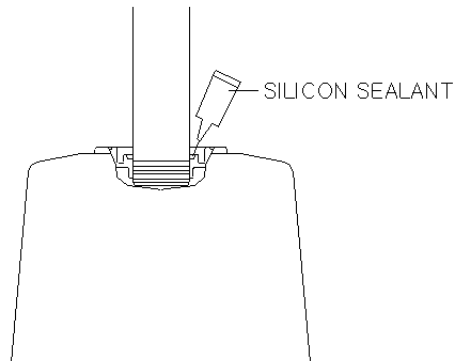
C. Pipe Mounting

C-1. Preparations for the Mounting

1 Apply SEAL TAPE around the Tab.

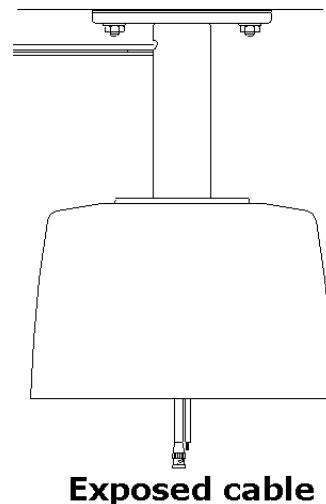


2 Apply Silicon SEALANT to the junction.



Preparation for Pipe Mount

C-2. Cabling for the Pipe Mounting

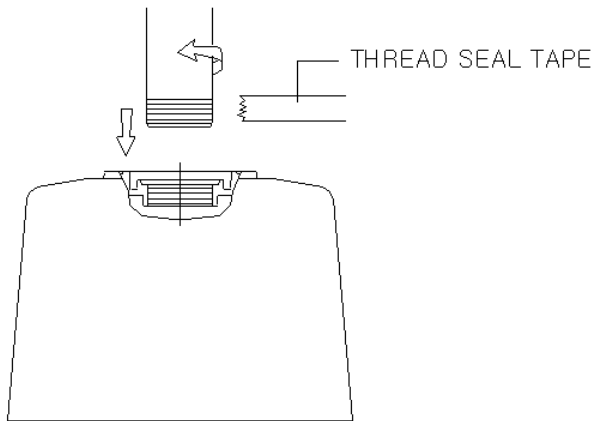


Installation of Pipe Mount Bracket

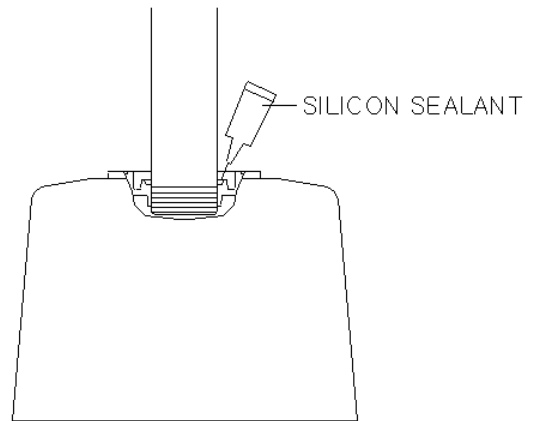
D. Gooseneck Mounting

D-1. Preparations for the Mounting

1 Apply SEAL TAPE around the Tab.

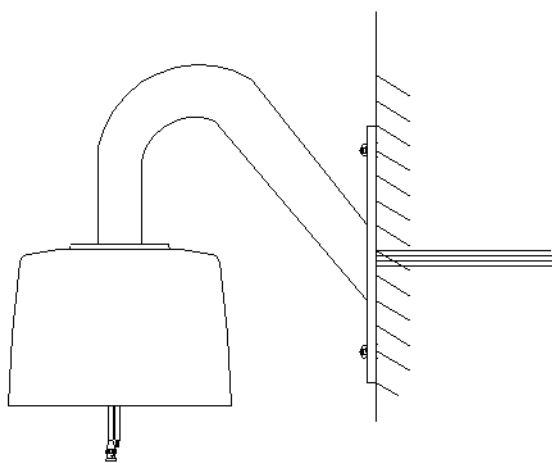


2 Apply Silicon SEALANT to the junction.



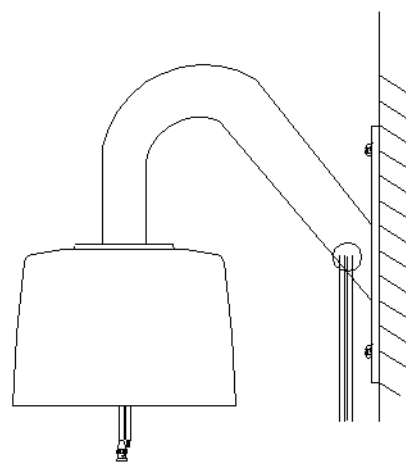
Preparation for Gooseneck Mount

D-2. Cabling for the Gooseneck Mounting



Hidden cable

FIG.8

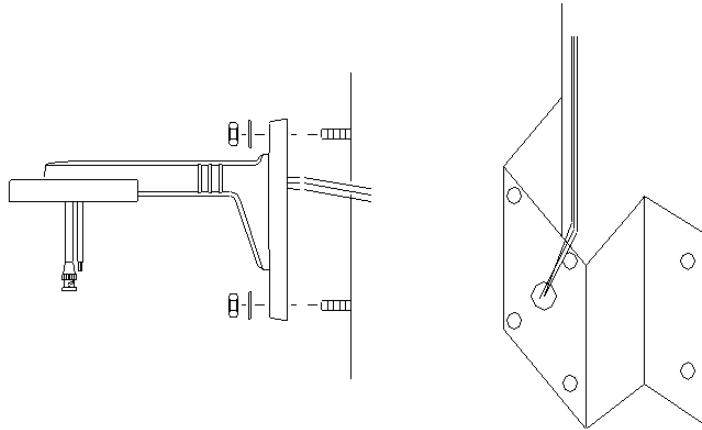


Exposed cable

Installation of Gooseneck Mount Bracket

E. Corner Mounting

E-1. Install a corner mount adaptor on the corner of wall.

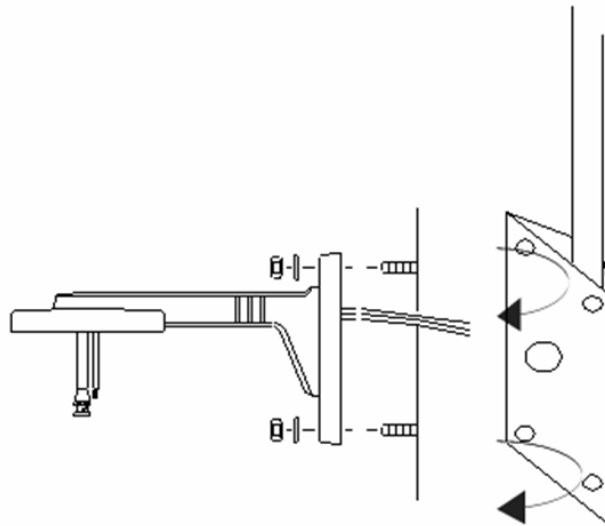


Installation of Corner Mount Adaptor

E-2. Use wall or gooseneck mount bracket to finish installation.

F. Pole Mounting

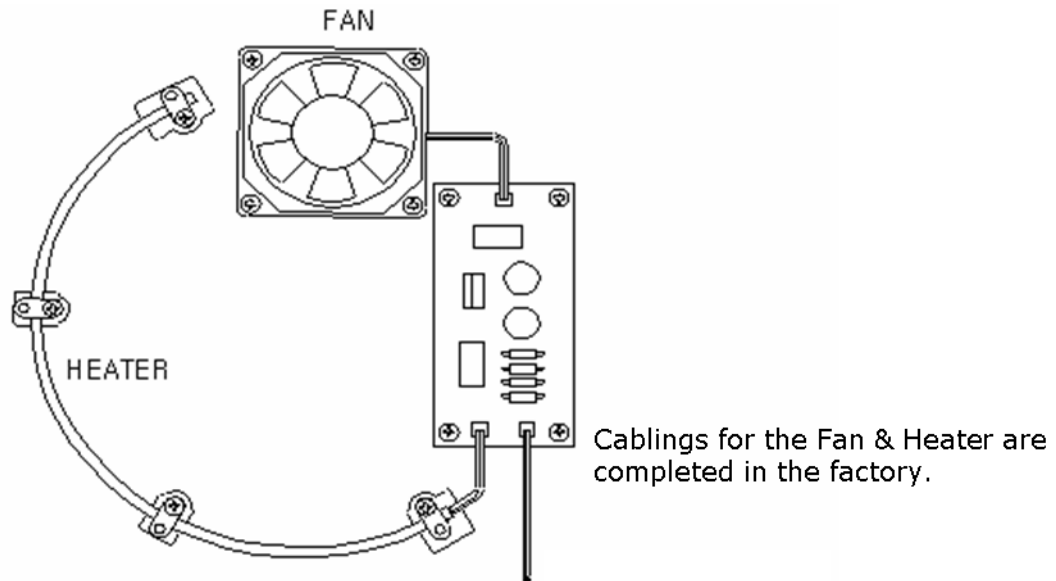
F-1. Install a pole mount adaptor on the pole.



Installation of Pole Mount Adaptor

F-2. Use wall or gooseneck mount bracket to finish installation

G. Fan & Heater

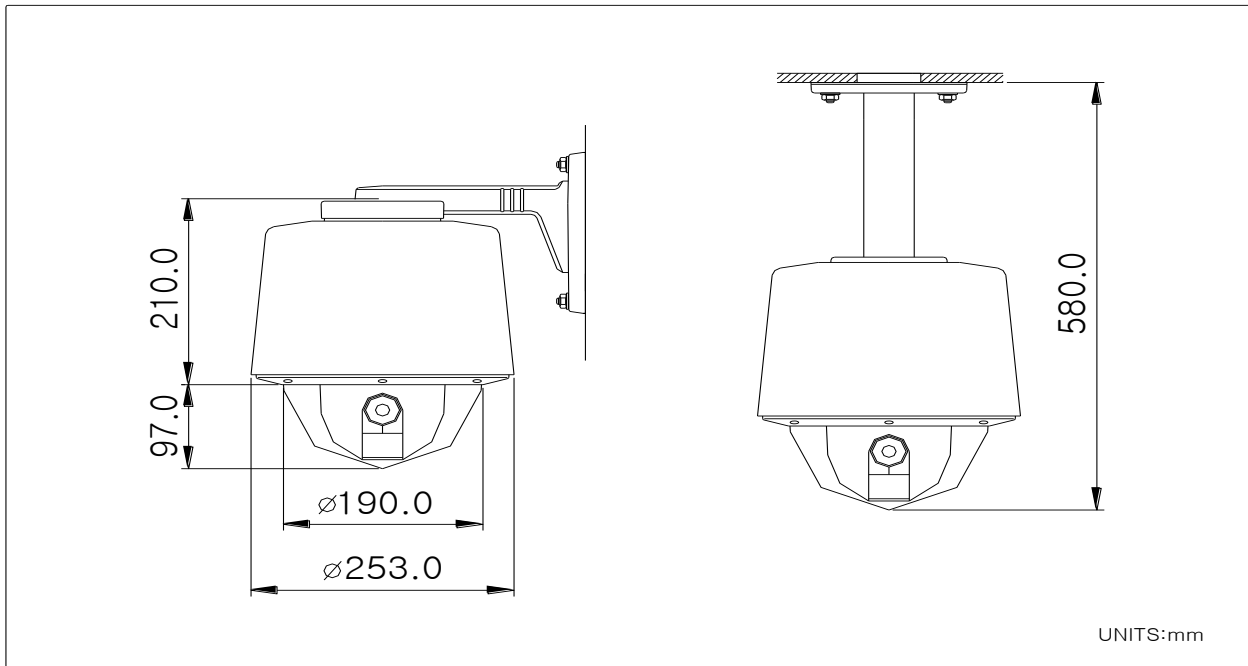


H. Specifications and Dimension of Outdoor Housing

H-1. Specifications

Specification	Description
Heater control temperature	On: below 10°C, Off: over 15°C
Fan control temperature	On: over 45°C, Off: below 35°C
Operating temperature	-40°C ~ +60°C
Operating humidity	Below 90%
Waterproof Capacity	IP 66
Construction	Poly Carbonate (Bubble), Aluminum (Body)
Dimensions	253Ø(diameter) x 307mm(Height) x 190Ø(Bubble)
Power Consumption	18W Max (With Camera: 43W Max)
Power Supply	AC 24V 1A, 60 / 50Hz (AC24V 2A with camera)
Weight	3.4kg (With Camera : 5.3kg)

H-2. Dimension of Outdoor Housing



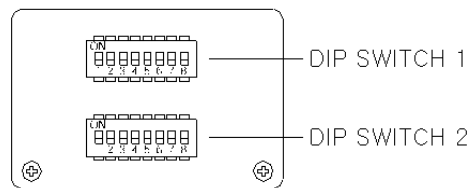
Appendix 3. DIP Switch Setting

A. ID SETTING

The camera has camera ID to be controlled by Controller or DVR.

After opening, set ID using DIP SW1.

* Factory default : Camera ID = 1



(1-ON, 0-OFF)

DIP SW	ID VALUE	DIP SW	ID VALUE	DIP SW	ID VALUE
10000000	1	00010100	40	11110010	79
01000000	2	10010100	41	00001010	80
11000000	3	01010100	42	10001010	81
00100000	4	11010100	43	01001010	82
10100000	5	00110100	44	11001010	83
01100000	6	10110100	45	00101010	84
11100000	7	01110100	46	10101010	85
00010000	8	11110100	47	01101010	86
10010000	9	00001100	48	11101010	87
01010000	10	10001100	49	00011010	88
11010000	11	01001100	50	10011010	89
00110000	12	11001100	51	01011010	90
10110000	13	00101100	52	11011010	91
01110000	14	10101100	53	00111010	92
11110000	15	01101100	54	10111010	93
00001000	16	11101100	55	01111010	94
10001000	17	00011100	56	11111010	95
01001000	18	10011100	57	00000110	96

11001000	19	01011100	58	10000110	97
00101000	20	11011100	59	01000110	98
10101000	21	00111100	60	11000110	99
01101000	22	10111100	61	00100110	100
11101000	23	01111100	62	10100110	101
00011000	24	11111100	63	01100110	102
10011000	25	00000010	64	11100110	103
01011000	26	10000010	65	00010110	104
11011000	27	01000010	66	10010110	105
00111000	28	11000010	67	01010110	106
10111000	29	00100010	68	11010110	107
01111000	30	10100010	69	00110110	108
11111000	31	01100010	70	10110110	109
00000100	32	11100010	71	01110110	110
10000100	33	00010010	72	11110110	111
01000100	34	10010010	73	00001110	112
11000100	35	01010010	74	10001110	113
00100100	36	11010010	75	01001110	114
10100100	37	00110010	76	11001110	115
01100100	38	10110010	77	00101110	116
11100100	39	01110010	78	10101110	117
01101110	118	00100101	164	01001011	210
11101110	119	10100101	165	11001011	211
00011110	120	01100101	166	00101011	212
10011110	121	11100101	167	10101011	213
01011110	122	00010101	168	01101011	214
11011110	123	10010101	169	11101011	215
00111110	124	01010101	170	00011011	216
10111110	125	11010101	171	10011011	217
01111110	126	00110101	172	01011011	218
11111110	127	10110101	173	11011011	219
00000001	128	01110101	174	00111011	220
10000001	129	11110101	175	10111011	221
01000001	130	00001101	176	01111011	222
11000001	131	10001101	177	11111011	223

00100001	132	01001101	178	00000111	224
10100001	133	11001101	179	10000111	225
01100001	134	00101101	180	01000111	226
11100001	135	10101101	181	11000111	227
00010001	136	01101101	182	00100111	228
10010001	137	11101101	183	10100111	229
01010001	138	00011101	184	01100111	230
11010001	139	10011101	185	11100111	231
00110001	140	01011101	186	00010111	232
10110001	141	11011101	187	10010111	233
01110001	142	00111101	188	01010111	234
11110001	143	10111101	189	11010111	235
00001001	144	01111101	190	00110111	236
10001001	145	11111101	191	10110111	237
01001001	146	00000011	192	01110111	238
11001001	147	10000011	193	11110111	239
00101001	148	01000011	194	00001111	240
10101001	149	11000011	195	10001111	241
01101001	150	00100011	196	01001111	242
11101001	151	10100011	197	11001111	243
00011001	152	01100011	198	00101111	244
10011001	153	11100011	199	10101111	245
01011001	154	00010011	200	01101111	246
11011001	155	10010011	201	11101111	247
00111001	156	01010011	202	00011111	248
10111001	157	11010011	203	10011111	249
01111001	158	00110011	204	01011111	250
11111001	159	10110011	205	11011111	251
00000101	160	01110011	206	00111111	252
10000101	161	11110011	207	10111111	253
01000101	162	00001011	208	01111111	254
11000101	163	10001011	209	11111111	255

B. PROTOCOL

The 3rd, 4th of DIP SW2 above are used for Protocol Setting.

Factory Default: Pelco-D or Pelco-P (Auto detection)

DIP SW2 - 3 rd 4 th	
OFF / OFF	Pelco-D or Pelco-P
ON / ON	Maxpro protocol

C. BAUD RATE SETTING

The 7th, 8th SW of DIP SW2 above is used for BAUD RATE setting.

DIP SW can be changeable to 4800bps, 9600bps.

Factory Default: 2400bps.

DIP SW2-7 th	DIP SW2-8 th	BAUD RATE
OFF	OFF	Not Used
OFF	ON	2400bps
ON	OFF	4800bps
ON	ON	9600bps

* The 2nd, 5th, 6th of DIP SW2 are not used.