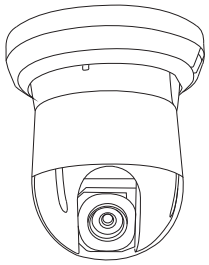
OKINA USA

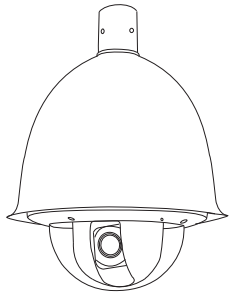
SP27HB-V55DN
SP37HB-V55DN

High Speed Dome Camera Series

USER MANUAL

v2.61





WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION

RISK OF ELECTRIC SHOCK.

DO NOT OPEN.

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

FCC COMPLIANCE STATEMENT

FCC INFORMATION: 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 WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USERS'S AUTHORITY TO OPERATE THE EQUIPMENT.

CE COMPLIANCE STATEMENT

WARNING: THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

CAUTION: BEFORE ATTEMPTING TO CONNECT OR OPERATE THIS PRODUCT, PLEASE READ THE LABEL ON THE BOTTOM AND USER'S MANUAL CAREFULLY

CONTENTS

1.PRECAUTION

Refer all work related to the installaion of this product to qualified service personnel or system installers.

Do not attemp to disassemble the appliance
To prevent electric shock, do not remove screws or cover. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance

Handle the appliance with Care
Do not strike or shake, as this may damage the appliance. It should be protected against extreme pressure, vibration and humidity during transportation and storage. Damages caused by improper transportation avoid the warranty.

Do not use strong or abrasive detergents when cleaning the appliance body and transparent cover.
Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.

Do not operate the apliance beyond its specified temperature, humidity or power source ratings.
Do not use the dome camera in an extreme environment where high temperature or high humidity exists.
Use the **indoor models** within -10°C to +50°C(14°F to 122°F) and a humidity below 90%. The input power source is 24V AC, 50/60Hz and requires 1000mA.
Use the **outdoor models** within -20°C to +60°C(-4°F to 140°F) and a humidity below 90%. The input power source is 24V AC, 50/60Hz and requires 2500mA.

Do not expose the indoor model of dome camera to water or moisture, not try to operate it in wet areas.
Take immediate action when the indoor speed dome becomes wet. Turn off the power and refer servicing to qulified service personnel. Moisture may damage the appliance and cause eletric shock.

Do not point the camera lens directly to sunlight or any strong light source.
This will cause permanent damage to the camera and avoids the warranty.

Read this user's manual carefully before operating the appliance.
Make sure that local electric safty standard are followed when using or installing the appliance

Do not install the camera in other orientation as designed.
And do not bend or squeez the sturctiure, as this may damage the mechanic sturcture of the appliance and avoids the warranty.

Do not touch the Cover with bare hands or any object.
These will scratch the serface and affect the image qulaity.

2.FEATURES

The high speed dome camera series are designed for in- and outdoor video surveillance application. The integrated, motorized pan-tilt mechanic allows user to point the camera to any position(360° horizontal and 180° vertical). Both series can be equipped with digital zoom camera modules, which provide zooming functon from 18 to 36 times (optical) and advanced image features.

Key features:
- 360° Pan and 180° Tilt range (90° with auto-image-flip)
- Support most well-known camera modules
- 128 preset points memory (80 can be used for auto tour function)
- 4 pattern tours
- 1 Scan tour
- Basic setup directly from Keyboard.
- Advanced setup through OSD (On Screen Display) menu.
- up to 24 privacy masking zones (despends on camera module)
- 7 alarm input & 2 output (4 input & 1 output pre-wired)
- Multi-Protocol through Rs485 or coaxial cable.
- Dirction Indicator on screen
- Aluminum Alloy structure with high intensity and heat-sinking
- High-precision step-motor for flicker-less image during movement.

Camera Features:
-HighResolution with 520TVL and Wide-Dynamic*
- Auto-Focus
- Auto-Iris
- Auto- Brightness control,
- Auto-Balance
- IR cutter control, Day-Night mode switching.
- Auto Slow-Shutter

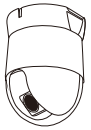
Temperature monitoring and protection
- Alarm notification will be displayed once the inner temperature exceeds the limit
- In low temperature area, the dome camera will only start after the operation temperature is reached.
- Cooling fan activity is managed by the CPU (extends the duration)

Other features:
- Proportional pan for Focus / Speed on different zoom factor.
- Auto-resuming user-defined action, such as tour, pattern or scan after selectable idle time.
- Power-up Action activates tour or pattern by default.

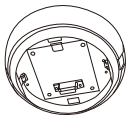
* depends on camera module type.

3.PACKING LIST

Indoor Series



Core Unit
1 Piece



Indoor Roof-Mount base platte
1 piece

Instruction and operation manual
1 piece

Outdoor Series

Core Unit
1 Piece

Out-Door housing with sun.shield and cover
1 piece

Spare dome cover
1 piece

Instruction and operation manual
1 piece

Outdoor Series

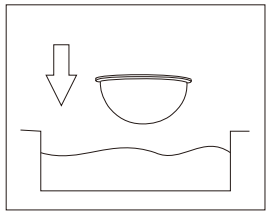
Core Unit
1 Piece

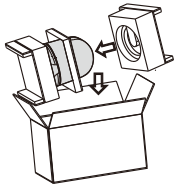
Out-Door housing with sun.shield and cover
1 piece

Spare dome cover
1 piece

Instruction and operation manual
1 piece

WARNING: The transparent cover part is sensitive and should be handled with care. Do not touch or rub the surface in any way with the protection foil.Inproper cleaning method will cause permanent scratches on the cover and cause unclear image or focusing error of the camera. For Cleaning the cover, please replace the original first with the spare cover, and wash it by diving into warm water with non-corrosive cleaning solution.





Unpacking
The speed dome is packed with protection. please take out the core unit carefully. In case of transportation please use the original packing box.

Some models may not be available in your country, please contact VIDO distributor for more details

4.INSTALLATION

Safety Instructions before starting

- Do not install and operate this appliance in a flammable and explosive environment.

- Make sure that the installation is done according to the local electricity safety regulation of your country.
.
- Before installation and mentainence, make sure that the appliance is disconnected from the power source.

- Do not use any power source other than 24V AC, in order to prevent damages to this device. For details, please refer to the section "Precaution" in previous chapter for more details.

- Handle the device during the installation carfully. Falls or extreme vibration may cause irrepairable damages and avoid the warranty.

- Do not install or operate the appliance near any high-voltage devices or high-voltage cable. The safety distance should remain at least 50 m.

- To archive best image quality, its recommanded to use underground cable shielded with steel tube. Do not install the cable without any protection.

- In a thunderstorm area or region with high inductive voltage, such as high voltage transformer stations, it is necessary to use additional lighning-proof equipments or lightning rob for protection.

- For outdoor installation, lightning-proof and grounding of the device should be considered. Please refer to the industrial saftey regulation and request of your country
.
- Grounding of the appliance should consider anti-interference and fulfill the saftey requirements. Do not connect the ground with short-circuited or other high-voltage electric network.

- The resistance of down conductor should not exceed 4 Ohm, and its thickness should be at least 25mm²

- This appliance has the lightning-proof function which can prevent damages caused by high-voltage pulse, such as lightning strike below 1500.

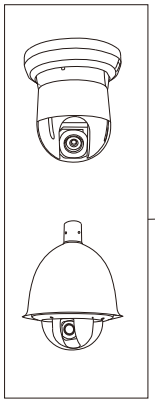
- This appliance meets the Ip66 standard for water and dust proof. Do not install the in-door model for out-door application which is not designed with water protection. Make sure that the installation is protected from long-time water-drop or spatter, which may damage the appliance.

- Make sure that the enviroment of installation meets the requirement of the appliance, such as holding the weight, enough spaces for bracket and power supply.

Some products may not be available in your country, please contact our distributor for more details

Connector description

The wiring cable of the PTZ camera provides connectors for power supply, video and I/O interface



Power Connector

RED: AC 24V
BLACK: AC 24V
To power supply

RS485 Connector RJ-11

Green:RS485+
Yellow:RS485-
To Keyboard or DVR decives for telemetric control

Video output BNC

Inner Conn: Signal +
Outer Conn: Ground
Video Output to monitor or DVR

Alarm I/O 1

RED: Alarm in 1
PINK: Alarm in 2
YELLOW: Alarm in 3
GREEN: Alarm in 4
BLACK: COM
WHITE: Alarm output - N.O
BLUE: Alarm output - N.C

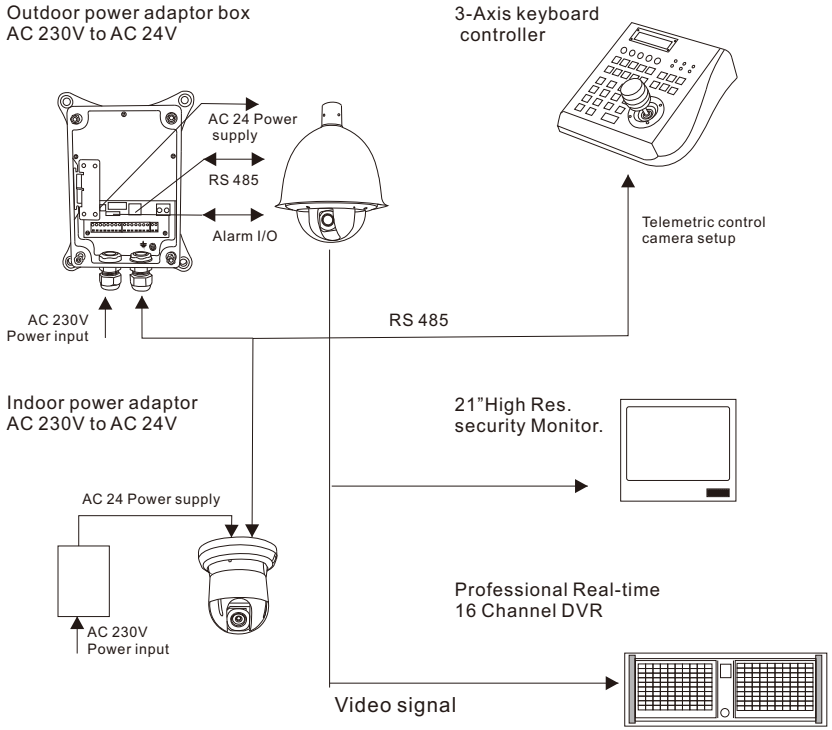
Alarm I/O 2

AQUA: **Alarm output - N.C2**
BROWN: Alarm output - N.O2
GRAY: Alarm in 7
PURPLE: Alarm in 6
ORANGE: Alarm in 5

I/O interface to additional alarm sensor or control devices

Using optional accessories

The speed dome cameras can be connected to various optional accessories through the standard connector types, which simplifiy the cable handling and avoids possible mistakes. All accessories are tested for max. compatibility and best performance.



RS 485 cable

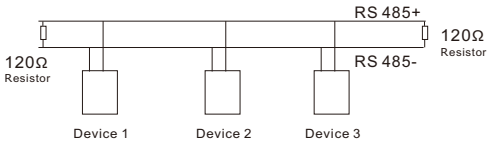
The telemetric control of the appliance uses Rs485 serial communication with half-duplex transmission technology.
Depends on the cable typeand baud rate, the transmission distance could vary. The following table shows max. distances based on cable with 0,56mm (24AWG) twisted pair:

Baud Rate	Max. Distance
2400 bps	1700m
4800 bps	1100 m
9600 bps	700m
19200 bps	4oom

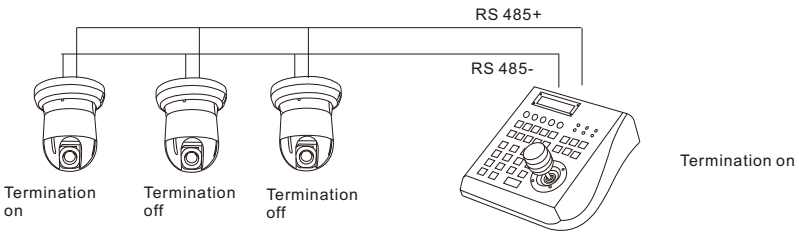
Due the environmental interferences, such as eletromagnetic and induction fields, or number of connected appliance on the RS-485 bus, the transmission range may be less, e.g with cable thinner than than 24AWG.

RS-485Termination

Devices using Rs485 control are usually connected in daisy-chain. which reqiuers termination with 120Ω resistor on both ends. Following picture illustrates the connection methods. please note that a daisy-chain connection type shall not exceed 7 meters.

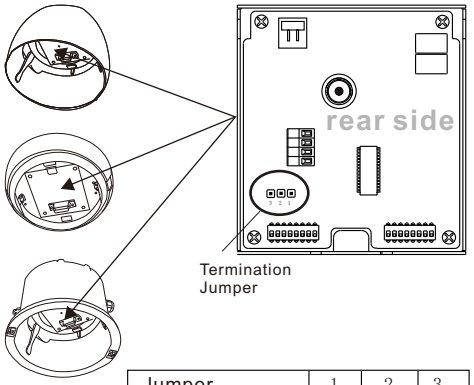


The PTZ cameras provide integrated termination switch. It should be turned on when the dome is installed as the last device. If the controller keyboard is used, you need also to turn on the termination on it. please refer to the keyboard's manual for details.



How to turn on termination on the high speed dome camera

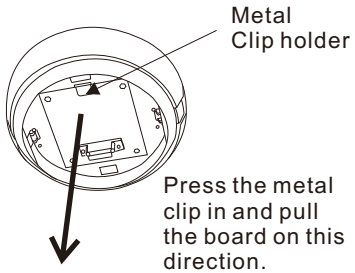
The termination switch is located on the rear side of the connection board. For switching on, you need to open the



Jumper	1	2	3
Term. On	ON	ON	OFF
Term. Off (default)	OFF	ON	ON

How to open the connector board

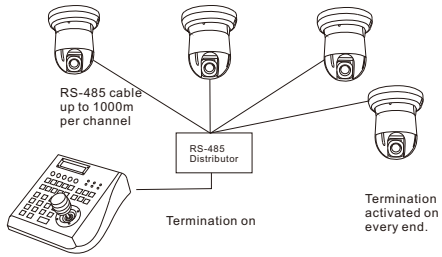
The connector board can be easily opened by holding the metal clip and pull.



4.INSTALLATION

Star-Connection

The star-form connection is mostly used. it enables the connection of different dome cameras in longer distance. It is recommended to use RS-485 distributor to ensure the telemetric data transmission:



The advantage of star-connection is that every channel can work independently and take a cable length up to 1000 meters(depends on cable quality). In case more dome camera are installed, the star-connection can be extended with additional RS-485 distributors.

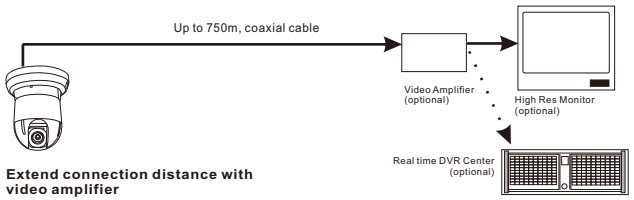
Video Cable

coaxial cable with 75Ω impedance with copper conductor at center conductor, and shielded with 95% copper. The following table shows different cable type and its maximum length:

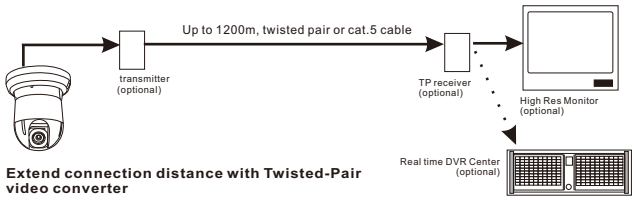
Cable standard	Max. Distance (m /ft)
RG 59 /U	229m / 750 ft
RG 6 /U	305m/ 1000 ft
RG 11 /U	457m / 1500 ft

The values are for reference only. Depends on the cable quality and environmental condition, the transmission distance might be less.

If the cable length is more than 400 m, it is recommended to use optional accessories, such as video amlifier or twisted-pair video converter , for boost the video signal.



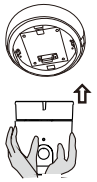
Extend connection distance with video amplifier



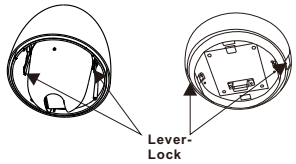
Extend connection distance with Twisted-Pair video converter

4.INSTALLATION

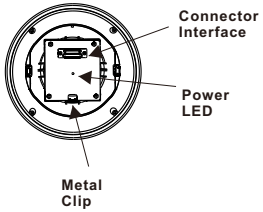
Installing the core unit to base board.
The PTZ camera core unit and base board are packed seperatly, in order to be protected through the transportation. After unpaking and during the installation, the core unit should be installed as following:



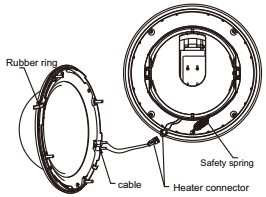
Installing the core unit by pushing into the housing.please note the position of connector. For releasing, please press the lever-lock to core and pull off the unit.



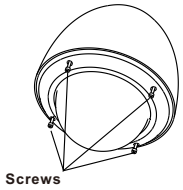
Once the base board is connected to power, the power LED will light.



Heater connector on outdoor housing



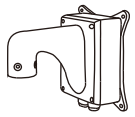
WARNING:
Do not pull or hold the connector interface with force. It is design only to connect the core unit and the base board. Any presure on connector will cause damage and avoids the warranty.



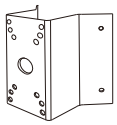
Outdoor housing cover

Optional bracket accessories
The PTZ cameras can be equipped with various bracket accessories for indoor and outdoor installation. please contact your distributor for further details.

Ceilling mount

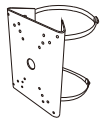


Wall mount and Power box

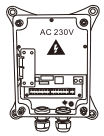


Corner Mount

Indoor Wall mount

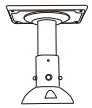


Pole Mount

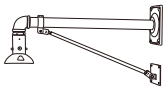


Outdoor Power Box

Indoor embedded mount

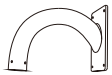


Indoor ceilling mount



Extended wall mount

Swan-Neck Mounting bracket



Wall mount

5.OPERATING THE SPEED DOME

Initial Screen
After powering up, the camera will enter the self-test mode and display the status screen(as in the picture left).It contains information about the model and current settings.

- V2.61: Current firmware version
- Protocol: control protocol which currently used
- Dome address: Address ID of speed dome. please refer to the section "Protocol setup " for details.
- Comm 9600,N,8,1: current setting of the serial communication interface.
9600: Baud rate. please refer to section "Baud-Rate setup" for details
N, 8, 1: No parity bit, 8 bit length, 1 stop bit. this setting can not be changed

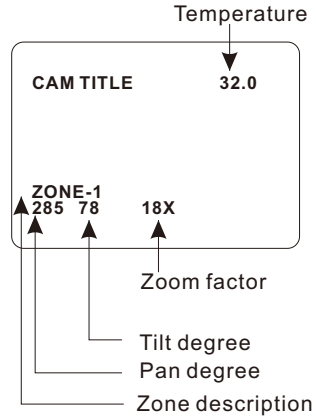
The intial screen will stay remain on until any user action is being taken. If the power-up action is set, the initial info wil vanish immediatly.

Operation Screen

The operation screen can display additional information.

Temperature: current temperature inside the speed dome(°C)
Cam title: User definable camera title
Zone: Current zone name
Pan deg.: Pan angle, 0-359°
Tilt deg.: Tilt angle, 0-90°
Zoom Factor: Zoom factor

Display of the information can be activate or deactivate through the OSD menu. please refer to the system setting for detais.



PTZ operation

For the surveillance operation, the dome can be controlled from a keyboard device, Multiplexer or DVR through RS-485 Interface. Make sure that the cable is connected and the settings (baud rate, Address ID and protocol) of both keyboard and the dome are configured correctly. For more description about the PTZ operation, please refer to the user's manual of the keyboard.

OSD

OSD Menu

The PTZ cameras are equipped with new OSD-Menu function. All operation functions and camera related settings can be changed or modified here. In order to use the OSD function, a telemetric controller device, such as Keyboard, DVR or other devices with similiar function is necessarily required. please make sure that the device used is physically connected to the dome properly, and all connection parameters are set correctly.

How to start the OSD menu

To start the OSD Menu, you need to press following key on the keyboard:

With 2-Axis keyboard: [call] [9] [5] [Enter] or 2 X [call] [9] [Enter]

With 3-Axis keyboard: [Shot] [9] [5] [Enter] or 2 X [Shot] [9] [Enter]

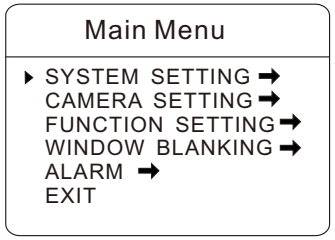
In case a DVR is used for the OSD, select "goto preset 95" or 2 X "goto preset 9". Please refer to the DVR's operation manual for more details.

Note that in some certain situations, it is not possible to enter the OSD menu:

1. the dome is running tour
2. performing PTZ operation
3. dome is receiving command other than OSD-request from the keyboard.

please stop the operation and try again.

Main menu and navigation



After entering the OSD Menu, the screen will show menu items . Use the controller' joystick to navigate through the menu's main and sub items by moving in the direction. The angle mark on the beginning of every items indicates the selection.

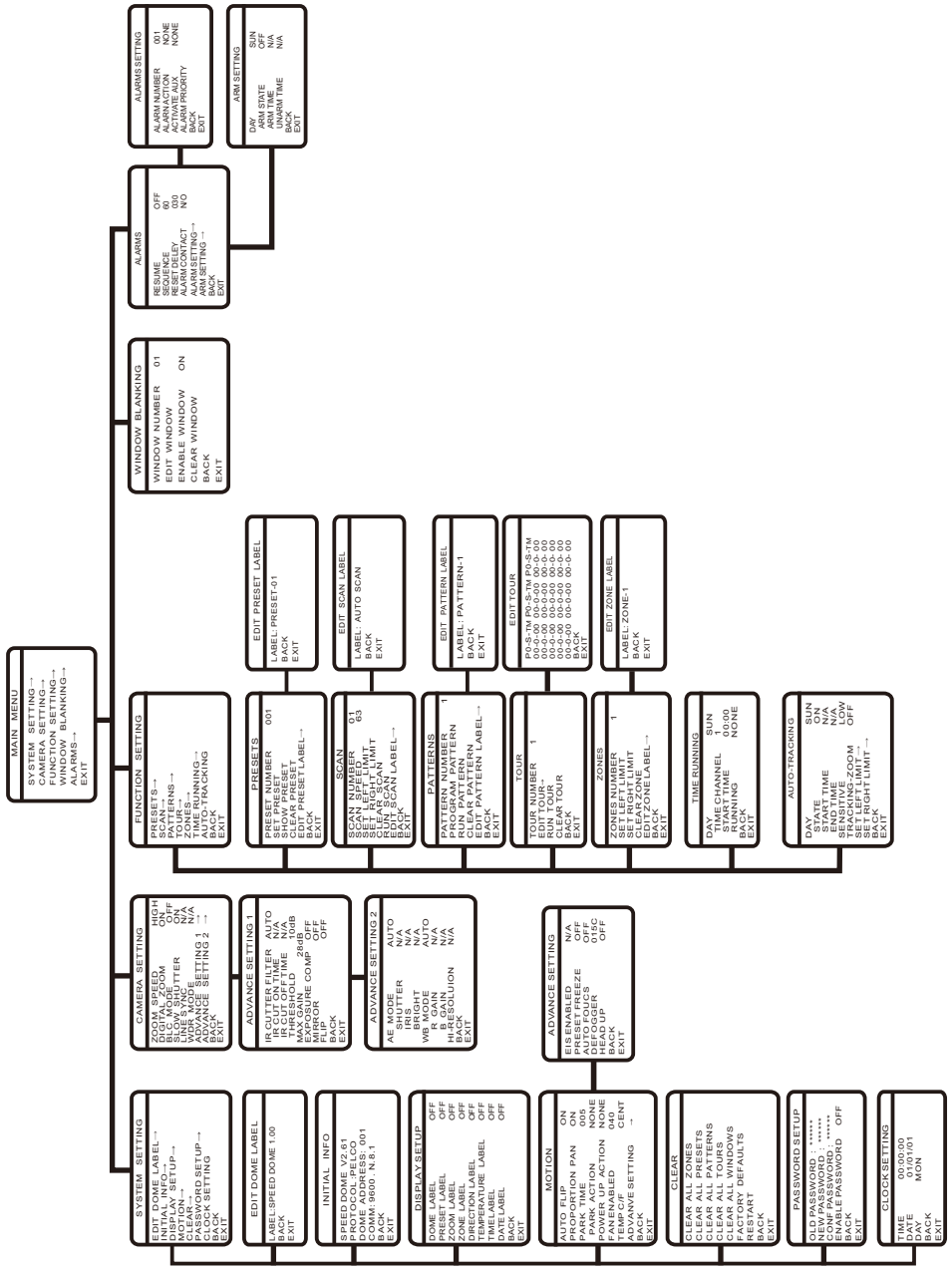
UP, DOWN: - Moving between current menu items
- Changing the value in subitems
RIGHT: - Enter the selected menu item
- Confirm the value change and return to item selection
LEFT: Exit from sub menu

For more inforamtion, please refer to the illustration on the next page for the OSD menu structure.

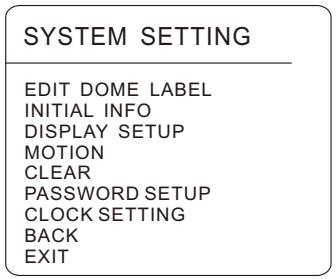
Symbols and indicator

- ▶ Cursor.
- ☼ Sub item is selected. use up or down to change value
- ➡ This item has subitem(s)

OSD - MAP

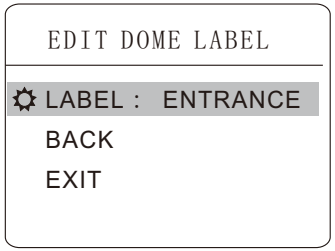


6.OSD - System Setting



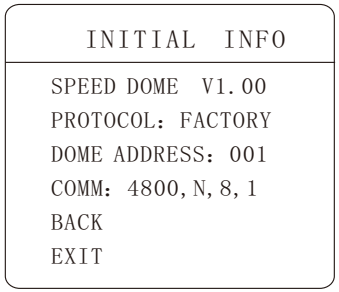
System Setting

In system setting menu, you can modify operation and display setting, such as dome label, temperature and display of various value on the operational screen.



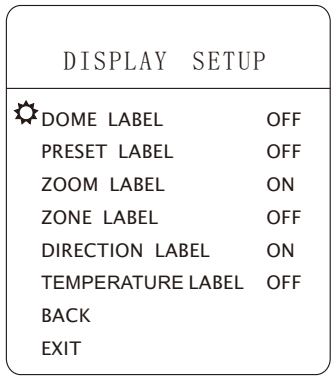
Dome Label:

1. use UP or DOWN to change the charactor.
2. use RIGHT to move to next char.
3. use RIGHT to move to last char and save.
4. use Left to first char and cancel.



Initial information:

Shows the information about current setting.



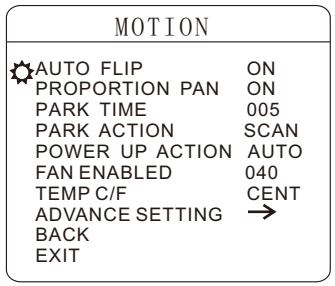
Display setup

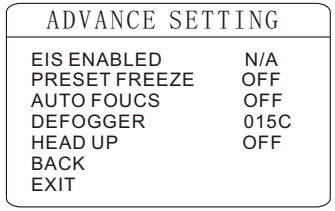
Actuvate the display for the on-screen info in operaton mode.

Dome label: the name of dome
Preset label: shows the labe of every preset
Zoom label: shows zoom factor on screen
Zone label: shows the zone name
Direction label: shows the coordinates

Temperature label:
shows the cur. temp in the speed dome

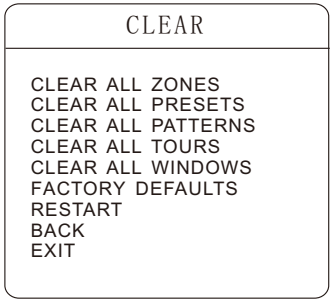
6.OSD - Motion, Clear





Motion control

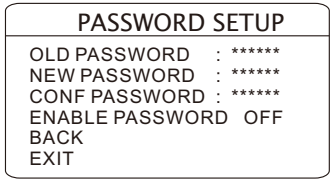
AUTO FLIP: Auto. Image flip in tilt range from 90° to 180°
PROPORTIONAL PAN: depends on the zoom factor, the dome will adjust the pan and tilt speed automatically for comfortable viewing.
PARK TIME: defines the idle time prior to start a custom defined action(park action).The range is from 1 to 240 minutes. This function can be deactivated by setting the minute to 0.
PARK ACTION: the action which will be started after the idle time (park time). Selectable between Preset, Scan, Pattern (Nr), Tour or None.
POWER UP ACTION: defines the action which will be started after power up and self test. Selectable between Auto,Preset 1, Scan, Pattern (Nr), Tour or None. By selecting Auto, the dome will resume the last action before power off.
EIS ENABLED: Elctronic Image Stablizer.
PRESET FREEZE: Freezes image when moving between presets in tour.
AUTO FOUCS: adjust the image focus.
DEFOGGER: when the temperature arrive the setting degree, the heater will be open.
HEAD UP: flip the image.



Clear
You can clear setting's memory or reset the camear to factory default. The follwing functions are supported:

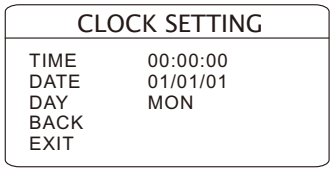
- Clear Zones
- Clear all presets
- Clear all patterns
- Clear all tours
- Clear all windows
- Factory defaults

Warning: The clear action can not be undone. once a item is cleared it is impossible to retrieve the deleted setting. Please make sure that the requested clear action is desired.



Password setup

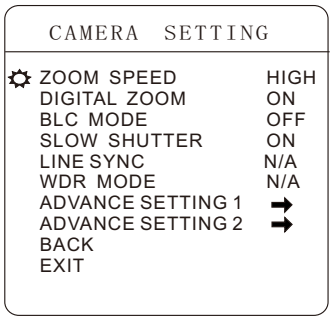
You can change password to access the OSD menu.
Default Password is 000000.



Clock setting

Some function like Auto-Tracking require the timer for activation.
Time: HH:MM:SS
DATE: YY/MM/DD
DAY: MON-SUN

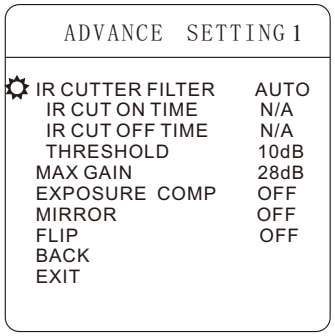
OSD - Camera Setting



Camera setting

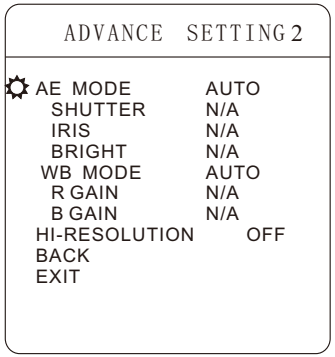
In camera setting menu, you can setup camera module related settings. please note that depends on module's capability, some function may not available. please contact your local sales representative for detailed information.

ZOOM SPEED: defines the speed when performing zoom function.
DIGITAL ZOOM: Activate or deactivate the digital zoom function of the camera module.
BLC MODE: Select the Back Light Compensation mode, improves the image when an object has strong back light.
SLOW SHUTTER: Activates the Slow Shutter function of the camera, which provides a higher light sensibility in low-environment.
WDR: Activates the Wide Dynamic Range function, which improves the image contrast when an object has very strong light on background. Only available with camera modules with WDR.



Advanced setting 1
IR CUT FILTER: Enables the removal of Infrared Cutter Filter (IRC), also known as "DAY/NIGHT" mode. with the removal of IRC, the camera turns into Black/White mode and has higher sensibility to low-light or IR-Light in the night. Selectable between On, Off, Auto or Time. Only available on camera module with IRC function.

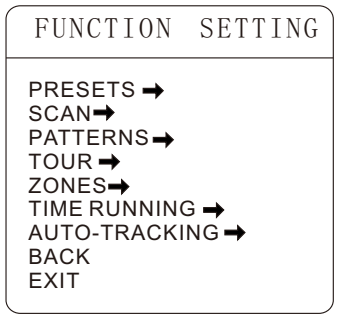
Max Gain: improve the image quality in the Night modus
EXPOSURE COMP: open/close the exposure compensation function
MIRROR, FLIP: mirror and flip image



Advanced setting 2
Under the advanced setting, you can make improvements to image quality due to different environmental conditions.

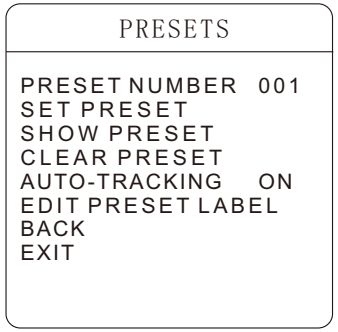
AE MODE: Auto Exposure mode. Depends on the light condition in the surveillance area, you can set the AE in different modes and adjust the parameters, such as shutter speed, iris factor and brightness for the best image quality.
WB MODE: White balance mode, a image improvement based on DSP processing. you can also adjust the Red-Gain or Blue-Gain to change the color tone.
ALC, PLC: Average and Peak Level Control, additional setting to WB function. only avialble with dedicated camera modules.

OSD - Preset, Scan



Function setting

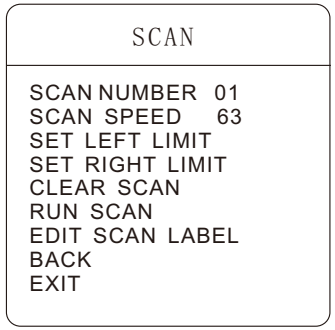
In function setting menu, you can define and activate different PTZ funcitons, such as preset points, auto scan, tours and Pattern. Presets and tour functions can also be set or activated directly from keyboard device without OSD. Please refer to the keyboard's manual for operation details.



PRESETS:

PRESET NUMBER: the PTZ supports up to 128 presets. The number can be selected from 0 to 128.
SET PRESET: Defining the preset points directly in OSD by entering this menu item and move the PTZ. press IRIS-OPEN key on the keyboard to save. If the preset is pointed within digital zoom, it will automatically go back to max. optical zoom range in order to provide the best image.
SHOW PRESET: Moves to current preset point
CLEAR PRESET: Clear the current preset
AUTO-TRACKING: Start Auto Tracking, if the preset is called.

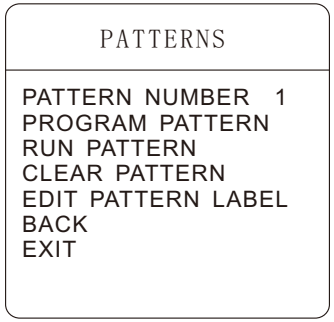
EDIT PRESET LABEL: For the current preset, you can define a name which will be shon on the operation screen once the preset is called. please choose the preset number at first. The avaialbe characters are: 0-9, A-Z, <,>,. and space.



SCAN
The SCAN function moves the PTZ between 2-predefined points in constant speed.The following parameters can be set:

SCAN NUMBER: the PTZ supports up to 4 scan.
SCAN SPEED: cruising speed between the points.
SET LEFT LIMIT: defines the left point.
SET RIGHT LIMIT: defines the right point
CLEAR SCAN: Delete the scan setting
RUN SCAN: starting the scan function
EDIT SCAN LABEL: set the name for the scan

6.OSD - Patterns, Tours



Pattern

Pattern records the user's operation steps on performing PTZ control and stores as a track. The high speed dome series can record up to 4 tracks with max. 180 sec. each.

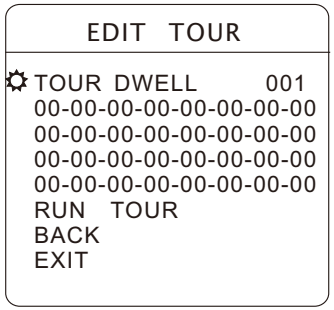
PATTERN NUMBER: Selects the pattern number, from 1 to 4

PROGRAM PATTERN: Starts recording the pattern when selected. you can perfome PTZ movement for recording and shall not exceed 180 sec. Press IRIS-OPEN to save the track.

RUN PATTERN: Starts the current pattern

CLEAR PATTERN: Delete curretn pattern.

EDIT PATTERN LABEL : Sets the name for current pattern.



Tour

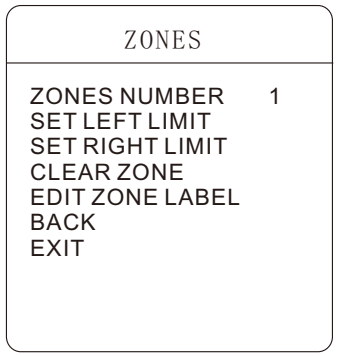
Tour is an auto-run through selected preset points with definable pause time. A tour can store up to 32 presets points.

TOUR DWELL: pause time for every stop on the preset points. selectable between 000-255(s).

TOUR PRESETS: press IRIS-OPEN Key on the keyboard device to enter the preset point selection. Move the joystick with up and down to select the preset points by number and save the setting with IRIS-OPEN key. with IRIS-CLOSE key you can move to the previous selection. If a select point has the value 0, all the following presets points will be ignored.

RUN TOUR: Starts the tour and exit the OSD menu.

6.OSD - Zones and Privacy Mask



Zone

You can define the zones in the whole PT range up to up to 8 zones with individual label. When the display setting "Zone Label" is activated, the label will be displayed on the operation screen. The definition of the zones should not be overlapped.

ZONES NUMBER: Current zone selection

SET LEFT LIMIT: Left limit of the current zone

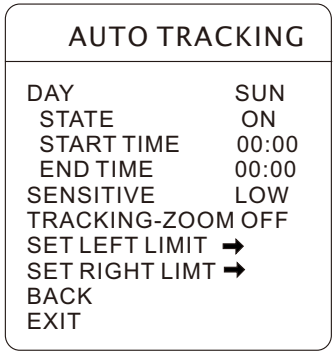
SET RIGHT LIMIT: Right limit of the current zone

CLEAR ZONE: Delet the current zone

EDIT ZONE LABEL : change the laben of current zone.

Time Running

You can set up the timer to start a function like preset, tour or pattern. Each day can be set 4 action.



AUTO TRACKING

Auto-Tracking can seach people or object with high speed and low light performance.

DAY: set current day
STATE: activate AUTO-TRACKING on this day
START TIME: set the time for activation
END TIME: set the time for stop the tracking
SENSITIVE: set the sensitivity for the detection
TRAKING ZOOM: activate auto-zoom
SET LIMIT: set the max. angle for the tracking.

6.OSD - Alarm Setting

```
WINDOW  BLANKING
WINDOW NUMBER   01
EDIT WINDOW
ENABLE WINDOW   OFF
CLEAR WINDOW
BACK
EXIT
```

Privacy Mask (Window Blanking)

Privacy Mask is used to protect the privacy area not to be displayed once the camera is pointed on, such as ulevatory area or the operation desk of an ATM machine. It might be required for video surveillance application depends on the local law regulation. The PTZ camera supports up to 24 private masks. (depends on installed camera module, please contact your local sales representative for more information)

Hitachi camera modules: 8 masking area.

Sony Camera modules: up to 24 masking area (except the 45 series provides only 8)

LG,CNB Camera modules: no masking function.

WINDOW NUMBER: Mask number

EDIT WINDOW: Edit position of the mask by joystick of the keyboard. presse IRIS-OPEN to save.

ENABLE WINDOW: shows the mask on screen OFF

CLEAR WINDOW: Delete the mask

```
ALARMS
Resume          OFF
SEQUENCE        001
RESET DELEY     030
ALARM CONTACT N/O
ALARM SETTING   →
ARM SETTING     →
BACK
EXIT
```

Alarms

RESUME: Continue the function on the camera , if it was setting before the alarms.

RESET DELAY: How long the camera stay in Alarm position.

ALARM CONTACT: Setting between N/C (normal Close) or N/O (normal Open).

ALARM NUMBER: curent Alarm number.

```
ALARM SETTING
ALARM NUMBER    001
ALARM ACTION    TOUR
ACTIVATE AUX    AUX1
ALARM PRIORITY  LOW
BACK
EXIT
```

ALARM ACTION: Setting for PRESET, SCAN, TOUR, PAT 1-4, or NONE, if the camere in Alarm position.

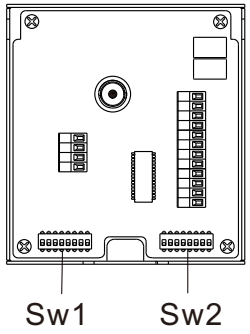
ACTIVATE AUX: Setting Alarm Output, when Alarm is activate. Select between AUX1, AUX2 (not connected) or BOTH.

ALARM PRIORITY: define the priority of the alarm input.

```
ARM SETTING
DAY             SUN
 ARM STATE      OFF
 ARM TIME       N/A
 UNARM TIME     N/A
BACK
EXIT
```

ARM SETTING: define the operation timer of the alarm

7. Dome Address & Protocol



Protocol setting

In order to establish a connection for telemetric control with keyboard device. you need to setup the dome address and protocol.

The PTZ cameras are capable with multiple communication protocol. The setting can be changed through the DIP-Switches on the rear side of the connector boards as Illustrated.

please use the following table for details setup.
current pattern.

SW 1:
represent the domes address in binary form.
please refer to the list on next page for reference.

SW 2:
Used for protocol settting and baud rate.
DIP 1 to 6 : Protocol setting
DIP 7 and 8: Baud rate setting

Baud rate	DIP 7	DIP8
2400 bps	0	0
4800 bps	1	0
9600 bps	0	1
19200 bps	1	1

Protocol / DIP	1 2 3 4 5 6
B02	0 0 1 1 0 0
DIAMOND	1 0 0 1 0 0
HUNDA	1 0 1 1 0 0
KALATEL	0 1 0 1 0 0
LILIN	1 1 0 1 0 0
MOLYNX	0 0 1 0 0 0
PANASONIC	1 1 1 0 0 0
PELCO (D/P)	1 0 0 0 0 0
PHILIPS	0 0 0 0 0 1
SAE	0 1 0 0 0 0
SAMSUNG	0 0 0 1 0 0
SANTACHI	0 1 1 0 0 0
UNIVISION	0 1 0 0 0 1
VCL	1 1 0 0 0 0
VICON	1 0 1 0 0 0
AD	1 0 0 0 0 1

7. Address ID, 1 to 67

ID	Switchnumber (Sw1) Bit 1 2 3 4 5 6 7 8		ID	Switchnumber (Sw1) Bit 1 2 3 4 5 6 7 8
	0 0 0 0 0 0 0 0		34	0 1 0 0 0 1 0 0
1	1 0 0 0 0 0 0 0		35	1 1 0 0 0 1 0 0
2	0 1 0 0 0 0 0 0		36	0 0 1 0 0 1 0 0
3	1 1 0 0 0 0 0 0		37	1 0 1 0 0 1 0 0
4	0 0 1 0 0 0 0 0		38	0 1 1 0 0 1 0 0
5	1 0 1 0 0 0 0 0		39	1 1 1 0 0 1 0 0
6	0 1 1 0 0 0 0 0		40	0 0 0 1 0 1 0 0
7	1 1 1 0 0 0 0 0		41	1 0 0 1 0 1 0 0
8	0 0 0 1 0 0 0 0		42	0 1 0 1 0 1 0 0
9	1 0 0 1 0 0 0 0		43	1 1 0 1 0 1 0 0
10	0 1 0 1 0 0 0 0		44	0 0 1 1 0 1 0 0
11	1 1 0 1 0 0 0 0		45	1 0 1 1 0 1 0 0
12	0 0 1 1 0 0 0 0		46	0 1 1 1 0 1 0 0
13	1 0 1 1 0 0 0 0		47	1 1 1 1 0 1 0 0
14	0 1 1 1 0 0 0 0		48	0 0 0 0 1 1 0 0
15	1 1 1 1 0 0 0 0		49	1 0 0 0 1 1 0 0
16	0 0 0 0 1 0 0 0		50	0 1 0 0 1 1 0 0
17	1 0 0 0 1 0 0 0		51	1 1 0 0 1 1 0 0
18	0 1 0 0 1 0 0 0		52	0 0 1 0 1 1 0 0
19	1 1 0 0 1 0 0 0		53	1 0 1 0 1 1 0 0
20	0 0 1 0 1 0 0 0		54	0 1 1 0 1 1 0 0
21	1 0 1 0 1 0 0 0		55	1 1 1 0 1 1 0 0
22	0 1 1 0 1 0 0 0		56	0 0 0 1 1 1 0 0
23	1 1 1 0 1 0 0 0		57	1 0 0 1 1 1 0 0
24	0 0 0 1 1 0 0 0		58	0 1 0 1 1 1 0 0
25	1 0 0 1 1 0 0 0		59	1 1 0 1 1 1 0 0
26	0 1 0 1 1 0 0 0		60	0 0 1 1 1 1 0 0
27	1 1 0 1 1 0 0 0		61	1 0 1 1 1 1 0 0
28	0 0 1 1 1 0 0 0		62	0 1 1 1 1 1 0 0
29	1 0 1 1 1 0 0 0		63	1 1 1 1 1 1 0 0
30	0 1 1 1 1 0 0 0		64	0 0 0 0 0 0 1 0
31	1 1 1 1 1 0 0 0		65	1 0 0 0 0 0 1 0
32	0 0 0 0 0 1 0 0		66	0 1 0 0 0 0 1 0
33	1 0 0 0 0 1 0 0		67	1 1 0 0 0 0 1 0

7.Address ID, 68 to 135

ID	Switchnumber (Sw1) Bit 1 2 3 4 5 6 7 8		ID	Switchnumber (Sw1) Bit 1 2 3 4 5 6 7 8
68	0 0 1 0 0 0 1 0		102	0 1 1 0 0 1 1 0
69	1 0 1 0 0 0 1 0		103	1 1 1 0 0 1 1 0
70	0 1 1 0 0 0 1 0		104	0 0 0 1 0 1 1 0
71	1 1 1 0 0 0 1 0		105	1 0 0 1 0 1 1 0
72	0 0 0 1 0 0 1 0		106	0 1 0 1 0 1 1 0
73	1 0 0 1 0 0 1 0		107	1 1 0 1 0 1 1 0
74	0 1 0 1 0 0 1 0		108	0 0 1 1 0 1 1 0
75	1 1 0 1 0 0 1 0		109	1 0 1 1 0 1 1 0
76	0 0 1 1 0 0 1 0		110	0 1 1 1 0 1 1 0
77	1 0 1 1 0 0 1 0		111	1 1 1 1 0 1 1 0
78	0 1 1 1 0 0 1 0		112	0 0 0 0 1 1 1 0
79	1 1 1 1 0 0 1 0		113	1 0 0 0 1 1 1 0
80	0 0 0 0 1 0 1 0		114	0 1 0 0 1 1 1 0
81	1 0 0 0 1 0 1 0		115	1 1 0 0 1 1 1 0
82	0 1 0 0 1 0 1 0		116	0 0 1 0 1 1 1 0
83	1 1 0 0 1 0 1 0		117	1 0 1 0 1 1 1 0
84	0 0 1 0 1 0 1 0		118	0 1 1 0 1 1 1 0
85	1 0 1 0 1 0 1 0		119	1 1 1 0 1 1 1 0
86	0 1 1 0 1 0 1 0		120	0 0 0 1 1 1 1 0
87	1 1 1 0 1 0 1 0		121	1 0 0 1 1 1 1 0
88	0 0 0 1 1 0 1 0		122	0 1 0 1 1 1 1 0
89	1 0 0 1 1 0 1 0		123	1 1 0 1 1 1 1 0
90	0 1 0 1 1 0 1 0		124	0 0 1 1 1 1 1 0
91	1 1 0 1 1 0 1 0		125	1 0 1 1 1 1 1 0
92	0 0 1 1 1 0 1 0		126	0 1 1 1 1 1 1 0
93	1 0 1 1 1 0 1 0		127	1 1 1 1 1 1 1 0
94	0 1 1 1 1 0 1 0		128	0 0 0 0 0 0 0 1
95	1 1 1 1 1 0 1 0		129	1 0 0 0 0 0 0 1
96	0 0 0 0 0 1 1 0		130	0 1 0 0 0 0 0 1
97	1 0 0 0 0 1 1 0		131	1 1 0 0 0 0 0 1
98	0 1 0 0 0 1 1 0		132	0 0 1 0 0 0 0 1
99	1 1 0 0 0 1 1 0		133	1 0 1 0 0 0 0 1
100	0 0 1 0 0 1 1 0		134	0 1 1 0 0 0 0 1
101	1 0 1 0 0 1 1 0		135	1 1 1 0 0 0 0 1

7. Address ID, 136 to 203

ID	Switchnumber (Sw1) Bit 1 2 3 4 5 6 7 8	ID	Switchnumber (Sw1) Bit 1 2 3 4 5 6 7 8
136	0 0 0 1 0 0 0 1	170	0 1 0 1 0 1 0 1
137	1 0 0 1 0 0 0 1	171	1 1 0 1 0 1 0 1
138	0 1 0 1 0 0 0 1	172	0 0 1 1 0 1 0 1
139	1 1 0 1 0 0 0 1	173	1 0 1 1 0 1 0 1
140	0 0 1 1 0 0 0 1	174	0 1 1 1 0 1 0 1
141	1 0 1 1 0 0 0 1	175	1 1 1 1 0 1 0 1
142	0 1 1 1 0 0 0 1	176	0 0 0 0 1 1 0 1
143	1 1 1 1 0 0 0 1	177	1 0 0 0 1 1 0 1
144	0 0 0 0 1 0 0 1	178	0 1 0 0 1 1 0 1
145	1 0 0 0 1 0 0 1	179	1 1 0 0 1 1 0 1
146	0 1 0 0 1 0 0 1	180	0 0 1 0 1 1 0 1
147	1 1 0 0 1 0 0 1	181	1 0 1 0 1 1 0 1
148	0 0 1 0 1 0 0 1	182	0 1 1 0 1 1 0 1
149	1 0 1 0 1 0 0 1	183	1 1 1 0 1 1 0 1
150	0 1 1 0 1 0 0 1	184	0 0 0 1 1 1 0 1
151	1 1 1 0 1 0 0 1	185	1 0 0 1 1 1 0 1
152	0 0 0 1 1 0 0 1	186	0 1 0 1 1 1 0 1
153	1 0 0 1 1 0 0 1	187	1 1 0 1 1 1 0 1
154	0 1 0 1 1 0 0 1	188	0 0 1 1 1 1 0 1
155	1 1 0 1 1 0 0 1	189	1 0 1 1 1 1 0 1
156	0 0 1 1 1 0 0 1	190	0 1 1 1 1 1 0 1
157	1 0 1 1 1 0 0 1	191	1 1 1 1 1 1 0 1
158	0 1 1 1 1 0 0 1	192	0 0 0 0 0 0 1 1
159	1 1 1 1 1 0 0 1	193	1 0 0 0 0 0 1 1
160	0 0 0 0 0 1 0 1	194	0 1 0 0 0 0 1 1
161	1 0 0 0 0 1 0 1	195	1 1 0 0 0 0 1 1
162	0 1 0 0 0 1 0 1	196	0 0 1 0 0 0 1 1
163	1 1 0 0 0 1 0 1	197	1 0 1 0 0 0 1 1
164	0 0 1 0 0 1 0 1	198	0 1 1 0 0 0 1 1
165	1 0 1 0 0 1 0 1	199	1 1 1 0 0 0 1 1
166	0 1 1 0 0 1 0 1	200	0 0 0 1 0 0 1 1
167	1 1 1 0 0 1 0 1	201	1 0 0 1 0 0 1 1
168	0 0 0 1 0 1 0 1	202	0 1 0 1 0 0 1 1
169	1 0 0 1 0 1 0 1	203	1 1 0 1 0 0 1 1

7. Address ID, 204 to 255

ID	Switchnumber (Sw1) (Bit) 1 2 3 4 5 6 7 8	ID	Switchnumber (Sw1) (Bit) 1 2 3 4 5 6 7 8
204	0 0 1 1 0 0 1 1	238	0 1 1 1 0 1 1 1
205	1 0 1 1 0 0 1 1	239	1 1 1 1 0 1 1 1
206	0 1 1 1 0 0 1 1	240	0 0 0 0 1 1 1 1
207	1 1 1 1 0 0 1 1	241	1 0 0 0 1 1 1 1
208	0 0 0 0 1 0 1 1	242	0 1 0 0 1 1 1 1
209	1 0 0 0 1 0 1 1	243	1 1 0 0 1 1 1 1
210	0 1 0 0 1 0 1 1	244	0 0 1 0 1 1 1 1
211	1 1 0 0 1 0 1 1	245	1 0 1 0 1 1 1 1
212	0 0 1 0 1 0 1 1	246	0 1 1 0 1 1 1 1
213	1 0 1 0 1 0 1 1	247	1 1 1 0 1 1 1 1
214	0 1 1 0 1 0 1 1	248	0 0 0 1 1 1 1 1
215	1 1 1 0 1 0 1 1	249	1 0 0 1 1 1 1 1
216	0 0 0 1 1 0 1 1	250	0 1 0 1 1 1 1 1
217	1 0 0 1 1 0 1 1	251	1 1 0 1 1 1 1 1
218	0 1 0 1 1 0 1 1	252	0 0 1 1 1 1 1 1
219	1 1 0 1 1 0 1 1	253	1 0 1 1 1 1 1 1
220	0 0 1 1 1 0 1 1	254	0 1 1 1 1 1 1 1
221	1 0 1 1 1 0 1 1	255	1 1 1 1 1 1 1 1
222	0 1 1 1 1 0 1 1		
223	1 1 1 1 1 0 1 1		
224	0 0 0 0 0 1 1 1		
225	1 0 0 0 0 1 1 1		
226	0 1 0 0 0 1 1 1		
227	1 1 0 0 0 1 1 1		
228	0 0 1 0 0 1 1 1		
229	1 0 1 0 0 1 1 1		
230	0 1 1 0 0 1 1 1		
231	1 1 1 0 0 1 1 1		
232	0 0 0 1 0 1 1 1		
233	1 0 0 1 0 1 1 1		
234	0 1 0 1 0 1 1 1		
235	1 1 0 1 0 1 1 1		
236	0 0 1 1 0 1 1 1		
237	1 0 1 1 0 1 1 1		

8. Specification

P.I.C.	P-042	P-043
Model	SP27HB-V55DN	SP37HB-V55DN
Signal Format	PAL / NTSC	
Scanning	2:1 Interlace	
Image Sensor	1/4" Sony Super HAD Color CCD	
H. Resolution	Color: 550 TVL / B&W: 680 TVL	
Viewing Angle	H: Appr. 55.5°(Wide) to 2.24°(Tele) V: Appr. 42.5°(Wide) to 1.79°(Tele)	H: Appr. 55.5°(Wide) to 1.59°(Tele) V: Appr. 42.5°(Wide) to 1.19°(Tele)
zoom	27x Optical Zoom / 12x Digital Zoom	37x Optical Zoom / 12x Digital Zoom
Min. Illumination	0.4 Lux/F1.6(50 IRE): Color / 0.02 Lux/F1.6 (50 IRE) : BW	
Focus	Auto / Manual	
White Balance	Auto / Manual (ATW, Indoor, Outdoor, One Push WB, Manual WB) Wide Dynamic Function (SB18WD/ SB26WD / SB36WD models)	
Shutter Speed	1 to 1/10,000 Sec.	1/3 to 1/10,000 Sec.
Iris Control	Auto / Manua/ Auto Slow Shutter	
Gain Control	LOW / MEDIUM / HIGH / MANUAL / OFF	
Video Output	CVBS : 1.0Vp-p/75Ω	
S/N Ratio	More than 50 dB	
PTZ Characteristics	360° PAN (0.4° ~320° per sec) / 90° Tilt (0.4°~150° per sec) with Auto Flip/ Vario-Speed control* / Proportional & constant PT speed	
On-Screen Display	Date/ Time/ Zoom Rate/ Temperature/ Zones/ Camera name	
OSD Menu	Setup/ Automation programming/ Password protection	
Object Tracking (only G70AT serie)	Manual activation / Preset triggering / Scheduled activation Tracking zone selection	
Communication	RS-485, 16 Multiple protocol supported, coax	
Preset Positions	128 Presets	
Auto Pan	Yes, between 2 presets	
Tour / Sequence	4 progr. Tours with max 32 presets/ 4 Pattern up to 180s	
Alarm inputs	7 inputs / 2 output	
Operating Environment	Outdoor: -40℃ to 60℃ / IP66 weather protection Indoor: -10℃ to 50℃ / humidity up to 95%	
Power	24V AC / 24W(indoor) 48W(outdoor)	