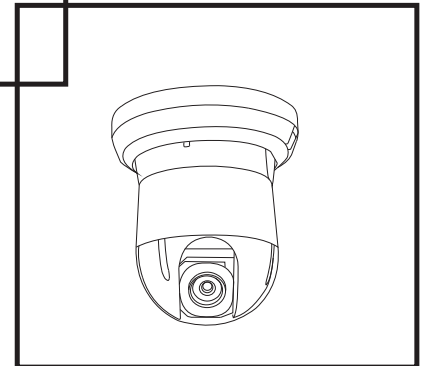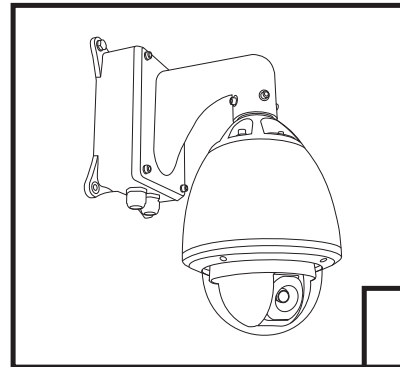**OKINA** USA

SEMW36HB-V53DN

36x Wide Dynamic High Speed Tracking PTZ Camera

User Manual
English
v2.33

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. JUST QUALIFIED SERVICE PERSONNEL SHOULD SERIVICE THE PRODUCT.

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 DESIGHEND TO PROVIDE REASONABLE PROTECTION AGAINST HAMRFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENGERGY 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 CONECT OR OPERATE THIS PRODUCT, PLEASE READ THE LABEL ON THE BOTTOM AND USER'S MANUAL CAREFULLY

CONTENTS

Technical specification are subjects to change without prior notification. Manual may contain mistakes or print errors. All trade marks mentioned belong to their respective owners.

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 speci?ed 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
- 4 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.
- Direction 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.(Available in 36X only)
- 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

Core unit
1 piece

Indoor Roof-Mount
base plate
1 piece

Instruction and
operation manual
1 piece

Outdoor

Core unit
1 piece

Outdoor 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 must be handled with care. Do not touch or rub the surface in any way with the protection foil.Inproper cleaning methods will cause permanent scratches on the cover and cause unclear image or focusing error of the camera. For cleaning the cover, replace the original cover with the spare cover, then wash it by immersing it into warm water containing a non-corrosive cleaning agent.
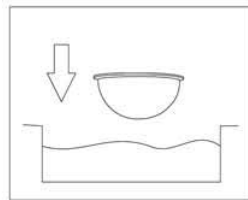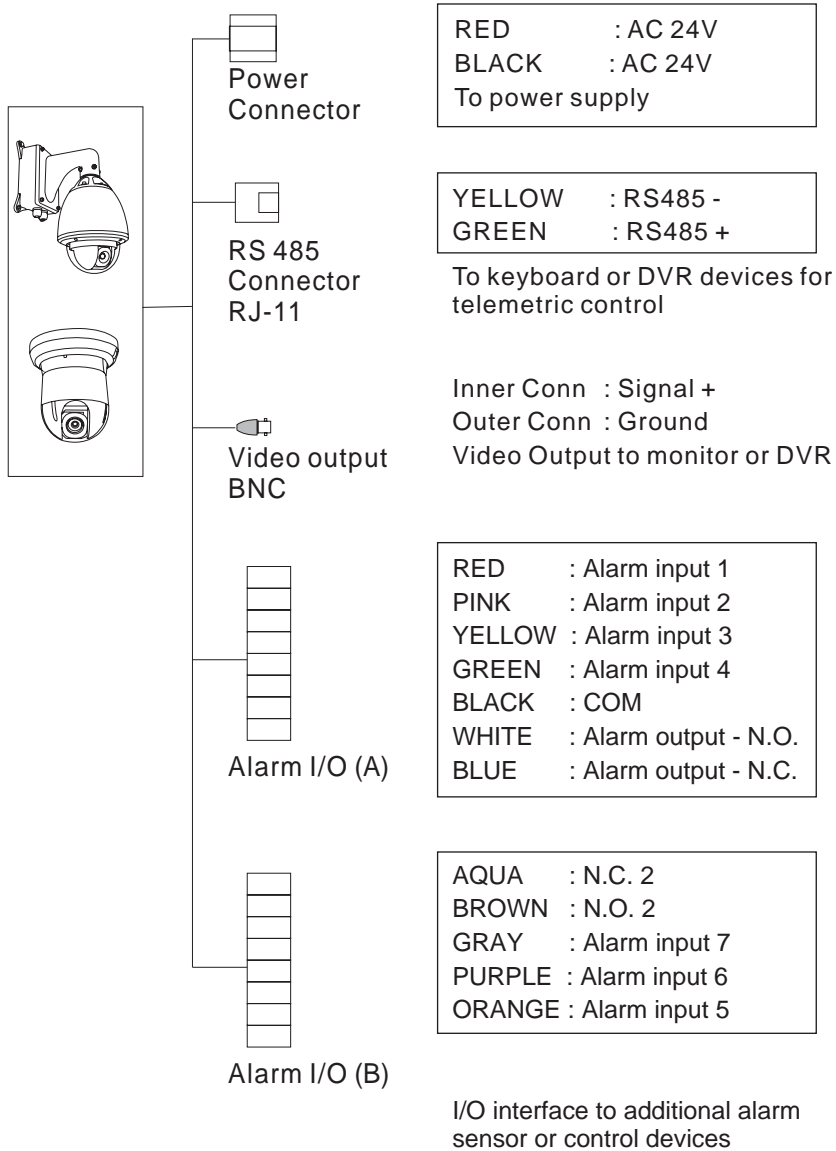
4.INSTALLATION

Safety Instructions before starting

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

- Make sure that the installation is done according to the local electricity safety regulations of your country.

- Before installation and maintenance, 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 the device. Please refer to the section "Precaution" for more details.

- Handle the device during the installation with care. Droping the product or extreme vibration may cause irreparable damages and void the warranty.

- Do not install or operate the appliance close to high-voltage devices or high-voltage cables. The safety distance should remain at least 50 m.

- To achieve best image quality, it is recommanded to use underground cables shielded by 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 lightning-proof equipment and/or lightning rods for protection.

- For outdoor installations, lightning protection and grounding of the device should be considered. Please refer to the industrial saftey regulations of your country.

- Grounding of the appliance should include anti-interference and fulfill the safety requirements. Do not connect the ground with short-circuited or other high-voltage electric networks.

- 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 strikes below 1500 V.

- This appliance meets the Ip66 standard for water and dust proof. Do not install the in-door model for out-door applications as the model is not designed withstanding permanent water exposure. 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 requirements of the appliance, such as holding the weight and providing enough space for bracket and power supply.
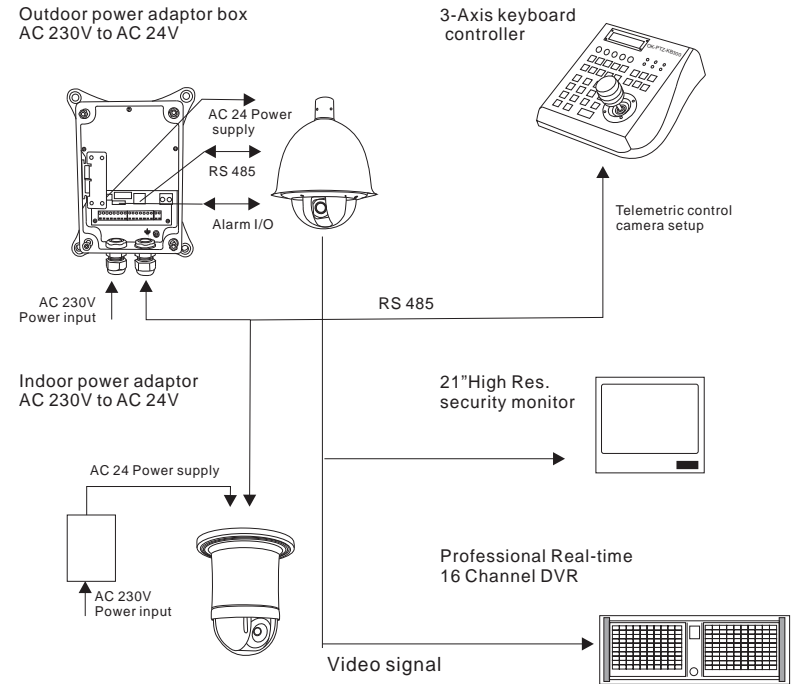
Connector description

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

Power Connector

YELLOW	: RS485 -
GREEN	: RS485 +

To keyboard or DVR devices for telemetric control

RS 485 Connector RJ-11

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

Video output BNC

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

Alarm I/O (A)

AQUA	: N.C. 2
BROWN	: N.O. 2
GRAY	: Alarm input 7
PURPLE	: Alarm input 6
ORANGE	: Alarm input 5

Alarm I/O (B)

I/O interface to additional alarm sensor or control devices

Using optional accessories

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

Outdoor power adaptor box
AC 230V to AC 24V

3-Axis keyboard controller

AC 24 Power supply

RS 485

Alarm I/O

AC 230V Power input

RS 485

Telemetric control camera setup

Indoor power adaptor AC 230V to AC 24V

21"High Res. security monitor

AC 24 Power supply

AC 230V Power input

Video signal

Professional Real-time 16 Channel DVR

RS485 cable

The telemetric control of the appliance uses RS485 serial communication with half-duplex transmission technology.

Depending on the cable type and 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	400m

Due the environmental interferences, such as eletromagnetic and induction fields, or number of connected appliance on the RS485 bus, the transmission range may decrease.
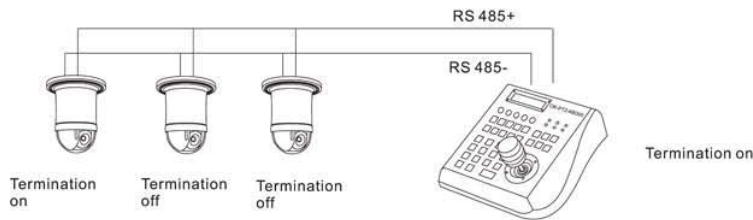
RS485 Termination

Devices using RS485 control are usually connected in daisy-chain which requires termination with 120Ω resistor on both ends. The following graphic illustrates the connection methods. Please note that a daisy-chain connection type shall not exceed 7 meters.
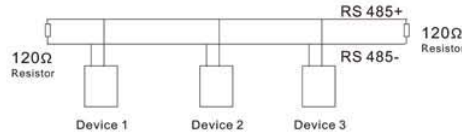

The speed dome series provide an integrated termination switch. It should be turned ON on the dome serving as the last device. If a controller keyboard is used, you also need to turn the termination ON on the keyboard. Please refer to the keyboard's manual for details.

How to turn termination ON on the speed dome

The termination switch is located on the rear side of the connection board. For turning it ON open theconnector board.
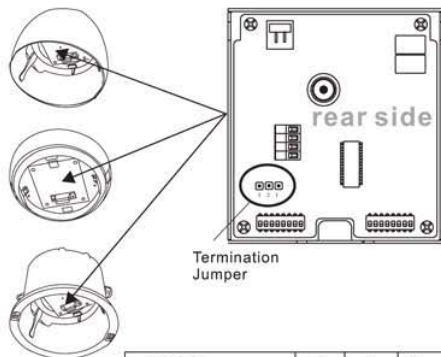
How to open the connector board
The connector board can be opened by holding the metal clip and pulling.

Metal Clip holder

Press the metal clip in and pull the board in the outlined direction.
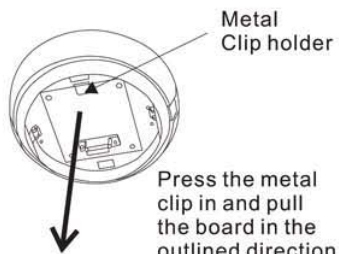
Jumper	1	2	3
Term. On	ON	ON	OFF
Term. Off (default)	OFF	ON	ON

7

Star-Connection

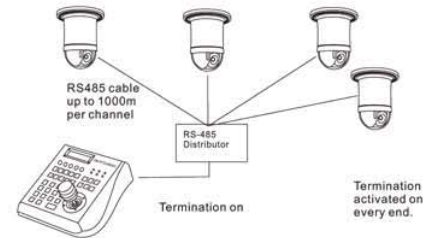The star-form connection is a popular way to connect different devices. It enables longer distance connection of different dome cameras. It is recommended to use RS485 distributor to ensure the telemetric data transmission:

The advantage of star-connection is that every channel can work independently and supports a cable length up to 1000 meters (depending on the quality of the cable). In case more dome cameras are installed, the star-connection can be extended with additional RS485 distributors.
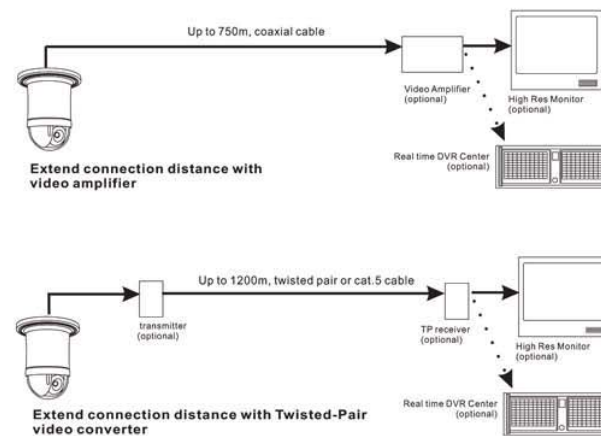
Video Cable

Coaxial cable with 75Ω impedance with copper conductor at the center and shielded with 95% copper. The following table shows different cable types and their 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. Depending on the qualiy tof the cable and environmental conditions the transmission distance might decrease.

If the cable length is more than 400 m, it is recommended to use optional accessories, such as video amlifiers or twisted-pair video converters , to amplify the video signal.
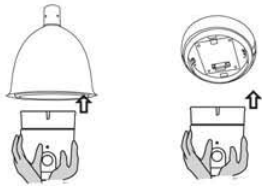

Extend connection distance with video amplifier


Extend connection distance with Twisted-Pair video converter

8

Installing the core unit to base board.

The core units and base boards are packed seperatly, in order to protect them during transportation. After unpacking and during the installation, the core unit should be installed as follows:
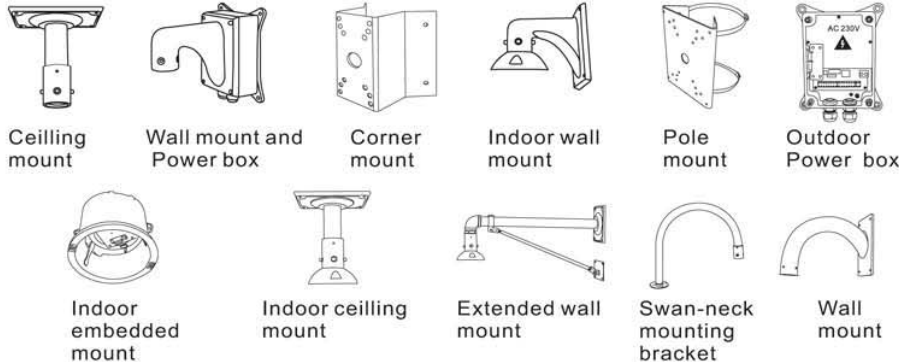
Installing the core unit by inserting it into the housing. Please note the position of the connector. For releasing, please press the lever-lock to core and pull off the unit.

Lever-Lock

Connector Interface

Power LED

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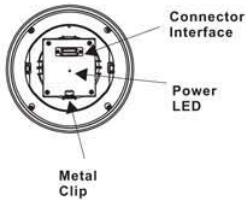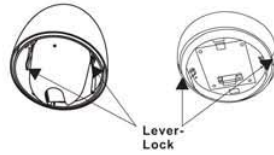
Once the base board is connected to power, the power LED will light up.

Optional bracket accessories

The speed dome can be equipped with various bracket accessories for indoor and outdoor installation. Please contact your distributor for further details.

Ceiling mount

Wall mount and Power box

Corner mount

Indoor wall mount

Pole mount

AC 230V

Outdoor Power box

Indoor embedded mount

Indoor ceiling mount

Extended wall mount

Swan-neck mounting bracket

Wall mount

FIRMWARE V2.25
Protocol: PELCO
Dome Address: 001
Comm 9600,N,8,1

W#94065K

Initial Screen

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

- **"FIRMWARE "**: Model number
- **V2.25:** Current firmware version
- **Protocol:** Current control protocol
- **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 cannot be changed
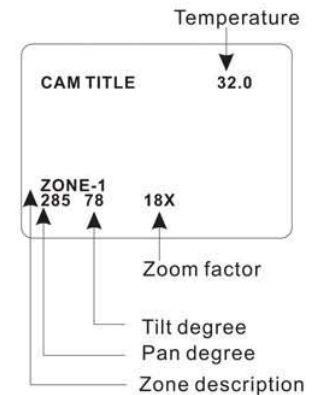
The intial screen will remain on until any user action is taken. If the power-up action is set, the initial info wil vanish immediately.

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 activated or deactivated through the OSD menu.Pplease refer to the system setting for detais.

Temperature

CAM TITLE   32.0

ZONE-1
285 78   18X

Zoom factor
Tilt degree
Pan degree
Zone description

PTZ operation

For the surveillance operation, the dome can be controlled from a keyboard device , Multiplexer or DVR through RS485 interface. Make sure that the cable is connected and the settings (baud rate, Address ID and protocol) of both, keyboard and the dome, are correctly configurated. For further details on operating the PTZ, please refer to the user's manual of the keyboard.

OSD Menu

The speed dome are equipped with the new OSD Menu function. All operational functions and camera related settings can be controlled here. In order to use the OSD function, a telemetric controller device, such as keyboard, DVR or other devices with similiar functions, is required. Please make sure that the device used is properly physically connected to the dome and all connection parameters are set.

How to start the OSD Menu

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

With keyboard　　| call | 9 | 5 | Enter | or 2 X | call | 9 | Enter |

With keyboard (3-Axis)　| Shot | 9 | 5 | Enter | or 2 X | Shot | 9 | Enter |

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

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

1. The dome is running a tour
2. Performing PTZ operations
3. Dome is receiving a command other than OSD-request from the keyboard

To solve this inability stop the operation and try again.

Main menu and navigation

```
          Main Menu
 ▶ SYSTEM  SETTING ➡
   CAMERA  SETTING ➡
   FUNCTION  SETTING➡
   WINDOW  BLANKING ➡
   ALARM  ➡
   EXIT
```

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

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

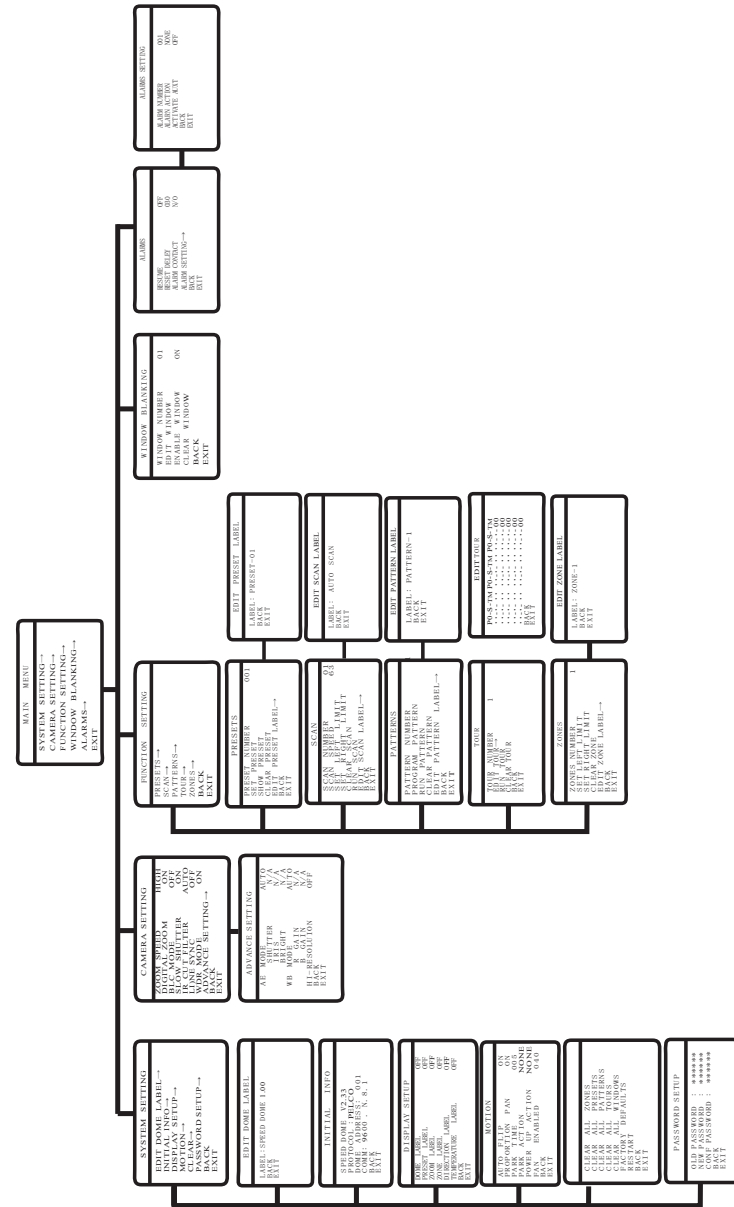For more inforamtion, please refer to the illustration on the next page for the OSD Menu structure.

Symbols and indicator

▶　Cursor.

✿　Sub item is selected. use up or down to change value

➡　This item has subitem(s)

```
SYSTEM SETTING

   EDIT DOME LABEL
   INITIAL INFO
   DISPLAY SETUP
   MOTION
   CLEAR
   PASSWORD SETUP
   BACK
   EXIT
```

System Setting

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

```
EDIT DOME LABEL

 ☼ LABEL :  ENTRANCE

   BACK

   EXIT
```

Dome Label:

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

```
   INITIAL   INFO

   FIRMWARE V2:33

   PROTOCOL: FACTORY

   DOME ADDRESS: 001

   COMM: 4800,N,8,1

   BACK

   EXIT
```

Initial Info:

Shows the information about current settings.

```
   DISPLAY   SETUP

   DOME  LABEL          OFF
 ☼ PRESET  LABEL        OFF
   ZOOM  LABEL          ON
   ZONE  LABEL          OFF
   DIRECTION  LABEL     ON
   TEMPRATURE LABEL     OFF
   BACK
   EXIT
```

Display Setup

Enables the display for the on-screen info during operaton mode.

Dome label: Name of the dome
Preset label: Shows the label 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 current temp. in the dome

```
        MOTION

 ☼ AUTO FLIP          ON
   PROPORTION PAN     ON
   PARK TIME          005
   PARK ACTION        SCAN
   POWER UP ACTION    AUTO
   FAN ENABLED        040
   BACK
   EXIT
```

Motion control

AUTO FLIP: Auto. image flip, tilt range from 90° to 180°.

PROPORTIONAL PAN: Depending 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 duration can vary from 1 to 240 minutes. This function can bedisabled 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: Action which starts 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.

FAN ENABLED: Defines the temperature limit (in °C) at which the internal cooling starts operating. The standard limit is 40°C.

```
        CLEAR

   CLEAR ALL ZONES
   CLEAR ALL PRESETS
   CLEAR ALL PATTERNS
   CLEAR ALL TOURS
   CLEAR ALL WINDOWS
   FACTORY DEFAULTS
   RESTART
   BACK
   EXIT
```

Clear

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

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

Warning: The clear action cannot be undone. Once an item is cleared it is impossible to retrieve the deleted setting. Please make sure that the requested clear action is desired.

```
   PASSWORD SETUP

   OLD PASSWORD  : ******
   NEW PASSWORD  : ******
   CONF PASSWORD : ******
   ENABLE PASSWORD  OFF
   BACK
   EXIT
```

Password setup

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

```
CAMERA  SETTING

☼ ZOOM SPEED         HIGH
  DIGITAL ZOOM        ON
  BLC MODE            OFF
  SLOW SHUTTER        ON
  IR CUT FILTER       AUTO
  LINE SYNC           OFF
  WDR MODE            ON
  ADVANCE SETTING      ➜
  BACK
  EXIT
```

Camera Setting

In the camera setting menu, you can access camera module related settings. Please note that depending on module's capability, some functions may not be available. Please contact your local sales representative for detailed information.

ZOOM SPEED: Defines the speed in which zoom functions are performed.

DIGITAL ZOOM: Activates or deactivates the camera module's digital zoom function.

BLC MODE: Selects the Back Light Compensation mode which 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-lit environments.

IR CUT FILTER: Enables the removal of Infrared Cut Filter (IRC), also known as "DAY/NIGHT" mode. Enabling the IRC the camera turns into Black/White mode and has higher sensibility to low-light situations or turns on the IR-light, depending on the light condition. Selectable between On, Off or Auto. Only available on camera modules with IRC function.

LINE SYNC: Enables and disables Line Synchronization.

```
ADVANCE  SETTING

☼ AE MODE          AUTO
  SHUTTER          N/A
  IRIS             N/A
  BRIGHT           N/A
  WB MODE          AUTO
  R GAIN           N/A
  B GAIN           N/A
  HI-RESOLUTION    OFF
  BACK
  EXIT
```

Advanced Setting

Under the advanced setting, you can make improvements to the image quality depending on 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, an image improvement based on DSP processing. You can also adjust the Red-Gain or Blue-Gain to change the color tone.

Hi-RESOLUTION: Switch between 470-530 TVL (only with FCB-1010P)

```
FUNCTION  SETTING

PRESETS ➜
SCAN➜
PATTERNS➜
TOUR ➜
ZONES➜
BACK
EXIT
```

Function Setting

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

Presets

PRESET NUMBER: supports up to 128 presets. The number can be selected from 0 to 128.

```
PRESETS

PRESET NUMBER  001
SET PRESET
SHOW PRESET
CLEAR PRESET
EDIT PRESET LABEL
BACK
EXIT
```

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 the max. optical zoom range in order to provide the best image quality.

SHOW PRESET: Moves to the current preset point.

CLEAR PRESET: Clears the current preset.

```
EDIT  PRESET  LABEL

LABEL : MAIN ENTR,
BACK
EXIT
```

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

Scan

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

```
SCAN

SCAN NUMBER  01
SCAN SPEED   63
SET LEFT LIMIT
SET RIGHT LIMIT
CLEAR SCAN
RUN SCAN
EDIT SCAN LABEL
BACK
EXIT
```

SCAN NUMBER: Supports up to 4 scans.
SCAN SPEED: Cruising speed between the points.
SET LEFT LIMIT: Defines the left point.
SET RIGHT LIMIT: Defines the right point.
CLEAR SCAN: Deletes the scan setting.
RUN SCAN: Starts the scan function.
EDIT SCAN LABEL: Sets the name for the scan.

```
            PATTERNS

PATTERN  NUMBER    1
PROGRAM  PATTERN
RUN  PATTERN
CLEAR  PATTERN
EDIT  PATTERN  LABEL
BACK
EXIT
```

Patterns

Patterns record the user's movement while performing PTZ operations and stores them as a track. The Speed Dome can record up to 4 tracks with max. 180 sec. each.

PATTERN NUMBER: Supports up to 4 patterns.

PROGRAM PATTERN: Starts recording the pattern when selected. You can perfom PTZ movements for recording (not exceeding 180 sec.). Press IRIS-OPEN to save the track.

RUN PATTERN: Starts the current pattern.

CLEAR PATTERN: Deletes the current pattern.

EDIT PATTERN LABEL : Sets the name for the current pattern.

```
            TOURS

 TOUR NUMBER          1
 EDIT TOUR
 RUN TOUR
 CLEAR TOUR
 BACK
 EXIT
```

Tour

Tour is an auto-operation running through selected preset points with definable pause time. A tour can store up to 24 preset points.

TOUR NUMBER: Supports up to 4 tours.

TOUR PRESETS (P0): Move the joystick up and down to select the preset points by number and save the settings by going to the left end of the line. If a selected point has the value 0, all the following preset points will be ignored.

SPEED (S): Speed of the dome between 2 points.

TOUR DWELL (TM): Pause duration after reaching a preset point. Duration can be set between 00-60(s).

RUN TOUR: Starts the tour and exits the OSD Menu.

```
       EDIT    TOUR

PO-S-TM PO-S-TM PO-S-TM
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
00-0-00   00-0-00    00-0-00
BACK
EXIT
```

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```
            ZONES

ZONE NUMBER        1
SET LEFT LIMIT
SET RIGHT LIMIT
CLEAR ZONE
EDIT ZONE LABEL
BACK
EXIT
```

Zones

You can define the zones in the whole PT range up to 8 zones. When the display setting "Zone Label" is activated, its label will be displayed on the screen. The defined ranges of the zones should not be overlapping.

ZONE NUMBER: Supports up to 8 zones.

SET LEFT LIMIT: Left boarder of the current zone.

SET RIGHT LIMIT: Right boarder of the current zone.

CLEAR ZONE: Delet the current zone.

EDIT ZONE LABEL : Changes the label (name) of the current zone.

```
    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 that should not be displayed once the camera is pointed on it, such as lavatory areas or the operation desk of an ATM machine. This might be mandatory required by local law regulations. The Speed Dome supports up to 24 private masks (depending on the installed camera module; please contact your local sales representative for more information).

Hitachi camera modules: 8 masking areas

Sony Camera modules: up to 24 masking areas (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 using the keyboard's joystick. Presse IRIS-OPEN to save.

ENABLE WINDOW: Shows the mask on the screen.

CLEAR WINDOW: Deletes the mask.

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6.OSD - Alarm Setting

Alarms

RESUME: Continues the previous function of the camera before the alarm was activated.
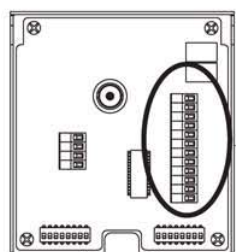
RESET DELAY: How long the camera stays in Alarm mode.

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

ALARM NUMBER: Ranging from 1-7.

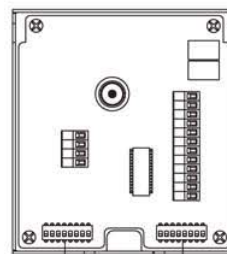**ALARM ACTION:** Setting for PRESET, SCAN, TOUR, PAT 1-4, or NONE, if the camera's alarm function is activated.

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

Alarm Connection on Backboard

- Alarm input 1 to 7
- Common port
- Alarm output 1
- Alarm output 2
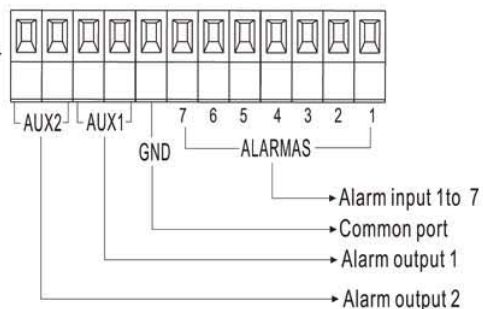
7.PROTOCOL SETTING

Sw1   Sw2

Protocol Setting

This procedure is needed if a connection of the telemetric control with the keyboard device is desired. You need to setup the dome address and protocol settings.

The speed dome supports multiple communication protocols. The settings can be changed by rearranging the DIP-Switches on the rear side of the connector board as illustrated.

Please use the following table for detailed information.

SW 1:
Represents the dome's address in binary form. Please refer to the list on the next pages for reference.

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

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	0 0 1 1 0 0

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

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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

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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

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		

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Model	SEMW36HB-VT53DN
Signal Format	NTSC
Image Sensor	1/4″ Sony Exview HAD CCD
Resolution / DSP	530 TV Lines, Wide Dynamic Range / Sony
Video Signal	1.0V p-p (Sync Negative), Y/C Output
Scanning System	Progressive
Minimum Illumination	Day: 1.4 Lux (1/50), 0.1 Lux (1/3) ; Night: 0.01 Lux (1/3)
Mechanical IR Cut Filter (ICR)	Yes
Zoom	36x Optical Zoom / 12x Digital Zoom
Lens	3.4mm~122.4mm Lens / F1.6~F4.5 Tamron Lens (Made in Japan)
View Angle	48° (Wide End) / 2.8° (Tele End)
S/N Ratio	More than 50dB
Focus	Auto / Manual
White Balance	Auto / Manual (ATW, Indoor, Outdoor, One Push WB, Manual WB)
Electronic Shutter Speed	1 ~ 1/10,000 sec.
Iris Control	Auto / Manual / Auto Slow Shutter
Gain Control	Auto / Manual (-3 to 28dB, 2dB steps, 16 steps)
Pan Speed / Pan Range	0.4° ~ 300° per sec. / 360°
Tilt Speed / Tilt Range	0.4° ~ 150° per sec. / 0° ~ 90°
Communication	RS485, Multiple Protocol, Coax
Preset Positions	128 Presets
Auto Pan	Yes, between 2 presets
Tour / Sequence	4 Programmable Tours with Max. 24 Presets / 4 Patterns up to 180s
Alarm Input	Up to 4 Alarm Inputs
Heater & Blower	Built-in
Power	24V AC / 24~60VA (Outdoor)
Operating Temperature	Outdoor: -40°C ~ 60°C
Dimension	6.56″(Ø) x 10.5″(H) / 200cm(Ø) x 320cm(H)

*Specifications and appearance are subject to change without notice.