

HTSD12XH

960H 12X Optical Zoom

Indoor / Outdoor Speed Dome Camera



Please read this manual thoroughly before operation and keep it handy for further reference.

CONTENTS

Warning & Caution	3
What's in the Box?	3
General Features	4
Overview of Parts	5
Installation	
A. Connection Methods	6
B. Ceiling Mount Type	7
C. Embedded Mount Type	
Quick Operation Keys	8
Diagnostic	9
OSD Menu Setting	
A. OSD Menu Table	10
B. DOME SET	11
C. CAMERA SET	16
D. PRESET	18
E. AUTO SCAN	19
F. TOUR SET	20
G. PRIVACY SET	21
H. PATTERN SET	22
I. ALARM SET	23
J. SECTOR SET	24
DIP Switch Setting	
A. ID Setting (DIP SW1)	25
B. Protocol/ Baud Rate Setting (DIP SW1-9~10)	26
Trouble Shooting	27
Specifications	28
Dimensions	29

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 a trained professional

Immediately stop usage when the product emits smoke or abnormal heat.

Never install the product in an 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.

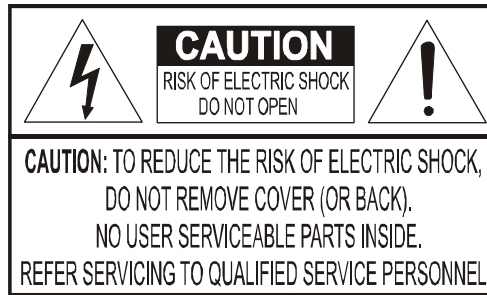
Never install the product in extreme high or low temperature.

Never drop, hit strongly, or 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 may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

Warning

Never operate Pan/Tilt with hands. It may cause serious damage to the camera.

What's in the Box ?

1. Camera
2. Screws (Ø4x16 screw 5EA)
3. Terminal block (6pin 1EA,5pin 1EA)
4. Manual
5. Screw Cap (2 EA)

GENERAL FEATURES

1/4" Sony Super-HAD II DOUBLE SCAN CCD (520K 960H 700TVL)

This camera provides 700TVL high resolution, excellent sensitivity and low smear levels with Sony CCD.

144X Zoom Mini Speed Dome

12X Optical Zoom with 12X digital zoom

±0.02° dome system accuracy with 1/4 micro step

With 0.1° technical accuracy, camera provides excellent sensitive and delicate controlling on preset mode by adapting 1/4 micro step and twin gear system

360° Endless Rotation

12X mini speed dome is capable of endless rotation of 360 degrees

Compensation function: preset position

The function minimizes the appearance of shaky images caused by low-frequency vibration, wind and any impact and maintains a normal horizontal resolution. Sets the starting point of pan/tilt on preset mode by using joystick turning one time without turning off the power of the camera. It is useful for outdoor surveillance and traffic monitoring applications.

Over 240°/Sec Preset Speed

The 360° full pan function moves at a maximum of 240°/sec., enabling you to quickly pinpoint the spot you want to watch. Tilt speed is a maximum 240°/sec on preset.

Polarity Protection of Power

This protection function prevents the power board from being damaged when the power source connects to an incorrect power terminal.

Filter changeable True Day/Night

Surveillance with optimum picture is possible owing to filter changeable Day/Night (ICR block filter) function and DSS. The auto IR cut filter removable function controls operation such as color picture plus infrared cut filter during the day and black and white picture plus filter elimination at night.

Indoor / Outdoor applications

Compact and minimal dome size allows for various install applications

Wide Dynamic Range (x512)

By applying an optimum fusion ratio when combining the high speed shutter used in bright areas and the low speed shutter used in dark areas.

Quick Operation Keys

This camera provides quick functional keys to be easily controllable by another controller or DVR.

Various Surveillance Functions

Auto Scan repeats pan and tilt between two preset positions with different speed and dwell time.

8 Group Tour up to 8 Programmable Group tours available and each group is consisting up to 60 presets step with different speed and dwell time with 16 characters.

164 Preset positions up to 164 programmable preset positions are available with 16 characters

8 Patterns up to 8 programmable user-defined patterns are available with 16 characters and each one consists of 50 seconds, up to total 400 seconds.

8 Sectors up to 8 programmable user-defined sectors are available with 16 characters

4 Privacy Masking Zones up to 4 programmable user-defined privacy masking zones are available with 16 characters

4 Alarm input up to 4 alarms can be activated with preset, tours, patterns.

240°/S – Manual speed

This camera provides up to 240°/sec of manual speed and is adjustable from 1°/sec to 240°/sec at an interval of 10°/sec

Intelligent Pan/Tilt Controlling

Intelligent Pan/Tilt function decreases pan and tilt speeds in proportion to zoom.

Aluminum case and PC cover

Aluminum body and Poly Carbonate dome (IP66 Rated)

Password Protection

OVERVIEW OF PARTS

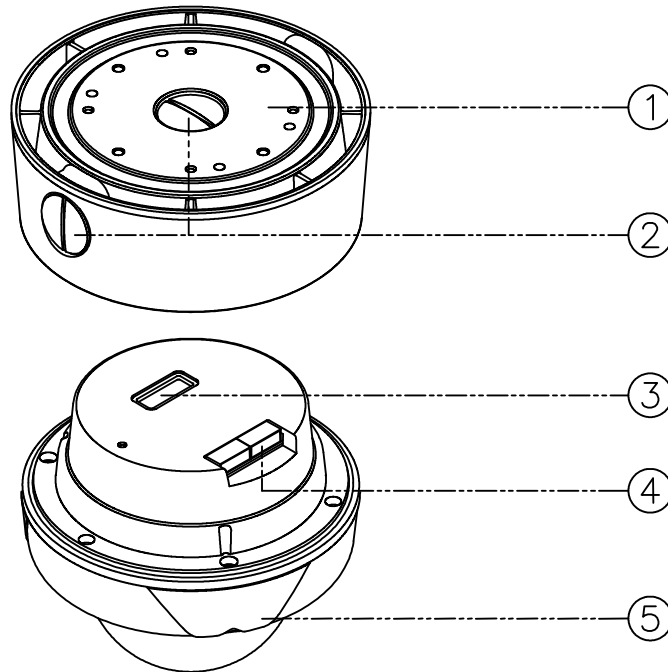


FIG.1

1. Surface Mount Adaptor
2. Cap Screw (PT3/4 , 2EA)
3. Dip Switch
4. Terminal Block
5. Main body

INSTALLATION

A. CONNECTION METHOD

A-1

1. Loosen the screws on the dome cover and remove it from the base.
(Screws will not fall out)
2. Loosen the screws which connect mount cover and Main base and separate dome cover from the main base. (Screws will not fall out)
3. Connect power (**12VDC or 24VAC**)
4. Connect video to Video and GND.
5. Connect communication cable to RS-485 connectors.
6. Connect alarm cable to GND like 1 and GND, 2 and GND, 3 and GND, 4 and GND.

(You can use both N.O / N.C methods.)

- **Don't screw too tightly. It can be the cause of a defect.**

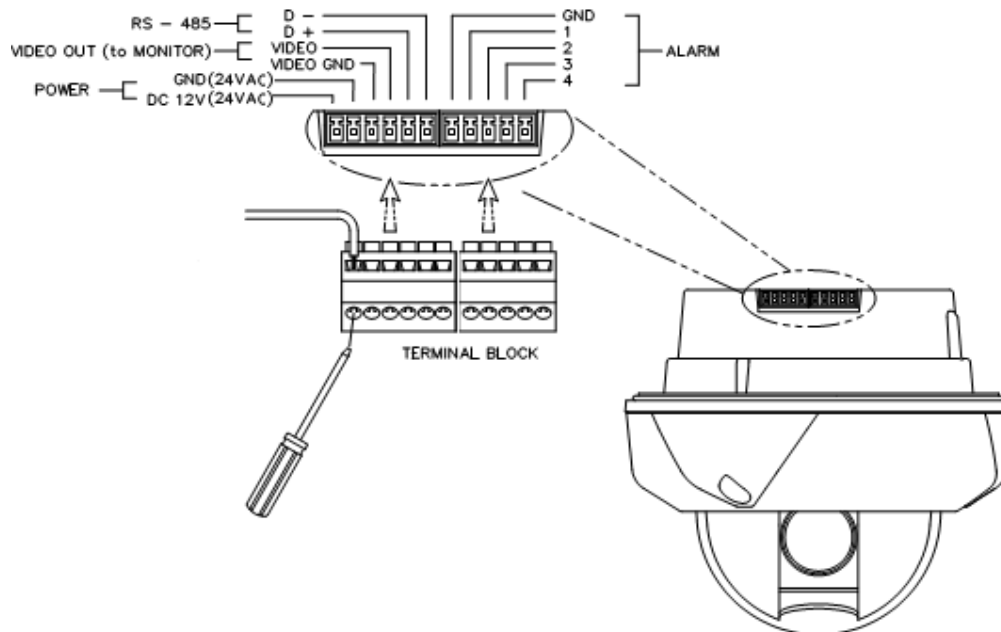


FIG.3

INSTALLATION

B. MOUNT

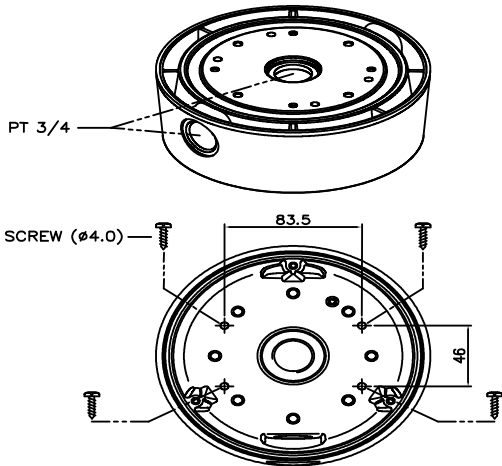


FIG. 4

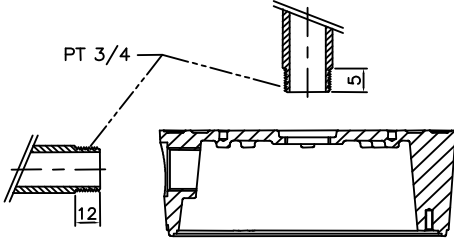


FIG. 5

1. Fix the surface mount adaptor with 4pcs of screws on the place where you want to install. (FIG.4)
2. When you use pipe, please note the standard size of pipe. (FIG.5)
3. Re-assemble the domes.

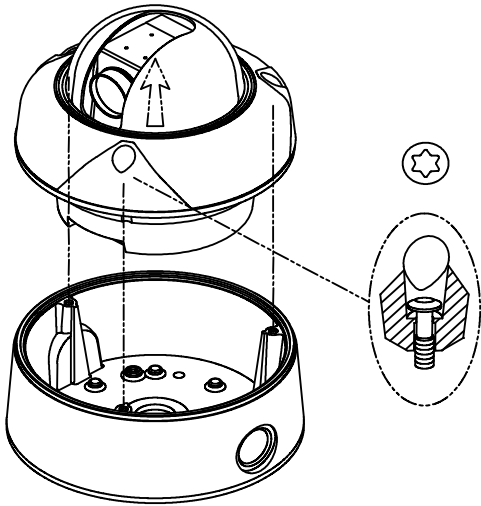


FIG. 2

QUICK OPERATION KEYS

1-64 + preset and 101~200 + preset are used for preset and 65-100 + preset used for functions.

For example, to enter OSD MENU, press the button **95** + **PRESET** or **95** + **ENTER**

<Quick Operation Key Table 1, Pelco - D, P>

Number	Note	Function
1 ~ 64, 101~200 +Preset	PRESET	Executing Preset 1 ~ 64
65 + Preset	PRESET STATUS	Display Preset Status
66 +Preset	AUTO SCAN	Executing Auto Scan
67 +Preset	AUTO FLIP	Selectable On/Off/Auto in Auto Flip function
71~78 +Preset	GROUP TOUR	Executing Group Tour #1 ~ #8
81~88 +Preset	PATTERN	Executing Pattern #1 ~ #8
91 + Preset	ZERO POSITION	
92 + Preset	FREEZE	
93 + Preset	BLC MODE	Selectable On/Off in BLC function
94 + Preset	D/N MODE	Selectable Day/Night Mode (Auto/Day/Night Mode)
95 + Preset	OSD MAIN MENU	To enter OSD Main Menu
96 + Preset	FOCUS ADJUST	Focus adjusting
97 +Preset	ALARM	Selectable Enable/Disable all Alarms

<Quick Operation Keys Table 2> Use these function keys if controller has these keys>

Menu	Function
Tilt Up / Down	Sub menu cursor moves up / down
Pan Left / Right	Enter to the sub menu or status change or decrement
Focus Near	Using for Enter key when user select YES or NO
Focus Far	Using for function changing keys when set coordinate
Zoom Tele	Status cursor to the right
Zoom Wide	Status cursor to the left

* **65 + preset** Status Report, if user presses 'Near' key, it disappears.

QUICK OPERATION KEYS

DIAGNOSTIC

When Power is on, DIAGONOSTIC is operational.

The following messages are displayed on the monitor.

```
CAMERA ID : 001
BAUD RATE : 2400 BPS

WAITING.....
```

```
PAN ORIGIN          CHECK OK
TILT ORIGIN         CHECK OK
TX CONNECTION       TEST OK
CAMERA COMM         TEST OK
```

A. Pan Origin Test

Zero point of Pan is found after Panning test.

B. Tilt Origin Test

Zero point of Tilt is found after Tilting test.

C. TX connection Test

Countdown from 60 seconds for TX Connection Test,

During 60 seconds, the camera must receive a signal from any key of the controller or DVR.

When received the correct signal, OK is displayed after TX CONNECTION TEST.

* If "No Tested" is displayed on the monitor,

- Camera did not receive the any signal.

- Camera did receive the signal but did not correct it.

- User should check protocol, baud rate and RS-485 connection.

D. Camera Comm. Test

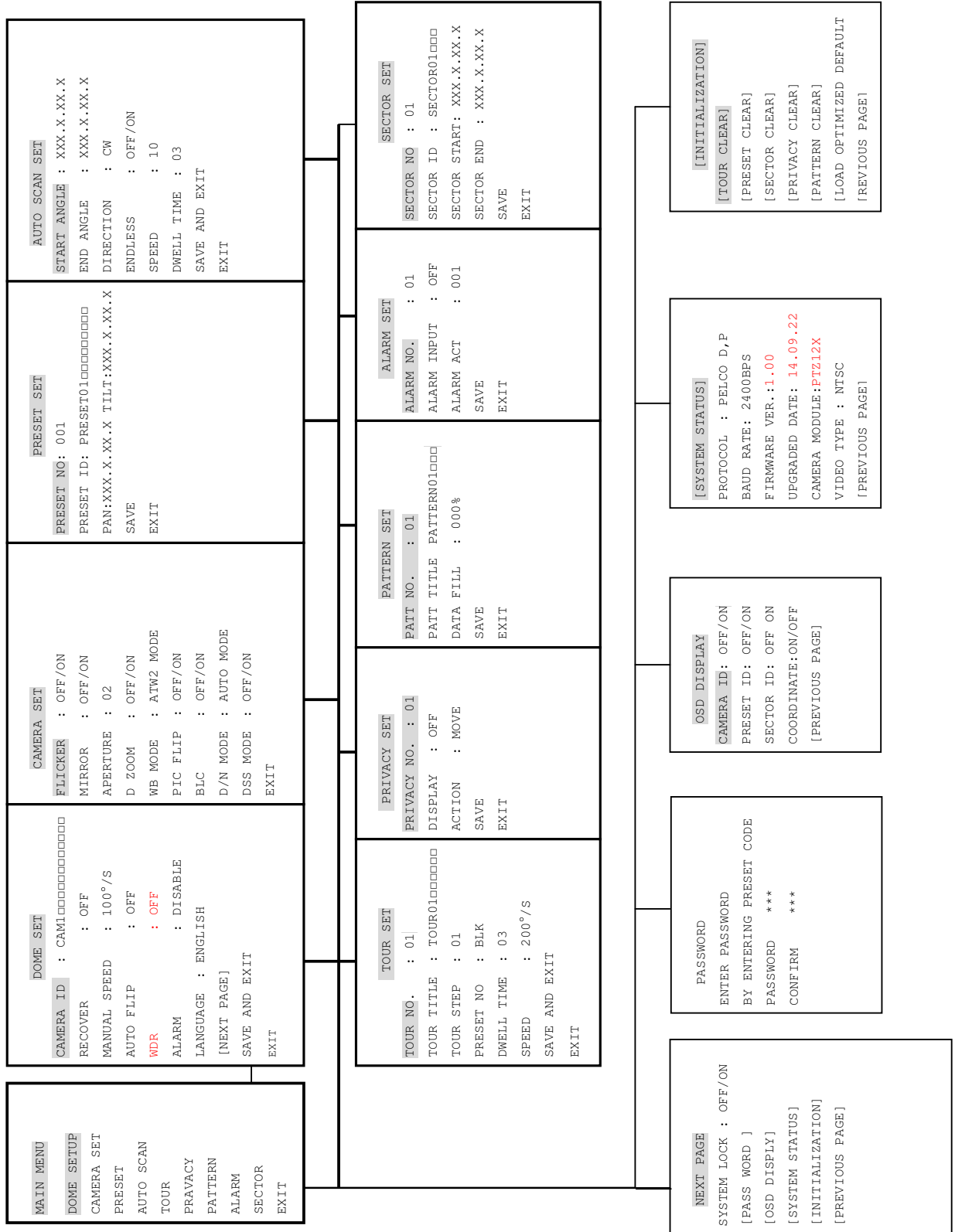
Communication test with the camera is automatically checked.

OK should be displayed in these four tests before installation.

If all the above Tests are OK, "**NOW EEPROM CHECKING**" and "**EEPROM OK**" is displayed and the camera is ready to operate.

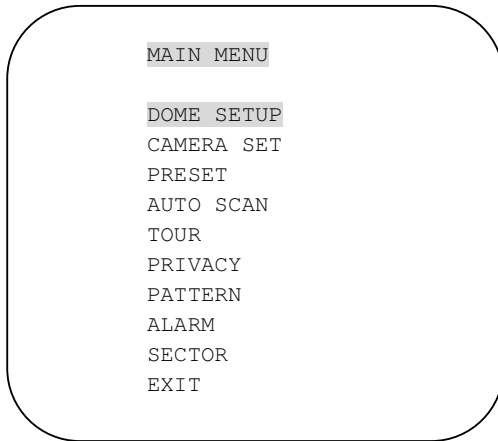
OSD MENU SETTING

A. OSD MENU TABLE



OSD MENU SETTING

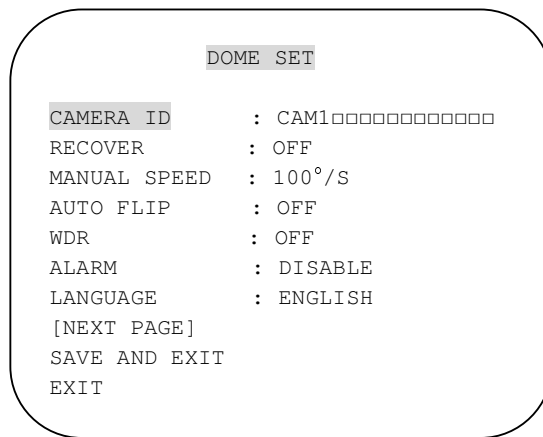
To enter OSD Menu, press the button **95** + **PRESET**.



***Move the joystick up / down to highlight the selection and left / right to make the selection**

B. Dome Setup

To enter Dome setup, move the joystick to the right when the setting is highlighted



DEFAULT SETTING

B-1. DOME SET - CAMERA ID

To set camera ID, select up to 16 characters using Joystick to the left or right.

Press **ZOOM TELE** button to move to the next character from left to right direction and

ZOOM WIDE button to move to the next character from right to left direction

(Space displays when appears)

OSD MENU SETTING

B-2. DOME SET - RECOVER

This feature allows the dome to recover to the last setting before the dome was used manually (Auto scan, group tour, pattern or sectors), after the set time, power will shut down and turn back on. Recover time can be programmed from 15 second to 90 seconds. The default setting is OFF.

B-3. DOME SET - MANUAL SPEED

Manual Speed of Pan/Tilt is selectable from 1°/sec up to 240°/sec.

The default setting is 100°/sec

B-4. DOME SET - AUTO FLIP

Auto Flip is available and the default setting is OFF. Move joystick “right or left” to select ON or OFF. The default setting is OFF. This function can be recalled by pushing **[67+ preset]** button.

B-5. DOME SET – WDR

Move joystick to the right direction for selecting WDR LEVEL (1~7). The default setting is OFF.

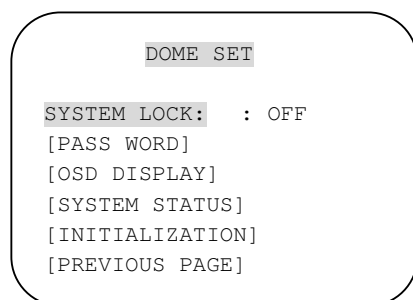
B-6. DOME SET – ALARM

All alarms are available after set as ENABLE Mode. Move joystick to right or left direction for selecting ENABLE/DISABLE. The default setting is DISABLE. This function can be recalled by pushing **[97+ preset]** button.

B-7. DOME SET - LANGUAGE

Multiple languages are selectable here including English, Italian and Polish. Move joystick to the right or left direction to select language. The default setting is ENGLISH.

B-8. DOME SET – [NEXT PAGE]



DEFAULT SETTING

B-8-1. DOME SET – [NEXT PAGE] – SYSTEM LOCK

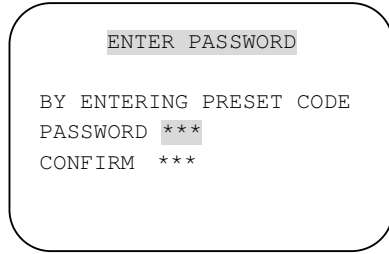
Password protection allows settings to be stored. One then must enter the correct password to change the settings. In order to enter [PASS WORD] page, system lock status is must set as ON. Move joystick to right or left direction to select ON. The default setting is OFF.

OSD MENU SETTING

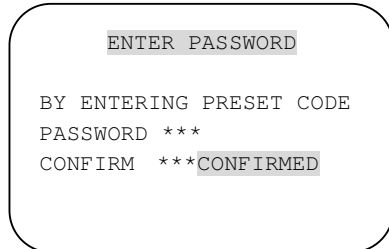
B-8-2. DOME SET – [NEXT PAGE] – [PASSWORD]

To enter this page to set a password, SYSTEM LOCK should be 'ON' then move joystick to the right direction on [PASSWORD]. The password must be set by preset number from 001 to 255
(Default 99)

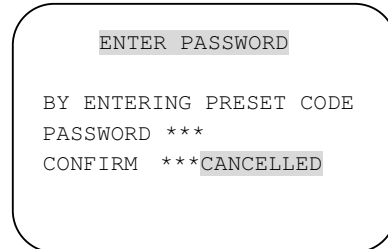
A. OSD MAIN MENU TABLE (PAGE 11) The default setting is BLANK.



Press any number from 001~255 with preset button on password blank and again it on confirm blank. Then "CONFIRMED" is displayed on the monitor and the menu will go back to the previous page automatically.



<CONFIRMED>



<CANCELLED>

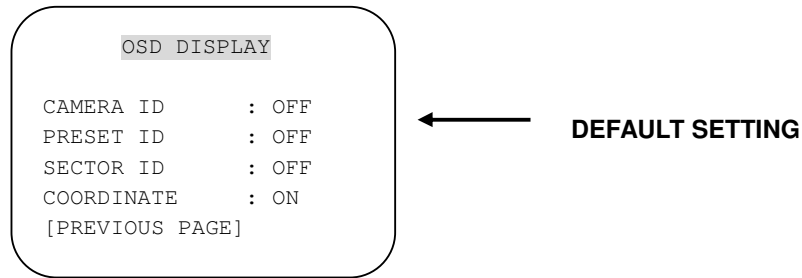
If user presses wrong preset number between PASSWORD and CONFIRM, "CANCELLED" is displayed on the monitor and if user failed 3 times, the menu will return to the previous page automatically * After setting a Password, an operator must enter the correct password in order to enter OSD MAIN MENU, or to change the settings-

* An operator must remember the password for the operation. Manufacturer doesn't provide password recovery.

B-8-3. DOME SET – [NEXT PAGE] – [OSD DISPLAY]

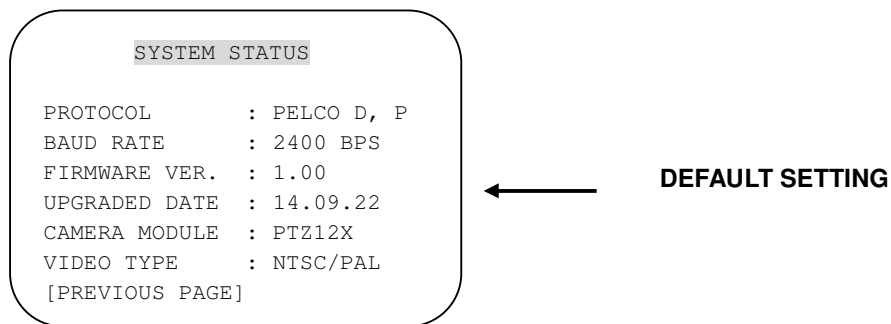
OSD ID displayed after set ON in here and it can be hiding if selected OFF. Move joystick to the right or left direction in order to select OFF/ON when the cursor is located each item.

OSD MENU SETTING



B-8-4. DOME SET – [NEXT PAGE] – [SYSTEM STATUS]

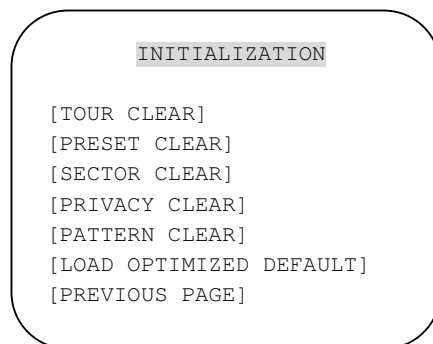
This page shows the information of this camera.



- Protocol and baud rate are shown according to the dip switch setting
(Refer to page 29, 30 and 31)
- Firmware version and upgraded date will be changed if upgraded.
- Below camera modules can be set as follows.
SCC-ZM123: SAMSUNG 12X ZOOM CAMERA MODULE.

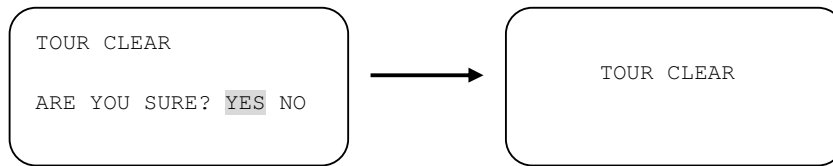
B-8-5. DOME SET – [NEXT PAGE] – [INITIALIZATION]

To clear all memorized data for tour, preset, sector, privacy or pattern, move joystick to the right direction when the cursor is on [INITIALIZATION]



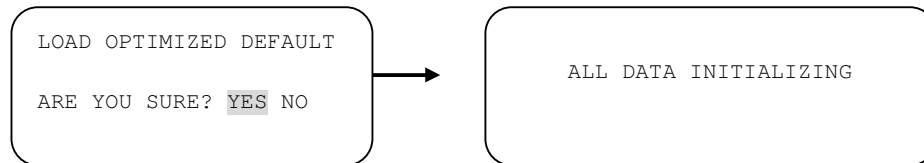
OSD MENU SETTING

- To clear any stored setting, move joystick to the right direction when cursor is on each item.



Press **[FOCUS NEAR]** button when the cursor is at YES in order to clear the setting. Then each item such as tour, preset, sector, etc will flicker on the monitor for about 2~3 seconds. After this process, the menu is returned to the previous page.

* **[PRESET CLEAR], [SECTOR CLEAR], [PRIVACY CLEAR], [PATTERN CLEAR]** are same as **[TOUR CLEAR]**.



- To clear all data and return to factory default, move joystick to the right direction when cursor is at **[LOAD OPTIMIZED DEFAULT]** to enter the above page.
- Move joystick to the right or left direction in order to select YES, press **[FOCUS NEAR]** button.
- "ALL DATA INITIALIZING" will be displayed for 5~30 seconds and then the menu will be returned to the previous page automatically.

B-9. DOME SET – [NEXT PAGE] – SAVE AND EXIT

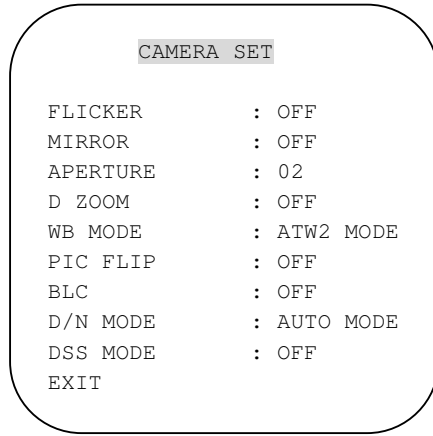
To save the settings and leave this page, move joystick to the right direction when cursor is at **SAVE AND EXIT**.

B-10. DOME SET – [NEXT PAGE] – EXIT

In order not to save any setting and leave the page, move joystick to the right direction when cursor is at **EXIT**

OSD MENU SETTING

C. CAMERA SET



C-1. CAMERA SET - FLICKERLESS

Flickerless feature is selected between 50Hz and 60Hz. The default setting is OFF (NTSC: 60Hz / PAL: 50Hz). Set flicker mode ON when power source is in discord with frequency. The default setting is OFF

C-2. CAMERA SET - MIRROR

This feature shows a mirror image. The default setting is OFF.

C-3. CAMERA SET – APERTURE

Aperture enhances picture details by increasing gain of the camera and sharpens the edges in the picture. The default setting is 02. (the aperture level is from 00 ~ 03)

C-4. CAMERA SET – D ZOOM

Move joystick to the right direction in order to set as ON. The default setting is OFF.

C-5. CAMERA SET – WB MODE

White balance functions have 4 modes according to the condition of exterior lighting.

It may change the mode option according to the lighting conditions as below.

The default setting is ATW2 mode

- ATW1 Mode - 2,500°K to 9,500°K
- ATW2 Mode - 2,000°K to 10,000°K
- Indoor – up to 3,200°K
- Outdoor – up to 5,600°K

OSD MENU SETTING

C-6. CAMERA SET – PIC FLIP

Flips the picture horizontally. Move joystick to the right or left direction to select OFF/ON. The default setting is OFF.

C-7. CAMERA SET – BLC (Back Light Compensation)

The default setting is OFF and BLC modes can be OFF/ON.

OFF – Backlight compensation is not activated.

ON – Back light compensation is activated.

This function can be recalled by pushing **93 + preset** button.

C-8. CAMERA SET – D/N MODE

ICR filter is changeable according to the lighting, AUTO – NIGHT MODE – DAY MODE.

The default setting is AUTO MODE. This function can be recalled by pushing **94 + preset** button.

C-9. CAMERA SET – DSS MODE (DIGITAL SLOW SHUTTER)

If DSS is turned on, digital slow shutter is working. The DSS will remain open to receive some more lighting.

The default setting is OFF.

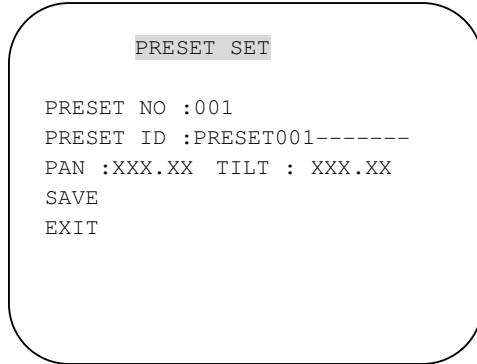
C-10. CAMERA SET – EXIT

To leave this page, move joystick to the right.

OSD MENU SETTING

D. PRESET SET

To enter PRESET SET, move joystick to the right direction.



← **DEFAULT SETTING**

D-1. PRESET – PRESET NO.

Up to 164 numbers of preset positions are available. Move joystick to the right or left direction to select preset no.

D-2. PRESET – PRESET ID

To set preset ID, select up to 16 characters using Joystick to the left or right.

Press **ZOOM TELE** button moves to the next character from the left to the right direction and **ZOOM WIDE** button moves to the next character from the right to left direction
(Space displays when appears)

D-3. PRESET – PAN: XXX.X TILT: XX.X

Press **FOCUS FAR** button in order to set preset position, then use the joystick move the camera to the position where memorized preset no. is needed. Then press **FOCUS FAR** button again after setting a preset location.

D-4. PRESET – SAVE

Move joystick to the right when the cursor is at SAVE and then the cursor will be located on Preset ID for the continuous preset No. setting.

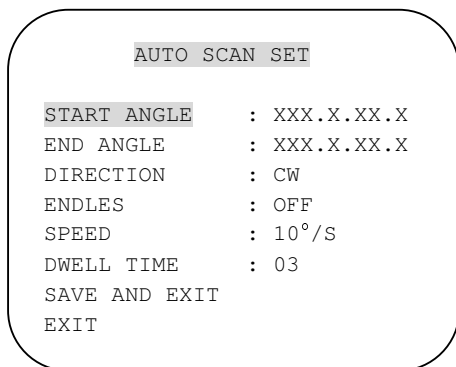
D-5. PRESET – EXIT

To leave this page, move joystick to the right.

OSD MENU SETTING

E. AUTO SCAN SET

* [66 + preset] button is working as AUTO SCAN after setting.



← DEFAULT SETTING

E-1. AUTO SCAN – START ANGLE

To set start angle, press [FOCUS FAR] button then use the joystick to move the camera to the desired starting angle. Press [FOCUS FAR] button again leave.

E-2. AUTO SCAN – END ANGLE

To set end angle, press [FOCUS FAR] button use the joystick to move the camera to the desired starting angle. Press [FOCUS FAR] button again leave.

E-3. AUTO SCAN – DIRECTION

Auto Scan directions are available with two direction as CW or CCW by joystick to the right or left

CW: Clock-wise direction (Default)

CCW: Counter Clock-Wise Direction.

E-4. AUTO SCAN – ENDLESS

Auto Scan can use endless rotation, move joystick to the right direction in order to select ON.

Otherwise, the default setting is OFF.

E-5. AUTO SCAN – SPEED

User can use auto scan speed from 01°/S up to 35°/S. The default setting is 10°/S.

E-6. AUTO SCAN – DWELL TIME

To select dwell time, move joystick to the left or right direction in order to adjust dwell time. This can be set from 1 second to 99 seconds. The default setting is 3 seconds.

E-7. AUTO SCAN – SAVE AND EXIT

To save the settings leave this page, move joystick to the right when cursor is at SAVE AND EXIT.

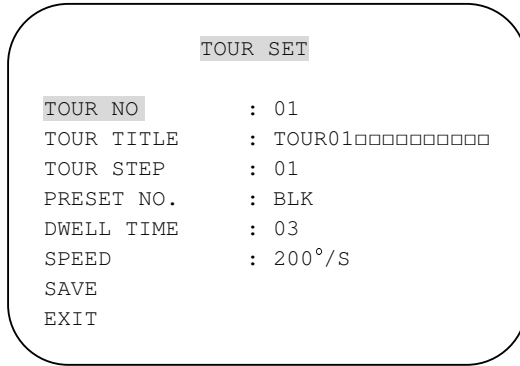
E-8. AUTO SCAN – EXIT

To leave this page, move joystick to the right.

OSD MENU SETTING

F. TOUR SET

8 Programmable tours can be set and each tour is available to set up to 60 preset steps. After setting the data to the each tour group, **[71~78 + preset]** buttons are working as group tour # 1~8



← **DEFAULT SETTING**

F-1. TOUR SET – TOUR NO.

Max. 8 group tour no. set by the joystick are available.

F-2. TOUR SET – TOUR TITLE

To set tour title, select up to 16 characters using Joystick to left or right.

Press **[ZOOM TELE]** button to move the next character from the left to the right direction and **[ZOOM WIDE]** button to move the next character from the right to left direction (Space displays when appears) Tour title is not displayed on the monitor, but only for the reference of user.

F-3. TOUR SET – TOUR STEP

Each tour group consists of up to 60 preset steps with different dwell time and speed. It is possible to match any preset # for each tour step.

F-4. TOUR SET – PRESET NO.

The decided tour step #1~60, it is possible to select any preset no. up to 164. The **default setting is BLK**

F-5. TOUR SET – DWELL TIME

Dwell time can be set from 1 second to 99 seconds. The **default setting is 3 seconds.**

F-6. TOUR SET – SPEED

Each tour step can be set with different tour speed up to 240°/S and it is selectable from 10°/S. Move joystick to the right or left direction to select tour speed. The default setting is 200°/S.

F-7. TOUR SET – SAVE

To save the settings and leave this page, move joystick to the right when cursor is at SAVE

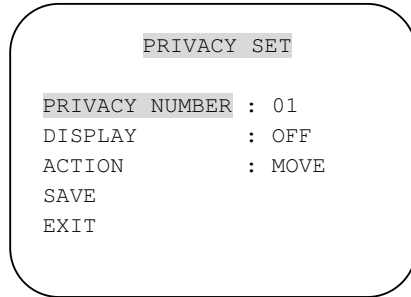
F-8. TOUR SET – EXIT

To escape this page, move joystick to the right direction

OSD MENU SETTING

G. PRIVACY SET

4 Privacy masking zones are available to block out areas of security.



← **DEFAULT SETTING**

G-1. PRIVACY SET – PRIVACY NUMBER.

Up to 4 privacy masking zones are available.

G-2. PRIVACY SET – DISPLAY.

Move joystick to the right or left direction to set ON in order to show the selectable block in the center of the monitor. This block appears as a translucent square with blue color after set ON. The default setting is OFF.

G-3. PRIVACY SET – ACTION (MOVE / POINT)

To set the privacy area, press **FOCUS FAR** button when on MOVE MODE. Then use the joystick to the user defined area in order to set blocking area. Then press **FOCUS FAR** button again to leave MOVE MODE.

To adjust size of privacy area, move joystick to the right or left direction when the cursor is on ACTION. After move mode is changed to POINT MODE, press **FOCUS FAR** button in order to adjust the size of privacy area. The size of blocking area can be adjustable by using joystick up down or left right. After adjusting size of blocking area, press **FOCUS FAR** button to leave escape POINT mode.

- POINT: You can change the masking size by using joystick to the left or right direction
- MOVE: You can move the masking area by using joystick to the left or right direction (Default)

G-4. PRIVACY SET – SAVE

After setting the privacy masking zone, to save the data, move joystick to the right when the cursor is on SAVE. After saving the data, the cursor moves to PRIVACY NO.2 automatically to prepare the next privacy masking zone.

G-5. PRIVACY SET –EXIT

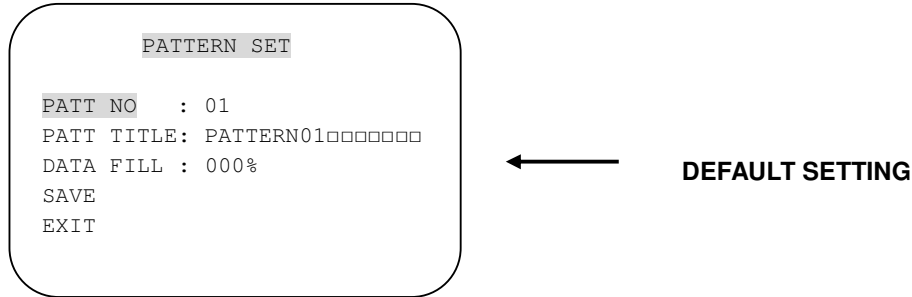
To escape this page, move joystick to the right direction

OSD MENU SETTING

H. PATTERN SET

8 programmable patterns are available with 16 characters of title.

After setting the data to each pattern # 1~8, 81~88+ preset buttons are working as Pattern # 1~8.



H-1. PATTERN SET –PATT NO.

Up to 8 programmable user-defined patterns set by the joystick are available.

H-2. PATTERN SET –PATT TITLE

To set PATTERN TITLE, select up to 16 characters using Joystick to the left or right.

Press **ZOOM TELE** button moves to the next character from the left to the right direction and **ZOOM WIDE** button moves to the next character from the right to left direction (Space displays when appears) Pattern title is not displayed on the monitor, but only for reference.

H-3. PATTERN SET –DATA FILL

To fill the programming data, press **FOCUS FAR** button in order to start the data fill up. Filling data is programmed according to the joystick movement. Press **FOCUS FAR** button again in order to leave.

H-4. PATTERN SET –SAVE

To save the setting, move joystick to the right when the cursor is on SAVE. Then the cursor moves to the PATT NO.02 in order to prepare next pattern no.

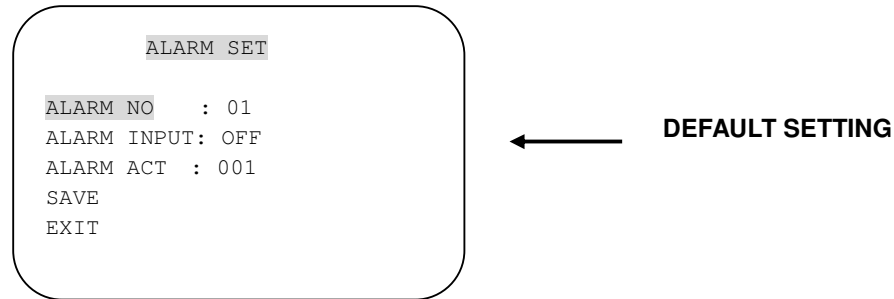
H-5. PATTERN SET –EXIT

To leave this page, move joystick to the right

OSD MENU SETTING

I. ALARM SET

4 Alarm inputs are available and each alarm is activating to presets, group tours or patterns.



I-1. ALARM SET – ALARM NO.

Up to 4 alarms are selectable by using joystick to the right direction when cursor is on ALARM NO.

I-2. ALARM SET – ALARM INPUT

Input alarm ways provide two different ways as NC (Normal Close) or NO (Normal Close)

The default setting is OFF

I-3. ALARM SET – ALARM ACT

Alarm activates various surveillance modes with Preset number up to 164, Group tour up to 8, Pattern up to 8. Move joystick to the right or left direction to select any preset number, group tour no. or pattern no.

I-4. ALARM SET – SAVE

After setting the alarm input ways and activation, to save the data, move joystick to the right when the cursor is on SAVE. After saving the data, the cursor moves to Alarm NO.2 automatically to prepare the next alarm.

I-5. ALARM SET –EXIT

To escape this page, move joystick to the right

* Before activating Alarm, user must set ALARM ENABLE at DOME SET – ALARM – ENABLE
(Refer to page 15)

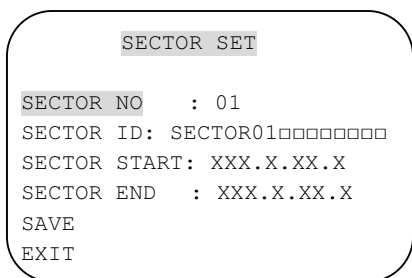
OSD MENU SETTING

J. SECTOR SET

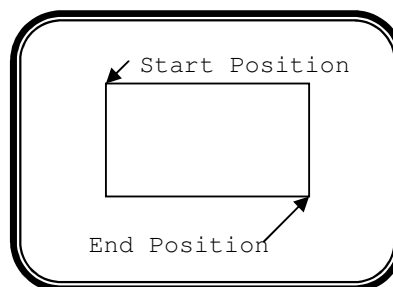
Up to 8 programmable sectors are available with 16 characters.

This feature is useful to store certain locations such as parking zone, etc.

When the camera scans this area, it shows the stored value.



DEFAULT SETTING



J-1. SECTOR SET – SECTOR NO.

Up to 8 programmable sectors set by the joystick are available.

J-2. SECTOR SET – SECTOR ID

To set SECTOR ID, select up to 16 characters by using Joystick to the left or right.

Press **ZOOM TELE** button to move to the next character from the left to the right direction and **ZOOM WIDE** button to move to the next character from the right to left direction (Space displays when appears)

J-3. SECTOR SET – SECTOR START

To set SECTOR START angle, press **FOCUS FAR** button then move joystick to the left or right direction to set the position. Press **FOCUS FAR** button again to leave.

J-4. SECTOR SET – SECTOR END

To set SECTOR END angle, press **FOCUS FAR** button then move joystick to the left or right direction to set the position. Press **FOCUS FAR** button again to leave

J-5. SECTOR SET – SAVE

After setting the SECTOR position, to save the data, move joystick to the right direction when the cursor is on SAVE. After saving the data, the cursor moves to SECTOR NO.2 automatically to prepare the next SECTOR.

J-6. SECTOR SET –EXIT

To leave this page, move joystick to the right

K. EXIT

To leave the OSD Main Menu, move joystick to the right or left direction then this camera is ready to operate.

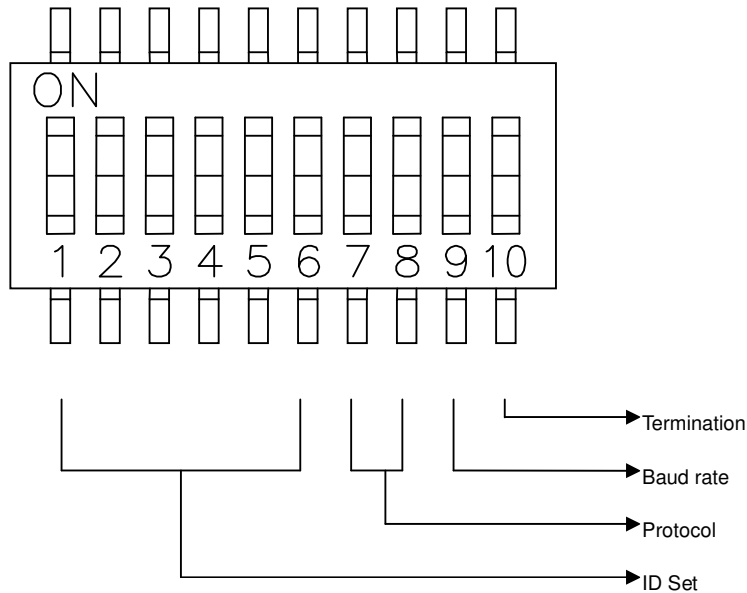
DIP SWITCH SETTING

A-1. DIP SW SETTING

Mini Speed Dome camera provides up to 63 camera ID and it's an adjustable ID with 1st~6th of Dip switch.

Open the camera case to set ID using DIP SW1.

* Factory default: Camera ID = 1, PELCO-D



A-2. ID SETTING (1-ON, 0-OFF) (1→10)

DIP SW	ID VALUE	DIP SW	ID VALUE	DIP SW	ID VALUE
10000XXXX	1	111010XXXX	23	101101XXXX	45
010000XXXX	2	000110XXXX	24	011101XXXX	46
110000XXXX	3	100110XXXX	25	111101XXXX	47
001000XXXX	4	010110XXXX	26	100011XXXX	48
101000XXXX	5	110110XXXX	27	100011XXXX	49
011000XXXX	6	001110XXXX	28	010011XXXX	50
111000XXXX	7	101110XXXX	29	110011XXXX	51
000100XXXX	8	011110XXXX	30	001011XXXX	52
100100XXXX	9	111110XXXX	31	101011XXXX	53
010100XXXX	10	000001XXXX	32	011011XXXX	54
110100XXXX	11	100001XXXX	33	111011XXXX	55
001100XXXX	12	010001XXXX	34	000111XXXX	56
101100XXXX	13	110001XXXX	35	100111XXXX	57
011100XXXX	14	001001XXXX	36	010111XXXX	58
111100XXXX	15	101001XXXX	37	110111XXXX	59
000010XXXX	16	011001XXXX	38	001111XXXX	60
100010XXXX	17	111001XXXX	39	101111XXXX	61
010010XXXX	18	000101XXXX	40	011111XXXX	62
110010XXXX	19	100101XXXX	41	111111XXXX	63
001010XXXX	20	010101XXXX	42		
101010XXXX	21	110101XXXX	43		
011010XXXX	22	001101XXXX	44		

DIP SWITCH SETTING

A-3. PROTOCOL

7th~8th dip switches are used for Protocol Setting.

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

DIP SW1- 7	DIP SW1- 8	
OFF	OFF	Pelco-D or Pelco-P

A-4. BAUD RATE SETTING

The 9th Dip Switch is used for BAUD RATE setting.

DIP SW can be changeable to 2400bps, 9600bps.

Factory Default: 2400bps.

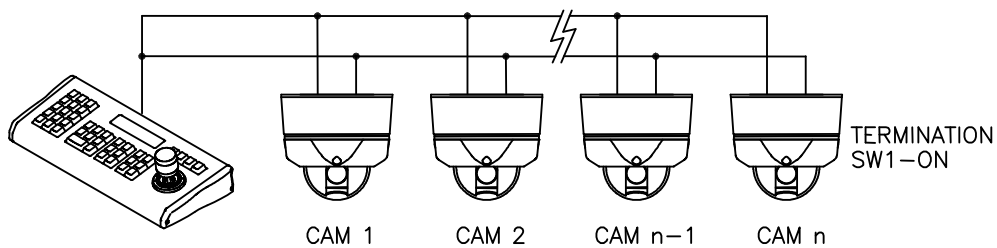
DIP SW1 9 th	BAUD RATE
OFF	2400
ON	9600

A-5. 485 TERMINATIONS

10th Dip Switch is used for 100Ω termination.

Set on 10th Dip Switch only for the last looped camera from the controller.

Even in case of only one camera, set on 10th Dip Switch of the cameras.



TROUBLESHOOTING

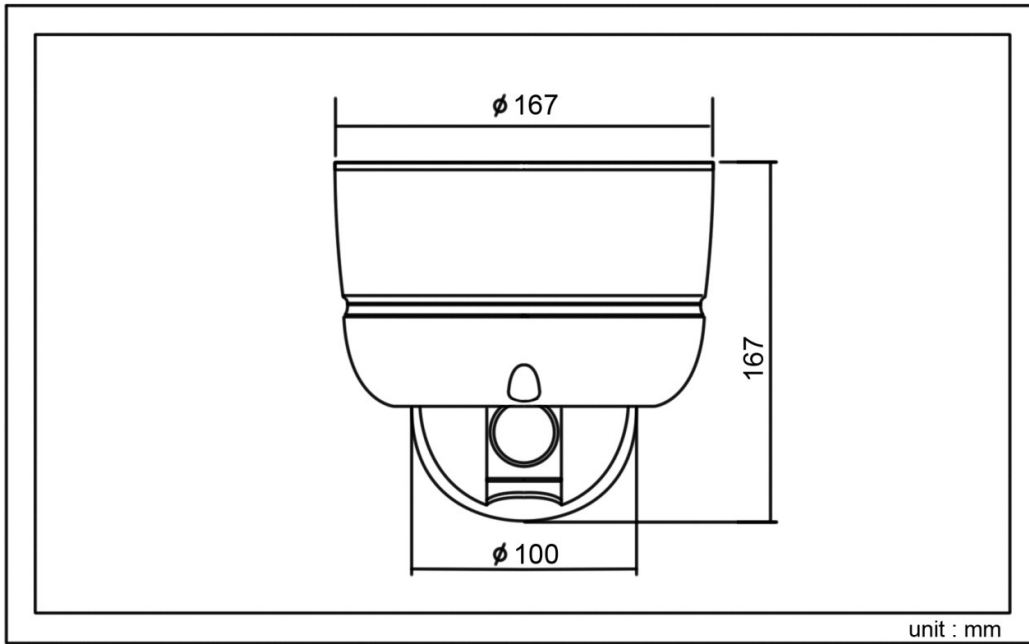
If you have trouble in operating in your camera, refer to the following.

PROBLEM	SOLUTION
No operation	Check if the power supply is DC12V or AC24V. Check if RS-485 communication cable is connected correctly. Check camera ID setting. Check the termination.
No picture	Check if all the cables are connected correctly. Check if the monitor is adjusted correctly. Check if video signal line is cut.
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. Adjust the monitor status. If excessive light is seen on a screen, change the camera angle or location. Adjust the lens focus again.

SPECIFICATIONS

MODEL		HTSD12XH	
PAN /TILT	Pan Rotation Angle		360° Endless
	Pan Speed	Manual	1° ~ 240°/sec
		Preset	Max 240° /sec
	Tilt Rotation Angle		0° ~ 90°
	Tilt Speed	Manual	1° ~ 240°/sec
		Preset	Max 240° /sec
System Accuracy		0.02°	
FUNCTIONS	Presets		164 positions with a 16-character label 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 scan		Programmable Auto scan
	Pattern		8 Programmable Patterns (total 400 seconds)
	Privacy Zone		4 privacy zones
	Sector		8 selectable Sectors with 16 characters
	Password Protection		Yes
	Alarm Input		4 alarms OFF/NC/NO (with various programmable states)
	Alarm Actions		Activate preset, Group scanning or Patterns
	Auto Flip		ON / OFF
	OSD Menu		Multiple Languages on screen
	Communication		RS-485
	POWER	Protocol	
Power Consumption		12VDC 800mA / 24VAC 400mA	
Power Supply		12VDC or 24VAC(Dual Voltage)	
OTHERS	Construction		die-casting , Anti-vandal dome cover
	Dimensions		167.0φ (D) * 167.0mm(H)
	Weight		1.5 kg
	Motor Type		Stepper Motor
	Micro Steps		1/4 Step
	Storage Temperature		-40F~ 140F
	Operating Temperature		-14F ~ 120F
CAMERA MODULE	Image Sensor		1/4" Sony Super-HAD II DOUBLE SCAN CCD
	Total Image Pixels	NTSC	1020(H) * 508(V)
		PAL	1020(H) * 596(V)
	Number Of Effective Pixels	NTSC	976(H) * 494(V)
		PAL	976(H) * 582(V)
	Horizontal/Vertical resolution		More Than 700(Color) / 750(BW) TV Lines
	Lens	Optical	12x Optical Zoom(f=3.6 to 44.3mm, F1.6(Wide)/F2.0(Tele)
		Digital	12x (144x with optical)
	Day & Night (ICR)		Auto/ Day/ Night
	Min. Shooting Distance		0.2m(Wide)/0.8m(Tele)
	Digital Slow Shutter		2/4/8/16/32/64/128/255/ OFF
	Min. illumination (F1.6/Wide)	Color mode	0.001 Lux (50IRE, Sens x255)
		Night mode	0.0004 Lux (50IRE, Sens x255)
	Luminance S/N Ratio		More than 52dB
	Video Output		VBS:1.0Vp-p/75 Ohm
	BLC		ON / OFF
	Flickerless		ON / OFF
WHITE BALANCE		ATW1/ATW2/INDOOR/OUTDOOR	

DIMENSIONS





LIMITED WARRANTY - VIDEO PRODUCTS

THIS WARRANTY IS VALID ONLY ON PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA AND CANADA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER.

SUBJECT TO CONDITIONS AND EXCLUSIONS FOUND BELOW, THIS PRODUCT IS WARRANTED AGAINST MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR THE FOLLOWING PERIOD FOR PARTS AND LABOR:

SPECO TECHNOLOGIES CAMERAS	5 YEARS	DVRs	3 YEARS
SPECO TECHNOLOGIES IP CAMERAS.....	2 YEARS	NVRS	3 YEARS
SPECO PTZ AND VL CAMERAS	1 YEAR	BALANCE OF	
SPECO TECHNOLOGIES MONITORS.....	1 YEAR	SPECO TECHNOLOGIES LINE	1 YEAR
IR LEDS	90 DAYS		

SPECO TECHNOLOGIES WILL REPAIR OR REPLACE (AT OUR DISCRETION) ANY PARTS FOUND TO BE DEFECTIVE FOR THE WARRANTY PERIOD SPECIFIED. WE WILL PROVIDE A REPLACEMENT FOR ANY DEFECTIVE PART.

CONDITIONS

- 1. YOU MUST OBTAIN A RETURN AUTHORIZATION (RA) NUMBER FOR ANY MERCHANDISE BEING RETURNED TO SPECO TECHNOLOGIES, WHETHER FOR RETURN/EXCHANGE OR REPAIR, WHETHER IN OR OUT OF WARRANTY.**
2. THIS WARRANTY WILL BE HONORED ONLY UPON PRESENTATION OF THE ORIGINAL DATED BILL OF SALE OR SALES SLIP.
3. TRANSPORTATION OF THE PRODUCT TO OUR SERVICE DEPARTMENT IS THE RESPONSIBILITY OF THE USER. REPAIRED OR REPLACED PRODUCT WILL BE RETURNED PREPAID DURING THE WARRANTY PERIOD.
4. SPECO TECHNOLOGIES DOES NOT AUTHORIZE ANY INTERNET OR MAIL ORDER PRODUCT SALES. IF A SPECO TECHNOLOGIES PRODUCT IS PURCHASED FROM AN UNAUTHORIZED DISTRIBUTOR OR OTHER SOURCE, INCLUDING RETAILERS, MAIL ORDER SELLERS AND ONLINE SELLERS, IT WILL NOT BE HONORED OR SERVICED UNDER THE EXISTING SPECO TECHNOLOGIES WARRANTY POLICY. ANY SPECO TECHNOLOGIES PRODUCT PURCHASED FROM THESE ONLINE MERCHANTS WILL VOID THE APPLICABLE WARRANTY AND IS INELIGIBLE FOR TECHNICAL SUPPORT. IF YOU HAVE QUESTIONS ABOUT A RESELLER, PLEASE CONTACT SPECO TECHNOLOGIES AT 1-800-645-5516 FOR A LIST OF UNAUTHORIZED DEALERS, VISIT: www.specotech.com/unauthorized.

EXCLUSIONS

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPLAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, ABUSED, OR HAVE MISSING OR ALTERED SERIAL NUMBERS.
2. THIS WARRANTY SHALL NOT APPLY TO UNCRATING, SETUP, INSTALLATION, OR THE REMOVAL AND REINSTALLATION OF PRODUCTS AFTER REPAIR.
3. THIS WARRANTY SHALL NOT APPLY TO REPAIRS OR REPLACEMENTS NECESSITATED BY ANY CAUSE BEYOND THE RESULT OF MANUFACTURE INCLUDING, BUT NOT LIMITED TO, ANY MALFUNCTION, DEFECTS OR FAILURE CAUSED BY OR RESULTING FROM UNAUTHORIZED SERVICE OR PARTS, IMPROPER MAINTENANCE, MODIFICATION OR REPAIR BY THE USER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD, OR OTHER ACTS OF NATURE, INCORRECT LINE VOLTAGE, DAMAGE OR IMAGE BURNS TO TELEVISION PICTURE TUBES CAUSED BY OR ATTRIBUTABLE TO THE USE OF ANY ACCESSORY, ELECTRONICS GAME OR DEVICE, OR DAMAGE CAUSED TO IMAGE PICKUP DEVICES BY EXCESSIVE LIGHT.

THE FOREGOING IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND WE DO NOT AUTHORIZE ANY PARTY TO ASSUME FOR US ANY OTHER OBLIGATION OR LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE USE OF THIS PRODUCT DUE TO CAUSES BEYOND OUR CONTROL. SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES. THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

NOTE: FOR YOUR PROTECTION IN THE EVENT OF THEFT OR LOSS OF THIS PRODUCT, PLEASE FILL IN THE INFORMATION REQUESTED BELOW AND RETAIN WITH YOUR SALES RECEIPT.

MODEL NO.: _____ SERIAL NO.: _____
(LOCATED ON BACK OR BOTTOM OF UNIT)

DATE OF PURCHASE: _____

WHERE PURCHASED: _____ PURCHASE PRICE: _____

Speco Technologies 200 New Highway Amityville, NY 11701 www.specotech.com	FOR MORE INFORMATION REGARDING SERVICE OR RETURN, CALL US TOLL FREE: 1-800-645-5516 IN METRO NY: 631-957-8700
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12-300 5/12





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Amityville, NY 11701
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