

SAMSUNG TECHWIN



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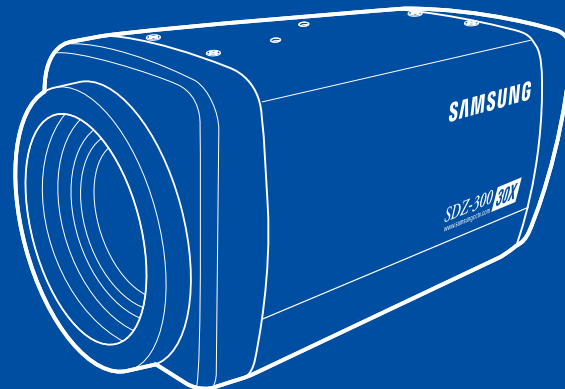
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P/No. : Z6806-0709-01A
VAN 06. 05

SAMSUNG



**High Sensitivity, Day & Night
30X Zoom Color Camera**

INSTRUCTION MANUAL

SDZ-300

About this manual

Please read this manual carefully before installing and using the camera. Be sure to keep the manual handy for later reference.

Thank you for purchasing a **SAMSUNG CCD CAMERA**.

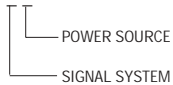
Before operating the camera, confirm the camera model and proper input power voltage. In order to that you can understand this manual thoroughly, we'll introduce our model description.

■ SDZ-300 SERIES

- | | |
|-------------|------------|
| •NTSC MODEL | •PAL MODEL |
| SDZ-300ND | SDZ-300PD |
| SDZ-300N | SDZ-300P |

■ MODEL DESCRIPTION


- SDZ - 300X X

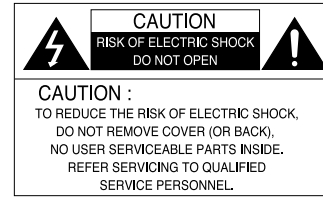


- SIGNAL SYSTEM

N → NTSC MODEL
P → PAL MODEL

- POWER SOURCE

D → DC 12V 
-- → DC 12V/AC 24V- DUAL TYPE



The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION - This equipment has been tested and found to comply with 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.

WARNING - Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

WARNING - To prevent electric shock and risk of fire hazards:

- ◆ Do NOT use power sources other than that specified.
- ◆ Do NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.



Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)
(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Features

30x Optical Zoom

The built-in SDZ-300 optical zoom lens is a highly durable component. It features auto focus, auto iris, and zoom functions.

SSNR (Samsung Super Noise Reduction)

By using built-in SSNR function manufactured by SAMSUNG TECHWIN, the amount of low illuminance noise has been significantly reduced, and the signal-to-noise ratio (S/N) as well as horizontal resolution have been improved, resulting in a clear and sharp image display even in the dark.

Fine Picture Quality under Ultra Low Lighting

1/4" high density CCD allows the user to capture bright, high-quality images under ultra low lighting conditions.

High Resolution

Featuring 520TV line horizontal resolution in color mode and 570TV line horizontal resolution in BW mode, the camera features Sony's 410,000 pixel CCD and captures clean, noiseless, high-quality images.

Day & Night

The camera automatically determines whether it is night time or day time, selecting operating mode automatically. The camera operates in color mode during day light conditions and BW mode in night conditions for clearer identification.

DIS(Digital Image Stabilizer)

The DIS function can compensate for vibration of the camera. so it helps you obtain more stabilized image under the shaking conditions.

Motion Detection

Once motion is detected, the camera sends an alert signal to the processing unit, which, if used in conjunction with an optional alarm, can provide effective surveillance of your property.

Miscellaneous Functions

Other miscellaneous functions of the camera include privacy zone masking, digital zoom, line lock synchronization (INT/LL), freeze, horizontal inversion, and user-configured presets.

Control via OSD Menu and RS-485

The OSD menu and RS-485 pins allow for remote control of the camera. The user can also directly control the lens using external control connection.

Warning

The camera requires regular maintenance.

Contact an authorized technician for maintenance and/or servicing.

Do not continue to use if malfunctioning.

Prolonged use of the camera in abnormal operating conditions (produces smoke, overheats, etc.) may result in a fire.

Do not install the camera on a surface that can not support it.

Installation on an unsuitable surface may cause the camera to fall and/or other hazards.

Do not handle the power cable with wet hands.

May result in an electric shock.

Do not disassemble the camera.

May result in a fire, electric shock, and/or other hazards.

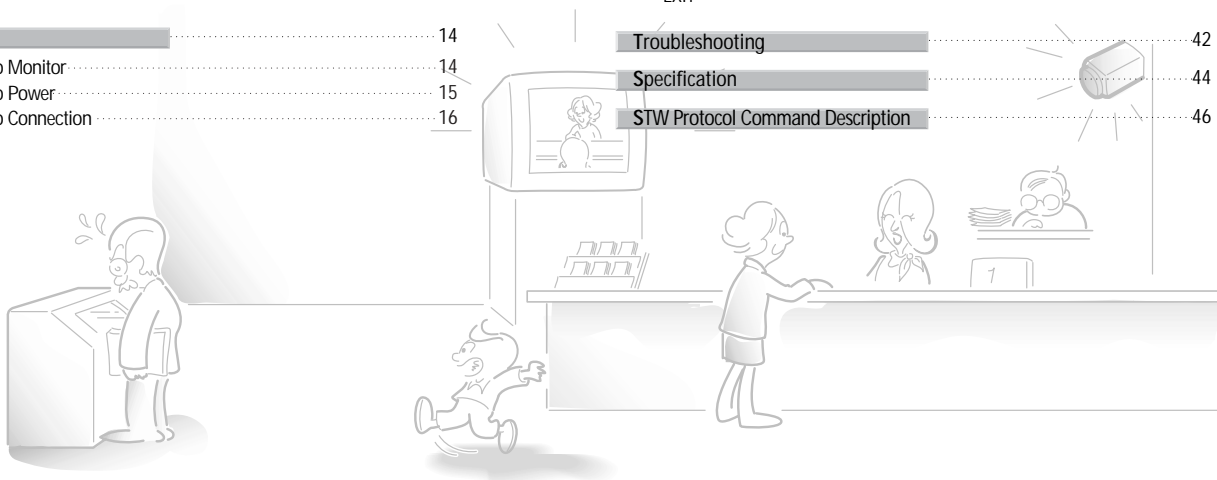
Do not place the camera in the vicinity of inflammables.

May result in a fire and/or other hazards.

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Precautions

Do not install under extreme temperature conditions.



Use only under temperature conditions between -10°C and +50°C. Provide good ventilation when using in high temperature conditions.

Do not install in high humidity environment.



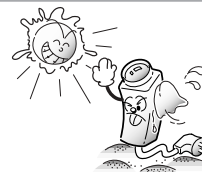
May lower image quality.

Do not drop the camera or subject it to physical shock.



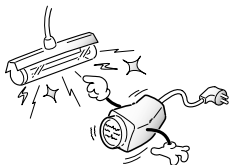
May cause a product malfunction.

Never keep the camera face to strong light directly.



May damage the CCD.

Do not install under unstable lighting conditions.



Severe lighting changes or flickering may hinder normal camera operation.

Avoid touching the camera lens.



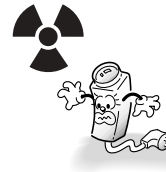
The lens is the most important component of the camera. Be careful not to smear it with fingerprints.

Do not expose the camera to rain or other types of liquids.



Wipe dry any liquids. Liquids may contain minerals that are corrosive to electronic components.

Do not expose the camera to radioactivity.

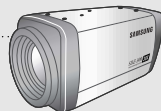


Radioactivity exposure may damage the CCD.

Notes

- Exposure to a spotlight or an object emitting strong light may cause smear or blooming.
- Ensure that the power source complies with normal specifications before supplying it to the camera.

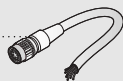
1. 30x Zoom Color Camera
SDZ-300



2. Instruction Manual



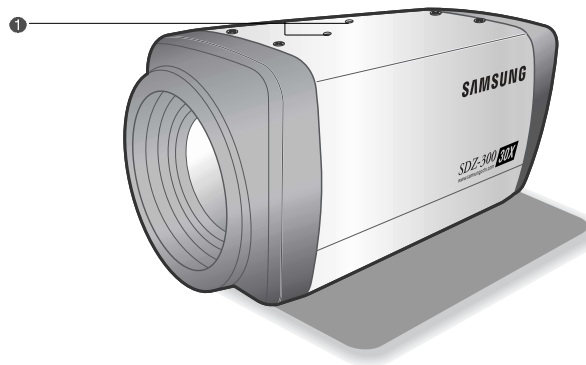
3. 6-Pin Connection Cable



4. Remote Controller (Optional)



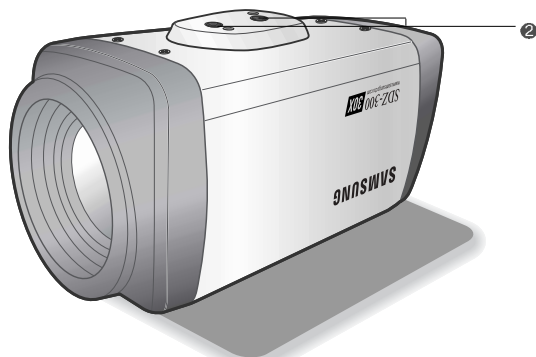
Top



- 1 Tripod Mounting Bracket Screw Hole
Used to fix tripod mounting bracket on top of the camera.

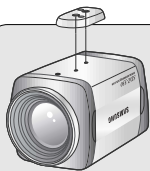
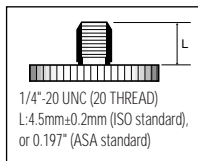
Overview

Bottom



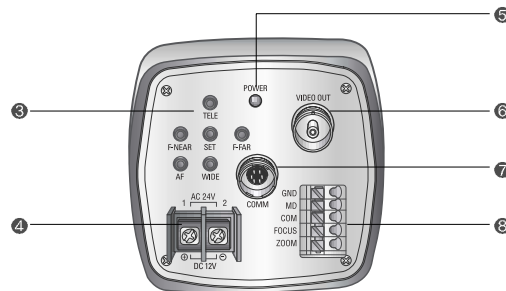
② Tripod Mounting Hole

Used to install the camera on an optional tripod. The tripod must be equipped with screws with specifications shown on the right.



Attach the bracket to the top of the camera. Use screws included in the package or their equivalent (less than 6mm). Otherwise, the bracket may not assemble to the camera properly.

Back



③ Key Buttons

Following buttons control zoom, focus, and auto focus functions.

WIDE button : To widen the view. (ZOOM OUT)

TELE button : To close in on a far object. (ZOOM IN)

F-NEAR button : To see a near object clearly.

F-FAR button : To see a far object clearly.

AF button : To activate auto focus just once.

Pressing the 'SET' button locks the zoom control function of these buttons and prompts the main setup menu.



Notes

• The zoom position is saved after 5 seconds when you set zoom function.

• Main setup menu can be navigated using these buttons.

SET : To access the main setup menu.

UP (WIDE button) : To move the arrow indicator to up.

DOWN (TELE button) : To move the arrow indicator to down.

LEFT (F-NEAR button) : To move the arrow indicator to left.

RIGHT (F-FAR button) : To move the arrow indicator to right.

Overview

4 Power Input Terminal

Power supply terminal (DC12V±10%).

5 Power LED

Illuminates when power is supplied.

6 Video Output Jack

Used to connect an external video monitor in jack.

7 Communication Control Connector

Used to connect the Remote Controller (Optional). Includes external 'SYNC' signal input pin, which is used for the line lock function. Includes the RS-485 communication pin.

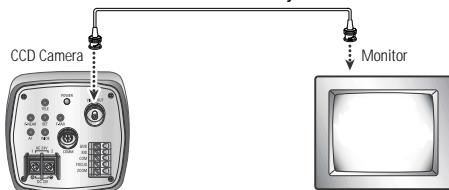
8 External Control Connector

Relates to the motion detection output signal. Zoom and focus functions can be controlled using external signals.

Connection

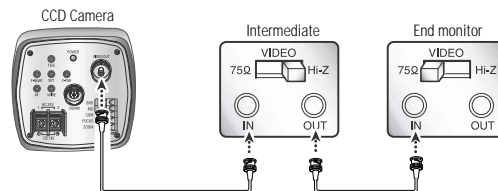
Connecting to Monitor

Connect Video Out Jack to the monitor's Video In jack as shown below.



- Connection methods may vary depending on the video equipment. Please refer to the model specific instruction manual.
- Connect cables with the unit powered down.

- Set the 75Ω / Hi-Z selection switch as shown below if you have an intermediate device.



Connecting to Power

Each model has a different power input specification. Please check the model type and standard power requirement before connecting to power.

DC Power Type (DC 12V, 500mA)

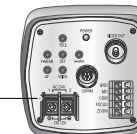
Use DC 12V/500mA power source for SDZ-300ND/PD.

Power Input Terminal



AC/DC Power Type

Use AC24V/500mA or DC 12V/500mA power source for SDZ-300N/P.



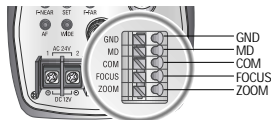
Notes

- Connect the power once the installation is complete.
- The wire is polarized. Match '+' and '-' terminals properly.

Connection

Connecting to connection

External Control Connector



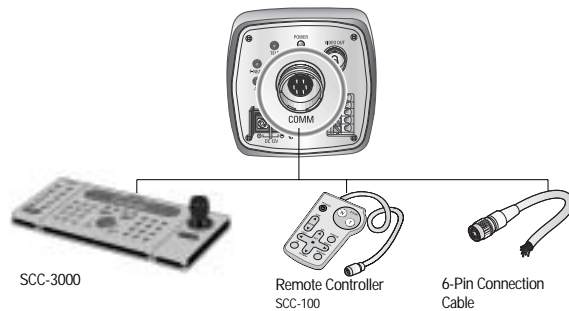
Connector	Function	Signal Level	I/O
ZOOM	Tele	+6V~+12V COM	I
	Wide	COM -6V~-12V	
FOCUS	Far	+6V~+12V COM	I
	Near	COM -6V~-12V	
COM		COM	-
MD		<p>0V 5s±0.5sec There is no motion +4.0V~-5.0V There is motion</p>	O

* MD (Motion Detection) Output Signal Level (less than 10mA)

* When using the MD function, the 'GND' should be connected to the frame ground.

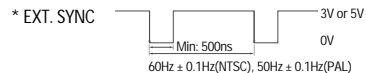
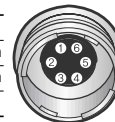
Communication Control Connector

The camera can be controlled by using external controllers like a Remote controller. (RS-485 Communication)



* Communication Control Connector Pin Description .

Number	Name	Description	Number	Name	Description
1	GND	-	4	TRX +	RS-485 Communication
2	EXT.SYNC	External 'SYNC' Signal	5	TRX -	RS-485 Communication
3	GND	-	6	Output Power	Remote Controller only



* Communication Setting can set the communication setting as shown in the table below. When you use to connect SCC-100 or SCC-3000, the default sets for SCC-3000

ITEM	SCC-100	SCC-3000
MODE	Serial	Serial
Data Bit	8 bit	8 bit
Bit/Sec	9600bps	9600bps
Parity	EVEN	NONE
CAM ID NO.	0	1-255
RETURN PACKET	ENABLE	See the SCC-3000 manual



Notes

- Contact an authorized technician for inspection.

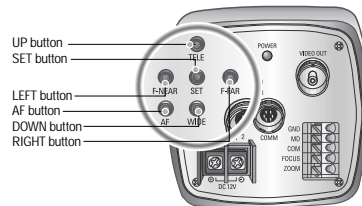
Operating Your Camera

Menu Configuration

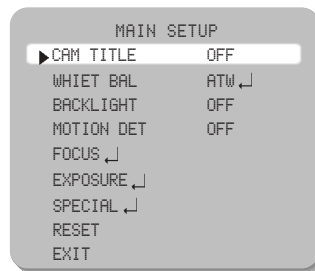
MAIN SETUP MENU			
CAM TITLE	• OFF	• ON	
WHITE BALANCE	• ATW(OUDOOR)	• AWC →SET	• MANUAL
BACKLIGHT	• OFF	• LOW	• MIDDLE
	• HIGH		
MOTION DET	• OFF	• ON	
FOCUS	• MODE	• ZOOM TRK	
	• ZOOM SPEED	• D-ZOOM	
	• DISP ZOOM MAG	• ZOOM POS INIT	
	• LENS INIT	• END	
EXPOSURE	• BRIGHTNESS	• IRIS	• SHUTTER
	• AGC	• SSSNR	• SENS-UP
	• END		
SPECIAL	• USER PRESET	• PRIVACY	
	• DAY/NIGHT	• DIS	• SYNC
	• COMM ADJ	• IMAGE ADJ	• END
RESET			
EXIT			

Menu Setup

Use the six buttons on back of the camera.

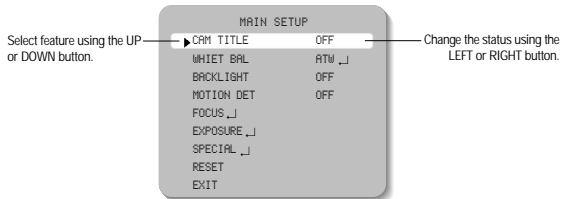


1. Press the SET button to access the main setup mode.
 - Main setup menu is displayed on the monitor screen.



2. Select the desired feature using the UP or DOWN button.
 - Each pressing of the UP or DOWN button moves the indicator to the next or previous feature.
 - Move the arrow indicator to the desired feature item.

Operating Your Camera



3. Change the status of the selected feature using the LEFT or RIGHT button.
4. When completed, move the arrow indicator to 'EXIT' and press the SET button.



Notes

- Features marked with a _J have an accessible submenu.
- Access the submenu by pressing the SET button.

Cam Title

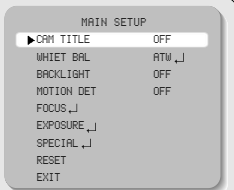
Use this feature to designate a name for the camera, which will display on the monitor screen.

1. Press the SET button to display the main setup menu and move the arrow indicator to 'CAM TITLE' using the UP or DOWN button.
2. Set 'CAM TITLE' to 'ON' using the LEFT or RIGHT button.



Notes

- If the CAM TITLE feature is set to 'OFF', the name will not displayed in the monitor.



3. Press SET button.



4. You can enter up to 20 characters.

- ➊ Move the cursor to the character entry field using the LEFT or RIGHT button.
- ➋ Use UP, DOWN, LEFT, and RIGHT buttons to select a desired character.



- ➌ Press the SET button to confirm selection of the blinking character. The character is then saved, and the cursor in the entry field moves to the next position.
- ➍ Repeat steps ➊ through ➌ until the desired name has been entered.



Notes

• Correcting Mistakes

Move the cursor to 'CLR' and press the SET button to clear the entire entry. To modify one character, use ← or → to position the cursor above the character to be modified and click the SET button after selecting the character to enter.

Operating Your Camera

5. Select on screen position of the CAM TITLE.

- Move the cursor to 'POS' and press SET button.



- The CAM TITLE is displayed on the top-left of the monitor screen. (Default position)



- Select the position by using the 4-directional buttons, then press the SET button to confirm the position.

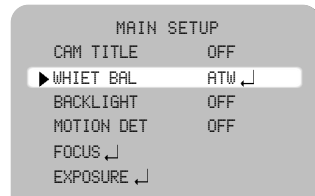


6. When completed, move the cursor to 'END' and press SET button.

White Balance Control

Your camera provides three 'WHITE BAL' control modes for your choosing in adjusting the white balance.

- Press the SET button to access the main setup menu and move the indicator to 'WHITE BAL' using the UP or DOWN button.
- Set 'WHITE BAL' using the LEFT or RIGHT button.



The three white balance control modes are as follows :

ATW(Auto Tracking White Balance):

- OUTDOOR:** This mode can be used within the color temperature range 1800~10500K (Ex: fluorescent light, outdoor, sodium vapor lamp or inside tunnels)
- INDOOR:** This mode can be used within the color temperature range 3000K~10500K.

AWC(Auto White balance Control):

The white balance is automatically adjusted in a specific environment. In order to obtain the best result, press the SET button while the camera focuses on white paper. If the environment including the light source is changed, you have to adjust the white balance again.

Manual:

To fine adjust, select the Manual mode. You can increase or decrease the red or blue factor while monitoring the difference on the screen. Set to 'MANUAL' mode and press the SET button. Increase or decrease the value for red(R-Gain) and blue(B-Gain), watching the color of the picture, and press the SET button when you obtain the best color.

Operating Your Camera

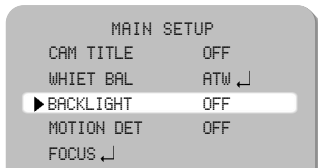
Notes

- Proper White Balance may not be obtained under the following conditions.
 - ① When the scene contains mostly high color temperature object, such as a blue sky or sunset.
 - ② When the scene is dim.
 - ③ If your camera directly faces a fluorescent lamp or is used in an environment of varying lighting conditions.

Backlight

When there is a strong backlight behind the object, clear images of the background as well as the object can still be obtained by using the BACKLIGHT function.

1. Please position the arrow to point to "BACKLIGHT" on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT or RIGHT button.



- **HIGH/MIDDLE/LOW**: You can adjust the sensitivity of Backlight Compensation.
- **OFF**: BACKLIGHT function does not operate.



Backlight ON



Backlight OFF

Motion Detection

This product has a feature that allows you to observe movements of objects in 4 different areas on the screen, and the words 'MOTION DETECTED' appear on the screen when movement is detected; hence a single individual can conduct supervision efficiently. The camera detects an object's movement by sensing disparity of outline, and level of brightness and color. The camera receives detection signal from MD output terminal.

- Please press the SETUP button.
 - OFF: MOTION DETECTION mode is cancelled.
 - ON: Any motion in the selected areas is observed.
- Please press the SETUP button.
 - OFF: MOTION DETECTION mode is cancelled.
 - ON: Any motion in the selected areas is observed.
- Please select the area you wish to observe from the 4 areas in AREA SEL mode.
- Please select ON mode for the chosen area.
- Please adjust the size of the area to be observed by using the UP, DOWN, LEFT or RIGHT button.
- Please press the SETUP button to save changes and complete the setting.



Notes

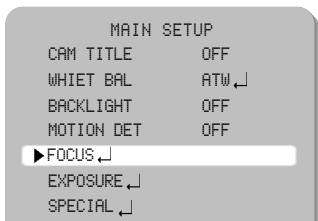
Tips on Using the Motion Detection Feature

- The feature may not function properly under flickering light conditions.
- The camera interprets sudden changes in lighting and subsequent change in brightness of an object as motion.
- With the feature enabled, other algorithms may require additional time to operate than usual.
- This system does not guarantee prevention of fire or theft. The manufacturer shall not be held responsible for any accident or damage incurred.
- Connect an external alarm device to MD Out on back of the camera.



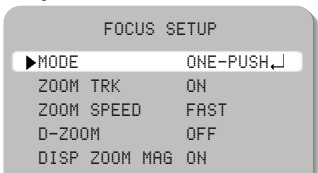
Operating Your Camera

FOCUS



1. Press the SET button to access the main setup manu and then position the indicator over FOCUS using the UP or DOWN button.
2. Press the SET button.

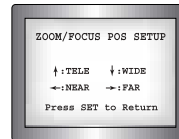
● **MODE:** You can select the most suitable zoom mode. Move the arrow indicator to 'MODE' using UP or DOWN button.



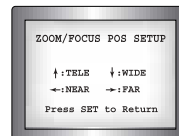
● **AUTO:** Select AUTO and press the SET button to confirm. Increase or decrease optical zoom (ZOOM) or digital zoom (D-ZOOM) positions using the UP or DOWN button while verifying the changes on screen. Enabling D-ZOOM (ON) means that digital zoom will activate once optical zoom ends. Focus is automatically adjusted with moving zoom.



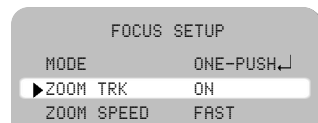
● **ONE PUSH:** Focus is automatically adjusted just once, after zoom position is changed. Select 'ONE PUSH' and press the SET button to confirm. Increase or decrease optical zoom (ZOOM) or digital zoom (D-ZOOM) positions using the directional buttons while verifying the changes on screen. Press the SET button once desired image quality is obtained.



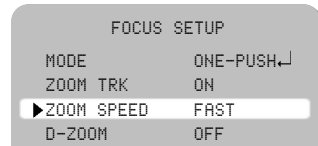
● **MANUAL:** Select 'MANUAL' and press the SET button to confirm. Increase or decrease optical zoom (ZOOM) or digital zoom (D-ZOOM) positions using the directional buttons while verifying the changes on screen. Press the SET button once desired image quality is obtained. Focus can be manually adjusted, independent of moving zoom.



● **ZOOM TRK:** You can select to use 'ZOOM TRK'. Move the arrow indicator to 'ZOOM TRK' using UP or DOWN button. Set 'ZOOM TRK' to on using LEFT or RIGHT button.



● **ZOOM SPEED:** Configure zoom tracing speed using this feature. Position the indicator over 'ZOOM SPEED' using the UP or DOWN button and then set to desired mode using the LEFT or RIGHT button.



Operating Your Camera

- FAST**: To move zoom fast.
- SLOW**: To move zoom slowly.



Notes

- The 'ZOOM SPEED' mode cannot be used if 'MODE' is set to 'AUTO' and 'ZOOM TRK' is 'ON'.

- **D-ZOOM**: Configure magnification limit from x2~x10 using this feature. Position the indicator over 'D-ZOOM' using the UP or DOWN button. Set 'D-ZOOM' to 'ON' and press the SET button to confirm.

FOCUS SETUP	
MODE	ONE-PUSH ↓
ZOOM TRK	ON
ZOOM SPEED	FAST
▶ D-ZOOM	ON
DISP ZOOM MAG	ON

- Set 'ZOOM LIMIT' to the desired level using the LEFT or RIGHT button.

D-ZOOM LIMIT SETUP	
▶ LIMIT X2	
END	

- **DISP ZOOM MAG**: Use this feature to display the current zoom magnification level on screen. Position the indicator over 'DISP ZOOM MAG' using the UP or DOWN button. Then set to ON using the LEFT or RIGHT button.

FOCUS SETUP	
MODE	ONE-PUSH ↓
ZOOM TRK	ON
ZOOM SPEED	FAST
D-ZOOM	OFF
▶ DISP ZOOM MAG	ON

- **ZOOM POS INIT**: Moves to the controlled ZOOM position when the power is turned on and is a function of the initial ZOOM position control.

FOCUS SETUP	
MODE	ONE-PUSH ↓
ZOOM TRK	ON
ZOOM SPEED	FAST
D-ZOOM	ON
DISP ZOOM MAG	ON
▶ ZOOM POS INIT	ON
LENS INIT	ON

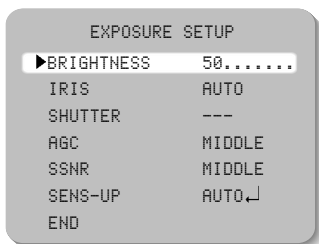
- **LENS INIT**: Use this feature to initialize the lens. Position the indicator over LENS INIT. using the UP or DOWN button. Press the SET button to confirm.

FOCUS SETUP	
MODE	ONE-PUSH ↓
ZOOM TRK	ON
ZOOM SPEED	FAST
D-ZOOM	OFF
DISP ZOOM MAG	ON
ZOOM POS INIT	OFF
▶ LENS INIT	ON
END	

- **END**: To revert to the main setup menu.

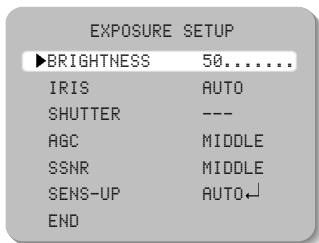
Operating Your Camera

EXPOSURE

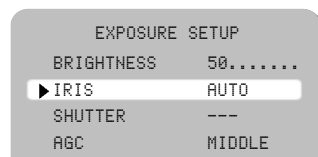


1. Press the SET button to access the main setup menu and then position the indicator over 'EXPOSURE' using the UP or DOWN button.
2. Press the SET button to confirm.

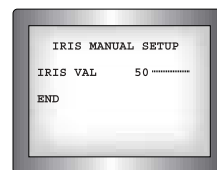
- **BRIGHTNESS:** Use this feature to adjust image brightness. Position the indicator over 'BRIGHTNESS' using the UP or DOWN button. Then increase or decrease brightness level using the LEFT or RIGHT button while verifying the changes on screen. Set END once desired level is obtained.



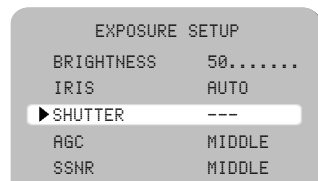
- **IRIS:** Set 'IRIS' to 'AUTO' or 'MANUAL'. Position the indicator over 'IRIS' using the UP or DOWN button and then select the desired iris mode using the LEFT or RIGHT button.



- **AUTO:** The iris is automatically activated upon illumination.
- **MANUAL:** Manual iris configuration. Set 'IRIS' to 'MANUAL' using the LEFT or RIGHT button and then press the SET button. Increase or decrease iris level using the LEFT or RIGHT button while verifying the changes on screen.



- **SHUTTER :** Control image brightness by adjusting shutter speed.
 1. Position the indicator over 'SHUTTER' using the UP or DOWN button. Then select the desired shutter mode (A.FLK, ESC, MANUAL) using the LEFT or RIGHT button.

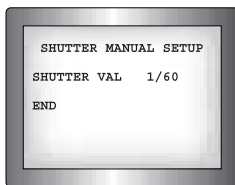


Operating Your Camera

- **A.FLK (NTSC: 1/100, PAL: 1/120)**: Flicker-free mode
- **ESC**: Automatic shutter speed setting (optimal)
- **MANUAL**: Manual shutter speed setting

2. If you choose 'MANUAL', select the optimal shutter speed.

- In MANUAL mode, the optimal shutter speed needs to be designated. Select from 1/60 to 1/120,000 (NTSC) or from 1/50 to 1/120,000 (PAL).
- * 'Sens-Up' mode can be configured manually (2x to 128x).
- Verify changes made to the shutter speed by referencing to changes in on screen brightness.



3. Press the SET button to complete.

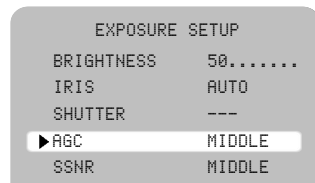


Notes

- Image may become unstable if the camera is set to 'ESC' mode and faces a strong fluorescent light.
- Under 'ESC' mode, the brightness can be adjusted using the LEFT or RIGHT button.
- The WDR feature is not available under MANUAL mode.
- Sens-up is disabled under 'MANUAL' or 'A.FLK' mode.

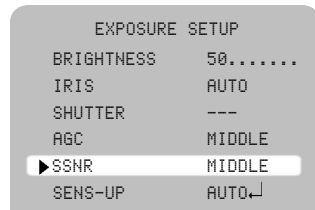
• **AGC (Auto Gain Control)**: For brighter images.

1. Position the indicator over 'AGC' using the UP or DOWN button.
2. Set 'AGC' to the desired mode using the LEFT or RIGHT button.
 - **HIGH** : Wide range gain value adjustment
 - **MIDDLE** : Middle range gain value adjustment
 - **LOW** : Narrow range gain value adjustment
 - **OFF** : Disabled



• **SSNR(Samsung Super Noise Reduction)**: On screen noise reduction.

1. Position the indicator over 'SSNR' using the UP or DOWN button.
2. Set 'SSNR' to the desired mode using the LEFT or RIGHT button.
 - **LOW** : Low noise reduction
 - **MIDDLE** : Medium noise reduction
 - **HIGH** : High noise reduction
 - **OFF** : Disabled



Operating Your Camera



Notes

- Changing 'AGC' setting from LOW to HIGH results in greater sensitivity, as well as on screen noise.
- Setting 'AGC' to OFF locks 'SSNR' configuration.

● **SENS-UP** : This feature ensures clear images at night or under low lighting conditions.

1. Position the indicator over 'SENS-UP' using the UP or DOWN button.
2. Set 'SENS-UP' to the desired mode using the LEFT or RIGHT button.
 - **AUTO** : Select this mode for use in night time or under low lighting conditions.
 - **OFF** : Disabled

EXPOSURE SETUP	
BRIGHTNESS	50.....
IRIS	AUTO
SHUTTER	---
AGC	MIDDLE
SSNR	MIDDLE
▶ SENS-UP	AUTO ↵
END	



Notes

- Once 'AUTO' mode is set, the user can configure Sens-Up limit by increasing /decreasing the shutter speed (e.g.: x2,...,x32, x64,..., x128).
- Enabling Sens-Up increases camera sensitivity and may result in additional noise and/or other phenomenon. This is normal.

SPECIAL

SPECIAL SETUP	
▶ USER PRESET	OFF
PRIVACY	OFF
DAY/NIGHT	COLOR ↵
DIS	OFF
SYNC	INT
COMM ADJ ↵	
IMAGE ADJ ↵	
END	

1. Press the SET button to access the main setup menu and then position the indicator over 'SPECIAL' using the UP or DOWN button.
2. Press the SET button to confirm.

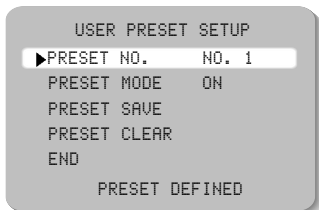
● USER PRESET:

Preset user-designated configurations using this feature. Position the indicator over 'USER PRESET' using the UP or DOWN button and then set to 'ON' using the LEFT or RIGHT button. Press the SET button to confirm.

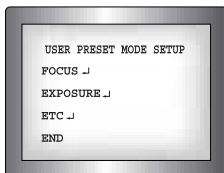
SPECIAL SETUP	
▶ USER PRESET	OFF
PRIVACY	OFF
DAY/NIGHT	COLOR ↵
DIS	OFF
SYNC	INT
COMM ADJ ↵	
IMAGE ADJ ↵	
END	

Operating Your Camera

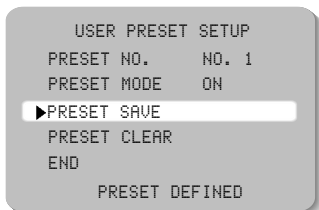
- **PRESET NO** : Up to eight different preset configurations are supported.



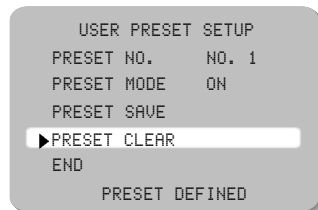
- **PRESET MODE** : Configure initial settings under FOCUS, EXPOSURE, etc.



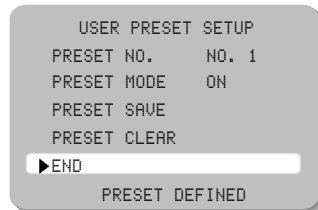
- **PRESET SAVE** : Save configured preset.



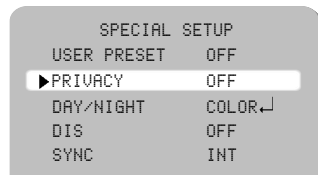
- **PRESET CLEAR** : Clear configured preset.



- **END** : Revert to the SPECIAL SETUP menu.

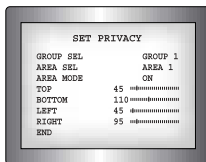


- **PRIVACY** : Mask privacy area using this feature. The mask area expand/contract upon the zoom position.

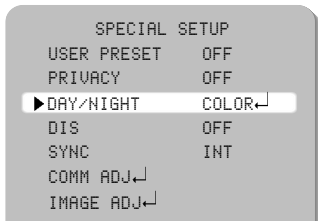


Operating Your Camera

- **GROUP SEL** : Choose up to eight groups. Each group can consist of four mask areas.
- **MASK COLOR** : Adjust desired mask color level.
- **AREA SEL** : Configure eight mask areas.
- **AREA MODE** : Mask area display.
- **TOP** : To move the mask area up.
- **BOTTOM** : To move the mask area down.
- **LEFT** : To move the mask area left.
- **RIGHT** : To move the mask area right.

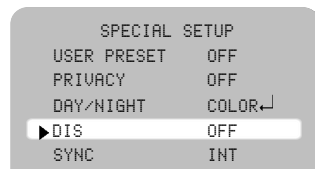


- **DAY/NIGHT**: Select from COLOR, BW or AUTO modes.



- **COLOR** : Color mode.
- **BW** : BW mode.
- **AUTO** : The camera automatically detects lighting conditions and selects the mode accordingly.

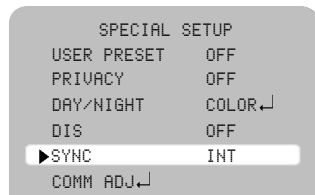
- **DIS** : The DIS mode can compensate for vibration of the camera.



Notes

- When DIS is operating, D-ZOOM does not operate.

- **SYNC** : Two synchronization modes are available INTERNAL and EXTERNAL LINE-LOCK. In LINE-LOCK mode, it synchronizes the camera's video out signal to the external SYNC signal.



- **INT** : Internal synchronization
- **LL** : External line-lock synchronization
 - If you choose 'LL', you can adjust the desired phase. Press the SET button.
 - You can adjust the desired phase from 0 to 359.



Operating Your Camera



Notes

- For NTSC models, the line-lock mode can be used if the external SYNC signal frequency is at 60Hz.
- For PAL models, the line-lock mode can be used if the external SYNC signal frequency is at 50Hz.

- **COMM ADJ:** Use this feature to select communication protocol (refer to p.46– p.51 for details). Position the indicator over 'COMMUNICATION' using the UP or DOWN button.



- **CAM ID** : Assign an ID number to the camera (1 to 255). Identification number zero is used for Remote controller setup.
- **DISP CAM ID** : Displays camera ID on top left corner of the screen.
- **BAUD RATE** : Configure baud rate from 2400/4800/9600/19200/38400/57600 bps.
- **UART MODE** : Configure parity bit to NON, EVEN, or ODD. Data bit is set to 8bit, and stop bit to 1bit. Set the UART MODE to EVEN if using the Remote Controller.
- **RET PKT** : Used to transfer a packet.
- **END**

- **IMAGE ADJ:** Includes image quality or special function factors.



- **FREEZE** : Use this feature to freeze capture an image.
- **H-REV** : Use this feature to horizontally inverse the screen.
- **V-REV** : Use this feature to vertically inverse the screen.
- **SHARPNESS** : Increasing this value sharpens object edges. Too high of a setting, however, produces noise and may obscure the image.
- **COLOR** : Adjusting this value affects the chroma level only; the burst level is unaffected.

- **END**: evert back to the USER PRESET menu.

RESET

To reset your camera to factory default condition.

EXIT

To finish setup menu.

Troubleshooting



Refer to the following table if you are experiencing trouble with your camera. Contact an authorized technician if the table does not provide you with a solution to the trouble.

Problem	Solution
No display	<ul style="list-style-type: none">• Check the power cable and the wiring between the camera and the monitor.• Ensure proper video cable connection (Video Out Jack).
Dim display	<ul style="list-style-type: none">• The lens could be dirty. Clean with a soft, clean piece of cloth.• Adjust monitor settings.• Adjust camera position if exposed to a strong light source.
Dark display	<ul style="list-style-type: none">• Adjust the monitor's contrast level.• Set the intermediate device, if in use, to 75Ω/ Hi-z (refer to p.15).
The camera is not functioning properly and its surface is hot	<ul style="list-style-type: none">• Check the power source for compliance with specifications.
Motion Detection feature is not active.	<ul style="list-style-type: none">• Ensure that the feature is set to ON.

Problem	Solution
Uneven colors Flickering	<ul style="list-style-type: none">• Adjust and configure WHITE BAL.• The camera may be facing the sun or a fluorescent light. Adjust the position of the camera.
Can't select LL mode	<ul style="list-style-type: none">• The camera may be connected to a DC power source. Connect to an AC power source.
LL is not function properly.	<ul style="list-style-type: none">• Check external SYNC signal frequency (should be 60Hz for NTSC, 50Hz for PAL).

Specifications

		SDZ-300ND	SDZ-300N	SDZ-300PD	SDZ-300P
P O W E R	Input Voltage	DC 10V~14V (Recommended : 12V)	DC 12V(±15%) AC 24V(±15%)	DC 10V~14V (Recommended : 12V)	DC 12V(±15%) AC 24V(±15%)
	Input Current	250mA: Steady-state 416mA: Max (Zoom, Focus, Day&night motor operating)	DC 12V 333mA: Steady-state 500mA: Max (Zoom, Focus, Day&night motor operating)	250mA: Steady-state 416mA: Max (Zoom, Focus, Day&night motor operating)	DC 12V 333mA: Steady-state 500mA: Max (Zoom, Focus, Day&night motor operating)
	Power Consumption	3W: Normal 5W: Max (Zoom, Focus, Day & Night motor operating, at 12V)	DC12V: Normal 3W/Max 5W AC 24V: Normal 4W/Max 6W	3W: Normal 5W: Max (Zoom, Focus, Day & Night motor operating, at 12V)	DC12V: Normal 3W/Max 5W AC 24V: Normal 4W/Max 6W
C C D	Size	1/4 inch, Color Super HAD CCD			
	Total Pixels	811(H) x 508(V)		795(H) x 596(V)	
	Effective Pixels	768(H) x 494(V)		752(H) x 582(V)	
O P T I C S	Optics	30X, f=3.3 to 99.0mm (F 1.6 to 3.2)			
	Min. Focus Distance	1000mm			
	D. ZOOM	OFF/ON (Limit 10x)			
	Angle Field of view	H : Appr. 58.0(Wide) to 2.22(Tele) V : Appr. 44.8(Wide) to 1.68(Tele)			
S Y N C.	Scanning System	2:1 Interlace			
	Synchronization	Internal / Line Lock			
	Frequency	Horizontal:15.734 KHz/Vertical:59.94 Hz		Horizontal: 15.625 KHz/Vertical : 50.00 Hz	
E L E C T R I C A L	Camera Title	ON/OFF (Displayed 20 characters)			
	Camera ID	255 ID Selectable			
	Resolution	520 TV Lines (Min.) : Color		570 TV Lines (Min.) : B/W	
	Video Output	CVBS : 1.0Vp-p/75Ω			
	S/N (Y signal)	50 dB (AGC Off, Weight ON)			
	Min. Illumination	0.6 Lux @ F1.6: Color / 0.1 Lux @F1.6: B/W			
	Backlight Compensation	LOW/MIDDLE/HIGH/OFF Selectable			
	Day & Night	AUTO/COLOR / B/W(ICR type)			

		SDZ-300ND	SDZ-300N	SDZ-300PD	SDZ-300P
E L E C T R I C A L	Gain Control	Low, Middle, High, OFF Selectable			
	White Balance	ATW (INDOOR (3,000K~10,500K), OUTDOOR (1,800K~10,500K))/AWC/MANUAL			
	Electronic shutter speed	AUTO/MANUAL (X128 ~ 1/60sec ~ 1/120,000sec) Sens-up Limit is selectable		AUTO/MANUAL (X128 ~ 1/50sec ~ 1/120,000sec) Sens-up Limit is selectable	
	O.S.D	Built-In			
	Motion Detection	ON/OFF (Built-in alarm output connector)			
	SSNR	LOW/MIDDLE/HIGH/OFF Selectable (Noise Control)			
	Focus	Auto / Manual / One Push			
	Zoom Movement Speed	5.2 Sec : Wide to Tele		5.4 Sec : Wide to Tele	
	Lens Initialize	Built-In			
	Preset	8-Positions			
	DIS	ON / OFF			
	Privacy Function	ON/OFF(32 Zones, 8 Group / 4 Programmable Zone per Screen)			
FLIP	LEFT/RIGHT, UP/DOWN				
FREEZE	On/Off				
IRIS Control	Auto/Manual				
Communication	RS-485(2,400bps, 4800bps, 9600bps, 19200bps, 38,400bps, 57,600bps Selectable) STW PROTOCOL AVAILABLE (refer to p46 STW Protocol Command Description) PELCO-D PROTOCOL AVAILABLE				
Control Output	External Control by Voltage (ZOOM, FOCUS)				
Operating Temperature/Humidity	-10°C to +50°C / 30% to 90% RH				
Dimension	64(W) X 64(H) X 140(D)mm				
Weight	410g				
Option	Remote Controller(RS-485 type)				

STW Protocol Command Description

Command Name	Byte1	Byte2	Byte3	Byte4	Byte5	Byte 6	Byte7	Byte8	Byte9	Byte10	Byte11
Command Name	Command Packet	STX	CAM ID	HOST ADDR	CAMMAND	DATA3	DATA4	DATA5	DATA6	ETX	CHECKSUM
	Return Packet	STX	CAM ID	HOST ADDR	CAMMAND	DATA3	DATA4	DATA5	DATA6	ETX	CHECKSUM
	Checksum	CHECKSUM CALCULATION: UNARY OPERATION OF SUMMATION FROM BYTE2 TO BYTE9. C SOURCE EX) CHECKSUM = -(BYTE2+BYTE3+... +BYTE8+BYTE9);									
Reset	Function	Reset all data to factory default value.									
	Command Packet	A0h	CAM ID	HOST ADDR	000Fh	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	000Fh	00h	00h	00h	00h	AFh	CHECK SUM
Focus Far	Function	Move focus lens to far direction.									
	Command Packet	A0h	CAM ID	HOST ADDR	0100h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0100h	00h	00h	00h	00h	AFh	CHECK SUM
Focus Near	Function	Move focus lens to near direction.									
	Command Packet	A0h	CAM ID	HOST ADDR	0200h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0200h	00h	00h	00h	00h	AFh	CHECK SUM
Zoom Wide	Function	Move zoom lens to wide direction.									
	Command Packet	A0h	CAM ID	HOST ADDR	0040h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0040h	00h	00h	00h	00h	AFh	CHECK SUM
Zoom Tele	Function	Move wide lens to tele direction.									
	Command Packet	A0h	CAM ID	HOST ADDR	0020h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0020h	00h	00h	00h	00h	AFh	CHECK SUM
ZOOM Direct	Function	Move ZOOM lens to specific position directly									
	Command Packet	A0h	CAM ID	HOST ADDR	00FFh	P1	P2	P3	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	00FFh	P1	P2	P3	00h	AFh	CHECK SUM
	Parameter	P1, P2: OPTICAL ZOOM = 0000h-06EAh P3: DIGITAL ZOOM = ((256*10)/Ratio)-1 ex) D-ZOOM 1.1x : P3 = E7h = ((256*10)/11)-1, Ratio 11 means 1.1x. D-ZOOM 2.0x : P3 = 7Fh = ((256*10)/20)-1, Ratio 20 means 2.0x.									
AF Stop	Function	Stop zoom & focus lens moving.									
	Command Packet	A0h	CAM ID	HOST ADDR	0000h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0000h	00h	00h	00h	00h	AFh	CHECK SUM
One push AF	Function	Unconditionally execute auto focus.									
	Command Packet	A0h	CAM ID	HOST ADDR	0045h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0045h	00h	00h	00h	00h	AFh	CHECK SUM

STW Protocol Command Description

USER PRESET Save	Function	Save current user preset configuration information.									
	Command Packet	A0h	CAM ID	HOST ADDR	0003h	P1	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0003h	P1	00h	00h	00h	AFh	CHECK SUM
	Parameter	P1: 00h = USER PRESET 1 01h = USER PRESET 2 02h = USER PRESET 3 03h = USER PRESET 4 04h = USER PRESET 5 05h = USER PRESET 6 06h = USER PRESET 7 07h = USER PRESET 8									
USER PRESET EXEC.	Function	Execute selected user preset.									
	Command Packet	A0h	CAM ID	HOST ADDR	0007h	P1	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0007h	P1	00h	00h	00h	AFh	CHECK SUM
	Parameter	P1: 00h = USER PRESET 1 01h = USER PRESET 2 02h = USER PRESET 3 03h = USER PRESET 4 04h = USER PRESET 5 05h = USER PRESET 6 06h = USER PRESET 7 07h = USER PRESET 8									
OSD Menu On/Off	Function	Display OSD menu on the screen. Clear OSD menu and save current menu setup.									
	Command Packet	A0h	CAM ID	HOST ADDR	00B1h	P1	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	00B1h	P1	00h	00h	00h	AFh	CHECK SUM
	Parameter	P1: 00h = ON 01h = OFF									

STW Protocol Command Description



OSD Menu Up	Function	Move OSD arrow to up.									
	Command Packet	A0h	CAM ID	HOST ADDR	0008h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0008h	00h	00h	00h	00h	AFh	CHECK SUM
OSD Menu Down	Function	Move OSD arrow to down.									
	Command Packet	A0h	CAM ID	HOST ADDR	0010h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0010h	00h	00h	00h	00h	AFh	CHECK SUM
OSD Menu Left	Function	Move OSD arrow to left.									
	Command Packet	A0h	CAM ID	HOST ADDR	0004h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0004h	00h	00h	00h	00h	AFh	CHECK SUM
OSD Menu Right	Function	Move OSD arrow to right.									
	Command Packet	A0h	CAM ID	HOST ADDR	0002h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0002h	00h	00h	00h	00h	AFh	CHECK SUM
OSD Menu Set	Function	Move to inside menu									
	Command Packet	A0h	CAM ID	HOST ADDR	0100h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0100h	00h	00h	00h	00h	AFh	CHECK SUM
OSD Menu ESC	Function	Move to upper menu.									
	Command Packet	A0h	CAM ID	HOST ADDR	0200h	00h	00h	00h	00h	AFh	CHECK SUM
	Return Packet	A0h	CAM ID	HOST ADDR	0200h	00h	00h	00h	00h	AFh	CHECK SUM

DECLARATION OF CONFORMITY

Application of Council Directive(s) 89 / 336 / EEC

Manufacturer's Name SAMSUNG TECHWIN CO., LTD

Manufacturer's Address SAMSUNG TECHWIN CO., LTD
42, SUNGJU-DONG CHANGWON-CITY,
KYUNGNAM, KOREA, 641-716

European Representative Name _____

European Representative Address _____

Equipment Type/Environment CCTV Camera

Model Name SDZ-300PD, SDZ-300P

Beginning Serial NO. S6400001

Year of Manufacture 2006. 4. 1

Conformance to EN 50081-1 : 1992
EMC-Directive 89/336 EEC and 92/31/EEC
EN 50130-4 : 1996

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

Manufacturer	SAMSUNG TECHWIN CO., LTD	Legal Representative in Europe
Signature		Signature
Full Name	YOUNG TAEK SON	Full Name
Position	QUALITY CONTROL MANAGER	Position
Place	CHANGWON, KOREA	Place
Date	2006. 4. 1	Date

MEMO

MEMO

MEMO