# SAMSUNG



Supreme Resolution WDR Camera **SCB-3000/3001** User Guide

Before installing and operating this product,
please read this manual thoroughly.

ENGLISH

Before operating the camera, confirm the camera model and correct input power voltage. To help you understand this manual thoroughly, we'll introduce our model description.
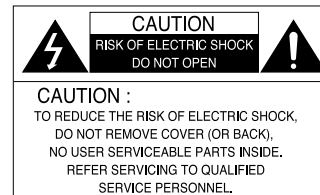
**■ SCB-3000/3001 SERIES**
- NTSC MODELS
  SCB-3000/3001N
- PAL MODELS
  SCB-3000/3001P

**■ MODEL DESCRIPTION**
- SCB-3000/3001X

  └── SIGNAL SYSTEM

- SIGNAL SYSTEM
  N → NTSC MODEL
  P → PAL MODEL



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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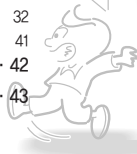
**WARNING -** Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

**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.

# Contents

# Features

## High Resolution

By adopting a diagonal 6mm(1/3") 520K pixel(NTSC), 610K pixel(PAL) Color Double Density CCD (SCB-3001), 410K pixel(NTSC), 470K pixel(PAL) Color Double Density CCD (SCB-3000), the camera produces clear picture quality with a horizontal resolution of 650 TV lines(SCB-3001), 600TV lines(SCB-3000) in color and 700TV lines in B/W.

## Excellent Sensitivity

The built-in high sensitivity COLOR CCD produces a clear image.
- SCB-3000 COLOR : 0.3 Lux(50IRE,@F1.2),
            B/W : 0.01 Lux(50IRE,@F1.2)
- SCB-3001 COLOR : 0.1 Lux(50IRE,@F1.2),
            B/W : 0.01 Lux(50IRE,@F1.2)

## Intelligence

Without assistance from an external sensor, this camera independently detects and traces objects while examining stillness and movement to activate the alarm.

## SSNR3 (Samsung Super Noise Reduction) Function

The high-performance SV-V DSP chip effectively removes low-light gain noise and afterimage to provide clear images even in dark environments.

## Day&Night (ICR)

This camera has a function that automatically selects the mode that is appropriate for daytime or night-time conditions.
The COLOR mode operates in daytime conditions to provide optimum colors, and B/W mode operates in night-time conditions to enhance the definition of the image.

## SSDR (Samsung Super Dynamic Range)

For images with high contrast between bright and dark areas from difficult lighting conditions such as backlighting, this camera selectively illuminates darker areas while retaining the same light level for brighter areas to even out the overall brightness.

## PROFILE

You can set a mode according to the camera installation conditions.
- BASIC, DAYNIGHT, BACKLIGHT, ITS, INDOOR, USER

## PIP

Displays a full-size image along with the thumbnail.

## WDR

By adopting a proprietary SV-V DSP chip, the camera delivers clear, high quality pictures even in backlight, by increasing exposure in dark areas while decreasing it in bright areas; a corrected image with clear details results.

## VPS(Virtual Progressive Scan)

This is an advanced technology that reproduces a sharp progressive image. This is appropriate to high quality recording and fi le transfer via the Internet.

# Features

### Video/DC Drive Lens Support

You can select Video or DC Drive Lens from the menu.

### DIS (Digital Image Stabilizer)

The DIS function compensates for any camera movement, to produce more stable pictures.

### Miscellaneous Functions

HLC(High Light Compensation), SENS-UP, REVERSE , D-ZOOM, SHARPNESS and PRIVACY functions are provided.

### Communication

Coaxial and RS-485 communication methods are supported.
- Coaxial Communications
  : Pelco Coaxitron
- RS-485 Communications
  : Samsung-T, Samsung-E, PELCO-D, PELCO-P, BOSCH, HONEYWELL, VICON, PANASONIC.

### OSD

The camera's OSD is complimented by 18 languages.
- NTSC : English, Korean, Japanese, Spanish, French, Portuguese, Taiwanese
- PAL : English, Chinese, German, Italian, French, Spanish, Russian, Czech, Polish, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese

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Samsung Techwin cares for the environment at all product manufacturing stages to preserve the environment, and is taking a number of steps to provide customers with more environment-friendly products. The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

# Warnings & Cautions

This information is provided to ensure your safety and to prevent any losses, financial or otherwise. Please read it carefully and use the product accordingly.

* For product inquiries, please contact the retail shop where you bought the camera. The use of equipment such as an aerial ladder while providing after-sales service shall be at your expense.
* Separate the power plug during a thunder storm.
* This product is support equipment for surveillance system. Therefore, we can't compensate for material loss and/or personal injuries by robbery, fire, natural disaster or other such events.

### Warning/Attention/Special Mark Messages

| | | | |
|---|---|---|---|
| ⚡ | Ignoring this information may result in material loss and/or serious personal injuries including death. | ⚠ | Ignoring this information may result in material loss and/or a slight injuries. |
| 🚫 | Indicates "Never Allowed." | 🚫 | Indicates "No Disassembling." |

*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.
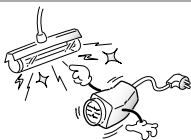
# Precautions

**Do not install under extreme temperature conditions.**

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

**Do not install under unstable lighting conditions.**

Severe lighting changes or flickering may hinder normal camera operation.

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

May cause a product malfunction.

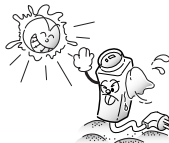**Do not install in high humidity environment.**

May lower image quality.

**Avoid touching the camera lens.**

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

**Never keep the camera face to strong light directly.**

May damage the CCD.

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

May cause a product malfunction.Wipe dry any liquids. Liquids may contain minerals that are corrosive to electronic components.

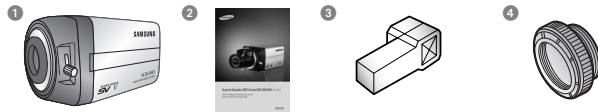**Do not expose the camera to radioactivity.**

If exposed to radioactivity, the CCD will fail.

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### 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.
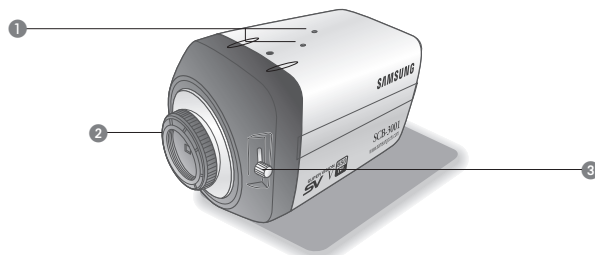
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## Components and Accessories

① Supreme Resolution WDR Camera SCB-3000/3001
② Instruction Manual
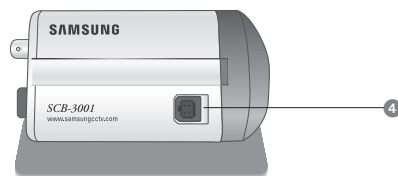③ Auto Iris Lens Connector Plug
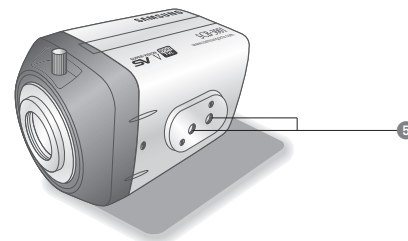④ C-Mount Adapter

# Overview

## Front View



**❶ Tripod Mounting Bracket Screw Hole**
Used to fix the Tripod Mounting Bracket to the top of the camera.

**❷ C-Mount Lens Adapter**
Install this adapter to use a C-Mount Lens.

**❸ Back Focus Control Lever**
Adjust focus by this Back Focus Lever.

## Side View



**❹ Auto Iris Lens Connector**
Used to connect Auto Iris Lens plug.

## Bottom View



**❺ Tripod Mounting Bracket Screw Hole**
Used to fix the camera on a bracket or tripod.
The screw sizes for this hole are as follows:



1/4"-20 UNC (20 THREAD)
L:4.5mm±0.2mm (ISO standard),
or 0.197" (ASA standard)
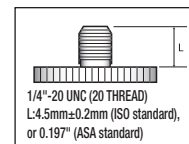
*You can separate the Tripod Mounting Bracket and install it on the top or bottom of the camera. Make sure to use the Tripod Mounting Bracket when fixing the camera to a bracket or tripod. Otherwise the camera may not be secure, or the internal circuitry of the camera may be damaged.
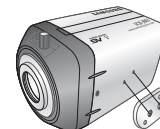
### Notes

• Tripod is not supplied with the camera. Please check the installed documentation of tripod for the installation of cameras.

## Rear View



⑥ **Function Setup Button**
- SET button : Displays the menu on the screen and uses enter sub menu.
- Up & Down button : Used to move the cursor up or down in the menu screen.
- Left & Right button : Used to move the cursor left or right in the menu screen.

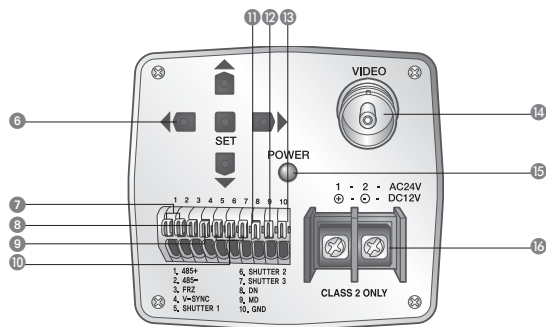⑦ **RS-485 Control Port :** You can control SETUP MENU through this port by using external controllers like a Remote controller that RS-485 Communication is supported.

⑧ **FREEZE Mode Setting Terminal :** Turns on or off FREEZE function.

⑨ **V-SYNC Input Terminal :** Enables External Sync.

⑩ **Shutter Speed Select Terminal :** Selects external sync shutter speed.

|  | SHUTTER 1 | SHUTTER 2 | SHUTTER 3 |
|---|---|---|---|
| 1/60(1/50) | OFF | OFF | OFF |
| 1/120(1/100) | ON | OFF | OFF |
| 1/250 | OFF | ON | OFF |
| 1/500 | ON | ON | OFF |
| 1/700 | OFF | OFF | ON |
| 1/1000 | ON | OFF | ON |
| 1/1600 | OFF | ON | ON |
| 1/2500 | ON | ON | ON |

[Interlace mode]

⑪ **D & N Input Port :** You can switch to Day & Night Mode by connecting an external signal to this port.

⑫ **MD Output Port** : Motion detection signals are output through this port.

⑬ **Ground Terminal**

⑭ **Video OUT Terminal :** Sends video signal and connects to the video input terminal of the monitor.

⑮ **Power LED :** This lamp is lit when the camera is receiving power normally.

⑯ **Power input terminal :** Connects to the power appropriate to each model.

※External I / O port configuration

| Num | Name | I/O Direction |
|---|---|---|
| 1 | RS-485+ | I/O |
| 2 | RS-485- | I/O |
| 3 | Freeze | I |
| 4 | V-SYNC | I |
| 5-7 | Shutter | I |
| 8 | DN | I |
| 9 | MD | O |
| 10 | GND | - |

**Notes**
- When using the FREEZE Mode Setting Terminal, the Shutter Speed Select Terminal and the D & N Input Port, Connect each of the terminals to the Ground Terminal.

# Installation

## Lens

The lens is not supplied with this camera. Purchase a lens suitable for your environment. This camera accepts the auto iris lens and both C-and CS-mount lens.

### Notes

• To use the functions of this camera effectively it is recommended that a DC type Auto Iris lens is used.
• Keep the lens surface clean, if it becomes contaminated with dirt or fingerprints the picture quality suffers.
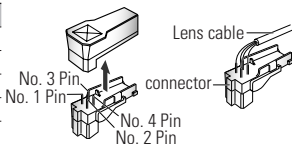
### When Using Auto Iris Lens

1. Strip the insulation of the auto iris lens cable 8mm from the end.



approx. 8mm

2. Strip the insulation of the core of the auto iris lens cable to expose a 2mm length.



approx. 2mm

3. Remove the cover of the auto iris lens connector plug and solder the lens cable to the connector pin of the plug.

| Pin No. | DC | VIDEO |
|---------|-----------|---------------------|
| LENS | | |
| No.1 Pin | Damping - | Red (power) |
| No.2 Pin | Damping + | NC |
| No.3 Pin | Drive + | White (video signal) |
| No.4 Pin | Drive - | Black (GND) |

Lens cable
No. 3 Pin
No. 1 Pin
connector
No. 4 Pin
No. 2 Pin

4. Fit the cover of the auto iris lens connector plug, remove the protective glass cover from the front of the camera, and fasten the auto iris lens by turning it clockwise.
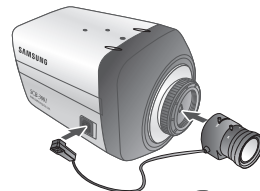


5. Set focus of camera using Back Focus Control Lever of camera side after combining Auto Iris lens.



Back Focus Control Lever
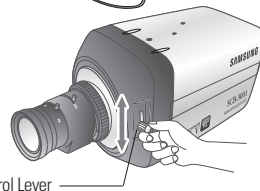
### When Using a C/CS-Mount lens

Before installing a lens, identify whether the lens to be installed is a C-Mount or CS-Mount. This camera is set for a CS-Mount Lens by default. To install a C-Mount Lens, a simple modification is required.

• **When Using a CS Mount Lens**
  Remove the protective glass cover at the front of this product and turn the CS-Mount Lens clockwise to install it. And set focus of camera using Back Focus Control Lever of camera side after combining CS-Mount lens.
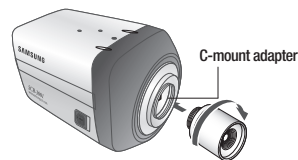


C-mount adapter

# Installation

**• When Using a C Mount Lens**

1. Remove the protective glass cover at the front of this product and turn the C-Mount Adapter clockwise to install it.



C-mount adapter

CCD protection cap

2. Turn the C-Mount lens clockwise to install it.

CS-mount adapter

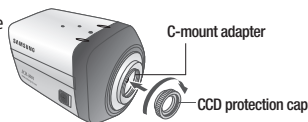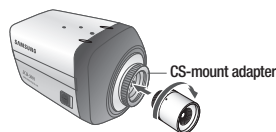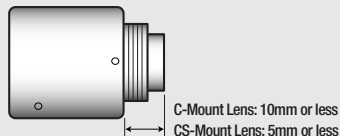3. Set focus of camera using Back Focus Control Lever of camera side after combining C-Mount lens.

## Notes

• Use the lens connector shown in the following figure. If the dimensions of the connector are not correct, it may damage the camera, or the lens may not be installed firmly.

C-Mount Lens: 10mm or less
CS-Mount Lens: 5mm or less

• If the lens is too heavy, the camera becomes unbalanced and there may be problems. Use a lens that weighs less than 450g.
• When adjusting the Automatic Level Control (ALC) of an auto iris lens, use Av mode if available. If you use the Pk mode, the picture brightness may change continuously.

## Connecting to Monitor

Connect the Video OUT port on the rear panel of the camera to a monitor.

CCD Camera                    Monitor
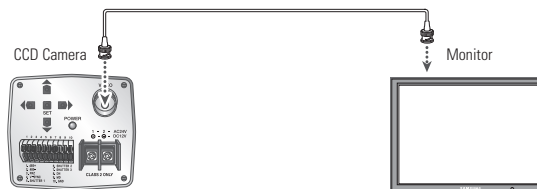
• As the connecting method varies with the instruments, refer to the manual supplied with the instrument.
• Only connect the cable when the power is turned off.

## Connecting to Power

Since power specifications differ depending on the model, make sure to check your model name and specifications before connecting power.

You can connect power as shown in the following figure.

### For AC / DC power

• Since the power specification supports both AC and DC, connect AC 24V, 500mA Adaptor or DC 12V, 500mA Adaptor.

# Installation

## When the resistance value of copper wire is at [20°C(68°F)]

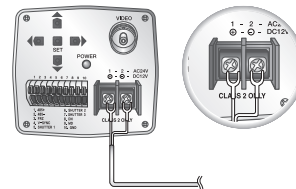| Copper wire size (AWG) | #24(0.22mm²) | #22(0.33mm²) | #20(0.52mm²) | #18(0.83mm²) |
|---|---|---|---|---|
| Resistance (Ω/m) | 0.078 | 0.050 | 0.030 | 0.018 |
| Voltage Drop (V/m) | 0.028 | 0.018 | 0.011 | 0.006 |

• As shown in the table above, voltage decreases as the wire gets longer.
  Therefore use of an excessively long adaptor output line for connection to the
  camera may affect the performance of the camera.

* Standard voltage for camera operation : DC 12V±10%, AC 24V±10%
* There may be some deviation in voltage drop depending on the type of wire and the
  manufacturer.

### Notes

• Be sure to connect power only after all the installation is complete.
• Note that AC / DC adaptor is not supplied with camera.
• Ground should be connected to the GND terminal.

## Control via RS-485 Interface

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

(1) To control by PC
   Connect the RS-485 control port of the camera and the serial cable through an
   RS-485 converter.
   Example) PC Serial Port (COM1) → Serial Cable → RS-485 Converter → Camera
              RS-485Control Port.
(2) To control using a DVR or System Controller
   Connect the RS-485 cable (TRX+, TRX-) to the connection port of the 485 control
   board that is connected to the DVR or System Controller.

| 485 Control Board Connection Port | RS-485 Control Port |
|---|---|
| (+) CONNECTION TERMINAL (TRX+) | 485+ |
| (-) CONNECTION TERMINAL (TRX-) | 485- |

* RS-485 Communication establishment initial value

| Item | Camera ID | BAUD RATE | UART MODE | RET PKT |
|---|---|---|---|---|
| Initial value | 1 | 9600 | 8-NONE-1 | ENABLE |

### Notes

• To control the camera by constructing an additional controller, use the SAMSUNG-T,
  SAMSUNG-E, PELCO-D, PELCO-P, BOSCH, HONEYWELL, VICON and PANASONIC protocol.

## Using Coaxial Communications

• Coaxial Communications System
• OSD Control method

| CAMERA | DVR | CONTROLLER |
|---|---|---|
| SET | MENU/ENTER | OSD KEY |
| UP | UP KEY | JOYSTICK UP |
| DOWN | DOWN KEY | JOYSTICK DOWN |
| LEFT | LEFT KEY | JOYSTICK LEFT |
| RIGHT | RIGHT KEY | JOYSTICK RIGHT |

DVR



● —— : BNC
● ---- : RS-485
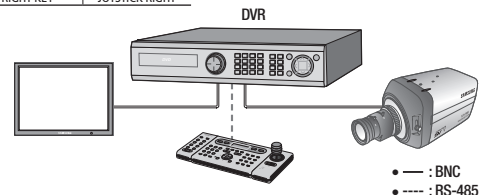
• Video Cable
  The camera's video output port is connected to the monitor with a BNC coaxial
  cable, shown below : If the distance between the camera and the monitor exceeds
  the recommended maximum, please use an auxiliary video amp.
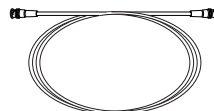
| Distance | Recommended Cable Specification |
|---|---|
| 300m | 3C2V(RG-59/U) |
| 450m | 5C2V(RG-6/U) |
| 600m | 7C2V(RG-11/U) |

# Installation

# Operating Your Camera

## Menu Configuration

| MAIN SETUP | | | |
|---|---|---|---|
| LENS | ●DC | ●VIDEO | ●MANUAL |
| EXPOSURE | ●BRIGHTNESS | ●SHUTTER | ●AGC |
| | ●SENS-UP | ●RETURN | |
| WHITE BAL | ●ATW | ●OUTDOOR | ●INDOOR |
| | ●MANUAL | ●AWC→SET | |
| BACKLIGHT | ●OFF | ●USER BLC | ●HLC |
| | ●SSDR | ●WDR | |
| SSNR3 | ●ON | ●OFF | |
| DAY/NIGHT | ●AUTO | ●EXTERN | ●COLOR |
| | ●B/W | | |
| PROFILE | ●BASIC | ●DAYNIGHT | ●BACKLIGHT |
| | ●ITS | ●INDOOR | ●USER |
| SPECIAL | ●IMAGE ADJ | ●CAM TITLE | ●SYNC |
| | ●INTELLIGENCE | ●PRIVACY | ●DIS |
| | ●COMM ADJ | ●LANGUAGE | ●RETURN |
| EXIT | ●SAVE | ●NOT SAVE | ●RESET |

## Menu Setup

Use the Function Setup button within the camera.

UP button
SET button
LEFT button
DOWN button
RIGHT button

VIDEO
POWER
1 - 2 - AC24V
⊖ - ⊙ - DC12V
CLASS 2 ONLY

1, 485+
2, 485−
3, FRZ
4, V-SYNC
5, SHUTTER 1
6, SHUTTER 2
7, SHUTTER 3
8, DN
9, MD
10, GND
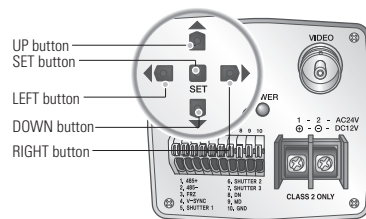
1. Press the Function Setup button.
   • Main SETUP menu is displayed on the monitor screen.

Select the function using the Function Setup button.

Change the status using the Function Setup button.

```
          MAIN SETUP
▶  1.LENS            DC↵
   2.EXPOSURE↵
   3.WHITE BAL       ATW
   4.BACKLIGHT       OFF
   5.SSNR3           ON↵
   6.DAY/NIGHT       AUTO↵
   7.PROFILE         BASIC
   8.SPECIAL↵
   9.EXIT            SAVE
```
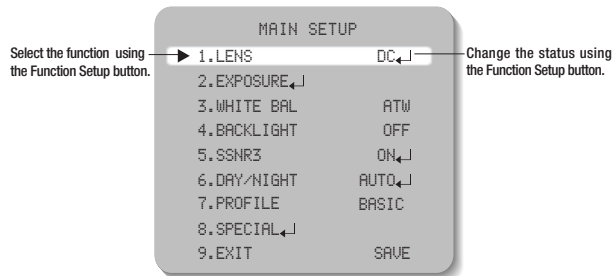
2. Select a desired function using the Function Setup button.
   • Place the cursor over a desired item.
3. Set up a selected item by using the Function Setup button.
4. To finish the setting, select 'EXIT' and press the Function Setup button .

# Operating Your Camera

## LENS

Using this function, you can control the screen brightness.
1. When the SETUP menu screen is displayed, select 'LENS' by using the Function Setup button so that the arrow indicates 'LENS'.
2. Select the connected lens type by using the Function Setup button.

```
          MAIN SETUP
  ▶ 1.LENS           DC↵
    2.EXPOSURE↵
```

◯ DC/Video : Select Auto Iris Lens.
          You can adjust the minimum shutter and maximum value of ESC shutter mode when DC Lens mode is selected.

◯ Manual : Select Manual Lens.

3. Each Lens mode has sub menu site as listed below.
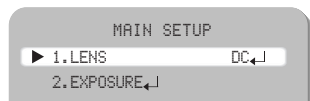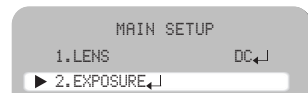   - Brightness (DC, Manual)  : Adjusts the video brightness.
   - Level (VIDEO)            : Adjusts the level of video iris signals; the higher the level, the brighter the video looks.
   - FOCUS ADJ (DC, VIDEO)    : To adjust the DC and VIDEO lens focus correctly, you must activate the Focus Settings mode under each lens menu. To activate the Focus Settings mode, adjust the lens focus, and then deactivate the settings mode. (The VIDEO lens requires an extra step: go to the sub menu of the Focus Settings mode and change the shutter speed to adjust the lens brightness.)
   - IRIS SPEED (DC)          : Adjusts the Iris control speed of the DC lens. If the control speed is too slow or fast, please use this menu to adjust the speed.

## EXPOSURE

```
          MAIN SETUP
    1.LENS           DC↵
  ▶ 2.EXPOSURE↵
```

1. When the SETUP menu screen is displayed, select 'EXPOSURE' by using the Function Setup button so that the arrow indicates 'EXPOSURE'.
2. Select a desired mode using the Function Setup button.

```
        EXPOSURE SETUP
  ▶ 1.BRIGHTNESS ▬▬▮▬▬▬   25
    2.SHUTTER            ESC
    3.AGC              HIGH
    4.SENS-UP           OFF
    5.RETURN ↵
```
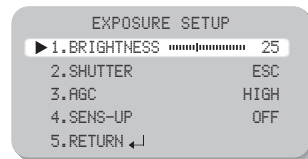
◯ BRIGHTNESS : Adjusts the video brightness.
◯ SHUTTER : You can select the shutter.
   - ESC       : Select this to control the shutter speed automatically. If ESC is selected, the shutter speed is automatically controlled depending on the ambient illumination of the subject.

- MANUAL : You can control shutter speed manually.
(NTSC MODEL - 1/60sec~1/120,000sec, PAL MODEL - 1/50sec~1/120,000sec)
- A.FLK : Select this when you experience picture flicker, this happen when there is a clash with the installed lighting frequency.
- EXTERN : Use the Shutter Speed Select Terminal on the back of the camera to control the shutter speed via an external input. You can control the desired speed as shown in the table below by connecting the terminal to the Ground Terminal.

|  | SHUTTER 1 | SHUTTER 2 | SHUTTER 3 |
|---|---|---|---|
| 1/60(1/50) | OFF | OFF | OFF |
| 1/120(1/100) | ON | OFF | OFF |
| 1/250 | OFF | ON | OFF |
| 1/500 | ON | ON | OFF |
| 1/700 | OFF | OFF | ON |
| 1/1000 | ON | OFF | ON |
| 1/1600 | OFF | ON | ON |
| 1/2500 | ON | ON | ON |

[ Interlace Mode]

- --- : Shutter speed is fixed at 1/60 sec (1/50 sec).

### Notes

- When you use a DC lens, set the shutter mode to --- if color rolling occurs.
- When the SHUTTER is set to ESC after selecting the Internal Synchronization Type, the picture may become unstable if the camera faces a bright fluorescent light. Therefore, take care when choosing the installation position.
- When the SHUTTER is set to MANUAL or A.FLK mode, SENS-UP will be disabled.
- When using an external input, Connect the Shutter Speed Select Terminal to the Ground Terminal.

○ AGC(AUTO GAIN CONTROL) : The higher the gain level, the brighter the screen - but the greater the noise.
- OFF : Deactivates the AGC function.

- LOW : Allows automatic gain control from 5.3dB to 32dB.
- HIGH : Allows automatic gain control from 5.3dB to 37dB.
○ SENS-UP : When it is night or dark, the camera automatically detects the light level and maintains a clear picture if this mode is activated.

- OFF : Deactivates the SENS-UP function.
- AUTO : Activates the SENS-UP function.

### Notes

- If you set the Function Setup button to 'AUTO' mode, You can adjust the brightness by increasing or decreasing the shutter speed. (x2 ~ x512)
- Note that the higher the zoom level, the brighter the screen, but the more likely it is that an after-image will appear.
- Although Noise, Spots, and Whitish symptoms may occur in SENS-UP operation when the zoom level is increased, this is normal.

○ RETURN : Select this to save the changes in the EXPOSURE menu and return to the SETUP menu.

### White Bal (White Balance)

Use the White Balance function to adjust the screen color.
1. When the SETUP menu screen is displayed, select 'White Bal' by using the Function Setup button so that the arrow indicates 'White Bal' .
2. Select a desired mode using the Function Setup button.

```
        MAIN SETUP
   1.LENS          DC↵
   2.EXPOSURE↵
 ▶ 3.WHITE BAL     ATW
```
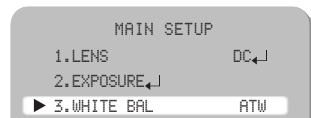
※ Select one of the following 5 modes, as appropriate for your purpose.

○ ATW : Select this when the color temperature is between 1,700˚K and 11,000˚K.
○ OUTDOOR : Select this when the color temperature is between 1,700˚K and

11,000˚K. (sodium light inclusion)

◌ INDOOR : Select this when the color temperature is between 4,500˚K and 8,500˚K.

◌ MANUAL : Select this to fine-tune White Balance manually. Set White Balance first by using the ATW or AWC mode. After that button to MANUAL mode, fine-tune the White Balance and the Function Setup button.

◌ AWC →SET : To find the optimal luminance level for the current environment, point the camera towards a sheet of white paper and press the Function Setup button. If the environment changes, readjust it.

### Notes

• White Balance may not work properly under the following conditions. In this case select the OUTDOOR mode.
  ❶ When the color temperature of the environment surrounding the subject is out of the control range (e.g. clear sky or sunset).
  ❷ When the ambient illumination of the subject is dim.
  ❸ If the camera is directed towards a fluorescent light or is installed in a place where illumination changes dramatically, the White Balance operation may become unstable.

## BACKLIGHT

The SCB-3000/3001 is designed so that it delivers a distinctive subject and background at the same time, even when the subject is in backlight, by adopting a function of the proprietary SV-V DSP chip.

1. When the SETUP menu screen is displayed, select 'BACKLIGHT' by using the Function Setup button so that the arrow indicates 'BACKLIGHT'.

```
        MAIN SETUP
   1.LENS           DC↵
   2.EXPOSURE↵
   3.WHITE BAL      ATW
 ▶ 4.BACKLIGHT      OFF
```
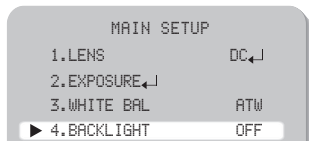
2. Select a desired mode using the Function Setup button depending on the camera purpose.
  ◌ OFF : Not being used
  ◌ BLC : Enables a user to select a desired area on a picture and view that area more clearly.
    - LEVEL : Adjusts the brightness level of a monitoring area.
    - TOP/BOTTOM/LEFT/RIGHT : Adjust the area to be enhanced.

◌ HLC (High Light Compensation) :
  If the scene contains extremely bright light areas such as; from car headlight, the light can mask out much of the on-screen detail.
  - LEVEL : Adjusts the brightness level of a monitoring area.
  - LIMIT : Enable to change the operating condition.
  - MASK COLOR/TONE : Change the color / brightness of the masking area.
                      (Black, Red, Blue, Cyan, Magenta)
  - TOP/BOTTOM/LEFT/RIGHT : Adjust the area to be enhanced.

◌ SSDR (Samsung Super Dynamic Range) : SSDR illuminates darker areas of an image while retaining the same light level for brighter areas to even out the overall brightness of images with high contrast between bright and dark areas.
  Use the Function Setup button to change the SSDR level in the sub menu according to the contrast between bright and dark areas.
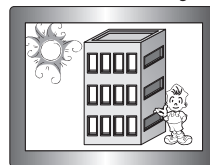


SSDR ON
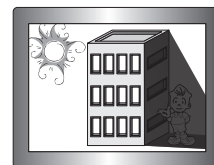


SSDR OFF

◌ WDR : When there are both bright and dark areas at the same time, this mode makes both areas distinctive.



< WDR >
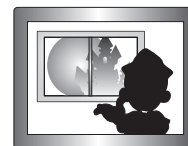


< OFF >

Select 'WDR' to adjust the WDR LIMIT and LEVEL.

- LIMIT : Adjust the WDR Sensitivity by selecting LOW, MIDDLE, or HIGH.

# Operating Your Camera

- LEVEL : Adjust the WDR Brightness by controlling the bar from 1 to 100.
- MODE : Indoor and outdoor backlight conditions are appropriately selected.
- ANTI ROLLING : Rolling caused around a fluorescent lamp is improved.

3. Select a desired mode using the Function Setup button.

‒ BLC :  Adjust the area to be enhanced then adjust the level.

‒ HLC : Enable the user to change the level, limit, mask color/tone and area.

```
        BLC SETUP
▶LEVEL          MIDDLE
 TOP     ═══════════    25
 BOTTOM  ═══════════    90
 LEFT    ═══════════    68
 RIGHT   ═══════════   152

    Press SET to Return
```

```
        HLC SETUP
▶LEVEL          MIDDLE
 LIMIT       NIGHT ONLY
 MASK COLOR       BLACK
 MASK TONE  ════════     5
 TOP        ════════    25
 BOTTOM     ════════    90
 LEFT       ════════    68
 RIGHT      ════════   152
    Press SET to Return
```

‒ SSDR :  Enable the user to change the level.

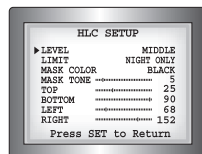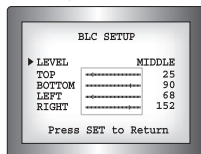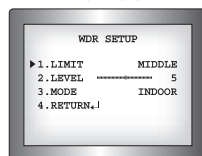‒ WDR :  Enable the user to change the limit and level.

```
        SSDR SETUP
▶LEVEL    ═══════════    8



    Press SET to Return
```

```
        WDR SETUP
▶1.LIMIT         MIDDLE
 2.LEVEL  ═══════════    5
 3.MODE          INDOOR
 4.RETURN↵
```

### Notes

- Because there can be a difference in the effectiveness of HLC according to the amount of light area in the screen, optimize the installation angle for the best HLC performance.
- When dark, the HLC is only activated when a bright light exceeding a specific size. (In NIGHT ONLY mode).
- The HLC is not activated in day light or when bright light is not present at night. (In NIGHT ONLY mode).
- Using the WDR function, select the shutter mode can be either fixed or A.FLK in the DC and Video lens. And in the manual lens, select the shutter mode can be only ESC.
- Since the performance of the WDR function may be affected by the area of the bright part of the screen, optimize the installation angle for the best WDR performance.
- If you increase LIMIT, the screen display may be distorted.
- If you use the VPS (Virtual Progressive Scan) function, the CCD reads differently so you can not use WDR simultaneously. If you set VPS to ON, WDR will be automatically set to FIXED Mode.
- The use of a DC lens than the manual lens is recommended to WDR optimal performance.

---

## SSNR3

This function reduces the background noise in a low luminance environment.

1. When the SETUP menu screen is displayed, select 'SSNR3' by using the Function Setup button so that the arrow indicates 'SSNR3'.

```
        MAIN SETUP
   1.LENS            DC↵
   2.EXPOSURE↵
   3.WHITE BAL       ATW
   4.BACKLIGHT       OFF
 ▶ 5.SSNR3           ON↵
```
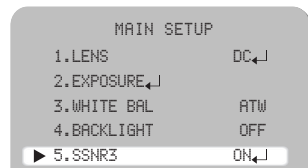
2. Select a desired mode using the Function Setup button.
   ‒ ON : Activates SSNR3 so that noise is reduced.
   ‒ OFF : Deactivates SSNR3. Noise is not reduced.

3. Set the SSNR3 mode to 'ON' and press the Function Setup button. Then you can adjust the noise reduction level.

### Notes

- You cannot set the SSNR3 to 'ON' or 'OFF' when the AGC mode of the 'EXPOSURE' menu is 'OFF'.
- When adjusting the noise reduction level in the SSNR3 mode, remember that the higher the level set, the more the noise level will be reduced, as will the brightness of the image.

# Operating Your Camera

## DAY/NIGHT
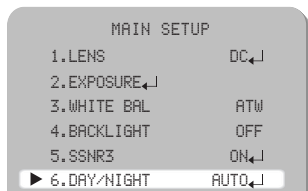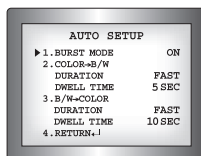
You can display pictures in color or in black and white.
1. When the SETUP menu screen is displayed, select 'DAY/NIGHT' by using the Function Setup button so that the arrow indicates 'DAY/NIGHT'.

```
            MAIN SETUP
    1.LENS              DC↵
    2.EXPOSURE↵
    3.WHITE BAL         ATW
    4.BACKLIGHT         OFF
    5.SSNR3             ON↵
  ▶ 6.DAY/NIGHT        AUTO↵
```

2. Select a desired mode using the Function Setup button according to the picture display you want.

  ◔ AUTO   : The mode is switched to 'Color' in a normal environment, but switches to 'B/W' mode when ambient illumination is low. To set up the switching time for AUTO mode, press the Function Setup button. You can turn on or off the burst signal on B/W mode.

```
         AUTO SETUP
  ▶ 1.BURST MODE        ON
    2.COLOR→B/W
      DURATION         FAST
      DWELL TIME      5 SEC
    3.B/W→COLOR
      DURATION         FAST
      DWELL TIME     10 SEC
    4.RETURN↵
```

  - DURATION : You can select the day/night switching point.
  - DWELL TIME : You can select day/night switching delay time from.
      →3s, 5s, 7s, 10s, 15s, 20s, 30s, 40, 60s

|       | Color → B/W | B/W → Color |
|-------|-------------|-------------|
| Early | 2.5 lux     | 5 lux       |
| Late  | 1 lux       | 7 lux       |

  * The day/night switching point of the camera can be adjusted.

  ◔ EXTERN : This enables an auto switch between DAY and NIGHT mode using the interface with the external sensor.

◔ COLOR : The picture is always displayed in color.
◔ B/W   : The picture is always displayed in black and white.
           You can turn on or off the burst signal on B/W mode.

### Notes

- When using a Video Auto Iris Lens, if you set the lens level to low, automatic switching between Color and Black & White may not occur.
- When AGC in the EXPOSURE menu is 'OFF', '---' mode operates as selecting 'COLOR' mode and 'AUTO' mode cannot be selected.
- When using an external input, Connect the D & N Input Port to the Ground Terminal.

## PROFILE

1. When the SETUP menu screen is displayed, select 'PROFILE' by using the Function Setup button so that the arrow indicates 'PROFILE'.
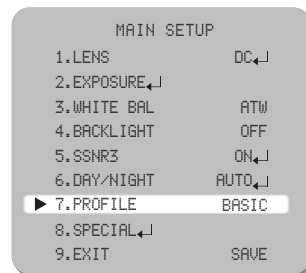
```
            MAIN SETUP
    1.LENS              DC↵
    2.EXPOSURE↵
    3.WHITE BAL         ATW
    4.BACKLIGHT         OFF
    5.SSNR3             ON↵
    6.DAY/NIGHT        AUTO↵
  ▶ 7.PROFILE          BASIC
    8.SPECIAL↵
    9.EXIT             SAVE
```

2. Select a desired mode using the Function Setup button according to the picture display you want.
  ◔ BASIC : The most common environment is set to meet.
  ◔ DAYNIGHT : It will be set automatically so it optimizes to the day or night conditions, respectively.
  ◔ BACKLIGHT : It will be set automatically so you can distinguish the object from the background in a severe backlighting scene.
  ◔ ITS : It will be set automatically so you can easily check the traffic conditions.

# Operating Your Camera

◔ INDOOR : It will be set automatically to help you take a picture in a regular indoor lighting condition.
◔ USER : Automatically configures the camera to your custom settings.
   ❶ Select Custom for Simple Setup mode.
   ❷ Configure the menu options to your custom settings.
   ❸ The settings are automatically saved as Custom mode.
   ❹ Profile user mode don't initialize  when menu resets.
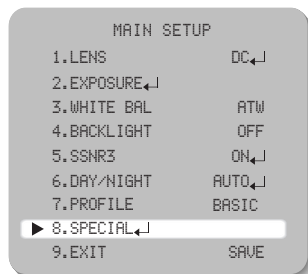
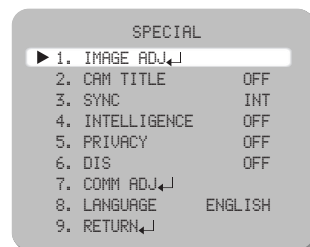3. In the PROFILE menu, you can confi gure the following camera settings at once.

|  | BASIC | DAYNIGHT | BACKLIGHT | ITS | INDOOR | USER |
|---|---|---|---|---|---|---|
| SHUTTER | ESC | ESC | ESC | MANUAL(1/250) | A.FLK | - |
| GAIN | HIGH | HIGH | HIGH | HIGH | HIGH | - |
| WHITE BAL | ATW | ATW | ATW | OUTDOOR | INDOOR | - |
| BACKLIGHT | OFF | OFF | USER BLC | OFF | OFF | - |
| SSNR3 | ON | ON | ON | ON | ON | - |
| DAY/NIGHT | AUTO | AUTO | AUTO | AUTO | AUTO | - |

## SPECIAL

1. When the SETUP menu screen is displayed, select 'SPECIAL' by using the Function Setup button so that the arrow indicates 'SPECIAL'.

```
          MAIN SETUP
   1.LENS              DC↵
   2.EXPOSURE↵
   3.WHITE BAL         ATW
   4.BACKLIGHT         OFF
   5.SSNR3             ON↵
   6.DAY/NIGHT         AUTO↵
   7.PROFILE           BASIC
 ▶ 8.SPECIAL↵
   9.EXIT              SAVE
```

2. Select a desired mode using the Function Setup button.

```
            SPECIAL
 ▶ 1. IMAGE ADJ↵
   2. CAM TITLE        OFF
   3. SYNC            INT
   4. INTELLIGENCE     OFF
   5. PRIVACY          OFF
   6. DIS              OFF
   7. COMM ADJ↵
   8. LANGUAGE      ENGLISH
   9. RETURN↵
```

◔ IMAGE ADJ :
   1) When the SPECIAL menu screen is displayed, select  'IMAGE ADJ' by using the Function Setup button so that the arrow indicates 'IMAGE ADJ'.
   2) Select a desired mode using the Function Setup button.

```
          IMAGE SETUP
 ▶ 1.MONITOR         LCD↵
   2.VPS             OFF
   3.REVERSE         OFF
   4.PIP             OFF
   5.D-ZOOM          OFF
   6.FONT COLOR      WHITE
   7.SHARPNESS       ON↵
   8.RETURN↵
```
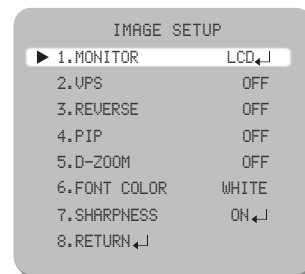
● Monitor : Please change the settings value of video appropriate to your monitor.
   • LCD    : Please select this menu item when using an LCD monitor.
             You can change the gamma, PED level and color gain in the sub menus.

# Operating Your Camera

- **CRT** : Please select this menu item when using a CRT monitor. You can change the PED level, color gain in the sub menus.
- **USER** : Please use this menu item when using a monitor other than standard ones. You can change the gamma, PED level and color gain in the sub menus.
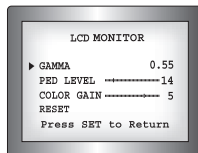
```
        LCD MONITOR

▶ GAMMA            0.55
  PED LEVEL ┈┈┈┈┈┈┈14
  COLOR GAIN ┈┈┈┈┈┈ 5
  RESET
  Press SET to Return
```

● **VPS(Virtual Progressive Scan)** : This is an advanced technology that reproduces a sharp progressive image. This is appropriate to high quality recording and file transfer via the Internet.
  - **OFF** : Selects 2:1 Interlaced Scan as the Imaging Method.
  - **ON** : Selects Progressive Scan as the Imaging Method.

● **REVERSE** : You can reverse the picture.
  - **OFF** : You don't reverse the picture.
  - **H-REV** : You can flip the picture horizontally on the screen.
  - **V-REV** : You can flip the picture vertically on the screen.
  - **HV-REV** : You can flip the picture horizontally and vertically on the screen.

● **PIP(Picture in Picture)** : Displays a full-size image along with the thumbnail to provide more detailed information. The position of the thumbnail is adjustable.

```
        PIP SETUP

1.XPOS      ┈┈┈┈┈┈┈ 17
2.YPOS      ┈┈┈┈┈┈┈ 17
3.RETURN.┘
```

● **D-ZOOM** : You can use a digital zoom of x1 ~ x16.

● **FONT COLOR**: You can change the OSD font color. (White, Yellow, Green, Red, Blue)

● **SHARPNESS** : As you increase this value, the picture outline becomes stronger and clearer. Adjust this value appropriately depending on the sharpness of the picture.

```
        SHARPNESS

▶ LEVEL     ┈┈┈┈┈┈┈ 13



  Press SET to Return
```

● **RETURN** : Select this to save the settings for the IMAGE ADJ menu and to return to the SPECIAL menu.

---

### Notes

- When the V-REV or H-REV mode is enabled, the text on the screen does not flip.
- If you increase the SHARPNESS level too high, the picture may become distorted or noise may appear.

➲ **CAM TITLE** : If you enter a title, the title will appear on the monitor.

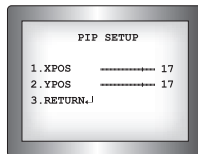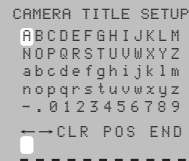1) If the SPECIAL menu screen is displayed, use the Function Setup button so that the arrow indicates 'CAM TITLE'.
2) Set it to 'ON' by using the Function Setup button.
3) Press the Function Setup button.
4) Use the Function Setup button to move to a desired letter and select the letter by pressing the Function Setup button. Repeat this to enter multiple letters. You can enter up to 15 letters.
5) Enter a title, move the cursor to 'POS' and press the Function Setup button. The entered title appears on the screen. Select the position to display the title on the screen by using the Function Setup button and press the Function Setup button. When the position is determined, select 'END' and press the Function Setup button to return to the SPECIAL menu.

```
  CAMERA TITLE SETUP
  ABCDEFGHIJKLM
  NOPQRSTUVWXYZ
  abcdefghijklm
  nopqrstuvwxyz
  -.0123456789
  ←→CLR POS END
  ▯┈┈┈┈┈┈┈┈┈┈┈
```



---

### Notes

- When the CAM TITLE menu is 'OFF', no title will be displayed on the monitor screen even if you enter one.
- and Numbers are available in this mode.
- If you move the cursor to CLR and press the Function Setup button, all the letters are deleted. To edit a letter, change the cursor to the bottom left arrow and press the Function Setup button. Move the cursor over the letter to be edited, move the cursor to the letter to be inserted and then press the Function Setup button.

# Operating Your Camera

�—SYNC : In areas where the supply is at 60Hz(NTSC),
50Hz(PAL) frequency, you can synchronize the
output phase of multiple cameras using the
power synchronization function (Line-Lock)
without using a synchronization signal generator.

```
        SYNC

▶ PHASE   ----¦----    0


   Press SET to Return
```

　· INT : Internal Synchronization Type
　· L/L : Power Synchronization Type, Line-lock
　❶ Press the Function Setup button.
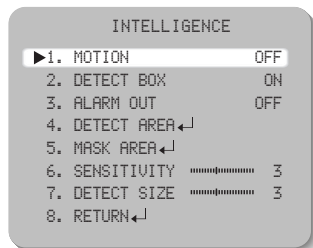　❷ You can select a desired phase from 0 to 359 when select 'phase'.
　· EXTERN : The camera can use the external power source frequency for the synchronization.
　　　　　　Regardless of the input voltage the EXTERN MODE is available only when an
　　　　　　external trigger signal input into camera.
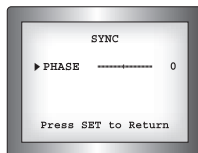
## Notes

● When using AC power at 60Hz(NTSC), 50Hz(PAL) frequency, you can use the L/L type
synchronization.
● When the power is DC 12V, the SYNC menu is fixed to the 'INT' mode.
● When using an external input, the signal level must be +3 V (60 Hz ± 0.2).
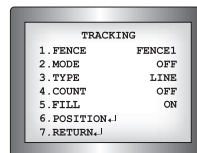Otherwise, the camera may malfunction and/or become damaged.

�—INTELLIGENCE : Commands the camera to motion-detect and trace an object.

```
      INTELLIGENCE

▶1. MOTION          OFF
  2. DETECT BOX       ON
  3. ALARM OUT       OFF
  4. DETECT AREA↵
  5. MASK AREA↵
  6. SENSITIVITY  ┅┅┅┅   3
  7. DETECT SIZE  ┅┅┅┅   3
  8. RETURN↵
```

●MOTION : Select motion types to detect.
　· OFF : Not being used.
　· DETECTION : Since the camera detects motion without any additional external
　　　　　　　sensor, you can monitor activity more efficient.
　· TRACKING : Commands the camera to detect and
　　　　　　　trace a moving object.

```
       TRACKING
1.FENCE        FENCE1
2.MODE           OFF
3.TYPE          LINE
4.COUNT          OFF
5.FILL            ON
6.POSITION↵
7.RETURN↵
```

　▶FENCE : You can select up to 4 FENCE.
　▶MODE : Determines whether to use the fence
　　　　　selected in the FENCE.
　▶TYPE : Two types, line and area, of fences are
　　　　　available.
　▶COUNT : Displays the number of times that an
　　　　　　object enters or leaves a fenced area.
　▶FILL : Fill or remove color from the FENCE.
　▶POSITION : Defines the position and detection direction of a line or fenced area.
　　1) LINE FENCE
　　　-SEL POS : Selects a position from POS1,POS2.
　　　- X POS / Y POS : Adjust the size and position of the selected line fence.
　　　- DIRECTION
　　　　· DIR1 : Detects objects moving left to right on the fence line.
　　　　· DIR2 : Detects objects moving right to left on the fence line.
　　　　· DIR1/2 : Detects all objects moving crosswise on the fence line.
　　　- RETURN : Select this to save the POSITION menu settings and return to the
　　　　　　　　TRACKING menu.
　　2) AREA FENCE
　　　- SEL POS : Selects a position from POS1 ~ POS4.
　　　- X POS / Y POS : Adjust the size and position of the selected area fence.
　　　- DIRECTION
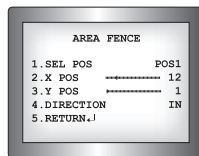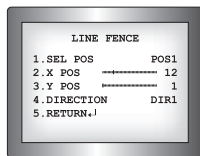　　　　· IN : Detects objects entering the fenced area.
　　　　· OUT : Detects objects exiting the fenced area
　　　　· IN/OUT : Detects all objects entering and exiting the fenced area.
　　　- RETURN : Select this to save the POSITION menu settings and return to the
　　　　　　　　TRACKING menu.
　▶ RETURN : Select this to save the TRACKING menu settings and return to the
　　　　　　INTELLIGENCE menu.
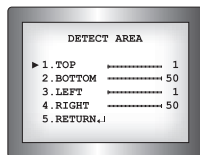
# Operating Your Camera

```
         LINE FENCE
1.SEL POS         POS1
2.X POS    ══════════ 12
3.Y POS    ══════════ 1
4.DIRECTION       DIR1
5.RETURN↵
```

```
         AREA FENCE
1.SEL POS         POS1
2.X POS    ══════════ 12
3.Y POS    ══════════ 1
4.DIRECTION         IN
5.RETURN↵
```

· FIXED/MOVED : Detects an object that emerges or disappears from the screen, or stays onscreen without movement.

## Notes

• A detection (FIXED/MOVED) error may occur if :
· multiple motions occur continuously in random directions
· a fi xed object moves in one position continuously
· a second object screens the fi rst moving object

● DETECT BOX : Outlines an object on the screen in a box when its movement matches a custom Motion Type.
● ALARM OUT : Releases a signal from the MD Output Port on the back of the camera when an object's movement matches a custom Motion Type.
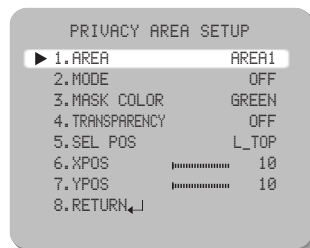● DETECT AREA : Defines the Motion Detection area.

```
        DETECT AREA

▶ 1.TOP      ══════════ 1
  2.BOTTOM   ══════════ 50
  3.LEFT     ══════════ 1
  4.RIGHT    ══════════ 50
  5.RETURN↵
```

● MASK AREA : Specify a detection exception area to mask.
Select a mask area number and specify the size and position.

```
        MASK AREA
▶ 1.AREA          AREA1
  2.MODE            OFF
  3.TOP        ═════ 30
  4.BOTTOM     ═════ 110
  5.LEFT       ═════ 25
  6.RIGHT      ═════ 110
  7.RETURN↵
```

▶ AREA : You can select up to 4 areas.
▶ MODE : Determines whether to use the area selected in the AREA.
▶ TOP / BOTTOM / LEFT / RIGHT : Adjust the size and position of the selected area.
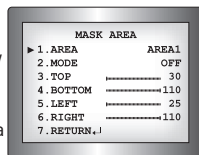
▶ RETURN : Select this to save the MASK AREA menu settings and return to the INTELLIGENCE menu.
● SENSITIVITY : Set the sensitivity of the motion detection. When you adjust the lower level, the more sensitive.
● DETECT SIZE : Selects an object size to detect on the screen. When you adjust higher levels, the more larger size.
● RETURN : Select this to save the INTELLIGENCE menu settings and return to the SPECIAL menu.

◯ PRIVACY : Mask an area you want to hide on the screen.

```
   PRIVACY AREA SETUP

▶ 1.AREA              AREA1
  2.MODE                OFF
  3.MASK COLOR        GREEN
  4.TRANSPARENCY        OFF
  5.SEL POS           L_TOP
  6.XPOS         ══════ 10
  7.YPOS         ══════ 10
  8.RETURN↵
```

1) When the SPECIAL menu screen is displayed, press the Function Setup button so that the arrow indicates 'PRIVACY'.
2) Set up the mode using the Function Setup button.
● AREA : You can select up to 12 PRIVACY areas.
● MODE : Determines whether to use the area selected in the AREA.
● MASK COLOR : Determine area color. You can select Green, Red, Blue, Black, White, Gray.
● TRANSPARENCY : Adds or removes transparency from the masking area.
● SEL POS/ XPOS/ YPOS : Adjust the size and position of the selected area.
● RETURN : Select this to save the PRIVACY menu settings and return to the SPECIAL menu.

◯ DIS (Digital Image Stabilizer) : This function mitigates any picture movement due to external factors such as wind.
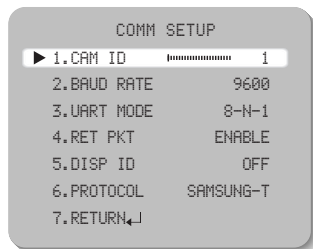
**Notes**

- As the DIS function uses the digital zoom, the camera's resolution will decrease.
- DIS doesn't operate when background illumination is too low.
- DIS doesn't operate when object pattern is monotonic as like sky or white wall.

☞ COMM ADJ (Communication Adjustment) :
This function sets up the camera communication status when controlling the camera through an external control device.
1) When the SPECIAL menu screen is displayed, press the Function Setup button so that the arrow indicates 'COMM ADJ'.
2) Set up the mode using the Function Setup button.

```
          COMM SETUP
 ▶ 1.CAM ID      |||||||||||||    1
   2.BAUD RATE         9600
   3.UART MODE        8-N-1
   4.RET PKT         ENABLE
   5.DISP ID           OFF
   6.PROTOCOL      SAMSUNG-T
   7.RETURN↵
```

● CAM ID : Determines the camera's identification number (between 0 and 255).
● BAUD RATE : You can select 2400/4800/9600/19200/38400/57600 bps.
● UART MODE : You can select NONE, EVEN or ODD for the parity bits.
● RET PKT : Determines whether to send a command back to the controller device when a communication control command is sent to the camera.
● DISP ID : Display camera title on top left corner of the screen.
● PROTOCOL : Select the communication PROTOCOL.
(SAMSUNG-T, SAMSUNG-E , PELCO-D, PELCO-P, BOSCH, HONEYWELL, VICON and PANASONIC)
● RETURN : Select this to save the PRIVACY menu settings and return to the SPECIAL menu.

* Initial value of communication adjustment

| Item | Camera ID | BAUD RATE | UART MODE | PET PKT |
|------|-----------|-----------|-----------|---------|
| Initial value | 1 | 9600 | 8-NONE-1 | ENABLE |

☞ LANGUAGE : You can select the menu language according to your requirements.

☞ RETURN     : Select this to save the SPECIAL menu settings and return to the MAIN SETUP menu.

## EXIT

Select a desired EXIT mode using the Function Setup button depending on the camera purpose.
☞ SAVE          : Save the current settings and exit the MAIN SETUP menu.
☞ NOT SAVE : Save the current settings and exit the MAIN SETUP menu. Power resets the camera settings to the previous mode except for Day/night mode.
☞ RESET       : Resets the camera settings to the factory defaults. Communication, Language and Monitor settings are not initialized.

# Troubleshooting

If you have trouble operating your camera, refer to the following table.
If the guidelines do not enable you to solve the problem, contact an authorized technician.

●**Nothing appears on the screen.**
 ▶ Check that the power cord and line connection between the camera and monitor are properly connected.
 ▶ Check that you have properly connected BNC cable to the camera.
 ▶ Check the type of lens.

●**The image on the screen is dim.**
 ▶ Is lens stained with dirt? Clean your lens with soft, clean cloth.
 ▶ Set the monitor or DVR to the proper condition.
 ▶ If the camera is exposed to very strong light, change the camera position.

●**The image on the screen is dark.**
 ▶ Adjust the contrast feature of the monitor or DVR.
 ▶ If you have an intermediate device, set the 75Ω / Hi-z properly.

●**The camera is not working properly, and the surface of the camera is hot.**
 ▶ Check that you have properly connected the camera to an appropriate power source.

●**The DAY/NIGHT menu does not work.**
 ▶  Check that AGC of EXPOSURE SETUP menu is 'OFF'.

●**The SENS-UP function does not work.**
 ▶ Check that AGC of EXPOSURE SETUP menu is 'OFF'.
 ▶ Check that SHUTTER of EXPOSURE SETUP menu is 'A.FLK' or 'MANUAL'.

●**The INTELLIGENCE function does not work.**
 ▶ Check that INTELLIGENCE of menu is 'OFF'.

●**Color is not correct.**
 ▶ Check the setting of WHITE BAL SETUP menu .

●**The screen flickers continually.**
 ▶ Ensure the camera is not pointing towards the sun.

●**When coaxial communication is not available:**
 ▶ Make sure that the camera and monitor are installed within the recommended distance.
 ▶ Use the video amplifier equivalent to coaxitron if the recommended installation distance is exceeded.

# Specifications

| | SCB-3001 NTSC | SCB-3001 PAL | SCB-3000 NTSC | SCB-3000 PAL |
|---|---|---|---|---|
| **ELECTRICAL** | | | | |
| Input Voltage | AC 24V±10% / DC 12V±10% / | | | |
| Power Consumption | Max 4.0W | | | |
| **VIDEO** | | | | |
| Imaging Device | 1/3 inch, 520K pixel(NTSC), 610K pixel(PAL) Color Double Density CCD | | 1/3 inch, 410K pixel(NTSC), 470K pixel(PAL)  Color Double Density CCD | |
| Total Pixels / Effective Pixels | 1028(H) x 508(V) / 976(H) x 494(V) | 1028(H) x 596(V) / 976(H) x 582(V) | 811(H) x 508(V) / 768(H) x 494(V) | 795(H) x 596(V) / 752(H) x 582(V) |
| Scanning System | 2:1 Interlace / Progressive | | | |
| Synchronization | Internal / Line-Lock / EXTERN | | | |
| Frequency | H : 15.734KHz V : 59.94Hz | H: 15.625KHz V: 50.00Hz | H : 15.734KHz V : 59.94Hz | H : 15.625KHz V: 50.00Hz |
| Horizontal Resolution | COLOR : 650TVL / B/W : 700 TVL | | COLOR : 600TVL / B/W : 700 TVL | |
| Min. Illumination | COLOR : 0.1 Lux(50IRE,F1.2),          0.0002 Lux(SENS-UP X512) B/W    : 0.01 Lux(50IRE,F1.2),          0.00002 Lux(SENS-UP X512) | | COLOR : 0.3 Lux(50IRE,F1.2),          0.0006 Lux(SENS-UP X512) B/W  : 0.01 Lux(50IRE,F1.2),          0.00002Lux(SENS-UP X512) | |
| S/N (Y Signal) | 52dB (Weight On, AGC OFF) | | | |
| Video Output | CVBS : 1.0Vp-p, 75Ω composite | | | |
| **OPERATIONAL** | | | | |
| Iris Adustment | DC / VIEDO | | | |
| Electronic Shutter Speed | 1/60 ~ 1/120k sec | 1/50 ~ 1/120k sec | 1/60 ~ 1/120k sec | 1/50 ~ 1/120k sec |
| Shutter Mode | ESC, MANUAL, A.FLK, EXTERN, FIXED | | | |
| On Screen Display (NTSC : 7 / PAL : 15) | NTSC : English, Korean, Japanese, Spanish, French, Portuguese, Taiwanese PAL  : English, Chinese, German, Italian, French, Spanish, Russian, Czech,         Polish, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese | | | |
| Gain Control | OFF / LOW / HIGH | | | |
| SENS-UP (frame Integration) | OFF / Auto (Selectable x2 ~ x512) | | | |
| White Balance | ATW / OUTDOOR / INDOOR / MANUAL / AWC (1,700°K ~ 11,000°K) | | | |
| Backlight Compensation | OFF / USER BLC / HLC / SSDR / WDR | | | |
| 3D Noise Filter (SSNRIII) | OFF / ON  (Level adjustable) | | | |
| Day & Night | AUTO / EXTERN / COLOR / B/W | | | |

# Specifications ◯

| | |
|---|---|
| Profile | BASIC / DAY/NIGHT / BACKLIGHT / ITS / INDOOR / USER |
| Digital Zoom | OFF / ON (x1 ~ x16) |
| Sharpness | OFF / ON (Level adjustable) |
| Camera Title | OFF / ON (Display 15 Characters) |
| SYNC | INT / Line-Lock / EXTERN |
| VPS (Virtual Progressive Scan) | OFF / ON |
| INTELLIGENCE | DETECTION / TRACKING / FIXED/MOVED / ALARM OUT |
| ETC | PIP, REVERSE |
| Privacy Masking | OFF / ON (12 Programmable zones, Polygonal type) |
| Digital Image Stabilization(DIS) | OFF / ON |
| Coaxial Communication | Pelco Coaxitron |
| RS-485 Communication | SAMSUNG-T, SAMSUNG-E, Pelco-D, Pelco-P, BOSCH, Honeywell, VICON, PANASONIC |
| ENVIRONMENTAL | |
| Operating Temperature / Humidity | -10°C ~ +50°C / Less than 90% RH |
| MECHANICAL | |
| Lens Mount | C / CS Mount |
| Back Focus Adjustment | Manual |
| Dimension / Weight | 66(W) x 61(H) x 102(D)mm / 310g |

※ The specification for this product may change without prior notice for product improvement.

# DECLARATION OF CONFORMITY

| | |
|---|---|
| Application of Council Directive(s) | 2004 / 108 / EC |
| 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 | SCB-3000/3001P |
| Beginning Serial NO. | C54D6V3Z200001X, C54I6V3Z200001X |
| Year of Manufacture | 2010.02.01 |
| Conformance to | EN 55022 : 2006 |
| | EN 50130-4 : 2003 |

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 | *BJ Gu* | Signature |
| Full Name | BONJENG GU | Full Name |
| Position | QUALITY CONTROL MANAGER | Position |
| Place | CHANGWON, KOREA | Place |
| Date | 2010.02.01 | Date |

**MEMO**

**MEMO**

# SAMSUNG TECHWIN