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 & CE 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.

CAUTION : To prevent electric shock and risk of fire hazards:

◆ Do NOT use power sources other than those 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

High Resolution Colour for Crisp, Clear Video

· Progressive image capture
· 690TVL Effective

Wide Dynamic Range (WDR)

The camera delivers clear high quality pictures, even when backlit, by increasing exposure in dark areas while decreasing it in bright areas; a corrected image with clear details results.
· 120dB maximum dynamic range

DNR (Digital Noise Reduction)

The amount of low illuminance noise has been significantly reduced, and the signal-to-noise ratio (S/N ratio) as well as horizontal resolution, have been improved resulting in a clear and sharp image image even in low light.

Day & Night

The camera identifies whether it is day or night and automatically switches to the appropriate mode, depending on its environment. By day, the camera switches to colour mode in order to maintain optimal colour. At night, it switches to B/W mode so as to obtain better picture definition.

High Sensitivity for low-light images

The built-in high sensitivity PIXIM SEAWOLF Sensor enables a clear image even at 0.1Lux

Motion Detection

Since the camera detects motion without any additional external sensor, you can monitor activity more efficient.

VIDEO / DC Drive Lens

The video drive lens and the DC drive lens can be selected by the touch of a switch.

Programmable GAMMA Processing

Controlled by OSD Menu

The camera can be controlled by selecting text displayed on the monitor screen.

Additional Functions

SYNC (INT/LL), SENS-UP, FREEZE, FLIP (H/V-REV), D-ZOOM, SHARPNESS and PRIVACY functions are provided.

The camera requires periodic inspection.

Contact an authorised technician to carry out the inspection.

Stop using your camera when you find it malfunctioning.

If the camera emits smoke or is unusually hot for a long period, a fire may be caused.

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

If the camera is installed on an inappropriate surface, it may fall and cause injury.

Do not hold plug with wet hands.

It could cause an electric shock.

Do not dis-assemble the camera.

It may result in an electric shock or other hazards.

Do not use the camera close to a gas or oil leak.

It may result in a fire or other hazards.

■ Precautions

**Do not install the camera in extreme temperature conditions.**

Only use the camera under conditions where temperatures are between -10˚C and +50˚C. Be especially careful to provide ventilation when operating under high temperatures.

Do not install or use the camera in an environment where the humidity is high.

It can cause the image quality to be poor.

Do not install the camera under unstable lighting conditions.
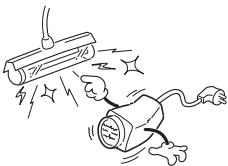
Severe lighting change or flicker can cause the camera to work improperly.

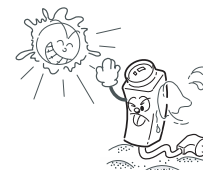**Do not touch the front lens of the camera.**

This is one of the most important parts of the camera. Be careful not to leave fingerprints on the lens cover.

Do not drop the camera and protect it from physical shocks.

It can cause malfunctions to occur.

Never keep the camera pointed directly at strong light.

It can damage the CMOS.

Do not expose the camera to rain or spill beverage on it.

If it gets wet, wipe it dry immediately. Liquids can contain minerals that corrode the electronic components.
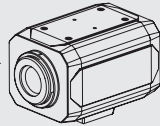
Do not expose the camera to radioactivity.

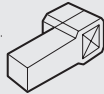If exposed to radioactivity the CMOS will fail.

Note

· If the camera is exposed to spotlight or an object reflecting strong light, smear or blooming may occur.
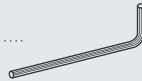· Please check the power supply satisfies the normal specification before connecting the camera.

1. COLOUR BOX CAMERA
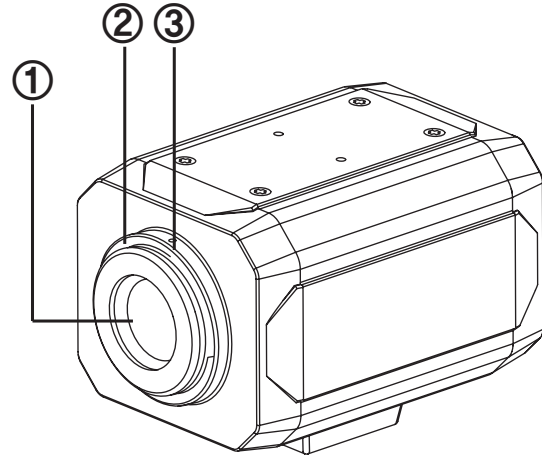
2. AUTO IRIS LENS CONNECTION PLUG

3. L-WRENCH

4. C-MOUNT ADAPTOR

5. INSTRUCTION GUIDE

Front

① **Lens protection cap**
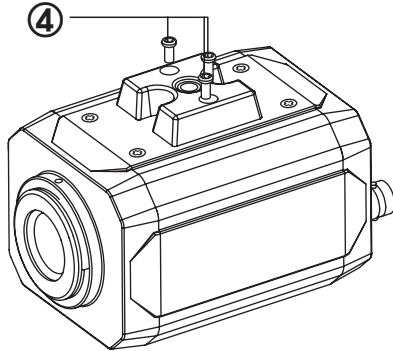Cover the lens when not using it.

② **CS-Mount lens adaptor**
Attach the CS-Mount lens here.

③ **Back Focus clamp screw**
Loosen the clamp screw with a screwdriver before adjusting the Back Focal length.
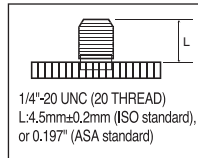
Bottom

④ **Mounting bracket screw hole**
Use the screw hole when fixing the camera onto the mounting bracket.
Please use the clamp screw as specified in the picture.

1/4"-20 UNC (20 THREAD)
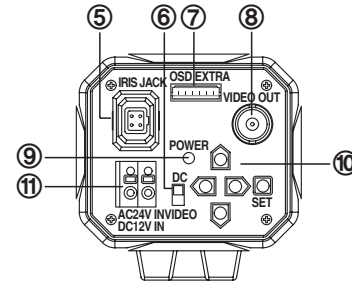L:4.5mm±0.2mm (ISO standard),
or 0.197" (ASA standard)

※ The mounting bracket can be separated and attached on the top of the camera.
please do not tighten the screw to a depth of more than 5mm, otherwise serious damage can occur to the inside of the camera.
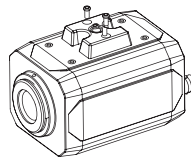
Back

⑤ **Auto iris lens connector**
This is the connection terminal for the auto iris lens.

⑥ **Auto iris lens selection switch**
Change the mode to DC or VIDEO depending on the type of auto iris lens being used.

⑦ **OSD Extra**
Connects to the remote controller(option) when you want to install remotely.

⑧ **Video output terminal**
Sends video signals and connects to the video input terminal of the monitor.

⑨ **Power lamp**
Lights up when the correct power is supplied to the camera.

⑩ **Setting button**
● **SET button** : Used for the menu display. This button can be used to confirm settings after changing the value of the selected function or current conditions.
● **UP & DOWN buttons** : Used for selecting items by moving the cursor up or down on the menu screen.
● **LEFT & RIGHT buttons** : Used when changing item values, by moving the cursor to the left or right on the menu screen.

⑪ **Power input terminal**
Connects to the power appropriate to each power requirement.

■ Lens

Lenses are sold separately. Lenses such as auto iris lens, CS-Mount lens and C-Mount lens can be used.

> **Note**
> · Use of the DC auto iris lens is recommended to achieve the best results for operating this product effectively.
> · Keep the lens clean.
> · Any foreign objects and fingermarks on the lens can cause inferior image quality in low light level conditions.

When using an auto iris lens

1. Peel off about 8mm of the outer skin of the auto iris lens cable.

approx. 8mm
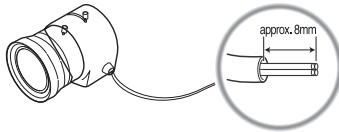
2. Peel off about 2mm of the outer skin of the insulated conductor inside the lens cable.

approx. 2mm
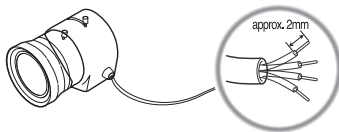
3. Remove the cover of the auto iris lens connection plug and solder the lens cable to the connector pin in the plug.

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

No.3 Pin
No.1 Pin
No.4 Pin
No.2 Pin
Lens cable
Connector
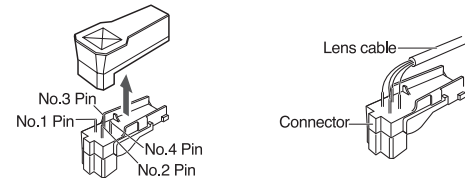
4. Replace the auto iris lens connection plug cover and take off the lens protection cap, and then attach the auto iris lens to the camera by screwing it in clockwise.
5. Insert the connection plug that is connected to the auto iris lens cable into the auto lens connector, which is located on the back of the camera.
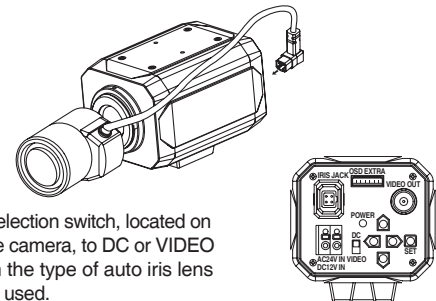
6. Set the lens selection switch, located on the back of the camera, to DC or VIDEO depending on the type of auto iris lens which is being used.

IRIS JACK OSD EXTRA
VIDEO OUT
POWER
DC
AC24V IN VIDEO
DC12V IN
SET

■ Installation

When using a CS-Mount lens

Take off the lens protection cap and attach the CS-Mount lens to the camera by screwing it in clockwise.

CS-mount adaptor

When using a C-Mount lens

1. Take off the lens protection cap and attach the C-mount adaptor.

C-mount adaptor

Lens protection cap

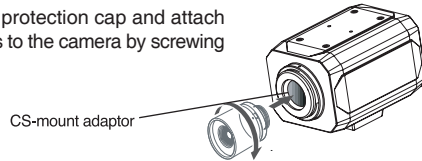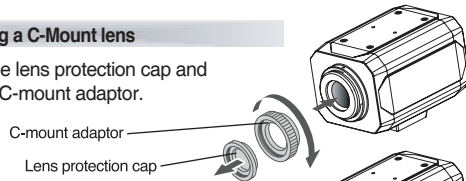2. Attach the C-Mount lens to the camera by screwing it in clockwise.

C-mount adaptor
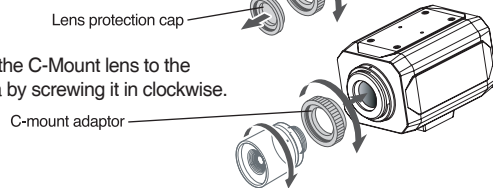
Note

· Use the specified lens connection parts as shown in the picture below. The use of the wrong sized parts may cause damage to the inside of the camera or result in poor fitting.

· Use of a lens which is too heavy affects the balance of the camera and may cause a malfunction. Please use a lens that weighs less than 450g.

· Select Av mode if possible when adjusting the automatic light control (ALC) of an auto lens. Use of PK mode may cause hunting.

C-mount lens : 10 mm or less
CS-mount lens : 5 mm or less
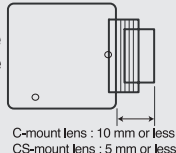
■ Connecting to a monitor

Connect the video output terminal located on the back of the camera to the monitor.

CMOS Camera   Monitor
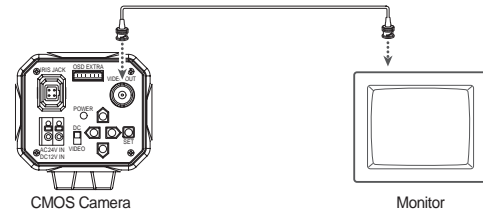
· The connection method varies depending on the type of monitor and accessories. Please refer to the user's manual for each instrument.

· Turn off the power when connecting.

■ Connecting to power

Check the standard power requirement before connecting to power.

Dual Power Type
(AC 24V/DC 12V, AC 24V Class2)

DC Power Type (DC 12V, 500mA)
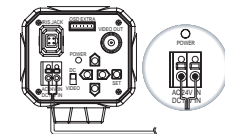
■ How to Use the Camera

■ Menu

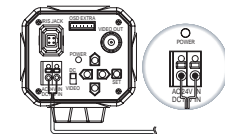| SETUP menu			
PRESETS	· NORMAL · BACKLIGHT	· INDOOR	· OUTDOOR
EXPOSURE	· LENS SELECT · EXPOSURE MODE · DNR · COLOR ROLL	· BLC · AGC · HIGHLIGHT · SENS-UP	
WDR	· MIDDLE · LOW	· HIGH	· USER
WHITE BALANCE	· ATW · AWB	· INDOOR · MANUAL	· OUTDOOR
DAY&NIGHT	· AUTO	· COLOR	· BW
IMAGE ADJ.	· FREEZE · COLOR GAIN	· FLIP · GAMMA	· SHARPNESS · FOCUS
SPECIAL	· CAMERA ID · MOTION · RESET	· VIDEO OUT · PRIVACY MASK	· DZOOM · SYNC
EXIT MENU	· VERSION · CANCEL	· SAVE&EXIT	· DEFAULT

■ Settings

Settings can be made using the 5 buttons on the rear of the camera.

UP button
SETUP button
RIGHT button
DOWN button
LEFT button
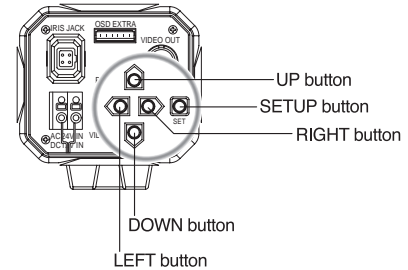
1. Press the SET button
  · Settings can now be made. The SETUP menu is displayed on the monitor.

```
                    SETUP
  ▶ PRESETS              NORMAL
    EXPOSURE..
    WDR                  MIDDLE
    WHITE BALANCE        ATW
    DAY&NIGHT            AUTO..
    IMAGE ADJ..
    SPECIAL..
    EXIT MENU.
```
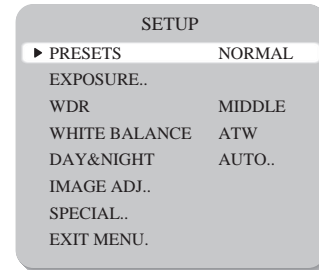
2. Select a menu item from the list available by using the UP and DOWN buttons.

  · Funtions are selected using up and down buttons.
  · The selected position is displayed in blue.

Select the function using
the UP or DOWN button.
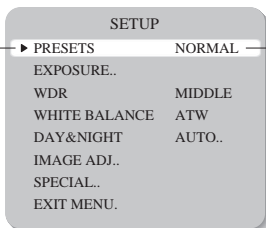
Change the status using
the LEFT or RIGHT button.

```
                SETUP
  ▶ PRESETS          NORMAL
    EXPOSURE..
    WDR              MIDDLE
    WHITE BALANCE    ATW
    DAY&NIGHT        AUTO..
    IMAGE ADJ..
    SPECIAL..
    EXIT MENU.
```

3. Set up a selected item by using the Left and Right buttons.
4. To finish and save the settings, select 'EXIT MENU' and press the SET button.

🦗 ⎰Note⎱

• An item with the .. icon also has sub-menus. To select a sub-menu,
  press the SET button.

PRESETS

```
                SETUP
  ▶ PRESETS          NORMAL
    EXPOSURE..
    WDR              MIDDLE
    WHITE BALANCE    ATW
    DAY&NIGHT        AUTO..
    IMAGE ADJ..
    SPECIAL..
    EXIT MENU.
```

● **NORMAL** : Normal environment.
● **INDOOR** : Indoor environment.
● **OUTDOOR** : Outdoor environment.
● **BACKLIGHT** : Backlight environment.

EXPOSURE
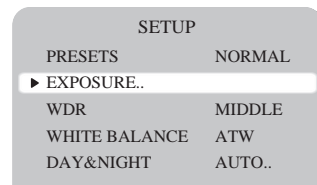
```
                SETUP
    PRESETS          NORMAL
  ▶ EXPOSURE..
    WDR              MIDDLE
    WHITE BALANCE    ATW
    DAY&NIGHT        AUTO..
```

When the SETUP menu screen is displayed, select ʻEXPOSUREʼ by
using the Up and Down buttons so that the arrow indicates ʻEXPOSUREʼ.

```
              EXPOSURE
  ▶ LENS SELECT      DC..
    BLC              OFF
    EXPOSURE MODE    50i
    AGC              MEDIUM
    DNR              MIDDLE
    HIGHLIGHT        ON
    COLOR ROLL       OFF
    SENS-UP          2X
    PREVIOUS PAGE..
```
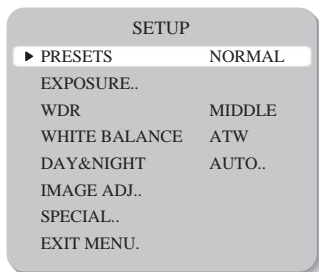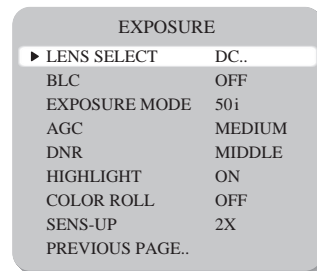
● **LENS SELECT** : Using this function, you can control the screen brightness.
  ・DC / VIDEO / Manual : Select Lens Type

```
              LENS MENU
  ▶ DC GAIN        ▬▬▬▬▬▬▬
                     ▲
                   0   120   255
    VIDEO GAIN     ▬▬▬▬▬▬▬
                     ▲
                   0   50    255
    AI THRESH      ▬▬▬▬▬▬▬
                     ▲
                  -48  -24   60
    PREVIOUS PAGE..
```
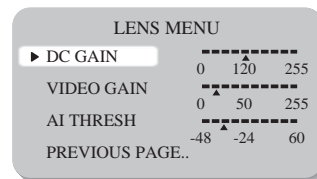
● **BLC** : To optimize the scene when there is a strong backlight behind the object.
- ON / OFF selectable

```
ADVANCED BLC SETUP

▶ PERCENTILE    ----------
                 10    35    50

PREV.    SAVE.    CANCEL.
```
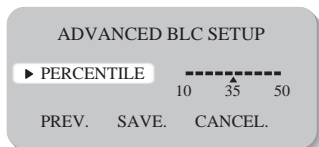
● **EXPOSURE MODE** : To select the number of fields and number of exposure cycles.
- 50i/25p selectable

● **AGC (AUTO GAIN CONTROL)** : In dark environments, the higher the gain level, the brighter the screen but the higher the noise.
- OFF / LOW / MEDIUM / HIGH selectable

● **DNR (Digital Noise Reduction)** : The level of background noise in low light decreases automatically as the level of gain changes.
- OFF / LOW / MIDDLE / HIGH selectable

● **HIGHLIGHT** : To optimise the scene when high dynamic range lighting is detected.
- ON : bright parts of the image are most visible.
- OFF : dark parts of the image are most visible.

● **COLOR ROLL** : To control a detector that finds colour fluorescent roll.
- OFF / LOW / HIGH selectable

● **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.
- 2X, 4X, 8X, 16X, 32X
- OFF : Deactivates the SENS-UP function.

WDR

```
            SETUP
PRESETS          NORMAL
EXPOSURE..
▶ WDR            MIDDLE
WHITE BALANCE    ATW
DAY&NIGHT        AUTO..
IMAGE ADJ..
SPECIAL..
EXIT MENU.
```
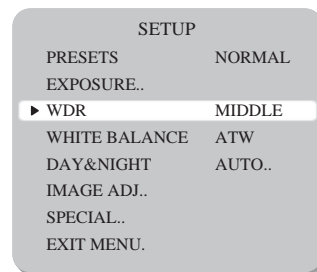
● **WDR** : When the image has simultaneous bright and dark areas, the Wide Dynamic Range makes both areas distinct.
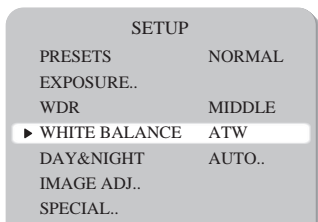- LOW / MIDDLE / HIGH / USER selectable

```
         WDR LEVEL
▶ BIAS    2   -30 ----------- 30

  LIMIT   36   0 ----------- 36

PREVIOUS PAGE..
```
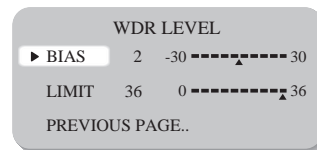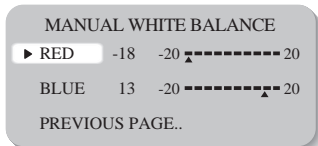
■ How to Use the Camera

WHITE BALANCE

Use the White Balance function to adjust the screen colours.
1. Position the cursor to point to WHITE BAL on the SETUP menu screen, select using the Up and Down buttons.
2. Select the desired mode using the Left and Right buttons.

```
                SETUP
   PRESETS              NORMAL
   EXPOSURE..
   WDR                  MIDDLE
 ▶ WHITE BALANCE        ATW
   DAY&NIGHT            AUTO..
   IMAGE ADJ..
   SPECIAL..
```

※Select one of the following 5 modes, as appropriate.

● **ATW** : The ATW mode continuously monitors.
● **INDOOR** : Select when the colour temperature is between 4000˚K and 8500˚K
● **OUTDOOR** : Select when the colour temperature is between 2000˚K and 11000˚K
● **AWB** : To obtain the optimum state under the current luminance levels, direct the camera to point toward a sheet of white paper and press the SET button. If the environment changes, including the light source, the white balance will require re-adjustment.
● **MANUAL** : Select to "fine-tune" the White Balance manually. Set White Balance first using the ATW or AWB mode. Afterwards switch to MANUAL mode, fine-tune the White Balance and then press the SET button.

```
   MANUAL WHITE BALANCE
 ▶ RED      -18   -20 ▪------------ 20

   BLUE     13    -20 ------------▪ 20

   PREVIOUS PAGE..
```

DAY&NIGHT

```
                SETUP
   PRESETS              NORMAL
   EXPOSURE..
   WDR                  MIDDLE
   WHITE BALANCE        ATW
 ▶ DAY&NIGHT            AUTO..
   IMAGE ADJ..
   SPECIAL..
   EXIT MENU.
```
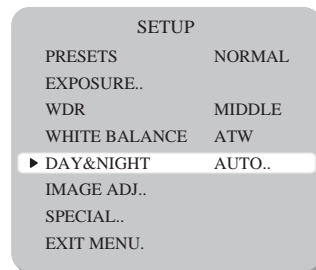
● **AUTO** : This camera has a function which automatically changes to the appropriate mode according to lighting levels. To set up the switching time for the AUTO mode press the SET button.

■ How to Use the Camera

```
        DAY&NIGHT SETUP
  ▶ NIGHT MODE        BW +burst
                      BW
                      COLOR
    TIME DELAY       ▄▄▀▄▄▄▄▄▄▄
                      0    1    255
    PREVIOUS PAGE..
```
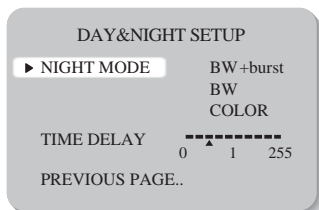
● **COLOR** : The picture is displayed in colour.

● **B/W** : The picture is always displayed in black and white.

IMAGE ADJ.

When the SETUP menu screen is displayed, select 'IMAGE ADJ.' using the Up and Down buttons.

```
              SETUP
    PRESETS          NORMAL
    EXPOSURE..
    WDR              MIDDLE
    WHITE BALANCE    ATW
    DAY&NIGHT        AUTO..
  ▶ IMAGE ADJ..
    SPECIAL...
    EXIT MENU.
```

```
              IMAGE
  ▶ FREEZE            OFF
    FLIP              OFF
    SHARPNESS       ▄▄▄▄▄▄▄▄▄▄
                    -8    0    8
    COLOR GAIN      ▄▄▄▄▄▄▄▄▄▄
                    -8    0    8
    GAMMA     45  25▄▄▀▄▄▄▄▄▄100
    FOCUS..
    PREVIOUS PAGE..
```
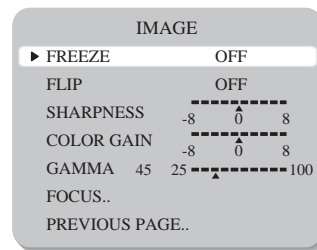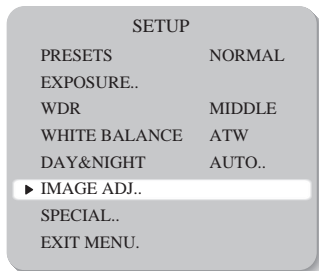
● **FREEZE** : View still pictures.
   - OFF / ON selectable

● **FLIP :** OFF / HORIZ / VERT / BOTH selectable

OFF   HORIZ

VERT   BOTH
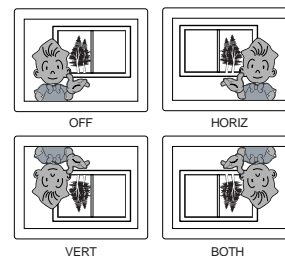
● **SHARPNESS** : The outline of the video image becomes cleaner and more distinctive as the level of SHARPNESS increases. If the level gose up excessively, however, it may affect the video image and generate noise.
   - The available range of level is -8 ~ 8

● **COLOR GAIN** : To control the colour level in the video.
   - The available range of level is -8 ~ 8

● **GAMMA** : Users can change the gamma setting between 25 and100

● **FOCUS** : To adjust the lens focus.

```
                FOCUS DETECTOR
        ▶ FOCUS METER    [_____]
                                88
          SET FOCUS REGION..
          PREVIOUS PAGE..
```

```
              SET FOCUS REGION
              ┌──────────────┐
              │              │
              │              │
              └──────────────┘
```
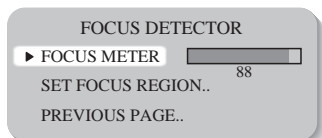
SPECIAL

When the SETUP menu screen is displayed, select 'SPECIAL' by using
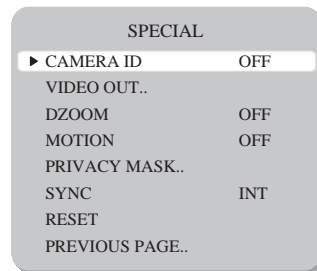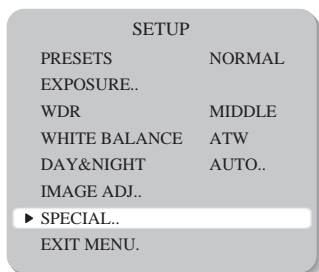the Up and Down buttons so that the arrow indicates 'SPECIAL'.

```
                    SETUP
        PRESETS              NORMAL
        EXPOSURE..
        WDR                  MIDDLE
        WHITE BALANCE        ATW
        DAY&NIGHT            AUTO..
        IMAGE ADJ..
      ▶ SPECIAL..
        EXIT MENU.
```

```
                    SPECIAL
        ▶ CAMERA ID           OFF
          VIDEO OUT..
          DZOOM               OFF
          MOTION              OFF
          PRIVACY MASK..
          SYNC                INT
          RESET
          PREVIOUS PAGE..
```

● **CAMERA ID** : User can enter a unique name for the respective camera.
The maximum length of the ID is ten characters.
  ・ You can choose the ON and OFF with the selector. If you select ON,
    the entered camera ID is displayed at the selected position in the video
    picture (normal operation).
  ・ Please select the setup button while in On mode.
  ・ Select the desired position with the selector.

```
                  CAMERA ID
        ▶ ID              CAM-001
          POSITION        UP-LEFT
          PREVIOUS PAGE..
```
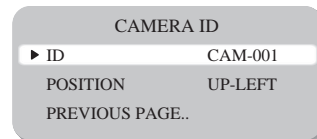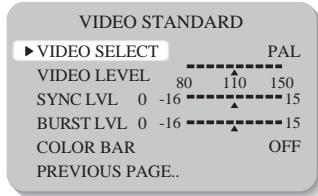
① Move the cursor to the letter required by using the Set-Up button.
② Select an ID from A,B~Y,Z, a,b~y,z, 0,1~8,9 by using the LEFT and
   RIGHT buttons.
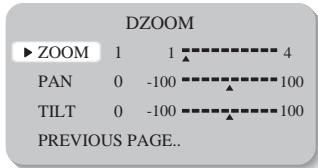③ Repeat the above steps until the ID is complete.

```
                  CAMERA ID
          ID              CAM-001
        ▶ POSITION        UP-LEFT
          PREVIOUS PAGE..
```
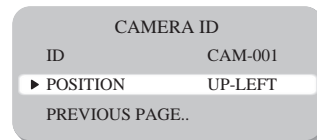
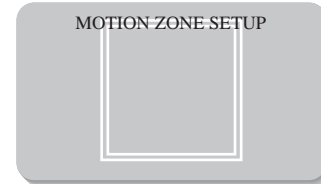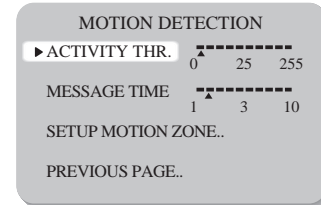① Select the position where the ID is to be displayed by using the LEFT and RIGHT buttons.

● **VIDEO OUT** : Move the cursor to select the video system
  - VIDEO STANDARD : You can control NTSC / PAL, Video level, Sync level, Burst level.

```
             VIDEO STANDARD
   ▶ VIDEO SELECT              PAL
     VIDEO LEVEL    ▬▬▬▬▬▬
                   80   110  150
     SYNC LVL   0  -16 ▬▬▬▬▬ 15
     BURST LVL  0  -16 ▬▬▬▬▬ 15
     COLOR BAR                 OFF
     PREVIOUS PAGE..
```

● **DZOOM** : Digital P/T/Z are used to create a zoom lens effect. Zoom Factor (1X to 4X), Pan (±100%, center of image can be moved to left and right edges of screen), Tilt (±100%, center of image can be moved to top and bottom edges of screen)

```
                 DZOOM
   ▶ ZOOM    1    1 ▬▬▬▬▬ 4
     PAN     0  -100 ▬▬▬▬▬ 100
     TILT    0  -100 ▬▬▬▬▬ 100
     PREVIOUS PAGE..
```

● **MOTION** : This product has a feature that allows you to observe movements of objects in on the screen, 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 colour.

```
           MOTION DETECTION
   ▶ ACTIVITY THR.   ▬▬▬▬▬
                    0    25   255
     MESSAGE TIME    ▬▬▬▬▬
                    1    3    10
     SETUP MOTION ZONE..

     PREVIOUS PAGE..
```

```
          MOTION ZONE SETUP
```

・White : MOTION ZONE Position movement
  Green : MOTION ZONE Size enlargement
  Red   : MOTION ZONE Size reduction
・For MOTION ZONE Confirm, long press SET button

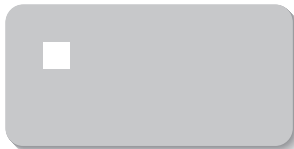● **PRIVACY MASK** : Hide an area you want to hide on the screen.

```
          PRIVACY MASK SETUP
   ▶ PRIVACY MASK        OFF
     MASK COLOR          WHITE
     PREVIOUS PAGE..
```
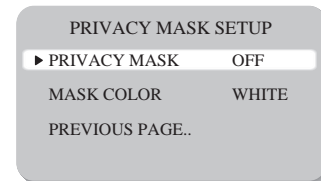
■ How to Use the Camera

```
ENABLE MASKS (1 to 6)
▶ MASK 1          ON
  MASK 2          OFF
  MASK 3          OFF
  MASK 4          OFF
  MASK 5          OFF
  MASK 6          OFF
  PREV.  NEXT.
```

```
ENABLE MASKS (7 to 12)
▶ MASK 7          OFF
  MASK 8          OFF
  MASK 9          OFF
  MASK 10         OFF
  MASK 11         OFF
  MASK 12         OFF
  PREVIOUS PAGE..
```

· White : PRIVACY-ZONE
          Position movement
  Blue : PRIVACY-ZONE Size
          enlargement or reduction
· For PRIVACY-ZONE Confirm,
  long press SET button

● **SYNC** : Two synchronisation modes are available, INTERNAL and
EXTERNAL LINELOCK. In LINE-LOCK mode, it synchronises the
video signal between cameras without a synchronous generator.
The line-lock synchronisation is only used in areas of 60Hz (NTSC)
/ 50Hz (PAL).

- INT : Internal synchronisation
- LL : External line-lock synchronisation
  · If 'LL' is selected, it can be adjusted to the desired phase.
    Press the SET button.

```
          LINE LOCK
▶ V PHASE      ----------
               0    299   624
  PREVIOUS PAGE..
```
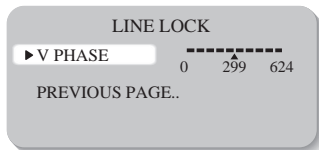
· Adjust to the desired phase from 0 to 624.

● **RESET** : Resets the camera.

EXIT MENU.

```
          EXIT MENU
▶ VERSION :        7.3.2-7.0.281
  SAVE&EXIT
  DEFAULT
  CANCEL
```
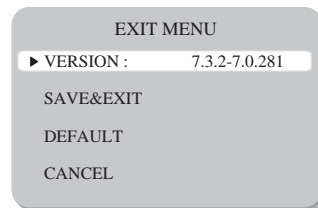
● **VERSION** : 7.3.2-7.0.281
● **SAVE&EXIT** : Saves all the setting menus and then exits.
● **DEFAULT** : Resets the camera settings to the factory defaults.
● **CANCEL** : Cancel to the camera settings.

■ Troubleshooting

If there are problems with the camera operation, check the tables below.
If the problem persists, please contact the agent who supplied the product.

Problems	Troubleshooting
Nothing appears on the screen.	· Check the power connection. · Check the video signal line connection.

The video image is not clear.	· Make sure that the lens is clean.
	  Clean the lens with a clean lint free cloth
	  or brush.
	· Adjust the contrast control on the monitor.
	· Make sure that the screen is not exposed
	  directly to a bright light.
	  Re-position the camera if necessary.
	· Re-adjust the back focus of the camera.

The screen is dark.	· Adjust the contrast control of the monitor.
	· If there is an intermediate device, set the
	  75ohm Hi-z correctly, and also check the
	  connections.
	· Check if an auto iris lens is being used and
	  if necessary adjust the brightness level.

There is a problem with the camera operation. The camera surface is too hot and black stripes appear on the screen.	· Please check if an appropriate power source
	  to the camera complies with the manufacturer's
	  standard requirement, or if the voltage is
	  fluctuating. Check for ground loops.

Problems	Troubleshooting
The MOTION DETECTION function is not working.	· Check if 'MOTION DETECTION' mode is turned on. · Check the setting of the MD AREA.
Colors are not quite right.	· Check the 'WHITE BAL' setting.

The screen is flickering.	· Check if the camera is facing directly into
	  sunlight or fluorescent light.
	· Check if an auto iris lens is being used.
	· Check the connection of the lens connector
	  cable.

L/L mode isn't able to be selected.	· Have you connected your camera to DC power source? Connect it to AC power source.
L/L mode is not available.	· Check the frequency of power supply (60Hz for NTSC, 50Hz for PAL).
SENS-UP function is not working.	· Check if the AGC menu is set to the OFF position.

ITEM	SPEC.
Power Consumption	170mA (AC24V) / 250mA (DC12V) 160mA (DC12V Only)
Image Sensor	PIXIM 1/3" High Sensitivity Digital Sensor
Signal processing	17-bit Digital Signal Processing
Transfer Format	Progressive with Segmented Frames
Sync. System	Internal / Line Lock
Effective Pixels	758(H) x 540(V)
Dynamic Range	120dB(Max), 102dB(Typical)
Horizontal Resolution	690TVL Effective
Min. Illumination	0.1Lux
Day & Night	AUTO / COLOR / B/W
White Balance	ATW / AWB / INDOOR / OUTDOOR / MANUAL
WB Range	2000˚K~11,000˚K
Shutter Speed	up to 1/30, 720 sec
Sens-up	AUTO / OFF (Selectable x2 ~ x32)
Privacy Masking	12 Zones
AGC	OFF / LOW / MEDIUM / HIGH
Image Flip	OFF / HORIZ / VERT / BOTH
Camera ID	ON / OFF
S/N Ratio	More than 50dB
Video Output	Composite video output 75 ohm terminated
OSD	Built-in
Iris Control	DC / VIDEO
Operating Humidity	30% ~ 90% RH
Operating Temp.	-10˚C to 50˚
Weight	Appro. 260g

※ **POWER OPTION - DC12V Only : DN83SPX/12**

■ MEMO

![Genie CCTV logo]

PIXIM Digital Day/Night Bodied Camera

Instruction Guide

![Genie CCTV logo]

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