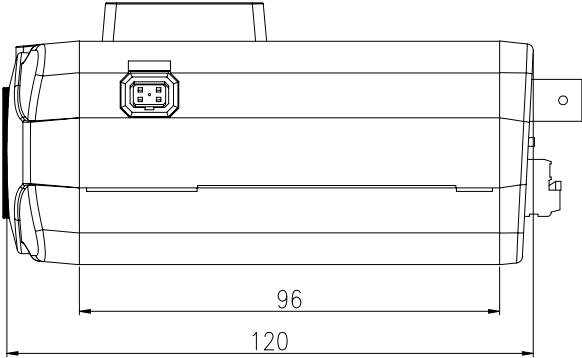
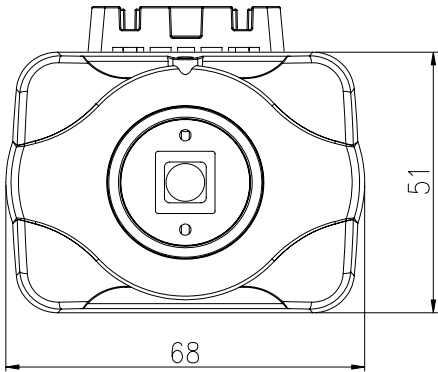
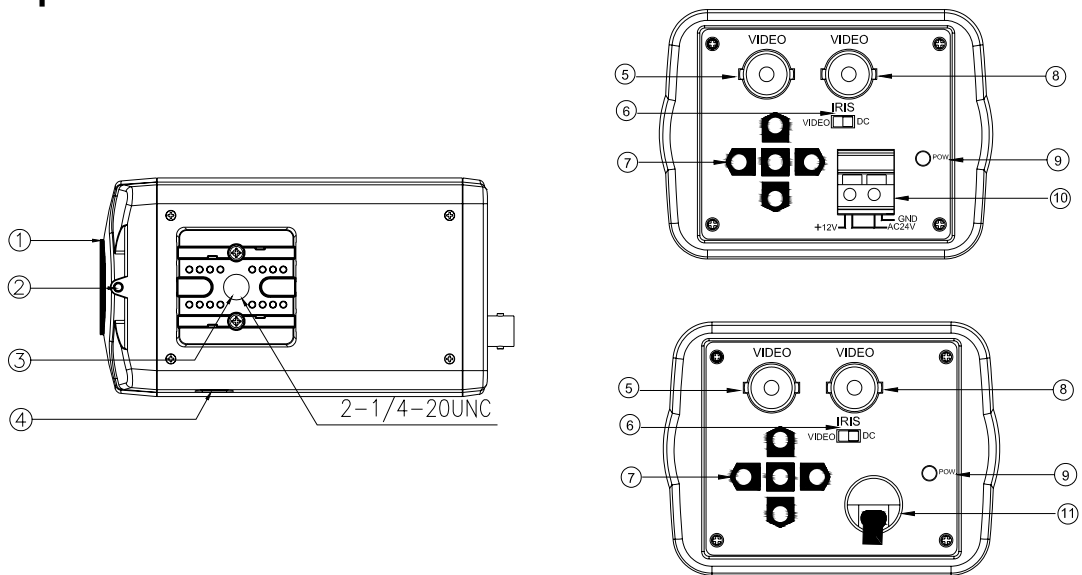


EffioE-760Hcs & EffioE-960Hcs



Description of Camera Parts



Lens Mount

This mount is used to install a CS-mount lens. C-Spacer ring is required when using a C mount lens.

Camera Mounting Screw Holes

Screw hole for mounting the camera.

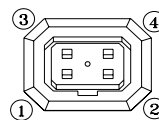
Mount Adaptor

The adaptor can be attached onto the top or the bottom of the unit.

Auto Iris Lens Connector (4-pin type)

The lens connector supplies the auto-iris lens (not supplied) with DC control signal.

PIN NO.	VIDEO	DC
1	DC + 12V	CONTROL -
2	NC	CONTROL +
3	IRIS	DRIVE +
4	GND	DRIVE -



Video Connector

Connect to the long-term video monitor. (75Ω)

Iris Mode Selection Switch

Select DC or VIDEO mode according to the lens.

OSD Control Buttons

ENTER button

UP & DOWN buttons

LEFT & RIGHT buttons

Secondary Video Connector

Connect to the portable LCD for viewing on the spot. Designed for quick installation use. (75Ω)

Power Input Indicator Light

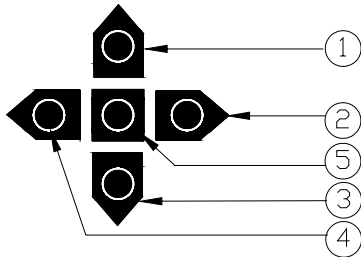
When the camera is connected to a power supply, the indicator light will be on.

Power Input Terminal

Connect to the power supply of 12 VDC Regulated / 24 vac.

OSD Operation

3.1 OSD Control Buttons



① **UP**

Use this button to move the cursor upwards to the desired item.

② **RIGHT**

Use this button to move the cursor to the right to select or to adjust the parameters of the selected item. The parameter increases when the right button is pressed.

③ **DOWN**

Use this button to move the cursor downwards to the desired item.

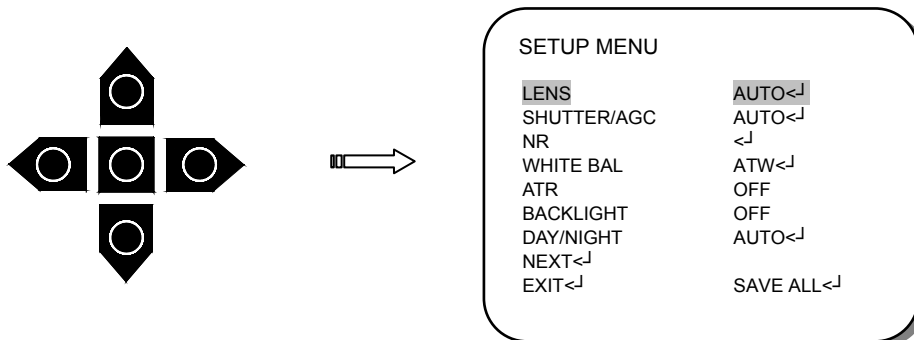
④ **LEFT**

Use this button to move the cursor to the left to select or to adjust the parameters of the selected item. The parameter decreases when the left button is pressed.

⑤ **ENTER**

Use this button to display the main menu, to confirm and to enter the submenus when they're available. Items with the symbol "↵" in the end contain sub-menus. For further settings of those items, select the desired item with the button ▲ or ▼ and press the ENTER button to bring up the sub-menu and edit.

3.2 OSD Operation



1. Start to operate the OSD menu

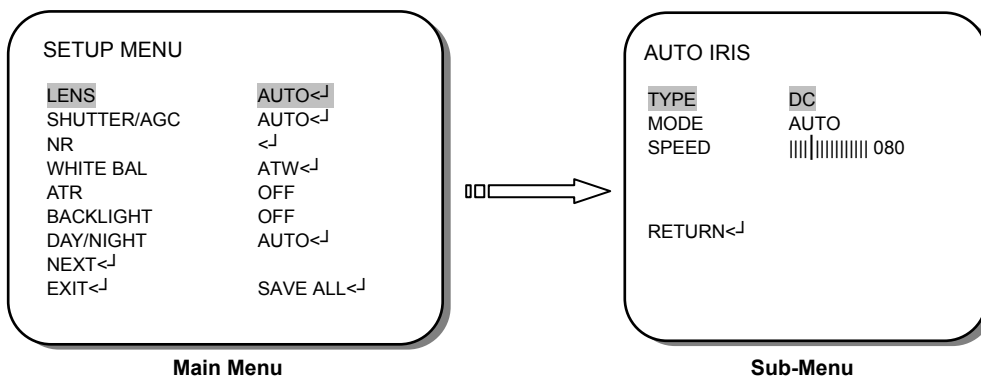
Press the **ENTER** button to bring up the OSD main menu to start operating OSD menus.

2. Select items with the cursor buttons

- Use buttons ▲ and ▼ to move the cursor up and down.
- Use buttons ◀ and ▶ to switch the modes or to adjust the parameters or the values of the settings.

3. Switch to the sub-menu

Items with the symbol “<J” in the end contain sub-menus. For further settings of those items, select the desired item with the button ▲ or ▼ and press the **ENTER** button to bring up the sub-menu and edit.



4. Return to the previous page

Select **RETURN** and press the **ENTER** button to return to the previous page.

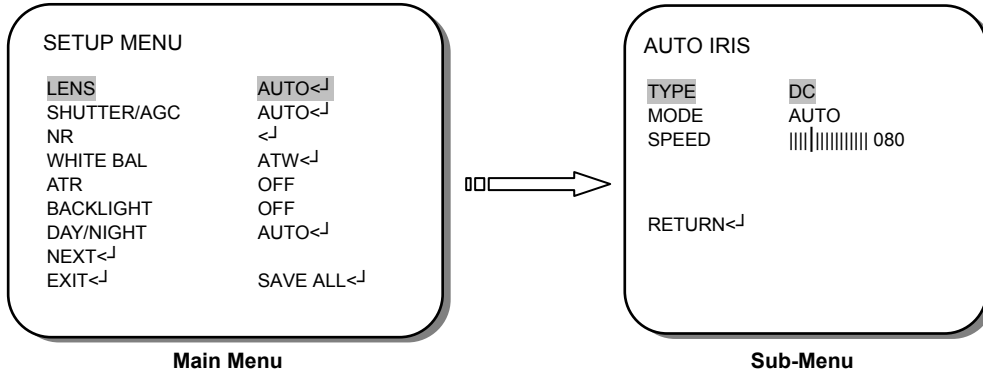
5. Exit the OSD menu

Select **EXIT** with the button ▲ or ▼ and press the **ENTER** button to exit the OSD menu.

Configuration

4.1 LENS

When the **SETUP MENU** is displayed on the screen, use buttons ▲ and ▼ to select the **LENS** and press the **ENTER** button to do further settings.



Select to set the mechanical iris of the lens.

Function	Option
LENS	MANUAL AUTO<↵

- **MANUAL**

Auto electronic shutter

- **AUTO<↵**

Auto electronic shutter + Mechanical auto IRIS

When **AUTO<↵** is selected, click **ENTER** to bring up the **AUTO IRIS** sub-menu for further settings.

4.1.1 AUTO IRIS

Adjust the settings of the **AUTO IRIS**.

Function	Option
TYPE	DC VIDEO
MODE	OPEN CLOSE AUTO
SPEED	000 – 255

- **TYPE**

Select to set the type of the mechanical iris.

- **DC**: DC Lens.
- **VIDEO**: VIDEO Lens.

- **MODE**

Select to set the type of control to be exercised over the mechanical iris.

- **OPEN**: The mechanical iris is fixed to open.
- **CLOSE**: The mechanical iris is fixed to close.
- **AUTO**: The mechanical iris is controlled automatically.

- **SPEED**

Select to set the convergence speed of the mechanical iris.

4.2 SHUTTER/AGC

When the **SETUP MENU** is displayed on the screen, use buttons ▲ and ▼ to select the **SHUTTER/AGC** and press the **ENTER** button to do further settings.

SETUP MENU	
LENS	AUTO<↵
SHUTTER/AGC	AUTO<↵
NR	<↵
WHITE BAL	ATW<↵
ATR	OFF
BACKLIGHT	OFF
DAY/NIGHT	AUTO<↵
NEXT<↵	
EXIT<↵	SAVE ALL<↵

Select to set Auto exposure or Manual exposure.

Function	Option
SHUTTER/AGC	AUTO<↵ MANUAL<↵

- **AUTO<↵**:
When **AUTO<↵** is selected, click **ENTER** to bring up the **AUTO SETUP** sub-menu for further settings.
- **MANUAL<↵**:
When **MANUAL<↵** is selected, click **ENTER** to bring up the **MANUAL SETUP** sub-menu for further settings.

4.2.1 AUTO SETUP

Adjust the settings of the **AUTO SETUP**.

Function	Option	Option
HIGH LUMINANCE	MODE	SHUT+AUTO IRIS AUTO IRIS *
	BRIGHTNESS	000 – 255
LOW LUMINANCE	MODE	OFF AGC
	BRIGHTNESS	x0.25 ; x0.50 ; x0.75 ; x1.00

- **HIGH LUMINANCE**

- **MODE**

Select to specify AE control on the medium- and high-brightness side.

SHUT + AUTO IRIS: Auto electronic shutter + Mechanical auto IRIS

AUTO IRIS: Shutter fix + Mechanical auto IRIS

NOTE:

If **MANUAL** has been selected as the **LENS** function setting, **SHUT** will be displayed, and the settings made in this section will not take effect.

- **BRIGHTNESS**

Select to specify the high- and medium-brightness side reference.

The brightness changes depending on whether the **ATR** function is **ON** or **OFF**, and whether the **CRS** mode has been selected as the **AWB** function.

Please note that the brightness will change when **ATR** or **WHITE BAL** is set to **ANTI CR** (CRS mode), etc., after **BRIGHTNESS** has been set.

• **LOW LUMINANCE**

- **MODE**

Select to specify AE control on the low-brightness side.

OFF: OFF

AGC: Auto gain control

- **BRIGHTNESS**

Select to specify the low-brightness side reference.

4.2.2 MANUAL SETUP

Adjust the settings of the **MANUAL SETUP**.

Function	Option
MODE	SHUT+ AGC
SHUTTER	1/60* ; 1/100* ; 1/250 ; 1/500 ; 1/1000 ; 1/2000 ; 1/4000 ; 1/10000
AGC	6.00 ; 12.00 ; 18.00 ; 24.00 ; 30.00 ; 36.00 ; 42.00 ; 44.80

• **MODE**

"**SHUT+AGC**" is the only option available for the ME operation mode. There are no other options.

• **SHUTTER**

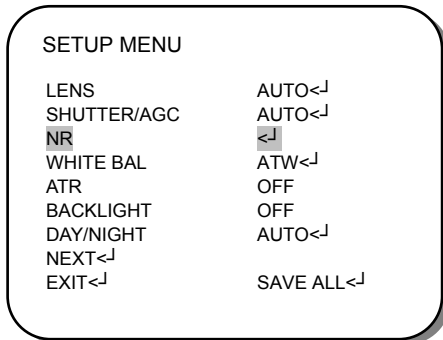
Select to set the ME shutter speed (in fractions of a second).

• **AGC**

Select to set the **AGC** value for ME.

4.3 NR

This item is used to set the noise reduction.



Select to bring up the **NR** sub-menu for further settings.

Function	Option
NR MODE	OFF Y C Y/C
Y LEVEL	000-015
C LEVEL	000-015

- **NR MODE**

Select to set the 2D NR filter mode.

- **OFF**: Y and C filters OFF
- **Y**: Y filter ON
- **C**: C filter ON
- **Y/C**: Y and C filters ON

- **Y LEVEL**

Select to set the Y filter strength.

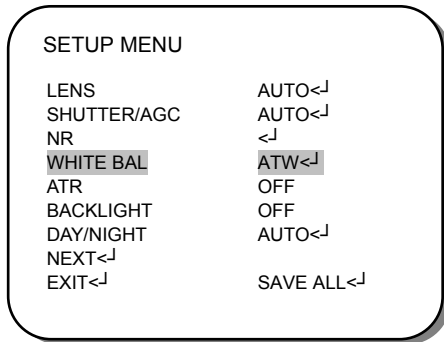
- **C LEVEL**

Select to set the C filter strength.

4.4 WHITE BAL (White Balance)

The screen color can be adjusted by using the **WHITE BAL** function.

1. Please use the ▲ and ▼ buttons to **WHITE BAL** on the **SETUP MENU** and press the **ENTER** button to do further settings.
2. Please select the desired item and press ◀ and ▶ buttons to adjust the settings.



Select to set the white balance Mode.

Function	Option
WHITE BAL	ATW PUSH USER1 USER2 ANTI CR MANUAL PUSH LOCK

- **ATW (Auto Trace White balance)**
When **ATW<J** is selected, click **ENTER** to bring up the **ATW** sub-menu for further settings.
- **PUSH: All pull-in**
Select to set the white balance mode to the **PUSH** mode.
- **USER1: Fluorescent light fixed gain (3200K)**
When **USER1<J** is selected, click **ENTER** to bring up the **USER1 WB** sub-menu for further settings.
- **USER2: Outdoor fixed gain (6300K)**
When **USER2<J** is selected, click **ENTER** to bring up the **USER2 WB** sub-menu for further settings.
- **ANTI CR: Color rolling suppression**
Select to set the white balance mode to the **ANTI CR** mode.
- **MANUAL: Manual white balance**
When **MANUAL<J** is selected, click **ENTER** to bring up the **MANUAL WB** sub-menu for further settings.

- **PUSH LOCK**

Select to set the white balance mode to the **PUSH LOCK** mode.

4.4.1 ATW (Auto Trace White Balance)

Adjust the settings of the **ATW**.

Function	Option
SPEED	000-255
DELAY CNT	000-255
ATW FRAME	x0.50 ; x1.00 ; x1.50 ; x2.00
ENVIROMENT	INDOOR ; OUTDOOR

- **SPEED**

Select to adjust the pull-in speed of ATW.

- **DELAY CNT**

Select to set the time-based hysteresis of ATW.

- **ATW FRAME**

Select to set the pull-in frame magnification.

- **ENVIROMENT**

Select to set the pull-in frame (indoor/outdoor) of ATW.

4.4.2 PUSH

Select to allow the camera automatically adjust the white balance under all conditions.

4.4.3 USER1

The gain values for the fluorescent light fixed mode are used as the adjustment items of **USER1 WB** on the internal OSD menu.

Function	Option
B-GAIN	000-255
R-GAIN	000-255

- **B-GAIN**

Used for operating the B gain in the WB fixed gain mode.

- **R-GAIN**

Used for operating the R gain in the WB fixed gain mode.

4.4.4 USER2

The gain values for the outdoor fixed mode are used as the adjustment items of **USER2 WB** on the internal OSD menu.

Function	Option
B-GAIN	000-255
R-GAIN	000-255

- **B-GAIN**
Used for operating the B gain in the WB fixed gain mode.
- **R-GAIN**
Used for operating the R gain in the WB fixed gain mode.

4.4.5 MANUAL WB (Manual White Balance)

The B and R gain values for manual WB are set on this screen.

Function	Option
LEVEL	000-255

- **LEVEL**
Select to set the B and R gain values for **MANUAL WB**.
By incrementing or decrementing the B gain value, the R gain value is also adjusted in tandem.

NOTE:

The actual variable range is limited to the range from the low color temperature (approx. 1800K) to the high color temperature (approx. 10500K) stored when the pre-white balance was adjusted.

4.4.6 PUSH LOCK

To find the optimal setting for the current luminance environment in this mode, point the camera towards a sheet of white paper and press the **ENTER** button.

Whenever the condition changes, readjust it.

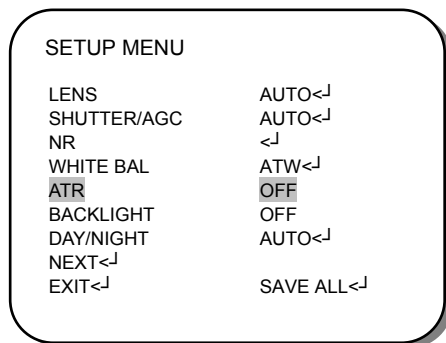
ATTENTION:

The white balance can not fully function under the following conditions. Please select **PUSH LOCK** Mode when the following occurred.

- < When there's a higher temperature surrounded the object.
- < When there's darkness surrounded the object.
- < When there's a fluorescent light surrounded the object or where the light changes all the time.

4.5 ATR

This item is used to set the Day/Night function.



Select to set **ATR** to **OFF** or **ON**.

Function	Option
LUMINANCE	LOW MID HIGH
CONTRAST	LOW MIDLOW MID MIDHIGH HIGH

- **OFF**
ATR OFF
- **ON**
ATR ON

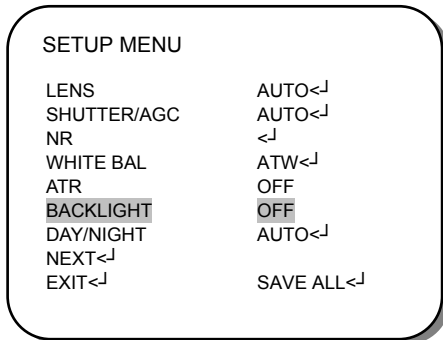
When **ON<⏎>** is selected, click **ENTER** to bring up the **ATR** sub-menu for further settings.

4.5.1 ATR ON

- **LUMINANCE**
Select to set the extent of the luminance compression.
- **CONTRAST**
Select to set the extent of the contrast enhancement.

4.6 BACKLIGHT

This item is used to set the backlight compensation operation.



Select to set **BACKLIGHT** to **OFF**, **BLC** or **HLC**.

Function	Option
BACKLIGHT	OFF BLC HLC

- **OFF**
Backlight compensation OFF.
- **BLC**
Backlight compensation ON.
- **HLC**
HLC(Headlight compensation) function ON.

4.7 DAY/NIGHT

This item is used to set the Day/Night function.

SETUP MENU	
LENS	AUTO<↓
SHUTTER/AGC	AUTO<↓
NR	<↓
WHITE BAL	ATW<↓
ATR	OFF
BACKLIGHT	OFF
DAY/NIGHT	AUTO<↓
NEXT<↓	
EXIT<↓	SAVE ALL<↓

Select to set **DAY/NIGHT** to **AUTO**, **COLOR** or **B/W**.

Function	Option
DAY/NIGHT	AUTO<↓ COLOR B/W

- **AUTO**

Day or Night is automatically identified and controlled accordingly.

When **AUTO<↓** is selected, click **ENTER** to bring up the **DAY/NIGHT** sub-menu for further settings.

- **COLOR**

The Day/Night function is set to **OFF**.

- **B/W**

The NIGHT mode is established forcibly, and chroma is set to **OFF**.

When **B/W<↓** is selected, click **ENTER** to bring up the **B/W** sub-menu for further settings.

4.7.1 B/W

Adjust the settings of **B/W**.

Function	Option
BURST	ON OFF

Select to set whether to output the burst signal when the B/W (NIGHT mode established forcibly) status has been identified.

- **ON**

Burst signal ON

- **OFF**

Burst signal OFF

4.7.2 DAY/NIGHT **unsupported function**

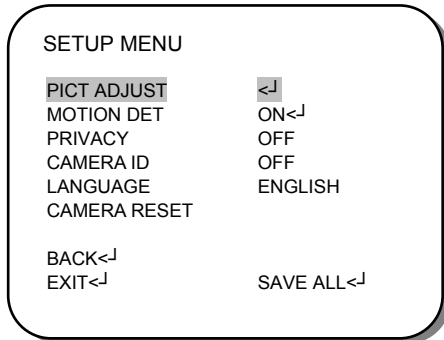
Adjust the settings of **DAY/NIGHT**.

Function	Option
BURST	ON OFF
DELAY CNT	000-255
DAY->NIGHT	000-255
NIGHT->DAY	000-255

- **BURST**
Select to set whether to output the burst signal when the Night status has been identified.
 - **ON**: Burst signal ON
 - **OFF**: Burst signal OFF
- **DELAY CNT**
Select to set the Night/Day identification transfer time.
- **DAY->NIGHT**
Select to set the threshold for identifying the Night status from the Day status.
- **NIGHT->DAY**
Select to set the threshold for identifying the Day status from the Night status.

4.8 PICT ADJUST

This item is used to set the PICT ADJUST function.



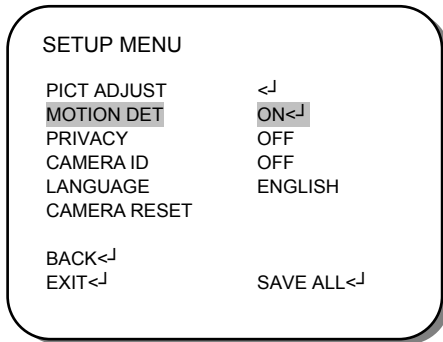
Select to bring up the **PICT ADJUST** sub-menu for further settings.

Function	Option
MIRROR	OFF ON
BRIGHTNESS	000-255
CONTRAST	000-255
SHARPNESS	000-255
HUE	000-255
GAIN	000-255

- **MIRROR**
Select to set the horizontal flip for the display output.
 - **OFF**: Normal output
 - **ON**: Horizontally flipped output
- **BRIGHTNESS**
Select to set the screen brightness.
- **CONTRAST**
Select to set the screen contrast.
- **SHARPNESS**
Select to set the screen sharpness.
- **HUE**
Select to adjust the hue.
- **GAIN**
Select to adjust the color gain.

4.9 MOTION DET (Motion Detection) **unsupported function**

This item is used to set the Motion Detection function.



Select to set motion detection to **OFF** or **ON**.

Function	Option
MOTION DET	OFF ON<J

- **OFF**

Motion detection OFF

- **ON**

Motion detection ON

When **ON<J** is selected, click **ENTER** to bring up the **MOTION DET** sub-menu for further settings.

4.9.1 MOTION DET ON

Adjust the settings of **MOTION DET**.

Function	Option
DETECT SENSE	000-127
BLOCK DISP	OFF ON ENABLE
MONITOR AREA	OFF ON
AREA SEL	1/4 ; 2/4 ; 3/4 ; 4/4
TOP	000-244
BOTTOM	000-244
LEFT	000-474
RIGHT	000-474

- **DETECT SENSE**

Select to set the motion detection sensitivity.

- **BLOCK DISP**

Select to control the ON/OFF status of the motion detection block display.

- **OFF**: No display
- **ON**: Luminance highlighted

- **MONITOR AREA**

Select to set whether to use the monitoring frames.

- **OFF**: The monitoring frames are not used.
- **ON**: The monitoring frames are used.

- **AREA SEL**

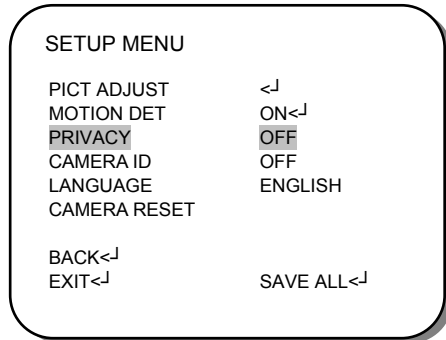
Select to define the monitoring frame to be set.

- **TOP/BOTTOM/LEFT/RIGHT**

Select to set the monitoring frame selected with the AREA SEL function.

4.10 PRIVACY unsupported function

This item is used to set up to eight privacy masks. When monitoring frames are used for motion detection, the maximum number of masks which can be used is four.



Select to set the masks to **OFF** or **ON**.

Function	Option
PRIVACY	OFF ON<J

When **ON<J** is selected, click **ENTER** to bring up the **PRIVACY** sub-menu for further settings.

4.10.1 PRIVACY ON

Adjust the settings of **PRIVACY**.

Function	Option
AREA SEL	1/8 ; 2/8 ; 3/8 ; 4/8 ; 5/8 ; 6/8 ; 7/8 ; 8/8 *
TOP	000-244 (NTSC) ; 000-288 (PAL)
BOTTOM	000-244 (NTSC) ; 000-288 (PAL)
LEFT	000-251(510H)/378(760H)/474(960H)(NTSC) ; 000-246(510H)/370(760H)/468(960H)(PAL)
RIGHT	000-251(510H)/378(760H)/474(960H)(NTSC) ; 000-246(510H)/370(760H)/468(960H) (PAL)
COLOR	1-8
TRANSP	0.00 ; 0.50 ; 0.75 ; 1.00
MOSAIC	OFF ON

- **AREA SEL**

Select to set the mask frame to be adjusted.

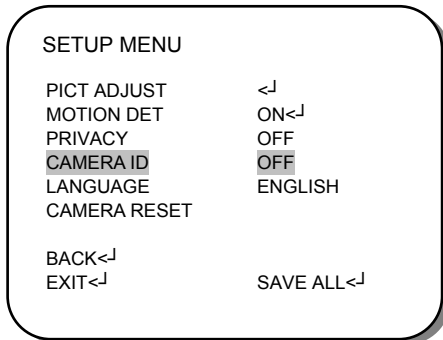
NOTE:

When **MONITOR AREA** has been set to **ON** by the **MOTION DET** setting, only four frames--1/4, 2/4, 3/4 and 4/4—can be selected. To activate all the eight frames, please set **MONITOR AREA** to OFF. Please refer to 4.9 for details.

- **TOP/BOTTOM/LEFT/RIGHT**
Select to set the mask frame selected by the AREA SEL parameter.
- **COLOR**
Select to set the colors of the mask frames.
- **TRANSP**
Select to set the transparency ratio of the mask frames.
- **MOSAIC**
Select to set the mask frame mosaic function to ON or OFF.
 - **OFF**: Mosaic function OFF
 - **ON**: Mosaic function ON

4.11 CAMERA ID

This item is used to set the camera ID.



Select to set the camera ID to OFF or ON.

Function	Option
CAMERA ID	OFF ON<J

- **OFF**

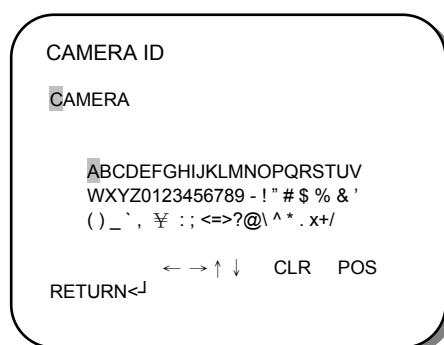
Camera ID display OFF

- **ON**

Camera ID display ON

When the **ON<J** is selected, click **ENTER** to bring up the **CAMERA ID** sub-menu for further settings.

4.11.1 CAMERA ID ON



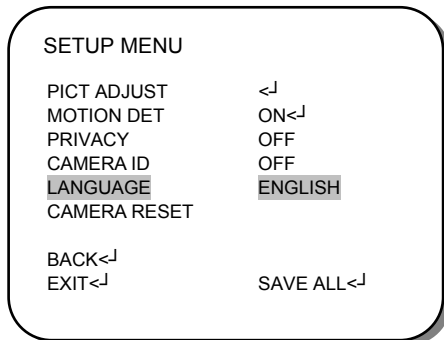
- **← → ↑ ↓**

Select **←**, **→**, **↑** or **↓** with the character selection cursor, and click the **ENTER** button to move the cursor in the direction of the arrow.

- **CLR**
Select to clear one letter of the input.
- **POS**
Adjust the position of the camera ID.

4.12 LANGUAGE

This item is used to select the language in which to display the internal OSD menu.



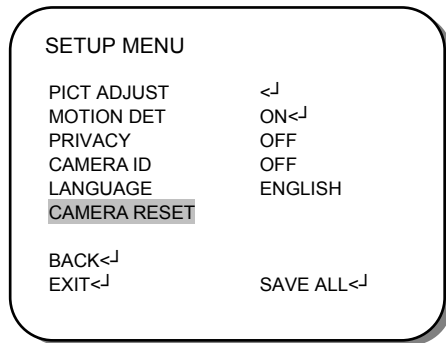
Select to set the language displayed in the OSD menus.

The menus will be changed to the selected language in real time.

Function	Option
LANGUAGE	ENGLISH 日本語 DEUTSCH FRANCAIS РУССКИЙ PORTUGUÊS ESPAÑOL

4.13 CAMERA RESET

Click to restore all the settings to the default values.



4.14 SAVE ALL

Click to save all the settings made.

NOTE:

There will be no prompt windows while the settings are being saved.

4.15 EXIT

Click to exit the OSD menu.

NOTE:

Before exit the OSD menu, please click **SAVE ALL<J** to save all the settings made. Fail to do that, all the settings will not take effect once the power is reconnected.