OSD Manual

For EFFIO Cameras

1. MENU Tree

LENS	MANUAL / AUTO	TYPE	DC
		MODE	OPEN / CLOSE / AUTO
		SPEED	000 – 255
		RETURN	

SHUTTER/AGC	AUTO	HIGH LUMINANCE	
		MODE	AUTO IRIS / SHUT+DC IRIS / SHUT
		BRIGHTNESS	000 – 255
		LOW LUMINANCE	
		MODE	OFF / AGC
		BRIGHTNESS	x0.25 / x0.50 / x0.75 / x1.00
		RETURN	
	MANUAL	MODE	SHUT+AGC
		SHUTTER	1/50(1/60), 1/100(1/120), 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
		RETURN	

WHITE BAL	ATW	SPEED	000-255
		DELAY CNT	000-255
		ATW FRAME	x0.50 , x1.00, x1.50, x2.00
		ENVIROMENT	INDOOR / OUTDOOR
		RETURN	
	PUSH		
	USER1	B-GAIN	000-255
		R-GAIN	000-255
		RETURN	
	USER2	B-GAIN	000-255
		R-GAIN	000-255
		RETURN	
	ANTI CR		
	MANUAL	LEVEL	10-49
		RETURN	
	PUSH LOCK		

BACKLIGHT	OFF / BLC / HLC

PICT ADJUST	MIRROR	OFF / ON
	BRIGHTNESS	000-255
	CONTRAST	000-255
	SHARPNESS	000-255
	HUE	000-255
	GAIN	000-255
	RETURN	

ATR	ON	LUMINANCE	LOW / MID / HIGH
		CONTRAST	LOW / MIDLOW / MID / MIDHIGH / HIGH
		RETURN	
	OFF		

PRIVACY	ON	AREA SEL	1/4, 2/4, 3/4, 4/4
		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	ON / OFF
		RETURN	
	OFF		

DAY/NIGHT	AUTO	BURST	ON / OFF
		DELAY CNT	000-255
		DAY NIGHT	000-255
		NIGHT DAY	000-255
		RETURN	
	COLOR		
	B/W	ON / OFF

NR	NR MODE	OFF, Y, C, Y/C
	Y LEVEL	000-015
	C LEVEL	000-015
	RETURN	

CAMERA ID	ON	Font / ←→↑↓ / CLR / POS
	OFF	

LANGUAGE	ENGLISH / 日本語 / DEUTSCH / FRANCAIS / PYCCKИЙ / PORTUGUÊS / ESPAÑOL

CAMERA RESET

| SAVE ALL |
| --- |

2. Setting up the menu

Various Settings can be made depending on the model numbers.
The configuration is as follows.

- A tactile switch on the unit and RS-485 Interface
- A tactile switch on the unit only
- RS-485 Interface only

1. Press the Tactile switch(SET button) to access the MENU mode.
   The SETUP menu appears on the monitor.
2. Select any function you wish to activate by using the UP/DOWN selections.
   ● The cursor can be moved up or down by using the UP/DOWN selections.
     Position the cursor to the function you wish to operate.

```
SETUP    MENU

LENS             AUTO
SHUTTER / AGC    AUTO
WHITE BAL        ATW
BACKLIGHT        OFF
PICT ADJUST
ATR              OFF
NEXT
EXIT             AVE ALL
```

UP
MENU (PUSH)
LEFT
RIGHT
DOWN
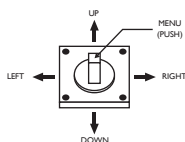
How to use Tactile Switch on the unit
●Press
 - to enter the menu
 - to save settings
●Push up or down
 - to select functions
●Push left or right
 - to adjust levels

How to use OSD Remote Control (Option)
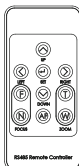
●Set button
 - to enter the menu
 - to save settings
●Up or Down button
 - to select functions
●Left or Right button
 - to adjust levels

RS485 Remote Controller

Focus/ AF/ Zoom buttons on the packaged controller are not functional with this unit.

3. Change the levels by using the LEFT/RIGHT selections.
   ● When you choose the LEFT or RIGHT selection, available values and modes appear in order.

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4. When completed, position the cursor to 'SAVE ALL' and press the Tactile switch(SET button) to
   finish the settings.
   ● All setting values are not retained if you don't set SAVE ALL when the power is turned off.

5. Select EXIT to finish the control.

WARNING
If OSD MENU is unresponsive, exit OSD MENU and try it again. ☞ NOTE
※ If appears on the mode you wish to operate, it means that there is a sub-menu.

3. LENS

Select the lens and adjust the SETUP suitable to the type of lens.

NOTE
- Lens setup is in Box cameras only.
- Regarding the others, this lens setup is fixed according to the lens specification of the camera.

● IR Cameras have no LENS OSD options, and has only AUTO IRIS mode. You cannot enable manual
  IRIS mode.
● (Non-IR) Dome/Bullet Cameras have AUTO IRIS or SHUT+AUTO IRIS modes.

(1) When DC Iris Lens is used.
1-1. Select the lens mode to <AUTO>.
1-2. If <MANUAL> is displayed, change the sub-menu to <AUTO>.
1-3. Press the Tactile SW(SET button).
1-4. TYPE is fixed to <DC>.
   - No VIDEO Iris lens supported.
1-5. MODE is composed of OPEN, CLOSE, and AUTO(Default : AUTO).
   - OPEN : Iris opens completely.
     (When SHUTTER / AGC is set to AUTO)
   - CLOSE : Iris is completely closed.
   - AUTO : Iris is adjusted automatically.
1-6. SPEED is activated when MODE is set to AUTO and you can
   adjust the speed of Iris open/close. (Default : 63)
   If there is blinking when lens is connected, avoid the blinking by
   adjusting the value of SPEED.
1-7. Select RETURN to finish all settings.
1-8. Select SAVE ALL to save all settings.
1-9. Select EXIT to finish the control.

```
SETUP    MENU

LENS             AUTO
SHUTTER / AGC    AUTO
WHITE BAL        ATW
BACKLIGHT        OFF
PICT ADJUST
ATR              OFF
NEXT
EXIT             AVE ALL
```

```
AUTO IRIS

TYPE             DC
MODE             AUTO
SPEED         ━┿━ 63

RETURN
```

(2) When MANUAL Iris Lens is used.
2-1. Select the lens mode to MANUAL.
2-2. If <AUTO> is displayed, convert the sub-menu to <MANUAL>.
2-3. Select SAVE ALL to save all settings.
2-4. Select EXIT to finish the control.

NOTE
This table shows how SUB MENU of SHUTTER / AGC is activated in
LENS of MAIN MENU.
When using a DC Iris lens, select AUTO on the menu.
When using a Manual Iris lens, select MANUAL on the menu.
Please refer to 4. SHUTTER/ AGC.

```
SETUP   MENU

LENS              MANUAL
SHUTTER / AGC     AUTO
WHITE BAL         ATW
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF
NEXT
EXIT              AVE ALL
```

LENS	SHUTTER / AGC	
AUTO	AUTO	AUTO IRIS
		SHUT + AUTO IRIS
	MANUAL	SHUT + AGC
MANUAL	AUTO	SHUT
	MANUAL	SHUT + AGC

4. SHUTTER / AGC (Condition and Speed control / automatic gain control)

1. It is selectable to AUTO or MANUAL control.
2. Position the cursor to 'SHUTTER / AGC' by using the UP/DOWN selections.
3. Select the SHUTTER / AGC mode by using the LEFT or RIGHT selection.

NOTE
Shutter/AGC options are different depending on whether it's a Box
Camera, IR camera or Non-IR Dome/Bullet camera. See LENS note
in previous section.

(1) Lens(AUTO) – Shutter/AGC(AUTO)
This mode is optimized when using a DC Iris lens.
1-1. Set LENS to AUTO in SETUP MENU.
1-2. After setting SHUTTER / AGC to AUTO, press the Tactile switch
(SET button).
1-3. AUTO SETUP MENU appears.
1-4. There are MODE and BRIGHTNESS in HIGH LUMINANCE which is
a sub-menu of AUTO SETUP.
- SHUT+AUTO IRIS : AUTO IRIS function is working normally and
shutter speed is adjusted in 1/50 ~ 1/10,000 sec. /50Hz and
1/60 ~ 1/10,000 sec. automatically. (Default : 35)
- AUTO IRIS : AUTO IRIS function is working normally and
shutter speed is fixed to 1/50 sec./50Hz and 1/60 sec./60Hz
1-5. Position the cursor to BRIGHTNESS on HIGH LUMINANCE.
- This adjustment combines changes to GAIN, ATR, WHITE
BALANCE,ANTI CR as well as brightness.

```
SETUP   MENU

LENS              AUTO
SHUTTER / AGC     AUTO
WHITE BAL         ATW
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

```
AUTO   SETUP

HIGH LUMINANCE
MODE             SHUT+AUTO IRIS
BRIGHTNESS            ▬▬ 35

LOW LUMINANCE
MODE             AGC
BRIGHTNESS       X 0.50

RETURN
```

```
AUTO   SETUP

HIGH LUMINANCE
MODE             SHUT+AUTO IRIS
BRIGHTNESS       ◄▬▬► 35

LOW LUMINANCE
MODE             AGC
BRIGHTNESS       X 0.50

RETURN
```

1-6. There are MODE and BRIGHTNESS in LOW LUMINANCE.
AGC and OFF are selectable in MODE. (Default : AGC)
BRIGHTNESS is selectable in x0.25, x0.50, x0.75, x1.00.(Default : x0.50)
In MODE,
- AGC : AGC is set to ON
- OFF : AGC is set to OFF
BRIGHTNESS is activated when you select AGC and 4 step magnification
of BRIGHTNESS helps to adjust the brightness on the screen under the low
light condition.
1-7. Select RETURN to finish all settings.
1-8. Select SAVE ALL to save all settings.
1-9. Select EXIT to finish the control.

(2) Lens(AUTO/ MANUAL) – Shutter/AGC(Manual)
In case that you want to set the value of SHUTTER and AGC by yourself,
these values are reflected regardless of the selected Iris modes of lens.

2-1. Regardless of lens modes, select MANUAL in SHUTTER/AGC.
2-2. MANUAL SETUP pops up.
2-3. There are MODE, SHUTTER, AGC in MANUAL SETUP.
MODE is always fixed to SHUT+AGC.
- SHUTTER : It is selectable to 1/50(1/60), 1/100(1/120), 1/250, 1/500,
1/1000, 1/2000, 1/4000, 1/10000.
50Hz : 1/50, 1/100 (Default : 1/50)
60Hz : 1/60, 1/120 (Default : 1/60)
- AGC : AGC value is selectable in 6.00 /12.00 /18.00 /24.00 /30.00 /
36.00 /42.00 /44.80 when SHUTTER/AGC is set to MANUAL.
If the value is increased, the low light performance gets better
but noise gets up. (Default : 6.00)
2-4. Select RETURN to finish all settings.
2-5. Select SAVE ALL to all settings.
2-6. Select EXIT to finish the control.

(3) Lens(MANUAL) – Shutter/AGC(AUTO)
This mode is for Box Cameras with Manual Iris lens only.

3-1. Set LENS to MANUAL in SETUP MENU.
3-2. After setting SHUTTER/AGC to AUTO, press the Tactile switch(SET button).
3-3. AUTO SETUP pops up.
3-4. There are MODE and BRIGHTNESS in HIGH LUMINANCE which is
a sub-menu of AUTO SETUP. MODE is fixed to SHUT.
- SHUT : SHUTTER SPEED is adjusted in 1/50 ~ 1/10,000 sec./50Hz
and 1/60 ~ 1/10,000 sec./60Hz automatically.
3-5. Position BRIGHTNESS which is a sub-menu of AUTO SETUP.

```
AUTO   SETUP

HIGH LUMINANCE
MODE             SHUT+AUTO IRIS
BRIGHTNESS           ▬■ 35

LOW LUMINANCE
MODE             AGC
BRIGHTNESS       X 0.50

RETURN
```

```
SETUP MENU

LENS              AUTO
SHUTTER / AGC     MANUAL
WHITE BAL         ATW
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

```
MANUAL   SETUP

MODE             SHUT+AGC
SHUTTER          1/60
AGC              6.00

RETURN
```

```
SETUP MENU

LENS              MANUAL
SHUTTER / AGC     AUTO
WHITE BAL         ATW
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

This function makes changing the value of GAIN, ATR,
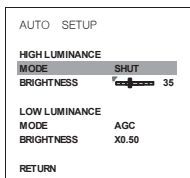WHITE BALANCE, ANTI CR internally as well as the brightness of
the screen simply.
3-6. There are MODE and BRIGHTNESS in LOW LUMINANCE.
    It is selectable to AGC or OFF in MODE. (Default : AGC)
    BRIGHTNESS is selectable in x0.25, x0.50, x0.75, x1.00.
    (Default : x0.50) In MODE,
    - AGC : AGC is set to ON
    - OFF : AGC is set to OFF
    BRIGHTNESS is activated when you select AGC and 4 step magnification of BRIGHTNESS
    helps to adjust the brightness on the screen under the low light condition.
3-7. Select RETURN to finish all settings.
3-8. Select SAVE ALL to save all settings.
3-9. Select EXIT to finish the control.

```
AUTO   SETUP

HIGH LUMINANCE
MODE            SHUT
BRIGHTNESS         35

LOW LUMINANCE
MODE            AGC
BRIGHTNESS      X0.50

RETURN
```

5. WHITE BAL (White Balance Control)

It offers an extensive range of color temperature control that covers from 1,800°K ~ 10,500°K,
generating a natural color image without being too red or blue in varying light conditions.

It is selectable to ATW, PUSH, USER1, USER2, ANTI CR, MANUAL, and PUSH LOCK.

1. Position the cursor to 'WHITE BAL' by using the UP/DOWN selections.
2. Please select the 'WHITE BAL' mode by using the LEFT or RIGHT selection.
   Please select one of 7 modes as below.

(1) ATW (Auto Tracking White Balance)
This mode is generally used, and is by default. It is suitable for viewing
a scene with one or more colors mixed on the background.

1-1. Set WHITE BAL to ATW.
1-2. ATW pops up.
1-3. SPEED : Set up the speed of searching for White Balance in 0~255
    when the Color Temperature is changed.(Default : 239)
1-4. DELAY CNT : If the Color Temperature is changed, it sets up
    the delay time to search for White Balance in 0~255.
    (Default : 016)
1-5. ATW FRAME : X5.0, X1.0, X1.5, X2.0
    Set-up range of ATW is adjustable by increasing or
    decreasing Color Temperature.(Default : X1.0)
1-6. ENVIRONMENT : INDOOR / OUTDOOR (Default : INDOOR)
    - INDOOR : When the unit is installed Indoor, ATW is
      Low Color Temperature (warm).
    - OUTDOOR : When the unit is installed Outdoor,
      ATW is High Color Temperature(cool).
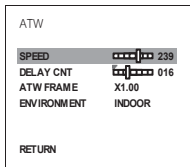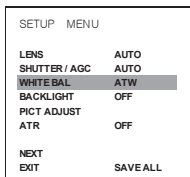
```
SETUP   MENU

LENS            AUTO
SHUTTER / AGC   AUTO
WHITE BAL       ATW
BACKLIGHT       OFF
PICT ADJUST
ATR             OFF

NEXT
EXIT            SAVE ALL
```

```
ATW

SPEED           239
DELAY CNT       016
ATW FRAME       X1.00
ENVIRONMENT     INDOOR

RETURN
```
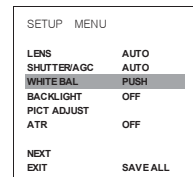
1-7. Select RETURN to finish all settings.
1-8. Select SAVE ALL to save all settings.
1-9. Select EXIT to finish the control.

(2) PUSH
It is suitable when the subject's background is in high color temperature.
(Ex. Clear sky, Sunset etc.)

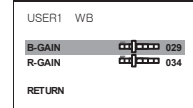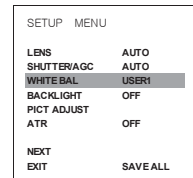※ PUSH is different with PUSH LOCK. Refer to 5. (7) PUSH LOCK.

1-1. Set up PUSH on WHITE BAL of SETUP MENU.
1-2. Select SAVE ALL to save all settings.
1-3. Select EXIT to finish the control.

```
SETUP   MENU

LENS            AUTO
SHUTTER/AGC     AUTO
WHITE BAL       PUSH
BACKLIGHT       OFF
PICT ADJUST
ATR             OFF

NEXT
EXIT            SAVE ALL
```

(3) USER1
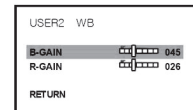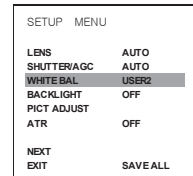This mode is used to fix GAIN under Outdoor use.

1-1. USER 1 appears when you indicate USER 1 on WHITE BAL of
    SETUP MENU. SUB-MENU is activated when the Tactile SW(SET button)
    is pressed.
1-2. In USER1, B-GAIN and R-GAIN are adjustable.
    - B-GAIN : It adjusts White Balance of BLUE. (Default : 029)
    - R-GAIN : It adjusts White Balance of RED. (Default : 034)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
SETUP   MENU

LENS            AUTO
SHUTTER/AGC     AUTO
WHITE BAL       USER1
BACKLIGHT       OFF
PICT ADJUST
ATR             OFF

NEXT
EXIT            SAVE ALL
```

```
USER1  WB

B-GAIN          029
R-GAIN          034

RETURN
```

(4) USER2
This mode is used to fix GAIN under the fluorescent lighting.

1-1. USER 2 appears when you indicate USER 2 on WHITE BAL of
    SETUP MENU. SUB-MENU is activated when the Tactile SW(SET button)
    is pressed.
1-2. In USER2, B-GAIN and R-GAIN are adjustable.
    - B-GAIN : It adjusts White Balance of BLUE. (Default : 045)
    - R-GAIN : It adjusts White Balance of RED. (Default : 026)
1-3. Select RETURN to finish all settings.

```
SETUP   MENU

LENS            AUTO
SHUTTER/AGC     AUTO
WHITE BAL       USER2
BACKLIGHT       OFF
PICT ADJUST
ATR             OFF

NEXT
EXIT            SAVE ALL
```

```
USER2  WB

B-GAIN          045
R-GAIN          026

RETURN
```

(5) ANTI CR (COLOR ROLLING SUPPRESSION)
It synchronizes the frequency of the fluorescent lighting and
frequency of the image sensor so that it suppresses Color Rolling Effect.

1-1. Set up ANTI CR on WHITE BAL of SETUP MENU.
1-2. Select SAVE ALL to save all settings.
1-3. Select EXIT to finish the control.

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         ANTI CR
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

(6) MANUAL (Manual White Balance)
White Balance Level is adjusted by increasing or decreasing White
Balance Gain manually.
The adjustable range is in 1800°K ~ 10500°K.

1-1. MANUAL WD appears when you indicate MANUAL on WHITE BAL of
     SETUP MENU. The SUB-MENU is activated when the Tactile SW
     (SET button) is pressed.
1-2. LEVEL on MANUAL WB is adjustable.
     - LEVEL : LEVEL combined value of B Gain and R gain can be
               increased or decreased. (Default : 058)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         MANUAL
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

```
MANUAL  WB

LEVEL            ▭▯▭▭  062

RETURN
```

(7) PUSH LOCK(HOLD)
This mode is used to fix the WHITE BAL when Color Temperature is consistent.
It keeps the initial setup value even if Color Temperature of Subject is changes.

1-1. Set up PUSH LOCK on WHITE BAL of SETUP MENU.
1-2. After positioning the cursor to PUSH LOCK, fix the Color Temperature by
     Pressing the Tactile SW(SET button).
1-3. Select SAVE ALL to save all settings.
1-4. Select EXIT to finish the control.

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         PUSH LOCK
BACKLIGHT         OFF
PICT ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

6. BACKLIGHT (Backlight compensation)

This function is used to set the backlight compensation.
OFF, BLC,HLC control can be selectable.
1. Position the cursor to 'BACKLIGHT' by using the UP/DOWN selections.
2. Select the 'BACKLIGHT' mode by using the LEFT or RIGHT selection.
   There are 3 modes. (Default : OFF)

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         ATW
BACKLIGHT         OFF
PIC ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

(1) OFF
This mode turns BACK LIGHT Off.

1-1. Set up OFF on BACK LIGHT of SETUP MENU.
1-2. Select SAVE ALL to save all settings.
1-3. Select EXIT to finish the control.

(2) BLC (Back Light Compensation)
This mode boosts overall brightness level to bring out details
when there is a strong backlight behind the subject.

1-1. Set up BLC on BACK LIGHT of SETUP MENU.
1-2. Select SAVE ALL to save all settings.
1-3. Select EXIT to finish the control.

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         ATW
BACKLIGHT         BLC
PIC ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

(3) HLC (HIGH Light Compensation)
This mode is used to view the details of subject by masking the strong light source.
It helps to view car license plates more clearly.

1-1. Set up HLC on BACK LIGHT of SETUP MENU.
1-2. Select SAVE ALL to save all settings.
1-3. Select EXIT to finish the control.

NOTE
Backlight setup is excluded in IR LED cameras.
Backlight is fixed to Off in Color and On in B/W in the IR LED cameras.

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         ATW
BACKLIGHT         HLC
PIC ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```
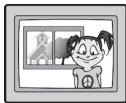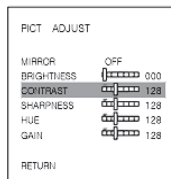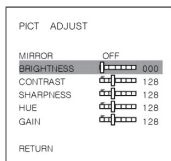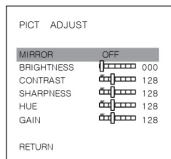
7. PICT ADJUST (Picture Adjustment)

Selectable MIRROR, BRIGHTNESS, CONTRAST, SHARPNESS, HUE,and GAIN control.
1. Position the cursor to 'PICT ADJUST' by using the UP/DOWN selections.
2. Select the 'PICT ADJUST' mode by using the Tactile SW(SET button).

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         ATW
BACKLIGHT         OFF
PIC ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

(1) MIRROR
You can flip the picture horizontally on the screen.

1-1. If you select PICT ADJUST on SETUP MENU, SUB MENU pops up.
1-2. Select MIRROR on PICT ADJUST of SUB MENU.
- MIRROR : ON - Set a horizontal image inversion.
OFF - Cancel the inversion. (Default : OFF)

```
PICT   ADJUST

MIRROR        OFF
BRIGHTNESS        000
CONTRAST          128
SHARPNESS         128
HUE               128
GAIN              128

RETURN
```

MIRROR ON   **MIRROR OFF**

1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
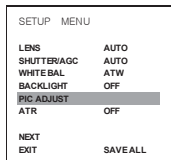1-5. Select EXIT to finish the control.

(2) BRIGHTNESS
You can adjust the brightness on the screen.

1-1. If you select PICT ADJUST on SETUP MENU, SUB MENU pops up.
1-2. Select BRIGHTNESS on PICT ADJUST of SUB MENU.
- BRIGHTNESS : It is adjustable in 0 ~ 255. (Default : 000)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
PICT   ADJUST

MIRROR        OFF
BRIGHTNESS        000
CONTRAST          128
SHARPNESS         128
HUE               128
GAIN              128

RETURN
```

(3) CONTRAST
Contrast is the relative difference between the brightest area
and the darkest area on the screen.

1-1. If you select PICT ADJUST on SETUP MENU, SUB MENU pops up.
1-2. Select CONTRAST on PICT ADJUST of SUB MENU.
- CONTRAST : It is adjustable in 0 ~ 255. (Default : 128)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
PICT   ADJUST

MIRROR        OFF
BRIGHTNESS        000
CONTRAST          128
SHARPNESS         128
HUE               128
GAIN              128

RETURN
```

---

(4) SHARPNESS
The outline of video image becomes sharper and more distinctive as the level of
SHARPNESS increases. If the level goes up excessively, it may generate noise and
visual artifacts in the picture.

1-1. If you select PICT ADJUST on SETUP MENU, SUB MENU pops up.
1-2. Select SHARPNESS on PICT ADJUST of SUB MENU.
- SHARPNESS : It is adjustable in 0 ~ 255. (Default : 128)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
PICT   ADJUST

MIRROR        OFF
BRIGHTNESS        000
CONTRAST          128
SHARPNESS         128
HUE               128
GAIN              128

RETURN
```

(5) HUE
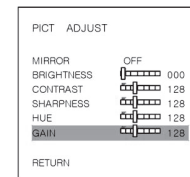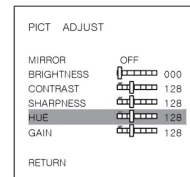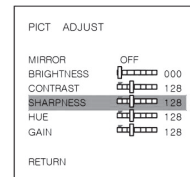This mode is used to adjust color balance on the screen.

1-1. If you select PICT ADJUST on SETUP MENU, SUB MENU pops up.
1-2. Select HUE on PICT ADJUST of SUB MENU.
- HUE : It is adjustable in 0 ~ 255. (Default : 128)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
PICT   ADJUST

MIRROR        OFF
BRIGHTNESS        000
CONTRAST          128
SHARPNESS         128
HUE               128
GAIN              128

RETURN
```

(6) GAIN
This controls the color intensity; when you increase GAIN, colors become more vivid.

1-1. If you select PICT ADJUST on SETUP MENU, SUB MENU pops up.
1-2. Select GAIN on PICT ADJUST of SUB MENU.
- GAIN : It is adjustable in 0 ~ 255. (Default : 128)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

```
PICT   ADJUST

MIRROR        OFF
BRIGHTNESS        000
CONTRAST          128
SHARPNESS         128
HUE               128
GAIN              128

RETURN
```

8. ATR (Adaptive Tone-curve Reproduction)

Pixel-to-pixel based tone-curve correction optimizes the contrast of image similar to WDR.
In case that low and high luminance ranges exist on the screen at the same time, ATR mode makes low luminance area brighter and high luminance area darker to optimize clarity.
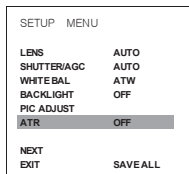
You can select ON or OFF on SETUP MENU.
1. Position the cursor to 'ATR' by using the UP/DOWN selections.
2. Select ON or OFF of 'ATR' mode by using LEFT/RIGHT selections.

ON : ATR function is activated.
OFF: ATR function is inactivated. (Default : OFF)

3. SUB MENU of ATR pops up when ATR is set to ON and the Tactile SW(SET button) is pressed.

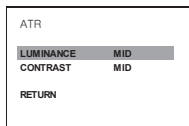4. There are LUMINANCE and CONTRAST in SUB MENU.
   - LUMINANCE : LOW, MID, HIGH (Default : MID)
     With using brightness, it improves visibility of the bright areas .
   - CONTRAST : LOW, MIDLOW, MID, MIDHIGH, HIGH. (Default : MID)
     With using AGC, it improves visibility of the dark area.
5. Select RETURN to finish all settings.
6. Select SAVE ALL to save all settings.
7. Select EXIT to finish the control.

NOTE
ART setup is excluded in IR LED cameras.
ART is fixed to Off in Color and On in B/W in the IR LED cameras.

```
SETUP   MENU

LENS              AUTO
SHUTTER/AGC       AUTO
WHITE BAL         ATW
BACKLIGHT         OFF
PIC ADJUST
ATR               OFF

NEXT
EXIT              SAVE ALL
```

```
ATR

LUMINANCE         MID
CONTRAST          MID

RETURN
```

9. PRIVACY (Privacy Masking)

When the unit is observing a wide area, select areas can be masked for privacy purposes. You can easily configure the size and the position of the required privacy zones.

You can select ON or OFF on SETUP MENU.
1. Position the arrow to 'PRIVACY' by using the UP/DOWN selections.
2. Select ON or OFF of 'PRIVACY' mode by using the LEFT or RIGHT selection.
   - ON : PRIVACY function is activated.
   - OFF: PRIVACY function is in activated. (Default : OFF)
3. 4 Areas pop up when PRIVACY is set to ON.
   SUB MENU pops up when Tactile SW(SET button) is pressed..
4. There are 8 categories on PRIVACY of SUB MENU.
   - AREA SEL : 1/4, 2/4, 3/4, and 4/4.
   - TOP : You can adjust the location of the masking upward in below levels.
       NTSC : 0~244, PAL : 0~288
   - BOTTOM : You can adjust the location of the masking
       downward in below   levels.
       NTSC : 0~244, PAL : 0~288
   - LEFT : You can adjust the location of masking to the left side in below levels.
       NTSC : 000-474(960H)
       PAL : 000- 468(960H)
   - RIGHT : You can adjust the location of masking to the right side in below levels.
       NTSC : 000-474(960H)
       PAL : 000-468(960H)
   ※ There are 4 coordinates of AREA SEL on the screen initially.
       If you want to select 1 AREA only, select 1/4 and set 2/4, 3/4 and 4/4 to '0'.
       Also, the value should be set to TOP < BOTTOM and LEFT < RIGHT.
   - COLOR : It is selectable in 1~8. (Default : 1)
           1 : RED, 2 : GREEN, 3 : BLUE, 4 : LIGHT GREEN,
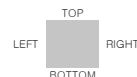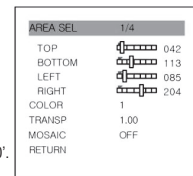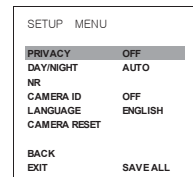   5 : LIGHT BLUE, 6 : PURPLE , 7: WHITE, 8 : BLACK
   - TRANSP : Color transparency can be set to 0.00, 0.50, 0.75, and 1.00. (Default : 1.00)
   - MOSAIC : Mosaic setup can be ON or OFF. (Default : OFF)
5. Select RETURN to finish all settings.
6. Select SAVE ALL to save all settings.
7. Select EXIT to finish the control.

```
SETUP   MENU

PRIVACY           OFF
DAY/NIGHT         AUTO
NR
CAMERA ID         OFF
LANGUAGE          ENGLISH
CAMERA RESET

BACK
EXIT              SAVE ALL
```

```
SETUP   MENU

PRIVACY           ON
DAY/NIGHT         AUTO
NR
CAMERA ID         OFF
LANGUAGE          ENGLISH
CAMERA RESET

BACK
EXIT              SAVE ALL
```

```
AREA SEL          1/4

TOP                     042
BOTTOM                  113
LEFT                    085
RIGHT                   204
COLOR             1
TRANSP            1.00
MOSAIC            OFF
RETURN
```

```
            TOP


LEFT                    RIGHT


          BOTTOM
```

10. DAY / NIGHT

It is selectable to Auto, Color, and B/W.

1. Position the cursor to 'DAY/NIGHT' by using the UP/DOWN selections.
2. Select the 'DAY/NIGHT' mode by using the LEFT or RIGHT selection.
   Please select one of 3 modes as below.

(1) AUTO
AUTO mode switches over Color image at daytime and B/W image at nighttime automatically.
1-1. DAY/NIGHT MENU as a SUB MENU pops up when you select AUTO and press the Tactile SW(OSD button).
1-2. There are BURST, DELAY CNT, DAY ⇒ NIGHT, and NIGHT ⇒ DAY on the SUB MENU of DAY/NIGHT.
   - BURST : It is selectable to ON/OFF. (Default : OFF)
       ON : It always outputs BURST SIGNAL.
       OFF : No BURST SIGNAL in B/W
   - DELAY CNT : Day/Night switching time is adjustable.
       Value 1 is 1 sec. (Default : 5)
   - DAY ⇒ NIGHT : Switching over lux level to NIGHT from DAY.(Default : 3)
   - NIGHT ⇒ DAY : Switching over lux level to DAY from NIGHT.(Default : 5)
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
1-5. Select EXIT to finish the control.

(2) COLOR
The image is always displayed in color.
1-1. Change to COLOR from DAY/NIGHT on SETUP MENU.
1-2. Select SAVE ALL to save all settings.
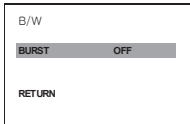1-3. Select EXIT to finish the control.

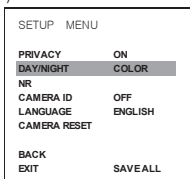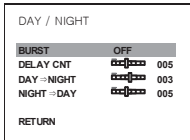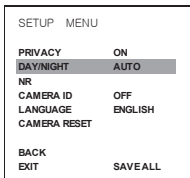### (3) B/W(BLACK & WHITE)
This image is always displayed in B/W.
1-1. Change to B/W from DAY/NIGHT on SETUP MENU.
1-2. There is a BURST in B/W of SUB MENU.
   - BURST : It is selectable to ON/OFF.
       ON : It always outputs BURST SIGNAL.
       OFF : No BURST SIGNAL in B/W.
       This setup is interlocked with 10. DAY/NIGHT (1) AUTO 1.2 BURST.
1-3. Select RETURN to finish all settings.
1-4. Select SAVE ALL to save all settings.
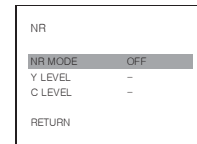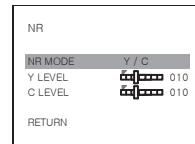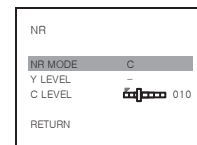1-5. Select EXIT to finish the control.

NOTE
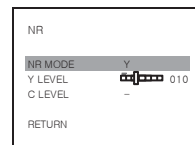DAY/NIGHT setup is excluded in the Day/Night camera with photo cell(CDS Censor).

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        AUTO
NR
CAMERA ID        OFF
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

```
DAY / NIGHT

BURST            OFF
DELAY CNT        005
DAY ⇒NIGHT       003
NIGHT ⇒DAY       005

RETURN
```

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        COLOR
NR
CAMERA ID        OFF
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        B/W
NR
CAMERA ID        OFF
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

```
B/W

BURST            OFF

RETURN
```

11. NR(Noise Reduction)

NR mode decreases noise to enhance the picture quality especially under the low light conditions. Y signal and C signal work separately or together by the settings.

1. Position the cursor to 'NR' by using the UP/DOWN selections.
2. Select the 'NR' mode by using the Tactile SW(SET button).
3. Select one of OFF, Y, C, and Y/C.
   - OFF : N/R MODE is turned off. (Default : Y/C)
   - Y : If BRIGHNESS is increased , AGC is decreased and Noise is also decreased. (Default : 10)
   - C : CHROMA Noise is decreased. (Default : 10)
   - Y/C : Y and C controls are combined.
4. Select RETURN to finish all settings.
5. Select SAVE ALL to save all settings.
6. Select EXIT to finish the control.

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        AUTO
NR
CAMERA ID        OFF
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

```
NR

NR MODE       Y
Y LEVEL            010
C LEVEL         _

RETURN
```

```
NR

NR MODE       C
Y LEVEL         _
C LEVEL           010

RETURN
```

```
NR

NR MODE       Y / C
Y LEVEL           010
C LEVEL           010

RETURN
```

```
NR

NR MODE       OFF
Y LEVEL         _
C LEVEL         _

RETURN
```
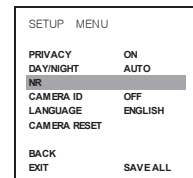
12. CAMERA ID

1. Position the arrow to 'CAMERA ID' by using the UP/DOWN selections.
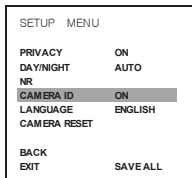2. Please select the 'CAMERA ID' mode by using the LEFT or RIGHT selection.

※ If 'OFF' is selected, the ID does not appear on the monitor.

3. Press the Tactile SW(SET button) to complete 'ON'.
4. CAMERA ID can be composed of 52(26 * 2 Lines) letters.
   - Position the cursor to the letter to choose and press the Tactile SW(SET button).
   - Select an ID from A, B,~Y, Z, 0, 1,~ 8, 9, etc. by using the Tactile SW(SET button).
   - CLR : Position the cursor onto the letter which will be cancelled and
     shift the cursor onto CLR. And then, press the Tactile SW(SET button).
   - POS : It is set to the location of CAMERA ID.
     Position the cursor onto POS and press the Tactile SW(SET button).
     After moving the location of CAMERA ID by using Left, Light,
     Up, and Down selections, press the Tactile SW(SET button).

5. Select RETURN to finish all settings.
6. Select SAVE ALL to save all settings.
7. Select EXIT to finish the control.

NOTE
It is possible to set up CAMERA ID in the unit individually.
In case that you use DVR, you can't set up the CAMERA ID to more than 2 cameras simultaneously.

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        AUTO
NR
CAMERA ID        ON
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

```
CAMERA   ID

CAMERA

ABCDEFGHIJKLMNOPQRSTUV
WXYZ0123456789−!#$%&'
()_¯¥::<=>?@W'*+/

←→↑↓  CLR POS
RETURN
```

13. LANGUAGE

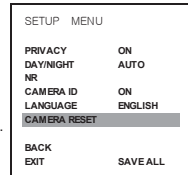7 Languages are selectable. (Default : ENGLISH)

1. Position the cursor to 'LANGUAGE' by using the UP/DOWN selections.
2. Select the 'LANGUAGE' mode by using the LEFT or RIGHT selection and
   choose one of English, Japanese, German, French, Russian, Portuguese
   and Spanish.
3. Select SAVE ALL to save all settings.
4. Select EXIT to finish the control.

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        AUTO
NR
CAMERA ID        ON
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```
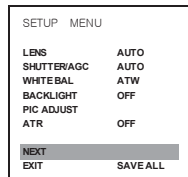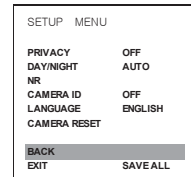
14. CAMERA RESET

All settings can be restored together to the default settings by using
CAMERA RESET.

1. Position the cursor to 'CAMERA RESET' by using the UP/DOWN
   selections.
2. Select the 'CAMERA RESET' mode by using the Tactile SW(SET button).
3. Select SAVE ALL to save all settings..
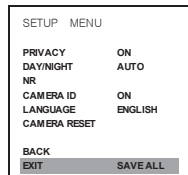4. Select EXIT to finish the control.

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        AUTO
NR
CAMERA ID        ON
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

15. NEXT OR BACK

When there are NEXT and BACK on the OSD, NEXT turns over the page of OSD
menu while BACK turns back the page of OSD menu.

```
SETUP   MENU

PRIVACY          OFF
DAY/NIGHT        AUTO
NR
CAMERA ID        OFF
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

```
SETUP   MENU

LENS             AUTO
SHUTTER/AGC      AUTO
WHITE BAL        ATW
BACKLIGHT        OFF
PIC ADJUST
ATR              OFF

NEXT
EXIT             SAVE ALL
```

16. EXIT

Exit OSD MENU by using the Tactile SW(SET button).

```
SETUP   MENU

PRIVACY          ON
DAY/NIGHT        AUTO
NR
CAMERA ID        ON
LANGUAGE         ENGLISH
CAMERA RESET

BACK
EXIT             SAVE ALL
```

MEMO

MEMO