Camera OSD Manual

Distributed by

Before installing, operating or adjusting this product, please read this instruction booklet carefully and completely.

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1. Camera Setting

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1. Camera Setting

Camera menu subject to be changed without prior notice to upgrade and quality increase and we may use slip sheet for the change.

Please check the camera version and the slip sheet if the camera menu and this manual menu is not matched.

CAMERA MENU

MAIN MENU

MOTION   ▷
DOME   ▷
▷ CAMERA   ▷
CLEAR   ▷
PTZ RESET

EXIT

〈 NEAR / RIGHT ▷ CAMERA 〉

CAMERA MENU

▷ ZOOM MODE   ▷
FOCUS MODE   ▷
WHITE BAL.   ▷
AUTO EXP.   ▷
WDR MODE   ▷
STABILIZER   ▷
SPECIAL   ▷
CAMERA RESET   ▷

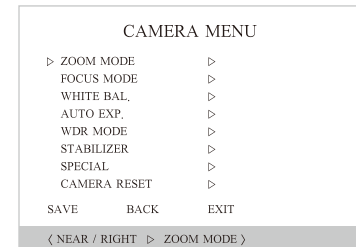SAVE   BACK   EXIT

〈 NEAR / RIGHT ▷ ZOOM MODE 〉
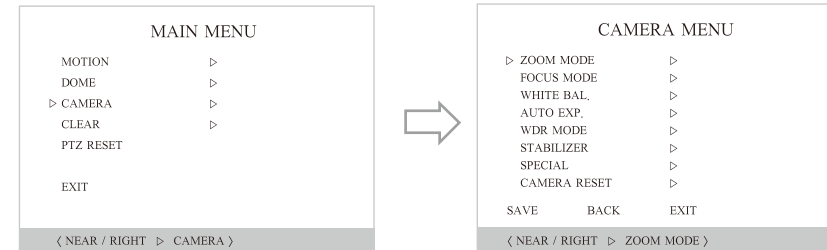
CAMERA MENU
- Functions can be set-up using the Camera menu.
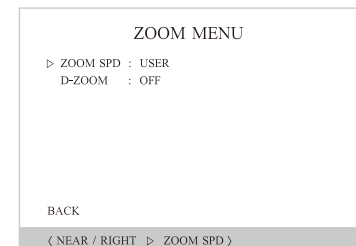 In this menu, user can set the zoom, focus, white balance, auto exposure...etc functions.

1. 1 ZOOM MODE

CAMERA MENU

▷ ZOOM MODE   ▷
FOCUS MODE   ▷
WHITE BAL.   ▷
AUTO EXP.   ▷
WDR MODE   ▷
STABILIZER   ▷
SPECIAL   ▷
CAMERA RESET   ▷

SAVE   BACK   EXIT

〈 NEAR / RIGHT ▷ ZOOM MODE 〉

Decide using of digital zoom function and select zoom speed.

- ZOOM SPD

ZOOM MENU

▷ ZOOM SPD : USER
D-ZOOM   : OFF

BACK

〈 NEAR / RIGHT ▷ ZOOM SPD 〉

ZOOM SPD : Select from 0steps to 7 steps,
           USER (Standard speed)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- D-ZOOM

```
              ZOOM MENU

   ZOOM SPD  :  USER
 ▷ D-ZOOM    :  OFF




   BACK
```
〈 NEAR / RIGHT ▷ D-ZOOM 〉
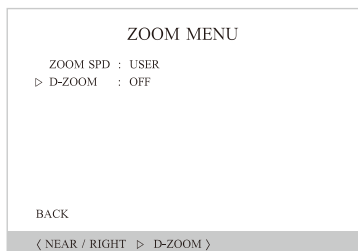
Decide using of digital zoom function.
D-ZOOM : ON/ OFF

Select :   [JOYSTICK]   or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

1. 2 FOCUS MODE

```
              CAMERA MENU

   ZOOM MODE            ▷
 ▷ FOCUS MODE           ▷
   WHITE BAL.           ▷
   AUTO EXP.            ▷
   WDR MODE             ▷
   STABILIZER           ▷
   SPECIAL              ▷
   CAMERA RESET         ▷

   SAVE       BACK      EXIT
```
〈 NEAR / RIGHT ▷ FOCUS MODE 〉

In Focus menu, you can set up the focus speed, focus mode, near limit and AF mode.

- FOCUS SPD

```
              FOCUS MENU

 ▷ FOCUS SPD       :  USER
   FOCUS MODE      :  AUTO
   NEAR LIMIT      :  1M
   AF MODE         :  NORMAL



   BACK
```
〈 NEAR / RIGHT ▷ FOCUS SPD 〉

Set the speed for camera focusing. (0~7 USER)

Select :   [JOYSTICK]   or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- FOCUS MODE

```
              FOCUS MENU

   FOCUS SPD       :  USER
 ▷ FOCUS MODE      :  AUTO
   NEAR LIMIT      :  1M
   AF MODE         :  NORMAL



   BACK
```
〈 NEAR / RIGHT ▷ FOCUS MODE 〉

AUTO : The camera adjusts the focus automatically while monitoring the screen continuously in the auto mode. In the auto focusing mode, zoom key operation is not recognized as the input of the focus key.
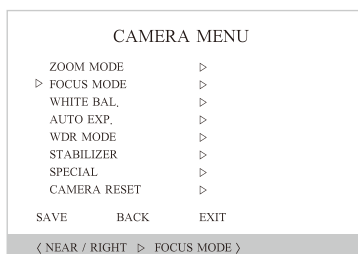MANUAL : In the manual mode, users can adjust the camera focus manually.
ONE PUSH : Make focus with one push button and Zoom in/out operation.
INFINITY : infinity focus is the state where a lens forms an image of an object an infinite distance away. This corresponds to the point of focus for parallel rays.

Select :   [JOYSTICK]   or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- NEAR LIMIT

```
              FOCUS MENU

   FOCUS SPD       :  USER
   FOCUS MODE      :  AUTO
 ▷ NEAR LIMIT      :  1M
   AF MODE         :  NORMAL



   BACK
```
〈 NEAR / RIGHT ▷ NEAR LIMIT 〉

Infinity focus is the state where a lens forms an image of an object an infinite distance away.
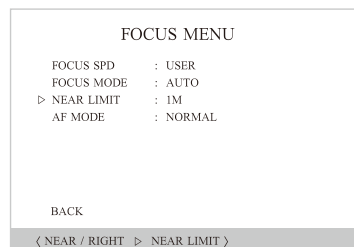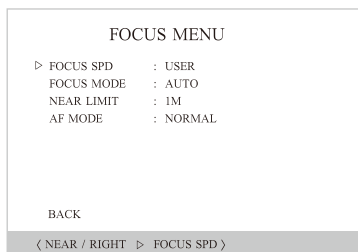This corresponds to the point of focus for parallel rays.
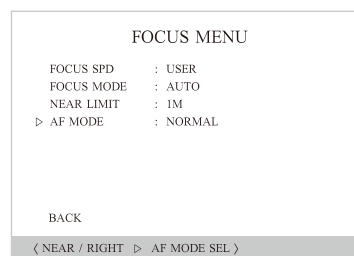(Over Infinity~ 1.0CM)

Select :   [JOYSTICK]   or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- AF MODE

```
              FOCUS MENU

   FOCUS SPD       :  USER
   FOCUS MODE      :  AUTO
   NEAR LIMIT      :  1M
 ▷ AF MODE         :  NORMAL



   BACK
```
〈 NEAR / RIGHT ▷ AF MODE SEL 〉

Set the Auto Focus Mode.

Select :   [JOYSTICK]   or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

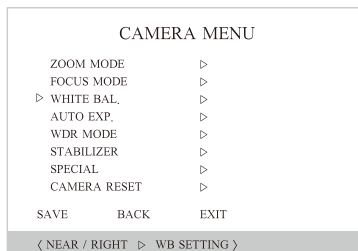AF MODE is work in the AUTO MODE only.

- NORMAL : AF is worked when the image is changed.
- ZOOM : AF is worked when the zoom rate is changed.
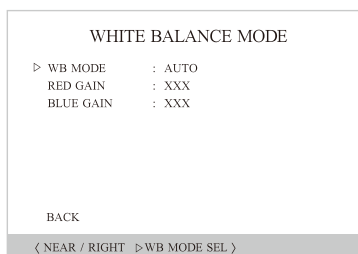 ※ ZOOM features may vary by model.
- INTERVAL : AF and AF STOP is repetitively worked in settled time.

1. 3 WHTE BALANCE

CAMERA MENU

ZOOM MODE	▷
FOCUS MODE	▷
▷ WHITE BAL.	▷
AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
CAMERA RESET	▷

SAVE   BACK   EXIT

《 NEAR / RIGHT ▷ WB SETTING 》

White balance setting is a function revising color temperature to resolve the problem that screen's colors change by the color temperature's difference arrcording to time.
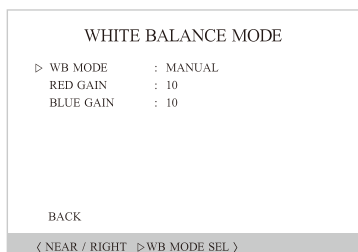
- WB MODE

WHITE BALANCE MODE

▷ WB MODE	: AUTO
RED GAIN	: XXX
BLUE GAIN	: XXX

BACK

《 NEAR / RIGHT ▷WB MODE SEL 》

WB MODE: Set the color depend on white balacne.
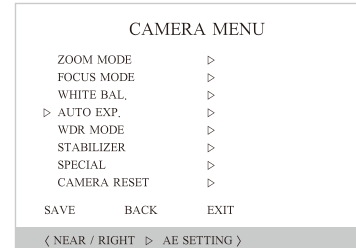WB MODE : Select AUTO, INDOOR, OUTDOOR, ONEPUSHAWB or MANUAL.

Select : 〔JOYSTICK〕 or 〔NEAR〕   Set ON : 〔JOYSTICK〕   Set OFF : 〔NEAR〕

- WB MANUAL MODE

WHITE BALANCE MODE

▷ WB MODE	: MANUAL
RED GAIN	: 10
BLUE GAIN	: 10

BACK

《 NEAR / RIGHT ▷WB MODE SEL 》

Adjust color level (RED, BLUE : 00~ 20)
Standard level : RED -> 10 BLUE->110

Select : 〔JOYSTICK〕 or 〔NEAR〕   Set ON : 〔JOYSTICK〕   Set OFF : 〔NEAR〕

---

1. 4 AUTO EXPOSURE

CAMERA MENU

ZOOM MODE	▷
FOCUS MODE	▷
WHITE BAL.	▷
▷ AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
SPECIAL	▷
CAMERA RESET	▷

SAVE   BACK   EXIT

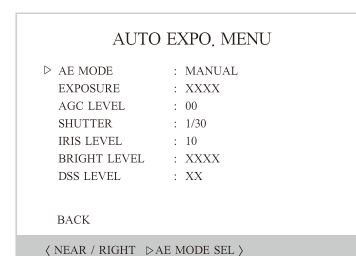《 NEAR / RIGHT ▷ AE SETTING 》

AE setting is a function adjusting shutter speed acoording to subject's brightness to get standard amount of exposed light.

- AE MODE

AUTO EXPO. MENU

▷ AE MODE	: AUTO
EXPOSURE	: 10
AGC LEVEL	: ON
SHUTTER	: AUTO
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
DSS LEVEL	: XX

BACK

《 NEAR / RIGHT ▷AE MODE SEL 》
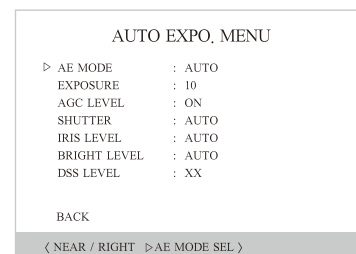
Select AUTO,MANUAL,SHUTTER, IRIS or BRIGHT.

Select : 〔JOYSTICK〕 or 〔NEAR〕   Set ON : 〔JOYSTICK〕   Set OFF : 〔NEAR〕

AUTO EXPO. MENU

▷ AE MODE	: MANUAL
EXPOSURE	: XXXX
AGC LEVEL	: 00
SHUTTER	: 1/30
IRIS LEVEL	: 10
BRIGHT LEVEL	: XXXX
DSS LEVEL	: XX

BACK

《 NEAR / RIGHT ▷AE MODE SEL 》

AE MODE setting can be changed in the MANUAL.
AGC LEVEL : Select 00~10
IRIS LEVEL : Select 00~13
* 1/8, 1/15, 1/30, 1/60(50), 1/120(100), 1/250, 1/700, 1/1000, 1/1600, 1/2500, 1/5000, 1/7000, 1/10000, 1/30000 sec

Select : 〔JOYSTICK〕 or 〔NEAR〕   Set ON : 〔JOYSTICK〕   Set OFF : 〔NEAR〕

- EXPO MODE

AUTO EXPO. MENU

AE MODE	: AUTO
▷ EXPOSURE	: 10
AGC LEVEL	: ON
SHUTTER	: AUTO
IRIS LEVEL	: AUTO
BRIGHT LEVEL	: AUTO
DSS LEVEL	: XX

BACK
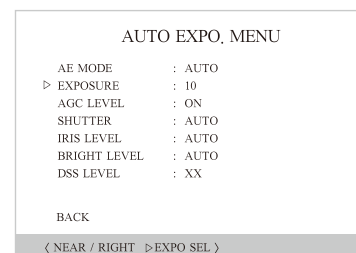
《 NEAR / RIGHT ▷EXPO SEL 》

Set the exposure.(00 ~20)

Select : 〔JOYSTICK〕 or 〔NEAR〕   Set ON : 〔JOYSTICK〕   Set OFF : 〔NEAR〕

- AGC LEVEL

```
          AUTO EXPO. MENU

  AE MODE         :  AUTO
  EXPOSURE        :  10
▷ AGC LEVEL       :  ON
  SHUTTER         :  AUTO
  IRIS LEVEL      :  AUTO
  BRIGHT LEVEL    :  AUTO
  DSS LEVEL       :  XX

  BACK
```
〈 NEAR / RIGHT ▷AGC LEVEL 〉

In AE MODE,
AUTO, IRIS, SHUTTER : Select AGC LEVEL ON/OFF. (ON/OFF)
MANUAL : Select AGC LEVEL from 0 to 10. (0~10)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- SHUTTER

```
          AUTO EXPO. MENU

  AE MODE         :  SHUTTER
  EXPOSURE        :  10
  AGC LEVEL       :  ON
▷ SHUTTER         :  1/30
  IRIS LEVEL      :  AUTO
  BRIGHT LEVEL    :  AUTO
  DSS LEVEL       :  XX

  BACK
```
〈 NEAR / RIGHT ▷SHUTTER 〉

If you set SHUTTER in the AE MODE, you can control shutter speed.

* 1/18, 1/15, 1/30, 1/60(50), 1/120(100), 1/250, 1/700, 1/1000,
  1/1600, 1/2500, 1/5000, 1/7000, 1/10000, 1/30000 sec

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- IRIS LEVEL

```
          AUTO EXPO. MENU

  AE MODE         :  IRIS
  EXPOSURE        :  10
  AGC LEVEL       :  ON
  SHUTTER         :  AUTO
▷ IRIS LEVEL      :  10
  BRIGHT LEVEL    :  AUTO
  DSS LEVEL       :  XX

  BACK
```
〈 NEAR / RIGHT ▷IRIS LEVEL 〉

If you set IRIS in the AE MODE, you can set the IRIS level
from 00 to 13

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- BRIGHT LEVEL

```
          AUTO EXPO. MENU

  AE MODE         :  BRIGHT
  EXPOSURE        :  XXXX
  AGC LEVEL       :  XXX
  SHUTTER         :  AUTO
  IRIS LEVEL      :  XXXX
▷ BRIGHT LEVEL    :  10
  DSS LEVEL       :  XX

  BACK
```
〈 NEAR / RIGHT ▷BRIGHT LEVEL 〉

To change bright level, select BRIGHT in AE MODE and
 set by NEAR key.

Set from 0 ~ 23.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- DSS LEVEL

```
          AUTO EXPO. MENU

  AE MODE         :  AUTO
  EXPOSURE        :  10
  AGC LEVEL       :  ON
  SHUTTER         :  AUTO
  IRIS LEVEL      :  AUTO
  BRIGHT LEVEL    :  AUTO
▷ DSS LEVEL       :  XX

  BACK
```
〈 NEAR / RIGHT ▷DSS LEVEL 〉

Digital Slow Shutter : Control digital slow shutter speed.
                       (x2, x4, x8)

※ DSS LEVEL can be set when the AE MODE is set to
   AUTO or IRIS.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

1. 5 WDR MODE

```
        CAMERA  MENU
    ZOOM MODE          ▷
    FOCUS MODE         ▷
    WHITE BAL.         ▷
    AUTO EXP.          ▷
  ▷ WDR MODE           ▷
    STABILIZER         ▷
    SPECIAL            ▷
    CAMERA RESET       ▷

  SAVE        BACK       EXIT
```
〈 NEAR / RIGHT ▷ WDR MODE 〉

Set WDR funtion.
WDR(Wide Dynamic Range)

- WDR MODE

```
        WDR MODE MENU
  ▷ WDR MODE         : OFF
    WDR LEVEL        : 02
    ACE MODE         : 0FF




  BACK
```
〈 NEAR / RIGHT ▷WDR MODE 〉
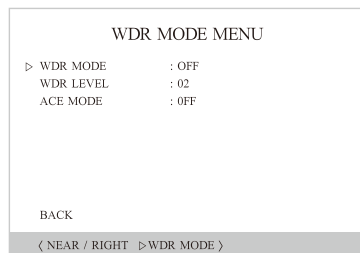
Select ON/OFF in the WDR MODE function.
※ When WDR MODE is ON, the analog is not output.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- WDR LEVEL

```
        WDR MODE MENU
    WDR MODE         : OFF
  ▷ WDR LEVEL        : 02
    ACE MODE         : 0FF




  BACK
```
〈 NEAR / RIGHT ▷WDR LEVEL 〉

Select WDR LEVEL.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- ACE MODE
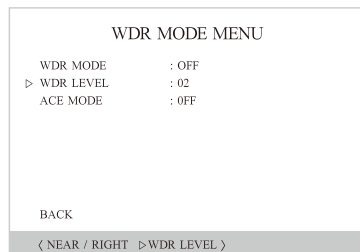
```
        WDR MODE MENU
    WDR MODE         : OFF
    WDR LEVEL        : 02
  ▷ ACE MODE         : OFF




  BACK
```
〈 NEAR / RIGHT ▷ACE MODE〉
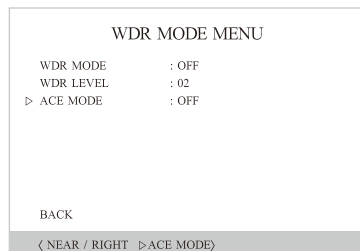
Select ON/OFF in the ACE MODE function.
※ Defog function is disable in the ACE ON mode

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

1. 6 STABILIZER

```
        CAMERA  MENU
    ZOOM MODE          ▷
    FOCUS MODE         ▷
    WHITE BAL.         ▷
    AUTO EXP.          ▷
    WDR MODE           ▷
  ▷ STABILIZER         ▷
    SPECIAL            ▷
    CAMERA RESET       ▷

  SAVE        BACK       EXIT
```
〈 NEAR / RIGHT ▷ STABILIZER 〉
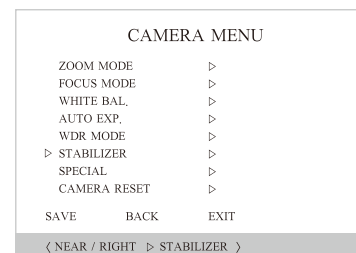
Select Digital Image Stabilizer mode.

- STABILIZER MODE

```
        STABILIZER  MODE
  ▷ MODE            : OFF
    RANGE           : ----
    FILTER          : ----
    AUTO C          : ----



  BACK
```
〈 NEAR / RIGHT ▷ MODE ON/OFF 〉
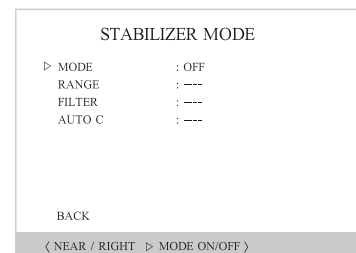
Set the Stabilizer mode.(ON/OFF)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- RANGE

```
        STABILIZER  MODE
    MODE            : ON
  ▷ RANGE           : 10%
    FILTER          : LOW
    AUTO C          : OFF



  BACK
```
〈 NEAR / RIGHT ▷ DIS RANGE 〉
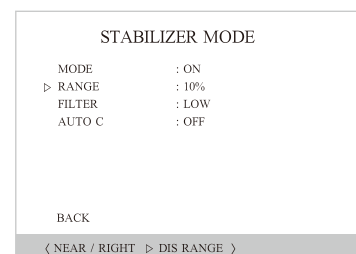
Setting the image compensation range.(10%, 20%, 30%)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- FILTER

```
        STABILIZER  MODE
    MODE            : ON
    RANGE           : 10%
  ▷ FILTER          : LOW
    AUTO C          : OFF



  BACK
```
〈 NEAR / RIGHT ▷ DIS FILTER 〉
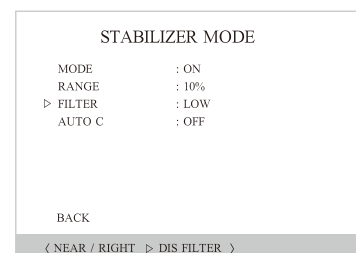
Setting the sensitivity DIS function in worst case.
(LOW, MIDDLE, HIGH)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- AUTO C

STABILIZER MODE

MODE	: ON
RANGE	: 10%
FILTER	: LOW
▷ AUTO C	: OFF

BACK

〈 NEAR / RIGHT ▷ DIS AUTOCEN 〉
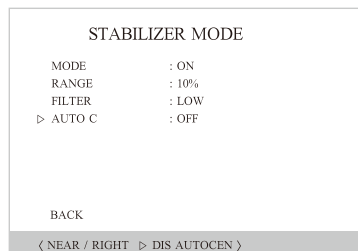
Setting Auto Centering mode.(OFF, HALF, FULL)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

1. 7 SPECIAL

CAMERA MENU

ZOOM MODE	▷
FOCUS MODE	▷
WHITE BAL.	▷
AUTO EXP.	▷
WDR MODE	▷
STABILIZER	▷
▷ SPECIAL	▷
CAMERA RESET	

SAVE   BACK   EXIT

〈 NEAR / RIGHT ▷ SPECIAL 〉
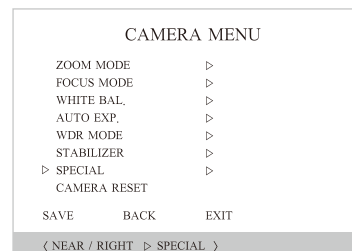
In the Special menu, it's available to set special function of the camera.

- SPECIAL SUB

SPECIAL MENU

▷ SPECIAL SUB ▷	
APERTUREGAIN	: 05
BACK LIGHT	: OFF
DNR LEVEL	: AUTO
DEFOG	: OFF
FLICKERLESS	: OFF

BACK

〈 NEAR / RIGHT ▷ SUB MENU 〉

- ICR MODE

SPECIAL MENU

▷ ICR MODE	: AUTO
ICR LEVEL	: 0.5 LUX
BLC X POS	: XX
BLC Y POS	: XX
BLC X SIZE	: XX
BLC Y SIZE	: XX
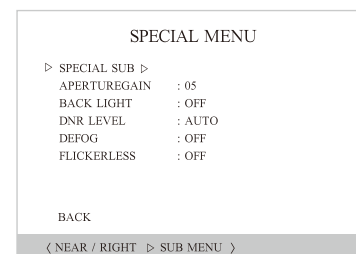
BACK

〈 NEAR / RIGHT ▷ ICR MODE 〉
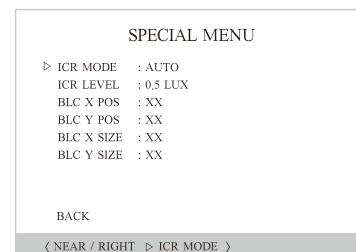
Select AUTO, DAY and NIGHT.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- ICR LEVEL

SPECIAL MENU

ICR MODE	: AUTO
▷ ICR LEVEL	: 0.5 LUX
BLC X POS	: XX
BLC Y POS	: XX
BLC X SIZE	: XX
BLC Y SIZE	: XX

BACK

〈 NEAR / RIGHT ▷ ICR LEVEL 〉

Set ICR Value.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]
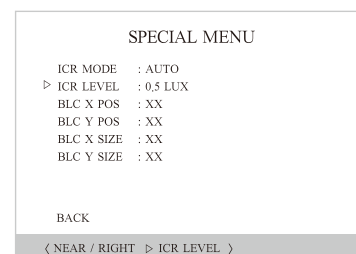
* If you set ON in the BACK LIGHT, you can set the BLC. (Camera Menu->Special Menu->BACK LIGHT : ON)
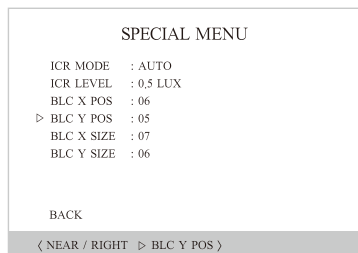
- BLC X POS

```
            SPECIAL MENU

     ICR MODE     : AUTO
     ICR LEVEL    : 0,5 LUX
  ▷  BLC X POS    : 06
     BLC Y POS    : 05
     BLC X SIZE   : 07
     BLC Y SIZE   : 06


     BACK
  〈 NEAR / RIGHT  ▷ BLC X POS 〉
```
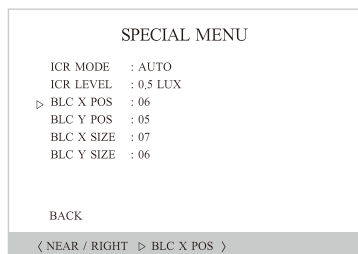
Set the BLC X POSION
- Default : 06
- Change : 0 ~ 19

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- BLC Y POS

```
            SPECIAL MENU

     ICR MODE     : AUTO
     ICR LEVEL    : 0,5 LUX
     BLC X POS    : 06
  ▷  BLC Y POS    : 05
     BLC X SIZE   : 07
     BLC Y SIZE   : 06


     BACK
  〈 NEAR / RIGHT  ▷ BLC Y POS 〉
```

Set BLC Y POSION
- Default : 05
- Change : 0 ~ 18

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- BLC X SIZE

```
            SPECIAL MENU

     ICR MODE     : AUTO
     ICR LEVEL    : 0,5 LUX
     BLC X POS    : 06
     BLC Y POS    : 05
  ▷  BLC X SIZE   : 07
     BLC Y SIZE   : 06


     BACK
  〈 NEAR / RIGHT  ▷ BLC X SIZE 〉
```
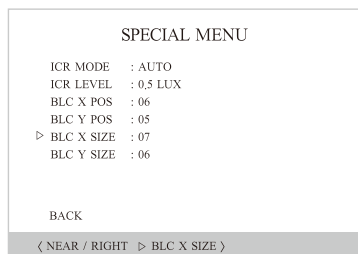
Set BLC X SIZE
- Default : 07
- Change : 0 ~ 19

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- BLC Y SIZE

```
            SPECIAL MENU

     ICR MODE     : AUTO
     ICR LEVEL    : 0,5 LUX
     BLC X POS    : 06
     BLC Y POS    : 05
     BLC X SIZE   : 07
  ▷  BLC Y SIZE   : 06


     BACK
  〈 NEAR / RIGHT  ▷ BLC Y SIZE 〉
```
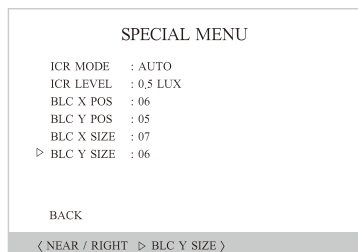
Set BLC Y SIZE
- Default : 06
- Change : 0 ~ 19

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

* Depending on the camera program, the default value and changing value can be changed.

- APERTURE GAIN

```
            SPECIAL MENU

     SPECIAL SUB  ▷
  ▷  APERTUREGAIN      : 05
     BACK LIGHT        : OFF
     DNR LEVEL         : AUTO
     DEFOG             : OFF
     FLICKERLESS       : OFF


     BACK
  〈 NEAR / RIGHT  ▷ SUB MENU 〉
```
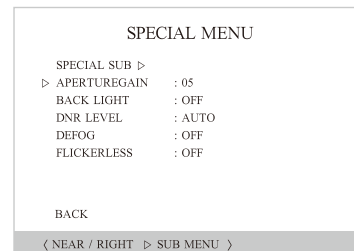
APERTURE GAIN: Select aperture gain.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- BACK LIGHT

```
            SPECIAL MENU

     ICR MODE ▶
     APERTUREGAIN      : 05
  ▷  BACK LIGHT        : XXX
     DNR LEVEL         : AUTO
     DEFOG             : OFF
     FLICKERLESS       : OFF


     BACK
  〈 NEAR / RIGHT  ▷ BACK LIGHT 〉
```
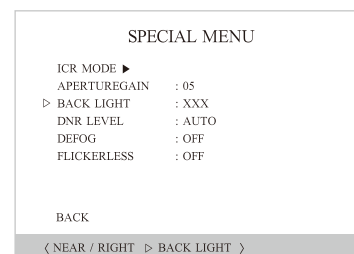
Select ON/OFF in the BACK LIGHT function.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- DNR LEVEL

```
            SPECIAL MENU

     ICR MODE ▶
     APERTUREGAIN      : 05
     BACK LIGHT        : XXX
  ▷  DNR LEVEL         : AUTO
     DEFOG             : OFF
     FLICKERLESS       : OFF


     BACK
  〈 NEAR / RIGHT  ▷ DNR LEVEL 〉
```
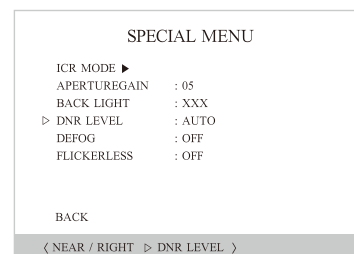
DNR, Digital Nois Reduction funtion.
(Select AUTO, LEV1, LEV2, LEV3, OFF)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- DEFOG

```
            SPECIAL MENU

     ICR MODE ▶
     APERTUREGAIN      : 05
     BACK LIGHT        : XXX
     DNR LEVEL         : AUTO
  ▷  DEFOG             : OFF
     FLICKERLESS       : OFF


     BACK
  〈 NEAR / RIGHT  ▷ DE-FOG MODE 〉
```
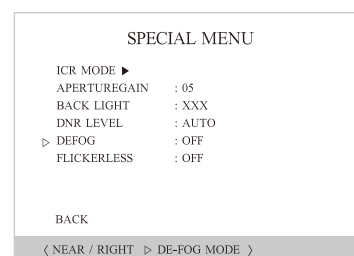
Defogging foggy video image.(ON/OFF)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

- FLICKERLESS

```
          SPECIAL MENU

  ICR MODE ▶
  APERTUREGAIN    : 05
  BACK LIGHT      : XXX
  DNR LEVEL       : AUTO
  DEFOG           : OFF
▷ FLICKERLESS     : OFF


  BACK
```
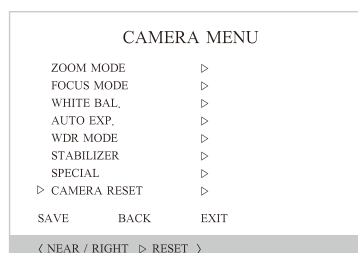〈 NEAR / RIGHT ▷ FLICKERLESS MODE 〉

Occurs flicker correction function in the
Power frequency is different areas(50Hz/60Hz)
(AE MODE AUTO / IRIS MODE can be in control)

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

1. 8 CAMERA RESET

```
         CAMERA MENU

  ZOOM MODE        ▷
  FOCUS MODE       ▷
  WHITE BAL.       ▷
  AUTO EXP.        ▷
  WDR MODE         ▷
  STABILIZER       ▷
  SPECIAL          ▷
▷ CAMERA RESET     ▷

  SAVE      BACK       EXIT
```
〈 NEAR / RIGHT ▷ RESET 〉

Make initialize the setting value which is set in CAMERA MENU.

Select : [JOYSTICK] or [NEAR]   Set ON : [JOYSTICK]   Set OFF : [NEAR]

2. CAMERA SPECIFICATION

2. 1 x30 Camera

Image Sensor	1/2" Sony CMOS Sensor
Total Pixels	1,952(H) x 1,241(V) = 2.42M Pixels
Active pixels	1,937(H) x 1,097(V) = 2.12M Pixels
Scanning system	Progressive Scan
Sync. System	Internal
Resolution	Digital : 1080p/30(25)fps, 1080p/60(50)fps(Option),720p/30(25)fps, 720p/60(50)fps
	Analog : 700TVL
Min. illumination	Color(1/30s) : 0.15 lux , BW(1/30s) : 0.01 lux
	Color DSS(1/7.5s) : 0.0375 lux , BW DSS(1/7.5s) : 0.002 lux
Video Output	HD : Digital(LVDS), EX-SDI
	Analog SD : VBS(without WDR)
S/N Ratio	more than 50dB (AGC off)
Lens type	x30 Day & Night Zoom Lens
Zoom Ratio	Optical x30, Digital x32 Zoom
Focal Length	f = 6.0 mm ~ 180.0 mm
Aperture Ratio	F1.5 (wide) ~ F4.3 (tele)
Focus	Mode / Distance / Zoom Speed / Lens Refresh / E.Zoom
Mode	Auto / One Push / Manual
Distance	0.1 / 1.5 / 3.0 / 5.0 / 10.0 m
Lens Refresh	One Push / 1 ~ 10Day
E.Zoom	Off / MAX x2 ~ x32
Exposure	AUTO / IRIS.P / SHUT.P / MANUAL
Shutter Speed	1/30(25) ~ 1/30,000 sec
Iris	0 ~ 20
Digital Slow Shutter (DSS)	Off / x2 / x4 (/ x8 : 60 or 50 fps mode only)
WDR/BLC	OFF / WDR / BLC
Day&Night	Auto / Day / Night / Ext-in
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
DNR	Auto / Off / Low / Middle / High
System	NTSC / PAL
HD Format	1080p/30(25)fps / 1080p/60(50)fps(Option) / 720p/30(25)fps / 720p/60(50)fps

* Design and specifications are subject to change without notice.