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# Camera OSD Manual

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

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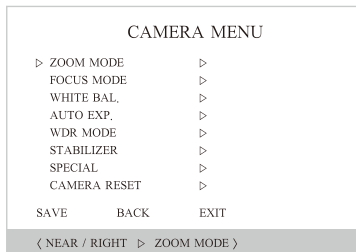
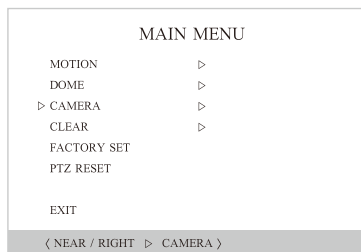
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## 2. CAMERA SPECIFICATION

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# 1. Camera Setting

**Camera menu subject to change 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.**

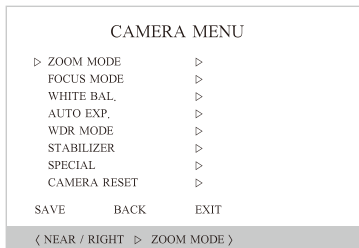


## CAMERA MENU

- Functions can be set-up using the Camera menu.

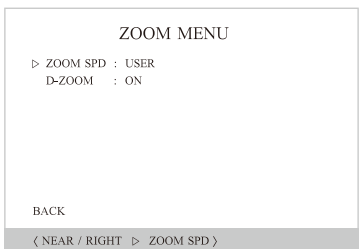
In this menu, user can set the zoom, focus, white balance, auto exposure...etc functions.

### 1.1 ZOOM MODE



Decide using of digital zoom function and select zoom speed.

#### - ZOOM SPD



**ZOOM SPD :** Select from 1sept to 7 steps,  
USER (Standard speed)

Select :  JOYSTICK

or

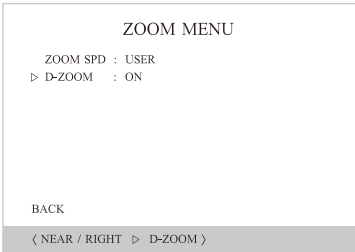


Set ON :  JOYSTICK

Set OFF :



## - D-ZOOM

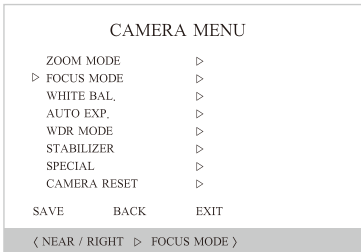


Decide using of digital zoom function.

D-ZOOM: ON/ OFF

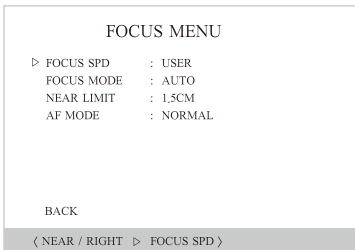


## 1.2 FOCUS MODE



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

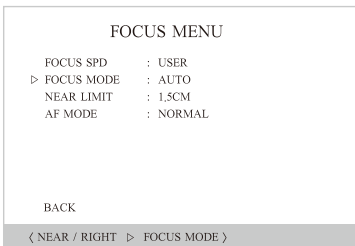
### - FOCUS SPD



Set the speed for camera focusing.



### - 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.

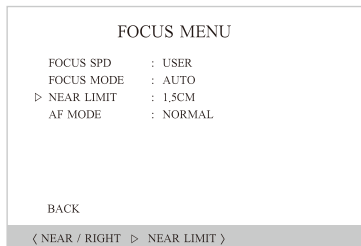
**ONEPUSH** : If user adjust Pan, tilt or zoom, camera will make focus.

**ONEPUSH S** : If user adjust zoom, camera will make focus. (Pan and Tilt operation will not be made focus)

**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.



## - NEAR LIMIT

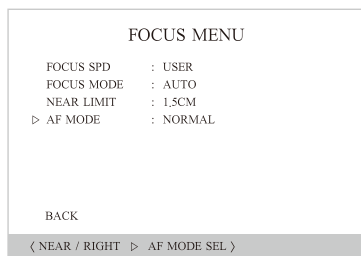


Infinity focus is the state where a lens forms an image of an object an infinite distance away. This corresponds to the point of focus for parallel rays.

( Over Infinity ~ 1.0CM)

Select :  or  Set ON :  Set OFF : 

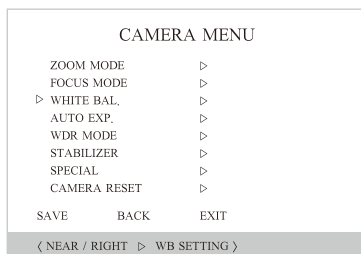
## - AF MODE



Set the AUTO FOCUS MODE position

Select :  or  Set ON :  Set OFF : 

## 1.3 WHITE BALANCE Set the white balance of camera.

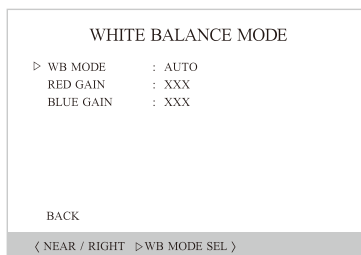


White balance setting is a function revising color temperature to resolve the problem that screen's colors change by the color temperature's difference according to time.

Select :  or  Set ON :  Set OFF : 

JOYSTICK                      JOYSTICK

### - WB MODE

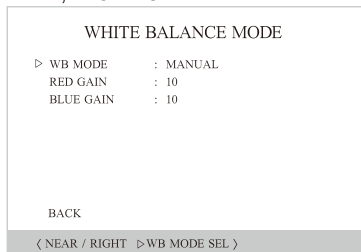


WB MODE: Set the color depend on white balance.  
WB MODE : Select AUTO, INDOOR, OUTDOOR, ONEPUSHAWB or MANUAL.

Select :  or  Set ON :  Set OFF : 

JOYSTICK                      JOYSTICK

### - RED, BLUE MODE

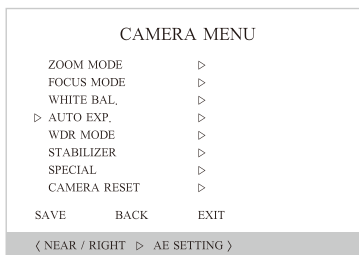


Adjust color level (RED, BLUE : 00~ 20)  
Standard level : RED -> 10 BLUE->10

Select :  or  Set ON :  Set OFF : 

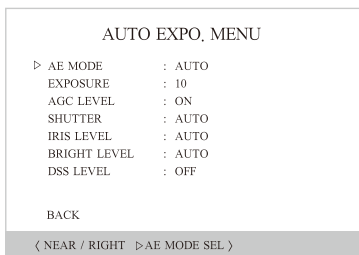
JOYSTICK                      JOYSTICK

## 1.4 AUTO EXPOSURE



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

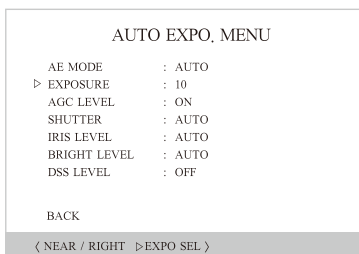
### - AE MODE



Select AUTO, MANUAL, SHUTTER, IRIS or BRIGHT.



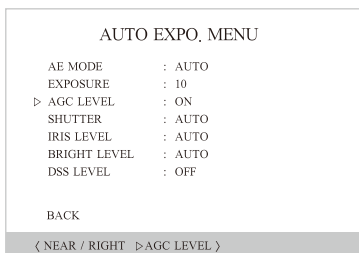
### - EXPO MODE



Set the exposure. (00 ~ 20)



### - AGC LEVEL

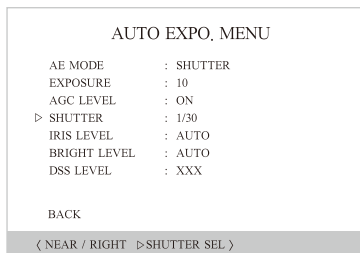


Auto level control function  
: select ON / OFF





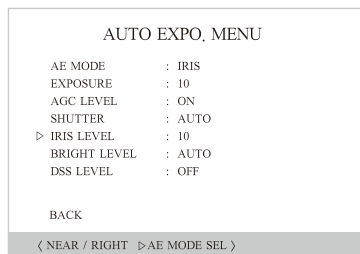
## - SHUTTER



If you set SHUTTER in the AE MODE, you can control shutter speed.  
(x2, x3, x4, 1/30000, 1/10000, 1/7000, 1/5000, 1/2500, 1/1600, 1/1100, 1/700, 1/250, 1/120, 1/60)

Select :  or  Set ON :  Set OFF : 

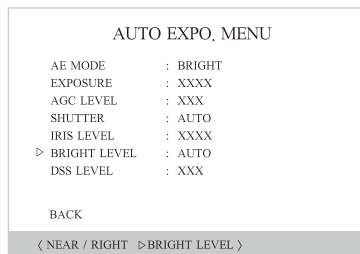
## - IRIS LEVEL



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

Select :  or  Set ON :  Set OFF : 

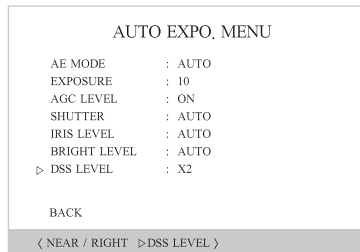
## - BRIGHT LEVEL



To change bright level, select BRIGHT in AE MODE and set by NEAR key.  
Set from 0 ~ 23

Select :  or  Set ON :  Set OFF : 

## - DSS LEVEL



Digital Slow Shutter: Control digital show shutter speed.  
(X2, X3, X4, OFF)

Select :  or  Set ON :  Set OFF : 

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	:	--
ACE MODE	:	OFF
BACK		
◀ NEAR / RIGHT ▷ WDR MODE ▶		

Select ON or OFF.

Select :  or  Set ON :  Set OFF : 

- WDR LEVEL

WDR MODE MENU		
WDR MODE	:	OFF
▷ WDR LEVEL	:	--
ACE MODE	:	OFF
BACK		
◀ NEAR / RIGHT ▷ WDR LEVEL ▶		

Select from 00 to 04.

Select :  or  Set ON :  Set OFF : 

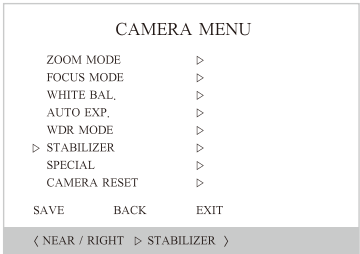
- ACE MODE

WDR MODE MENU		
WDR MODE	:	OFF
WDR LEVEL	:	--
▷ ACE MODE	:	ON
BACK		
◀ NEAR / RIGHT ▷ ACE MODE ▶		

Select ON or OFF

Select :  or  Set ON :  Set OFF : 

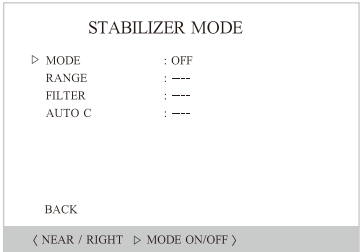
# 1.6 STABILIZER



Select Digital Image Stabilizer mode

\* Stabilizer function is not applied for some models.

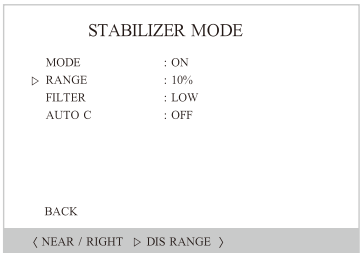
## - STABILIZER MODE



Set the Stabilizer mode.(ON/OFF)



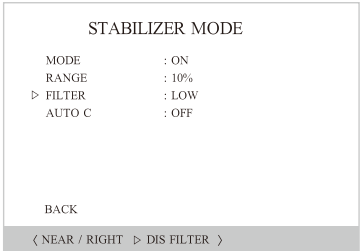
## - RANGE



Setting the image compensation range.  
(10%, 20%, 30%)



## - FILTER



Setting the sensitivity to hold DIS function in worst case.  
(LOW, MIDDLE, HIGH)



## - 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 :  or  Set ON :  Set OFF : 

JOYSTICK JOYSTICK

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

Select :  JOYSTICK or 

Set ON :  JOYSTICK Set OFF : 

- ICR MODE

SPECIAL MENU		
▷ ICR MODE	:	AUTO
ICR LEVEL	:	0.5 LUX
APERTUREGAIN	:	05
BACK LIGHT	:	OFF
BACKLIGHT SET	:	▷
DNR LEVEL	:	AUTO
DEFOG	:	OFF
FLICKERLESS	:	OFF
BACK		
◀ NEAR / RIGHT ▷ ICR MODE ▶		

Select AUTO, DAY and NIGHT.

Select :  JOYSTICK or 

Set ON :  JOYSTICK Set OFF : 

- ICR LEVEL

SPECIAL MENU		
ICR MODE	:	AUTO
▷ ICR LEVEL	:	0.5 LUX
APERTUREGAIN	:	05
BACK LIGHT	:	OFF
BACKLIGHT SET	:	▷
DNR LEVEL	:	AUTO
DEFOG	:	OFF
FLICKERLESS	:	OFF
BACK		
◀ NEAR / RIGHT ▷ ICR LEVEL ▶		

Set ICR Value. ( 0.5~20.0 lux)

Select :  JOYSTICK or 

Set ON :  JOYSTICK Set OFF : 

- APERTURE GAIN

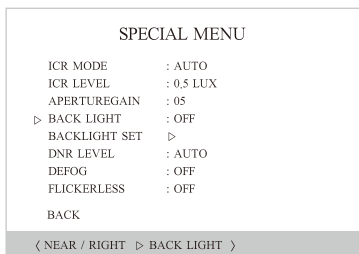
SPECIAL MENU		
ICR MODE	:	AUTO
ICR LEVEL	:	0.5 LUX
▷ APERTUREGAIN	:	05
BACK LIGHT	:	OFF
BACKLIGHT SET	:	▷
DNR LEVEL	:	AUTO
DEFOG	:	OFF
FLICKERLESS	:	OFF
BACK		
◀ NEAR / RIGHT ▷ APERTURE ▶		

APERTURE GAIN: Select aperture gain

Select :  JOYSTICK or 

Set ON :  JOYSTICK Set OFF : 

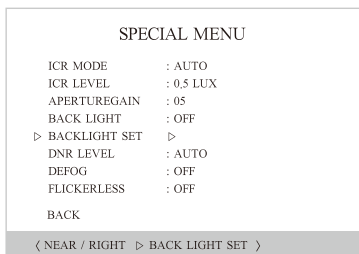
## - BACK LIGHT



Select ON/OFF in the BACK LIGHT function.



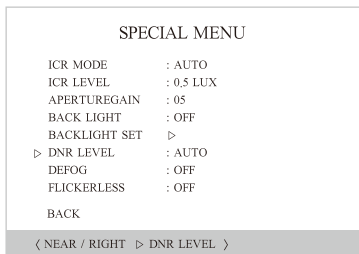
## - BACK LIGHT



Setup BACKLIGHT area.

- To enable BACKLIGHT function, press the [NEAR] key on the BACKLIGHT menu than make it ON using joystick.
- To select BACKLIGHT position, press the [NEAR] key on the BACKLIGHT SET menu than select the POSITION using joystick than press [NEAR] key to escape the menu.

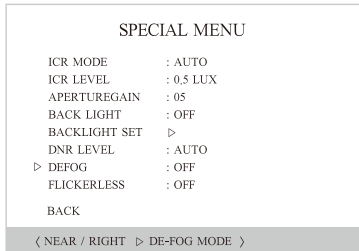
## - DNR LEVEL



Select the DNR level from AUTO, LEV1, LEV2, LEV3 and OFF.



## - DEFOG



Defogging foggy video image.  
Select ON/OFF.



- FLICKERLESS

SPECIAL MENU

ICR MODE : AUTO

ICR LEVEL : 0.5 LUX

APERTUREGAIN : 05

BACK LIGHT : OFF

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)

Select :  JOYSTICK or 

Set ON :  JOYSTICK Set OFF : 

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 

Set ON :  JOYSTICK Set OFF : 

## 2. Camera Specification

### 2.1 x20 Camera

Image Sensor	1/3" Panasonic CMOS Sensor
Total Pixels	1956 (H) x 1266 (V) = 2.48M Pixels
Active pixels	1944 (H) x 1092 (V) = 2.12M Pixels
Scanning system	Progressive Scan
Sync. System	Internal
Resolution	Digital : 1080p/30(25)fps, 1080p/60(50)fps(Optional), 720p/30(25)fps, 720p/60(50)fps Analog : 700TVL
Min. illumination	Color(1/30s) : 0.5 lux , BW(1/30s) : 0.1lux Color DSS(1/7.5s) : 0.125 lux , BW DSS(1/7.5s) : 0.025 lux
Video Output	HD : Digital(LVDS) Analog SD : VBS(without WDR)
S/N Ratio	more than 50dB (AGC off)
Lens type	x20 Day & Night Zoom Lens
Zoom Ratio	Optical x20, Digital x32 Zoom
Focal Length	f = 4.7 mm ~ 94.0 mm
Aperture Ratio	F1.6 (wide) ~ F3.5 (tele)
Focus	Mode / Distance / Zoom Speed / Lens Refresh / E.Zoom
Mode	Auto / One Push / Manual
Distance	0.1 / 1.0 / 3.0 / 6.0 / 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(Optional) / 720p/30(25)fps / 720p/60(50)fps

\* Design and specifications are subject to change without notice.