MODE NO.			
IMAGE SENSOR		Megapixel CMOS Sensor	
CCD TOTAL PIXELS		1384(H) X 1076(V) approx. 1.49M pixel	
SCANNING SYSTEM		Progressive scan	
SYNC SYSTEM		Internal	
MINIMUM ILLUMINATION		0.1 Lux @ AGC on /Sens-up off/ F1.2 Color to B/W	
OPTIC /Lens	Type filter	C/CS mount IR-Cut filter	C/CS mount ICR(IR-cut removable)
RESOLUTION		Over 800 TV-Line (*1)	
ICR-Set CONTROL		Auto, External-control(Optional function)	
GAIN CONTROL		Auto, manual	
EXPOSURE CONTROL		Auto, manual, IRIS priority	
S / N RATIO		48dB (TYP) (Gamma, Aperture, AGC OFF)	
AUTO IRIS		AES (Rolling shutter) / ALC-DC lens	
MULTI-FORMAT VIDEO OUT		Image Aspect: Full/Normal HDV 16:9 (Mode: Squeeze or Cropped): 720p50/60Hz;1080p25/30Hz SDV(4:3)(Mode: Squeeze or cropped): NTSC/PAL(4:3/16:9)	
DNR		3D/2D Noise Reduction (Off/Low/Middle/High)	
GAMMA CORRECTION		0.45 / 1.0	
DIGITAL ZOOM		4 times	
DIGITAL VIDEO OUT		HD-SDI	
ANALOG VIDEO OUT		CVBS NTSC/PAL(Selectable by OSD)	
Protocol		RS-485(Optional function)	
OSD CONTROL		Peak/ BLC/Fixed shutter/XDR /AGC/ Fixed Gain/Slow shutter/3DNR Control/Day-night/Fog-Reduction / Eclipse/Enhance H-V/UV-Matrix/AWB /ATW/R-Y/B-Y/Freeze/Priority/Motion Detection/Digital P.T.Z /Posi-Negative/Privacy MASK/Cross line/Freeze/Com-ID	
OPERATION TEMPERATURE		-20℃ TO 50℃	
OPERATIONAL HUMIDITY		within 85% RH	
POWER SUPPLY		DC12V±1V / 280mA	

*1:For the best image performance and high recognition possibilities, high-quality relative terminal equipment is highly recommend, such as display, video recorder, and camera lens.

Dimension (Unit : mm / ±0.3mm)
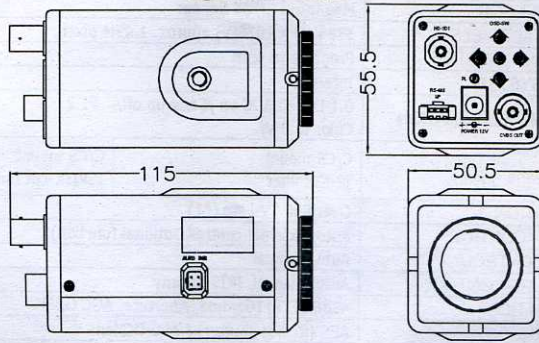
REAR PANEL	
1	HD-SDI OUT
2	CVBS VIDEO OUT
3	POWER IN DC-JACK
4	POWER ON INDEX LED
5	OSD-SW "ENTER"
6	OSD-SW "UP"
7	OSD-SW "DOWN"
8	OSD-SW "LEFT"
9	OSD-SW "RIGHT"
10	RS-485 I/F (Not have release)

IRIS CONNECTOR(DC-LENS)	
P1	DUMP-
P2	DUMP+
P3	DRIVE
P4	DRIVE
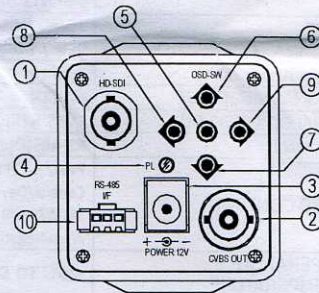
For TV System selection (NTSC/PAL)

Set the video format for NTSC by turning on the power while pressing [UP] key together, and set the video format for PAL by turning on the power while pressing [RIGHT] key together.

Caution for Installation

1. Avoid places where there is direct sunlight. When using the camera outside.

2. Be careful, never let any water in this equipment.

3. Do not directly touch the Sensor device. If necessary, use a soft cloth moistened with alcohol to wipe off the dust.

4. When the camera installs in dust or wet environment, please puts into the camera housing.

5. Be extra careful not to shake the camera.

6. Avoid places where temperatures exceed 50 ℃ or more.

7. Be extra careful not to mistake plug in connect.

8. The camera are only operated with regulative adaptor DC 12V, AC to DC non-regulative adaptor may cause camera damaged.

OSD MENUAL

There are 5 push switch [UP],[DOWN],[LEFT],[RIGHT],[ENTER], push the [ENTER] switch up to 2 second, a pretty menu will be pop-up on your screen.

You may now push [UP] or [DOWN] switch to browse around menu.

Select RETURN and press [RIGHT] or [ENTER] key to exit SUB MENU, and select EXIT and press [RIGHT] or [ENTER] key to exit MAIN MENU.

Set the HDV output ON/OFF by turning on the power while pressing [LEFT] key together, and set the SDV output ON/OFF by turning on the power while pressing [DOWN] key together.

```
LUMINANCE MENU1  (1/4)
ALC          ON
AES          OFF
FIX SHUTTER  ON
PEAK AVERAGE OFF
BACK LIGHT   OFF
XDR          OFF
GAMMA        1.80

EXIT
```

```
LUMINANCE MENU2  (2/4)
AGC           FIX
SLOW SHUTTER  OFF
DNR           OFF
DAY/NIGHT     AUTO
FOG REDUCTION OFF
ECLIPSE       OFF
ENHANCE       H  80
              V  80
EXIT
```

```
COLOR MENU    (3/4)
COLOR MODE    MONO
WHITE BALANCE ATW
UV MATRIX
COLOR GAIN        80
COLOR TONE    R-Y 80
              B-Y 80

EXIT
```

```
SETUP MENU     (4/4)
LANGUAGE
TITLE
DEFAULT
SPECIAL FUNCTION


EXIT
```

SPECIAL FUNCTION (1/2) SPECIAL FUNCTION (2/2)

```
SPECIAL FUNCTION (1/2)
■PRIORITY
  MOTION DETECT
  DIGITAL ZOOM
  H/V REVERSE
  DISPLAY MODE


  RETURN
```

```
SPECIAL FUNCTION (2/2)
■PRIVACY MASK
  CROSS LINE
  FREEZE
  POSI/NEGA
  COMM ID


  RETURN
```

Chooses MENU with [UP],[DOWN] or Choose [ENTER], the SUB MENU will be displayed.

If comes out from each SUB MENU, choose RETURN after [RIGHT] or Choose [ENTER].

If comes out from the Main Menu, choose EXIT after [RIGHT] or Choose [ENTER].

ALC

```
■AUTO LUMINANCE CONTROL
    OFF
  →ON
    →LUMINANCE LEVEL
      —▭▭▭▭▭▮▭▭▭▭▭+  00
    FLC
    →OFF
      ON

  RETURN
```

USE "OFF"

Move cursor to ALC row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

You can select OFF/ON/FLC mode, select ON mode ALC is turned on, AES will be turned off automatically.

OFF: at the mode AUTO LUMINANCE CONTROL function will be stop.

ON: at the mode can be adjustable ALC level at the standard light setting between -40% to +40%, -40/-35/-30/-25/-20/-15/-10/-5/0/+5/+10/+15/+20/+25/+30/+35/+40 (All 17 levels).

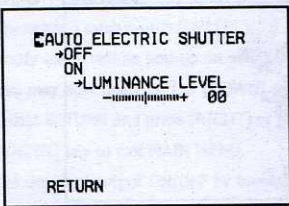To adjust levels by [LEFT],[RIGHT] and ensure setting by [ENTER].

FLC: flick less mode can be select ON or OFF

NTSC is at 1/100s and PAL is at 1/120s when FLC is on and the shutter is fixed.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

AES

```
CAUTO ELECTRIC SHUTTER
  →OFF
   ON
     →LUMINANCE LEVEL
       —ₐₗₗₗₗₗₗₗₗₗ|ₗₗₗₗₗₗₗₗ+  00



  RETURN
```

SET TO "OFF" (handwritten)

Move cursor to AES row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

You can select OFF/ON mode, select ON mode AES is turned on, ALC will be turned off automatically.

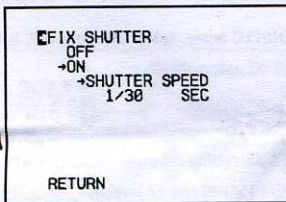**OFF:** at the mode AUTO ELECTRIC SHUTTER function will be stop

ON: at the mode can be adjustable AES level at the standard light setting between -40% to +40%,

-40/-35/-30/-25/-20/-15/-10/-5/0/+5/+10/+15/+20/+25/+30/+35/+40 (All 17 levels).

To adjust levels by [LEFT],[RIGHT] and ensure setting by [ENTER].

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

FIX SHUTTER

```
CFIX SHUTTER
   OFF
  →ON
    →SHUTTER SPEED
      1/30    SEC



  RETURN
```

USED FOR SOLAR, LUNAR, AND PLANETARY (handwritten)

Move cursor to FIX SHUTTER row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

You can select OFF/ON mode, select ON mode FIX SHUTTER is turned on, AES will be turned off automatically.

OFF: at the mode FIX SHUTTER function will be stop

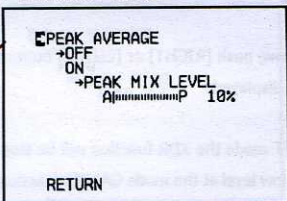**ON:** at the mode can be select fix shutter speed, NTSC:1/30～1/10000s, PAL:1/25～1/10000s

NTSC:1/30,1/50,1/60,1/100,1/120,1/180,1/350,1/500.1/750,1/1000,1/2000,1/4000,1/10000.

PAL:1/25,1/50,1/60,1/100,1/120,1/180,1/350,1/500.1/750,1/1000,1/2000,1/4000,1/10000.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

PEAK AVERAGE

```
┌─────────────────────────┐
│ ▐PEAK_AVERAGE           │
│   →OFF                  │
│   ON                    │
│     →PEAK MIX LEVEL     │
│        A▐▌▌▌▌▌▌▌▌▌P  10% │
│                         │
│                         │
│   RETURN                │
└─────────────────────────┘
```
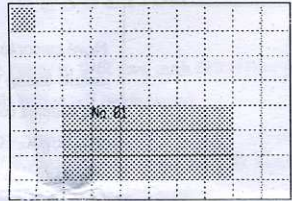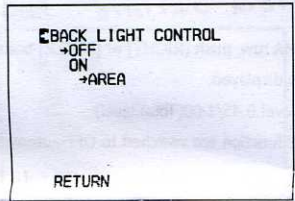
Move cursor to PEAK AVERAGE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

You can select OFF/ON mode, select ON mode PEAK AVERAGE is turned on, BLC and XDR will be turned off automatically

OFF: at the mode PEAK AVERAGE function will be stop.

ON: adjust PEAK ratio when obtain brightness, adjustable range between 10% to 90% all 9 levels.

10% , 20% , 30% , 40% , 50% , 60% , 70% , 80% , 90% all 9 levels.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

BACK LIGHT

```
┌─────────────────────────┐
│ ▐BACK LIGHT CONTROL     │
│   →OFF                  │
│   ON                    │
│     →AREA               │
│                         │
│                         │
│   RETURN                │
└─────────────────────────┘
```

Move cursor to BACK LIGHT row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

You can select OFF/ON mode, select ON mode BACK LIGHT is turned on, BLC & PEAK and XDR will be turned off automatically.

OFF: at the mode back light function is stop.

ON: The below AREAs will be shown on the screen. Backlight AREA can be choose and set.

AREA: When SDV display mode=4:3 area 02~ 8D can be select and set, When SDV display mode=FULL area 01~ 8E can be select and set.

01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E
11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E
21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E
31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

XDR EXTENDED DYNAMIC RANGE

```
EXDR CONTROL
 →OFF
  LOW
  MIDDLE
  HIGH



  RETURN
```

Move cursor to XDR row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

OFF: If you select OFF mode the XDR function will be stop.
LOW: XDR control is low level at the mode GAMMA function switch to 0.45 automatically.

MIDDLE: XDR control is middle level.

HIGH: XDR control is high level.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

GAMMA

```
EGAMMA CONTROL
 →GAMMA 0.45
  GAMMA 1.00



  RETURN
```

Move cursor to GAMMA row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

Set Gamma control level.0.45/1.00(Total level)

※XDR/FOG/ECLIPSE function are switched to OFF automatically when GAMMA is 1.00.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU1

AGC

```
EANALOG GAIN CONTROL
 →AUTO
  →MAX GAIN LEVEL
   L▮▮▮▮▮▮▮▮▮H 24dB
  FIX
  →FIX GAIN LEVEL
   L▮▮▮▮▮▮▮▮H  30dB

  RETURN
```

USE "FIX" AND ADJUST ACCORDINGLY

Move cursor to AGC row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.
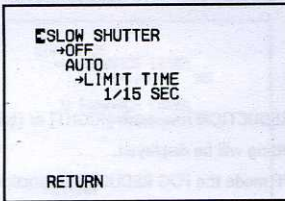
AUTO: Set AGC AUTO the MAX GAIN LEVEL can be set from 0/2/4/6/8/10/12/14/16/18/20/22/24 dB (all 13 levels), To change levels by LEFT/RIGHT and confirm by ENTER.

FIX: Set AGC gain is fix, FIX GAIN LEVEL can be set from 0~24dB. 0/2/4/6/8/10/12/14/16/18/20/22/24 dB (all 13levels), To change levels by LEFT/RIGHT and confirm by ENTER.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU 2.

SLOW SHUTTER

```
⊏SLOW_SHUTTER
  →OFF
   AUTO
     →LIMIT TIME
        1/15 SEC




  RETURN
```

Move cursor to SLOW SHUTTER row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

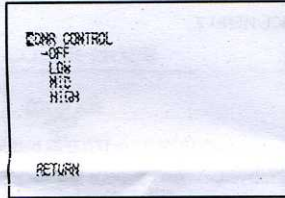**OFF:** If you select OFF mode the SLOW SHUTTER function will be stop

AUTO: Choose LIMIT TIME when SLOW SHUTTER is auto

By NTSC mode from 1/15~8sec. 1/15,1/8,1/4,1/2,1,2,4,8sec. 8 step.

By PAL mode from 1/12~8sec. 1/12,1/6,1/3,1/2,1,2,4,8sec. 8 step.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU 2.

DNR   *DIGITAL NOISE REDUCTION*

```
⊏DNR CONTROL
  →OFF
   LOW
   MID
   HIGH



  RETURN
```

Move cursor to DNR row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

OFF: If you select OFF mode the DNR function will be stop.
LOW: DNR control is low level.
MID: DNR control is middle level.

HIGH: DNR control is high level.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU 2.

DAY / NIGHT

USE "DAY"
-FULL COLOR ALL THE TIME

```
⊏DAY/NIGHT
   DAY
   NIGHT
  →AUTO
     →HOLD TIME
         1 SEC



  RETURN
```

Move cursor to DAY/NIGHT row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

DAY: at the mode IR-cut FILTER is fixed.

**NIGHT:** at the mode IR-cut FILTER is remove.

AUTO: When AGC is up to maximum and the brightness does not reach the standard, IR FILTER will be remove, When AGC down to minimum and the bright will reach standard, IR FILTER will be fixed.

At the AUTO mode IR FILTER control reaction time will be select from 1~ 60sec. 1,5,10,20,30,40,50,60,sec. all 8 step.

FOG REDUCTION

REDUCES IR CAPTURE

```
□FOG REDUCTION
  →OFF
   LOW
   MID
   HIGH


   RETURN
```
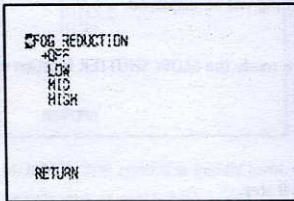
Move cursor to FOG REDUCTION row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

OFF: If you select OFF mode the FOG REDUCTION function will be stop.

LOW: FOG REDUCTION control is low level.

※ECLIPSE function is swutched to OFF automatically when FOG REDUCTION is ON.

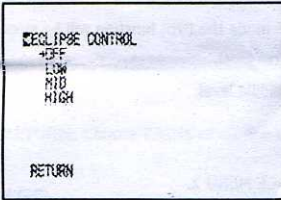※GAMMA function is swutched to 0.45 automatically when FOG REDUCTION is ON.

MID: FOG REDUCTION control is middle level.

HIGH: FOG REDUCTION control is high level.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU 2.

ECLIPSE

AKA "CORONOGRAPH"

```
□ECLIPSE CONTROL
  →OFF
   LOW
   MID
   HIGH


   RETURN
```

Move cursor to ECLIPSE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

OFF: If you select OFF mode the ECLIPSE function will be stop.

LOW: ECLIPSE control is low level.

※FOG REDUCTION function are swutched to OFF automatically when ECLIPSE control is ON.

※GAMMA function are swutched to 0.45 automatically when ECLIPSE control is ON.
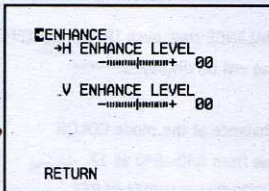
MID: ECLIPSE control is middle level.

HIGH: ECLIPSE control is high level.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU 2.

ENHANCE

```
■ENHANCE
  →H ENHANCE LEVEL
    —    |    + 00
  .V ENHANCE LEVEL
    —    |    + 00


  RETURN
```

Move cursor to ENHANCE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

H ENHANCE LEVEL: Set horizontal ENHACE LEVEL between -60 to +60. 0/-50/-40/-30/-20/-10/0/+10/+20/+30/+40/+50/+60 all 13 levels.
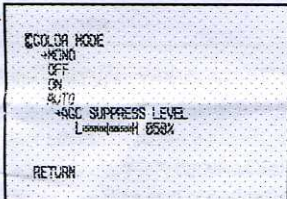
To change levels by LEFT/RIGHT, confirm by ENTER.

V ENHANCE LEVEL: Set horizontal ENHACE LEVEL between -60 to +60, 0/-50/-40/-30/-20/-10/0/+10/+20/+30/+40/+50/+60 all 13 levels. To change levels by LEFT/RIGHT, confirm by ENTER.

RETURN: Choose RIGHT or ENTER to return to the LUMINANCE MENU 2.

COLOR MODE

```
■COLOR MODE
  →MONO
    OFF
    ON
    AUTO
  →AGC SUPPRESS LEVEL
    L        H 050%


  RETURN
```

Move cursor to COLOR MODE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed

MONO: If you select MONO mode the subcarrier will be off, display monochrome image.

OFF: If you select OFF mode the subcarrier will be on, display monochrome image.

ON: Normal color image is presented, Color mode is fixed, no relation IR filter is removable.

AUTO: at the mode can be control color gain supress level from 10% ~ 100% all 11 levels, (0/10/20/30/40/50/60/70/80/90/100%)

Choose LEFT/RIGHT to change levels. Choose ENTER to confirm the setting.

RETURN: Choose RIGHT or ENTER to return to the COLOR MENU.

WHITE BALANCE

```
┌WHITE BALANCE
  →ATW
     →COLOR OFFSET
        R▩▩▩▩╪▩▩▩▩B  00

     AWB
     →COLOR OFFSET
        R▩▩▩▩╪▩▩▩▩B  00

  RETURN
```

Move cursor to WHITE BALANCE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

ATW: Auto trace white balance at the mode COLOR OFFSET can be adjustable from R40~B40 all 17 steps,R40/R35/R30/R25/R20/R15/R10/R5/ 0/ B5/ B10/B15/B20/B25/B30/B35/B40 (All 17 levels)

Choose LEFT/RIGHT to change levels. Choose ENTER to confirm the setting.

AWB: *It's the one touch white balance and keeps the white balance conditions till resetting,* at the mode COLOR OFFSET can be adjustable from R40~B40 all 17steps, R40/R35/R30/R25/R20/R15/R10/R5/ 0/ B5/ B10/B15/B20/B25/B30/B35/B40 (All 17 levels).

Choose LEFT/RIGHT to change levels. Choose ENTER to confirm the setting.

RETURN: Choose RIGHT or ENTER to return to the COLOR MENU.

UV MATRIX

```
┌UV MATRIX
  →U MATRIX
     →R —▩▩▩▩|▩▩▩▩+  00
      G —▩▩▩▩|▩▩▩▩+  00
      B —▩▩▩▩|▩▩▩▩+  00
     V MATRIX
     →R —▩▩▩▩|▩▩▩▩+  00
      G —▩▩▩▩|▩▩▩▩+  00
      B —▩▩▩▩|▩▩▩▩+  00
  RETURN
```

Move cursor to UV MATRIX row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed

U MATRIX: U axis R/G/B color adjustable.

R/G/B colors offset adjust from -128 to +127.

V MATRIX: U axis R/G/B color adjustable.

R/G/B colors offset adjust from -128 to +127

RETURN: Choose RIGHT or ENTER to return to the COLOR MENU.

MAY BE AFFECTED BY LIGHT POLLUTION - EXPERIMENT

COLOR GAIN

INCREASE COLOR SATURATION

```
[COLOR GAIN
 →GAIN CONTROL
   -||||||||||||+  00


 RETURN
```

Move cursor to COLOR GAIN row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed
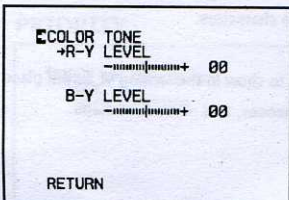
GAIN CONTROL: Offset value setting of color gain from -16 to +16.(Total 33 level)

Sekect a level with LEFT/ RIGHT key and determine with ENTER key.

RETURN: Choose RIGHT or ENTER to return to the COLOR MENU.

COLOR TONE

```
[COLOR TONE
 →R-Y LEVEL
   -||||||||||||+  00

   B-Y LEVEL
   -||||||||||||+  00


 RETURN
```

Move cursor to COLOR TONE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed

R-Y LEVEL: adjustable B-Y LEVEL *offset* data.
-40/-35/-30/-25/-20/-15/-10/-5/0/+5/+10/ +15/
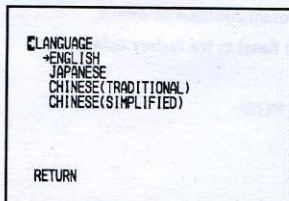+20/+25/+30/+35/+40/(All have 17 grades)

To change grade with LEFT/RIGHT, confirm with ENTER.

B-Y LEVEL: adjustable B-Y LEVEL *offset* data. -40/-35/-30/-25/-20/-15/-10/-5/0/+5/+10/ +15/
+20/+25/+30/+35/+40/(All have 17 grades)

To change grade with LEFT/RIGHT, confirm with ENTER.

RETURN: Choose RIGHT or ENTER to return to the COLOR MENU.

LANGUAGE

```
[LANGUAGE
 →ENGLISH
  JAPANESE
  CHINESE(TRADITIONAL)
  CHINESE(SIMPLIFIED)


 RETURN
```
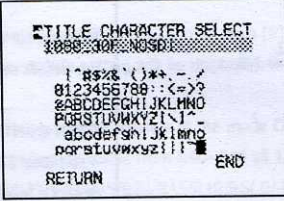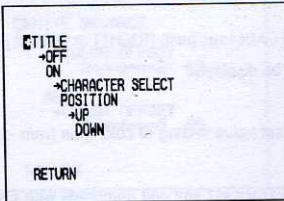
Move cursor to LANGUAGE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed

Push ENTER or RIGHT enter to language select, push UP/DOWN select, use LEFT confirm.

RETURN: Choose RIGHT or ENTER to return to the SETUP MENU.

TITLE

```
▮TITLE
 →OFF
  ON
   →CHARACTER SELECT
    POSITION
     →UP
      DOWN


 RETURN
```

```
▮TITLE CHARACTER SELECT
 ░▒▓▓░░▓▓▒░░▓▓▒▓░░░░░░░░░

  !"#$%&'()*+,-./
 0123456789:;<=>?
 @ABCDEFGHIJKLMNO
 PQRSTUVWXYZ[\]^_
 `abcdefghijklmno
 pqrstuvwxyz{|}  ▮
 RETURN        END
```

Move cursor to LANGUAGE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed

OFF: TITLE display is off.

ON: TITLE display is on can be set display character and character display position.

Set the location of characters of cursor, Use ENTER to choose characters.

CHARACTER SELECT:

Choose the writing with UP/DOWN/LEFT/RIGHT. Use ENTER to show in the writing of cursor place

The END place presses ENTER, will come back the writing chooses, and move first menu.

RETURE: Choose ENTER to return to TITLE MENU.

POSITION:

Select display position is UP or DOWN

RETURN: Choose RIGHT or ENTER to return to the SETUP MENU

DEFAULT
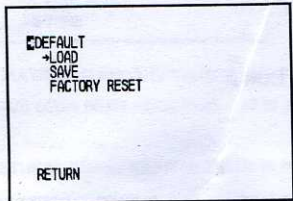
```
▮DEFAULT
 →LOAD
  SAVE
  FACTORY RESET




 RETURN
```

Move cursor to LANGUAGE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

LOAD : Set the camera condition to default.

SAVE : Save the present condition as default.

FACTORY RESET : Reset to the factory default.

RETURN: Choose RIGHT or ENTER to return to the SETUP MENU

SPECIAL FUNCTION (1/2)   ## SPECIAL FUNCTION (2/2)

```
SPECIAL FUNCTION (2/2)        SPECIAL FUNCTION (1/2)
PRIVACY MASK                  PRIORITY
 CROSS LINE                   MOTION DETECT
 FREEZE                       DIGITAL ZOOM
 POSI/NEGA                    H/V REVERSE
 COMM ID                      DISPLAY MODE


 RETURN                        RETURN
```

Move cursor to SPECIAL FUNCTION row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

PRIORITY

```
 SENS UP PRIORITY
  →AGC
   SLOW SHUTTER




 RETURN
```
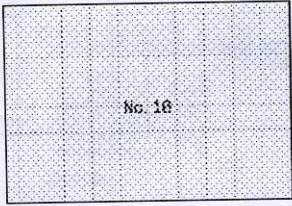
USE "AGC"

Move cursor to PRIORITY row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

SENS UP PRIORITY: Sens up function control priority select AGC first or SLOW SHUTTER first.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (1/2).

MOTION DETECT

```
☐MOTION DETECT
  →OFF
   ON
    →AREA
     SENSE LEVEL
     -▮▮▮▮▯▮▮▮▮+  00
     DISPLAY
     →OFF
      ON
         TIME 10 SEC
  RETURN
```

```
No. 10
```

Move cursor to MOTION DETECT row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

OFF : Motion detection function will be disable.

ON : Motion detection function will be active.

AREA: When display set to "4:3" mode only area 02~ 8D can be select and set, display mode set to FULL mode all area 01~8E can be select and set.

To exit the area selection screen, move out the cursor to the out of parted area and press ENTER when "END" is displayed.

01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E
11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E
21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E
31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E

SENSE LEVEL: Motion SENSE LEVEL will be set from -40~+40, (-40/-30/-20/-10/-0/+10/+20/+30/+40).
To change grade with LEFT/RIGHT, confirm with ENTER.

DIPLAY: While detect motion, OSD will show ON/OFF.

OFF: While detect motion, OSD display is OFF.

ON: While detect motion, OSD display is ON, After detect motion, OSD will show time will set.

10 is about 10 second, 30 is about 30 second, 60 is about 60 second.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (1/2).

DIGITAL ZOOM

```
→DIGITAL ZOOM
   OFF
   ON
   →MAG      ▮▮▮▮▮▮▮T  200
   POSITION
   DEFAULT
 ⌐AUTO

 RETURN
```
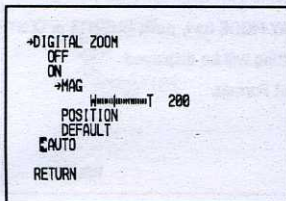
Move cursor to DIGITAL ZOOM row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

OFF : Digital zoom function will be disable.

ON : Digital zoom function will be active.

MAG: Digital zoom of the ratio will adjust. 100(W)～400(T), to adjust with LEFT/RIGHT, confirm with ENTER.
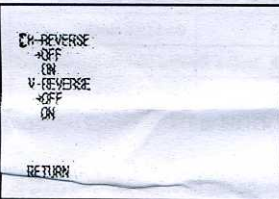
POSITION: Digital zoom of image place will set up, to adjust with LEFT/RIGHT/UP/DOWN, confirm with ENTER.

DEFAULT: Zoom ratio and Position returned to initial value

AUTO: Automatic operation PAN/TILT mode with zoom ratio 200

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (1/2).

H / V RENERSE

```
 H-REVERSE
   →OFF
    ON
 V-REVERSE
   →OFF
    ON


 RETURN
```

Move cursor to H/V RENERSE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

H-REVERSE: Reverse the displayed picture to right or left.

V-REVERSE: Reverse the displayed picture to up or down.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (1/2).

DISPLAY MODE

```
+DISPLAY MODE
  +HDV    C1080P30

  SDV     +4:3
           16:9
  ASPECT  NORMAL
          +FULL


  RETURN
```

Move cursor to DISPLAY MODE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

Set Digital Video output Format.

HDV :

(NTSC) Format setting of Digital Video output.

720P60	CLK=74.25MHz	H=1650 clock	V=750 clock
1080P30	CLK=74.25MHz	H=2200 clock	V=1125 clock
720P30(A)	CLK=74.25MHz	H=3300 clock	V=750 clock
720P30(B)	CLK=37.125MHz	H=1650 clock	V=750 clock

(PAL) Format setting of Digital Video output.

720P50	CLK=74.25MHz	H=1980 clock	V=750 clock
1080P25	CLK=74.25MHz	H=2640 clock	V=1125 clock
720P25(A)	CLK=74.25MHz	H=3960 clock	V=750 clock
720P25(B)	CLK=37.125MHz	H=1980 clock	V=750 clock

SDV : The image can be output as 4:3 or 16:9.

ASPECT : Aspect setting of Analog Video in case of 4:3. The image can be select NORMAL(1:1) or FULL in sensor valid pixel.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (1/2).

PRIVACY MASK

```
┌──────────────────┐  ┌──────────────────┐
│ ▌PRIVACY MASK    │  │ ▓▓▓▓VACY MASK    │
│  →NO=01          │  │ ▓▓0~01           │
│  →OFF            │  │     OFF          │
│   ON             │  │ →ON              │
│    →POSITION     │  │   →POSITION      │
│     SIZE         │  │     SIZE         │
│                  │  │       ↑          │
│                  │  │  ← → ENT:QUIT    │
│                  │  │       ↓          │
│  RETURN          │  │  RETURN          │
└──────────────────┘  └──────────────────┘
```

```
┌──────────────────┐
│ ▓▓▓▓ACY MASK     │
│ ▓▓0=01           │
│     OFF          │
│ →ON              │
│     POSITION     │
│    →SIZE         │
│      ↑           │
│  ← → ENT:QUIT    │
│      ↓           │
│  RETURN          │
└──────────────────┘
```

Move cursor to PRIVACY MASK row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

MASK number will choose. Maximum can set up 16 masks.

NO=01~16

OFF : Privacy mask function will be disable.

ON : Privacy mask function will be active.

POSITION: MASK of the place will adjust. To choose area with LEFT/RIGHT/UP/DOWN, confirm with ENTER.

SIZE: MASK of the size will adjust. To choose area with LEFT/RIGHT/UP/DOWN, confirm with ENTER.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (2/2).

CROSS LINE

```
┌──────────────────┐  ┌──────────────────┐
│ →CROSS LINE      │  │ →CROSS LINE      │
│  ▌OFF            │  │    OFF           │
│   ON             │  │  →ON             │
│    →POSITION     │  │   ▌POSITION      │
│     DEFAULT      │  │     DEFAULT      │
│                  │  │ - - - - - - - - -│
│                  │  │                  │
│  RETURN          │  │  RETURN          │
└──────────────────┘  └──────────────────┘
```

Move cursor to CROSS LINE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.
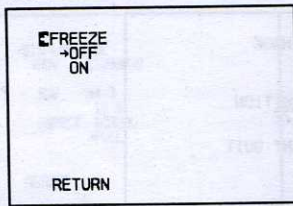
OFF: Cross line will be not display.

ON: Cross line will be display.

POSITION: Cross line of the place will adjust. To adjust with LEFT/RIGHT/UP/DOWN, confirm with ENTER.

DEFAULT: Cross line set to standard position at the center of full image.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (2/2).

FREEZE

```
[FREEZE
→OFF
 ON



 RETURN
```

Move cursor to FREEZE row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.
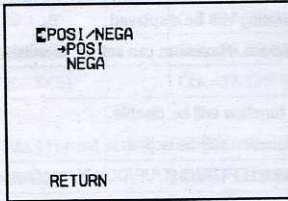
OFF: Display image are normal

ON: Display image are freeze.

RETURN: Choose RIGHT or ENTER to return to the SPECIAL

FUNCTION (2/2).

POSI / NEGA

```
[POSI/NEGA
→POSI
 NEGA



 RETURN
```
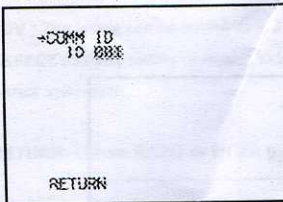
Move cursor to POSI / NEGA row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

POSI: Show positive image

NEGA: Show negative image

RETURN: Choose RIGHT or ENTER to return to the SPECIAL FUNCTION (2/2).

COMM ID

```
→COMM ID
 ID 000




 RETURN
```

Move cursor to COMM ID row, push [RIGHT] or [ENTER] bottom, the details setting will be displayed.

Set camera ID number of the serial communication of cameras.

Values available between 0 to 127 ID

ID 000 ~ 127