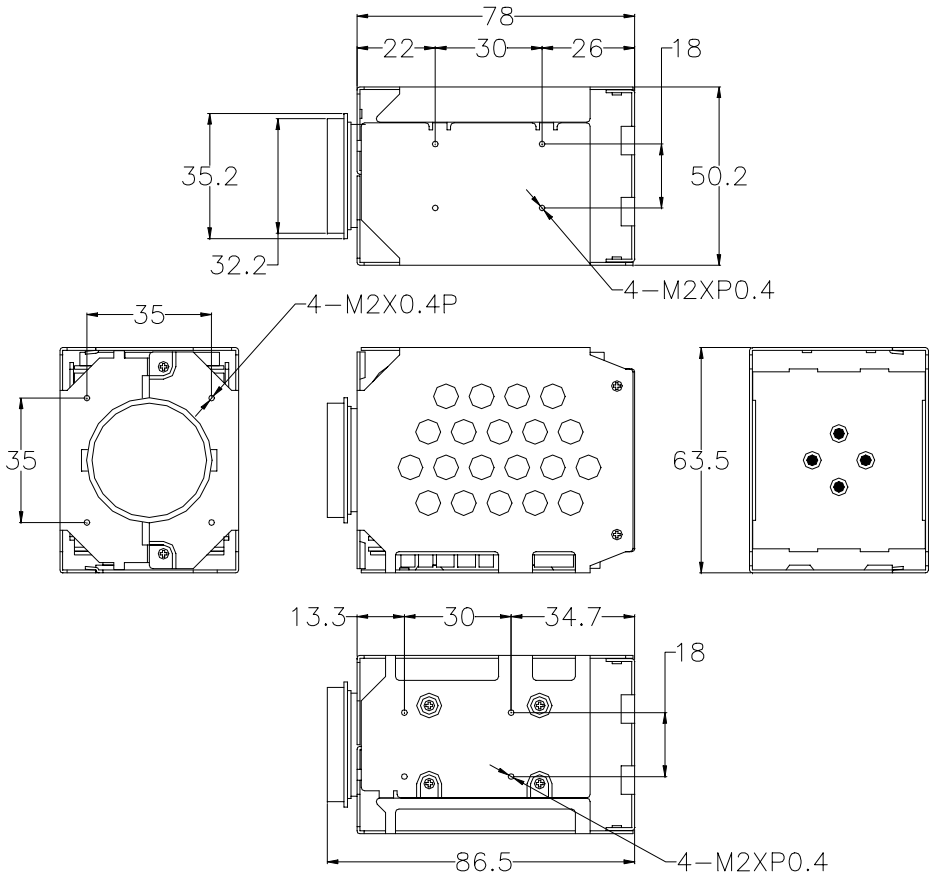
MTV-54G5 POWER ZOOM CAMERA INSTRUCTION

SPECIFICATION

MODE NO.		MTV-54G5N	MTV-54G5P
TV SYSTEM		NTSC	PAL
IMAGE SENSOR		1/4-inch CCD Image Sensor	
CCD TOTAL PIXELS		542(H) X 493(V)	537(H) X 597(V)
SCANNING SYSTEM		525 lines, 60 fields/sec	625 lines, 50 fields/sec
SYNC SYSTEM		Internal / VD-Lock	
MINIMUM ILLUMINATION	Typical	1.5 Lux (F1.6, 5600ºK) 50IRE	
	Start light Mode	0.07 Lux (F1.6, 5600ºK) 50IRE	
RESOLUTION		420 TVL	
S / N RATIO		48dB (MIN) / 52dB (TYP) (AGC OFF, r=1, APC OFF, Y-OUT)	
WHITE BALANCE		ATW / AWB / FIX (Zero color rolling)	
WHITE BALANCE RANGE		3200 ~ 9600 ºK	
B.L.C. FUNCTION		Super BLC,48 zone BLC	
GAMMA CORRECTION		0.45 /1	
AGC		AUTO (18dB max)	
ALC		AUTO / FIX	
IMAGE NEGATIVE		Select by OSD menu	
MONTION DETECT		48 zone (select by OSD)	
CROSS LINE		ON/OFF Select by OSD menu (position adj. by software)	
FREEZE FUNCTION		Alarm in trigger or Select by OSD	
ELECTRONIC SHUTTER		AES : 1/60(1/50) ~ 1/120,000 sec. / MANU : 8 step	
LENS		22X optical ZOOM LENS ,F1.6~3.8,f=4.0~88mm	
	Diagonal	W(57º 38') / T(2º 50')	
	Hor.	W(47º 31') / T(2º 16')	
	Ver.	W(36º 32') / T(1º 42')	
ZOOM		220X (22X optical 10Xdigital)	
FOCUS		Auto / Manual	
POSITION		64 Position (Zoom, Focus)	
VIDEO OUTPUT		Composite & Y/C output 1.0Vp-p at 75 ohm	
CONTRAL FUNCTION		Dry Switch , RS-232C(Drive option) , OSD control	
OSD LANGUAGE SELECT		ENGLISH / CHINESS_Simp / JAPANESE	
COMMUNICATION BAUD RATE		9600 BPS	
OPERATION TEMPERATURE		-10℃ TO 50℃	
OPERATIONAL HUMIDITY		within 85％RH	
POWER SUPPLY		DC12V±1V / 3.6W(Max)	
DIMENSIONS		86.5 mm (L) X 50.2 mm (W) X 63.5 mm (H)	

＊The specifications and appearance of the product may changed without notice.

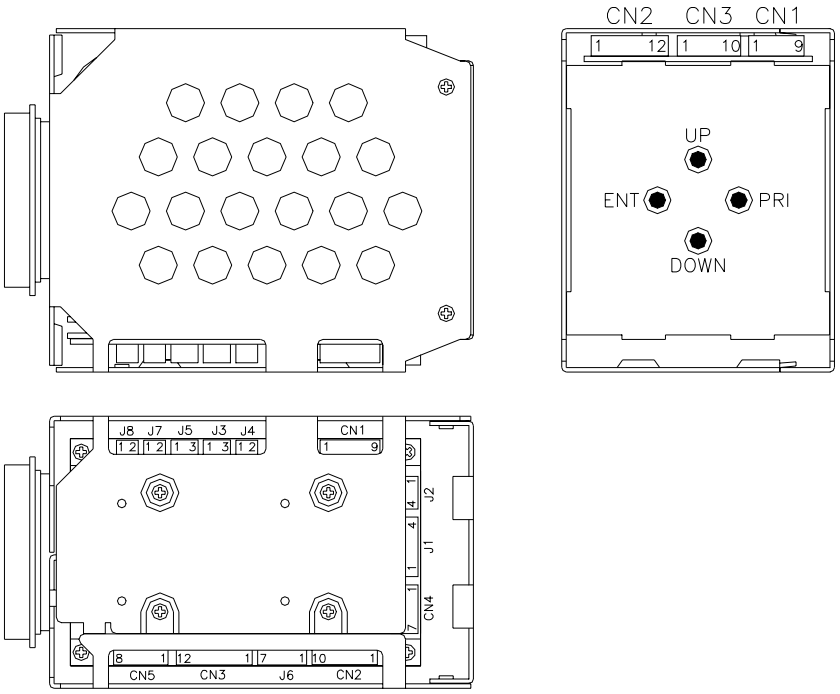
Dimension (Unit : mm)



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 CCD element. 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° C or more.
7. When any abnormalities occur, make sure to unplug the unit and contact your local dealer.
8. The camera are only operated with regulative adaptor DC 12V, AC to DC non-regulative adaptor may cause camera damaged.

CONNECTOR



MAIN BOARD (CONNECTOR TO OPTION BOARD)

CN1		CN2		CN3	
1	RS232C RXD (3.3V)	1	ALARM IN (L=Alarm)	1	GND
2	RS232C TXD (3.3V)	2	+5V (POWER OUT)	2	IRIS+/- (L=-，H=+)
3	VD-IN (3.3V)	3	GND	3	NEAR / INF (L=INF，H=NEAR)
4	+12V(10%) POWER IN	4	Position Bit-2	4	TELE / WIDE (L=WIDE，H=TELE)
5	GND	5	V-Rev. (L=ON / H=OFF)	5	RS-458_CS
6	C-out (Burst OUT)	6	H-Rev. (L=ON / H=OFF)	6	Position Bit-3
7	VBS (Video OUT)	7	Position Bit-1	7	Position Bit-4
8	Y-out (Y-signal OUT)	8	Position Bit-0	8	Position Bit-5
9	+3.3V (POWER OUT)	9	PRI (OSD BACK1)	9	MOTION OUT
＊P1~P3：H=3.3V±10% L=0V±10%		10	ENT (OSD ENTER)	10	MASK IN
		11	DW (OSD DOWN)	NOTE1	
		12	UP (OSD UP)		

NOTE1

CN3 – P2 : OPEN IS OFF , 0V~0.7V=L(－) , 2.3V~3V=H (＋)
CN3 – P3 : OPEN IS OFF , 0V~0.7V=L(INF) , 2.3V~3V=H (NEAR)
CN3 – P4 : OPEN IS OFF , 0V~0.7V=L(WIDE) , 2.3V~3V=H (TELE)

CN2-P4,P5,P6,P7,P8 & CN3-P6,P7,P8,P10 OPEN IS 3.3V
H=3.3V±10% / L=0V±10%

OPTIOM BORARD

J1		J2		CN4	
1	+12V (POWER IN)	1	GND	1	ZOOM+
2	GND	2	GND	2	ZOOM-
3	VIDEO - OUT	3	Y - OUT	3	FOCUS+
4	GND	4	C - OUT	4	FOCUS-
				5	IRIS+
				6	IRIS-
				7	------
				CONNECTOR TO LENS CONTROL BOX USE ±6V~±12V	

CN1		CN2		CN3	
P1~P9	MAIN – CN1	P1~P10	MAIN – CN3	P1~P12	MAIN – CN2
CONNECTOR TO MAIN BOARD					

CN5		J6		J5		J3		J4		J7		J8	
1	PRI – (OSD)	1	GND	1	485+	1	GND	1	AC-IN	1	MOTION	1	MASK
2	ENTER – (OSD)	2	Position-Bit5	2	485-	2	TXD	2	AC-IN	2	GND	2	GND
3	DOWN – (OSD)	3	Position-Bit4	3	GND	3	RXD						
4	UP – (OSD)	4	Position-Bit3										
5	H-REV - IN	5	Position-Bit2										
6	V-REV - IN	6	Position-Bit1										
7	ALARM - IN	7	Position-Bit0										
8	GND												

ONLY SELECT A KIND OF INTERFACE START UP

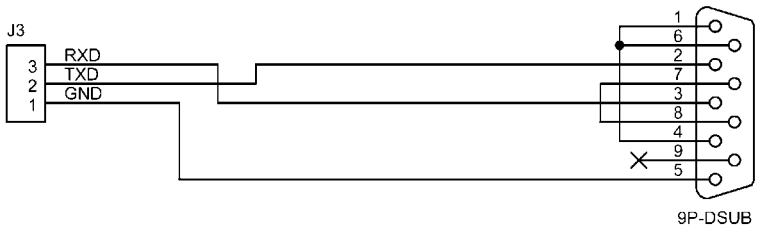
AC Signal Input for LINE-LOCK

MOTION Det. OUTPUT

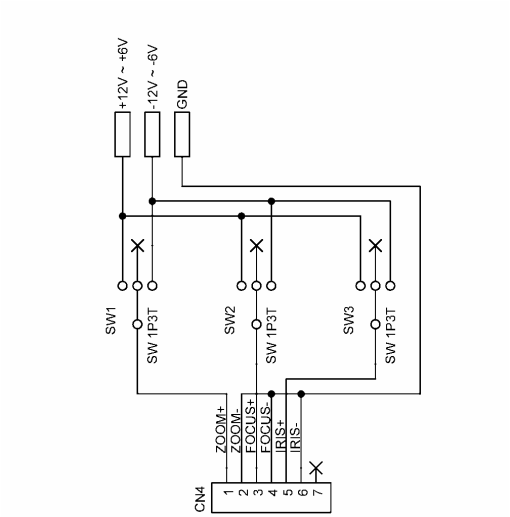
MASK ON/OFF INPUT

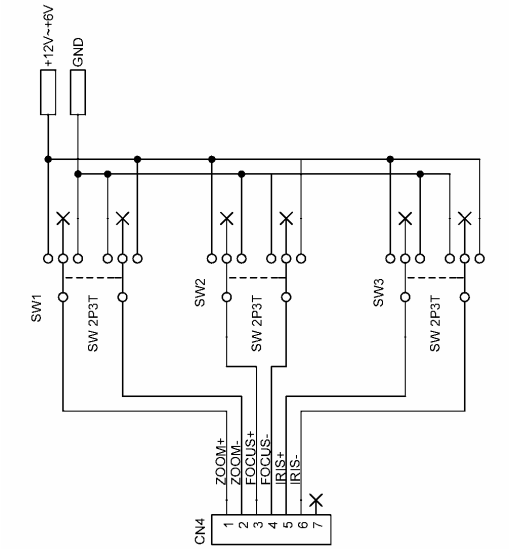
[ALARM-IN] trigger input can be select two function either “image-freeze” or “focut to set position” , by OSD-menu.
[CN5] Input-PIN connect to GND the function is active.

J5 & J3, Once permit a kind of interface start up. (Select by hardware resistor).



CN4 CONNECTOR





OSD FUNCTION SPECIFICATIO

[UP] : UP & RIGHT MOVE KEY
[DOWN] : DOWN & LEFT MOVE KEY
[ENTER] : ENTER KEY
[PRI] : PRE CONFIRM KEY

Push [ENTER] key 2sec. to get Into the MAIN menu.
Push [PRI] key 2sec. to leave menu.
If pushed [PRI] key, all set parameter data will be abandoned and return back to the previous menu page, this will occur while setting the parameter and without push [ENTER] key.
Push [UP], [DOWN] Two key at one time, screen will show COLOR BAR, want to recover normal display, Push again [UP], [DOWN] Two key at one time, screen will recover normal display

MAIN-PAGE

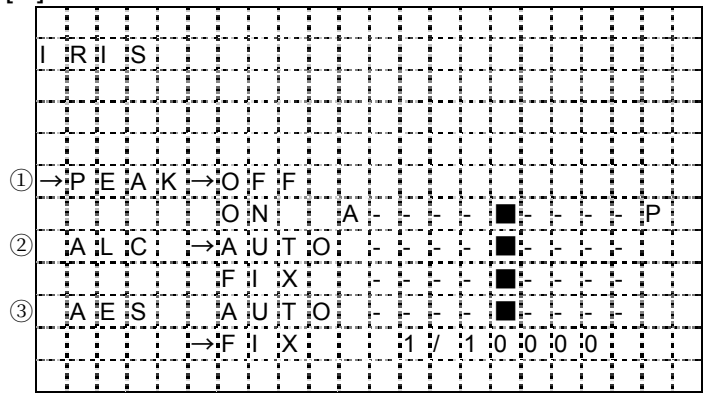
```
→IRIS
 BLC
 AGC · SENS
 COLOR
 APC
 LENS
 REV
 POSITION
 ID
 PRESET
```

NEXT PAGE

```
→MARK
 GAMMA
 POWER ON
 MOTION
 MASK
 OSD
 ZOOM+ AF
 LANGUAGE
 COMM. ID
```

Push [ENTER] 2 senc, get into the main menu
There are 19 items on the main menu, by up / down key to select item and push [ENTER] key to get into sub-item menu.

[01]. IRIS SELECT MEN



This is used to control the iris & shutter speed of the lens. It included 3 items “PEAK”, “ALC”, “AES”.

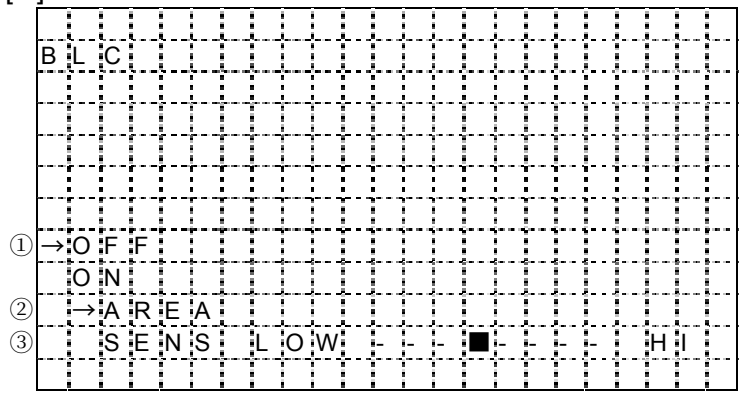
①「PEAK」is used to control the reaction of auto iris, which is based on the average light of picture signal or the light rate of the peak.

②「ALC」is used to select AUTO or FIX. Adjust IRIS level

③「AES」is used to select electronic shutter be AUTO or FIX function, at AUTO mode can be adjust AES level,at FIX mode can be selector shutter speed at below, [OFF]，[1/100sec]，[1/250sec]，[1/500sec]，[1/1000sec]，[1/2000sec]，[1/4000sec]，[1/10000sec]

After setting, push [PRI] key to go back to the main menu page.

[02]. BLC SELECT MENU



This is used to control “BLC” (Back Light Compensation),

①「BLC」ON / OFF selector.

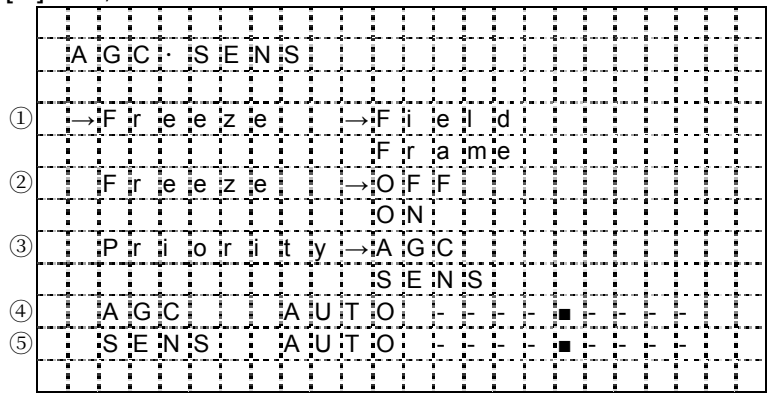
Selector「ON」has 2 sub-items：「AREA」，「SENS」.

②「AREA」: 48 BLC zones can be set separatly. According to the mask area (BLC zone) signal to decide the iris and shutter speed.

③「SENS」：Is used to enhance the BLC effect.

After setting, push [PRI] key to go back to the main menu page.

[03]. AGC, SENS SELECT MENU



This is used to select 「FREEZE」and「Priority」&「AGC」and「SENS」function.

①「FREEZE」type：can be select freeze image is「Field」or「Frame」display mode.

②「FREEZE」ON / OFF：ON (Freeze) / OFF(Unfreezef).

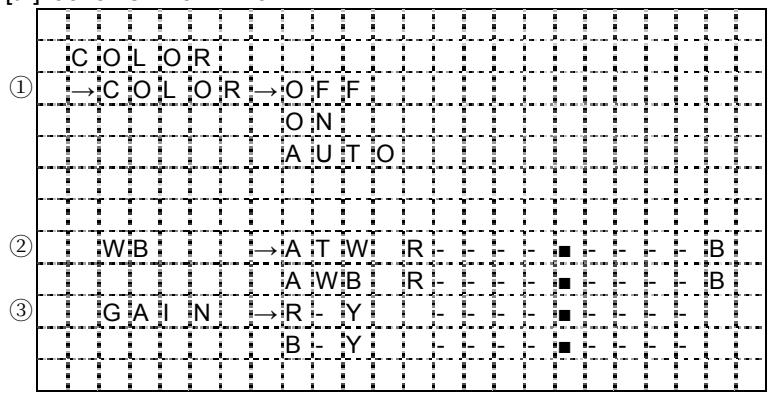
③「Priority」：Select priority is AGC or SENS

④「AGC」：To adjust auto gain control, 0dB，2.25dB，4.5dB，6.75dB，9dB，11.25dB，13.5dB，15.75dB，18dB, 9 steps adjustable.

⑤「SENS」：For low light application: 0 Frame，6 Frame，12 Frame，16 Frame，18 Frame，22 Frame，24 Frame，30 Frame，36 Frame, 9 steps adjustable.

After setting, push [PRI] key to go back to the main menu page.

[04]. COLOR SELECT MENU



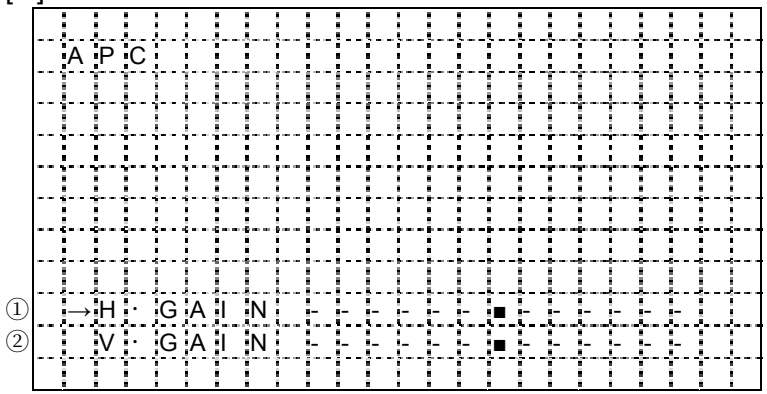
This is used to control the color ON/OFF and white balance and the gain rate of RED & BLUE color.

①「COLOR」selector：OFF is monochrome image，ON is normal color image，AUTO is at low light AGC up, display image will be auto change to monochrome image.

②「WB」White balance control：ATW is Auto trace white balance,can be adjust offset level. AWB is One push white balance. Push [ENTER] key「AWB」will start flicker, until flicker stop it will lock the current color temperature at the same time.

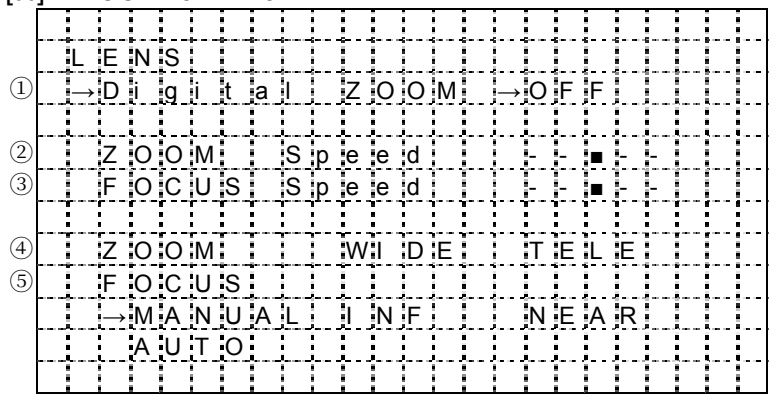
③「GAIN」：The gain rate of R-Y & B-Y can be adjusted separately.
After setting, push [PRI] key to go back to the main menu page.

[05]. APC SELECT MENU



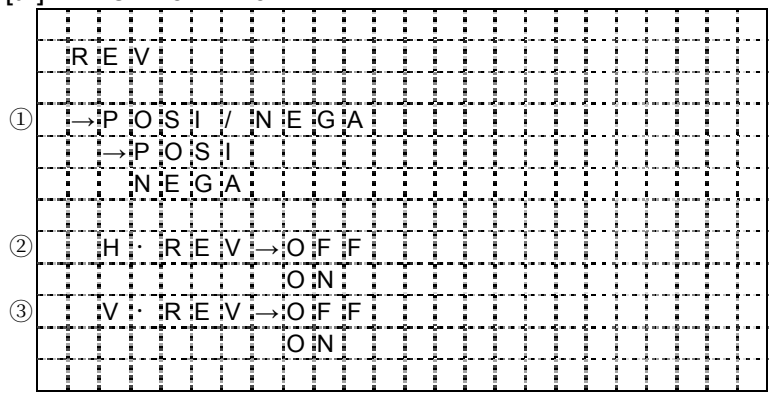
This is used to enhance the compensation of the picture quality.
①「H • GAIN」：Horizontal Compensation
②「V • GAIN」：Vertical Compensation
After setting, push [PRI] key to go back to the main menu page.

[06]. LENS SELECT MENU



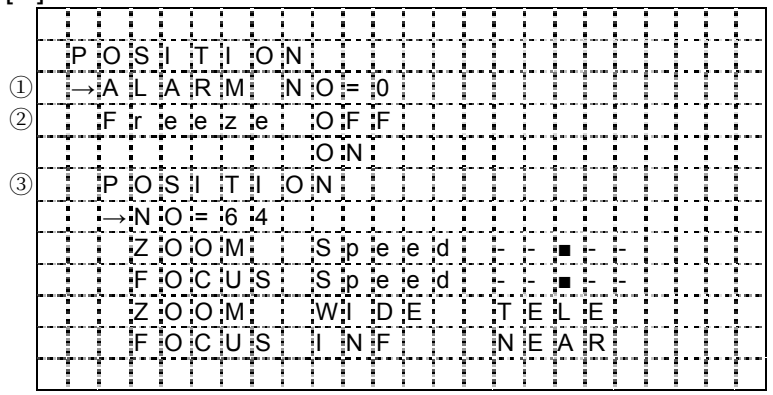
This is used to control the montion of the lens, included “Digital ZOOM” ON/OFF and times set function.
①「Digital ZOOM」selector：OFF、X2、X4、X6、X8、X10.
②「ZOOM Speed」：Set the speed of the zoom.
③「FOCUS Speed」：Set the speed of focus.
④「ZOOM」：Lens ZOOM adjust WIDE / TELE
⑤「FOCUS」：AUTO / MANUAL setting
After setting, push [PRI] key to go back to the main menu page.

[07]. REV. SELECT MENU



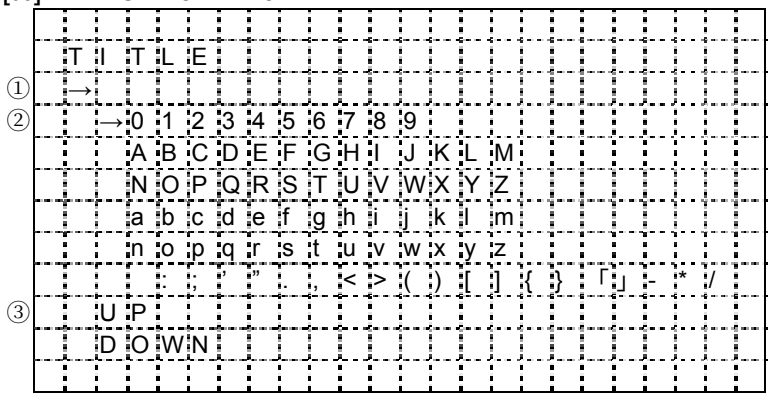
This is used to select image「Positive」and「Negative」&「Horizontal Reverse」and「Vertical Reverse」function.
①「POSI/NEGA」：Image positive & negative select.
②「H.REV」：Horizontal Reverse (Mirror) ON/OFF
③「V.REV」：Vertical Reverse (Up-side down) ON/OFF
After setting, push [PRI] key to go back to the main menu page.

[08]. POSITION SELECT MEMU



This is used to set「ALARM-IN」function,either「ALARM POSITION」or「IMAGE FREEZE」.
①「ALARM NO.」：Set alarm position(1~64),if set to (0) alarm position is not enable.
②「Freeze」：Set ON mode,「ALARM-IN」is freeze trigger input.
③「POSITION」：The alarm position have 64 steps (position) can be programed.
By this program,the zoom & focus may go to the exactly position where is programed.
After setting, push [PRI] key to go back to the main menu page.

[09]. TITLE SELECT MENU



This is used to set up the ID figures & position on the screen. (Title setting)

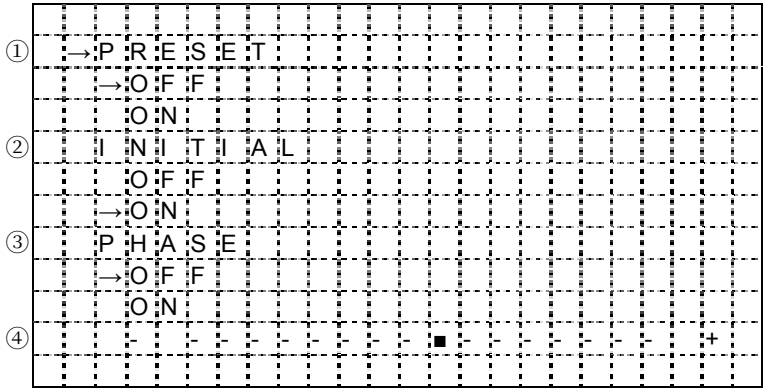
①TITLE start position selector.

②TITLE Character selector.

③TITLE display position UP or DOWN selector.

After setting, push [PRI] key to go back to the main menu page.

[10]. PRESET SELECT MENU



This is used to select the camera go back to “PRESET”, “INITIAL”, “PHASE” condition

①「PRESET」：Set to ON camera will be reset and set to default data.

②「INITIAL」 select：Set to ON lens is action,Set to OFF lens is do not action.

③「PHASE」 adj select：Set to OFF ext-sync is disable,Set to ON ext-VD sync is enable, (EXT-VD signal must be input)

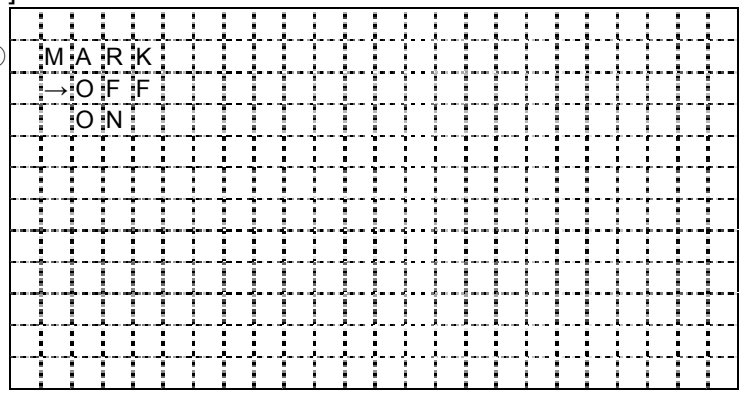
④PHASE set to ON sync-phase adjustment.

After setting, push [PRI] key to go back to the main menu page.

The menu at next page

at “PRESET”position push [DOWN] key can into this menu.

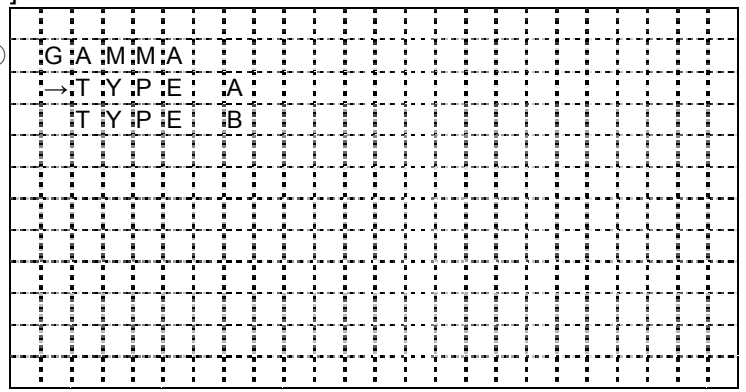
[11]. MARK MENU



This is used to select the cross line display ON / FF.

①「MARK」：Cross line ON/OFF select,set ON cross line display,set OFF cross line is hidden.

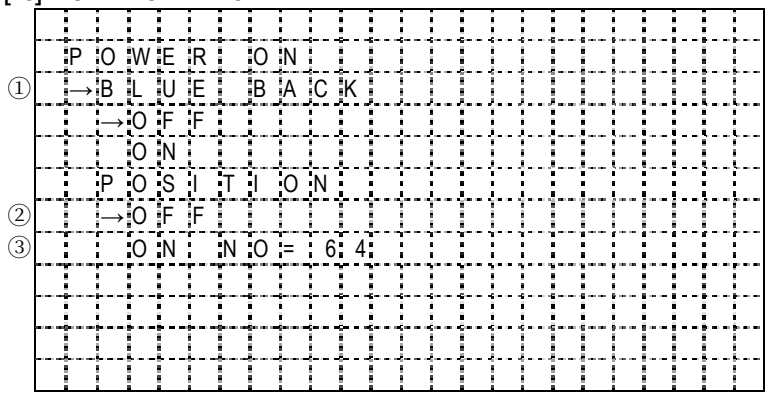
[12]. GAMMA MENU



This is used to select the camera gamma correction.

①「GAMMA」 select：TYPE-A gamma is 0.45, TYPE-B gamma is 1.0

[13]. POWER ON MENU



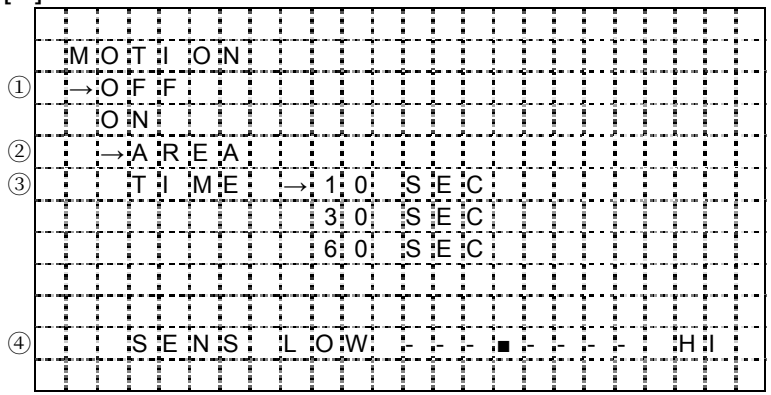
This is used to select the camera power on state.

①「BLUE BACK」: Set to OFF camaer power on initial is normal display, Set to ON camaer power on initial is display blue back.

②「POSITION OFF」: Camera power on lens position is current position.

③「POSITION ON」: Camera power on lens position is go to the designation position(1~64).

[14]. MOTION MENU



This is used to select the montion detcet function.

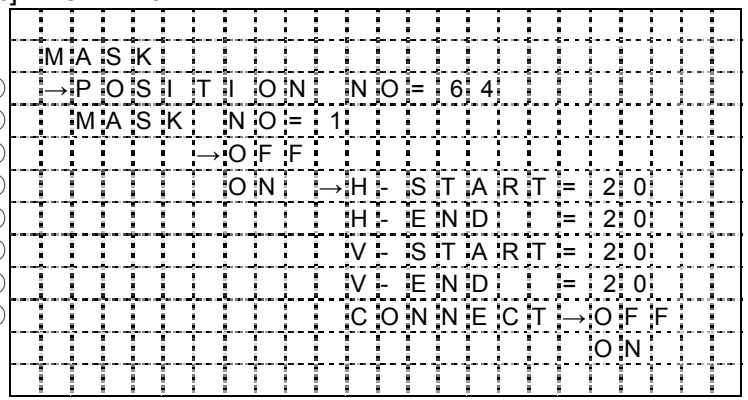
①Motion detect ON / OFF select.

②Motion detect area select.

③Motion detect output time select.

④Motion detect sensitive adjust.

[15]. MASK MENU



This is used to select mask area size and position for each setable lens position.

①Lens position no. select(1~64)

②MASK NO. select(1~4)

③MASK area display ON / OFF select.

④Hor. direction start position.

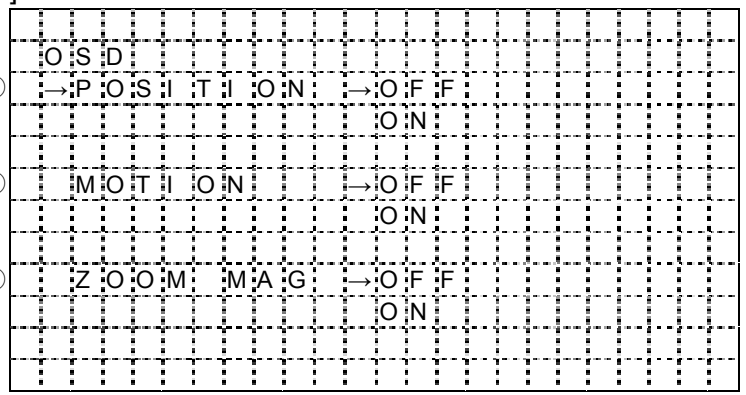
⑤Hor. direction end position.

⑥Ver. direction start position.

⑦Ver. direction end position.

⑧ZOOM action to link mask area, ON / OFF select..

[16]. OSD MENU



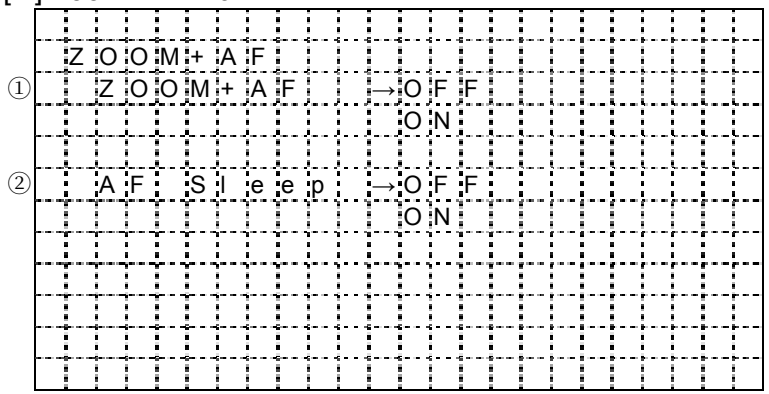
This is used to select on screen display ON / OFF select.

①POSITION NO. display ON / OFF select.

②MONTION action display ON / OFF select.

③ZOOM times display ON / OFF select.

[17]. ZOOM+AF MENU



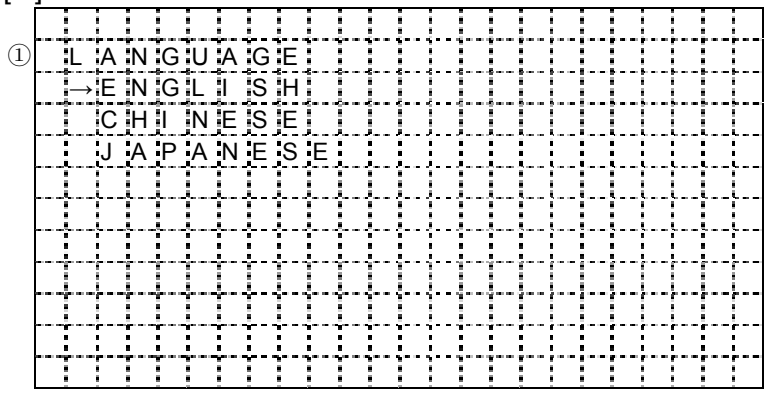
This is used to select an occasion for auto focus action.

①ZOOM stops time execute lens focus once, action OFF / ON select.

②AF Sleep function ON / OFF select.

(As show screen stillness about 5 minutes cameras come into AF Sleep mode namely, as screen has bigger change time come back again act for normal mode namely.)

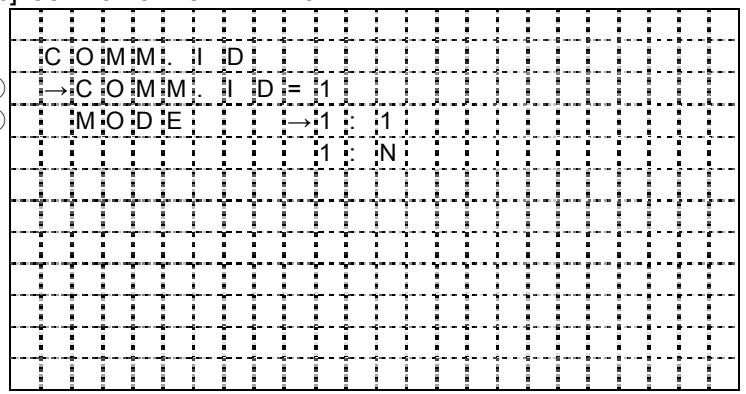
[18]. LANGUAGE MENU



This is used to select OSD manu display language.

①OSD display language select, ENGLISH / CHINESE(Simp.) / JAPANESE

[19]. COMMUNICATION ID MENU



This is used to select communcation ID and mode.

①Communication ID number's set.(Enactment supply controller identification camera uses ID number.)

②MODE choice

1:1 : One controller to control one Camera.

1:N : One controller to control many Camera.