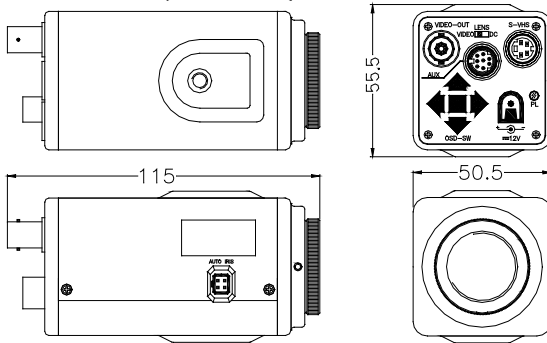


MALLINCAM VSS CAMERA INSTRUCTION

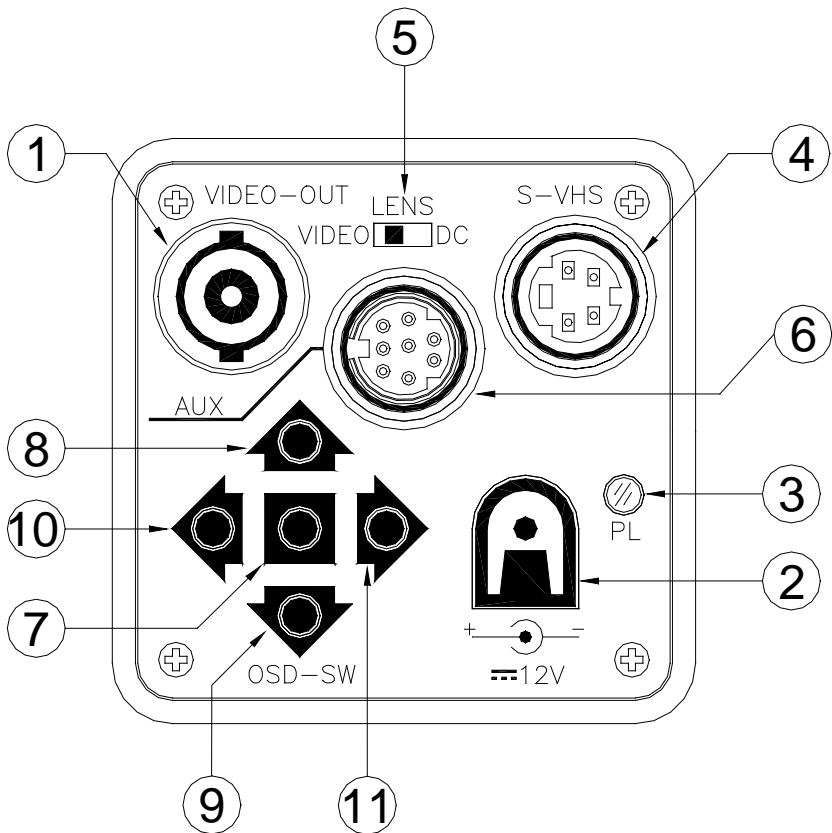
Dimension (Unit : mm)



SPECIFICATION

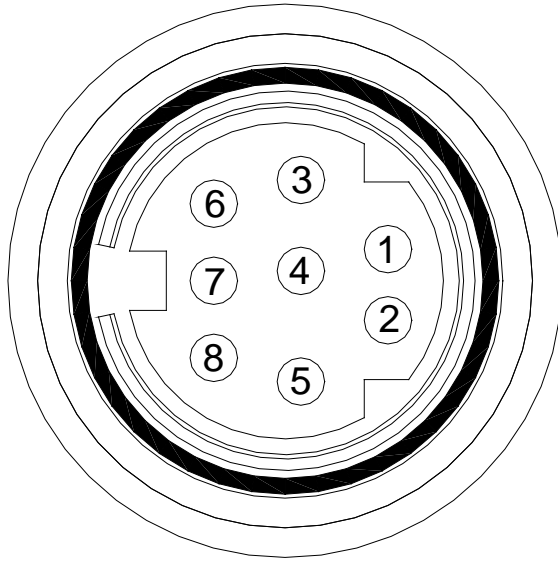
| | | | |
|------------------------|-----------------------|---|--------------------------|
| MODE NO. | | MALLINCAM VSS | MALLINCAM VSS-P |
| TV SYSTEM | | NTSC | PAL |
| IMAGE SENSOR | | 1/2-inch CCD Image Sensor | |
| CCD TOTAL PIXELS | | 811(H) X 508(V) | 795(H) X 596(V) |
| SCANNING SYSTEM | | 525 lines, 60 fields/sec | 625 lines, 50 fields/sec |
| SYNC SYSTEM | | Internal / VD-Lock / Ext-VBS (Select by OSD) | |
| MINIMUM ILLUMINATION | Normal mode | 0.05 Lux (F1.2, 5600°K 30 IRE) | |
| | HYPER Mode 56secs. | 0.00000001 Lux + (F 1.2, 5600°K 10 IRE) | |
| RESOLUTION | | 470 TVL / 580 TVL (Enhanced) | |
| WHITE BALANCE | Mode | ATW / AWC / FIX (Zero color rolling) | |
| | Range | 3200 ~ 10000 °K (2200 ~ 15000 °K with S Filter) | |
| GAIN CONTROL | Mode | AGC (ON / OFF) | |
| | Range | 0 ~ 18dB | |
| S / N RATIO | | 60dB (TYP) (AGC OFF) | |
| ELECTRONIC SHUTTER | | 1/60-1/12,000 sec. | 1/50-1/12,000 sec. |
| REMOTE CONTROL | | REAR AUX | |
| FLICKERLESS | | SELECTABLE BY OSD MANUAL | |
| MIRROR FUNCTION | | SELECTABLE BY OSD MANUAL | |
| B.L.C. FUNCTION | | SELECTABLE BY OSD MANUAL | |
| DIGITAL ZOOM (2X) | | SELECTABLE BY OSD MANUAL | |
| NEGATIVE IMAGE | | SELECTABLE BY OSD MANUAL | |
| MASKING AREA | | SELECTABLE BY OSD MANUAL | |
| AGC GAIN ADJUSTMENT | | SELECTABLE BY OSD MANUAL | |
| PICTURE FREEZE | | ON/OFF | |
| PELTIER COOLER | | Motion Detect | |
| RS-232 | | DIM connector | |
| PICTURE ENHANCE | | SELECTABLE BY OSD MANUAL | |
| ELECTRONIC CORONAGRAPH | | SELECTABLE BY OSD MANUAL | |
| COLOR BAR | | ON / OFF (SELECTABLE BY OSD MANUAL) | |
| VIDEO OUTPUT | | Composite 1.0V p-p at 75 ohm | |
| GAMMA CORRECTION | | 0.45 / 1.0 (SELECTABLE BY OSD MANUAL) | |
| OPERATION TEMPERATURE | | -32°C TO 50°C | |
| OPERATIONAL HUMIDITY | | within 85%RH | |

REAR PANEL



| | |
|----|---------------------------|
| 1 | VIDEO OUTPUT |
| 2 | POWER INPUT |
| 3 | POWER ON INDEX LED |
| 4 | S-VHS Y/C OUTPUT |
| 5 | AUTO IRIS LENS SELECT SW. |
| 6 | AUX CONNECTOR |
| 7 | OSD-SW "ENTER" |
| 8 | OSD-SW "UP" |
| 9 | OSD-SW "DOWN" |
| 10 | OSD-SW "LEFT" |
| 11 | OSD-SW "RIGHT" |

AUX CONNECTOR



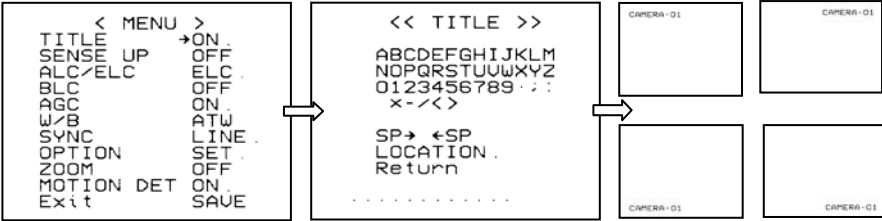
| | | |
|----|-----------|------------------------|
| P1 | + SEND | RS-232 Connector TO PC |
| P2 | - RECEIVE | |
| P3 | GND | |
| P4 | | |
| P5 | | |
| P6 | | |
| P7 | | |
| P8 | | |

MALLINCAM VSS MANUAL

There are 5 push buttons on rear panel. Pushing the center button for 2 second, a menu will appear on your screen.

You may now push "up" or "down" button to browse around menu.

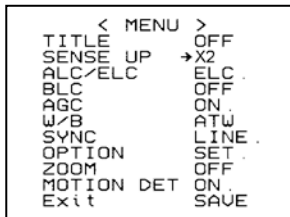
1. TITLE



You can type a name of an object and display it on the monitor

Move cursor to TITLE row, push right button to change from OFF mode to ON mode. Push center button one more time, you will see the TITLE menu. Decide the name of object to be typed in. Move cursor around alphabetical, push center button to enter the character you choose, after finished editing, move cursor to LOCATION row then push center button once. The name you choose is now on the screen. You may push , up, down, left, right, bottom to move the Title name at the screen four corners. Push center bottom once to go back to TITLE menu. Move cursor again to "Return" in the menu, push center button once more to return to main Menu.

2. SENSE UP



You can increase sensitivity of this camera by turning frame integration mode on.

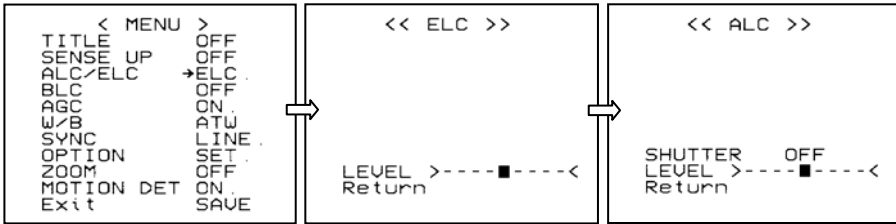
Move cursor to "SENSE UP" row. Push "right" or "left" bottom to choose how many time of frame integration you want, from X2,X4,X6,X8,X12,X16,X24,X32,X48,X96,X128, times.

The Minimum illumination of the camera will be increased respectively.

Due to the nature of frame integration as sensitivity is increased, the frame refresh rate will be decreased respectively

NOTE* You must have the SENS set at 128X to have the HYPER MODE to function

3. ALC / ELC



To choose variety of exposure mode, there are two exposure control mode available on this camera. **ELC mode:**

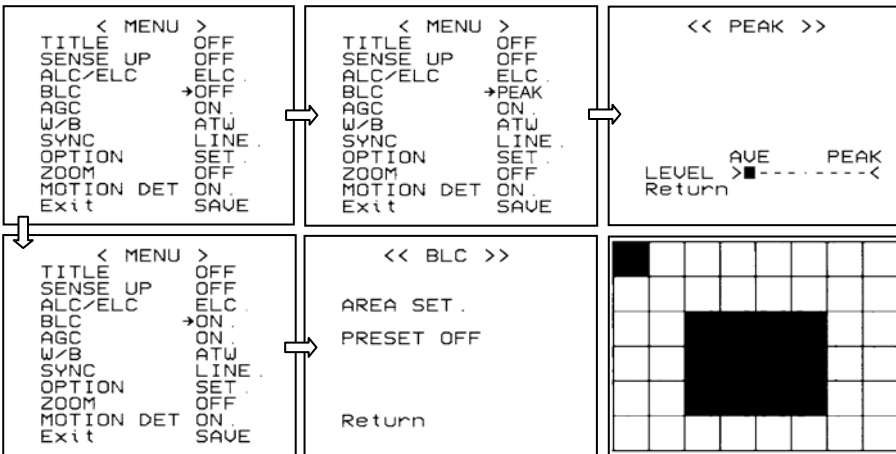
Move cursor to ALC/ELC row, push right button to select ELC mode. Push center button to enter ELC menu. In the ELC menu you may move "LEVEL" bar around to choose different style of exposure.

ALC mode:

Move cursor to ALC/ELC row, push right button to select ALC mode. Push center button to enter ALC menu. In the ALC menu you can select fix shutter speed from,

OFF, 1/100, 1/120, 1/180, 1/250, 1/350, 1/500, 1/750, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/8000, 1/12000 sec.

4. BLC



Move cursor to BLC row push right button can be select PEAK mode and ON mode.

PEAK mode: (Push center button to enter PEAK menu)

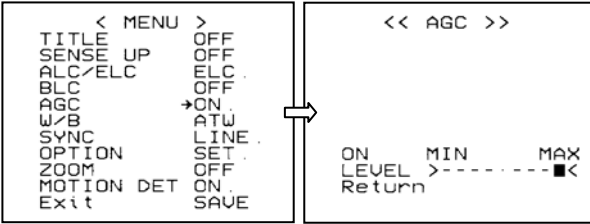
In the PEAK menu you may move "LEVEL" bar to choose different strength of BLC

ON mode: (Push center button to enter BLC menu)

In the BLC sub-menu, move cursor to PERSET row, push right button to choose OFF mode, move cursor to AREA SET row push center button once to enter 48 zone programming screen.

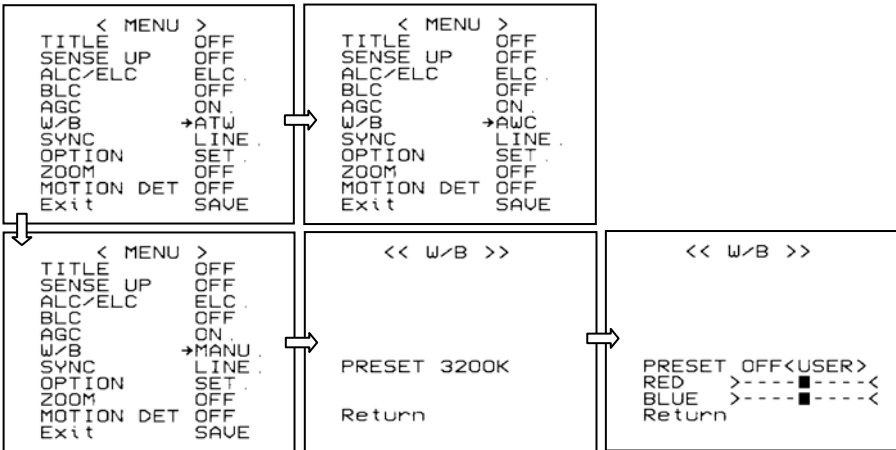
Now you will see a 8 by 6 = 48 zone lattice, move cursor around to any block push center button once to turn the block gray (gray= chosen block), move to another location and repeated above step until all block are programmed properly. The effect is affected immediately, push center button for 2 sec. to escape from 48 zone screen, move cursor to "Return" row push center button return to main menu.

5. AGC



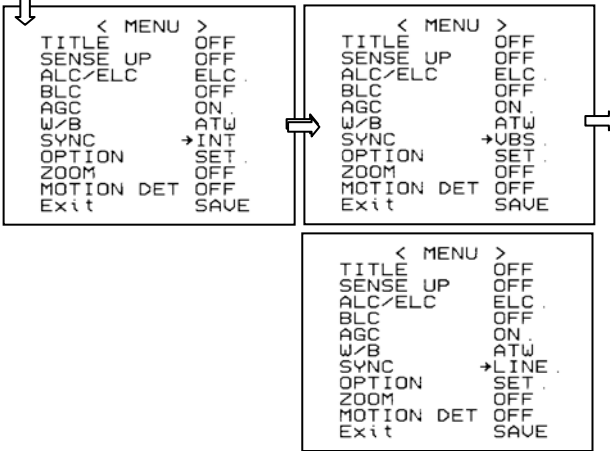
Move cursor to AGC row push right button can be select OFF, ON, MAN mode.
ON mode: (Push center bottom to enter AGC menu). Do not use in HYPER MODE
MAN mode is used for HYPER MODE only.
 In the AGC menu you may move "LEVEL" bar to choose different AGC gain.

6. W / B



Move cursor to W / B row push right button can be select ATW mode, AWC mode, MANU mode.
ATW mode: (Auto Trace White Balance)
 According to the current environmental color to automatically adjustment of "White Balance"
AWC mode: (One Push Auto White Balance)
 To fix the current environmental (Subject) color as a standard "White Balance"
 (Push center button again to execute another color setting)
MANU mode: (White Balance Manually)
 Push center button to enter W / B menu, Push "right" or "left" button to select / PRESET 5600°K / PRESET 3200°K / PRESET OFF<USER>.
 In the PRESET OFF<USER> state can be adjusted in RED color and BLUE color manually.
 Move cursor to "Return" row and push the center button to get back to the MAIN MENU.

7. SYNC / HYPER MODE



Move cursor to SYNC row and push right button to select INT mode, VBS mode, LINE mode

INT mode:

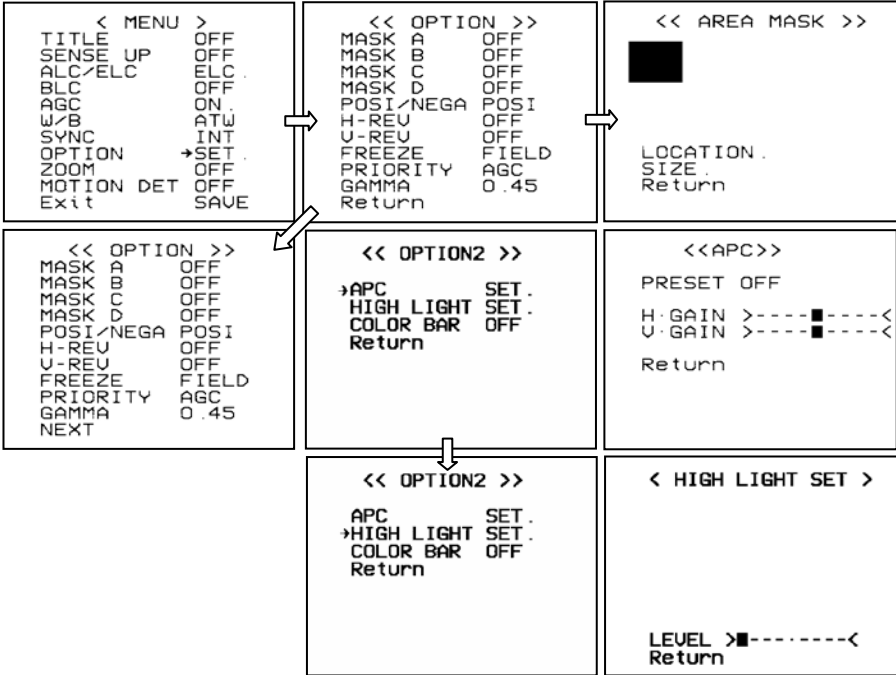
HYPHER mode is engaged. Using the side control of the camera, adjust the integration time. Use the rear yellow refresh rate LED to determine the duration of integration between refresh.

VBS mode: Hyper Mode is OFF.

LINE mode:

Camera is in HYPHER MODE with 2 times the selected integration of INT mode.

8. OPTION



Move cursor to OPTION row push center button to enter OPTION menu.

There are 4 mask areas (MASK A,B,C,D),POSI/NEGA, H-REV, V-REV, FREEZE, PRIORITY, GAMMA, APC SET, HIGH LIGHT SET, COLOR BAR function can be selected.

MASK function: (Preset is at OFF condition)

Push up / down button to select mask area, then push right / left button to select mask area ON/OFF. Select MASK A (MASK B, MASK C, MASK D) / ON, it will show a square zone on the picture.

Push center button to enter the next setting page AREA MASK, on AREA MASK page, by up / down button to select LOCATION and SIZE mode then push center button to enter the adjustment mode.

Push up / down button and right / left button select the location and size for the masking zone.

Push center button to get back to the previous page.

POSI/NEGA function: (Preset is at POSI condition)

Move cursor to POSI/NEGA row. Then push right or left button to select Positive / Negative effects.

H-REV function: (Preset is at OFF condition)

Move cursor to H-REV row. Then push right or left button to select ON (Mirror effects) / OFF (Normal).

V-REV function: (Preset is at OFF condition)

Move cursor to V-REV row. Then push right or left button to select ON (Vertical Reverse)/OFF(Normal).

FREEZE function: (Preset is at FIELD condition)

Move cursor to FREEZE row. Then push right or left button to select FIELD (image freeze in field mode) / FRAME(image freeze in frame mode).

PRIORITY function: (Preset is at AGC condition)

Move cursor to PRIORITY row. Then push right or left button to select AGC / SENSE

GAMMA function: Move cursor to GAMMA row. Then push right or left button to select gamma.

OPTION2

Move cursor to "Return" row. Then push right or left button to select NEXT, then push center button enter to OPTION 2 menu page.

APC SET function:

Move cursor to APC SET row, push center button to enter APC menu page, adjustments of picture enhance level can be done. This function will also remove all star artifacts when adjusted to lowest level.

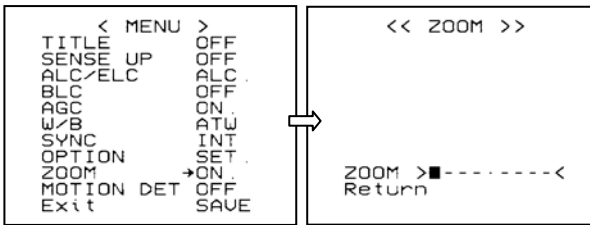
ELECTRONIC CORONAGRAPH / HIGH LIGHT SET function:

Move cursor to HIGH LIGHT SET row, push center button to enter HIGH LIGHT SET menu page, adjustment of the high light can be performed by lowering level of bright areas automatically.

COLOR BAR function: (Preset is at OFF condition)

Move cursor to COLOR BAR row. Then push right or left button to select ON (Display color bar) / OFF (Display normal image).

9. ZOOM

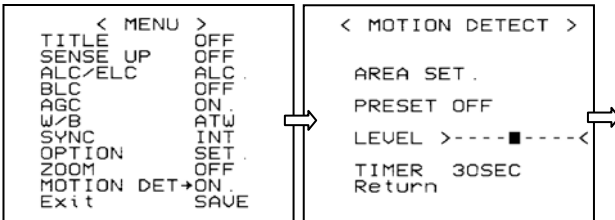


Move cursor to ZOOM row push right button can be select OFF mode and ON mode.

ON mode: (Push center button to enter ZOOM menu)

In the ZOOM menu you may move "ZOOM" bar to choose different ZOOM effects in 16 steps (Maximum: 2X).

10. MOTION DET / PELTIER COOLER/ NOISE DETECTION



Move cursor to "MOTION DET" row push right button can be selected OFF mode and ON mode.

ON mode: (Push center button to enter MOTION DETECT menu)

In the MONTION DETECT menu page, move cursor to PERSET row, push right button to choose ON mode to activate the PELTIER COOLER / NOISE DETECTION. Move cursor to "LEVEL" row push "right" / "left" button select motion detect / noise detection sensitivity.

Move cursor to "TIMER" row push "right" / "left" button select duration time of 10sec.,30sec.,60sec.

Move cursor to "Return" row and push the center button to get back to the MAIN MENU.

NOTE* Rear large RED LED indicate Noise detection on and off indicating PELTIER active or non active.