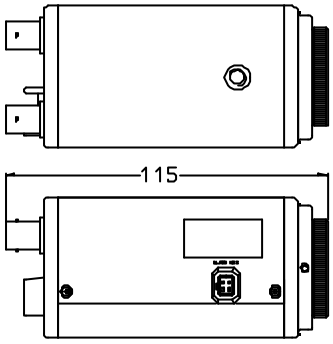
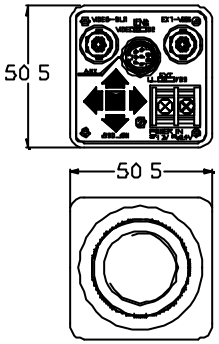
# MTV-63V5HN / MTV-63V5HP CAMERA INSTRUCTION

## Dimension (Unit : mm)




| Video LENS | |
|---|---|
| P1 | +9V |
| P2 | N.C. |
| P3 | VIDEO |
| P4 | GND |

| DC-LENS | |
|---|---|
| P1 | DUMP- |
| P2 | DUMP+ |
| P3 | DRIVE |
| P4 | GND |

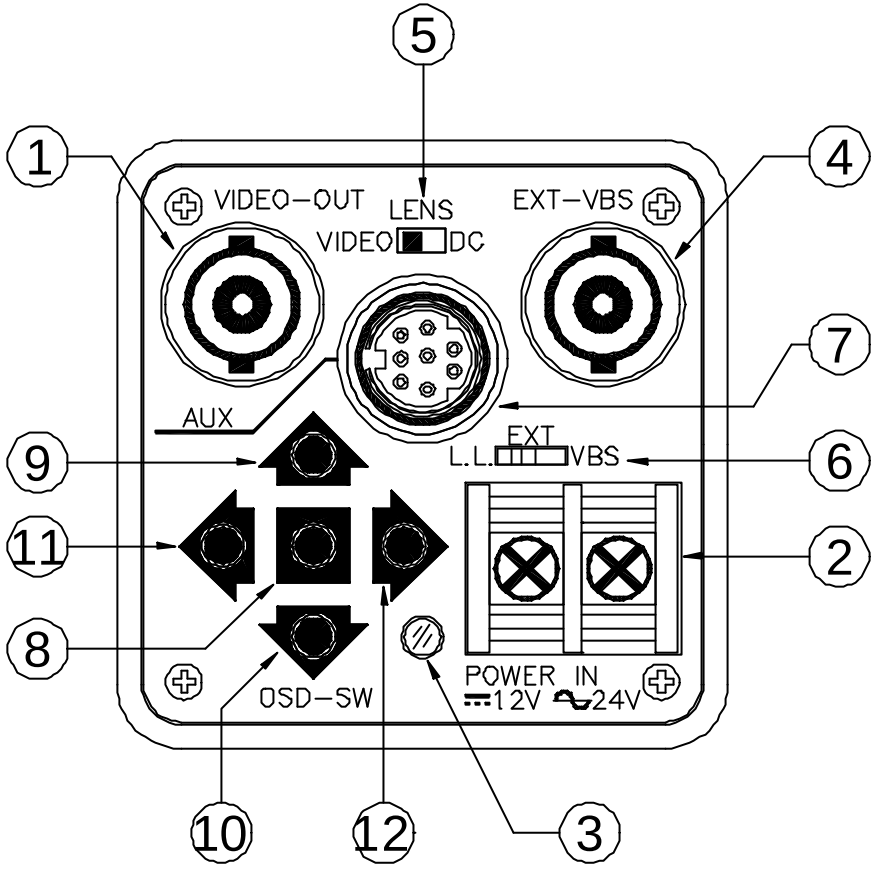

## SPECIFICATION

| MODE NO. | | MTV-63V5HN | MTV-63V5HP |
|---|---|---|---|
| TV SYSTEM | | NTSC | PAL |
| IMAGE SENSOR | | 1/3-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 | Legacy mode | 0.8 Lux ( F1.2 , 5600°K 30 IRE ) | |
| | Star light Mode | 0.008 Lux ( F 0.8 , 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 | | 52dB ( MIN) / 60dB ( TYP ) (AGC OFF) | |
| ELECTRONIC SHUTTER | | 1/60~1/120,000 sec. | 1/50~1/120,000 sec. |
| AUTO IRIS | | A.E.S. / DC / Video | |
| 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 & Ext.-Trigger | |
| ALARM OUT | | Motion Detect | |
| RS-232C I/F | | DIM connector | |
| PICTURE EHANCE | | SELECTABLE BY OSD MANUAL | |
| HIGH LIGHT SUPPRESS | | 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 | | -20℃ TO 50℃ | |
| OPERATIONAL HUMIDITY | | within 85%RH | |
| POWER SUPPLY | | DC12V & AC24V / 3W | |

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

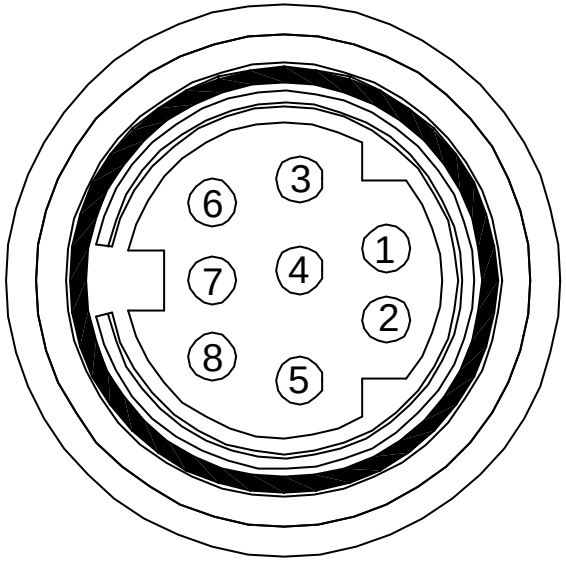


## REAR PANEL

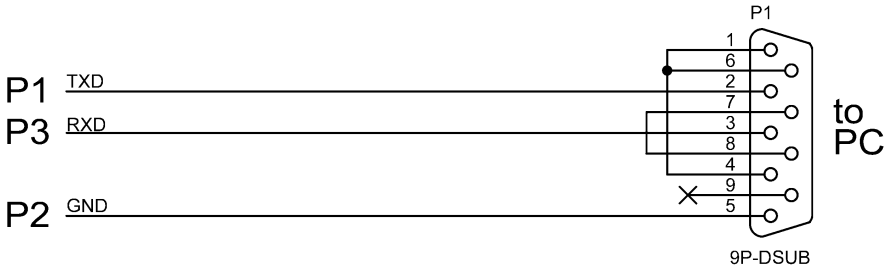



| | |
|---|---|
| 1 | VIDEO OUTPUT |
| 2 | POWER INPUT |
| 3 | POWER ON INDEX LED |
| 4 | EXT-VBS INPUT FOR EXTERNAL SYNC. |
| 5 | AUTO IRIS LENS SELECT SW. |
| 6 | EXTERNAL SYNC SIGNAL SELECT SW. |
| 7 | AUX CONNECTOR |
| 8 | OSD-SW “ENTER” |
| 9 | OSD-SW “UP” |
| 10 | OSD-SW ”DOWN” |
| 11 | OSD-SW “LEFT” |
| 12 | OSD-SW “RIGHT” |

## AUX CONNECTOR




| | | |
|---|---|---|
| P1 | TXD | RS-232C Connector TO PC |
| P2 | GND | |
| P3 | RXD | |
| P4 | GND | |
| P5 | ALARM-OUT | Open collector output |
| P6 | GND | Max sink DC50V/30mA |
| P7 | FREEZE Trigger-IN | Current Loop |
| P8 | GND | DC12V/10mA |

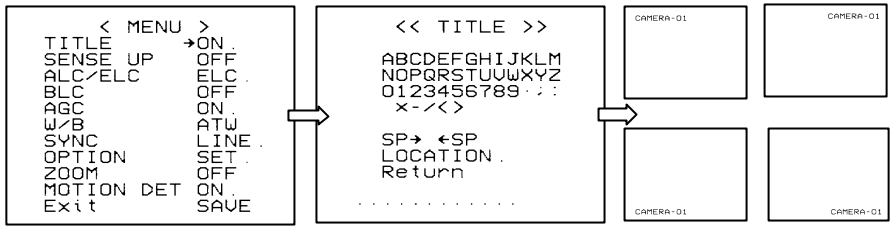





## MTV-63V5 OSD MAMUAL

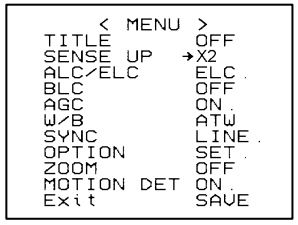
There are 5 push bottoms on rear panel, after push the center bottom for 2 second, a pretty menu will be pop-up on your screen.
You may now push "up" or "down" bottom to browse around menu.

### 1. TITLE



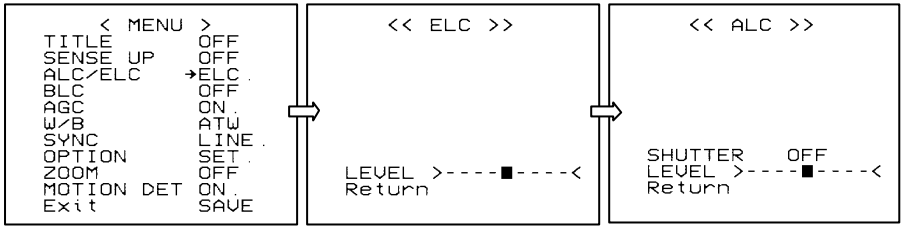

You can choose a name for this camera and display it on the monitor
Move cursor to TITLE row, push right bottom to change from OFF mode to ON mode. Push center bottom one more time, you will see the TITLE menu. Decide the name of this camera. Move cursor around alphabetical, push center bottom to enter the character you choose, after finished editing, move cursor to LOCATION row then push center bottom 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 TITEL menu. Move cursor again to "Return" in the menu, push center bottom once more to return to main Menu.

### 2. SENSE UP



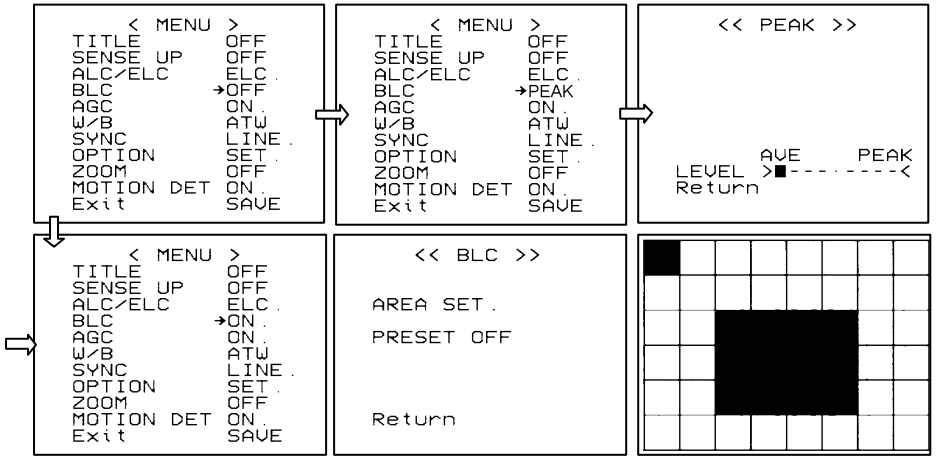

You can increase sensitivity of this camera by turning frame integration mode on.
Move cursor to "SENSE UP" row. Push "right" or "left" bottom to choose how many time of frame integration you want, from X2,X4,X6,X8,X12,X16,X24,X32,X48,X96,X128, times.
The Minimum illumination of the camera will be increased respectively.
let you see through star light night.
Due to the nature of frame integration as sensitivity is increased the frame refresh rate will be decreased respectively

### 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 bottom to select ELC mode. Push center bottom 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 bottom to select ALC mode. Push center bottom to enter ALC menu. In the ALC menu you can adjustable DC-IRIS Lens "LEVEL" and 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.

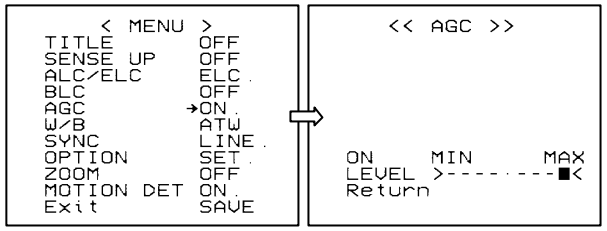
### 4. BLC




Move cursor to BLC row push right bottom can be select PEAK mode and ON mode.
**PEAK mode:** (Push center bottom to enter PEAK menu)
In the PEAK menu you may move "LEVEL" bar to choose different strength of BLC
**ON mode:** (Push center bottom to enter BLC menu)
In the BLC sub-menu, move cursor to PERSET row, push right bottom to choose OFF mode, move cursor to AREA SET row push center bottom 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 bottom once to turn the block gray ( gray= chosen block ), move to another location and repeated above step till all block is programmed properly. The effect is affected immediately, push center bottom for 2 sec. to escape from 48zone screen, move cursor to "Return" row push center bottom return to main menu.

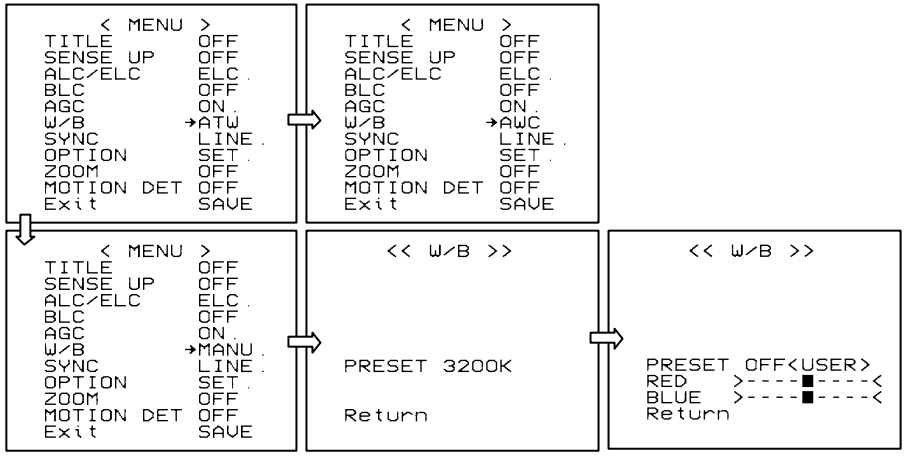


### 5. AGC



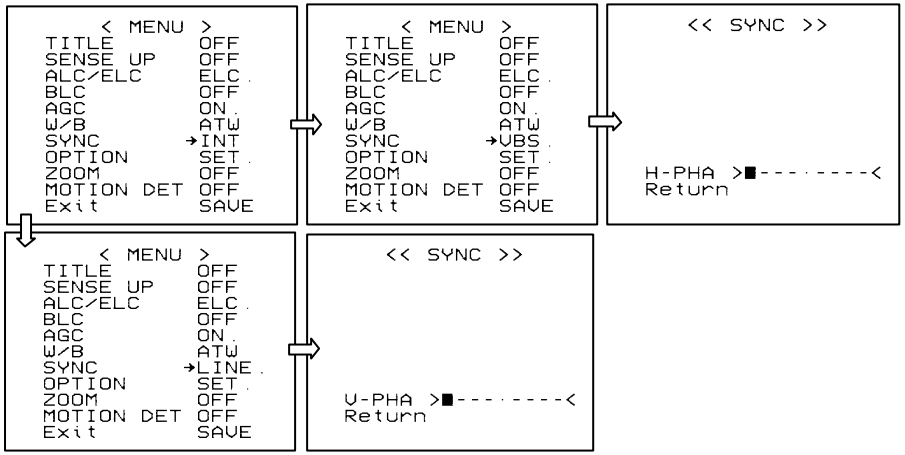

Move cursor to AGC row push right bottom can be select OFF mode and ON mode.
**ON mode:** (Push center bottom to enter AGC menu)
In the AGC menu you may move "LEVEL" bar to choose different AGC gain.

6. W / B




Move cursor to W / B row push right bottom 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 bottom again to execute another color setting)
**MANU mode:** (White Balance Manually)
Push center bottom to enter W / B menu, Push "right" or "left" bottom to select / PRESET 5600°K / PRESET 3200°K / PRESET OFF<USER>.
In the PRESET OFF<USER> state can be adjustment RED color and BLUE color by manual.
Move cursor to "Return" row and push the center bottom to get back to the MAIN MENU.

## 7. SYNC




Move cursor to SYNC row push right bottom can be select INT mode, VBS mode, LINE mode.

**INT mode:**

Camera is synchronization by internal sync-signal.

**VBS mode:**

Camera is synchronization by external input video signal.

Push center bottom to enter SYNC mamu, in the SYNC menu you can adjustable phase for horizontal.
Move cursor to "Return" row and push the center bottom to get back to the MAIN MENU.

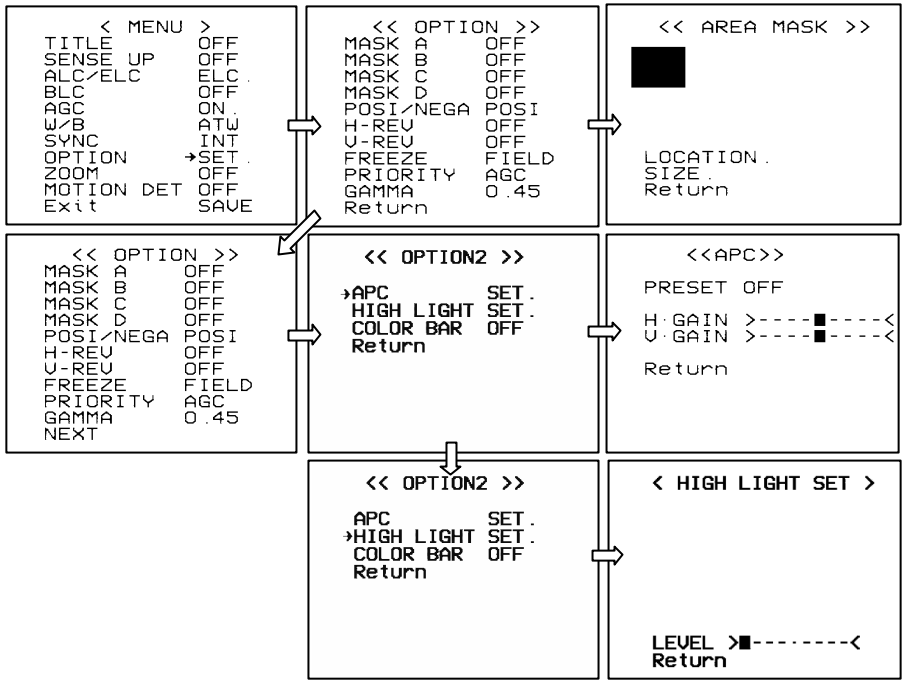
**LINE mode:**

Camera is synchronization by AC-LINEl sync-signal.

Push center bottom to enter SYNC mamu, in the SYNC menu you can adjus table phase for vertical.
Move cursor to "Return" row and push the center bottom to get back to the MAIN MENU.



## 8. OPTION




Move cursor to OPTION row push center bottom 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 bottom to select mask area, then push right / left bottom 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 bottom to enter the next setting page AREA MASK, on AREA MASK page, by up / down Bottom to select LOCATION and SIZE mode then push center bottom to enter the adjustment mode.
Push up / down bottom and right / left bottom select the location and size for the masking zone.
Push center bottom 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 bottom to select Positive / Negative effects.

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

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

**FREEZE function:** (Preset is at FIELD condition)

Move cursor to FREEZE row. Then push right or left bottom 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 bottom to select AGC / SENSE

**GAMMA function:** (Preset is at 0.45 condition)

Move cursor to GAMMA row. Then push right or left bottom to select gamma 0.45 / gamma 1

**OPTION2**

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

**APC SET function:**

Move cursor to APC SET row, push center bottom to enter APC menu page, in the page can be adjust picture enhance level.

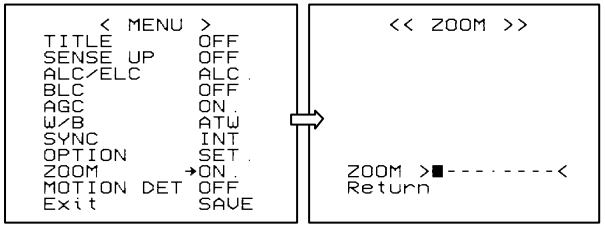
**HIGH LIGHT SET function:**

Move cursor to HIGH LIGHT SET row, push center bottom to enter HIGH LIGHT SET menu page, in the page can be adjust picture high light part depressing level.

**COLOR BAR function:** (Preset is at OFF condition)

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

**9. ZOOM**

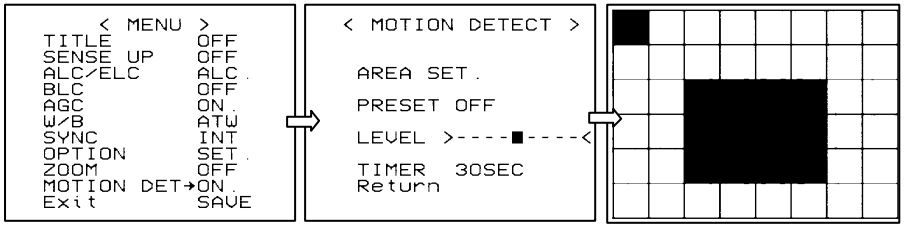



Move cursor to ZOOM row push right bottom can be select OFF mode and ON mode.

**ON mode:** (Push center bottom to enter ZOOM menu)

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

**10. MOTION DET**




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

**ON mode:** (Push center bottom to enter MONTION DETECT menu)

In the MONTION DETECT menu page, move cursor to PERSET row, push right bottom to choose OFF mode, move cursor to AREA SET row push center bottom 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 bottom once to turn the block gray ( gray= chosen block ), move to another location and repeated above step till all block is programmed properly. The effect is affected immediately, push center bottom for 2 sec. to escape from 48zone screen.

Move cursor to "LEVEL" row push "right" / "left" bottom select motion detect sensitive.

Move cursor to "TIMER" row push "right" / "left" bottom select alarm output time,10sec.,30sec.,60sec.

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



# MTV-63V5 serial communication command

## 63V5 Camera serial communication I/F specification

**1.Outline**

This I/F specification is for transferring the data, while using RS-232 to control 63V5.By this communication I/F, Iris, slow scan, BLC, white balance...etc functions can be adjusted.

About the I/F description as below:

**2.Serial communication I/F**

The connection between the controller and camera is as indicated on "Fig-1". Based on the serial communication parameter of RS-232C to execute the control.

Communicating speed 9600kbps

Data length 8bit

Non-Parity

Stop bit 1

Non-flow control

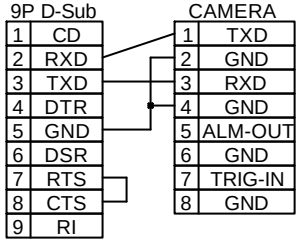



Fig-1 Computer & Camera connector

The communication is by internal synchronization way, the communication flow chart as indicated on "Fig-2".

The connecting confirmation of the communication is by control port to send out of "ENQ", after received the "ACK" signal it will start to communicate. (The connecting confirmation of the communication can be omitted.) Then from the control port to send out the command "COMMAND" signal, and after received it the camera will return "ACK" signal back, after that the camera will proceed the "command" then send response "RESPONSE" signal back to control port; and after the control port received the signal then it will sends " "ACK" signal to the camera. This kind of communication "COMMAND" & "RESPONSE" will be executed repeatedly.

"COMMAND" & "RESPONSE" signal are 19Byte fixed length. (Fig-3)

"COMMAND" included "WRITE" command and "READ" command that through controller to set up. Besides "RESPONSE" has individual response signal to each command signal.

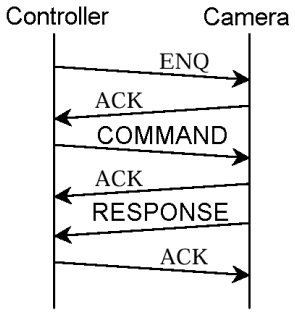



Fig-2 Communaction Flow

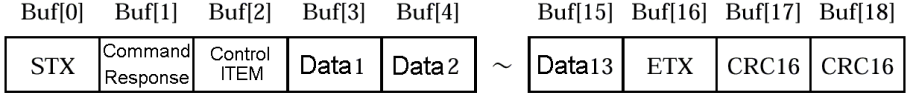



Fig-3 Command & Response

Below is the description for 1 byte & 19 byte related communication data, format of command and response.

**3. Communication data format**

Based on the communication data length can be divided into 2 formats

**3.1 1 byte communication**

To make sure the connection of "COMMAND" & "RESPONSE" communication; as well as the confirmation for "COMMAND" & "RESPONSE" of 19 by te.

Command condition

Buf[0]=0x05 (ENQ: Make sure the connection)

Response and acknowledge condition

Buf[0]=0x06(ACK ? OK), 0x15(NAK? error), 0x04 (EOT ? Transmission end)

**3.2 19byte communication data**

19byte Command , Response (as indicated on Fig-3 )?

Buf[0]=0x02(STX ? Start Code)

Command condition

Buf[1]=0x21(Write command)? 0x31(Read command)

Response condition

Buf[1]=0xA0(OK response)? 0xA2(Buf[1] non-effective response)? 0xA3(Buf[2]~Buf[15]non-effective response)?
0xA4 (storage setting failure response) ,0xA5 (other response)

Buf[2]=0x00~0xFF (control items)

Buf[3]~Buf[15]=0x00~0xFF(according to Buf[2] the items come to different)
(Buf[2]~Buf[15] effective content will be mentioned later)

Buf[16]=0x03(ETX ? Ending code)

Buf[17]=Buf[1]~Buf[16] CRC code (calculation? $X^{16} + X^{15} + X^2 + 1$) HIGH BYTE

Buf[18]=Buf[1]~Buf[16] CRC code (calculation? $X^{16} + X^{15} + X^2 + 1$) LOW BYTE



**4. COMMAND Type:**

Regarding 19byte command of Buf[2]~Buf[15] Write, Read will be mentioned aside?

**4.1 Write command**

Regarding the write command (Buf[1]=0x21) setting as below ?

(1)TITLE item, TITLE Display ON/OFF setting
Buf[2]=0x10
Buf[3]=0x00(ON/OFF setting)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(2)TITLE item, CHARACTER setting
Buf[2]=0x10
Buf[3]=0x01(character setting)
Buf[4]=0x00~0xFF(1 character TEXT CODE)
Buf[5]=0x00~0xFF(2 character TEXT CODE)
Buf[6]=0x00~0xFF(3 character TEXT CODE)
Buf[7]=0x00~0xFF(4 character TEXT CODE)
Buf[8]=0x00~0xFF(5 character TEXT CODE)
Buf[9]=0x00~0xFF(6 character TEXT CODE)
Buf[10]=0x00~0xFF(7 character TEXT CODE)
Buf[11]=0x00~0xFF(8 character TEXT CODE)
Buf[12]=0x00~0xFF(9 character TEXT CODE)
Buf[13]=0x00~0xFF(10 character TEXT CODE)
Buf[14]=0x00~0xFF(11 character TEXT CODE)
Buf[15]=0x00~0xFF(12 character TEXT CODE)

(3)TITLE item, TITLE DISPLAY POSITION setting
Buf[2]=0x10
Buf[3]=0x03(display position setting)
Buf[4]=0x00(LEFT-UP),0x01(LEFT-DOWN)
0x02(RIGHT-UP),0x03(RIGHT-DOWN)
Buf[5]~Buf[15]= non-use

(4)SENSE UP item
Buf[2]=0x11(sense up setting)
Buf[3]=0x00(OFF), 0x01(X2), 0x02(X4), 0x03(X6), 0x04(X8), 0x05(X12), 0x06(X16), 0x07(X24), 0x08(X32), 0x09(X48)
0x0A(X64), 0x0B(X96), 0x0C(X128).
Buf[4]~Buf[15]= non-use

(5)ALC/ELC item
Buf[2]= 0x12(ALC/ELC setting)
Buf[3]=0x00(ALC), 0x01(ELC)
Buf[4]~Buf[15]= non-use

(6)ALC item, SHUTTER setting (settable at ALC mode)
Buf[2]=0x15(SHUTTER setting)
Buf[3]=0x00(OFF), 0x01(1/100), 0x02(1/120), 0x03(1/180), 0x04(1/250), 0x05(1/350), 0x06(1/500), 0x07(1/750), 0x08(1/1000), 0x09(1/15000), 0x0A(1/2000), 0x0B(1/3000), 0x0C(1/4000), 0x0D(1/6000), 0x0E(1/8000), 0x0F(1/12000).
Buf[4]~Buf[15]= non-use

(7)ALC item, LEVEL setting
(ELC item LEVEL setting is the same)
Buf[2]=0x16(IRIS LEVEL setting)
Buf[3]=0x00~0x08(level), (0x00 min --- 0x08 max)
Buf[4]~Buf[15]= non-use

(8)BLC item, ON/OFF/PEAK setting
Buf[2]=0x18(BLC setting)
Buf[3]=0x00(BLC ON/OFF/PEAK setting)
Buf[4]=0x00(OFF), 0x01(ON), 0x02(PEAK)
Buf[5]~Buf[15]= non-use

(9)BLC item, PRESET setting (settable at BLC-ON mode)
Buf[2]=0x18(BLC setting)
Buf[3]=0x01(PRESET ON/OFF setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(10)BLC item, Area Selection setting (Settable at BLC-ON mode)
Buf[2]=0x19(BLC area setting)
Buf[3]=0x00~0xFF(Area 1st line? left LSB, right MSB)
Buf[4]=0x00~0xFF(Area 2nd line: left LSB, right MSB)
Buf[5]=0x00~0xFF(Area 3rd line? left LSB, right MSB)
Buf[6]=0x00~0xFF(Area 4h line? left LSB, right MSB)
Buf[7]=0x00~0xFF(Area 5h line : left LSB, right MSB)
Buf[8]=0x00~0xFF(Area 6h line? left LSB, right MSB)
(Buf[3]~Buf[8] Area , selected bit=1)
Buf[9]~Buf[15]= non-use

| | MSB | | | | | | | LSB |
|---|---|---|---|---|---|---|---|---|
| Buf[3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[4] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[5] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[6] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[7] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[8] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(11)BLC item, PEAK LEVEL setting (Settable at PEAK mode)
Buf[2]=0x22(PEAK LEVEL setting)
Buf[3]=0x 00~0x08(level), (0x00 min --- 0x08 max)
Buf[4]~Buf[15]= non-use

(12)AGC item, ON/OFF/MANU setting
Buf[2]=0x1A(AGC setting)
Buf[3]=0x00(ON/OFF/MANU setting)
Buf[4]=0x00(OFF), 0x01(ON), 0x02(MANUAL)
Buf[5]~Buf[15]= non-use

(13)AGC item, ON LEVEL setting
Buf[2]=0x1A(AGC setting)



Buf[3]=0x01(ON LEVEL setting)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(14)AGC item, MANUAL LEVEL setting
Buf[2]=0x1A(AGC setting)
Buf[3]=0x02(MANUAL LEVEL setting)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(15)W/B item, ATW/MANU/AWC setting
Buf[2]=0x1B(W/B setting)
Buf[3]=0x00(ATW/MANU/AWC setting)
Buf[4]=0x00(ATW), 0x01(AWC), 0x02(MANU)
Buf[5]~Buf[15]= non-use

(16)W/B item, MANUAL setting (settable at W/B-MANU mode)
Buf[2]=0x1B(W/B setting)
Buf[3]=0x01(MANUAL setting)
Buf[4]=0x00(3200°K), 0x01(5600°K), 0x02(OFF<USER>)
Buf[5]~Buf[15]= non-use

(17)W/B item, USER R GAIN setting (settable at W/B-MANU item OFF<USER> mode)
Buf[2]=0x1B(W/B setting)
Buf[3]=0x02(USER R GAIN setting)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(18)W/B item, USER B GAIN setting (settable at W/B-MANU item OFF<USER> mode)
Buf[2]=0x1B(W/B setting)
Buf[3]=0x03(USER B GAIN setting)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(19)W/B item, AWC operation (settable at W/B AWC mode)
Buf[2]=0x1B(W/B setting)
Buf[3]=0x00(ATW/MANU/AWC setting)
Buf[4]=0x00(ATW), 0x01(AWC), 0x02(MANU)
Buf[5]~Buf[15]= non-use

(20)SYNC item, INT/LINE/VBS setting
Buf[2]=0x1C(SYNC setting)
Buf[3]=0x00(INT/LINE/VBS setting)
Buf[4]=0x00(INT), 0x01(LINE), 0x02(VBS)
Buf[5]~Buf[15]= non-use

※ **If sync-signal not input, the setting of LINE/VBS setting is inhibit.**

(21)SYNC item, V PHASE value setting (While on LINE mode, V PHASE can be adjusted within the available range)
Buf[2]=0x1C(SYNC setting)
Buf[3]=0x01(V PHASE setting)
Buf[4]=0x00~ 0xFF(V PHASE value HIGH BYTE)

Buf[5]=0x00~ 0xFF(V PHASE value LOW BYTE)
Buf[6]~Buf[15]= non-use

(22)SYNC item, H PHAE value setting (settable at VBS mode)
Buf[2]=0x1C(SYNC setting)
Buf[3]=0x02(H PHASE setting)
Buf[4]=0x00~0xFF(H PHASE value)
Buf[5]~Buf[15]= non-use

(23)OPTION item, MASK A ON/OFF setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x00(MASK A setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(24)OPTION item, MASK B ON/OFF setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x01(MASK B setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(25)OPTION item, MASK C ON/OFF setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x02(MASK C setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(26)OPTION item, MASK D ON/OFF setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x03(MASK D setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(27)OPTION item, MASK A area setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x10(MASK A area setting)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(28)OPTION item, MASK B area setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x11(MASK B area setting)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use



(29)OPTION item, MASK C area setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x11(MASK C area setting)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(30)OPTION item, MASK D area setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x12(MASK D area setting)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(31)OPTION item, POSI/NEGA setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x04(POSI/NEGA setting)
Buf[4]=0x00(POSI), 0x01(NEGA)
Buf[5]~Buf[15]= non-use

(32)OPTION item, H-REV ON/OFF setting (settable at FREEZE OFF mode)
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x05(H-REV setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(33)OPTION item, V-REV ON/OFF setting (settable at FREEZE OFF mode)
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x07(V-REV setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(34)OPTION item, FREEZE FIELD/FRAME setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x09(FREEZE FIELD/FRAME setting)
Buf[4]=0x00(FIELD), 0x01(FRAME)
Buf[5]~Buf[15]= non-use

(35)OPTION item, FREEZE ON/OFF setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x08(FREEZE ON/OFF setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(36)OPTION item, PRIORITY AGC/SENSE setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x06(PRIORITY setting)
Buf[4]=0x00(AGC PRIORITY), 0x01(SENSE UP PRIORITY)
Buf[5]~Buf[15]= non-use

(37)OPTION item, GAMMA 0.45/1.0 setting

Buf[2]=0x1D(OPTION setting)
Buf[3]=0x 14(GAMMA setting)
Buf[4]=0x00(0.45 gamma), 0x01(1.0 gamma)
Buf[5]~Buf[15]= non-use

(38)OPTION item, APC PRESET setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x 15(APC setting)
Buf[4]=0x00(APC PRESET setting)
Buf[5]=0x01(ON)
Buf[6]~Buf[15]= non-use

(39)OPTION item, APC H-GAIN LEVEL setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x 15(APC setting)
Buf[4]=0x01(H-GAIN setting)
Buf[5]=0x01~0x12 (level)
Buf[6]~Buf[15]= non-use

(40)OPTION item, APC V-GAIN LEVEL setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x 15(APC setting)
Buf[4]=0x02(V-GAIN setting)
Buf[5]=0x01~0x12 (level)
Buf[6]~Buf[15]= non-use

(41)OPTION item, High light LEVEL setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x 16(High light setting)
Buf[4]=0x01~0x12 (level)
Buf[5]~Buf[15]= non-use

(42)OPTION item, COLOR BAR setting
Buf[2]=0x1D(OPTION setting)
Buf[3]=0x 17(COLOR BAR setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use



(43)Motion Detect item, ON/OFF setting
Buf[2]=0x 47(Motion Detect setting)
Buf[3]=0x 00(Motion Detect ON/OFF setting)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(44)Motion Detect item, PRESET setting (settable at Motion Detect ON mode)
Buf[2]=0x 47(Motion Detect setting)
Buf[3]=0x 01(PRESET ON/OFF setting)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(45)Motion Detect item, LEVEL setting (settable at Motion Detect ON mode)
Buf[2]=0x 47(Motion Detect setting)
Buf[3]=0x 02(LEVEL setting)
Buf[4]=0x00~0x08(level)
Buf[5]~Buf[15]= non-use

(46)Motion Detect item, TIMER setting (settable at Motion Detect ON mode)
Buf[2]=0x 47(Motion Detect setting)
Buf[3]=0x 03(TIMER setting)
Buf[4]=0x00(10secl), 0x01(30secl), 0x02(60secl)
Buf[5]~Buf[15]= non-use

(47)Motion Detect item, Area selection setting (settable at Motion Detect ON mode)
Buf[2]=0x 48(Motion Detect Area setting)
Buf[3]=0x00~0xFF(Area 1st line? left LSB, right MSB)
Buf[4]=0x00~0xFF(Area 2nd line: left LSB, right MSB)
Buf[5]=0x00~0xFF(Area 3rd line? left LSB, right MSB)
Buf[6]=0x00~0xFF(Area 4h line? left LSB, right MSB)
Buf[7]=0x00~0xFF(Area 5h line : left LSB, right MSB)
Buf[8]=0x00~0xFF(Area 6h line? left LSB, right MSB)
(Buf[3]~Buf[8] Area , selected bit=1)
Buf[9]~Buf[15]= non-use

| | MSB | | | | | | | LSB |
|---|---|---|---|---|---|---|---|---|
| Buf[3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[4] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[5] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[6] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[7] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[8] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(48)ZOOM item, ON/OFF setting (settable at FREEZE OFF mode)
Buf[2]=0x1F(ZOOM setting)
Buf[3]=0x00(ON/OFF setting)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(49)ZOOM item, LEVEL setting
Buf[2]=0x1F(ZOOM setting)
Buf[3]=0x01(LEVEL setting)
Buf[4]= non-use
Buf[5]=0x00~0x08(LEVEL)
Buf[6]~Buf[15]= non-use

(50)EXIT item, SAVE setting
Buf[2]=0x1E(SAVE setting)
Buf[3]~Buf[15]= non-use

(51)EXIT item, PRESET setting
Buf[2]=0x20(PRESET setting)
Buf[3]=0x00(PRESET operating)
Buf[4]~Buf[15]=non-use



**4.2 Read Command**

Regarding Read Command (Buf[1]=0x31) setting as below ?

(1)TITLE item, TITLE Display ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x10
Buf[3]=0x00(ON/OFF reading)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(2)TITLE item, CHARACTER reading
※Buf[4]~Buf[15] by non-setting condition to get the data from camera
Buf[2]=0x10
Buf[3]=0x01(character reading)
Buf[4]=0x00~0xFF(1 character TEXT CODE)
Buf[5]=0x00~0xFF(2 character TEXT CODE)
Buf[6]=0x00~0xFF(3 character TEXT CODE)
Buf[7]=0x00~0xFF(4 character TEXT CODE)
Buf[8]=0x00~0xFF(5 character TEXT CODE)
Buf[9]=0x00~0xFF(6 character TEXT CODE)
Buf[10]=0x00~0xFF(7 character TEXT CODE)
Buf[11]=0x00~0xFF(8 character TEXT CODE)
Buf[12]=0x00~0xFF(9 character TEXT CODE)
Buf[13]=0x00~0xFF(10 character TEXT CODE)
Buf[14]=0x00~0xFF(11 character TEXT CODE)
Buf[15]=0x00~0xFF(12 character TEXT CODE)

(3)TITLE item, TITLE DISPLAY POSITION reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x10
Buf[3]=0x03(display position reading)
Buf[4]=0x00(LEFT-UP), 0x01(LEFT-DOWN)
0x00(RIGHT-UP), 0x01(RIGHT-DOWN)
Buf[5]~Buf[15]= non-use

(4)SENSE UP item
※Buf[3] by non-setting condition to get the data from camera
Buf[2]=0x11(sense up reading)
Buf[3]=0x00(OFF), 0x01(X2), 0x02(X4), 0x03(X6), 0x04(X8), 0x05(X12), 0x06(X16), 0x07(X24), 0x08(X32), 0x09(X48)
0x0A(X64), 0x0B(X96), 0x0C(X128).
Buf[4]~Buf[15]= non-use

(5)ALC/ELC item
※Buf[3] by non-setting condition to get the data from camera
Buf[2]= 0x12(ALC/ELC reading)
Buf[3]=0x00(ALC), 0x01(ELC)
Buf[4]~Buf[15]= non-use

(6)ALC item, SHUTTER reading
※Buf[3] by non-setting condition to get the data from camera
Buf[2]=0x15(SHUTTER reading)
Buf[3]=0x00(OFF), 0x01(1/100), 0x02(1/120), 0x03(1/180), 0x04(1/250), 0x05(1/350), 0x06(1/500), 0x07(1/750), 0x08(1/1000), 0x09(1/15000), 0x0A(1/2000), 0x0B(1/3000), 0x0C(1/4000), 0x0D(1/6000), 0x0E(1/8000), 0x0F(1/12000).
Buf[4]~Buf[15]= non-use

(7)ALC item, LEVEL reading
(ELC item LEVEL reading is the same)
※Buf[3] by non-setting condition to get the data from camera
Buf[2]=0x16(IRIS LEVEL reading)
Buf[3]=0x00~0x08(level), (0x00 min --- 0x08 max)
Buf[4]~Buf[15]= non-use

(8)BLC item, ON/OFF/PEAK reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x18(BLC reading)
Buf[3]=0x00(BLC ON/OFF/PEAK reading)
Buf[4]=0x00(OFF), 0x01(ON), 0x02(PEAK)
Buf[5]~Buf[15]= non-use

(9)BLC item, PRESET reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x18(BLC reading)
Buf[3]=0x01(PRESET ON/OFF reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(10)BLC item, Area Selection reading
※Buf[3]~Buf[8] by non-setting condition to get the data from camera
Buf[2]=0x19(BLC area reading)
Buf[3]=0x00~0xFF(Area 1st line? left LSB, right MSB)
Buf[4]=0x00~0xFF(Area 2nd line: left LSB, right MSB)
Buf[5]=0x00~0xFF(Area 3rd line? left LSB, right MSB)
Buf[6]=0x00~0xFF(Area 4h line? left LSB, right MSB)
Buf[7]=0x00~0xFF(Area 5h line : left LSB, right MSB)
Buf[8]=0x00~0xFF(Area 6h line? left LSB, right MSB)
(Buf[3]~Buf[8] Area , selected bit=1)
Buf[9]~Buf[15]= non-use

| | MSB | | | | | | | LSB |
|---|---|---|---|---|---|---|---|---|
| Buf[3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[4] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[5] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[6] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[7] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[8] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(11)BLC item, PEAK LEVEL reading
※Buf[3] by non-setting condition to get the data from camera
Buf[2]=0x22(PEAK LEVEL reading)
Buf[3]=0x00~0x08(level), (0x00 min --- 0x08 max )
Buf[4]~Buf[15]= non-use

(12)AGC item, ON/OFF/MANU reading
※Buf[4] by non-setting condition to get the data from camera



Buf[2]=0x1A(AGC reading)
Buf[3]=0x00(ON/OFF/MANU reading)
Buf[4]=0x00(OFF), 0x01(ON), 0x02(MANUAL)
Buf[5]~Buf[15]= non-use

(13)AGC item, ON LEVEL reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1A(AGC reading)
Buf[3]=0x01(ON LEVEL reading)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(14)AGC item, MANUAL LEVEL reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1A(AGC reading)
Buf[3]=0x02(MANUAL LEVEL reading)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(15)W/B item, ATW/MANU/AWC reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1B(W/B reading)
Buf[3]=0x00(ATW/MANU/AWC reading)
Buf[4]=0x00(ATW), 0x01(AWC), 0x02(MANU)
Buf[5]~Buf[15]= non-use

(16)W/B item, MANUAL reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1B(W/B reading)
Buf[3]=0x01(MANUAL reading)
Buf[4]=0x00(3200°K), 0x01(5600°K), 0x02(OFF<USER>)
Buf[5]~Buf[15]= non-use

(17)W/B item, USER R GAIN reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1B(W/B reading)
Buf[3]=0x02(USER R GAIN reading)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(18)W/B item, USER B GAIN reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1B(W/B reading)
Buf[3]=0x03(USER B GAIN reading)
Buf[4]=0x00~0x08(level)? (0x00 min? 0x08 max)
Buf[5]~Buf[15]= non-use

(19)W/B item, AWC operation reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1B(W/B reading)
Buf[3]=0x04(AWC operation)

Buf[4]=0x00(ATW operation ending), 0x01(AWC operation active)
Buf[5]~Buf[15]= non-use

(20)SYNC item, INT/LINE/VBS reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1C(SYNC reading)
Buf[3]=0x00(INT/LINE/VBS reading)
Buf[4]=0x00(INT), 0x01(LINE), 0x02(VBS)
Buf[5]~Buf[15]= non-use

(21)SYNC item, V PHASE value reading
※Buf[4]~Buf[5] by non-setting condition to get the data from camera
Buf[2]=0x1C(SYNC reading)
Buf[3]=0x01(V PHASE reading)
Buf[4]=0x00~ 0xFF(V PHASE value HIGH BYTE)
Buf[5]=0x00~ 0xFF(V PHASE value LOW BYTE)
Buf[6]~Buf[15]=non-use

(22)SYNC item, H PHAE value reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1C(SYNC reading)
Buf[3]=0x02(H PHASE reading)
Buf[4]=0x00~0xFF(H PHASE value)
Buf[5]~Buf[15]= non-use

(23)OPTION item, MASK A ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x00(MASK A reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(24)OPTION item, MASK B ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x01(MASK B reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(25)OPTION item, MASK C ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x02(MASK C reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(26)OPTION item, MASK D ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x03(MASK D reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(27)OPTION item, MASK A area reading



※Buf[4]~ Buf[7] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x10(MASK A area reading)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(28)OPTION item, MASK B area reading
※Buf[4]~ Buf[7] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x11(MASK B area reading)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(29)OPTION item, MASK C area reading
※Buf[4]~ Buf[7] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x11(MASK C area reading)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(30)OPTION item, MASK D area reading
※Buf[4]~ Buf[7] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x12(MASK D area reading)
Buf[4]=start position X value
Buf[5]=start position Y value
Buf[6]=end position X value
Buf[7]=end position Y value
Buf[8]~Buf[15]= non-use

(31)OPTION item, POSI/NEGA reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x04(POSI/NEGA reading)
Buf[4]=0x00(POSI), 0x01(NEGA)
Buf[5]~Buf[15]= non-use

(32)OPTION item, H-REV ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x05(H-REV reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(33)OPTION item, V-REV ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x07(V-REV reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(34)OPTION item, FREEZE FIELD/FRAME reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x09(FREEZE FIELD/FRAME reading)
Buf[4]=0x00(FIELD), 0x01(FRAME)
Buf[5]~Buf[15]= non-use

(35)OPTION item, FREEZE ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x08(FREEZE ON/OFF reading)
Buf[4]=0x00(OFF), 0x01(ON)
Buf[5]~Buf[15]= non-use

(36)OPTION item, PRIORITY AGC/SENSE reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x06(PRIORITY reading)
Buf[4]=0x00(AGC PRIORITY), 0x01(SENSE UP PRIORITY)
Buf[5]~Buf[15]= non-use

(37)OPTION item, GAMMA reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x 14(GAMMA reading)
Buf[4]=0x00(0.45 GAMMA), 0x01(1.0 GAMMA)
Buf[5]~Buf[15]= non-use

(38)OPTION item, APC PRESET reading
※This item no reading command.

(39)OPTION item, APC H-GAIN LEVEL reading
※Buf[5] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)



Buf[3]=0x 15(APC reading)
Buf[4]=0x01(H-GAIN reading)
Buf[5]=0x00~0x12(level)
Buf[6]~Buf[15]= non-use

(40)OPTION item, APC V-GAIN LEVEL reading
※Buf[5] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x 15(APC reading)
Buf[4]=0x02(V-GAIN reading)
Buf[5]=0x00~0x12(level)
Buf[6]~Buf[15]= non-use

(41)OPTION item, High light LEVEL reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x 16(High light reading)
Buf[4]=0x00~0x12(level)
Buf[5]~Buf[15]= non-use

(42)OPTION item, COLOR BAR reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x1D(OPTION reading)
Buf[3]=0x 17(COLOR BAR reading)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(43)Motion Detect item, ON/OFF reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x 47(Motion Detect reading)
Buf[3]=0x 00(Motion Detect ON/OFF reading)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(44)Motion Detect item, PRESET reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x 47(Motion Detect reading)
Buf[3]=0x 01(PRESET ON/OFF reading)
Buf[4]=0x00(OFF),0x01(ON)
Buf[5]~Buf[15]= non-use

(45)Motion Detect item, LEVEL reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x 47(Motion Detect reading)
Buf[3]=0x 02(LEVEL reading)
Buf[4]=0x00~0x08(level)
Buf[5]~Buf[15]= non-use

(46)Motion Detect item, TIMER reading
※Buf[4] by non-setting condition to get the data from camera
Buf[2]=0x 47(Motion Detect reading)
Buf[3]=0x 03(TIMER reading)
Buf[4]=0x00(10sec), 0x01(30sec), 0x02(60sec)
Buf[5]~Buf[15]= non-use

(47)Motion Detect item, Area selection reading

※Buf[3]~Buf[8] by non-setting condition to get the data from camera

Buf[3]=0x00~0xFF(Area 1st line? left LSB, right MSB)

Buf[4]=0x00~0xFF(Area 2nd line? left LSB, right MSB)

Buf[5]=0x00~0xFF(Area 3rd line? left LSB, right MSB)

Buf[6]=0x00~0xFF(Area 4h line? left LSB, right MSB)

Buf[7]=0x00~0xFF(Area 5h line? left LSB, right MSB)

Buf[8]=0x00~0xFF(Area 6h line? left LSB, right MSB)

(Buf[3]~Buf[8] Area , selected bit=1)

Buf[9]~Buf[15]= non-use

| | MSB | | | | | | | LSB |
|---|---|---|---|---|---|---|---|---|
| Buf[3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[4] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[5] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[6] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[7] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[8] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(48)ZOOM item, ON/OFF and LEVER reading

※Buf[4]~Buf[5] by non-setting condition to get the data from camera

Buf[2]=0x1F(ZOOM reading)

Buf[3]=0x00(ON/OFF and LEVEL reading)

Buf[4]=0x00(OFF), 0x01(ON)

Buf[5]=0x00, 0x10, 0x20, 0x30, 0x40, 0x50, 0x60, 0x70, 0x80(level)

Buf[6]~Buf[15]= non-use



# 63V5 Camera Summary reading of shortened command

**1. Purpose:**

The shortened command is for that while capturing the setting data from 63V5 camera, the shortened command could simplify the process of multiple commands, and to read out the data summarily. While to start the camera-adjusting tool, by this shortened summary reading command could relieve the setting data process, but also would not disturb user's operation.

**2. Command detail:**

The format of this command is the same as 63V5 / 19byte serial command format", please refer to the **Fig-3 Command & Response**. (Regarding command protocol, please refer to serial command communication I/F.)

(1)Summary reading of shortened command 1

※Buf[4]~Buf[15] by non-setting condition to get the data from camera

Buf[2]=0x45(summary reading)

Buf[3]=0x00(shortened command 1)

Buf[4]=0x00~0xFF(TITLE item ID character -1 TEXT CODE)

Buf[5]=0x00~0xFF(TITLE item ID character -2 TEXT CODE)

Buf[6]=0x00~0xFF(TITLE item ID character -3 TEXT CODE)

Buf[7]=0x00~0xFF(TITLE item ID character -4 TEXT CODE)

Buf[8]=0x00~0xFF(TITLE item ID character -5 TEXT CODE)

Buf[9]=0x00~0xFF(TITLE item ID character -6 TEXT CODE)

Buf[10]=0x00~0xFF(TITLE item ID character -7 TEXT CODE)

Buf[11]=0x00~0xFF(TITLE item ID character -8 TEXT CODE)

Buf[12]=0x00~0xFF(TITLE item ID character -9 TEXT CODE)

Buf[13]=0x00~0xFF(TITLE item ID character -10 TEXT CODE)

Buf[14]=0x00~0xFF(TITLE item ID character -11 TEXT CODE)

Buf[15]=0x00~0xFF(TITLE item ID character -12 TEXT CODE)

(2)Summary reading of shortened command 2

※Buf[4]~Buf[15] by non-setting condition to get the data from camera

Buf[2]=0x45(summary reading)

Buf[3]=0x01(shortened command 2)

Buf[4]=0x00~0x08(BLC item PEAK LEVEL)

Buf[5]=0x00(LEFT-UP),0x01(LEFT-DOWN) ,0x02(RIGHT-UP) ,0x03(RIGHT-DOWN)(TITLE item TITLE display position)

Buf[6]=0x00(ATW),0x01(AWC) ,0x02(MANU) (W/B item ATW/MANU/AWC)

Buf[7]=0x00~0x0C(SENSE UP item SENSE UP OFF ~ X128)

Buf[8]=0x00~0x08(ZOOM item ZOOM LEVEL)

Buf[9]=0x00~0x0F(ALC item SHUTTER OFF~ 12000)

Buf[10]=0x00~0x08(AGC item MANUAL LEVEL)

Buf[11]=0x00~0x08(AGC item ON LEVEL)

Buf[12]=0x00~0xFF(SYNC item V PHASE available max. Value HIGH BYTE)

Buf[13]=0x00~0xFF(SYNC item V PHASE available max. Value LOW BYTE)

Buf[14]=0x00~0xFF(SYNC item V PHASE current value HIGH BYTE)

Buf[15]=0x00~0xFF(SYNC item V PHASE current value LOW BYTE)

(3)Summary reading of shortened command 3

(3)Summary reading of shortened command 3

※Buf[4]~Buf[15] by non-setting condition to get the data from camera

Buf[2]=0x45(summary reading)
Buf[3]=0x02(shortened command 3)

Buf[4]=0x00~0xFF(BLC item area select 1st line? left LSB, right MSB)
Buf[5]=0x00~0xFF(BLC item area select 2nd line : left LSB, right MSB)
Buf[6]=0x00~0xFF(BLC item area select 3rd line? left LSB, right MSB)
Buf[7]=0x00~0xFF(BLC item area select 4th line? left LSB, right MSB)
Buf[8]=0x00~0xFF(BLC item area select 5th line : left LSB, right MSB)
Buf[9]=0x00~0xFF(BLC item area select 6th line? left LSB, right MSB)

| | MSB | | | | | | | LSB |
|---|---|---|---|---|---|---|---|---|
| Buf[3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[4] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[5] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[6] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[7] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[8] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(Buf[4]~Buf[9] Area , selected bit=1)
Buf[10]= non-use
Buf[11]=0x00(3200K),0x01(5600K) ,0x02(OFF<USER>)(W/B item MANUAL)
Buf[12]=0x00~0x08 (W/B item USER B GAIN)
Buf[13]=0x00~0x08 (W/B item USER R GAIN)
Buf[14]=0x00(OFF),0x01(ON) (ZOOM item ZOOM ON/OFF)
Buf[15]=0x00(OFF),0x01(ON) (TITLE item TITLE display ON/OFF)

(4)Summary reading of shortened command 4

※Buf[4]~Buf[15] by non-setting condition to get the data from camera
Buf[2]=0x45(summary reading)
Buf[3]=0x03(shortened command 4)
Buf[4]=0x00(ALC),0x01(ELC) (ALC/ELC item ALC/ELC)
Buf[5]=0x00(OFF),0x01(ON), 0x02(PEAK) (BLC item BLC ON/OFF/PEAK)
Buf[6]=0x00(OFF),0x01(ON) (BLC item BLC PRESET)
Buf[7]=0x00(OFF),0x01(ON), 0x02(MANUAL) (AGC item AGC ON/OFF/MANU)
Buf[8]=0x00(INT),0x01(LINE), 0x02(VBS) (SYNC item INT/LINE/VBS)
Buf[9]=0x00(POSI),0x01(NEGA) (OPTION item POSI/NEGA)
Buf[10]=0x00(OFF),0x01(ON) (OPTION item H-REV ON/OFF)
Buf[11]=0x00(AGC priority),0x01(SENSE UP priority) (OPTION item PRIORITY AGC/SENS)
Buf[12]=0x00(OFF),0x01(ON) (OPTION item MASK A ON/OFF)
Buf[13]=0x00(OFF),0x01(ON) (OPTION item MASK B ON/OFF)
Buf[14]=0x00(OFF),0x01(ON) (OPTION item MASK C ON/OFF)
Buf[15]=0x00(OFF),0x01(ON) (OPTION item MASK D ON/OFF)

(5)Summary reading of shortened command 5

※Buf[4]~Buf[15] by non-setting condition to get the data from camera
Buf[2]=0x45(summary reading)
Buf[3]=0x04(shortened command 5)
Buf[4]=0x00~0x08 (ALC item LEVEL)
Buf[5]=0x00(OFF),0x01(ON) (OPTION item V-REV ON/OFF)
Buf[6]=0x00(FIELD),0x01(FRAME) (OPTION item FREEZE FIELD/FRAME)
Buf[7]=0x00(OFF),0x01(ON) (OPTION item FREEZE ON/OFF)
Buf[8]=0x00~0xFF (SYNC item H PHASE available max. Value)
Buf[9]=0x00~0xFF (SYNC item H PHASE current value)
Buf[10]~Buf[15]= non-use



(6)Summary reading of shortened command 6

※Buf[4]~Buf[15] by non-setting condition to get the data from camera
Buf[2]=0x45(summary reading)
Buf[3]=0x05(shortened command 6)
Buf[4]=0x00(OFF),0x01(ON) (Motion Detect item ON/OFF)
Buf[5]=0x00(OFF),0x01(ON) (Motion Detect item PRESET)
Buf[6]=0x00~0x08(level) (Motion Detect item LEVEL)
Buf[7]=0x00~0xFF(Area 1st line? left LSB, right MSB)
Buf[8]=0x00~0xFF(Area 2nd line? left LSB, right MSB)
Buf[9]=0x00~0xFF(Area 3rd line? left LSB, right MSB)
Buf[10]=0x00~0xFF(Area 4h line? left LSB, right MSB)
Buf[11]=0x00~0xFF(Area 5h line? left LSB, right MSB)
Buf[12]=0x00~0xFF(Area 6h line? left LSB, right MSB)

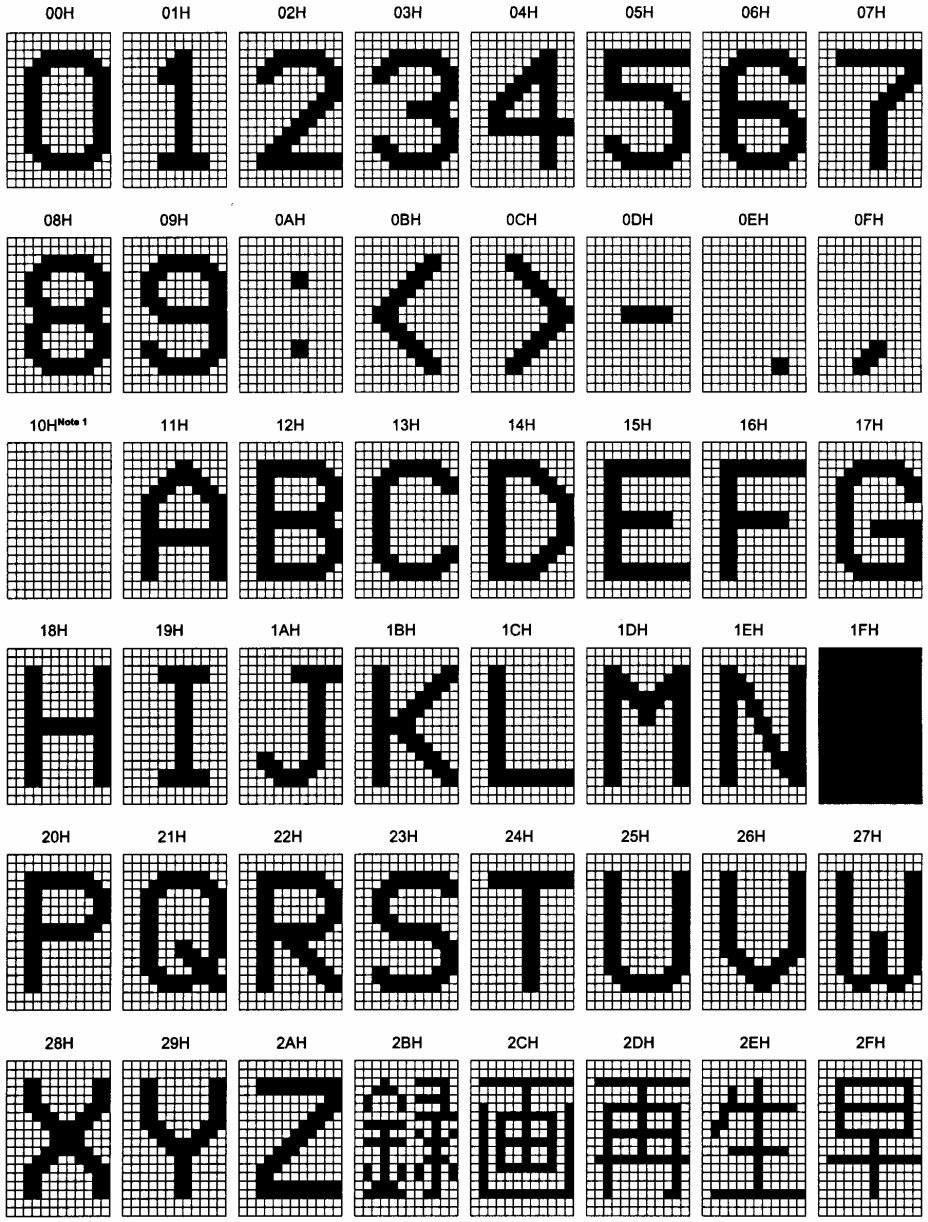
| | MSB | | | | | | | LSB |
|---|---|---|---|---|---|---|---|---|
| Buf[3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[4] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buf[5] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[6] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[7] | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| Buf[8] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Buf[13]=0x00(10sec),0x01(30sec), 0x02(60sec) (Motion Detect item TIMER)
Buf[14]=0x00(0.45 GAMMA),0x01(1.0 GAMMA) (OPTION item GAMMA)
Buf[15]= non-use

(7)Summary reading of shortened command 7

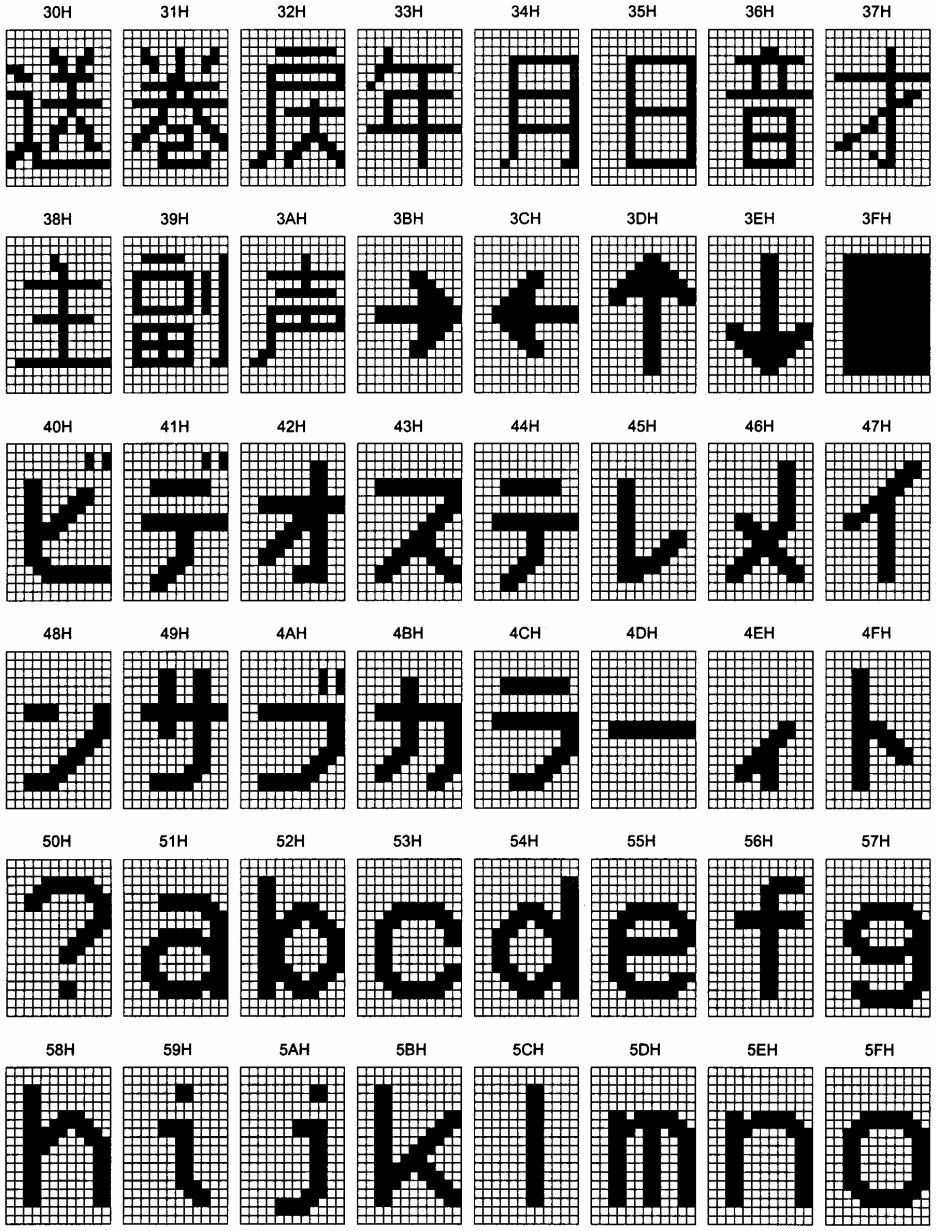
※Buf[4]~Buf[15] by non-setting condition to get the data from camera
Buf[2]=0x45(summary reading)
Buf[3]=0x06(shortened command 7)
Buf[4]=0x00~0x12(level) (OPTION item APC H-GAIN LEVEL)
Buf[5]=0x00~0x12(level) (OPTION item APC V-GAIN LEVEL)
Buf[6]=0x00~0x12(level) (OPTION item APC High light LEVEL)
Buf[7]=0x00(OFF),0x01(ON) (OPTION item COLOR BAR)
Buf[8]~Buf[15]= non-use

## TEXT CODE & PATTERNS 1/3

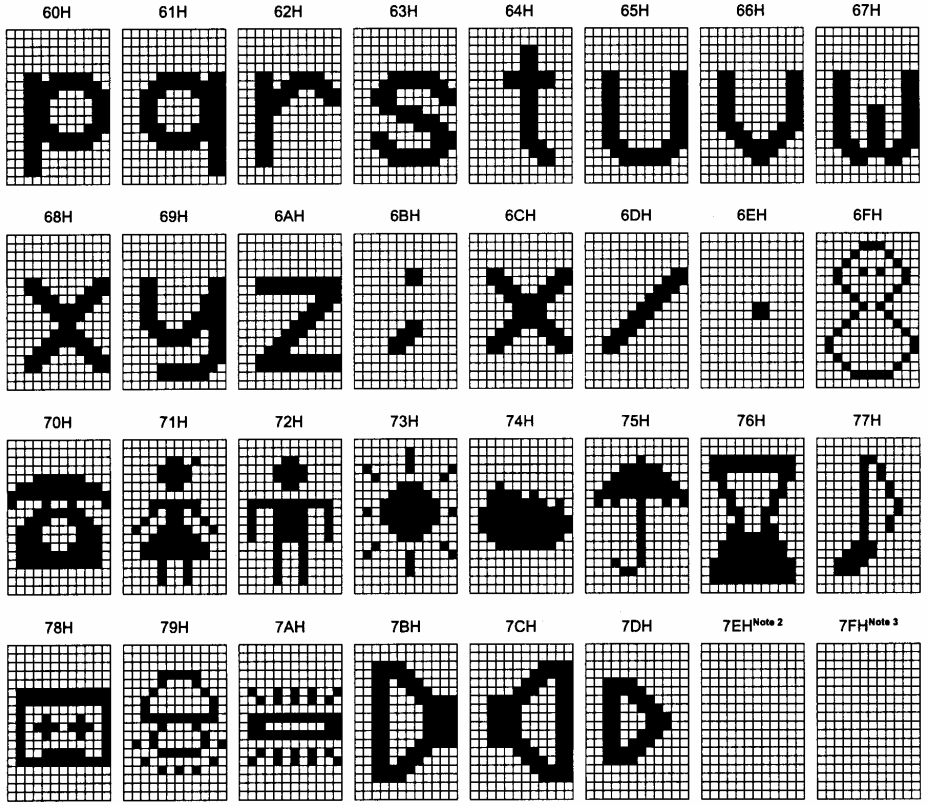





## TEXT CODE & PATTERNS 2/3



## TEXT CODE & PATTERNS 3/3




**Notes 1.** Blank data

**2.** Display-off data (fixed at this address)

**3.** End code for second-byte continuous input (fixed at this address)