

**ACTION**

# **AT-2150HD**

COLOR LCD MONITOR

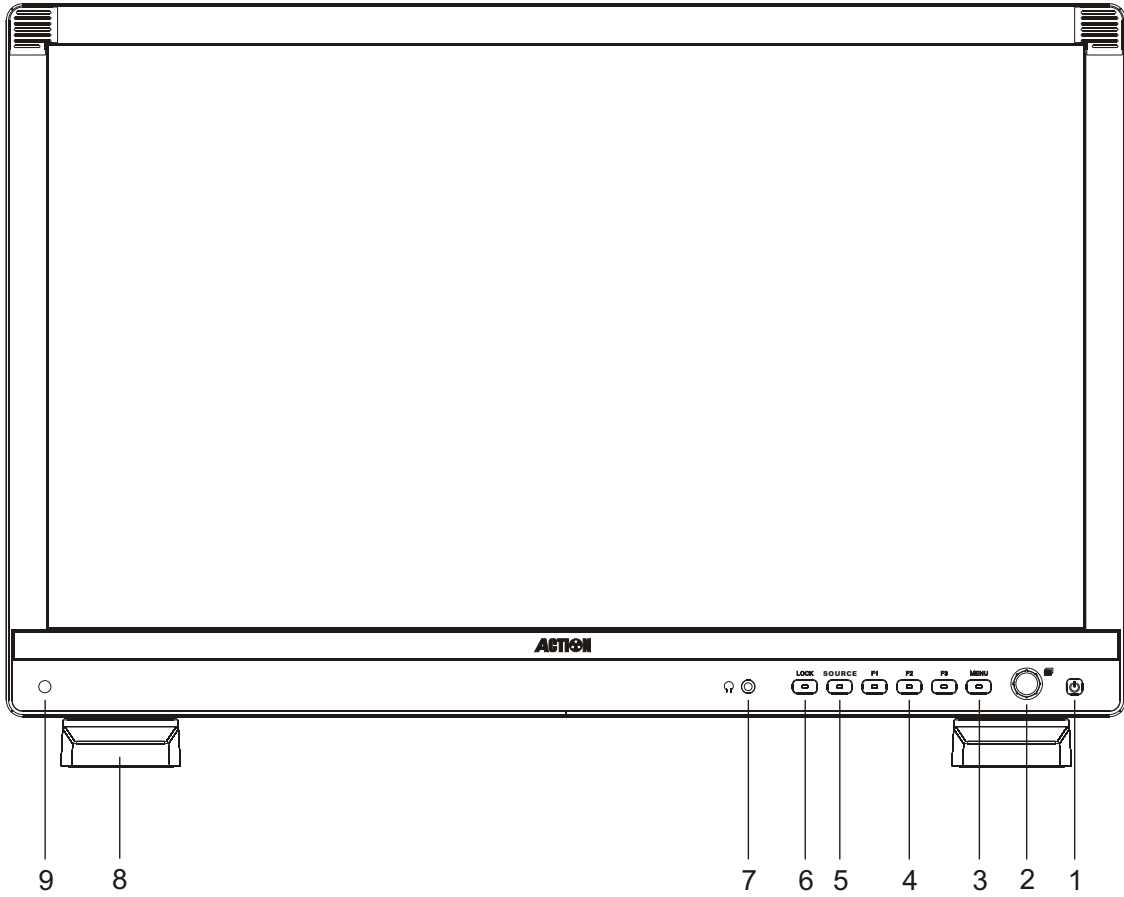
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**PRODUCT MANUAL**

# Table

Front panel function sketch map-----	1
Instruction of knobs and buttons operationr-----	2
Rear panel function sketch map-----	3
Signal Formats-----	4
Functional menu-----	5
Color calibration setting-----	6
Scaling setting-----	7
Scan mode-----	8
Mark aspect-----	9
Safety Setting-----	10
Mark-line Options-----	11
Embedded Audio-----	12
Wave Form-----	13
False colors setting -----	14
Color Only-----	15
GPI connection -----	16
Language-----	17
Menu duration-----	18
Text color-----	19
Device information-----	20
Restore Setting-----	21
Power input-----	22
Specification-----	23
Complete set-up-----	24
Accessaries-----	25
Malfunction detect-----	26

# Front panel function sketch map



- 1 Power indicator
- 2 Multiple functions Knob / key
- 3 Main menu
- 4 Shortcut keys (user-defined)
- 5 Input source option keys
- 6 Status lock/unlock / Esc
- 7 Headphone jack
- 8 Table bracket
- 9 Auto backlight

# Instruction of knobs and buttons operation

## 1. ⏻ (Power switch key)

◆ Press the key ( ⏻ ) for 3 second, the monitor will turn off to Standby, press it again, the monitor can switch between Working---Standby the loudspeakers closes automatically.

## 2. 📺 (Multiple functions Knob / key)

◆ Press the key ( 📺 ) to get the menu of Image adjustment.

◆ Turn the ( 📺 ) knob to enter the main menu, and press the key to select the item based on your demand.

◆ Turn the ( 📺 ) knob to adjust the image parameter.

◆ Press key ( 📺 ) to work as confirmation key when operating the main menu.

Brightness
Contrast
Saturation
Sharpness
Volume

Image adjustment menu

## 3. MENU (main menu key)

◆ Press key (MENU) to get the main menu.

◆ Turn the ( 📺 ) knob to change the function in the main menu.

## 4. SOURCE (input signal source switch key)

◆ Press key (SOURCE), switch among selecting input signal formats.

■ Please see page 8 for the more setting of video input format.

## 5. Shortcut keys

◆ F1~F3 is the system default shortcut key, the functions as below

F1----WAVE FORM

F2---- FALSE COLORS

F3---- MARK

◆ Press the Short-cut Key repeatedly to cycle in the options.

◆ The former setup will be invalid after you set up the Fast Key for a new function, please see to Page 10 for more setting about Short-cut Key.

## 6. ESC/LOCK (Lock up buttons and knobs)

◆ Press the button (ESC/LOCK) and hold it for three seconds, it will show “KEY LOCK On” on the screen, and the green light on front panel will turn on, it means LOCK UP function is open.

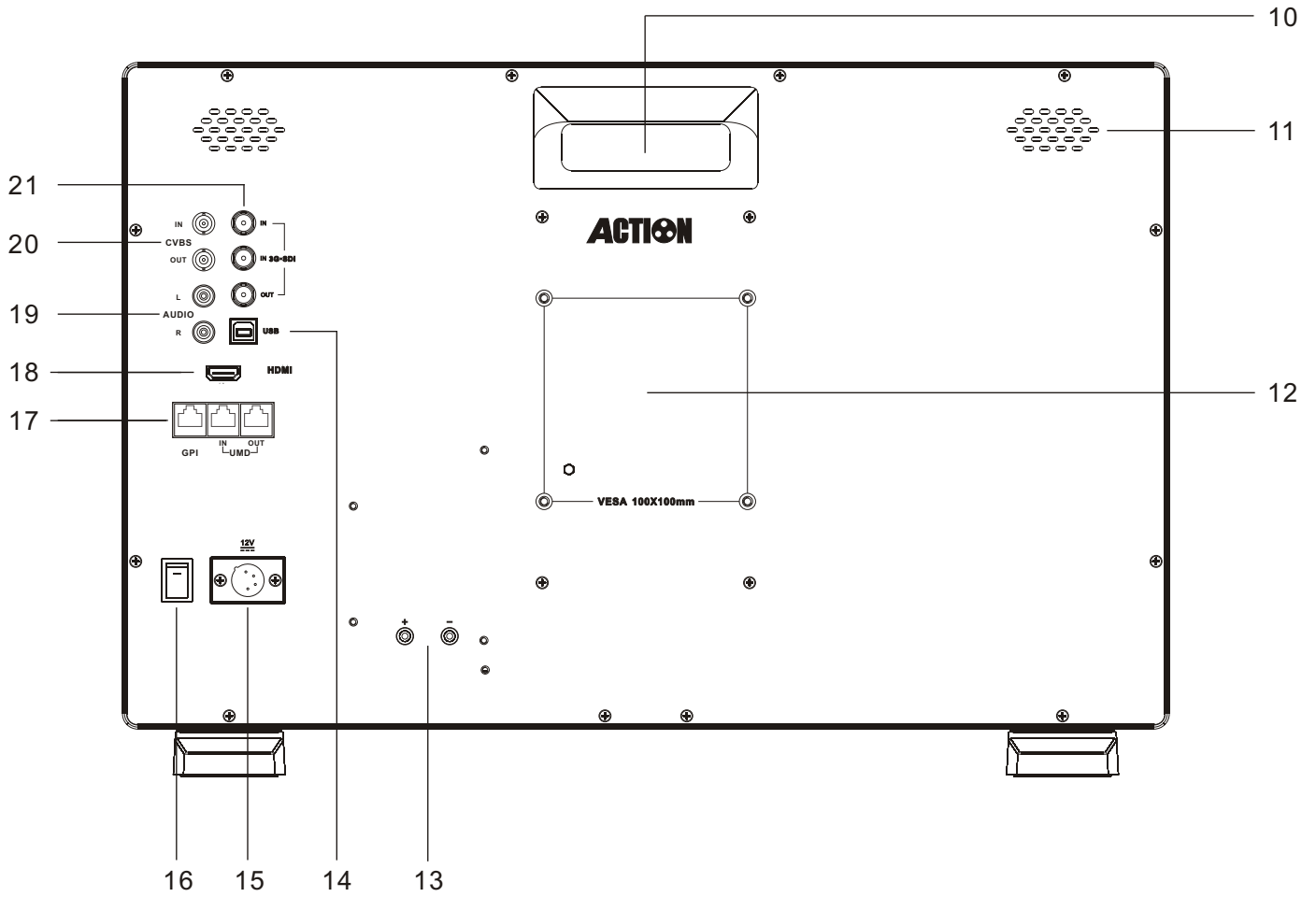
◆ In state of LOCK UP function, press (ESC/LOCK) button and hold it for three seconds, it will show “KEY LOCK OFF” on the screen, it means unlocked.

■ In stated of LOCK UP, all the buttons and knobs are invalid. It will still keep LOCK UP state, even though restart the power.

■ During the menu operation, press (ESC/LOCK) button to exit menu.



# Rear panel function sketch map

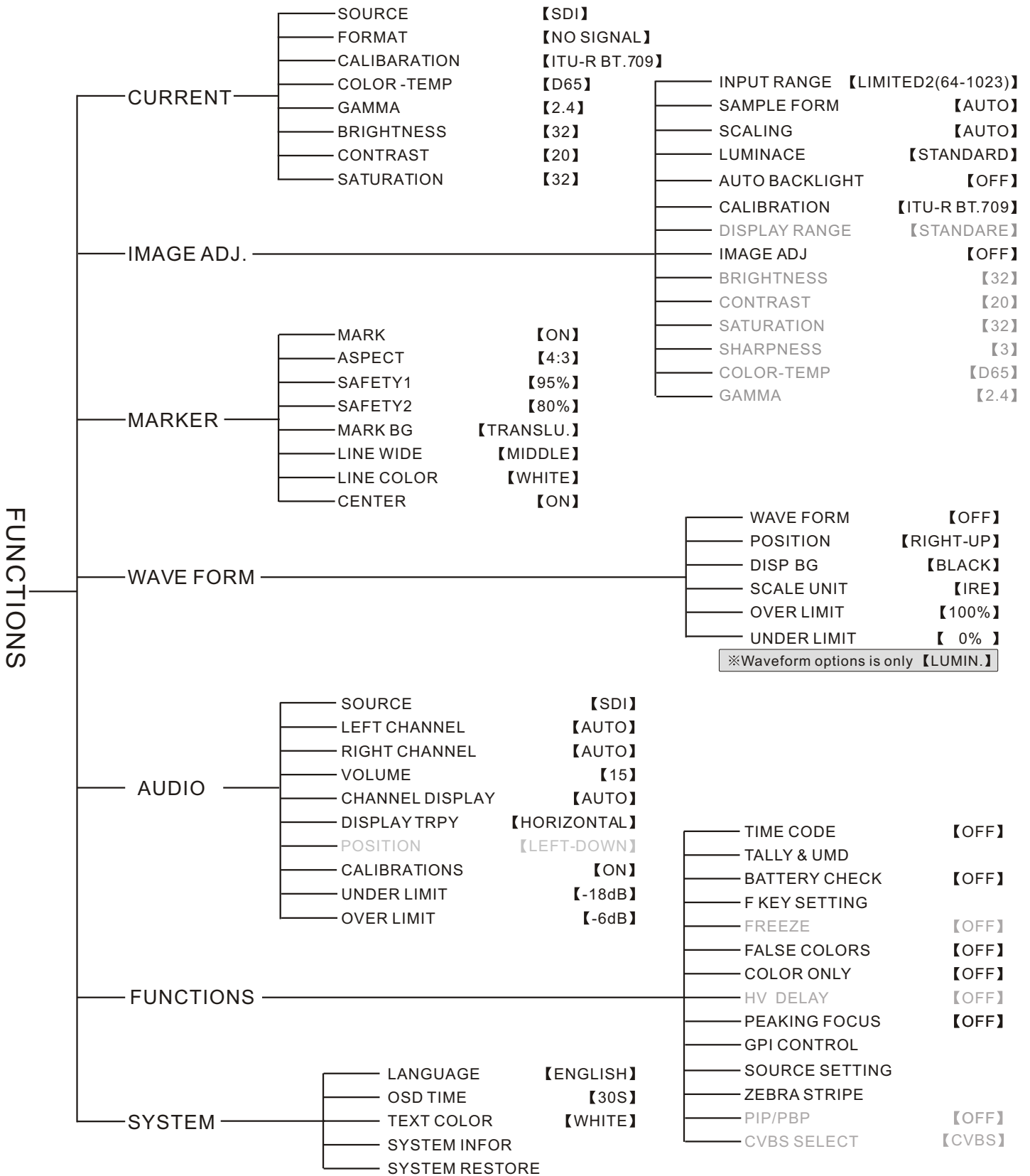


- |                            |                         |
|----------------------------|-------------------------|
| 10 Handle                  | 16 Power switch         |
| 11 Speakers                | 17 GPI&UMD control port |
| 12 VESA mounting hole      | 18 HDMI input           |
| 13 Install Battery adaptor | 19 Audio input          |
| 14 Software updates port   | 20 Composite I/O        |
| 15 DC 12V power input      | 21 3G/HD/SD-SDI I/O     |

## Signal format

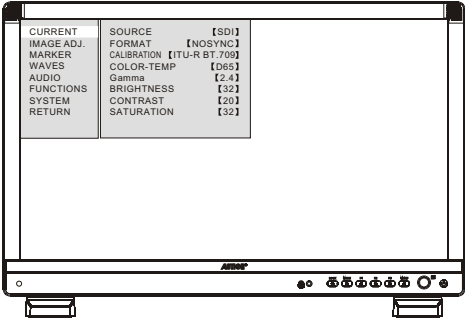
<b>Video Signal</b>	<b>Format</b>
COMPOSITE	PAL/NTSC AUTO DETECT
3G-SDI	1080/ 50p / 60p、
HD-SDI	1080/24p / 24psf / 25p / 30p / 50i / 60i、 720/50p / 60p
SD-SDI	480i / 576i
HDMI	1080/24p/24psf/25p/30p/50i/60i/50p/60p 720/50p / 60p、 480i / 480p、 576i / 576p

# Functional menu

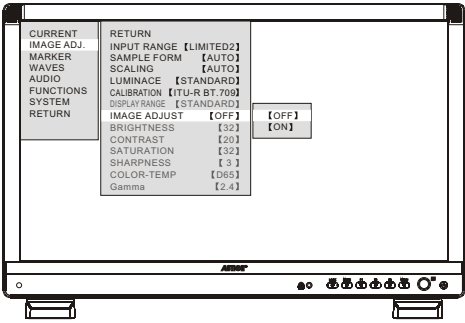


Remark:the function in grey word can not work

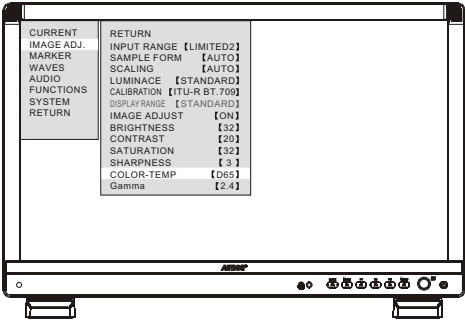
# Color Calibration Setting



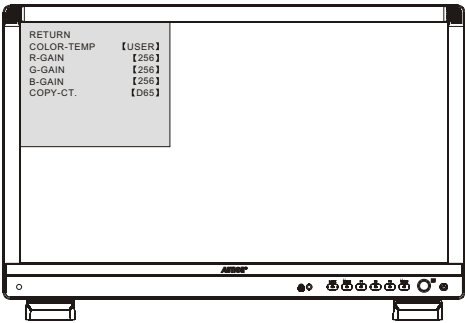
◆ Press the (MENU) knob to enter the main menu, turn the knob to select “MENU”, and then press the knob to enter the “IMAGE ADJ” interface.



After entering “IMAGE ADJ” interface, turn the (MENU) knob to select the “IMAGE ADJ.” and press the knob to turn the setting **[ON]**.



Turn the (MENU) knob to select the “COLOR-TEMP.” and press the knob to enter the “COLOR-TEMP.” Interface.



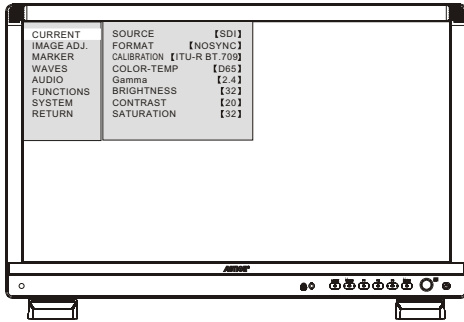
Turn the (MENU) knob to select **[USER]**, press it again to confirm, and turn the knob to select “R G B-GAIN” for adjusting.

COLOR-TEMP OPTIONS: **[D55]**、**[D65]**、**[D93]**

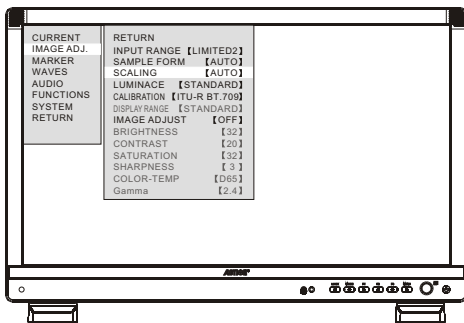


■ DEVICE SYSTEM DEFAULT **[OFF]**

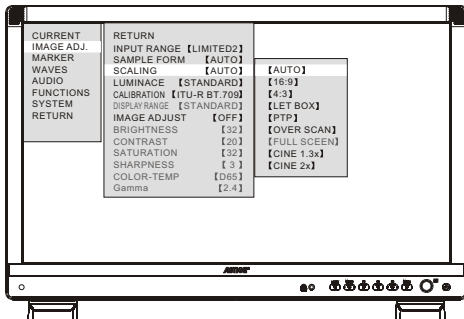
# Scaling setting



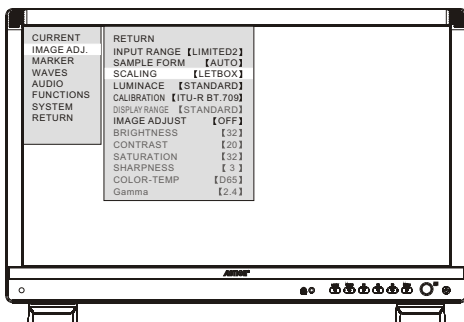
◆ Press the (MENU) knob to enter the main menu.



Turn the knob to select “IMAGE ADJ”, Then press the knob to enter the “IMAGE ADJ” interface.



After entering the “IMAGE ADJ” interface, Turn the knob to select the “SCALING”. Then press the knob to enter the “SCALING” interface.



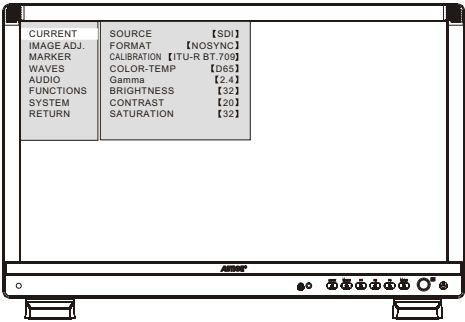
Turn the (MENU) knob to select the required item, then press the knob to confirm.

SCALING OPTIONS: **【4:3】** **【16:9】**  
**【LETTER BOX】**

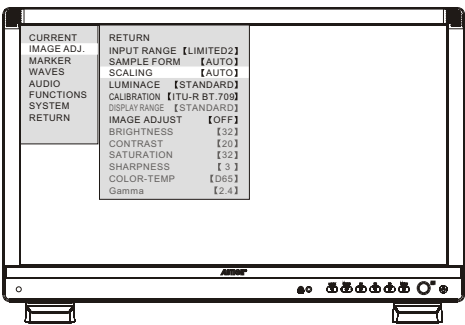


- SCALING MODE CAN BE ADJUSTED ONLY BASED ON **【USER】**
- DEVICE SYSTEM DEFAULT IS **【AUTO】**

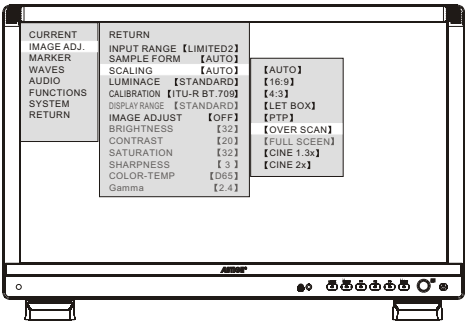
# Scan mode



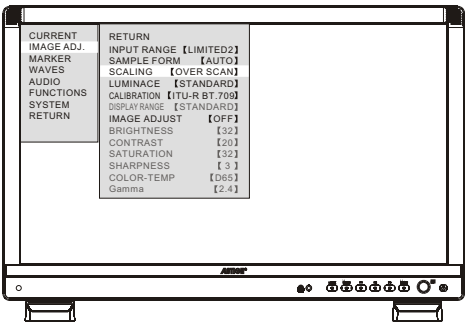
◆ Press the (MENU) knob to enter the main menu and turn the knob to select the “IMAGE ADJ” .



After entering “SCALING” interface, turn the (MENU) knob to select “SCALING” and press the knob to enter the “SCALING” interface.

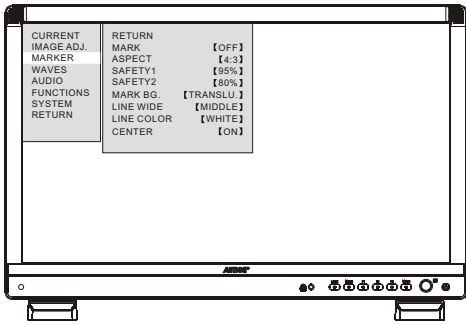


Turn the (MENU) knob to select the **【PAN & SCAN】** press the MENU) knob to confirm.

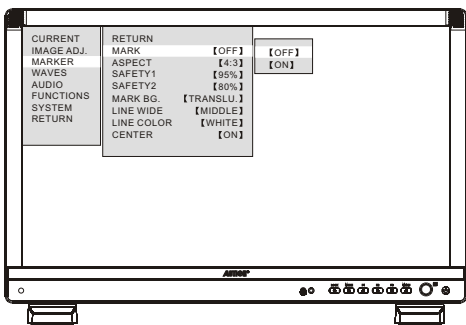


SACAN MODE OPTIONS:  
**【OVER SCAN】 【PTP】**

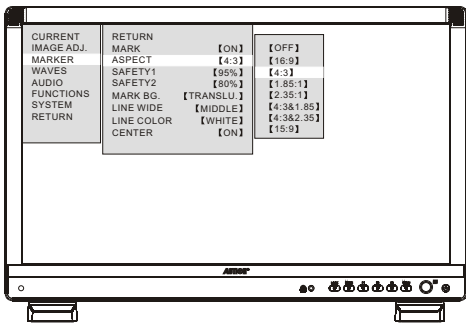
# Mark aspect



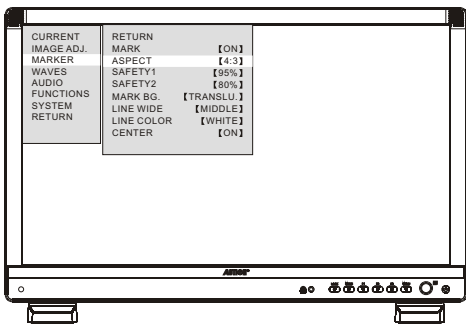
◆ Press the (MENU) knob to enter the main menu, turn the knob to select “MARKER” and press it to confirm it.



After entering the “MARKER” interface. Turn the (MENU) knob to select “MARK” and Press it to enter the “MARK” interface.



Turn the (MENU) knob to select the **[ON]** press the (MENU) knob to confirm it, then turn the (MENU) item to select the “ASPECT” ,press the knob to confirm .



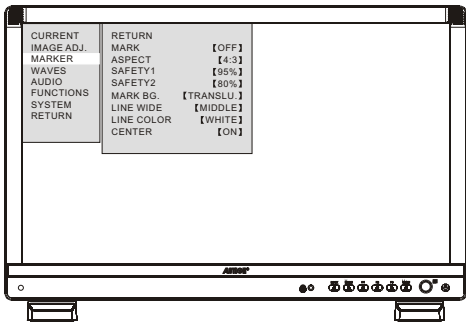
Turn the (MENU) knob to select the required mark aspect , then press the (MENU) knob to confirm .

- MARK ASPECT ASPECT OPTIONS: **[4:3]**  
**[16:9]** **[1.85:1]** **[2.35:1]** **[4:3&1.85]**  
**[4:3&2.35]** **[15:9]** **[关]**

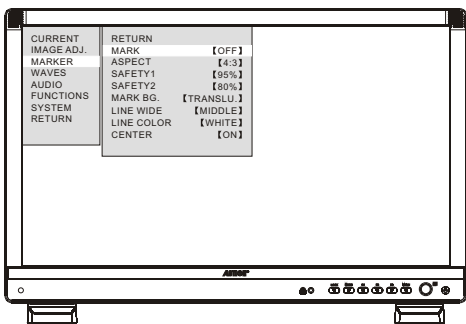


- MARK ASPECT CAN BE ADJUSTED ONLY BASED ON MARK WITH **[ON]**
- DEVICE SYSTEM DEFAULT IS **[OFF]**

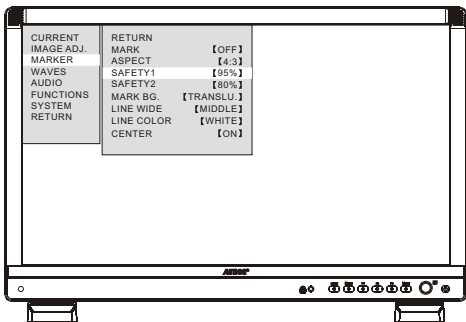
# Safety Setting



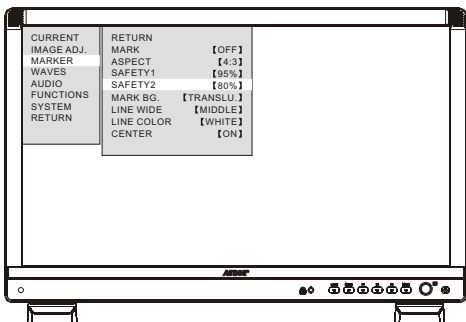
◆ Press the (MENU) knob to enter the main menu, turn the knob to select “MARK”, Then press the knob to enter the “MARK” interface.



After entering the “MARK” interface, Turn the knob to select the “MARK”. Then press the knob to enter the “MARK” interface.



Turn the (MENU) knob to select **【ON】** item, press the (MENU) knob to confirm turn the (MENU) knob to select the “SAFETY” then press the knob to confirm.



Turn the (MENU) knob to select the required safety ratio, then press the (MENU) knob to confirm.

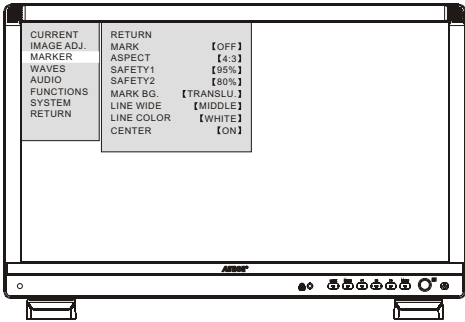
SAFETY1 OPTIONS: **【80%~99%】 【OFF】**  
 SAFETY2 OPTIONS: **【70%~99%】 【OFF】**



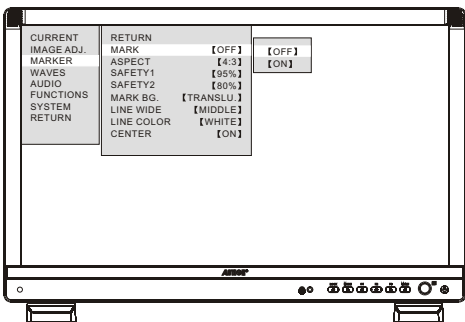
- SAFETY CAN BE ADJUSTED ONLY BASED ON MARK WITH **【ON】**
- DEVICE SYSTEM DEFAULT IS **【95%】**



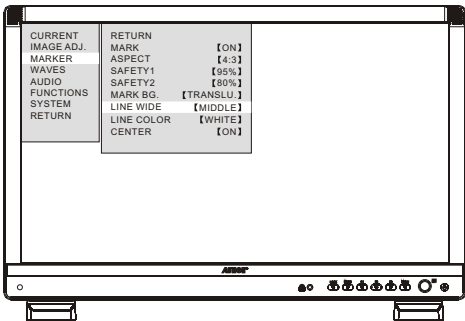
# Mark-line Options



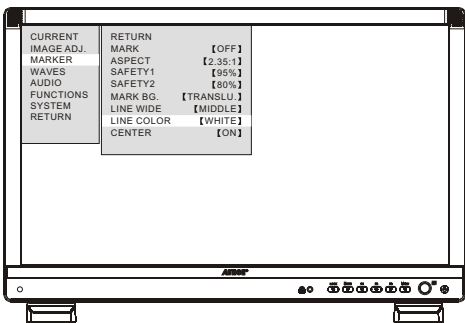
Turn the (MENU) knob to select the “LINE WIDE” item ,press the knob to enter “LINE WIDE” , turn the knob to select the required wide , then press the (MENU) knob to confirm.



Turn the knob to select the “MARK” . Then press the knob to enter the “MARK” interface, then turn the knob to select the **【ON】** item,, and press the (MENU) knob to confirm.



LINE WIDE OPTIONS: **【THIN】 【MIDDLE】 【THICK】**



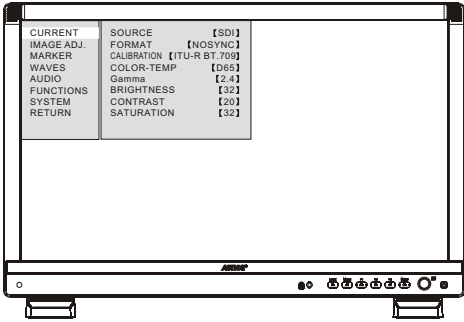
Turn the (MENU) knob to select the “LINE COLOR” item ,press the knob to enter “LINE COLOR” , turn the knob to select the required line color , then press the (MENU) knob to confirm.

LINE COLOR OPTIONS: **【WHITE】 【RED】 【GREEN】 【BLUE】**

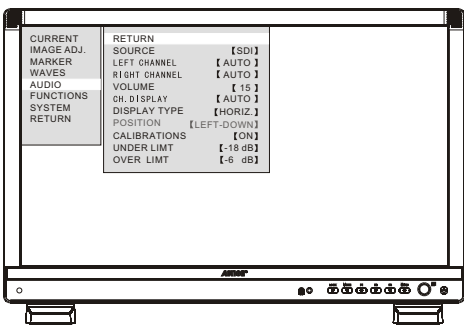


- LINE SETTING CAN BE ADJUSTED ONLY BASED ON MARK WITH **【ON】**
- DEVICE SYTEM DEFAULT LINE WIDE **【MIDDLE】** ,DEVICE SYTEM DEFAULT LINE COLOR **【WHITE】**

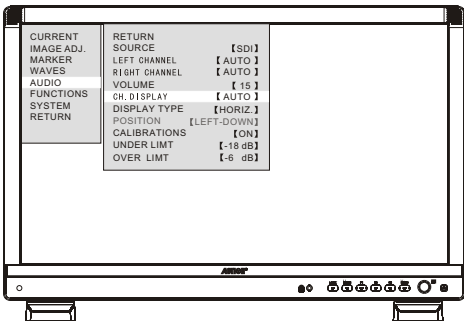
# Embedded Audio



◆ Press the (MENU) knob to enter the main menu.

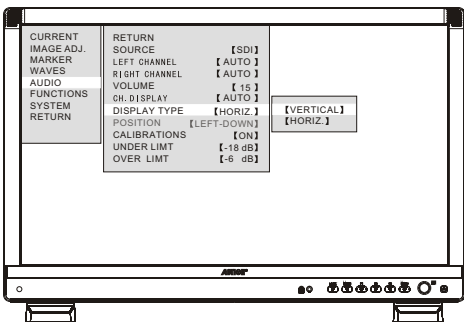


Turn the knob to select the “AUDIO” setting. Then press the knob to enter the “AUDIO” setting interface.



Turn the (MENU) knob to selected “CHANNEL DISPLAY” item press the knob to enter the “CHANNEL DISPLAY” interface turn the knob to select the required channel, then press the knob to confirm.

CHANNEL DISPLAY OPTIONS: 【AUTO】 【GP1&2】  
 【GP1&2】 【GP1&3】 【GP1&4】 【GP2&3】  
 【GP2&4】 【GP3&4】 【OFF】



Turn the (MENU) knob to select the “DISPLAY TYPE”, then turn the (MENU) knob to select the required display type, press the (MENU) knob again to confirm.

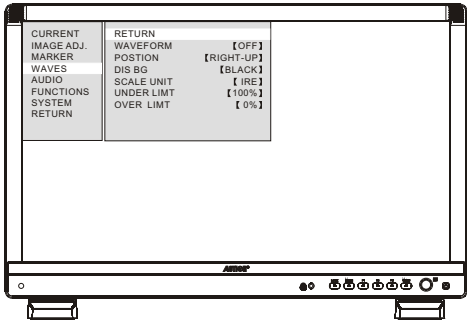
DIS TYPE OPTIONS: 【HORIZ.】  
 【VERTICAL】

Other options setting can refer to the above

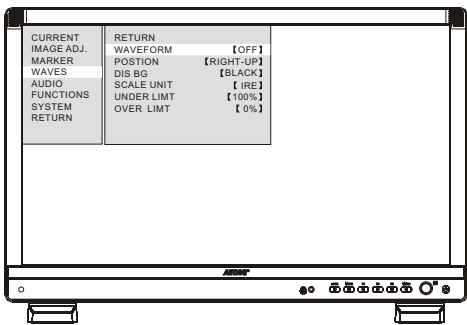


- DEVICE SYSTEM DEFAULT CHANNEL DISPLAY 【AUTO】
- DEVICE SYSTEM DEFAULT DISPLAY TYPE 【HORIZONTAL】

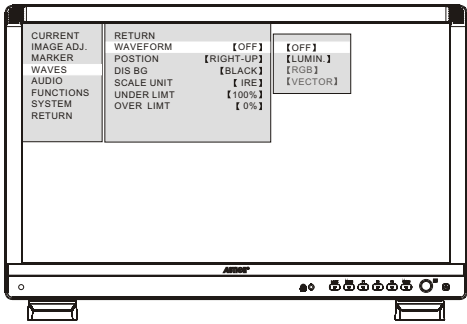
# Wave Form



◆ Press the (MENU) knob to enter the main menu and turn the knob to select the “WAVES” setting. Press the knob to enter the “WAVEFORM” interface.

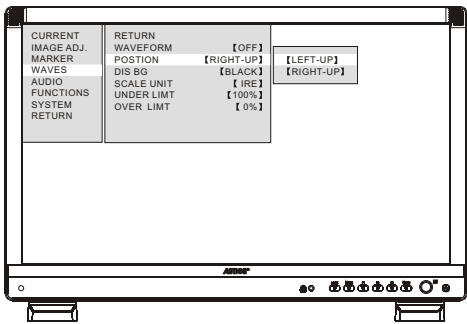


Turn the (MENU) knob to select “WAVEFORM” and press the knob to enter the “WAVEFORM” interface.



Turn the (MENU) knob to select the required WAVEFORM item, press the (MENU) knob to confirm.

WAVEFORM OPTIONS: **【LUMIN.】** **【RGB】**  
**【VECTOR】** **【OFF】**



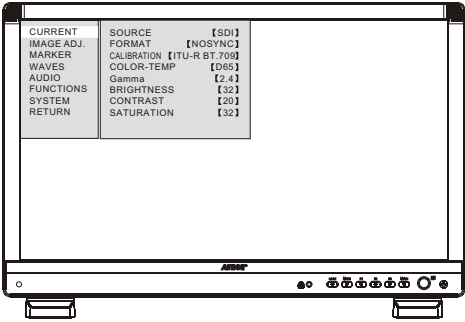
Turn the (MENU) knob to select the “WF POSITION” “DISP Bg” “SCALE UNIT”

WF POSITION OPTIONS: **【UPPER RIGHT】**  
**【UPPER LEFT】**  
DISP Bg OPTIONS: **【BLACK】** **【TRANSLUCENCE】**

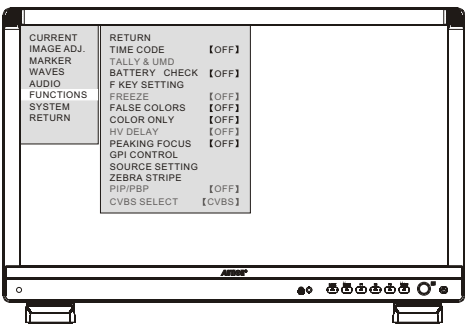


■ DEVICE SYSTEM DEFAULT IS **【OFF】**

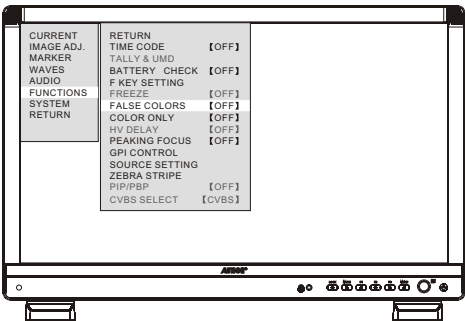
# False colors setting



◆ Press the (MENU) knob to enter the main menu.

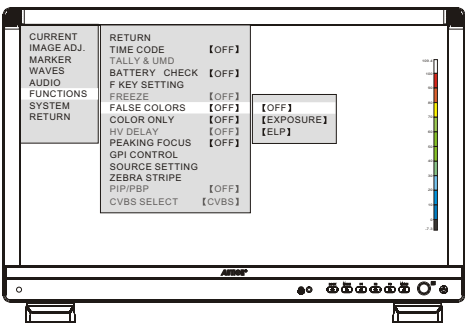


Turn the knob to select the “FUNCTIONS ” setting. Press the (MENU)knob to enter the “FUNCTIONS ” setting interface.



After entering “FUNCTIONS ” setting interface, turn the (MENU) knob to select “FALSE COLORS” and press the knob to enter the “FALSE COLORS” interface, then turn the (MENU) knob to select **【EXPOSURE】** , press the (MENU) knob to confirm.

PALSE COLORS OPTIONS: **【EXPOSURE】**  
**【ELP】 【OFF】**



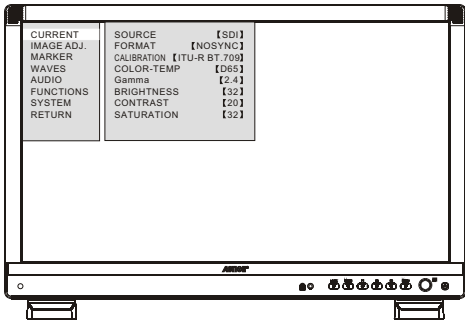
After select **【EXPOSURE】** , turn the (BRIGHT) knob to adjust the over limit of false colors map, and turn the (CONTRAST) knob to adjust the under limit.

After select **【ELP】** , the over limit and under limit signal are represented with white and purple color in the picture, the safety signal within the limit are in black.

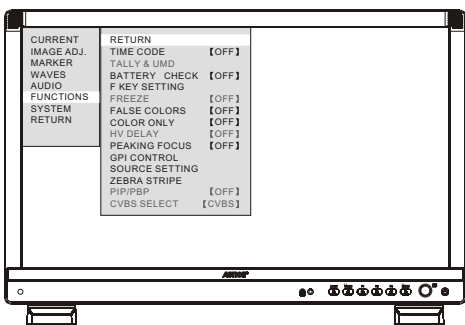


■ DEVICE SYSTEM DEFAULT **【OFF】**

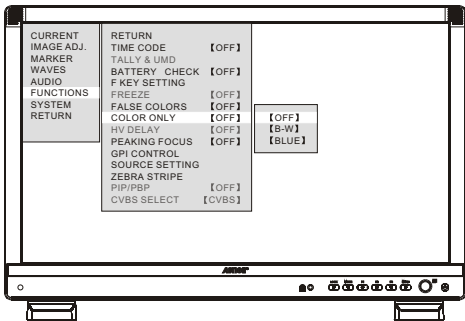
# Color Only



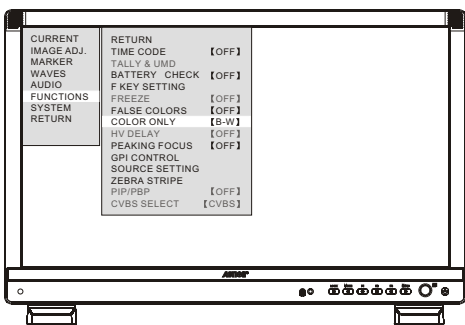
◆ Press the (MENU) knob to enter main menu.



Turn the knob to “FUNCTIONS ” setting and press it to enter “FUNCTIONS ” setting interface.



Turn the (MENU) knob to select “COLOR ONLY” , and press it to enter “COLOR ONLY” interface.



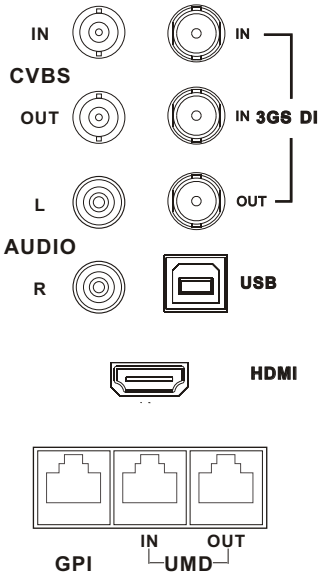
Turn the (MENU) knob to select the color option ,then press the knob to confirm it , the image get the selected color.

COLOR ONLY OPTIONS: **[B-W]** **[BLUE]**  
**[OFF]**

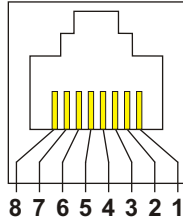


■ DEVICE SYSTEM DEFAULT IS **[OFF]**

# GPI connection



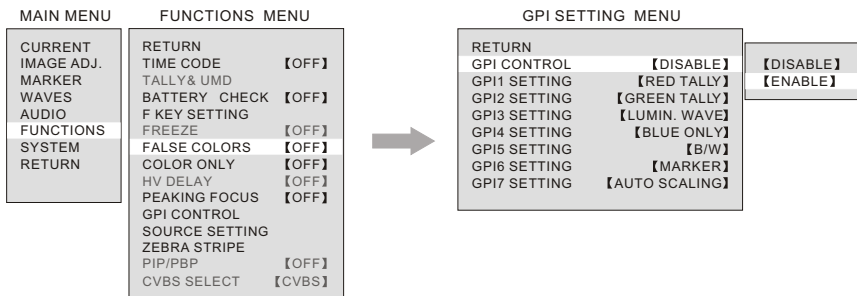
## GPI port(RJ-45)



## Pin Assignment:

Pin No.	Ports
1	GPI1
2	GPI2
3	GPI3
4	GPI4
5	GPI5
6	GPI6
7	GND
8	GPI7

- Please connect the equipment based on the pins define , make sure all the equipment GND connection.
- According to the below steps to control GPI feature and set the GPI based on each GPI feature.

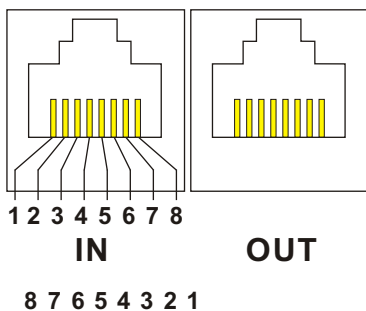


## GPI OPTIONS:

**【RED TALLY】 【GREEN TALLY】 【LUMIN. WAVE】 【RGB WAVE】 【VECTOR】**  
**【MARKER】 【HV DELAY】 【ELP】 【EXPOSURE】 【PEAKING FOCUS】**  
**【BLUE ONLY】 【B/W】 【TIME CODE】 【AUDIO CH.】 【AUTO SCALING】**  
**【FREEZE】 【SDI1 INPUT】 【SDI1/SDI2 INPUT】 【DVI/HDMI INPUT】**  
**【VIDEO INPUT】**

- When GPI1 and GPI2 are triggered simultaneously, yellow TALLY is displayed.

## UMD port(RJ-45)

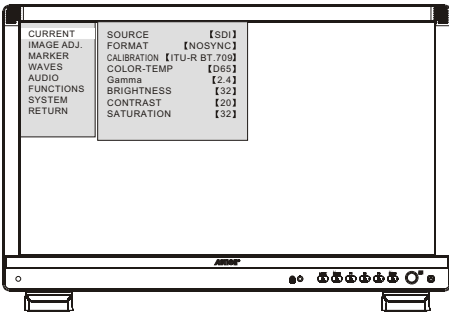


## UMD Pin Assignment(RS485):

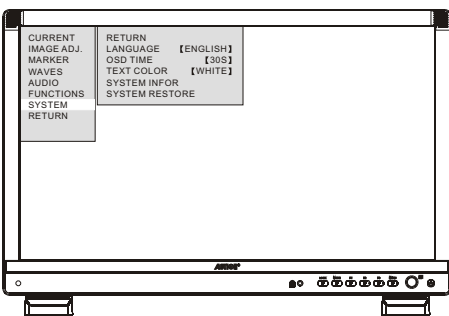
Pin No.	Signal -IN	Signal -OUT
1	GND	GND
2	GND	GND
3	Tx-	Tx-
4	Rx+	Rx+
5	Rx-	Rx-
6	Tx+	Tx+
7	NC	NC
8	NC	NC

- When disconnecting the connect cable, set the POWER switch to OFF first, and pull the cable by holding the plug. Never pull the cable by its cord.

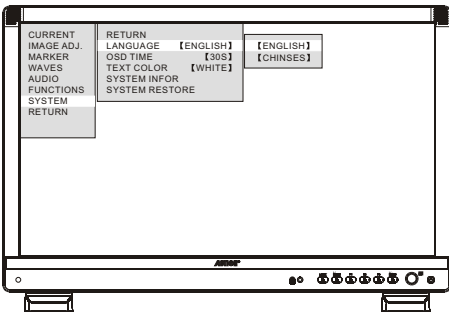
# Language



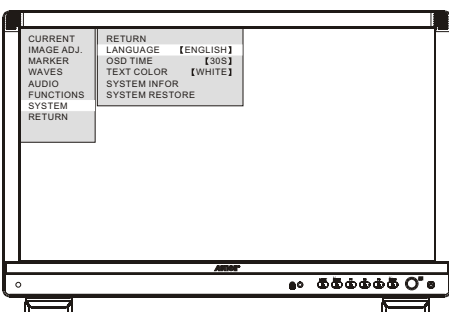
◆ Press the (MENU) knob to enter the main menu.



Turn the knob to select the “SYSTEM ” setting.Press the (MENU) knob to enter the “SYSTEM ” setting interface.



After entering the “SYSTEM ” setting interface,turn the knob to select “ LANGUAGE” . Then press the (MENU) knob to enter the “ LANGUAGE ” interface



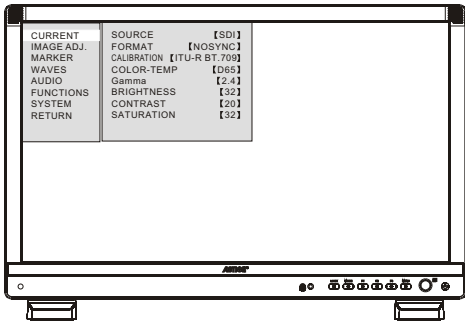
After entering the “ LANGUAGE” interface, turn the knob to select the language,Press the knob to confirm.

OPTIONS: 【CHINESE】 【English】

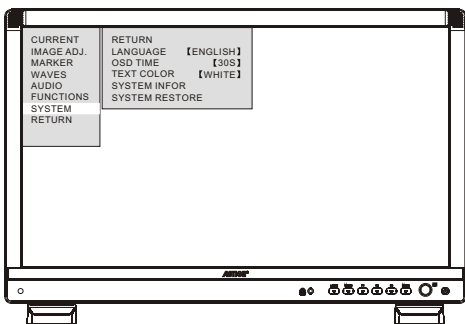


■ DEVICE SYSTEM DEFAULT 【CHINESE】

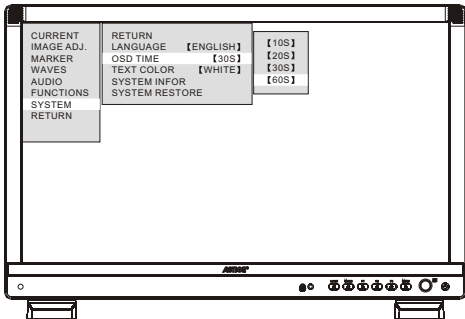
# Menu duration



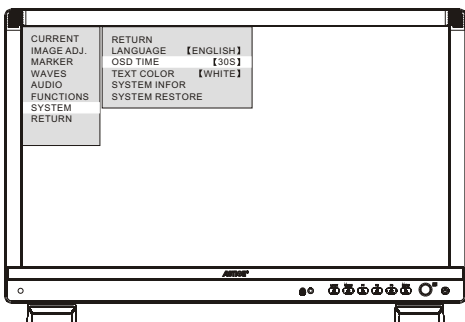
◆ Press the (MENU) knob to enter the main menu.



Turn the (MENU) knob to select “SYSTEM ” setting. Then press the knob to enter the “ “SYSTEM ” setting interfac.



After entering “SYSTEM ” setting interface, turn the knob to select “OSD TIME” . Then press the knob to enter the “OSD TIME” interface.



Turn the (MENU) knob to select the required duration. press the knob to confirm.

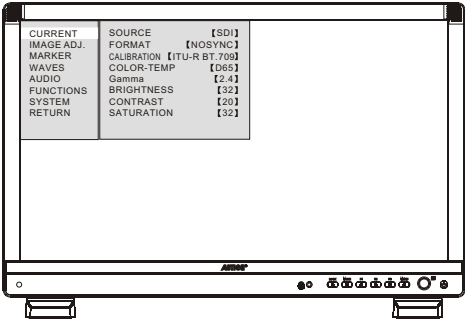
OPTIONS: 【10S】 【20S】 【30S】 【60S】



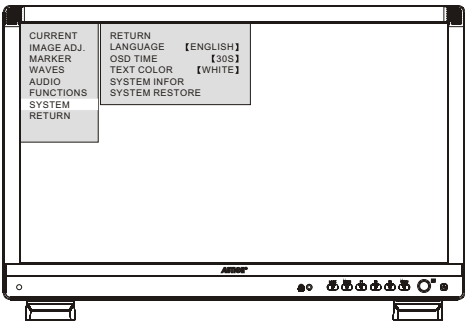
■ The original menuduration 【30S】



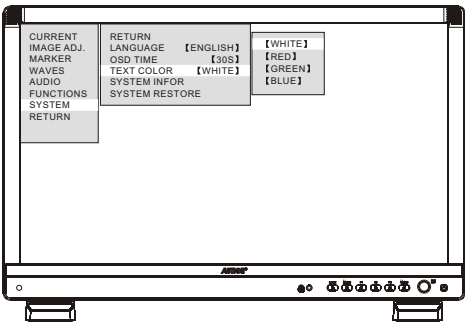
# Text color



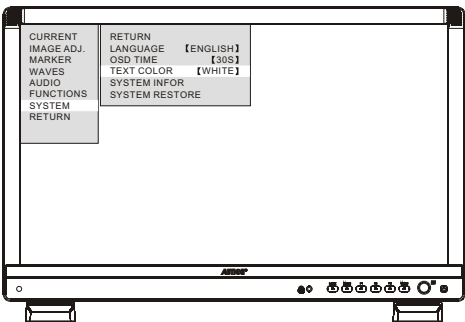
◆ Press the (MENU) knob to enter the main menu.



Turn the knob to select “SYSTEM” setting then press the knob to enter the “SYSTEM” setting interface.



After entering “SYSTEM” setting interface Turn the knob to select “TEXT COLOR” . Then press the knob to enter “TEXT COLOR” interface.



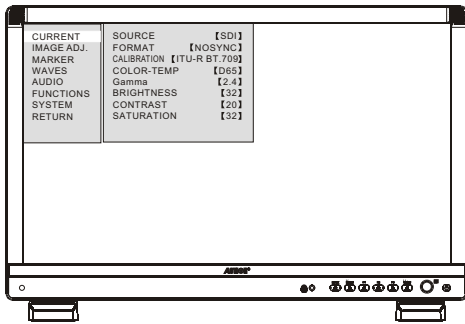
Turn the (MENU) knob to select the color press it to confirm.

Options: **[white]** **[red]** **[blue]** **[green]**

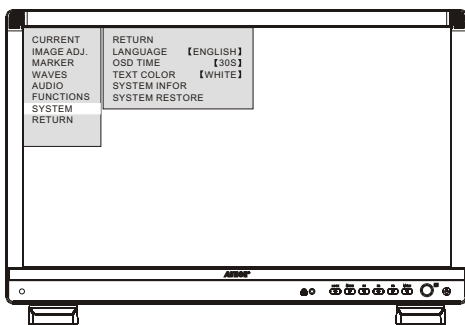


■ The original color is **[white]**

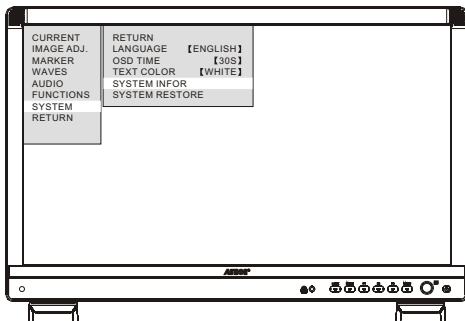
# Device information



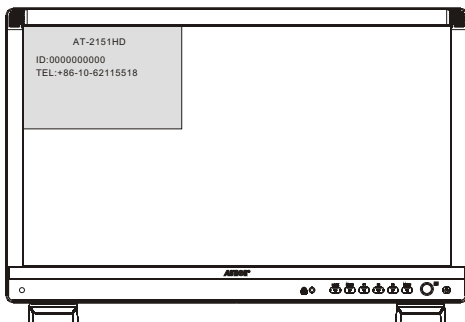
◆ Press the (MENU) knob to enter the main menu.



Turn the knob to select the “System setting”, then press the knob to enter the “System setting” interface.

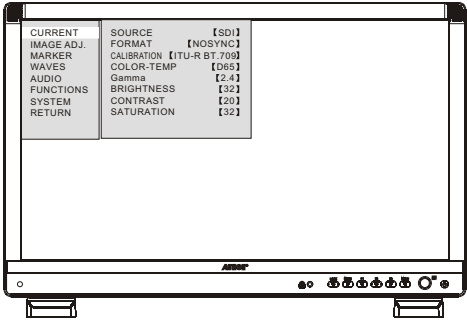


After entering the “System setting” interface, turn the (MENU) knob to select “SYSTEM INFOR”, press the knob to display the device information.

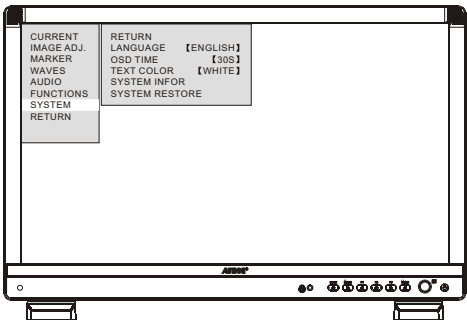


The device information include :model no,product ID no, after service phone no .

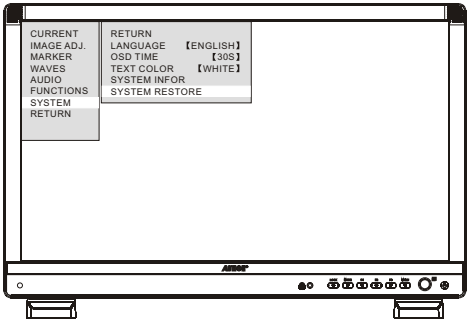
# Restore Setting



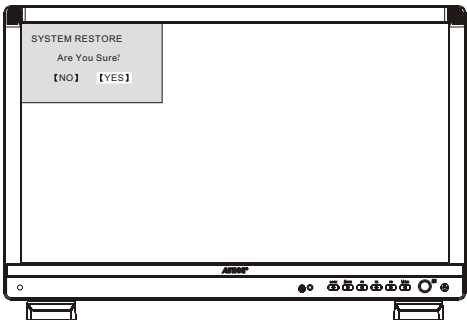
◆ Press the (MENU) knob to enter the main menu.



Turn the (MENU) knob to select the “SYSTEM ” setting and press it to enter the “SYSTEM ” setting interface.



After entering the “SYSTEM ” setting interface, turn the (MENU) knob to select the “SYSTEM RESTORE” to get the dialog box.

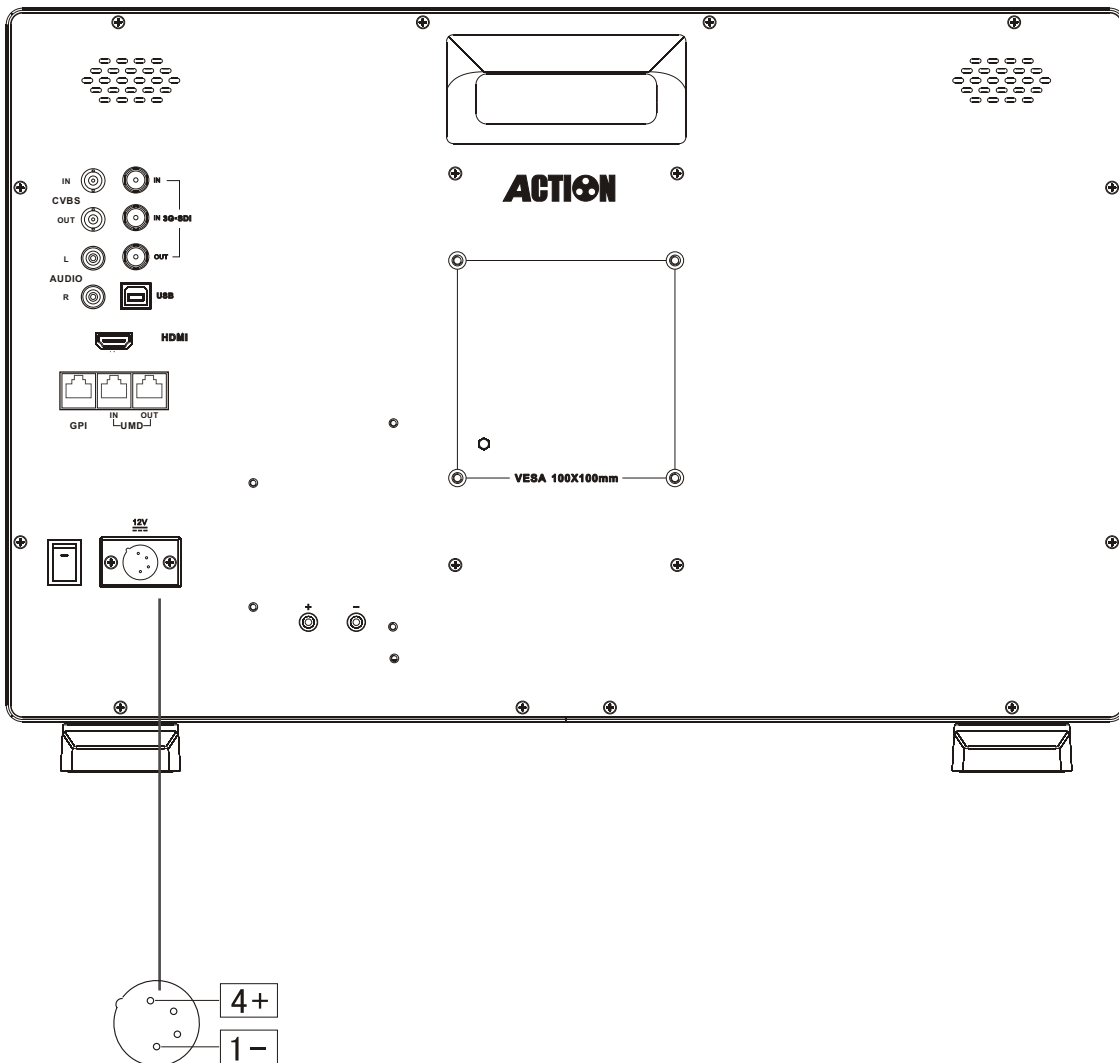


Turn the (MENU) knob to select the **【Yes】** and press the (MENU) knob to confirm menu disappear automatically , all the parameter restore to the original status.



■ Video input mode is **【SDI】** after restoring

# Power input



power connection sketch

AT-2150HD power input :

1. Power providing by the equipped DC 12V power adaptor
2. Power providing by yourself, please see the above connection method

## Specification

Size: 21.5"

Resolution: 1920 × 1080

Dot pitch: 0.247 (H) × 0.247 (V) mm

Brightness: 250cd/m<sup>2</sup>

Contrast: 1000:1

Viewing angle: Left / Right / Up / Down 89° / 89° / 89° / 89°

Aspect ratio: 4:3 / 16:9 (Switch)

Video input: 3G / HD / SD-SDI × 2line

CVBS × 1line

(NTSC / PAL Auto detect, Loop through)

HDMI × 1line

Audio input: Dual speaker × 1line (8Ω 2W) 0.7Vp-p

Video output: 3G / HD / SD-SDI × 1line

CVBS × 1line (NTSC / PAL Auto detect)

Voltage input: DC 12V

Power consumption: ≤ 22W




Dimension: L 514.8 × H 328 × D 40mm

Weight: around 4.7 Kg

## Complete set-up

AT-2150HD	1unit	Table bracket	1pair
AC power adaptor	1pc	AC power cable	1pc
Product manual	1pc		

# Accessories

 <p>AC power adaptor</p>	 <p>AC power cable</p>
 <p>Table bracket</p>	

## Malfunction detect

Below checking method can be adopted if any problem occurred when operating this system.

If there is still problem that can not be resolved please contact neighbouring RUIGE sales center.

No image	Solution
1. Video cable come off or wrong connection	Checking cable quality and confirm input end
2. No signal input	Checking whether the output end is connected well or not
3. LCD monitor power is off	Put the power switch on the “-” location
4. Using the power cable with adverse pole	Refer to (Power input method)

Picture /color abnormal display	Solution
1. Video cable with bad connection	Change the new cable
2. Outside interfere to the video cable	Change the new environment to check again
3. The video signal input intensity is too low	Checking whether the intensity is less than 0.8v
4. The saturation and brightness is adjusted too much	Adjust to middle location
5. Picture distortion	Reset the aspect ratio

Speaker can not work	Solution
1. Audio cabl with bad connection	Checking whether the output end is well connected or not
2. The volume is adjusted the lowest location	Adjust it at the proper location
3. Switch the video signal ,then no voice	Only 1 line audio output