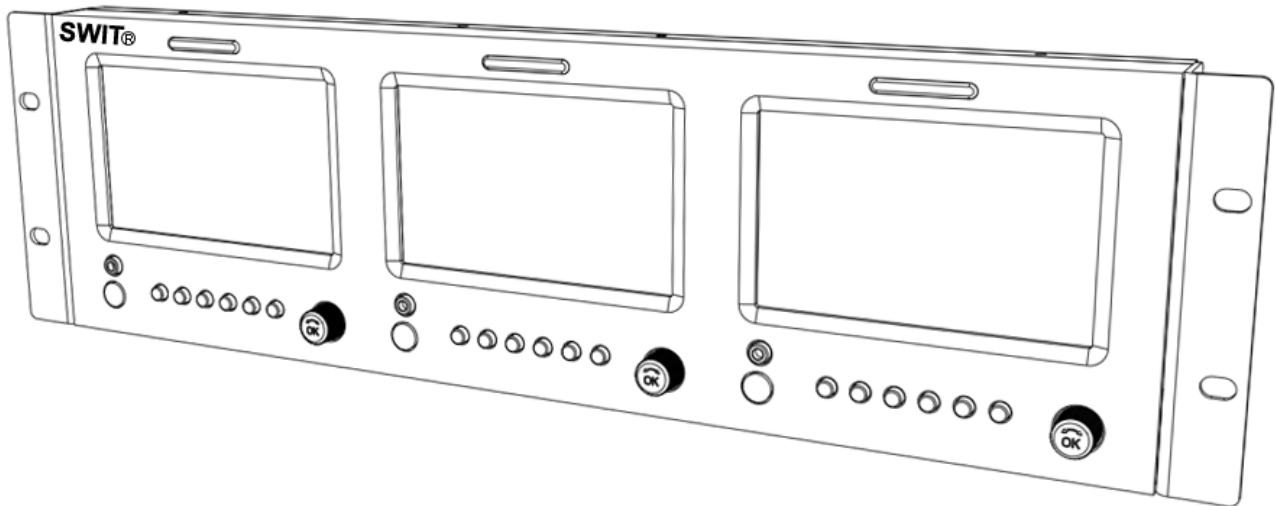


SWIT[®]

Model: **M-1051H**

5"×3 Rack Mount HDSDI&HDMI LCD Monitor



User Manual

Please read this User Manual
throughout before using.

Preface

Congratulations on your purchase of this product. Please read this user manual carefully.

1. All internal technologies of this product are protected, including device, software and trademark. Reproduction in whole or in part without written permission is prohibited.
2. All brands and trademarks of SWIT Electronics Co., Ltd. are protected and other relative trademarks in this user manual are the property of their respective owners.
3. Due to constant effort of product development, SWIT reserves the right to make changes and improvements to the product described in this manual without prior notice.
4. The warranty period of this product is 2 years, and does not cover the following:
 - (1) Physical damage to the surface of the products, including scratches, cracks or other damage to the LCD screen or other externally exposed parts;
 - (2) Misuse, abuse or negligent operation to the product;
 - (3) The product is disassembled by anyone other than an authorized service center.It is considered normal that the LCD bright dot defects are not to exceed three.
5. For any suggestions and requirements on this product, please contact us through phone, fax, Email, etc.

SWIT Electronics Co., Ltd.

Address: 10 Hengtong Road, Nanjing Economic and Technological Development Zone,
Nanjing 210038, P.R.China

Phone: +86-25-85805753

Fax: +86-25-85805296

Email: contact@swit.cc

Website: <http://www.swit.cc>

Maintenance

- **The Monitor**

1. Please keep the signal terminals and the cooling vent away from knife-edge, metal or liquid in order to avoid short-circuit and damage.
2. Please don't try to disassemble any parts of the monitor by yourself, which would probably damage the monitor and do harm to human body, and it will cause the invalidation of product warranty.
3. Please don't touch the screen with your fingers, which would probably deface the screen.
4. Please don't press the screen; the LCD is extremely exquisite and flimsy.

- **The power**

Please use the power adapter provided or recommended by the manufacturer in order to avoid damage. For a third party power adapter, please make sure the voltage range, supplied power, and polarity of power lead are fit.

Please disconnect the power cable under the following situations:

1. If you do not operate this monitor for a period of time;
2. If the power cable or power adaptor is damaged;
3. If the monitor housing is broken.

- **Working Environment**

1. Please don't lay this product on the unstable place.
2. Please don't lay this product in hot, cold or wet location.

- **Cleaning**

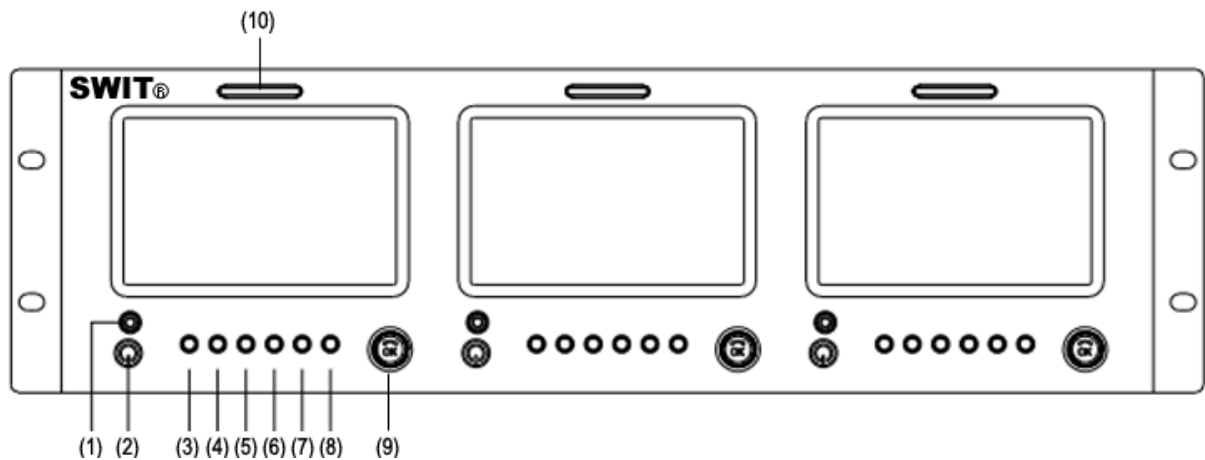
1. Please clean the screen with dry and downy cloth or special LCD cleanser.
2. Please do not press hard when cleaning the screen.
3. Please do not use water or other chemical cleanser to clean the screen. The chemical may damage the LCD.
4. For first time use, please tear off the factory LCD film. To protect the LCD screen, please post the LCD protection film offered in the package.

1. Features

- ◆ **High resolution LCD Panel**
Consists of three 5-inch, 16:9, 800×480 LCD panels, with wide viewing angle and 19-inch 3U rack mount,
- ◆ **3Gbps SDI support**
Accept 3G/HD/SD-SDI input
- ◆ **Multi Input/Output**
Support SDI, HDMI, CVBS input and loop through output
- ◆ **SDI embedded audio output**
Convert SDI embedded audio to analog and output via 3.5mm earphone jack.
- ◆ **HDMI embedded audio output**
Convert HDMI embedded audio to analog and output via 3.5mm earphone jack.
- ◆ **Underscan and Overscan**
Switch between underscan and overscan mode.
- ◆ **Safe area**
The safe area is offered to mark an area of picture that can be seen on the television screens.
- ◆ **Pixel to pixel zoom-in**
The real time zoom-in function is to enlarge to the input video as pixel to pixel from the center.
- ◆ **Image flip**
Rotate the image by 180°.
- ◆ **User definable function keys**
There are 2 function keys on the monitor front panel, and users could define the functions to the keys to achieve shortcut.
- ◆ **User editable video title**
User can edit a video title for the current camera, and the title will display on the top of screen.

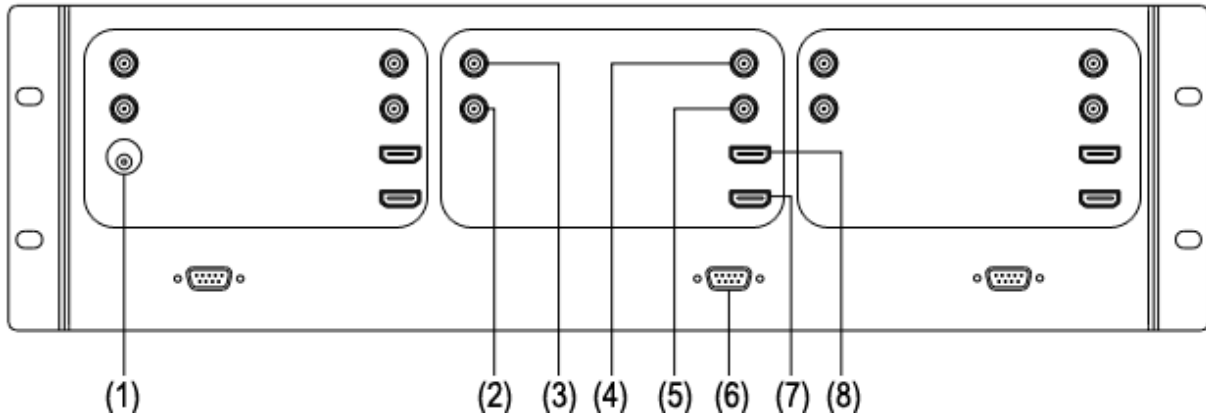
2. Panel Instruction

Front view



- (1) **PHONE:** Earphone jack, for SDI embedded audio, HDMI embedded audio monitoring
- (2) **POWER:** Power on/off
Connect with power cable, press the “POWER” and the power indicator is turned on and after 10 seconds, the monitor will be switched on and get into normal working status. Press the “POWER” again, the indicator is turned off and monitor is switched off.
Disconnect with power cable if the monitor will not be used for a period of time.
- (3) **SOURCE:** Input signal selection
Press “SOURCE” and revolve the “OK” to select the input video signal.
- (4) **F1:** User definable function key 1
- (5) **F2:** User definable function key 2
- (6) **RATIO:** 16:9 and 4:3 switch
- (7) **DISPLAY:** Display current settings
Press “Display” to display safety mark, title and the current input signal information
- (8) **MENU:** Press to enter Menu
- (9) **OK:** Select and Apply
Under menu system, revolve “OK” to adjust settings and press to apply; and out of menu system, directly revolve “OK” to adjust volume.
- (10) **TALLY Light:** Red, Green and Yellow 3-color TALLY indicator

Rear view



(1) **DC 12V IN:** Connect with DC12V power adapter. Please mind the polarity as:



- (2) **CVBS-IN:** Composite video input (BNC connector)
- (3) **CVBS-LOOP:** Composite video loop through output (BNC connector)
- (4) **SDI-LOOP:** 3G/HD/SD-SDI loop through output (BNC connector)
- (5) **SDI-IN:** 3G/HD/SD-SDI input (BNC connector)
- (6) **TALLY controlling port (RS232)**
- (7) **HDMI-IN:** HDMI input
- (8) **HDMI-LOOP:** HDMI loop through output

Input formats

Input	Supported formats
CVBS	PAL / NTSC
HDMI	480i / 576i / 480P / 576P
	1080i (60 / 59.94 / 50)
	720p (60 / 59.94 / 50)
	1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
SDI	SMPTE-425M 1080p (60 / 59.94 / 50)
	SMPTE-274M 1080i (60 / 59.94 / 50)
	SMPTE-296M 720p (60 / 59.94 / 50)
	SMPTE-125M 480i (59.94)
ITU-R BT.656 576i (50)	

The 3 display units have the same input interfaces and input formats

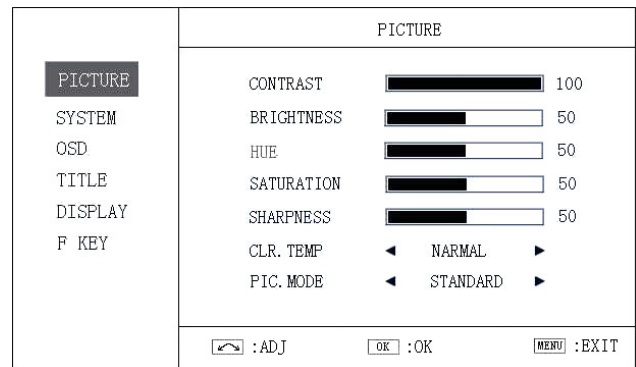
3. Menu Operation

- (1) Press "MENU" and it will display menu system
 - (2) Revolve "OK" to select an item. The selected item will be highlighted display.
 - (3) Press "OK" to enter the selected item.
 - (4) Under menu system, press "MENU" to back to previous menu.
- *The menu will automatically save and quit if it remains idle.

3.1 PICTURE submenu

The PICTURE submenu includes:

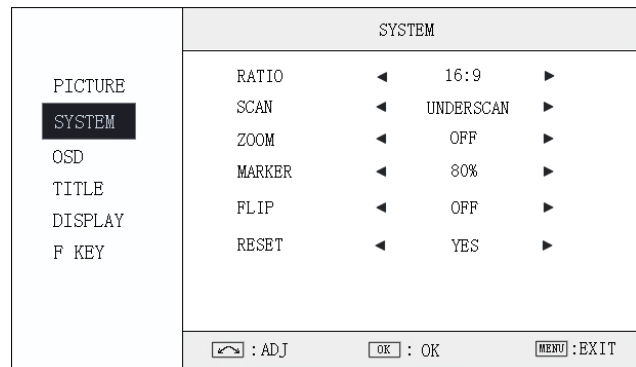
- (1) **CONTRAST:** 0-100 value adjustment
- (2) **BRIGHTNESS:** 0-100 value adjustment
- (3) **HUE:** 0-100 value adjustment
(Only available under CVBS NTSC input)
- (4) **SATURATION:** 0-100 value adjustment
- (5) **SHARPNESS:** 0-100 value adjustment
- (6) **COLOR TEMP.:** Color temperature, Normal (6500K), Warm (4500K), Cool (9300K) selection
- (7) **PIC.MODE:** User defined and preset picture modes: standard, soft and vivid selection



3.2 SYSTEM submenu

The SYSTEM submenu includes:

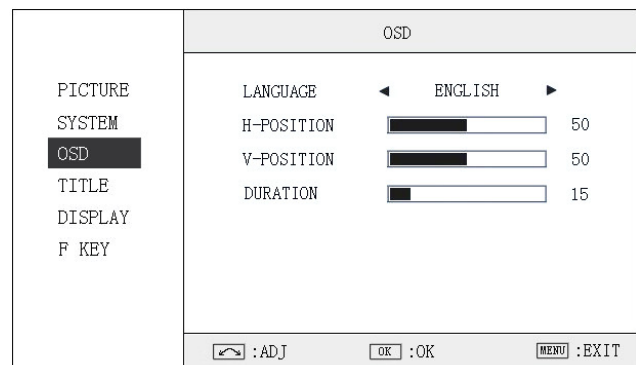
- (1) **RATIO:** Aspect ratio "16:9" / "4:3" selection
- (2) **SCAN:** "UNDERSCAN" / "OVERSCAN" selection
- (3) **ZOOM:** "OFF", "ZOOM1" and "ZOOM2" selection
ZOOM1: Canon DSLR scale zoom-in
ZOOM2: Pixel to Pixel zoom-in
- (4) **MARKER:** Select and set the safe area scale from 80%, 85%, 90% and 95%.
- (5) **FLIP:** Select "ON" to flip the picture by 180°.
- (6) **RESET:** Select "YES" to recover all to factory setting.



3.3 OSD submenu

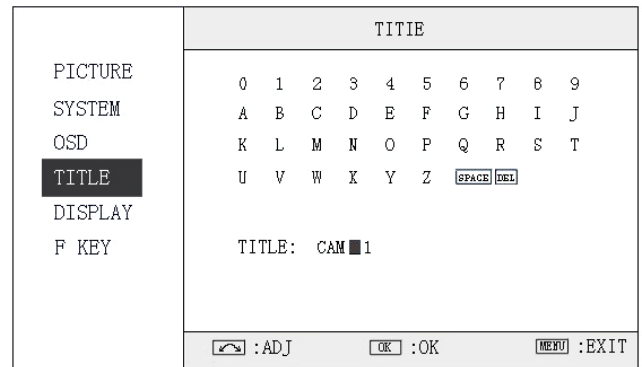
The OSD submenu includes:

- (1) **LANGUAGE:** Menu language selection
- (2) **H-POSITION:** Menu horizontal position (0-100) adjustment, real-time preview and default value: 50.
- (3) **V-POSITION:** Menu vertical position (0-100) adjustment, real-time preview and default value: 50.
- (4) **DURATION:** Menu timeout setting (5-60)
Set a time (in seconds) in which the menu will automatically quit if remains idle. Default: 15.



3.4 TITLE submenu

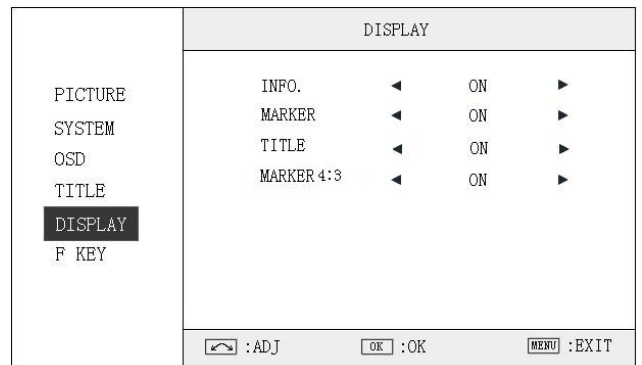
Revolve "OK" button to select the letters, and press "OK" to input. Select SPACE to input space and DEL to delete the left letter. Max 10 letters are supported. After setting, press "MENU", the system will save data to current user and quit menu. The menu will automatically save and quit if it remains idle.



3.5 DISPLAY submenu

The DISPLAY submenu is to select the items to be displayed on screen when 'DISPLAY' button is pressed. Revolve "OK" to turn on/off the items:

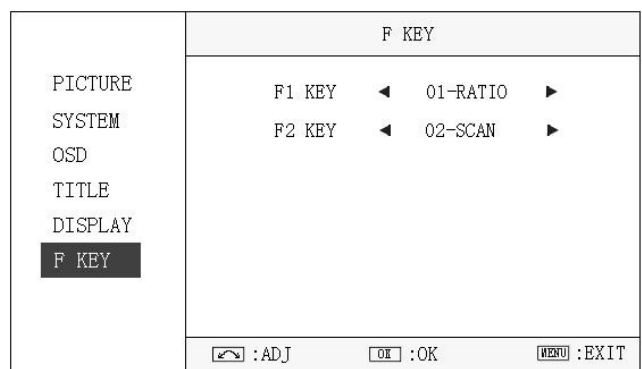
- (1) **INFO:** Including Input format, aspect ratio, underscan/overscan, zoom status
- (2) **MARKER:** Safe area
- (3) **TITLE:** User edited title
- (4) **MARKER4:3:** The 4:3 scale mark on 16:9 image. (Only available under HD input)



3.6 F KEY submenu

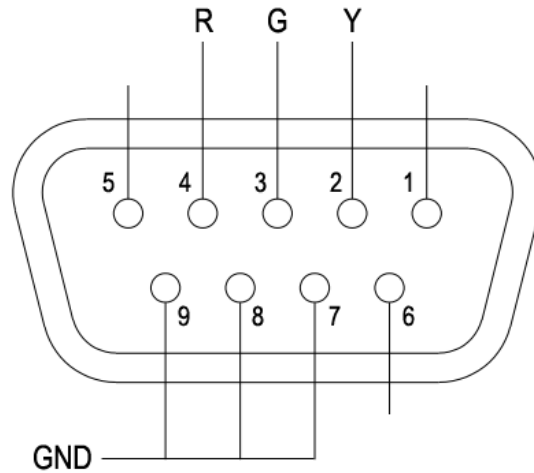
The FUN.KEY Settings Submenu is to define Function Key F1 and F2. The available function items are:

- 01- RATIO:** Aspect ratio switch
- 02- SCAN:** Underscan / Overscan switch
- 03- ZOOM:** Picture Zoom-in
- 04- PIC MODE:** Preset picture mode switch
- 05- B/W:** Color / Black & white switch
- 06- FLIP:** Image flip
- 07- CLR.TEMP:** Color-temperature switch



4. TALLY Light Operation

There are front TALLY lights on each of the display units, which can display RED, GREEN and YELLOW signals. The TALLY light controlling port is the RS232 socket at the rear panel, and terminal description is as follows:



Terminal	1	2	3	4	5	6	7	8	9
Description		Y	G	R			GND	GND	GND

The RED light is on when connecting the terminal "R" with "GND", and goes out when disconnecting.

The GREEN light is on when connecting the terminal "G" with "GND", and goes out when disconnecting.

The YELLOW light is on when connecting the terminal "Y" with "GND", and goes out when disconnecting.

5. Specifications

LCD Performance		
Size	5.0 inches ×3	
Display area	108.0×64.8mm	
Resolution	800×RGB×480	
Aspect ratio	16:9/4:3	
Brightness	350cd/m ²	
Contrast	500:1	
Color	16.77 million colors	
Viewing angle	Horizontal: 140° Vertical: 120°	
Video Format		
CVBS	NTSC / PAL	
SDI	SMPTE-425M	1080p (60 / 59.94 / 50)
	SMPTE-274M	1080i (60 / 59.94 / 50)
		1080p (30 / 29.97 / 25 / 24 / 23.98)
	SMPTE-296M	720p (60 / 59.94 / 50)
	SMPTE-125M	480i (59.94)
ITU-R BT.656	576i (50)	
HDMI	480I / 576I / 480P / 576P	
	1080i (60 / 59.94 / 50)	
	720p (60 / 59.94 / 50)	
	1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)	
General		
Working voltage	DC 12V	
Power consumption	≤24W	
Working temperature	0℃~+40℃	
Working humidity	10%~90%	
Storage temperature	-15℃~+60℃	
Storage humidity	10%~90%	
Dimensions	480×130×42mm, Standard 19" rack, 3U height.	
Net weight (main body)	2.1kg	

6. Packing List

1. Monitor	×1
2. User Manual	×1
3. Power adaptor	×1
4. Power cable	×1
5. LCD protection film	×3

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