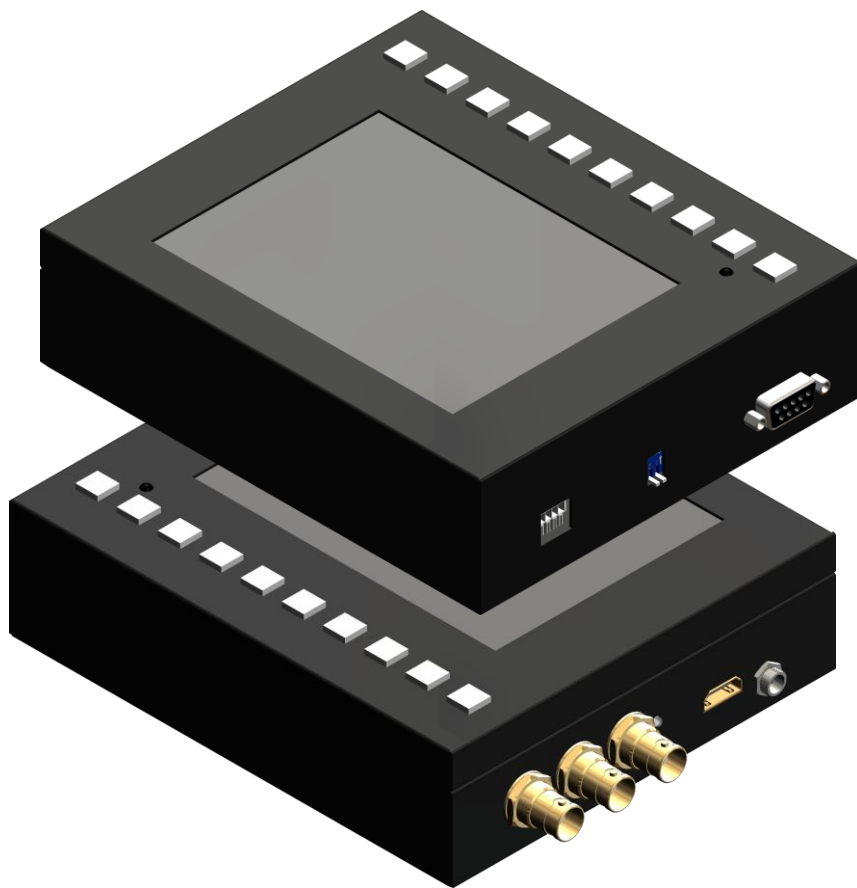# 3G/HD/SD-SDI 5.7"LCD Monitor

P/N: AV-GM09C3-S1

Safety and Notice

The **AV-GM09C3-S1** 3G/HD/SD-SDI 5.7" LCD Monitor has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments,AV-GM09C3-S1 should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.

- Do not attempt to service this unit yourself, except where explained in this manual.

- Provide proper ventilation and air circulation and do not use near water.

- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.

- Use only the power adapter and power cords and connection cables designed for this unit.

- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

TABLE OF CONTENTS

INTRODUCTION

The **AV-GM09C3-S1** 3G/HD/SD-SDI 5.7" LCD Monitor offers the highest compatibility among SDI, including 3G/HD/SD formats. This device also supports composite (NTSC/PAL) input through the same input. With the embedded advanced de-interlacer, interlaced video inputs, such as SD-SDI or composite, can be further improved. For SDI, AV-GM09C3-S1 can display support up to 8 channel audio bars to indicate the embedded digital audio channel in SDI stream and make AV-GM09C3-S1 a perfect mini monitor to watch closely on SDI signal quality.

AV-GM09C3-S1 is especially designed to ease the SDI security monitoring with affordable cost. With AV-GM09C3-S1, SDI will not become a bottleneck in your advanced SDI applications, such as SDI video editing and HD surveillance system. The handy SDI monitoring includes CRC status, SMTPE 352M indicator, audio bars, EDH, video format detection, and Sync status etc. With versatile IR remote control and push buttons, AV-GM09C3-S1 offers a very easy way to control the display layout and status demonstration.

FEATURES

- SD/HD/3G SDI compliant
- Up to 8 SDI channel audio bar display
- Built-in advanced scaler to scale up and down the input to fit on screen
- Advanced video processing supports: noise reduction, color management, fleshtone control, dynamic contrast control, closed caption support for CVBS, 3-D de-interlacing, 3:2/2:2 pull down detection and recovery.
- RS-232 Firmware upgradable to guarantee the functionality revised.
- Supports two up to 3G SDI loop-outs
- Versatile IR control
- Push button control
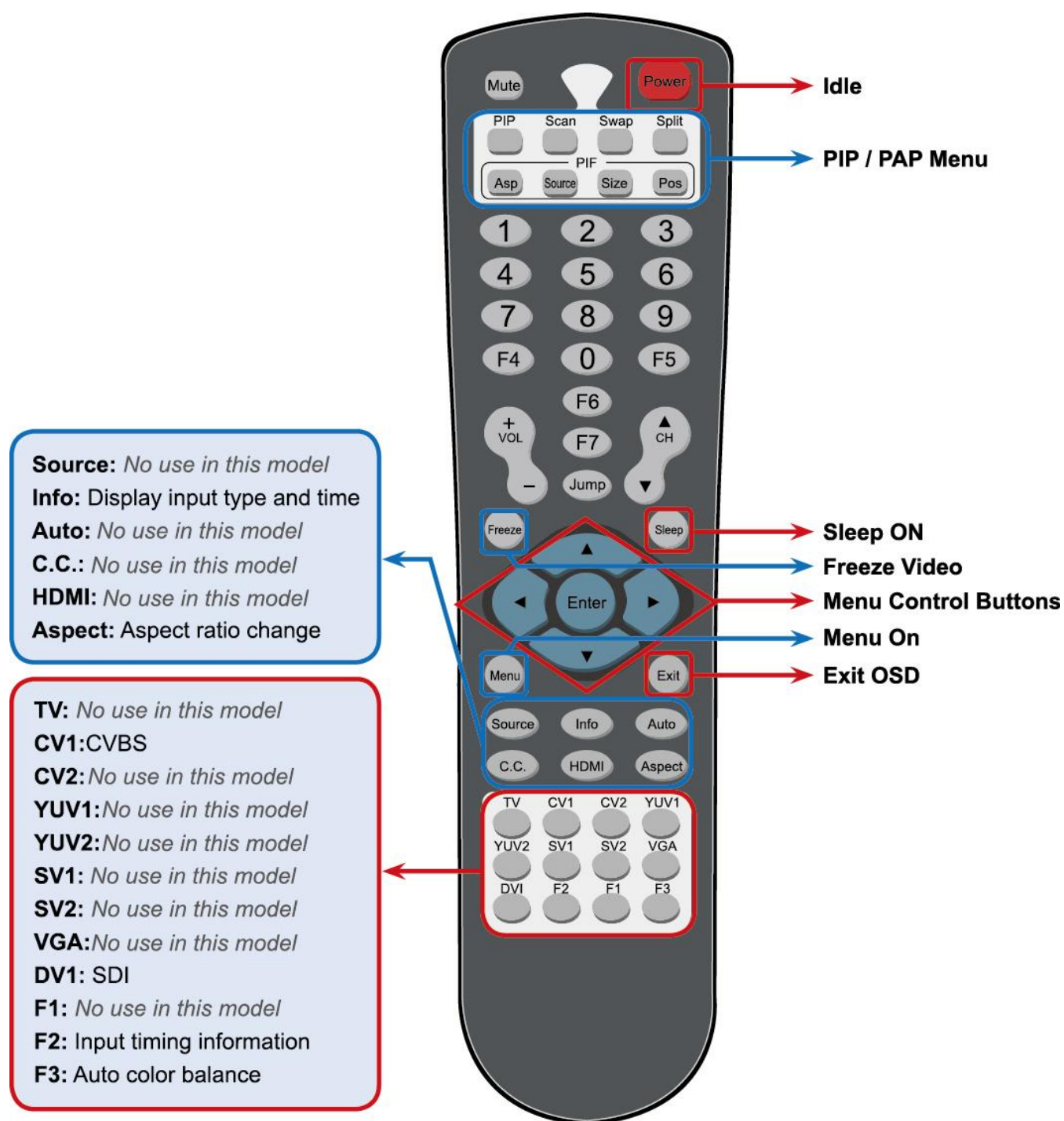- Wall-mounting ear for easy installation

PACKAGE CONTENTS

- 1x AV-GM09C3-S1
- 2x 75 ohm terminator
- 1x RCA to BNC connector
- 1x 5V 4A interlocked power adapter
- 1x IR Remote control
- 1x User Manual

SPECIFICATIONS

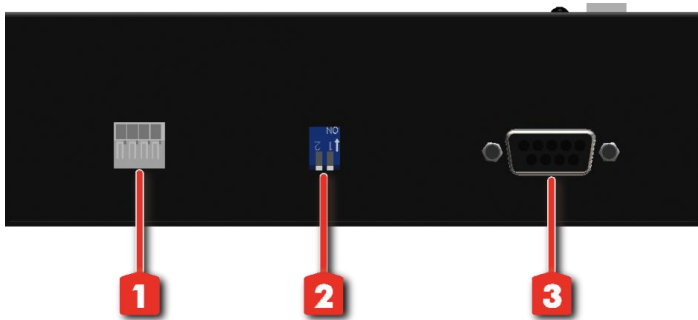| Model Name		AV-GM09C3-S1
Technical		
LCD size & resolution		5.7" & 640x480
LCD color depth		18 bit RGB
Composite bandwidth		13.5MHz
Audio support		Up to 8 CH decoding and audio bar display
SDI Support		SD/HD/3G
Input		1 x SDI [CVBS]
Output		2x SDI [Loopout]
Audio FS support		48KHz
ESD protection		[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±2kV
PCB stack-up		6-layer board [impedance control — differential 100Ω; single 50Ω]
IR remote control		Electro-optical characteristics: $\tau = 25°$ / Carrier frequency: 38kHz
HDMI connector		HDMI type A
RS-232 connector		DE-9 [9-pin D-sub female]
BNC connector		75Ω inter-locked socket
DIP switch		Restore default
Mechanical		
Housing		Metal enclosure
Dimensions [L x W x H]	Model	172 x 148 x 46mm [6.8" x 5.8" x 1.8"]
	Package	200 x 325 x 93 mm [7.9" x 12.8" x 3.7"]
	Carton	495 x 440 x 380mm [1'7" x 1'5" x 1'3"]
Weight	Model	1000g [2.2 lbs]
	Package	1800g [3.9 lbs]
Fixedness		Wall-mounting case with screws
Power supply		Interlocked 5V 4A DC
Power consumption		10 Watts [max]
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~60°C [-4~140°F]
Relative humidity		20~90% RH [no condensation]

IR REMOTE CONTROL

Idle

PIP / PAP Menu

Source: *No use in this model*
Info: Display input type and time
Auto: *No use in this model*
C.C.: *No use in this model*
HDMI: *No use in this model*
Aspect: Aspect ratio change

TV: *No use in this model*
CV1:CVBS
CV2:*No use in this model*
YUV1:*No use in this model*
YUV2:*No use in this model*
SV1: *No use in this model*
SV2: *No use in this model*
VGA:*No use in this model*
DV1: SDI
F1: *No use in this model*
F2: Input timing information
F3: Auto color balance

Sleep ON
Freeze Video
Menu Control Buttons
Menu On
Exit OSD
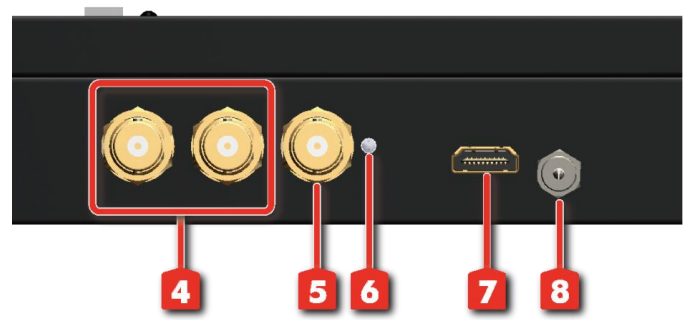
The buttons not listed above are not in use for this model.
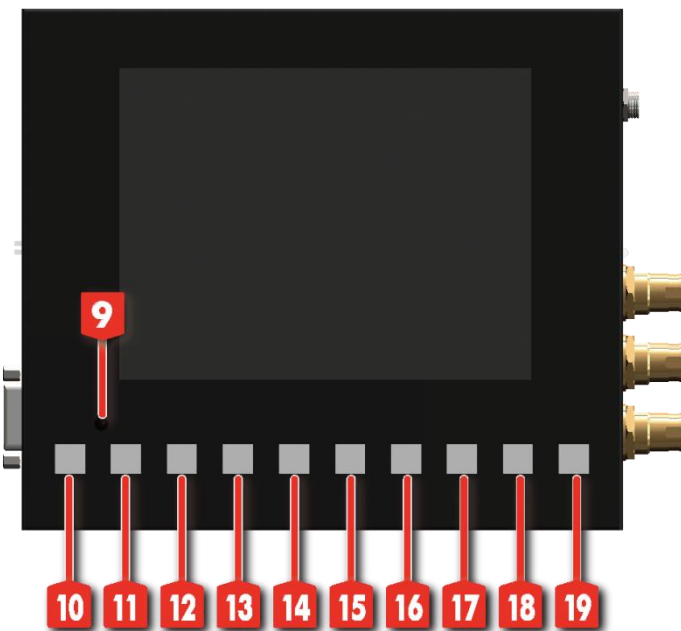
Front Panel

Rear Panel

1. **DIO:** Reserved.
2. **Dip Switch:** Mode setting
3. **RS-232:** Serial control
4. **SDI BNC loop-out connectors**: SDI loop outs
5. **SDI BNC input connector:** Input SDI/CVBS
6. **Power LED:** Indicate power up and signal lock
7. **HDMI**: HDMI loop out
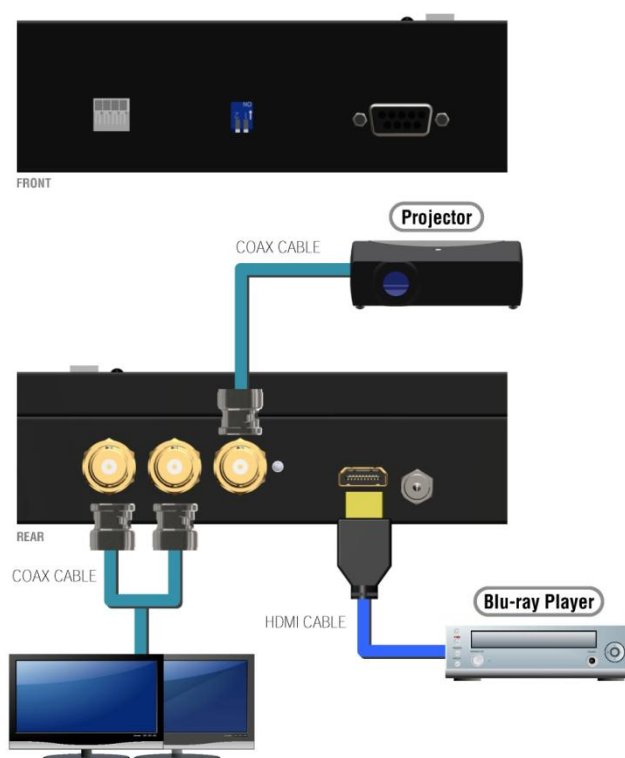8. **5V DC power jack**

Top Panel Buttons

9. **IR:** Remote control
10. **Menu:** OSD Menu
11. **Down/Left:** OSD up or left operations
12. **Up/Right:** OSD down or right operations
13. **Enter/Mode:** OSD selection or zoom/pan
14. **INC+:** Zoom in or move the center of zoomed video to left or up
15. **DEC-:** Zoom out or move the center of zoomed video to right or down
16. **Display:** Display mode selection
17. **Status:** SDI status indicator
18. **Source:** SDI/CVBS selection
19. **19. Reset:** Reset error flags of SDI status indicator

DIP Switch Position		Description
Pin#1	Pin#2	
OFF [⬆]	OFF [⬆]	Normal Operation
ON [⬇]	ON [⬇]	For Firmware Update

BOTTOM DIP SWITCH

CONNECTION DIAGRAM

HARDWARE INSTALLATION

Connect your SDI/CVBS video sources to the input connectors.

1. Connect your HDMI enabled monitors into the device's HDMI output port.

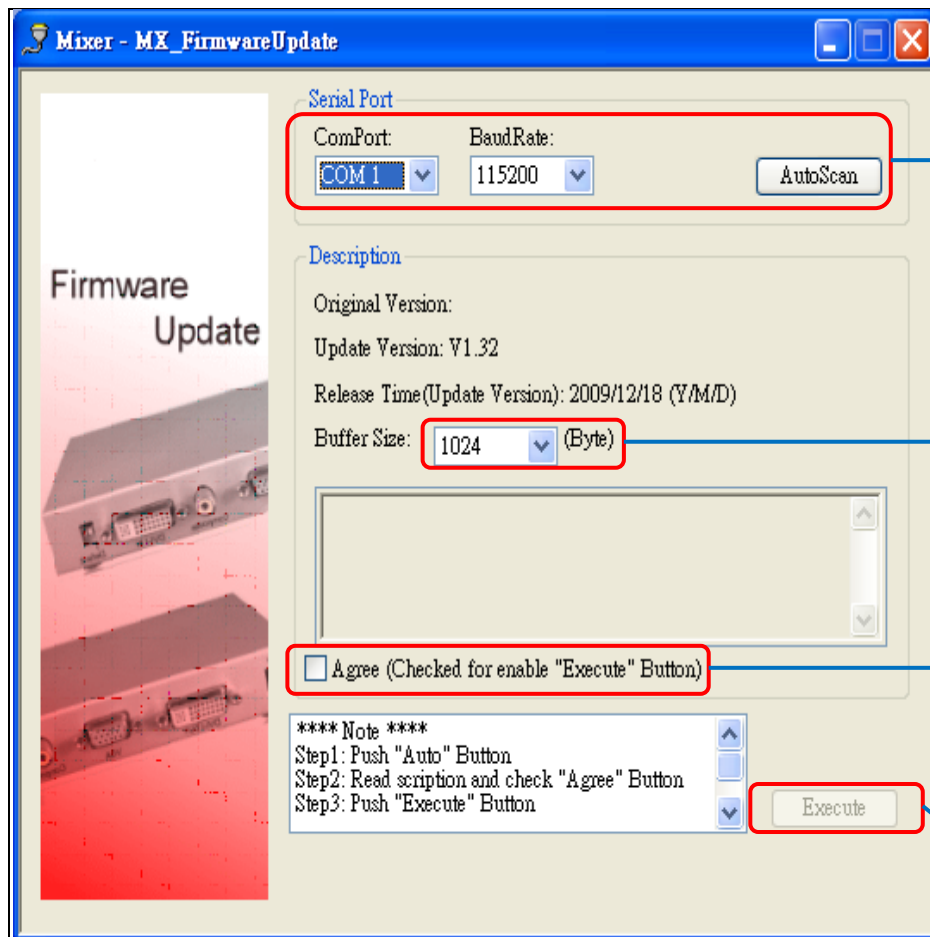2. Power up the AV-GM09C3-S1.

DEFAULT SETTING

1. Power up the AV-GM09C3-S1.

2. To reset AV-GM09C3-S1 back to the factory default values, pull up-and-down the DIP switch 1&2 from OFF to ON to complete the process. You NEED to pull back the DIP switch back to OFF in order to get AV-GM09C3-S1 work normally.

FIRMWARE UPDATE PR

Software Interface:

ComPort Settings:
Select ComPort of PC connected to the device. Push "auto scan" to start the automatic scan on each ComPort.

Baud Rate is default as **115200**.

1024 bytes as the default.

Please check all the power and serial port connection to avoid any further unexpected damages during firmware update. Check "**Agree**" to enable the firmware update procedure.
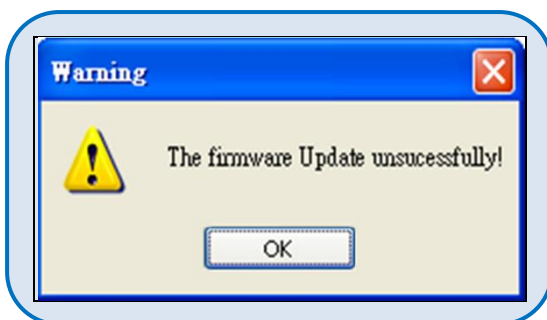
Execute firmware update.

Window Messages

The connection is not correct. Please check:

- Power
- Cable
- Baud Rate

The whole firmware update procedure fails. Please check

- Power
- Cable
- Baud Rate

Reboot Message

Please Reboot Device!!!

The firmware update procedure requires a power cycle. Please turn off the device, wait for a couple of seconds, and power on the device.

Successful

The firmware Update sucessfully!

OK

Congratulations. The whole process is successfully completed!

APPENDIX – SUPPORTED RESOLUTION

[SDI-IN] Socket

Supported Mode	Resolution
(SDTV) 625i	625i @50Hz
(SDTV) 525i	525i @59.94Hz
(HDTV) 720p	1280x720 @50Hz
(HDTV) 720p	1280x720 @59.94Hz
(HDTV) 720p	1280x720 @60Hz
(HDTV) 1080i	1920x540 @50Hz
(HDTV) 1080i	1920x540@59.94Hz
(HDTV) 1080i	1920x540 @60Hz
(HDTV) 1080p	1920x1080 @25Hz
(HDTV) 1080p	1920x1080 @30Hz
(3G) 1080p	1920x1080 @50Hz
(3G) 1080p	1920x1080 @59.94Hz
(3G) 1080p	1920x1080 @60Hz

APPENDIX –SDI DIALOG

Dialog 1 –SDI Information

□□: □□: □□ [System timer]
EDH error number and error rate [SD only]
CRC error number and error rate
SDI input total width and height
SDI input active width and height
SDI input format

Dialog 2 - SDI SYNC information

EDH Status:
Frame CRC error
Active picture CRC error
General error 1
General error 2

SYNC Status:
SAV error
SAV 3G error
EAV error
EAV 3G error

SMTPE 352M Bytes:

Dialog 3 - SDI Video Information

Chroma Status:
1. ANC 3G checksum error.
2. ANC checksum error.
3. 3G CRC error.
4. CRC error.

Luma Status:
5. ANC 3G checksum error.
6. ANC checksum error.
7. 3G CRC error.
8. CRC error.
9. Line number error

LIMITED WARRANTY

The SELLER warrants the **AV-GM09C3-S1** 3G/HD/SD-SDI 5.7" LCD Monitor to be free from defects in the material and workmanship for 3 years from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 3 years warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. Also, the technical information contained herein regarding the **AV-GM09C3-S1** features and specifications is subject to change without further notice.

Support
For more info or tech support
http://www.siig.com/support

April, 2018