

# **GENLOCK** CONVERTER





**GCON-SDI** 









Warning

This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit



Precaution

This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# Warning

To prevent damage which may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.

- 1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
- 2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
- 3. Do not connect multiple connectors to a single adapter. Exceeding the capacity may cause excessive heat or fire.
- Securely plug the power cord into the power receptacle. Insecure connection may cause fire.

- 5. Do not drop the converter to avoid the damage or personal injury.
- 6. Do not place conductive objects (e.g. screw drivers, coins, metal items, etc.) or containers filled with water on top of the converter. Doing so may cause personal injury due to fire, electric shock, or falling objects.

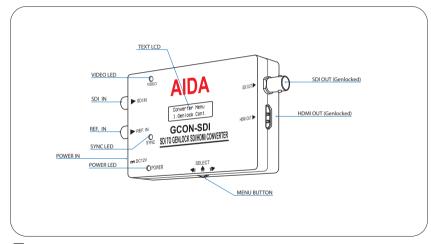
- 7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
- 8. If any unusual smells or smoke come from the unit, stop using the product. Immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
- 9. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way.
- 10. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

# Precaution

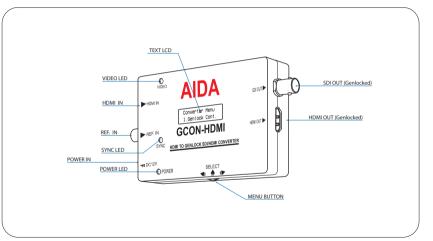
Please read this Operation Guide before installing and using the converter & retain this copy for your reference.

- 1. Always follow the instructions in the operation guide when applying power. Fire and equipment damage can occur if power is applied incorrectly. For the correct power supply, refer to the specifications page.
- 2. Do not use converter if fumes, smoke or a strange odor is emitted from the camera, or if it seems not functional correctly. Disconnect the power source immediately and consult with your supplier.
- 3. Do not use the converter in extreme environments where high temperatures or high humidity exists. Use the camera under conditions where temperatures are between 32°F ~ 104°F, and humidity is below 90%.
- If installed close to a TV, radio transmitter, magnet, electric motor transformer or audio speakers the magnetic field generated may interfere with or distort the image.
- 5. To prevent damage, do not drop the converter or subject it to strong shock or vibration.

### **GCON-SDI**



# **GCON-HDMI**



### **FEATURES**

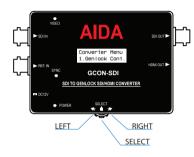
- SMPTE 292M & 424M standard high definition video format including 59.94Hz.
- SMPTE 352M Ancillary Data supported.
- Highly compatible with Tri Level reference.
- Adjustable V-sync & H-sync phases.
- Divisional picture comparison.
- Built in Pattern Generator.
- Built in LCD menu screen.
- Built in menu control button.
- Versatile, compact and rugged design.
- Embedded audio pass through via SDI & HDMI.
- Simultaneous SDI and HDMI Output.

# OSD MENU

MENU		SUB MENU
	GENRUN: [OFF] GEN ON/OFF GENRUN: [ON] CANCEL(BACK)	GENRUN: [OFF]
		GENRUN: [ON]
		CANCEL(BACK)
GENLOCK CONT.	H_SYNC ADJUST	H_SYNC: 0000
GENLOCK CONT.		CANCEL(BACK)
	V_SYNC ADJUST	V_SYNC: 0000
		CANCEL(BACK)
		RETURN
	PTN ON/OFF	PATTERN: [OFF]
		PATTERN: [ON]
		CANCEL(BACK)
		PTN WHITE
	PTN TYPE	PTN CROSS
		PTN HATCH
		PTN COLORBAR
		PTN GRAY
PATTERN GEN		PTN WINDOW
		PTN H_RAMP
		PTN WH_RAMP
		PTN WV_RAMP
		PTN DIAGONAL
		PTN RED
		PTN GREEN
		PTN BLUE
		RETURN

MENU	SUB MENU			
			AUDIO [OFF]	
	AUDIO CONT.	AUDIO ON/OFF	AUDIO [ON]	
			CANCEL(BACK)	
		AUDIO BITS	24 BITS	
			20 BITS	
		10010 0113	16 BITS	
MISC CONT.		1	CANCEL(BACK)	
		RETURN		
			PAYLOAD [OFF]	
	PAYLOAD CONT.	PAYLOAD ON/OFF	PAYLOAD [ON]	
	PATLOAD CONT.	1	CANCEL(BACK)	
		RETURN		
		RETURN	1	
	LCD CONT.		LCD BL ON/OFF	LCD [OFF]
				LCD [ON]
				CANCEL(BACK)
			DISP TYPE	DYNAMIC
				STATIC
DISPLAY CONT.				CANCEL(BACK)
			RETURN	
			2DIV COMPARE	2DIV [OFF]
	HD/3G CONT. 2DV COMPARE 2DIV [ON] RETURN		2DIV COMPARE	2DIV [ON]
			RETURN	
RESET	ESET RESET RUN RETURN			
nijel				
		EXIT		-

### **MENU OPERATION**



• Entering the main menu. Press Enter button three times to enter the main menu.

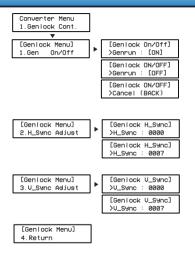
### Output Change the menu items.

Use Right or Left menu to toggle through the menu.

• Select or enter the sub menu.

Use Enter button.

# **GENLOCK CONT.**



### GENLOCK CONT.

#### GEN ON/OFF

External reference input can be turned ON or OFF from this menu. By using Left or Right button, Select GENRUN [ON] to enable external reference input. Select GENRUN [OFF] to disable external reference input. Select CANCEL (BACK) to go back to the previous menu.

SDI input signal and reference signal needs to be matched.

#### H\_SYNC ADJUST

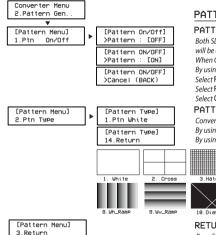
H\_Sync offset can be adjusted from this menu. By using Left or Right button, Select the right offset number on H\_SYNC: 0000 Press SELECT button to apply the changes and go back to the previous menu.

### V\_SYNC ADJUST

V\_Sync offset can be adjusted from this menu. By using Left or Right button, Select the right offset number on U\_SYNC: 0000 Press SELECT button to apoly the changes and go back to the previous menu.

### RETURN

### PATTERN GEN..



### PATTERN GEN

#### PATTERN ON/OFF

Both SDI and HDMI outputs will generate patterns and input video will he disabled

When GENLOCK is enabled, generated pattern will contain genlock signal. By using Left or Right button.

Select PATTERN[ON] to enable pattern aeneration.

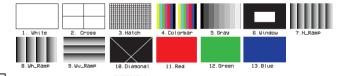
Select PATTERN[OFF] to disable pattern generation. Select CANCEL (BACK) to go back to the previous menu.

### PATTERN TYPE

Converter provides thirteen different patterns.

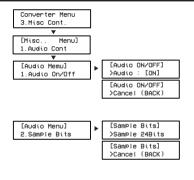
By using Left or Right button,

By using Left or Right button, select the proper pattern type.



#### RETURN

# **MISC CONT. AUDIO**



	[Audio Menu]	
	3.Return	

### MISC CONT.

#### AUDIO CONT

Audio can be turned ON or OFF, and AUDIO Sample Rate can be adjusted.

### ≻AUDIO ON/OFF

By using Left or Right button,

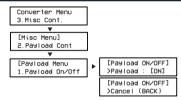
Select  $\overline{AUDIO}[ON]$  to enable AUDIO to be passed through to SDI and HDMI outputs.

Select AUDIO[OFF] to disable AUDIO. Select CANCEL (BACK) to go back to the previous menu.

SAMPLE BITS : 16 BITS, 20 BITS, 24 BITS AUDIO sample rates can be adjusted from this menu.

### RETURN

# **MISC CONT. PAYLOAD**



### MISC CONT.

#### PAYLOAD CONT

Payload ID can be turned ON or OFF can be adjusted.

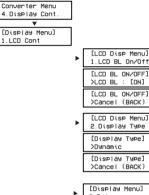
#### >PAYLOAD ON/OFF

By using Left or Right button, Select PAYLOADIONJ to enable Payload ID. Select PAYLOADIOFTJ to disable Payload ID. Select CANCEL (BACK) to go back to the previous menu.

[Payloado	Menu]
3.Return	

#### RETURN

# **DISPLAY CONT. LCD**



# [LCD BL ON/OFF] >Cancel (BACK)

·	[LCD Disp Menu] 2.Display Type
	[Display Type] >Dynamic
	[Display Type] >Cancel (BACK)

#### [Display Menu] 3 Return

### DISPLAY CONT.

#### I CD CONT

This menu can control built in LCD display.

#### >LCD BL ON/OFF

LCD display backlight can be turned ON or OFF from this menu. By using Left or Right button, Select LCD [ON] to enable LCD backlight. Select LCD [OFF] to disable LCD backlight. Select CANCEL (BACK) to go back to the previous menu.

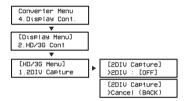
### >DISPLAY TYPE : DYNAMIC, STATIC

LCD display type can be adjusted from this menu. Select DYNAMIC to display the current input status of SDI and external reference.

Select STATIC to display the current external reference input and video output status.

#### RETURN

### **DISPLAYCONT. 2DIV**



### DISPLAY CONT.

#### HD/3G CONT

2 division comparison provides still image and live image for image quality comparison.

### >2DIV CAPTURE

Converter will capture the left half of the live image. The other half of the screen is the live video.





Live Image 2DIV OFF

Live Image Captured mage 2DIV ON



#### RETURN

### RESET



### RESET

Converter setting can be defaulted to the factory setting from this menu.

**RESET RUN** Select this menu to load factory default setting.

Input	3G-SDI, HD-SDI
SDI Input Format	SMPTE 292M, SMPTE 424M
Audio Input	Embedded SDI Audio
Input Resolution	1080p / 1080i: 1920 x 1080 Full HD 720p: 1280 x 720
Input Color Space	4:2:2(YCbCr) 10bit
Input Frame Rate	1080 60p / 59,94p / 50p / 30p / 29.97p / 25p 1080 60i / 59.94i / 50i 720 60p / 59.94p / 50p / 30p / 25p
SMPTE Standard	SMPTE 292M, SMPTE 424M
Video Signal Output	Genlocked HD-SDI/3G-SDI Pass Through Genlocked 10bit HDMI 1.3
Output Resolution	Same as Input
Output Frame Rate	Same as Input
Audio Output	16 Channel Embedded SDI Audio 8 Channel Embedded HDMI Audio
Synchronization	External Tri-Level Sync Input
Control	Control Button & LCD Display
Operation Temperature	15°F ~ 120°F
Dimension & Weight	127 x 77 x 28mm & 108g
Power Requirements	6W at 12VDC (+9 ~ +15VDC)

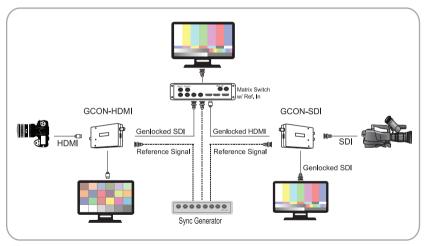
Specifications are subject to change without notice

### **SPECIFICATION: GCON-HDMI**

Input	Full HD HDMI
SDI Input Format	SMPTE 292M, SMPTE 424M
Audio Input	Embedded SDI Audio
Input Resolution	1080p / 1080i: 1920 x 1080 Full HD 720p: 1280 x 720
Input Color Space	4:2:2(YCbCr) 10bit
Input Frame Rate	1080 60p / 59.94p / 50p / 30p / 29.97p / 25p 1080 60i / 59.94i / 50i 720 60p / 59.94p / 50p / 30p / 25p
SMPTE Standard	SMPTE 292M, SMPTE 424M
Video Signal Output	Genlocked HD-SDI/3G-SDI Genlocked 10bit HDMI 1.3 Pass Through
Output Resolution	Same as Input
Output Frame Rate	Same as Input
Audio Output	16 Channel Embedded SDI Audio 8 Channel Embedded HDMI Audio
Synchronization	External Tri-Level Sync Input
Control	Control Button & LCD Display
Operation Temperature	15°F ~ 120°F
Dimension & Weight	127 x 77 x 28mm & 108g
Power Requirements	6W at 12VDC (+9 ~ +15VDC)

Specifications are subject to change without notice

### CONNECTION











Disposal of Old Appliances

1. When this crossed-out wheel bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.

All electrical and electronic products should be disposed of separately form the municipal waste stream stream in accordance to laws designated by the government or the local authorities.
The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.

4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.