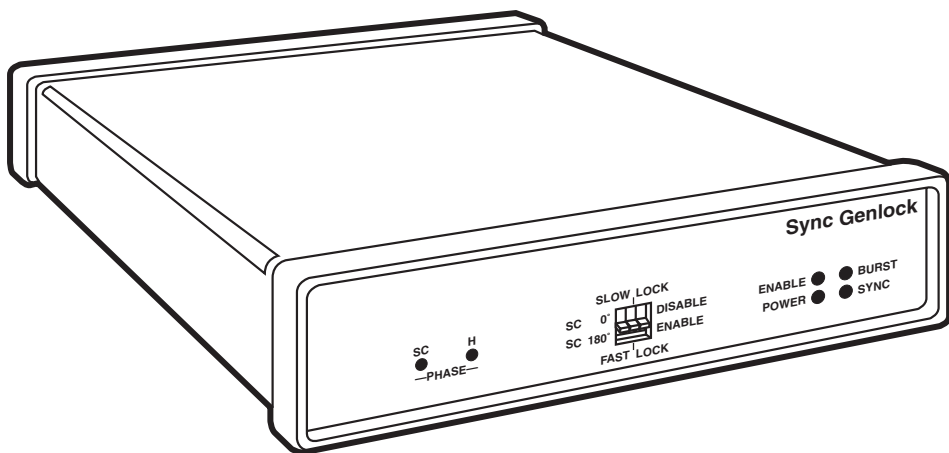




Sync Genlock



**CUSTOMER
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INFORMATION**

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**FEDERAL COMMUNICATIONS COMMISSION
AND
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RADIO FREQUENCY INTERFERENCE STATEMENT**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for Radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par Industrie Canada.

TRADEMARKS

Mac® is a trademark of Apple Computer, Inc.

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1. Specifications

Controls —	H-Phase: \pm μ sec advance and delay, 15-turn control Subcarrier Phase: $>180^\circ$ range, 15-turn control 0/180 Degree Switch: Provides additional 180° subcarrier offset.; together with Subcarrier Phase control, full 360° control is provided Slow/Fast: Switch to determine speed of lock-up Enable/Disable: Switch to disable the genlock function
Connectors —	Expansion Input: HD-26S Genlock Input: Composite video or black burst, 1 V _{p-p} nominal, 75 ohms, BNC connector Genlock Output: Active loop-through of Genlock Input, 75 ohms, BNC connector RGS Output: Red, Green, Blue, Sync output at 15 KHz from converter, 75 ohms, BNC connectors
Indicators —	(4) LEDs: Power, Sync Present, Burst Present, Genlock Enable
Video Standards —	NTSC or PAL (support determined by switch on Converter)
Power —	Supplied by Converter
Size —	Width: 7.25" (18.4 cm) Height: 1.5" (3.8 cm) Depth: 6.25" (15.9 cm)
Weight —	1.75 lb. (0.8 kg)

2. Introduction

Sync Genlock is used as an add-on accessory for any one of these computer-to-video scan converters: VGA to Video Converter (AC075), Video Converter (Mac Compatible) (AC076), or Dual System Video Converter (AC082).

Sync Genlock can accept any standard composite video signal, in either NTSC or PAL format, as a reference for genlocking the attached scan converter.

Sync Genlock has full studio timing capability, providing control over both subcarrier and horizontal timing. This eliminates the need for external delay lines and retimable sync generators in the studio system design.

Power for the Sync Genlock comes directly from the scan converter through the interconnecting cable provided.

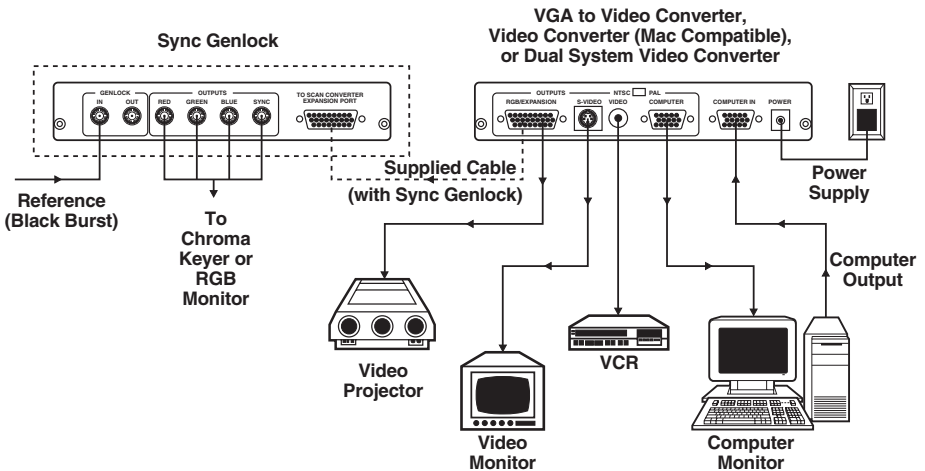


Figure 1. The Sync Genlock connects to your Video Converter.

3. Installation

3.1 Locating Your Sync Genlock

The Sync Genlock is the same size as the Video Converters (AC075A, AC076A, and AC082A). It can be placed side-by-side with any of the converters in a Rack Mount Tray (RM001 or RM002).

3.2 Cable Connections

The rear panel of Sync Genlock is divided into 3 sections:

- High-density 26-pin connector for connecting the interface cable to the scan converter.
- 2 BNC connectors for genlock input and loop-through output.
- 4 BNC connectors for RGB and Sync outputs from the scan converter.

CONNECTING THE VIDEO CONVERTER

Your Sync Genlock is supplied with a short cable that has HD-26 connectors at each end.

Attach one end of the cable to the Sync Genlock connector labeled **TO SCAN CONVERTER EXPANSION PORT**. Attach the other end to your Video Converter connector labeled **RGB/EXPANSION**.

CONNECTING THE VIDEO SOURCE

Connect a composite video reference to the BNC connector labeled **GENLOCK IN**. This input is self-terminating in 75 ohms. Any composite video is acceptable, including black burst, color bars, or program video. The video standard may be either NTSC or PAL, but it must match the setting of the NTSC/PAL switch on the rear of your Video Converter.

VIDEO OUTPUT OPTIONS

The **GENLOCK OUT** connector may be used as a loop-through of the genlock reference input. This is an active loop-through.

You can connect an RGB monitor or chroma keyer to the outputs labeled **RED**, **GREEN**, **BLUE**, and **SYNC**.

3.3 Power Requirements

The Sync Genlock is powered directly from your Video Converter.

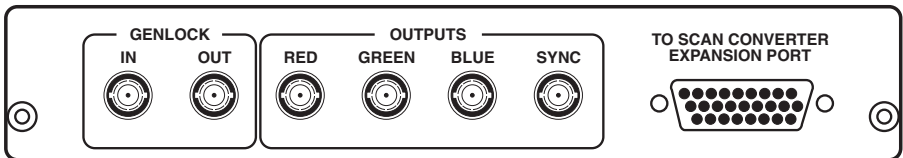


Figure 2. The rear panel of the Sync Genlock.

4. Operation

4.1 Front-Panel Controls

SC PHASE: This is a 15-turn control which provides 180 degrees of phase shift of the color subcarrier of the scan converter video and S-Video outputs with respect to the genlock reference input. It is used in conjunction with the SC 0 and SC 180 switch to provide a full 360 degrees of subcarrier control. Adjust with a standard alignment tool.

H PHASE: This is a 15-turn control which provides approximately ± 2 μ seconds of horizontal positioning control of the scan converter video, S-Video, and RGBS outputs with respect to the genlock reference input. Adjust with a standard alignment tool.

SLOW/FAST LOCK: This switch determines the speed with which the genlock will adjust to variations in the reference input timing. FAST lock should be used when the reference is relatively unstable, such as a VCR which is not time base corrected. SLOW lock should be used in all other cases when the reference is stable. NOTE: the H PHASE control will work only

when this switch is in the SLOW position.

ENABLE/DISABLE: This switch determines whether or not the genlock circuit is active. This allows for the scan converter outputs to “free-run” with respect to the reference input on the genlock without the need for disconnecting the genlock input. This switch should be in the ENABLE position for normal operation.

4.2 Front-Panel LEDs

ENABLE: Lights when the front-panel switch is set to ENABLE.

POWER: Lights when the Sync Genlock is attached to a Video Converter plugged into an AC power source.

BURST: Lights when Sync Genlock receives burst from outside video source.

SYNC: Lights when outside video source is in sync with the video supplied from attached Converter.

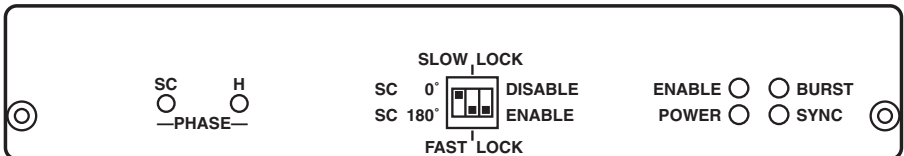


Figure 3. The front panel of the Sync Genlock.



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