



SyncroGenius **HD-Pro**

GENLOCK / MASTER VIDEO & AUDIO SYNC GENERATOR



Genlock / Master Sync Generator especially designed to cater for all video and digital audio synchronisation requirements within the post-production, studio and broadcasting industry.

Will Genlock to:

- HD Tri-level sync and SD Bi-Level sync video signals.
- AES/SPdif and Word Clock digital audio reference sync signals.
- LTC audio time code.
- GPS 1MHz, 2MHz, 2.5MHz, 5MHz, &10MHz reference clock.

Major Features include:

- Selectable input reference with auto detection of video formats.
- All HD frame rates selectable in progressive scan & interlaced 1080 or 720.
- All SD frame rates automatically selected and available separately to HD frame rates.
- HD & SD outputs can be genlocked to any input reference or set as master house sync.
- Simultaneous AES & Word Clock outputs genlocked and phase coherent to input reference.
- *Softlock®* keeps frame & clock output integrity when video input reference is interrupted with no disturbance when reference is re-established.
- Pull up/down sample rate adjustable to suit all film, video and audio applications.
- Ultra low jitter performance & ultra high frequency stability using **true DDS** direct digital synthesis.
- Memory settings for up to 3 individual recallable input/output configurations.
- GPI 9way D connector giving front panel memory setting remote control and PSU & Genlock status.
- Tamper proof front panel "lockout" switch.
- Broadcast Pack Option - Adds Ovened crystal for AES-3 Grade 1 (0.7ppm over 12months) output reference and dual mains inlets and dual power supplies.

The SyncroGenius HD-Pro has been designed to solve all the synchronisation issues currently found in video and audio production. It is already proving to be an essential component in the film, video and professional audio market.



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SPECIFICATION

SyncroGenius *HD & HD-Pro*

- Operation: **HD-Pro version:** *Genlock all video and clock outputs from any selected video or clock reference input. Internal generation for all HD & SD video and clock outputs.
*Genlock outputs are frequency and phase locked to reference input where permitted.
HD version: All video inputs selected are copied to video outputs. Clock outputs are only genlocked to selected video or clock reference input. Internal generation for all HD & SD video and clock outputs.
Optional Broadcast Pack can be fitted to both **HD & HD-Pro** versions for AES-3 Grade 1 reference performance with dual mains and power supplies.
- INPUTS: Selectable from video Ref: **1080p** - 60Hz, 59.94Hz, 50Hz, 30Hz, 29.97Hz, 25Hz, 24Hz, 23.98 Hz. **1080i/psf** - 60/30Hz, 59.94/29.97Hz, 50/25Hz. 48/24Hz, 47.96/23.98Hz. **720i** - 60Hz, 59.94Hz, 50Hz.
Selectable from Clock Ref: **AES** – 44.1KHz to 192KHz. **Word Clock** – 44.1KHz to 192KHz. +/-4% window. **GPS** - 0.5-5vpp 75R – 1MHz, 2MHz, 5MHz, 10MHz. **LTC** - Linear time code auto detect from 24, 25, 29.97 & 30 frames. +/-4% window.
- OUTPUTS: **VIDEO: HD** - 3x BNC electronically buffered DA, HD Tri-level 1vpp into 75R. **1080p** - 60Hz, 59.94Hz, 50Hz, 30Hz, 29.97Hz, 25Hz, 24Hz, 23.98Hz. **1080i/psf** – 60/30Hz, 59.94/29.97Hz, 50/25Hz. 48/24Hz, 47.96/23.98Hz. **720p** - 60Hz, 59.94Hz, 50Hz, 30Hz, 29.97Hz, 25Hz, 24Hz, 23.98Hz. **SD** - 3x BNC electronically buffered DA, SD Bi-level 1vpp into 75R - 525/30Hz, 29.97Hz NTSC 25Hz PAL, Film/24Hz (slow PAL), Film/23.98Hz (slow NTSC).
- WORD CLOCK:** 4x BNC electronically buffered DA, 2.7vpp into 75R - 192KHz, 176.4KHz, 96KHz, 88.2KHz, 48KHz, 44.1KHz, <40ps rms sample-to-sample jitter – wide band. Pullup/pulldown +4.16%/-4% & or +/-0.1%.
- 1x BNC electronically buffered, 2.7vpp into 75R - 2x Word Clock <40ps rms sample to sample jitter – wide band.
- 1x BNC electronically buffered, 2.7vpp into 75R - 4x Word Clock <40ps rms sample to sample jitter – wide band.
- AES-3:** 4x XLR electronically buffered DA, 3.0v into 110R AES-3 black digits - 192KHz, 176.4KHz, 96KHz, 88.2KHz, 48KHz, 44.1KHz, <40ps rms sample-to-sample jitter – wide band. Pullup/pulldown +4.16%/-4% & or +/-0.1%.
- Loop thru:** HD/SD Video (termination supplied), & LTC (RCA) Hi-Z.
- GPIO: 1x 9way D type: PSU & Genlock output status via closing contacts if failed.
**Up to 3 different front panel function settings selectable via closing contacts.
**(HD-Pro version only)
- FRONT PANEL: **3 recallable memory settings. **(HD-Pro version only)
Front panel tamperproof recessed switch.
- POWER: 90 - 260 volts ~ 50/60Hz - Fused 1A delay type 20x5mm ceramic
(Optional Dual mains and power supplies when Broadcast Pack fitted).
- SIZE: 482.60mm (19") wide x 44.45mm (1U) high x 229mm deep
- WEIGHT: 1.95Kg (net)



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