

Phase 3
by Videoquip Research
VSD-2
Video Sync Detector

Videoquip Research Limited
595 Middlefield Road, Unit #4
Scarborough, Ontario, Canada
M1V 3S2
www.videoquip.com

Introduction

The Phase 3 VSD-2 video sync detector is a device specifically designed to detect video sync pulses, in order to verify the presence of a video signal.

Two completely independent channels of detection monitor the two video inputs. Each channel has an indicator for the presence of sync, and an adjustable delay before sync loss notification occurs. Gold relay contacts for each channel allow external devices to be controlled, or may be used to route active audio for emergency backup audio switching. The video connectors are of the BNC type, and the relay connectors are screw clamp terminal blocks. The VSD-2R rackmount version contains either 1 or 2 VSD-2 modules. These modules are identical to the VSD-2 version, which is described throughout this manual.

Installation and Adjustment

The VSD-2 consists of 2 completely independent monitoring networks. A schematic diagram of a complete VSD-2 module is included at the end of this section.

Each of the 2 channels provides bridging BNC connectors for video input, and screw clamp terminal blocks for the relay outputs. The video sources to be monitored are connected to the VSD-2 input channels (A,B). Any external devices or audio signals to be controlled by the relays are connected to the terminal blocks. Two full form-C gold relay contacts are available for each channel, allowing balanced stereo signals to be controlled. The normally closed and normally open relay conditions for each channel exist when video is present at the channel input (and the green sync LED is lit), and during the adjustable transition delay before a no sync alarm occurs (no LEDs lit). The contacts switch when video loss is indicated by the red no sync LED for corresponding channel.

The audible alarm sounds with the occurrence of each new no sync condition, regardless of which channel it occurs on. The audible alarm may be silenced after each occurrence using the front panel Mute Alarm switch, or may be permanently disabled by unplugging and opening the unit, and moving the Alarm jumper to the OFF position.

Adjustment

The front panel Delay controls determine the delay times before the no sync alarms are activated.

The VSD-2 is adjusted before leaving the factory for the minimum delay time (.25 sec.).

The delay for each channel should be adjusted for the particular application using the front panel controls. The ranges of adjustment are from 1/4 second to 12 seconds.

VSD-2 Specifications

Power Requirements	115 VAC, 60 Hz or 230 VAC, 50 Hz; 5 W
Video Inputs	
Number of Inputs	1 per channel, 2 channels total
Input Impedance	75 ohms bridging
Input Signal Level	1 V p-p nominal, 3 V p-p maximum
Input Return Loss	Greater than 40 dB to 5 MHz
Input Connectors	BNC x 2 (looping)
DC Offset	+/- 5 V maximum
Sync Detection	
Detection Delay	0.25 seconds to 12 seconds
No Sync Indicator	LED, red
No Sync Alarm	Piezo, 4 kHz
Relay Contacts	Gold, form-C, 2 per channel
Relay Connectors	Screw clamp terminal blocks
Sync Indicator	LED, green
Physical Dimensions (Inches)	
VSD-2	8.1 W x 1.9 H x 5.1 D
VSD-2/R	19 W x 1.75 H x 5.0 D

Warranty

Videoquip Research Limited (VRL) warrants the Phase 3 VSD-2 for a period of 2 (two) years from the date of shipment from the factory, to be free of defects in workmanship and material under normal use and service. This warranty is void if failure is due to abnormal use or modification, or if serial numbers have been tampered with. VRL's liability is limited to the repair or replacement of this unit, or to a sales credit, and the warranty action taken is at the discretion of VRL. Any warranty claims must be received in writing by VRL before the expiration of the two year period. Warranty coverage does not include shipping costs. This warranty is in lieu of all other warranties, expressed or implied, and all other obligations or liabilities of Videoquip Research Limited.