VidTech

VIDTECH INTERNATIONAL, INC.

SCANLOCK

VSL-1-N

OWNERS MANUAL

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INTRODUCTION

The VidTech ScanLock Model VSL-1 provides broadcast quality video outputs of processed reference and Amiga computer video signals. The system genlocks the Amiga computer output to a reference video and keys (superimposes) the Amiga video on the reference video. ScanLock is a state-of-the-art system, featuring the latest analog and digital design techniques, that provides Amiga users with the video quality required of broadcast equipment.

The ScanLock reference video can come from a stable source, such as a video camera or from the playback of a VCR tape. Both composite (NTSC/PAL) or component (luma/chroma or Y/C) formats, including S-VHS, M2 or BETACAM are processed by ScanLock. The ScanLock VSL-1 transforms the Amiga RGB video into composite PAL or Y/C format without degrading the reference video. In S-VHS (Y/C format), ScanLock processes S-VHS input through two separate and independent channels.

FEATURES

- Using the Amiga's external clock and H/V reset inputs (available on the Model 500, Model 1000, Model 2000 or Model 2500), the ScanLock Model VSL-1 genlocks the computer output signal to a reference video signal.

- Graphics in the Amiga are created in interlace or non-interlace modes. In either mode, the format of the reference video in the ScanLock output is identical. ScanLock reformats the computer generated graphics to match the timing of the reference video.

- ALL VIDEO PARAMETERS ARE PRESET AT THE FACTORY, BUT CAN BE TUNED TO YOUR STUDIO ENVIRONMENT. Please call VidTech Customer Services if we can be of assistance in calibrating your ScanLock.

- Vertical interval switches permit glitch-free switching between the reference video, computer graphics and keyed video (normal or reverse).

- ScanLock is equipped with independent fade controls for reference and computer video outputs. The fade mode is activated by pressing the fade button on the control panel then adjusting the amplitude of either video output linearly from full in to full out via the fade control sliders.

- ScanLock has a cable that connects to the Amiga computer's internal power supply and a connection for an optional external power supply. A front-panel power switch provides for the selection of the power source (external or internal) and an LED indicates the choice selected.

- In either S-VHS or composite mode, ScanLock outputs a signal that fully synchronizes the computer generated signal to the reference video. The fully synchronized signal can be used by an external video mixer. Amiga generated output is synchronized to the reference video, even when computer video is created using a different interlace mode.

- ScanLock will operate without a reference video input, however, for the best results we recommend that you provide blackburst input or alternatively use your video camcorder with the dust cover over the lens.

NOTE that the quality of the reference video input signal determines the quality of the ScanLock output video, including its Amiga-generated contents. Noise on the reference video or on the Amiga computer output will result in genlock transients, highly visible on the monitor displaying the ScanLock output. Consequently, if you use VCR input as reference, use the best possible quality recording available.

WARNING: This equipment generates, uses and can radiate frequency energy and if not installed and used in accordance with the owners manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operating 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.

FRONT PANEL SWITCHES AND CONTROLS

Please take a few moments to examine the features and controls of your ScanLock. The item numbers below match the numbers in Figure 1.

1. POWER Selector/Bypass Switch (SELECT BEFORE AMIGA POWER ON).
   You are able to select to use power from your Amiga computer or to power ScanLock from an external power supply (optional). You can also elect to Bypass ScanLock and use the Amiga computer in the RGB mode. (In bypass position only RGB out is used.) SELECT THE SCANLOCK POWER SWITCH OPTION BEFORE POWERING ON YOUR AMIGA.

2. Reference VIDEO MODE Selector.
   Select composite or S-VHS as reference video input.

3. REFERENCE Video Output Selector.
   Reference video is the sole output.

4. AMIGA Video Output Selector.
   Amiga generated graphics are the sole output.

5. KEYED Video Output Selector.
   Overlays the graphics generated by the Amiga computer on the reference video.

6. FADE Function Selector.
   Activates the Fade Controller. The output video is the same as described in 5. above, if both fade control sliders (reference and Amiga) are set to the full IN position.

7. Fade Controller (Amiga).
   Controls the amplitude of Amiga graphics from full IN to full OUT, when fade function is selected.

8. Fade Controller (Reference).
   Controls the amplitude of the reference video from full IN to full OUT, when fade function is selected.

9. KEY REVERSE Video Output Selector.
   The Amiga video is replaced by the reference video, allowing the reference video to be seen "through" the Amiga graphics.

10. NORMAL VIDEO Reference Indicator.
    When the LED is on, it means that an acceptable video source is connected to the reference input. If it is not on or if it is flashing, it means that no video or an unacceptable video source is connected to the reference input.

Front Panel of VSL-1

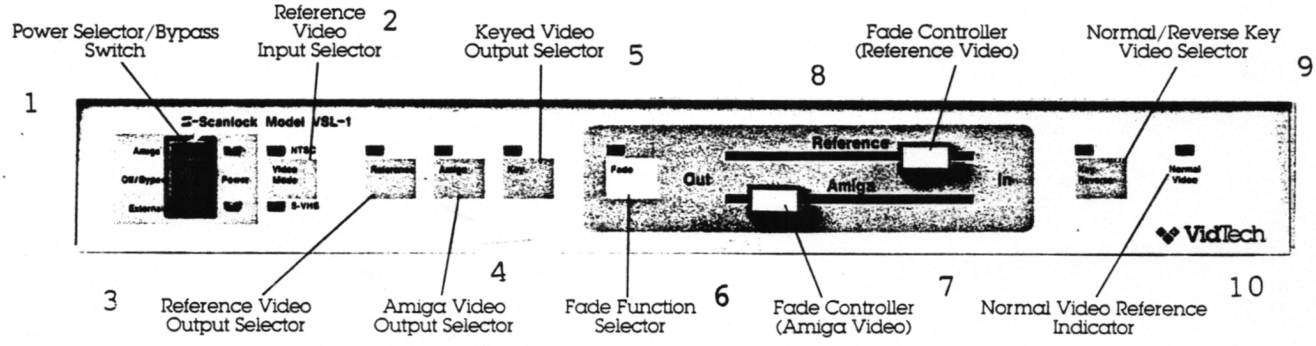

Figure 1

SIDE PANEL CONTROLS

ScanLock's video parameters have been factory set. To help you in tuning ScanLock to your studio environment, two adjustments affecting Amiga graphics are available for use as described below:

1. Horizontal Centering Position: Adjusts the placement of the graphics with respect to the reference video.

2. Luma gain: Controls intensity of the graphics luma gain (contrast).

3. Graphics Chroma Phase (HUE): Changes the hue of the color of the graphics.

Side Panel of a VSL-1

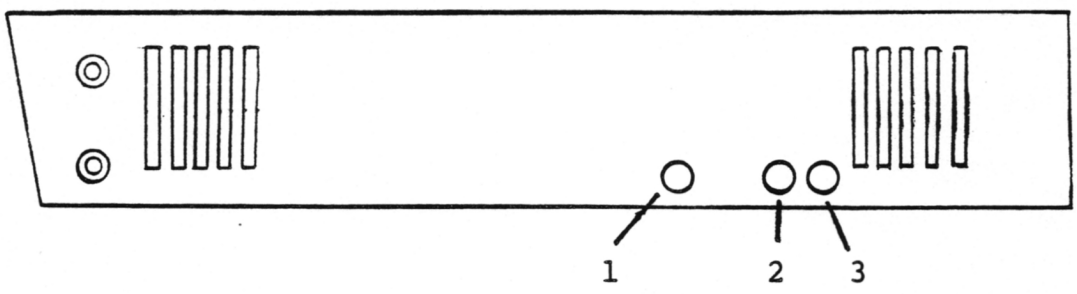

Figure 2

REAR PANEL SWITCHES AND CONNECTORS

The numbered items below match the numbers in Figure 3:

1. 23 PIN Power/RGB Connector Cable.
   This cable connects ScanLock to the Amiga computer giving power to ScanLock and providing RGB for display on the Amiga monitor.

2. External POWER Connector.
   Connector for optional external power supply.

3. RGB OUT Connector.
   Takes RGB out from ScanLock into an RGB monitor only.

4. RGB LOAD Switch.
   If an RGB monitor is connected to the RGB-Out connector, the RGB load switch (3 positon DIP switch) must be set to the HI position, otherwise it must be set to the 75 ohms position.

5. KEY OUT Connector.
   The Key signal is synchronized to the reference video, so it can be used with an external video mixer. The Key signal is TTL compatible, active low with a maximum load of 5k ohms.

6. REMOTE Control Connector.
   Pin outs for an interface to remotely control the vertical interval switches on the front panel can be provided.

REFERENCE INPUT Connectors

7. NTSC/PAL IN Connector.
   This is a BNC connector for a composite reference input signal.

8. NTSC/PAL LOAD Switch.
   The load switch must be in the 75 ohms position to assure the proper termination of the reference video line if the NTSC/PAL Loop connector is not used (see 9 below). If the Loop connector is used, the switch must be set to the HI position.

9. NTSC/PAL LOOP Monitor Connector.
   This is a loop thru of the composite reference video input. The loop monitor allows you to monitor the video from your reference input source. Whenever the connector is in use, the NTSC/PAL LOAD switch (8) must be set to the HI position.

10. S-VHS (S-VIDEO) IN Connector.
    This is a DIN, mini circular socket, 4 pin for S-VHS reference input signal.

11. S-VHS LOAD Switch.
The S-VHS load switch must be set to the 75 ohms position if the S-VHS Loop connector (12) is not used. If the S-VHS Loop connector is used, the switch must be set to the HI position.

12. S-VHS (S-VIDEO) LOOP Monitor Connector.
This is a loop thru of the S-VHS reference video input. The loop monitor allows you to monitor the video from your reference input source. Whenever the connector is in use, the S-VHS load switch (11) must be set to the HI position.

VIDEO OUT Connectors

13. NTSC/PAL Video Output #1.
This is a composite video output signal to your editing recorder or monitor.

14. NTSC/PAL Video Output #2.
This is a composite video output signal to your editing recorder or monitor.

15. S-VHS Video Output #1.
This is an S-VHS (Y/C) video output signal to your editing recorder or monitor.

16. S-VHS Video Output #2.
This is an S-VHS (Y/C) video output signal to your editing recorder or monitor.

Note: See Installing Your ScanLock on page 7 for proper use and combination of video output signals.

Rear Panel of VSL-1

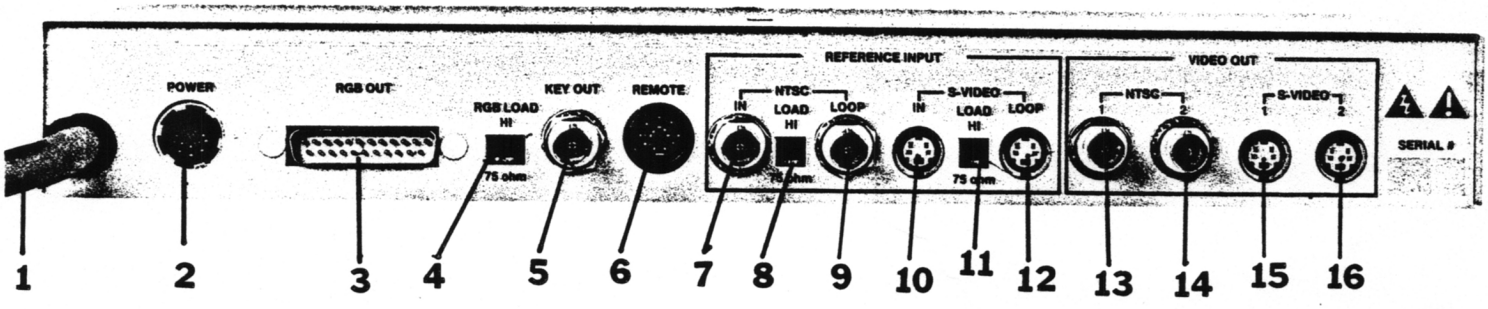

Figure 3

INSTALLING YOUR SCANLOCK

1. Power OFF your Amiga computer and Amiga monitor.*

2. Place ScanLock under your Amiga monitor.

3. Connect the ScanLock 23 pin connector cable to the Amiga RGB OUT connector.

4. Connect your RGB monitor cable to the ScanLock RGB OUT connector. Set RGB LOAD (3 position DIP) switch to the HI position.

5. Using the standard cables from your reference video source, connect the composite and/or S-VHS reference video to the appropriate ScanLock REFERENCE INPUT connector.

6. Connect a video cable from the ScanLock VIDEO OUT to your editing recorder and/or video monitor.

7. Using the S-VHS/RCA pin jack cable supplied with ScanLock, make the connection between ScanLock's S-VHS video out and the luma (black)/chroma (red) connection on the back of the Amiga monitor. This connection provides S-VHS or composite display on the Amiga monitor.

   The ScanLock output amplifier supports use of a maximum of two VIDEO OUT connectors in the following valid configurations:

   a. Any single video output (composite or S-VHS)
      - Connectors 13, 14, 15 or 16

   b. Two composite outputs
      - Connectors 13 and 14

   c. Two S-VHS video outputs
      - Connectors 15 and 16

   d. One composite and one S-VHS output
      - Connectors 13 and 16
        or
      - Connectors 14 and 15

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*Note: The Amiga monitor supports the following standards:

1. RGB: from the ScanLock 23 pin connection to your Amiga monitor.
2. S-VHS: use the S-VHS cable with the RCA plugs that come with your ScanLock. Then set the Amiga monitor to S-VHS.
3. Composite: In a composite session, the S-VHS connection in 2. above will provide a composite signal. Set the Amiga monitor to composite.

See your Amiga monitor User Manual for the appropriate composite or S-VHS settings.

VALIDATING INSTALLATION AND USING YOUR SCANLOCK
(PLEASE PERFORM IN SEQUENCE)

1. Check all cables for secure connection.

2. Set POWER Selector/Bypass Switch to the desired position as follows:

   - AMIGA. If internal Amiga power is to be used.
   - EXTERNAL. If the optional external power supply is to be used.
   - OFF/BYPASS. If ScanLock is not be to be used. In this position, only RGB output is operational.

3. Clear all Amiga disk drives of diskettes.

4. Connect a single video output, preferably to an Amiga monitor with the S-VHS/RCA cable provided. Set the monitor to the desired composite or S-VHS.

5. Turn on your reference video input device, either a camcorder in live camera or VCR in "play" mode.

6. Power on your Amiga and Amiga monitor.

7. Select ScanLock video mode to composite or S-VHS.

8. Assure the proper functioning of the following front panel indicators which should be lighted.

   - POWER indicator corresponding to the power source selected in Step 2.
   - Composite or S-VHS video mode selector.
   - KEY VIDEO selector.
   - NORMAL VIDEO indicator, if acceptable reference video is connected to the reference input.

9. Observe Amiga "Kick Start" or "Workbench" graphic for color and resolution.

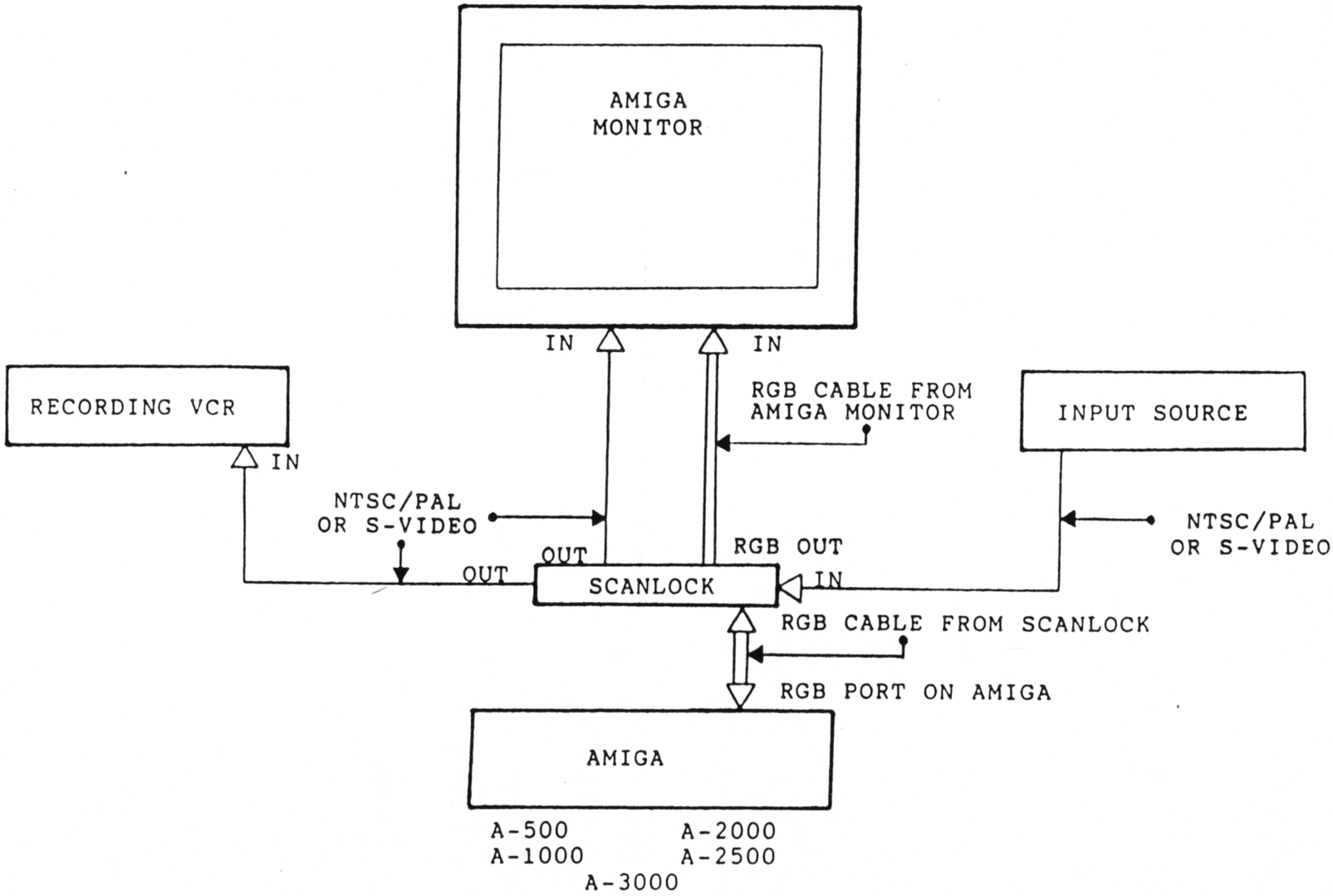
10. Exercise ScanLock functionality by depressing REFERENCE, AMIGA, KEY, FADE and KEY REVERSE switches on the front panel. Use Fade Controllers to fade OUT or IN Reference video or Amiga graphics as desired. Fade Controllers can be used only if the FADE indicator is lighted.

11. Load "Workbench" (if required) and ScanLock demonstration diskette.

12. Observe color and clarity of graphics and video.

13. Your ScanLock should now be properly installed and ready for use -- congratulations! If additional help is required, please call VidTech Customer Services at 800-727-2261 (Continental United States) or 305-477-2228. Fax - 305-591-1651.

VIDEO FLOWCHART



TECHNICAL SPECIFICATIONS

COMPUTER SUPPORT

- All ScanLock units are compatible with Commodore Amiga Model 500, 1000, 2000 or 2500 computers.

COMPUTER INTERFACE

- Standard male 23-pin connector to Amiga RGB connector.

REFERENCE VIDEO

- Composite (NTSC) or luma/chroma or Y/C component (S-VHS, M2, BETACAM) -- Model VSL-1-N only.
- Composite (PAL) or luma/chroma or Y/C component (S-VHS, Betacam) -- Model VSL-1-P only.
- Composite Video - 1 volt P-P, 75 ohms, (Y); .286 volt P-P, 75 ohms, (C); 4 pin miniDIN.
- Input Format - RS-170-A or component (Y/C), VCR playback or non-interlaced video.
- Internal Sync - When no video source is connected to the ScanLock input, the system displays the computer video only.

VIDEO OUTPUTS

- Composite Video - 1 volt P-P, 75 ohms, BNC.
- Component Video - 1 volt P-P, 75 ohms, (Y); .286 volt P-P, 75 ohms, (C); 4 pin miniDIN.
- Bandwidth - Less than 1 dB, 30 Hz to 5 MHz.
- Signal to Noise Ratio - 58 dB+.
- Key Out - 4 volts P-P, 75 ohms, BNC (for external chroma keyer).

ACCESSORIES SUPPLIED

- Cable with two 4 pin miniDIN connectors. Connects the S-VHS output of the ScanLock to a S-VHS recorder.
- Cable with one 4 pin miniDIN connector and two RCA jacks. Connects any Amiga monitor to the ScanLock S-VHS output.
- User manual and demo diskette (3-1/2 inch format).

OPTIONS

- External Power Supply (115V, 60 Hz, N Model) (220V, 50Hz, P Model).
- Rack Mount Kit can be made available. Call VidTech at 800-727-2261.

PHYSICAL

- Size - width - 14 inches; depth - 10 inches; height - 1-3/4 inches (supports monitor weight).
- Weight - 3 pounds