20 25607 MOBRIDGE BOX HOT DAVES COIN EQUIPMENT 24751

### First Class



9549 Penn Avenue South Minneapolis, Minnesota 55431 Lieberman Music Company

### Atari Tech Tip **Xevious<sup>TM</sup>**

Symptoms: Timing problems that may cause reset, lock-up, sound failures, video jumping or flashing.

Solution:

On CPU Board (Refer to Figure 1)

- 1. On component side, cut trace between 6L pins 3 and 4.
- 2. Connect feedthrough of cut trace to 5M pin 3.
- 3. Connect 6M pin 14 to 5M pins 1 and 2.

On Video Board (Refer to Figure 2)

1. Cut and lift 5A pin 1.

- 2. Connect 5A pin 1 to 5D pin 13. 3. Cut and lift 1F pin 11.
- 4. Connect 1F pin 11 to 5A pin 3.

Modified video boards should only be paired with modified CPU Boards.

The modification to the CPU board is for resetting or lock-up problems. The video board modification is for jumping or flashing pictures. The CPU modification affects the timing on the video board. Therefore, if the CPU modification is done, the video changes are also necessary.

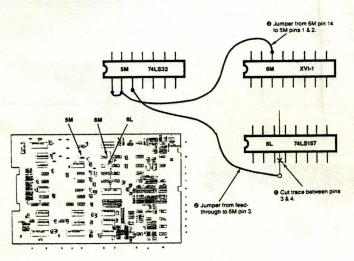


Figure 1 CPU Board Reset Modifications

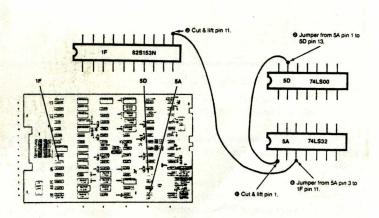


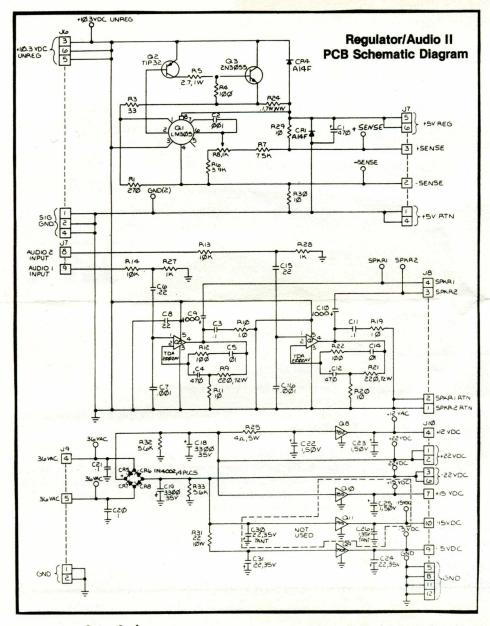
Figure 2 Video Board Video Flickering Modifications

# **LMC News Notes**

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## Stern Seeburg Bagman Attract Mode Sounds

An update set of program chips are now available on request for your Bagman games.

This will allow you the option of turning off the attract mode sounds. This is a three chip update that will be supplied to you on an advance replacement basis.

The new program chips are Revision 5 and go into position 9F, 9K and 9N on the DSA Board. The other program chips are not affected in this update and remain the same.

Attract Mode Sound:

Dip Switch 6 - ON - Sound OFF Dip Switch 6 - OFF - Sound ON

Contact LMC Parts: 887-9403



Cecil Waulk, LMC operations manager

Atari Tech Tip Pole Position™ CTF-1 MOD

#### See schematic at left

The following modification should be performed to any CTF-1 that has insufficient current capability to produce an adequate five volts.

### **Board:** Audio/Regulator PCB **Procedure:**

- Find the 0.1-ohm, 7-watt resistor, R24, on the audio/reg. PCB and parallel another 0.1-ohm, 7-watt resistor across it.
- Connect a 27,000 UF, 16-volt capacitor between the 10.6 volt and ground lines. Note: These are the same points that the big blue capacitor already on the CTF-1 is wired to.

**Note:** According to Engineering, the above 2 steps should suffice in fixing most 5-volt problems. If you are still having trouble, the following additional steps will help.

- Change R3 from 33 ohms to 5.6 ohms (¼ watt).
- 4. Change R1 from 270 ohms to 47 ohms (1/4 watt).
- 5. Replace R30 (10 ohms) with a 1N4001 Diode, Cathode to +5 volt RTN.