



## Laser Disc Player Conversion Card

Design and Firmware by Shaun D. Wood

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## Cliff Hanger Installation Instructions

The **LaserCon LDP Converter** is an adaptor card for the replacement of your broken laserdisc player, to a newer, faster, more reliable one. These instructions are for Cliff Hanger and the CH conversions of **Cobra Command** and **Goal to Go**.

### Parts List

LaserCon board, Replacement Player Interface Cable and these Instructions.

### Supported Replacement Player: Pioneer LD-V8000

### Installation Instructions

#### **1. Verify your LaserCon board is ready for 8210/LD-1100 use.**

Version 1.X of the LaserCon LDP Conversion board was not configured to work with games using the the PR-8210/A or LD-1100 Laserdisc players. If you have one of these earlier boards and wish to modify it for use with the PR-8210, download and follow these instructions first...

If your game uses:

IR remote at the front of the player: [http://wood1st.com/LaserCon/Docs/LC\\_Conv8210IR.pdf](http://wood1st.com/LaserCon/Docs/LC_Conv8210IR.pdf)

A direct wire into the back of the player: [http://wood1st.com/LaserCon/Docs/LC\\_Conv8210plug.pdf](http://wood1st.com/LaserCon/Docs/LC_Conv8210plug.pdf)

If your LaserCon is properly configured for PR-8210 use, then continue.

#### **2. Configure your new player:**

**Baud Rate: 4800, No Parity, 1 stop bit, Data Length: 8 bits,**

**TxD terminator: <CR>.**

Connect the player to a TV or monitor.

Press and hold the "DISPLAY" button while powering-on the player.

Press "SCAN FORWARD" to reach Page-5 "RS-232 SWITCH P-5"

press "STEP FORWARD" to highlight an item, then

press "STEP REVERSE" to change the setting.

Set: Baud Rate: 4800, No Parity, 1 stop bit, Data Length: 8 bits

### 3. Install the LD-V8000 player into the game cabinet.

Remove the 'Y' connector and use 2 separate video cables.

Attach "Video Out #1" to Video-In on the Graphics (GSI) board.

Attach "Video Out #2" to Video-In on the NTSC (Monitor) board.



Attach "Audio Out (L and R)" to the GSI board.

Attach the 15-pin connector of the LaserCon interface cable to the back of the player.



Plug AC power into the cabinet's player outlet.

Make sure that the player's power switch is pressed in (ON).

#### 4. Set Dipswitches:

On LaserCon, set switch ....      1      2      3      4  
**ON   OFF   OFF   OFF**

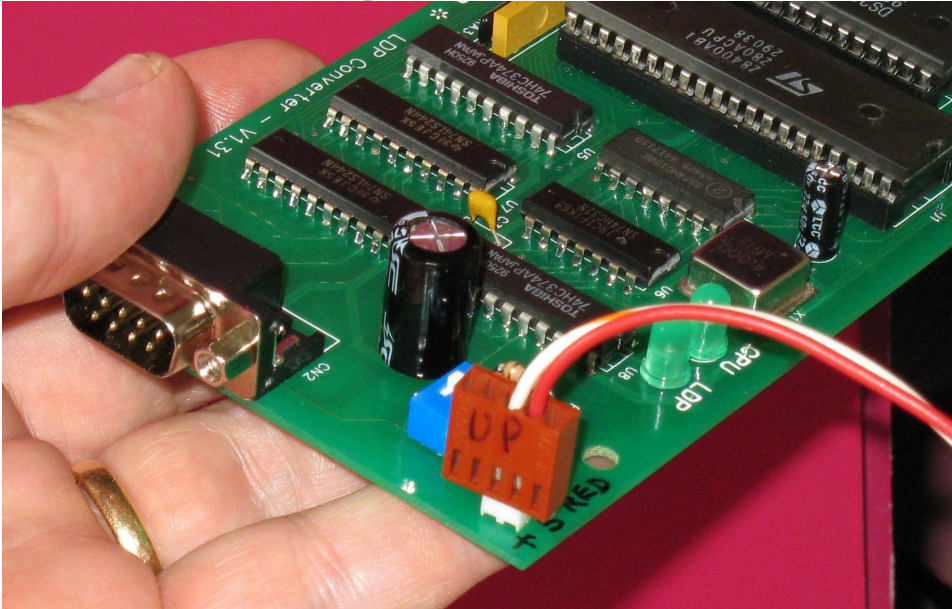
#### LaserCon Dip-switch settings (Ver. 7.0 firmware)

SW 1	SW 2	SW 3	SW 4	Original Player	Games	Baud Setting for new player
0	0	0	0	PR-7820	Dragon's Lair, Space Ace	4800
0	0	1	1	LD-V1000	Dragon's Lair, Space Ace (required if using MultiROM) Thayer's Quest, Interstellar	4800
0	1	0	1	LD-V1000	Dragon's Lair, Space Ace Thayer's Quest, Super Don Quixote Esh's Aurunmillia, Interstellar, Casino Strip, Astron Belt Cobra Command, Galaxy Ranger	9600
0	1	1	1	LD-V1000	1983 Space Ace using a 1991 disc	4800
1	0	0	0	PR-8210 LD-1100	Cliff Hanger, Cobra Command, MACH3, Goal to Go, Us vs Them, Quarter Horse	4800
1	0	1	0	22VP932	Dragon's Lair, Space Ace (Europe)	9600
1	1	0	0	22VP932	Space Ace with 1983NTSC disc (Europe)	9600
1	1	1	0	22VP932	Space Ace with 1991NTSC disc (Europe)	9600

**5. Install the LaserCon card: (if doing a direct-wire install, skip ahead to B.)**

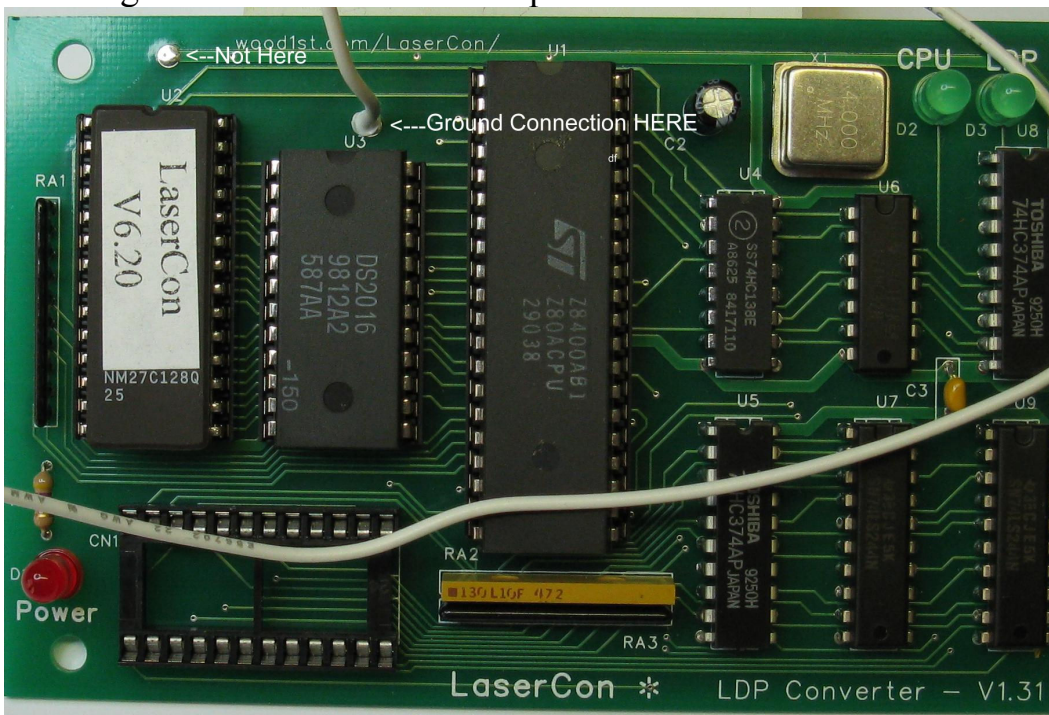
**A. IR Remote-Control install:**

Remove the connector from the IR transmitter in front of the player.  
Attach it to the 2-pin connector on LaserCon.



\*\*\* +5Volts is supplied to the LaserCon board through this connector.  
Make certain that the red wire is on the correct side which is marked "+5V".

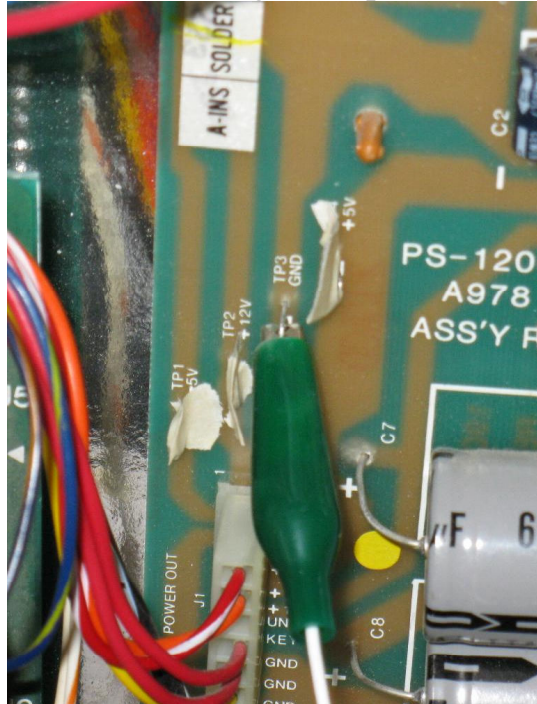
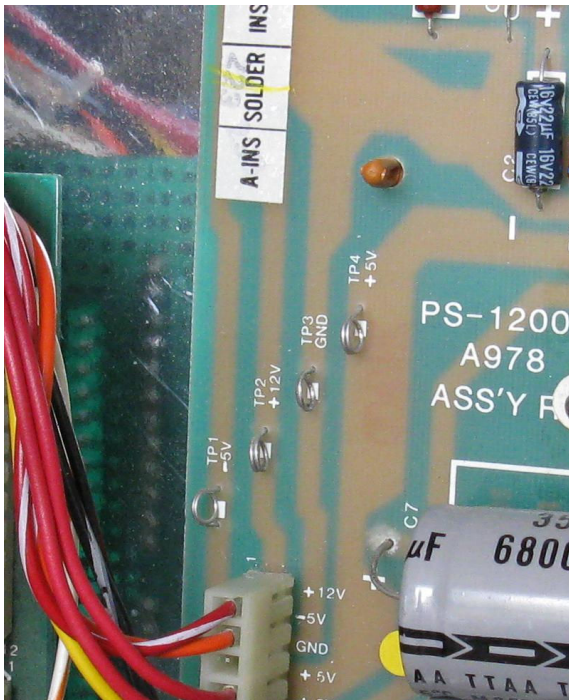
In IR mode, your LaserCon board needs to connect to ground.  
The alligator wire must match this photo...



Find the test points on the power supply board.

Cover all of the loops except "GND".

Attach the Alligator clip from the LaserCon board to this ground point.

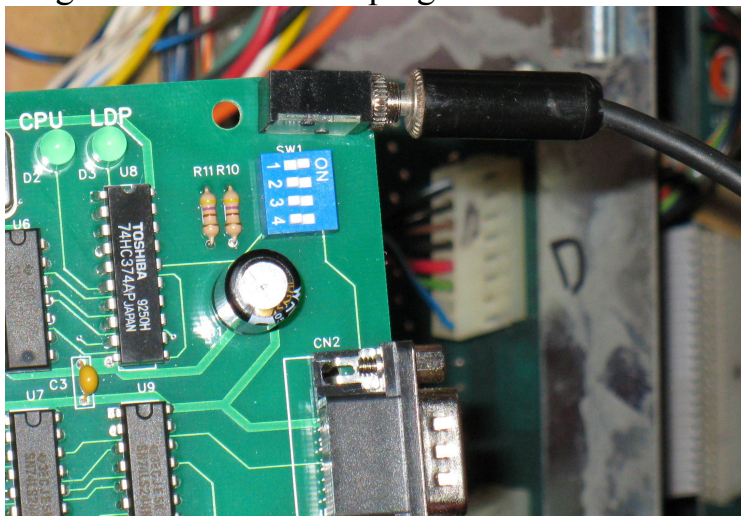


**\*\*\*LaserCon has a redundant ground loop through the player cable and audio jacks. Connecting the alligator clip to any test point other than GND will blow fuses.\***

Jump to step #6.

### **B. Direct-Wire Control install:**

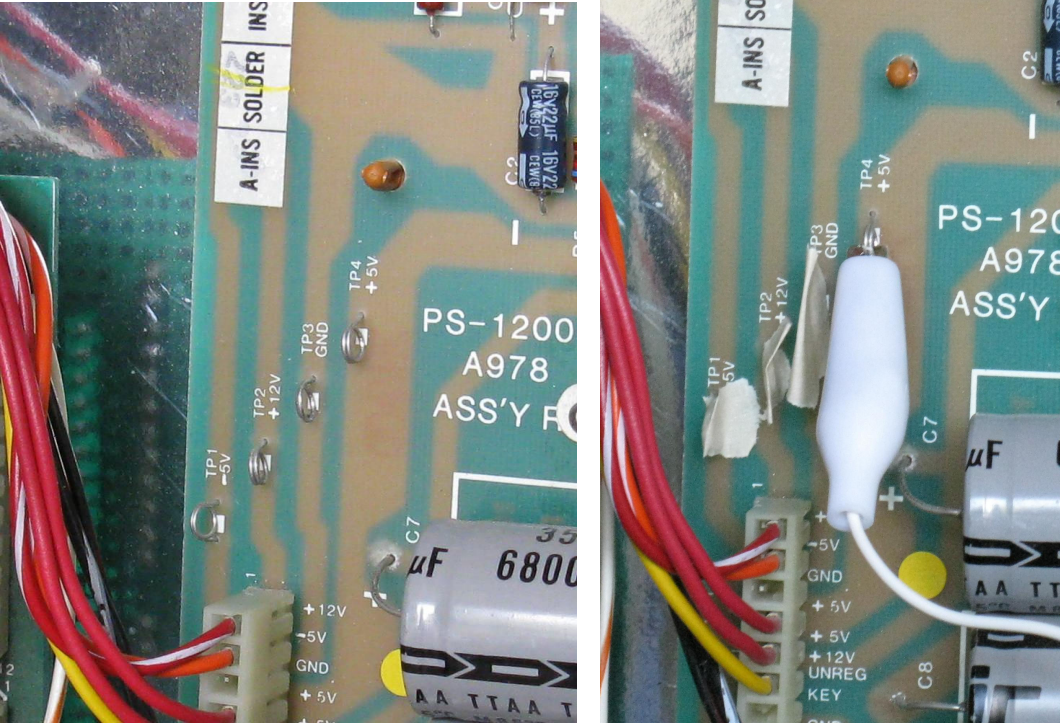
Plug the 3.5mm control plug into the 8210 Jack on the LaserCon board.



In Direct Wire mode, your LaserCon board needs to connect to +5Volts. The alligator wire must match this photo...



Find the +5Volt test loop on the power supply board. Tape over the other test loops to prevent accidents, and connect the alligator clip as shown...



**6. Connect the serial cable** to the laserdisc to LaserCon's 9-pin connector (CN2).

**7. Mount the LaserCon board** to any convenient spot within the main compartment of the cabinet using wood screws and stand-off spacers.

### **Operation**

Power on your machine.

The red LED should light, indicating that the board is properly powered.

After a one second delay, the "LDP" LED will flicker, indicating that LaserCon has established serial communication with the player.

After the game displays "Please Standby", the "CPU" LED will repeatedly flicker, indicating that LaserCon is receiving the "PLAY" command from the main board. This will continue until the player finishes spin-up, and play begins.

Once the game is up and running...

The red "POWER" LED will remain lit,

The green "CPU" LED will blink when receiving control commands.

The green "LDP" LED will blink when sending commands to the player.

### **Other Information**

CN1 is not used for Cliff Hanger.

If you wish to use your LaserCon card in other games, you will need to obtain the proper interface cables. You can contact me for these parts.

### **Disclaimer**

Use at you own risk. By accepting this product, you also accept all responsibility for the use of this product and release its manufacturer, Shaun D. Wood, from all possible responsibilities for damages, or difficulties, that the user has incurred due to use or misuse of this product.

### **And Finally...**

If you need any help or have any questions, comments, or suggestions, please contact me: [shaun@wood1st.com](mailto:shaun@wood1st.com).