

LaserCon LDP Conversion Card

Instructions for "Thayer's Quest"

Design and Firmware by Shaun D. Wood

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LaserCon is an adaptor card for the replacement of the original laser disc player installed from the factory to a newer, more reliable player. These instructions are only for the arcade version of Thayer's Quest, which was manufactured by R.D.I. for use in North America.

Supported Replacement Players:

Pioneer - LD-V8000 LD-V4400 LD-V4300D LD-V4200
LD-V2200 CLD-2600 CLD-2400

The V8000 and V4x00 series are preferred due to their improved search speed performance. The 2000 series is approximately equivalent to the PR-7820. If you are buying a new player, do yourself a favor, and only consider a 4000 or 8000.

Parts List

LaserCon board, LD-V1000 Adaptor, Player interface serial cable.

Installation Instructions

1. Configure your new player:

All players must be configured for proper serial communication as follows:

**Baud Rate: 4800, No Parity, 1 stop bit, Data Length: 8 bits,
TxD terminator: <CR>.**

LD-V2200 & CLD-V2400:

On the back of the player, set both dip-switches – OFF (up)

CLD-V2600:

On the back of the player, set dip-switches 1 & 2 – OFF (up)

LD-V4200:

Open the small cover on the front of the player. Set all switches-OFF (up).

LD-V4400:

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-3 "RS-232 SWITCH P-3"

Verify: Baud Rate: 4800, TxD terminator: <CR>.

To make changes, press "STEP FORWARD" to highlight an item, then press "STEP REVERSE" to change the setting.

*** Press "DISPLAY" to save your settings and exit.**

LD-V8000:

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"

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

To make changes, press "STEP FORWARD" to highlight an item, then press "STEP REVERSE" to change the setting.

Press "SCAN FORWARD" to reach Page-6 "RS-232 SWITCH P-6"

Verify: TxD terminator: <CR>.

LD-V8000 - Optional Setting:

P-7: Memory Control (The LD-V8000 player has the ability to hold and "freeze" the last displayed frame of video during a search operation. Thereby eliminating the blackout screen between scene searches. Some people prefer this mode, while others consider it a change from the "original" feel of the game.)

For "Original" blackout searches:

Video Memory Mode: CONTROL DISABLE

Auto Memory: OFF

For "Freeze frame" searches:

Video Memory Mode: CONTROL ENABLE

Auto Memory: ON

*** Press "DISPLAY" to save your settings and exit.**

2. Install the player into the game cabinet.

Connect AC power, audio and video cables as usual. Connect the included serial cable to the player's RS232 port.

3. Install the LaserCon card:

Mount your LaserCon card to the side of your cabinet, near the main control board, using wood screws and spacers.

Connect the original player ribbon cable to the LD-V1000 adaptor, and connect the adaptor to LaserCon's "CN1". (See figure 1)

Attach the alligator lead wire to +5Volts. (See figure 2)

TQ: attach to the leg of R33 or R34 on the side closest to C42.

INTERSTELLAR: (picture and location needed) Use a voltage meter to find a +5V source. (Ground is supplied through the ribbon cable.)

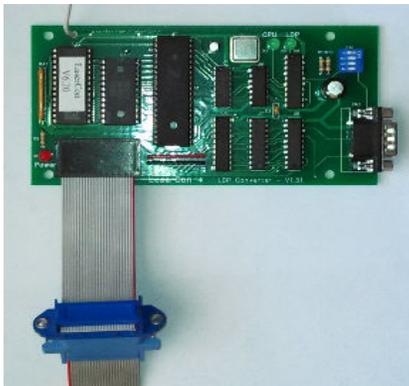
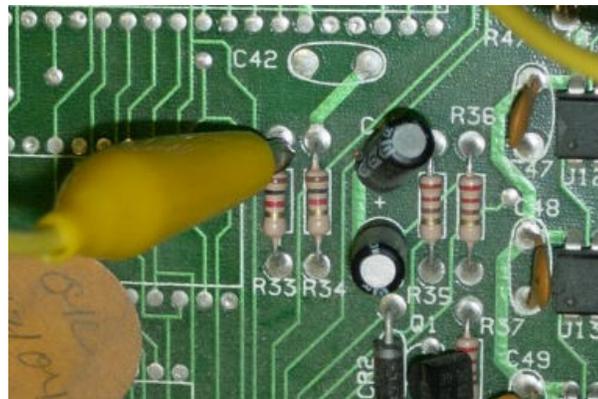


Figure 1



Thayer's Quest

Figure 2

Connect the supplied serial cable from LaserCon's CN2 and the player's 15-pin connector.

This is a custom cable. You **cannot** use any other serial cable. If you need to replace the cable for any reason, the pin connections are as follows...

	9-pin Female		15-pin Male	
GND	pin-1	-----	pin-11	GND
TxD	Pin-2	-----	pin-10	RxD
RxD	Pin-3	-----	pin-9	TxD

4. Set Dipswitches:

On LaserCon, set switch 1 2 3 4
OFF OFF ON ON (default for shipping)

Optional: If your player can run at 9600 baud
OFF ON OFF ON

Thayer's Quest: On TQ main board, Set....

B4-OFF B5-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

Operation

Power on your machine.

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

After a one second delay, the “LDP” LED should light, indicating that LaserCon has established serial communication with the player.

After a short time, the “CPU” LED should light, indicating that LaserCon has received the “PLAY” command from the main board.

The Player should now begin to spin-up and play. The “LDP” LED will go dark, indicating that the player is busy.

Once the game is up and running, all three LEDs should remain lit, with only momentary blinking of the “LDP” LED during searches.

Enjoy!

Disclaimer

Use at you own risk. By accepting this product, user also accepts all responsibility for the use of this product and releases its manufacturer, Shaun D. Wood, from all possible responsibilities for damages of any kind that the user may incur due to use or misuse of this product.

And Finally...

If you are having any trouble installing your LaserCon card, please contact me immediately via email. I will help you get it working.

LaserCon is an open source project. If you want to write code for other games or players and would like to have copies of the schematics and firmware files, contact me, or visit www.wood1st.com/lasercon. Please consider donating your work to be included in future releases of LaserCon.

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