

LaserActive from a PAL perspective



- Why am I writing this?

To be fair, there are a number of excellent sites and videos on this remarkable device. The following just a few:

<http://en.wikipedia.org/wiki/Laseractive>

<http://www.youtube.com/watch?v=SqNtpC1VeH8>

I believe Fakk28 has changed to thenewfakk28 so you will need to do a youtube search for his impressive video.

<http://www.youtube.com/user/superdeadite#p/search/3/-zZoyrL2FwA>

http://www.cyberroach.com/new_laseractive_pics/default.htm

<http://www.videogameconsolelibrary.com/pg90-pioneer.htm>

The N10 and S10 manuals are now available

So the real reason of writing this is in the hope that other Aussie's take up the gauntlet and get on board this miraculous mother!

- How did I get on board myself?

Well I actually only started collecting for this device earlier this year (2011) after seeing it mentioned on the pcenginefx.com forums (which unfortunately as I write this article are down for the foreseeable future).

Addendum: Back-up and running.

I scoured the web and found the above sites plus many more. After reading as much as I could, I decided to take the plunge and find one to buy. This is where it became very interesting.

- Where did I buy one?

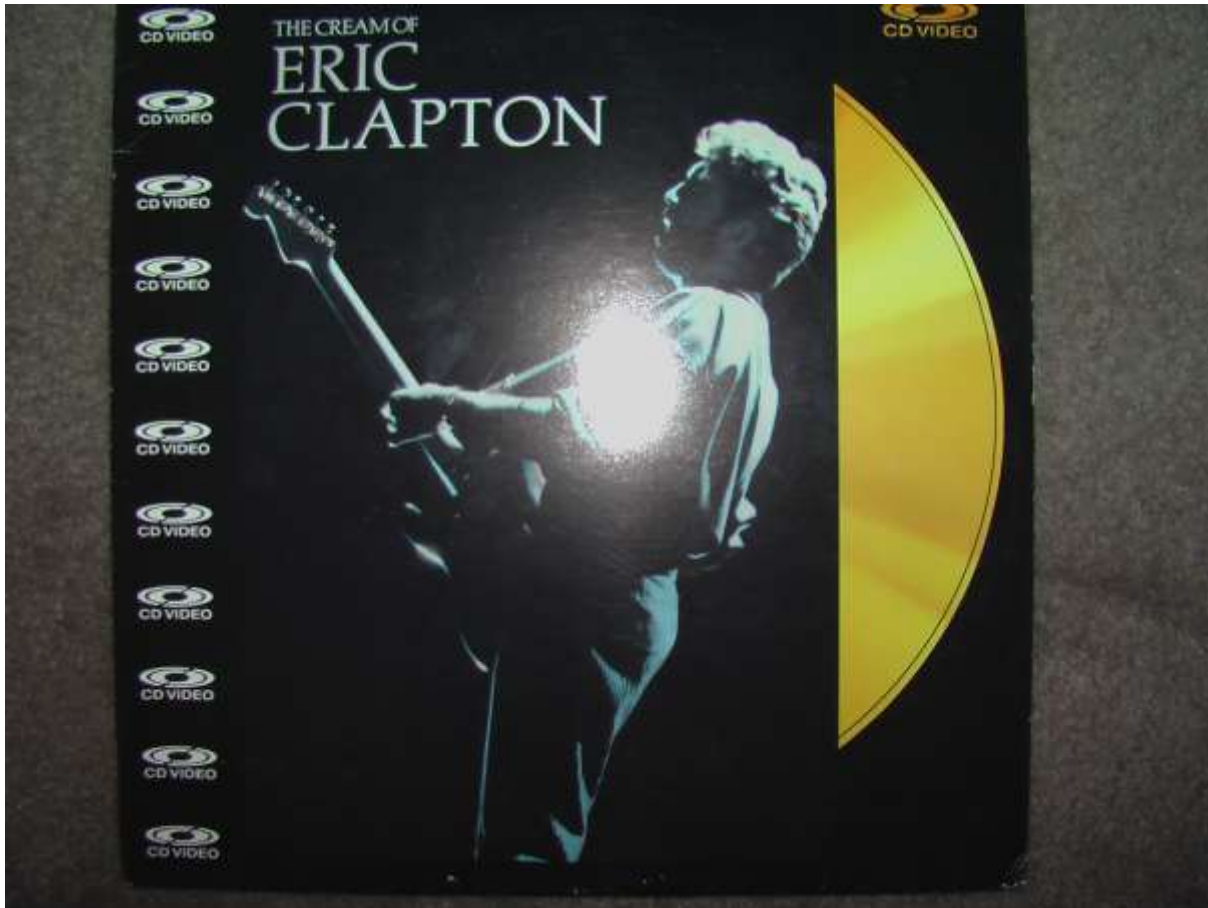
There weren't too many places other than eBay where I could find one to buy and even there, they were damn expensive. Although the actual Laserdisc player (CLD-A100) was around US\$300-\$400 (mid 2011) which is not too bad for something obscure and becoming rare, it was the postage getting it here that always seemed to kill the deal. At about US\$200 coming from either Japan or the US (refer regions below) in addition to the player, man this was becoming quite expensive (refer PAC's below). I eventually took the plunge and bought one from Japan and boy do I have a story now...

- Regions!

We generally get rolled for many things here in Australia and this was another example. You see this player in standard guise is just a Laserdisc player and NTSC only. Which is not that big a hurdle these days or even when it came out in 1993 for most of us down under. The biggest gripe was that it was never sold here nor could you even order the thing from the research I have been able to find. Therefore unless you knew someone from Japan or the US back in the day, you probably a) had never heard of the thing and b) even if you had, how on earth could you afford to spend close to US\$1,000 plus shipping to get it here!

First example is a PAL disc which also happens to be one of the CD-Video discs not to be confused with Video-CD that the player can handle. It can't play Video-CD though.

The second example is a disc with the NTSC format which also happens to be the one included with the Mega-LD Promotional Package.



- PAC's!

Now remember before when I said that the player itself only played Laserdiscs in standard guise, well in order to play games (refer games below), you needed to purchase additional hardware. I have no idea what Pioneer were thinking when they thought ohhh lets sell a US\$1k machine and then lets sell these add-ons at US\$600 each. That's right, US\$600 to play one brand AND region of games (refer games below). So you'd have to be the Sultan of some Country to afford this system in order to utilise it to its fullest potential.

Fakk28's video(refer above) gives a great low-down of the different PAC's available and I will go into them in greater detail later on in this article but suffice it to say, you would need; just to play all the regions' games; four (4) PAC's to play all the available games! What a joke, over US\$3k to play games when you could easily buy a MegaDrive, MegaCD, TurboGrafx and TurboGrafx CD with a heap of games for substantially less or even a Genesis, SegaCD plus PC-Engine and Super CD in addition to the PAL versions and you'd still probably have change!

First picture is of a PAL Sega MegaDrive 2, with matching MegaCD2 and 32X. This system has been modified to run PAL/NTSC-U/NTSC-J using the switchless modification for both the 32X and MegaDrive 2. I use a Tototek MegaCart for different regions for the MegaCD2.

Second picture is of a NEC SuperGrafx with matching Super CD-Rom2. This system has also been modified to run NTSC-J/NTSC-U including the grounding modification. Plus it also outputs from the Super CD-Rom2 via an 8-pin mini-din for RGB Scart. You may also notice that the SuperGrafx is directly connected to the Super CD-Rom2 power-wise. Bearing in mind that the Super CD-Rom2 requires 12v DC, whilst the SuperGrafx requires 9v DC they both use different polarities. Thanks to a cable from Hong Kong Doctor, the Super CD-Rom outputs the required 9v DC and the cable changes the polarity. Saves using two separate power adapters. Which by the way are damn hard to find down under as the sizing is not very common. I found that by purchasing two Australian DC power packs (one 12v and one 9v originally) with the included multi- tips and then buying from the United Kingdom a set of fifteen tips (twice over) I was able to connect the Aussie power packs to the consoles. This was of course before I found the connector cable mentioned above.



- Shipping

Just a quick thing on shipping this thing. Expect it to be bugged when it arrives here in Australia. No it is not the fault of Australia Post nor the United States Postal Service nor Express Messenger Service. Pioneer must have used average parts in the machine as I can tell you that there are so many stories on-line of these things with drawer faults. I can vouch for this now having two of these units. One from Japan and one from the US and BOTH arrived with the drawer not able to open. Now I am not disparaging Pioneer in any way. I actually happen to have many Pioneer devices and love using them. My belief is that with higher end Laserdisc players available and the cost to include these components, it would have been even more cost prohibitive for this device for the longer term.

There is some good news from this though (excluding the fact that you have already spent over US\$600 for the player with shipping to get a paperweight) and that is that nearly all the parts are still available from Pioneer. Those that aren't do have substitute parts. The bad news, Pioneer Australia do not have them. I suppose we can't blame them as the player was never sold here. So again you need to make contact with someone in the US or Japan to order the replacement parts. That is after having someone who knows Laserdisc players take it apart and advise you which parts you need to have replaced (it will help if you give them a copy of the service manual (refer sites above). By the way, the Laserdisc pick-up assembly which is more than likely the problem is not cheap. About US\$200 for a new one. So again we are moving now to US\$800 for this device JUST TO PLAY LASERDISCS! I must be crazy to continue with this thing. You only live once so what the heck.

Addendum: I have finally received the new parts from Pioneer USA via my contact in the States and once again a huge bill for the parts and shipping. I have taken the parts to my local Authorised Pioneer Representative who has been able to use them and has actually been able to fix both players. I reckon they are probably better than when they were released as the replacement parts are more likely to be better quality/newer design than the originals (well I like to think this at least). Again cost to have the each player repaired increases the total cost to play Laserdiscs at US\$1,250. Unreal!!!

- Voltage

Another thing to remember is that Pioneer loves to hardwire its devices. Meaning that in order to even fire up this thing, irrespective of whether it came from the US or Japan, you will need to purchase a step-down transformer. For the US model a 110volt 50 or 100watt will do and for Japan 100volt same again 50 or 100watt will do. At least these aren't too expensive. Generally less than AU\$100.

One strange thing is that the US model is rated at 47watts whilst the Japanese model is rated at only 40watts. Go figure!

First picture is of a 50w 110v step down transformer from Tortech (in Australia).

Second picture is of a 100w 100v step down transformer also from Tortech.



- CLD-A100

With respect to the actual Laserdisc player, it is an average player. What I mean by that is that in standard form, it does not include AC-3 Dolby Digital, although it can be modified to add this facility. This means that Laserdiscs encoded with AC-3 Dolby Digital will only be played using the analogue channels. By the way, even if you do upgrade the player with the AC-3 Dolby Digital output, you will still need to purchase a de-modulator to convert the signal from RF to the correct format for your receiver. These things are becoming harder to find every day. Again I picked up one from Japan (and again bloody hard wired so need to use a step-down transformer).

It also does not come with Y/C or S-Video out. Although not a major issue as Laserdiscs are only encoded with composite video anyway, it does mean that there is no comb filter to clean up the image. I am no audio-visual guru so please don't shoot me for incorrect terminology but I am of the belief that even outputting via composite, if you have a television with a decent 3D comb filter, this will effectively fix up the image as much as one could should their player be fitted with Y/C (S-Video).

It does however have a toslink (fibre optic) connection for DTS. Refer below for additional information on optical from PACs.

There are two (2) composite video and audio outputs on the rear along with the toslink output. There is also the standard Pioneer link in and out connections (I believe these are so you could use the one remote to control multiple Pioneer devices, e.g. a HiFi system) and a mono audio connection with another connection between it and one of the composite video connections.



US version shown as JP version has characters for the most of the input identifiers.

This is where it becomes unusual. You can buy an adapter that when connected to all three connections; that is one of the composite video, the centre hole and the mono audio connection; you can use the system with the RF connection of your television. However, if you do this you will then not be able to plug in the 3D goggles adapter (refer 3D goggles below)!

That's it, very few connections. Although the Japanese model does have its connections as you would expect in Japanese characters but as they are fairly standard connections (excluding the 3D goggles/RF connection combination) you wouldn't have any issues plugging up your cables if you did purchase the Japanese model over the US model.

- 3D Goggles and adapter

As already highlighted, the system can utilise 3D goggles. However, in order to utilise this you must purchase SEPARATELY the adapter and a pair of goggles. One good thing is you could forgo the rare LaserActive 3D goggles in favour of another type of shutter 3D glasses. For example, the Asus 3D goggles and/or the Sega Master System 3D goggles use the same 3.5" connection so could be used instead. The

adapter actually allows two (2) pairs of 3D goggles at the same time which is quite good for the early 90's.

Do remember that there are bugger all 3D goggle enabled LaserActive games so it really is not a big problem and the 3D goggles are quitter large in comparison to the aforementioned types. You look quite amusing donning a pair of these things

The first picture shows the 3D Goggle adapter with the two connections for the two pairs of 3D Goggles.

The second picture shows the actual pair of 3D goggles – chunky I know.

I am just imagining getting a friend around and both of you wearing a pair of these things and the only thing to watch is Japanese porn! Quite amusing I'd say.



- PAC's in depth

Even though I have mentioned the PAC's earlier and also highlighted Fakk28's excellent YouTube video, everyone likes to know more about these things.

I'll start off with the most common PAC's first, these being the Sega ones. There are two (2) versions, one being the S1 or Japanese MegaDrive/MegaCD PAC. This one allows you to plug up to two (2) MegaDrive/Genesis controllers to the front of the actual PAC and play Japanese MegaDrive and/or Japanese MegaCD games. Refer addendum for PAL comments. The other Sega PAC is the S10 or United States Genesis/SegaCD PAC. This one allows you again to plug up to two (2) MegaDrive/Genesis controllers to the front of the actual PAC and play US Genesis and/or US SegaCD games. PAL games don't work but I'll try the Universal Adapter later on to see if this gets around the problem. From what I have read you may be able to use SegaCD's with the Japanese PAC and vice versa. I haven't tested this as yet (refer addendum). Refer MegaLD section below.

Addendum: After trying the Universal Adapter it appears that PAL games will run as long as you have a television that can accept the signal. Also some PAL MegaDrive games actually work natively. I just tried Fantasia and it worked. This is using the Japanese MegaDrive PAC. I am yet to test my Genesis PAC but I'll try that a little later and see if the Universal Adapter allows Japanese MD and PAL MD games?

I can tell you now that playing Sega-CD games do not work natively with the Mega-CD PAC. However, upon using the Tototek MegaCart both the Mega-CD JP and Mega-CD EU Games work as the MegaCart overrides the internal PAC Bios for whichever one you select on the MegaCart. Vice-versa is also true in that Mega-CD games do not work natively in the Sega-CD PAC but will work using the MegaCart.

I wasn't really sure about the optical output from the LaserActive in relation to Game CD's but after finally getting the toslink/optical connection working, just playing a simple Audio CD or DTS Laserdisc seemed quite good. Now what I mean by finally getting the connection working is that it is damn stiff. I mean really stiff to insert the toslink/spdif cable into the rear of the unit. You would initially think the connection was fine until you tried to obtain optical audio output and receive nothing. After looking closely at the insertion of the other end of the cable, I decided to really push the bugger in and voila it worked. I nearly injured my hand pushing the damn thing in AND YES THIS WAS THE CASE FOR BOTH PLAYERS. Maybe it was my cable but if you try and it doesn't work get behind the unit and push it in really hard!

The first picture shows the Japanese MegaDrive/MegaCD PAC with controller on top.

The second shows the American Genesis/SegaCD PAC also with controller on top.

Looks like the same controller was used for both PACS.



The next two PAC's are a little rarer (very rare for the US version) being the NEC ones. There are again two (2) versions, one being the N1 or Japanese PC-Engine/SuperCD PAC. This one allows you to plug up a single controller or PC-Engine multi-tap for additional controllers and play Japanese Hu-Cards, SuperCD's and Arcade CD's. The later using the Arcade Duo Hu-Card accessory. I have read that if you use the Arcade Pro the PAC can crap itself. Best not to muck around with something that is becoming rarer each year. The other NEC PAC is the N10, this is the rarest of the game PAC's available and allows again a single controller or PC-Engine multi-tap to be connected to the front of the PAC. The connection is not the same as the TurboGrafx it would appear, as I purchased a TG16 multi-tap and the plug was too large. This PAC allows the playing of United States Hu-Cards, SuperCD's and Arcade CD's again using the Arcade Duo accessory for the later. From what I have read you may be able to play PC-Engine CD's and SuperCD's from either region using either NEC PAC. Again I haven't tested this as yet (refer addendum). Refer LD-Rom² section below.

The first picture shows the Japanese PC-Engine PAC, whilst the second picture shows the American TurboGrafx PAC with controller. As the controller shows TurboGrafx, I can only assume that there is a comparable PC-Engine LaserActive controller available too (refer addendum).

Addendum: Now having both the PC-Engine and TurboGrafx Controller Pads I can confirm that the only difference is that the PC-Engine Pad has HE System on the front and the TurboGrafx has TurboGrafx on it. They are otherwise identical.

I can confirm that Turbo Duo CD games work natively in the PC-Engine PAC and vice-versa for PC-Engine Super CD games in the TurboGrafx PAC.

Refer Sega PAC section for optical audio write-up.



There is another PAC from NEC to match its clone of the Pioneer player but Fakk28 does a great review of this.

The next PAC (yes there are still more) is the Karaoke PAC. Now I have no idea whether the K10 ever existed as all the on-line literature/pictures/videos show only the K1 but if it does I'd expect both versions to be pretty much the same. This PAC allows the connection of two (2) standard 3/4" microphone plugs. It also has a number of switches. Surround, program, audio mode, one-touch karaoke and flat and sharp musical buttons. It also has volume knobs for each microphone input a balance knob and an echo knob. There is a further input/control for a mic control. So basically you can obtain a Karaoke Laserdisc and sing until your heart's content even duets! Just remember that the player is NTSC only but I don't ever recall seeing any PAL karaoke discs. Quite funny singing along using a Dreamcast Karaoke Microphone with this thing...



The last PAC is the rarest of all and I am still chasing one ☹ The PAC-PC1 is a computer interface PAC. It is meant to come with a replacement remote control with additional buttons and software for dos and Macintosh. Now I believe it is pc-dos and not ms-dos but again very little information on this PAC. It is rumoured that if you connect the 25 pin serial connection (I think it is serial) of the PAC to a computer then you can actually control how certain Laserdiscs play. My guess is something like programming a macro. Again there is so little information on this PAC

that until I get one and have someone translate the manual, I am only going by what I have read on-line. The first five (5) Laserdiscs in the Tenchi Muyo! anime series are rumoured to be able to be controlled in how they play and by using the software you could theoretically make up your own control programmes.



- MegaLD/LD-Rom²

Now after all of these ramblings what is actually new about this device? Well the only thing it does that is unique is that it can play LaserActive Sega MegaLD games and LaserActive NEC LD-Rom² games. To be honest there are very few of these games available and even fewer if you do not speak/understand/write/listen Japanese. However, these games are amazing in that the Laserdisc sized format allowed equivalent storage capacity as CD-Rom BUT it added the ability for multi-channel sound if included. Meaning that if the game included a digital soundtrack you could theoretically use the optical output and have one hell of a game. Again I am not in a position as yet to test this out but others on-line more than likely have (refer Sega PAC addendum).

These pictures are of the games included with the Sega package.

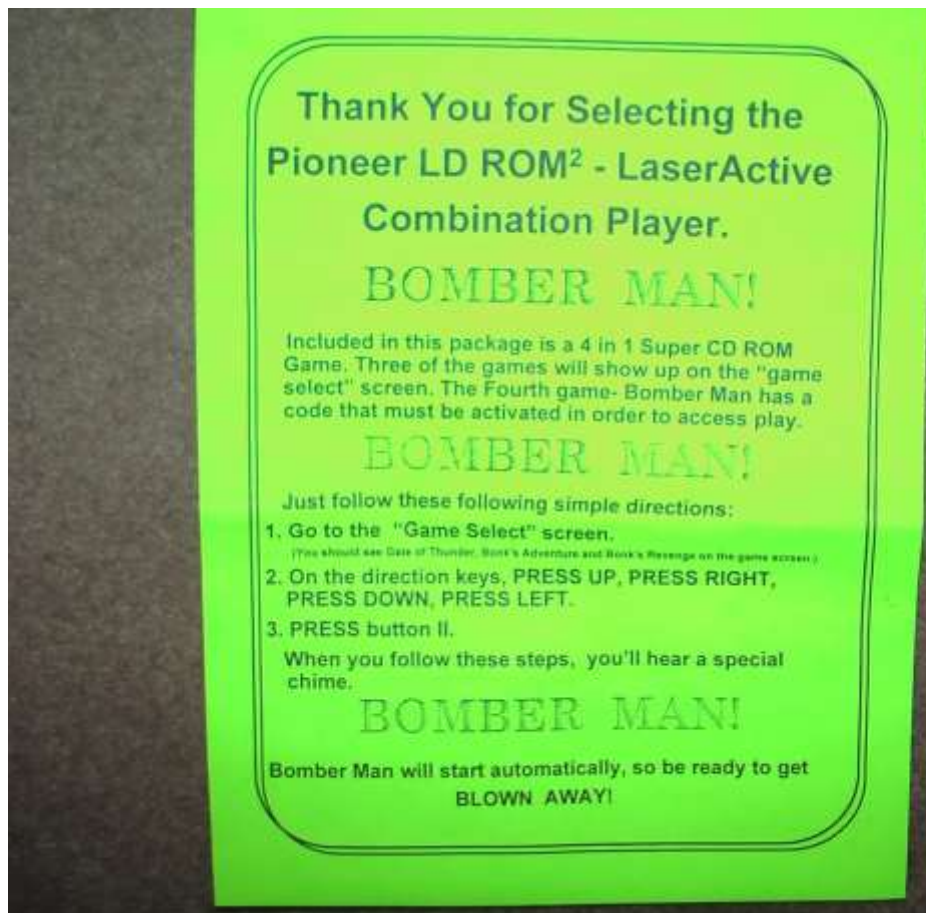


- Something special

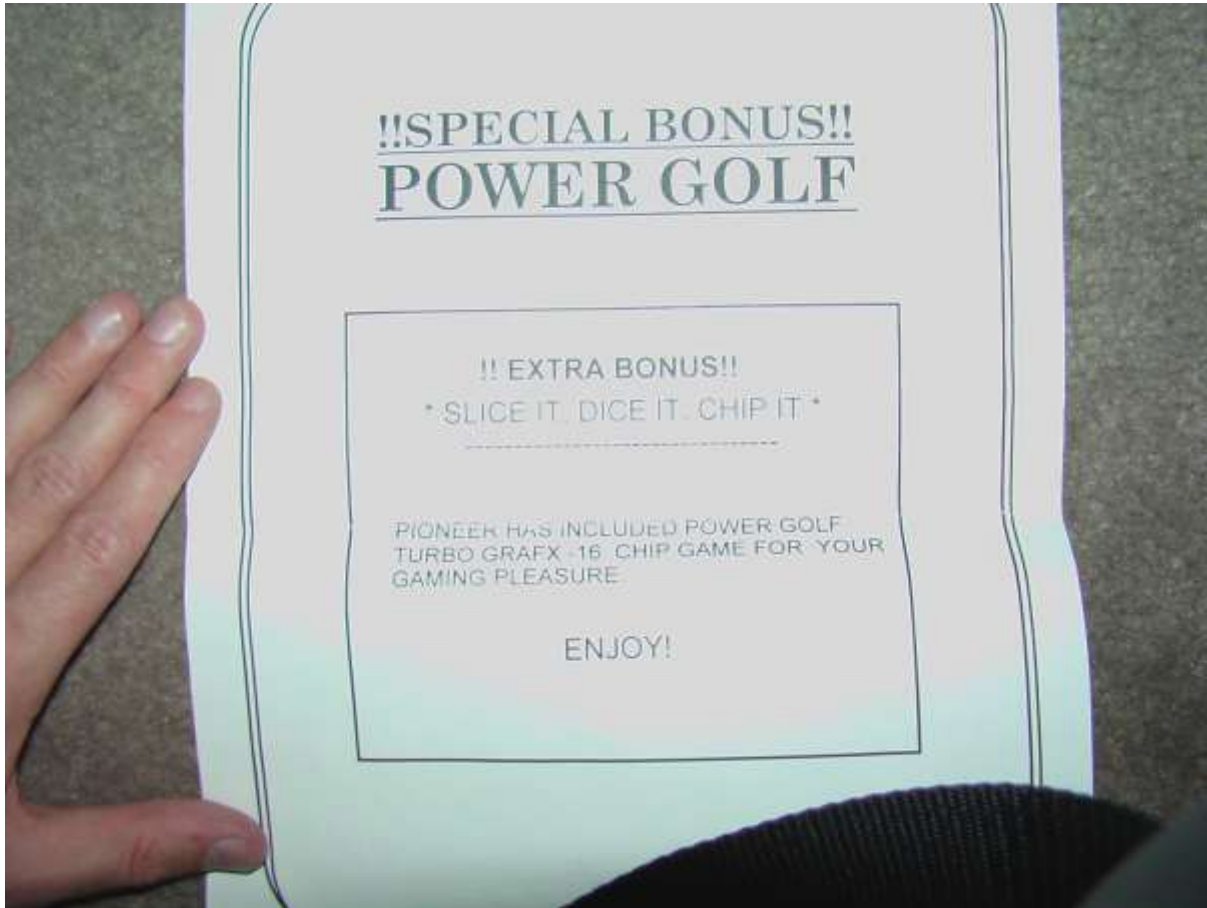
Now for something a little special. From everything I have seen on-line, I have yet to see a picture of the promotional packs from Sega and NEC for their individual PACs. The one I managed to pick-up shows what was once originally included above and beyond the actual Sega S10 PAC. The actual box shows that the PAC-S10/MS "Mega-LD" Promotional Package included the Deluxe Fantasia set of Laserdiscs (refer above for picture of my copy), the LaserActive game Pyramid Patrol and two (2) Sega game CD's: one of Sherlock Holmes and the other a 4-in-1 CD with Streets of Rage, Revenge of Shinobi, Columns and Golden Axe. It would be interesting to see the S1, N1 and N10 versions of these promotional packs. I believe one of the NEC packs included the game/edutainment Quiz Econosaurus (picture below).



The extra special thing is that the games included with the N10 PAC are again a 4-in-1 SuperCD including Gate of Thunder, Bonk's Adventure and Bonk's Revenge. Now I did say 4-in-1, well actually the missing game is hidden from the menu by a special code. The game Bomber Man can only be accessed by special instructions on an insert that came with the promotional pack. From the game select screen, you need to press a particular combination of direction pad keys. Up, right, down and then left. This is followed directly by the button II. If it has worked you should hear a special chime and are permitted to play the fourth game.



Extra extra special thing is that included BUILT-IN to the N10 is a fifth game, Power Golf. Now I haven't tested this as yet but I guess if you do not insert any Hu-cards nor optical media it will give you the option of playing. There are no instructions other than it is included. Would love to know if the N1 has anything similar. Again will test at a later stage.



- Documentation

On-line there is very limited access to the player's manual. The cyberroach website above has a copy of every page of both the manual and service manual of the US player. However, I cannot for the life of me find any copies of the manuals for the PACs. I hope to contact the administrator of the site at some point in the future to offer scans of the S10 and N10 manuals so at least others will be able to access these interesting accessories. I implore anyone else with copies of other manuals to also do the same for the missing ones. *Addendum: I have been able to contact the Administrator of the Video Games Console Library (refer above) and they have been kind enough to host copies of the S10 and N10 PAC Manuals.*

<http://www.videogameconsolelibrary.com/pg90-pioneer.htm>

 **PIONEER®**

The Art of Entertainment
MODEL #: PAC-S10/MS
("MEGA-LD" Promotional Package)

Quantity: 1
Shipping Wt: 11 Pounds
Carton Dimensions: 15^{1/4}X13^{1/2}X6^{1/16}

FREE
WITH PURCHASE OF
PAC-S10 (CONTROL PACK)





Above is a picture of four (4) LD-Rom² titles (used with PC-Engine/TurboGrafx PAC's)



Above is a picture of six (6) Mega-LD Rom titles (used with MegaDrive/Genesis PAC's)

I have more titles on the way but can tell you that they aren't cheap to collect. I have seen Time Gal for over AU\$1,000.00 and Road Prosecutor/Blaster/Avenger (same name different platforms/regions) for nearly AU\$700.00. Back when brand new most titles were US\$120.00.

I now have Virtual Cameraman 1 and 2 of which the second has a 3D element. The Japanese and their sense of humour! Hyperion and Quiz Econosaurus have also been added to my collection (refer picture below).

Hi-Roller Battle and Rocket Coaster have just arrived. Slowly getting there but the ones remaining are more difficult AND expensive to locate (refer picture below).



I now have Time Gal on its way and for a lot less than the pricing mentioned above!



Last interesting tid bit is that nearly all of the US MegaLD and LD-Rom² games are identical to their JP counterparts. That is the actual LaserActive titles can be bought in either Japanese or American format and apart from the text being in the respective language, the discs give the option of language. There are a few exceptions being Melon Brains, Goku and one other I think that you must buy the corresponding region to have that language. Also the Japanese exclusive titles of course do not have English.

- Legal

Now to make it perfectly clear, I am not associated with any of the companies, people nor web sites nor do I agree nor disagree with any views of any of the aforementioned people or their representatives. This article is just a review from my perspective as a collector of what I believe is an iconic device that should be experienced in some way by more people; Even if that is vicariously through this short article. I expect that some of the information I have included is incorrect or incomplete, that is what happens when one does not have access to all sources of data for this article.

I hope you have enjoyed this short expose on what I feel is an amazing and misunderstood beast. If you wish to experience this machine, please check out the many videos on YouTube showing actual gameplay or better yet pick-up a LaserActive machine yourself. Heck, the player is probably better now with the brand new mechanisms than when it came off the production line!

Version 1.8 (9th of January 2012)