

Gamecube lens and potentiometer

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albertcastillo2001 **Gamecube lens and potentiometer**

Posts: 57
Joined: Tue May 10, 2011 8:31 am
D by [albertcastillo2001](#) » Wed Jun 17, 2015 9:37 pm

Hello

I replaced my Gamecube lens recently and I had to set the pot to 116 ohm to be able to read backup discs. Originals were read at 350 ohms already. Although I think I will lower it a bit more, until 75 ohms I guess.

I always heard that the Gamecube lens can get damaged due to the potentiometer being too low. Is that true or is it an urban legend?

I always use good media, Ritek G04 if possible and my DVD recorder is a Pioneer DVR111D and I cleaned its lens 2 days ago. Shouldn't the drive's laser get more damaged because of bad layer media instead?

What are your pot values and opinions?

Thanks



emu_kidid
Site Admin
Posts: 4254
Joined: Mon Mar 29, 2010 10:06 am
Location: Australia
Contact: [pm](#)

Re: Gamecube lens and potentiometer

D by [emu_kidid](#) » Wed Jun 17, 2015 11:06 pm

It's an urban legend because there's a 150ohm resistor in line to protect it after the potentiometer. So if you set it to 0 on the pot, it's really 150ohm internally. I'd go to 75 if it's going to read them more easily, thus less wear and tear. I remember the XenoGC guy telling me he ran his laser at 0ohm on the potentiometer and was able to use DVD-RW 😊



albertcastillo2001

Posts: 57
Joined: Tue May 10, 2011 8:31 am

Re: Gamecube lens and potentiometer

D by [albertcastillo2001](#) » Thu Jun 18, 2015 4:42 pm

Thank you very much as always! 😊

albertcastillo2001

Posts: 57
Joined: Tue May 10, 2011 8:31 am

Re: Gamecube lens and potentiometer

D by [albertcastillo2001](#) » Thu Jun 18, 2015 5:37 pm

I decided to just lower it to 50 ohms. I will test. The discs I am trying are from before cleaning the DVD burner. It's a 9 years old Pioneer DVD burner 😊

What drive do you use? What do you think about LiteOn drives?

noobcube

Posts: 132
Joined: Sun Sep 11, 2011 12:19 pm

Re: Gamecube lens and potentiometer

D by [noobcube](#) » Thu Jun 18, 2015 7:48 pm

In my experience, there is no substitute for trial and error testing. Different burners, different media, and different lasers, will require different laser potentiometer values for most reliable disc reading. Try adjusting higher and lower to see if there is improvement or not. Some fussy drives have a very small "window" where they read burned discs reliably while others will read almost anything. Full Verbatim DVD-Rs have worked well with my Pioneer DVR-109 at 8x burn speed.

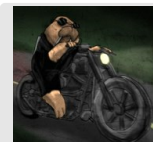


emu_kidid
Site Admin
Posts: 4254
Joined: Mon Mar 29, 2010 10:06 am
Location: Australia
Contact: [pm](#)

Re: Gamecube lens and potentiometer

D by [emu_kidid](#) » Fri Jun 19, 2015 3:04 am

Yeah I also used my pioneer 105 and 109 for most games, the newer drives are fairly bad in comparison even at the lower speeds.



Streetwalker
Posts: 1374
Joined: Mon Dec 30, 2013 7:50 am
Location: Israel

Re: Gamecube lens and potentiometer

D by [Streetwalker](#) » Fri Jun 19, 2015 8:31 am

Probably a good idea. I've been burning with my 15C burner and only got shitty discs that are unplayable. I have a pioneer 108 and a 110D in my pentium 4 pc so I should try them.

albertcastillo2001

Posts: 57
Joined: Tue May 10, 2011 8:31 am

Re: Gamecube lens and potentiometer

D by [albertcastillo2001](#) » Fri Jun 19, 2015 8:44 am

True, I have a Pioneer 219D drive as well and it's pretty bad as well. I still use the 111D one. I have to burn more discs now that I have cleaned the DVD burner laser

I remember Plextor drives used to be the best years ago, now it's LiteOn who manufactures them. So I wonder if a LiteOn drive will be better for this as well.



Lander
Posts: 24
Joined: Mon Jul 19, 2010 12:56 am
Location: Chile

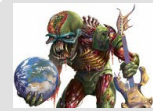
Re: Gamecube lens and potentiometer

D by [Lander](#) » Sun Jun 21, 2015 3:50 am

I've got a question, sorry for the bump btw

Is there an exact value or a magical formula for the laser pot?? My GC is kinda old, and I've change the lens so many times. I have games (originals) that my gamecube doesn't read very well (I've cleaned the lens and I've polished some games, still the same)

NES :: SNES :: N64 :: GC :: PSOne :: GC :: PS2 Slim :: GBA SP iQue (AGP-101) :: Wii :: DSI :: 3DS XL (Smash Edition)



megalomaniac
Posts: 2480
Joined: Sun Aug 21, 2011 5:33 am
Location: Drunk in Texas
Contact: [pm](#)

Re: Gamecube lens and potentiometer

D by [megalomaniac](#) » Sun Jun 21, 2015 6:25 am

☺ Lander wrote:

I've got a question, sorry for the bump btw

Is there an exact value or a magical formula for the laser pot?? My GC is kinda old, and I've change the lens so many times. I have games (originals) that my gamecube doesn't read very well (I've cleaned the lens and I've polished some games, still the same)

the answer was posted ^^^^^

☺ emu_kidid wrote:

beer is like WD40 for megalomaniac's brain, gets the gears moving

>>> [BadAssConsoles.com](#) <<<



webhdx

Re: Gamecube lens and potentiometer



Lander
Posts: 24
Joined: Mon Jul 19, 2010 12:56 am
Location: Chile

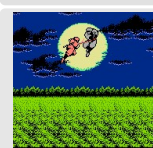
Re: Gamecube lens and potentiometer

by **webhdz** » Sun Jun 21, 2015 7:29 am

megalomaniac wrote:
Lander wrote:
I've got a question, sorry for the bump btw
Is there an exact value or a magical formula for the laser pot?? My GC is kinda old, and i've change the lens so many times. I have games (originals) that my gamecube doesn't read very well (i've cleaned the lens and i've polished some games, still the same)
the answer was posted ^^^^^

So, the best value is 0 ohms??? (considering the 150 resistor)

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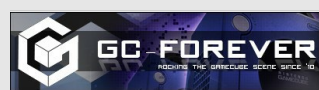


emu_kidid
Site Admin
Posts: 4254
Joined: Mon Mar 29, 2010 10:06 am
Location: Australia
Contact: pm

Re: Gamecube lens and potentiometer

by **emu_kidid** » Mon Jun 22, 2015 1:36 pm

In theory, 0 is best but may be excessive if the laser can read media with more resistance.



Re: Gamecube lens and potentiometer

by **albertcastillo2001**
Posts: 57
Joined: Tue May 10, 2011 8:31 am

by **albertcastillo2001** » Tue Jun 23, 2015 12:46 pm

Hmm, I would say the lenses you got might be defective. I have a laser that doesn't seem to work too well. It was new tho, however if you look at the laser bulb you can see it's blue. That one never worked well with originals or copies.

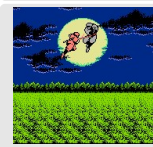
I think that the common values for originals depend of the laser you got and the potentiometer should be between 200 and 500. I only replaced lens once. But be sure you remove the small ironing bulb that they have when they are new and set the potentiometer to 450 ohms.

Then try original discs, if it doesn't read them, then lower your potentiometer by 50 ohms and try again until it reads them properly.

Later you can try backup discs too. Those might be a little harder to read, but this is where you must get the best burn possible. I guess best media to choose is RitekG04, Taiyo Yuden and the Verbatim ones seem to vary in quality depending of where they were made.

Lastly, a good burner. But it's really difficult to know which one is good burner. I contacted Plextor and they don't make new drives anymore. So I guess it might be good to try one of the LiteOn models.

My burner is a Pioneer which is 9 years old, but I expect one day it will break



emu_kidid
Site Admin
Posts: 4254
Joined: Mon Mar 29, 2010 10:06 am
Location: Australia
Contact: pm

Re: Gamecube lens and potentiometer

by **emu_kidid** » Wed Jun 24, 2015 6:32 am

Blue lens sounds like it's the wrong wavelength entirely and not meant for GC?



Re: Gamecube lens and potentiometer

by **noobcube**
Posts: 132
Joined: Sun Sep 11, 2011 12:19 pm

by **noobcube** » Wed Jun 24, 2015 11:49 am

Lander wrote:
So, the best value is 0 ohms??? (considering the 150 resistor)

There is no universal best value for the laser potentiometer. There are too many other variables involved. I have modded several Gamecubes and they all required different laser adjustments for most reliable disc reading. That is why it is best to try different values with your Gamecube, your discs, and your burner. Some burners work well while others cannot produce a readable disc.

I have spent many hours adjusting the laser pot up and down with various media types and burn speeds. One GC worked very well around 450 ohms, while others required the pot to be as low as 80 ohms. Sometimes reading improves with a higher value, so do not assume that lower is always better. Also, I have found (at least with my DVR-109) that a slower (e.g. 4x) burn speed works best with a higher pot value, while a faster (e.g. 16x) burn speed works more reliably with a lower pot value. I settled on 8x as a compromise which seems to work fairly well, plus the burn quality is optimal at 8x with my burner and media.

Re: Gamecube lens and potentiometer

by **albertcastillo2001**
Posts: 57
Joined: Tue May 10, 2011 8:31 am

by **albertcastillo2001** » Thu Jun 25, 2015 10:09 pm

emu_kidid wrote:
Blue lens sounds like it's the wrong wavelength entirely and not meant for GC?

Probably you're right, but I still have those lens kept here

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