kitsch-bent > LEDx3 (VB)

ver. 1

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before we begin...

tips

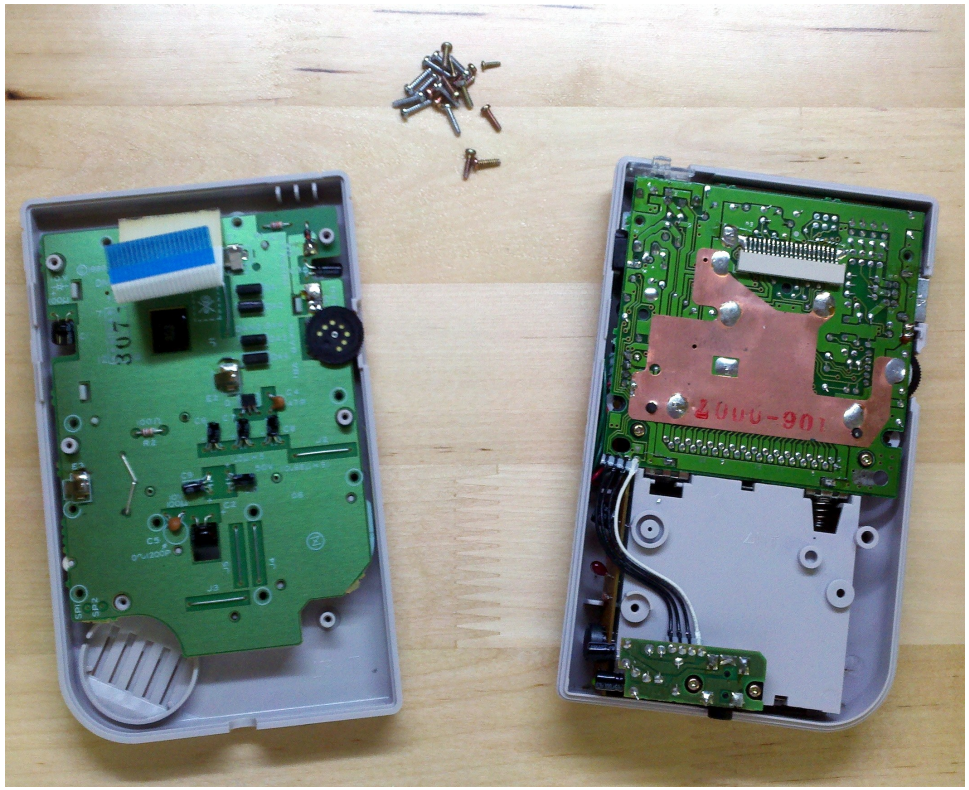
- steps 1-6 may be completed before your kit arrives in the mail. this let's you install the kit much quicker when it arrives
- be patient! rushing through this tutorial will only result in careless mistakes.
- be confident!
- be willing to ask for help! you may of course e-mail us at kitsch-bent for direct help, but also remember there are several online communities where you can generally find very supportive and wonderful people. these include: chipmusic.org and chipcoalition.com

supplies

- tri-wing and phillips screwdrivers. note: some cases are not held together with tri-wing screws. please check your case. the majority use this type of screw, however
- tweezers (optional, see step three)
- small wire cutters (these will cut plastic as well (step six))
- LEDx3 (vb) kit
- soldering iron and solder
- a DMG-01 model gameboy (the 'classic')
- razor blade (see step four)

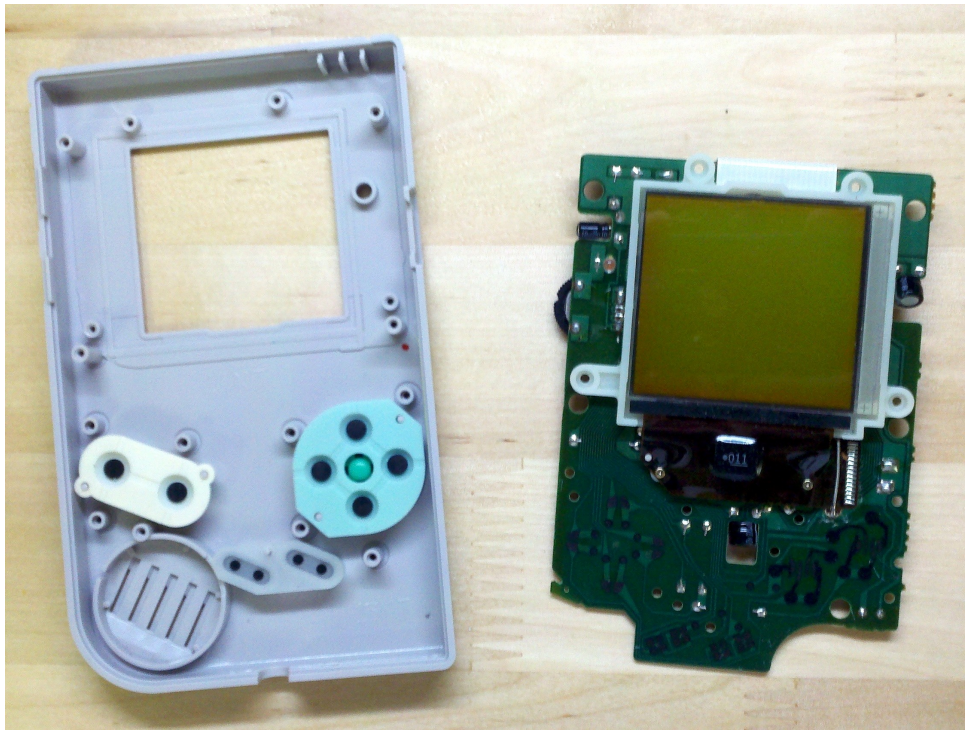
step one

- take all six screws out which hold the case together, and separate the two halves of the case
- the ribbon cable will come out with a gentle pull downwards
- set the screws and the bottom half of the case aside. don't lose the screws.



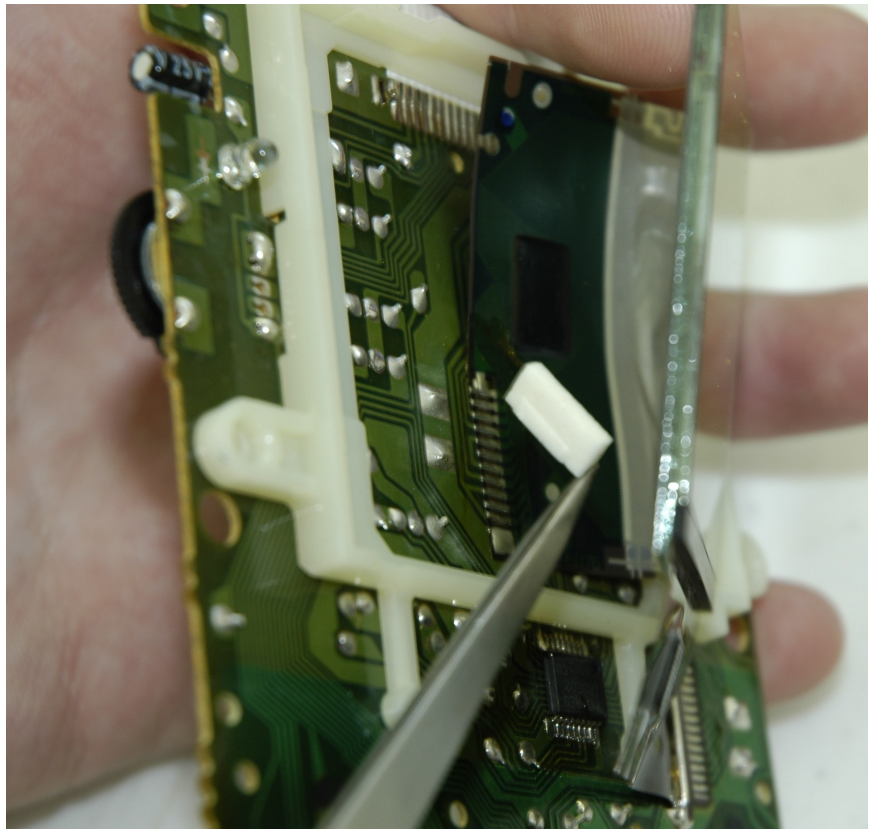
step two

- take the circuit board off the front half of the case. set these screws and the front half of the case aside and do not lose them
- you may find there is an adhesive tape holding the LCD screen to the case. if it is stuck, you can take the plastic screen protector off the case and push the LCD screen out this way



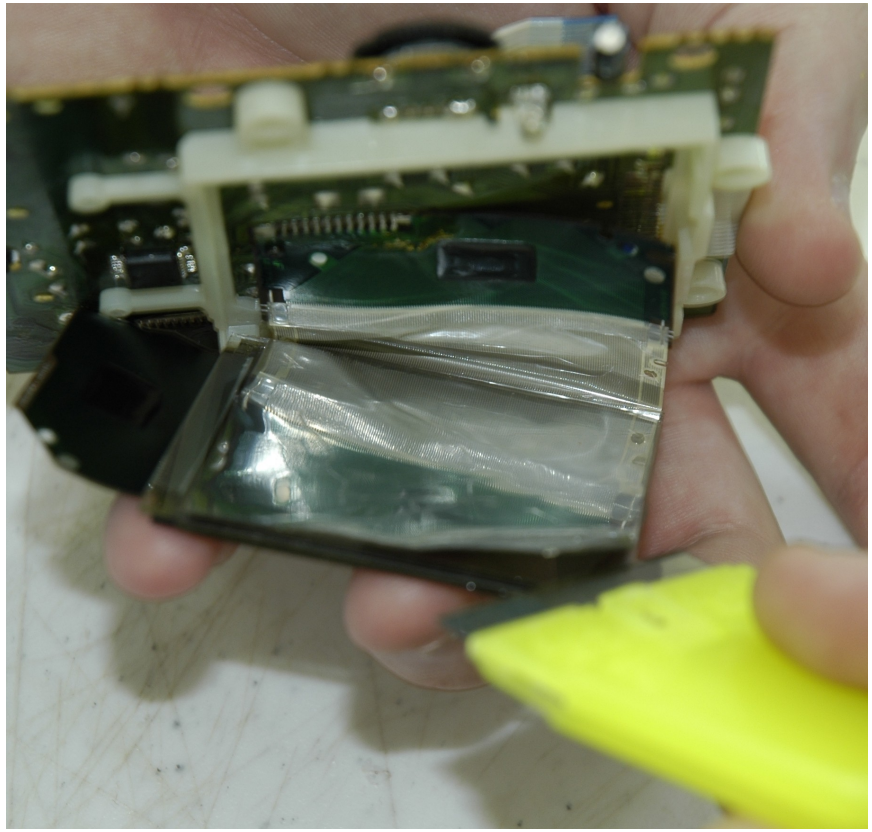
step three

- take out the two screws holding the brown LCD ribbon cable down
- lift up the LCD screen, and remove the two white foam pieces from behind the screen



step four

- using a razor blade (or other similar object) gently lift the edge of the polarization film from the back of the LCD's glass, and peel this off completely. discard this film when done, as you will replace it with the polarization film in your kit
- BE CAREFUL not to cut yourself, and please remove this film with care. this is the most difficult part of the modification, so take your time and be patient
- after you remove the film, use rubbing alcohol and a cloth to remove any remaining adhesive

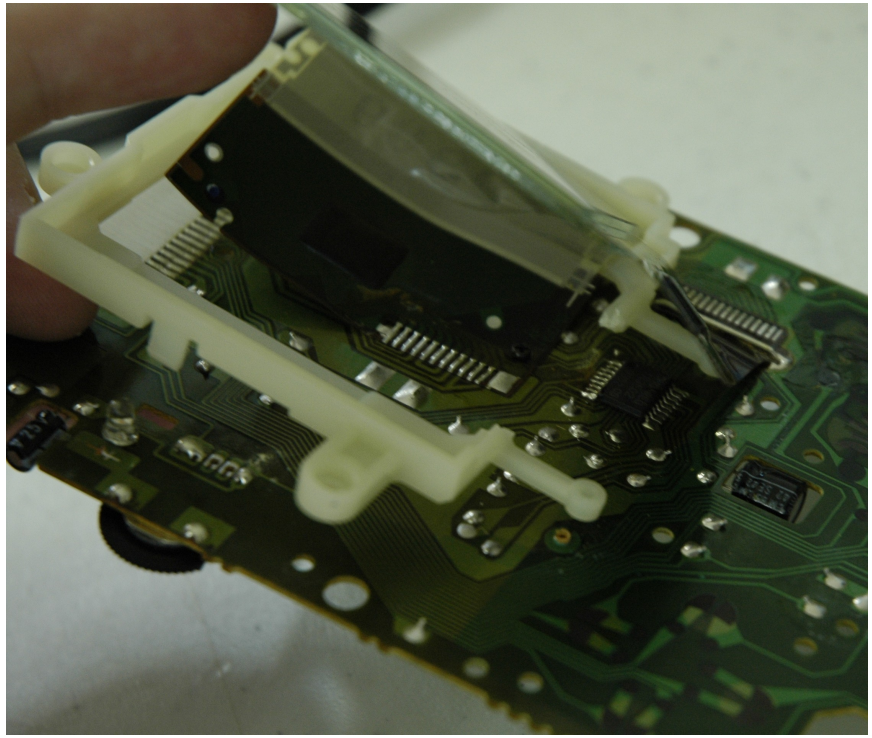


step five

- loosen the white plastic guard around the LCD screen, and lift it up from the circuit board. a section of this will be cut in the next step

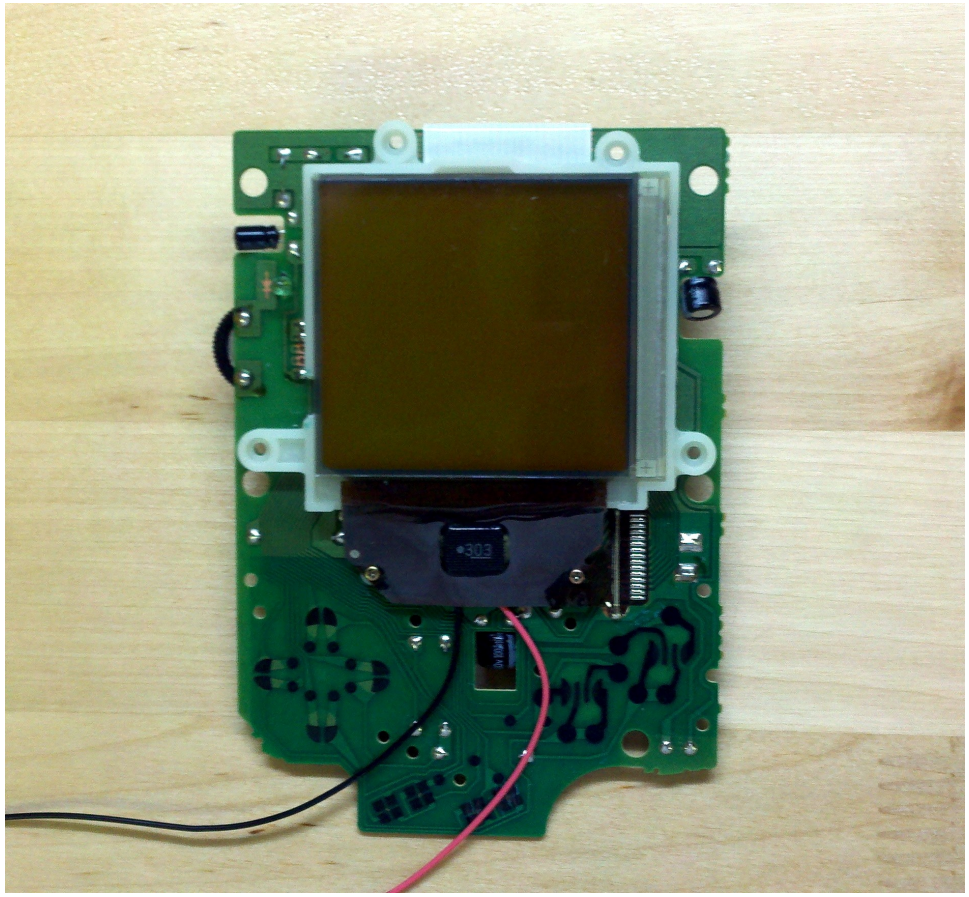
step six

- with your wire cutters, cut the section of thinner plastic along the bottom of this white plastic square, which is between the two plastic legs sticking out at the bottom
- this is illustrated in the photograph. please compare with the photograph from the previous step to understand which part of plastic is removed
- this area of plastic is thin, and easy to cut
- this is the only modification required to this plastic LCD frame
- after this is cut, snap the plastic frame back into place on the circuit board



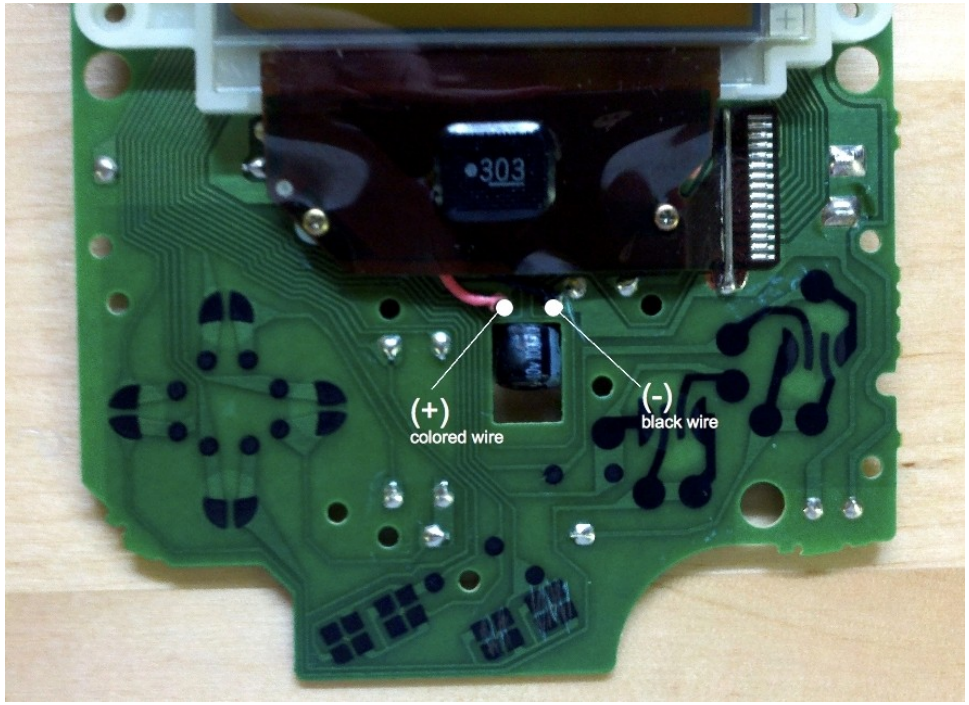
step seven

- open your LEDx3 kit and remove the backlight
- there is a protective plastic film on the top of the backlight which needs to be removed prior to installation. this film is on the darker colored side.
- install the LED panel behind the LCD glass with the wires coming out the bottom and out below the brown ribbon cable. the top of the LED panel is the side from which the protective film was peeled (it is the darker side). the white side is the back and goes against the circuit board.
- screw back the two screws which hold the brown ribbon cable in place. make sure your backlight is seated straight.



step eight

- the power connections for this backlight are located immediately below the bottom of the brown ribbon cable going to the LCD. you will solder the two wires from the backlight to the two solderpoints of the larger capacitor here. this capacitor is labeled C2 on the back of the PCB.
- the color of the (+) wire matches the backlight color (in this instance, pink). the (-) wire is black. the picture illustrates where they are to be soldered.
- trim the wires so there is no excess length prior to soldering. this makes for a much cleaner installation.
- this hookup location is only our suggestion. the wires are a total of 15cm (~6 inches) in length, so they will reach most anywhere inside the DMG's case. the backlight is rated for 5V.



step nine

- screw the DMG back together
- make sure that you reconnect the ribbon cable that connects the two circuit boards together inside
- turn it on and assure the backlight is straight and seated to your satisfaction.

congratulations!

you are finished :)

we hope you enjoy your LEDx3 (VB)

if you have any questions, please do not hesitate to contact us.

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