

kitsch-bent > RGBbb (vb)

ver. 1

2/4/2012

[kitsch-bent.com](http://kitsch-bent.com)

# before we begin...

## tips

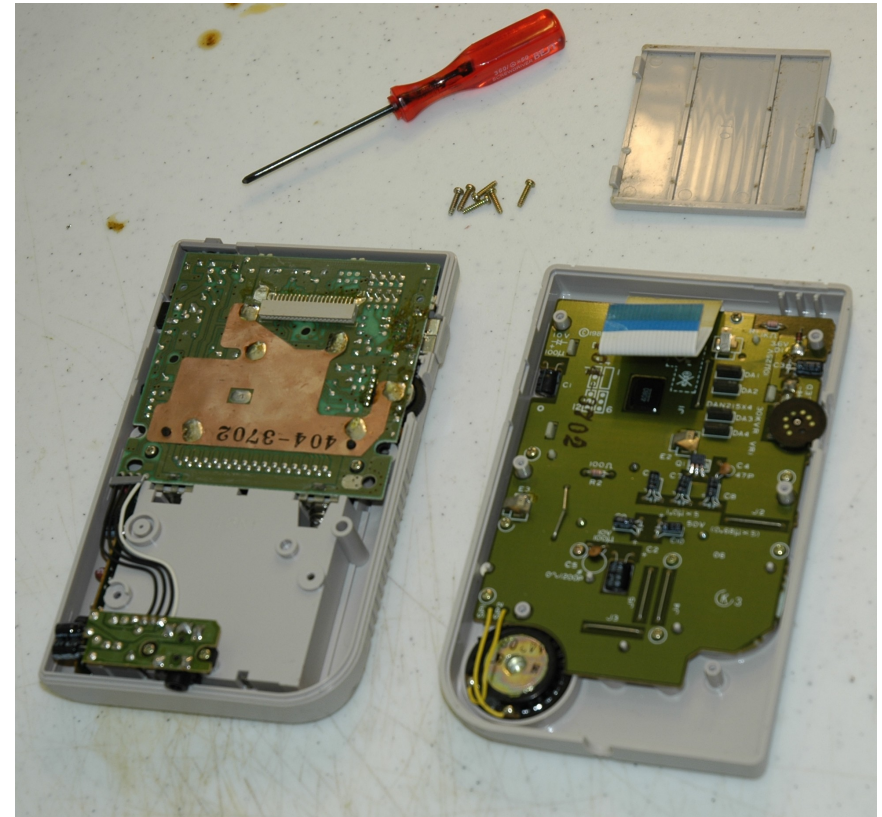
- steps 1-6 may be completed before your kit arrives in the mail. this let's you install the kit much quicker when it arrives
- be patient! rushing through this tutorial will only result in careless mistakes.
- be confident!
- be willing to ask for help! you may of course e-mail us at kitsch-bent for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

## 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))
- RGBbb kit
- soldering iron and solder
- a DMG-01 model gameboy (the 'classic')
- razor blade (see step four)
- hot glue gun (optional)

# 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. you will use these later. don't lose the screws.



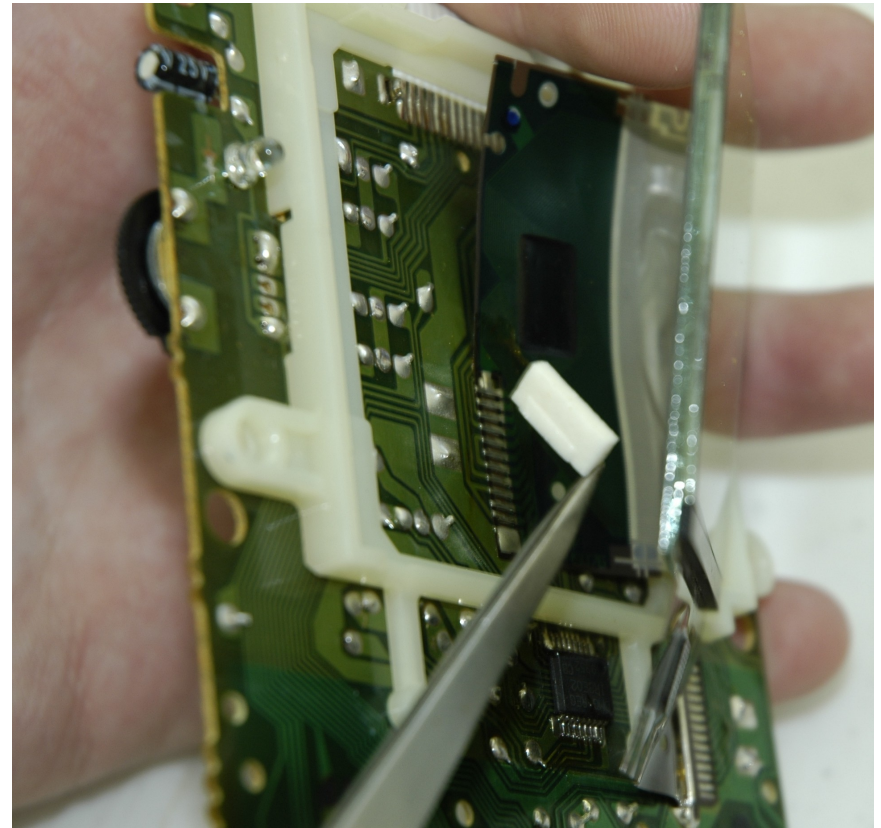
# step two

- 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



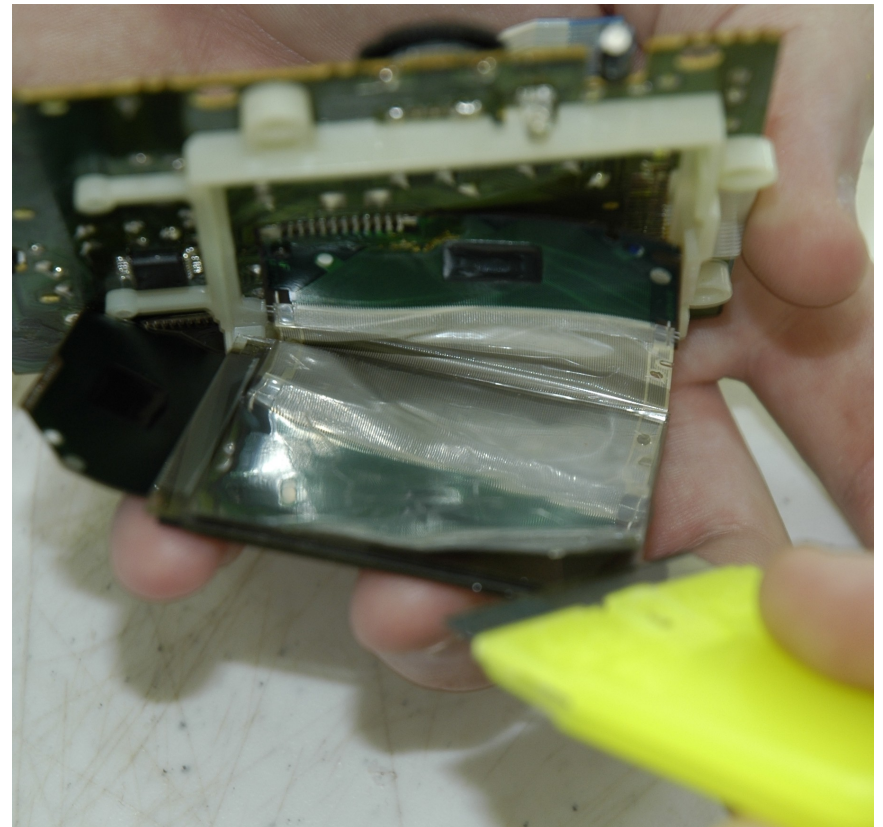
# step three

- take out two screws holding 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



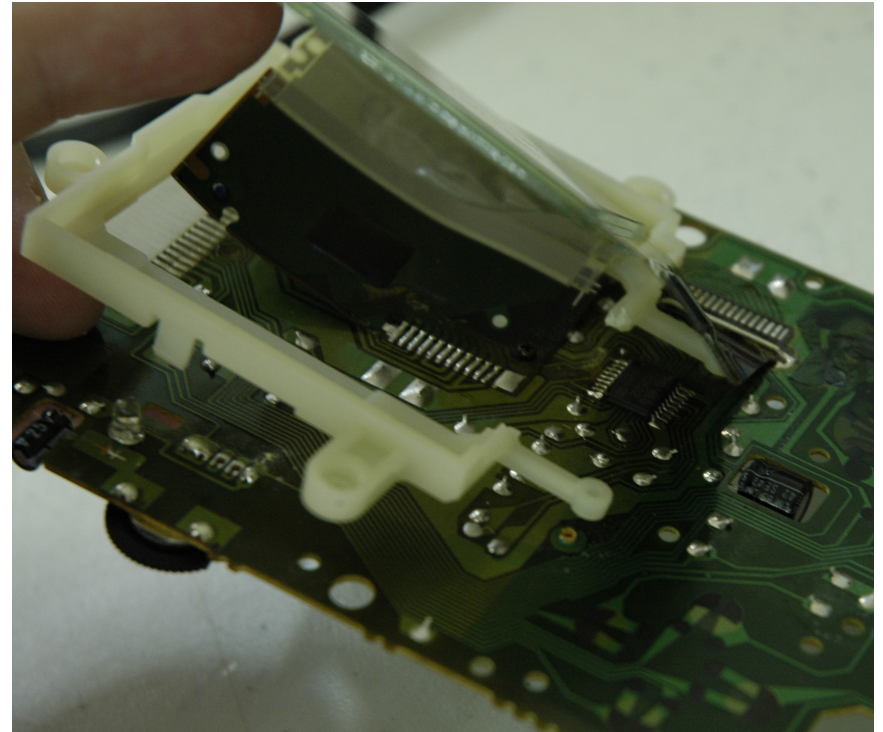
# step five

- 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



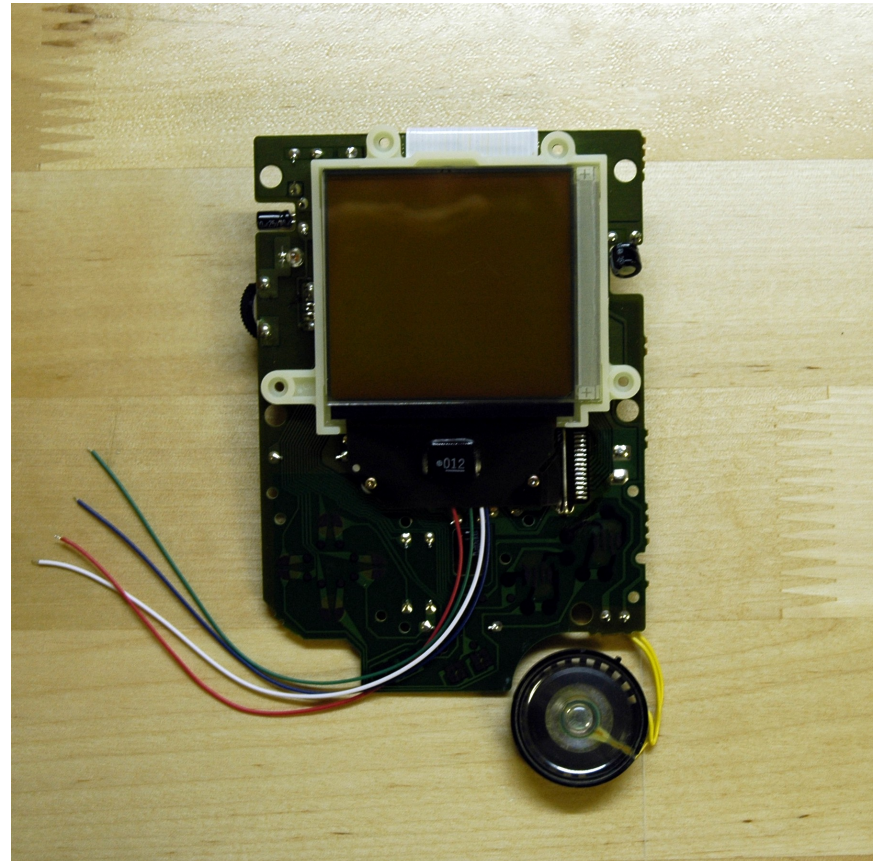
# step six

- 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



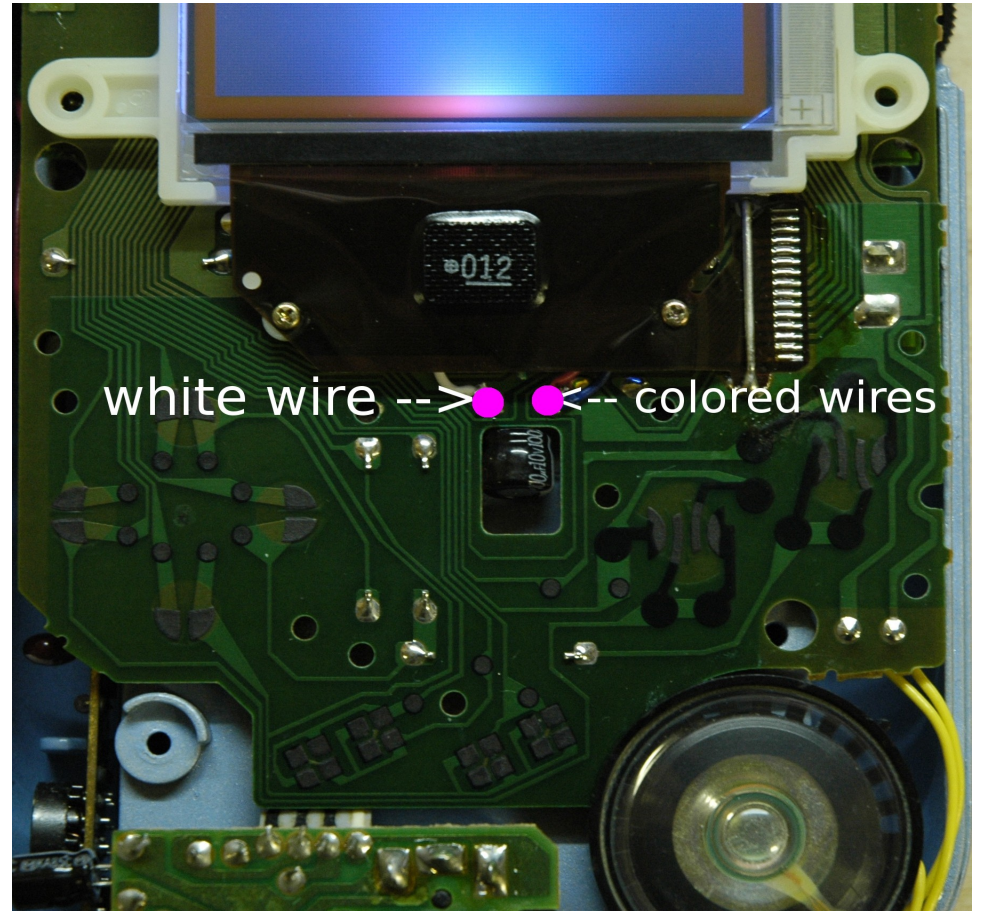
# step seven

- place the backlight underneath the LCD glass. be sure to remove the thin clear plastic protective film from the top of the backlight before installation
- the wires should emerge from the bottom of the backlight in this order: red-green-white-blue



# step eight

- directly underneath the LCD you will see a large capacitor, marked as 'C2' on the other side of the PCB. the wires will be soldered to the solder points of this capacitor.
- the white wire is soldered to the + leg/solder point of the capacitor, marked by a pink dot in the picture.
- solder whichever colored wires to the other solder point (marked with a pink dot) you wish to illuminate. for example, if you want to illuminate the blue and red LEDs, as seen in the photo, then solder the blue and red wires to this solder point.
- cut the wires you do not use short so they are not in the way, or place them in an area where they will not touch the circuitry inside the gameboy in the future. electrical tape can be used to cover the ends of the wires you don't use if you keep them long.



# step fourteen

- screw the DMG back together
- make sure the backlight is aligned properly before doing this, and everything is in its proper place.
- make sure that you reconnect the ribbon cable that connects the two circuit boards inside together



# congratulations!

you are finished :)

we hope you enjoy your RGBbb

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

