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## Series Resistor for the Game Boy Pocket

We recommend a series resistor for the implementation of our LED-backlight into the Game Boy Pocket.

The current consumption of the Game Boy Pocket is already at ~ 86 mA / 3 Volt DC at the battery clips without our backlight and without any accessories.

BUT its already:

320mA with our white backlight. Without additional resistors is extremely bright.

(I can't recommend to use it that way because it drains the batteries quite quickly and may even damage the 3-to-5-Volt DC step-up chip.)

And its 120 mA with our white BL and a 150 Ohm resistor in series to the BL.

This seems to be a good compromise between brightness and current consumption.

At very good brightness the Game Boy Pocket just takes 40% more wattage.

Other good values for the resistor are:

112mA with white BL und 188 Ohm

109mA with white BL und 220 Ohm

95mA with white BL und 470 Ohm

(Brightness at 470 Ohm depends on your taste. I think its still enough light available. It would be comparable to the brightness of an EL-panel.)

The mentioned values of the resistors have been decided by a small trimpot of 470 Ohm..

For your personal built you can of course make use of a fixed resistor.

The wattage capability should be 1/8 Watt or more.

The resistor should be soldered into the red supply line of the BL.