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Gameboy 2MB ROM, 32KB FRAM Flash Cart v1.0

This re-programmable Flash Cartridge allows you to play most Gameboy/Gameboy Colour games including Pokemon, Zelda, Wario Land, LSDJ (only 1 save), etc and allows you to re-flash it with any Flash cart programmer like GBxCart RW. It also allows for some MBC1 games (only on firmware R1, R1.1, R2) that don't work properly on clone carts such as Super Mario Land 2, Donkey Kong Land 3, Megaman 5 to name a few.

LSDJ users should select the MBC5 only firmware option as the stable releases trigger the MBC3/1 detection if you choose other firmware and won't load past the blue ROM/RAM test screen.

Comes in a generic clear or grey Gameboy cartridge with our label. Each unit is assembled in house and is tested on a Gameboy Advance. The PCB finish is ENIG, Gold fingers (on the edge connector) with a 45 degree bevel to give the maximum life for insertion/removal of the cartridge.

We have different Firmware available (read more about the differences on the next page):
MBC5/3/1 Hybrid (R1) – Default
MBC5/3/1 Hybrid + MBC1 2MB (R1.1)
MBC5 only (R1.2) – Lowest power consumption (best option if you will only ever use this cart for the latest versions of LSDJ which are MBC5)
Multi-Game Cart (R2) – Allows this cart to be a Multi-Game Cart when you run our loader software.

This flash cart will take up additional current compared to a regular cartridge due to the CPLD so you will see a decrease in battery life; this is standard for CPLD based flash carts.

Once the firmware has been written, it can't be changed unless you have the specific programming equipment (Altera USB Blaster). If you would like to change the firmware version, you can contact us and send the cart back to us for re-programming.

Specifications
ROM: 2MB Flash (AM29F016B)
SRAM: 32KB (Data retention of 20-50 years)
MBC: MBC5 (with some MBC1/3 support) emulated with a Altera CPLD
Note: Having some MBC1 support may break a few MBC5 games.

Requirements
A Gameboy flasher such as GBxCart RW if you wish to re-write the flash cart.

Gameboy Compatibility
This cart works on every GB system - GB, GBP, GBP, GBA and should work on GBA SP too (untested).

Game Compatibility
Won't work with any game that has more than a 2MB ROM or any MBC1 game that tries to access more than 8KB of RAM.

MBC Firmware options

MBC5/3/1 Hybrid (R1):
MBC5 - Bank 0 gives bank 1 like in MBC1/3. Hybrid support for MBC1/3 games.
MBC1 support is limited to 512KB ROM / 8 KBytes RAM, it's locked in "ROM Banking Mode" but without the 2MB ROM support.

MBC5/3/1 Hybrid + MBC1 2MB (R1.1):
Same as R1 but add the 2MB ROM support to the MBC1 implementation (only tested with 1 game).

MBC5 only (R1.2):
Implements MBC5 without any MBC3/1 detection.

Multi-Game Cart (R2):
Same as R1 but allows you to use the loader for Multi-Game support
Allows this cart to be a Multi-Game Cart when you run our loader software (check the Downloads tab on the left). It consumes 20mA more than R1 and about 10-20% of games run through the Multi-Game loader may not work. There are 2 loaders – one for Gameboy games and one for Gameboy Colour games; unfortunately you can't mix games. You can still run the cart as a regular Flash cart. This loader doesn't work on Gameboy Pocket but works on Gameboy Colour and Gameboy Advance.