

# Nintendo Game Boy Color (2 Players)

## GBC2PLAYERS

The link cable for the Game Boy allows two people to play two-player games. The requirement is that both players insert a Game Pak into their Game Boy, and the Game Pak must feature a two-player mode (the packaging of these games is marked with the appropriate symbol). The link cable is connected to the left side of Game Boy through the sockets specially provided for this, as illustrated on the right.



This system scrapes metadata for the “gbc” group(s) and loads the gbc2players set from the currently selected theme, if available.

## Quick reference

- **Emulator:** [RetroArch](#)
- **Core:** [libretro: TGBDual](#)
- **Folder:** /userdata/roms/gbc2players
- **Accepted ROM formats:** .gbc, .gb2, .gbc2, .zip, .7z

## BIOS

No Game Boy Color (2 players) emulator in Batocera needs a BIOS file to run.

## ROMs



Check the [list of multiplayer Game Boy games](#) to find compatible games first!



ROMs can ordinarily be put into the `roms/gbc2players/` folder. This will use a single ROM for both players in the linked game instances (Player 1's saves are stored in `saves/gbc2player`). Player 2 will use a temporary blank save file that is removed when the session ends. Great for PVP games that don't rely on user save files such as Mario Tennis or Tetris DX.

This is the only available way to use GBC2Player on Batocera **v31** and lower.



You can copy over your save file from `saves/gbc/` to `saves/gbc2player/` to continue from where you left off in single player! Alternatively, you can turn on **SYNC SAVE FILES** to do this automatically.

If instead you'd like to use two different ROMs, read [the section on it below](#).

## Using two different ROMs

Alternative title: **POKEMON, YEAH! POKEMON TIME CAPSULE! POKEMON TRADING! POKEMON BATTLING! AA POKEMON!!!**

In Batocera **v32** and higher, it is possible to use two different ROMs instead.

1. Copy your Game Boy/Game Boy Color ROMs to their respective solo ROM directory, ie. `roms/gb` and `roms/gbc` respectively. For example:


```
roms/
├── gb/
│   └── Pokemon Yellow.zip
```

```
└─ gbc/
   └─ Pokemon Crystal.zip
```

2. Create a new text file named <game 1 title> and <game 2 title>.gb2 containing the filenames of the games you intend to link play with prepended with gb: or gbc: depending on which folder they're stored in. For example:

[Pokemon Yellow and Pokemon Crystal.gb2](#)

```
gb:Pokemon Yellow.zip
gbc:Pokemon Crystal.zip
```

 Most Game Boy games could be played on the Game Boy Color, but not all of them. **Libretro/TGB Dual doesn't care**, and will run either game with its appropriate system. Check first before attempting this, so you aren't surprised when your Game Boy game isn't running in Color mode.

3. Save this text file to the roms/gbc2player/ directory. For example:

```
roms/
├─ gb/
│  └─ Pokemon Yellow.zip
├─ gbc/
│  └─ Pokemon Crystal.zip
└─ gbc2players/
   └─ Pokemon Yellow and Pokemon Crystal.gb2
```


4. Update your game list and now your game will appear in the GBC2Player system!

By default, the save files are grabbed from saves/gbc2players/<game name for player 1>.srm and saves/gbc2players/<game name for player 2>.srm for the different games respectively. This can be used for a quick and dirty way to say trade Pokemon between generations.

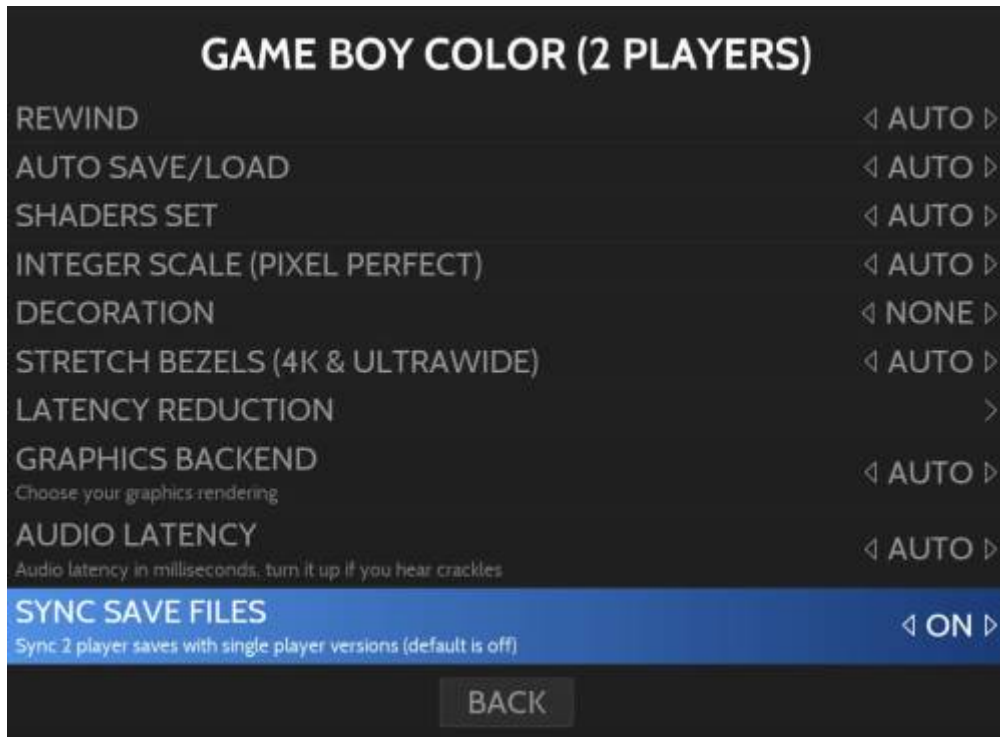
But what if you wanted this to all be *automated*?

### Save syncing

In Batocera **v32** and higher, it is possible to use two different ROMs from their single-player Game Boy and/or Game Boy Color systems with their respective single-player save file locations instead. This utilizes Python scripts to automate the copying/overwriting process between saves/gbc2players/ and saves/gb and/or saves/gbc.

 You should create a backup of your GBC2Player save files before attempting this, as they will otherwise be overwritten.

1. Set up your unique ROMs as [detailed above](#).
2. On the GBC2Player game list, press [SELECT] to bring up the system-specific options and navigate to **ADVANCED SYSTEM OPTIONS**.
3. Scroll down to **SYNC SAVE FILES** and set this to "ON".



When launching a game through the GBC2Player system, the SRM save files for both the ROMs will be temporarily copied from their respective saves/gb/ and/or saves/gbc/ folder(s) to saves/gbc2p1ayer/ (overwriting any files currently there). Upon exiting the game, the saves will be copied back from saves/gbc2p1ayer to their respective saves/gb/ and/or saves/gbc/ folder(s).

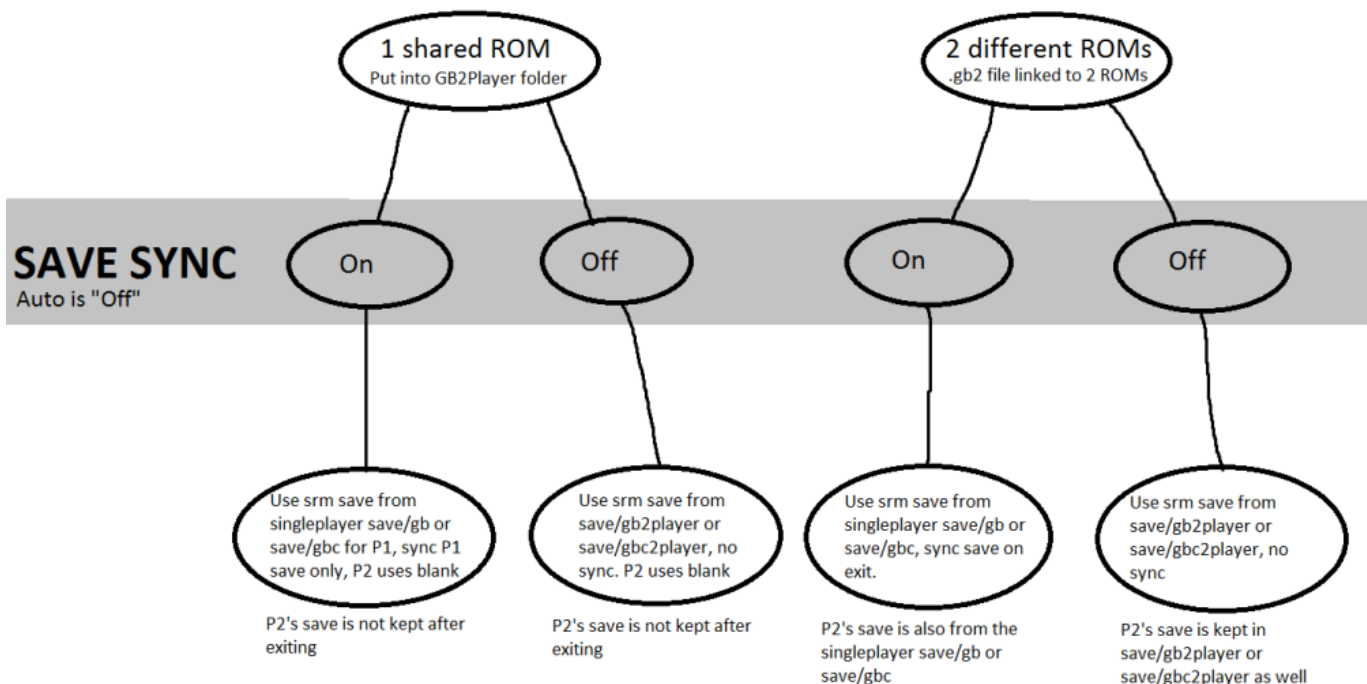
Save states are not copied, only SRM native save files.



There is currently no automated save file syncing via Netplay. You could use an external method to sync up the save files and do this, however.

## Flowchart of save file handling

In case any of that was confusing here's a professional grade flowchart visualizing what happens based on what configuration/source ROMs are used:




If you use a .gb2 playlist that calls the same ROM twice, the file that's ultimately saved will be from Player 2!

## Emulators

### RetroArch

RetroArch (formerly SSNES), is a ubiquitous frontend that can run multiple "cores", which are essentially the emulators themselves. The most common cores use the libretro API, so that's why cores run in RetroArch in Batocera are referred to as "libretro: (core name)". RetroArch aims to unify the feature set of all libretro cores and offer a universal, familiar interface independent of platform.

#### RetroArch configuration

RetroArch offers a **Quick Menu** accessed by pressing [HOTKEY] +  which can be used to alter various things like [RetroArch and core options](#), and [controller mapping](#). Most RetroArch related settings can be altered from Batocera's EmulationStation.

Standardized features available to all libretro cores: `gbc2players.videomode`, `gbc2players.ratio`, `gbc2players.smooth`, `gbc2players.shaders`, `gbc2players.pixel_perfect`, `gbc2players.decoration`, `gbc2players.game_translation`

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all cores of this emulator</b>	
<b>GRAPHICS BACKEND</b> gbc2players.gfxbackend	Choose your graphics rendering ⇒ OpenGL opengl, Vulkan vulkan.
<b>AUDIO LATENCY</b> gbc2players.audio_latency	Audio latency in milliseconds, turn it up if you hear crackles ⇒ 256 256, 192 192, 128 128, 64 64, 32 32, 16 16, 8 8.
<b>THREADED VIDEO</b> gbc2players.video_threaded	Improves performance at the cost of latency and more video stuttering. Use only if full speed cannot be obtained otherwise. ⇒ On true, Off false.

### libretro: TGBDual

TGB Dual is an open source (GPLv2) GB/GBC emulator with game link cable support.

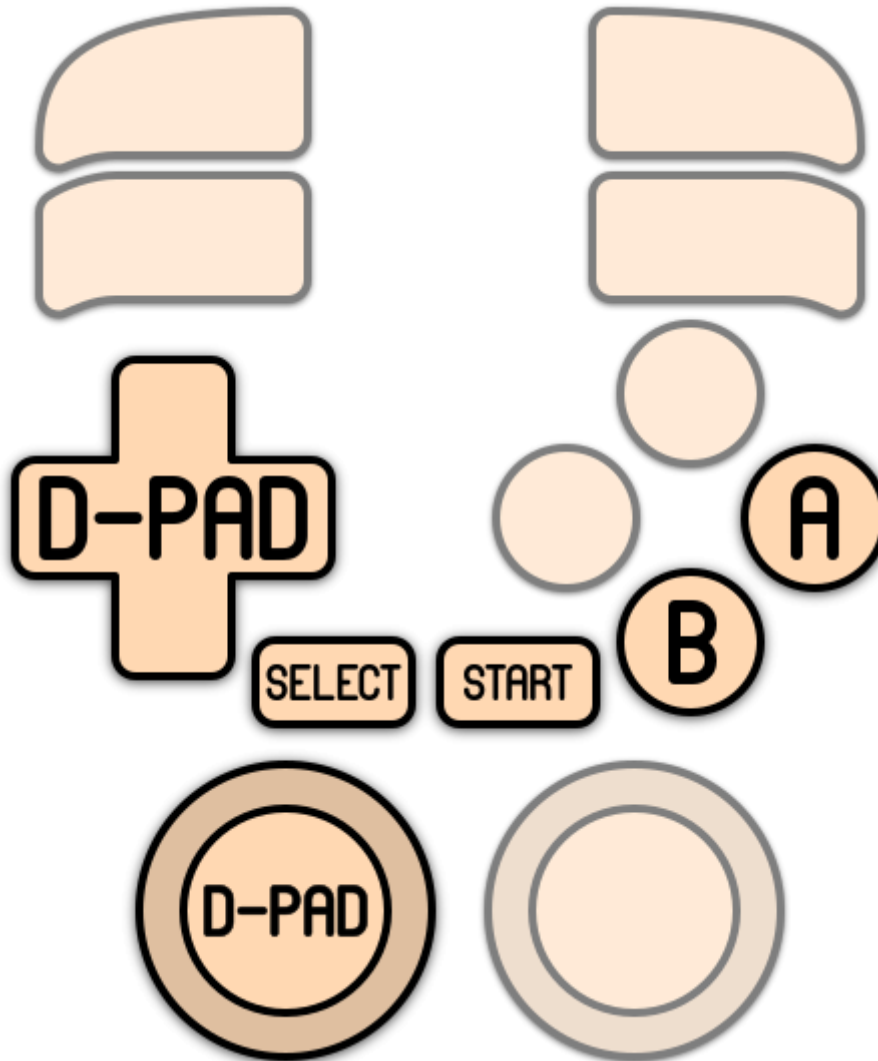
We use the latest [libretro](#) core. See the [official documentation](#) for more information.

### libretro: TGBDual configuration

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all systems this core supports</b>	
<b>SYNC SAVE FILES</b> global.sync_saves	Sync 2 player saves with single player versions (default is off) ⇒ On 1, Off 0.

## Controls

Here are the default Game Boy Color (2 players)'s controls shown on a [Batocera Retropad](#):



## Troubleshooting

### Further troubleshooting

For further troubleshooting, refer to the [generic support pages](#).

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