Capcom Home Arcade

From **v32**, Batocera official supports running on the Capcom Home Arcade (CHA)! Most of these installation instructions are lifted from the Unofficial Capcom Home Arcade Manual, refer to that if you have further questions about the CHA itself, as this article pertains to only Batocera.

Performance

You can play SNES games without special chips at full speed and some PSX titles. So keep it to 8-bit, non-demanding 16-bit and a bit of 32-bit systems. It's similar to an underclocked Pi 2 for reference. The main reason you're buying this is for the novelty of having a giant Capcom logo as your arcade stick anyway.

Installation

Before beginning, it is recommended to read through this guide at least once to ensure you have all the things you'll need to install Batocera onto your CHA. You'll likely need to buy a USB-A to USB-A cable, as they aren't that commonplace.

You can start the download for the official Capcom Home Arcade image near the bottom of the downloads page on the main website while reading!

Disassembly

Unfortunately, the installation of custom firmware onto this device requires its disassembly. Don't worry, it's just taking off rubber pads and unscrewing some screws, real easy stuff.

Turn the device upside down, there are ten Phillips-head screws you'll need to undo, six of which are hidden underneath the rubber pads.

You can remove the rubber pads by heating them up (with say a hair dryer) and slicing an plastic pick (or a plastic ruler) underneath the pad; it should be able to come off in one piece. This will allow you to easily re-apply them in the future. If you don't heat it up first, it may rip, as the glue is very strong.

If you're lucky enough to have one of the few early models that have an micro-SD card slot, then the instructions are identical to regular Batocera flashing! However, that was only the first two-thousand units sold in Germany, you mostly likely will find your board doesn't have an micro-SD card slot. Of course, if you're handy with a soldering iron and have a spare micro-SD card slot around, you could put one on yourself. Users have confirmed that it still works.

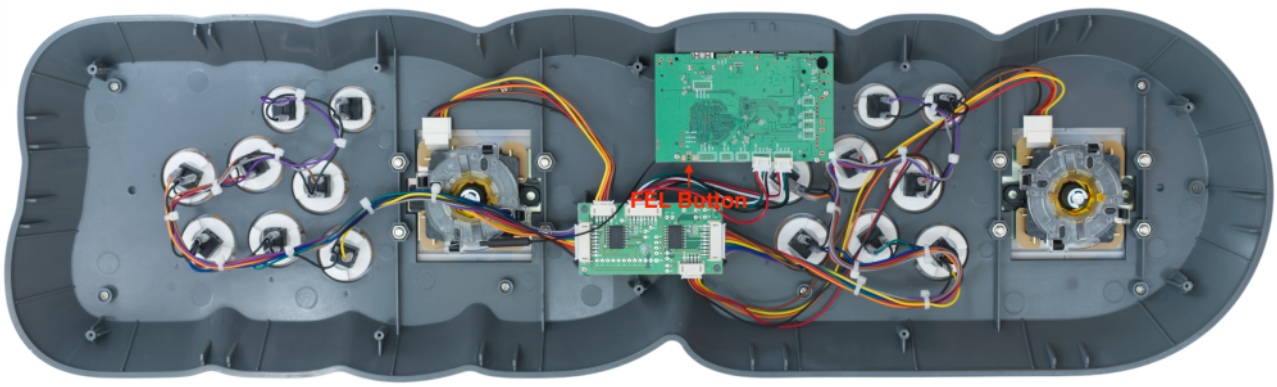
Enabling FEL mode

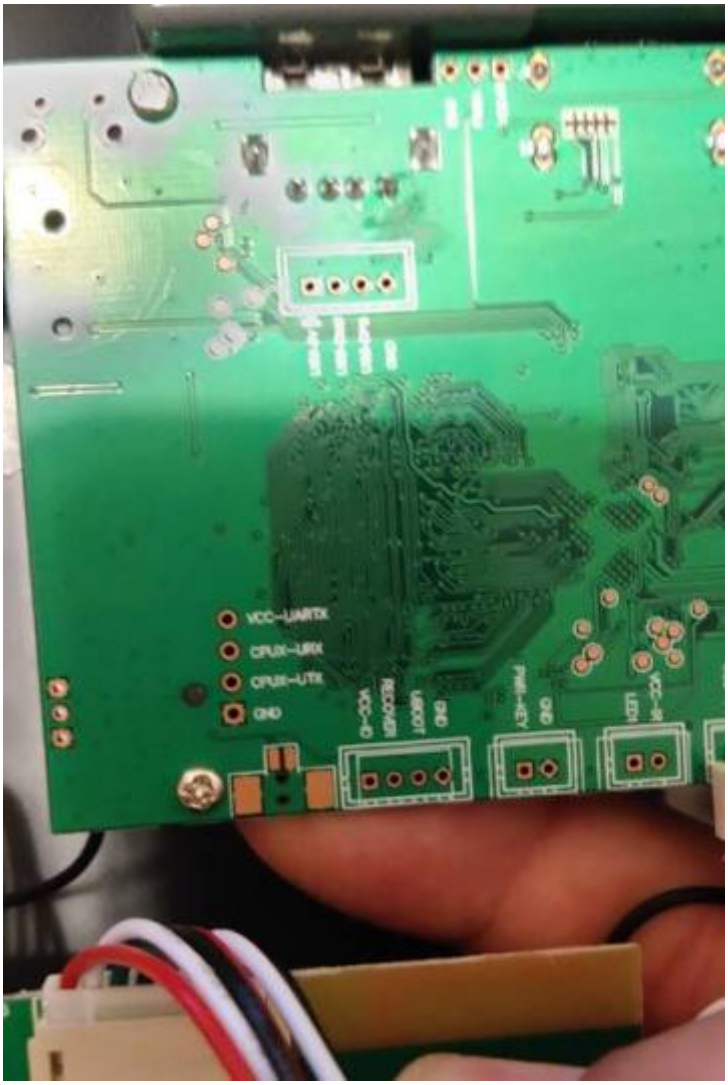
We'll need to transfer Batocera over onto the 4 GB eMMC using a USB Type A Male to USB Type A Male cable.

To activate FEL mode:

1. Turn off the CHA and remove the micro-USB power adapter if it is still plugged in.
2. Connect one side of the USB Type A cable to the EXT USB port on the CHA. Do not plug the other side into the computer yet.

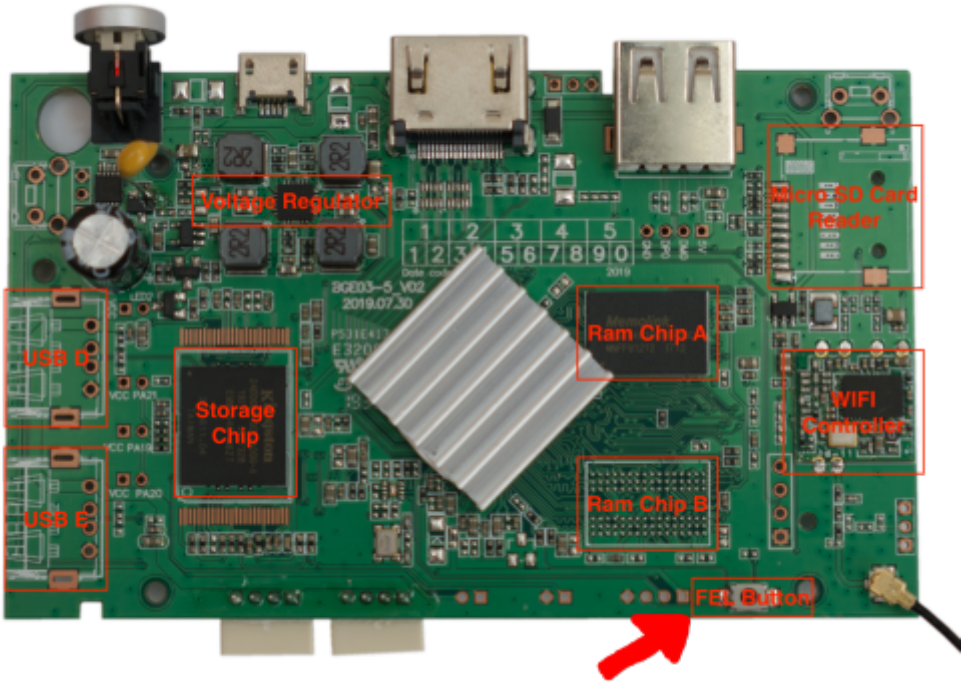
3. Press and hold the FEL mode button underneath the board. The FEL button is easily reachable with just your finger as it is at the edge of the board. It clicks when pressed, and requires a surprising amount of pressure to activate.





There is a very low chance that you might receive a 5V 0.2A electric shock in your extremities from doing this. This is usually harmless and undetectable to humans (if you've ever touched the metal outer casing of a phone charger, you've already received a larger shock than this). Nonetheless, if you're utilizing some sort of medical equipment that is sensitive to even minor shocks, take the precaution of wearing rubber gloves before doing this.

- If you're having trouble with it, you can unscrew the board itself to get at it easier. Here is a picture of the other side of the board:



4. While holding down the FEL button, connect the USB Type A to the computer. There is no need to reconnect the micro-USB cable to power on the device, as it will draw its power from the EXT USB port. After the device has been detected (Windows plays a sound), the FEL button can be released.
    - The first time doing this on a Windows PC the CHA will appear as an **Unknown** device. To assist in installing the correct generic drivers, you can use the Zadig USB driver installer.
5. Download this software, extract its contents and double-click 'start.bat' (for Windows) or 'start.sh' (for Linux) to enable access to the board's storage.

Reading EMMC (Backup)

Before attempting any modification it is recommended to do a backup of the factory storage.

A typical tool to do this is HDDRawCopy, it can write the full contents of the eMMC to a compressed RAW image (so you can flash this back in case things mess up).

Flashing EMMC (Writing)

Batocera recommends using Etcher to flash images, but HDDRawCopy works too.

If you haven't already, download the Capcom Home Arcade Batocera image (named `batocera-cha-XX-XXXXXXXX.img.gz`) from the official Batocera downloads page.

Reassembly

You can reassemble the device by screwing in all the screws and putting the rubber pads back on… but even better, you can just choose to only put the rubber pads on and screw in only the four immediately visible screws. That way, you can more easily disassemble it in the future if you need to re-activate FEL mode.

First boot

Reboot the device and allow 2-3 minutes for Batocera to set itself up on the eMMC.

No need to use FEL mode again, if everything goes according to plan. Once Batocera is installed, you can update it using its built-in tools or via SSH!

Troubleshooting

If for any reason the device doesn't work properly try to reinstall an OS using FEL mode. In case that still fails to give you anything, you can flash the backup image you made earlier to return it to stock firmware.

If you need more help, refer to the Unofficial Capcom Home Arcade Manual. You might also find some community assistance at the CHA subreddit or the CHA Discord server. Of course, if your question is about Batocera, feel free to drop a question at our Discord server.

Special Acknowledgements

Lilo-san for the Unofficial Capcom Home Arcade Manual that this page is based off of.

CHOKO Group. They where the first ones to open the CHA development opportunities to a wider audience and put together the package to enable FEL mode. They also wrote the first beginner friendly guide to use it.

Batocera Team. Demetris in particular for taking over the port of Batocera for the CHA and answering many questions.

Koch Media, for creating a good licensed product and supporting its Reddit community.

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