



## Features

- Cyclone IV FPGA
- 16 MB PSRAM (8 MB for PRG and 8 MB for CHR)
- 256 KB battery-backed RAM (save RAM) for game saves
- Real-time clock for logging save dates and times
- High-quality 6-layer PCB
- ARM-based 32-bit I/O co-processor for SD and USB operation acceleration
- Up to 1024 files per folder, or unlimited if file sorting is disabled
- In-game menu — save the game or return to the system menu without a physical reset
- Multi-slot save states — 98 independent save state slots
- Instant ROM loading
- USB port for development and debugging
- Improved audio mixing circuit with operational amplifier
- Battery voltage monitoring — battery can be replaced in time before it runs dry
- Wide range of supported mappers
- NES 2.0 format support
- Cheat functions
- On-board button for FDS disk side switching or in-game menu access
- Built-in NSF player with expansion audio support



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## File manager

This menu is used to navigate the file system, launch games and manipulate files.

**[A]** - Back or Close

**[B]** - Open directory or file menu

**[Select]** - Open main menu

**[Start]** - Recently played menu, paste file

**[Left/Right]** - Switch page during file navigation

Upper bar - Shows current page and total number of pages in the current folder.

Bottom bar - Shows the full name of selected file.



## ROM file menu

This menu applies to files with the .nes and .fds extension.

### Start Game

Launch selected game.

### Cheats

Edit cheat codes for the last played game.

### Game Data

Opens the folder where the save files and cheat data for the selected ROM are stored.

### Rom Info

Displays ROM information, including save type, mapper configuration, and more.

### Jumper Setup

Virtual jumper configuration for mappers that support this feature.

### File Ops

Performs various file operations, including copy, cut, delete, and others.



## Jumper Setup

To access it, open **Context Menu** → **Jumper Setup** for a *.nes* file.

Some cartridges included built-in jumpers used to adjust certain game parameters, such as timer settings, menu style, and others.

This menu allows you to configure virtual jumpers for mappers that support this feature.

The menu may be hidden if the selected ROM does not support virtual jumper configuration.



## Cheats exporter menu

This menu applies to files with the *.txt* extension.

You can import cheat codes from an external text file. Some websites, such as [gamehacking.org](http://gamehacking.org), provide cheat files in a supported format.

### Use For Last Game

Applies the imported cheats to the last played game.

### Use For Other Game

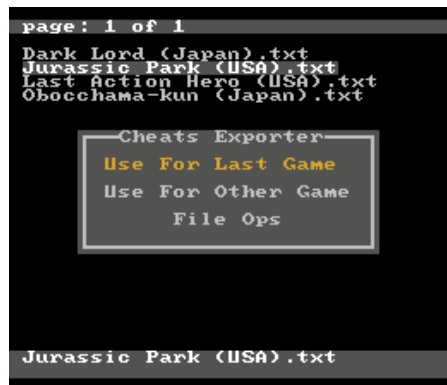
Applies the imported cheats to any other game on the SD card.

After selecting this option, choose the ROM file to which you want to apply the cheats.

Open the context menu for the target ROM, select **"Cheats"**, and then choose **"Export From File"**.

Both options will open the cheat editor menu, where you can view and modify the loaded codes.

When exiting the editor, the system will ask you to confirm the use of the cheats.



## Rom Info menu

To access it, open **Context Menu** → **ROM Info** for a **.nes** or **.fds** file.

This menu displays detailed information about the ROM configuration.

### Mapper

Displays the mapper and submapper numbers. The submapper is applied only to ROMs in the NES 2.0 format.

### PRG Size

Program ROM size.

### CHR Size

Graphics ROM size.

### SRM Size

Extra RAM used by the game. It can serve as work RAM or battery-backed save RAM.

### Mirroring

PPU VRAM mirroring mode. Can be Horizontal (H), Vertical (V), or 4-screen (4).

### Battery RAM

Indicates whether the game expects the SRM to be battery-backed.

### ROM CRC32

ROM identifier based on the CRC32 checksum. Helps determine the specific ROM version. Calculated only for the first 1 MB of the ROM.

### Date/Time

Displays the file date and time.

### Supported

Indicates whether the ROM's mapper is supported.

The mapper type is also shown in parentheses and can have two values:

(STD) – standard system mapper from the cartridge library.

(USR) – user-defined mapper, used when a mapper file is located in the same folder as the ROM and replaces the system mapper from the cartridge library.

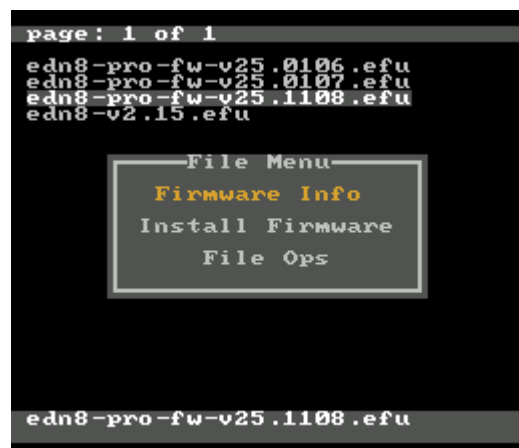


## EFU file menu

This menu applies to files with the **.efu** extension.

**.efu** files are used to update the cartridge firmware.

In this menu, you can view information about the update file — such as its version and creation date — and start the firmware update process.



## File Ops menu

### File Info

Displays file size and modification date.

### Hex View

Opens the selected file in the built-in hex viewer.

### Copy/Cut File

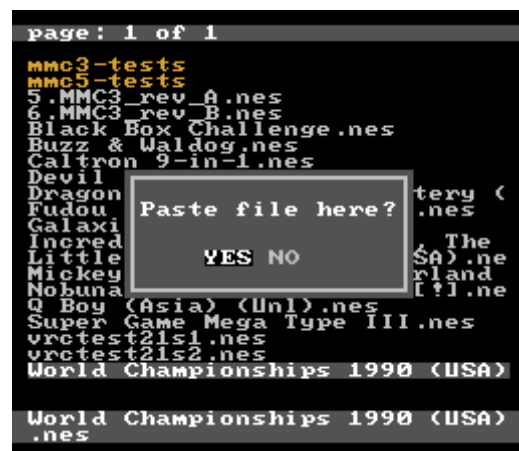
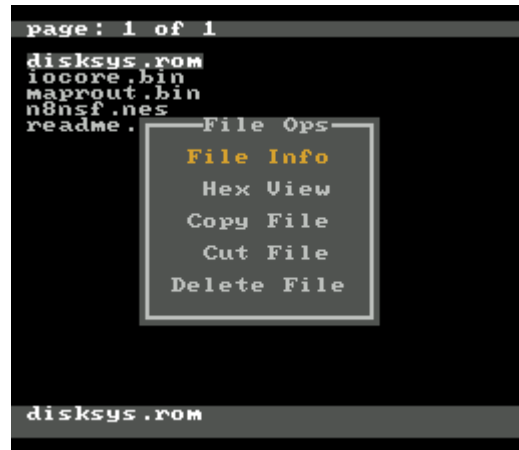
Cuts or copies the selected file.

After choosing the desired operation, navigate to the target folder and press **[Start]** to paste.

### Delete file

Deletes the selected file from the SD card.

Empty folders can also be deleted — open an empty folder and press **[A]** to access the folder delete menu.



## Main Menu

This menu provides access to the main settings and system information.

Press **[Select]** to open this menu.



## Options Menu

### In-Game Menu

Controls the in-game menu and save state functions.

### Cheats

Enables or disables cheat functions.

### Reset Delay

OFF: Instantly returns to the menu after pressing Reset.

ON: A short press on Reset reboots the game; a long press (about 1.5 seconds) returns to the menu.

### File Sorting

Controls file list sorting. The maximum number of files per folder is 1024 when sorting is enabled, or unlimited when disabled.

Sorting may slow down access to folders containing a large number of files.

### Swap A/B

Swaps the functions of the A and B buttons in the cartridge menu.

### FDS Auto Swap

This function is used for FDS games. It automatically switches the disk side when required by the game.

Automatic swapping may not work properly for some titles; in such cases, use the physical button located on the edge of the cartridge to change the disk side manually.

### Boot Last Game

When this option is enabled, the cartridge automatically launches the last played game on power-up, skipping the main menu.

To return to the cartridge menu, use the In-Game Menu or press the Reset button.

### In-Game Combo

Allows configuring controller hotkeys for the In-Game Menu and save state functions.

Two or more buttons must be used for the combo.

Hold **[Start]** to disable the combo.

The "Save Key" and "Load Key" options are used for quick save/load functions, which bypass the in-game menu.

The "Menu Key" option defines the key combination used to open the In-Game Menu.

The In-Game Menu option must be enabled in order to use any save state functions, including quick saves.

### Audio Balance

Adjusts the audio volume balance between the console's internal audio synthesizer and the expansion audio channels on the cartridge.

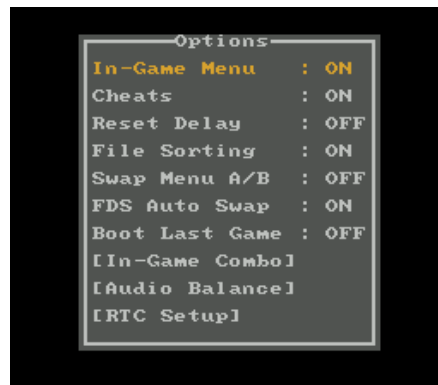
Different mappers with expansion sound can produce varying volume levels depending on the console revision.

The balance menu allows fine-tuning of the volume levels or selecting one of several predefined presets optimized for specific console models.

Press **[Select]** to choose a preset or use the D-pad for manual adjustment.

### RTC Setup

Sets the system date and time. The RTC is used for timestamping created and modified files.



## Cheats Menu

This menu can be accessed from the Main Menu, the In-Game Menu, or the Cheat Export menu (from a file).

When opened from the Main or In-Game Menu, it displays the cheat codes applied to the last played game.

### Controls:

**[A]** – Edit code

**[B]** – Exit the menu

**[Left / Right]** – Enable or disable the selected code

Upper bar – Displays hints for available button functions.

Bottom bar – Displays the name of the game to which the codes will be applied.

The cheat editor contains 16 slots for codes.

Each slot includes a cheat code and a short description.

Cheat codes can be entered manually or imported from a .txt file.



## System folder

The system folder is physically located inside the **/EDN8/** directory, but it is hidden from the file list.

To access it, open **Main Menu → System Folder**.

The system folder contains all cartridge configuration files and game save data.

Its contents and their purposes are described below.

### gamedata

Each game can create a subdirectory within this folder and store its data there, such as saves, ROM settings and cheats. Deleting such a subdirectory will reset all settings and configurations for the corresponding game to their default values.

### maps

This folder contains the system mapper library.

### syscore

This folder stores the system core files.

If you want to use the original FDS BIOS for FDS games, place **disksys.rom** in this folder. (This file is not included with the EverDrive firmware; you must obtain it yourself from the Internet.)

### sysdata

The cartridge stores its global settings and temporary files in this folder. Deleting the contents of this folder will reset the cartridge settings to default values.

### nesos.nes

Cartridge menu application file.



## Device Info menu

This menu displays various information about the cartridge. To access it, open **Main Menu** → **Device Info**.

### Cart Type

Short version of the cartridge name. Also shows the cartridge form factor: NES or Famicom.

### Firmware

Installed firmware version.

The version number reflects the firmware build date: the first two digits before the dot represent the year, and the digits after the dot indicate the month and day.

### Build Date/Time

Displays the manufacturing date of the cartridge.

### Serial Num

Unique serial number of the device.

### Battery

The current voltage of the battery that is used to power the RTC. If it falls below **2.50V**, it's time to replace the battery.

### Boot Counter

Displays how many times the cartridge has been powered on.

### Games Played

Displays the total number of games launched on this cartridge. Games started from the "Recently Played" menu are not counted.



## Diagnostics menu

This menu is used to check the technical condition of the cartridge, detect compatibility issues, and measure the SD card's performance with this cartridge.

To access it, open **Main Menu** → **Diagnostics**.

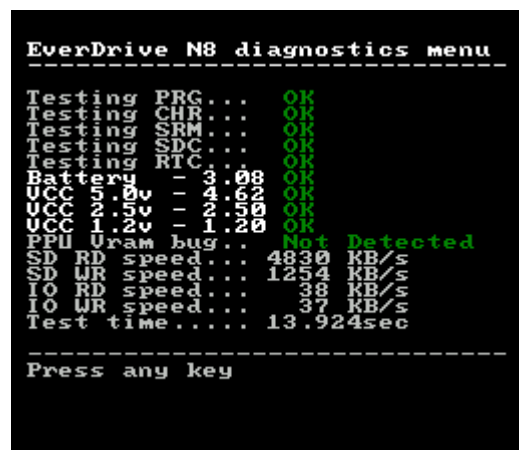
All tests should pass successfully if everything is functioning properly.

The only possible exception is the "PPU VRAM Bug" test.

This test depends on the console and may fail only on poorly made clones that do not allow disabling the PPU VRAM.

In such cases, the menu will switch to an alternate color scheme and refresh more slowly.

This issue may also affect some games.



## Recently Played menu

This menu provides quick access to a list of recently launched games. You can start any game from the list without searching for it on the SD card. To open this menu, press the **[Start]** button.



## In-Game menu

To access this menu during gameplay, use the key combination configured in **Main Menu → Options → [In-Game Combo]**. The default combination is **[Start] + [Down]**.

### Controls:

- [A]** – Open the selected menu item
- [B]** – Return to the game or the previous screen
- [Left / Right]** – Switch save state slot

The bottom bar displays the currently selected save state slot number and its timestamp.



### Save State

Saves the current game state.

### Load State

Restores the game state from the selected save state slot.

### Restore Last Save

Loads the backup of the save state file that was overwritten by the last "Save State" operation. Useful if a save state was accidentally overwritten.

### Restore Last Load

Restores the game state from before the last "Load State" operation. Useful if the "Load State" operation was performed by accident.

### Cheats

Opens the cheat editor.

### Reset Game

Restarts the game.

### Exit Game

Returns to the cartridge menu.

## **FDS bios**

The cartridge supports the use of the original FDS BIOS.  
To enable it, place the disksys.rom file in the /EDN8/syscore/ folder.

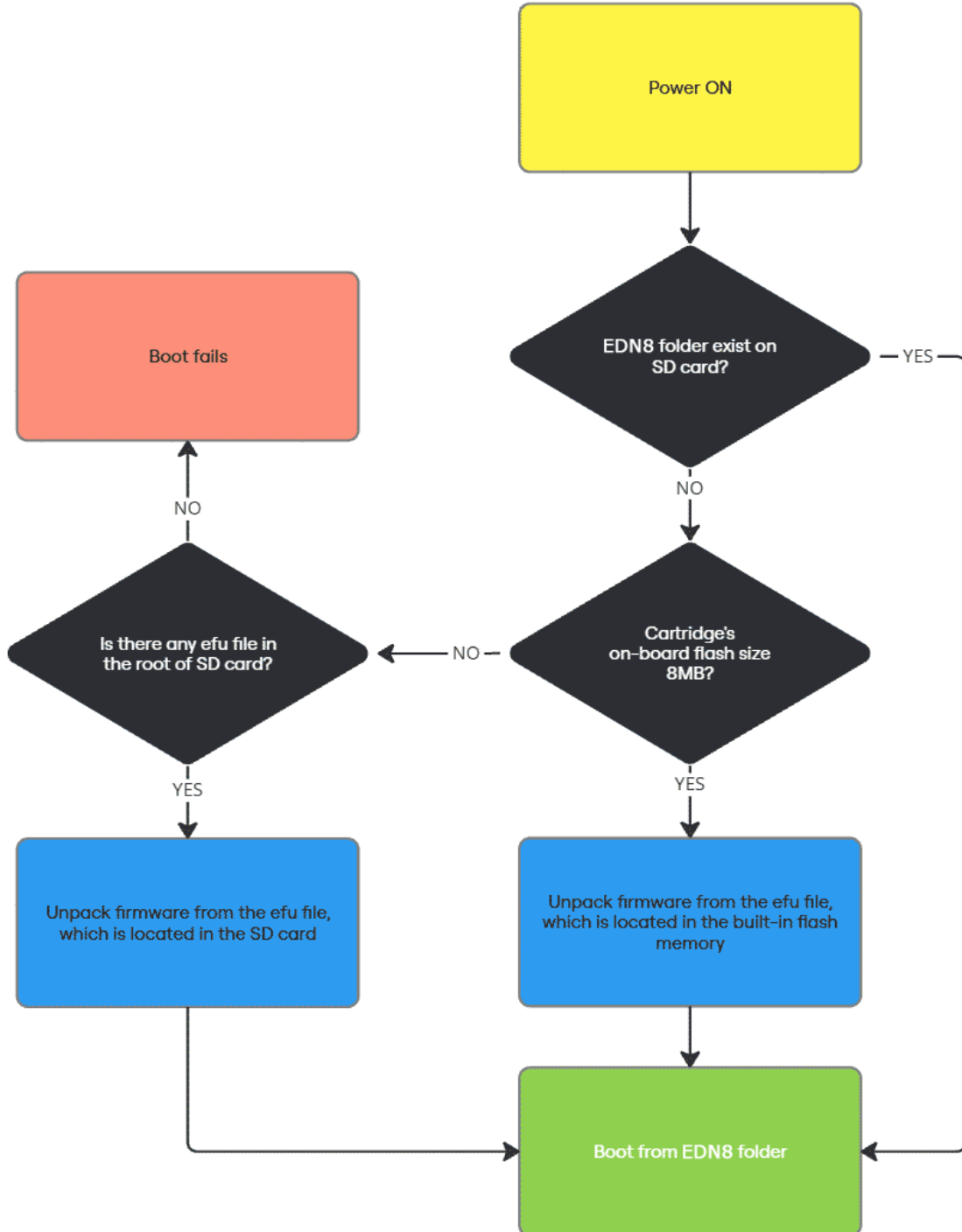
## **Limitations**

- Save states do not work perfectly in all games.  
Using this feature may cause some games to crash.  
Due to hardware limitations, it is simply impossible to make this function work better on real hardware.
- The In-Game Menu does not work in games that do not use V-Blank interrupts.
- We do our best to ensure that our cartridges are compatible with various console clones and modified systems.  
However, we cannot guarantee full compatibility with all of them, especially with modern clones released after our device.

## Boot Sequence

The boot sequence is different for older cartridges with 1MB of flash memory and newer ones with 8MB of flash. Cartridges with 8MB flash chips can boot from an empty SD card that does not contain any system files.

All carts manufactured in the begin of 2025 or later already have 8MB flash for efu.

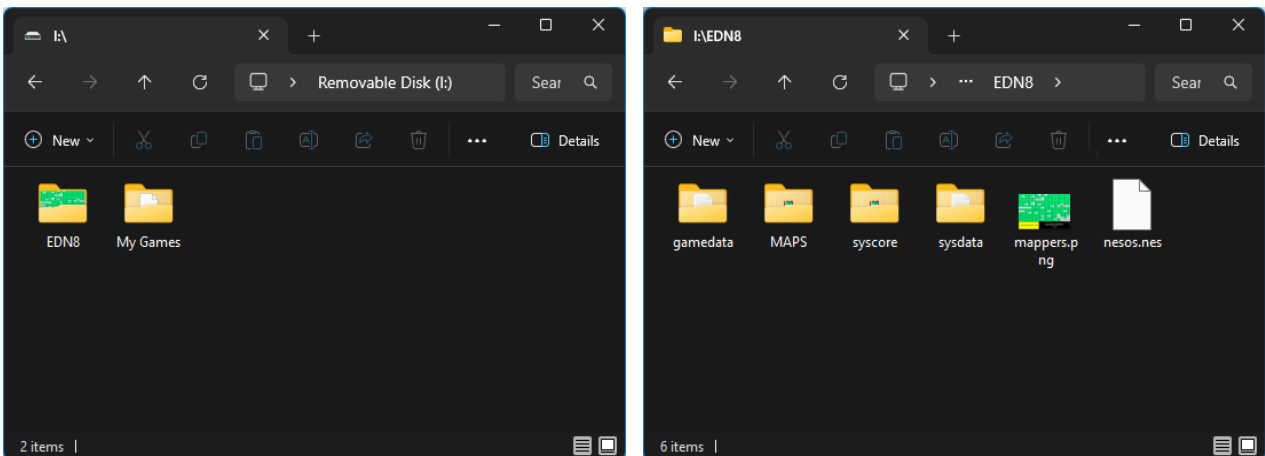


**!!!LEGACY SECTION!!!**  
**Do NOT use the setups below**  
**for cartridges manufactured in 2025 or later.**

## Initial setup

If your cartridge was manufactured after January 2025, you can skip the steps below — the cartridge already has pre-installed firmware in its built-in flash memory. In this case, simply copy your ROMs to the SD card, and the cartridge will be ready to use.  
Setup steps for earlier cartridges:

1. Format the SD card.
2. Download N8OS-2.15.zip from <http://krikzz.com>.
3. Unzip the OS files to the SD card.
4. Copy your ROM files to the SD card. ROM files must be placed outside the system folder (EDN8).
5. Configure the CIC chip. Press Reset seven times if the red indicator blinks on your console (NES only; Famicom users can skip this step).



## Firmware Formats

There are two firmware file formats: ZIP and EFU.

Firmware distributed in a ZIP archive is an older format. The user must extract the archive and copy the EDN8 folder to the root directory of the SD card.

Firmware in the EFU format is the current update type used by the cartridge. EFU firmware files can be installed directly from the cartridge menu.

EFU files cannot be installed directly on older cartridges running OS versions below 2.15. To update such cartridges, first install OS 2.15, then launch the EFU file installation from the cartridge menu.