# Sharp MZ-2500

The Sharp MZ-2500, nicknamed the **“Super MZ”**, is a home computer manufactured by Sharp, released on 1 October 1985 in Japan. It is the final and most powerful model in the entire 8-bit MZ series, pushing the Z80 architecture to its practical limits.

The MZ-2500 features a Z80B CPU running at 6 MHz (among the fastest Z80 variants in home computers), 256 KB RAM, 128 KB VRAM, and a Yamaha YM2203 (OPN) sound chip providing 3 FM channels + 3 SSG channels + noise. Graphics capabilities rival many 16-bit machines of the era: 320×200 at 256 simultaneous colors from a 4,096-color palette, or 640×200 at 16 colors. The system includes hardware scrolling, Kanji text VRAM, a built-in data recorder (CMT), and at least one 3.5-inch internal floppy disk drive.

Like all MZ series computers, the MZ-2500 follows the **“clean computer” philosophy** — no BASIC or OS in ROM, only a minimal monitor program. Languages and operating systems are loaded from tape or disk at boot time.

The MZ-2500 features three backwards-compatible boot modes:

- **MZ-80B Mode** — runs MZ-80B software via BASIC SB-5510
- **MZ-2000 Mode** — runs MZ-2000 software via BASIC MZ-1Z001
- **MZ-2500 Mode** — native mode, boots FENICS or BASIC M25 from floppy

Model variants include the **MZ-2511** (base model with full compatibility), **MZ-2520** (without CMT and compatibility modes), and **MZ-2521** (enhanced with additional VRAM and dictionary ROM). Approximately 126 games were released across the combined MZ-80B/2000/2500 platform.

This system scrapes metadata for the “mz2500” group(s) and loads the `mz2500` set from the currently selected theme, if available.

### Quick reference

- **Emulator:** MAME, RetroArch
- **Core:** MAME, libretro: MAME
- **Folder:** `/userdata/roms/mz2500`
- **Accepted ROM formats:** `.d88`, `.dsk`, `.mfi`, `.dfi`, `.hfe`, `.mfm`, `.td0`, `.imd`, `.d77`, `.1dd`, `.cqm`, `.cqi`, `.zip`, `.7z`

## BIOS

| MD5 checksum | Share file path | Description |
|---|---|---|
| | `bios/mz2500.zip → ipl.rom` | Initial Program Loader ROM |
| | `bios/mz2500.zip → cg.rom` | Character Generator ROM |
| | `bios/mz2500.zip → kanji.rom` | Kanji character set ROM (JIS Level 1) |

| MD5 checksum | Share file path | Description |
|---|---|---|
| | `bios/mz2500.zip → kanji2.rom` | Kanji character set ROM (JIS Level 2) |
| | `bios/mz2500.zip → dict.rom` | Dictionary ROM |
| | `bios/mz2500.zip → phone.rom` | Phone directory ROM |

The `mz2500.zip` BIOS file must match the version of MAME used in your version of Batocera. You can verify your BIOS files from the Batocera menu: **GAME SETTINGS > MISSING BIOS CHECK**.

# ROMs

Place your Sharp MZ-2500 ROMs in `/userdata/roms/mz2500`.

Software was distributed on 3.5-inch floppy disks. The most common ROM format is `.d88` (disk image). Using MAME's software list mode is recommended for best compatibility.

# Emulators

## MAME

MAME (Multiple Arcade Machine Emulator) is the primary emulator for the MZ-2500 in Batocera.

## 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.

### libretro: MAME

The libretro version of MAME can be used to emulate the MZ-2500. It uses the same BIOS and ROM sets as the standalone version.

# Controls

The Sharp MZ-2500 is a computer system that uses a **keyboard** for input. A physical USB keyboard is strongly recommended.

# See also

- Sharp MZ-80K — the original MZ series computer (1978)
- Sharp MZ-700 — MZ-80K successor with color graphics (1982)
- Sharp MZ-800 — adds 640×200 graphics and SN76489 sound (1983)
- Sharp MZ-2000 — predecessor in the business MZ line (1982)
- Sharp X1 — Sharp's competing computer line from the television division

# Troubleshooting

## Black screen on boot

Make sure the BIOS file (`mz2500.zip`) is in `/userdata/bios/` and matches the MAME version. The zip must contain all six ROMs (ipl.rom, cg.rom, kanji.rom, kanji2.rom, dict.rom, phone.rom). Use **GAME SETTINGS > MISSING BIOS CHECK** to verify.

## Software from MZ-80B or MZ-2000 won't run

The MZ-2500 has three boot modes. Software for older MZ models may require the correct compatibility mode. Check the MAME machine selection — you may need to switch between `mz2500`, `mz80b` mode, or `mz2000` mode.

## Further troubleshooting

For further troubleshooting, refer to the generic support pages.

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