Sharp MZ-80K

The Sharp MZ-80K is a home computer manufactured by Sharp, released in 1978 in Japan and introduced to Europe in 1979. It was one of Sharp's first personal computers and a founding member of the long-running MZ series.

The MZ-80K features a Sharp LH0080A CPU (Z80A-compatible) running at 2 MHz, 48 KB RAM (approximately 32 KB usable), and an all-in-one design integrating a monochrome CRT monitor, a 40×25 character text display, a keyboard, and a built-in cassette tape recorder. Graphics are character-based only — preset shapes and icons via a character generator ROM, with no native high-resolution pixel-addressable graphics.

The MZ-80K's most distinctive feature is its **“clean computer” philosophy** — the ROM contains only the **SP-1002 monitor program** for basic I/O and cassette loading, with **no built-in BASIC or operating system**. Users had to load their chosen programming language from cassette tape before doing anything. This approach invited third-party development — companies like Hudson Soft produced multiple languages and operating systems for the platform, and users could choose from various BASIC interpreters, Pascal, FORTRAN, and assembly language tools.

Models in this family:

- **MZ-80K** (1978) — original model, sold as a kit in Japan
- **MZ-80K2** — factory-assembled version
- **MZ-80K2E** — lower-cost variant
- **MZ-80C** — improved keyboard, 48 KB memory
- **MZ-80A / MZ-1200** (1982) — upgraded successor with improved keyboard and green-screen CRT

The MZ-80K is the ancestor of the entire Sharp MZ family. Other MZ systems in Batocera include MZ-700, MZ-800, MZ-2000, and MZ-2500. The MZ-700 (1982) was the direct successor and is “more-or-less fully compatible” with MZ-80K software.

This system scrapes metadata for the “mz80k” group(s) and loads the `mz80k` set from the currently selected theme, if available.

Quick reference

- **Emulator:** MAME, RetroArch
- **Core:** MAME, libretro: MAME
- **Folder:** `/userdata/roms/mz80k`
- **Accepted ROM formats:** `.mzf`, `.mzt`, `.m12`, `.wav`, `.zip`, `.7z`

BIOS

MD5 checksum	Share file path	Description
	`bios/mz80k.zip`	Character generator ROMs (80kcg.rom, 80kcgf.rom)
	`bios/mz80kj.zip`	System program SP-1002 monitor ROM + floppy disk interface ROM

Both BIOS files 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-80K ROMs in `/userdata/roms/mz80k`.

Software was distributed on cassette tapes. The supported file formats are:

- `.mzf`, `.mzt` — MZ tape image files (the most common format)
- `.m12` — MZ-1200/MZ-80A tape format
- `.wav` — raw cassette audio recordings

Using MAME's software list mode is recommended for best compatibility with verified software.

Emulators

MAME

MAME (Multiple Arcade Machine Emulator) is the primary emulator for the MZ-80K in Batocera. MAME supports the MZ-80K and its variants through the `mz80k` driver family.

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-80K. It uses the same BIOS and ROM sets as the standalone version.

Controls

The Sharp MZ-80K is a computer system that uses a **keyboard** for input. A physical USB keyboard is strongly recommended.

The original MZ-80K had a non-standard keyboard layout that was widely described as “difficult to use”. Key mapping in MAME may differ from what you expect.

See also

- Sharp MZ-700 — direct successor (1982), adds color graphics, mostly compatible with MZ-80K software
- Sharp MZ-800 — adds 640×200 graphics and SN76489 sound (1983)
- Sharp MZ-2000 — business-oriented MZ (1982)
- Sharp MZ-2500 — most powerful 8-bit MZ, Z80B at 6 MHz (1985)
- Sharp X1 — Sharp's competing computer line from the television division

Troubleshooting

Black screen on boot

Make sure both BIOS files (`mz80k.zip` and `mz80kj.zip`) are in `/userdata/bios/` and match the MAME version. Use **GAME SETTINGS > MISSING BIOS CHECK** to verify.

Software won't load from cassette

The MZ-80K has no built-in BASIC — the SP-1002 monitor loads software from cassette. If a program requires a specific BASIC interpreter, it must be loaded first. Many software distributions include the required language on the same tape.

Further troubleshooting

For further troubleshooting, refer to the generic support pages.

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