CMD / generation 1 — User manual

Library: `lib-set-01/src/lib2/cmd/1/` · Member source folder

Status: SOURCE-ADMITTED / EXPERIMENTAL — 23 November 2026. This generation is accepted as exact source from Chapter 08 R012C, within the donor's bounded owner-built and owner-reported functional scope. This does **not** certify a generic caller-safe ABI, independent second client, exhaustive PB-2000C/AI-1000 target parity or physical-machine behavior.

Admission receipt and source SHA-256 ledger · Chapter 08 donor.

Purpose and source

`CMD_FIND` is an application-neutral **lookup of a trusted, fixed-record ROM command table**, extracted from the limon monitor. It does not parse arguments, render prompts, validate user input, execute a handler or implement an editor. The caller remains responsible for all of that.

Two exact donor files: `cmd_lookup.s` (793 bytes), `cmd.inc` (147 bytes), byte-identical and hash-matched to R012C. The API include emits no code or data. The implementation has no `ORG`, private RAM pool, LCD service or firmware jump.

Public call: `CMD_FIND`

Input: `$0` is a nonzero uppercase command byte. IX addresses the first byte of a ROM table under the **caller-selected UA/IX context**. Each record is exactly three bytes: `DB command`, `DW handler`. A single `DB 0` terminates the table.

Output: `$1=0` if not found; otherwise `$1` returns the matching command. **Only on a hit** is `$2:$3` the handler address. IX advances through inspected records.

Clobbered: IX, `$1`, `$2`, `$3` and flags. UA and IE are untouched, as are application RAM and screen. The caller must not interpret `$2:$3` after a miss.

Simple source-level example

```
MY_COMMANDS:
        DB      "I"
        DW      MY_INFO
        DB      "U"
        DW      MY_DUMP
        DB      0

        LD      $0,&H49       ; uppercase 'I'
        PRE     IX,MY_COMMANDS
        CAL     CMD_FIND
        ; if $1 != 0, caller may dispatch $2:$3
```

The example is **not an independently assembled consumer**. Callers must ensure that IX maps a well-formed, **properly terminated and trusted** ROM table. This version performs no explicit bounds checks on an untrusted pointer or malformed table. Duplicate entries, bad handler addresses and application UI policy are not resolved by this service.

Qualified scope and outstanding tests

R012C owner native assembly and reported working limon integration support a **bounded donor-path source admission**. A second command client, hit/miss/terminator matrix, deliberately malformed table handling, stack/UA negative cases and cross-machine runtime proof are still open. `CMD_FIND` does not authorize reading arbitrary ROM or dynamically jumping into unverified handlers.

Praeteritum ad futurum servamus.