RS232C / generation 1 — User manual

Library: `src/lib2/rs232c/1/`
Edition: 2026-11-18, source/document review (documentation only)
Qualification: CLARITAS Wave 5 source/native parity accepted; bounded donor TX observation exists, but no universal receiver-side capture or physical/AI-1000 support is established.

What this member does

Provide PB-2000C/OM52C serial byte/ROM/RAM transmit services, with optional application-owned serial-configuration UI.

Public interfaces

Entry point or group	Inputs, outputs and behavior
`RS_INIT / RS_CONFIG`	Initialize 4800 8N1/no-flow defaults; configure `$10` speed 0/1 and `$11` flow 0/1.
`RS_OPEN / RS_CLOSE`	Enter/leave OM52C serial session.
`RS_PUTC`	Transmit one raw byte supplied in `$16`.
`RS_PUTS`	Transmit NUL-terminated ROM string pointed to by `$10/$11` (not the NUL).
`RS_WRITE / RS_WRRAM`	Exact-length `$12/$13` byte transfer from ROM / RAM source `$10/$11` (includes embedded NUL).
`RS_CFG_DEFAULT / RS_CFG_RUN`	Optional configuration screen; caller owns LCD/keyboard/menu and TX_SPEED/TX_FLOW/TX_EOF.

How to integrate

Include declarations and backend (`rs232c.inc`, `rs232c_code.inc`, `om52c.inc`) exactly once; call `RS_INIT`, optional `RS_CONFIG`, `RS_OPEN`, one or more transmit entries, `RS_CLOSE`. Application supplies CRLF, EOF framing and actual receiver verification.

Composition sketch (not an independently assembled client):

```
        CAL     RS_INIT
        CAL     RS_OPEN
        LD      $16,&H41          ; ASCII A
        CAL     RS_PUTC
        CAL     RS_CLOSE
```

Environment, dependencies and memory

Caller provides firmware SYSCAL, UA14, `$SX=0`, `$SY=1`, ROM/RAM bank, valid stack and non-overlapping scratch. Fixed private region around `27F0..27F9` can collide with other applications. Blocking and non-reentrant.

Limits and evidence

No automatic framing, acknowledgement, or viewer dependency; `:t` event belongs to VT consumer. `rs232c_cfg.inc` is optional and its UI should not be coupled into a generic transport-only client.

This documentation does not introduce a new build or runtime PASS. Source equivalence, native assembler parity, emulator execution and physical-machine evidence remain distinct.

Actual source and further reference

- This exact member folder in Google Drive
- Source modules: `rs232c.inc`, `rs232c_code.inc`, `om52c.inc`, `rs232c_cfg.inc`.
- Further contracts/source notes: SOURCE_README.md. These may include dated donor paths or older acceptance statements.
- For a new consumer, pin exact source files and hashes, verify full include closure, inspect register/bank/resource conflicts and test the resulting application on each claimed target.

Praeteritum ad futurum servamus.