

ProLINFlasher

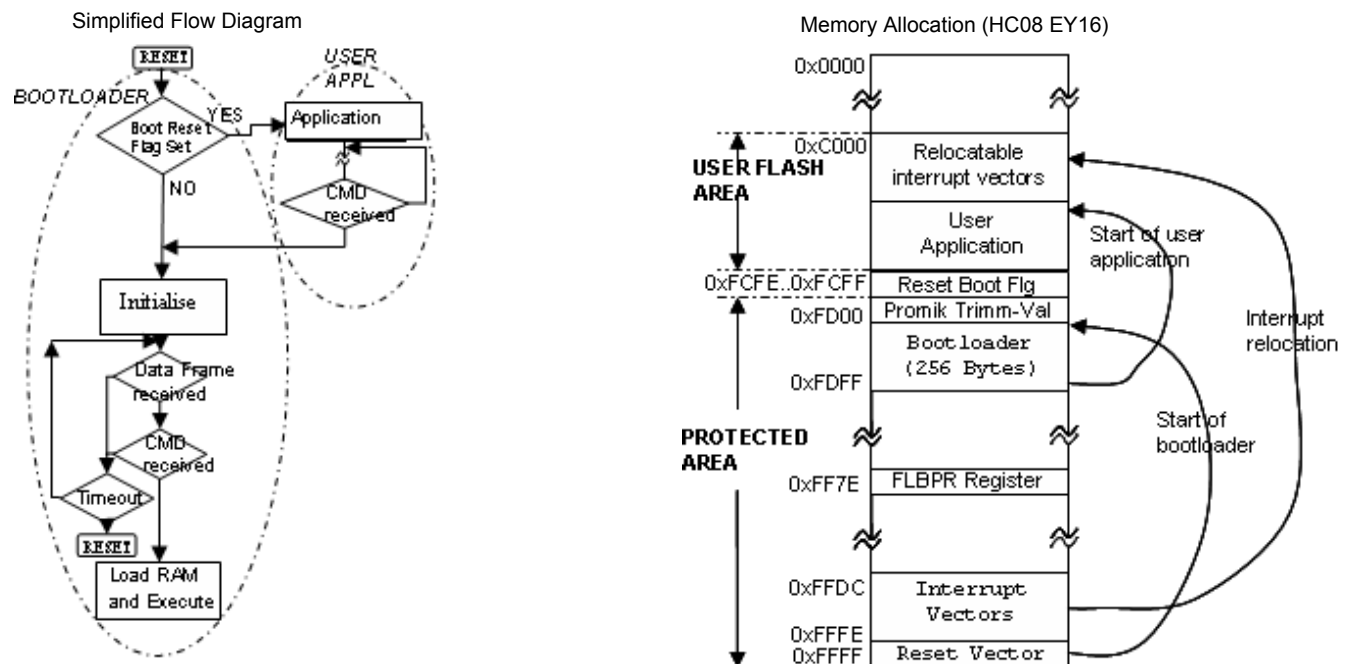
The complex requirements of (re-)programming ECUs in the field or at the end of a production line via LIN needs well thought Bootloaders. Fail-safe Bootloaders which correctly deal with generic problems like Watchdogs, Spurious resets, Software run-aways, Voltage failure, etc are a necessity.



Further features:

- consumes little user flash resources (appr. 300 bytes for HC08 EY16, MM908E62x MCUs)
- fast start-up time (appr. 24 CPU Bus Cycles for HC08 EY16, MM908E62x MCUs)
- communication even if master and slave relative clock freq. differ by up-to $\pm 14\%$
- special timeout and reset features to deal with unintentional user SW run-away into bootloader
- Flash driver routines not in bootloader to rule out dangers of unintentional flash programming
- provision for special user application software test before final user appl. Validation
- security and authentication features to access the bootloader
- easy to integrate into customer user application

Bootloader Concept

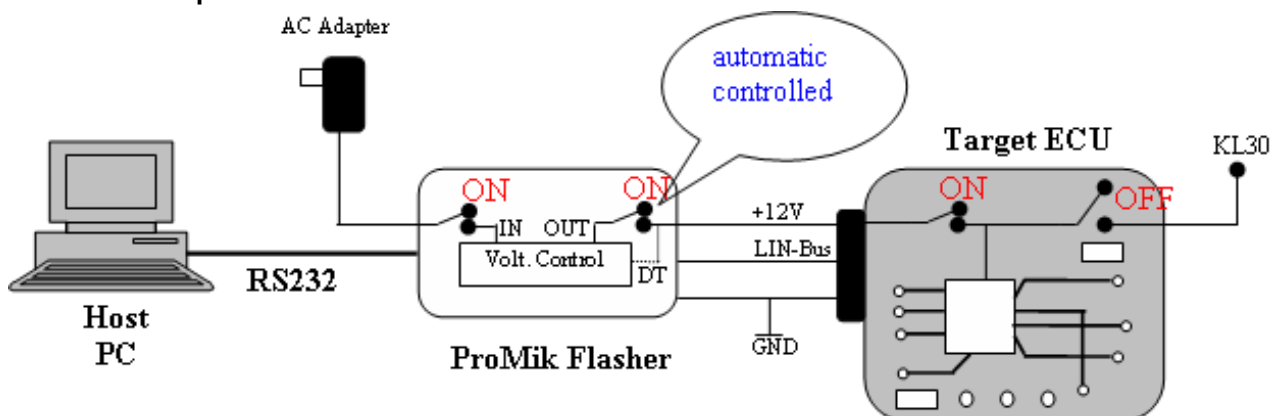


Entering the Bootloader:

To be able to enter the bootloader mode, the customer enters any desired LIN message know only to his/her own LIN application. ProMik however recommends the use of the LIN Diagnostic Command (\$B4). This command is typically not used in operational LIN clusters and allows the provision for security codes.

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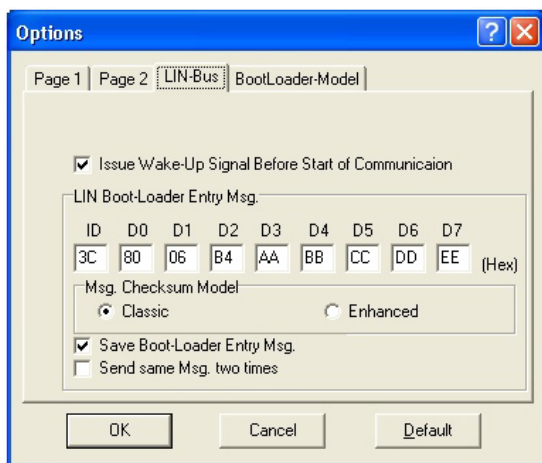
Hardware Setup



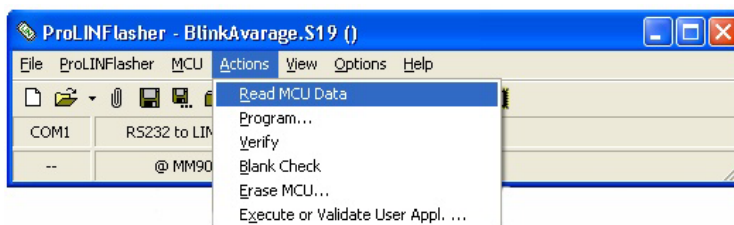
Power Configuration Scenario: LIN Target ECU is not self-powered

Other power configurations scenarios are possible, eg. powering the Flasher from the target ECU, or both Flasher and target ECU self-powered.

Example of Software Tool Settings



Example of Executable Actions



ProMik

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