



LabJack Corporation
6900 West Jefferson Ave.
Suite 110
Lakewood, CO 80235 USA

Phone: (303) 942-0228
Fax: (303) 951-2916
info@labjack.com

Letter Of Volatility

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LabJack U3-LV and U3-HV, Hardware Revision 1.30 - Version C

Following is an overview of the memory:

Memory Areas:

Bold items are memory areas designed to allow the user to store non-volatile information.

1. Program Memory, Flash(Non-Volatile), 64 kB: The program memory is code-protected to prevent general reading through JTAG. There is no designed mechanism for the user to read this memory except as follows:
 - Main Program Firmware - no reads.
 - Bootloader Firmware - no reads.
 - Calibration Constants - special functions to allow reading.
 - **User Memory Area** - Special functions allow writing and reading, as documented in Sections 5.2.6 - 5.2.8 of the LabJack U3 User's Guide. This memory is not used in normal operation by other functions. It is just an area where the user can write some bytes that they want to store.
2. Data Memory, SRAM (Volatile), 4 kB: SRAM is not retained when the voltage drops out.

Note that data from I/O connections, whether written or read, is never stored in non-volatile memory. For instance, readings you get from analog inputs and values you send to analog outputs are never stored in non-volatile memory (flash). One exception would be power-up defaults. The user has the ability to write and read the power-up condition of analog outputs and digital I/O, and these power-up defaults are stored in flash and can be read back using special functions.

All memory, volatile and non-volatile, can be returned to factory default state by powering down the device, installing a short from FIO6 to SPC, and then powering up the device. It can also be done through software by simply writing the factory default values to all locations.