Board Assembly Part Number(s)

Part Number	Description
199012A-01L or later	cRIO-9111

Manufacturer: National Instruments

Volatile Memory

Type[1]	Size	User Accessible/ System Accessible[2]	Battery Backup?	Purpose	Method of Clearing[3]
FPGA RAM	XC5VLX30	Yes/Yes	No	LabVIEW and User Data	Cycle power

Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
Flash	32 Mb				
-Firmware		No/Yes	No	FPGA Firmware	None available to user
-FPGA Bitstream		Yes/Yes	No	User LV FPGA VI Bitstream	NI-RIO Device Setup

Media Storage

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
NONE					

Clearing Notes:

NI-RIO Device Setup: To erase the bitfile from the flash follow the steps below:
1. Add the cRIO Target to your LabVIEW project by right-clicking on the project and selecting New » Targets and Devices and selecting your cRIO.
2. Right-click on the FPGA project item and select RIO Device Setup.
3. In the *Advanced* section, select *Erase Bitfile on Flash*.

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[1] Calibration constants that are stored in device EEPROMs include information for the device's full operating range. Calibration constants do not maintain any unique data for specific configurations at which the device is used unless otherwise specified.

[2] Items are designated **No** for the following reason(s):
  a) Hardware changes or a unique software tool from National Instruments are required to modify contents of the memory listed.
  b) Hardware-modifying software tools are not distributed to customers for any personal access or customization, also known as non-normal use.

[3] The designation *None Available to User* indicates that the ability to clear this memory is not available to the user under normal operation. The utilities required to clear the memory are not distributed by National Instruments to customers for normal use.

Terms and Definitions

User Accessible Allows the user to directly write or modify the contents of the memory during normal instrument operation.

System Accessible Does not allow the user to access or modify the memory during normal instrument operation. However, system accessible memory may be accessed or modified by background processes. This can be something that is not deliberate by the user and can be a background driver implementation, such as storing application information in RAM to increase speed of use.

Cycle Power The process of completely removing power from the device and its components. This process includes a complete shutdown of the PC and/or chassis containing the device; a reboot is not sufficient for the completion of this process.

Volatile Memory Requires power to maintain the stored information. When power is removed from this memory, its contents are lost.

Non-Volatile Retains its contents when power is removed. This type of memory typically contains calibration or chip configuration information, such as power up states.