

Raman System Laser Interlock Behavior

ENG-0126

Revision Log

Date	Author	Changes	Rev.
2020-08-24	L. Brady	Initial Release	A

Overview

Wasatch Photonics Raman systems incorporate an interlock for laser safety.

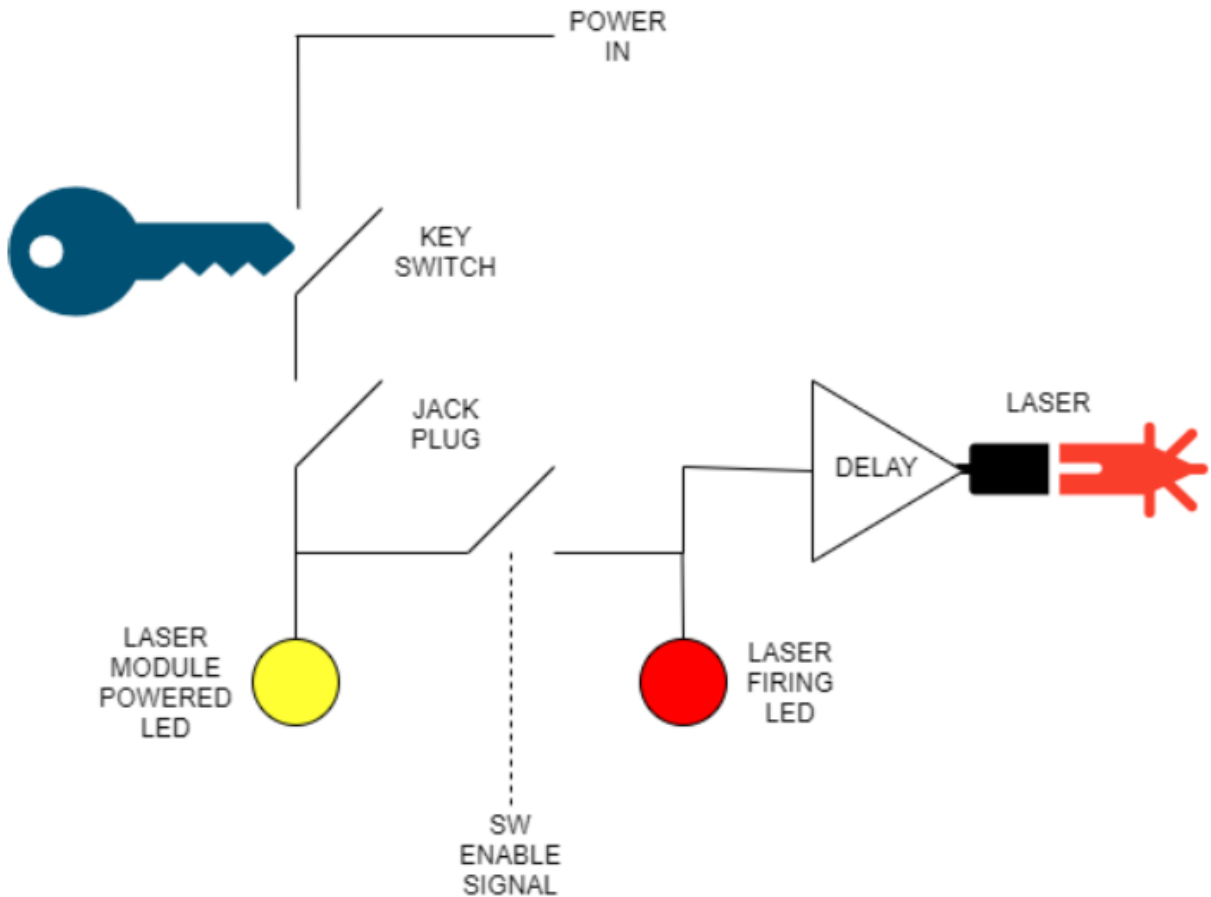
The usage and behavior of this interlock is described herein.

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Interlock Diagram

The Laser system built into the WP Raman systems has the following high-level diagram:



As can be seen from the diagram, the laser module has power when the System power supply is plugged in AND the key switch is engaged AND the jack plug contacts are connected together.

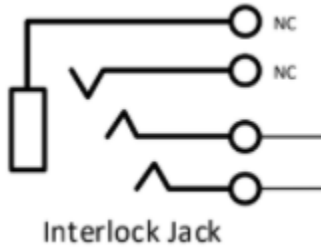
The Laser fires when all of the above are true AND the software enable signal is sent. There is a delay of 2 to 40 seconds between the Red laser firing LED beginning flashing and the laser turning on.

Jack Plug Usage

The unit ships with a jack plug that loops back the connection such that the circuit is completed when the jack plug is inserted in the device.

The user may wish to create a cable terminating in a similar jack plug which connects to a switch in their setup or facility, for example to a microswitch on a safety enclosure. The switch should be closed when operation of the laser is desired.

The jack plug used should be of the 4 pole type, and the cable should connect as follows:



Note that no connections are made to the tip or the sleeve, only to the inner rings:

