

# Laser Trigger Module User Guide

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## 1 Introduction

The Laser Trigger Module uses a photodiode to pick up a weak reflection from the outgoing laser beam. The optical signal is then preamplified, discriminated and amplified so that it can drive a Licel Rack6 or individual transient recorders.

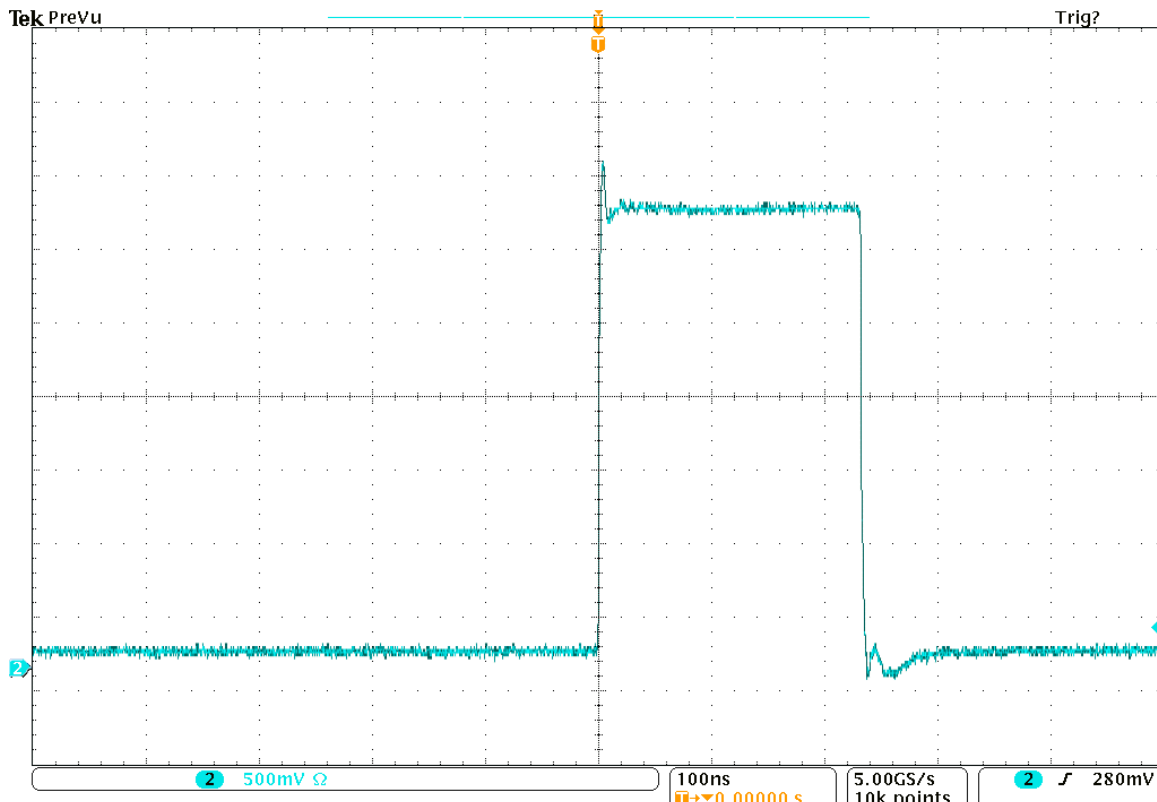
## 2 Power supply

The unit can be either connected to Rack6 with a usual transient recorder power cable or to external supply which must deliver +5V and -5V with 100mA.



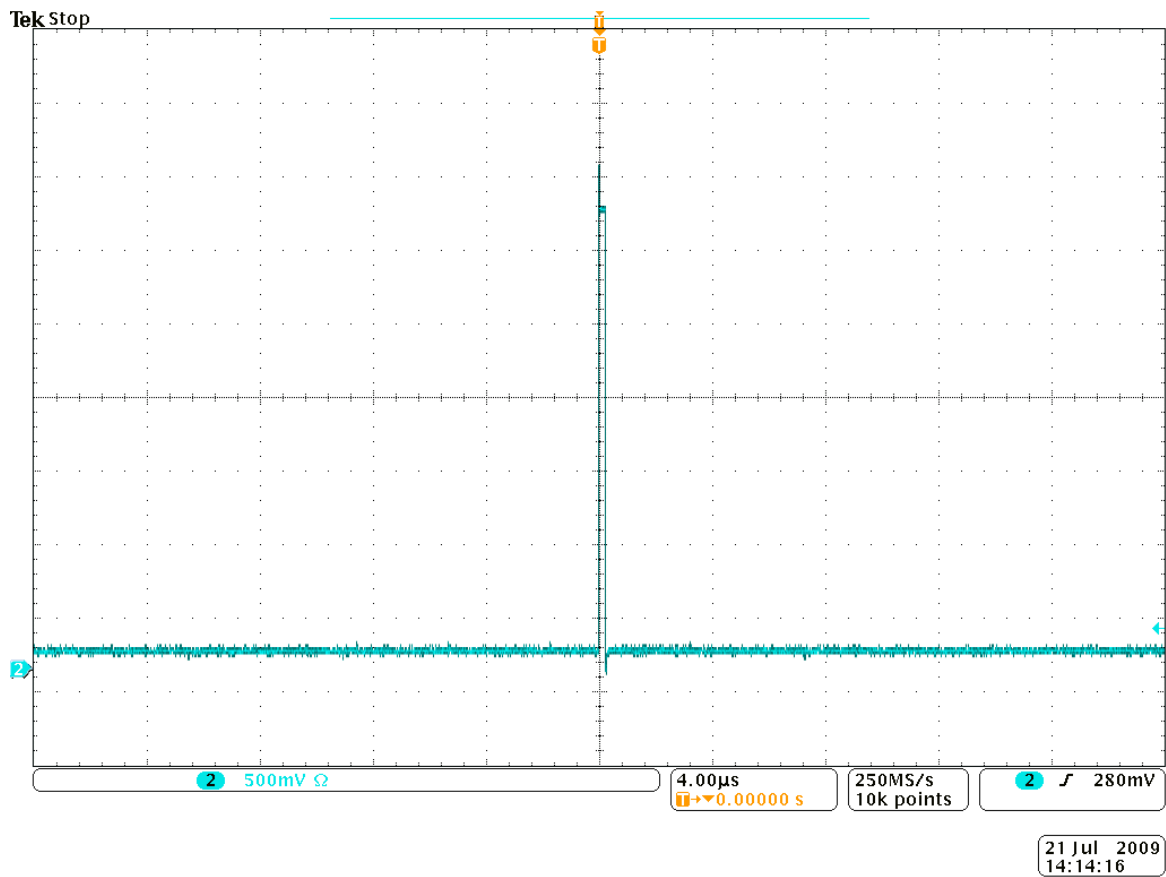
## 3 Setup

Once the unit is powered plug the diode into the module and mount it close to the laser beam. The trigger output of the module should be connected to an oscilloscope. Terminate the input at the oscilloscope with  $50\Omega$ . Select 100ns per div as the horizontal scale and 1V/div as the vertical scale. Turn the knob till a trigger signal like the shown one appears.



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14:12:46

Decrease the timing resolution and verify that no double trigger appears.



Use this signal to trigger the Rack6.