

MEASUREMENT LAB TEST RESULTS

REQUESTOR: Randy Murphy TESTER: Paul Conant DATE: 04/09/85  
REPORT NO.: 850502 WORK ORDER NO.: C-5003-315-Y  
TEST TYPE: Developmental, New Design

FIREARM STAT'S : MODEL: NBAR CAL or GAUGE: .308  
BARREL TYPE: 22 in. PROOFED: YES \* NO    

REASON FOR TEST : The firing pin assembly has been redesigned. The effect of this design change must be tested as to the effect on the lock time.

EQUIPMENT REQUIRED : Experimental Gun XC-0405, .308 caliber, and Control gun M/700, SER. NO. 6841170, .308 caliber

TEST RESULTS :

In order to accomplish a "lock time" measurement, a new testing technique had to be developed. The new technique took the form of a digital electronic circuit that when interfaced to a M/700 or a new design bolt action rifle (with exposed firing pin), measured the change in time from trigger unlock, to firing pin impact. The interface network is connected non-destructively to the gun via special purpose clips and duct tape. The electronic circuit interfaces these connections with the 7854 oscilloscope.

The experimental gun was tested first. Ten shots were fired to assure validity in the test apparatus.

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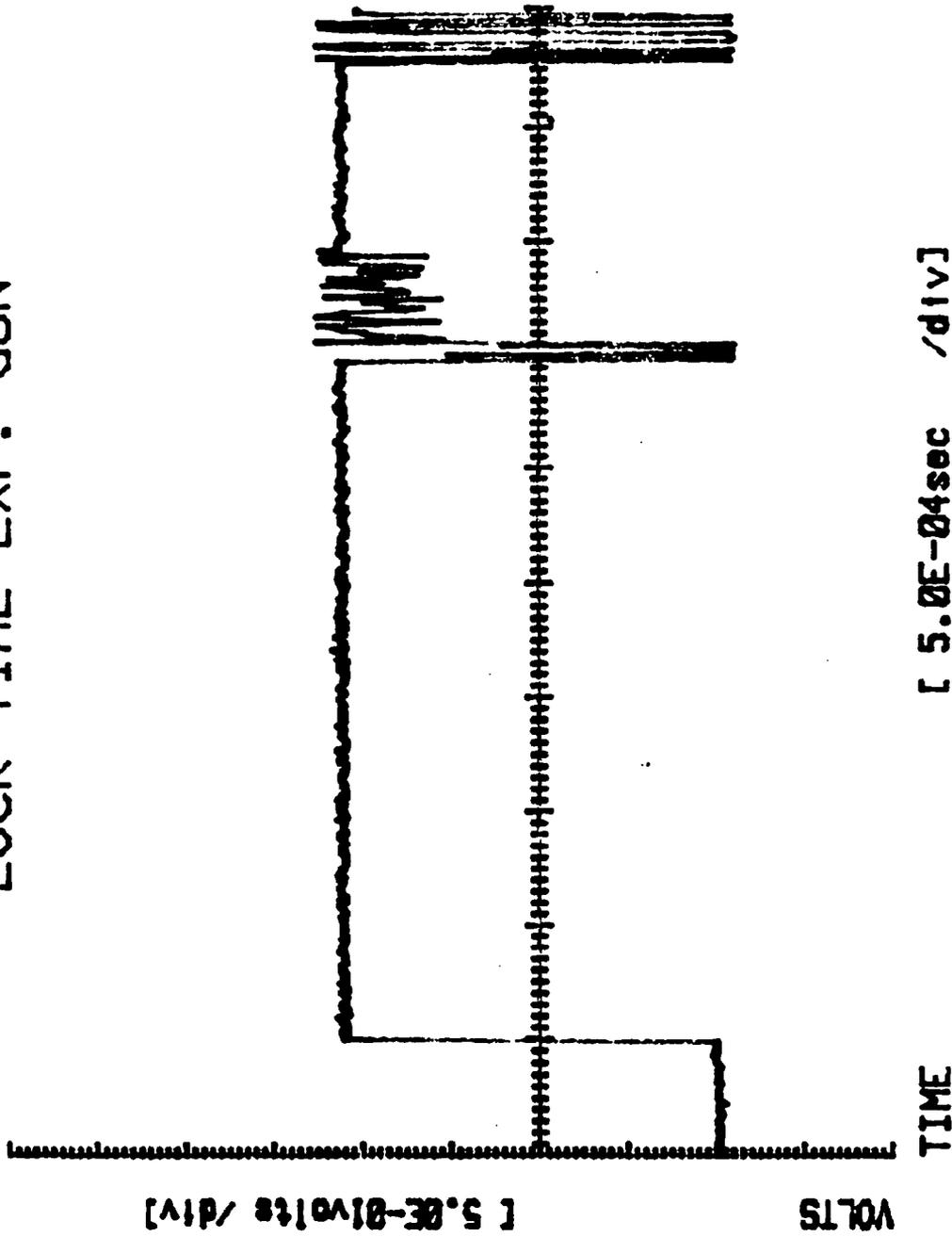
One of the waveforms was plotted to graphically show the lock time measurement. The control gun was then connected to the electronic circuit and tested in the same manner as explained before. One of the control gun waveforms was also plotted.

The test results are shown below:

CONTROL GUN: .0035 seconds

EXPERIMENTAL GUN: .0030 seconds

LOCK TIME EXP. GUN



LOCK TIME M/700

