

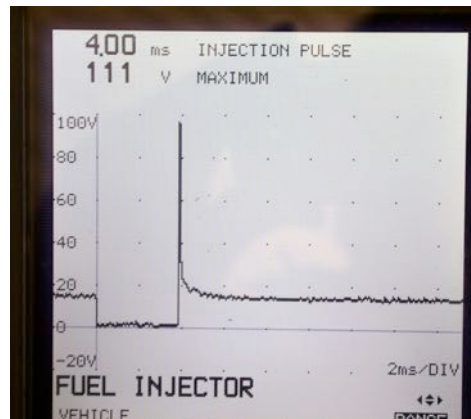
# Injector Voltage Waveform Test

**Meets NATEF Task:** (A8-D-7) Inspect and test fuel injectors. (P-1)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

- \_\_\_\_\_ 1. Check service information for the type of fuel injector being used.
  - \_\_\_\_\_ Saturated
  - \_\_\_\_\_ Peak and hold
- \_\_\_\_\_ 2. Connect a digital storage oscilloscope (DSO) or graphing multimeter (GMM) to the pulsed side of the injector. (Check service information for the color of wire used for the pulse.)
- \_\_\_\_\_ 3. Start the engine and observe the voltage waveform.



- \_\_\_\_\_ 4. Does the voltage spike (kick) exceed 30 volts? \_\_\_\_\_ Yes \_\_\_\_\_ No
- \_\_\_\_\_ 5. What is the injector pulse-width? \_\_\_\_\_ (normally between 1.5 and 3.5 mS at idle on a warm engine)
- \_\_\_\_\_ 6. Based on the test performed, what is the necessary action? \_\_\_\_\_  
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