

NATEF
TASK SHEET --- SECTION A.8 B.1,2,3,5,6,7 P-1

EP-LAB 11-TPS : R&I, TEST, AND ADJUST THROTTLE POSITION SENOR

Student: _____ Date: _____ Period: _____

Year: _____ Make: _____ Model: _____ Engine: _____

OBJECTIVE: Student will test a Throttle Position Senor with a DVOM, Scan Tool, and a Digital Lab Scope; and Adjust to specs (TPS).

- MATERIALS:**
1. **EYE PROTECTION**
 2. DVOM, Scan Tool, and Digital Lab Scope
 3. Mitchell On Demand or All-Data
 4. Vehicle (see instructor)

PROCEDURE: **WEAR EYE PROTECTION!** Look up and print out directions for testing Throttle Position Sensor using Mitchell-On Demand or All-Data. With the vehicle ignition "on," and the TPS connector connected; check the voltage between the TP signal, TP reference wire, and ground, both at rest (idle) and at full throttle (full). Write down your results below. Depress the throttle very, very slowly down to the floor and release very slowly. Your voltage should change very gradually (1/100th volt @ a time. Make a note about the smoothness of transition below. Next, test the sensor with a Scan Tool, and a Digital Lab Scope following the directions given by your instructor. You may not need to fill all of the V boxes, check your printed directions.

PIN LETTER	A		B		C		D	
	IDLE----FULL		IDLE----FULL		IDLE----FULL		IDLE----FULL	
A	-----	-----	V	V	V	V	V	V
B	V	V	-----	-----	V	V	V	V
C	V	V	V	V	-----	-----	V	V
D	V	V	V	V	V	V	-----	-----
VOLTS SCALE USED:	<i>CIRCLE ONE:</i> 200V 2Kv 20Kv 200Kv 2Mv							
SMOOTHNESS:								
SCAN TOOL RESULTS:								
LAB SCOPE RESULTS;	DRAW PATTERN OBSERVED ON THE BACK OF THIS SHEET							
RECOMMENDATIONS: <i>(DO WE NEED A NEW SENSOR?)</i>								

INSTRUCTORS EVALUATION

LEVEL OF SKILL ATTAINED	Initial	OVERALL SKILL EVALUATION	Points
DEMONSTRATES MASTERY (5)		DOCUMENTATION COMPLETENESS (1)	
PERFORMS SATISFACTORILY (4)		SAFETY COMPLIANCE (1)	
CAPABLE, NEEDS PRACTICE (3)		WORK PROFESSIONALISM (3)	
ASSISTED IN PERFORMING (2)		LEVEL OF SKILL ATTAINED (1-5)	
EXPOSURE, OBSERVATION (1)		TOTAL SCORE	

Instructor's Signature: _____

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