



NATEF Collision Repair Task B-1 of Mechanical & Electrical Components

(SCHOOL NAME HERE)

NAME _____

AUTOMOTIVE TECHNOLOGY

TITLE: Check voltages in electrical wiring circuits with a DMM (digital multimeter)

TASK #: NATEF Collision Repair Task B-1 of Mechanical & Electrical Components

PURPOSE: To develop through repetition, a mastery of using a DMM to measure voltage in electrical circuits that are working as designed (with no faults inserted by instructor).

ACTIVITY: Using a DMM approved by your instructor, demonstrate the ability to measure and record circuit voltage at various test points on the Automotive Electrical Diagnostic Trainer supplied by United Concept Trainers.

Series Lamp Circuit

With circuit operating normally and ON, measure and record circuit voltage at the following test point locations:

a _____ b _____ c _____ d _____ g _____ h _____ k _____ m _____ n _____
o _____ r _____

Parallel Stoplamp Circuit

With the circuit operating normally and ON, measure and record circuit voltage at the following test point locations:

a _____ b _____ c _____ d _____ g _____ h _____ n _____ o _____ r _____ s _____
t _____ w _____ x _____ y _____ bb _____

Cooling Fan Circuit

With the circuit operating normally and ON, measure and record circuit voltage at the following test point locations:

a _____ b _____ c _____ d _____ e _____ 30 _____ 86 _____ 87 _____ 85 _____
h _____ k _____ m _____ n _____ q _____ t _____

Horn Circuit

With the circuit operating normally and ON, measure and record circuit voltage at the following test point locations:

a _____ b _____ c _____ d _____ e _____ 30 _____ 86 _____ 87 _____ 85 _____
h _____ k _____ m _____ n _____ q _____ t _____

Heater Circuit

With the circuit operating normally and ON, measure and record circuit voltage at the following test point locations on *LOW*, *MED*, and *HIGH* location:

LOW – a _____ b _____ c _____ d _____ e _____ f _____ g _____ 30 _____ 86 _____ 85 _____
87 _____ h _____ n _____ o _____ p _____ u _____

MED – a _____ b _____ c _____ d _____ e _____ f _____ g _____ 30 _____ 86 _____ 85 _____
87 _____ h _____ n _____ o _____ p _____ u _____

HI – a _____ b _____ c _____ d _____ e _____ f _____ g _____ 30 _____ 86 _____ 85 _____
87 _____ h _____ n _____ o _____ p _____ u _____

Results: Based on the above activity, what can you determine from the voltage readings of each circuit tested?
