

**2010 MICHIGAN SKILLSUSA CHAMPIONSHIPS
TASK & MATERIALS LIST**

SKILL OR LEADERSHIP AREA: AUTO SPECIALIST TECHNICIAN - ELECTRICAL

**SECTION I
GENERAL INFORMATION**

TASKS TO BE PERFORMED:

- Battery, starting and charging system and voltage drop tests
- Bench testing and troubleshooting of electrical components
- Set up and troubleshooting of typical automotive circuits
- Locating procedures and specifications in a service manual
- Reading and interpreting wiring diagrams
- Identifying electrical system components

THERE ARE FOUR TEST STATIONS WITH A TIME LIMIT OF 17 MINUTES EACH

<u>CONTEST</u>	<u>ORIENTATION</u>	<u>CONTEST</u>	<u>DEBRIEFING</u>
Specialists - All	8:00 AM	12:40 – 2:10 PM	2:10 PM
Master Contest	8:00 AM	8:20 AM – 12:00 PM	12:00 PM

Note: Time is subject to change depending on number of contestants. Check schedule at time of registration. **Briefings and contests will begin promptly at the scheduled times.** Students arriving late will not be allowed to compete.

SECTION I

GENERAL INFORMATION (CON'T)

STUDENTS MUST SUPPLY: (This applies to all automotive contests.)

- 1 page resume
- Safety glasses with side shields or goggles
- Appropriate dress consisting of one or two-piece work clothes
- 2 (two) #2 pencils

STUDENT DRESS CODE: Due to the professional nature of this contest, contestants are required to wear apparel appropriate to the trade. SkillsUSA Work Uniforms are strongly suggested.

- Leather work shoes are required - **NO ATHLETIC SHOES ALLOWED - NO EXCEPTIONS.**
- Only shirts with a collar are acceptable, **NO TEE SHIRTS, NO SCHOOL IDENTIFICATION - NO EXCEPTIONS.** Shirts are to be tucked into trousers.
- Basic work-style jeans will be acceptable, however trousers are preferable.
- Any necklaces or bracelets must be removed and long hair is to be tied back.

It is the responsibility of the instructors to ensure their students are properly prepared and supervised for these events. **Students will not be allowed to compete if they do not have the proper shoes or if their attire presents a safety issue.** All contestants called into briefing room will be inspected by the Resolution Team* prior to contest briefing. **ANY CONTESTANT NOT APPROPRIATELY DRESSED WILL RECEIVE A 50 POINT DEMERIT FROM THEIR FINAL SCORE.**

All contestants and instructors are expected to act with courtesy and respect to all contest staff and fellow contestants. **ANYTHING LESS MAY RESULT IN REMOVAL/EXCLUSION FROM CONTEST.**

***The Resolution Team will consists of one senior advisor (20 years or more) and one additional advisor who is a contest coordinator and/or is selected by the Automotive Service Technology Technical Committee.**

SPECIAL NOTE FOR SPECTATORS: Instructors, students, parents, or other spectators will **NOT** be allowed in contest area. This is necessary because of the confined area, contest traffic, and to minimize the distraction to contestants.

Cameras and / or video camera policy: **NO VIDEO TAPING BY TEACHERS, ADVISORS, OR PARENTS WILL BE ALLOWED DURING THE CONTEST.** Anyone wanting video of the contest should make arrangements ahead of time by contacting the Technical Committee. Photographs during the contest will also be restricted. Special arrangements will be made for photo opportunities following the contest.

SECTION II

CONTEST OVERVIEW FOR SPECIALIST TECHNICIAN - ELECTRICAL

DESCRIPTION OF CONTEST:

This contest is designed to test the basic skills and knowledge of an entry-level technician by:

- Doing battery, starting and charging system and voltage drop tests
- Bench testing and troubleshooting of electrical components
- Identifying, setting up, and diagnosing typical automotive electrical circuits
- Locating procedures and specifications in a service manual
- Reading and interpreting wiring diagrams

TOOLS AND EQUIPMENT:

- VAT 40 / Snapon AVR or equivalent
- Digital Multi Meter
- 12 volt test light
- Jumper leads
- Necessary hand tools

EQUIPMENT SUPPLIED BY TECHNICAL COMMITTEE:

Contestants will not have to bring hand tools and equipment to the contest. They will have some options on the following equipment:

Digital Volt/Ohm Meter (DVOM) - Fluke Model #87 will be provided, however, due to the difficulties students exhibit when using DVOM's that they are unfamiliar with, the Technical Committee recommends that students bring their own. **Note: All meters must have a minimum of 10 Meg Ohm input impedance.**

Battery/Starting & Charging System Testers - VAT-40 or equivalent will be provided or you may bring your own (providing it has similar capability to the one listed above)

NOTE: Conductance testers (i.e. Midtronics, Snap-on MicroVAT) are fast becoming a standard tool in the industry. These testers will be used during the 2010 contest.

IMPORTANT: The Technical Committee has observed that many students seem to have difficulty using tools and equipment they are unfamiliar with. Therefore, students are permitted to bring their own equipment, provided it is clearly labeled with the students name and/or your school's identification. Equipment that cannot be hand carried through the contest must be dropped off well in advance of the contest briefing so it can be placed at the station for the student to use. Calibration of your equipment is your responsibility.

**SkillsUSA Michigan Championships
2010 RATING SHEET**

Contest: Automotive Service Technology - Electrical

Items Evaluated	Contestant Number									
	Possible Points									
Electrical/Electronics	100									
Brakes	100									
Environmental Health & Safety	100									
Driveability	100									
Drive Train	100									
Engine Mechanical	100									
Suspension Steering & Alignment	100									
Electronic Service Information	100									
New Vehicle Preparation	100									
Written Test	100									
TOTAL	1000									

JUDGE'S SIGNATURE: _____