

**2012 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

SPECIAL NOTE FOR SPECTATORS: Parents, non-competing students or other spectators **ARE** allowed to view the contest competition from the designated viewing area (balcony, requires stair climbing). Due to facility limitations, spectators requiring handicapped access may be limited, see AST contest area personnel for assistance, upon arrival.

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	12:15 PM	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 consist 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: Parents, non-competing students or other spectators **ARE** allowed to view the contest competition from the designated viewing area (balcony, requires stair climbing). Due to facility limitations, spectators requiring handicapped access may be limited, see AST contest area personnel for assistance, upon arrival.

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
- Parts Identification
- Reading and interpreting wiring diagrams

TOOLS AND EQUIPMENT:

- Conductance style battery/starting/charging system tester (Midtronics, Snap-on MicroVAT).
- Digital Volt/Ohm Meter
- 12-volt test lights
- 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 #87/88 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 – Midtronics or equivalent will be provided or you may bring your own (providing it has similar capability to the one listed above).

NOTE: Conductance style testers (i.e. Midtronics, Snap-on MicroVAT) are fast becoming a standard tool in the industry. These testers may be used for Batt/Start/Chg system testing during the 2012 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.

SCORECARD Automotive Service Technology - Electrical

Contestant Number

Items Evaluated	Possible Points								
Specification Location	250								
Wiring Diagram	250								
Wiring Harness	250								
Parts ID	250								
Résumé Penalty	0 or -50 only								
Clothing Penalty	0 to -50								
Total Possible Points	1000								

Date: _____

Judges' Signatures:

_____	_____
_____	_____
_____	_____