



Electrical Construction Wiring Contest Information

By Mitchell Thomas — last modified February 14, 2023

Written testing for most contests will be held ON-LINE through your schools' Testing Liaison. Testing will be open beginning Monday, March 15th.

Students will receive an email from National Skills USA for testing.

The deadline for taking the on-line tests is Friday, April 7th.

No provisions are being made for make-up testing on-site.

NO Substitutions will be allowed this year after April 7th

See the State SkillsUSA Director's Memo for the policy on substitutions and late registrations.

Print the General Instructions for each of your competitors and have them become acquainted with the competition BEFORE arriving at the conference.

Each contestant will be required to bring his or her printed resume. It will be presented to the judges upon entry to the contest area. A deduction will be applied to your overall score if you do not have a resume.

For additional information about state contest, please contact Mitchell Thomas at 405-743-5424 or Mitchell.Thomas@careertech.ok.gov

MOVE OUT

After the contest, all workstations must be disassembled and prepared for shipping. Please have your contestants stack the panels neatly for transport on pallets or 4x4's to allow the forklift to get under them without re-stacking.

The contest area must be cleaned, swept, tables stacked, and all tape removed from the floor. **This is the responsibility of instructors and contestants.**

INDUSTRY AWARDS

As agreed at August Conference each instructor is requested to secure a minimum of \$50.00 in prizes for each student that you bring to the State SkillsUSA Championships. Please contact your **Awards Chairman** for details and to let him know of industry awards you have secured. I know many of you have already been hard at work securing the awards. These awards should be labeled with the name, address, and contact person for the donating industry so that the contestant they are awarded to can send an appropriate expression of his or her appreciation.



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CONTEST DESCRIPTION AND SCORING

The contest will again be provided and judged courtesy of the staff of the Oklahoma Construction Industries Board with the assistance of contractors who are members of the Statewide Electrical Trades Advisory Committee. The contest will consist of an online SkillsUSA (PDP) knowledge test, online written test covering knowledge of National Electrical Code and both residential and commercial electrical construction competencies, and hands-on components of both residential and commercial wiring, including EMT bending and proper wiring of GFCI and AFCI devices. The written test will contribute 15%, SkillsUSA (PDP) knowledge test 5% to the total score and the performance test the remaining 80%. This is consistent with the National SkillsUSA competition.

TOOLS, EQUIPMENT and SUPPLIES

Contestant fee for EMT and Box Lunch is included in conference registration

Contestants will need to bring the tools on the list below, (NO POWER TOOLS REQUIRED, PANELS ARE PRE-DRILLED)

- Claw Hammer
- Drywall Saw/Jab Saw/Keyhole Saw



- Hacksaw with blades
- ½" EMT bender
- Pocket tools and pouch
- Eye protection with side shields
- OSHA Acceptable hard hat
- NEC book (Code version currently adopted by the Construction Industries Board)
- 6' Folding rule or tape measure
- Bandages (Bandaid brand adhesive bandages or equivalent for use on minor injuries to avoid time penalty of having to go to first aid station.)
- Scientific Calculator
- #2 Lead Pencils



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- Contestants may bring and use cordless screw guns or impact drivers. It is the responsibility of each contestant to check the condition of batteries and see that they are charged for the contest. In the event of forgotten, malfunctioning, or equipment with dead batteries, screws will be driven the old fashioned way. No penalty will be applied but no accommodation will be made for this disadvantage.

NOTE: Maximum height of any device to be seven feet from finished floor. Contestant may bring step-ladder if he or she feels one will be needed to reach these devices.

I have worked with your trade group chairman and **Ron Morris** of the Construction Industries Board to confirm the changes and modified the unified materials list.

2023 Electric Construction Wiring Materials List STATE ELECTRICAL CONSTRUCTION WIRING SKILL CONTEST

**NOTE: No preassembly of materials except knock out closures if needed
(all knock outs must be closed prior to start of contest.)**

1	100 amp MLO 120/240 volt 4 circuit load center with equipment grounding bar in addition to neutral bar
2	15 amp 1 pole breakers
2	20 amp 1 pole breaker
1	20 amp 2 pole breaker
4	4" x 1½" square metallic boxes with ½" knock outs
4	Single-gang nonmetallic box, nail-type
2	Single-gang nonmetallic cut-in box
1	Double-gang nonmetallic box, nail-type
2	Round nonmetallic boxes, nail-type
2	Metallic utility boxes with ½" knock outs (Handy Box)
2	4" Metallic octagonal boxes with internal clamps
2	Expandable bar-hangers to fit octagon boxes
2	Single-pole switch with screw terminals only*
2	Three-way switch with screw terminals only*



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1	Four-way switch with screw terminals only*
5	15 amp 110 volt duplex receptacle with screw terminals only
1	20 amp GFCI receptacle
1	20 amp 220 volt single receptacle with screw terminals only
1	Raised receptacle cover (duplex)
1	Raised GFCI cover (single-gang) for 4" square box
2	Keyless lamp holders
16	½" EMT set-screw connectors with lock-nuts
16	½" EMT one hole straps
3'	#8-3 w/g NM Cable to use as service entry cable (SE preferred)
1	NM adapter to fit #8-3 Cable above
30'	#14 THHN white solid
30'	#14 THHN red solid
30'	#14 THHN black solid
30'	#14 THHN green solid
40'	12-2 NM WG
30'	12-3 NM WG
16	NM connectors
BOX	NM staples
10	Ground screws (10-32 RHMS)
24	16-penny nails
30	#10X5/8 pan head sheet metal screws
15	Red "wirenut" wire splices
15	Yellow "wirenut" wire splices
12	Green "wirenut" grounding wire splices

First aid for your students

NOTE: EMT will be provided at the contest site.

Device boxes on Residential project will all be nonmetallic.

Light boxes remain same as in the past.

***All switches MUST be grounding type. ***



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Our goal is a single materials list which will contain no surprises for you each year: you will know the day after this year's contest exactly what to bring next year and so on. The list includes metal boxes as well as plastic boxes, nail-on octagonal boxes as well as metal octagonal boxes with hanger bars, and plaster rings. This will allow the technical committee some latitude from year to year to change the materials and construction techniques and add a dimension to the contest we have not had before. Contestants will be expected to read instructions carefully and note changes in materials called for.

NOTE: Drywall screws have been replaced by pan head sheet metal screws, as drywall screws do not have the corrosion resistance needed and are not approved in electrical construction. Contestants will be penalized for use of drywall screws.

Contestants will be required to wear hard hats and OSHA-approved eye protection (including side shields) at all time while in the contest area. Failure to have these items on **BEFORE** entering the contest area will result in immediate disqualification and the contestant's project will not be judged.