

2024 State FFA Career Development Events

June 4-7, 2024

Event Schedule

Tuesday, June 4, 2024

12:00 – 3:00 p.m.	CDE Check-In - <i>J. Martin Lab</i>
1:00 – 4:30 p.m.	Housing Registration - <i>Wallace</i>
4:30 p.m.	Livestock Evaluation CDE – <i>Livestock Pavilion</i>
4:30 p.m.	Potato Evaluation CDE – <i>Seed Potato Germplasm Lab</i>
8:00 - 9:00 p.m.	CDE Opening Ceremonies – <i>ICCU Arena</i>

Wednesday, June 5, 2024

8:30 a.m.	Agricultural Mechanics CDE Group 1 – <i>J. Martin Lab</i>
9:00 a.m.	Entomology CDE -
9:00 a.m.	Marketing Plan CDE – <i>Ag Science</i>
10:30 a.m.	Agricultural Mechanics CDE Group 2 – <i>J. Martin Lab</i>
12:00 p.m.	Forestry CDE (<i>Buses load and depart from J. Martin Lab</i>)
12:00 p.m.	Milk Quality CDE – <i>Pitman Center</i>
5:00 p.m.	Veterinary Science CDE – <i>Pitman Center</i>
5:30 p.m.	Agronomy CDE – <i>J. Martin Lab</i>

Thursday, June 6, 2024

8:00 a.m.	Dairy Cattle Evaluation CDE – <i>UI Dairy</i>
8:00 a.m.	Veterinary Science CDE – <i>Pitman Center</i>
8:30 a.m.	Ag Communications CDE – <i>Albertson</i>
12:00 p.m.	Environmental & Natural Resources CDE – <i>ENR</i>
12:00 p.m.	Food Science CDE – <i>Pitman Center</i>
12:00 p.m.	Nursery/Landscape CDE - <i>J. Martin Lab</i>
4:00 p.m.	Meats Evaluation & Technology CDE– <i>Livestock Pavilion/Meats Lab</i>
7:00 – 8:30 p.m.	Agricultural Teacher Appreciation Dinner – <i>ICCU Arena</i>
7:00 – 9:00 p.m.	FFA CDEs on the Green – <i>ICCU Arena – East Field</i>

Friday June 7, 2024

7:30 a.m.	John & Marty Mundt CDE Awards Assembly <i>ICCU Arena</i>
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Dates, Deadlines, Fees and Forms

Please read carefully for instructions

2024 On-Time Registration: \$42.00 per attendee on or before May 17, 2024

**2024 Late Registration: \$65.00 per attendee beginning May 18, 2024
Registration will close on May 28, 2024 at 11:00 PM**

**No Refunds to any chapters canceling.*

- Please visit the following link and complete the google document to register your teams. Please do not submit registration form until it is completed in full.
<https://forms.gle/hoL9doQBjy95vtKGA>
- Upon completion of registration, you will be emailed a link to enter your list of students. Your list of participating students will need to be completed at this link by May 29. No changes to form after May 29. Substitutions after May 29 must be submitted using the Registration Change Form.
- After you submit your list of students, you will be emailed an invoice to complete via credit card on UI Marketplace or by check turned in at Event Check-in. Invoice charges will be based on number of students registered on Student List. Credit card payments must be paid by June 3. Checks may be mailed in advance or turned in during check-in. Payment must be received to compete.
- Because of University Camp Insurance, ALL attendees to State CDEs must pay a registration fee. This includes all FFA members and FFA Advisors. You do not need to pay a registration fee for bus drivers, chaperones, etc. However, we do request you list them on your registration form.
- Please contact Sarah Swenson at 208-885-6358 or sswenson@uidaho.edu with any questions.
- ***Please have in-hand at check-in the following forms. Students will not be allowed to participate in events without these forms. You must have these turned in for each student before participating in any events:***
 - **University of Idaho Acknowledgement of Risk and Waiver of Liability (page 6-7)**
 - **Allergen Release Form. Must be turned in by check-in. You can email the form to sswenson@uidaho.edu or turn them in during check-in.**
 - Participant Allergen Release Form - for participants in Milk Quality and Food Science CDEs (page 8)
 - **If your student needs Special Needs Accommodations, please return this form by email by May 30**
 - Request for Special Needs Accommodation Form (If Applicable)

Aq Teacher Assignments: All teachers will be assigned to assist with one or more events. **Failure to complete assignments will result in teams being disqualified/not scored.** Assignments will be emailed to list-serve by May 24. Any requests for changes to assignments must be emailed to sswenson@uidaho.edu by May 31. Some events will have zoom meetings May 29-31 to detail expectations during the events.

University of Idaho CDE Invitational: Teams participating in the Invitational will need to register at <https://forms.gle/xgQUXWY8aWzMhPJA7>

Event Information

Event Rules

All Career Development Events will follow the rules published in the Idaho FFA Association Career Development Event Rules and Regulations 2017-2022.

Official Dress

The Following is a guide to the appropriate clothing and equipment for all the events:

- Livestock FFA Jacket
- Forestry FFA Jacket, inclement weather gear, sturdy shoes
- Food Science and Technology FFA Jacket
- Agricultural Mechanics Coveralls, sturdy shoes, safety glasses, etc.
- Agronomy FFA Jacket
- Marketing Plan Official FFA Dress
- Dairy Cattle FFA Jacket, inclement weather gear, study shoes
- Dairy Foods FFA Jacket
- Veterinary Science Official FFA Dress (Wednesday); Lab Smocks or Polos (Thursday)
- Environmental and Natural Resources FFA Jacket, inclement weather gear, sturdy shoes
- Ag Communications Official Dress
- Meats Technology FFA Jacket, warm jacket, white coat, hard hat
- Entomology FFA Jacket
- Nursery/Landscape FFA Jacket
- Potato FFA Jacket

Required Materials

All FFA participants should bring the following items:

- Clipboard
- One-gallon Ziploc bag to cover the clipboard
- At LEAST 5 #2 Pencils
 - **(Please REMEMBER: #2 PENCILS ONLY when bubbling on the Scantron Sheets. Anything other than #2 pencils used in the bubbles will be counted as a ZERO)**

Lodging Information

FFA Chapters may stay either in local hotels or on campus. Local lodging includes:

Best Western Plus University Inn	208-882-0550
La Quinta Inn & Suites	208-882-5365
Fairfield Inn and Suites	208-882-4600
Fairbridge Inn & Suites	208-883-1503

Chapters that would like to stay on campus will arrange their housing through the University Housing office at: www.uidaho.edu/summerconferences. Food service information is also available through this site.

Parking Information

Regular passenger cars may park in any **ORANGE**, **RED** or **BLUE** parking lot (signs are at the entrance of each lot). All other areas are restricted; **DO NOT** park in **GOLD** lots, meters, or handicapped parking spots.

Chapters staying in the Living & Learning Center (LLC) on campus, must park school buses in LOT 25 located on Rayburn Street, north of the Wallace Complex and west of the Student Recreation Center.

Health & Safety Information

Insurance Coverage

All participants (FFA members, Advisors) who register for the CDEs are covered by insurance. The insurance covers events on campus and off-site events.

Medical services cannot be charged to the insurance company unless you have appropriate paperwork; without it, the student will be billed for services rendered. Be sure to notify the Department of Agricultural Education, Leadership & Communications (208-885-6358) if there is illness or an accident in your group (notification must be made as soon as possible).

Supervision

It is the responsibility of each Instructor to supervise their students. The Department of Agricultural Education, Leadership & Communications faculty and staff, Idaho FFA officials, or Idaho FFA State Officers are NOT responsible for supervising FFA members.

Please take responsibility for making sure your FFA members act in a professional and responsible manner while they are guests on the University of Idaho campus.

Injuries / Medical Emergencies

In case of any Serious Injuries or Medical Emergencies, please contact:

- Police, Fire, or Medical Personnel
 - **911 (Emergency)**
 - **208-882-COPS (2677) (Non-emergency)**
- University of Idaho Campus Security
 - **208-885-2254**
- Department of Agricultural Education, Leadership & Communications
 - **208-885-6358**
- Local Hospital and urgent care:

Gritman Medical Center
715 South Main Street
Moscow, ID 83843
(208) 882-4511

Moscow Quick Care
2500 West A Street, #101
Moscow, ID 83843
(208) 882-0540

*Please NOTE: Students will not be allowed to receive medical attention at the Student Health Center on campus. They **MUST** go to the Emergency Room at Gritman Medical Center to receive treatment.*

University of Idaho

College / Dept	College:	Agricultural and Life Sciences	Department:	Agricultural Education, Leadership & Communications	
Activity Name	Future Farmers of America State of Idaho FFA Career Development Events	Date:	06/04/2024 through 06/07/2024	Location:	ID
Participant's Name	(First)	(Last)	(Age)	[] Male	[] Female
Address	(Home Address)			(City, State, Zip)	
Phones	(Cell)			(Home)	
Emergency contact(s)	Primary Contact Name:			(Relationship)	
	WORK PHONE:		HOME PHONE:	CELL:	
	Secondary Contact Name:			(Relationship)	
	WORK PHONE:		HOME PHONE:	CELL:	
<p>PLEASE NOTE: Hospitals and clinics require proof of coverage before providing treatment unless a life threatening situation exists. It is suggested that participants bring a copy of their insurance card. The participant is responsible for all medical expenses.</p>					

Acknowledgment of Risk and Waiver of Liability

Read this carefully and in its entirety. It is a binding legal document. **Sign and return** this form to 1134 W 6th St. Moscow, ID 83844 875 Perimeter Dr. MS 2040 Moscow, ID 83844. **If you are under the age of 18**, this form must be signed by you as the participant AND by your parent or legal guardian.

I, the undersigned participant or parent/guardian, am aware that participation in the Future Farmers of America State of Idaho FFA Career Development Events ("Activity") may include activities that are risky and dangerous. Both participant and his/her parent(s) / guardian(s) ("I") acknowledge and accept the risks and give permission for my participation in the Activity. I acknowledge that participation in this Activity has the following non-exhaustive list of particular activities that **bear risk and danger and from which bodily injury or illness to myself, or my child, up to and including death**, may occur: being in unfamiliar social and physical environments; academic learning opportunities while on campus or off; agricultural mechanics methods activity, including but not limited to use of arc and acetylene welding equipment and tools, tool reconditioning and repair, small engine troubleshooting, electrical and wiring problem solving, and copper and PVC pipefitting, soldering and gluing; agronomy methods activity, including but not limited to exposure to plants, insects, animals and chemicals; food products methods activity, including but not limited to exposure to bacteria, meats and milk products; forestry methods activity, livestock evaluation methods activity, including but not limited to, contact and access to farm animals, and chemicals; all of these physical activities related to the participation in, observation of, practice of, and /or competition in a variety of activities that would involve strenuous exertion that could place stress on cardiovascular and/or musculo-skeletal systems and result in cuts, punctures, broken bones, strain, sprains, eye injuries, joint injuries, heart malfunctions, concussions, and head injuries; contact or collision with objects, participants or bystanders in the environment; being hit or struck by items used in the activities or in the environment; risks related to transit to or from the Activity locations including, but not limited to, travel by private auto; rented auto; rented bus; and van, including travel in unpredictable or extreme weather conditions that affect the method of travel safety; use or operation, by me or others of equipment in the condition in which they are found; exposure to inclement weather including, but not limited to sun, rain, wind, and extremes of heat that could cause injury or illness including but not limited to heat exhaustion or stroke, sunburn, and dehydration; staying overnight in campus housing; and in commercial hotel; contact with animals, plants, insects and biological or environmental hazards; use of facilities, roads, sidewalks, parking lots, and trails that may or may not be properly maintained; activities supplemental to the Activity, such as walking or hiking to and from sites of interest; exposure to contaminated food and untreated water; risk related to the rendering or receipt of emergency first aid, or other emergency treatment, and transport in medical emergencies; accident or illness in locations without access to appropriate medical facilities or supplies; exposure to infectious disease and/or illnesses; and other unknown and unanticipated activities and risks.

In consideration of the University of Idaho ("UI") permitting me/my dependent to participate in the Activity, **I and my dependent hereby voluntarily accept all risks associated with participation. To the extent permitted by law, I agree to indemnify, defend, save, hold harmless, discharge and release the State of Idaho, the Regents of the University of Idaho, their agents and employees from any and all liability, claims, causes of action or demands of any kind and nature whatsoever that may arise out of or in connection with my participation in any activities related to the above-named Activity. I understand I am responsible for all medical expenses and/ or property losses.**

It is my express intent that this Acknowledgment of Risk and Waiver of Liability shall serve as a release, discharge and

acceptance of risk for my heirs, estate, executor, administrator, assigns and all members of my family. The venue of any dispute that may arise out of my or my dependent's participation in the Activity, if the University is a party to the dispute, shall be in Latah County, Idaho.

I acknowledge that the university makes no representation with respect to the safety of any personally owned vehicle in which I may travel, or with respect to the qualifications of the driver of any personally owned vehicle. I understand that if I choose to travel in a personally owned vehicle, it is my responsibility to determine the safety of the vehicle and qualifications of the driver.

I hereby certify that I am in good health and I know of no medical reason why I am not able to participate in the Activity. I hereby consent to first aid, emergency medical care and if necessary, admission to a hospital when necessary for administering such care, for treatment for injuries or illness that I may sustain while participating in the Activity.

If this is a University of Idaho sponsored and conducted Activity, and if I or my dependent has a disability, food or drug allergy, dietary requirements, or any condition requiring accommodation, I will contact the **Center for Disability Access and Resources (208) 885-6307 at least three weeks (21 days) prior to the start of the Activity**. If this is not a University of Idaho Activity, even if the Activity is being held at University of Idaho facilities, I will contact the organization that is conducting the Activity.

Whether or not I am a student, I will abide by: the University of Idaho Student Code of Conduct, Articles II through IX at <https://www.uidaho.edu/governance/policy/policies/fsh/2/2300>; the behavioral expectations of the Activity; and all applicable city, state and federal laws. My failure to do so may be considered grounds for denying my/my dependent's participation in the Activity.

I agree that you may photograph or video me in connection with the Activity. I agree that you shall be the exclusive owner of all images and all copyright and other rights in the images. I agree that you may use any image in any media you wish related to the University of Idaho. **If you DO NOT GIVE PERMISSION TO PRODUCE OR USE IMAGES, CHECK HERE ()**.

I () do () do not **(please check one)** authorize the University of Idaho to use my or my child's/dependent's contact information to inform me/him/her of upcoming university events and activities.

Note: If participant is under 18 years of age, a parent/legal guardian must also sign and accept responsibility for the participant's actions and terms of the above agreement.

PARTICIPANT'S SIGNATURE	PARENT / GUARDIAN SIGNATURE
Participant's Name (PLEASE PRINT):	Parent/ Guardian Name (PLEASE PRINT):
Participant's Signature (PLEASE USE BLUE INK):	Parent/ Guardian Signature (PLEASE USE BLUE INK):
X	X
Date:	Date:

PARTICIPANT ALLERGEN RELEASE FORM

All participants in Milk Quality and Products and Food Science Career Development Events MUST complete this form and submit it to the CDE Superintendent or representative prior to participation in the events. ALL signatures MUST be present for the student to be allowed to participate in the CDE.

We, the undersigned, have read the list of items used to prepare the milk defects as stated in the Idaho State FFA Career Development Event Rules under the section labeled:
Procedures for Preparing Samples of the Common Off-Flavors of Fluid Milk

The participant acknowledges no allergies to the listed ingredients and acknowledges that the Dairy Food Products used in the event MAY have come into contact with potential allergens. The participant and guardian(s) acknowledge that they have received this information and are aware of potential allergen risks.

By signing below, the student, (print name) _____ of the _____ FFA Chapter is given permission to participate in the Idaho FFA Milk Quality and/or Food Science Career Development Events considering the parameters outlined above.

Signed,

Participant

Parent / Guardian

Advisor

Request for Special Needs Accommodation for Idaho FFA State CDEs

Please complete the following information, print the completed form and secure necessary signatures. Please email or mail the signed form to Sarah Swenson for participation in the Idaho FFA State Career Development Events in Moscow, Idaho.

Sarah Swenson, Office Administrator

Department of Agricultural Education, Leadership & Communications

University of Idaho

875 Perimeter Drive, MS 2040 – Moscow, ID 83844

Email: sswenson@uidaho.edu Office: (208) 885-6358

This information will be kept strictly confidential and will be used only to process services for participants needing special needs assistance.

Member Information

Member Name: _____

Parent/Guardian Name, if member is under 21 years of age: _____

Member/Parent or Guardian phone number: _____

Home Address: _____

Advisor's Name: _____ Advisor's Phone Number: _____

Advisor's Email Address: _____

Chapter Name: _____

Chapter Address: _____

Name of Specific Event: _____

Description of Disability and Accommodations Requested

Specific Disability:

Please describe the limiting nature of the disability and the accommodations requested:

Student Signature/Date

Advisor Signature/Date

Parent Signature/Date

Authorized Faculty-Staff/Date

Career Development Event Information

Agricultural Communications

Teams: Made of Four (4) Idaho FFA members in good standing

Format:

Press Conference: Students will attend a 20-minute press conference on an agricultural topic followed by a 10-minute time period for questions from the students to the presenter.

Practicums: Teams will be provided a space to collaborate and work (as a group) for three hours to generate the following:

- A feature news story (journalistic writing style),
- A magazine layout for the news story,
- A social media plan (with 7-10 examples or posts),
- A “Broadcast Piece”
 - o A short video,
 - o A radio clip, or
 - o A podcast script.

Following the three-hour work session, the team will make a 5-10 Minute “Pitch” to judges about their communication plan, the items and messages generated, and rationale for what they did.

Editing and Mechanics Exam: Instead of two quizzes, the editing and writing mechanics exam will be one, 50-question test.

OF SPECIAL NOTE:

- There is NO LONGER a written media plan generated and a pre-planned presentation of it.
- The software used to generate the practicum components is open to team preferences. Laptops and software must be provided by the teams.
- Files will be submitted for judging in MP4 or PDF formats depending on submission type (audio/video vs visual)

Tentative Schedule:

8:15 AM - Teams meet for orientation.

8:30 AM - Press Conference

9:00 AM - Teams begin presentation preparations and completion of practicums.

Noon - Lunch and draw for presentation order.

12:30 PM - Teams #1 and #2 move to a holding room - ALL other teams take the Writing Mechanics Exam

12:45 PM - Team #1 sets up, presents and takes down

1:15 PM - Team #2 sets up, presents, and takes down - Team #1 move to the Exam Room to complete the Writing Mechanics Exam.

1:45 PM - Team #3 sets up, presents, and takes down - Team #2 move to the Exam Room to complete the Writing Mechanics Exam

2:15 PM - Team #4 sets up, presents, and takes down.

2:45 PM - Team #5 sets up, presents, and takes down.

3:15 PM - Team #6 sets up, presents, and takes down.

3:45 PM - Team #7 sets up, presents, and takes down.

4:15 PM - Team #8 sets up, presents, and takes down.

MORE SPECIAL NOTES:

- This is a ***tentative*** schedule based on what we know at this point. It may be revised as more information is collected. When the schedule is finalized, it will be shared.
- Presentation start times are not rigid. When one team is finished and the judges are ready, the next team will be brought in.

This will be a long day where students will be sequestered from outside contact. Plans need to be made for student to come prepared for such a day including any food, water, or medical needs.

Dairy Cattle Handlers

We ask that only one best handler per chapter participate in the event.

Dairy handlers should be in their official FFA jacket, white shirt, tie/scarf, white pants, and sturdy shoes. If weather is hot, handlers will be allowed to show without wearing their FFA jackets.

Agricultural Mechanics CDE

The areas to be covered include:

Arc Welding
Oxy-Acetylene and TIG Welding
Tool Reconditioning and Metal ID

Tool and Hardware Identification
Residential Electricity
Small Gas Engines

***NOTE:** Due to UI liability, high top leather shoes will be required for welding. Any students not wearing leather shoes will not be permitted to weld. Agricultural Systems Management will provide **all** arc-welding electrodes.*

Please note the enclosed information on the welding sections of the Agricultural Mechanics Event.

Forestry CDE

The Forestry Event will be held on Wednesday, June 5th at 12:00 noon in the University of Idaho Experimental Forest.

Do to possible inclement weather, participants should bring warm clothing. Those participating in this event may wish to acquire a lunch before leaving Moscow. The Forestry participants should return to UI campus before 4:00 p.m.

Meats Technology CDE

The Meats Event will be conducted as per the event rules. **Participants will be responsible for furnishing their own frocks and bump/hard hats. These should be clean frocks and clean headwear. If the participant does not have a frock at the Event, they will NOT be allowed to participate.**

Frocks and bump/hard hats are available for advisors assigned to the event.

Food Science & Technology CDE

Will follow the Idaho State CDE Rules.

Dairy Cattle CDE

Two classes of dairy cattle will be shown by handlers. The remaining four classes of dairy cattle will be in pens and NOT handled.

Livestock Evaluation CDE

Oral reasons will be given on two classes.

Milk Quality & Products CDE

Will follow the Idaho State CDE Rules.

Environmental & Natural Resources CDE

The practicums for 2024 will be:

1. Environmental Analysis
2. GPS Location
3. Water Analysis

Environmental & Natural Resources CDE information is available at:

<http://enviroscicde.wordpress.com>

General Rules

Instructors and participants should be well versed in the General Rules and Regulations for Idaho State FFA Career Development Events which are found on pages 1 through 3 of the State Event Rules and Regulations – 2017-2023. <http://theiata.com/cde-rules>

AGRICULTURAL MECHANICS INFORMATION - 2024

GENERAL

- * Safety glasses are required to be worn at all times in all Events except Tool I. D.
- * Gauntlet gloves, long sleeves and high top leather shoes are required in welding. Participants will not be allowed to participate without them.
- * A clipboard and pencil are required for tool I.D.
- * A pencil is required for small engines and electricity.
- * There will be 5 minutes of instruction and 45 minutes of work time for each Event. There will be 5 minutes passing time between parts of the Event.
- * We would like to limit the number of advisors and parents that walk through the facility while the contest is going. Once we have the 4th rotation started advisors, parents, and guests may observe.

ARC WELDING

Lincoln electrodes Fleetweld 5P, 37, 35 and Lincoln 7018 Excalibur 1/8" will be furnished by Agricultural Systems Management. Participants ARE NOT to furnish their own electrode. Students should bring coveralls, welding gloves, leather shoes, and may bring their own helmet.

OXY-ACETYLENE and TIG WELDING

Participants may provide their own filler rod if they choose. Students should bring coveralls, leather shoes, welding gloves, and may bring their own helmet.

All participants must provide their own 3/32", sharpened, ceriated tungsten electrodes for TIG welding. Shielding gas will be Argon.

TOOL AND HARDWARE IDENTIFICATION

Will be timed for 45 minutes. Participants will proceed at their own pace and may go back. Clipboard and pencil required.

RESIDENTIAL ELECTRICITY

The Electricity event will consist of a written test and a wiring practicum. Students may bring their own wiring tools, however tools will be provided. Participants are encouraged to bring their own multimeter, but meters will be available. A pencil is required.

TOOL RECONDITIONING/METAL IDENTIFICATION

Each participant shall be required to provide the following at the beginning of the tool reconditioning phase of the event:

- One-half inch twist drill bit
- One-half inch common cold chisel

All other materials and tools shall be provided for this part of the event

Participants will identify metals using the following methods: visual, spark test, weight, magnetism, hardness and chemical

SMALL GAS ENGINES

The Small Engines event will consist of a written test problem solving and a trouble shooting portion. We will be using the overhead valve engine 130G32. Problem solving will include questions from the Briggs and Stratton L-head and Overhead manuals. May also include finding part numbers using the Briggs and Stratton website. Pencil is required.

**ARC WELDERS
FOR 2024 STATE AGRICULTURAL MECHANICS CDE**

<u>BRAND</u>	<u>MODEL</u>	<u>AC - DC</u>
Lincoln	Idealarc AC - 250	AC
Lincoln	Idealarc 250	AC/DC
Lincoln	Precision TIG 225 Stick	AC/DC

MIG WELDERS FOR 2024 AG MECH EVENT

Welding machines are Lincoln Power MIG 255 and 256

Welding Wire – Type ER70S-6 - Diameter .035”

Shielding Gas will be CO2

**OPERATIONAL INFORMATION FOR OXY-ACETYLENE
WELDING AT THE 2024 STATE AG MECH EVENT**

All torches are Victor Super Range.

The enclosed chart lists the tip size by number, the corresponding metal thickness, and the corresponding oxygen pressure range for welding and cutting.

Victor tips #0, 1, 2, & 3 will be available for use. If the participant is not absolutely sure of the tip size, the participant shall ask the judge for help. Tip cleaners will not be available for participant use. The official judge will clean tips for the participants if necessary.

For the cutting portion of the Event, the metal chosen by the Event chairman will be in the range of thickness from 1/4" to 5/8". These metal thicknesses call for cutting tip numbers 00, 0, and 1 with a corresponding difference in pressure.

FUSING AND BRAZE WELDING RODS FOR THE 2024 STATE AG MECH EVENT

While participants may supply their own gas-welding rod, they are not required to do so.

For fusion welding, participants will have available rods in sizes of 1/16, 3/32, and 1/8 inch.

For braze welding, participants will have access to an all-purpose, low fuming, flux coated bronze rod suitable for making high strength braze welds in the sizes of 3/32 and 1/8 inch. Additional flux will be available for the participant to use.

**Oxy-Acetylene Welding Equipment
Victor Cutting (Nozzles) Tips**

Nozzle	Steel Thickness	Gas Pressure, psg	
Size	Inches	Oxygen	Acetylene
00	1/4	23	5
0	3/8	28	
0	1/2	33	
1	3/4		

Victor Welding Tip Data

Welding Head Tip Size	Metal Thickness Inches	Acetylene Pressure (psi)	Oxygen Pressure (psi)	Cleaning Drill (Size No.) for Tip
00	1/16 - 3/64	5	5	70
0	1/32 - 5/64			65
1	3/64 - 3/32			60
2	1/16 - 1/8			56
3	1/8 - 3/16			53

Operation

4.14 DIRECT CURRENT MEASUREMENT

WARNING

- DO NOT CHANGE THE RANGE SETTING OF THE RANGE OR FUNCTION SWITCHES WHILE THE CIRCUIT UNDER MEASUREMENT IS ENERGIZED.
- NEVER DISCONNECT THE TEST LEADS FROM THE CIRCUIT UNDER MEASUREMENT WHILE THE CIRCUIT IS ENERGIZED.
- ALWAYS TURN THE POWER OFF AND DISCHARGE ALL THE CAPACITORS BEFORE THE SETTING OF THE SWITCHES IS CHANGED, OR THE LEADS DISCONNECTED.
- NEVER EXCEED THE CIRCUIT-TO-GROUND VOLTAGE OF THE INSTRUMENT (1000 V MAX., TABLE 1-1, ITEM 16).
- ALWAYS CONNECT THE INSTRUMENT IN SERIES WITH THE GROUND SIDE OF THE CIRCUIT.
- IN ALL DIRECT CURRENT MEASUREMENTS, MAKE CERTAIN THE POWER TO THE CIRCUIT BEING TESTED HAS BEEN TURNED OFF BEFORE CONNECTING AND DISCONNECTING TEST LEADS OR RESTORING CIRCUIT CONTINUITY.

4.15 DIRECT CURRENT MEASUREMENT 0-50 μ A RANGE

- a. Set the function switch at +DC.
- b. Plug the black test lead into the - COMMON jack and the red test lead into the +50 μ AMPS/250mV jack.
- c. Set the range switch at 50 μ AMPS (dual position with 50V).

4-18

Operation

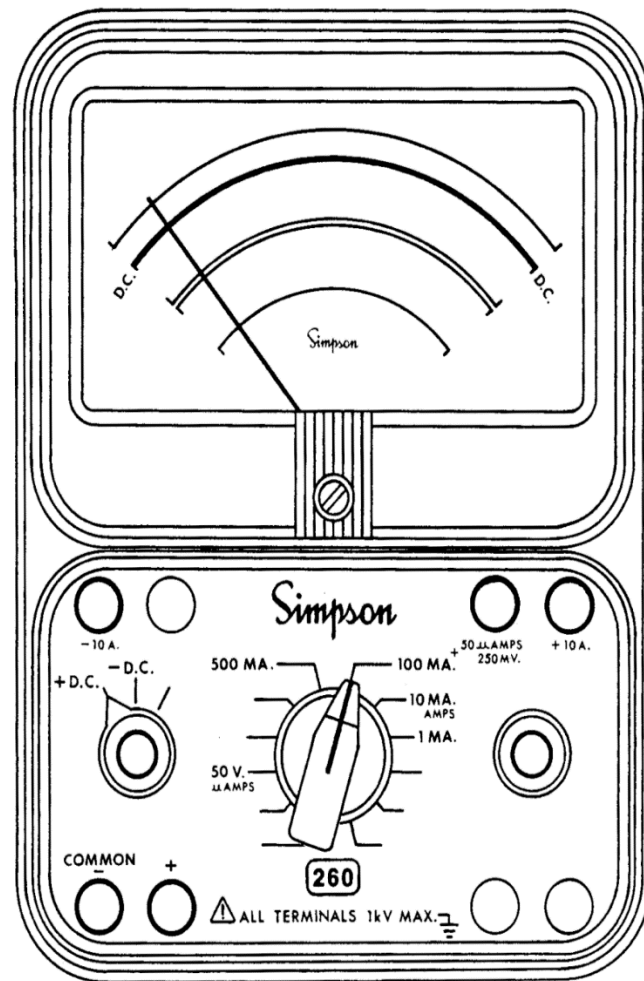


FIGURE 4-7. JACKS AND SWITCH POSITIONS FOR MEASURING DIRECT CURRENT

4-19

Operation

- d. Open the ground side of the circuit in which the current is being measured. Connect the VOM in series with the circuit. Connect the red test lead to the positive side and the black test lead to the negative side.
- e. Read the current on the black DC scale. Use the 0-50 figures to read directly in microamperes.

NOTE: For polarity reversing see paragraph 4.3.

4.16 DIRECT CURRENT MEASUREMENT 0-1mA THROUGH 0-500mA RANGE

- a. Set the function switch at +DC (Figure 4-7).
- b. Plug the black test lead into the - COMMON jack and the red test lead into the + jack.
- c. Set the range switch at one of the four range positions marked 1 mA, 10 mA, 100 mA or 500 mA.
- d. Open the grounded side of the circuit in which the current is being measured. Connect the VOM in series with the circuit. Connect the red test lead to the positive side and the black test lead to the negative side.
- e. Turn the power on. Read the current in milliamperes on the black DC scale. For the 1mA range, use the 0-10 figures and divide by 10. For the 10mA range, use the 0-10 figures directly. For the 100mA range, use the 0-10 figures and multiply by 10. For the 500mA range, use the 0-50 figures and multiply by 10.
- f. Turn the power off and disconnect the test leads.

Operation

4.17 DIRECT CURRENT MEASUREMENT 0-10A RANGE

- a. Plug the black test lead into the -10A jack and the red test lead into the +10A jack.
- b. Set the range switch at 10 AMPS (dual position with 10mA).
- c. Open the ground side of the circuit in which the current is being measured. Connect the VOM in series with the circuit. Connect the red test lead to the positive side and the black test lead to the negative side.

NOTE: The function switch has no effect on polarity for the 10 AMPS range.

- d. Turn the power on. Read the current directly on the black DC scale. Use the 0-10 figures to read directly in amperes.
- e. Turn the power off and disconnect the test leads.

CAUTION

- The 10A range is not internally fused in the 260.
- When using the 10A range, never disconnect a test lead from a jack or from the circuit while the circuit is energized. Doing so may likely damage the test jacks or leads and the arcing may be hazardous to the operator. Turn off circuit power and wait for the meter reading to drop to zero.
- The polarity reversing feature of the function switch does not operate on the 0-10A range. If polarity is found to be incorrect, turn off circuit power, wait for the meter indication to reach zero and then interchange test lead connections to the circuit.