2022 State FFA Career Development Events
June 7-10, 2022
Event Schedule

Tuesday, June 7, 2022

12:00 – 3:00 p.m.  CDE Check-In
                  J. Martin Lab
1:00 – 4:30 p.m.  Housing Registration
                  Wallace
5:00 p.m.        Livestock Evaluation CDE – Livestock Pavilion
5:00 p.m.        Potato Evaluation CDE - TBD
8:00 - 9:00 p.m.  CDE Opening Ceremonies – ICCU Arena

Wednesday, June 8, 2022

9:00 a.m.        Agricultural Mechanics CDE Group 1 – J. Martin Lab
9:00 a.m.        Entomology CDE -
9:00 a.m.        Marketing Plan CDE – Ag Science
11:00 a.m.       Agricultural Mechanics CDE Group 2 – J. Martin Lab
12:00 p.m.       Forestry CDE (Buses load and depart from J. Martin Lab)
12:00 p.m.       Food Science & Technology CDE – Teacher and Learning Center
5:30 p.m.        Agronomy CDE – J. Martin Lab
6:00 p.m.        Veterinary Science CDE – Pitman Center

Thursday, June 9, 2022

8:00 a.m.        Dairy Cattle Evaluation CDE – UI Dairy
8:00 a.m.        Veterinary Science CDE – Pitman Center
9:00 a.m.        Ag Communications CDE – Teacher and Learning Center
12:00 p.m.       Environmental & Natural Resources CDE – ENR
12:00 p.m.       Milk Quality & Dairy Products CDE – Pitman Center
12:00 p.m.       Nursery/Landscape CDE - J. Martin Lab
4:00 p.m.        Meats Evaluation & Technology CDE– Livestock Pavilion/Meats Lab

7:00 – 8:30 p.m.  Agricultural Teacher Appreciation Dinner – ICCU Arena
7:00 – 9:00 p.m.  FFA CDEs on the Green – ICCU Arena – East Field

Friday June 10, 2022

7:30 a.m.        CDE Awards Assembly
                  ICCU Arena
Dates, Deadlines, Fees and Forms

Please read carefully as the process has changed

2022 On-Time Registration: $35.00 per attendee on or before May 20, 2022

2022 Late Registration: $50.00 per attendee beginning May 21, 2022
Registration will close on May 31, 2022 at 10:59 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/bgAjuGeCksunX1MX9

- 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 June 1. No changes to form after June 1. Substitutions after June 1 must be submitted using the Registration Change Form.

- After you submit your registration form, you will be emailed an invoice to complete via credit card on UI Marketplace or by check turned in at Event Check-in. Credit card payments must be paid by registration deadline to avoid automatic late-fee. Checks may be mailed in advance or turned in during check-in.

- 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 with you during the event for each student:
  - Permission / Waiver of Liability Form
  - Acknowledgement of Risk and Waiver of Liability Form

- 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. Students can not participate in these events without the form.
  - Participant Allergen Release Form (for participants in Milk Quality and Food Science CDEs)

- If your student needs Special Needs Accommodations, please return this form by email by June 1
  - Request for Special Needs Accommodation Form (If Applicable)

Ag 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 27. Any requests for changes to assignments must be emailed to sswenson@uidaho.edu by June 2. Some events will have zoom meetings June 1-3 to detail expectations during the events.

University of Idaho CDE Invitational: Teams participating in the Invitational will need to register at https://forms.gle/FtENMLYSqb18hTNr8
Event Information

Event Rules

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

<table>
<thead>
<tr>
<th>Event</th>
<th>Clothing and Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock</td>
<td>FFA Jacket</td>
</tr>
<tr>
<td>Forestry</td>
<td>FFA Jacket, inclement weather gear, sturdy shoes</td>
</tr>
<tr>
<td>Food Science and Technology</td>
<td>FFA Jacket</td>
</tr>
<tr>
<td>Agricultural Mechanics</td>
<td>Coveralls, sturdy shoes, safety glasses, etc.</td>
</tr>
<tr>
<td>Agronomy</td>
<td>FFA Jacket</td>
</tr>
<tr>
<td>Marketing Plan</td>
<td>Official FFA Dress</td>
</tr>
<tr>
<td>Dairy Cattle</td>
<td>FFA Jacket, inclement weather gear, study shoes</td>
</tr>
<tr>
<td>Dairy Foods</td>
<td>FFA Jacket</td>
</tr>
<tr>
<td>Veterinary Science</td>
<td>Official FFA Dress (Wednesday); Lab Smocks or Polos (Thursday)</td>
</tr>
<tr>
<td>Environmental and Natural Resources</td>
<td>FFA Jacket, inclement weather gear, sturdy shoes</td>
</tr>
<tr>
<td>Ag Communications</td>
<td>Official Dress</td>
</tr>
<tr>
<td>Meats Technology</td>
<td>FFA Jacket, warm jacket, white coat, hard hat</td>
</tr>
<tr>
<td>Entomology</td>
<td>FFA Jacket</td>
</tr>
<tr>
<td>Nursery/Landscape</td>
<td>FFA Jacket</td>
</tr>
<tr>
<td>Potato (if approved)</td>
<td>FFA Jacket</td>
</tr>
</tbody>
</table>
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
- Studio 1 208-882-5511
- Super 8 208-883-1503

Chapters that would like to stay on campus will arrange their housing through the University Housing office at: [www.uidaho.edu/summerconferences](http://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.

If, for some reason, an Agriculture Instructor is not the person bringing the FFA members to the Career Development Events, the person in charge of those students must have a signed statement from the school administration stating that the parent, bus driver or chaperone has been approved by the school administration to supervise the students.
Permission/Waiver of Liability Form

All participants must complete the Permission/Waiver of Liability Form located on the next page of this packet. This form must be filled out completely by every individual coming to campus for State CDEs. Agriculture teachers should keep these forms in a file that is accessible at all times in case there is an emergency. The Permission/Waiver of Liability Form is NOT to be turned in to the Department of Agricultural Education, Leadership & Communications.
YOU MUST COMPLETE A FORM FOR EACH FFA MEMBER THAT YOU BRING TO MOSCOW. A PARENT OR GUARDIAN MUST SIGN IT.

PLEASE DUPLICATE THE HEALTH RELEASE FORM AND BRING ONE FOR EACH STUDENT.

Name: ____________________________________________________________________________________________
(First) (Last)

County: ___________________________ District: ___________________________

Age: _________ Date of Birth: _______________ ☐ Male ☐ Female

Address: __________________________________________________________________________________________
(Street)

_________________________ ___________ __________
(City) (State) (Zip)

Phone: __________________________________________________________________________________________
(Home) (Work) (Cell)

Emergency Contact & Insurance Information

Contact 1 Name: ___________________________ Relationship: ___________________________

Home Phone: ___________________________ Work Phone: ___________________________ Cell: ___________________________

Contact 2 Name: ___________________________ Relationship: ___________________________

Home Phone: ___________________________ Work Phone: ___________________________ Cell: ___________________________

Medical Insurance Company Name: __________________________________________________________________

Policy Number: ___________________________ Group Number: ___________________________

*PLEASE NOTE: Hospital requires SSN before providing treatment and suggests that participants bring a copy of their insurance card. Participants are covered by an American Income Life accident/illness policy while participating in activities sponsored by our program. In the event of injury or illness arising from participation in program activities, American Income Life must be notified within 20 days of the date of illness or injury. The Program staff will have information on filing claims. Insurance provided through American Income Life provides only limited protection for injuries or illnesses which occur while participants are participating in program activities, and the participant’s family is responsible for all medical expenses not covered by program insurance.
Acknowledgement of Risk and Waiver of Liability

Parent/Guardian Permission

Both participants and parent(s) / guardians must read this Acknowledgement of Risk and Waiver of Liability carefully and in its entirety. It is a binding legal document. Sign and return this form to your Advisor. In case of an emergency, the Advisor will have these forms with him or her at the event. 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, am aware that participation in the Idaho State FFA Career Development (“Program”) may include activities that are risky and dangerous. Both participant and their parent(s) / guardians (“I”) acknowledge and accept the risks and give permission for participation in the Program. I acknowledge that participation in this Program has the following non-exhaustive list of particular activities that bear risk and danger and from which bodily injury to myself, or my child, up to and including mortal injury, may occur: 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 pipelining; soldering and gluing; agronomy methods activity 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; academic learning opportunities while on campus or off; field trips; activities supplemental to the Program, such as walking or hiking to and from sites of interest; use or operation, by myself or others, of equipment; physical and sports activities, including a dance; being outside or in the presence of inclement weather conditions including, but not limited to, lightning and wind; contact with plants, animals or other environmental hazards; transit to or from the Program locations and activity locations including but not limited to travel by bus, van or private auto; use of roads, trails, terrain, and other routes in the condition in which they are found; staying overnight on or off campus; rendering of first-aid, emergency treatment or other services; consumption of food or drink; or other unknown and unanticipated activities and risks.

In consideration of the University of Idaho (“UI”) permitting me/my dependent to associate with the program, I and my dependent hereby voluntarily assume all risks associated with participation. To the extent permitted by law, I agree to indemnity, 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 which may arise by or in connection with my participation in any activities related to the above named Program.

It is my express intent that this Acknowledgement of Risk and Waiver of Liability shall serve as a release, discharge and assumption of risk for my heirs, estate, executor, administrator, assigns and all members of my family.

I hereby certify that, with or without accommodation, I and/or my dependent is in good health and I know of no medical reason why he/she is not able to participate in this program. I hereby consent to first aid, emergency medical care and if necessary, admission to an accredited hospital when necessary for executing such care, for treatment for injuries that he/she may sustain while participating in any Program associated with the above named Program.

I understand that any insurance provided through this program provides only limited protection for injuries which occur while participation and that I am responsible for all medical expenses not covered by program insurance. If I and/or my dependent has a disability requiring accommodation, I will contact the program director prior to the start of the Program.

I accept and will abide by the University of Idaho Policies available online at www.uidaho.edu/infrastructure/pss/risk-management or by contacting Risk Management at (208) 885-7177. I accept and will abide by the behavioral expectations of Idaho State FFA Career Development Events, applicable city, state and federal laws, and the policies and procedures of the University of Idaho. I understand that disregard for University of Idaho policies and applicable laws may be considered grounds for dismissal from Program, and prompt return home at my/parent expense.

I agree that you may photograph my child during, and in connection with, the Program. I agree that you shall be the exclusive owner of the photograph and all copyright and other rights of the photograph. I agree that you may use the photograph in any media you wish related to the University of Idaho Program.

If you DO NOT GIVE PERMISSION TO PHOTOGRAPH YOUR CHILD, CHECK HERE ☐

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 Name (PLEASE PRINT) Participant’s Signature Date

--------------------------------- ____________________________ ________________
Parent / Guardian Name (PLEASE PRINT) Parent / Guardian Signature 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 ___________________________
2022 State FFA Career Development Events

Registration Change Form

- Please list all registration changes.
- Deadline for registration changes is June 6, 2022. Form to be emailed to Sarah Swenson at sswenson@uidaho.edu

Chapter: ____________________________

<table>
<thead>
<tr>
<th>Event</th>
<th>Current Team Member</th>
<th>New Team Member</th>
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Career Development Event Information

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 Welding
- Tig Welding
- Small Gas Engines
- Tool and Hardware Identification
- Residential Electricity
- Plastic Pipe Fitting

**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 Engineering will provide all arc-welding rods.

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 9th at 12:00 noon at a location to be determined.

Due 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 lab coats. If the participant does not have a lab coat at the Event, they will NOT be allowed to participate. It is anticipated that the event will be conducted in one group so do not plan to share lab coats with a team participating in the other group. Lab coats WILL NOT be available for either students OR instructors.

Food Science & Technology CDE

It will be held on Wednesday at 12:00 pm in the Teaching Learning Center (TLC). The TLC building is next to the Library and Memorial Gym and attached to the Commons.

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 in 2022.
**Milk Quality & Products CDE**

The Dairy Foods CDE will follow the normal format according to the CDE rules.

**Environmental & Natural Resources CDE**

The practicums for 2022 will be:
1. Environmental Analysis
2. GPS Location
3. Water Analysis: Contestants will be presented with a water sample and perform tests on the sample to then give recommendations based on the output.

Environmental & Natural Resources CDE information is available at: http://enviroscicde.wordpress.com/event-info/

**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 – 2017-2022.

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**AGRICULTURAL MECHANICS TIME SCHEDULE - 2022**

**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 can observe.

**ARC WELDING**

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

**OXY-ACETYLENE WELDING**

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

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 can bring their own wiring tools, however they will be provided for those that want to use them. Participants are encouraged to bring their own multimeter, but meters will be available. A pencil is required.

**PLASTIC PIPE FITTING**

Students may bring their own cutting tools if they want. Hack saws with Miter boxes will be provided as well as glue and primer.

**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 will be 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 2022 STATE AGRICULTURAL MECHANICS CDE**

<table>
<thead>
<tr>
<th>BRAND</th>
<th>MODEL</th>
<th>AC - DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lincoln</td>
<td>Idealarc AC - 250</td>
<td>AC</td>
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<tr>
<td>Lincoln</td>
<td>Idealarc 250</td>
<td>AC/DC</td>
</tr>
<tr>
<td>Lincoln</td>
<td>Precision TIG 225 Stick</td>
<td>AC/DC</td>
</tr>
</tbody>
</table>

**MIG WELDERS**

**FOR 2022 AG MECH EVENT**

Welding machines are Lincoln Power MIG 255 and 256

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

Shielding Gas will be CO2
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 2022 STATE AG MECH EVENT

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

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

<table>
<thead>
<tr>
<th>Nozzle</th>
<th>Steel Thickness</th>
<th>Gas Pressure, psg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Inches</td>
<td>Oxygen</td>
</tr>
<tr>
<td>00</td>
<td>¼</td>
<td>23</td>
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<tr>
<td>0</td>
<td>3/8</td>
<td>28</td>
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<td>½</td>
<td>33</td>
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<tr>
<td>1</td>
<td>¾</td>
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<tr>
<td>Welding Head Tip Size</td>
<td>Metal Thickness Inches</td>
<td>Acetylene Pressure (psi)</td>
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<tr>
<td>00</td>
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<td>0</td>
<td>1/32 - 5/64</td>
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<td>1</td>
<td>3/64 - 3/32</td>
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<td>2</td>
<td>1/16 - 1/8</td>
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<td>3</td>
<td>1/8 - 3/16</td>
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</table>
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 0-50μA 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 +50μAMPS/250mV jack.
c. Set the range switch at 50μAMPS (dual position with 50V).

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

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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.

**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.