

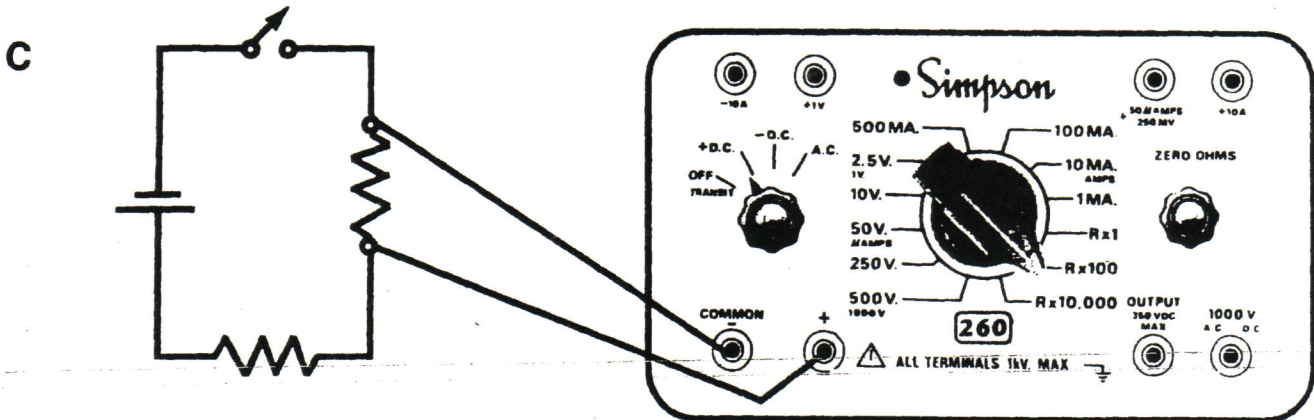
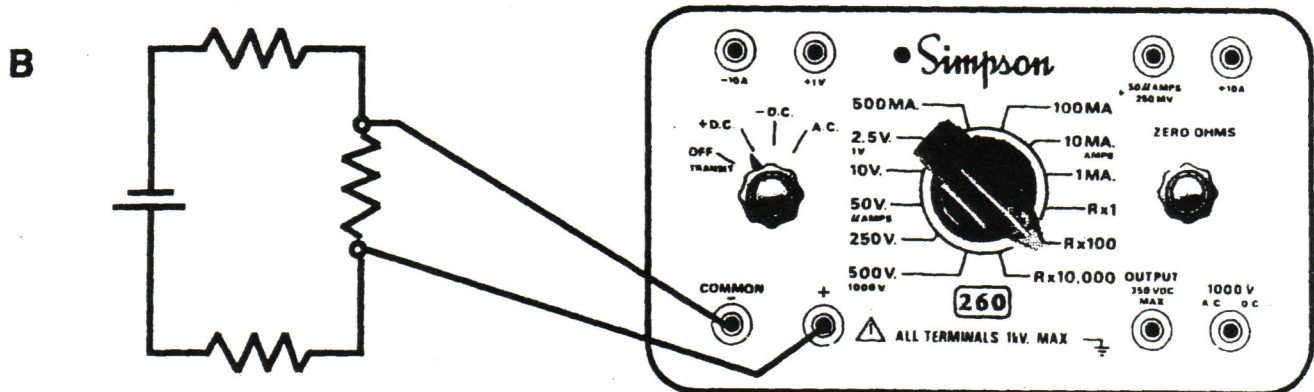
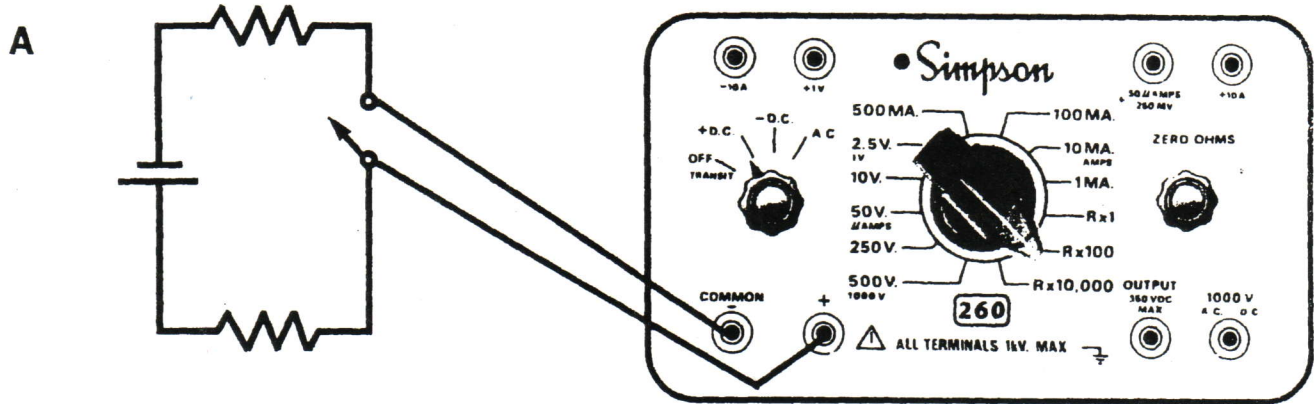
Volt Ohm Milliammeter Test

Simpson 260 Series 8

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Answer the following test questions.

1. Select the illustration below that shows the (#1) correct circuit conditions, (#2) Volt Ohm Milliammeter set-up, (#3) and test lead connections for measuring resistance.



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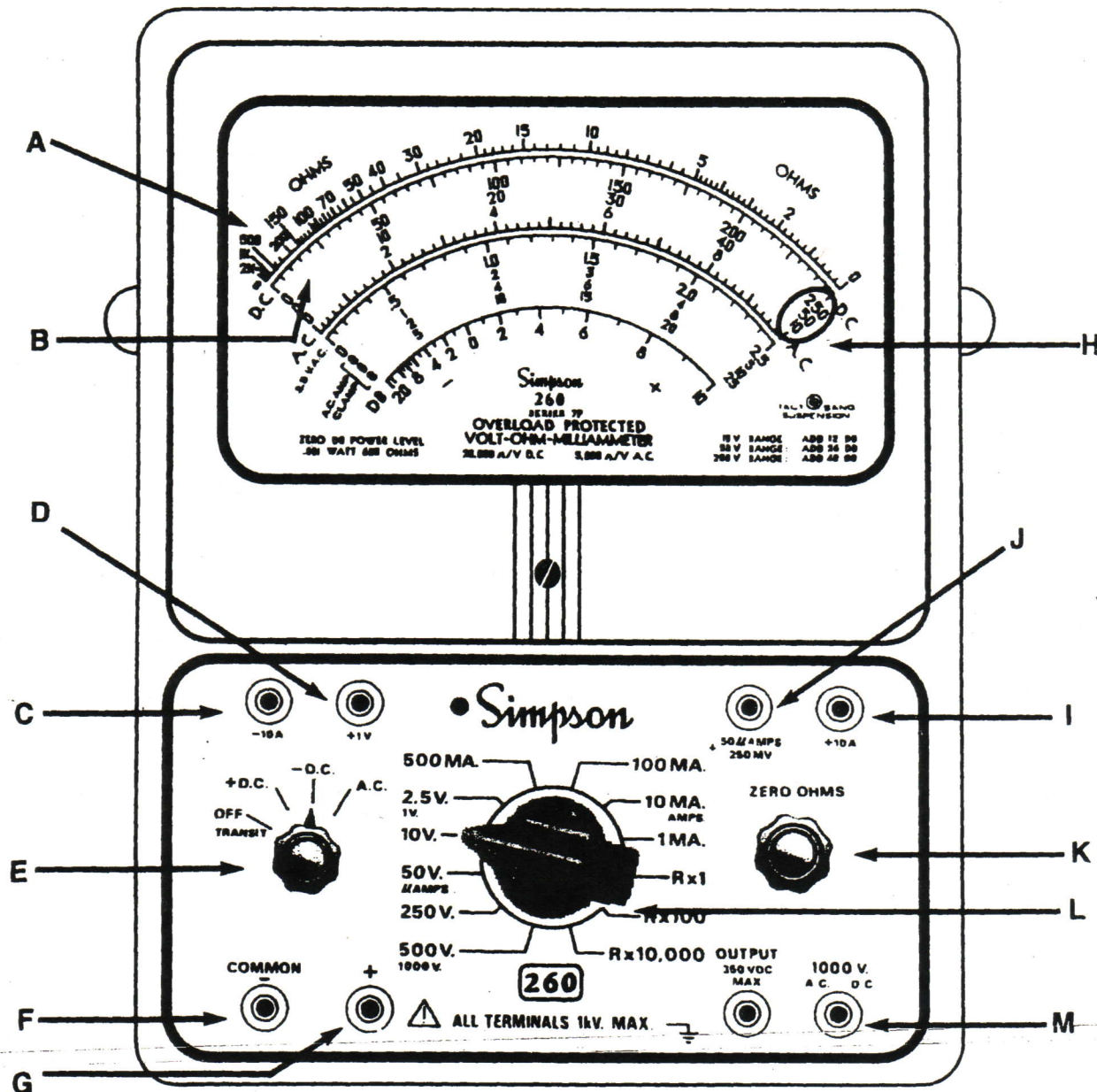
2. Match the parts of the Meter used to measure resistance from the illustration below. Match all the items in column 'A', with the correct sequence of letters from column 'B'. There is only one correct answer in column 'B'.

A

Range Selector Switch
Zero Ohms Adjust
Positive (+) Jack
Common (-) Jack
Function Switch

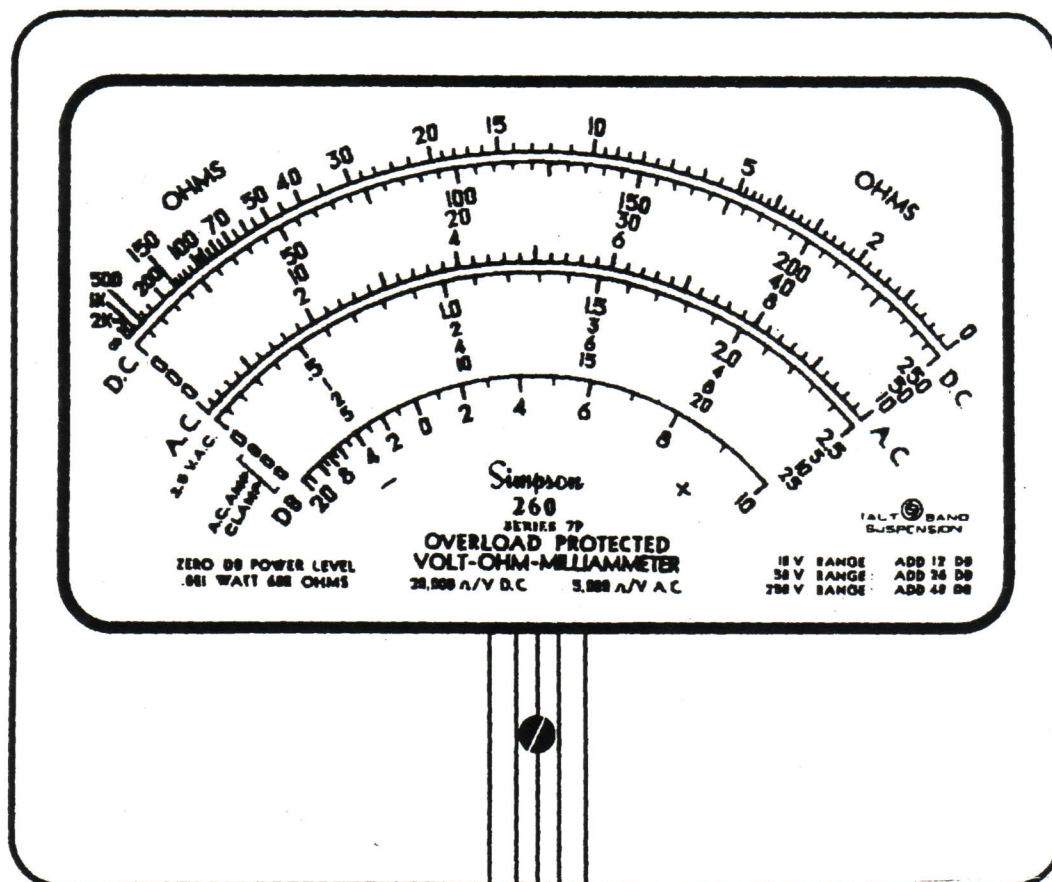
B

(A.) E, K, B, F, A
(B.) E, G, D, B, J
(C.) L, K, G, F, E
(D.) L, G, I, M, J
(E.) L, K, G, E, F



3. Where is the symbol ∞ located, and what is its purpose?

- A. Far right hand end of the scale, indicates no resistance.
- B. Far left hand end of the scale, indicates zero ohms of resistance.
- C. Far left hand of the scale, indicates infinite resistance.
- D. Far right hand end of the scale, indicates infinite resistance.
- E. Far left hand end of voltage scale.



4. Which position(s) of the range switch is correct for making resistance measurements?

- A. R x 10, R x 100, R x 1000
- B. R x 10, R x 1000, R x 10,000
- C. R x 1, R x 100, R x 10,000
- D. E x 1, R x 100, R x 10,000
- E. R x 1, R x 1000, R x 10,000

5. Select the best answer that shows the correct position of the function switch for measuring resistance

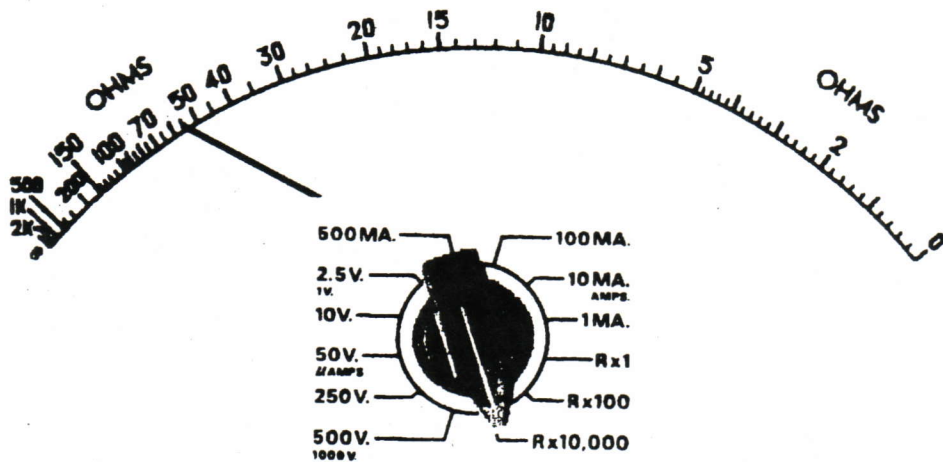
- A. +DC or -DC
- B. AC
- C. R x 1
- D. R x 10,000
- E. A and B

6. Which of the descriptions below of "test lead connections" is correct for measuring resistance?

- A. Black lead to common (-); red lead to +100
- B. Red lead to common (-); black lead to -10A
- C. Black lead to common (-); red lead to positive (+)
- D. Red lead to common (-); Black lead to positive (+)
- E. I should have studied. (This is not the correct answer).

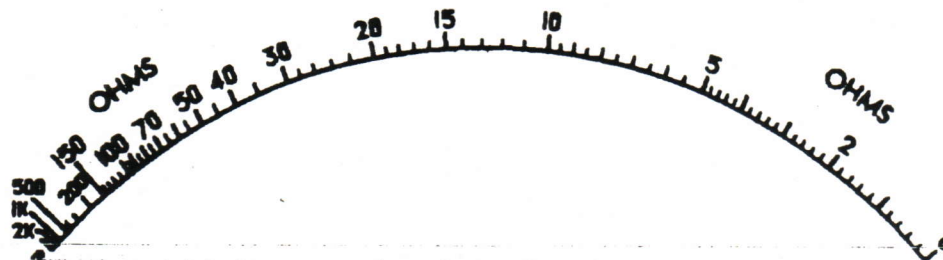
7. The resistance indicated on the scale is:
(Hint, how many graduations between '50' and '70'?)

- A. 55 ohms
- B. 60 ohms
- C. 55,000 ohms
- D. 550,000 ohms
- E. 5,500 ohms



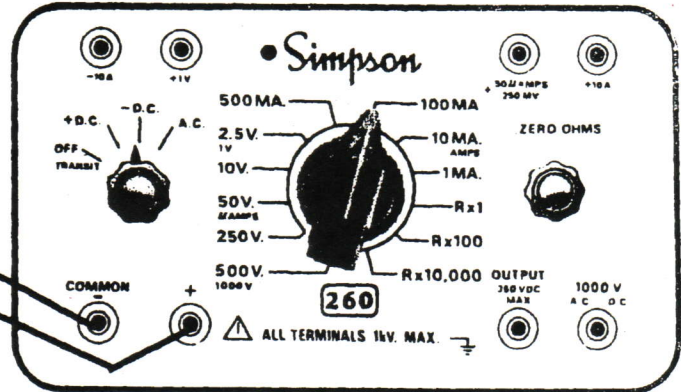
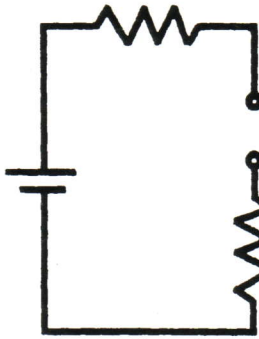
8. What is the increment value between the 50 ohm and 70 ohm scale divisions?

- A. 10
- B. 5
- C. 50
- D. 20
- E. 0.5

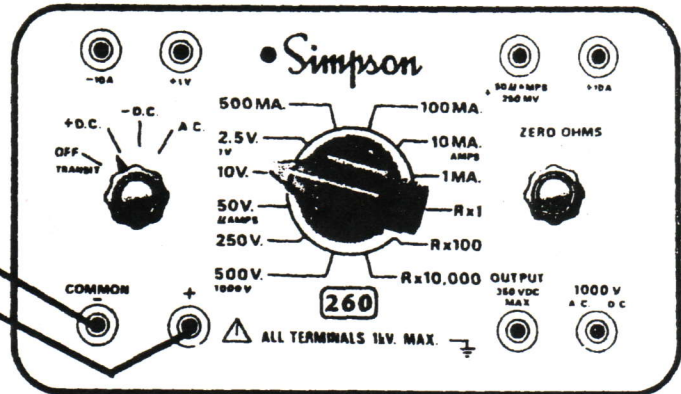
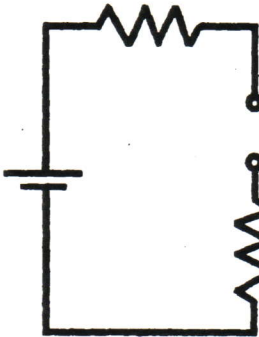


9. Which schematic on this page shows the (1) proper circuit conditions, (2) meter set-up and (3) test lead connections for measuring **DC current**?

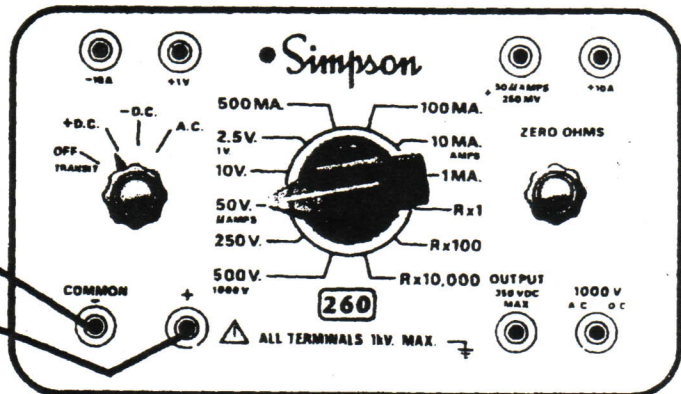
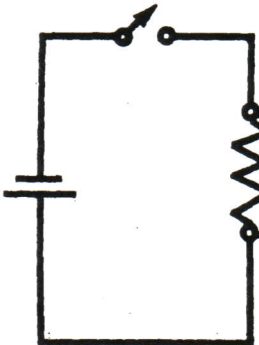
A



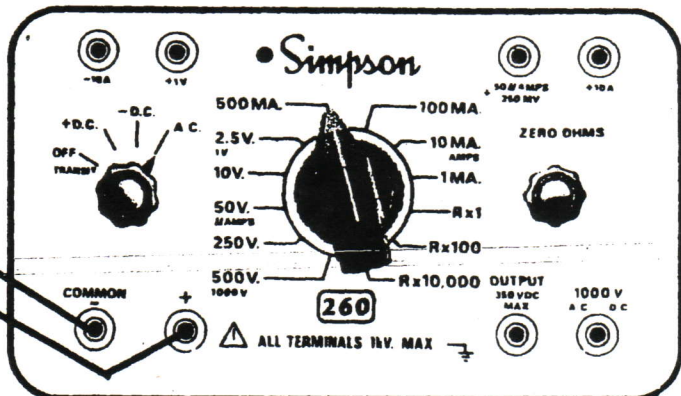
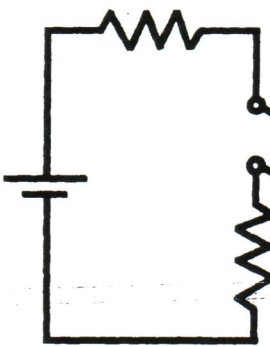
B



C



D



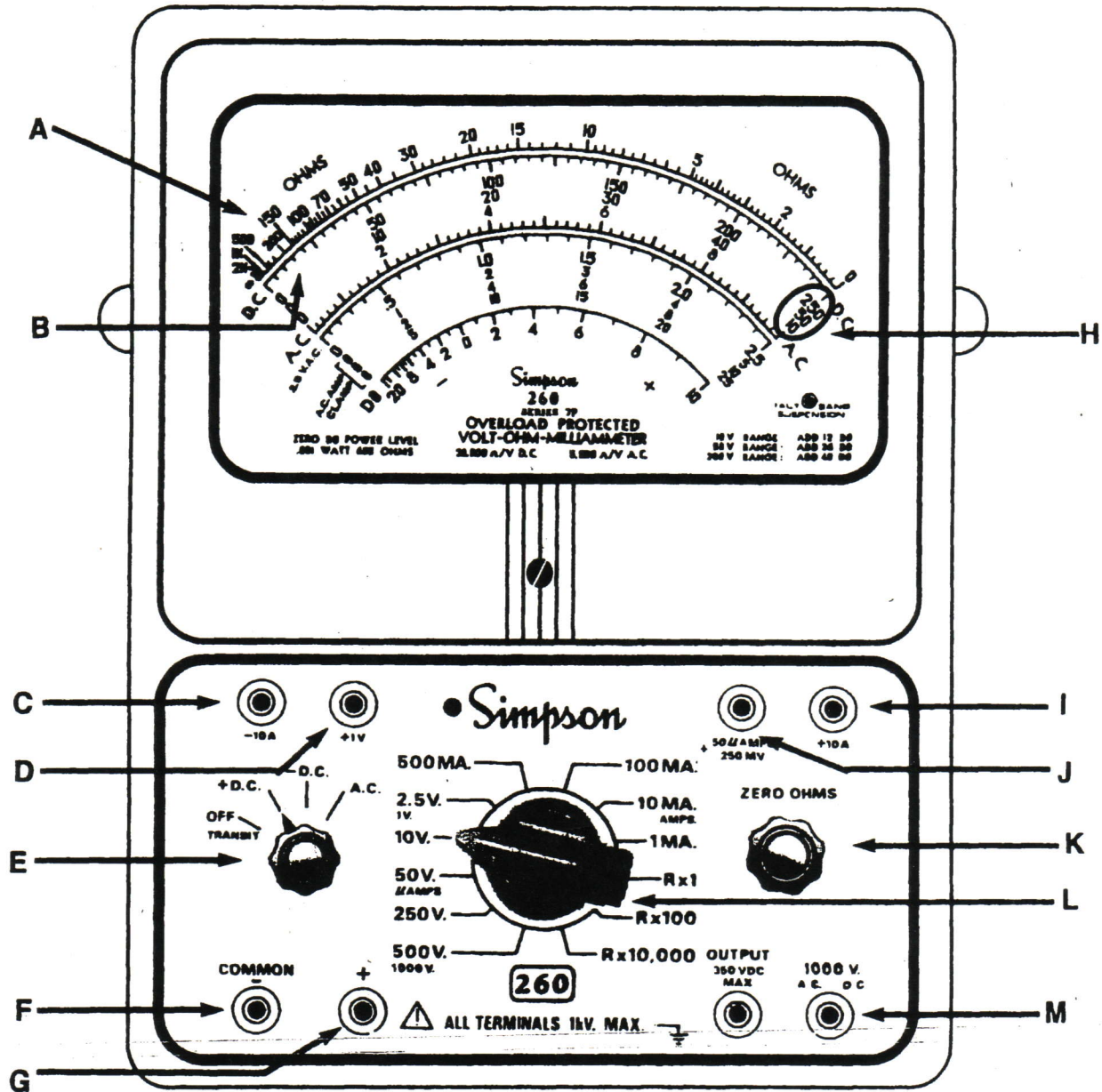
10. Match the parts of the Meter from the illustration below. Match the list in column 'A' with the correct row from column 'B'.

A

Range switch
Scale ranges
Function switch
-10 A jack
+10 A jack
Common (-) jack
Positive (+) jack
50 μ A jack

B

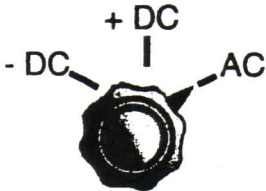
(A) L, H, D, J, E, G, A, M
(B) L, H, E, C, I, F, G, J
(C) H, C, I, F, A, D, G, J
(D) A, B, D, F, G, J, I, M
(E) L, H, E, T, C, F, J, G



11. Select the illustration(s) that represent the correct position(s) of the Function Switch for measuring direct current in the 0-10 mA range.

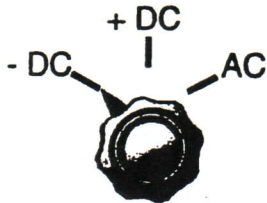
Note: There are five possible answers on this page: "A-E".

A.



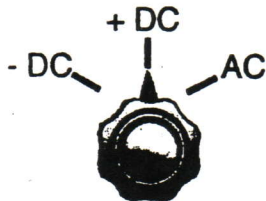
D. Both B. and C.

B.



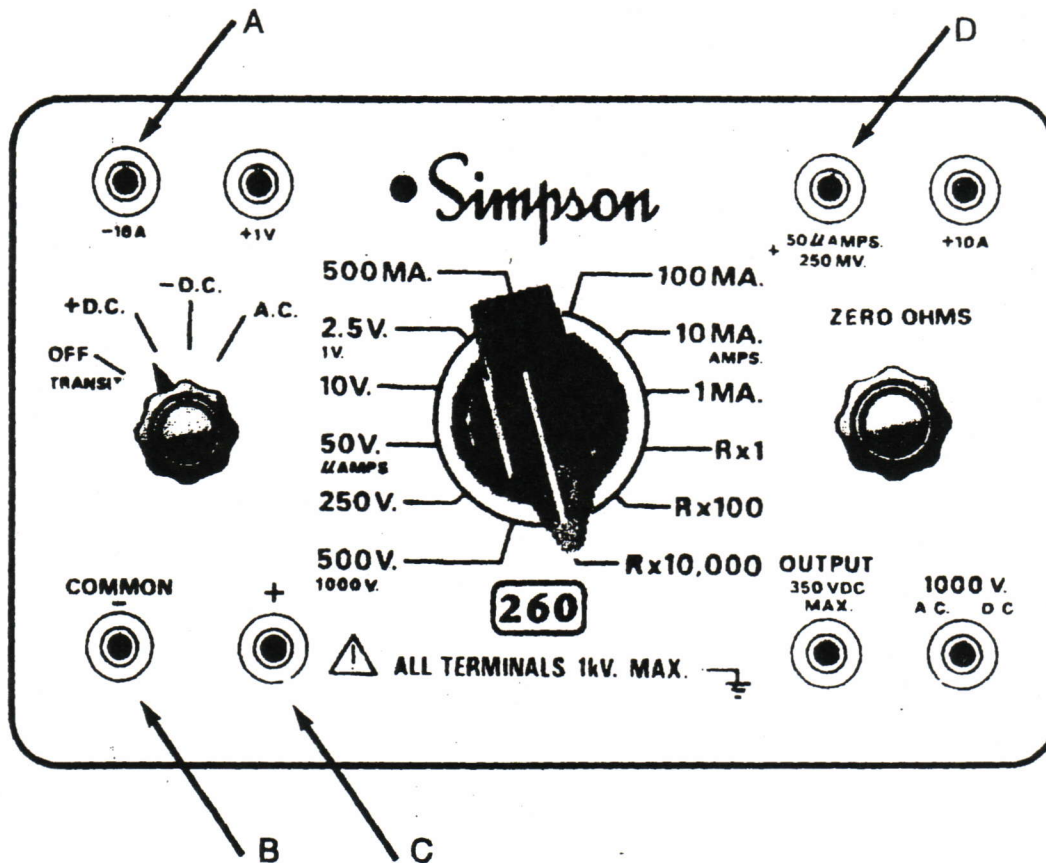
E. None of the above.

C.



12. From the illustration below, select the jacks used to measure a current from 0 to 50 μ A.

- A. A, B
- B. C, D
- C. A, C
- D. B, C
- E. B, D

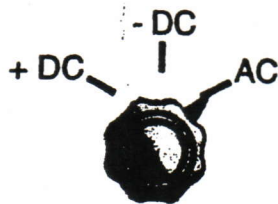


13. To measure current in a circuit, the Volt Ohm Milliammeter must be connected:

- A. In parallel with the component to be measured.
- B. With the meter facing the direction of current.
- C. In series with the component to be measured.
- D. Use only dry hands and rubber gloves.

14. To connect an ammeter to a circuit, the circuit must be:
"CHOOSE THE BEST ANSWER".
- A. Energized to check which way the needle will move.
 - B. De-energized, because the meter must be installed in series in the circuit.
 - C. De-energized, to ensure that the meter is installed with the correct polarity.
 - D. Energized to ensure that the correct polarity is observed.
 - E. Energized circuit and connected in parallel to the load.
15. Select the illustration(s) that represent the correct position(s) of the Function Switch for measuring direct current in the 0-50 μA range.

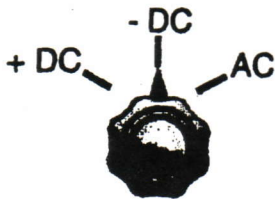
A.



D.

Both A. and B.

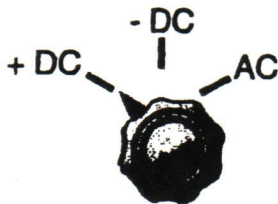
B.



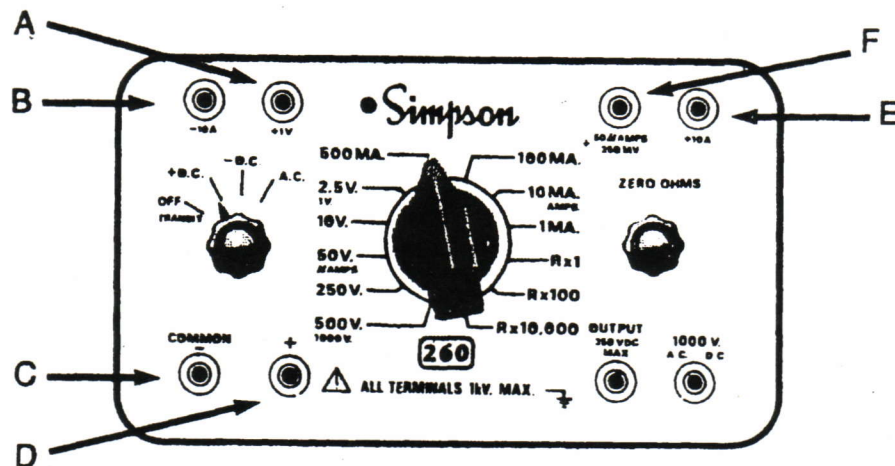
E.

Both B. and C.

C.

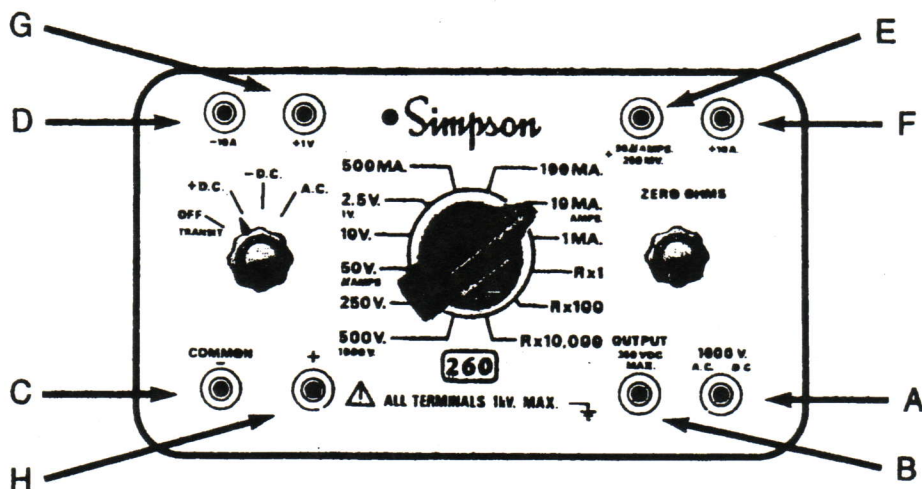


16. When using the Volt Ohm Milliammeter as an ammeter, if the meter is installed with the incorrect polarity.
- The meter must be disconnected and hooked up properly.
 - The Function Switch may be changed to either +DC or -DC as appropriate.
 - The Range Selector Switch must be reversed.
 - The Range Selector Switch must be turned to the correct polarity.
 - Ask my neighbor for help.
17. Select the correct positions of the Volt Ohm Milliammeter range switch for measuring DC current.
- 50 V / μ AMPS, 250 V, 10 V, 2.5 V
 - 1 mA, 10 mA / AMPS, 100 mA, 500 mA, 50 V / μ AMPS
 - 100 mA, 500mA, R x 100, 250 V
 - 5 mA, 50 mA / AMPS, 500 mA, 5000 mA, 250 V / AMPS
 - None of the above.
18. Which jacks on the illustration below are used for measuring DC current in the 500 MA range?



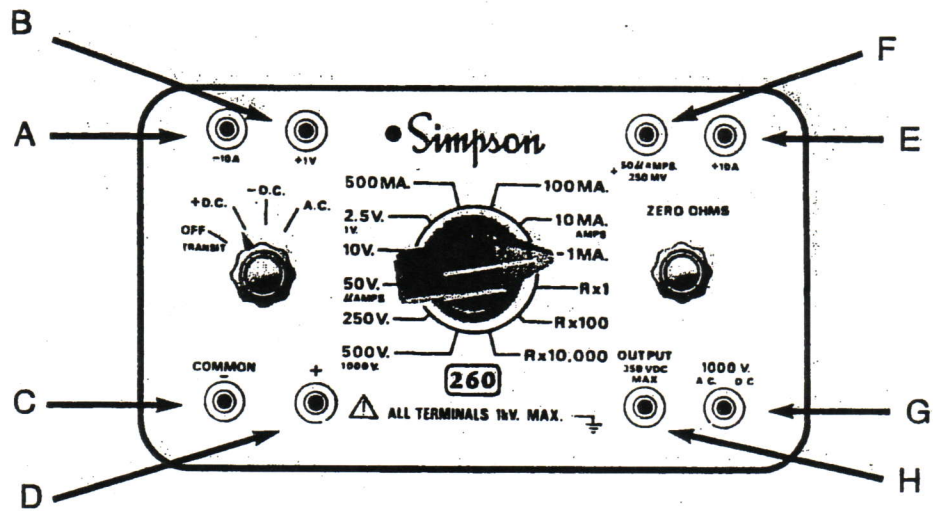
- D, F
- C, F
- C, D
- B, E
- A, F

19. Which Jacks on the illustration below are used for measuring DC current in the 0-10 A range?



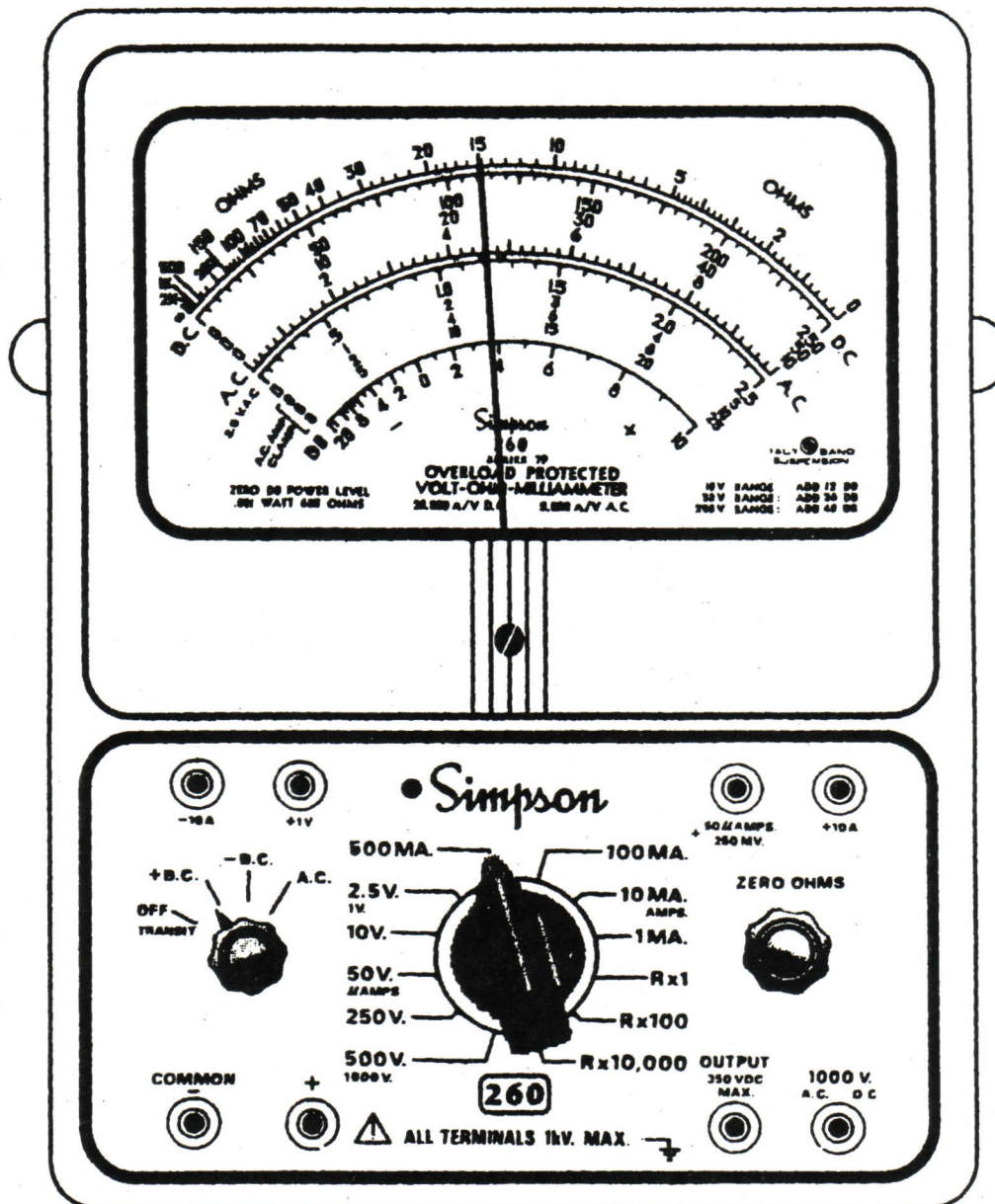
- A. C, F
- B. D, F
- C. C, D
- D. H, E
- E. C, E

20. Which jacks on the illustration below are used for measuring DC current in the 0 - 10 mA range?
 (This question is about milliamps and question # 19 on the preceding page was about Amps.)



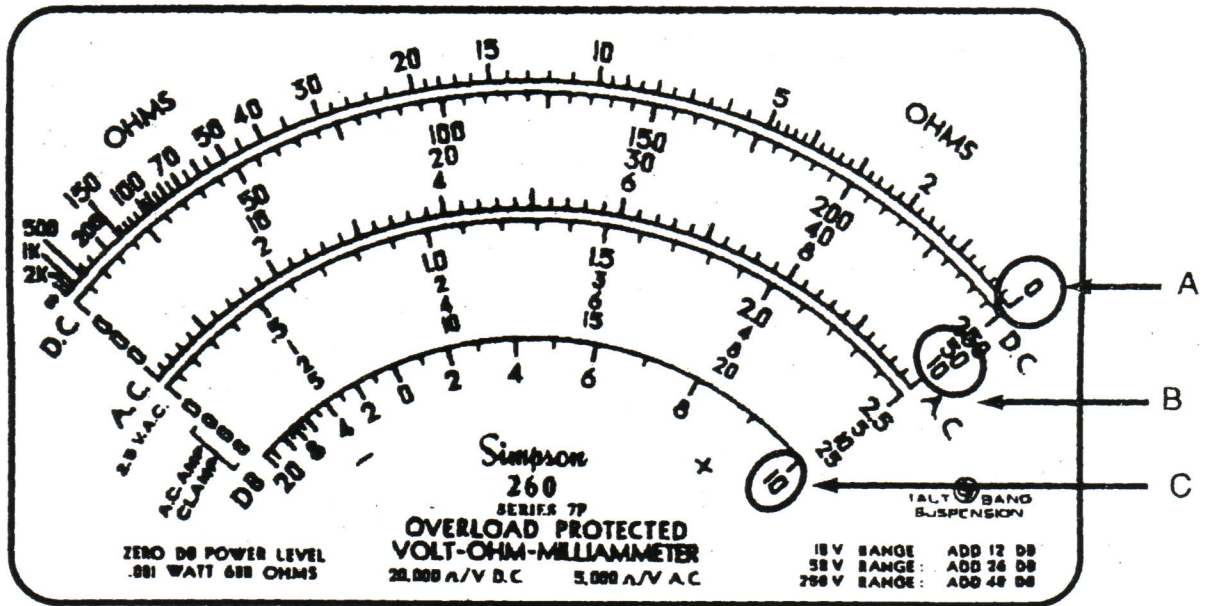
- A. A, E
- B. B, C
- C. C, D
- D. D, E
- E. C, F

21. Determine the value of DC current measured as indicated by the illustration below.



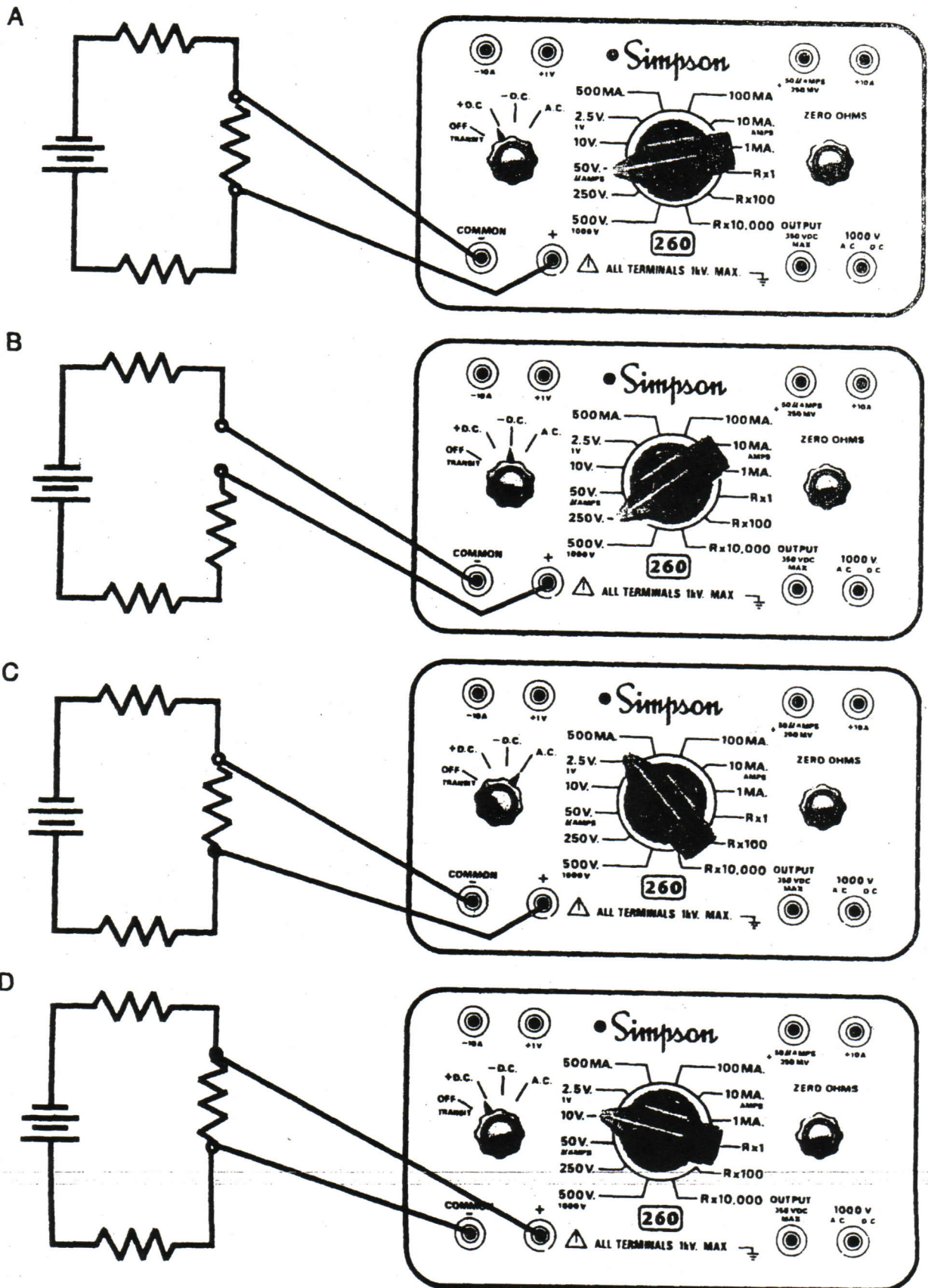
- A. 1.15 A
- B. 23 mA
- C. 115 mA
- D. 230 mA
- E. 250 mA

22. Which scale range(s), on the meter illustrated below, is used for measuring DC current?



- A. A
- B. A and B
- C. B and C
- D. B
- E. none of the above

23. Select the schematic below that shows: (#1) proper circuit conditions
 (#2) meter set-up (#3) and test lead connections for measuring DC voltage.



24. Match each part of the Meter listed in column A, from the illustration below and select the correct row of letters that has the correct sequence from column B.

A

Function switch

Scale ranges

Range switch

Common (-) jack

Positive (+) jack

1000 V DC jack

B

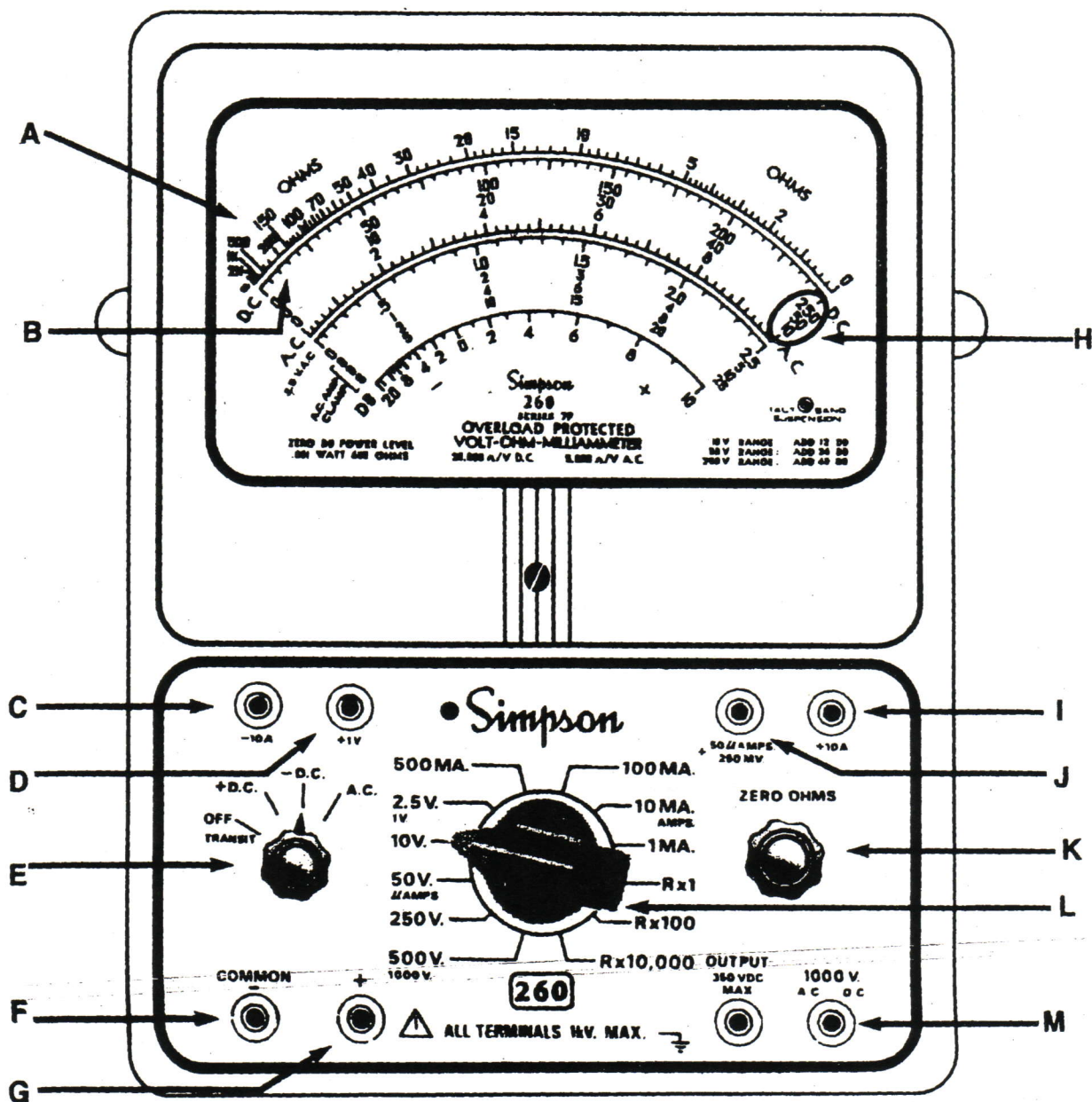
(A) K, L, E, F, G, M

(B) L, K, E, F, I, G

(C) E, H, L, F, G, M

(D) E, H, L, G, F, M

(E) E, H, G, L, F, M



25. Select the correct positions of the range selector switch when measuring voltage.
- A. 2.5 V, 10 V, 50 V, 250 V, 500 / 1000 V
 - B. AC, +DC, -DC
 - C. +DC, -DC
 - D. 2.5V, 10 V, 250 V, 10 Amp
26. Select the correct position(s) of the function switch when measuring DC voltage.
- A. +DC only
 - B. +DC or -DC
 - C. -DC only
 - D. Any position
 - E. None of the above
27. When measuring voltage, if the test leads had been connected with the incorrect polarity, what should you do?
- A. Disconnect the source and then measure the voltage.
 - B. Change the function switch to either +DC or - DC.
 - C. Change the range switch to a higher range.
 - D. Change the range switch to the other side of the ranges.
 - E. None of the above
28. Which jacks would be used to measure voltage from 0 to 1000 V DC?
- A. Common (-), 1000 V AC/DC
 - B. Positive (+) 1000 V AC
 - C. Common (-) Positive (+)
 - D. 1000 V AC, 1000 V DC
 - E. None of the above
29. Which jacks would be used to measure voltage from 550 V DC to 1000 V DC?
- A. Common (-), 1000 V AC/DC
 - B. Positive (+), 1000 V DC
 - C. Common (-), Positive(+)
 - D. 1000 V AC, 1000 V DC
 - E. None of the above

30. In what position should the range switch be to measure an unknown voltage?

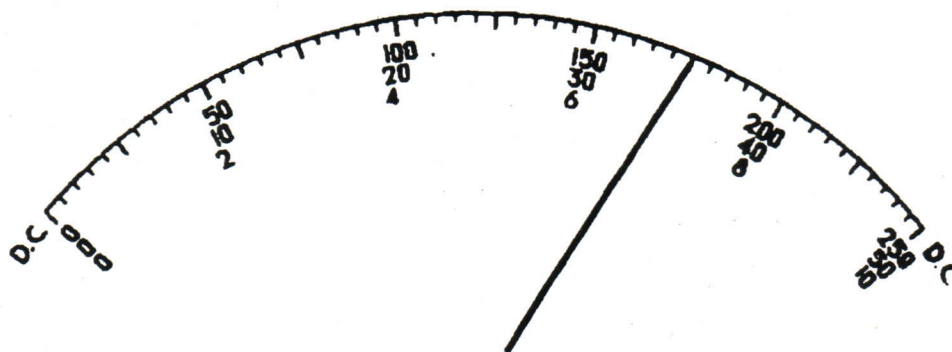
- A. 2.5 V
- B. AC
- C. 1000 V
- D. +DC or -DC
- E. B and C

31. How must a Volt Ohm Milliammeter be connected to measure voltage?

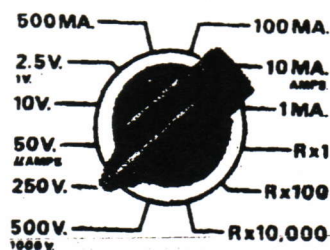
- A. In series with the component to be measured.
- B. So that the meter is in line with the current.
- C. In parallel with the component to be measured.
- D. In series with the component directly opposite of the one to be measured.
- E. Very carefully and with dry hands.

32. What is the value of voltage indicated by the illustration below?

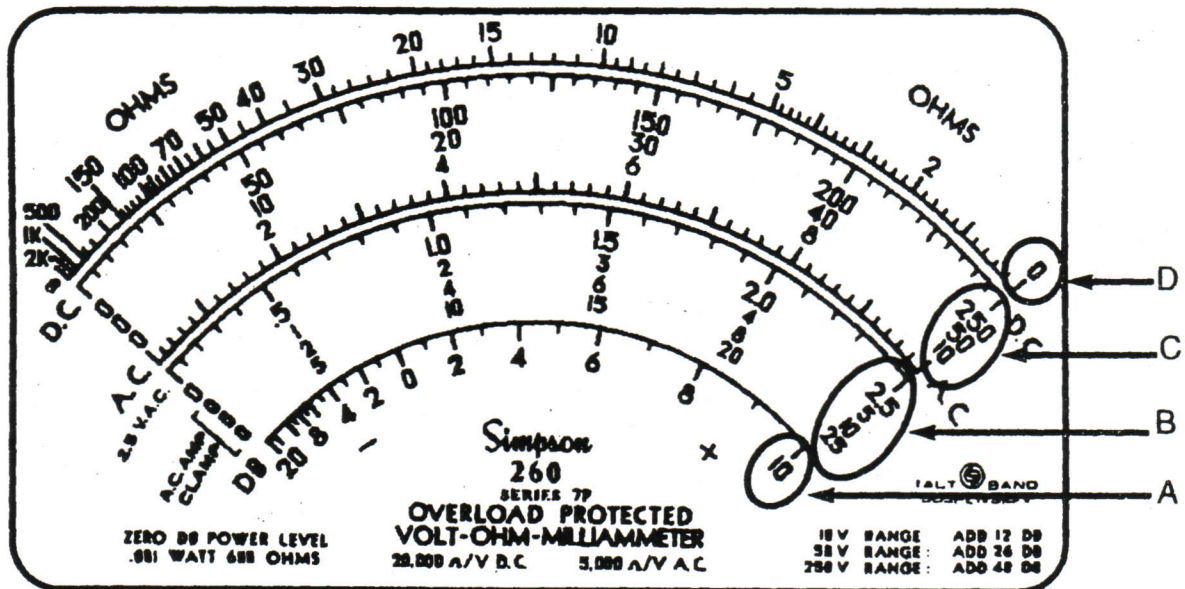
Step #1: Look at Range Selector Switch position.
Step #2: Read the scale.



- A. 175 V
- B. 70 V
- C. 350 V
- D. 75 V
- E. None of the above



33. Select the scale ranges illustrated below that are used to measure DC voltage.



- A. Range A
- B. Scales in Group B
- C. Scales in Group C
- D. Range D
- E. Scales in both Group C & D

34. The letters V.O.M.M. represent which one of the following choices?

- A. Volt Ohm Meter
- B. Volt Ohmmeter
- C. Volt Ohm Microamp Meter
- D. Volt Ohm Milliammeter

35. When measuring Resistance with the Volt Ohm Milliammeter the source of voltage and current is supplied by?
- A. the circuit being measured.
 - B. the component being measured
 - C. a 110 volt wall outlet or receptacle
 - D. a battery inside the meter
 - E. none of the above
36. What is the name of the error that occurs when using the meter and it appears that the meter has two needles on the scale?
- A. It is known as; A pair of Lexus and only one is working, I wish I had purchased and american built product using american parts.
 - B. It is known as: I have a pair deuces but it takes Jacks or better to open.
 - C. It is known as: A parallax problem.
 - D. It is known as: A parallax error.
37. There are three types of scales used with Meters, they are called?
- A. Line-in-you-rear, Non-line-in-your-ear, and Complex
 - B. Line, Non-line, and Complex
 - C. Linear, Non-line, and Complex
 - D. Linear, Nonlinear, and Complex
38. In order to have a complex scale the following would be required.
- A. Two linear scales and one nonlinear scale.on the same scale face.
 - B. Two nonlinear scales and two linear scales.on the same scale face.
 - C. A nonlinear and linear scale on the same scale face.

39. The Function Switch as shown in the Simpson 260 Series 8 lecture hand out is a
- A. Two position switch.
 - B. Three position switch.
 - C. One position switch.
 - D. Four position switch.
 - E. none of the above.
40. Whenever the Range Selector Switch is moved to change Resistance Scales, the Meter will have to be
- A. Given a 100% check.
 - B. Re zipped.
 - C. Recalibrated
 - D. Re-zeroed for Meter accuracy
41. On the Simpson 260 Series 8 Volt Ohm Milliammeter there is a Voltage Measurement setting for 1 volt AC.
- A. True
 - B. False