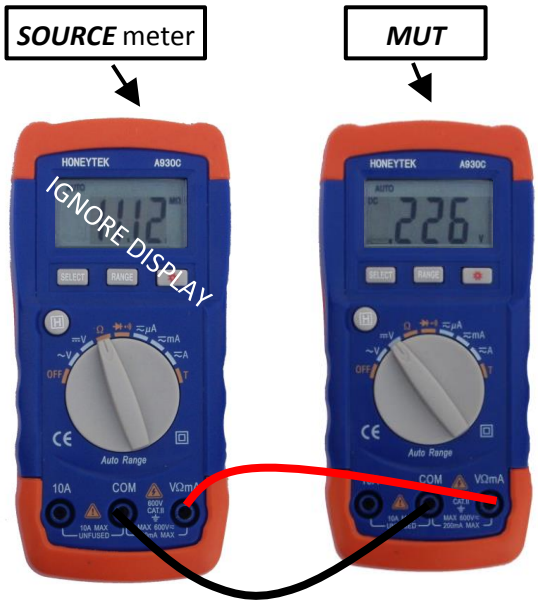
DVM QUICK TESTS (A930C version)

This is a quick series of tests to check simple digital multimeters (DVM) for basic functionality.
It works best for quantity of the same brand and model such as a class set.
If a meter fails ONE test then that range is faulty,
if it fails more tests then the meter probably is not worth repairing

TEST (1) – *checking the ohms range, the battery and the display*
Select your first meter; select the **Ω** (ohms) range
Plug a test lead from the **COM** socket to the **VΩmA** socket
Carefully check that the display correctly shows close to **00.0**.
Say in the range **00.0 to 03.0** (e.g. **00.2**)
If it reads higher or has an unstable reading the lead connections are bad.
Once you have a meter that passes this test we will use it as our ***SOURCE*** meter. It is used to output the test voltage for the other tests and we can ignore its display.

Now repeat TEST (1) to on the first meter to be fully tested
– we will call this our METER UNDER TEST (***MUT***).

When that ***MUT*** passes TEST (1) proceed to TEST(2)



TEST (2) – *checking the DC voltage range*
Connect a test lead between the **COM** sockets of the ***SOURCE*** meter and the ***MUT***.
Connect another test lead between the **VΩmA** sockets of the ***SOURCE*** meter and the ***MUT***.

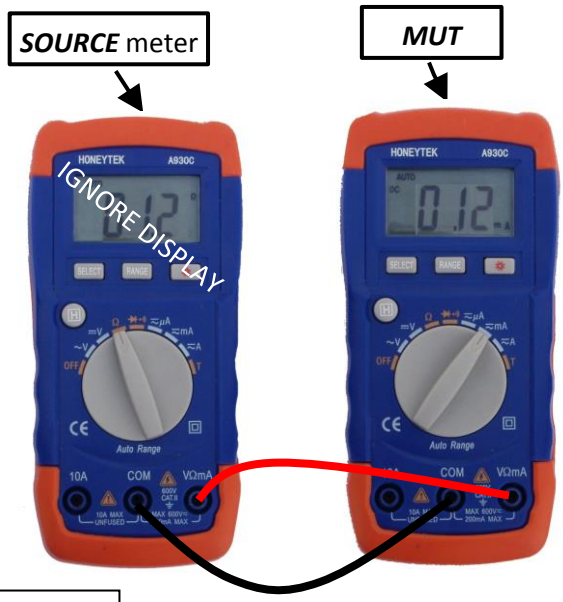
On the ***MUT***; select the ⎓**V** (DC volts) range
On the ***SOURCE*** meter; select the **Ω** (ohms) range
Check that the display correctly shows a voltage in the range of **.200** to **.300**.
(Take note of the voltage to compare with other meters)

When that ***MUT*** passes TEST (2) proceed to TEST(3)

TEST (3) – *checking the mA current range*
With the test leads between the ***SOURCE*** meter and the ***MUT*** in the positions as for TEST (2);
On the ***MUT***; select the ≂**mA** (mA DC) range
On the ***SOURCE*** meter; select the **Ω** (ohms) range

Check that the display shows a current in the range of **0.10** to **0.30** correctly.

If the display stays at **0.00** then most likely the internal fuse has failed and will need replacing.



These tests do not test all the capabilities of the meter but will eliminate meters with that have the most common faults.

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