TOPIC 2F

INSPECTION & TESTING

Learning Outcomes

- Apply inspection and testing in electrical installation Second level
- Demonstrate the following inspection and testing based on MS IEC 60364 and Electricity Regulations 1994 rules and regulations:

01 Continuity Test

02 Polarity Test

03 Insulation Resistance Test

04 Residual Current Device Test

05 Earth Electrode Resistance Test

3 MAIN FINAL CIRCUIT CONTINUITY TEST

01

The main purpose of this test is to ensure that each conductor has continuity along the conductor

Protective Conductor Continuity Test

02

03

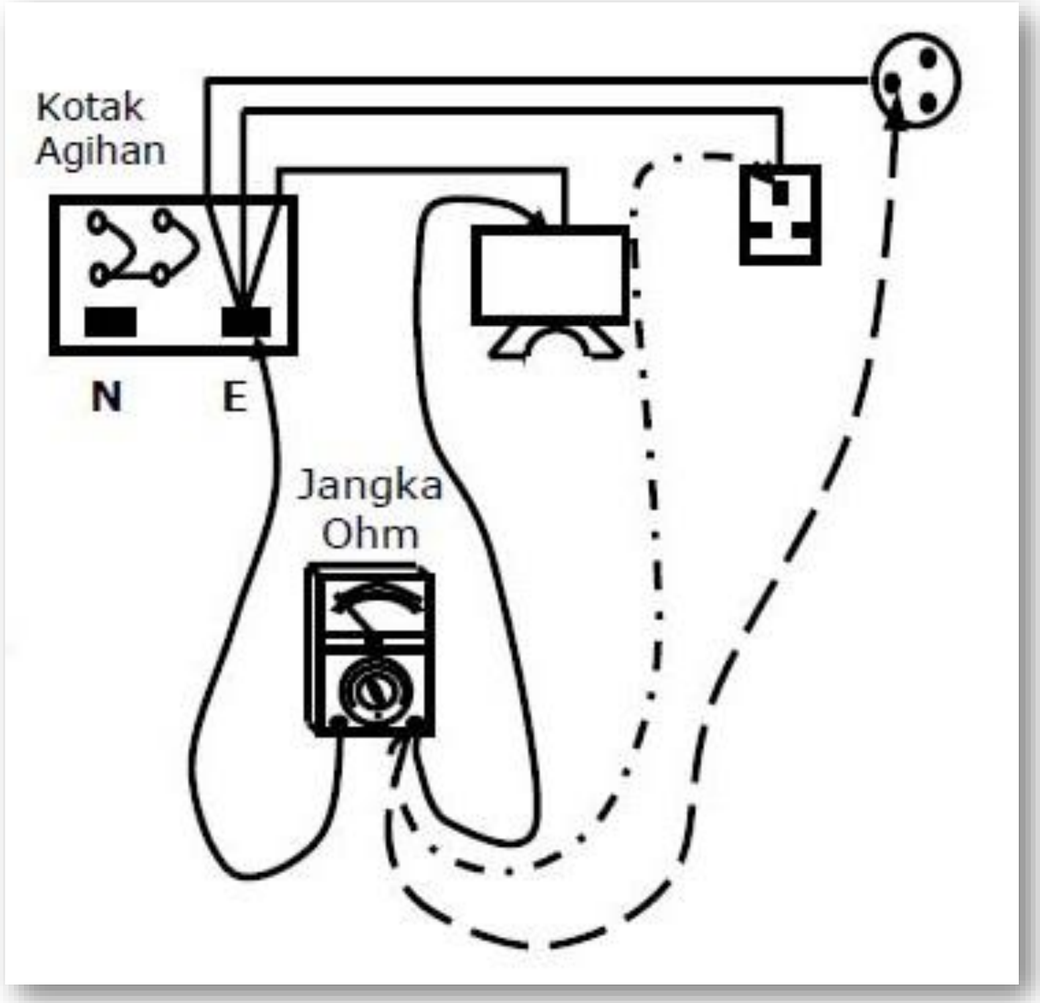
Ring End Circuit Conductor Continuity Test

Live and Neutral Conductor Continuity Test

04

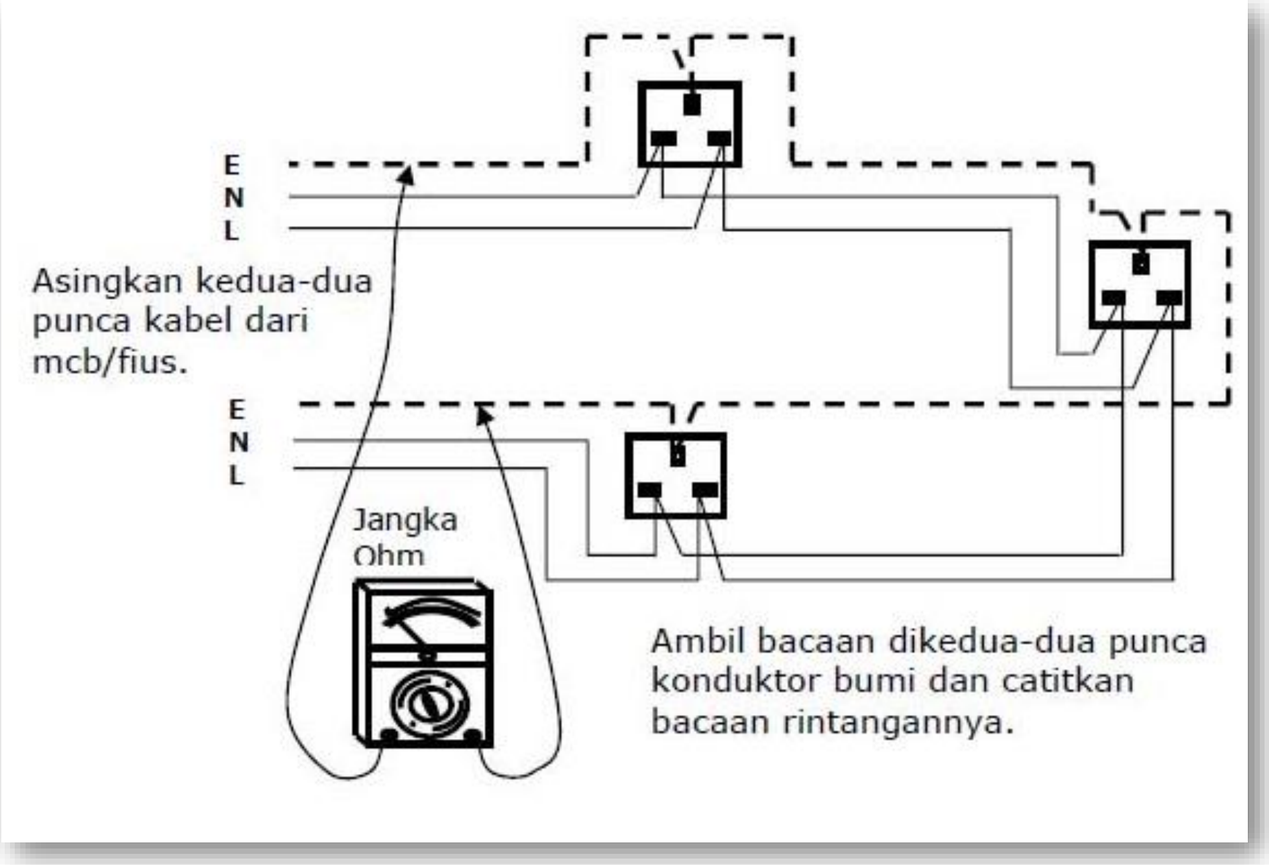
PROTECTIVE CONDUCTOR CONTIUNITY TEST

- To ensure that all protective conductors are properly and effectively connected.
- Tester - Multi meter (Ohm Range)
- Testing Method
  - Make sure the main switch, RCCB and MCB are in the open circuit (Switch Off) and all loads are removed.
  - Connect the tester test lead as shown in the diagram;
  - The term reading value should be less than 1 ohm



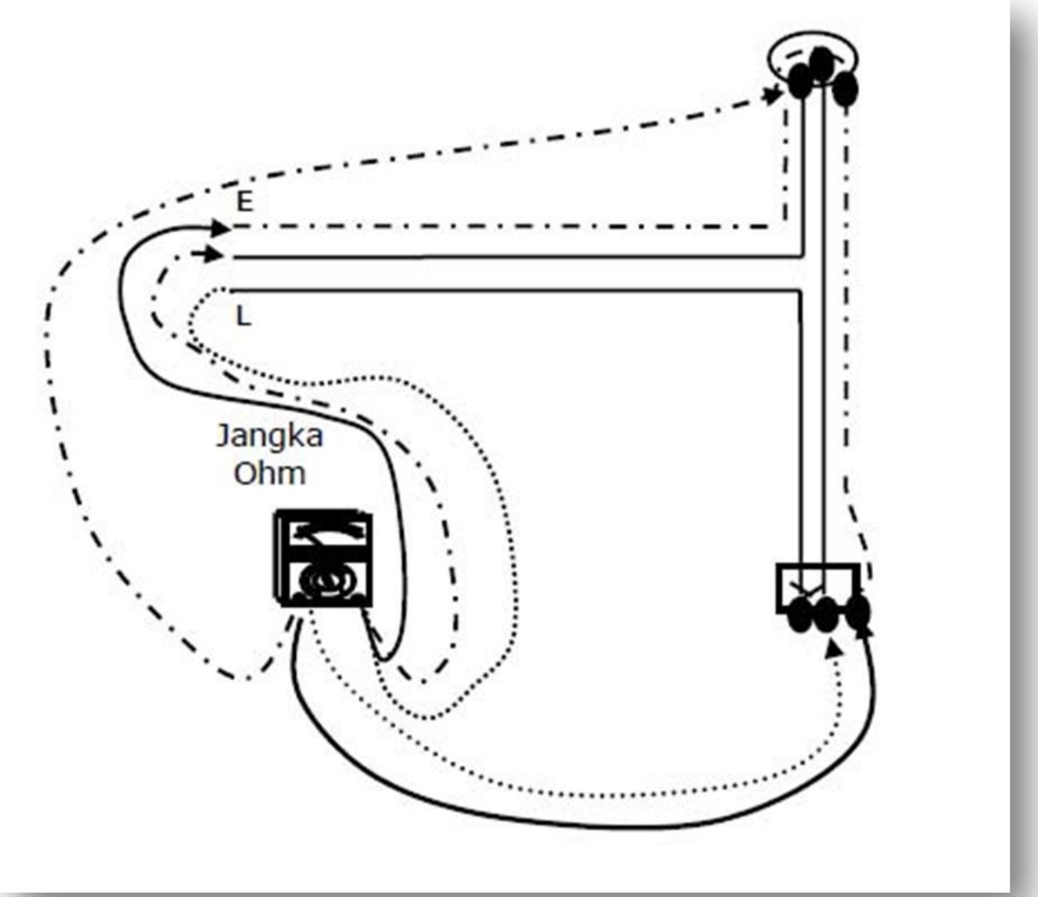
RING END CIRCUIT CONDUCTOR CONTIUNITY TEST

- To ensure that each conductor has continuity along the ring circuit.
- Tester - Multi meter (Ohm Range)
- Testing Method
  - Remove both source live conductors from the MCB, the neutral conductor from the neutral terminal and the earth conductor from the earth terminal in the distribution fuse box.
  - Connect the tester leads as shown in the diagram below (E-E).
  - Repeat the procedure for (L-L) and (N-N).
  - The term reading value should be less than 1 ohm



LIFE & NEUTRAL CONDUCTOR CONTIUNITY TEST

- To ensure that each conductor has good continuity along the circuit.
- Tester - Multi meter (Ohm Range)
- Testing method
  - Main switch, RCCB and MCB in open circuit (Switch Off). All loads should be removed.
  - The switch should be closed (Switch On).
  - The final fuse or circuit breaker should be removed and circuit-closed.
  - Run the test as shown below.
  - The term reading value should be less than 1 ohm.



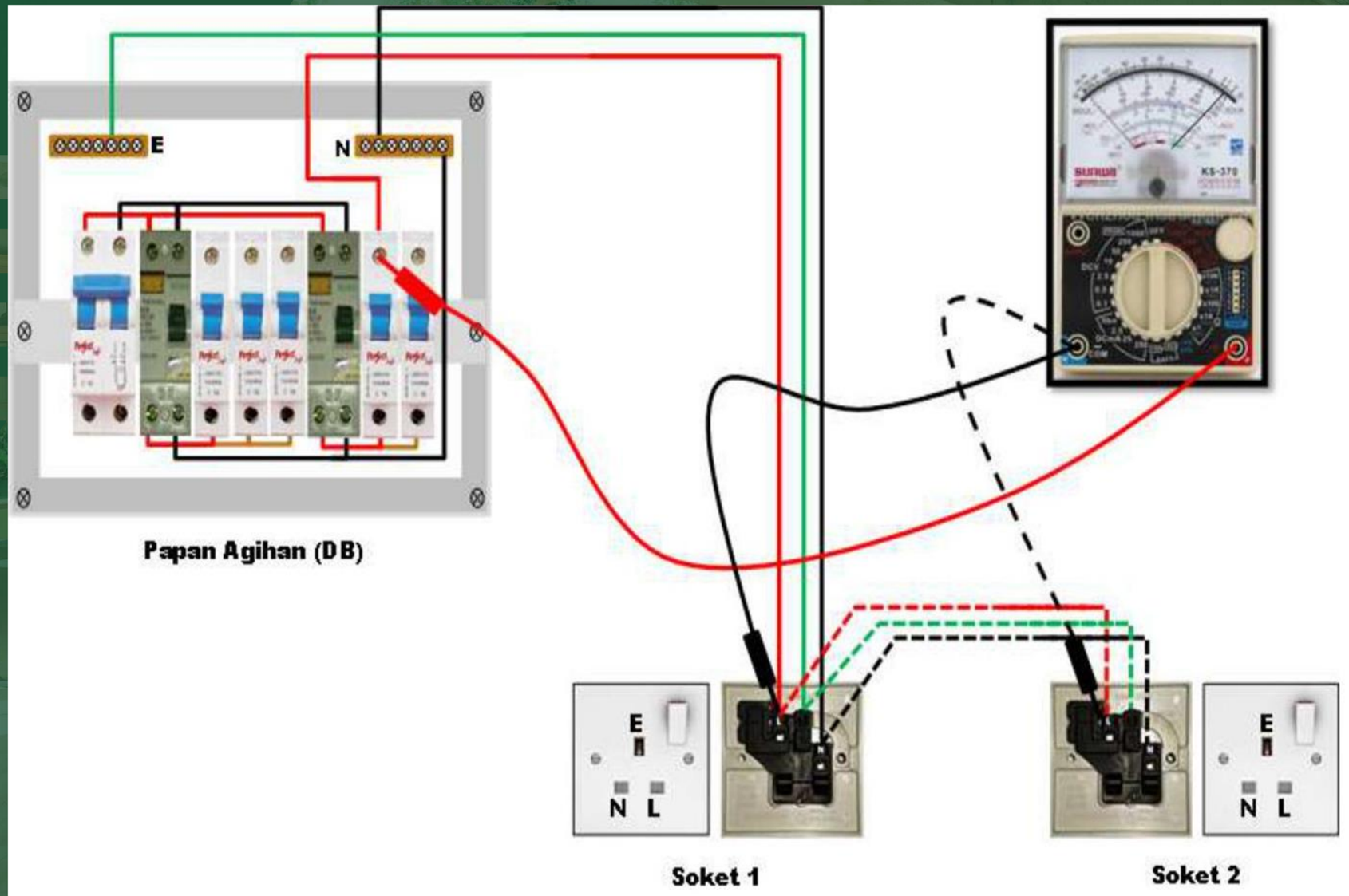
POLARITY TEST

Buzzer

The main purpose of this test is to ensure that all single-pole control devices such as fuses, single-pole one-way switches, thermostats and so on are on live conductors. This test is also to ensure the connection of the edge of the Edison lamp holder, the left side of the outlet socket and the plug on the neutral conductor. In short, this test is to ensure that the polarity connections on each plug-in and electrical appliance are in the correct place.

Multimeter

POLARITY TEST



Catatan:

1. Cara menjalankan ujian.
2. Sambungkan "probe"
   ke keluaran MCB
   litar kuasa
   dan satu lagi "probe"
   kepunca-punca
   soket alir keluar
   pada litar hidup.
3. Lakukan juga
   terhadap
   sambungan
   netral.
4. Pastikan bacaan
   menghampiri kosong
   / < 1 ohm.

THE END