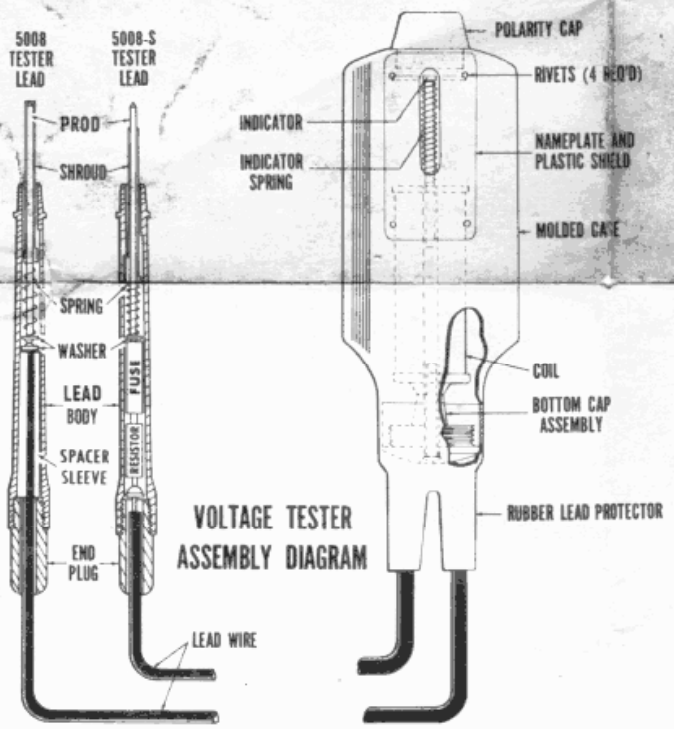
About Your Square D Voltage Tester

The Square D Voltage Tester, 5008 (non-fused) and 5008-S (fused) are designed for routine general purpose testing of secondary residential, commercial and industrial circuits.

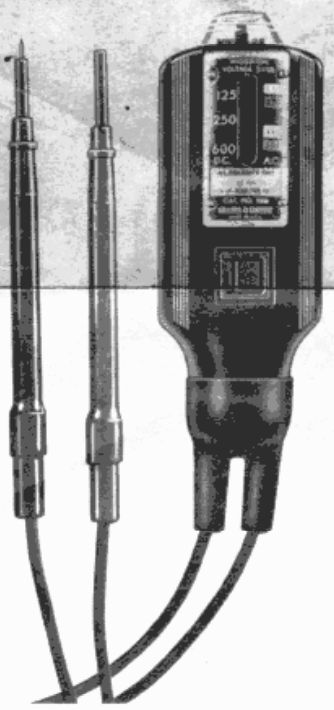
The tester cases are completely sealed thus preventing dirt, dust and small metal objects from entering the tester and shorting the solenoid mechanism. The leads have retractable, spring-loaded shrouds which surround the prods and prevent them from shorting "hot" wires in close proximity. To use the leads, place them on the terminals or insulated conductors to be tested and push. The shrouds will retract, and the prods will make contact with the terminals or pierce the insulation of covered conductors. When testing in open areas, and it is desired to have the prods permanently exposed, the shrouds may be locked in a retracted position by pushing back and twisting 90°. See voltage tester assembly diagram and the photograph below illustrating the shrouds in both the extended and locked position.

Conversion of a 5008 non-fused tester to a 5008-S fused tester is accomplished by the following method. Unscrew the end plug of the 5008 tester lead (See Voltage Tester Assembly Diagram Below), remove the spacer sleeve from around the lead wire, insert fuse and resistor inside the lead body and reassemble the end plug. The opposite is true in converting from the fused to the non-fused tester. Repair part kits listed below for making these conversions are 65106-506-50 for the 5008 tester and 48150-005-01 for the 5008-S tester.

CAUTION: Before relying on voltage tester reading, check the operating condition of the tester by testing on a KNOWN live circuit.



VOLTAGE TESTER ASSEMBLY DIAGRAM



REPAIR PARTS

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
65106-504-50	Nameplate, Nameplate Shield and Rivets	48150-007-50	Polarity Indicating Cap
48150-005-01	Two Spacer sleeves	65106-002-01	Rubber Lead Protector
65106-505-50	Molded Case with Nameplate, Nameplate Shield and Rivets	65106-510-50	Coil and Bottom Cap Assembly
		65106-511-50	Indicator and Indicator Spring
65106-506-50	Two Fuses and Two Resistors	5004A	Pair of Leads Complete with Lead Wire for 5008 Tester
65007-008-01	Washer		
65106-507-50	One Spear Point, Spring and Washer	5004B	Pair of Leads Complete with Lead Wire for 5008-S Tester
65106-508-50	Prod Body, Shroud and End Plug—Red	1309-012560	Tester Lead Wire. (Specify Number of Feet Required)
65106-509-50	Prod Body, Shroud and End Plug—Black		

Supersedes L-4224 dated October, 1967.

SQUARE D COMPANY
P. O. BOX 3107
ASHEVILLE, N. C. 28802

FEBRUARY, 1970

L-4224

VOLTAGE TESTER INSTRUCTIONS

The Square D Voltage Tester is designed to indicate voltage on 120-600 volt circuits. Merely place one test prod in one side of the circuit and the other test prod into the opposite side. The voltage tester will then indicate whether the current is A.C. or D.C., the polarity of the D.C. circuit and the nominal voltage.

If the current is A.C., the tester will indicate the nominal voltage — the indicator vibrating and a slight pulsation being felt in the tester. Alternating current will not affect the polarity indicating cap.

If the current is D.C., the tester will indicate the nominal voltage — the indicator remaining stationary without vibrating. At the same time, D.C. polarity will be indicated by a transparent polarity indicating cap located on top of the tester. This cap contains a red and black magnet mounted on a rotating shaft. When the red side of the magnet is up, the red test lead is positive. When the black side of the magnet is up, the black test lead is positive.

NOTE: The voltage tester is designed for INTERMITTENT duty. Under no circumstances should it be left in the circuit for longer than fifteen (15) seconds.

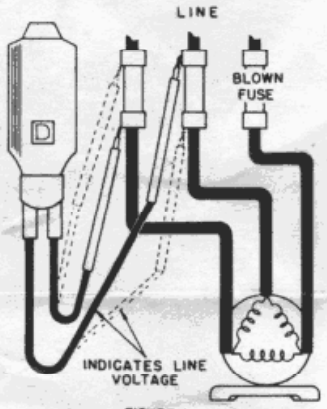


FIGURE 1

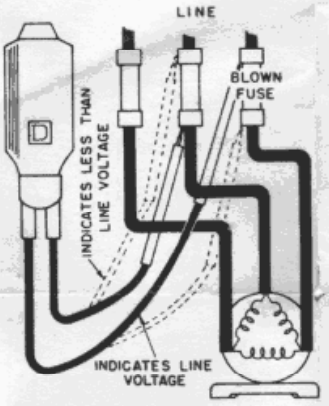


FIGURE 2

TO LOCATE BLOWN FUSE WHEN MOTOR IS RUNNING SINGLE PHASE

Place the tester terminals as shown by the dotted lines of Fig. 1 with one terminal on the line side of the first fuse and the other terminal on the load side of the middle fuse. If the reading is full line voltage, reverse the operation as shown by the solid lines in Fig. 1, placing one terminal on the load side of the first fuse and the other terminal on the line side of the second fuse. If the reading is still full line voltage, repeat the operation as shown in Fig. 2 between the middle and third fuse. The dotted lines in Fig. 2 show the position of the terminals when the blown fuse is located. The reading at this point will be less than line voltage.

TO LOCATE BLOWN FUSE

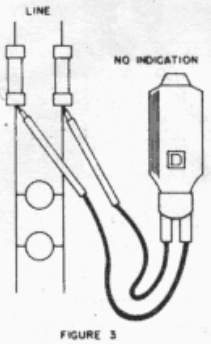


FIGURE 3

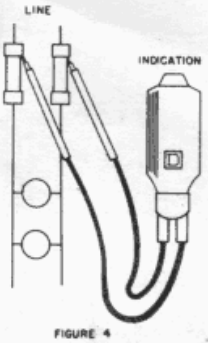


FIGURE 4

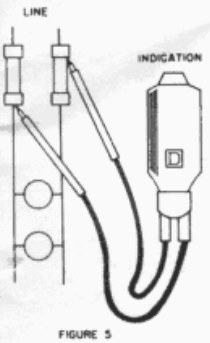


FIGURE 5

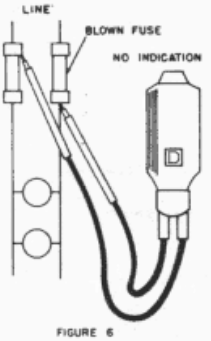


FIGURE 6

LOCATING GROUND ON CONDUIT SYSTEM

To locate a grounded wire in a conduit system, (See Fig. 7) first, locate the faulty fuse by the method shown above. Next, open the line at a condulet near the panelboard (points A and B). Now test from the line side of the fuse at C to the open lead at A. If the voltage tester registers, the fault is between points A and C. If the voltage tester fails to register, the fault is beyond point A as indicated in Fig. 7.

Open the circuit again at points D and E. Replace the fuse found to be defective. Test the circuit between points A and B. The tester should register indicating a fault between B and D. This method may be used repeatedly until the fault is determined in any length of conduit run.

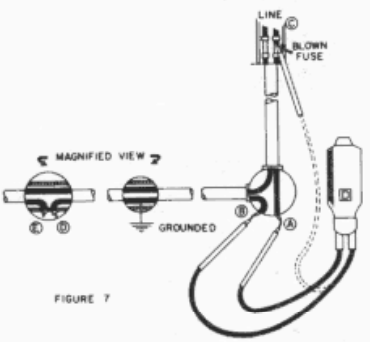


FIGURE 7