

USER'S MANUAL



CIRCUIT LOGIC TESTER

Version 06/10

www.do-it-auto.com

CIRCUIT LOGIC TESTER

Introduction

Checking and trouble shooting electronic components and electrical circuits is no more a mechanic's nightmare. Without proper tools, trouble shooting the problem will waste a lot of precious time and money.

With this newly developed **CIRCUIT LOGIC TESTER**, checking of vehicle's electronic components and electrical circuits are much faster and easier. Unlike normal multi tester, this tester has the following features:

1. DC Voltage Measurement
2. Protected + 12 Volts Output (Max 10 Amps) for simulation
3. Positive (+) Supply Detections.
4. High Current Ground Testing.
5. Low Current Ground Testing.
6. Frequency (10~500Hz) Output at 5.0 VDC for simulation.
7. Short Circuit Protected.

The readings are displayed in digital digits on LED display with warning 'beep' sounds to alert the user making trouble shooting jobs easier and safer.

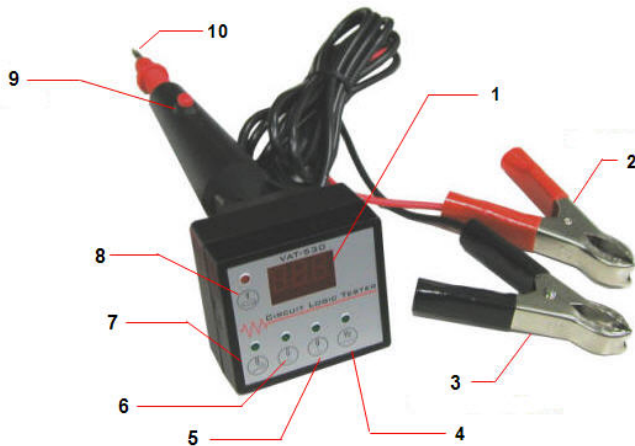
Precautions

- This Tester connects to 12 Volts DC Power Supply only.
- Before test, be extra careful of the vehicle's circuit test points supply voltage range in order to avoid damaging the electronic component.

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- Do not use the tester's 12 Volts output to simulate unknown input voltage of the electronic component.
- The tester's needle probe is used only when Low Current Ground Testing is selected. It is not suitable for Voltage Output (8) and High Current testing (6) functions.
- The Tester will become warm during operation. This is normal as this does not affect the accuracy of the unit.

Functions:



1. LED Digital Display
2. Red crocodile clip to battery Positive (+) terminal post for positive supply.

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3. Black crocodile clip to battery Negative (-) terminal post for negative supply.
4. Frequency (10 ~ 500 Hz) Output button selector.
5. Low current Ground testing button selector.
6. High current Ground testing button selector.
7. Positive (+) supply detection button selector.
8. +12 VDC Output button selector.
9. Output control push button.
10. Test probe.

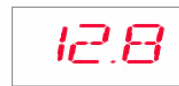
Operations:

I. Voltage Measurement

When the RED and BLACK crocodile clips were connected to the battery post, the LED display will light up and display as below:



Then it will change to the measured battery Voltage as shown:




If the measured voltage is over 12V, the beeper will sound continuously.

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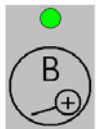
II. +12 VDC Output (For Simulation)




When the  button (8) is pressed, the red LED will light up and the LED display will show the battery voltage. The tester will operate between 11.0V ~ 16.0V (Max. 10.0Amps).

To produce +12V output for simulation, press the output button (9) and the beeper will sound intermittently indicating that there is an output voltage. If the current draw is more than 10.0 Amps it will automatically cut off (Short Circuit Protection).

III. Positive (+) Supply Detection.



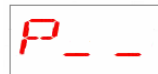
To test for positive (+) supply wire, press  button (7) and the green LED will lights up.

The LED screen will display

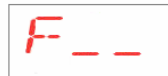


Then make contact with the wire terminal you need to test and press the output button (9).

If the supply is positive (+) the display will show:



If the supply is negative (-) the display will show:
and it will beep continuously.




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IV. High Current Ground Testing



This test allows checking the condition of 1.0 Amps and above electrical and electronic components grounding.

When  button (6) is pressed, the green LED will light up and the display will show:



Contact the ground terminal of component with the test probe (10) and press the output button (9).

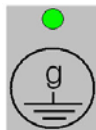
If the grounding is good, the display will show:




If the grounding is bad, it will display as shown: and the beeper will sound continuously.



V. Low Current Ground Testing



This test allows checking the condition of below 1.0 Amps electrical and electronic components grounding.

When  button (5) is pressed, the green LED will light up and the display will show:



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Contact the ground terminal of component with the test probe (10) and press the output button (9).

If the grounding is good, the display will show:




If the grounding is bad, it will display as shown : and the beeper will sound continuously.



VI. Frequency Output (For Simulation)





This selection will allow the tester to produce an adjustable output of 10Hz ~ 500Hz frequency at 5.0 VDC.

To activate, press  button (4) and the green indicator LED will lights up. The LED display will show:



At default the frequency is set at 50Hz, therefore the LED displays 50 as shown above.

To increase the frequency, press  button (5).

To decrease the frequency, press  button (6).

Each pressing of either one of the buttons will increase or decrease the frequency by 10Hz step and if hold longer than one second, it will run continuously. To produce the Frequency output, press output button (9) and the beeper will sound. The beeping sound rate which is fast or slow will depend on the preset frequency output.