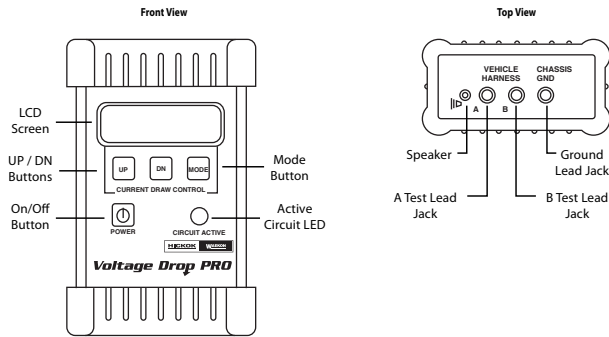


Voltage Drop PRO

Quick Start Guide



Kit Contents

- (1) Tester
- (1) Ground Lead (green)
- (2) A / B Leads (black)
- (3 pairs) Flex Probe Adapters—2 large spade, 2 small spade, and 2 round spade
- Backed by a 1 year limited warranty

Hookup

You may also refer to the diagram on the back of the tester.

1. Disconnect the component from the vehicle harness.
2. Connect the leads to the tester and the vehicle's harness. Note: Polarity is not important.
3. Connect the green ground lead to the battery (-) or a chassis ground on the vehicle.

Before You Begin

- Make sure the vehicle's battery is charged and capable of supplying the selected test current.
- Test with the vehicle's power turned off.
- Hookup the tester and then power the circuit (recommended but not required).

Using the Tester

1. Turn the tester on and using the up/down buttons, enter the desired test current (1A to 20A) in 1A steps or select Voltmeter mode by pressing the DN arrow from the 1AMP setting.
2. Turn on/run the circuit. The Active Current LED lights (except in Voltmeter mode) and the TOTAL voltage drop screen is displayed.

```
NO LOAD = 12.7V
1A LOAD = 11.6V
```

- If the LED is not lit, verify that the circuit is receiving power and that you are not in VOLTMETER mode. If there is an open wire, the A-B LEAD screen will indicate which wire is open.
- If an intermittent connection is detected the LED will blink (see *Diagnosing Intermittents*)
- If the circuit is pulse driven, the tester beeps repeatedly, the LED blinks, and PWM is displayed in the screen. Note: A voltage drop measurement is still possible on the circuit if the PWM signal can be set to 100%.
- If LIMIT is displayed on the screen, the circuit is driven by a module that has limited current below the test current setting. If this happens, reduce the test current setting using the down button until a normal reading is displayed.

```
NO LOAD = 12.7V
8A LOAD = LIMIT
```

4. Press the MODE button to view the A-B LEAD screen:

```
A = 1.0 V 1A G
B = 0.1 V 1A G
```

This screen shows the voltage dropped on the A and B leads with the selected current flowing.

- In the A / B Lead screen, each lead is marked with a diagnostic result letter (G=Good, M=Marginal, B=Bad)
 - If excessive voltage drop is indicated on one of the leads, it is the likely source of the issue.
5. Press the MODE button again to return to the TOTAL voltage drop screen.

Voltmeter Mode

The Voltage Drop Pro can be used as a standard voltmeter on circuits that are not designed to deliver current (such as sensor circuits or drive signal circuits that control some actuators and motors).

When set to VOLTMETER mode, the tester does not apply a load to the circuit. The LCD displays the total voltage between the A and B leads and indicates the leads polarity (+/-).

If a PWM or frequency type signal is detected, the tester beeps repeatedly, the Active Circuit LED blinks and the LCD displays PWM.

Diagnosing Intermittents

The tester continuously monitors the A and B wires for sudden changes. Wiggle the harness or connectors and if an intermittent reading occurs, the tester beeps and the Circuit Active LED blinks.

To capture an intermittent:

- Press and hold the MODE button for 3 seconds. After 2 seconds of stable readings the tester will detect and capture any sudden changes in voltage on either lead.
- When an intermittent is detected, the tester beeps and the Circuit Active LED turns on. The LCD displays INTERMITTENT and indicates which lead detected the voltage change.
- Press the UP or DOWN button to clear the capture. Press the MODE button to exit the capture mode.

Specifications

Tester Supply	9V battery
Loaded Voltage Range	2-24 VDC
Voltmeter Voltage Range	0-24 VDC
Load Current Range	1-20 Amps
Voltage Resolution	0.1 VDC
A-B Voltage Drop Results	0-22 VDC (pr lead)
G=Good	<=1V
M=Marginal	> 1V and < 2V
B=Bad	>2V
Intermittent Detection	>100mS duration
Operating Temperature	0-120° F

HICKOK WAEKON

A comprehensive User Guide is available for download on our website www.hickok-inc.com

Customer Care & Tech Support: 1-800-342-5080

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