

# AUTO PROBE WITH LCD DISPLAY 3V - 42V

## MODEL NO: PP7

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



instruction manual

#### SAFETY

- If you are in any doubt about electrical safety consult a qualified electrician.
- ~ Only for use with 12 - 42 volt DC systems.
- × DO NOT apply voltage or current to the probe that exceeds the specified maximum of 42V DC.
- × DO NOT use with industrial 110V systems.
- DO NOT use on any circuit directly or indirectly connected to AC lines or any other AC power source. ×
- DO NOT use with any component or circuits of the ignition system. ×
- Before using this device, check the vehicle's electrical wiring and disconnect any part or system sensitive to voltage and current pulses such as air bags, electronic control modules, etc.
- Always check the instructions and procedures indicated in the vehicle service manual before attempting to disconnect any part or subsystem of the electrical circuit.
- When not in use, store the probe carefully in a safe, dry, childproof location. Avoid extremes of temperature.
- DO NOT use the unit around explosive gases, vapour or dust. When the power switch is operated (forwards or backwards), battery ¥ current is conducted to the tip of the probe which may cause sparks when contacting earth or other certain circuits.
- DO NOT use leads if damaged or if the wire is bared in any way.
- DO NOT use this tester for any purpose other than that for which it has been designed.

#### INTRODUCTION 2.

A range of functions allow automotive electricians and mechanics the ability to effectively diagnose short circuits and bad earths. The 4.6mtr lead connects to a 12V battery supply and reaches to all areas of the vehicle. Fly lead allows continuity and polarity testing with a high-contrast LCD display with 9mm high (3V to 42V) read-out. Activate components in situ or prior to installation. Features audible and positive/negative voltage indicator plus two integral work lights. Kit includes three probe extension leads, two wire piercing probes, two lead adaptors and a crocodile clip. Supplied in a carry-case.

### 3. CONTENTS





Wire piercing probe (green). Wire piercing probe (yellow). 300mm flexi-lead.

#### 3.1. Polarity Indicator and Audio Tone.

3.1.1. The "RED/GREEN Polarity Indicator" lights up when the probe tip voltage matches the battery voltage within ± 0.5 volts. This means that if you contact a circuit that is not a good earth or a good positive, you will not see the "RED/GREEN Polarity Indicator" lighting. The Audio Tone runs parallel to the "RED/GREEN Polarity Indicator, and will also NOT react when contacting a circuit that does not 3.1.2. match the battery voltage within ± 0.5 volts.



## 4. OPERATION

#### 4.1. Basic Connections.

- 4.1.1. Unroll the Probe cable. Connect the RED battery clip to the POSITIVE terminal of the vehicle's battery. Connect the BLACK battery clip to the NEGATIVE terminal.
- 4.1.2. When the probe is first connected to the battery, it will sound a quick high beep, then a low beep and then go into "Power Mode"
- 4.1.3. The two LED work lights will be on to illuminate the test area of the probe.

#### 4.2. Quick Self Test.

- 4.2.1. Press switch toward (+) to activate the probe with a POSITIVE (+) voltage. The POSITIVE sign (+) LED should light red and the LCD display will read the battery (supply) voltage. If the tone feature is turned on, a high pitched tone will sound.
- 4.2.2. Press the switch toward (-) to activate the probe with a NEGATIVE (-) voltage. The NEGATIVE sign (-) LED should light green and the LCD display will read "0.0". If the tone feature is turned on, a low-pitched tone will sound.
- 4.2.3. The probe is now ready to use.

#### 4.3. Voltage and Polarity Testing. See fig.2.

- 4.3.1. Contact the probe tip to a POSITIVE circuit. The red positive sign, (+) LED will light and the voltmeter will display the voltage.
- 4.3.2. A high-pitched tone will sound.
- 4.3.3. While the PP7 is in "Power Mode", contact the probe tip to a NEGATIVE circuit. The green negative sign, (-) LED will light and the voltmeter will display the voltage.

#### 4.4. Continuity Testing. See fig.3.

- 4.4.1. Continuity can be tested on wires and components attached or disconnected from the vehicle's electrical system and by utilizing the Probe tip when connected with a chassis earth or the auxiliary earth lead.
- 4.4.2. The Probe indicates continuity using two resistance levels. When the Probe tip has a resistance to earth of less than 20K Ohms but greater than 2K Ohms the LCD will indicate "0.0" volts but no green (-) LED.
- 4.4.3. When the resistance to earth is less than 2K Ohms the LCD will indicate "0.0" volts and the green (-) LED will illuminate.





#### 4.5. Activating Components in Your Hand. See fig.4

- 4.5.1. Connect the negative auxiliary clip to the negative terminal or earth side of the component being tested.
- 4.5.2. Contact the probe to the positive terminal of the component, the green negative sign (-) LED indicator should light GREEN indicating continuity through the component.
- 4.5.3. Observe the green LED indicator and quickly depress and release the switch forward (+). If the green LED indicator went out and the red positive sign (+) came on, you may proceed with further activation.
- 4.6. Testing Trailer Lights and Connections. See fig.5.
- 4.6.1. Connect the Probe to a good battery.
- 4.6.2. Clip the auxiliary earth clip to the trailer earth.
- 4.6.3. Probe the contacts at the jack and then apply voltage to them. This lets you check the function.



#### 4.7. Activating Components in the Vehicle. See fig.6.

4.7.1. To activate components with positive (+) voltage, contact the probe tip to the positive terminal of the component. The green negative sign "-" LED should light, indicating continuity to earth.



- 4.7.2. While observing the green "-" LED, quickly depress and release the power switch forward (+). If the green indicator has gone out and the red positive sign (+) LED has come on, you may proceed with further activation.
- 4.7.3. WARNING: Haphazardly applying voltage to certain circuits can cause damage to a vehicle's electronic components. Therefore, it is strongly advised to use the vehicle manufacturer's schematic and diagnosing procedure while testing.
- 4.8. Activating Electrical Components with Earth. See fig.7.
- 4.8.1. Contact the probe tip to the negative terminal of the component, the LED indicator should light RED.
- 4.8.2. While observing the red (+) LED, quickly depress and release the power switch rearward (-). If the red indicator went out and the green negative LED (-) came on you may proceed with further activation.
- WARNING: With this function, if you are contacting a protected circuit, a vehicle's fuse can be blown or tripped if you apply earth to it.**4.9.** Jumper lead feature. See Fig.6.
- 4.9.1. The black clamp and the auxiliary earth lead are connected through the unit. By leaving the red clip disconnected from the vehicles battery, the unit can be used as a long jumper lead.
- 4.9.2. Be careful to avoid short circuits and overloading when using this jumper function.

#### 4.10. Checking for Bad Earth.

- 4.10.1. Probe the suspected earth wire or contact with the probe.
- 4.10.2. Observe the green negative (-) LED. Depress the power switch forward then release.
- 4.10.3. If the green negative sign (-) LED went out and the red positive sign (+) came on, this is not a true earth.







#### **ENVIRONMENT PROTECTION**

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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