



# RELAY TESTER

66249



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

# 1. TITLE PAGE

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## 1.1 INTRODUCTION:

**USER MANUAL FOR: Relay tester**

**Stock No's: 66249**

**Part No's: RT-100**

## 1.2 REVISIONS:

**Date first published June 2017.**

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As our user manuals are continually updated, users should make sure that they use the very latest version.

**Downloads are available from:** <http://drapertools.com/manuals>

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## 1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

**WARNING!** – Information that draws attention to the risk of injury or death.

**CAUTION!** – Information that draws attention to the risk of damage to the product or surroundings.

## 1.4 COPYRIGHT © NOTICE:

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## 3. GUARANTEE

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### 3.1 GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact:

**Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.**

**Telephone Sales Desk: (023) 8049 4333** or:

**Product Helpline (023) 8049 4344.**

A proof of purchase must be provided.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee period covering parts/labour is 12 months from the date of purchase except where tools are hired out when the guarantee period is 90 days from the date of purchase. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

**Draper Tools Limited.**

# 4. INTRODUCTION

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## 4.1 SCOPE

For the testing of 4 and 5 pin electro-mechanical relays. Any other application is considered misuse.

## 4.2 SPECIFICATION

Stock No. ....	66249
Part No. ....	RT-100
Relay configuration.....	4pin / 5pin
Rated Voltage .....	12V
Dimensions (WxHxD) .....	68 x 140 x 36mm
Weight .....	622g

## 4.3 HANDLING AND STORAGE

Care must still be taken when handling, dropping this tester will have an effect on the accuracy. This tester is not a toy and must be respected.

The environment will have a negative result on its operation if you are not careful. If the air is damp, components will rust. If the tester is unprotected from dust and debris; components will become clogged.

## 5. HEALTH AND SAFETY INFORMATION

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### 5.1 GENERAL SAFETY INSTRUCTIONS

**Warning:** Risk of Electrocution. Keep hands and fingers away from metal probe clamps and relay insertion points.

**Caution:** Read, understand and follow Safety Instructions and Operating Instructions in this manual before using this product.

- a) Do not attempt to repair unit. There are no serviceable parts.
- b) Do not expose the unit to extreme temperatures or high humidity.
- c) Do not use the unit if it is wet or damaged.
- d) Do not apply more than the rated current and voltage.
- e) Do not operate with the case open or broken.
- f) Do not allow the battery clips to touch each other.

### Workshop Safety

- **WARNING!** Ensure Health and Safety, local authority and general workshop practice regulations are adhered to when using tools.
- **DO NOT** use tools if damaged.
- Maintain tools in good and clean condition for best and safest performance.
- Wear approved eye protection.
- Wear suitable clothing to avoid snagging. **DO NOT** wear jewellery and tie back long hair.
- Keep children and unauthorised persons away from the work area.
- **DO NOT** attempt to start engine or move vehicle whilst in gear.

## 6. TECHNICAL DESCRIPTION

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### 6.1 IDENTIFICATION

- ① Front panel relay sockets.
- ② Pass/Fail LED.
- ③ Test button.
- ④ 4-pin and 5-pin selector switch.
- ⑤ Crocodile clips.



## 7. UNPACKING AND CHECKING

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### 7.1 PACKAGING

Carefully remove the tester from the packaging and examine it for any sign of damage that may have happened during shipping. If any part is damaged or missing; please contact the Draper Helpline (the telephone number appears on the Title page) and do not attempt to use the machine.

The packaging material should be retained at least during the guarantee period: in case the machine needs to be returned for repair.

**Warning!** Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly; according to local regulations.

## 8. OPERATING INSTRUCTION

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### 8.1 TESTING

This Relay Tester is used to test 4 and 5 pin electro-mechanical relays commonly found on modern vehicles.

The Relay Tester tests the following conditions:

- Coil resistance
- Surge suppression
- Open/closed contact integrity
- Contact cycling test for intermittent failure detection
- Loaded contact continuity
- Relay close-to-open time

### 8.2 OPERATION OF RELAY TESTER

1. Turn the vehicle's ignition OFF.
2. Carefully connect the tester's crocodile clips (5) to the vehicle's 12V battery for power. First connect the Black cable to the ground post (negative-) and the red to the positive(+) post.
3. Relays are plugged directly into the face of the meter (1) for testing. Choose the socket configuration that matches the relay under test.
4. Use the 4-pin/ 5-pin selector switch (4) to match the relay under test.
5. Press the TEST button (3) for approx. 13 seconds to perform the test.  
The relay tester will cycle the relay ten times, testing the resistance, contacts and consistency with in each cycle.
6. The Pass/Fail LED indicator (2) will show the test result.
  - If the relay is faulty the LED will be red.
  - If the relay is OK the LED will be green.

## 9. EXPLANATION OF SYMBOLS

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### 9.1 EXPLANATION OF SYMBOLS



**Do not dispose of WEEE\*  
unsorted municipal waste.**



**Warning!**  
Read the instruction manual.

# 10. DISPOSAL

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## 10.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE\* as unsorted municipal waste.



■  
\* Waste Electrical & Electronic Equipment.

## CONTACTS

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E-mail: [sales@drapertools.com](mailto:sales@drapertools.com)

General Enquiries: (023) 8026 6355

Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the  
Draper Tools Helpline for details of an agent in your local area.

YOUR DRAPER STOCKIST

DBMC0617

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