



**DRAPER**<sup>®</sup>

# DIGITAL METRIC/IMPERIAL DIAL GAUGE

94255



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: Digital Metric/Imperial Dial Gauge**

**Stock No: 94255**

**Part No: PDDG/A**

## 1.2 REVISIONS:

**Date first published November 2019.**

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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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## 2. CONTENTS

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<b>1</b>	<b>TITLE PAGE</b>	
1.1	INTRODUCTION .....	2
1.2	REVISION HISTORY .....	2
1.3	UNDERSTANDING THIS MANUAL .....	2
1.4	COPYRIGHT NOTICE .....	2
<b>2</b>	<b>CONTENTS</b>	
2.1	CONTENTS.....	3
<b>3</b>	<b>WARRANTY</b>	
3.1	WARRANTY.....	4
<b>4.</b>	<b>INTRODUCTION</b>	
4.1	SCOPE.....	4
4.2	SPECIFICATION .....	4
4.3	HANDLING AND STORAGE .....	4
<b>5.</b>	<b>TECHNICAL DESCRIPTION</b>	
5.1	IDENTIFICATION .....	4
<b>6.</b>	<b>BASIC DIGITAL DIAL GAUGE OPERATIONS</b>	
6.1	FUNCTION .....	5
<b>7.</b>	<b>TROUBLESHOOTING</b> .....	<b>5</b>
<b>8.</b>	<b>DISPOSAL</b>	
8.1	DISPOSAL.....	5
<b>9.</b>	<b>EXPLANATION OF SYMBOLS</b>	
9.1	EXPLANATION OF SYMBOLS.....	5
	<b>DECLARATION OF CONFORMITY .....</b>	<b>ENCLOSED</b>

# 3. WARRANTY

## 3.1 WARRANTY

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 Help Line (023) 8049 4344.**

A proof of purchase must be provided with the tool.

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 warranty period covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. The warranty is extended to 12 months for parts only. This warranty does not apply to any consumable parts, any type of battery or 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 warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

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

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

**Draper Tools Limited.**

# 4. INTRODUCTION

## 4.1 SCOPE

Dial indicators are one of the primary measuring tools used in precision engine building. They are typically used to measure deck clearances, crankshaft thrust and straightness, lifter travel and other measurements that involve the distance between two surfaces or small amounts of component travel.

## 4.2 SPECIFICATION

Stock No..... 94255

Part No. ....PDDG/A

Resolution:

digital indicator ..... 0.01mm/0.0005"

digital micro-indicator ..... 0.001/0.00005".

Measuring Range:

digital indicator ..... 0~12.7mm/0.5", 0~25.4mm/1"

digital micro-indicator ..... 0~5mm/0.2", 0~12.7mm/0.5", 0~25.4mm/1"

Power ..... LR44 1.5V button cell

Operating temperature ..... 0°C~40°C

Storage temperature ..... -20°C~70°C

Relative humidity ..... ≤80%

Weight (machine only) ..... 4.6kg

## 4.3 HANDLING AND STORAGE

Care must still be taken when handling and lifting. Dropping this machine will have an effect on the accuracy and may also result in personal injury. This machine is not a toy and must be respected.

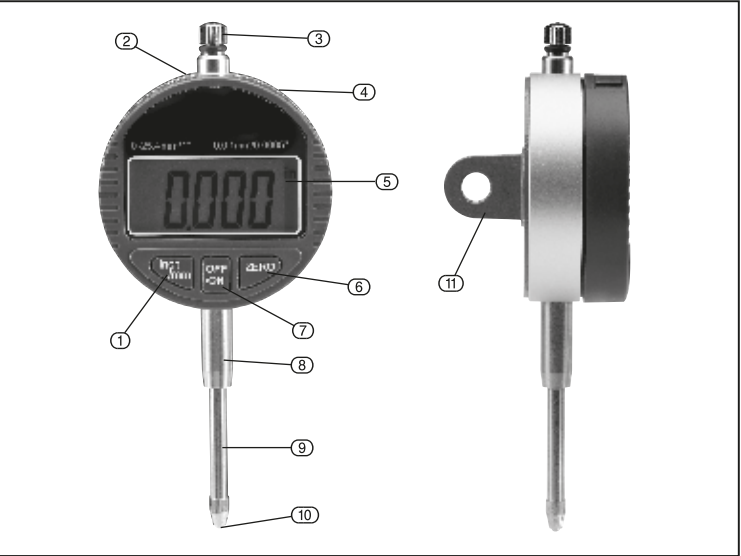
The environment will have a negative result on its operation if you are not careful. If the air is damp, components will rust. If the machine is unprotected from dust and debris; components will become clogged: And if not cleaned and maintained correctly or regularly the machine will not perform at its best.

### IMPORTANT

1. The response speed: ≤0.5m/s.
2. Avoid shocks, impact, dropping etc., otherwise it will damage the appearance and precision.
3. Keep indicator face clean, prevent liquid from getting into inside.
4. Do not remove output connector lid without using output interface. Output end should never be connected with metal. Doing so could damage your indicator.
5. Do not connect any part of digital indicator with voltage; otherwise it will damage the circuit.
6. Must take out the battery if not in use for a long time.

# 5. TECHNICAL DESCRIPTION

## 5.1 IDENTIFICATION



- |                          |                                   |
|--------------------------|-----------------------------------|
| ① in/mm switch           | ⑦ On/off switch.                  |
| ② Battery compartment    | ⑧ Mounting diameter.              |
| ③ Anti-dust cap.         | ⑨ Spindle.                        |
| ④ Data output interface. | ⑩ Contact point.                  |
| ⑤ LCD display.           | ⑪ The even back cover or back lug |
| ⑥ Zero-setting.          |                                   |

# 6. BASIC DIGITAL DIAL GAUGE OPERATIONS

## 6.1 FUNCTION

- 1. Zero setting at any position;
- 2. “ON/OFF” button for type I, and the “M” button for type II, “M” means multi-function, i.e. data hold function, fast display, tracing of maximum or minimum value;
- 3. Metric/Inch system interchange at any position;
- 4. With two type data output interface: normal or mimi-USB interface.

### USAGES OF TYPE I:

- 1. Clean the contact point and spindle with a soft cloth before using.
- 2. Press the OFF/ON switch. The .00mm or .000mm display appears, and the indicator is now ready for measurement.

### USAGES OF TYPE II:

- 1. Clean the contact point and spindle with a soft cloth before using.
- 2. Press the in/mm switch of push the spindle. The .00mm or .000mm display appears, the indicator is now ready for measurement.
- 3. Usages of the “M” button:
  - a. Display holding: press “M” button, “H” appears and display is holding.
  - b. Fast display: press “M” button, “H” appears, and press zero button, “F.T.” appears, and now display is fast. Press “M” button to end fast display after measuring and “F.T.” disappear.
  - c. Fast tracing of maximum value: Press tow times “M” button, “H” MAX” appears, then press zero-setting button, “F.TMAX” appears and now is tracing of maximum value. Press “M” button to end searching for maximum value after measuring and “F.TMAX” disappear.
  - d. Fast tracing of minimum vlaue: Press three times “M” button, “H MIN” appears, then press zero-setting button, “F.I MIN” appears and now is tracing of minimum value. Press “M” button to end tracing of minimum value after measuring and “F.T MIN” disappear.

### USAGE OF MEASURING DIRECTION BUTTON

The customer now can select the production with the measuring direction button. When required to convert the measuring direction you can press the measuring direction button.

### THE METHOD OF REPLACING BATTERY

Remove battery compartment lid and replace one SR44 battery with its positive (+) side facing upward.

# 7. TROUBLESHOOTING

Problem	Possible Cause	Remedy
Five digits appear simultaneously and change rapidly	Battery power low	Remove battery compartment lid and replace battery
The display does not work (only when changing battery)	Circuit accidental pause caused by poor voltage when fixing battery	Remove battery and replace it after 30 seconds
Reading error for full length is ≤0.1mm	Dirt has damaged/covered sensor	Remove cover and slider assembly. Apply a small layer of petrol to avoid dirt build-up
Nothing appears on the LCD	Battery has poor contact. Battery voltage is under 1.1v	Keep good contact for battery or replace the battery

# 8. DISPOSAL

## 8.1 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 dispose of WEEE\* as unsorted municipal waste.



\* Waste Electrical & Electronic Equipment.

# 9. EXPLANATION OF SYMBOLS

## 9.1 EXPLANATION OF SYMBOLS



Read the instruction manual.



WEEE –  
Waste Electrical & Electronic Equipment.  
Do not dispose of Waste Electrical & Electronic Equipment in with domestic rubbish.

## CONTACTS

Draper Tools Limited, Hursley Road,  
Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. U.K.

Help line: (023) 8049 4344

Sales Desk: (023) 8049 4333

Internet: [drapertools.com](http://drapertools.com)

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 Help line for details of an agent in your local area.

## YOUR DRAPER STOCKIST

RWKC1119

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