

3PC MICROMETER SET

INSTRUCTIONS



The **ROCKWOOD 3 PIECE MICROMETER SET** relies on a proven, straightforward design to provide many years of service. They feature rugged, all metal construction for maximum durability and accuracy. Easy to use with a range that is ideal for most average automotive applications.

CONTENTS

- (1) 0-1" range, 0.001" Micrometer
- (1) 1-2" range, 0.001" Micrometer
- (1) 2-3" range, 0.001" Micrometer
- (1) 1" Gauge Block
- (1) 2" Gauge Block
- (1) Adjustment Wrench
- (1) Heavy Duty Blow Molded Storage Case



SPECIFICATIONS

- Hardened, Mirror Polished Carbide Anvil and Spindle Faces
- SAE Ranges from 0 to 1", 1" to 2" and 2" to 3"
- 0.001" Increments
- 5/16", 1-11/4" and 1-5/8" Throat Depths

READ INSTRUCTIONS

- Thoroughly read and understand these product instructions before using this tool.
- Keep these product instructions for future reference.

OPERATION

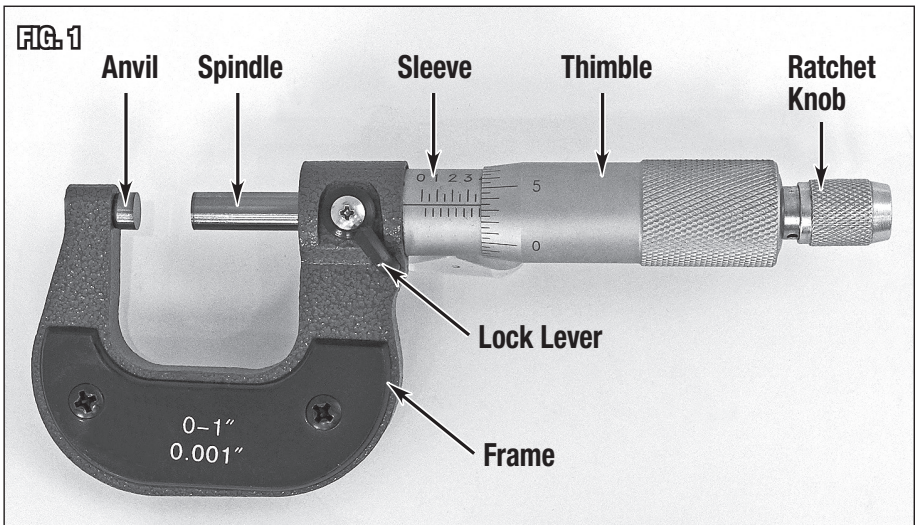
The accuracy of Micrometer measurement can be adversely affected by temperature. Micrometer and part temperatures of 72°F [22°C] are ideal while warmer or colder extremes will cause expansion or contraction which can produce inaccurate results.

- Place the Micrometer in the palm of a hand, be sure the Spindle is unlocked, then rotate the Thimble to open it slightly beyond the dimension of the part to be measured.
- Using care not to scratch the mirror polished Anvil and Spindle surfaces, place the part against the Anvil first, then gently turn the Spindle inward until it makes contact with the part.
- Use only the Ratchet Knob to exert pressure on the part allowing 3 ratchet clicks to denote proper tension. The dimension can now be read.
- To lock the Spindle at the desired dimension for easier reading, rotate the Locking Lever 15° Clockwise.

READING THE MICROMETER

THE SLEEVE

- The Micrometer Sleeve is fixed and does not move (**FIG 1**).
- It has 10 markings, each of these markings is equal to 0.100" or 1/10" (1 tenth of an inch). Viewed another way; The space on the sleeve between "0" and "1" equals .100", the space between "1" and "2" equals 0.200" and so on to 8, 9, 0.
- Each of these 10 markings is divided into 4 equal parts. (Note that 2 markings are above the line while 2 are below).
- Each of those 4 markings is equal to .025" or 1/40" (1 40th of an inch).



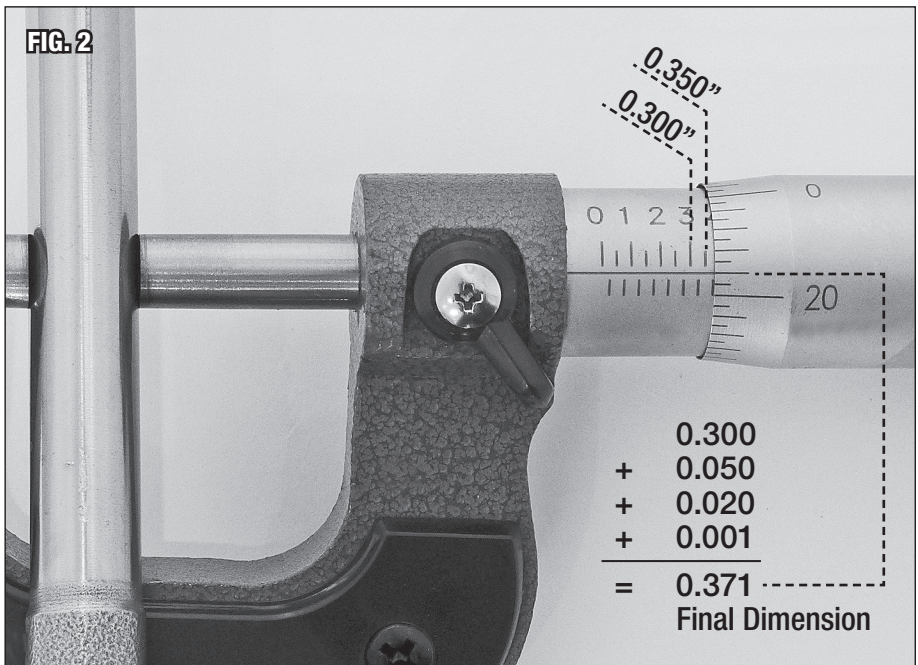
THE THIMBLE

- The Thimble rotates about the Sleeve and moves in and out as it is turned (**FIG 1**).
- One complete rotation of the thimble is also equal to the smallest divisions of the Sleeve which, of course, is 0.025" or 1/40" (1 40th of an inch).
- The Thimble is divided into five equal segments, each one with a "long" line and numbered from "0" to "5", "10", "20" and back to "0". Each of these numbered lines represents 0.005"
- Every one of the "medium" segments equals 0.001" or 1/10" (1 10th of an inch).
- The shortest lines between the "medium" 0.001" length lines represent 1/2 of 0.001 (0.0005") and are for approximation only.

EXAMPLE

In this example, a worn automotive valve stem is used to illustrate the sequence of determining a final dimension of a part (**FIG 2**).

- The position of the Thimble edge over the Sleeve markings shows 0.300 + 2 additional marks equalling 0.025 each which equals 0.050 for 0.350".
- The marks on the indicated on the Thimble in relation to the horizontal line on the Sleeve is showing 0.020 + one additional mark of 0.001 for a final dimension total of 0.371".



MAINTENANCE

- Before each use, inspect the condition of the Micrometer for any accumulated dirt, damage or corrosion that may affect operation and accuracy.
- After each use, be sure to inspect and clean any contaminates from the mirror polished surfaces of the Anvil and Spindle.

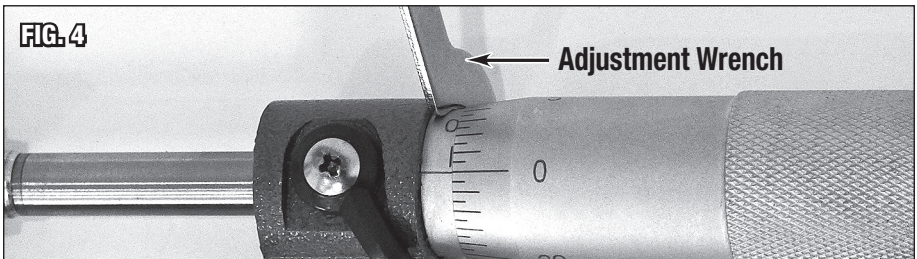
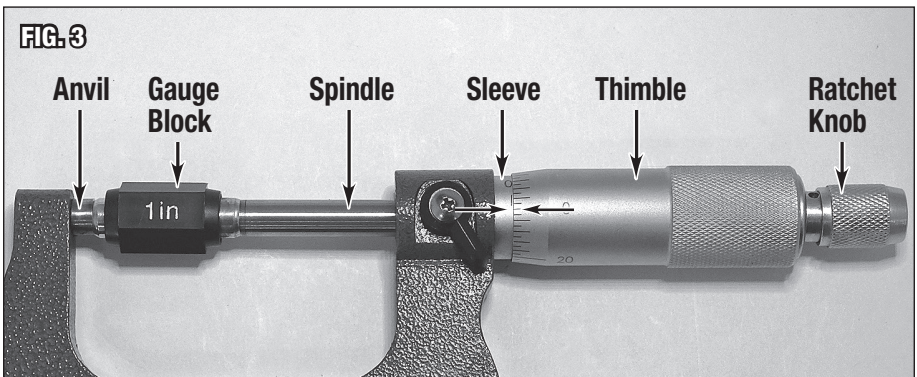
⚠ NOTICE

**Dropping the Micrometer can have an adverse effect on accuracy.
Do Not drop the Micrometers or allow them to fall.**

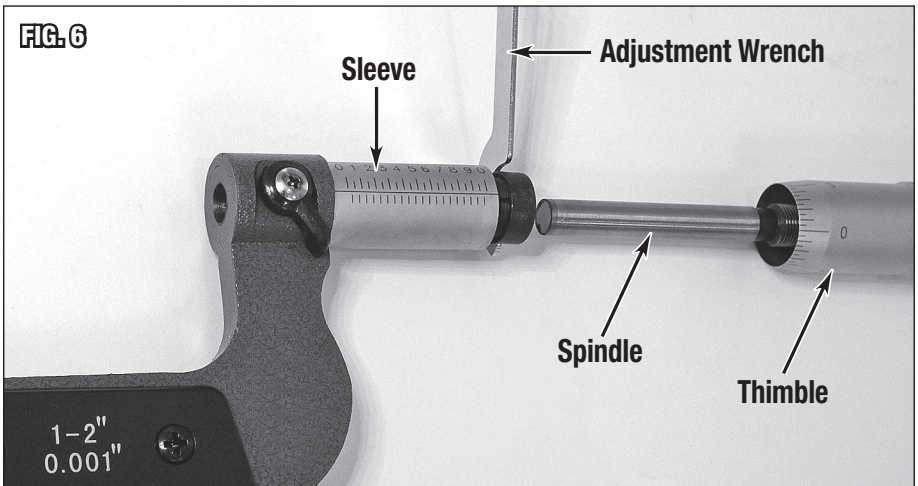
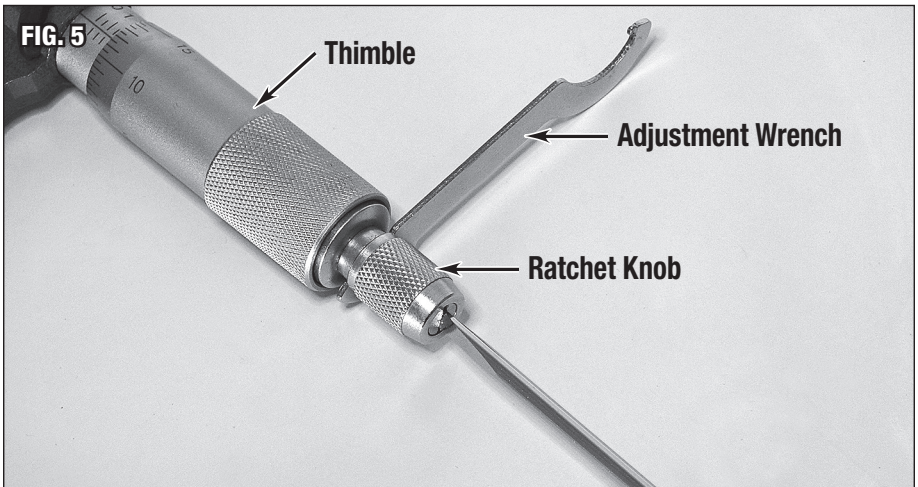
- Keep the Micrometer stored in a clean, dry location, in the supplied case. Periodically coat bare metal with a rust preventative coating such as a light machine oil.

Micrometers will require periodic calibration and adjustment with use. They are as follows:

- Zero the Thimble to the Sleeve:
 - Place the appropriate sized (1" or 2") Gauge block against the Anvil then gently close the Spindle against it using the Ratchet Knob (**FIG 3**).
 - Observe the "0" line of the Thimble in relation to the horizontal line on the Sleeve. The "0" of the Thimble should align with it. If not, it must be adjusted.
 - Hook the large end of the included Adjustment Wrench into the hole in the back side of the Sleeve and very gently turn it Clockwise or Counterclockwise as required to bring it into alignment (**FIG 4**).



- Adjust Thimble Knob Ratchet Tension:
 - Hook the small end of the included Adjustment Wrench in the hole on the side of the Thimble Knob Ratchet then increase or decrease tension using a small screwdriver in the slot on the end of the Spindle Ratchet Knob (**FIG 5**).
- Set Thimble Thread Lash:
 - Remove the Thimble from the Micrometer completely by unthreading it fully and exposing the threaded portion of the Sleeve (**FIG 6**).
 - Hook the large end of the included Adjustment Wrench in the hole on the side of the collar, then decrease lash by turning it in slightly (**FIG 6**). Reassemble the Spindle to the Micrometer to test lash and rotational resistance. Readjust if required.



ADDITIONAL ITEMS

- #31568 Digital 6" Caliper
- #28038 Sheet Metal Gauge

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: techelp@eastwood.com

PDF version of this manual is available online >> eastwood.com/31565manual

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