

[Manuals.plus](#) /

› [Starrett](#) /

› Starrett 3732XFL-1 Electronic Metric Micrometer Instruction Manual

Starrett 3732XFL-1

Starrett 3732XFL-1 Electronic Metric Micrometer

INSTRUCTION MANUAL

Introduction

The Starrett 3732XFL-1 Electronic Metric Micrometer is a precision measuring instrument designed for accurate dimensional measurements. This manual provides essential information for the proper setup, operation, adjustment, and maintenance of your micrometer to ensure optimal performance and longevity. Please read these instructions carefully before using the instrument.



Image description: A Starrett 3732XFL-1 Electronic Metric Micrometer with a digital display showing a measurement. The micrometer has a black frame and a satin chrome thimble.

Features and Specifications Overview

The Starrett 3732XFL-1 micrometer incorporates several design elements for precision and user convenience:

- **Balanced Frame Design:** Engineered for comfortable handling and accurate measuring.
- **Large, High-Contrast LCD Digital Readout:** Provides clear and easy-to-read measurements.
- **No-Glare Satin Chrome Finish:** Applied to the thimble and sleeve to minimize surface glare under bright lighting conditions.
- **No-Glare Black Wrinkle Finish:** Applied to the frame for improved grip and reduced reflections.
- **Hard and Stable One-Piece Friction Thimble:** Allows for one-hand operation and ensures uniform contact pressure during measurement.
- **Zeroing Capability:** The tool can be zeroed at any position, and can retain and return to the true zero reading.
- **Ring-Type Knurled Lock Nut:** Provides quick and secure locking of the spindle at any desired reading.

- **Micro-Lapped Carbide Measuring Faces:** Ensures high accuracy and durability of the measuring surfaces.

Detailed Design Features

Explore the specific design elements that contribute to the micrometer's performance:

MICROMETER

MICROMETER

FEATURES AND SPECIFICATIONS

- ✓ Balanced frame design for comfortable and accurate measuring
- ✓ Large, easy-to-read, high-contrast LCD digital readout
- ✓ Starrett No-glare satin chrome finish on thimble and sleeve minimizes annoying surface glare under bright lights indoors or filters out UV light
- ✓ No-glare black wrinkle finish on frame
- ✓ Hard and stable one-piece friction thimble permits one-hand operation of micrometer and uniform contact pressure
- ✓ Ability to zero tool at any position as well as retain and return to the true zero reading of the micrometer
- ✓ Ring-type knurled lock nut for quick and sure locking
- ✓ Micro-lapped carbide measuring faces





Image description: A micrometer with a tapered frame measuring the width of a narrow slot on a metal workpiece.

Tapered Frame

The tapered frame design allows for measurements in narrow slots and tight spaces, enhancing versatility.

STARRETT RELIABLE PRECISION MICROMETER DESIGN AND MANUFACTURING FEATURES



Tapered Frame – a Starrett original feature – permits measurements in narrow slots and tight places. Standard with Starrett.



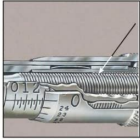
Ring-type lock nut convenient to use. Permits locking of spindle at any reading.



Friction thimble, smooth uniform pressure independent of "feel."



Ratchet stop/speeder for consistent measurements and to speed opening or closing of tool.



Extra Hard Threads with Extreme Lead Accuracy. Special high carbon steel gives harder threads which are hardened, stabilized, and precision ground from the solid to ensure long and accurate life.



Balanced design, plus no-glare satin chrome finish makes the tool easy to hold and read, as well as resistant to stains, corrosion and wear.



Image description: A hand turning the knurled ring-type lock nut on the micrometer to secure the spindle position.

Ring-Type Lock Nut

A convenient ring-type lock nut permits locking of the spindle at any reading, ensuring stability.

HOW TO ADJUST STARRETT MICROMETERS

Adjustments to Starrett Micrometers are rarely needed; however, if it becomes necessary, they can be readily adjusted in two easy operations as follows:



1. If any play should develop in the spindle screw threads due to wear of the spindle nut after long use, first back off the thimble, insert the spanner wrench in the slot of the adjusting nut and tighten just enough to eliminate play. Illustration shows how easily this is done.



2. After carefully cleaning all dirt or grit from the measuring faces of anvil and spindle, bring them together and insert the spanner wrench in the small slot of the sleeve. Then turn the sleeve until the line on the sleeve coincides with the zero line on the thimble as shown.

Starrett®



Image description: A hand rotating the friction thimble of a micrometer to apply consistent measuring pressure.

Friction Thimble

The friction thimble provides smooth, uniform pressure, independent of the user's 'feel', for consistent measurements.



MICRO-LAPPED CARBIDE MEASURING FACES

Image description: A hand operating the ratchet stop/speeder mechanism on the micrometer's thimble.

Ratchet Stop/Speeder

This feature ensures consistent measurements and allows for rapid opening or closing of the tool.



HARD AND STABLE ONE-PIECE FRICTION THIMBLE

Image description: A magnified view of the precision-ground threads on the micrometer's spindle.

Extra Hard Threads with Extreme Lead Accuracy

Special high carbon steel threads are hardened, stabilized, and precision ground for long-lasting accuracy and durability.



NO-GLARE BLACK WRINKLE FINISH ON FRAME

Image description: A micrometer held by a hand, showcasing its balanced frame design and no-glare satin chrome finish.

Balanced Design and No-Glare Finish

The balanced design and no-glare satin chrome finish make the tool easy to hold and read, while resisting stains, corrosion, and wear.



BALANCED FRAME DESIGN FOR ACCURATE MEASURING

Image description: A close-up view of the highly polished, micro-lapped carbide measuring faces of the micrometer.

Micro-Lapped Carbide Measuring Faces

These faces provide superior wear resistance and flatness for consistent, accurate contact with workpieces.



THE STANDARD FOR EXCELLENCE

Manufacturing quality tools that provide consistent and reliable performance since 1880, Starrett's commitment to product excellence, has earned them a reputation as one of the most trusted names in the industry.

Starrett



Image description: A hand rotating the friction thimble of a micrometer, demonstrating its stable and smooth operation.

Hard and Stable One-Piece Friction Thimble

This robust thimble design ensures consistent measuring force and durability.

Setup

1. **Battery Installation:** The micrometer requires one CR2 battery (included). Open the battery compartment, insert the battery with the correct polarity, and securely close the compartment.
2. **Initial Cleaning:** Before first use, gently clean the measuring faces (anvil and spindle) with a soft, lint-free cloth to remove any protective oils or debris.

3. **Power On:** Move the spindle or press any button to activate the digital display. The micrometer features an automatic shut-off function to conserve battery life.

Operating Instructions

1. Zero Setting:

- Ensure the measuring faces are thoroughly clean.
- Gently bring the measuring faces together using the friction thimble until they make firm contact.
- Press the **ZERO/ABS** button to set the display to zero. This establishes the absolute zero reference.
- The micrometer can also be zeroed at any position to measure relative differences. To return to the true absolute zero, bring the faces together and press **ZERO/ABS** again.

2. Taking a Measurement:

- Open the micrometer jaws wider than the object to be measured.
- Place the object securely between the anvil and spindle.
- Rotate the friction thimble to bring the spindle into contact with the object. Continue rotating until the thimble slips, indicating uniform measuring pressure.
- Read the measurement directly from the large LCD digital display.
- If needed, use the ring-type knurled lock nut to secure the spindle position for repeated measurements or to hold a reading.

Adjustment

Adjustments are rarely needed for Starrett micrometers. However, if play develops in the spindle or if the zero reading is incorrect after thorough cleaning, follow these steps:

1. **Eliminating Spindle Play:** If play develops in the spindle screw threads due to wear of the spindle nut after long use, first back off the thimble. Insert the spanner wrench (typically included with the micrometer) into the slot of the adjusting nut and tighten just enough to eliminate play.
2. **Zero Line Alignment:** After carefully cleaning all dirt or grit from the measuring faces of the anvil and spindle, bring them together gently. Insert the spanner wrench in the small slot of the sleeve. Turn the sleeve until the line on the sleeve coincides precisely with the zero line on the thimble.

Maintenance

- **Cleaning:** Keep the micrometer clean and free from dust, dirt, and oils. Use a soft, lint-free cloth. For stubborn grime, a small amount of instrument cleaning fluid can be applied to the cloth, not directly to the micrometer.
- **Storage:** Store the micrometer in its protective case when not in use. Avoid exposing it to extreme temperatures, high humidity, or direct sunlight. Ensure the measuring faces are slightly open to prevent sustained pressure on them during storage.
- **Battery Replacement:** Replace the CR2 battery when the display indicates low power or becomes dim. Refer to the battery installation steps in the Setup section.

Troubleshooting

• Inaccurate Readings:

- Ensure measuring faces are clean and free of debris.
- Verify proper zero setting before measurement.
- Confirm the object is positioned correctly and uniform pressure is applied using the friction thimble.
- Check for any physical damage or excessive wear on the micrometer.

- **Display Not Working:**
 - Check battery level and replace if necessary.
 - Ensure the battery is installed correctly with the proper polarity.
 - If the issue persists, contact Starrett customer support.
- **Spindle Movement is Stiff or Loose:**
 - Clean the spindle and threads to remove any accumulated dirt or grime.
 - If excessive play is present, refer to the Adjustment section for instructions on tightening the spindle nut.

Specifications

Product Specifications

Feature	Detail
Model Number	3732XFL-1
Brand	Starrett
Material	Metal
Power Source	1 CR2 Battery (included)
Product Dimensions	20.32 x 12.07 x 5.08 cm
Product Weight	453.59 g (1 Pound)
GTIN / UPC	049659122688

Warranty and Support

For detailed warranty information, technical assistance, or to inquire about replacement parts, please refer to the official Starrett website or contact their authorized customer service department. It is recommended to keep your purchase receipt as proof of purchase for any warranty claims.

© 2023 Starrett. All rights reserved.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question