Starrett®

**ENGLISH AND METRIC
ELECTRONIC DIGITAL
MICROMETER SERIES**

**714 Interchangeable Anvil
733XFL and DFL Series Out-
side Mics
749 Depth Gage
756 Disc Mic
760 Thread Comparator
762 Mic Head
764 Sheet Metal Mic
769 Tube Mic
777 Bench Mic
786 Blade Mic
788 Rounded Anvil Mic
790 Multi- Anvil**

USER'S GUIDE

INTRODUCTION

Starrett Electronic Digital Micrometers are designed for easy use and allow output to SPC (Statistical Process Control) printers, processors, and computers.

1. Resolution is .00005" or 0.001 mm in both the regular and "ME" series, except it is .0001" in both the regular and "ME" No. 733 series over 4"

2. Accuracy is ±.0001 or ± 0.003 mm in the 0-1" (0-25 mm) range and as good as setting to a gage above that because the mechanical and electronic components are the same in all ranges.

Installation of Battery

Install the battery that comes with the instrument. See "Battery Replacement".

OPERATING INSTRUCTIONS

Automatic OFF

The micrometer will turn off (the display will go blank) after 30 minutes of no spindle movement. Any movement of the spindle will activate the display with no loss of position reading.

HOLD Button

One button push will freeze the display and the word "HOLD" will appear. A second push will update the display to the current position reading.

SHIFT/SET Button

This is the button that gives great versatility to this tool. One push of this button will change the function of this button to SET — it will change the function of the ZERO/ABS button to PRESET, and it will change the function of the IN/mm button to LIMITS.

ZERO/ABSOLUTE Button

One short push (less than one second) of this button will zero the display at any point (some call this the "incremental mode"). A long push (more than one second) of this button will return the display to the original reading (some call this the "absolute mode") and the letters "ABS" will appear.

PRESET Button

This button allows you to install any reading into the display at any position of the spindle. It is used most often to establish the correct zero point of tools that exceed one inch or 25 mm range. For example: In a 3-4" micrometer the number 3.00000 would be installed in the display when a 3" standard was placed in the tool.

To install a preset value:

1. First, put the spindle in your desired position

2. Push the SHIFT/SET button to get into the secondary button functions and a small "s" will appear.

3. Press PRESET to get into the PRESET mode. The display will show a flashing "P" and previous preset number (when a new battery is installed it will show zero).

4. Press the SET button to index to a flashing "+" or "–" sign.

5. Press the PRESET button to change "+" to "–" or reverse.

6. Press the SET button to index to the first digit position, which will start flashing.

7. Press the PRESET button to change the number. Each press

advances the number from 0-9. Stop when the number is correct.

8. Press the SET button to index to the next position, and press the preset button to install a number from 0-9.

9. Continue to install a number from 0-9 in every position.

10. After all numbers are installed, press the SET button and a "P" will start flashing.

11. Finally, check to see that the numbers are correct and the spindle is in the proper position, then press the PRESET button to install the whole number and the "P" will stop flashing.

IN/mm LIMITS Button

The micrometer can be changed from inch mode to millimeter mode, or the reverse, with one push.

The LIMITS mode on this button is the secondary function and will only become active after the SHIFT button has been pushed. It is used to enter the minimum and maximum limits of a tolerance.

To Install Limits

First press the SHIFT/SET button to get into the SET mode and an "S" will appear. Then press the LIMITS button to get into the LIMITS mode. "MIN LIMIT" will appear. The previous minimum limit is also displayed. Then press the SET button to allow the new minimum limit to be installed. "LIMIT" is now flashing. Move the spindle until the display shows the new minimum limit to be installed. Finally, press the SET button to install the new limit. "LIMIT" stops flashing.

Now press the LIMITS button again to change the display to the previous maximum limit. "MAX LIMIT" will appear. Then press the SET button to allow the display to be changed. "LIMIT" is now flashing. Move the spindle to the new maximum limit reading and press the SET button to install the reading. "LIMIT" stops flashing. Then press the LIMITS button to use the limits mode. NOTE: After installation the limits will show "out of tolerance" by a flashing display.

To get out of the limits mode, press the LIMITS button once. This will return you to the normal measuring mode.

Output

This micrometer comes with an output jack that allows data transmission to a variety of peripherals, either through a traditional wire, or wirelessly by connecting to a PC using the Starrett DataSure® Wireless Data Collection System.

If this tool is to be used with Starrett data collectors/processors, it will require No. PT61192 (Starrett Module No. 3). Also, the collector/processor should be Version 3.08/2.04, or greater. If not, call the factory for assistance.

This allows for analysis, data collection, and hard copy documentation as needed.

Access to spreadsheets/databases requires use of No. 719 Software Wedge™.

The output format is 4800 BAUD, 7 data bits, even parity, 1 stop bit, ASCII data. Transmission is exactly 16 characters, followed by a carriage return and a line feed.

PRINT COMMANDS are controlled by the button on the connecting cable.

Error Message

The word "Err 04" will appear on the display if the spindle is moved too fast. If this occurs, press the ZERO/ABS button.

Battery Replacement

The display will show a dim reading when the battery is getting weak. Remove the battery compartment cover on the back of the micrometer. Remove the old battery and install a new one"+ SIDE DOWN", as noted on the cover. Then, reinstall the cover by threading it into place. If the display is blank or shows all eights (8.88888), remove the cover and repeat the installation procedure.

Batteries can be obtained from Starrett by ordering PT61120. Use only Renata or Lixing CR2450 batteries.

Test Mode

There is a test mode in the micrometer for the evaluation of the electronics by a trained technician. If an unusual reading appears on the display, press the ZERO/ABS button until all display segments are on. Then press any other button to get back in normal mode.