



SUB-MICRON COMPUTERIZED MICROMETER HEAD USER MANUAL



Item No	Range		Resolution		Accuracy	Protection class	Indication	Data output	Calibration
	mm	inch	mm	inch	μm			Wireless	ISO 17025
110180027	0-25	0-1"	0.0001	0.00001"	± 2	IP-65	computerized	max 50m	+
110181057	0-50	0-2"			± 3	IP-65	MICS system with 1,54" touchscreen	max 50m	+

TECHNICAL DATA

Parameters	
LED display	color 1,54 inch
Resolution	240x240
Indication system	MICS 3.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	450-800 mAh (depends of device)
Charging port	micro-USB
Case material	Aluminium
Buttons	Switch (Multifuntional), Reset
Wireless data transfer	up to 50m on open area

Clean the oil from the measuring surfaces of micrometer by cloth.

Turn on micrometer by pressing SWITCH ON button.

Check the setting display to zero. Contact with each other (or with setting gauge) measuring surfaces of the anvil and the spindle, using the ratchet and take a measurement.

Rotation the micrometer screw in the direction of convergence measuring surfaces using the ratchet.

For zero setting, press the ZERO button on Touchscreen.

MAIN INFO



MICROTECH



PRECISION MEASUREMENTS

MICROTCH computerized micrometer with 0.1 resolution can be used for high precision measurements in manufacturing, automotive medical industry and for calibration



COLOR GO/NOGO INDICATION

Easy and quick limits control.
It's possible setup max and min value throw menu.
Color indication reduce possibility of error during control



INTERNAL MEMORY

Computerized micrometer has memory manger with possibility saving data to folders. Separate Data's or Folders can be transfer Wireless to MICROTECH Software (Windows, Android,iOS)



FORMULA MODE

In Formula mode we use Ax^2+Bx+C

Main using of this function is:

- Preset function
- Magnification of measured value

For customers request Formula can be updated



ERROR COMPENSATION

It's possible to make mathematical error compensation. Just re-calibrate micrometer with gauge block set and save results. Micrometer will indicate measuring results include re-calibration.



TEMPERATURE COMPENSATION

Temperature compensation function gives possibility recalculate details sizes with high or low temperatures to normal (20C conditions). Available recalculation for 7 materials

CHARGING



For charging connect USB cable
Charging process indicating
on Battery status
(switch on device)

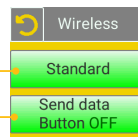
BUILT-IN BATTERY - rechargeable Li-Pol battery



Activate WIRELESS data transfer in WIRELESS menu

Switch on Wireless data transmission

Activating multifunctional button to save value to memory or send data by touchscreen or button push



Connect instrument with **MICS** indication system to Tablet or PC

Send data to Tablet or PC:

- by Touchscreen
- by Multifunctional button push (activated in Wireless menu)
- by Timer (activated in Timer menu)
- from Internal Memory

MEMORY

For save measuring data to internal caliper's memory touch data area on screen or short button push. You can view saved data throw menu or send Wireless connection to Windows PC, Android or iOS devices.

Basic STATISTIC functions:

MAX - maximum saved value

MIN - minimum saved value

AVG - average value

D - variance VAR(x)

	Statistic
MAX:	+26.999
MIN:	8.8673
AVG:	+5.3213
D:	+26.863

Saved values

Each value can be Deleted or Send to application

	ALL
	+7.3563
	-0.1109
	+1.2293
	+26.9993
	-8.8673

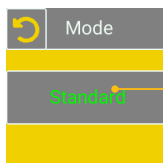
Button ALL select all values

All values can be Deleted or Send to application

	ALL
	Delete or send value?
	Del Send
	-8.8673

MEMORY settings

Memory sub-menu



Selecting Standard mode or No saving data to internal memory



WIRELESS CONNECTION



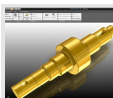
USB-DONGLE



DOWNLOAD



**SAVING DATA
TO XLS. CSV
FORMATS**



**TRANSFER DATA TO
CAD, SPC OR OTHER
SOFTWARE**



**TRANSFER DATA TO
EXCEL OR OTHER
TABLE EDITORS**



DOWNLOAD



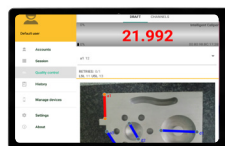
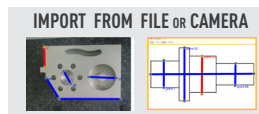
**SAVING DATA
TO XLS. CSV
FORMATS**



**SAVING
GRAPH**



**VOICE
MODE**



DOWNLOAD



**SAVING DATA
TO XLS. CSV
FORMATS**



**SAVING
GRAPH**



**VOICE
MODE**



**QUALITY
CONTROL
RESULTS**

DATA TRANSFER DISTANCE FOR INTELLIGENT INSTRUMENTS

- All MICROTECH Intelligent instruments has internal memory. You can collect data to memory and when it will be necessary transfer all data to the peripheral device with no data losing.
- It's possible transfer data, like in Wireless instruments up to 15 m or up 50 m with external antenna
- USB port can be used to transfer data directly to Windows PC



USE TOUCHSCREEN TO OPERATE MENU

MENU button **MENU** Battery Level

Colour can be changed according function **-0.0000** Actual value

Zero setting **0** Memory

MEMORY WITH STATISTIC

ALL	Statistic
+7.3563	MAX: +26.999
-0.1109	MIN: 8.8673
+1.2293	AVG: +5.3213
+26.9993	D: +26.863
-8.8673	

MENU CONFIGURATION



MAIN MENU



< +000.000

> +000.000

MIN

LIMITS

color Go/NoGo

Max/Min

Enable

OK

MAX/MIN

indicating max or min value

Formula

AX+BX+C

Set Arq

FORMULA MODE

 AX^2+BX+C

Timer

+000 sec.

RESET



0.8970

0.8920

OK

RESET

ERROR COMPENSATION

mathematical correction

Temp.comp.

Strong, Warm, Solid alloys, Mo

+00.00

TEMPERATURE COMPENSATION

manual correction

Resolution

X.0000

Millimeters

RESOLUTION

selected up to 0.0001mm

Extra

Axis Mode

Normal

CONNECT



Wireless

Standard

Send data

Button OFF

WIRELESS

modes of data transmission

Mode OFF

UART OFF

Keypad On

CONTINUE

USB

USB connection configuration

Device

PN

RESET

DEVICE SETTING

pin, reset

Display

Angle 180

Sleep off



Mode

Standard

MEMORY SETTING

Link to software

SOFTWARE

link to download app

Calibration

DAY MONTH YEAR

01 01 2020

CHANGE

CALIBRATION DATE

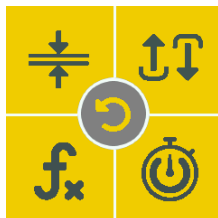
MICROTECH

www.microtech.ua

COMP.CALIPER 1

FW: 3.0.5

MAC: 12345



LIMITS GO/NOGO

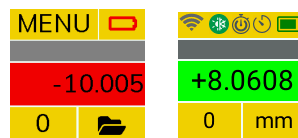
MENU SETTING



Colour indication limits

MAX - NoGo more MAX value
MIN - NoGo less MIN value
RANGE - Go between MIN & MAX
NONE - disactivating mode

MAIN SCREEN INDICATION



NoGo

Go

MAX/MIN

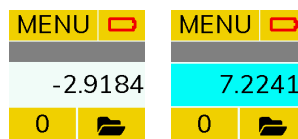
MENU SETTING



Indication and saving MAX or MIN values

ENABLE - activating mode
MAX - indicating MAX measured value
MIN - indicating MIN measured value

MAIN SCREEN INDICATION

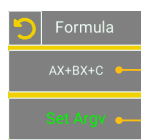


MIN

MAX

FORMULA

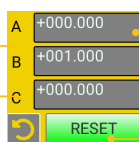
MENU SETTING



Formula:

Ax^2+Bx+C

FORMULA Ax^2+Bx+C



Long push digit to select value

Reset to zero arguments

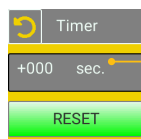
EXAMPLE OF FORMULA USING

Standard measuring PRESET 50mm
 Value magnification x3
 Square value

A=0, B=1, C=0
 A=0, B=1, C=50
 A=0, B=3, C=0
 A=1, B=0, C=0

TIMER

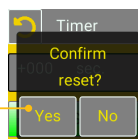
MENU SETTING



Saving data to memory or sending Wireless by Timer

Select timer period

Reset to disactivate mode



Yes No



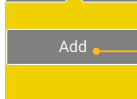
MATHEMATICAL ERROR COMPENSATION

MENU SETTING

Mathematical correction points with big error to normal values



Select all points



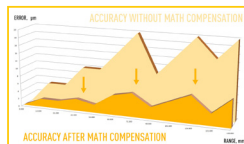
Add new point for error compensation



actual values

correct values by up&down button

confirm point correction



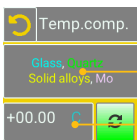
use gauge blocks or measuring machine for points correction



TEMPERATURE COMPENSATION

MENU SETTING

Re-calculation detail size to calibration conditions (20°C)



7 types of material for selection

Manual Temperature setting

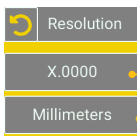
7 types of material:

- glass, quartz, solid alloys
- granite, graphite
- Fe, Ni, Fe alloys
- stainless steel
- cooper, Cu alloys
- aluminium, al alloys
- acrylic sheet



RESOLUTION

MENU SETTING



Resolution selecting

mm/inch conversion

MAIN SCREEN INDICATION

+8.0608

Selecting resolution of value on main screen and memory



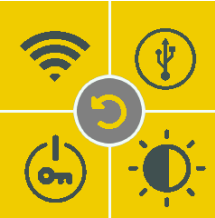
EXTRA (Axis mode)

MENU SETTING



Selecting normal or inverted axis mode (+/- value indication)

Reading base reconnection for some types of calipers



WIRELESS CONNECTION

MENU SETTING Activating or disactivating wireless data transfer

Wireless

Standard

Send data Button OFF

Switch on Wireless data transmission

Activating multifunctional button to save value to memory or send data by touchscreeb ur button push

USB CONNECTION

MENU SETTING USB connection mode under construction

Mode OFF

UART OFF

Keypad ON

CONFIG

Configure

Trail symbol CN+LJ

Devicer Dot

PIN & RESET

MENU SETTING Activating PIN to device setting RESET to factory settings

Device

PIN

RESET

1 2 3 4

5 6 7 8

9 0 < ✓

Device

Confirm reset?

Yes No

DISPLAY SETTING

MENU SETTING DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE

Display

Angle 180

Sleep ON

Display rotation 0°, 90°, 180°, 270°

- Sleep OFF (15 s low brightness off, sleep off)

- Sleep 15s (15 s low brightness on, sleep off)

- Sleep ON (15 s low brightness on, sleep on)

Brightness level

+8.0608

0 mm

mm 0

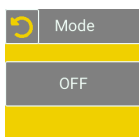
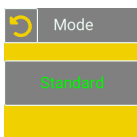
8090'8+



MEMORY SETTINGS

MENU SETTING

Activating or disactivating saving values to memory



Standard - saving values to memory
OFF - disable saving to memory

	Mode	ALL
		+7.3563
		-0.1109
		+1.2293
		+26.9993
		-8.8673



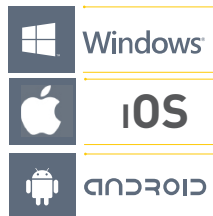
LINK TO SOFTWARE

MENU SETTING



QR Link to MICROTECH web site page
with MDS Software download

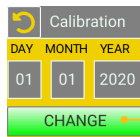
- Android, iOS, Windows versions
- Free and Pro versions
- Manuals



CALIBRATION DATE

MENU SETTING

Calibration date info



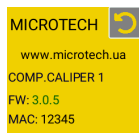
Push for change date info

DAY	
01	
MONTH	
01	
YEAR	
2021	



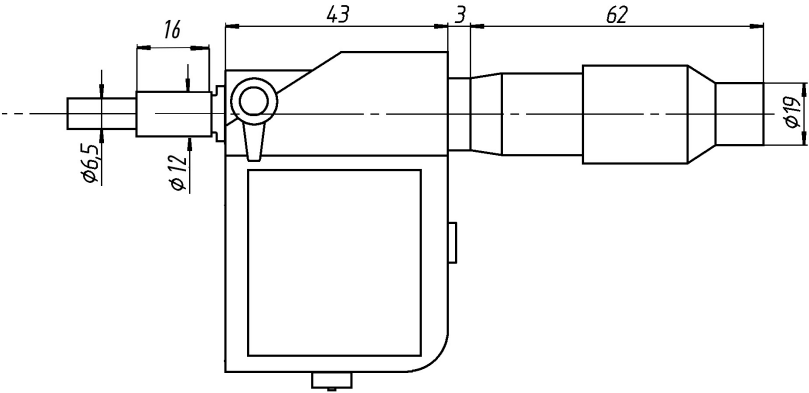
DEVICE INFO

MENU SETTING



Information about device

- device name
- firmware version
- MAC adress for easy connection





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