

MICRON COMPUTERIZED FORCE CALIPER

USER MANUAL





Item No	Range		Range		Accuracy	External Force	Protection	Indication	Data output	Calibration	
	mm	inch	mm	inch	µm	N			Wireless		
141097015	0-150	0-6"	0,001	0,0001"	±5	8	IP-54	computerized MICS system with 1,54" touchscreen	max 50 m	+	
141097020	0-200	0-8"			±8	8			IP-54	max 50 m	+
141097030	0-300	0-12"			±12	8			IP-54	max 50 m	+

TECHNICAL DATA

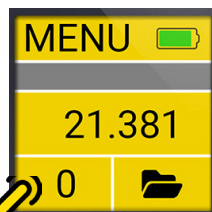
Parameters	
LED display	color 1,54 inch
Resolution	240x240
Indication system	MICS 3.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	450-800 mAh (depends of device)
Charging port	micro-USB
Case material	Aluminium
Buttons	Switch (Multifuntional), Reset
Wireless data transfer	up to 50m on open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

Clean the oil from the measuring surfaces of caliper by cloth.
 For recharging caliper (Li-Pol rechargeable battery) connect it with standard USB cable to charger device.

**DO NOT LEAVE UNCHARGED CALIPER FOR A LONG TIME.
 THIS MAY RESULT TO INTERNAL BATTERY FAILURE!**

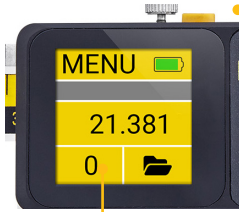
BASE RECONNECTION

Sometimes, when battery was uncharges for a long time - necessary to make reading base reconnection



**PUSH ZERO button (5sec.) on main screen
 or quick move computerized block on all range**





SWITCH ON DEVICE - button push (1 sec)

SWITCH OFF DEVICE - button push (3 sec)/ auto switch off

DATA TRANSFER - programming throw menu

ZERO SETTING - push 2 sec to ZERO setting

CHARGING



BUILT-IN BATTERY - rechargeable Li-Pol battery



For charging connect USB cable

FORCE CONTROL



FORCE control module 8N

For zero setting use Force control module- line inside lens must be came off with outside line.

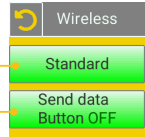
Press the **ZERO** button on Touchscreen for ZERO position setting.

During a measuring use Force control module to measure with optimal Force



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:

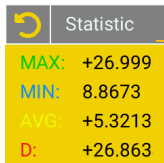
- by Touchscreen
- by Multifunctional button push (activated in Wireless menu)
- by Timer (activated in Timer menu)
- from Internal Memory

MEMORY

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

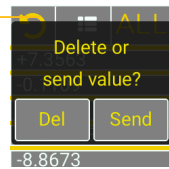
Basic STATISTIC functions:

- MAX - maximum saved value
- MIN - minimum saved value
- AVG - average value
- D - variance VAR(x)



Saved values

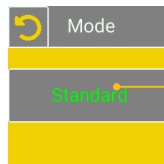
Each value can be Deleted or Send to application



Button ALL select all values
All values can be Deleted or Send to application

MEMORY settings

Memory sub-menu



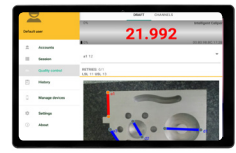
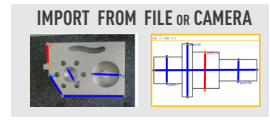
Selecting Standard mode or
No saving data to internal memory



WIRELESS CONNECTION



USB-DONGLE



SAVING DATA TO XLS. CSV FORMATS

SAVING DATA TO XLS. CSV FORMATS

SAVING DATA TO XLS. CSV FORMATS

TRANSFER DATA TO CAD, SPC OR OTHER SOFTWARE

SAVING GRAPH

SAVING GRAPH

TRANSFER DATA TO EXCEL OR OTHER TABLE EDITORS

VOICE MODE

VOICE MODE

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

QUALITY CONTROL RESULTS



MENU NAVIGATION



USE TOUCHSCREEN TO OPERATE MENU

MENU button **MENU** Battery Level

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

Zero setting (2sec) **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



LIMITS
color Go/NoGo

Max/Min

Enable

OK

MAX/MIN
indicating max or min value

Formula

$Ax+Bx+C$

Set Aray

FORMULA MODE
 Ax^2+Bx+C

Timer

+000 sec.

RESET



0.8970

0.8920

OK

RESET

ERROR COMPENSATION
mathematical correction

Temp.comp.

Blank Check
Solid always, 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

CONFIRM

USB
USB connection configuration

Device

PIN

RESET

DEVICE SETTING
pin, reset

Display

Angle 180

Sleep 30S



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

<p>MENU SETTING</p> <p>← +000.000 → MAX value</p> <p>→ +000.000 ← MIN value</p> <p>⌂ RANGE ↻ zero values</p>	<p>Colour indication limits</p> <p>MAX - NoGo more MAX value</p> <p>MIN - NoGo less MIN value</p> <p>RANGE - Go between MIN & MAX</p> <p>NONE - disactivating mode</p>	<p>MAIN SCREEN INDICATION</p> <p>MENU </p> <p>-10.005</p> <p>0 </p> <p>NoGo</p> <p></p> <p>+8.0608</p> <p>0 mm</p> <p>Go</p>
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MAX/MIN

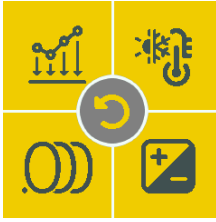
<p>MENU SETTING</p> <p>⌂ Max/Min</p> <p>Enable</p> <p>MAX</p>	<p>Indication and saving MAX or MIN values</p> <p>ENABLE - activating mode</p> <p>MAX - indicating MAX measured value</p> <p>MIN - indicating MIN measured value</p>	<p>MAIN SCREEN INDICATION</p> <p>MENU </p> <p>-2.9184</p> <p>0 </p> <p>MIN</p> <p>MENU </p> <p>7.2241</p> <p>0 </p> <p>MAX</p>
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FORMULA

<p>MENU SETTING</p> <p>⌂ Formula</p> <p>Formula: Ax^2+Bx+C</p> <p>AX+BX+C</p> <p>Set Argv</p> <p>⌂ RESET</p>	<p>FORMULA Ax^2+Bx+C</p> <p>A +000.000 Long push digit to select value</p> <p>B +001.000</p> <p>C +000.000</p> <p>Reset to zero arguments</p>	<p>EXAMPLE OF FORMULA USING</p> <p>Standard measuring A=0, B=1, C=0</p> <p>PRESET 50mm A=0, B=1, C=50</p> <p>Value magnification x3 A=0, B=3, C=0</p> <p>Square value A=1, B=0, C=0</p>
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TIMER

<p>MENU SETTING</p> <p>⌂ Timer</p> <p>+000 sec.</p> <p>RESET</p>	<p>Saving data to memory or sending Wireless by Timer</p> <p>Select timer period</p> <p>Reset to deactivate mode</p>	<p>⌂ Timer</p> <p>Confirm</p> <p>reset?</p> <p>Yes No</p>
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MATHEMATICAL ERROR COMPENSATION

MENU SETTING

Mathematical correction points with big error to normal values



Select all points

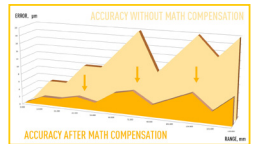
Add new point for error compensation



actual values

correct values by up&down button

confirm point correction

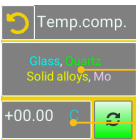


use gauge blocks or measuring machine for points correction

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

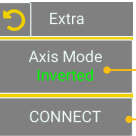
MAIN SCREEN INDICATION

+8.0608

Selecting resolution of value on main screen and memory

EXTRA (Axis mode)

MENU SETTING



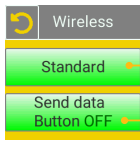
Selecting normal or inverted axis mode (+/- value indication)

Reading base reconnection for some types of calipers



WIRELESS CONNECTION

MENU SETTING Activating or deactivating wireless data transfer



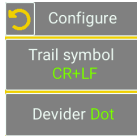
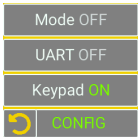
Switch on Wireless data transmission

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



USB CONNECTION

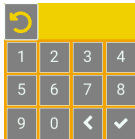
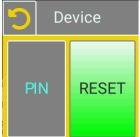
MENU SETTING USB connection mode under construction



PIN & RESET

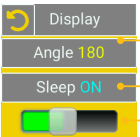
MENU SETTING Activating PIN to device setting

RESET to factory settings



DISPLAY SETTING

MENU SETTING DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE



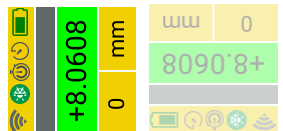
Display rotation 0°, 90°, 180°, 270°

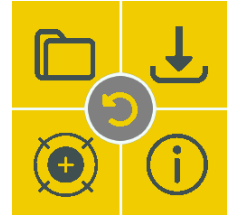
- Sleep OFF (15 s low brightness off, sleep off)

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

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

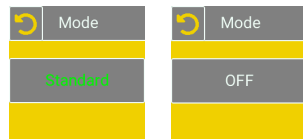
Brightness level





MEMORY SETTINGS

MENU SETTING Activating or disactivating saving values to memory



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

↻	☰	ALL
+7.3563		
-0.1109		
+1.2293		
+26.9993		
-8.8673		

LINK TO SOFTWARE

MENU SETTING

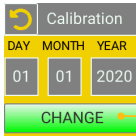


QR Link to MICROTECH web site page with MDS Software download
- Android, iOS, Windows versions
- Free and Pro versions
- Manuals



CALIBRATION DATE

MENU SETTING Calibration date info



Push for change date info

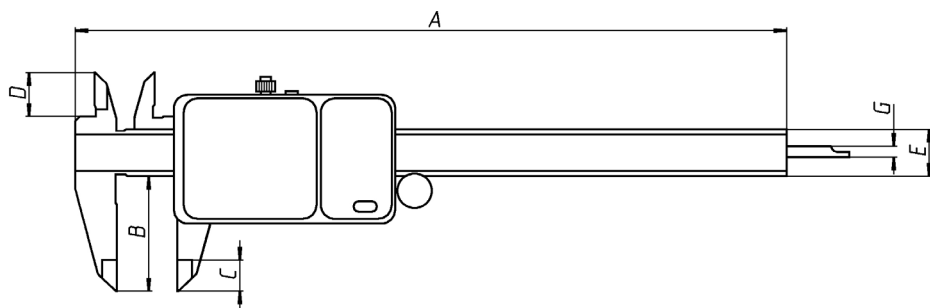
DAY	↻
01	
MONTH	
01	
YEAR	
2021	

DEVICE INFO

MENU SETTING



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



Range	DIMENSIONS					
	A	B	C	D	E	G
mm	mm	mm	mm	mm	mm	mm
0-150	235	40	10	16	16	4x1,4
0-200	290	50	10	18	16	4x1,4
0-300	395	60	11	21	16	4x1,4



MICROTECH



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Change without prior notice

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