

UNIVERSAL COMPUTERIZED FORCE CALIPER

USER MANUAL





Item No	Range		Resolution		Accuracy	B*	Protection class	External Force	Indication	Data output	Calibration
	mm	inch	mm	inch	µm	mm		N		Wireless	ISO 17025
141630157	0-150	0-6"	0,005	0.0002"	±20	30	IP54	8	computerized MICS system with 1,54" touchscreen	max 50 m	+
141630158			0,001	0.00005"	±15		IP54	8		max 50 m	+
141630207	0-200	0-8"	0,005	0.0002"	±25	50	IP54	8		max 50 m	+
141630208			0,001	0.00005"	±15		IP54	8		max 50 m	+
141630307	0-300	0-12"	0,005	0.0002"	±25		IP54	8		max 50 m	+
141630308			0,001	0.00005"	±20		IP54	8		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 (Multifunctional), Reset
Wireless data transfer	up to 50m on open area

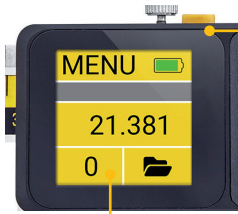
Clean the oil from the measuring surfaces of caliper by cloth.
For recharging caliper (Li-Pol rechargeable battery) connect it with standard USB cable to charger device.

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

MAIN INFO



MICROTECH



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 5 sec to ZERO setting

CHARGING



BUILT-IN BATTERY - rechargeable Li-Pol battery



For charging connect USB cable

FORCE CONTROL



FORCE control module 8N

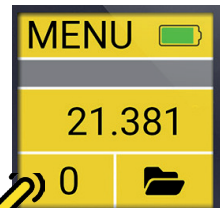
For zero setting use Force control module- line inside lens must be came off with outside line.

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

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

BASE RECONNECTION

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

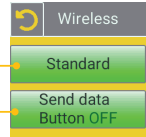


PUSH ZERO button (5sec.) on main screen



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:

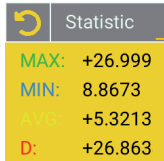
- by Touchscreen
- by Multifunctional button push (activated in Wireless menu)
- by Timer (activated in Timer menu)
- from Internal Memory

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.

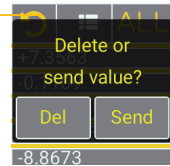
Basic STATISTIC functions:

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



Saved values

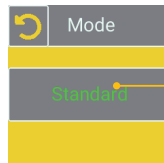
Each value can be Deleted or Send to application



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

MEMORY settings

Memory sub-menu



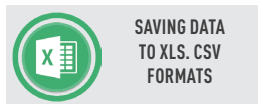
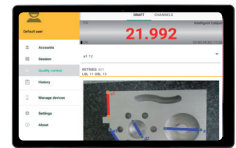
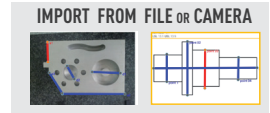
Selecting Standard mode or
No saving data to internal memory



WIRELESS CONNECTION



USB-DONGLE



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	MAX: +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

OK

FORMULA MODE

Ax^2+Bx+C

Timer

+000 sec.

RESET



0.8970

0.8920

OK

RESET

ERROR COMPENSATION

mathematical correction

Temp.comp.

Display

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

CONNECT

USB

USB connection configuration

Device

PIN

RESET

DEVICE SETTING

pin, reset

Display

Angle 180

Sleep



Mode

Standard

MEMORY SETTING

Link to software

SOFTWARE

link to download app

Calibration

DAY MONTH YEAR

01 01 2020

CHANGE

CALIBRATION DATE

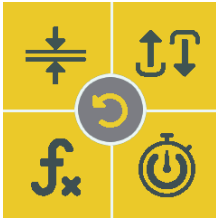
MICROTECH

www.microtech.ua

COMP.CALIPER 1

FW: 3.0.5

MAC: 12345



LIMITS GO/NOGO

MENU SETTING

→ MAX value
 → MIN value
 → zero values

Colour indication limits

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

MAIN SCREEN INDICATION

MENU		
-10.005		+8.0608
0		0 mm

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

MENU		MENU	
-2.9184		7.2241	
0		0	

MIN **MAX**

FORMULA

MENU SETTING

Formula:

Formula:

+000.000
 +001.000
 +000.000

FORMULA Ax^2+Bx+C

Long push digit to select value

Reset to zero arguments

EXAMPLE OF FORMULA USING

Standard measuring A=0, B=1, C=0
 PRESET 50mm A=0, B=1, C=50
 Value magnification x3 A=0, B=3, C=0
 Square value A=1, B=0, C=0

TIMER

MENU SETTING

Saving data to memory or sending Wireless by Timer

Select timer period

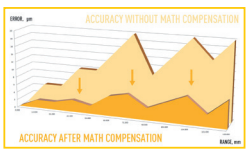
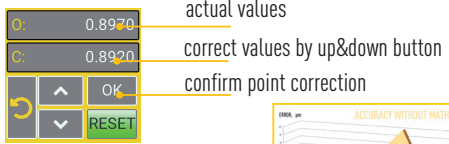
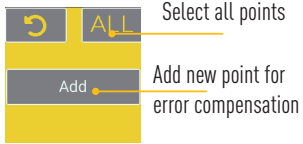
Reset to deactivate mode

Confirm
 reset?
 Yes No



MATHEMATICAL ERROR COMPENSATION

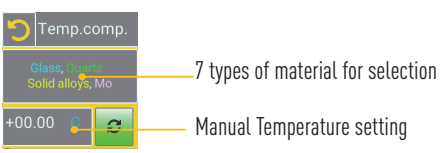
MENU SETTING Mathematical correction points with big error to normal values



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

RESOLUTION

MENU SETTING



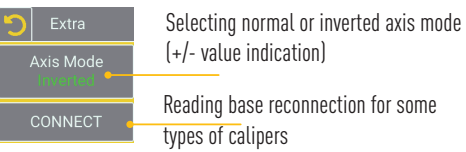
MAIN SCREEN INDICATION

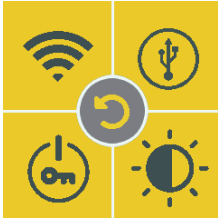
+8.0608

Selecting resolution of value on main screen and memory

EXTRA (Axis mode)

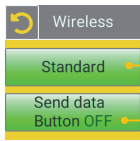
MENU SETTING





WIRELESS CONNECTION

MENU SETTING Activating or deactivating wireless data transfer



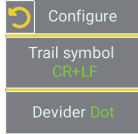
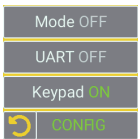
Switch on Wireless data transmission

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



USB CONNECTION

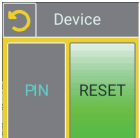
MENU SETTING USB connection mode under construction



PIN & RESET

MENU SETTING Activating PIN to device setting

RESET to factory settings



DISPLAY SETTING

MENU SETTING DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE



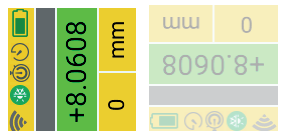
Display rotation 0°, 90°, 180°, 270°

- 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

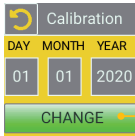


QR Link to MICROTECH web site page with MDS Software download
- Android, iOS, Windows versions
- Free and Pro versions
- Manuals



CALIBRATION DATE

MENU SETTING Calibration date info



Push for change date info

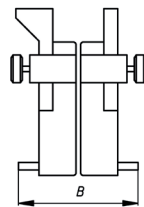
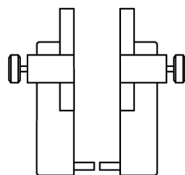
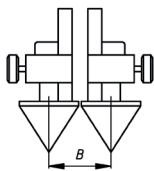
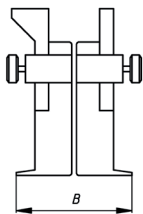
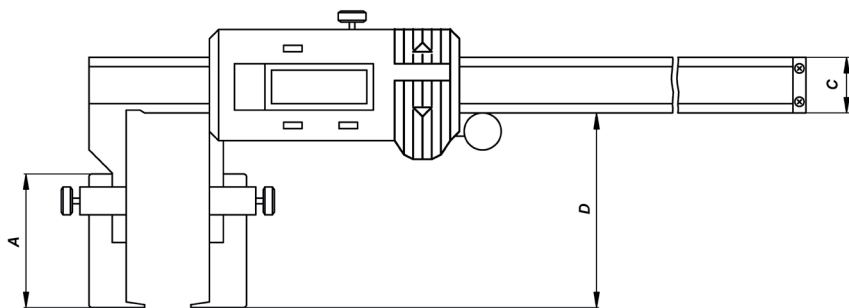
DAY	↻
01	
MONTH	
01	
YEAR	
2021	

DEVICE INFO

MENU SETTING



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





MICROTECH



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Change without prior notice

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