

# MICRON INTELLIGENT COMPUTERIZED CALIPER

# USER MANUAL





Item No	Range	Resolution	Accuracy	Jaws	Measuring force	Protection	Functions	Data output	
								USB	Wireless
	mm	mm	mm	mm	N				
141097015	0-150	0,001	±0,005	40/16	8	IP-65	Error comp. Temp.comp Preset. Memory Max/Min Limits	+	max 50 m
141097020	0-200	0,001	±0,008	50/17	8	IP-65		+	max 50 m
141097030	0-300	0,001	±0,012	60/20	8	IP-65		+	max 50 m

Parameters	
LED display	1,5 inch
Power supply	Rechargeable Li-Pol battery
Lifetime	>80h (Medium brightness)
Charging port	micro-USB
Measuring force	8N
Wireless data transfer	15m/ 50m with external antenna (from set)

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!**

Turn on caliper by pressing ON button (1 sec).

For zero setting use Force control module- line inside lens must be came off with outside line. Press the **ZERO** button (2 sec) on Touchscreen for ZERO position setting.

During a measuring use Force control module to measure with optimal Force (8N for this type of caliper).

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 throw USB or Wireless connection to Windows PC, Android or iOS devices. All functions of caliper you can see on p.5 of instruction or in demo video on [www.microtech.ua](http://www.microtech.ua)

# MAIN INFO



MICROTECH

**SWITCH ON DEVICE** - button push (1 sec)

**SWITCH OFF DEVICE** - auto switch off (configuring throw DISPLAY SETTING menu)  
- button push (3 sec)

**ZERO SETTING** - 0 button in Touchscreen display (2 sec)



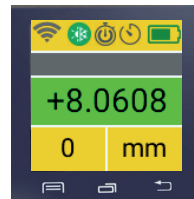
# CHARGING

For charging connect USB cable



**BUILT-IN BATTERY** - rechargeable Li-Pol battery

Charging process indicating  
on Battery status  
(switch on device)



# VIDEO INSTRUCTION





# MENU NAVIGATION

functions status

Battery status

color indication Go/NoGo

mm/inch conversion

ZERO setting

Folders	001
001	+0.0020
002	+1.5509
+ New folder	+11.0781

**MAIN MENU**

**MEMORY MANAGER**  
folders system  
transferring data from memory to PC

**LIMITS**  
 color Go/NoGo

**MAX/MIN**  
indicating max or min value

**FORMULA MODE**  
 $Ax^2+Bx+C$

**TIMER MODE**  
saving or transfer data on timer

**ERROR COMPENSATION**  
mathematical correction

**TEMPERATURE COMPENSATION**  
manual correction 4 materials

**RESOLUTION**  
selected up to 0.0001mm

**AXIS MODE**  
normal or inverted

**WIRELESS**  
modes of data transmission

**USB**  
USB connection configuration

**DEVICE SETTING**  
autostart, reset, password

**SCREEN SETTING**  
screen rotation, brightness

**MEMORY SETTING**  
folder configuration

**SOFTWARE**  
link to download app

DAY	MONTH	YEAR
01	01	2020

**CALIBRATION STATUS**  
calibration date control

app@microtech.ua  
 F411RE  
 FW: 1.1.1  
 MAC: 00000  
 ID: 00000000

**DEVICE INFO**  
service info about device



USB CONNECTION

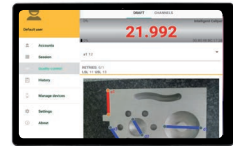
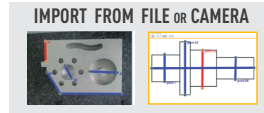


USB-DONGLE



UP TO 50M

WIRELESS CONNECTION



Windows



iOS



ANDROID

DOWNLOAD



DOWNLOAD



DOWNLOAD



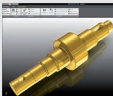
SAVING DATA TO XLS. CSV FORMATS



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



## LIMITS GO/NOGO

**MENU SETTING**

< +00.0001

> +00.0001

MIN

**MAIN SCREEN**

+8.0608

0 mm

NoGo Go NoGo

MAX - NoGo over MAX value  
 MIN - NoGo over MIN value  
 RANGE - selecting GO range  
 NONE - No active mode

## FORMULA

A +00.0000

B +00.0000

C +00.0000

RESET

**EXAMPLES:**

- for value x2 - B=2
- set PRESET 100mm C=100
- square value A=1

Avialable Formulas:  
 - $Ax^2+Bx+C$   
 -Radius (for indicators)  
 -Sphere (for indicators)

## MATH. ERROR COMPENSATION

0.010000

0.010000

OK

RESET

**Red value**  
- actual value on instrument

**Green value**  
- compensated value

Use up&down button to update actual value (green) to correct value.  
 For compensation correction - push OK.  
 After points correction computerized instrument will recalculate values according corrected points

## RESOLUTION

Resolution

X.0000

+8.0608

Selecting instrument resolution

## MAX/MIN

Max/Min

Enable

MAX

Status indication on main screen

+8.0608

0 mm

ENABLE/DISABLE mode indicating MAX dvalue indicating MIN value

## TIMER

Timer

+000 sec.

RESET

Timer indication on main screen

+8.0608

0 mm

Saving or transfer data by Timer  
 Select timer period  
 For disactive - reset to zero

## TEMPERATURE COMPENSATION

Temp. comp.

Glass, Quartz  
 Solid alloys, Mo

+25.00

+8.0608

0 mm

Re-calculation value to calibration conditions 20C  
 7 types of materilas for selection  
 Manual temperature setting

## EXTRA (Axis mode)

Extra

Axis Mode

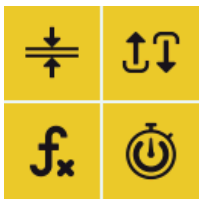
Normal

+/- value indication

+8.0608

0 mm

Selecting normal or inverted axis mode



# FUNCTIONS



MICROTECH

## WIRELESS CONNECTION

Wireless Trans

Normal

1 min

WIRELESS status

+8.0608

0 mm

## USB CONNECTION

Mode OFF

UART OFF

Keypad ON

CONFIG

Windows



## PIN

Device

Auto start ON

PIN RESET

## DISPLAY SETTING

Angle 0

Sleep off

Rotation 0, 90, 180, 270

Sleep mode

Brightness level

+8.0608

0 mm

8090'8+

## MEMORY MANAGER SETTINGS

Mode	001
Folder	+0.0020
+000	+1.5509
RESET	+11.0781

- Standard / Folder mode

In Folder mode possible to set qty values in each folder.

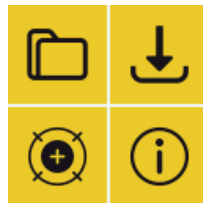
## LINK TO SOFTWARE

Link to software

Free Software for Windows, Android, iOS

Link to page with MDS Software download

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



## CALIBRATION DATE

Calibration Date

DAY	MONTH	YEAR
01	01	2020

CHANGE

Saving or transfer data by Timer

Select timer period

For disactive - reset to zero

## DEVICE INFO

app@microtech.ua

F411RE

FW: 1.1.1

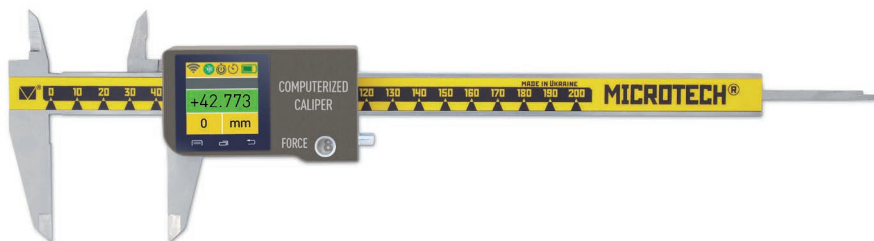
MAC: 00000

ID: 00000000

Information about firmware version and MAC adress for easy connection



**MICROTECH**



**MICROTECH**

innovative measuring instruments

61001, Kharkiv, Ukraine, str. Rustaveli, 39

tel.: +38 (057) 739-03-50

[www.microtech.ua](http://www.microtech.ua)

[tool@microtech.ua](mailto:tool@microtech.ua)

Change without prior notice

Edition: M1030\_0520