

# UNIVERSAL STAND MICROTECH

## USER MANUAL



Calibration ISO 17025:2017

ISO 9001  
BUREAU VERITAS  
Certification



ISO 9001:2015



Item No	Range	Resolution	Micrometer head		Calibration	Functions	Data output
			Range	Accuracy			
	mm	mm	mm	mm			<b>Wireless</b>
25111300	0-300	0,0001	25	±0,002	Bore gauges Indicators	Error comp.Temp. comp Preset. Memory Max/Min Limits	max 50 m
25111500	0-500	0,0001	25	±0,002			max 50 m
25111900	0-1000	0,0001	25	±0,002			max 50 m

This Universal calibration stand for control

- dial and digital indicators with 0,01mm and 0,001 resolution with accuracy less than  $\pm 0,006$  mm and spring force over 1,5N (about horizontal configuration)
- dial and digital bore gauges

## MAIN INFO

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

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



- Install calibrated device (indicator or bore gauge) to universal stand.
  - Turn on micrometer head by pressing SWITCH ON button.
  - Check the setting display to zero. Contact with each other measuring surfaces of micrometer head with calibrated device.
- Rotation the micrometer screw in the direction of convergence measuring surfaces.

- For zero setting, press the ZERO button on Touchscreen.
- Use memory functions to saving calibration points.



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

## CHARGING



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

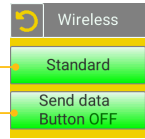


**BUILT-IN BATTERY** - rechargeable Li-Pol battery



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:

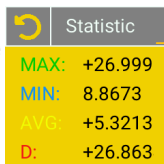
- by Touchscreen
- by Multifunctional button push (activated in Wireless menu)
- by Timer (activated in Timer menu)
- from Internal Memory

## MEMORY

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

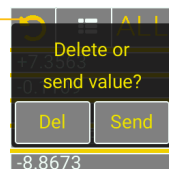
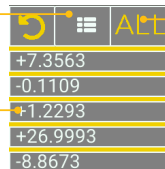
### Basic STATISTIC functions:

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



Saved values

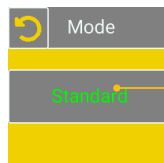
Each value can be Deleted or Send to application



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

### MEMORY settings

Memory sub-menu



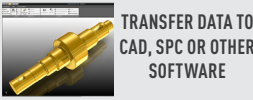
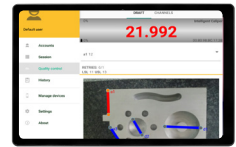
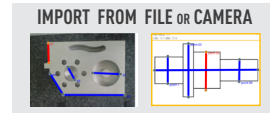
Selecting Standard mode or  
No saving data to internal memory



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

Formula

$Ax+Bx+C$

Set Argv

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

Timer

+000 sec.

RESET



0.8970

0.8920

OK

RESET

**ERROR COMPENSATION**  
mathematical correction

Temp.comp.

Glassy Quartz  
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 Off

LOCKING

**USB**  
USB connection configuration

Device

PIN

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

→ 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

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

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 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

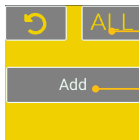
Reset to deactivate mode



## MATHEMATICAL ERROR COMPENSATION

### MENU SETTING

Mathematical correction points with big error to normal values



Select all points

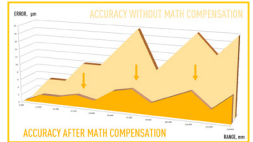
Add new point for error compensation



actual values

correct values by up&down button

confirm point correction



use gauge blocks or measuring machine for points correction

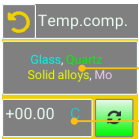
## TEMPERATURE COMPENSATION

### MENU SETTING

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

7 types of material:

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



7 types of material for selection

Manual Temperature setting

## RESOLUTION

### MENU SETTING

### MAIN SCREEN INDICATION



Resolution selecting

mm/inch conversion

**+8.0608**

Selecting resolution of value on main screen and memory

## EXTRA (Axis mode)

### MENU SETTING



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

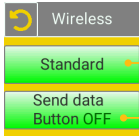
Reading base reconnection for some types of calipers





## WIRELESS CONNECTION

**MENU SETTING** Activating or disactivating wireless data transfer



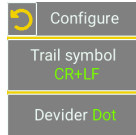
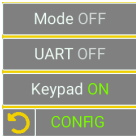
Switch on Wireless data transmission

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



## USB CONNECTION

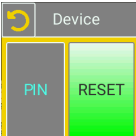
**MENU SETTING** USB connection mode under construction



## PIN & RESET

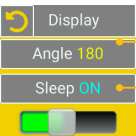
**MENU SETTING** Activating PIN to device setting

**RESET** to factory settings



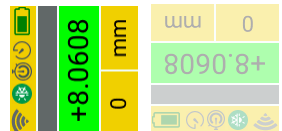
## DISPLAY SETTING

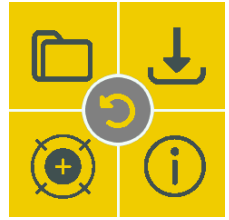
**MENU SETTING** DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE



Display rotation 0°, 90°, 180°, 270°

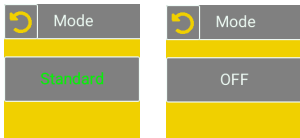
- Sleep OFF (15 s low brightness off, sleep off)
- Sleep 15s (15 s low brightness on, sleep off)
- Sleep ON (15 s low brightness on, sleep on)





## 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**

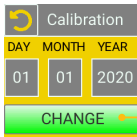


QR Link to MICROTECH web site page with MDS Software download  
- Android, iOS, Windows versions  
- Free and Pro versions  
- Manuals



## CALIBRATION DATE

**MENU SETTING** Calibration date info



Push for change date info

DAY	↻
01	
MONTH	
01	
YEAR	
2021	

## DEVICE INFO

**MENU SETTING**

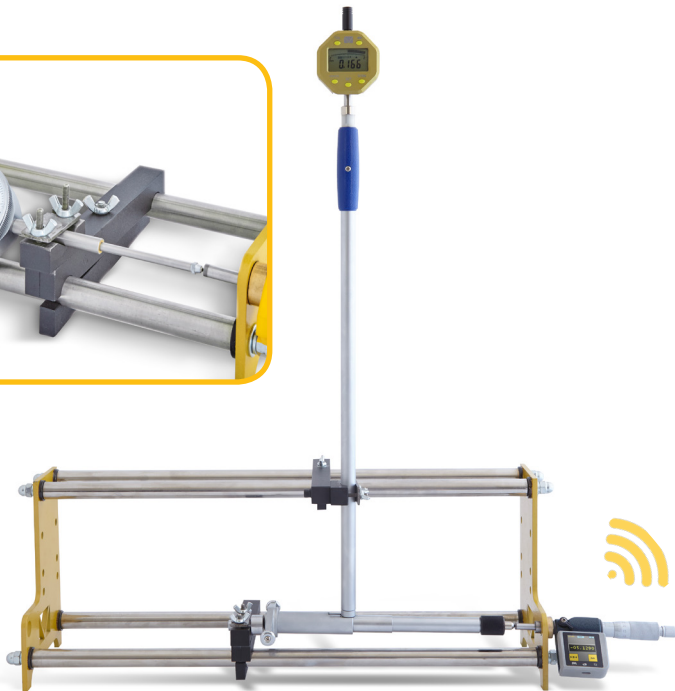
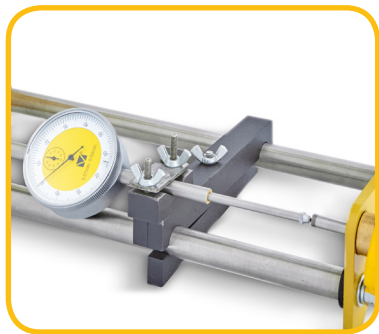


Information about device  
- device name  
- firmware version  
- MAC address for easy connection





**MICROTECH**



**MICROTECH**

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Edition: M1030\_0520